

## SERVICE PURCHASE CONTRACT

<b>ISSUING OFFICE</b>		<b>CONTRACTOR'S NAME &amp; ADDRESS</b>	<b>SHOW THIS CONTRACT INQUIRY NUMBER ON INVOICE</b>
Pennsylvania State System of Higher Education Office of the Chancellor Dixon University Center 2986 North Second Street Harrisburg, PA 17110  Issuing Officer: Linda Venneri Phone: 717-720-4135 Fax: 717-720-4111 E-mail: lvenneri@passhe.edu Reference Number:		Vendor: 1074913 D2L LTD 715 ST. PAUL STREET BALTIMORE, MD 21202  Cory Gaber Phone: 519-772-0325 x3424 Fax: 519-772-0324 E-mail: Cory.Gaber@D2L.com  Contractor's Federal Id or Soc. Sec. No 26-1163681	<b>SP 4700003087</b> PROVIDE SERVICE AND BILL TO: PASSHE Office of the Chancellor Dixon University Center 2986 North Second Street Harrisburg, PA 17110  Pymt terms: Net 30 Days  Contact: Phone: Fax: E-mail:
Effective Date:	Expiration Date: 06/30/2022	Contractor's License or Registration No.	<b>CONTRACT NOT TO EXCEED \$ 22,000,000.00</b>

SPECIFIED	QUANTITY	UNIT PRICE	TOTAL PRICE
<p>LEARNING MANAGEMENT SYSTEM</p> <p>BRIGHTSPACE BY D2L</p> <p>Term: July 1, 2017 - June 30, 2022</p> <p>This Contract may be renewed for three two-year additional terms by mutual written consent of authorized representatives of the parties. Nothing herein guarantees any such renewal(s).</p> <p>Pennsylvania's State System of Higher Education (State System) comprises the Office of the Chancellor and 14 universities. The State System requires a Learning Management System (LMS) and related optional services to support the universities' teaching and learning environment.</p> <p>The Contractor shall provide its LMS and related optional services to support the State System's 14 universities on an as needed basis.</p> <p>The individual universities across the State System may select any LMS supplier from the multiple award list of successful LMS suppliers awarded contracts as a result of RFP #2016 ASA-LAV-01 or any other LMS provider.</p> <p>Cont...</p>			\$ 22,000,000.00
		<b>TOTAL ▶</b>	*****

In compliance with the contract terms, conditions and specifications, the undersigned, on behalf of the Contractor, which intends to be legally bound hereby, offers and agrees to provide the specified services at the price(s) set forth above at the time(s) and point(s) specified. In addition to this document, the following contract terms, conditions and specifications are a part of the contract :

1. PASSHE-SPC-1.1 as Amended (12 Pages)
2. Contractor's Master Agreement (12 Pages)
3. Contract Specifications (4 Pages)
4. Contract
5. Contract Pricing (15 Pages)
6. LMS Functionality & Technical Requirements (43 Pages)

COMMONWEALTH SIGNATURE

CONTRACTOR'S SIGNATURE (IN INK)

SERVICE PURCHASE CONTRACT

SP 4700003087

SPECIFIED	QUANTITY	UNIT PRICE	TOTAL PRICE
<p>This Contract is not a guarantee that the State System will request the Contractor to provide the services. Universities will issue individual purchase orders for the services. Purchase orders will incorporate the terms and conditions as set forth in this Contract, and shall be for an initial five year commitment.</p> <p>The amount shown on this Contact is a Not To Exceed cost and there is no guarantee that the full value of the contract will be utilized.</p> <p>The Contractor will provide e-learning software solutions and professional services for the implementation and support of the software solutions to the State System universities per the pricing structure outlined in Attachment #5, Contract Pricing. All terms and conditions of this Contract shall apply to all university purchase orders.</p> <p>This procurement was competitively bid via RFP #2016-ASA-LAV-01.</p>			
		TOTAL ▶	\$ 22,000,000.00

STATE SYSTEM MASTER CONTRACT #4700003087  
TERMS AND CONDITIONS FOR SERVICES

1. TERM OF CONTRACT

The term of the Contract shall commence on the Effective Date (as defined below) and shall end on the Expiration Date identified in the Contract, subject to the other provisions of the Contract. The Effective Date shall be fixed by the Contracting Officer after the Contract has been fully executed by the Contractor and by the Commonwealth and all approvals required by Commonwealth contracting procedures have been obtained. The Contract shall not be a legally binding contract until after the Effective Date is affixed and the fully-executed Contract has been sent to the Contractor. The Contracting Officer shall issue a written Notice to Proceed to the Contractor directing the Contractor to start performance on a date which is on or after the Effective Date. The Contractor shall not start the performance of any work prior to the date set forth in the Notice to Proceed and the Commonwealth shall not be liable to pay the Contractor for any service or work performed or expenses incurred before the date set forth in the Notice to Proceed. No agency employee has the authority to verbally direct the commencement of any work under this Contract. The Commonwealth reserves the right, upon notice to the Contractor, to extend the term of the Contract for up to three (3) months upon the same terms and conditions. This will be utilized to prevent a lapse in Contract coverage and only for the time necessary, up to three (3) months, to enter into a new contract.

2. INDEPENDENT CONTRACTOR

In performing the services required by the Contract, the Contractor will act as an independent contractor and not as an employee or agent of the Commonwealth.

3. COMPLIANCE WITH LAW

The Contractor shall comply with all applicable federal and state laws and regulations and local ordinances in the performance of the Contract.

4. ENVIRONMENTAL PROVISIONS

[Omitted. The parties have determined the Environmental Provisions clause to be not applicable to this contract.]

5. POST-CONSUMER RECYCLED CONTENT

[Omitted. The parties have determined the Post-Consumer Recycled Content clause to be not applicable to this contract.]

6. COMPENSATION/EXPENSES

The Contractor shall be required to perform the specified services at the price(s) quoted in the Contract. All services shall be performed within the time period(s) as mutually agreed between the State System and the Contractor. The Contractor shall be compensated only for work performed to the satisfaction of the Commonwealth. The Contractor shall not be allowed or paid travel or per diem expenses except as specifically set forth in the Contract.

7. INVOICES

Unless the Contractor has been authorized by the Commonwealth for Evaluated Receipt Settlement or Vendor Self-Invoicing, the Contractor shall send an invoice itemized by line item to the address referenced on the purchase order promptly after services are satisfactorily completed. The invoice should include only amounts due under the Contract/purchase order. The purchase order number must be included on all invoices. In addition, the Commonwealth shall have the right to require the Contractor to prepare and submit a "Work In Progress" sheet that contains, at a minimum, the tasks performed, number of hours, hourly rate, and the purchase order or task order to which it refers.

8. PAYMENT

- a. The Commonwealth shall put forth reasonable efforts to make payment by the required payment date. The required payment date is: (a) the date on which payment is due under the terms of the Contract; (b) thirty (30) days after a proper invoice actually is received at the "Provide Service and Bill To" address if a date on which payment is due is not specified in the Contract (a "proper" invoice is not received until the Commonwealth accepts the service as satisfactorily performed); or (c) the payment date specified on the invoice if later than the dates established by (a) and (b) above. Payment may be delayed if the payment amount on an invoice is not based upon the price(s) as stated in the Contract. If any payment is not made within fifteen (15) days after the required payment date, the Commonwealth may pay interest as determined by the Secretary of Budget in accordance with Act No. 266 of 1982 and regulations promulgated pursuant thereto. Payment should not be construed by the Contractor as acceptance of the service performed by the Contractor. The Commonwealth reserves the right to conduct further testing and inspection after payment, but within a reasonable time after performance, and to reject the service if such post payment testing or inspection discloses a material defect or a material failure to meet specifications. The Contractor agrees that the Commonwealth may set off the amount of any state tax liability or other obligation of the Contractor or its subsidiaries to the Commonwealth against any payments due the Contractor under any contract with the Commonwealth.
- b. The Commonwealth shall have the option of using the Commonwealth purchasing card to make purchases under the Contract or purchase order. The Commonwealth's purchasing card is similar to a credit card in that there will be a small fee which the Contractor will be required to pay and the Contractor will receive payment directly from the card issuer rather than the Commonwealth. Any and all fees related to this type of payment are the responsibility of the Contractor. In no case will the Commonwealth allow increases in prices to offset credit card fees paid by the Contractor or any other charges incurred by the Contractor, unless specifically stated in the terms of the Contract or purchase order.

9. TAXES

The Commonwealth is exempt from all excise taxes imposed by the Internal Revenue Service and has accordingly registered with the Internal Revenue Service to make tax free purchases under Registration No. 23740001-K. With the exception of purchases of the following items, no exemption certificates are required and none will be issued: undyed diesel fuel, tires, trucks, gas guzzler emergency vehicles, and sports fishing equipment. The Commonwealth is also exempt from Pennsylvania state sales tax, local sales tax, public transportation assistance taxes and fees and vehicle rental tax. The Department of Revenue regulations provide that exemption certificates are not required for sales made to governmental entities and none will be issued. Nothing in this paragraph is meant to exempt a construction contractor from the payment of any of these taxes or fees which are required to be paid with respect to the purchase, use, rental, or lease of tangible personal property or taxable services used or transferred in connection with the performance of a construction contract.

10. WARRANTY

The Contractor warrants that all services performed by the Contractor, its agents and subcontractors shall be free and clear of any defects in workmanship or materials. Unless otherwise stated in the contract, all services and parts are warranted for a period of one year following completion of performance by the Contractor and acceptance by the Commonwealth. The Contractor shall correct any problem with the service and/or replace any defective part with a part of equivalent or superior quality without any additional cost to the Commonwealth. Additional warranties are defined in Attachment #2 to SP #4700003087, Contractor's Master Agreement (Section 2).

11. PATENT, COPYRIGHT, AND TRADEMARK INDEMNITY

The Contractor warrants that it is the sole owner or author of, or has entered into a suitable legal agreement concerning either: a) the design of any product or process provided or used in the performance of the Contract which is covered by a patent, copyright, or trademark registration or other right duly authorized by state or federal law or b) any copyrighted matter in any report document or other material provided to the commonwealth under the contract. The Contractor shall defend any suit or proceeding brought against the Commonwealth on account of any alleged patent, copyright or trademark infringement in the United States of any of the products provided or used in the performance of the Contract. This is upon condition that the Commonwealth shall provide prompt notification in writing of such suit or proceeding; full right, authorization and opportunity to conduct the defense thereof; and full information and all reasonable cooperation for the defense of same. As principles of governmental or public law are involved, the Commonwealth may participate in or choose to conduct, in its sole discretion and cost, the defense of any such action. If information and assistance

are furnished by the Commonwealth at the Contractor's written request, it shall be at the Contractor's expense, but the responsibility for such expense shall be only that within the Contractor's written authorization. The Contractor shall indemnify and hold the Commonwealth harmless from all damages, costs, and expenses, including attorney's fees that the Contractor or the Commonwealth may pay or incur by reason of any infringement or violation of the rights occurring to any holder of copyright, trademark, or patent interests and rights in any products provided or used in the performance of the Contract. If any of the products provided by the Contractor in such suit or proceeding are held to constitute infringement and the use is enjoined, the Contractor shall, at its own expense and at its option, either procure the right to continue use of such infringement products, replace them with non-infringement equal performance products or modify them so that they are no longer infringing. If the Contractor is unable to do any of the preceding, the Contractor agrees to remove all the equipment or software which are obtained contemporaneously with the infringing product, or, at the option of the Commonwealth, only those items of equipment or software which are held to be infringing, and to pay the Commonwealth: 1) any amounts paid by the Commonwealth towards the purchase of the product, less straight line depreciation; 2) any license fee paid by the Commonwealth for the use of any software, less an amount for the period of usage; and 3) the pro rata portion of any maintenance fee representing the time remaining in any period of maintenance paid for. The obligations of the Contractor under this paragraph continue without time limit. No costs or expenses shall be incurred for the account of the Contractor without its written consent.

## 12. OWNERSHIP RIGHTS

The Commonwealth, operating in the name of the State System University that signs the applicable ordering document for the licenses identified therein, shall have a right to use the particular product or service of the Contractor, shall have the authority to reproduce and use any submitted report, data, or material, and any software or modifications and any associated documentation that is designed or developed and delivered to the University as part of the performance of the Contract for the internal business operations of such signing University.

## 13. ASSIGNMENT OF ANTITRUST CLAIMS

The Contractor and the Commonwealth recognize that in actual economic practice, overcharges by the Contractor's suppliers resulting from violations of state or federal antitrust laws are in fact borne by the Commonwealth. As part of the consideration for the award of the Contract, and intending to be legally bound, the Contractor assigns to the Commonwealth all right, title and interest in and to any claims the Contractor now has, or may acquire, under state or federal antitrust laws relating to the products and services which are the subject of this Contract.

## 14. HOLD HARMLESS PROVISION

The Contractor shall defend and hold the Commonwealth harmless from and indemnify the Commonwealth against any and all claims, demands, and actions for breach of confidentiality under Section 3 of the D2L Master Agreement, tangible property damage, bodily injury or death based upon or arising out of any negligent or willful activities performed by the Contractor and its employees and agents under this Contract and shall, at the request of the Commonwealth, defend any and all actions brought against the Commonwealth based upon any such claims or demands if such injury or damage was not proximately caused by the action or omission of the Commonwealth or any third party that is not an agent of Contractor's; provided however, that (a) the Commonwealth notifies the Contractor promptly in writing, not later than thirty (30) days after Commonwealth receives notice of the claim (or sooner if required by law); (b) the Commonwealth gives the Contractor sole control of the defense and any settlement negotiations; and (c) the Commonwealth gives the Contractor the information, authority, and assistance the Contractor needs to defend against or settle the claim. As used in this Section, the term "tangible personal property" shall not include software, documentation, data or data files. The Contractor shall have no liability for any claim of bodily injury and/or tangible personal property damage arising from use of software. This Section states the parties' entire liability and exclusive remedy for bodily injury and property damage.

## 15. AUDIT PROVISIONS

The Commonwealth shall have the right, at reasonable times and at a site designated by the Commonwealth, to audit the books, documents and records of the Contractor to the extent that the books, documents and records relate to costs or pricing data for the Contract. The Contractor agrees to maintain records which will support the prices charged and costs incurred for the Contract. The Contractor shall preserve books, documents, and records that relate to costs or pricing data for the Contract for a period of three (3) years from date of final payment. The Contractor shall give full and free access to all records to the Commonwealth and/or their authorized representatives.

16. DEFAULT

- a. The Commonwealth may, subject to the provisions of Paragraph 17, Force Majeure, and in addition to its other rights under the Contract, declare the Contractor in default by written notice thereof to the Contractor, and terminate (as provided in Paragraph 18, Termination Provisions) the whole or any part of this Contract for any of the following reasons:
  - 1) Failure to begin work within the time specified in the Contract or as otherwise specified;
  - 2) Failure to perform the work with sufficient labor, equipment, or material to insure the completion of the specified work in accordance with the Contract terms;
  - 3) Unsatisfactory performance of the work;
  - 4) Failure or refusal to remove material, or remove and replace any work rejected as defective or unsatisfactory;
  - 5) Discontinuance of work without approval;
  - 6) Failure to resume work, which has been discontinued, within a reasonable time after notice to do so;
  - 7) Insolvency or bankruptcy;
  - 8) Assignment made for the benefit of creditors;
  - 9) Failure or refusal within 10 days after written notice by the Contracting Officer, to make payment or show cause why payment should not be made, of any amounts due for materials furnished, labor supplied or performed, for equipment rentals, or for utility services rendered;
  - 10) Failure to protect, to repair, or to make good any damage or injury to property; or
  - 11) Breach of any provision of this Contract.
- b. In the event that the Commonwealth terminates this Contract in whole or in part as provided in Subparagraph a. above, the Commonwealth may procure, upon such terms and in such manner as it determines, services similar or identical to those so terminated, and the Contractor shall be liable to the Commonwealth for any reasonable excess costs for such similar or identical services included within the terminated part of the Contract.
- c. If the Contract is terminated as provided in Subparagraph a. above, the Commonwealth, in addition to any other rights provided in this paragraph, may require the Contractor to transfer title and deliver immediately to the Commonwealth in the manner and to the extent directed by the Issuing Office, such partially completed work, including, where applicable, reports, working papers and other documentation, as the Contractor has specifically produced or specifically acquired for the performance of such part of the Contract as has been terminated. Except as provided below, payment for completed work accepted by the Commonwealth shall be at the Contract price. Except as provided below, payment for partially completed work including, where applicable, reports and working papers, delivered to and accepted by the Commonwealth shall be in an amount agreed upon by the Contractor and Contracting Officer. The Commonwealth may withhold from amounts otherwise due the Contractor for such completed or partially completed works, such sum as the Contracting Officer determines to be necessary to protect the Commonwealth against loss.
- d. The rights and remedies of the Commonwealth provided in this paragraph shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.
- e. The Commonwealth's failure to exercise any rights or remedies provided in this paragraph shall not be construed to be a waiver by the Commonwealth of its rights and remedies in regard to the event of default or any succeeding event of default.
- f. Following exhaustion of the Contractor's administrative remedies as set forth in Paragraph 19, the Contractor's exclusive remedy shall be to seek damages in the Board of Claims. Nothing in this section or in Paragraph 19, however, is intended to deny Contractor its equitable rights and remedies should damages not be sufficient as construed under law.

17. FORCE MAJEURE

Neither party will incur any liability to the other if its performance of any obligation under this Contract is prevented or delayed by causes beyond its control and without the fault or negligence of either party. Causes beyond a party's control may include, but aren't limited to, acts of God or war, changes in controlling law, regulations, orders or the requirements of any governmental entity, severe weather conditions, civil disorders, natural disasters, fire, epidemics and quarantines, general strikes throughout the trade, and freight embargoes.

The Contractor shall notify the Commonwealth orally within five (5) days and in writing within ten (10) days of the date on which the Contractor becomes aware, or should have reasonably become aware, that such cause would prevent or delay its performance. Such notification shall (i) describe fully such cause(s) and its effect on performance, (ii) state whether performance under the contract is prevented or delayed and (iii) if performance is delayed, state a reasonable estimate of the duration of the delay. The Contractor shall have the burden of proving that such cause(s) delayed or prevented its performance despite its diligent efforts to perform and shall produce such supporting documentation as the Commonwealth may reasonably request. After receipt of such notification, the Commonwealth may elect either to cancel the Contract or to extend the time for performance as reasonably necessary to compensate for the Contractor's delay.

In the event of a declared emergency by competent governmental authorities, the Commonwealth by notice to the Contractor, may suspend all or a portion of the Contract.

#### 18. TERMINATION PROVISIONS

The Commonwealth has the right to terminate this Contract for any of the following reasons. The Contractor shall be paid for work satisfactorily completed prior to the effective date of the termination, but in no event shall the Contractor be entitled to recover lost profits. Termination shall be effective upon written notice to the Contractor.

- a. **TERMINATION FOR CONVENIENCE:** The Commonwealth shall have the right to terminate the Contract for its convenience if the Commonwealth determines termination to be in its best interest. The Contractor shall be paid for work satisfactorily completed prior to the effective date of the termination, but in no event shall the Contractor be entitled to recover loss of profits. Termination notice must be provided to the Contractor in writing and with at least sixty (60) days advance written notice to allow transitioning of supplier hosted data.
- b. **NON-APPROPRIATION:** The Commonwealth's obligation to make payments during any Commonwealth fiscal year succeeding the current fiscal year shall be subject to availability and appropriation of funds. When funds (state and/or federal) are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal year period, the Commonwealth shall have the right to terminate the contract. The contractor shall be reimbursed for the reasonable value of any nonrecurring costs incurred but not amortized in the price of the supplies or services delivered under this contract. Such reimbursement shall not include loss of profit, loss of use of money, or administrative or overhead costs. The reimbursement amount may be paid for any appropriations available for that purpose. This limited right of termination for non-appropriation shall not apply with regard to the obligation of the Commonwealth or any University to remit payment of license fees to the Contractor for software products licensed from the Contractor by or on behalf of any University.
- c. **TERMINATION FOR CAUSE:** The Commonwealth shall have the right to terminate the Contract for Contractor default under Paragraph 16, Default, upon written notice to the Contractor. The Commonwealth shall also have the right, upon written notice to the Contractor, to terminate the Contract for other cause as specified in this Contract or by law. If it is later determined that the Commonwealth erred in terminating the Contract for cause, then, at the Commonwealth's discretion, the Contract shall be deemed to have been terminated for convenience under the Subparagraph 18.a.

#### 19. CONTRACT CONTROVERSIES

- a. In the event of a controversy or claim arising from the Contract, the Contractor must, within six months after the cause of action accrues, file a written claim with the contracting officer for a determination. The claim shall state all grounds upon which the Contractor asserts a controversy exists. If the Contractor fails to file a claim or files an untimely claim, the Contractor is deemed to have waived its right to assert a claim in any forum.
- b. The contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contracting officer and the Contractor. The contracting officer shall send his/her written determination to the Contractor. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing agency.
- c. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing

a claim if, no extension is agreed to by the parties, whichever occurs first, the Contractor may file a statement of claim with the Commonwealth Board of Claims. Pending a final judicial resolution of a controversy or claim, the Contractor shall proceed diligently with the performance of the Contract in a manner consistent with the determination of the contracting officer and the Commonwealth shall compensate the Contractor pursuant to the terms of the Contract.

20. ASSIGNABILITY AND SUBCONTRACTING

- a. Subject to the terms and conditions of this Paragraph 20, this Contract shall be binding upon the parties and their respective successors and assigns.
- b. The Contractor shall not subcontract with any person or entity to perform all or any part of the work to be performed under this Contract without the prior written consent of the Contracting Officer, which consent maybe withheld at the sole and absolute discretion of the Contracting Officer. For clarity, suppliers used by Contractor for hosting, data migration, support, configuration, implementation and custom code development processes in the ordinary course of Contractor's business are not deemed to be "subcontractors" for purposes of this section.
- c. The Contractor may not assign, in whole or in part, this Contract or its rights, duties, obligations, or responsibilities hereunder, other than to an Affiliate of Contractor, without the prior written consent of the Contracting Officer, which consent may be withheld at the sole and absolute discretion of the Contracting Officer. **"Affiliate" means any entity controlled by, controlling, or under common control with Contractor.** Control shall exist through ownership, directly or indirectly, of a majority of the outstanding equity capital and of the outstanding shares or other securities entitled to vote generally in elections of directors or similar officials. If an entity ceases to meet this criteria, it shall cease to be an Affiliate under this Agreement.
- d. Notwithstanding the foregoing, the Contractor may, without the consent of the Contracting Officer, assign its rights to payment to be received under the Contract, provided that the Contractor provides written notice of such assignment to the Contracting Officer together with a written acknowledgement from the assignee that any such payments are subject to all of the terms and conditions of this Contract.
- e. **For the purposes of this Contract, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Contractor provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.**
- f. Any assignment consented to by the Contracting Officer shall be evidenced by a written assignment agreement executed by the Contractor and its assignee in which the assignee agrees to be legally bound by all of the terms and conditions of the Contract and to assume the duties, obligations, and responsibilities being assigned.
- g. A change of name by the Contractor, following which **the Contractor's federal** identification number remains unchanged, shall not be considered to be an assignment hereunder. The Contractor shall give the Contracting Officer written notice of any such change of name.

21. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of the Contract, the Contractor agrees as follows:

- a. In the hiring of any employees for the manufacture of supplies, performance of work, or any other activity required under the Contract or any subcontract, the Contractor, subcontractor or any person acting on behalf of the Contractor or subcontractor shall not by reason of gender, race, creed, or color discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
- b. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacture of supplies, the performance of work or any other activity required under the Contract on account of gender, race, creed, or color.
- c. The Contractor and any subcontractors shall establish and maintain a written sexual harassment policy and shall inform their employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined



- d. The Contractor shall not discriminate by reason of gender, race, creed, or color against any subcontractor or supplier who is qualified to perform the work to which the contract relates.
- e. The Contractor and each subcontractor shall furnish all necessary employment documents and records to and permit access to its books, records, and accounts by the contracting officer and the Department of General Services' Bureau of Contract Administration and Business Development for purposes of investigation to ascertain compliance with the provisions of this Nondiscrimination/Sexual Harassment Clause. If the Contractor or any subcontractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting officer or the Bureau of Contract Administration and Business Development
- f. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that such provisions will be binding upon each subcontractor.
- g. The Commonwealth may cancel or terminate the Contract, and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

## 22. CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth contracting and procurement process.

- a. DEFINITIONS. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:
  - 1) **"Affiliate"** means two or more entities where (a) a parent entity owns more than fifty percent of the voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.
  - 2) **"Consent"** means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of the execution of this contract.
  - 3) **"Contractor"** means the individual or entity that has entered into this contract with the Commonwealth.
  - 4) **"Contractor Related Parties"** means any affiliates of the Contractor and the Contractor's executive officers, Pennsylvania officers and directors, or owners of 5% or more interest in the Contractor
  - 5) **"Financial Interest"** means either:
    - a) Ownership of more than a five percent interest in any business; or
    - b) Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.
  - 6) **"Gratuity"** means tendering, giving, or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the Governor's Code of Conduct, Executive Order 1980-18, the 4 Pa. Code §7.153(b), shall apply.
  - 7) **"Non-bid Basis"** means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.
- b. In furtherance of this policy, Contractor agrees to the following:
  - 1) Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other

applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting or procurement with the Commonwealth.

- 2) Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to the Contractor activity with the Commonwealth and Commonwealth employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.
- 3) Contractor, its affiliates, agents, employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer, or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of any federal or state law, regulation, executive order of the Governor of Pennsylvania, statement of policy, management directive or any other published standard of the Commonwealth in connection with performance of work under this contract, except as provided in this contract.
- 4) Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.
- 5) Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Parties have not:
  - a) been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;
  - b) been suspended, debarred or otherwise disqualified from entering into any contract with any governmental agency;
  - c) had any business license or professional license suspended or revoked;
  - d) had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and
  - e) been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

If Contractor cannot so certify to the above, then it must submit along with its bid, proposal or contract a written explanation of why such certification cannot be made and the Commonwealth will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to immediately notify the Commonwealth in writing if at any time during the term of the contract it becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made herein are currently false due to intervening factual circumstances or were false or should have been known to be false when entering into the contract.

- 6) Contractor shall comply with the requirements of the *Lobbying Disclosure Act* (65 Pa.C.S. §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the Section 1641 of the Pennsylvania Election Code (25 P.S. §3260a).
- 7) When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or the Office of the State Inspector General in writing.

- 8) Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commonwealth in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of the State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.
- 9) Contractor shall cooperate with the Office of the State Inspector General in its investigation of any alleged Commonwealth agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of an Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Office of the State Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create privity of contract between the Commonwealth and any such subcontractor, and no third party beneficiaries shall be created thereby.
- 10) For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

23. CONTRACTOR RESPONSIBILITY PROVISIONS

- a. The Contractor certifies, for itself and all its subcontractors, that as of the date of its execution of this Bid/Contract, that neither the Contractor, nor any subcontractors, nor any suppliers are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid, a written explanation of why such certification cannot be made.
- b. The Contractor also certifies, that as of the date of its execution of this Bid/Contract, it has no tax liabilities or other Commonwealth obligations.
- c. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.
- d. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.
- e. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth, which results in the suspension or debarment of the Contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees.

The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

- f. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the internet at <http://www.dgs.state.pa.us> or contacting the:

Department of General Services  
Office of Chief Counsel  
603 North Office Building  
Harrisburg, PA 17125  
Telephone No. (717) 783-6472  
FAX No. (717) 787-9138

24. AMERICANS WITH DISABILITIES ACT

- a. Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. § 35.101 et seq., the Contractor understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Contract or from activities provided for under this Contract on the basis of the disability. As a condition of accepting this contract, the Contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts with outside contractors.
- b. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of subparagraph a above.

25. HAZARDOUS SUBSTANCES

[Omitted. The parties have determined the Hazardous Substances clause to be not applicable to this contract.]

26. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure the Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the Commonwealth shall have the right to terminate the Contract without liability or in its discretion to deduct from the Contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

27. APPLICABLE LAW

This Contract shall be governed by and interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania, waiving any claim or defense that such forum is not convenient or proper. The Contractor agrees that any such court shall have in personam jurisdiction over it, and consents to service of process in any manner authorized by Pennsylvania law.

28. INTEGRATION

The Contract, including all referenced documents, constitutes the entire agreement between the parties. No agent, representative, employee or officer of either the Commonwealth or the Contractor has authority to make, or has made, any statement, agreement or representation, oral or written, in connection with the Contract, which in any way can be deemed to modify, add to or detract from, or otherwise change or alter its terms and conditions. No negotiations between the parties, nor any custom or usage, shall be permitted to modify or contradict any of the terms and conditions of the Contract. No modifications, alterations, changes, or waiver to the Contract or any of its terms shall be valid or binding unless accomplished by a written amendment signed by both parties. All such amendments will be made using the appropriate Commonwealth form.

## 29. CHANGE ORDERS

The Commonwealth reserves the right to issue change orders at any time during the term of the Contract or any renewals or extensions thereof: 1) to increase or decrease the quantities resulting from variations between any estimated quantities in the Contract and actual quantities; 2) to make changes to the services within the scope of the Contract; 3) to notify the Contractor that the Commonwealth is exercising any Contract renewal or extension option; or 4) to modify the time of performance that does not alter the scope of the Contract to extend the completion date beyond the Expiration Date of the Contract or any renewals or extensions thereof. Any such change order shall be in writing signed by the Contracting Officer. The change order shall be effective as of the date appearing on the change order, unless the change order specifies a later effective date. Such increases, decreases, changes, or modifications will not invalidate the Contract, nor, if performance security is being furnished in conjunction with the Contract, release the security obligation. The Contractor agrees to provide the service in accordance with the change order once agreed to by Contractor. Any dispute by the Contractor in regard to the performance required under any change order shall be handled through Paragraph 19, "Contract Controversies".

For purposes of this Contract, "change order" is defined as a written order signed by the Contracting Officer directing the Contractor to make changes authorized under this clause.

## 30. MANDATORY REPORTING REQUIREMENTS

All employees and subcontractors of Contractor who provide a program, activity, or service to the University that are responsible for the care, supervision, guidance, or control of children are considered mandatory reporters of suspected cases of child abuse under Pennsylvania law if the individual has reasonable cause to suspect that a child is the victim of child abuse under any of the following circumstances: (i) the mandated reporter comes into contact with the child in the course of employment, occupation and practice of a profession or through a regularly scheduled program, activity or service; (ii) the mandated reporter is directly responsible for the care, supervision, guidance or training of the child, or is affiliated with an agency, institution, organization, school, regularly established church or religious organization or other entity that is directly responsible for the care, supervision, guidance or training of the child; (iii) a person makes a specific disclosure to the mandated reporter that an identifiable child is the victim of child abuse; or (iv) an individual 14 years of age or older makes a specific disclosure to the mandated reporter that the individual has committed child abuse. Nothing in this section shall require a child to come before the mandated reporter in order for the mandated reporter to make a report of suspected child abuse. Nothing in this section shall require the mandated reporter to identify the person responsible for the child abuse to make a report of suspected child abuse.

Mandated reporters must immediately make an oral report of suspected child abuse to the Department of Human Services (DHS), formerly the Department of Public Welfare, by calling 1-800-932-0313, or by filing a written report with DHS through Pennsylvania's Child Welfare Information Solution portal (<https://www.compass.state.pa.us/CWIS>). If an oral report is made, a written report shall also be made within 48 hours to DHS or the county agency assigned to the case as prescribed by DHS.

In addition to the mandatory reporting requirements above, employees and subcontractors of Contractor must immediately notify the University that a report of suspected child abuse has been made.

EXHIBIT A-1  
CONSTRUCTION PRODUCTS RECYCLED CONTENT

[Omitted.]

EXHIBIT A-2  
VEHICULAR PRODUCTS RECYCLED CONTENT

[Omitted.]

EXHIBIT A-3  
PAPER PRODUCTS RECYCLED CONTENT

[Omitted.]

EXHIBIT A-4  
LANDSCAPING PRODUCTS RECYCLED CONTENT

[Omitted.]

EXHIBIT A-5  
MISCELLANEOUS PRODUCTS RECYCLED CONTENT

[Omitted.]

EXHIBIT A-6  
NONPAPER OFFICE PRODUCTS RECYCLED CONTENT

[Omitted.]

EXHIBIT A-7  
PARK & RECREATION PRODUCTS RECYCLED CONTENT

[Omitted.]

EXHIBIT A-8  
TRANSPORTATION PRODUCTS RECYCLED CONTENT

[Omitted.]



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

**MASTER AGREEMENT**

This Master Agreement, including its Addenda and Schedules and State System Master Contract #4700003087 ("Agreement") governs terms and conditions between Pennsylvania State System of Education, Dixon University Center, 2986 North Second Street, Harrisburg, PA 17110, a Pennsylvania state educational institution ("Client") and D2L Ltd., 500 York Road, Towson, MD 21204, a Maryland corporation, or its subsidiaries, divisions or affiliates ("D2L") as listed in any Addendum to this Agreement.

**1 Definitions**

- 1.01 *Acceptable Use Policy* means the applicable terms and conditions governing the use by End Users of a specific Product, Service or Application, as may be identified on the Fees and Rates Schedule.
- 1.02 *Active User* means a License Model that accounts for any person who registers for or is enrolled in one or more courses in each consecutive 12-month period following the Effective Date.
- 1.03 *Addendum* means an executed document including, if applicable, its Schedule(s) attached to this Agreement that provides specific terms and conditions of Products and Services supplied to Client.
- 1.04 *Applications* means D2L Software resident on D2L's Network that Client is permitted to access and use through a Cloud Services Addendum.
- 1.05 *Client* includes its affiliates and subsidiaries, to the extent that such affiliates and subsidiaries are specifically identified.
- 1.06 *Client Data* includes course content, materials, Personal Information, and any other data that Client (or any authorized End User User(s)) uploads or enters through their lawful use of Products and Services.
- 1.07 *Cloud* or *Cloud Services* means the hosting by D2L or its Vendors of the Software and Client Data for Client's access and use under this Agreement.
- 1.08 *Confidential Information* means information provided to one Party about the other Party's products or services, business, affairs, Vendors, computer systems, installations or clients, to the extent that the information might reasonably be expected to be confidential. Confidential information may also include Client Data and Personal Information.
- 1.09 *Consulting* means implementation, development, or other assistance provided pursuant to an Addendum, Statement of Work or Order.
- 1.10 *Creative Commons License* means a license or similar usage right as offered or published by the Creative Commons Corporation.
- 1.11 *Deliverable* means a verifiable work output such as a specification, programming, code, or other output developed under a Statement of Work.
- 1.12 *Documentation* means a document published by D2L for all clients such as a user's manual or release notes. Documentation does not include sales and/or marketing materials.
- 1.13 *Effective Date* means the date set out in the Order.
- 1.14 *End Users* are the persons who access, attempt to access or use the Software or Applications as a product during the course of this Agreement.
- 1.15 *Enrolment* means a License Model that accounts for the total number of all unique course registrations over the course of each consecutive twelve (12) month period following the Effective Date. For clarity, if an End User is registered in two (2) course offerings during a particular year, it will count as two (2) Enrolments.
- 1.16 *Fees* means those amounts to be paid for Products and Services under this Agreement.
- 1.17 *FTE* means a License Model that accounts for the highest reported full-time equivalents over the course of a year. The FTE is typically based upon the FTE reported to the Integrated Post-secondary Data System (IPEDS).
- 1.18 *Hardware* means the physical computing hardware including applicable peripherals that may be provided by D2L to Client under this Agreement.
- 1.19 *Intellectual Property* means any present or future development work, copyright, patent, trade-mark, trade name, service mark, design, program, procedure and method of computation, trade secret, data model, invention, drawing, plan, specification, process or similar property.
- 1.20 *License Model* means the particular usage description for Client's use of the Applications or Software under this Agreement. Active User, Enrolment and FTE as such terms are defined in this section 1, are License Models. The Fees for the relevant License Model(s) selected by Client will be as set out in the Order(s).
- 1.21 *Network* means, collectively, the items under D2L's control that may include hardware, Software, communications, hosting and storage, cabling and other related resources that are used for the Services.
- 1.22 *Order or Authorizing Document* means any document signed or electronically agreed to by D2L and Client that references this Agreement. An Order may be a quote, Statement of Work, acceptable purchase order, e-mail (subject to reasonable authentication of sender's authority) or similar document.
- 1.23 *Organizational Instance* means a single installation of Applications on one or more D2L servers for the exclusive use of Client.
- 1.24 *Party* means D2L or Client; *Parties* means D2L and Client.
- 1.25 *Personal Information* means any data, either alone or in combination with other information, by which a natural person can be identified or located, or that can be used to identify or locate a natural person.
- 1.26 *Products and Services* means Applications, Documentation, Software, Cloud Services, Support, Consulting, hardware, third party software, and/or any other material, duty, function or task D2L provides or performs under this Agreement.
- 1.27 *Rates* are D2L's then-current charges for professional services it provides, except for out-of-pocket and per diem expenses.
- 1.28 *Schedule* means a document attached to this Agreement that (i) does not require signature by the Parties; and (ii) describes Services, Rates and/or Fees.
- 1.29 *Services* means the Consulting, Support and/or Cloud Services that D2L provides to Client under this Agreement.



1.30 *Software* means a D2L software application or any part thereof in object code form (i) licensed to Client under a License Addendum; or (ii) accessed by Client under a Cloud Services Addendum. Software also includes Upgrades provided under a Support Schedule, but does not include Vendor or third party software or other components, or software developed under a Consulting Addendum or related Statement of Work.

1.31 *Statement of Work (or Work Order)* means a document created pursuant to a Consulting Addendum that specifies the roles and responsibilities of the Parties with respect to a particular engagement for Consulting.

1.32 *Support* means support services provided pursuant to a Support Schedule, as more fully described in such Support Schedule.

1.33 *Upgrade(s)* means modifications, templates and newer versions of Software and/or Applications provided by D2L that are made available generally to D2L customers. Upgrades do not include new independently-priced modules or utilities.

1.34 *Vendor* means a third party provider of software, products or services to D2L.

## **2 Warranties**

2.01 For Products and Services provided under this Agreement, D2L warrants that:

2.01.1 The Software as provided under a License Addendum will substantially perform according to applicable Documentation provided that Client (or D2L at Client's request) has not modified the Software;

2.01.2 The Applications and Cloud Service procured by Client under a Cloud Services Addendum will achieve in all material respects, the functionality described in the applicable Documentation; and

2.01.3 Consulting Services shall be performed in accordance with industry standards and with the same level of care and skill as D2L provides to similarly-situated customers.

2.02 If Client purchases Hardware, D2L will provide a limited parts and labour warranty for a period of one (1) year from the shipment date of the Hardware ("Hardware Warranty Period"), under the following terms:

2.02.1 Hardware will substantially perform in the commercially reasonable manner expected to support Software or Applications provided that Client or any other entity under Client's implied or actual instruction has not attempted to, disassemble, modify or repair any portion of Hardware ("Qualifying Defect"). After the Hardware Warranty Period, there is no warranty or condition of any kind on Hardware.

2.02.2 If D2L determines the existence of a Qualifying Defect, D2L shall: (a) authorize Client to ship the affected Hardware back to D2L or D2L's designated affiliate or partner at Client's own expense (FOB D2L or FOB D2L's designated affiliate or partner), (b) provide Client, directly or with a local third-party affiliate or partner, with onsite technical assistance to address the Qualifying Defect or, (c) provide Client with replacement Hardware (FOB D2L or D2L's designated affiliate or partner). If D2L recommends onsite technical assistance, Client agrees to provide all commercially reasonable accommodations commensurate with onsite technical assistance. D2L will charge Client for the replacement Hardware if the affected Hardware has not been shipped to D2L within fifteen (15) days of D2L providing Client with the replacement Hardware.

2.02.3 D2L shall replace at its own costs any or all components it deems necessary to repair the Hardware, and D2L shall ship at its own expense (FOB Client) the repaired/replaced Hardware back to Client.

2.02.4 Client acknowledges that there is no guarantee that data which may be present on the affected Hardware will be preserved. Client will not hold D2L responsible, and D2L waives all liability and responsibility, for any losses or claims related to this Section.

2.02.5 Client may elect to extend the one (1) year Hardware Warranty Period for two additional years at any time before or during the Hardware Warranty Period by notifying D2L and paying the applicable fee.

2.02.6 If Client submits an Incident under this section and it is not covered under this section, Client shall be required to pay an assessment fee not to exceed \$500.00.

2.03 Except as set forth in this Agreement, the Products and Services are provided "as-is", and D2L makes no warranties, representations, or guarantees, express or implied, oral or written, with respect to the Products and Services or Network. There is no such thing as perfect security, and D2L cannot guarantee or warrant the security of any data (including Confidential Information or Personal Information) that D2L receives and stores on the D2L Network or Vendor systems. D2L does not warrant that Products and Services or Network are error-free. D2L makes no warranties of merchantability, fitness for a particular purpose (including Client's compliance with its statutory or regulatory obligations), or arising from a course of performance, dealing, or usage of trade. Except as may be expressly set forth in an Order, D2L does not warrant any Vendor software or services. Client assumes all responsibility for determining if the Products and Services are sufficient for Client's purposes.

## **3 Confidentiality**

3.01 No Party shall furnish Confidential Information to any unauthorized person or entity.

3.02 No Party shall be bound by confidentiality obligations if the Confidential Information (a) is required to be disclosed pursuant to court or regulatory order, provided that, where feasible, the owner of the Confidential Information is given a reasonable opportunity to limit the extent of disclosure; (b) was already rightfully in its possession before the commencement of negotiations that led to this Agreement; (c) is learned from a third party under no apparent duty of confidentiality and is not otherwise protected under law; or (d) becomes part of the public domain other than as a result of a breach of this section and is not otherwise protected under law.

3.03 If there is a valid Confidentiality Agreement ("NDA") in force between the Parties, this section shall act as a supplement to any deficiencies in the NDA, and not as a replacement to the NDA.

3.04 D2L shall not collect, use or disclose Personal Information except to carry out its obligations under this Agreement. D2L shall limit access to Personal Information to those persons within D2L who require access in order to provide the Products and Services hereunder. D2L shall handle Personal Information it receives from Client in accordance with applicable laws. D2L shall notify Client as soon as commercially practical of any inquiries regarding the collection, use or disclosure of Personal Information by D2L.





3.05 Nothing in this section shall prohibit D2L from issuing a mutually-acceptable press release, or from naming Client in general client lists or having Client's name disclosed as part of the natural use of the Products and Services (e.g., if Client uses D2L Community, or appends its name to a D2L URL).

#### **4 Proprietary Rights & Restrictions**

4.01 D2L has appropriate rights and interest to or in its Applications, Software, hardware, Documentation, and other Intellectual Property (collectively, the "IP"), and D2L reserves these rights and interests in connection with the IP, except as expressly granted to Client pursuant to this Agreement. Except as may be expressly granted in a Statement of Work, D2L does not transfer any title to or interest in its IP. The IP contains valuable Intellectual Property of D2L and its Vendors. The IP is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties.

4.02 Except as permitted by this Agreement, or applicable Creative Commons License Client shall not:

- 4.02.1 attempt to decompile, disassemble, modify the source code of, or reverse engineer the IP;
- 4.02.2 use, reproduce, transmit, modify, adapt or translate the IP;
- 4.02.3 rent, lease, license, transfer, assign, sell or otherwise provide access to the IP on a temporary or permanent basis;
- 4.02.4 use or cause or allow a third party to use the Products and services in any way to develop competing products or services;
- 4.02.5 use any Vendor or third party Intellectual Property or components on a standalone basis unless such standalone use is expressly authorized by D2L or its

Vendors;

- 4.02.6 alter, remove or cover proprietary notices in or on the IP.

Any default in Client's obligations under this section may cause irreparable harm to D2L. If Client takes or threatens any action that may infringe on D2L's IP rights, D2L may seek injunctive or other equitable relief in addition to any damages to which D2L may be entitled.

4.03 Client owns and retains all right, title and interest to, or has appropriate possessory rights in Client Data. D2L makes no claim of title or ownership to or in Client Data. Client permits D2L and its Vendors to use Client Data to the extent required to provide and perform the Services under this Agreement. Where Client engages D2L to create a Client-branded offering of Products and Services, Client grants D2L non-exclusive, worldwide permission to use its logo and branding in accordance with Client's reasonable branding use guidelines or similar documentation, for the sole purpose of creating, distributing and maintaining for Client a Client-branded version of Products and Services, in accordance with the Statement of Work or other applicable document. D2L will not use Client's logo and branding for any other purpose without the express written consent of Client.

#### **5 Indemnification**

Please see Section 11 of State System Master Contract #4700003087.

#### **6 Liability Limitations**

6.01 D2L's liability to Client for damages, costs, losses or expenses provided pursuant to this Agreement, in contract, tort or otherwise, is limited to six (6) months of Fees paid under the relevant Order under which the claim arose. The liability limitation is commensurate with the consideration paid under this Agreement.

6.02 Client is responsible for the Client Data and the content of its and its End User's transmissions, including Client Data, over D2L's Network. Client agrees that it and its End Users will not use the Network for illegal purposes, to infringe the rights of a third party, or to interfere with or disrupt the Network ("Disruption"). Disruptions include distribution of unsolicited communications or chain letters, defamatory, libelous or offending content, propagation of computer worms and viruses, and unauthorized use of the Network to enter, or attempt to enter, another Network machine or Organizational Instance. If a Disruption occurs, D2L may, in its reasonable discretion, immediately remove the Disruption, disable the mode of communication, suspend Client's and/or its End User's access to Network or terminate this Agreement, and Client is liable to D2L for claims arising from Client Data or any Disruption.

6.03 No act or omission by D2L under this Agreement shall be interpreted or construed as being for the benefit of, or creating any D2L obligation toward, any third party or legal entity other than Client.

#### **7 Payment Terms & Taxes**

Please see Sections 8 and 9 of State System Master Contract #4700003087.

#### **8 Excusable Delay**

Please see Section 17 of State System Master Contract #4700003087.

#### **9 Term & Termination**

9.01 *Agreement.* This Agreement shall continue until all Addenda expire or are terminated, or may be terminated as specified elsewhere in this Agreement or as follows:

- 9.01.1 by either Party if the other breaches the provisions of Import/Export Restrictions and/or Proprietary Rights & Restrictions sections;
- 9.01.2 by either Party if the other Party materially or repeatedly (which in the aggregate is material) defaults in performing its duties or obligations under this Agreement for a period of 60 days after written notice is given to the defaulting Party, unless the default is cured within the 60 day period; and
- 9.01.3 by D2L if Client fails to pay an invoice, which is not the subject of a good faith dispute, provided that the invoice remains unpaid 30 days after D2L's subsequent notice to Client that payment is required.

9.02 On termination, all rights and obligations of the Parties cease except as set out in section 11.10 below in this Agreement. Client shall return all copies of Software, Documentation and other materials to D2L within thirty (30) days of termination.

9.03 D2L may delete, destroy or render inaccessible Client Data residing on D2L Networks 30 days after termination, unless otherwise agreed in writing. Prior to the end of such 30-day period, Client may avail itself of certain export tools within the Products to allow Client to export course content materials in a standard packaged format as well as to export grades and other specific data elements in the Products. If Client requires additional support, D2L shall provide such data export services for a fee on a time and materials basis under an Order.



**10 Assignment**

Please see Section 20 of State System Master Contract #4700003087.

**11 General**

11.01 *Governing Law.* Please see Section 27 of State System Master Contract #4700003087.

11.02 *Order of Precedence.* An Addendum shall supersede the provisions of this Agreement where the documents are in conflict. The Agreement including State System Master Contract #4700003087 shall supersede the provisions of an Order, unless the Order refers to the provision of the Agreement it supersedes.

11.03 *Security.* D2L shall maintain commercially reasonable administrative, physical and technical safeguards for the protection, confidentiality and integrity of Client Data. During the Term, D2L shall maintain PCI DSS compliance for the portions of the Products and Services that store and process credit card data. Any changes made to the Products and Services by Client or at the Client's direction may affect the Client's compliance with PCI DSS requirements and Client shall be solely responsible for ensuring that any such changes are compliant with PCI DSS requirements. Client acknowledges that Client's use of Products and Services will involve transmission over the Internet and other networks, only part of which may be owned or controlled by D2L. Client further acknowledges that Client Data may be accessed by unauthorized parties when communicated across the Internet, Network or other electronic means. D2L is not responsible for any Client Data which is delayed, lost, altered, intercepted or stored during the transmission of any data whatsoever across networks not owned or controlled by D2L.

11.04 *Third Parties.*

11.04.1 D2L reserves the right to use Vendors (who are under a covenant of confidentiality with D2L), including offshore subcontractors located in other countries to assist with the Products and Services, including hosting, data migration, configuration, implementation and custom code development processes. D2L shall be responsible to Client for the acts and/or omissions of such Vendors as between D2L and Client. For certain Products and Services such as mobile apps or collaborative workspaces, D2L may enter into agreements directly with End Users.

11.04.2 If Client requests or selects other third party software or services to be integrated or used with the Products and Services, Client agrees that D2L may allow such third party providers to access Client Data as required for the interoperability of such software or services with the Products and Services, and any exchange of data or other interaction between Client and a third party provider is solely between Client and such third party provider. D2L shall not be responsible for any disclosure, modification or deletion of Client Data resulting from any such access by such third-party.

11.05 *Remedies Cumulative.* All rights and remedies under this Agreement are cumulative and in addition to all other rights and remedies of either Party at law or in equity.

11.06 *Notices.* All notices shall be in writing and delivered (a) by hand, (b) by registered mail, postage prepaid, return receipt requested, (c) reputable overnight delivery service, (d) by facsimile, provided that the sender retains proof of successful transmission, or (e) by email to the names, addresses and numbers set forth below the signature lines to this Agreement. All notices shall be deemed received, if delivered by hand, on the date of delivery; if mailed, on the date of receipt appearing on the return receipt card; if sent by courier, on the date recorded by the courier company as having been received by the addressee; or, if sent by facsimile, on the date of receipt by the facsimile machine when it reports that the transmission is complete. All "Legal Notices" required hereunder shall be in writing and delivered in person, by registered mail, return receipt requested, by facsimile with confirmation sheet, or by courier to the Parties at their addresses as set forth in this Agreement. Legal Notices include formal notices between the Parties regarding an alleged breach (other than for nonpayment), and indemnification communications relating to this Agreement.

11.07 *Import/Export Controls.* Client shall comply with all applicable export, re-export and foreign policy laws that may be imposed by the Canadian/United States government.

11.08 *Products and Services Analysis.* To deliver, develop, test and improve the Products and Services required under this Agreement and provide to its clients generally, D2L may collect, analyze, and interpret data elements acquired by, associated with, or provided in the use of Applications and Software ("Analysis"). All individual data elements of the Analysis are property of their respective owners and shall be governed by the Confidentiality and Intellectual Property provisions of this Agreement. All usage data related to performance or use of the Products and Services and algorithm, computational, or cumulative results of the Analysis are wholly-owned by D2L. This provision is in addition to, and not a substitute for, any other provision of this Agreement.

11.09 *Amendment/Waivers.* No amendment, modification, termination or waiver of any provision of this Agreement is effective unless it is in writing and signed by both Parties. Any waiver or consent shall be effective only in the specific instance and purpose for which it was given. Terms or conditions that Client purports to include in a purchase order or similar instrument are void and of no force and effect.

11.10 *Survivability.* The Confidentiality, Proprietary Rights & Restrictions, Indemnification (to the extent the claim arose before the relevant Addendum was terminated), Liability Limitations, Payment and the General sections shall survive termination of this Agreement, regardless of the reason for the termination.

11.11 *Severability.* If a court declares void or unenforceable any term of this Agreement, the remaining terms and provisions of this Agreement shall remain unimpaired and the invalid term shall be replaced by a valid term that comes closest to the intention underlying the invalid term.

11.12 *Independent Parties.* Please see Section 2 of State System Master Contract #4700003087.

11.13 *Entire Agreement.* Please see Section 28 of State System Master Contract #4700003087.



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

AGREED AND ACCEPTED

D2L LTD.

PENNSYLVANIA STATE SYSTEM OF EDUCATION

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

By: \_\_\_\_\_  
(Authorized Signatory)  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

NOTICE INFORMATION

D2L LTD.

PENNSYLVANIA STATE SYSTEM OF EDUCATION

To: John Baker  
Title: President  
Copy to: Legal Department  
Fax: +1 519.772.0324  
Address: 500 York Road  
Towson, MD, 21204  
\_\_\_\_\_  
\_\_\_\_\_

To: University Legal Counsel - Contracting  
Title: \_\_\_\_\_  
Fax: 717-720-4213  
Phone: 717-720-4070  
Address: \_\_\_\_\_  
2986 North Second Street  
Harrisburg, PA 17110  
\_\_\_\_\_  
Email: \_\_\_\_\_

INVOICING INFORMATION

INVOICE RECIPIENT

PAYABLE ENQUIRY

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Email: \_\_\_\_\_

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Email: \_\_\_\_\_

Note: all invoices are provided via e-mail, unless otherwise requested in writing.



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

**CLOUD SERVICES ADDENDUM**

This Cloud Services Addendum, together with the Agreement, governs terms and conditions between Pennsylvania State System of Education and D2L relating to Applications.

**A1 Definitions**

Terms not defined in this Addendum shall have the meanings given to them in the Agreement.

A1.01 This addendum shall be effective from the Effective Date or start date listed in the relevant Order until the earlier of the termination of the Agreement, or as indicated on an Order ("Initial Term").

A1.02 *Available* means the material components of the Applications are available for Client's use.

A1.03 *Downtime* means those times in which material components of the Applications are not Available but shall not include Emergency Unavailability and Scheduled Unavailability.

A1.04 *Emergency Unavailability* means those times when material components of the Applications are unavailable for Client use resulting from the existence or repair of software bug/virus/worm, hardware failure, third party communication failure, force majeure (excusable delay), Disruption (as defined in the Agreement), or other event that is outside D2L's commercially reasonable efforts to mitigate unavailability through industry standard processes and network design or those unavailable events arising from Client error or negligence.

A1.05 *Measurement Period* means each calendar month commencing from the Effective Date. For purposes of clarification each calendar month shall constitute a distinct Measurement Period.

A1.06 *Scheduled Unavailability* means the times in which the material components of the Applications are not Available: 1) in accordance with posted maintenance schedules which may, in the sole discretion of D2L, be changed from time-to-time on 30 days' notice, or; 2) as a result of an agreement between Client and D2L, for example, to accomplish an Upgrade.

**A2 Grant of Use**

A2.01 Upon the Effective Date, D2L shall permit Client to use Applications in a non-exclusive, non-transferable, time-limited (revoked upon termination) manner as set forth in the attached Fees and Rates Schedule by the specified number of FTEs. Should Client not pay according to Section A5 of this Addendum, this Addendum may be terminated as set out in section 9.01.3 of the Agreement.

**A3 Term**

A3.01 This Addendum shall be effective from the Effective Date or start date listed in the relevant Order until the earlier of the termination of the Agreement or as indicated on an Order ("Initial Term").

**A4 Support**

A4.01 Support services are set forth in the Support Schedule attached to this Addendum and are coterminous with this Addendum.

A4.02 Modifications to Applications or Cloud Services. D2L may modify the Applications or Cloud Services. D2L will advise Client of material modifications where feasible.

**A5 Payments**

A5.01 Client shall pay the Fees as per the Fees and Rates Schedule, or, for additional work, as specified in an Order.

**A6 Use of Applications**

A6.01 Client may use or access Applications for its use only. No third party, other educational institution or business group or entity other than that identified in the attached Schedules(s) may make use of, or obtain access to, Applications without a separate Agreement.

A6.02 *Audit*. D2L may view the Client's site no more than twice a year for the purpose of ensuring compliance by Client with the terms of this Agreement. If the audit reveals that Client's use of Applications exceeds its permitted use, Client shall pay D2L's then-current Fees and reasonable administrative fees.

**A7 Service Objectives**

A7.01 *Availability*. Throughout each Measurement Period the material components of the Applications shall be Available at least 99.9% of the time.

A7.02 *Downtime and Emergency Unavailability*. D2L shall undertake commercially reasonable efforts to rectify any Downtime or Emergency Unavailability.

A7.03 *Notice of Emergency Unavailability*. If possible, D2L shall make commercially reasonable efforts to provide Client reasonable notice prior to making the material components of the Applications unavailable for Client use during Emergency Unavailability.

A7.04 *Reporting, Investigation & Classification*. Client shall report incidents to D2L Support that it considers Downtime immediately, but in no event later than 24 hours from when Client became aware of, or reasonably should have become aware of, the occurrence; failure to do so shall disentitle Client to any credit for that incident under this Addendum. In reporting, Client shall provide D2L sufficient information to investigate and classify the incident, including: date, duration, and description of occurrence. D2L shall investigate and reasonably classify any reported outage/occurrence as Scheduled Unavailability, Emergency Unavailability, or Downtime. In making its classification, D2L shall rely solely upon its own statistics software and monitoring equipment.

A7.05 *Downtime Credit*. If after investigation and classification, D2L determines that Downtime during the Measurement Period was such that Availability fell below the level stated in this Addendum, Client shall be entitled to a credit on Cloud Services Fees during the relevant Measurement Period, calculated on the following basis:



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

Availability	Client credit
$99.9\% \leq x^1$	N/A
$99.5\% \leq x < 99.9\%$	1% of Client's Cloud Services fee for that Measurement Period
$99\% \leq x < 99.5\%$	2.5% of Client's Cloud Services fee for that Measurement Period
$98\% \leq x < 99\%$	5% of Client's Cloud Services fee for that Measurement Period
$x < 98\%$	10% of Client's Cloud Services fee for that Measurement Period

A7.06 *Remedy*. Any credit so determined may only be applied as credits against subsequent annual Cloud Services Fees on renewal of the Cloud Services Addendum and shall be Client's sole remedy if that Availability falls below the level stated in this Addendum; provided, however, that if this Cloud Services Addendum is terminated or expires such that the entire credit cannot be applied for Client's benefit, D2L shall promptly refund such amount to Client.

**A8 Additional FTEs**

Client may increase its number of FTEs upon paying the appropriate fee.

**AGREED AND ACCEPTED**

**D2L LTD.**

By: \_\_\_\_\_  
  
Name: \_\_\_\_\_  
  
Title: \_\_\_\_\_  
  
Date: \_\_\_\_\_

**PENNSYLVANIA STATE SYSTEM OF EDUCATION**

By: \_\_\_\_\_  
(Authorized Signatory)  
  
Name: \_\_\_\_\_  
  
Title: \_\_\_\_\_  
  
Date: \_\_\_\_\_

<sup>1</sup> x = Availability



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

**SUPPORT SCHEDULE**

Support shall be as specified below. These terms are subject to change in the reasonable discretion of D2L after informing Client. Support fees are set forth in the applicable Order.

**S1 Definitions**

- S1.01 Emergency means an Incident that is time critical, materially impairs the use of Applications and is essential to the operation of Client's business.
- S1.02 General Support means access to the client web site, general notifications, advisories, newsletters and similar services.
- S1.03 Incident means a query regarding, or user-identified concern about Applications.
- S1.04 Support means Application assistance, help desk and remote support, Upgrades, fixes, and other services set out in this Support Schedule.

**S2 Authorized Support Contact Name(s) (ASC)**

- S2.01 Client shall provide name(s) of its Authorized Support Contact(s) (ASC) to D2L. Authorized Support Contact(s) will have privileges to log and monitor Support. Authorized Support Contact(s) may access D2L's client website ([www.Brightspace.com](http://www.Brightspace.com)) for information about how to obtain Documentation and available Upgrades. The Authorized Support Contact may contact D2L Support up to the number of Incidents specified below in section S13 based on the level of Support selected.

**S3 Support**

- S3.01 D2L provides Support to Client during the times specified in the table below in section S13 based on the level of Support selected.
- S3.02 Support is available to record Incidents, explain the functions and features of Applications and clarify the contents of Documentation. Incidents may be submitted through D2L's web-based portal, or using a predefined D2L Support email address, or by calling the D2L helpdesk.

**S4 Remote Access**

- S4.01 To allow D2L to assess Incidents in the Applications, Client shall use reasonable efforts to permit D2L remote access to Client's systems.

**S5 Additional Authorized Support Contact(s); Number of Contacts**

- S5.01 Additional Authorized Support Contact(s), beyond the one(s) currently included in the Order, are available at the cost set forth in the Order.

**S6 Escalation**

- S6.01 If D2L is unable to resolve a request in a reasonable length of time, or if the priority or severity of the request changes due to external factors, the request will be escalated. D2L support may request additional information to assist in the understanding of the problem. Escalation may require further research by the Help Desk, consultation of other D2L support staff members, and/or consultation with the D2L development team.

**S7 Other Services**

- S7.01 Client may not use Support for services other than Support. Services not identified in this Schedule, including training, implementation, modifications, configuration and communications, will be charged at the Rates, except for out-of-pocket and per diem expenses.

**S8 Language of Support**

- S8.01 All Support will be provided in the English language unless agreed otherwise in the Order. If Support is provided in another language without written agreement or modification through an Authorizing Document, then there is no guarantee of follow-up or to provide further Support in a language other than English.

**S9 Termination**

- S9.01 Support is terminated when the Agreement expires or is terminated.

**S10 Reinstatement**

- S10.01 If Client is in default for payment under the Agreement, D2L may, at its option, (a) charge a reinstatement fee to reinstate Support and charge for future Support according to D2L's then-current support policies; or (b) decline to provide Client Support.

**S11 End Users**

- S11.01 If Client elects to purchase optional End User support, End User Support for questions about Applications will be available to Client's End Users via the options listed in the table in section S13 based on the level of support selected.

**S12 Support for Newrow Services**

- S12.01 If Client elects to purchase Newrow services at the prices set out for such services in this Agreement, such Newrow services are subject to the Newrow support terms.



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

**S13 Support Features Table**

	Bronze	Silver	Gold	Platinum
Features				
Incidents included per month	5 (Additional monthly contacts, are available at the cost set forth in the applicable Order)	Unlimited	Unlimited	Unlimited
Approved Support Contacts	1 ASC	2 ASCs	3 ASCs	5 ASCs
Hours of Support	8:00am to 8:00 pm EST Mon-Fri	24x7x365	24x7x365	24x7x365 Dedicated 800#
Reporting and Review Meetings				
Incident Reports	n/a	n/a	Monthly	Monthly
SLO Reports	n/a	n/a	Quarterly	Monthly
Cloud Performance Dashboard	n/a	n/a	Yes	Yes
Root Cause Analysis Reporting	n/a	n/a	n/a	Yes
Historical Incident Access	Yes	Yes	Yes	Yes
Support Review Meetings	n/a	n/a	Semi-Annual	Quarterly
End User Support (if selected)				
End User Support Access	n/a	chat, email, and web	chat, email, web and phone	chat, email, web and phone

**S14 Target Response and Resolution Times; Severity Level Descriptions**

Target Response and Resolution Times

Support Offering Level	SLO	Severity Level	Initial Incident Engagement	Communication Frequency*	Target Resolution Time
Gold	80% (Within Time Shown)	30 Minutes	30 Minutes	Every 4 Hours	24 Hours
		4 Hours	4 Hours	Every 8 Hours	48 Hours
		12 Hours	12 Hours	Daily	72 Hours
		24 Hours	24 Hours	Daily	5 Business Days

\* Or as agreed to by Client at the time of the Incident



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

Severity Level Descriptions

Priority Level	Description	Scope
1	D2L Application is down or unable to restart the system; critical software problem with a high impact on day-to-day use.	System is not accessible to any users; Critical tools needed for normal operation are not usable; Critical data is not accessible; Data is being lost due to a problem with the D2L Application; The security of the Application is compromised
2	Use of the system is significantly impaired, making it very difficult to use in the manner intended	Servers are up and running, but users are unable to access entire components of the System; Presence of the problem prevents a particular tool or function from working and there are no alternatives to achieve the desired end result; A problem that is causing significant impact to portions of the System; The Client is exposed to an interruption of service - For example, a high number of users in a class having difficulty posting information in a discussion area, or users cannot access a specific course; Custom Tools that are not working after an upgrade.
3	All major sections are working and, the installation is up and running, but there seems to be several small issues within some sections that make the Applications difficult to use, minimal impact on the production server as a whole.	Problem is not serious by nature; Overall system has not failed; Unexpected results within routine tool or function; An issue limited to a small number of users, courses, or resources; Issues specific to a user/course/resource not significantly affecting use of the system
4	User needs instructions, minor issues with little to no impact on the production system as a whole. Informational requests about the system and general inquiries.	No effect on production system; Minor questions on usability, informational requests about the platform or feature requests; Isolated unexpected behavior that cannot be reproduced and has little to no impact on the system or the users at large





Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 2—Contractor's Master Agreement

**CONSULTING ADDENDUM**

This Consulting Addendum, together with the D2L Agreement, governs terms and conditions between Pennsylvania State System of Education and D2L relating to Deliverables produced under a Statement of Work.

**C1 Intellectual Property**

C1.01 Except as specifically set forth in a Statement of Work, D2L shall retain sole and exclusive ownership of and all intellectual property rights in the Deliverables, which include: tools, methodologies, questionnaires, responses, and proprietary research, data, requirements, specifications, and code generated in the course of performing the consulting services. D2L grants to Client a time-limited, non-exclusive, royalty-free license to use and to disclose the Deliverables, subject to the limitations set forth below.

C1.02 D2L may render services to others and develop work products that are competitive with, or functionally comparable to, the Deliverables. D2L shall not be restricted in its use of ideas, concepts, know-how, data and techniques acquired or learned in the course of performing the consulting services or producing Deliverables, provided that D2L shall not use or disclose any of Client's Confidential Information.

C1.03 Unless otherwise stated, Client shall retain its rights in any proprietary material that Client supplies to D2L. If Client provides D2L with materials owned or controlled by Client or with use of, or access to, such materials, Client grants to D2L all rights and licenses that are necessary for D2L to fulfill its obligations under each Statement of Work for consulting services.

**C2 Use of Deliverables**

C2.01 Subject to payment in full of the applicable fees, D2L grants to Client for internal purposes only a worldwide, royalty-free, time-limited license to use, reproduce, and display of the Deliverables. Client shall not make the Deliverables available to anyone outside of Client, without the prior written consent of D2L, except Client may share the Deliverables with (i) its outside auditors and/or accountants, (ii) third parties who have signed appropriate confidentiality agreements with Client who are engaged by Client to review or implement suggestions or to further research the issues contained in the Deliverables, and (iii) governmental or regulatory bodies as required by law.

**C3 No Third-Party Beneficiaries**

C3.01 This Addendum is for the benefit of the Parties only. None of its provisions are for the benefit of, or enforceable by, any third party. No third party shall have the right to (i) rely on the consulting services provided by D2L or (ii) seek to impose liability on D2L as a result of the consulting services or any Deliverables furnished to Client.

**C4 Required Skills**

C4.01 Professional services billing rates are dependent upon the scope of the engagement/implementation and the consulting skill levels required. Project Managers are assigned to oversee all professional services implementations at a rate dependent upon complexity of the project and skill level required.

**C5 Content of Statement of Work**

C5.01 Each Statement of Work authorized under this Consulting Addendum shall include, at a minimum, the following information:

C5.01.1	Project Name and Number	C5.01.2	Client Obligations
C5.01.3	Project ID	C5.01.4	Software Requirements Specifications
C5.01.5	Client Project Manager	C5.01.6	Intellectual Property Transfers (if any transfers are applicable)
C5.01.7	Client Technical Lead	C5.01.8	Project Start Date
C5.01.9	D2L Project Manager	C5.01.10	Project End Date
C5.01.11	D2L Technical Lead	C5.01.12	Project Location
C5.01.13	Project Description	C5.01.14	Project Price & Expenses (if applicable)
C5.01.15	D2L Deliverables	C5.01.16	Special Conditions
C5.01.17	A reference to this Consulting Addendum		

**AGREED AND ACCEPTED**

**D2L LTD.**

**PENNSYLVANIA STATE SYSTEM OF EDUCATION**

By: \_\_\_\_\_

By: \_\_\_\_\_  
(Authorized Signatory)

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



**FEES AND RATES SCHEDULE**

**Service Purchase Contract #4700003087**  
**Contract Specifications**  
**Learning Management System and Help Desk Services**

**A. Overview**

1. [Pennsylvania's State System of Higher Education](#) (State System) comprises the Office of the Chancellor and 14 universities. The State System requires a Learning Management System (LMS) and related optional services to support the universities' teaching and learning environment.
2. D2L Ltd. (Contractor, D2L or Brightspace) is the creator of Brightspace, an integrated learning platform. (Software-as-a-Service: SaaS.) The Contractor shall provide its LMS and related optional services to support the State System's 14 universities.
3. The individual universities across the State System may select any LMS supplier from the multiple award list of successful LMS suppliers awarded contracts as a result of RFP #2016-ASA-LAV-01 or any other LMS provider.
4. For every university that selects the same LMS, one university will be identified as the coordinating point of contact and shall be the Contractor's interface with all of the other universities that selected that particular LMS provider. One of the functions of this coordinating university is to ensure that any functionality, customization, or enhancement developed by the Contractor would be made available to all universities under the same LMS contract at no additional development cost.
5. Any functionality that exists in the product as delivered at the beginning of the Contract and is subsequently moved to an optional module, option, or other chargeable product will automatically become available to the universities at no additional charge. If the functionality was included in the initial delivery and that feature is moved or enhanced, it will be made available without extra charge.
6. Support for the *Student Preferred Names* option shall be integrated into the LMS.
7. Beyond the basic enrollment of students in a class instructed by a single faculty member, administrators must have an automated method to enroll students from other State System universities and recognize guest lecturers by leveraging *InCommon Federated Identity* across each university's LMS regardless of which LMS the university uses. The LMS shall easily accommodate courses that include the traditional group of students with a faculty instructor. These students and guest lecturers could be from other universities in the same LMS or from universities not in the LMS, but still participate in the *InCommon Federated Identity*. Students and faculty from any State System university shall be able to participate seamlessly in courses from other State System universities using the Federated Identity model. For example, a student from one university will be seamlessly added to the roster for a course at another university regardless of the LMS used by the student's home university. Likewise, a faculty member from one university will be able to be a guest lecturer at another university without regard to any disparity in LMS between the universities. The LMS shall be configured and be able to be implemented by July 1, 2017 to support InCommon's Federated Identity model as the single authentication method for each university.
8. The instructors of record for a course shall have the capability, at each university's discretion, to easily add guest lecturers and guest students directly to their courses without the administrators' intervention. These guests would also participate in the *InCommon Federation*.
9. The LMS shall directly or indirectly support the following features and functionalities:
  - Achievement and systems (competency-based learning, badges, etc.)

- Adaptive learning
- Assessment tools/gradebook
- Broadcast quality video and audio
- Content management
- Gaming and gamification
- Integrated online classroom (Web collaboration software)
- Learning analytics
- Learning resources (learning objects)
- Library integration
- Media support
- Student tracking/statistical analysis
- Web-based applications: Wikis, blogs, document editing, discussion boards, chat rooms (e.g., Google docs)

**B. D2L's Brightspace Solution and Benefits**

D2L, subject to the terms and conditions of this Contract and any subsequent university purchase order, shall provide the services as specified herein. See Attachment #4, Contractor's Technical Proposal, for a detailed description of the Brightspace solution including, but not limited to, LMS Required Tools, LMS Features, LMS Analytics Tools, Optional Modules, Help Desk Services, Web Online Tools, Learning Content Management System/Content Repository, and Transitioning Strategy (where applicable).

**C. Term**

The initial term of the Contract will be for five years.

**D. Renewals**

This Contract may be renewed for three two-year additional terms by mutual written consent of authorized representatives of the parties. Nothing herein guarantees any such renewal(s).

**E. Quantity and Commitments**

This Contract is not a guarantee that the State System will request the Contractor to provide the services. Universities will issue individual purchase orders for the services. Purchase orders will incorporate the terms and conditions as set forth in this Contract, and shall be for an initial five-year commitment.

**F. Nonexclusivity**

The Contractor expressly agrees and understands that this Contract is not an exclusive one, and that the universities may select any LMS supplier from the multiple award list of successful LMS suppliers awarded contracts as a result of RFP #2016-ASA-LAV-01 or any other LMS provider.

**G. Pricing**

The Contractor will provide e-learning software solutions and professional services for the implementation and support of the software solutions to the State System universities per the pricing structure outlined in Attachment #5, Contract Pricing.

**H. Invoices**

The Contractor shall submit itemized invoices for fees and actual expenses incurred. Reimbursement for travel expenses shall be made in accordance with the universities' or

the State System's travel regulations (located at the individual university websites, or at the [State System's website](#), or available upon request). All travel shall be preapproved by the university or the State System, as applicable. All reimbursements will be limited to the most economic means of travel available.

**I. Protection of Confidential Data**

The Contractor agrees to abide by the limitations on redisclosure of personally identifiable information from education records set forth in *The Family Educational Rights and Privacy Act*, 34 CFR § 99.33 (a)(2) (the Act) and with the terms set forth below. The Act states that the officers, employees, and agents of a party that receives education record information from the university may use the information, but only for the purposes for which the disclosure was made.

1. **Definition: Covered Data and Information (CDI)** includes paper and electronic student education record information supplied by the university, as well as any data provided by the university's students to the Contractor.
2. **Acknowledgment of Access to CDI:** The Contractor acknowledges that the Contract allows the Contractor access to CDI.
3. **Prohibition on Unauthorized Use or Disclosure of CDI:** The Contractor agrees to hold CDI in strict confidence. The Contractor shall not use or disclose CDI received from or on behalf of the university (or its students) except as permitted or required by the Contract, as required by law, or as otherwise authorized in writing by the university. The Contractor agrees not to use CDI for any purpose other than the purpose for which the disclosure was made.
4. **Return or Destruction of CDI:** Within 60 days upon termination, cancellation, expiration, or other conclusion of the Contract, the Contractor shall return all CDI to the university or the State System or, if return is not feasible, destroy or make inaccessible any and all CDI. If the Contractor destroys the information, the Contractor shall provide the university with a certificate confirming the date of data destruction.
5. **Remedies:** If the university reasonably determines in good faith that the Contractor has materially breached any of its obligations under this Section, the university, in its sole discretion, shall have the right to require the Contractor to submit to a plan of monitoring and reporting, provide the Contractor with a 30-day period to cure the breach, or terminate the Contract immediately if cure is not possible. Before exercising any of these options, the university shall provide written notice to the Contractor describing the violation and the action it intends to take. If the Family Policy Compliance Office of the U.S. Department of Education determines that the Contractor improperly disclosed personally identifiable information obtained from the university's education records, the university may not allow the Contractor access to education records for at least five years.
6. **Maintenance of the Security of Electronic Information:** The Contractor shall develop, implement, maintain, and use appropriate administrative, technical, and physical security measures to preserve the confidentiality, integrity, and availability of all electronically maintained or transmitted CDI received from or on behalf of the university or its students. The Contractor will extend these measures by contract to all subcontractors used by the Contractor.
7. **Reporting of Unauthorized Disclosures or Misuse of Covered Data and Information:** The Contractor shall, as soon as reasonably practicable and in accordance with all state and federal statutes and regulations, report to the university any known use or disclosure of CDI not authorized by this Contract. The Contractor's report shall identify:
  - (a) The nature of the unauthorized use or disclosure.

- (b) The CDI used or disclosed.
  - (c) The identity of the party who made the unauthorized use or received the unauthorized disclosure.
  - (d) What the Contractor has done or shall do to mitigate any deleterious effect of the unauthorized use or disclosure.
  - (e) What corrective action the Contractor has taken or shall take to prevent future similar unauthorized use or disclosure. The Contractor shall provide such other information, including a written report, as reasonably requested by the university.
8. Indemnity: The Contractor shall defend and hold the university harmless from all claims, liabilities, damages, or judgments, including the university's costs and attorney fees, which arise as a result of the Contractor's failure to meet any of its obligations under this Section.



**brightspace™**  
by D2L

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 4—Contractor's Technical Proposal

# D2L Proposal to Pennsylvania State System of Higher Education

Request for Proposals for a Learning Management System  
and Help Desk Services

RFP #2016-ASA-LAV-01

February 9, 2016



PREPARED FOR:

# Pennsylvania State System of Higher Education

2986 North Second Street  
Harrisburg, PA 17110

For further information regarding this document contact:

Cory Gaber  
Senior Account Manager  
Cory.Gaber@D2L.com

As part of the D2L family of companies, D2L Ltd., the proposing entity, draws upon the experience, values and expertise of its parent company, D2L Corporation, and shares this with clients throughout the United States. For consistency and clarity throughout this proposal, the collective of both D2L Corporation and D2L Ltd. is referred to as "D2L." The D2L family of companies includes D2L Corporation, D2L Ltd, D2L Australia Pty Ltd, D2L Europe Ltd, D2L Asia Pte Ltd, and D2L Brasil Soluções de Tecnologia para Educação Ltda.





February 9, 2016

Ms. Linda A. Venneri, CPSM  
Collaborative Contracts Manager  
Pennsylvania's State System of Higher Education  
Office of the Chancellor  
Dixon University Center  
2986 North Second Street  
Harrisburg, PA 17110  
717-720-3135

Re: D2L Proposal to Pennsylvania State System of Higher Education

---

Dear Ms. Venneri,

Thank you for the opportunity to respond to the Pennsylvania State System of Higher Education (PASSHE)'s Request for Proposal (RFP#2016-ASA-LAV-01) for a Learning Management System (LMS) and Help Desk Services. We understand how this project is essential to augment how teaching and learning takes place at PASSHE and while we have built a solid partnership over the past 6 years, we want to be an even stronger partner for the next 5 years by enhancing the services we provide and providing a solution designed specifically to help your learners achieve more. In 2016, we now bring over 16 years of experience delivering innovative teaching and learning technologies to over 15 million users in 1,100 organizations, including large state wide systems such as the Tennessee Board of Regents, the University System of Georgia and Minnesota State Colleges and Universities and are well suited to support you moving forward.

We understand that PASSHE is looking to drive program excellence, manage costs, and increase access to data heading towards 2020. Critical to your success will be your ability to leverage your LMS to facilitate seamless campus to campus collaboration, to flexibly integrate with a complex ecosystem of learning technologies across the consortium, and to empower cutting-edge learning methodologies such as competency based education. Our partnership model, built on an enhanced investment in not just technology but also service, will position PASSHE to transform teaching and learning. Our commitment to the partnership is as follows:

- **White Glove Service** – D2L is committed to investing in and deepening this partnership to drive an unprecedented level of results. We propose expanding the service model and team to achieve truly personalized service on all fronts – technical, product, and adoption. The PASSHE service team moving forward will consist of an Account Manager, a Customer Success Director and a Technical Account Manager (TAM) available the first year. This team will provide technical expertise, product and service knowledge and consulting expertise at both the system and the individual campus level, to ensure each campus is maximizing the result of the Brightspace investment.
- **Flexibility** – D2L is committed to driving results at multiple levels throughout PASSHE, recognizing the importance of both system-level and individual-campus level strategic objectives that must all be supported by your LMS. We have proven technologies, such as the InCommon implementation between Millersville and Kutztown Universities, which enable better campus to campus collaboration. We are also committing our Advisory and Consulting Services group to providing organizational guidance at each campus to help achieve campus specific results.
- **Innovation** – Ovum (an independent analyst firm) recently named D2L as the #1 recommended LMS in the marketplace today. Most significantly D2L received the highest score for the capacity to support next-generation online teaching and learning and was identified as the clear leader in integrated and predictive analytics. This aligns



**brightspace™**  
by D2L

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 4—Contractor's Technical Proposal

perfectly with your system goals of better access to data and improving student retention and student success. A copy of this report has been included in the Supporting Documents.

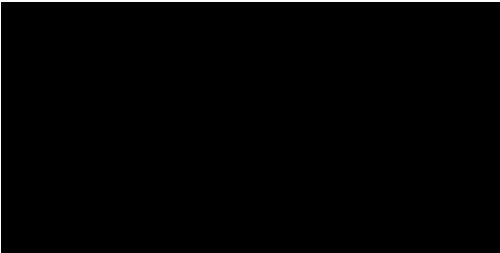
- **No Migration** – Investing in an ongoing partnership with D2L enables PASSHE to maintain focus on supporting faculty and serving students versus diverting resources to focus on migration, training and necessary change management.

We look forward to deepening our partnership as we build on our established relationship, strengthen our service model, and accelerate achievement of Consortium and individual campus strategic goals.

Please reach out to me if you have any questions.

Best regards,

Cory Gaber  
Senior Account Manager  
D2L Ltd.  
Cory.Gaber@D2L.com  
Tel. 1.888.772.0325 ext. 3424



John Baker  
President and Chief Executive Officer  
D2L Ltd.  
John@D2L.com  
Tel. 1.888.772.0325 ext. 3407

D2L confirms receipt of Addendum #1, dated January 27<sup>th</sup>, 2016.

## Proposal at a glance

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>SECTION III .....</b>	<b>7</b>
Work Statement .....	7
III-1 <i>Current Environment</i> .....	7
III-2 <i>Objective</i> .....	7
III-3 <i>Nature and Scope of the Project</i> .....	16
III-4 <i>Mandatory Technical Requirements</i> .....	26
III-5 <i>Required Information</i> .....	29
III-6 <i>Cost</i> .....	49
<b>SECTION IV .....</b>	<b>50</b>
Information Required From Suppliers .....	50
IV-1 <i>Statement of Understanding</i> .....	50
IV-2 <i>Qualifications and Experience of Firm</i> .....	53
IV-3 <i>Functionality and Technical Requirements for Learning Management System (LMS) and Help Desk Services</i> .....	57
IV-4 <i>Implementation Work Plan</i> .....	62
IV-5 <i>User Community</i> .....	64
IV-6 <i>Value-added Services</i> .....	66
IV-7 <i>Response to Cost</i> .....	66
<b>TERMS AND CONDITIONS .....</b>	<b>67</b>
<b>SUPPORTING DOCUMENTS .....</b>	<b>68</b>

## Executive Summary

For the past six years, D2L has demonstrated a deep commitment to supporting PASSHE in achieving its online learning goals. Our engagement to date has spanned multiple levels of the PASSHE organization including RECAP, your virtual conference, campus roadshows, and exclusive executive to executive meetings. This has allowed us to incorporate valuable feedback from you into improving and personalizing our product and service offerings on an ongoing basis.

Over the next five years, D2L is committed to comprehensively strengthening the partnership through both technological innovation and service investment. We are expanding the scope of your front-line service team to include a Customer Success Director whose sole objective is to ensure you are maximizing adoption and return on investment from the platform. In addition, we will be introducing a team of Advisory Consultants who will work side by side with your leadership to ensure successful rollout of new initiatives following established best practice. Lastly, we will be pairing you with a D2L Technical Account Manager to ensure seamless alignment of IT initiatives through the first year of the contract. The TAM program is now our most widely adopted service package. It consistently receives positive customer feedback and we expect the same experience for PASSHE.

D2L is recognized by OVUM (an independent analyst firm) as the #1 recommended LMS in the market today. We have included an abstract in the Supporting Documents. D2L is uniquely set up to support PASSHE's complexity, as evidenced by Ovum, '...D2L received the highest score for the capacity to support next-generation online teaching and learning. The Brightspace platform moves away from a one-size-fits-all approach and is instead highly personalized to meet differing student needs.'

We are looking forward to the opportunity to build on, strengthen, and enhance the results of the partnership we have established.

## Brightspace Highlights

- Account Manager, Customer Success Manager, Technical Account Manager Trial (NEW) and Advisory Consulting Services (NEW). A full **TEAM** devoted to helping achieve **RESULTS**.
- A market leading product development philosophy that emphasizes **EASY** to use. More drag and drop. Expanded mobile experience. Refreshed visual design.
- A **FLEXIBLE** LMS that promotes system collaboration through a proven InCommon implementation while still allowing campus autonomy for integrated learning technologies through a robust API and standards support. Solutions that promote a personalized learning experience.
- A **SMART** LMS that provides you data access via the Brightspace Data Platform, industry leading visualizations and predictions via Brightspace Insights and native analytics so your learners and teachers understand how and when achievement takes place.
- The **EASIEST** migration plan is where none is required! Invest your valuable resources instead on driving immediate results towards goals using the services and solutions mentioned above.

---

### PASSHE'S STRATEGIC OBJECTIVES

#### ADAPT TO AN EVER CHANGING STUDENT POPULATION

### ARE ACHIEVED WITH...

Brightspace is recognized by OVUM as the most innovative LMS on the market today to adapt with your students. OVUM directly states Brightspace is 'highly personalized to meet differing student needs.'

---

---

**ALIGN ACADEMIC PROGRAMS WITH REAL  
WORKFORCE AND PERSONAL GROWTH NEEDS**

Brightspace Learning Environment fully supports competency based education natively to make Higher Education available to the non-traditional learners who need flexibility to achieve their goals

---

**PROVIDE GREATER FLEXIBILITY IN HOW, WHEN AND  
WHERE STUDENTS LEARN**

The number one Brightspace development priority for 2016 and beyond is to make everything mobile friendly and include responsive design. Our student Pulse app is our most recent development example to showcase this design methodology.

---

**ENSURE THAT COMPETITION AND COOPERATION  
BETWEEN THE SYSTEM IS STRATEGIC**

A successful proof of concept between Millersville University and Kutztown University demonstrated that we have the technical and service capability to support the system as it fosters increased collaboration.

---

**PRESERVE AND PROMOTE ACCESSIBILITY AND  
AFFORDABILITY**

D2L's attention to accessibility is an organization-wide mandate that ensures we are the industry leaders in this field. As said by Dr. Marc Maurer, President National Federation for the Blind, 'D2L's active and passionate participation in our nonvisual certification program shows their commitment to integrating accessibility within their core values and practices'. A video testimonial from Anne Taylor of the NFB can be found here -  
<https://www.youtube.com/watch?v=uYSWnErWFpk>

---

**ENHANCE ACCOUNTABILITY AND TRANSPARENCY**

The Brightspace Data Platform will give the system and campuses access to your data when you need it, with flexible access options including restful APIs and Open Database Connectivity (ODBC) connections.

---

**ENSURE PROGRAM RELEVANCE (OUTCOMES &  
COLLABORATION) AS WELL AS PROGRAM  
EXCELLENCE**

D2L is committed to providing PASSHE Advisory and Consulting Services. This team's expertise includes Competency Based Learning Planning and execution support, as well as building collaborative education models within complex consortia.

---

**MORE DIVERSE SYSTEM (INCREASED  
COLLABORATION, HELPING MINORITIES AND  
UNDERPRIVILEGED AND CREATING AN ONLINE  
CLEARINGHOUSE)**

With over 16 years of experience helping customers deliver completely online programs and courses, D2L is well positioned to help PASSHE move more enrollments online.

---

**MANAGE STUDENT COSTS (DECREASE TIME TO  
DEGREE, INCREASE STUDENT SUCCESS)**

D2L as recognized by OVUM as the industry leader in predictive analytics. Our Brightspace Degree Compass and Brightspace Student Success System solutions have proven results to minimize time to degree while maximizing

---

student achievement, as evidenced by Oral Roberts University, which saw its retention rate increase from 61% to 75% in just one semester by having accurate information at hand via tools in Brightspace.

---

**MORE ACCESS TO DATA (TO SUPPORT  
PERFORMANCE BASED FUNDING MODEL)**

Brightspace Data Platform provides full access to learning data including APIs and ODBC connections. Brightspace Insights helps interpret this data and brings visualizations into the virtual classroom.

---

## Proposed Brightspace Solution and Benefits

The foundation of the Brightspace solution includes the Learning Environment, D2L cloud hosting, and comprehensive administrative as well as end-user support.

Your D2L support team will bring the Brightspace solution to life. This team not only includes your existing Account Manager, but will also include a dedicated Customer Success Director and a Technical Account Manager for the first year who will serve as your single point of contact for all technical queries. Most importantly, we will be introducing an Advisory and Consulting team that specializes in providing additional planning, measurement, and execution support as you roll out initiatives including, but not limited to:

- Strategic planning and program management to help with campus collaboration
- Communication and marketing strategies to increase online enrollments
- Organizational and faculty readiness and engagement to increase adoption of online learning tools
- Competency based learning planning to ensure campuses are prepared for this ever popular learning model
- Preparing for a data strategy/digital strategy to make better data driven decisions

Our goal for the next five years is to be more proactive with each campus to help achieve your strategic objectives and this new service team will be the key.

A full list of included and optional solutions and services is summarized in the table below:

INCLUDED SOLUTIONS & SERVICES	OPTIONAL SOLUTIONS & SERVICES
Brightspace Learning Environment	Brightspace Insights
Brightspace Cloud	Brightspace Student Success System
Gold Administrator Support	Brightspace ePortfolio
7x24x365 End User Support	Brightspace Learning Repository
Senior Account Manager	Brightspace LeaP
Customer Success Director	Brightspace Game Based Learning
Technical Account Manager (Year 1)	Brightspace Degree Compass

Advisory and Consulting Services (100 hrs)

Web Online using newrow\_

Below is a table that lists the ways that these solutions will help meet the specific objectives outlined in this RFP:

<b>PASSHE'S RFP GOALS</b>	<b>ARE ACHIEVED WITH...</b>
<b>A STRONGER VENDOR PARTNERSHIP</b>	D2L is expanding the scope of PASSHE's dedicated service to help foster adoption of existing solutions, maximize your current investment and promote campus success. In addition, D2L commits to quarterly executive reviews at both the system level and at the individual campus level and enhanced inclusion in newly formed advisory boards to ensure PASSHE has a strong voice within the D2L roadmap and to ensure partnership alignment.
<b>GREATER CAMPUS TO CAMPUS COLLABORATION</b>	PASSHE is already making use of D2L's inherent flexibility. Examples include the InCommon federated authentication solution between the Millersville and Kutztown Universities, a proven solution that can be scaled across the entire system to promote seamless campus to campus authentication. Brightspace Learning Repository provides easy upload and searching, coupled with deep integration into the Brightspace Learning Environment. Campus sharing of learning objects which stands to benefit all the campuses, instructors and students.
<b>A FLEXIBLE LMS</b>	Brightspace Valence is D2L's extensibility technologies and saw over 1,000 applications registered in 2015 and 127 in January 2016 alone. We also fully support LTI for partner extensibility and are one of the first learning technologies to be Caliper certified to allow easy data transfer between different learning vendors. Brightspace Learning Environment innovates with intelligent agents that help improve student engagement/learning outcome achievement. Brightspace solutions lead the market in support for disabilities and is the only system fully supporting blind, deaf & other disabilities like dyslexia. Release conditions within Brightspace Learning Environment help build personalized learning paths are a key ingredient to building a competency based education program online.
<b>BETTER ACCESS TO DATA</b>	Brightspace Data Platform (BDP) provides near real time data to campuses and offers flexible connection options

---

including APIs and ODBC. Brightspace Insights surfaces this data at the course level with data visualizations. By using data, we deliver better outcomes through tools such as the Brightspace Student Success System and Brightspace Degree Compass to measurably improve student results and student retention. We understand you need more than just raw data – you need a system that can help interpret the data to drive results.

According to the Ovum report ““D2L was given a perfect score for student performance and retention because it has moved beyond basic reporting and alerts, and **no other OLP vendor has grasped predictive analytics in the way D2L has.**”

---

#### A MORE ROBUST ONLINE WEB TOOL

Institutions use a mix of online, blended and traditional classroom experiences to reach and engage students. Brightspace is the foundation for providing an easy, flexible and smart environment for students to learn. Now, Brightspace has partnered with newrow\_ to enhance the learning experience for students, instructors, staff and administrators. newrow\_ adds a face-to-face video solution to Brightspace for any course. Whether a class is taught entirely online or in a physical classroom, the combination of Brightspace and newrow\_ offers a comprehensive campus video collaboration solution that improves student engagement, active learning and accountability regardless of the type of course. Seamlessly integrated in Brightspace so students never have to leave the learning environment, newrow\_ is enabled with just a couple of clicks inside your Brightspace course. For online classes, the newrow\_ video classroom provides a place where student and instructors meet face-to-face using standard web or mobile cameras and utilize robust instructional tools. For physical classes the newrow\_ study rooms and assigned breakout sessions offer virtual collaboration spaces where students can work together out-of-class or receive help from each other on homework.

---



## Summary

D2L is committed to investing in and strengthening the foundation of the D2L-PASSHE partnership over the next five years. Our objective is to empower your teachers and learners to achieve their objectives. The way we are proposing to do that, is by investing to unprecedented levels in a holistic approach to serve you. We are providing services to strengthen the partnership on all levels – Executive, IT, and Pedagogy. In addition, we are investing in providing you better access to data to drive campus to campus collaboration, provide deeper integration into multiple learning technologies, and better manage costs.

## Section III

### Work Statement

#### III-1 CURRENT ENVIRONMENT

- A. The current Teaching and Learning Environment for Pennsylvania's State System of Higher Education (State System) consists of one Learning Management System (LMS). The LMS serves to support each of the State System's 14 universities.
- B. Since the current LMS system is not configured with a single authentication method across all universities, collaboration and sharing of courses is difficult. For example, local (home) accounts need to be recreated at a second (visiting) institution; students have multiple logins, etc.
- C. There are many integrations between the existing LMS and third party applications including Authentication, Student Information Systems, Textbook Publishers, Learning Tools, Media, etc.
- D. The universities' student information systems (SISs) are integrated with the LMS for the population of course rosters, etc.

#### D2L RESPONSE

Read and understood.

#### III-2 OBJECTIVE

- A. The next generation of the State System's LMS is expected to encompass a greater variety of integrated products, and to provide better integration with a multitude of related and interrelated services.

#### D2L RESPONSE

Brightspace was built as a core, centralized platform that can easily integrate with your selected teaching and learning tools that best support how learning takes place at your universities. Brightspace supports extensibility through the support of open APIs and the use of industry standards such as LTI and Caliper. The D2L Partner Network supports a rich ecosystem of teaching and learning solutions that integrate with the Brightspace platform. These solutions are easily discoverable through Brightspace App Finder – an online catalog to discover and manage third-party solutions.

#### BRIGHTSPACE VALENCE | OUR APIS

Brightspace Valence gives developers access to the web service APIs and tools necessary to create custom integrations between the Brightspace technology and other applications used by your organization. It also allows your experts to build on top of Brightspace, to do things such as develop custom instructional tools for students, create unique dashboards to support instructor management and recommended interventions, or provide administrative oversight into interactions between

students and teachers. Partner and customer development to extend the Brightspace platform is growing rapidly – the number of approved apps increased more than 300% from 2014 to 2015

Our open APIs and standard middleware, Holding Tank, supports integrations with a wide variety of systems such as:

- student information system (SIS) and human resources systems (HRIS)
- authentication systems (e.g. LDAP, Active Directory®)
- repositories and libraries
- eCommerce systems
- single sign-on (SSO) authentication
- portals

### **SUPPORT FOR INDUSTRY STANDARDS**

Our solution supports the IMS LTI v1.1.1 standard (formerly Basic LTI) so PASSHE can easily integrate Brightspace solutions with other third party vendors who also support the IMS LTI v1.1.1 standard. I would replace this detail on IMS LTI with other standards we support which will help them integrate systems and content. Something like,

In addition to IMS LTI, we adhere to

- SCORM: 1.2 RTE 3, 2004 Certification with logos
- IMS: IMS-CP, IMS-Enterprise IMS-RDCEO, IMS-QTI, IMS-CC, IMS LTI v1.1.1 and others
- Web: HTML, XML, REST

We have been active participants in the IMS Global standards group that created IMS Caliper — a standard that will make it easier to exchange analytics information about learners between different vendors. In fact, we were the first system out of the gate to both accept and emit Caliper messages.

### **BRIGHTSPACE APP FINDER**

Brightspace has established App Finder, which provides a growing list of third party apps, services, content, and add-ons for the Brightspace platform. You can provide easy access to your end users by adding a link to Brightspace App Finder on the course homepage in Brightspace Learning Environment which will allow instructors and curriculum designers to manage, and promote a greater variety of integrated products. App Finder provides an aggregated directory of complimentary tools, apps and services that provide organizations and instructors the opportunity to enhance teaching and learning.



**B. It is expected that the future environment will consist of one or more Learning Management Systems that support a single authentication method (InCommon's Federated Identity model) across each of the universities' LMS, regardless of which LMS is chosen by the university.**

**D2L RESPONSE**

We have proven expertise in InCommon integrations, as demonstrated by our two recent successful implementations of your desired InCommon integration at the Kutztown and Millersville Universities. Utilizing and expanding upon that existing successful integration will allow D2L and PASSHE to support a single authentication method across each university's LMS. Our recommendation is all PASSHE universities continue with Brightspace LMS to leverage this proven solution and reduce risk.

**C. The LMS must support a variety of optional features and functionalities. This includes, but is not limited to advanced analytics, Learning Content Management System (LCMS) / Learning Objects Repository (LOR), ePortfolio, and web collaboration tools. These optional features and functionalities may be independently selected by the universities opting for any particular supplier's LMS solution.**

**D2L RESPONSE**

In addition to Brightspace Learning Environment, we provide a range of advanced solutions that build upon native analytic, content management, portfolio and collaboration tools in our core platform. These advanced solutions leverage the same platform of Brightspace Learning Environment providing seamless learning and teaching experiences for your users and deeper, robust functionality in areas where you require premium feature sets.

Brightspace provides PASSHE the flexibility and ability to customize the system while remaining easy and intuitive to use. Organizations have the ability to elect which features and functionalities best meet the needs of their learners and instructors.

### **Advanced Analytics**

The Brightspace Advanced Analytics solution provides PASSHE the insight to improve outcomes with the power of advanced analytics. Sophisticated reports, comprehensive data visualizations, and predictive analytics help give insight into learner success, so that institutions can discover new ways to create engaging learning environments. Predictive and adaptive analytics help institutions to make informed, proactive decisions and monitor program success. The Brightspace solution empowers PASSHE to measure, optimize, and demonstrate evidence of increased achievement of learning outcomes, retention, and attainment. The full analytics suite when implemented will help the system meet its objective of better data driven decisions.

### **Learning Objects Repository**

The Brightspace Learning Repository allows PASSHE to foster organization-wide collaboration through the establishment of repositories that provide the opportunity for storage and consumption of learning objects. By incorporating industry standards and specifications such as IEEE LOM, Dublin Core, GEM, and CanCore, Brightspace Learning Repository enables the creation, importing, storing, tagging, searching, reviewing and reusing of learning objects, and the creation of Open Educational Resources. It also supports the creation, upload/download, and use of SCORM compliant IMS-Content Packages making it easier for PASSHE to use and reuse content. Brightspace Learning Repository enables partnership through access to federated and metadata harvested repositories allowing PASSHE organizations to maximize the utilization of learning resources. Brightspace Learning Repository, when implemented, will help the system meet its objective of better campus to campus collaboration.

### **ePortfolio**

With Brightspace ePortfolio, learners and instructors are equipped to effectively demonstrate achievement, drive connections, track learning, and share achievement. Learners can even record learning, reflect on it, and share it with others on-the-go via a mobile device.

Brightspace ePortfolio provides an invaluable outlet for learners to share knowledge, collaborate with their peers, and showcase their accomplishments. It is a unique and powerful solution that enables our clients to shape the learning paths of their users and give users the opportunity to create and share their own learning journey. Brightspace ePortfolio allows learners to submit assessments directly to courses or showcase a variety of artifacts such as documents, media, links, HTML files, audio recordings, and materials from Brightspace Learning Environment (i.e. graded quizzes and assignments). Brightspace ePortfolio, when implemented, will help the system meet its objective of enhanced student success.

### **Web Collaboration Tools**

For engagement of students and to foster a more active learning environment, we have partnered with the newrow\_ on this RFP response. Newrow\_ for education solution, a versatile, flexible, scalable web-based platform designed to meet the communication, engagement and collaboration (active learning) needs of students, faculty, staff and administrators.

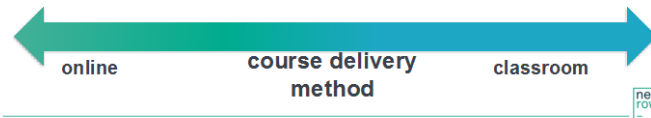
Built for learning from the ground up, the newrow\_ for education solution is a cloud-based platform that connects participants face-to-face online. It supports any type of class (live, flipped, online asynchronous or online synchronous) or meeting/event size, enabling up to 25 participants on screen at the same time communicating with each other using video or audio while collaborating over any digital media. It is simple, intuitive and effective.

### **\_a solution for every course on campus**

**newrow\_ for lectures:**  
video classrooms

**newrow\_ for studying:** always on  
study rooms

**newrow\_ for groups:** small group collaboration, on-demand  
sessions



The platform is compliant with the LTI (Learning Tools Integration) standard and is integrated into the Brightspace/D2L LMS. This integration ensures a great experience for students & faculty as learning moves seamlessly between the two systems.

In addition to its full classroom experience, newrow\_ also provides unlimited break out sessions and small meeting rooms (study rooms) for the use of students and faculty. The student-managed study rooms are persistent and are available 24X7 during and after class for ad-hoc discussion groups or assigned project groups. The platform's study rooms enhance the collaborative study experience and foster peer-to-peer discussions.



Breakout Sessions and Study Rooms also include key newrow\_ virtual classroom features and functionality including:

- High Quality Live Video and Audio
- Public and Private Chat
- Document and File Sharing
- Screen Sharing
- Content Downloads
- Face to Face Interaction
- Viewable Participant List
- Moderation Tools
- Whiteboard (including Smart Display Integration)
- No Download
- Cross Browser enabled
- Content Loading
- Annotate Materials
- Record, Archive, and Share Class, Sessions and Study Meetings
- Class, Session and Meeting Re-use and Review
- Integrated Public YouTube, Flickr, Photobucket search - can also integrate with other CMS (Kaltura, etc.)

**D. The Supplier must provide the option of Help Desk Services. This optional service may or may not be elected by each university opting for any particular supplier's LMS solution. Help Desk Services may be supplied directly by the LMS supplier or under a subcontractor that the LMS supplier directly administers. If the supplier opts to use a subcontractor, each university has final approval of said subcontractor.**

#### **D2L RESPONSE**

In on our experience, learners and instructors are often active late into the night and on Saturdays and Sundays. By continuing to leverage Brightspace End User Support, you can rest assured that we will continue to be available to help when your users need it the most. Common circumstances that we support include when a student has an assignment due and needs help submitting it at two o'clock in the morning, or when an instructor is trying to create their grade book and needs advice on the best way to go about it. When these circumstances arise, a team of Brightspace experts are ready to help 24 hours a day, 7 days a week, and 365 days a year.

For the past five years, we have supported PASSHE with end user support services, where we provide a live support agent who has been trained to address the unique needs of end users. We are proposing our Gold Administrator + Standard End-User support, which will provide you 24x7x365 telephone, email, and chat support. We are also including dedicated phone lines for support which will allow reporting per institution for End User Support, including phone statistics and Incident statistics, and Gold Administrator support, which also includes enhanced service level objectives (SLOs) which is an upgrade over current levels.

We offer many channels of support for our clients, as outlined below. All of our support options are available in English, Spanish, and Brazilian Portuguese.

Support Access	Hours of Operation for Admin Support	Hours of Operation for End-User Support
	Administrator Support	End User Support
Telephone Incident Reporting	24x7x365	24x7x365 (D2L-branded 800# for your end users)



Web Portal Incident Reporting	24x7x365	N/A
Chat Incident Reporting	N/A	24x7x365
Email Incident Reporting	24x7x365	24x7x365

We leverage the Results Companies for our end user support offering. They are focused on providing innovative and customer-centric solutions and have over 25 years of experience providing customer services. Results is a global company headquartered in Florida. They have sites located around the world where they provide support from. We utilize the office in Costa Rica to staff End User Support and work very closely with Results to ensure the needs of our customers are met.

**E. The future LMS is expected to be able to tightly integrate with a variety of external features and functionalities provided by third party products such as CourseSmart, Kaltura, and TurnItIn. Additionally, the environment must integrate in real time with a variety of student information systems (SISs) including Banner, Datatel (Ellucian), Jenzabar, PeopleSoft, and PowerCampus. The proposed solution must also support recurring batch file data integration to these same SISs. Actual integration methodology to be determined by each university.**

#### **D2L RESPONSE**

Brightspace is enabled for but not limited to integration with CourseSmart, Kaltura, and TurnItIn. Brightspace provides an extensive list of partners available through the Brightspace App Finder that will enable you to enhance teaching and learning.

Our approach to SIS integrations is agnostic, providing ultimate flexibility. Real time integrations with Banner, Datatel (Ellucian), Jenzabar, PeopleSoft, and PowerCampus are all available. Our newest SIS technology, IPSIS, leverages LIS data transfer and was successfully implemented for West Chester University, allowing real time transfer of user data and grades.

Millersville and Kutztown Universities successfully completed a proof of concept followed by implementation of your InCommon Federated Identity model in 2015. With this existing successful integration expanded to all universities in PASSHE, we will be able to meet the future expectations of a truly integrated LMS system, even if varying LMS' are in place. Brightspace additionally supports recurring batch file data integration with SIS's allowing the flexibility of each organization to determine which solution is best aligned with their business requirements.

**F. The proposed LMS must meet accessibility guidelines such as those described by WCAG 2.0 Level AA Standards.**

#### **D2L RESPONSE**

We are passionate about accessibility and inclusive design is a top priority tightly integrated with our research and development efforts. Our approach to accessibility is through both standards adherence and functional accessibility assessment. We understand that international standards form an important basis for interoperability with both current and future assistive technologies. Therefore, we design and test web applications against the World Wide Web Consortium's (W3C®) Web Content Accessibility Guidelines (WCAG) version 2 level AA and Section 508. WCAG 2.0 Level AA is the standard that the department of justice is looking to for the proposed revisions to the American Disabilities Act (ADA).

We have taken the following approaches to accessible design:

**Accessibility barriers are proactively identified** | We run internal quality assurance testing with assistive technologies like JAWS®, NVDA, and VoiceOver to proactively identify and address issues. We also test against the proposed WCAG 2.0 standards.



**Design guidelines are in place** | Our design guidelines help ensure consistency between the various tools in the system which in turn helps increase functional accessibility.

**User experiences are regarded as a whole** | Our commitment to accessibility is not limited to our software. Our services teams are integral to our accessibility efforts. They look for better ways to support assistive technology users in quickly discovering helpful features and settings, and they provide advice for administrators and course designers about system features to enhance course and system accessibility through accessibility-focused documentation. Our services teams are also available for consulting on accessible design.

**Close relationships with client and community experts** | We are also involved in a client-led accessibility interest group that meets monthly to set strategy, provide technical guidance, and review solutions related to web accessibility and inclusive learning. We partner with this group to help ensure that our program is transparent and aligns with the needs of our clients when it comes to accessibility.

This interest group is open to all clients, and we would welcome the opportunity to include your voice in our group. Our commitment to accessibility is demonstrated by having pledged to regularly review our accessibility program with the National Federation of the Blind. We are the only LMS vendor to achieve Gold level certification on multiple occasions, and we also received the prestigious Jacob Bolotin Award.

**G. Support for Preferred Names is expected to be integrated into the proposed LMS.**

**D2L RESPONSE**

Yes, Brightspace supports preferred name options by utilizing a smart SIS integration. We will help PASSHE define which fields are controlled by Brightspace Learning Environment and set up the default “First Name” field in Brightspace Learning Environment to be updated to the preferred name in the SIS. The unofficial transcript and roster will reflect the preferred name while still being connected to the original name in the SIS transcript of record.

**H. Beyond the basic enrollment of students in a class instructed by a single faculty member, administrators need an automated method to enroll students from other State System universities and recognize guest lecturers by leveraging InCommon Federated Identity. The end result is an LMS that easily accommodates courses that include both the traditional group of students with a faculty instructor. These students and guest lecturers could be from other universities in the same LMS or those from universities not in the LMS, but still participate in the InCommon Federated Identity. Students and faculty from any State System university must be able to seamlessly participate in courses from other State System universities using the Federated Identity model. For example, a student from one institution should be seamlessly added to the course roster for a course at another institution, regardless of the LMS used by the student's home institution. Likewise, a faculty member from one institution should be able to be a guest lecturer at another institution without regard to any disparity in LMS between the universities.**

**D2L RESPONSE**

Brightspace can be implemented to provide seamless collaboration and cooperation between PASSHE members. InCommon Federated Identity would be leveraged to enable seamless login of students and guest lecturers by using an upload function through the standard web interface. Brightspace provides the ability to create, enroll, withdraw, delete, and update user records and enrollments in batches through the use of formatted text files. Once uploaded, students and lecturers could be automatically enrolled if provided an SIS export from their home university. Through permissions and the InCommon Federated Identity service, students and guest lecturers are enabled to enjoy a more seamless experience when engaging with PASSHE organizations beyond their home organization. We highly recommend the system consider a unified LMS under Brightspace as we have proven this authentication method can work and is less risk to PASSHE moving ahead.

**I. The instructors of record for a course should have the capability, at each university's discretion, to easily add guest lecturers and guest students directly to their courses without intervention of the administrators. These guests would also participate in the InCommon Federation.**

**D2L RESPONSE**

Yes, instructors for a course have the capacity at each university's discretion to easily add guest lecturers and guest students directly to their course without further intervention from administrators. Once the guest has attempted to login to the university, their account will be created. At this point the instructor can search and add the guest to their roster manually. The InCommon Federation Identity service integration at Kutztown and Millersville Universities is an example of this in application and could be leveraged to help enable this requirement. Once an individual has been added to InCommon, Brightspace is able to verify their authorization enabling their authentication into the system.

**J. The individual universities across the State System may be selecting a LMS supplier from a multiple list of successful LMS suppliers as a result of this RFP. Thus, the outcome of this procurement could potentially result in one or many LMS suppliers.**

**D2L RESPONSE**

D2L strongly recommends PASSHE remains unified under the Brightspace LMS for the following reasons:

- Most importantly we recommend PASSHE unanimously chooses the Brightspace LMS for the end user experience. Time and again we see consortiums using different LMS solutions at each campus. As the system grows, there is always a stronger interest in sharing digital content, building a virtual campus, or allowing cross-registrations to

occur. Without a common LMS, every campus then has a different experience, a different way to navigate, a different way to teach online. This can be a very frustrating experience for the faculty teaching and the students learning. A unified solution improves the user experience and reduces the administrative overhead dramatically.

- With respect to technology, we have a proven authentication method to allow users to login to multiple campuses within the consortium. Brightspace Insights solution will aggregate data across the entire system, allowing better data driven decisions across the system as a whole. Brightspace Learning Repository can easily be configured to allow objects to be shared University to University if all are using the Brightspace LMS.
- With respect to service, PASSHE will receive white glove treatment if the system continues to use Brightspace for all Universities. To complement the team of Account Manager and Customer Success Manager, D2L is proposing both a one year trial of a Technical Account Manager and a large number of hours from our Advisory and Consulting Services to help campuses meet their online learning objectives if the system stays together. This team will be focused not just on system goals but will also be able to better serve individual University objectives and help move strategic goals to completion.
- Choosing Brightspace as the unanimous choice will also provide PASSHE with the simplicity of one proven vendor, one number to call, one vendor to partner with and align strategy with. A single University choosing another LMS could mean over a year to train, migrate & implement this other solution. With Brightspace - no additional training & migration is required. A unified system can better meet the competition within Higher Education in Pennsylvania, and will allow the system and individual Universities to see more immediate results.

**K. For every institution that selects the same LMS, one university will be identified as the coordinating point of contact and shall be the supplier's interface with all of the other universities that selected that particular LMS supplier. One of the functions of this coordinating university is to assure that any functionality, customization, or enhancement developed by the supplier would be made available to all universities under the same LMS contract at no additional development cost. Any functionality that exists in the product as delivered at the beginning of the contract and is then subsequently moved to an optional module, option, or other chargeable product, will automatically become available to the universities at no additional charge. If the functionality was included in the initial delivery and that feature is moved or enhanced it will be made available without extra charge.**

#### **D2L RESPONSE**

Read and understood.

### **III-3 NATURE AND SCOPE OF THE PROJECT**

**The LMS needs to directly or indirectly support the following features and functionalities:**

#### **Achievement and Systems (Competency-based learning, Badges, etc.)**

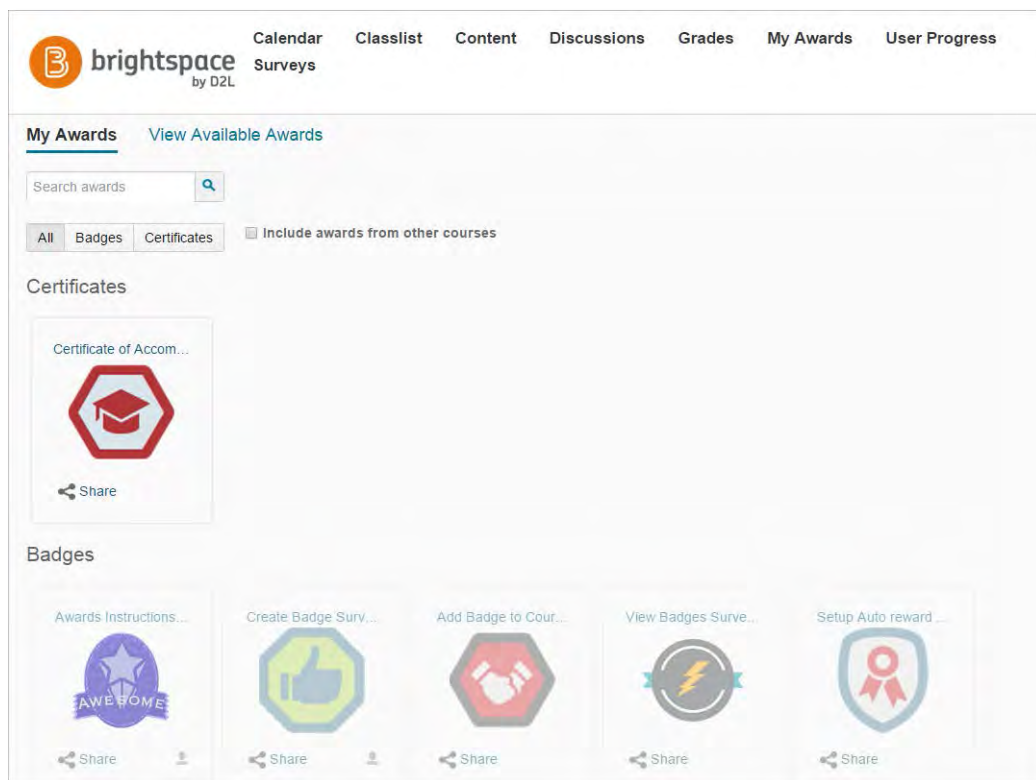
#### **D2L RESPONSE**

We understand that it is important to reward learner achievement as a way to encourage, engage, and track completion. We support this in a multiple ways, including badges and certificates, viewing user progress on competencies, and leveraging Brightspace to offer Competency-Based Education (CBE) programs. The Awards tool provides instructors with sorting options in the Classlist view to review learners and their various achievements. There are six sorting options included: Award Leaders

Descending or Ascending, Last Name A-Z or Z-A, and First Name A-Z or Z-A. Otherwise the default is Award Leaders Descending. You can also search and filter for awards by course.

## AWARDS AND CERTIFICATES

As a result, we offer a component that allows learners to earn badges and certificates for achieving milestones through achievement events that are setup within a course or program. Achievement events can be defined as the completion of an activity (e.g. quizzes, participation in discussions, submission of an assignment to a Dropbox, and achieving competencies). You can choose the achievements you want to reward, add/remove icons and templates, and you can add value and meaning to certificates and badges by having credits, scores, or credited hours associated with them. You are also equipped with the ability to build badge criteria, set expiration dates, and even revoke badges. Badges and Certificates can be created and shared throughout the Organizational structure allowing entire programs to leverage this feature.



The Awards tool | View the Badges and Awards Earned

## TRACK PROGRESS ON COMPETENCIES

In addition, PASSHE can view progress for one or more competencies across all courses that utilize the competency. Data is grouped by competency, learning objective, assessment activity and shows summarized progress for each course. At a glance, this provides a visualization of aggregated progress status on competency achievement for each course in terms of the proportion of competencies achieved by all, by some, and by no students, and those that have not been assessed. This chart provides a quick visualization of the progress on competencies being mastered by peers within a course. It allows you to report on statistics such as achievement rate, combined (average) rates across courses and competency objects).

## COMPETENCY-BASED LEARNING MODELS

Brightspace supports many different CBE concepts; it supports CBE programs that are designed to be self-paced or independent study that then require demonstrations of the knowledge, skills, or abilities your students must possess. We include the ability to design mastery-based progression with personalized, timely and automated feedback for students, flexible pacing, prior learning assessment, or remediation.

Brightspace includes a Competencies and Learning Objectives tool allowing organizations to construct learning frameworks with simple through to complex hierarchies of competencies and learning objectives and evaluate students' capabilities using a variety of assessment options including quizzes, assignments, rubric-based assessments, contributions to online discussions and manually graded activities.

We give you freedom and flexibility by providing you with documentation for how to implement all of these concepts for CBE Programs within Brightspace Learning Environment as self-service resources on the Brightspace Community.

### Adaptive Learning

#### D2L RESPONSE

Yes, D2L has been enabling adaptive learning since 2004 with the introduction of Release Conditions, which move a student forward in an adaptive learning process that adjusts based on activity and achievement.

Release Conditions are extremely flexible and go well beyond simple adjustments, such as adjusting based on quiz score. Brightspace enables an easy, flexible and smart way to empower instructors to determine if learners need to meet all conditions or any conditions to access individualized learning and assessments objects based on performance on the following criteria:

#### Checklist

- Completion
- Incomplete checklist
- Checklist item completion
- Incomplete checklist item

#### Discussions

- Discussion post authored in topic
- No posts authored in topic
- Score on Associated Rubric

#### Classlist

- Group Enrollment
- Org Unit Enrollment
- Section Enrollment
- Role in Current Org Unit
- Date of Enrollment in Current Org Unit

#### Assignments

- Submission to assignment
- No submission to Dropbox
- Received Feedback on Assignment Submission
- Score on Associated Rubric

#### Competencies

- Competencies

#### Grades

- Grade Value on a Grade Item

- |                                       |                              |
|---------------------------------------|------------------------------|
| • Competency not yet achieved         | • No grade received          |
| • Learning Objective                  | • Score on Associated Rubric |
| • Learning objective not yet achieved |                              |
| • Score on Associate Rubric           |                              |

#### Competencies

- Competencies
- Competency not yet achieved
- Learning Objective
- Learning objective not yet achieved
- Score on Associate Rubric

#### Quizzes

- Score on a quiz
- Completed quiz attempt
- Score on Selected Questions
- Score on Associated Rubric
- No competed quiz attempt

#### Content

- Content Topic visited
- Not visited content topic
- All Content topics visited

#### Surveys

- Completed Survey Attempt
- No completed survey attempt

In 2008 we reaffirmed our commitment to adaptive learning when we launched Intelligent Agents as a way to automate personalized communications. This notification tool helps guide the instruction of individual learners by monitoring the org unit to find activity that matches set criteria to recognize achievement. Intelligent Agents can identify when a learner is at risk then automatically send personalized learning resources for immediate remediation. That's adaptive!

Most recently, in 2014 D2L proudly introduced its third adaptive learning capability, Brightspace LeaP, an optional platform addition, which allows for easy, wizard-based set up of unique learning paths for every learner. Questions in the Brightspace LeaP path are based on learning objectives, content, and questions from Brightspace Learning Environment, Brightspace Learning Repository, and even external open educational resources. These flexible Brightspace LeaP paths utilize the content already in your course and can even include content from YouTube, publishers, and many other external learning resources. Brightspace LeaP paths are smart enough to let learners select their preferred method of instruction, such as videos, articles, or simulations. Brightspace LeaP path questions that are most effective are intelligently ranked to ensure those questions are most frequently used in the learning paths.

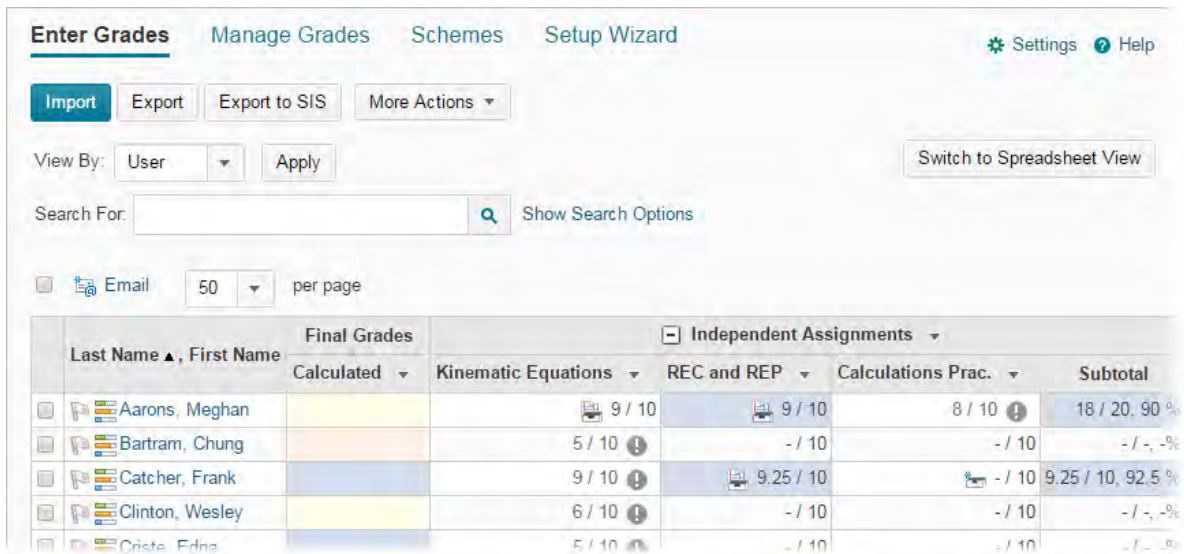
Brightspace LeaP is perfect for adaptive learning because it's designed to understand what learners already know and then give them a continually adaptive learning path related only to those concepts that have yet to be mastered. Brightspace LeaP improves results by increasing learner engagement and achievement by using a large processing engine and adaptive analytics algorithm to systematically determine gaps in a learner's skill set and offer instantaneous remediation materials. Brightspace Learning Environment and Brightspace LeaP make an impressive combination that provides robust evaluation of prior learning via personalized instructional resources followed by comprehensive adaptive learning.



## Assessment Tools/Gradebook

### D2L RESPONSE

To make grading easier we provide a Grades Setup Wizard to guide instructors through configuring a grade book. Instructors elect what items are included for grading, and the grading formula applied to calculate grades. Grades and assessment in Brightspace can also be complimented by holistic and analytic rubrics with virtually an unlimited number of achievement levels empowering instructors to create assessment mechanisms to varying degrees of precision. Instructors can use rubrics to manually or automatically evaluate student performance on activities linked to competencies and learning objectives conducted through a variety of course tools. Instructors can also take learner-submitted digital assignments 'on the go' or offline and assess them with the convenience and flexibility of a tablet (Android or iOS) via Brightspace Assignment Grader. Instructors maintain complete control over when grades are released to learners and what specific information they have the ability to view. Once instructors release grades for a course, learners receive a notification and have the ability to access their grades. This can be viewed on desktop or with added flexibility via our free mobile app, Brightspace Pulse (available globally in the app stores for Apple and Google). Brightspace includes a number of assessment tools and features that enable instructors to provide a robust teaching and learning experience. Discussions, Dropbox, and Quizzes can be directly associated with grade items, while additional tools like Checklist, Self-Assessment, optional ePortfolio, and others contained within Brightspace provide opportunities for self-assessment and formative assessment.



Last Name ▲, First Name	Final Grades	Independent Assignments ▼				Subtotal
	Calculated ▼	Kinematic Equations ▼	REC and REP ▼	Calculations Prac. ▼		
Aarons, Meghan		9 / 10	9 / 10	8 / 10		18 / 20, 90 %
Bartram, Chung		5 / 10	- / 10	- / 10		- / -, -%
Catcher, Frank		9 / 10	9.25 / 10	- / 10		9.25 / 10, 92.5 %
Clinton, Wesley		6 / 10	- / 10	- / 10		- / -, -%
Criste, Edna		5 / 10	- / 10	- / 10		- / -, -%

The Grades tool | Enter learner grades into the grade book

## Broadcast quality Video and Audio

### D2L RESPONSE

Brightspace streams video directly from the source maintaining the audio and video quality. Media files (such as Adobe® Flash® objects, video, audio, etc.) can be integrated into Brightspace Learning Environment with ease using the Insert Stuff™ feature that is available within the HTML Editor. Additionally, the Insert Stuff button has oEmbed support — an open format designed to allow embedding content from a website into another page — for items from sites such as Flickr®, YouTube™, Vimeo, Ted, Discovery Channel, National Geographic, MIT Video, Daily Motion, Howcast, Influxis, Khan Academy, SchoolTube, Science Stage, Teacher Tube, TV.Adobe, and much more.

## Content Management

### D2L RESPONSE

Brightspace allows for easy to manage content directly at the course level. Each course has a content management feature allowing instructors and course designers to easily manage course files. With the Brightspace Learning Repository solution, PASSHE has the ability to store, organize, and share student work and curriculum material within your institution and beyond with our powerful content management library. Collaborate, share, develop, and reuse content across multiple sections of courses. Our solution enables easy and efficient exchange of ideas and resources across departments, campuses, and institutions. The seamlessness between course and content management solution provides users with an easy solution for both storing content and leveraging existing resources.

The interoperable standards-based environment extends the reach of PASSHE's content and connects to a world of resources. Publish once and simultaneously update content versions across multiple courses. Furthermore the file upload control in Brightspace Learning Environment tools supports drag and drop for uploading multiple files from your desktop. This consistent and pervasive interface saves users time adding attachments, managing files, submitting assignments, updating their Locker, and doing other tasks throughout Brightspace Learning Environment.

## Gaming and Gamification

### D2L RESPONSE

Incorporating game-based mechanics, aesthetics, and game-thinking can help engage students, motivate action, and promote better learning. Our Professional Services provide a comprehensive array of game-based learning services, including game design, development, and integration. Gamified elements such as number of attempts, attempt timers, and current user high scores can be added to various custom content activities. SCORM support can store this data as well as push results to the Grades tool in Brightspace Learning Environment. Game-based mechanics, aesthetics, and game-thinking can help engage students, motivate action, and promote better learning. Our Game-Based Learning Service is an incredible solution that will provide PASSHE with an easy way to enable your faculty to quickly improve the student experience in a course and can be injected into a course at any time — even mid-course.

## Integrated Online Classroom (Web Collaboration Software)

### D2L RESPONSE

Our proposed partner, newrow\_ was built to help campuses connect, interact and engage on a more personal level. Brightspace's deep integration with newrow\_ allows for an unmatched online meeting space. newrow\_ for education features the most comprehensive video collaboration solution in higher education today. Serving as a single virtual collaborative solution for every course on campus, newrow\_'s key advantages include:

**Seamlessly Brightspace integration:** students never have to leave the Brightspace learning experience. With just a couple of clicks inside their Brightspace course, students are brought into the virtual classroom and on camera

**Full class video participation:** up to 25 students and instructors are able to meet face-to-face on camera at one time (classes can be much larger). Seeing each other means everyone is engaged, accountable and actively learning

**Small group virtual collaborative space:** whether instructor assigned in-class or out of class breakout group sessions or student managed open study rooms with no instructor's presence necessary, newrow\_ enhances both instructor to student and peer-to-peer learning



**Robust instructional tools** - newrow\_ offers a complete suite of instructional tools including quizzes, whiteboards, screen sharing, video sharing, presentation sharing, collaborative annotating, and the ability to record, archive and share video in every, classroom, breakout session, and study room

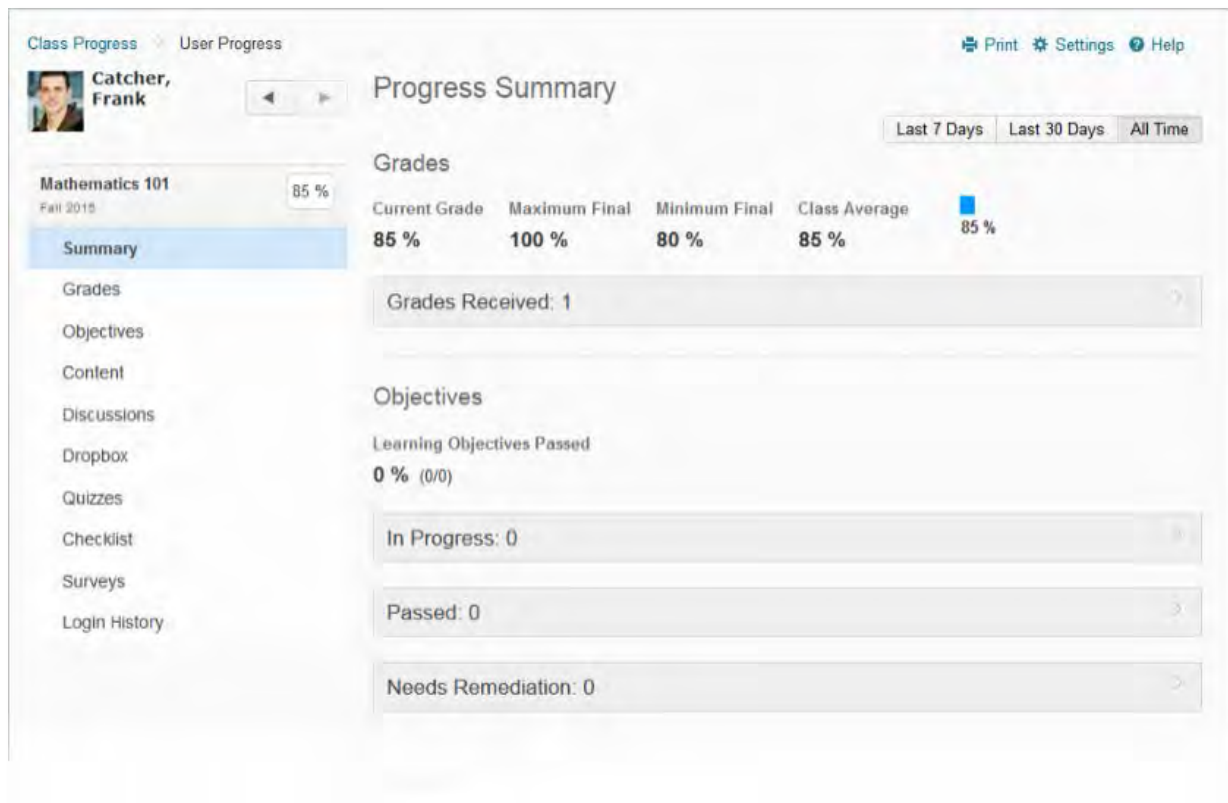
**For coursework and a whole lot more** - newrow\_ can also serve your campus outside the curriculum, including face to face academic advising sessions, tutoring sessions, staff meetings, orientation sessions, virtual career center job interviews, and much more.

## Learning Analytics

### D2L RESPONSE

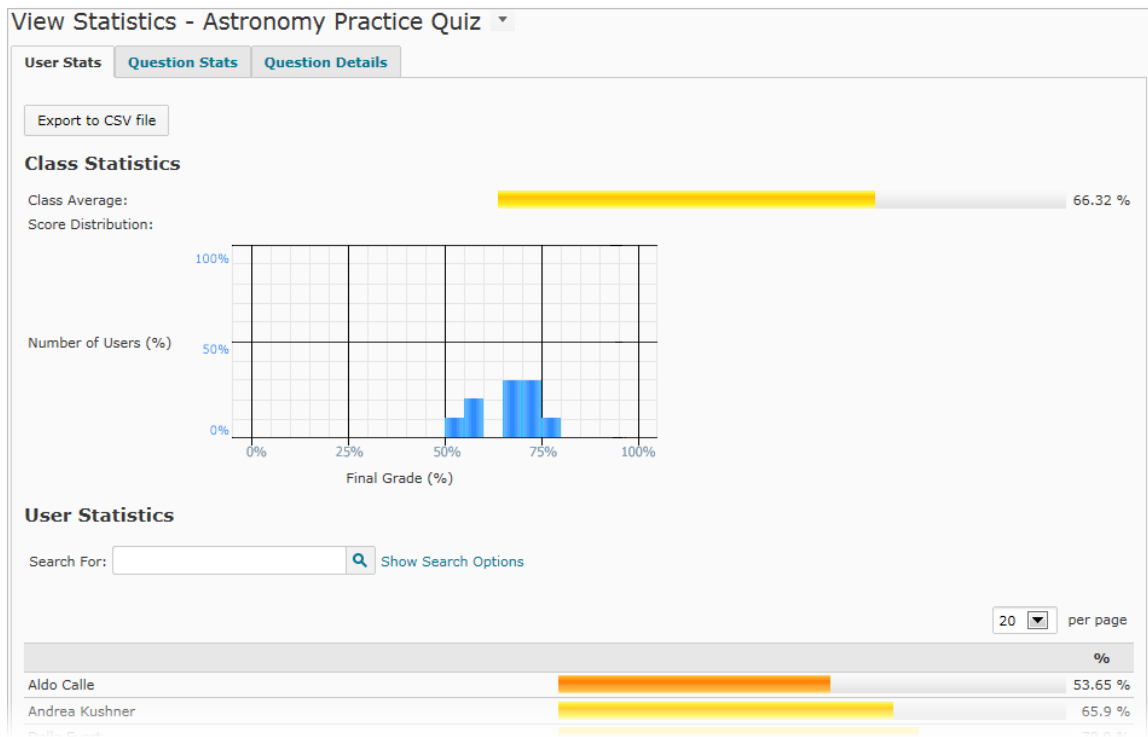
Native Brightspace Analytics provides access to course-level data from sources as diverse as quizzes, rubrics, grades, surveys, competencies, and learning outcomes with course-level analytic tools, reports, and metrics to inform and drive decision making. Brightspace Analytics delivers a rich, analytic toolset instructors set their learners up for success.

Our solution offers strategic, in-the-moment course and user progress reporting with interactive data visualizations. Evaluate and monitor the academic progress of learners and their activities as they happen with multiple inline tools, metrics, and statistics. With Brightspace Analytics, instructors are equipped to keep tabs on at-risk or disengaged learners in order to respond and make decisions to improve learner progress based on statistics delivered from directly within a live course.



The User Progress tool | Summary Report

Within Brightspace Learning Environment, Brightspace Analytics equips instructors with inline advanced statistics from various tools to help inform decisions and understanding of course activity. With many of these statistics, reports can be generated and CSV files can be exported for further analysis. Advanced statistics are available from the Classlist tool (enrollment statistics), the Content tool (content access), the Discussions tool (forum and topic statistics), the Grades tool (class and user statistics), the Quizzes tool (user and question statistics), the Rubrics tool (competencies and completion), the Seating Chart tool (attendance and participation), and the User and Class Progress tools.



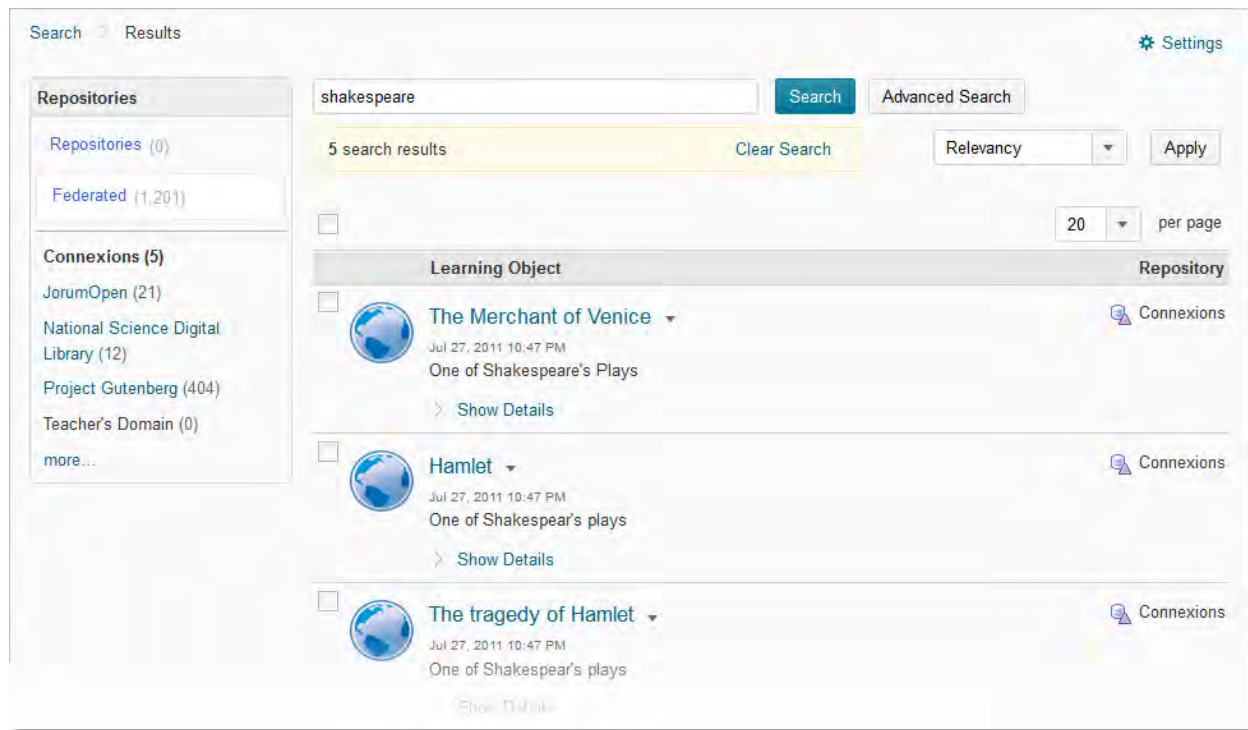
The Quizzes tool | View of the User Stats Tab

## Learning Resources (Learning Objects)

### D2L RESPONSE

Brightspace Learning Repository is an integrated, powerful content management tool. By incorporating industry standards and specifications such as IEEE LOM, Dublin Core, GEM, and CanCore, Brightspace Learning Repository enables the creation, importing, storing, tagging, searching, reviewing and reusing of learning objects, and the creation of Open Educational Resources. It also supports the creation, upload/download, and use of SCORM compliant IMS-Content Packages making it easier for PASSHE to use and reuse content.

Brightspace Learning Repository supports access from within and from outside of Brightspace Learning Environment. It enables you to quickly import new learning objects into a searchable repository where users can readily incorporate the appropriate content into course topics.



**Brightspace Learning Repository** | Easily Search and Reuse Resources

PASSHE can expect to realize the following benefits by harnessing Brightspace Learning Repository:

**Provide Support for Learning Objects** | Promote sharing of content and assessments through packaging into standards-based learning objects.

**Align Content to Learning Standards** | Organize digital resources and assessments to standards or outcomes for easy searching and deployment to learners.

**Manage Content Efficiently** | With our comprehensive metadata capabilities, share and reuse resources and improve overall course quality.

**Save Time** | Realize dramatic time savings with centralized storage, fast and flexible browsing, powerful full-text search capabilities, advanced metadata editing, all in a clean, simplified user interface.

**Support Course Development** | Provides a natural extension to the course creation process with deeply integrated support throughout Brightspace Learning Environment tools.

**Reduce Costs** | Significant training, support, and file storage cost savings are realized compared to other third party learning repositories.

**Leverage Interoperability** | Aggregate materials from a number of sources including libraries into a single search interface.

## Library Integration

### D2L RESPONSE

Brightspace Learning Repository supports federated search through Search/Retrieve via URL (SRU) and metadata harvesting through Open Access Initiative Protocol for Metadata Harvesting (OAI-PMH), as both a consumer and a provider. This enables searching other repositories (such as MERLOT) from Brightspace Learning Repository and the ability to search harvested metadata from external repositories such as ePrints and DSpace, or Open Educational Resources (OERs).

## Media Support

### D2L RESPONSE

Media files (such as Adobe® Flash® objects, video, audio, etc.) can be integrated into Brightspace Learning Environment with ease using the Insert Stuff™ feature that is available within the HTML Editor. Additionally, the Insert Stuff button has oEmbed support — an open format designed to allow embedding content from a website into another page — for items from sites such as Flickr®, YouTube™, Vimeo, Ted, Discovery Channel, National Geographic, MIT Video, Daily Motion, Howcast, Influxis, Khan Academy, SchoolTube, Science Stage, Teacher Tube, TV.Adobe, and much more.

Depending upon a user's needs, media files can be uploaded and inserted in the following ways:

- Upload a media file from your computer
- Insert a media file from within your current organizational unit (e.g. course or department) file path
- Insert a media file from within your current organization file path
- Insert a media file from within your shared files root path
- Search for videos on YouTube™ and pictures on Flickr®
- Insert a media file from Brightspace Learning Repository.

## Student Tracking/Statistical Analysis

### D2L RESPONSE

Brightspace Learning Environment can track a granular level of activity for every user within the system for monitoring and reporting purposes. We can do this without compromising any system performance or additional hardware. There are two levels of tracking: course level and system wide.

### COURSE LEVEL

#### User Progress Dashboard

The User Progress Dashboard provides a summary and details on tool usage including: the Checklist tool, the Competencies tool, the Content tool, the Discussions tool, the Grades tool, the Quizzes tool, and the Surveys tool. This also includes login details such as the access date, days since last access, and IP address. Learners and instructors can comparing the progress of an individual user to that of the rest of the class.

### **Intelligent Agents**

Intelligent Agents monitor and find activity that matches set criteria. The criteria that the agents search for are login activity and release conditions in Brightspace Learning Environment. The agent sends a separate email to the user that created the agent when it finds users matching its criteria. Every time an agent runs, it logs information on its activity. It also sends a confirmation email to the instructor or administrator that requested or set up the agent. The following are examples of how Intelligent Agents can be leveraged:

- Send an email regarding users with grades below a certain level.
- Check for users that have not logged in within a specific number of days.
- Check for users that view a specific content topic; and much more.

### **Class Progress Dashboard**

The Class Progress Dashboard provides learner performance across the entire class. Instructors select four performance indicators on which to track a learners' progress. Each performance indicator has a visualization to highlight overall progress, recent activity, and calls out areas of concern. The resulting dashboard is then displayed as a table for comparison and printing. Instructors may also click on a performance indicator to drill down into the details of learner progress. The following are available performance indicators: checklist, content, discussions, dropbox, grades, login history, objectives, quizzes, and surveys.

## **SYSTEM WIDE**

The administrative reporting tool provides a useful interface through which reports can be created detailing system activity. The reporting tool enables the selection of a wide variety of data to report on and to shape reports through the use of filters and other parameters.

### **Web-based Applications: Wikis, Blogs, Document editing, Discussion Boards, Chat Rooms (i.e. Google Docs, etc.)**

#### **D2L RESPONSE**

Brightspace includes a blog tool, discussion boards, and chat rooms that help foster greater collaboration and provide instructors the toolset they require to enhance teaching and learning. Brightspace Learning Environment can support the integration of wikis (such as MediaWiki) via the IMS LTI v1.1.1 standard. Brightspace is also enabled for a tight integration with Google Apps For Education, enabling users to easily access and leverage Google functions while in Brightspace. These tools foster greater collaboration and communication between users providing ultimate in flexibility to both online and blended scenarios.

## **III-4 MANDATORY TECHNICAL REQUIREMENTS**

**The following areas are mandatory technical requirements for the proposed Learning Management System. Failure of any proposal to meet these mandatory requirements shall result in disqualification of the proposal.**

**A. The proposed solution must have been in a production environment at least five years prior to the RFP issue date.**

**D2L RESPONSE**

Compliant. Our solutions have been in a production environment for more than five years. The proposed products' release dates are:

PRODUCT	ORIGINAL RELEASE YEAR
Brightspace Learning Environment	1999
Brightspace Learning Repository	2006
Brightspace ePortfolio	2008
Brightspace Insights	2009
Brightspace Mobile	2009

**B. Only systems/service in production at a minimum of 30 North American institutions of higher learning will be considered.**

**D2L RESPONSE**

Compliant. We have hundreds of higher education clients in North America. We work with a rapidly growing list of leaders in higher education. Our higher education base is approximately 60% of our business and the majority of the organizations are in North America. Our satisfied clients include hundreds of different colleges, institutions, universities and consortiums around the world from small programs to large consortiums of campuses.

**C. Any feature included in a supplier's original contract with the State System as a result of award from this solicitation shall remain available throughout the term of the contract. Furthermore, any original function or feature moved to a supplier's optional chargeable component will be provided at no additional cost to the State System.**

**D2L RESPONSE**

Compliant. D2L Learning Environment is our core product and the platform on which all of our other products are based. While we may change features and functionalities to better serve our clients and align with industry developments, the solution as a whole will continue to be offered.

**D. For the functionality to be useful, the LMS must be fully developed, fully integrated with the platform, and considered intuitive by a non-technical individual (If the functionality is present but not easy to use, it is almost equivalent to not being present at all. Thus, the recognition of the LMS' functionality is not founded on a present / not present basis, but on a continuum.)**

#### **D2L RESPONSE**

Compliant. Brightspace is a fully developed and fully integrated platform and is considered intuitive by non-technical individuals. We consistently look to the future. D2L spends between 30-35% of our operating budget on research and development and has been ranked number one for innovation by Ovum, an independent analyst firm that specializes in research/consulting for IT and telecommunications industries. Ovum rated us as number one in this category that they define as the degree to which the vendor brings new ideas, features, and services to the market at a competitive price. Our ability to offer clients adaptive learning through Brightspace LeaP, implement Competency Based Learning, and predictive, near real-time analysis with Brightspace Insights are examples of our innovation and commitment to improving the way the world teaches and learns.

As one of our latest enhancements, we are currently rolling out a fresh new look for Brightspace that is modern, responsive, and consistent across all products and workflows, further assisting with ease of use with simplified page layouts. We believe updating, modernizing and maintaining our platform to the highest design standards is so important that it is considered part of our acceptance criteria during new product development.

Last year we met with hundreds of users for interviews, usability testing, and focus groups. As a result, our new design system will transform our platform through consistent use of modern fonts, icons, and user interface controls like buttons and form inputs. It includes a vibrant new color, effective use of motion, and a cutting-edge grid system for responsive layouts. The new design system is already being applied – you can see this in Brightspace Assignment Grader for Android, released this past November. Our latest mobile app introduces our new color scheme, new font, increasing use of photography and space for a more visually appealing layout.

In the redesign, we have three main areas of focus:

1. Apply our new design system to all of Brightspace at the platform level so that fonts, icons, controls, and colors are consistent (assisting with ease of use).
2. Introduce a new and improved navigation model that is simple, visually appealing, and responsive to multiple devices.
3. Update key landing pages with a more engaging and visually appealing experience that, like the new navigation model, adapts responsively to the user's device.

### III-5 REQUIRED INFORMATION

#### A. Hosting Services

**Provide a technical description of the hosting service being offered. This description should include, at a minimum the following:**

##### 1. A general synopsis of your hosting environment and infrastructure.

###### D2L RESPONSE

Brightspace Cloud is a private cloud environment. Having us manage all data and infrastructure within this environment helps to keep your data secure and contained. By following ITIL (Information Technology Infrastructure Library) based best practices, we enable PASSHE to offer eLearning programs in a secure environment with 24x7 support, and fast, reliable, and scalable resources. Our Cloud services can be counted on for highly-reliable uptime, data protection and the ability to accommodate high loads and growth. With over a decade of direct, hands-on experience managing local, regional, national, and global implementations ranging from a few hundred to over one million users, our experience sets us apart.

- We provide all infrastructure to deliver our application (please refer to following response for a description of the infrastructure)
- We are in co-located facilities
- We maintain the solution from the infrastructure level all the way up to the application
- We monitor, backup, upgrade, and patch
- We perform capacity planning
- We maintain the availability, security, and performance of your site.
- A recent investment in enhanced DDoS protection provides a robust defense system against even large denial of service attacks.

##### 2. A description of your hosting environments. Include information on how the hosting site is secured, maintained, and backed-up.

###### D2L RESPONSE

Our production applications are hosted in data centers that have had their facilities, operating practices and procedures reviewed and certified. Depending on the hosting facility, SSAE 16, PCI or ISO certifications are available. Additionally, our ISO 27001 certification provides the reassurance that our operational and security controls are in place at these data centers.

### DESCRIPTION OF HOSTING ENVIRONMENTS

The Brightspace Cloud infrastructure includes the following:

- Redundant Networking Equipment
- Clustered File and Database Servers
- Storage Area Networks (SAN)



- Redundant Firewall and Intrusion Prevention Systems
- Redundant Load Balancers and SSL Accelerators
- Integrity and Security Services

**Redundant Networking Equipment** | Redundant routers running VRRP ensure high availability. Gigabit switches use VLAN segmentation by security zone and are deployed using multi-link trunks to create over a robust LAN backbone. We host a variety of rich media products to help ensure a good user experience through constant monitoring and regular review of its resource capacity as per ITIL best practices.

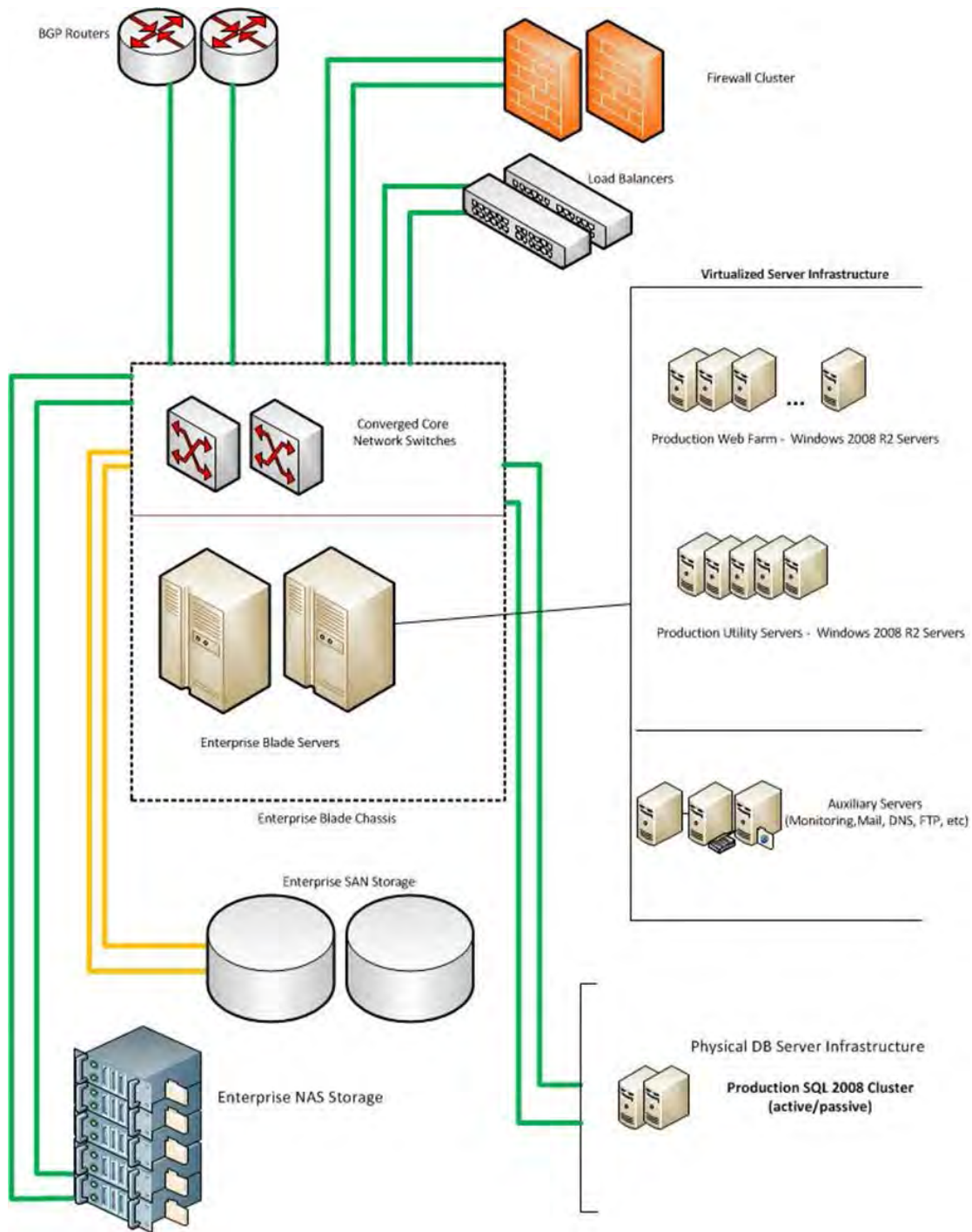
**Redundant Firewall and Intrusion Prevention Systems** | Stateful packet inspection firewalls and intrusion prevention systems ensure a secure environment that is resistant to DDoS, session hijacking, injections, Trojans, and other malware.

**Redundant Load Balancers and SSL Accelerators** | Redundant load balancers provide equal load distribution to application farms offering increased efficiency and performance using the best available connection paths and server resources. System health checks performed by load balancers ensure application servers are available and performing within set thresholds and therefore adding another layer of fault tolerance to our high-availability Brightspace Cloud environment. SSL acceleration offloads encryption and decryption from the application servers and increases performance. Caching and compression technologies also allow for increased performance and faster response time for learners' Internet browser sessions.

**Clustered File and Database Servers** | All servers deployed in the Brightspace Cloud environment are clustered to ensure high availability. Clustered file and database servers provide performance, reliability, and a fault-tolerant solution eliminating single and multiple points of failure. Redundant servers are mapped and connected to separate power domains tied back to separate Universal Power Supplies (UPS) to ensure continuity in the event of power interruptions.

**Storage Area Networks (SAN)** | Redundant switched fiber channel SAN fabrics ensure multiple paths back to the storage arrays. The SAN fabrics are logically segmented using port zoning and storage arrays are segmented using storage domains and LUN masking. All SAN disks are configured to ensure maximum throughput or I/O for file and database servers. Storage space is allocated based on committed licensing. Additional storage capacity can be purchased as required to support customer data growth.

**Integrity and Security Services** | We monitor and log traffic, analyze activity for potential intrusions, and provide enterprise backup solutions for regular backups and optional real-time geographical disaster recovery. The network diagram below graphically represents the architecture of the Brightspace Cloud environment:



Logical Network Diagram of Brightspace Cloud

## SECURITY / MAINTENANCE

*The following information is marked confidential, and is not intended for public release. In the event of a public records request, this information is to be redacted to the maximum extent provided by law.*

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## BACK-UP

A backup of all components required to restore the application to a functioning state is taken as part of the standard backup schedule. This includes all necessary components both within the application directories and those part of the operating system themselves, as well as the database, file store and any customer specific and unique configurations files that are required.

### **3. Itemization of all infrastructure limitations of the proposed service including maximum individual file sizes, maximum course size, maximum instance size for a given university, maximum network bandwidth (upload/download) for a user, for a course, and for an instance.**

#### **D2L RESPONSE**

D2L has done strenuous load testing jointly with Microsoft® to ensure the ability to support very high user levels. Currently, we anticipate scalability to well over 1,000,000 users on a single instance (sharing one license and including all hardware and maintenance/administration costs). The maximum limitations for users are ultimately determined by the upwards and outwards scalability of our platform which is estimated to be in the tens of millions of users. Our solutions are provided to a wide range of concurrent users for clients with dozens to hundreds of thousands of users. We currently have clients with over 430,000 users. There are no known limitations on scalability that exist.

There is a 2.5GB limit imposed by most zipping and unzipping utilities. We do not impose limits, but the zipping limit may apply and connection speeds may impose a browser timeout for extremely large uploads (>1GB). If PASSHE wishes to implement file size limits or file size quotas, we do enable you to set file size or total file size quotas, some of which can also be set based on each role. These include:

- The Email tool storage space (can be set based on role)
- The Locker tool maximum file size (can be set based on role)
- The Locker tool maximum total file size (can be set based on role)
- The Group Locker tool maximum total file size
- The Dropbox tool file size
- The Dropbox tool total file size
- Brightspace ePortfolio maximum storage space (can be set based on role)
- User Profile maximum image size

### **4. Definition of the data retention model of the proposed service. How many course semesters can remain on-line? Include a summary of the process to remove course semester data.**

#### **D2L RESPONSE**

We can store courses for as many years as required. Our system allows PASSHE to backup or archive courses by term. D2L will not delete content or data from Brightspace allowing PASSHE to access past courses and leverage data for analytics. Authorized users of Brightspace Learning Environment have the ability to archive identified courses. Upon completion of a course, the course status may be set as inactive in the system. Inactive courses remain on the system, but users cannot use them for instruction. This does not impact performance of the system in any way and allows authorized users immediate access to previous materials. Restoring these inactive courses is an easy process that can be accomplished with one click.

Another solution includes using the Course Copy tool, users can archive any subset of the course (e.g. content, assessments, files, etc.) by exporting them in IMS compliant format. Users can then reuse these components or store the components for importing into another course offering at a later date. Components are exported to an IMS-CP compliant zip file which is a standard file format based on the IMS Content Packaging Specification.

Administrators can also archive individual or multiple courses using the data purge tool (what course tools are archived is specified by the Administrators). The export format that is used by the data purge tool is Bulk Copy Program (bcp). The bcp utility bulk copies data between an instance of Microsoft SQL Server and a data file in a user-specified format.

**5. Your firm's organization's plans for Continuity of Operations and Disaster Recovery including a description of the network connectivity diversity of services provided. For example, explain both the geography diverseness and the connectivity diversity for access of the services for the universities.**

**D2L RESPONSE**

Disaster recovery is the process of developing advance arrangements and procedures that enable an organization to respond to a disaster by resuming critical business functions within a defined time frame in order to minimize loss, and restore affected areas. A secondary site is brought online to restore service if the primary site can no longer function on its current infrastructure.

Disaster Recovery leverages our offsite data replication strategy. With Brightspace Cloud, we manage all backups and infrastructure. Offsite data replication is achieved through asynchronous transfer strategy ensuring that client data is replicated. This asynchronous data transfer is accomplished utilizing replication software provided by the storage system. This is a continuous process designed to safely and securely copy our clients' data to an off-site location. All courses are backed up every day and are retained for 30 days.

D2L leverages enterprise tier Internet Service Providers as well as dozens of peering relationships with world class Research and Development networks such as Internet2, AARNet, Canarie and ORION to ensure our customers have access to our offering over high speed, low latency networking.

The following includes key highlights of our Disaster Recovery service:

- Data and servers are replicated and available at a second location.
- Data replication is asynchronous and occurs within the objective targets listed below.
- Data replication sources include production application, file and database data and servers.

In the event that a primary data center is rendered unusable for serving customer sites, we will invoke the optional active disaster recovery plan for that data center. Common measurements utilized for an optional disaster plan are as follows:

**RPO** | The Recovery Point Objective is the point in time leading up to a disaster or event to which operations are anticipated to be restored. Typically, this equates to the acceptable amount of transaction or data loss measured in minutes, hours, or days.

**RTO** | The Recovery Time Objective is the targeted duration of time to restore the applications, services, and data bringing it back to a normalized state allowing usage to resume.

The Recovery Point Objective (RPO) and Recovery Time Objective (RTO) vary based on the level of service PASSHE chooses.

There are four options available: Entry, Bronze, Silver, and Gold.

SERVICE LEVEL	RPO (RECOVERY POINT OBJECTIVE)	RTO (RECOVERY TIME OBJECTIVE)
Entry	24 hours	5 business days
Bronze	12 hours	24 hours
Silver	8 hours	12 hours
Gold	4 hours	6 hours

**6. A description of the backup and recovery procedures in place to secure the Teaching and Learning Environment.**

**D2L RESPONSE**

A backup of all components required to restore the application to a functioning state is taken as part of the standard backup schedule. This includes all necessary components both within the application directories and those part of the operating system themselves, as well as the database, file store and any customer specific and unique configurations files that are required.

Data resilience has been implemented for all servers and all data stored at Brightspace Cloud environment through the use of RAID technology. Enterprise class storage systems with redundant components are deployed, and all RAID sets contain hot spares. Disk snapshots of file systems, and database backups and site configuration are taken to ensure that all components of the LMS are available for a restore. These snapshots are retained for 30 days and are stored both at the primary and secondary data center locations.

**7. A description of the network and other security in place to protect the hosted environment.**

**D2L RESPONSE**

D2L has a full complement of security tools (e.g., secure data centers, stateful inspection firewalls, database monitoring, intrusion prevention systems, security information and event monitoring, etc.) and follows industry-standard practices (e.g., principles of least privilege, security awareness, background checks, logical separation of data, etc.) in order to protect student data. Our information security governance is ISO 27001 certified, the globally recognized security standard.

Security infrastructure elements include stateful inspection firewall clusters, intrusion prevention systems, secure sockets layer (SSL) accelerators and host-based software that ensure Brightspace Cloud client data is kept confidential and secure. All server elements including application, file, and database are load balanced and clustered to ensure high availability. Servers are connected to redundant Storage Area Networks (SAN) to ensure scalability, maximum performance, and data integrity. Data is backed up daily.

**Redundant Firewall and Intrusion Prevention Systems** | Stateful packet inspection firewalls and intrusion prevention systems ensure a secure environment that is resistant to DDoS, session hijacking, injections, Trojans, and other malware.

**Integrity and Security Services** | We monitor and log traffic, analyze activity for potential intrusions with full application layer filtering and provide enterprise backup solutions for regular backups and real-time geographical Business Continuity service offering.

**Load Balancers** | Load balancers also perform SSL acceleration by providing an offload module for the encryption and decryption of Web Services traffic. This allows for better response times while maintaining security as the application servers are able to pass information in clear text to the load balancers; load balancers then encrypt the session to the destination client browser. Using this type of SSL acceleration allows us to encrypt portal access to customer sites to protect user information.

**Intrusion Prevention Signature Sets** | Intrusion prevention signature sets are reviewed on a monthly basis for typical releases and point in time for high priority releases. Signature updates are deployed during the maintenance window followed by confirmation testing. Based on intrusion detection rules and signatures, some items are set to block and some items are set to alert only. Alerts are filtered based on severity with high alerts being sent to the Brightspace Cloud team. Along with signature sets, anomaly detection is in place to ensure malformed data packets are blocked. High alerts are reviewed and assessed by impact. Security administrators are able to track potential attempts for breach and take the necessary actions. Our security system is an integrated system, a combination of IPS, Firewall, and application intelligence.

**8. If applicable, a detailed list of sub-contracted suppliers providing services within the supplier's response to this RFP.**

**D2L RESPONSE**

We wish to clarify the assumption that suppliers that D2L uses in the ordinary course of its business (e.g., for hosting services/infrastructure) are not "subcontractors".

**B. Operational Information**

**Provide a detailed description of each of the following. Note: "Uptime" means that ALL functionality in the system is available to users. Links to content being broken or documents not rendering in a timely manner in the viewer is considered "downtime".**

**D2L RESPONSE**

D2L defines these terms as such:

Downtime means those times in which material components of the Applications are not Available but shall not include Emergency Unavailability and Scheduled Unavailability.

'Emergency Unavailability' means those times when material components of the Applications are unavailable for Client use resulting from the existence or repair of software bug/virus/worm, hardware failure, third party communication failure, force majeure (excusable delay), Disruption (as defined in the Agreement), or other event that is outside D2L's commercially reasonable efforts to mitigate unavailability through industry standard processes and network design or those unavailable events arising from Client error or negligence.

'Scheduled Unavailability' means the times in which the material components of the Applications are not Available: 1) in accordance with posted maintenance schedules which may, in the sole discretion of D2L be changed from time-to-time on 30 days' notice, or; 2) as a result of an agreement between Client and D2L, for example, to accomplish an Upgrade.

D2L offers an availability Service Level Agreement (SLA) of 99.9% monthly. If specific element of the definitions or SLAs need to be changed or clarified, D2L would be happy to discuss this during the contract phase to ensure that all concerns are addressed.



**1. Describe how you will provide for reliability of the Teaching and Learning Environment. Include failover of systems, and whether they are hot or cold failover scenarios. For example, how will the supplier provide redundancy when system maintenance does not go as planned, and makes the primary system unavailable?**

**D2L RESPONSE**

Brightspace Cloud environment have servers that are configured in a minimum N+1 methodology schemas to provide a highly available, redundant storage environment. We have architected the Brightspace Cloud infrastructure with several levels of redundancy. These redundancy layers include:

- UPS backed power circuits
- redundant routers using HSRP for rapid failover
- clustered SQL and file servers in active-passive configuration
- redundant web servers
- all data is stored on file systems protected by RAID technology
- diesel generator backed UPSs
- clustered firewalls
- redundant load balancers using vendor specific failover technology
- storage systems built with no single points of failure
- redundant Internet bandwidth connectivity

Please refer to the information we have provided on Disaster Recovery on page 34, as this applies to hot or cold failover scenarios. D2L has never had to fall back onto Disaster Recovery as a result of failed maintenance or because of a failed primary system at any time.

**2. How are requests for new features of functionality, modifications, cancellations and other changes or upgrades accomplished?**

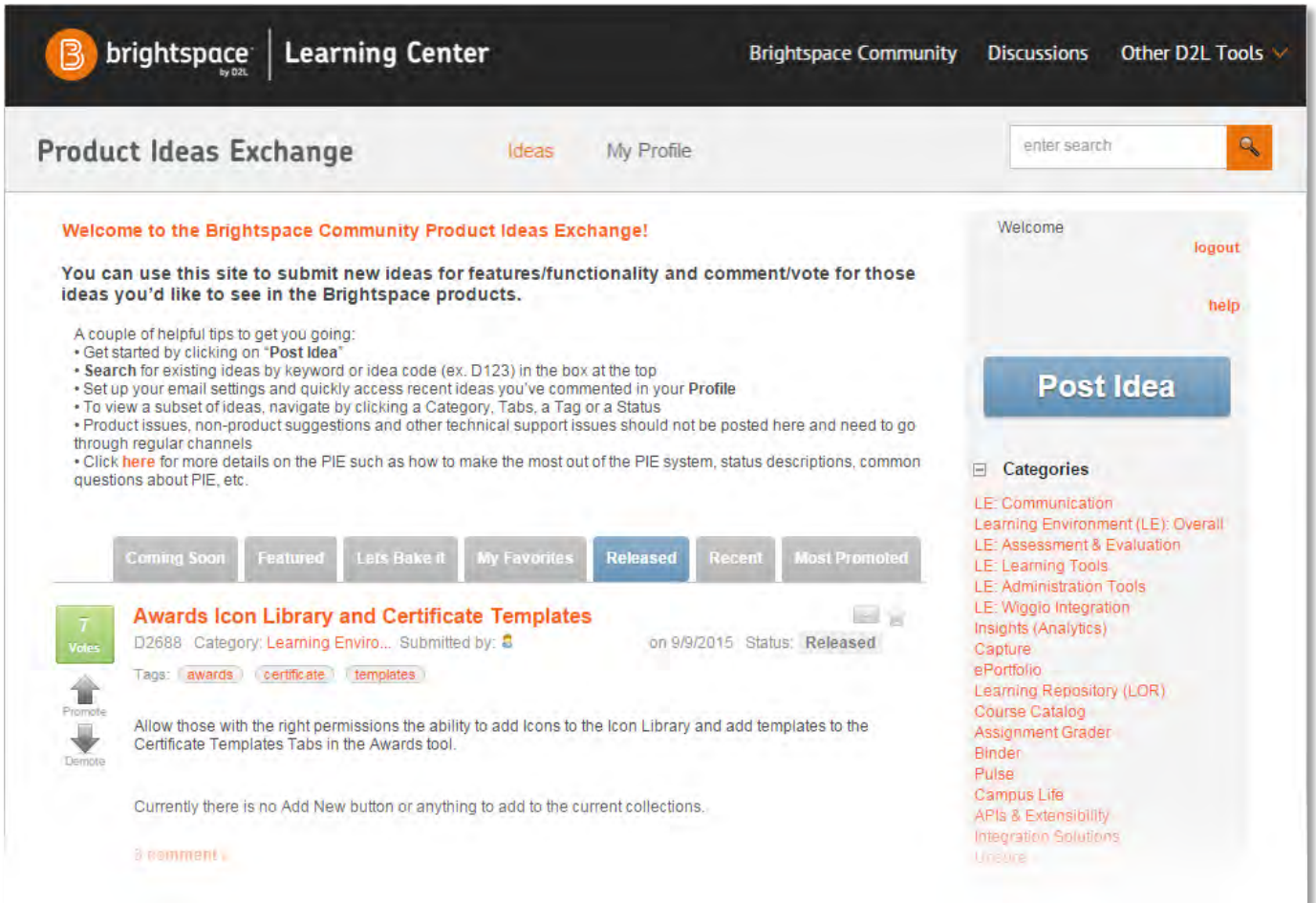
**D2L RESPONSE**

In the recent Ovum report, we achieved a number one rating for customer engagement (Ovum is an independent analyst firm that specializes in research/consulting for IT and telecommunications industries). We partner with our clients and not only provide opportunity for but listen to their feedback which impacts our product and development process. A core feedback avenue for our clients is our Product Ideas Exchange (informally referred to as PIE), where we empower you to post your unique ideas for new features and functionality, search for similar ideas, vote on and add comments to ideas from other Brightspace Community numbers, engage with product planners, view recent and popular ideas, subscribe to them or other ideas you are interested in to be alerted of new comments or status changes, and keep an eye on which ideas have been delivered and which are coming soon.

Our 2015 Winter Release boasted 25% of features directly from client input given via the Product Idea Exchange, and one third of the features in the 2015 Spring Release came from client suggestions given through the Product Ideas Exchange.

Through the Brightspace Community, PASSHE can also set up a personalized user group or community that can be used to access discussion forums, contribute feedback, and suggest improvements. Additionally, Account Managers, Customer Success Managers and Technical Account Managers can all assist PASSHE in prioritizing, submitting, and monitoring progress on feature suggestions.





**Product Ideas Exchange** Ideas My Profile enter search

Welcome to the Brightspace Community Product Ideas Exchange!

You can use this site to submit new ideas for features/functionality and comment/vote for those ideas you'd like to see in the Brightspace products.

A couple of helpful tips to get you going:

- Get started by clicking on "Post Idea"
- Search for existing ideas by keyword or idea code (ex. D123) in the box at the top
- Set up your email settings and quickly access recent ideas you've commented in your Profile
- To view a subset of ideas, navigate by clicking a Category, Tabs, a Tag or a Status
- Product issues, non-product suggestions and other technical support issues should not be posted here and need to go through regular channels
- Click [here](#) for more details on the PIE such as how to make the most out of the PIE system, status descriptions, common questions about PIE, etc.

Coming Soon Featured Lets Bake it My Favorites Released Recent Most Promoted

**Awards Icon Library and Certificate Templates**  
D2688 Category: Learning Enviro... Submitted by: on 9/9/2015 Status: Released  
Tags: awards certificate templates

Allow those with the right permissions the ability to add icons to the Icon Library and add templates to the Certificate Templates Tabs in the Awards tool.

Currently there is no Add New button or anything to add to the current collections.

3 comment

Categories

- LE: Communication
- Learning Environment (LE): Overall
- LE: Assessment & Evaluation
- LE: Learning Tools
- LE: Administration Tools
- LE: Wiggio Integration
- Insights (Analytics)
- Capture
- ePortfolio
- Learning Repository (LOR)
- Course Catalog
- Assignment Grader
- Binder
- Pulse
- Campus Life
- APIs & Extensibility
- Integration Solutions
- Unsure

Product Ideas Exchange | A View of the Tab Showing Released PIE Features

**3. How are maintenance, upgrades, and/or any other planned system unavailability managed? Include details about frequency and length of downtimes. Downtimes include total system availabilities and individual features and functionalities being unavailable.**

#### D2L RESPONSE

With the Continuous Delivery model, scheduling upgrades is not necessary since they happen on a consistent, recurring basis. Updates will be deployed to you throughout each update period, following a recurring schedule, and applied to both test and production instances. Your updates will occur on the same day every month. This will provide you with predictability for your implementations. Within the Continuous Delivery model, we release fixes and new features on a monthly basis.

To effectively manage this increased frequency of change, we provide enhanced release documentation and other resources to support the adoption of these changes. Furthermore, we work with the client advisory group to define the types of features that may be disruptive to existing workflows and practices so we can plan appropriately. Depending on the change, a change might be managed by a new tool setting that allows instructors to decide if they want to enable the feature; a new configuration variable or role permission that allows administrators to control the release of the feature to different users; or a new tool version that allows administrators to delay the adoption of a major tool redesign until after appropriate testing.

D2L can commit to less than 30 minutes of downtime during application patches and monthly continuous delivery updates. Maintenance windows for infrastructure maintenance will still be scheduled and may require up to six hours of downtime per month.

**4. Does the system support “continuous delivery”? Describe how.**

**D2L RESPONSE**

Yes, in May 2015, we implemented Continuous Delivery which is a method of delivering updated technology to our clients that enables rapid, incremental delivery of high quality, valuable new functionality to users. This frictionless model makes it possible to increase collaboration with our clients and adapt software in line with user feedback and needs for incremental and easily integrated changes. With Continuous Delivery, the newest version is delivered on a monthly basis.

With the Continuous Delivery model, scheduling upgrades is not necessary since they happen on a consistent, recurring basis. Updates will be deployed to you throughout each update period, following a recurring schedule, and applied to both test and production instances. Your updates will occur on the same day every month. This will provide you with predictability for your implementations. Within the Continuous Delivery model, we release fixes and new features on a monthly basis.

To effectively manage this increased frequency of change, we provide enhanced release documentation and other resources to support the adoption of these changes. Furthermore, we work with the client advisory group to define the types of features that may be disruptive to existing workflows and practices so we can plan appropriately. Depending on the change, a change might be managed by a new tool setting that allows instructors to decide if they want to enable the feature; or a new configuration variable or role permission that allows administrators to control the release of the feature to specific roles.

**5. Describe your organization’s ability (or timetable to offer the ability) to roll out patches and/or upgrades "in-place" while the system remains online and accessible.**

**D2L RESPONSE**

As noted in item 2, D2L can commit to less than 30 minutes of downtime but targets zero downtime during application patches and monthly continuous delivery updates. Maintenance windows for infrastructure maintenance will still be scheduled and may require up to six hours of downtime per month. These windows take place at regular intervals and are communicated well in advanced so you are well aware of when the maintenance takes place and can communicate this out as needed.

For our Utility and Database Servers, Microsoft® security patches and service packs are installed during regularly scheduled monthly maintenance windows. Our web farms are patched on an ongoing period using our load balancing techniques to shift load from one web server to another so as to not impact our clients.

**6. Describe other scheduled or periodic events, if any, which will require downtime and how the timing for those events is determined.**

**D2L RESPONSE**

In addition to our scheduled monthly maintenance window and monthly software upgrades, the only other type of downtime is an emergency maintenance window that is scheduled only when there is an actual emergency.

**7. Provide information about online resources such as websites or portals containing information about the services which the supplier will provide.**

**D2L RESPONSE**

We offer a variety of resources to equip clients with further knowledge and information by offering live webinars, video tutorials, a video library, a resources library, access to conferences and events, and involvement in user groups in addition to access to the Brightspace Community.

The Brightspace Community site is a website that is the primary destination for our community of clients, partners, users, developers, and D2L staff who are looking for documentation and other resources. Community is all about people sharing something in common. For D2L's 1100+ clients, 13+ million users, 100+ partners and 300+ developers, that something is education and the desire to learn. The Brightspace Community is cultivated by a group of D2L employees whose #1 goal is to make these people happy. Our vision of community is a myriad of opportunities for members and visitors to access resources and connect with one another in a way that supports their use of technology for teaching and learning in the 21st century.

**Product Documentation** | Via the Brightspace Community, you have access to user guides, help packages, and release information designed for administrators, instructors, and learners that cover the most frequently used aspects of our Brightspace solutions: <https://community.brightspace.com/resources/documentation>.

**Instructional Video Tutorials** | Via the Brightspace Community, you have access to hundreds of video tutorials designed for administrators, instructors, and learners that also cover the most frequently used aspects of our Brightspace solutions: <https://community.brightspace.com/resources/videos/>.

**Brightspace Community Webinars** | Via the Brightspace Community, live and recorded webinars delivered by subject matter experts help support a deeper insight into the Brightspace solutions: <https://community.brightspace.com/resources/webinars>.

**Community Blogs** | News, information, and tips are available in a timely manner through several blog channels from D2L staff and guest contributors: <https://community.brightspace.com/blogs>.

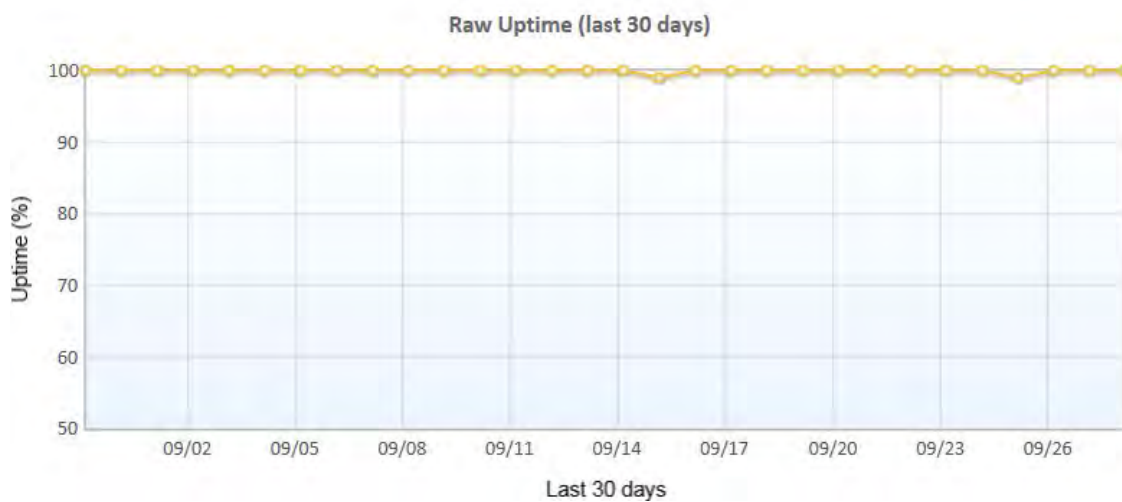
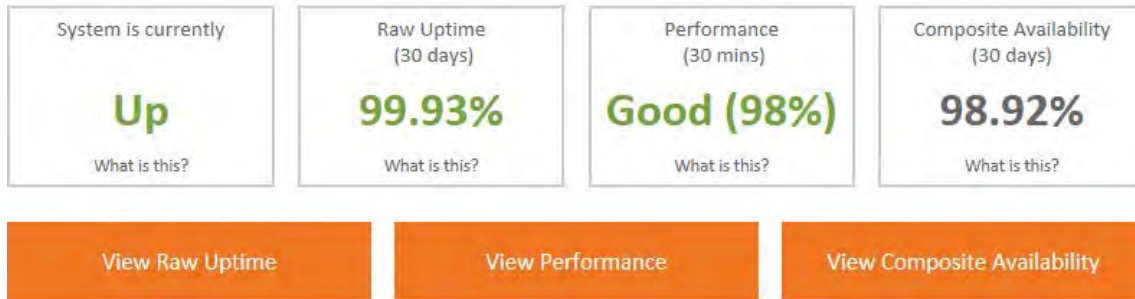
**8. Provide information on any system monitoring and statistics capabilities that would be available, either as a part of the standard service or as options. These capabilities may include: online statistics, reports, alerts and updates, and proactive monitoring.**

**D2L RESPONSE**

Reporting is available per institution for End User Support including phone statistics and Incident statistics. Brightspace Cloud clients are provided with a client dashboard that displays a snapshot view of their system's status at no additional cost. The dashboard provides valuable insight into recent site activity. The metrics in the dashboard are as follows:

- Showing Up/Down status of the customer's site
- Raw uptime over the past 30 days
- Site performance over the last 30 minutes
- Composite availability, combining raw uptime and site performance, over the past 30 days

**IMPORTANT:** Prior to using, please read the [Terms of use for Client Trust](#)



Customer Dashboard

**9. Include descriptions of the standard guaranteed uptime commitments and any enhanced guaranteed uptimes.**

**D2L RESPONSE**

Our SLA for our Brightspace Cloud customers is 99.9% uptime meaning that the target is to achieve availability or uptime for a total of 99.9% of the minutes within each measurement period or month or better. Uptime values reset at the end of each period and do not carry forward to subsequent periods.

**C. Account Management**

**1. Describe the role and responsibilities of the Account Manager assigned to the State System.**

**D2L RESPONSE**

You have three D2L personnel assigned to your account to help ensure your success: an Account Manager, a Customer Success Director and a Technical Account Manager.

## ACCOUNT MANAGER

One of PASSHE's most valuable resources will be your Account Manager (AM), Cory Gaber. Cory is responsible for account planning, providing product and service knowledge, and renewals. Cory will build a short and long term strategy account plan to help ensure success from the start of your implementation.

Cory will work with you to plan milestones, ease pain points, build communication pathways, and identify strategic goals. Our AMs are knowledgeable and well versed in our products and services. As a result, Cory can recommend products and services to grow your implementation as well as improve efficiencies through your entire organization. With a thorough knowledge of your program, Cory will also discuss with you opportunities for renewal near the end of your contract term.

## CUSTOMER SUCCESS REPRESENTATIVE

At D2L, we partner with organizations to transform teaching and learning together. From the outset of implementation and onboarding, we match a Customer Success professional with your organization. The Customer Success team is the primary owner of the business relationship between D2L and the customer. Diana May, as your Customer Success Director, is responsible for your success with the Brightspace platform and is accountable for customer retention, growth and adoption, satisfaction, and stakeholder value.

Diana will share resources, tools and techniques to help customers design a roadmap to success and continually improve your ability to meet your organizational objectives. Whether you are experienced with Brightspace or just beginning, this process will help you set yearly objectives and provide a path to continually measure and improve in order to achieve your goals.

## TECHNICAL ACCOUNT MANAGER

We recommend a Technical Account Manager to work together with your Account Manager and Customer Success Director and act as your trusted advocate within D2L. They will drive performance optimization of each campus implementation to better enable the fulfillment of strategic learning goals. As part of this program, a Technical Account Manager acts as a single point of contact—organizing communication, researching questions, managing platform updates and enhancements, providing technical assistance, coordinating project support, and providing critical business information such as system usage and performance reporting. We would provide you this service at no additional charge for the first year, as a value add to PASSHE. As the largest customer of D2L without a TAM, we are very confident this refreshed program will show immediate results and are happy to provide references upon request.

## 2. Provide information regarding your dispute resolution procedures including the role of the Account Manager assigned to the State System.

### D2L RESPONSE

The assigned Technical Account Manager will be the primary point of contact for any support related escalation. For all other matters the Account Manager will be available to broker a mutually agreeable solution between D2L and PASSHE stakeholders for any dispute or escalation.

For escalations related to helpdesk issues, our clients are empowered and welcomed to escalate an issue in circumstances such as a change in the urgency of an issue or if a client feels that service expectations have not been met for any reason. In the event that an issue requires escalation, clients can also call, email, or log on to our online support portal to request escalation. Once a ticket has been escalated, our customer support management team will assign it to appropriate staff members for immediate attention. The support management team meets daily to discuss escalated tickets and monitor their resolution.

The Customer Success team is responsible for the customer's success with the Brightspace platform and is accountable for customer retention, growth and adoption, satisfaction, and stakeholder value. It's the mission of the customer success team to help minimize any potential for disputes before they happen.

#### **D. Service Level Agreements**

**Provide a copy of your Service Level Agreements (SLA) for your Learning Management System, Help Desk Services and Web Online Tools. Include a general description of the issues each SLA covers; how they are assessed and triggered, and how penalties are determined. Indicate whether your firm or the State System would need to initiate the application of SLA penalties. Define reimbursement options for failing levels of support and performance agreements. Define the reimbursement structure for supplier's failure to maintain service levels of the SLA.**

#### **D2L RESPONSE**

We understand the importance of reliability. We have a Service Level Agreement with respect to our Application availability in our Brightspace Cloud environment and Service Level Objectives regarding our help desk service.

Regarding application availability, we will incur financial penalties for failing to meet those requirements. This is a financial guarantee on our service availability. Here is the table of what those penalties would look like in relation to the level of unavailability of the service.

*The following information is marked confidential, and is not intended for public release. In the event of a public records request, this information is to be redacted to the maximum extent provided by law.*

[Redacted content]



[illegible]

*The following information is marked confidential, and is not intended for public release. In the event of a public records request, this information is to be redacted to the maximum extent provided by law.*


<sup>1</sup> x = Availability

[ \_\_\_\_\_  
 [ \_\_\_\_\_  
 [ \_\_\_\_\_



**E. Include information on any other services which would be provided to the State System.**

## ADVISORY AND CONSULTING SERVICES

## STRATEGY FOR SUCCESS

**Competency Based Education Service** | Perhaps the hottest topic today in Higher Education. Brightspace supports Competency Based Education (CBE) out of the box. ACS will help build an effective strategy for successfully implementing CBE across the system and at each individual campus.

**Strategic Planning and Program Management** | This personalized session focuses on identifying strategic initiatives and opportunities for your online and blended learning programs. PASSHE is a very unique consortium with system goals but the flexibility to allow campus autonomy. We recognize this fact and will build a plan to support goals at each level.

**Outcomes Planning Service** | We can provide guidance in writing the program-level outcomes, help your faculty write their own course learning objectives or goals, and identify course assessment activities to evaluate the level of student learning. This complements the CBE learning model and can be reported on using the optional Brightspace Insights solution.

**Communication and Marketing Strategies** | The Pennsylvania Higher Education market contains over 300 institutions. How do PASSHE schools compete effectively in this market? Can PASSHE schools have a greater presence outside of Pennsylvania? Outside the U.S.? This service includes an assessment of existing communication and marketing activities to promote usage of Brightspace, the creation of a communication plan, as well as custom content for use in your internal newsletters, websites, social media, news widgets, and other communication channels. Creation of custom webinars for your key Brightspace Stakeholders' success stories and best practices can also be included in this offering.

**Digital Strategy** | Implementing an LCMS is 10% implementation, 90% governance. D2L has successfully helped 100s of customers implement a digital learning object strategy. ACS services can be the trusted advisor for PASSHE in this capacity.

#### **F. Transition**

**1. Provide a work plan that includes provisions for tasks, milestones, resource requirements, etc. required to successfully execute any necessary transition. "Transition" means moving over all systems and users, and course shells and content within the past three years. (This work plan will later be developed into a more detailed transition plan created jointly with the State System upon contract award.)**

##### **D2L RESPONSE**

As PASSHE is an existing client, we have the benefit of not having to complete migration activities or full scale implementation tasks, therefore eliminating implementation time, costs and resources.

**2. Your work plan must demonstrate that it can effectively manage the installation to the proposed environment and provide ongoing support, including the ability to implement all services to all requested locations.**

##### **D2L RESPONSE**

As D2L is the incumbent, we are providing the services and ongoing support.

**3. Provide a sample project plan identifying milestones leading up to and including the service start date. The project plan should contain sufficient milestones for measuring interim progress, allowing for identification of potential delay such that contingency plans can be discussed by the supplier and the State System in order to put the overall project back on schedule. The project plan shall include a project summary that clearly identifies start-dates for services to all locations. (Note: There will be regularly scheduled project status meetings between the supplier's project manager and the State System. At each project status meeting, the supplier's project manager is to give a detailed verbal report with a summary written report of the current status of all project milestones and identification to the State System of any problems or potential problems that might delay overall project completion on schedule.)**

**D2L RESPONSE**

As PASSHE is an existing client, we have the benefit of not having to complete migration activities or full scale implementation tasks, therefore eliminating the implementation time, costs and resources required.

**4. Contingency Planning - Sufficient planning should be presented in the proposal and project plan that demonstrates the capability of the supplier for developing, presenting, and discussing contingency efforts at project status meetings; and efforts that can make up for interim delays and complete the total installation of all service(s) to all locations by the final required completion date.**

**D2L RESPONSE**

As PASSHE is an existing Brightspace client, further implementation and planning is not necessary. Should you desire any optional products, we would prepare a plan that defines the scope, schedule, cost, and approach for the project. PASSHE task owners are involved in developing implementation and operational plans and dates for deliverables which ensures buy-in at applicable levels of the organization. The project plan is developed in collaboration with PASSHE to ensure alignment on deliverables and quality expectations. Versioning for subsequent planning documents is taken into account providing that all stakeholders understand requirements and agree on deliverables. PASSHE signoffs are obtained at pre-determined checkpoints to ensure that project outcomes are aligned with stakeholders' expectations and standards. The PASSHE Project Manager will proactively communicate project information to all stakeholders while helping to ensure the quality of the solution.

### **III-6 COST**

See Appendix C – Cost Proposal Form. All costs related to transition activities and tasks are to be included in the supplier's Cost Proposal. This includes, but is not limited to setup fees, project management fees, configuration of Federated Authentication / InCommon to support the technical requirements of course sharing and collaboration, migration of courses including all content, implementation costs, startup and first semester training and support for users.

All responses regarding pricing shall be submitted as a separate document apart from the Technical Proposal. Absolutely no pricing may appear anywhere in the Technical Proposal, including appendices, SLAs, sample documents, etc. Failure to meet this requirement will result in automatic disqualification of the proposal.

#### **D2L RESPONSE**

Read and understood. Please see the separate Cost Proposal for all costs.

## Section IV

### Information Required From Suppliers

While suppliers are encouraged to submit the most creative, cost-effective proposal possible, the inclusion of extraneous commercial and/or sales literature as a substitute for responses to questions included in the RFP is strongly discouraged. Any supplemental information that you elect to provide should be attached as an appendix to your technical proposal.

In addition to responding to Section III of this RFP, include the following information in your proposal.

#### IV-1 STATEMENT OF UNDERSTANDING

**Provide a Statement of Understanding of the Pennsylvania State System of Higher Education, and of the needs of the State System regarding a Learning Management System and Help Desk Services.**

##### D2L RESPONSE

We understand that PASSHE is looking to drive program excellence, manage costs, and increase access to data heading toward 2020. Critical to your success will be your ability to leverage your LMS to facilitate seamless campus to campus collaboration, to flexibly integrate with a complex ecosystem of learning technologies across the consortium, and to empower cutting-edge learning methodologies such as competency based education. Our partnership model, built on an enhanced investment in not just technology but also service, will position PASSHE to transform teaching and learning.

We're looking forward to the opportunity to build on, strengthen, and enhance the results of the partnership we've established. Below is a table that directly aligns your system objectives with our solutions/services:

PASSHE'S STRATEGIC OBJECTIVES	ARE ACHIEVED WITH...
ADAPT TO AN EVER CHANGING STUDENT POPULATION	Brightspace is recognized by OVUM as the most innovative LMS on the market today to adapt with your students. OVUM directly states Brightspace is 'highly personalized to meet differing student needs.'
ALIGN ACADEMIC PROGRAMS WITH REAL WORKFORCE AND PERSONAL GROWTH NEEDS	Brightspace Learning Environment fully supports competency based education natively to make Higher Education available to the non-traditional learners who needs flexibility to achieve their goals
PROVIDE GREATER FLEXIBILITY IN HOW, WHEN AND WHERE STUDENTS LEARN	The number one Brightspace development priority for 2016 and beyond is to make everything mobile friendly and include responsive design. Our student Pulse app is our most recent development example to showcase this design methodology.

---

**ENSURE THAT COMPETITION AND COOPERATION  
BETWEEN THE SYSTEM IS STRATEGIC**

A successful proof of concept between Millersville University and Kutztown University demonstrated that we have the technical and service capability to support the system as it fosters increased collaboration.

---

**PRESERVE AND PROMOTE ACCESSIBILITY AND  
AFFORDABILITY**

D2L's attention to accessibility is an organization-wide mandate that ensures we are the industry leaders in this field. As said by Dr. Marc Maurer, President National Federation for the Blind, 'D2L's active and passionate participation in our nonvisual certification program shows their commitment to integrating accessibility within their core values and practices'. A video testimonial from Anne Taylor of the NFB can be found here -  
<https://www.youtube.com/watch?v=uYSWnErWFpk>

---

**ENHANCE ACCOUNTABILITY AND TRANSPARENCY**

The Brightspace Data Platform will give the system and campuses access to your data when you need it with flexible access options including restful APIs and Open Database Connectivity (ODBC) connections.

---

**ENSURE PROGRAM RELEVANCE (OUTCOMES &  
COLLABORATION) AS WELL AS PROGRAM  
EXCELLENCE**

D2L is committed to providing PASSHE Advisory and Consulting Services. This team's expertise includes Competency Based Learning Planning and execution support, as well as building collaborative education models within complex Consortia.

---

**MORE DIVERSE SYSTEM (INCREASED  
COLLABORATION, HELPING MINORITIES AND  
UNDERPRIVILEGED AND CREATING AN ONLINE  
CLEARINGHOUSE)**

With over 16 years of experience helping customers deliver completely online programs and courses, D2L is well positioned to help PASSHE move more enrollments online.

---

**MANAGE STUDENT COSTS (DECREASE TIME TO  
DEGREE, INCREASE STUDENT SUCCESS)**

D2L as recognized by OVUM is the industry leader in predictive analytics. Our Brightspace Degree Compass and Brightspace Student Success System solutions have proven results to minimize time to degree while maximizing student achievement, as evidenced by Oral Roberts University, which saw its retention rate increase from 61% to 75% in just one semester by having accurate information at hand via tools in Brightspace.

---

**MORE ACCESS TO DATA (TO SUPPORT  
PERFORMANCE BASED FUNDING MODEL)**

Brightspace Data Platform provides full access to learning data including APIs and ODBC connections. Brightspace Insights helps interpret this data and brings visualizations into the virtual classroom.

---

Below is a table that lists the ways that these solutions will help meet the specific objectives outlined in this RFP:

PASSHE'S RFP GOALS	ARE ACHIEVED WITH...
<b>A STRONGER VENDOR PARTNERSHIP</b>	D2L is expanding the scope of PASSHE's dedicated service to help foster adoption of existing solutions, maximize your current investment and promote campus success. In addition, D2L commits to quarterly executive reviews and enhanced inclusion in newly formed advisory boards to ensure PASSHE has a strong voice within the D2L roadmap.
<b>GREATER CAMPUS TO CAMPUS COLLABORATION</b>	PASSHE is already making use of D2L's inherent flexibility. Examples include the InCommon federated authentication solution between the Millersville and Kutztown Universities, a proven solution that can be scaled across the entire system to promote seamless campus to campus authentication. Brightspace Learning Repository provides easy upload and searching coupled with deep integration into the Brightspace Learning Environment. Campus sharing of learning objects which stands to benefit all campuses, instructors and students.
<b>A FLEXIBLE LMS</b>	Brightspace Valence is D2L's extensibility technologies and saw over 1,000 applications registered in 2015 and already 127 in January 2016 alone. We also fully support LTI for partner extensibility and are one of the first learning technologies to be Caliper certified to allow easy data transfer between different learning vendors.
<b>BETTER ACCESS TO DATA</b>	<p>Brightspace Data Platform (BDP) provides near real time data to campuses and offers flexible connection options including APIs and ODBC. Brightspace Insights surfaces this data at the course level with data visualizations. By using data, we deliver better outcomes through tools such as the Brightspace Student Success System and Brightspace Degree Compass to measurably improve student results and student retention. We understand you need more than just raw data – you need a system that can help interpret the data to drive results.</p> <p>According to the Ovum report ““D2L was given a perfect score for student performance and retention because it has moved beyond basic reporting and alerts, and <b>no other OLP vendor has grasped predictive analytics in the way D2L has.</b>”</p>
<b>A MORE ROBUST ONLINE WEB TOOL</b>	Institutions use a mix of online, blended and traditional classroom experiences to reach and engage students. Brightspace is the foundation for providing an easy, flexible

---

and smart environment for students to learn. Now, Brightspace has partnered with newrow\_ to enhance the learning experience for students, instructors, staff and administrators. newrow\_ adds a face-to-face video solution to Brightspace for any course. Whether a class is taught entirely online or in a physical classroom, the combination of Brightspace and newrow\_ offers a comprehensive campus video collaboration solution that improves student engagement, active learning and accountability regardless of the type of course. Seamlessly integrated in Brightspace so students never have to leave the learning environment, newrow\_ is enabled with just a couple of clicks inside your Brightspace course. For online classes, the newrow\_ video classroom provides a place where student and instructors meet face-to-face using standard web or mobile cameras and utilize robust instructional tools. For physical classes the newrow\_ study rooms and assigned breakout sessions offer virtual collaboration spaces where students can work together out-of-class or receive help from each other on homework.

---

## **IV-2 QUALIFICATIONS AND EXPERIENCE OF FIRM**

**A. Include a brief history of your company including the number of years in business and your ownership structure.**

### **D2L RESPONSE**

D2L Ltd, a corporation organized an existing under the laws of the State of Maryland, is a wholly-owned subsidiary of D2L Corporation. D2L Corporation is a privately-held corporation organized and existing under the laws of the Province of Ontario, Canada.

Our parent company, D2L Corporation, has been in business for 16 years. D2L Ltd., a wholly owned subsidiary of D2L Corporation, has been in business for almost nine years.

At D2L, we take pride in being the software leader that makes the learning experience better. Brightspace, our cloud-based platform, is not a common, one-size-fits-all learning management system (LMS). It is easier to use, more flexible, and smart. With Brightspace, you can personalize the experience for every learner to deliver real results. We are a world leader in learning analytics. Our platform predicts learner performance so that you can take action in real time to keep learners on track.



Our roots are in building solutions for education, which we started back in 1999. We offer the benefits of an experienced provider with tested, practical, and proven solutions, and remain committed to innovation and shaping the future of education. We are pioneering next generation learning tools that directly address key challenges related to student engagement and outcomes, all in a way that is manageable and efficient for instructors. This continued innovation demonstrates our intention to remain active in the learning and education, and ensures that we are developing relevant and impactful tools for our clients.

Focused on improving the learning experience, we partner with thought-leading institutions and organizations like PASSHE to accelerate learning and improve results with highly-accessible online solutions that ensure a personalized experience is available for all regardless of geography or ability.

**B. Provide an overview of your company's global presence.**

**D2L RESPONSE**

We are a world class global partner with locations in a number of key regions around the world.

**GLOBAL HEADQUARTERS OF D2L CORPORATION**

151 Charles Street West, Suite 400  
Kitchener, ON, Canada  
N2G 1H6  
Phone: 1-519-772-0325 (Local)  
1-888-772-0325 (Toll Free, North America)  
Fax: 1-519-772-0324

**REGIONAL LOCATIONS AND ADDRESSES**

**NORTH AMERICA**

**Toronto Office**

431 King Street West, Suite 200  
Toronto, ON, Canada  
M5V 1K4

**Boston Office**

31 St. James Avenue, Suite 920  
Boston, MA, USA  
02116

**D2L Ltd.**

500 York Road  
Towson, MD, USA  
21204

**Vancouver Office**

13775 Commerce Parkway, Suite 230  
Richmond, BC, Canada  
V6V 2V4

**Newfoundland Office**

145 Kelsey Drive  
Suite 202, 2nd Floor, Building A  
St. John's, NL, Canada  
A1B 0L2

## ASIA-PACIFIC

### D2L Australia Pty Ltd

1 Queens Road, Suite 1144  
Melbourne, Victoria 3004  
Australia

Phone: 1-800-656-210 (Australia)  
0-800-452-069 (New Zealand)

### D2L Asia Pte. Ltd.

3 Philip Street  
#10-02 Royal Group Building  
Singapore 048693  
Singapore

## EUROPE

### D2L Europe Ltd (mailing address only)

c/o Taylor Wessing LLP  
5 New Street Square  
London  
EC4A 3TW

Phone: 0-808-234-4235 (United Kingdom and Europe)  
Registered in England and Wales 7542144

## LATIN AMERICA

### D2L Brasil Soluções de Tecnologia para Educação Ltda.

HQ Market Place II  
Av. Dr. Chucri Zaidan, 940, 16 andar,  
salas 1606e 1604b  
São Paulo, 04583-904  
Brasil

Email: [Comercial@D2L.com](mailto:Comercial@D2L.com)  
Phone: 0-800-891-4507 (Brazil)

**C. Discuss how your firm's overall experience demonstrates its ability to successfully provide the solution sought.**

## D2L RESPONSE

We work with a rapidly growing list of leaders in higher education. Our clients include hundreds of different colleges, institutions, universities and consortiums throughout North America and around the world, from small programs to large consortiums of campuses. They are relying on the Brightspace platform for mission-critical on-campus learning, distance and continuing education, learning object repositories, faculty collaboration, sharing of best practices in online education within user communities, and much more. Below is a sample list of American D2L education consortiums:

- Colorado Community College System | Consists of thirteen state community colleges serving more than 163,000 students annually.
- Board of Regents of the University System of Georgia | One of our largest clients, 30 colleges and universities comprise the University System of Georgia.
- Los Rios Community College District | Serves more than 90,000 students with 4 accredited colleges and several off-campus "educational centers."
- Minnesota State Colleges and Universities | The Minnesota State Colleges and Universities system has 31 institutions on 54 campuses in 47 communities.

- Montana State University System | In conjunction with the University of Montana System serves over 20,000 students with four university campuses.
- Oklahoma State Regents for Higher Education | With an enrollment of more than 247,000 students, the State System consists of 25 colleges and universities – including two research universities, 11 regional universities, and 12 community colleges – as well as 11 constituent agencies and one higher education center.
- South Dakota Board of Regents | Governs South Dakota's six public universities.
- Tennessee Board of Regents | The Tennessee Board of Regents (TBR) system consists of 45 institutions with a combined annual enrollment of over 190,000 students, making it the nation's sixth largest system of public higher education.
- University of Wisconsin System (UWS) | The University of Wisconsin System is made up of 13 four-year universities, 13 freshman-sophomore University of Wisconsin Colleges' campuses, and statewide University of Wisconsin-Extension with a total of over 178,000 enrollments.

We are at the forefront of innovation with heavy emphasis and investment on research, development, and acquisitions that support the growing need to provide predictive, adaptive, and other advanced technology tools. Our Brightspace solution aligns with PASSHE's vision in several ways, including:

**Flexible Organizational Hierarchy** | One of the many strengths of the Brightspace architecture and system is that PASSHE and its constituents can mirror its established physical structure within the Brightspace platform. Clients can create as many levels of institutional hierarchy as they need, and each level can have autonomy with its own user roles and permissions, its own unique branding, and its own set of integrations while being connected with other levels through the platform's architecture.

**A Partner with a Vision for the Transformation of Learning Opportunities and Models** | We are pioneering the next generation learning solution — one that directly addresses key challenges related to learner engagement, retention, and outcomes. This represents a shift from the simple course management capabilities of a traditional LMS to data driven learning and highly pervasive, perceptive, and personal learning experiences.

**Outcomes Driven** | Adaptive, predictive, and outcomes-driven assessment is a key point of difference and investment for us. The insights derived from these tools ensure that the learning experience delivered is relevant, impactful, and ultimately more successful. This focus enables our clients to demonstrably improve achievement and retention. Our analytics functionality gives faculty the ability to assess and guide learner performance more prescriptively.

For example, the University of Wisconsin-Milwaukee received the 2012 Distance Education Innovation Award from The National University Technology Network for their U-Pace program which helps learners achieve greater academic success, improves learning outcomes over conventional students, and reduces the academic gap between disadvantaged and non-disadvantaged groups of learners. More recently, the University of Wisconsin-Milwaukee reported that the U-Pace instructional approach increased the percentage of disadvantaged students getting A's and B's by over 170%. Please refer to Supporting Documents for more detail on U-Pace's success.

**Learner Centered** | We believe that technology has the power to divide or include. Our approach to accessibility is unique and un-matched in the industry ensuring that regardless of disability, no learner is ever left out. This learner-centered design also ensures that learners are given choice, so they can learn at the pace and style most comfortable and relevant to them. Our mobile solutions also allow learners and instructors to teach and learn wherever and whenever they want with offline access to grading and content.

**Integrated, Future Proof** | Brightspace leverages all the core technology from D2L while allowing for integration with many other apps and services, connecting everything you need in one platform and one experience. We provide updates on a monthly basis via Continuous Delivery. D2L's business is to facilitate learning by always looking forward to emerging tools, technologies, standards, and ideas that will empower institutions of learning to better serve their learners. Some of our accomplishments include being among the first to offer adaptive learning paths with Brightspace Leap; enhanced learning anytime, anywhere with ePortfolio mobile offline access, and predictive modelling with Brightspace Student Success.

**D. Provide a brief list and description of comparable clients, including higher education entities.**

**D2L RESPONSE**

Please refer to the previous response.

**E. Provide a description of the roles your regional managers, account managers, project managers, etc. will play.**

**D2L RESPONSE**

Please refer to the Account Management section starting on page 41 for an overview of our Account Manager and Customer Success Representative roles. Your primary contact at D2L would be your Account Manager, Cory Gaber. Cory would be responsible for managing the overall relationship and will be your key stakeholder. Cory will liaise with other management, technical, and operations staff as necessary. Your Customer Success Representative, Diana May, will be responsible for fostering increased adoption and a higher return on investment for solutions already licensed. The proposed Technical Account Manager will be a named contact for technical questions and concerns as well as a direct connection within the D2L Help Desk.

**F. Provide details if subcontractors are to be used to provide the services.**

**D2L RESPONSE**

D2L utilizes a Partner for End User Support to help provide and expand elasticity for peak periods of volume, as well as provide multilingual support to clients. Levels above Customer Support Representatives (CSRs) are direct employees of D2L. The partner D2L utilizes is Results Companies. They are focused on providing innovative and customer-centric solutions and have over 25 years of experience providing customer services. Results is a global company Headquartered in Florida. They have sites located around the world where they provide support from. D2L utilizes the office in Costa Rica to staff End User Support. D2L works very closely with Results to ensure the needs of our customers are met.

**IV-3 FUNCTIONALITY AND TECHNICAL REQUIREMENTS FOR LEARNING MANAGEMENT SYSTEM (LMS) AND HELP DESK SERVICES.**

This section details the key functionalities within the Learning Management System and related optional modules.

**Refer to Appendix B, LMS Functionality and Technical Requirements Form. Complete the functionality checklist within each section. Include a detailed response where requested. Those areas marked 'Required' are absolute mandatory requirements. If your solution cannot meet these mandatory requirements, your proposal will not be considered.**

#### **D2L RESPONSE**

Please refer to Appendix B, LMS Functionality and Technical Requirements Form, for the completed checklist.

**Supplier responses should include a narrative response that summarizes the key features and competitive advantages of the proposed solution that make it stand out from other solutions.**

### **A. Company Profile and Future Development Vision**

#### **D2L RESPONSE**

Not only do you want a cutting edge solution from day one, you likely want to partner with a solution provider whose technology will still be cutting edge years from now. There will continue to be advances in both technology and education over the term of your contract. Every time we sign a multi-year agreement and get half way through it, the product has always been better than what it was described as. We recognize that our innovation is essential to your ability to be a leading institution, so we deliver updated technology to our clients on a monthly basis. We have listened, we have innovated, and our customers have contributed, as evidenced by our many updates. You can also influence our development activities via our Product Idea Exchange (PIE).

In the recent Ovum report, Brightspace received the highest overall technology assessment score, obtaining at least a top-three rating in all 15 categories. Not unexpectedly, Brightspace received a perfect score for student performance and retention. For more information on the Ovum Report, check out: <http://www.brightspace.com/ovum-report>

#### **MOBILE ROADMAP | MOBILE APPS**

We offer a number of mobile solutions including mobile web and native apps delivered directly or through public app stores. We have built a framework which provides cross-platform mobile support (including iPhone®, iPad®, Android™, and BlackBerry®) for our web applications. Brightspace Learning Environment includes dedicated web pages that are designed and optimized for viewing on a mobile device and supports mobile notifications. We continue to invest in mobile technology with plans to support more tools in future releases.

We are currently rolling out a fresh new look for Brightspace that is modern, responsive, and consistent across all products and workflows. We believe updating, modernizing and maintaining our platform to the highest design standards is so important that it is considered part of our acceptance criteria during new product development.

Last year we met with hundreds of users for interviews, usability testing, and focus groups. As a result, our new design system will transform our platform through consistent use of modern fonts, icons, and user interface controls like buttons and form inputs. It includes a vibrant new color, effective use of motion, and a cutting-edge grid system for responsive layouts. The new design system is already being applied in Brightspace Assignment Grader for Android, released this past November. Our latest mobile app introduces our new color scheme, new font, increasing use of photography and space for a more visually appealing layout.

We have three main areas of focus:

1. Apply our new design system to all of Brightspace at the platform level so that fonts, icons, controls, and colors are consistent.
2. Introduce a new and improved navigation model that is simple, visually appealing, and responsive to multiple devices.
3. Update key landing pages with a more engaging and visually appealing experience that, like the new navigation model, adapts responsively to the user's device.

## **B. LMS Required Tools**

### **D2L RESPONSE**

Some the key features of Brightspace includes Release Conditions tailored to the specific course that allow course designers to create personalized learning experiences by establishing criteria for the release of elements and progression through the course. Release conditions can be leveraged to provide positive re-enforcement on an assessment or to release additional content for extra support. Release Conditions can also be established to trigger elements within the system should an action not be completed, permitting faculty to prompt learners to complete an assessment prior to due date.

The Dropbox and Quiz tool within Brightspace is equipped with the ability to set Special Access which provides extended assessment time to individual students while maintaining learner privacy and ensuring that individuals requiring additional time can access their assessments.

Intelligent Agents leverage release conditions to deploy tailored emails of congratulations, encouragement, or support material to students based on actions taken in a course.

Success requires more than the right technology/easy to use tools, it requires tailored solutions and a partner committed to your long term success. The D2L Advisory & Consulting Services will work with each University to ensure this challenge is being met.

## **C. LMS Features and Functionality**

### **D2L RESPONSE**

From its inception, Brightspace was designed to support multi-institution deployments. One of our top focuses in development is flexibility in personalized learning; allowing schools to move from a “one size fits all” to a “one size fits me” approach. Supporting all of PASSHE’s institutions while providing complete autonomy to each is a native and unique capability for Brightspace. This means that every institution can configure the branding, look, and feel of their system, mimic their current org structures, have their own SIS integration and third party integration, all while having unlimited roles and permissions to control access to content and tools within the system. It also provides a consistent experiences for students and faculty who participate in learning and teaching across universities.

Brightspace supports many different competency-based education (CBE) concepts; it supports CBE programs that are designed to be self-paced or independent study and require demonstrations of the knowledge, skills, or abilities students must possess. We include the ability to design mastery-based progression with personalized, timely and automated feedback for students, flexible pacing, prior learning assessment, or remediation – without needing a separate system.

Brightspace is also the most accessible LMS, awarded Gold Level Nonvisual Accessibility Certification by the National Federation for the Blind (NFB) in 2010, 2011, and 2013, along with the Dr. Jacob Bolotin award for groundbreaking work in accessibility. We are now collaborating with the NFB as they transform their certification program from an annual check in to an ongoing partnership. Universities need to support organizational and/or state accessibility policies, but more importantly, they need to deliver personalized, inclusive learning and teaching experiences. Brightspace delivers on this.

#### **D. Enhanced LMS Analytics Tool**

##### **D2L RESPONSE**

We are the innovative pioneers of learning analytics. We would like to see organizations like PASSHE improve learning outcomes, and to that end, we have created products like the Brightspace Insights suite that helps us answer the most commonly asked questions that institutions have. Ovum ranked us #1 in student performance and retention because we have moved beyond basic reporting and alerts stating that “no other vendor has grasped predictive analytics in the way that D2L has.” We also have offerings like the Analytics Blueprint to help organizations like PASSHE design an effective learning analytics strategy that helps combine knowledge with action to drive results. By leveraging IMS Caliper data, Brightspace Insights gives PASSHE access to the bigger picture across a wide variety of learning tools within your technology ecosystem with a system that streams near real-time insights to you. Not only do we support the IMS Caliper standard, but we sat on the board of the IMS Global standards group that created it, and were 2015 Leadership Award Recipients. As testament to our leadership in the analytics space, we are one of the first companies in the world to be certified sending Caliper events, and are the only LMS to both send and receive Caliper events.

##### **Brightspace Data Platform**

To go beyond course level data, and beyond data extracts, Brightspace offers the Brightspace Data Platform. This ensures that longitudinal, scalable data is available throughout the Brightspace platform, and to its users. Using an open standard called the IMS Caliper Learning Analytics Standard allows us to collect the learning data, not only from Brightspace, but from the entire system of learning tools.

Through the Brightspace Data Platform, PASSHE will have access to aggregated learning transaction data for reporting and analysis purposes. Data is accessible via standard interfaces, such as RESTful APIs or Open Database Connectivity (ODBC) routes, to allow for direct integration of market-leading Business Intelligence tools to enable deep analysis directly from the data source.

By leveraging IMS Caliper data, Brightspace Insights gives PASSHE access to the bigger picture across a wide variety of learning tools within your technology ecosystem with a system that streams near real-time insights to you. IMS Caliper is a standard proposed by IMS Global to provide a framework for exchanging learner measurement data between systems that store the data.

#### **E. Other Optional LMS Modules**

##### **D2L RESPONSE**

The Brightspace Game Based Learning Engine provides instructors the ability to develop interactive and engaging learning experiences in an easy to use engine. Learners can earn badges and certificates for achieving milestones through achievement events that are established within a course or program. To add competitive elements, points can be awarded which is tracked on leader boards within the game module. In addition to the sequential setup of the game module instructors and designers can leverage native release conditions to establish learning paths through course materials, and award badges based on achievement. The D2L professional services team is available to assist with the development of interactive activities through the optional Brightspace Game-Based Learning Service.



## **F. Help Desk Services**

### **D2L RESPONSE**

We take pride in building lasting relationships with our clients and strive to ensure that every possible measure is taken to exceed expectations. Our highly trained and friendly team of Service Desk professionals ensures that client inquiries and needs are dealt with in a fast and efficient manner. We also apply strategic problem management practices by reviewing our clients' incidents and identifying areas for improvement.

The proposed Gold Support Package provides 24x7x365 email, telephone, and web-based support for three named Approved Support contacts. The proposed End User Support package provides 24x7x365 email, telephone, and live chat support to provide learners with the assistance they need in real time. SLO reports are available on a quarterly basis for clients with the Gold Support Offering Level.

D2L is also providing a full time, dedicated Technical Account Manager (TAM) for the first year, to provide specific technical guidance for projects, infrastructure, and support issues.

We provide a live, interactive, customer-accessible ServiceNow where customers can submit issues and see the progress of the status of the issues as they are received, in process, or completed. Issues are entered and tracked within a ticket that can be accessed or submitted through our Support Web portal. This portal provides access to incidents, requests, KB and documentation about the platform. The Support Portal is only available to Authorized Users.

Clients can also choose to subscribe to our online Community in order to have vital system information, Discussion Forums, and any general news regarding our products and systems. In the event that an issue requires escalation, clients can call, email, or log on to our online support portal to request escalation. Escalation can also be requested via a client's account manager. The Support Services team provides help in escalating issues to Implementation Services, account managers, and/or product managers when required.

D2L commits to creating a Quality Assurance program to score and improve overall Customer Satisfaction.

## **G. Web Online Tools**

### **D2L RESPONSE**

Newrow\_ for education features the most comprehensive video collaboration solution in higher education today. Newrow\_ is deeply integrated into the Brightspace Learning Environment for a seamless end user experience. Serving as a single virtual collaborative solution for every course on campus, newrow\_'s key advantages include:

**\_Seamlessly Brightspace integration** - students never have to leave the Brightspace learning experience. with just a couple of click inside their Brightspace course students are brought into the virtual classroom and on camera

**\_ Full class video participation** - up to 25 students and instructors are able to meet face-to-face on camera at one time (classes can be much larger). Seeing each other means everyone is engaged, accountable and actively learning

**\_ Small group virtual collaborative spaces** - whether instructor assigned in-class or out of class breakout group sessions or student managed open study rooms with no instructor's presence necessary, newrow\_ enhances both instructor to student and peer-to-peer learning



**\_ Robust instructional tools - newrow\_** offers a complete suite of instructional tools including quizzes, whiteboards, screen sharing, video sharing, presentation sharing, collaborative annotating, and the ability to record, archive and share video in every, classroom, breakout session, and study room

**\_ For coursework and a whole lot more - newrow\_** can also serve your campus outside the curriculum, including face to face academic advising sessions, tutoring sessions, staff meetings, orientation sessions, virtual career center job interviews, and much more.

## **H. LCMS/Content Repository**

### **D2L RESPONSE**

Brightspace Learning Repository is an integrated, powerful content management tool. By incorporating industry standards and specifications such as IEEE LOM, Dublin Core, GEM, and CanCore, Brightspace Learning Repository enables the creation, importing, storing, tagging, searching, reviewing and reusing of learning objects, and the creation of Open Educational Resources. It offers the most streamlined end user workflows simplifying interaction between course and content management. It also supports the creation, upload/download, and use of SCORM compliant IMS-Content Packages making it easier for PASSHE to use and reuse content. We have experience implementing across multiple organizations and the Advisory & Consulting Services can assist in building policies & procedures to promote object publishing and object sharing.

## **I. Transitioning Strategy**

### **D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. Instead we recommend PASSHE and PASSHE campuses instead focus on transitioning existing content, modules, courses and programs to better meet system and campus objectives like improving student retention, student engagement, and/or sharing of digital content. The provided Advisory & Consulting Services from D2L will help each campus achieve these transition goals.

## **IV-4 IMPLEMENTATION WORK PLAN**

**A. Implementation Strategy and Model Project Plan. Provide a detailed template project plan for the full implementation of the proposed system. The plan must include a pre-implementation assessment, implementation, and post-implementation needs and clearly define milestones and timelines. Supplier must fully identify the resources requirements from both the supplier and the university required to implement the plan.**

### **D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. Instead we recommend PASSHE and PASSHE campuses instead focus on transitioning existing content, modules, courses and programs to better meet system and campus objectives such as improving student retention, student engagement, and/or sharing of digital content. The provided Advisory and Consulting Services from D2L will help each campus achieve these transition goals.

**B. Data Integration/Legacy Data Conversion.** Provide your company's strategy for data conversion, including but not limited to how legacy data will be collected, conversion strategies, data purification, and timelines. Include what processes and tools are available to assist in real time/batch integration of data and in migrating legacy data and whether the conversion process includes road maps that identify the dependencies and sequences in which the various conversion modules should be run. Also indicate if these conversion processes will be able to handle special data validations and business rules that the universities may wish to enforce in the migration.

**D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. PASSHE continuing with Brightspace as a consortium will allow learning data from the past 6 years to be accessed for historical learning trends as well as to meet data retention policies.

**C. Testing.** Provide your company's strategy for thorough testing of functionality, security, interfaces/integration, and performance.

**D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. The PASSHE system has an existing test environment to allow campuses early access to monthly updates and an environment to test new integrations.

**D. Training.** Indicate recommended training methodology of university users. Include the personnel to be trained, the number to be trained, duration of the program, place of training, curricula, training materials to be used, number and frequency of sessions, and number and level of instructors. What types of documentation will be provided for follow-on training of new users after implementation?

**D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. Optional for the system is to re-invest in D2L Training Services to assist with such topics as best practices, refresher training, & upgrade training.

**E. Migration.** Provide your company's strategy for migrating content. Include the duration of the anticipated shutdown during the transition to the new system and strategies to mitigate the length of the shutdown. Include how much support is provided by your company during the migration phase.

**D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. As no migration is necessary, no additional shutdown of the system is required. We recognize this is a very important value-add in your decision process. The cost savings to avoid a migration are substantial in people hours, migration costs and retraining costs.

**E. Time.** Time constraints must be taken into consideration especially for the initial implementation and migration process. The State System anticipates that timelines will be sensitive to the academic calendars of the universities.

**D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. As no migration is necessary, no academic calendars will be affected and teaching and learning can go on uninterrupted for the rest of 2016 and beyond.

**F. Project Management.** Summarize the project management model including an overview of supplier project management processes and a summary of reports and controls that will be provided during the project, including but not limited to project plan, status reports, completion reports, post-production reviews, project acceptance, and post implementation assessment.

**D2L RESPONSE**

An LMS transition strategy is not applicable as PASSHE is an existing client of D2L. If any new Brightspace solutions are selected during this evaluation, we will work with the system and each campus to build a thorough project plan that clearly identifies deliverables, stakeholders, timelines, risks, status and communication paths.

**IV-5 USER COMMUNITY**

**Is there a users' group available? How do they communicate, and how frequently do they meet? What influence do clients have on new features and functionality? Describe the process that is used to address enhancement priorities.**

**D2L RESPONSE**

Yes, there are several users' groups and a broader community that includes access to our Product Idea Exchange that directly influences our product roadmap.

The Brightspace Community is our online user community and is available to all clients. It enables centralized access to video tutorials, webinars, our blog, release notes (including previews), documentation, the Support Knowledge Base, the Valence Development Platform (APIs), and many more valuable resources. The Brightspace Community also provides a way for you to connect with us on Twitter, peruse Shared Member Resources, engage with other members via discussion forums to share or benefit from others' experiences and knowledge, or stay up to date on our blog. The Brightspace Community is also an interactive space where we have the opportunity to connect with you and learn from you. See you there:

<https://community.brightspace.com/>.



The Brightspace Community Homepage

Directly from the Brightspace Community homepage, we provide you with featured videos and Community Links to make it easy for you to access what is important to you. The Community Links area provides easy access to the Valence Development Platform, Product Ideas Exchange, Support Knowledge Base, and the Learning Center.

### **VALENCE DEVELOPMENT PLATFORM**

Brightspace Valence is our extensibility technology, and it includes all of the APIs, client libraries, and tools that developers can use to create integrated solutions. Via the Brightspace Community, your developers can access the resources they need to build solutions that they would like to integrate into your instance.

### **PRODUCT IDEAS EXCHANGE**

The Product Ideas Exchange can be accessed through the Brightspace Community, and it provides our clients with the ability to influence change via the following capabilities:

- Post a unique idea. (If an existing idea is similar, it will be listed so that comments can be added instead of duplicating.)
- Vote on ideas that other community members have posted.
- As mentioned above, add comments to ideas to similar ideas.
- View recent and popular ideas/feature requests.
- Subscribe to ideas in order to be alerted of new comments and changes in status.

Our staff participate in the Product Idea Exchange engaging with clients and soliciting feedback. Those ideas that have the greatest impact on our clients and end users will be considered for inclusion in future releases.

### **SUPPORT KNOWLEDGE BASE**

If you are troubleshooting, looking for a “how-to”, or wanting to see what the top issues currently are, you can easily access the Support Knowledge Base from the Brightspace Community. This is an excellent, searchable resource for your administrators providing them with a wealth of knowledge.

### **LEARNING CENTER**

From the Learning Center, access the Community Blog and Community Forums as well as past and upcoming webinars to connect you directly to Subject Matter Experts.

### **USERS' GROUPS**

There are a variety of user groups. The following is not a comprehensive list, but demonstrates some of the groups that we have formed to assist us in determining the direction of our products and services:

- FUSION Steering Committee | Group to provide us direction and help with our Annual Users Conference
- Regional User Forums | Host a session at your institution or share, connect, collaborate at one in your area
- Accessibility Interest Group | The Brightspace Accessibility Interest Group was formed in June 2006 to collaborate toward making the Learning Management System usable for all. The group is a partnership between our usability, creative and technical staff and IT and Disability Services staff and end-users from more than a dozen campuses in the U.S., Canada, and the U.K.

## **IV-6 VALUE-ADDED SERVICES**

**Describe in detail any value-added services that your organization can provide in addition to the services required herein. Examples include, but are not limited to, sustainability initiatives, diversity, emergency preparedness, efficiency/process audits, and internship opportunities or other educational opportunities for State System students.**

### **D2L RESPONSE**

D2L is committing to quarterly reviews with D2L executives to share roadmap and ensure alignment. Likewise D2L is committing to add PASSHE representation to newly formed advisory groups that will strongly influence our product and service roadmaps.

## **IV-7 RESPONSE TO COST**

**Complete and submit Appendix C, Cost Proposal Form. Proposals will not only be evaluated on the overall cost of providing the products/services, but also on Ability of the supplier to meet the needs of the universities. Suppliers should prepare their Cost Proposals based on a five year arrangement with the State System. All cost information must be kept separate from the technical portion of the proposal. Absolutely no pricing may appear anywhere in the technical proposal, including technical proposal appendices, SLAs, sample documents, etc.**

### **D2L RESPONSE**

Read and understood. Please refer to the separate Cost Proposal for all pricing.

## Terms and Conditions

We have provided responses to your specifications and requirements to help illustrate how we provide our products and services. Please note that all of the specifications and requirements of the RFP are subject to the responses we have provided. It is understood and agreed that the provision and use of our products or services will be governed solely by the terms of an agreement which shall be negotiated and executed by the parties at a future date. The executed agreement between us and PASSHE shall be the only agreement that determines the rights and obligations for both parties.

We seek to enter negotiations with respect to this agreement as soon as reasonably possible. We will base these discussions on both parties standard contract documentation. For your review, along with the redlines of your standard contract documentation, we have included our standard contract documentation (the "D2L Master Agreement") which best describes our unique models for the benefit of both parties.

As part of our solution, D2L has proposed newrow\_'s web online tools. newrow\_ is a third party provider. We have included pricing for newrow\_'s solution as part of our proposal; however the terms and conditions governing this aspect of the solution would be governed by an agreement between PASSHE and newrow\_, independent of D2L.

## Supporting Documents

D2L provides the following supporting documents as referenced throughout our proposal:

- Redlined Contract - see D2L, Contracts, 2016-ASA-LAV-01
- D2L Master Agreement - see D2L, Contracts, 2016-ASA-LAV-01
- OVUM Report Abstract - see D2L, Technical Proposal, 2016-ASA-LAV-01 Document 3 - Ovum
- WCAG Checklist - see D2L, Technical Proposal, 2016-ASA-LAV-01 Document 4 - WCAG
- Sample Incident Ticket - see D2L, Technical Proposal, 2016-ASA-LAV-01 Document 5 – Incident Report
- University of Wisconsin-Milwaukee Success Story - see D2L, Technical Proposal, 2016-ASA-LAV-01 Document 6 – Case Study
- Newrow\_ for Education Brochure - see D2L, Technical Proposal, 2016-ASA-LAV-01 Document 3 – newrow\_



**brightspace™**  
by D2L

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 4—Contractor's Technical Proposal

## About D2L

A global leader in EdTech, D2L is the creator of Brightspace, the world's first truly integrated learning platform. The company partners with thought-leading organizations to improve learning through data-driven technology that helps deliver a personalized experience to every learner, regardless of geography or ability. D2L's open and extensible platform is used by more than 1,100 clients and 15 million individual learners in higher education, K–12, healthcare, government, and the enterprise sector—including Fortune 1000 companies. The company has operations in the United States, Canada, Europe, Australia, Brazil, and Singapore.

[www.brightspace.com](http://www.brightspace.com) | [www.D2L.com](http://www.D2L.com)

## CONTACT US

**PHONE:** 1-519-772-0325 (Worldwide)  
**TOLL FREE:** 1-888-772-0325 (North America)  
0-808-234-4235 (United Kingdom and Europe)  
0-800-452-069 (New Zealand)  
1-800-656-210 (Australia)  
0-800-891-4507 (Brazil)  
  
**FAX:** 1-519-772-0324  
**EMAIL:** [info@brightspace.com](mailto:info@brightspace.com)  
**TWITTER:** @Brightspace  
**WEB:** [www.brightspace.com](http://www.brightspace.com) | [www.D2L.com](http://www.D2L.com)

The ideas and images in this document are property of their respective owners. All D2L marks are trademarks of D2L Corporation. Please visit [D2L.com/trademarks](http://D2L.com/trademarks) for a list of D2L marks.





**brightspace™**  
by D2L

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 4—Contractor's Technical Proposal

# D2L Proposal to PASSHE, 2016- ASA-LAV01

April 4<sup>th</sup>, 2016

Enclosed are D2L's responses to PASSHE's recent question.

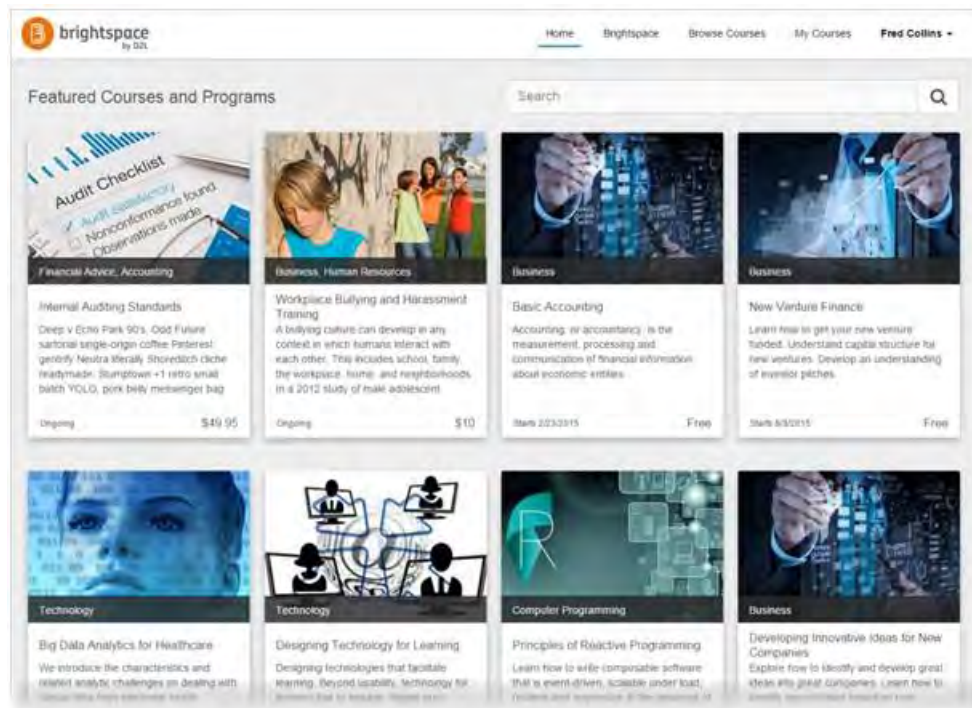
- 1) **Do you provide a tool/portal that allows users to register and pay for non-credit or MOOC courses without going through the SIS? If so, is this included with your LMS base cost? If it is not included as part of the LMS base cost, provide a cost for a single institution.**

#### D2L RESPONSE

Our Brightspace Open Courses (MOOC) offering is available at no additional charge. Brightspace Open Courses is a comprehensive Massive Open Online Course (MOOC) site that allows clients to offer individually branded courses. It provides a robust set of features for rich courses that allow instructors to easily track learner progress, and allows users to self-register, without going through the SIS. Users do not pay for non-credit/MOOC courses.

Should PASSHE require payment processing in addition to registration, D2L also offers our optional Brightspace Course Catalog product. Using Brightspace Course Catalog users can register and pay for courses without going through the SIS. Learners can access Brightspace Course Catalog through a customized URL (generally, one per PASSHE institution). As Brightspace Course Catalog is not included base cost, we have provided a cost for a single institution.

- \$0 for Project Implementation per institution
- \$1/FTE for licensing per institution



Course Catalog

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 4—Contractor's Technical Proposal



[Course Catalog](#) | [View Course Details](#)

2) Does your LMS base cost include tools that generate optimized reporting and queries on system usage to identify and analyze online learning activity? Is this a baseline product, or is there an enhanced/premium version of this reporting/analytics? Provide any additional cost.

**D2L RESPONSE**

Yes, the LMS base cost provided includes tools that generate optimized reporting via Brightspace Analytics, the native reporting capability in Brightspace Learning Environment. Brightspace Analytics provides a useful interface through which PASSHE institutions can generate relevant reports and queries on system usage to identify and analyze online learning activity. The native reporting capabilities of Brightspace Learning Environment will meet the reporting needs identified in your RFP, as outlined within our RFP response.

Brightspace Analytics provides both class and user progress dashboards, inline tool reports and statistics, and administrator (course-level) reporting.

From within Brightspace Learning Environment, Brightspace Analytics offers the following:

- **Analytics-driven Quality Assurance Cycle:** Establish, track, and measure learner achievement and learning outcomes including making targeted interventions as part of the continuous cycle of improving instructional quality.
- **Accreditation Support:** Set at-a-glance competencies, learning objectives, learning outcomes, rubrics, and grades assessments at learner and course levels.
- **Integrated Assessment Analysis:** Assemble and analyze data from multiple sources and learning domains for accessing learning.
- **Learner and Course Progress Visualizations:** View learner progress and take action based on trends and patterns.
- **Advanced Statistics :** Evaluate the quality of assessments and learning metrics (quiz question analysis).
- **Interactive Reports:** View data at the learner and course levels using filtering and drill down.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 4—Contractor's Technical Proposal

Advanced statistics are available from the Classlist tool (enrollment statistics), the Content tool (content access), the Discussions tool (forum and topic statistics), the Grades tool (class and user statistics), the Quizzes tool (user and question statistics), the Rubrics tool (competencies and completion), the Seating Chart tool (attendance and participation), and the User and Class Progress tools.

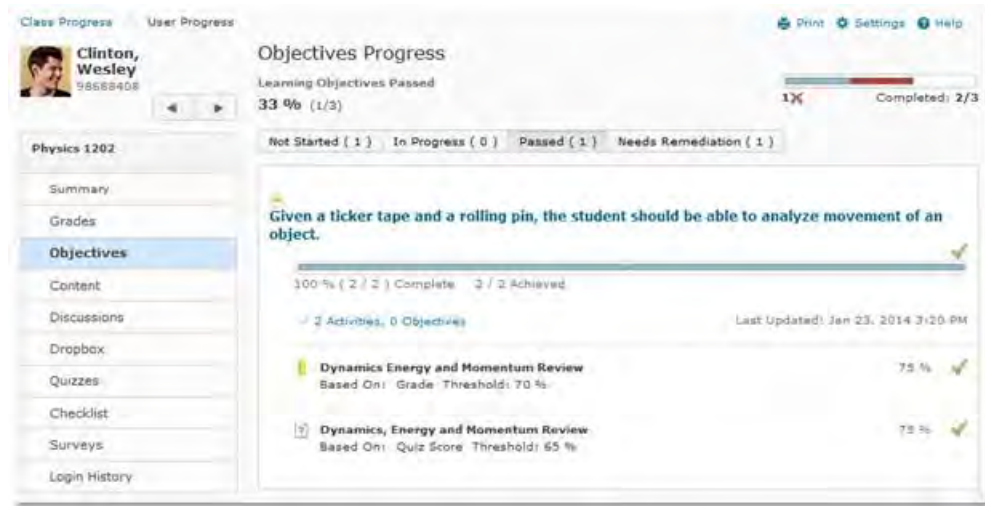
#### **FURTHER DETAILS ON BRIGHTSPACE ANALYTICS (INCLUDED IN BRIGHTSPACE LEARNING ENVIRONMENT)**

Brightspace Analytics also allows PASSHE institutions to create reports detailing system activity through the following:

- Class and User Progress Dashboards
- Inline Tool Reports & Statistics (e.g. export of grades from Gradebook, quiz statistics in the Quizzes tool, completion summary in the Content tool)
- Administrative Reports

#### **Class Progress and User Progress Dashboards**

The Class Progress and User Progress tools provide a detailed view on a number of key indicators to empower proactive response and intervention. Instructors can drill down and view summary reports to identify a student's progress on: grades, objectives (outcomes / goals), content, discussions, assignment submissions, quizzes, checklist and survey completion, and login history.



*The User Progress tool | Objectives Progress*

In addition, instructors can use the Class Progress dashboard to see at-a-glance how all students are doing in the class. Instructors are able to customize their dashboard by selecting four top indicators, which can include Objectives (e.g. outcomes, competencies, or goals).

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 4—Contractor's Technical Proposal



*Class Progress Dashboard | Content, Objectives, Discussions, and Grades*

### Inline Tool Reports

Reports can also be generated for the following tools or features within Brightspace Learning Environment:

Content	User Progress
Discussions	Competencies and Rubrics
Quizzes	Dropbox
Surveys, Self Assessments	Grades

For example, inside the Quizzes tool users can access tool-specific reports and statistics to view statistics such as class averages based on individual tests. Statistics can even drill down to the individual question including how frequently wrong answers are selected. Statistics are also equipped with search functionality so that specific data can be retrieved. All reports can be exported to a CSV file for analysis.





*The Quizzes tool | View of the User Stats Tab*

## Administrative Reports

Brightspace Analytics also provides Administrator reports. Administrator reporting dashboards give administrators the ability to create custom reports that detail Brightspace Learning Environment activities offering 22 datasets, multiple filters, and five different report render types. The data available for Brightspace Learning Environment to report on is contained in datasets. Once a dataset is chosen to report on, a render type can be selected (render types define the format of a report). Custom filters can also be added to reports to constrain the information to only show specified and relevant results.

The available render types are as follows:

	Area Graph		Pie Graph
	Bar Graph		Table
	Line Graph		

## ENHANCED NEXT-GENERATION ANALYTICS PORTFOLIO

We are innovators. Ovum (an independent analyst firm that specializes in research/consulting for IT and telecommunications industries), rated us as number one in this category that they define as the degree to which the vendor brings new ideas, features, and services to the market at a competitive price. Ovum also rated our overall analytics suite the number one in today's marketplace. Our complete industry leading analytics portfolio includes products like Brightspace Insights which helps consolidate and interpret learning data not just within the course, but also across programs, the campus, or across multiple campuses within PASSHE. Brightspace LeaP is an advanced analytics tool that recognizes prior learning and can serve up alternative content to students to help them achieve a common learning outcome. We included information including pricing on these optional analytic products within our original RFP submission.

Our focus on innovation is one of the many reasons why Brightspace has been voted the #1 LMS in the market today!

## About D2L

A global leader in EdTech, D2L is the creator of Brightspace, the world's first integrated learning platform. The company partners with thought-leading organizations to improve learning through data-driven technology that helps deliver a personalized experience to every learner, regardless of geography or ability. D2L's open and extensible platform is used by more than 1,100 clients and 15 million individual learners in higher education, K-12, healthcare, government, and the enterprise sector—including Fortune 1000 companies. The company has operations in the United States, Canada, Europe, Australia, Brazil, and Singapore.

[www.brightspace.com](http://www.brightspace.com) | [www.D2L.com](http://www.D2L.com)

### CONTACT US

**PHONE:** 1-519-772-0325 (Worldwide)  
**TOLL FREE:** 1-888-772-0325 (North America)  
0-808-234-4235 (United Kingdom and Europe)  
0-800-452-069 (New Zealand)  
1-800-656-210 (Australia)  
0-800-891-4507 (Brazil)  
  
**FAX:** 1-519-772-0324  
**EMAIL:** [info@brightspace.com](mailto:info@brightspace.com)  
**TWITTER:** @Brightspace  
**WEB:** [www.brightspace.com](http://www.brightspace.com) | [www.D2L.com](http://www.D2L.com)



### LMS Functionality & Technical Requirements

SECTION A			
COMPANY PROFILE and FUTURE DEVELOPMENT VISION			
#	Question	Yes/No	Supplier Response
1	Has your company served a state system consisting of multiple universities, with a student population of at least 1,000 students per institution over the past 5 years?	[REQUIRED]	Yes. D2L has served PASSHE, among other large state systems with multiple universities with a student population of at least 1,000 students per institution over the past 5 years and we have offered services to state systems for over 12 years.
2	Does your firm provide a hosted solution option?	[REQUIRED]	Yes. D2L recommends its Brightspace Cloud hosting solution.
3	If selected for a demonstration, the supplier will be required to provide a Sandbox. What roles will be made available (e.g. faculty, student and administrator) within this Sandbox?	Yes	All roles will be made available, faculty, student, and administrator.
4	Explain your efforts that have been made to meet WCAG 2.0 Level AA standards. Provide documentation outlining how your LMS meets these accessibility guidelines. ( <a href="http://www.w3.org/">http://www.w3.org/</a> )	Yes	We are so passionate about accessibility that inclusive design is a top priority tightly integrated with our research and development efforts. Our approach to accessibility is through both standards adherence and functional accessibility assessment. We understand that international standards form an important basis for interoperability with both current and future assistive technologies. Therefore, we design and test web applications against the World Wide Web Consortium's (W3C®) Web Content Accessibility Guidelines (WCAG) version 2 level AA and Section 508. WCAG 2.0 Level AA is the standard that Accessibility for Ontarians with Disabilities Act (AODA) is aligned with and the standard that the department of justice is looking to for the proposed revisions to the American Disabilities Act (ADA). We have included a copy of our WCAG compliance form with our response.
5	Provide a description of your five-year mobile learning roadmap.	Yes	We offer a number of mobile solutions including mobile web and native apps delivered directly or through public app stores. We have built a framework which provides cross-platform mobile support (including iPhone®, iPad®, Android™, and BlackBerry®) for our web applications. Brightspace Learning Environment includes dedicated web pages that are designed and optimized for viewing on a mobile device and supports mobile notifications. We are currently upgrading our responsive design interfaces and recently launched a redesign for Pulse in November 2015. We continue to invest in mobile technology with plans to support more tools in future releases.
6	List the mobile operating systems with which your system is compatible, including mobile OS version numbers. (e.g., Android 4.0, 5.0, 6.0).	Yes	Our mobile solutions support the following: Brightspace Pulse   Android 4.4+ and iOS 8+ Brightspace Binder   Android 4.4+ and iOS 8+ (for tablets) Brightspace ePortfolio Mobile   Android 4.0+ and iOS 7+ Brightspace Assignment Grader   Android 4.4+ (optimized for tablets) and iOS 7+ (for tablets)
7	How does your LMS currently support mobile device platforms?	Yes	Brightspace supports mobile learning through its mobile web and range of mobile apps, as described below.



## D2L PRICING

YEAR 1 PRICING IS EFFECTIVE JULY 1, 2017

PRICING BASED ON ANNUAL SUBSCRIPTION BASIS

IMPLEMENTATION FEES WILL BE INCURRED IN YEAR 1

Tab Name	Description	5 Year Costs
Learning Management System - (TAB 2-LMS IV-3 A-C)	Individual Base Price	\$ 5,668,961.54
Learning Management System - (TAB 2-LMS IV-3 A-C)	Technical Account Manager	\$ 1,327,283.95
Learning Management System - (TAB 2-LMS IV-3 A-C)	Training	\$ 35,000.00
Learning Management System - (TAB 2-LMS IV-3 A-C)	IPAS Integration	\$ 70,000.00
Enhanced LMS Analytics Tool - (TAB 3-LMS IV-3 D)	Brightspace Insights Individual Base Price	\$ 1,146,920.34
Enhanced LMS Analytics Tool - (TAB 3-LMS IV-3 D)	Training	\$ 35,000.00
Other Optional LMS Modules - (TAB 4-LMS IV-3 E)	Student Success System	\$ 2,143,840.69
Other Optional LMS Modules - (TAB 4-LMS IV-3 E)	Game Based Learning	\$ 930,190.26
Other Optional LMS Modules - (TAB 4-LMS IV-3 E)	ePortfolio	\$ 1,181,920.34
Other Optional LMS Modules - (TAB 4-LMS IV-3 E)	LeaP	\$ 2,440,570.78
Other Optional LMS Modules - (TAB 4-LMS IV-3 E)	Degree Compass	\$ 1,398,650.43
Other Optional LMS Modules - (TAB 4-LMS IV-3 E)	D2L MOOC	\$ 500,000.00
Help Desk Services - (TAB 5-LMS IV-3 F)	Individual Base Price	\$ 1,587,309.23
Web Online Tools - (TAB 6-LMS IV-3 G)	Individual Base Price	\$ 2,643,917.78
LCMS Content Repository - (TAB 7-LMS IV-3 H)	Individual Base Price	\$ 594,460.17
LCMS Content Repository - (TAB 7-LMS IV-3 H)	Training	\$ 35,000.00
TOTAL 5 YEARS		\$ 21,739,025.52

## D2L PRICING SUMMARY

1	Pricing reflected herein is available to each State System university at the same cost per FTE regardless of how many universities select D2L as their LMS provider.
2	There are no migration fees or implementation fees. Training is not required for the core base system.
3	Custom Consulting Engagement with D2L's Advisory and Consulting Services group to help each campus elevate its online strategy will be provided to the universities at no additional cost. Deliverables include:  Strategic planning and program management to help with campus collaboration Communication and marketing strategies to increase online enrollments Organizational and faculty readiness and engagement to increase adoption of online learning tools Competency based learning planning to ensure campuses are prepared for the learning model
4	A Technical Account Manager (TAM) for the first year of contracted services (effective July 1, 2017) and an upgrade to Gold Administrator Support will be provided at no additional cost.
5	Annual Renewal Pricing Increase of 3% applies, unless Bundled Option #4 is selected.  This contract may be renewed for three two-year additional terms by mutual written consent of authorized representatives of the Parties.
6	If all universities select D2L as their LMS provider prior to July 1, 2017, D2L will provide, on a pro-rated basis, Year One Pricing of this contract to the universities. Renewal Pricing will be effective July 1, 2018.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**D2L**  
**OPTIONAL BUNDLED PRICING**

**YEAR 1 PRICING IS EFFECTIVE JULY 1, 2017**

Description	Original Proposal Non-Bundled Pricing without ePortfolio	Original Proposal Non-Bundled Pricing with ePortfolio	Option 1 LMS BASE + ANALYTICS + HELP DESK	Option 2 LMS BASE + ANALYTICS + HELP DESK (ngt/wknd)	Option 2 ALL LMS BASE + ANALYTICS + HELP DESK (ngt/wknd) - ALL UNIVERSITIES	Option 3 LMS BASE + ANALYTICS + HELP DESK + Cloud Services + ePortfolio + Integrations	Option 4 ALL Option 3 + NO ANNUAL INCREASE FOR 5 YRS - ALL UNIVERSITIES
	FTE Price regardless of total FTE count	FTE Price regardless of total FTE count	Reduce total FTE from \$16.41 to \$15.59 ---- 5% discount	Reduce total FTE from \$15.76 to \$14.97 ---- 5% discount	Reduce total FTE from \$14.97 to \$14.29 ---- 5% discount	Reduce total FTE from \$18.41 to \$17.49 ---- 5% discount	Reduce total FTE from \$17.49 to \$16.61 ---- 5% discount
			FTE Price regardless of total FTE count	Original Price: \$15.76 (\$11.26 Base + \$2.00 Analytics + \$2.50 Help Desk After Hours)		FTE Price regardless of total FTE count	Reduce total FTE from \$16.61 to \$16.50 ---- additional 1% discount
Base Product	\$ 11.26	\$ 11.26	\$ 10.70	\$ 10.70	\$ 10.70	\$ 10.70	\$ 10.16
Analytics	\$ 2.00	\$ 2.00	\$ 1.90	\$ 1.90	\$ 1.90	\$ 1.90	\$ 1.81
Help Desk Ngt/Wkend	\$ 3.15	\$ 3.15	\$ 2.99	\$ 2.37	\$ 2.37	\$ 2.99	\$ 2.84
ePortfolio		\$ 2.00				\$ 1.90	\$ 1.80
Subtotal					\$ 14.97		\$ 16.61
<b>Total FTE Price</b>	<b>\$ 16.41</b>	<b>\$ 18.41</b>	<b>\$ 15.59</b>	<b>\$ 14.97</b>	<b>\$ 14.22</b>	<b>\$ 17.49</b>	<b>\$ 16.50</b>
<b>Discount</b>			<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>6%</b>

FIVE YEAR PRICING	Non-Bundled Pricing without ePortfolio	Non-Bundled Pricing with ePortfolio	Option 1	Option 2	Option 2	Option 3	Option 4
Base Product	\$ 5,668,961.54	\$ 5,668,961.54	\$ 5,387,023.85	\$ 5,387,023.85	\$ 5,117,672.65	\$ 5,387,023.85	\$ 4,817,518.35
Analytics	\$ 1,146,920.34	\$ 1,146,920.34	\$ 1,096,574.33	\$ 1,096,574.33	\$ 1,048,745.61	\$ 1,096,574.33	\$ 997,728.53
Help Desk	\$ 1,587,309.23	\$ 1,587,309.23	\$ 1,505,345.92	\$ 1,258,650.43	\$ 1,133,540.58	\$ 1,505,345.92	\$ 1,346,844.79
ePortfolio		\$ 1,181,920.34				\$ 1,131,574.33	\$ 1,028,461.23
<b>Total 5 Years</b>	<b>\$ 8,403,191.12</b>	<b>\$ 9,585,111.46</b>	<b>\$ 7,988,944.09</b>	<b>\$ 7,742,248.60</b>	<b>\$ 7,299,958.84</b>	<b>\$ 9,120,518.42</b>	<b>\$ 8,190,552.90</b>

Description	Option 1	Option 2	Option 2	Option 3	Option 4
Brightspace Learning Env	✓	✓	✓	✓	✓
Brightspace Cloud	✓	✓	✓	✓	✓
Standard Integrations	✓	✓	✓	✓	✓
Brightspace Insights	✓	✓	✓	✓	✓
Brightspace ePortfolio				✓	✓
24/7/365 Gold Support	✓	✓	✓	✓	✓
Help Desk (24/7)	✓			✓	✓
Help Desk (Night/Wkend)		✓	✓		
Renewal Rate	3%	3%	3%	3%	0%

Pennsylvania's State System of Higher Education

D2L Ltd.

Contract Inquiry No. 4700003087

Attachment 5—Contract Pricing

**D2L  
OPTIONAL BUNDLED PRICING**

ORIGINAL PROPOSAL												
LMS BASE + ANALYTICS + HELP DESK												
FTE		P/FTE	YR 1	P/FTE	YR 2	P/FTE	YR 3	P/FTE	YR 4	P/FTE	YR 5	TOTAL
94,829	BASE	\$ 11.26	\$ 1,067,774.82	\$ 11.60	\$ 1,099,808.07	\$ 11.95	\$ 1,132,802.31	\$ 12.30	\$ 1,166,786.38	\$ 12.67	\$ 1,201,789.97	\$ 5,668,961.54
94,829	ANALYTICS	\$ 2.00	\$ 189,658.05	\$ 2.06	\$ 195,347.79	\$ 2.12	\$ 201,208.23	\$ 2.19	\$ 207,244.47	\$ 2.25	\$ 213,461.81	\$ 1,146,920.34 *
94,829	HELP DESK	\$ 3.15	\$ 298,976.95	\$ 3.24	\$ 307,946.26	\$ 3.34	\$ 317,184.65	\$ 3.44	\$ 326,700.19	\$ 3.55	\$ 336,501.19	\$ 1,587,309.23
94,829	EPORTFOLIO	\$ 2.00	\$ 189,658.05	\$ 2.06	\$ 195,347.79	\$ 2.12	\$ 201,208.23	\$ 2.19	\$ 207,244.47	\$ 2.25	\$ 213,461.81	\$ 1,181,920.34 **
		<b>\$ 18.41</b>	<b>\$ 1,746,067.87</b>	<b>\$ 18.96</b>	<b>\$ 1,798,449.91</b>	<b>\$ 19.53</b>	<b>\$ 1,852,403.40</b>	<b>\$ 20.12</b>	<b>\$ 1,907,975.51</b>	<b>\$ 20.72</b>	<b>\$ 1,965,214.77</b>	<b>\$ 9,585,111.46</b>

Option 1												
LMS BASE + ANALYTICS + HELP DESK												
FTE		P/FTE	YR 1	P/FTE	YR 2	P/FTE	YR 3	P/FTE	YR 4	P/FTE	YR 5	TOTAL
94,829	BASE	\$ 10.70	\$ 1,014,670.57	\$ 11.02	\$ 1,045,110.68	\$ 11.35	\$ 1,076,464.01	\$ 11.69	\$ 1,108,757.93	\$ 12.04	\$ 1,142,020.66	\$ 5,387,023.85
94,829	ANALYTICS	\$ 1.90	\$ 180,175.15	\$ 1.96	\$ 185,580.40	\$ 2.02	\$ 191,147.81	\$ 2.08	\$ 196,882.25	\$ 2.14	\$ 202,788.72	\$ 1,096,574.33 *
94,829	HELP DESK	\$ 2.99	\$ 283,538.78	\$ 3.08	\$ 292,044.95	\$ 3.17	\$ 300,806.30	\$ 3.27	\$ 309,830.49	\$ 3.37	\$ 319,125.40	\$ 1,505,345.92
		<b>\$ 15.59</b>	<b>\$ 1,478,384.50</b>	<b>\$ 16.06</b>	<b>\$ 1,522,736.03</b>	<b>\$ 16.54</b>	<b>\$ 1,568,418.12</b>	<b>\$ 17.04</b>	<b>\$ 1,615,470.66</b>	<b>\$ 17.55</b>	<b>\$ 1,663,934.78</b>	<b>\$ 7,988,944.09</b>

Option 2												
LMS BASE + ANALYTICS + HELP DESK (ngt/wknd)												
FTE		P/FTE	YR 1	P/FTE	YR 2	P/FTE	YR 3	P/FTE	YR 4	P/FTE	YR 5	TOTAL
94,829	BASE	\$ 10.70	\$ 1,014,670.57	\$ 11.02	\$ 1,045,110.68	\$ 11.35	\$ 1,076,464.01	\$ 11.69	\$ 1,108,757.93	\$ 12.04	\$ 1,142,020.66	\$ 5,387,023.85
94,829	ANALYTICS	\$ 1.90	\$ 180,175.15	\$ 1.96	\$ 185,580.40	\$ 2.02	\$ 191,147.81	\$ 2.08	\$ 196,882.25	\$ 2.14	\$ 202,788.72	\$ 1,096,574.33 *
94,829	HELP DESK	\$ 2.37	\$ 237,072.56	\$ 2.44	\$ 244,184.74	\$ 2.51	\$ 251,510.28	\$ 2.59	\$ 259,055.59	\$ 2.67	\$ 266,827.26	\$ 1,258,650.43
		<b>\$ 14.97</b>	<b>\$ 1,431,918.28</b>	<b>\$ 15.42</b>	<b>\$ 1,474,875.83</b>	<b>\$ 15.88</b>	<b>\$ 1,519,122.10</b>	<b>\$ 16.36</b>	<b>\$ 1,564,695.76</b>	<b>\$ 16.85</b>	<b>\$ 1,611,636.64</b>	<b>\$ 7,742,248.60</b>

Option 2 - ALL UNIVERSITIES												
LMS BASE + ANALYTICS + HELP DESK (ngt/wknd)												
FTE		P/FTE	YR 1	P/FTE	YR 2	P/FTE	YR 3	P/FTE	YR 4	P/FTE	YR 5	TOTAL
94,829	BASE	\$ 10.17	\$ 963,937.04	\$ 10.47	\$ 992,855.15	\$ 10.78	\$ 1,022,640.80	\$ 11.11	\$ 1,053,320.03	\$ 11.44	\$ 1,084,919.63	\$ 5,117,672.65
94,829	ANALYTICS	\$ 1.81	\$ 171,166.39	\$ 1.86	\$ 176,301.38	\$ 1.91	\$ 181,590.42	\$ 1.97	\$ 187,038.14	\$ 2.03	\$ 192,649.28	\$ 1,048,745.61 *
94,829	HELP DESK	\$ 2.25	\$ 213,507.55	\$ 2.32	\$ 219,912.78	\$ 2.39	\$ 226,510.16	\$ 2.46	\$ 233,305.46	\$ 2.53	\$ 240,304.63	\$ 1,133,540.58
		<b>\$ 14.22</b>	<b>\$ 1,348,610.98</b>	<b>\$ 14.65</b>	<b>\$ 1,389,069.31</b>	<b>\$ 15.09</b>	<b>\$ 1,430,741.39</b>	<b>\$ 15.54</b>	<b>\$ 1,473,663.63</b>	<b>\$ 16.01</b>	<b>\$ 1,517,873.54</b>	<b>\$ 7,299,958.84</b>

Option 3												
LMS BASE + ANALYTICS + HELP DESK + Cloud Services + ePortfolio + Integrations												
FTE		P/FTE	YR 1	P/FTE	YR 2	P/FTE	YR 3	P/FTE	YR 4	P/FTE	YR 5	TOTAL
94,829	BASE	\$ 10.70	\$ 1,014,670.57	\$ 11.02	\$ 1,045,110.68	\$ 11.35	\$ 1,076,464.01	\$ 11.69	\$ 1,108,757.93	\$ 12.04	\$ 1,142,020.66	\$ 5,387,023.85
94,829	ANALYTICS	\$ 1.90	\$ 180,175.15	\$ 1.96	\$ 185,580.40	\$ 2.02	\$ 191,147.81	\$ 2.08	\$ 196,882.25	\$ 2.14	\$ 202,788.72	\$ 1,096,574.33 *
94,829	HELP DESK	\$ 2.99	\$ 283,538.78	\$ 3.08	\$ 292,044.95	\$ 3.17	\$ 300,806.30	\$ 3.27	\$ 309,830.49	\$ 3.37	\$ 319,125.40	\$ 1,505,345.92
94,829	EPORTFOLIO	\$ 1.90	\$ 180,175.15	\$ 1.96	\$ 185,580.40	\$ 2.02	\$ 191,147.81	\$ 2.08	\$ 196,882.25	\$ 2.14	\$ 202,788.72	\$ 1,131,574.33 **
		<b>\$ 17.49</b>	<b>\$ 1,658,559.65</b>	<b>\$ 18.01</b>	<b>\$ 1,708,316.44</b>	<b>\$ 18.56</b>	<b>\$ 1,759,565.93</b>	<b>\$ 19.11</b>	<b>\$ 1,812,352.91</b>	<b>\$ 19.69</b>	<b>\$ 1,866,723.49</b>	<b>\$ 9,120,518.42</b>

Option 4 ALL												
Option 3 + NO ANNUAL INCREASE FOR 5 YRS - ALL UNIVERSITIES												
FTE		P/FTE	YR 1	P/FTE	YR 2	P/FTE	YR 3	P/FTE	YR 4	P/FTE	YR 5	TOTAL
94,829	BASE	\$ 10.16	\$ 963,666.78	\$ 10.16	\$ 963,462.89	\$ 10.16	\$ 963,462.89	\$ 10.16	\$ 963,462.89	\$ 10.16	\$ 963,462.89	\$ 4,817,518.35
94,829	ANALYTICS	\$ 1.81	\$ 171,166.39	\$ 1.81	\$ 171,640.54	\$ 1.81	\$ 171,640.54	\$ 1.81	\$ 171,640.54	\$ 1.81	\$ 171,640.54	\$ 997,728.53 *
94,829	HELP DESK	\$ 2.84	\$ 269,587.06	\$ 2.84	\$ 269,314.43	\$ 2.84	\$ 269,314.43	\$ 2.84	\$ 269,314.43	\$ 2.84	\$ 269,314.43	\$ 1,346,844.79
94,829	EPORTFOLIO	\$ 1.80	\$ 170,692.25	\$ 1.80	\$ 170,692.25	\$ 1.80	\$ 170,692.25	\$ 1.80	\$ 170,692.25	\$ 1.80	\$ 170,692.25	\$ 1,028,461.23 **
		<b>\$ 16.50</b>	<b>\$ 1,575,112.48</b>	<b>\$ 16.61</b>	<b>\$ 1,575,110.11</b>	<b>\$ 16.61</b>	<b>\$ 1,575,110.11</b>	<b>\$ 16.61</b>	<b>\$ 1,575,110.11</b>	<b>\$ 16.61</b>	<b>\$ 1,575,110.11</b>	<b>\$ 8,190,552.90</b>

Option 4 ALL - ePortfolio price reduced from \$16.61 to \$16.50 ---- additional 1% discount

\*Includes Implementation Fees of \$140,000 which are due upon effective Purchase Order date

\*\* Includes Implementation Fees of \$175,000 which are due upon effective Purchase Order date

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

LEARNING MANAGEMENT SYSTEM												
BASE PRICING (Software/Maintenance) - INDIVIDUAL												
University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ -	\$ 11.26	\$ 99,530.14	\$ 11.60	\$ 102,516.05	\$ 11.95	\$ 105,591.53	\$ 12.30	\$ 108,759.27	\$ 12.67	\$ 112,022.05
California	6,553	-	\$ 11.26	\$ 73,785.09	\$ 11.60	\$ 75,998.64	\$ 11.95	\$ 78,278.60	\$ 12.30	\$ 80,626.96	\$ 12.67	\$ 83,045.77
Cheyney	678	-	\$ 11.26	\$ 7,636.72	\$ 11.60	\$ 7,865.82	\$ 11.95	\$ 8,101.80	\$ 12.30	\$ 8,344.85	\$ 12.67	\$ 8,595.20
Clarion	4,391	-	\$ 11.26	\$ 49,444.91	\$ 11.60	\$ 50,928.26	\$ 11.95	\$ 52,456.11	\$ 12.30	\$ 54,029.79	\$ 12.67	\$ 55,650.68
East Stroudsburg	6,246	-	\$ 11.26	\$ 70,327.15	\$ 11.60	\$ 72,436.96	\$ 11.95	\$ 74,610.07	\$ 12.30	\$ 76,848.37	\$ 12.67	\$ 79,153.82
Edinboro	5,562	-	\$ 11.26	\$ 62,632.25	\$ 11.60	\$ 64,511.22	\$ 11.95	\$ 66,446.55	\$ 12.30	\$ 68,439.95	\$ 12.67	\$ 70,493.15
Indiana	12,051	-	\$ 11.26	\$ 135,695.57	\$ 11.60	\$ 139,766.44	\$ 11.95	\$ 143,959.43	\$ 12.30	\$ 148,278.22	\$ 12.67	\$ 152,726.56
Kutztown	8,340	-	\$ 11.26	\$ 93,904.83	\$ 11.60	\$ 96,721.98	\$ 11.95	\$ 99,623.64	\$ 12.30	\$ 102,612.35	\$ 12.67	\$ 105,690.72
Lock Haven	4,339	-	\$ 11.26	\$ 48,853.39	\$ 11.60	\$ 50,318.99	\$ 11.95	\$ 51,828.56	\$ 12.30	\$ 53,383.41	\$ 12.67	\$ 54,984.92
Mansfield	2,190	-	\$ 11.26	\$ 24,657.34	\$ 11.60	\$ 25,397.06	\$ 11.95	\$ 26,158.97	\$ 12.30	\$ 26,943.74	\$ 12.67	\$ 27,752.05
Millersville	6,746	-	\$ 11.26	\$ 75,955.46	\$ 11.60	\$ 78,234.12	\$ 11.95	\$ 80,581.14	\$ 12.30	\$ 82,998.58	\$ 12.67	\$ 85,488.53
Shippensburg	6,223	-	\$ 11.26	\$ 70,076.05	\$ 11.60	\$ 72,178.33	\$ 11.95	\$ 74,343.68	\$ 12.30	\$ 76,573.99	\$ 12.67	\$ 78,871.21
Slippery Rock	8,039	-	\$ 11.26	\$ 90,518.01	\$ 11.60	\$ 93,233.55	\$ 11.95	\$ 96,030.56	\$ 12.30	\$ 98,911.48	\$ 12.67	\$ 101,878.82
West Chester	14,632	-	\$ 11.26	\$ 164,757.92	\$ 11.60	\$ 169,700.65	\$ 11.95	\$ 174,791.67	\$ 12.30	\$ 180,035.42	\$ 12.67	\$ 185,436.49
Subtotal	94,829	\$ -	\$ 11.26	\$ 1,067,774.82		\$ 1,099,808.07		\$ 1,132,802.31		\$ 1,166,786.38		\$ 1,201,789.97
				Total SaaS Cost (five years) \$ 5,668,961.54								

3% annual cost increase applies. No Implementation fees required. Price includes annual fees for Brightspace Learning Environment and Brightspace Cloud. Also includes annual maintenance fees for premium SIS integration, single PASSHE AD integration, Equella integration, IPAS Integration (CAS, Shibboleth) and test environment for all campuses. Implementation for IPAS Integration (CAS, Shibboleth) will be an additional charge.

BASE PRICING (Software/Maintenance) - AGGREGATE												
Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost	
1,000 - 5,000	\$ -	\$ 11.26	\$ 56,300.00	\$ 11.60	\$ 57,989.00	\$ 11.95	\$ 59,728.67	\$ 12.30	\$ 61,520.53	\$ 12.67	\$ 63,366.15	
5,001 - 7,500	\$ -	\$ 11.26	\$ 84,450.00	\$ 11.60	\$ 86,983.50	\$ 11.95	\$ 89,593.01	\$ 12.30	\$ 92,280.80	\$ 12.67	\$ 95,049.22	
7,501 - 10,000	\$ -	\$ 11.26	\$ 112,600.00	\$ 11.60	\$ 115,978.00	\$ 11.95	\$ 119,457.34	\$ 12.30	\$ 123,041.06	\$ 12.67	\$ 126,732.29	
10,001 - 12,500	\$ -	\$ 11.26	\$ 140,750.00	\$ 11.60	\$ 144,972.50	\$ 11.95	\$ 149,321.68	\$ 12.30	\$ 153,801.33	\$ 12.67	\$ 158,415.37	
12,501 - 15,000	\$ -	\$ 11.26	\$ 168,900.00	\$ 11.60	\$ 173,967.00	\$ 11.95	\$ 179,186.01	\$ 12.30	\$ 184,561.59	\$ 12.67	\$ 190,098.44	
15,001 - 20,000	\$ -	\$ 11.26	\$ 225,200.00	\$ 11.60	\$ 231,956.00	\$ 11.95	\$ 238,914.68	\$ 12.30	\$ 246,082.12	\$ 12.67	\$ 253,464.58	
20,001 - 25,000	\$ -	\$ 11.26	\$ 281,500.00	\$ 11.60	\$ 289,945.00	\$ 11.95	\$ 298,643.35	\$ 12.30	\$ 307,602.65	\$ 12.67	\$ 316,830.73	
25,001 - 30,000	\$ -	\$ 11.26	\$ 337,800.00	\$ 11.60	\$ 347,934.00	\$ 11.95	\$ 358,372.02	\$ 12.30	\$ 369,123.18	\$ 12.67	\$ 380,196.88	
30,001 - 50,000	\$ -	\$ 11.26	\$ 563,000.00	\$ 11.60	\$ 579,890.00	\$ 11.95	\$ 597,286.70	\$ 12.30	\$ 615,205.30	\$ 12.67	\$ 633,661.46	
50,001 - 75,000	\$ -	\$ 11.26	\$ 844,500.00	\$ 11.60	\$ 869,835.00	\$ 11.95	\$ 895,930.05	\$ 12.30	\$ 922,807.95	\$ 12.67	\$ 950,492.19	
75,001 - 100,000	\$ -	\$ 11.26	\$ 1,126,000.00	\$ 11.60	\$ 1,159,780.00	\$ 11.95	\$ 1,194,573.40	\$ 12.30	\$ 1,230,410.60	\$ 12.67	\$ 1,267,322.92	

3% annual cost increase applies. No implementation fees are required. Price includes annual fees for Brightspace Learning Environment and Brightspace Cloud. Also includes annual maintenance fees for premium SIS integration, single PASSHE AD integration, Equella integration, IPAS Integration (CAS, Shibboleth) and test environment for all campuses. Implementation for IPAS Integration (CAS, Shibboleth) will be an additional charge.

MIGRATION COSTS				
University	Fall 2015 FTE (Students)	Number of Courses	Price/Course	Price
Bloomsburg	8,839	15,261		\$ -
California	6,553	12,544		\$ -
Cheyney	678	3,871		\$ -
Clarion	4,391	12,677		\$ -
East Stroudsburg	6,246	11,100		\$ -
Edinboro	5,562	12,050		\$ -
Indiana	12,051	33,524		\$ -
Kutztown	8,340	17,579		\$ -
Lock Haven	4,339	9,056		\$ -
Mansfield	2,190	6,434		\$ -
Millersville	6,746	7,022		\$ -
Shippensburg	6,223	10,024		\$ -
Slippery Rock	8,039	14,425		\$ -
West Chester	14,632	28,843		\$ -
Subtotal		194,410		\$ -

Not required as PASSHE is currently on the Brightspace platform.

REAL-TIME INTEGRATION COSTS		
SIS	Price per University	
Banner	\$ 18,500.00	
Datatel	\$ 18,500.00	
Jenzabar	\$ 18,500.00	
PeopleSoft	\$ 18,500.00	
PowerCampus	\$ 18,500.00	\$ 259,000.00

Fee would only be applicable for Universities interested in upgrading existing SIS integration into D2L. No change in annual maintenance fees.

TRAINING COSTS		
Training	Price per Day	
Administrator Training	\$ 2,500.00	\$ 35,000.00
Instructor Training	\$ 2,500.00	

Not required however D2L training is encourage for PASSHE Universities for solution refreshers and solution best practices. Travel expenses are additional cost.

ADDITIONAL COSTS		
Description	Price	
100 Hours Advisory Consulting Services @ \$300/hr = \$30,000 value. Conditional upon all campuses remaining with D2L.	Included	
Redeploy Equella Integration	\$5,000/school	
IPAS Integration	\$5,000/School	\$ 70,000.00
Technical Account Manager (TAM)		\$ 1,327,283.95

D2L's value package to PASSHE includes 100 hours of our Advisory Consulting Services to guide the system and each individual campus with your strategic planning and program management including such topics as Competency Based Education & Digital Data Management. This offer is conditional upon all campuses remaining with D2L. D2L's value package also included a free limited trial of our Technical Account Management program (please see Help Desk tab). Equella integration costs are a flat rate of \$5,000 per campus to redeploy, reconfigure & retrain LMS administrators. Likewise Integration Pack for Authentication Systems (IPAS) cost per campus is \$5,000. IPAS supports CAS/Shibboleth which will help meet the

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**ENHANCED LMS ANALYTICS TOOL (Brightspace Insights)**

BASE PRICING (Software/Maintenance) - INDIVIDUAL												
University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 10,000.00	\$ 2.00	\$ 17,678.53	\$ 2.06	\$ 18,208.89	\$ 2.12	\$ 18,755.16	\$ 2.19	\$ 19,317.81	\$ 2.25	\$ 19,897.35
California	6,553	\$ 10,000.00	\$ 2.00	\$ 13,105.70	\$ 2.06	\$ 13,498.87	\$ 2.12	\$ 13,903.84	\$ 2.19	\$ 14,320.95	\$ 2.25	\$ 14,750.58
Cheyney	678	\$ 10,000.00	\$ 2.00	\$ 1,356.43	\$ 2.06	\$ 1,397.13	\$ 2.12	\$ 1,439.04	\$ 2.19	\$ 1,482.21	\$ 2.25	\$ 1,526.68
Clarion	4,391	\$ 10,000.00	\$ 2.00	\$ 8,782.40	\$ 2.06	\$ 9,045.87	\$ 2.12	\$ 9,317.25	\$ 2.19	\$ 9,596.77	\$ 2.25	\$ 9,884.67
East Stroudsburg	6,246	\$ 10,000.00	\$ 2.00	\$ 12,491.50	\$ 2.06	\$ 12,866.25	\$ 2.12	\$ 13,252.23	\$ 2.19	\$ 13,649.80	\$ 2.25	\$ 14,059.29
Edinboro	5,562	\$ 10,000.00	\$ 2.00	\$ 11,124.73	\$ 2.06	\$ 11,458.48	\$ 2.12	\$ 11,802.23	\$ 2.19	\$ 12,156.30	\$ 2.25	\$ 12,520.99
Indiana	12,051	\$ 10,000.00	\$ 2.00	\$ 24,102.23	\$ 2.06	\$ 24,825.30	\$ 2.12	\$ 25,570.06	\$ 2.19	\$ 26,337.16	\$ 2.25	\$ 27,127.28
Kutztown	8,340	\$ 10,000.00	\$ 2.00	\$ 16,679.37	\$ 2.06	\$ 17,179.75	\$ 2.12	\$ 17,695.14	\$ 2.19	\$ 18,225.99	\$ 2.25	\$ 18,772.77
Lock Haven	4,339	\$ 10,000.00	\$ 2.00	\$ 8,677.33	\$ 2.06	\$ 8,937.65	\$ 2.12	\$ 9,205.78	\$ 2.19	\$ 9,481.96	\$ 2.25	\$ 9,766.42
Mansfield	2,190	\$ 10,000.00	\$ 2.00	\$ 4,379.63	\$ 2.06	\$ 4,511.02	\$ 2.12	\$ 4,646.35	\$ 2.19	\$ 4,785.74	\$ 2.25	\$ 4,929.32
Millersville	6,746	\$ 10,000.00	\$ 2.00	\$ 13,491.20	\$ 2.06	\$ 13,895.94	\$ 2.12	\$ 14,312.81	\$ 2.19	\$ 14,742.20	\$ 2.25	\$ 15,184.46
Shippensburg	6,223	\$ 10,000.00	\$ 2.00	\$ 12,446.90	\$ 2.06	\$ 12,820.31	\$ 2.12	\$ 13,204.92	\$ 2.19	\$ 13,601.06	\$ 2.25	\$ 14,009.10
Slippery Rock	8,039	\$ 10,000.00	\$ 2.00	\$ 16,077.80	\$ 2.06	\$ 16,560.13	\$ 2.12	\$ 17,056.94	\$ 2.19	\$ 17,568.65	\$ 2.25	\$ 18,095.71
West Chester	14,632	\$ 10,000.00	\$ 2.00	\$ 29,264.28	\$ 2.06	\$ 30,142.21	\$ 2.12	\$ 31,046.48	\$ 2.19	\$ 31,977.87	\$ 2.25	\$ 32,937.21
Subtotal	94,829	\$ 140,000.00	\$ 2.00	\$ 189,658.05	\$ 2.06	\$ 195,347.79	\$ 2.12	\$ 201,208.23	\$ 2.19	\$ 207,244.47	\$ 2.25	\$ 213,461.81
				Total SaaS Cost (five years) \$ 1,146,920.34								

If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$100,000. 3% annual cost increase applies.

BASE PRICING (Software/Maintenance) - AGGREGATE											
Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	\$ 10,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 10,300.00	\$ 2.12	\$ 10,609.00	\$ 2.19	\$ 10,927.27	\$ 2.25	\$ 11,255.09
5,001 - 7,500	\$ 10,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 15,450.00	\$ 2.12	\$ 15,913.50	\$ 2.19	\$ 16,390.91	\$ 2.25	\$ 16,882.63
7,501 - 10,000	\$ 10,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 20,600.00	\$ 2.12	\$ 21,218.00	\$ 2.19	\$ 21,854.54	\$ 2.25	\$ 22,510.18
10,001 - 12,500	\$ 20,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 25,750.00	\$ 2.12	\$ 26,522.50	\$ 2.19	\$ 27,318.18	\$ 2.25	\$ 28,137.72
12,501 - 15,000	\$ 20,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 30,900.00	\$ 2.12	\$ 31,827.00	\$ 2.19	\$ 32,781.81	\$ 2.25	\$ 33,765.26
15,001 - 20,000	\$ 30,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 41,200.00	\$ 2.12	\$ 42,436.00	\$ 2.19	\$ 43,709.08	\$ 2.25	\$ 45,020.35
20,001 - 25,000	\$ 30,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 51,500.00	\$ 2.12	\$ 53,045.00	\$ 2.19	\$ 54,636.35	\$ 2.25	\$ 56,275.44
25,001 - 30,000	\$ 30,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 61,800.00	\$ 2.12	\$ 63,654.00	\$ 2.19	\$ 65,563.62	\$ 2.25	\$ 67,530.53
30,001 - 50,000	\$ 40,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 103,000.00	\$ 2.12	\$ 106,090.00	\$ 2.19	\$ 109,272.70	\$ 2.25	\$ 112,550.88
50,001 - 75,000	\$ 80,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 154,500.00	\$ 2.12	\$ 159,135.00	\$ 2.19	\$ 163,909.05	\$ 2.25	\$ 168,826.32
75,001 - 100,000	\$ 100,000.00	\$ 2.00	\$ -	\$ 2.06	\$ 206,000.00	\$ 2.12	\$ 212,180.00	\$ 2.19	\$ 218,545.40	\$ 2.25	\$ 225,101.76

If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$100,000. 3% annual cost increase applies. Travel expenses are additional cost.

TRAINING COSTS		
Training	Price per Day	
Administrator Training	\$ 2,500.00	\$ 35,000.00
Instructor Training	\$ 2,500.00	

One day training per campus is recommended. If scheduling onsite, it may be possible to accommodate multiple campuses within one training session (up to 8 admins and/or 12 instructors per session).

ADDITIONAL COSTS		
Description	Price	
N/A		

## OTHER OPTIONAL LMS MODULES

Description	Price
Student Success System	\$ 2,143,840.69
Game Based Learning	\$ 930,190.26
ePortfolio	\$ 1,181,920.34
LeaP	\$ 2,440,570.78
Degree Compass	\$ 1,398,650.43
MOOC	\$ 500,000.00

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**HELP DESK SERVICES**

**BASE PRICING (Software/Maintenance) - INDIVIDUAL**

University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	-	\$ 3.15	\$ 27,868.44	\$ 3.25	\$ 28,704.49	\$ 3.34	\$ 29,565.63	\$ 3.45	\$ 30,452.60	\$ 3.55	\$ 31,366.17
California	6,553	-	\$ 3.15	\$ 20,659.83	\$ 3.25	\$ 21,279.62	\$ 3.34	\$ 21,918.01	\$ 3.45	\$ 22,575.55	\$ 3.55	\$ 23,252.82
Cheyney	678	-	\$ 3.15	\$ 2,138.28	\$ 3.25	\$ 2,202.43	\$ 3.34	\$ 2,268.50	\$ 3.45	\$ 2,336.56	\$ 3.55	\$ 2,406.65
Clarion	4,391	-	\$ 3.15	\$ 13,844.58	\$ 3.25	\$ 14,259.91	\$ 3.34	\$ 14,687.71	\$ 3.45	\$ 15,128.34	\$ 3.55	\$ 15,582.19
East Stroudsburg	6,246	-	\$ 3.15	\$ 19,691.60	\$ 3.25	\$ 20,282.35	\$ 3.34	\$ 20,890.82	\$ 3.45	\$ 21,517.54	\$ 3.55	\$ 22,163.07
Edinboro	5,562	-	\$ 3.15	\$ 17,537.03	\$ 3.25	\$ 18,063.14	\$ 3.34	\$ 18,605.03	\$ 3.45	\$ 19,163.19	\$ 3.55	\$ 19,738.08
Indiana	12,051	-	\$ 3.15	\$ 37,994.76	\$ 3.25	\$ 39,134.60	\$ 3.34	\$ 40,308.64	\$ 3.45	\$ 41,517.90	\$ 3.55	\$ 42,763.44
Kutztown	8,340	-	\$ 3.15	\$ 26,293.35	\$ 3.25	\$ 27,082.15	\$ 3.34	\$ 27,894.62	\$ 3.45	\$ 28,731.46	\$ 3.55	\$ 29,593.40
Lock Haven	4,339	-	\$ 3.15	\$ 13,678.95	\$ 3.25	\$ 14,089.32	\$ 3.34	\$ 14,512.00	\$ 3.45	\$ 14,947.36	\$ 3.55	\$ 15,395.78
Mansfield	2,190	-	\$ 3.15	\$ 6,904.05	\$ 3.25	\$ 7,111.18	\$ 3.34	\$ 7,324.51	\$ 3.45	\$ 7,544.25	\$ 3.55	\$ 7,770.57
Millersville	6,746	-	\$ 3.15	\$ 21,267.53	\$ 3.25	\$ 21,905.55	\$ 3.34	\$ 22,562.72	\$ 3.45	\$ 23,239.60	\$ 3.55	\$ 23,936.79
Shippensburg	6,223	-	\$ 3.15	\$ 19,621.29	\$ 3.25	\$ 20,209.93	\$ 3.34	\$ 20,816.23	\$ 3.45	\$ 21,440.72	\$ 3.55	\$ 22,083.94
Slippery Rock	8,039	-	\$ 3.15	\$ 25,345.04	\$ 3.25	\$ 26,105.40	\$ 3.34	\$ 26,888.56	\$ 3.45	\$ 27,695.21	\$ 3.55	\$ 28,526.07
West Chester	14,632	-	\$ 3.15	\$ 46,132.22	\$ 3.25	\$ 47,516.18	\$ 3.34	\$ 48,941.67	\$ 3.45	\$ 50,409.92	\$ 3.55	\$ 51,922.22
Subtotal	94,829	\$ -	\$ 3.15	\$ 298,976.95	\$ 3.24	\$ 307,946.26	\$ 3.34	\$ 317,184.65	\$ 3.44	\$ 326,700.19	\$ 3.55	\$ 336,501.19
				Total SaaS Cost (five years) \$ 1,587,309.23								

Gold Administrator Support + Standard End User Support, includes 24/7/365 plus custom phone lines. Rates are based on Tab 2 product assortment. 3% annual cost increase. If additional products are purchased, 28% of product annual fee is added to quote for additional support cost.**PRICING FOR END USER SUPPORT FOR NIGHT/WKENDS: \$2.50 PER FTE. (8PM-8AM M-F + 24/7 SUPPORT SAT/SUN)**

**BASE PRICING (Software/Maintenance) - AGGREGATE**

Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	-	\$ 3.15	\$ 15,764.00	\$ 3.25	\$ 16,236.92	\$ 3.34	\$ 16,724.03	\$ 3.45	\$ 17,225.75	\$ 3.55	\$ 17,742.52
5,001 - 7,500	-	\$ 3.15	\$ 23,646.00	\$ 3.25	\$ 24,355.38	\$ 3.34	\$ 25,086.04	\$ 3.45	\$ 25,838.62	\$ 3.55	\$ 26,613.78
7,501 - 10,000	-	\$ 3.15	\$ 31,528.00	\$ 3.25	\$ 32,473.84	\$ 3.34	\$ 33,448.06	\$ 3.45	\$ 34,451.50	\$ 3.55	\$ 35,485.04
10,001 - 12,500	-	\$ 3.15	\$ 39,410.00	\$ 3.25	\$ 40,592.30	\$ 3.34	\$ 41,810.07	\$ 3.45	\$ 43,064.37	\$ 3.55	\$ 44,356.30
12,501 - 15,000	-	\$ 3.15	\$ 47,292.00	\$ 3.25	\$ 48,710.76	\$ 3.34	\$ 50,172.08	\$ 3.45	\$ 51,677.25	\$ 3.55	\$ 53,227.56
15,001 - 20,000	-	\$ 3.15	\$ 63,056.00	\$ 3.25	\$ 64,947.68	\$ 3.34	\$ 66,896.11	\$ 3.45	\$ 68,902.99	\$ 3.55	\$ 70,970.08
20,001 - 25,000	-	\$ 3.15	\$ 78,820.00	\$ 3.25	\$ 81,184.60	\$ 3.34	\$ 83,620.14	\$ 3.45	\$ 86,128.74	\$ 3.55	\$ 88,712.60
25,001 - 30,000	-	\$ 3.15	\$ 94,584.00	\$ 3.25	\$ 97,421.52	\$ 3.34	\$ 100,344.17	\$ 3.45	\$ 103,354.49	\$ 3.55	\$ 106,455.13
30,001 - 50,000	-	\$ 3.15	\$ 157,640.00	\$ 3.25	\$ 162,369.20	\$ 3.34	\$ 167,240.28	\$ 3.45	\$ 172,257.48	\$ 3.55	\$ 177,425.21
50,001 - 75,000	-	\$ 3.15	\$ 236,460.00	\$ 3.25	\$ 243,553.80	\$ 3.34	\$ 250,860.41	\$ 3.45	\$ 258,386.23	\$ 3.55	\$ 266,137.81
75,001 - 100,000	-	\$ 3.15	\$ 315,280.00	\$ 3.25	\$ 324,738.40	\$ 3.34	\$ 334,480.55	\$ 3.45	\$ 344,514.97	\$ 3.55	\$ 354,850.42

Gold Administrator Support + Standard End User Support, includes 24/7/365 plus custom phone lines. Rates are based on Tab 2 product assortment. 3% annual cost increase. If additional products are purchased, 28% of product annual fee is added to quote for additional support cost.

Modality	Per hour/Incident?	Alternate Support Cost
	Y/N	N/A
(Example: weekends, evening, holidays)		N/A

D2L recommends full 24/7/365 coverage for both administrator and end user support. Campuses can elect to only advertise limited hours. In our experience, if coverage ends at 9 AM ET, we prefer to continue owning the ticket and will see the ticket to resolution rather than trying to triage the ticket to the local help desk. For this reason our Help Desk services usually continue outside of limited hours and are effectively a 24/7/365 service model.

Additional Support Methods	Implementation	Yearly Maintenance
Additional Support Methods not included in proposal	N/A	N/A
Additional Languages not included in proposal	N/A	N/A
Support of components beyond Learning Management System	see note below	see note below

Support for Web Online Tools (Newrow\_) is included at no additional charge but is provided directly by Newrow\_ and not D2L

**TRAINING COSTS**

Training	Price per Day
N/A	N/A

No additional training is required

**ADDITIONAL COSTS**

Description	Price
Technical Account Manager 1.5 @ \$50,000. See Note Below	Included in Yr 1

See Additional Costs at Learning Management System Section

D2L is committed to the PASSHE system and individual campuses to strengthening our partnership and enhancing our service levels. As a value add, D2L is offering the PASSHE system a Technical Account Manager (TAM) at no charge for year 1, with the option to purchase in years 2 through 5. This offer is conditional upon all Universities within PASSHE remaining with D2L.



Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**WEB ONLINE TOOLS (newrow\_)**

**BASE PRICING (Software/Maintenance) - INDIVIDUAL**

University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 6,187	\$ 5.40	\$ 47,732.04	\$ 5.40	\$ 47,732.04	\$ 5.40	\$ 47,732.04	\$ 5.40	\$ 47,732.04	\$ 5.40	\$ 47,732.04
California	6,553	\$ 4,751	\$ 5.50	\$ 36,040.68	\$ 5.50	\$ 36,040.68	\$ 5.50	\$ 36,040.68	\$ 5.50	\$ 36,040.68	\$ 5.50	\$ 36,040.68
Cheyney	678	\$ 509	\$ 5.65	\$ 3,831.92	\$ 5.65	\$ 3,831.92	\$ 5.65	\$ 3,831.92	\$ 5.65	\$ 3,831.92	\$ 5.65	\$ 3,831.92
Clarion	4,391	\$ 3,293	\$ 5.65	\$ 24,810.28	\$ 5.65	\$ 24,810.28	\$ 5.65	\$ 24,810.28	\$ 5.65	\$ 24,810.28	\$ 5.65	\$ 24,810.28
East Stroudsburg	6,246	\$ 4,528	\$ 5.50	\$ 34,351.63	\$ 5.50	\$ 34,351.63	\$ 5.50	\$ 34,351.63	\$ 5.50	\$ 34,351.63	\$ 5.50	\$ 34,351.63
Edinboro	5,562	\$ 4,033	\$ 5.50	\$ 30,593.02	\$ 5.50	\$ 30,593.02	\$ 5.50	\$ 30,593.02	\$ 5.50	\$ 30,593.02	\$ 5.50	\$ 30,593.02
Indiana	12,051	\$ 8,135	\$ 5.30	\$ 63,870.92	\$ 5.30	\$ 63,870.92	\$ 5.30	\$ 63,870.92	\$ 5.30	\$ 63,870.92	\$ 5.30	\$ 63,870.92
Kutztown	8,340	\$ 5,838	\$ 5.40	\$ 45,034.29	\$ 5.40	\$ 45,034.29	\$ 5.40	\$ 45,034.29	\$ 5.40	\$ 45,034.29	\$ 5.40	\$ 45,034.29
Lock Haven	4,339	\$ 3,254	\$ 5.65	\$ 24,513.47	\$ 5.65	\$ 24,513.47	\$ 5.65	\$ 24,513.47	\$ 5.65	\$ 24,513.47	\$ 5.65	\$ 24,513.47
Mansfield	2,190	\$ 1,642	\$ 5.65	\$ 12,372.46	\$ 5.65	\$ 12,372.46	\$ 5.65	\$ 12,372.46	\$ 5.65	\$ 12,372.46	\$ 5.65	\$ 12,372.46
Millersville	6,746	\$ 4,891	\$ 5.50	\$ 37,100.80	\$ 5.50	\$ 37,100.80	\$ 5.50	\$ 37,100.80	\$ 5.50	\$ 37,100.80	\$ 5.50	\$ 37,100.80
Shippensburg	6,223	\$ 4,512	\$ 5.50	\$ 34,228.98	\$ 5.50	\$ 34,228.98	\$ 5.50	\$ 34,228.98	\$ 5.50	\$ 34,228.98	\$ 5.50	\$ 34,228.98
Slippery Rock	8,039	\$ 5,627	\$ 5.40	\$ 43,410.60	\$ 5.40	\$ 43,410.60	\$ 5.40	\$ 43,410.60	\$ 5.40	\$ 43,410.60	\$ 5.40	\$ 43,410.60
West Chester	14,632	\$ 9,511	\$ 5.30	\$ 77,550.35	\$ 5.30	\$ 77,550.35	\$ 5.30	\$ 77,550.35	\$ 5.30	\$ 77,550.35	\$ 5.30	\$ 77,550.35
Subtotal	94,829	\$ 66,711		\$ 515,441.43		\$ 515,441.43		\$ 515,441.43		\$ 515,441.43		\$ 515,441.43
				<b>Total SaaS Cost (five years) \$ 2,643,917.78</b>								

Please note that these costs reflect 3rd party newrow\_ pricing.  
The implementation fee includes initial set up, integration and training of instructors.  
Annual FTE prices includes 24X7 support by phone, email and chat.

**BASE PRICING (Software/Maintenance) - AGGREGATE**

Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	\$ 3,750	\$ 5.65	\$ 28,250.00	\$ 5.65	\$ 28,250.00	\$ 5.65	\$ 28,250.00	\$ 5.65	\$ 28,250.00	\$ 5.65	\$ 28,250.00
5,001 - 7,500	\$ 5,438	\$ 5.50	\$ 41,250.00	\$ 5.50	\$ 41,250.00	\$ 5.50	\$ 41,250.00	\$ 5.50	\$ 41,250.00	\$ 5.50	\$ 41,250.00
7,501 - 10,000	\$ 7,000	\$ 5.40	\$ 54,000.00	\$ 5.40	\$ 54,000.00	\$ 5.40	\$ 54,000.00	\$ 5.40	\$ 54,000.00	\$ 5.40	\$ 54,000.00
10,001 - 12,500	\$ 8,438	\$ 5.30	\$ 66,250.00	\$ 5.30	\$ 66,250.00	\$ 5.30	\$ 66,250.00	\$ 5.30	\$ 66,250.00	\$ 5.30	\$ 66,250.00
12,501 - 15,000	\$ 9,750	\$ 5.15	\$ 77,250.00	\$ 5.15	\$ 77,250.00	\$ 5.15	\$ 77,250.00	\$ 5.15	\$ 77,250.00	\$ 5.15	\$ 77,250.00
15,001 - 20,000	\$ 12,800	\$ 5.05	\$ 101,000.00	\$ 5.05	\$ 101,000.00	\$ 5.05	\$ 101,000.00	\$ 5.05	\$ 101,000.00	\$ 5.05	\$ 101,000.00
20,001 - 25,000	\$ 15,750	\$ 4.90	\$ 122,500.00	\$ 4.90	\$ 122,500.00	\$ 4.90	\$ 122,500.00	\$ 4.90	\$ 122,500.00	\$ 4.90	\$ 122,500.00
25,001 - 30,000	\$ 18,600	\$ 4.80	\$ 144,000.00	\$ 4.80	\$ 144,000.00	\$ 4.80	\$ 144,000.00	\$ 4.80	\$ 144,000.00	\$ 4.80	\$ 144,000.00
30,001 - 50,000	\$ 30,500	\$ 4.70	\$ 235,000.00	\$ 4.70	\$ 235,000.00	\$ 4.70	\$ 235,000.00	\$ 4.70	\$ 235,000.00	\$ 4.70	\$ 235,000.00
50,001 - 75,000	\$ 45,000	\$ 4.55	\$ 341,250.00	\$ 4.55	\$ 341,250.00	\$ 4.55	\$ 341,250.00	\$ 4.55	\$ 341,250.00	\$ 4.55	\$ 341,250.00
75,001 - 100,000	\$ 60,000	\$ 4.45	\$ 445,000.00	\$ 4.45	\$ 445,000.00	\$ 4.45	\$ 445,000.00	\$ 4.45	\$ 445,000.00	\$ 4.45	\$ 445,000.00

The implementation fee includes initial set up, integration and training of instructors.  
Annual FTE prices includes 24X7 support by phone, email and chat.

**TRAINING COSTS**

Training	Price per Day
N/A	N/A

Training is included with Newrow\_ implementation

**ADDITIONAL COSTS**

Description	Price
A "Study only" option is available for small group discussion and collaboration. This option allows students and instructors to create their own small group meeting rooms for working in groups, TA sessions and office hours.	50% discount on the annual maintenance cost.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**LCMS CONTENT REPOSITORY (Brightspace Learning Repository)**

**BASE PRICING (Software/Maintenance) - INDIVIDUAL**

University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 6,500.00	\$ 1.00	\$ 8,839.27	\$ 1.03	\$ 9,104.44	\$ 1.06	\$ 9,377.58	\$ 1.09	\$ 9,658.91	\$ 1.13	\$ 9,948.67
California	6,553	\$ 6,500.00	\$ 1.00	\$ 6,552.85	\$ 1.03	\$ 6,749.44	\$ 1.06	\$ 6,951.92	\$ 1.09	\$ 7,160.48	\$ 1.13	\$ 7,375.29
Cheyney	678	\$ 6,500.00	\$ 1.00	\$ 678.22	\$ 1.03	\$ 698.56	\$ 1.06	\$ 719.52	\$ 1.09	\$ 741.11	\$ 1.13	\$ 763.34
Clarion	4,391	\$ 6,500.00	\$ 1.00	\$ 4,391.20	\$ 1.03	\$ 4,522.94	\$ 1.06	\$ 4,658.62	\$ 1.09	\$ 4,798.38	\$ 1.13	\$ 4,942.33
East Stroudsburg	6,246	\$ 6,500.00	\$ 1.00	\$ 6,245.75	\$ 1.03	\$ 6,433.12	\$ 1.06	\$ 6,626.12	\$ 1.09	\$ 6,824.90	\$ 1.13	\$ 7,029.65
Edinboro	5,562	\$ 6,500.00	\$ 1.00	\$ 5,562.37	\$ 1.03	\$ 5,729.24	\$ 1.06	\$ 5,901.11	\$ 1.09	\$ 6,078.15	\$ 1.13	\$ 6,260.49
Indiana	12,051	\$ 6,500.00	\$ 1.00	\$ 12,051.12	\$ 1.03	\$ 12,412.65	\$ 1.06	\$ 12,785.03	\$ 1.09	\$ 13,168.58	\$ 1.13	\$ 13,563.64
Kutztown	8,340	\$ 6,500.00	\$ 1.00	\$ 8,339.68	\$ 1.03	\$ 8,589.87	\$ 1.06	\$ 8,847.57	\$ 1.09	\$ 9,113.00	\$ 1.13	\$ 9,386.39
Lock Haven	4,339	\$ 6,500.00	\$ 1.00	\$ 4,338.67	\$ 1.03	\$ 4,468.83	\$ 1.06	\$ 4,602.89	\$ 1.09	\$ 4,740.98	\$ 1.13	\$ 4,883.21
Mansfield	2,190	\$ 6,500.00	\$ 1.00	\$ 2,189.82	\$ 1.03	\$ 2,255.51	\$ 1.06	\$ 2,323.18	\$ 1.09	\$ 2,392.87	\$ 1.13	\$ 2,464.66
Millersville	6,746	\$ 6,500.00	\$ 1.00	\$ 6,745.60	\$ 1.03	\$ 6,947.97	\$ 1.06	\$ 7,156.41	\$ 1.09	\$ 7,371.10	\$ 1.13	\$ 7,592.23
Shippensburg	6,223	\$ 6,500.00	\$ 1.00	\$ 6,223.45	\$ 1.03	\$ 6,410.15	\$ 1.06	\$ 6,602.46	\$ 1.09	\$ 6,800.53	\$ 1.13	\$ 7,004.55
Slippery Rock	8,039	\$ 6,500.00	\$ 1.00	\$ 8,038.90	\$ 1.03	\$ 8,280.07	\$ 1.06	\$ 8,528.47	\$ 1.09	\$ 8,784.32	\$ 1.13	\$ 9,047.85
West Chester	14,632	\$ 6,500.00	\$ 1.00	\$ 14,632.14	\$ 1.03	\$ 15,071.11	\$ 1.06	\$ 15,523.24	\$ 1.09	\$ 15,988.94	\$ 1.13	\$ 16,468.60
<b>Subtotal</b>	<b>94,829</b>	<b>\$ 91,000.00</b>		<b>\$ 94,829.03</b>		<b>\$ 97,673.90</b>		<b>\$ 100,604.11</b>		<b>\$ 103,622.24</b>		<b>\$ 106,730.90</b>
<b>Total SaaS Cost (five years) \$ 594,460.17</b>												

Annual Fee indicated represents PASSHE purchasing from the 75-100K tier. If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$80,000. Annual increase of 3% applies

**BASE PRICING (Software/Maintenance) - AGGREGATE**

Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	\$ 6,500.00	\$ 1.00	\$ 5,000.00	\$ 1.03	\$ 5,150.00	\$ 1.06	\$ 5,304.50	\$ 1.09	\$ 5,463.64	\$ 1.13	\$ 5,627.54
5,001 - 7,500	\$ 6,500.00	\$ 1.00	\$ 7,500.00	\$ 1.03	\$ 7,725.00	\$ 1.06	\$ 7,956.75	\$ 1.09	\$ 8,195.45	\$ 1.13	\$ 8,441.32
7,501 - 10,000	\$ 10,000.00	\$ 1.00	\$ 10,000.00	\$ 1.03	\$ 10,300.00	\$ 1.06	\$ 10,609.00	\$ 1.09	\$ 10,927.27	\$ 1.13	\$ 11,255.09
10,001 - 12,500	\$ 15,000.00	\$ 1.00	\$ 12,500.00	\$ 1.03	\$ 12,875.00	\$ 1.06	\$ 13,261.25	\$ 1.09	\$ 13,659.09	\$ 1.13	\$ 14,068.86
12,501 - 15,000	\$ 20,000.00	\$ 1.00	\$ 15,000.00	\$ 1.03	\$ 15,450.00	\$ 1.06	\$ 15,913.50	\$ 1.09	\$ 16,390.91	\$ 1.13	\$ 16,882.63
15,001 - 20,000	\$ 25,000.00	\$ 1.00	\$ 20,000.00	\$ 1.03	\$ 20,600.00	\$ 1.06	\$ 21,218.00	\$ 1.09	\$ 21,854.54	\$ 1.13	\$ 22,510.18
20,001 - 25,000	\$ 35,000.00	\$ 1.00	\$ 25,000.00	\$ 1.03	\$ 25,750.00	\$ 1.06	\$ 26,522.50	\$ 1.09	\$ 27,318.18	\$ 1.13	\$ 28,137.72
25,001 - 30,000	\$ 45,000.00	\$ 1.00	\$ 30,000.00	\$ 1.03	\$ 30,900.00	\$ 1.06	\$ 31,827.00	\$ 1.09	\$ 32,781.81	\$ 1.13	\$ 33,765.26
30,001 - 50,000	\$ 55,000.00	\$ 1.00	\$ 50,000.00	\$ 1.03	\$ 51,500.00	\$ 1.06	\$ 53,045.00	\$ 1.09	\$ 54,636.35	\$ 1.13	\$ 56,275.44
50,001 - 75,000	\$ 65,000.00	\$ 1.00	\$ 75,000.00	\$ 1.03	\$ 77,250.00	\$ 1.06	\$ 79,567.50	\$ 1.09	\$ 81,954.53	\$ 1.13	\$ 84,413.16
75,001 - 100,000	\$ 80,000.00	\$ 1.00	\$ 100,000.00	\$ 1.03	\$ 103,000.00	\$ 1.06	\$ 106,090.00	\$ 1.09	\$ 109,272.70	\$ 1.13	\$ 112,550.88

If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$80,000. Annual increase of 3% applies.

**TRAINING COSTS**

Training	Price per Day
1 Day Admin Training	\$ 2,500.00
1 Day Instructor Training	\$ 2,500.00

1/2 day Instructor and 1/2 Administrator Training is included with the implementation fees. Offered Advisory & Consulting Services would complement the included training to ensure a successful digital content rollout strategy

**ADDITIONAL COSTS**

Description	Price
N/A	

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**Brightspace Student Success System**

**BASE PRICING (Software/Maintenance) - INDIVIDUAL**

University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 10,000.00	\$ 4.00	\$ 35,357.07	\$ 4.12	\$ 36,417.78	\$ 4.24	\$ 37,510.31	\$ 4.37	\$ 38,635.62	\$ 4.50	\$ 39,794.69
California	6,553	\$ 10,000.00	\$ 4.00	\$ 26,211.40	\$ 4.12	\$ 26,997.74	\$ 4.24	\$ 27,807.67	\$ 4.37	\$ 28,641.90	\$ 4.50	\$ 29,501.16
Cheyney	678	\$ 5,000.00	\$ 4.00	\$ 2,712.87	\$ 4.12	\$ 2,794.25	\$ 4.24	\$ 2,878.08	\$ 4.37	\$ 2,964.42	\$ 4.50	\$ 3,053.36
Clarion	4,391	\$ 5,000.00	\$ 4.00	\$ 17,564.80	\$ 4.12	\$ 18,091.74	\$ 4.24	\$ 18,634.50	\$ 4.37	\$ 19,193.53	\$ 4.50	\$ 19,769.34
East Stroudsburg	6,246	\$ 10,000.00	\$ 4.00	\$ 24,983.00	\$ 4.12	\$ 25,732.49	\$ 4.24	\$ 26,504.46	\$ 4.37	\$ 27,299.60	\$ 4.50	\$ 28,118.59
Edinboro	5,562	\$ 10,000.00	\$ 4.00	\$ 22,249.47	\$ 4.12	\$ 22,916.95	\$ 4.24	\$ 23,604.46	\$ 4.37	\$ 24,312.59	\$ 4.50	\$ 25,041.97
Indiana	12,051	\$ 15,000.00	\$ 4.00	\$ 48,204.47	\$ 4.12	\$ 49,650.60	\$ 4.24	\$ 51,140.12	\$ 4.37	\$ 52,674.32	\$ 4.50	\$ 54,254.55
Kutztown	8,340	\$ 10,000.00	\$ 4.00	\$ 33,358.73	\$ 4.12	\$ 34,359.50	\$ 4.24	\$ 35,390.28	\$ 4.37	\$ 36,451.99	\$ 4.50	\$ 37,545.55
Lock Haven	4,339	\$ 5,000.00	\$ 4.00	\$ 17,354.67	\$ 4.12	\$ 17,875.31	\$ 4.24	\$ 18,411.57	\$ 4.37	\$ 18,963.91	\$ 4.50	\$ 19,532.83
Mansfield	2,190	\$ 5,000.00	\$ 4.00	\$ 8,759.27	\$ 4.12	\$ 9,022.04	\$ 4.24	\$ 9,292.71	\$ 4.37	\$ 9,571.49	\$ 4.50	\$ 9,858.63
Millersville	6,746	\$ 10,000.00	\$ 4.00	\$ 26,982.40	\$ 4.12	\$ 27,791.87	\$ 4.24	\$ 28,625.63	\$ 4.37	\$ 29,484.40	\$ 4.50	\$ 30,368.93
Shippensburg	6,223	\$ 10,000.00	\$ 4.00	\$ 24,893.80	\$ 4.12	\$ 25,640.61	\$ 4.24	\$ 26,409.83	\$ 4.37	\$ 27,202.13	\$ 4.50	\$ 28,018.19
Slippery Rock	8,039	\$ 10,000.00	\$ 4.00	\$ 32,155.60	\$ 4.12	\$ 33,120.27	\$ 4.24	\$ 34,113.88	\$ 4.37	\$ 35,137.29	\$ 4.50	\$ 36,191.41
West Chester	14,632	\$ 15,000.00	\$ 4.00	\$ 58,528.57	\$ 4.12	\$ 60,284.42	\$ 4.24	\$ 62,092.96	\$ 4.37	\$ 63,955.75	\$ 4.50	\$ 65,874.42
Subtotal	94,829	\$ 130,000.00		\$ 379,316.10		\$ 390,695.58		\$ 402,416.45		\$ 414,488.94		\$ 426,923.61
				Total SaaS Cost (five years)		\$ 2,143,840.69						

3% annual cost increase applies.

**BASE PRICING (Software/Maintenance) - AGGREGATE**

Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	\$ 5,000.00	\$ 4.00	\$ 20,000.00	\$ 4.12	\$ 20,600.00	\$ 4.24	\$ 21,218.00	\$ 4.37	\$ 21,854.54	\$ 4.50	\$ 22,510.18
5,001 - 7,500			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7,501 - 10,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10,001 - 12,500			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12,501 - 15,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15,001 - 20,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20,001 - 25,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25,001 - 30,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30,001 - 50,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50,001 - 75,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
75,001 - 100,000	\$ 130,000.00	\$ 4.00	\$ 400,000.00	\$ 4.12	\$ 412,000.00	\$ 4.24	\$ 424,360.00	\$ 4.37	\$ 437,090.80	\$ 4.50	\$ 450,203.52
Subtotal											

3% annual cost increase applies

**TRAINING COSTS**

Training	Price per Day
Administrator Training	\$ 2,500.00
Instructor Training	\$ 2,500.00

One day of training is recommended.

**ADDITIONAL COSTS**

Description	Price
N/A	

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**Brightspace Game Based Learning**

**BASE PRICING (Software/Maintenance) - INDIVIDUAL**

University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 15,000.00	\$ 1.50	\$ 13,258.90	\$ 1.55	\$ 13,656.67	\$ 1.59	\$ 14,066.37	\$ 1.64	\$ 14,488.36	\$ 1.69	\$ 14,923.01
California	6,553	\$ 10,000.00	\$ 1.50	\$ 9,829.28	\$ 1.55	\$ 10,124.15	\$ 1.59	\$ 10,427.88	\$ 1.64	\$ 10,740.71	\$ 1.69	\$ 11,062.94
Cheyney	678	\$ 10,000.00	\$ 1.50	\$ 1,017.33	\$ 1.55	\$ 1,047.84	\$ 1.59	\$ 1,079.28	\$ 1.64	\$ 1,111.66	\$ 1.69	\$ 1,145.01
Clarion	4,391	\$ 10,000.00	\$ 1.50	\$ 6,586.80	\$ 1.55	\$ 6,784.40	\$ 1.59	\$ 6,987.94	\$ 1.64	\$ 7,197.57	\$ 1.69	\$ 7,413.50
East Stroudsburg	6,246	\$ 10,000.00	\$ 1.50	\$ 9,368.63	\$ 1.55	\$ 9,649.68	\$ 1.59	\$ 9,939.17	\$ 1.64	\$ 10,237.35	\$ 1.69	\$ 10,544.47
Edinboro	5,562	\$ 10,000.00	\$ 1.50	\$ 8,343.55	\$ 1.55	\$ 8,593.86	\$ 1.59	\$ 8,851.67	\$ 1.64	\$ 9,117.22	\$ 1.69	\$ 9,390.74
Indiana	12,051	\$ 20,000.00	\$ 1.50	\$ 18,076.68	\$ 1.55	\$ 18,618.98	\$ 1.59	\$ 19,177.54	\$ 1.64	\$ 19,752.87	\$ 1.69	\$ 20,345.46
Kutztown	8,340	\$ 15,000.00	\$ 1.50	\$ 12,509.53	\$ 1.55	\$ 12,884.81	\$ 1.59	\$ 13,271.36	\$ 1.64	\$ 13,669.50	\$ 1.69	\$ 14,079.58
Lock Haven	4,339	\$ 10,000.00	\$ 1.50	\$ 6,508.00	\$ 1.55	\$ 6,703.24	\$ 1.59	\$ 6,904.34	\$ 1.64	\$ 7,111.47	\$ 1.69	\$ 7,324.81
Mansfield	2,190	\$ 10,000.00	\$ 1.50	\$ 3,284.73	\$ 1.55	\$ 3,383.27	\$ 1.59	\$ 3,484.76	\$ 1.64	\$ 3,589.31	\$ 1.69	\$ 3,696.99
Millersville	6,746	\$ 10,000.00	\$ 1.50	\$ 10,118.40	\$ 1.55	\$ 10,421.95	\$ 1.59	\$ 10,734.61	\$ 1.64	\$ 11,056.65	\$ 1.69	\$ 11,388.35
Shippensburg	6,223	\$ 10,000.00	\$ 1.50	\$ 9,335.18	\$ 1.55	\$ 9,615.23	\$ 1.59	\$ 9,903.69	\$ 1.64	\$ 10,200.80	\$ 1.69	\$ 10,506.82
Slippery Rock	8,039	\$ 15,000.00	\$ 1.50	\$ 12,058.35	\$ 1.55	\$ 12,420.10	\$ 1.59	\$ 12,792.70	\$ 1.64	\$ 13,176.48	\$ 1.69	\$ 13,571.78
West Chester	14,632	\$ 20,000.00	\$ 1.50	\$ 21,948.21	\$ 1.55	\$ 22,606.66	\$ 1.59	\$ 23,284.86	\$ 1.64	\$ 23,983.40	\$ 1.69	\$ 24,702.91
Subtotal	94,829	\$ 175,000.00		\$ 142,243.54		\$ 146,510.84		\$ 150,906.17		\$ 155,433.35		\$ 160,096.35
<b>Total SaaS Cost (five years) \$ 930,190.26</b>												

If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$140,000. 3% annual cost increase applies.

**BASE PRICING (Software/Maintenance) - AGGREGATE**

Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	\$ 10,000.00	\$ 1.50	\$ 7,500.00	\$ 1.55	\$ 7,725.00	\$ 1.59	\$ 7,956.75	\$ 1.64	\$ 8,195.45	\$ 1.69	\$ 8,441.32
5,001 - 7,500			\$ -		\$ -		\$ -		\$ -		\$ -
7,501 - 10,000			\$ -		\$ -		\$ -		\$ -		\$ -
10,001 - 12,500			\$ -		\$ -		\$ -		\$ -		\$ -
12,501 - 15,000			\$ -		\$ -		\$ -		\$ -		\$ -
15,001 - 20,000			\$ -		\$ -		\$ -		\$ -		\$ -
20,001 - 25,000			\$ -		\$ -		\$ -		\$ -		\$ -
25,001 - 30,000			\$ -		\$ -		\$ -		\$ -		\$ -
30,001 - 50,000			\$ -		\$ -		\$ -		\$ -		\$ -
50,001 - 75,000			\$ -		\$ -		\$ -		\$ -		\$ -
75,001 - 100,000	\$ 140,000.00	\$ 1.50	\$ 150,000.00	\$ 1.55	\$ 154,500.00	\$ 1.59	\$ 159,135.00	\$ 1.64	\$ 163,909.05	\$ 1.69	\$ 168,826.32
Subtotal											

If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$140,000. 3% annual cost increase applies.

**TRAINING COSTS**

Training	Price per Day
Administrator Training	\$ 2,500.00
Instructor Training	\$ 2,500.00

**ADDITIONAL COSTS**

Description	Price
N/A	

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**Brightspace ePortfolio**

**BASE PRICING (Software/Maintenance) - INDIVIDUAL**

University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 15,000.00	\$ 2.00	\$ 17,678.53	\$ 2.06	\$ 18,208.89	\$ 2.12	\$ 18,755.16	\$ 2.19	\$ 19,317.81	\$ 2.25	\$ 19,897.35
California	6,553	\$ 10,000.00	\$ 2.00	\$ 13,105.70	\$ 2.06	\$ 13,498.87	\$ 2.12	\$ 13,903.84	\$ 2.19	\$ 14,320.95	\$ 2.25	\$ 14,750.58
Cheyney	678	\$ 10,000.00	\$ 2.00	\$ 1,356.43	\$ 2.06	\$ 1,397.13	\$ 2.12	\$ 1,439.04	\$ 2.19	\$ 1,482.21	\$ 2.25	\$ 1,526.68
Clarion	4,391	\$ 10,000.00	\$ 2.00	\$ 8,782.40	\$ 2.06	\$ 9,045.87	\$ 2.12	\$ 9,317.25	\$ 2.19	\$ 9,596.77	\$ 2.25	\$ 9,884.67
East Stroudsburg	6,246	\$ 10,000.00	\$ 2.00	\$ 12,491.50	\$ 2.06	\$ 12,866.25	\$ 2.12	\$ 13,252.23	\$ 2.19	\$ 13,649.80	\$ 2.25	\$ 14,059.29
Edinboro	5,562	\$ 10,000.00	\$ 2.00	\$ 11,124.73	\$ 2.06	\$ 11,458.48	\$ 2.12	\$ 11,802.23	\$ 2.19	\$ 12,156.30	\$ 2.25	\$ 12,520.99
Indiana	12,051	\$ 20,000.00	\$ 2.00	\$ 24,102.23	\$ 2.06	\$ 24,825.30	\$ 2.12	\$ 25,570.06	\$ 2.19	\$ 26,337.16	\$ 2.25	\$ 27,127.28
Kutztown	8,340	\$ 15,000.00	\$ 2.00	\$ 16,679.37	\$ 2.06	\$ 17,179.75	\$ 2.12	\$ 17,695.14	\$ 2.19	\$ 18,225.99	\$ 2.25	\$ 18,772.77
Lock Haven	4,339	\$ 10,000.00	\$ 2.00	\$ 8,677.33	\$ 2.06	\$ 8,937.65	\$ 2.12	\$ 9,205.78	\$ 2.19	\$ 9,481.96	\$ 2.25	\$ 9,766.42
Mansfield	2,190	\$ 10,000.00	\$ 2.00	\$ 4,379.63	\$ 2.06	\$ 4,511.02	\$ 2.12	\$ 4,646.35	\$ 2.19	\$ 4,785.74	\$ 2.25	\$ 4,929.32
Millersville	6,746	\$ 10,000.00	\$ 2.00	\$ 13,491.20	\$ 2.06	\$ 13,895.94	\$ 2.12	\$ 14,312.81	\$ 2.19	\$ 14,742.20	\$ 2.25	\$ 15,184.46
Shippensburg	6,223	\$ 10,000.00	\$ 2.00	\$ 12,446.90	\$ 2.06	\$ 12,820.31	\$ 2.12	\$ 13,204.92	\$ 2.19	\$ 13,601.06	\$ 2.25	\$ 14,009.10
Slippery Rock	8,039	\$ 15,000.00	\$ 2.00	\$ 16,077.80	\$ 2.06	\$ 16,560.13	\$ 2.12	\$ 17,056.94	\$ 2.19	\$ 17,568.65	\$ 2.25	\$ 18,095.71
West Chester	14,632	\$ 20,000.00	\$ 2.00	\$ 29,264.28	\$ 2.06	\$ 30,142.21	\$ 2.12	\$ 31,046.48	\$ 2.19	\$ 31,977.87	\$ 2.25	\$ 32,937.21
Subtotal	94,829	\$ 175,000.00	\$ 2.00	\$ 189,658.05	\$ 2.06	\$ 195,347.79	\$ 2.12	\$ 201,208.23	\$ 2.19	\$ 207,244.47	\$ 2.25	\$ 213,461.81
				Total SaaS Cost (five years) \$ 1,181,920.34								

If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$140,000. 3% annual cost increase applies.

**BASE PRICING (Software/Maintenance) - AGGREGATE**

Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	\$ 5,000.00	\$ 2.00	\$ 10,000.00	\$ 2.06	\$ 10,300.00	\$ 2.12	\$ 10,609.00	\$ 2.19	\$ 10,927.27	\$ 2.25	\$ 11,255.09
5,001 - 7,500			\$ -		\$ -		\$ -		\$ -		\$ -
7,501 - 10,000			\$ -		\$ -		\$ -		\$ -		\$ -
10,001 - 12,500			\$ -		\$ -		\$ -		\$ -		\$ -
12,501 - 15,000			\$ -		\$ -		\$ -		\$ -		\$ -
15,001 - 20,000			\$ -		\$ -		\$ -		\$ -		\$ -
20,001 - 25,000			\$ -		\$ -		\$ -		\$ -		\$ -
25,001 - 30,000			\$ -		\$ -		\$ -		\$ -		\$ -
30,001 - 50,000			\$ -		\$ -		\$ -		\$ -		\$ -
50,001 - 75,000			\$ -		\$ -		\$ -		\$ -		\$ -
75,001 - 100,000	\$ 100,000.00	\$ 2.00	\$ 200,000.00	\$ 2.06	\$ 206,000.00	\$ 2.12	\$ 212,180.00	\$ 2.19	\$ 218,545.40	\$ 2.25	\$ 225,101.76
Subtotal											

3% annual cost increase applies.

**TRAINING COSTS**

Training	Price per Day
Administrator Training	\$ 2,500.00
Instructor Training	\$ 2,500.00

1/2 day Administrator and 1 day Instructor training is included in the implementation fees.

**ADDITIONAL COSTS**

Description	Price
N/A	

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**Brightspace LeaP**

**BASE PRICING (Software/Maintenance) - INDIVIDUAL**

University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 15,000.00	\$ 4.50	\$ 39,776.70	\$ 4.64	\$ 40,970.00	\$ 4.77	\$ 42,199.10	\$ 4.92	\$ 43,465.07	\$ 5.06	\$ 44,769.03
California	6,553	\$ 10,000.00	\$ 4.50	\$ 29,487.83	\$ 4.64	\$ 30,372.46	\$ 4.77	\$ 31,283.63	\$ 4.92	\$ 32,222.14	\$ 5.06	\$ 33,188.81
Cheyney	678	\$ 10,000.00	\$ 4.50	\$ 3,051.98	\$ 4.64	\$ 3,143.53	\$ 4.77	\$ 3,237.84	\$ 4.92	\$ 3,334.98	\$ 5.06	\$ 3,435.02
Clarion	4,391	\$ 10,000.00	\$ 4.50	\$ 19,760.40	\$ 4.64	\$ 20,353.21	\$ 4.77	\$ 20,963.81	\$ 4.92	\$ 21,592.72	\$ 5.06	\$ 22,240.50
East Stroudsburg	6,246	\$ 10,000.00	\$ 4.50	\$ 28,105.88	\$ 4.64	\$ 28,949.05	\$ 4.77	\$ 29,817.52	\$ 4.92	\$ 30,712.05	\$ 5.06	\$ 31,633.41
Edinboro	5,562	\$ 10,000.00	\$ 4.50	\$ 25,030.65	\$ 4.64	\$ 25,781.57	\$ 4.77	\$ 26,555.02	\$ 4.92	\$ 27,351.67	\$ 5.06	\$ 28,172.22
Indiana	12,051	\$ 20,000.00	\$ 4.50	\$ 54,230.03	\$ 4.64	\$ 55,856.93	\$ 4.77	\$ 57,532.63	\$ 4.92	\$ 59,258.61	\$ 5.06	\$ 61,036.37
Kutztown	8,340	\$ 15,000.00	\$ 4.50	\$ 37,528.58	\$ 4.64	\$ 38,654.43	\$ 4.77	\$ 39,814.07	\$ 4.92	\$ 41,008.49	\$ 5.06	\$ 42,238.74
Lock Haven	4,339	\$ 10,000.00	\$ 4.50	\$ 19,524.00	\$ 4.64	\$ 20,109.72	\$ 4.77	\$ 20,713.01	\$ 4.92	\$ 21,334.40	\$ 5.06	\$ 21,974.43
Mansfield	2,190	\$ 10,000.00	\$ 4.50	\$ 9,854.18	\$ 4.64	\$ 10,149.80	\$ 4.77	\$ 10,454.29	\$ 4.92	\$ 10,767.92	\$ 5.06	\$ 11,090.96
Millersville	6,746	\$ 10,000.00	\$ 4.50	\$ 30,355.20	\$ 4.64	\$ 31,265.86	\$ 4.77	\$ 32,203.83	\$ 4.92	\$ 33,169.95	\$ 5.06	\$ 34,165.05
Shippensburg	6,223	\$ 10,000.00	\$ 4.50	\$ 28,005.53	\$ 4.64	\$ 28,845.69	\$ 4.77	\$ 29,711.06	\$ 4.92	\$ 30,602.39	\$ 5.06	\$ 31,520.47
Slippery Rock	8,039	\$ 15,000.00	\$ 4.50	\$ 36,175.05	\$ 4.64	\$ 37,260.30	\$ 4.77	\$ 38,378.11	\$ 4.92	\$ 39,529.45	\$ 5.06	\$ 40,715.34
West Chester	14,632	\$ 20,000.00	\$ 4.50	\$ 65,844.64	\$ 4.64	\$ 67,819.98	\$ 4.77	\$ 69,854.58	\$ 4.92	\$ 71,950.21	\$ 5.06	\$ 74,108.72
Subtotal	94,829	\$ 175,000.00		\$ 426,730.61		\$ 439,532.53		\$ 452,718.51		\$ 466,300.06		\$ 480,289.06

**Total SaaS Cost (five years) \$ 2,440,570.78**

If all campuses implement as a group, with the same configuration, the total implementation fee will be reduced to \$140,000. 3% annual cost increase applies.

**BASE PRICING (Software/Maintenance) - AGGREGATE**

Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
1,000 - 5,000	\$ 20,000.00	\$ 4.50	\$ 22,500.00	\$ 4.64	\$ 23,175.00	\$ 4.77	\$ 23,870.25	\$ 4.92	\$ 24,586.36	\$ 5.06	\$ 25,323.95
5,001 - 7,500			\$ -		\$ -		\$ -		\$ -		\$ -
7,501 - 10,000			\$ -		\$ -		\$ -		\$ -		\$ -
10,001 - 12,500			\$ -		\$ -		\$ -		\$ -		\$ -
12,501 - 15,000			\$ -		\$ -		\$ -		\$ -		\$ -
15,001 - 20,000			\$ -		\$ -		\$ -		\$ -		\$ -
20,001 - 25,000			\$ -		\$ -		\$ -		\$ -		\$ -
25,001 - 30,000			\$ -		\$ -		\$ -		\$ -		\$ -
30,001 - 50,000			\$ -		\$ -		\$ -		\$ -		\$ -
50,001 - 75,000			\$ -		\$ -		\$ -		\$ -		\$ -
75,001 - 100,000	\$ 140,000.00	\$ 4.50	\$ 450,000.00	\$ 4.64	\$ 463,500.00	\$ 4.77	\$ 477,405.00	\$ 4.92	\$ 491,727.15	\$ 5.06	\$ 506,478.96
Subtotal											

3% annual cost increase applies.

**TRAINING COSTS**

Training	Price per Day
Administrator Training	\$ 2,500.00
Instructor Training	\$ 2,500.00

1/2 day Administrator training is recommended.

**ADDITIONAL COSTS**

Description	Price
N/A	

Pennsylvania's State System of Higher Education  
D2L Ltd.

Contract Inquiry No. 4700003087  
Attachment 5—Contract Pricing

**Brightspace Degree Compass**

BASE PRICING (Software/Maintenance) - INDIVIDUAL												
University	Fall 2015 FTE (Students)	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost
Bloomsburg	8,839	\$ 10,000.00	\$ 2.50	\$ 22,098.17	\$ 2.58	\$ 22,761.11	\$ 2.65	\$ 23,443.95	\$ 2.73	\$ 24,147.26	\$ 2.81	\$ 24,871.68
California	6,553	\$ 10,000.00	\$ 2.50	\$ 16,382.13	\$ 2.58	\$ 16,873.59	\$ 2.65	\$ 17,379.80	\$ 2.73	\$ 17,901.19	\$ 2.81	\$ 18,438.23
Cheyney	678	\$ 10,000.00	\$ 2.50	\$ 1,695.54	\$ 2.58	\$ 1,746.41	\$ 2.65	\$ 1,798.80	\$ 2.73	\$ 1,852.76	\$ 2.81	\$ 1,908.35
Clarion	4,391	\$ 10,000.00	\$ 2.50	\$ 10,978.00	\$ 2.58	\$ 11,307.34	\$ 2.65	\$ 11,646.56	\$ 2.73	\$ 11,995.96	\$ 2.81	\$ 12,355.84
East Stroudsburg	6,246	\$ 10,000.00	\$ 2.50	\$ 15,614.38	\$ 2.58	\$ 16,082.81	\$ 2.65	\$ 16,565.29	\$ 2.73	\$ 17,062.25	\$ 2.81	\$ 17,574.12
Edinboro	5,562	\$ 10,000.00	\$ 2.50	\$ 13,905.92	\$ 2.58	\$ 14,323.09	\$ 2.65	\$ 14,752.79	\$ 2.73	\$ 15,195.37	\$ 2.81	\$ 15,651.23
Indiana	12,051	\$ 10,000.00	\$ 2.50	\$ 30,127.79	\$ 2.58	\$ 31,031.63	\$ 2.65	\$ 31,962.57	\$ 2.73	\$ 32,921.45	\$ 2.81	\$ 33,909.09
Kutztown	8,340	\$ 10,000.00	\$ 2.50	\$ 20,849.21	\$ 2.58	\$ 21,474.68	\$ 2.65	\$ 22,118.93	\$ 2.73	\$ 22,782.49	\$ 2.81	\$ 23,465.97
Lock Haven	4,339	\$ 10,000.00	\$ 2.50	\$ 10,846.67	\$ 2.58	\$ 11,172.07	\$ 2.65	\$ 11,507.23	\$ 2.73	\$ 11,852.45	\$ 2.81	\$ 12,208.02
Mansfield	2,190	\$ 10,000.00	\$ 2.50	\$ 5,474.54	\$ 2.58	\$ 5,638.78	\$ 2.65	\$ 5,807.94	\$ 2.73	\$ 5,982.18	\$ 2.81	\$ 6,161.64
Millersville	6,746	\$ 10,000.00	\$ 2.50	\$ 16,864.00	\$ 2.58	\$ 17,369.92	\$ 2.65	\$ 17,891.02	\$ 2.73	\$ 18,427.75	\$ 2.81	\$ 18,980.58
Shippensburg	6,223	\$ 10,000.00	\$ 2.50	\$ 15,558.63	\$ 2.58	\$ 16,025.38	\$ 2.65	\$ 16,506.15	\$ 2.73	\$ 17,001.33	\$ 2.81	\$ 17,511.37
Slippery Rock	8,039	\$ 10,000.00	\$ 2.50	\$ 20,097.25	\$ 2.58	\$ 20,700.17	\$ 2.65	\$ 21,321.17	\$ 2.73	\$ 21,960.81	\$ 2.81	\$ 22,619.63
West Chester	14,632	\$ 10,000.00	\$ 2.50	\$ 36,580.35	\$ 2.58	\$ 37,677.76	\$ 2.65	\$ 38,808.10	\$ 2.73	\$ 39,972.34	\$ 2.81	\$ 41,171.51
<b>Subtotal</b>	<b>94,829</b>	<b>\$ 140,000.00</b>		<b>\$ 237,072.56</b>		<b>\$ 244,184.74</b>		<b>\$ 251,510.28</b>		<b>\$ 259,055.59</b>		<b>\$ 266,827.26</b>
<b>Total SaaS Cost (five years)</b>				<b>\$ 1,398,650.43</b>								

3% annual cost increase applies.

BASE PRICING (Software/Maintenance) - AGGREGATE												
Price Break Based on Aggregated FTE	Implementation Fees	Cost/FTE	Annual Maintenance Year 1 Base Cost	Cost/FTE	Annual Maintenance Year 2 Base Cost	Cost/FTE	Annual Maintenance Year 3 Base Cost	Cost/FTE	Annual Maintenance Year 4 Base Cost	Cost/FTE	Annual Maintenance Year 5 Base Cost	
1,000 - 5,000	\$ 10,000.00	\$ 2.50	\$ 12,500.00	\$ 2.58	\$ 12,875.00	\$ 2.65	\$ 13,261.25	\$ 2.73	\$ 13,659.09	\$ 2.81	\$ 14,068.86	
5,001 - 7,500			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
7,501 - 10,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
10,001 - 12,500			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
12,501 - 15,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
15,001 - 20,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
20,001 - 25,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
25,001 - 30,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
30,001 - 50,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
50,001 - 75,000			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
75,001 - 100,000	\$ 140,000.00	\$ 2.50	\$ 250,000.00	\$ 2.58	\$ 257,500.00	\$ 2.65	\$ 265,225.00	\$ 2.73	\$ 273,181.75	\$ 2.81	\$ 281,377.20	
<b>Subtotal</b>												

3% annual cost increase applies.

**TRAINING COSTS**

Training	Price per Day
Administrator Training	\$ 2,500.00
Instructor Training	\$ 2,500.00

D2L will work with you to recommend a training package based on your specific needs.

**ADDITIONAL COSTS**

Description	Price
N/A	

### LMS Functionality & Technical Requirements

SECTION A			
COMPANY PROFILE and FUTURE DEVELOPMENT VISION			
#	Question	Yes/No	Supplier Response
8	Is there a mobile app, or collection of mobile apps, that you offer users? Describe how users interact with the LMS using your app, or collection of apps.	Yes	<p><b>Mobile Apps Designed for Learners</b> Brightspace Pulse is our free mobile app that we have designed for learners to give them a complete picture of their workload and inform them of any new course developments in real-time (e.g. cancelled classes and released grades). With Brightspace Pulse, learners can take a quick pulse check of their schedule by accessing one consolidated view of their tasks and commitments in all of their courses such as upcoming readings, assignments, and tests as well as their own personal milestones.</p> <p>Brightspace Binder gives users the freedom to read, interact with, and organize course and personal content from virtually anywhere directly on the web or tablet (iPad® or Android™) device. This unique, cross-platform solution helps users organize and manage digital resources in ways that are accessible and flexible, leveraging their preferred technology.</p> <p>Brightspace ePortfolio Mobile is an extension of Brightspace ePortfolio. It extends the offerings of Brightspace ePortfolio to an iOS or Android™ device whereby learners can explore, capture, and share images, reflections, and links while on the go and keep up to date with news feeds.</p> <p><b>Mobile Apps Designed for Instructors</b> Brightspace Assignment Grader allows instructors to take their entire launched collection of learner-submitted digital assignments anywhere they want and grade them from the convenience of an iPad® or Android™ device. Brightspace Assignment Grader can help shorten turnaround times for providing grades and feedback as well as increased learner engagement by empowering instructors to provide written, audio, and/or video commentary. Once instructors have a wireless connection, they can synchronize with the Dropbox tool ensuring the content in the Dropbox tool and the applications are accurate and up to date. Brightspace Assignment Grader is not limited to text-based essays and reports; Excel® spreadsheets, PowerPoint® presentations, PDFs, Apple® iWork® documents, and a wide variety of audio and video formats can be reviewed and graded.</p>
9	Describe the support for Preferred Names including how that support is integrated into the proposed LMS.	Yes	<p>D2L supports preferred name options by utilizing a smart SIS integration. D2L will help PASSHE define which fields are controlled by Brightspace Learning Environment and set up the default "First Name" field in Brightspace Learning Environment to be updated to the preferred name in the SIS. The unofficial transcript and roster will reflect the preferred name while still being connected to the original name in the SIS transcript of record.</p>



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION B			
LMS REQUIRED TOOLS (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
Announcements Tool			
1	Ability to create, edit and delete announcements on the course level.	[REQUIRED]	Yes. Our solution allows instructors to create and refine a news item at the course level without impacting learners' notifications and dismissed news items. When instructors edit a news item in their course, they see a check box for major edits that makes the item visible again to any user who had dismissed it. It also generates a "news item edited" event to trigger notifications (important for assignment changes and so on). Leave it unchecked to update the course news item without making the item reappear for users that dismissed it and without triggering a notification (good for changes to end date, release conditions, or simple formatting). For major edits, instructors might want to change the item's start date to "Now" so that when restored for users, it shows up at the top of any consolidated lists. Users with the correct permissions are also able to delete announcements at the course level.
2	Ability to create an announcement for entire LMS community.	[REQUIRED]	Yes. The Global News tool is accessed from the Admin Tools menu and allows you to create news items that display across your entire organization as soon as you publish it for viewing. For example, administrators might use a Global News posting to make all system users aware of a scheduled maintenance window during which time the site is unavailable, to announce a weather-related closing, or to announce an important appointment. The Global News tool also utilizes release conditions to restrict accessing and viewing Global News postings to specific roles, course offerings, or groups. Since this tool reaches across your whole organization, it is typically used by administrators, but you can grant other users permissions to use it — our solution is flexible that way.
3	Ability to use a WYSIWYG and HTML editor when creating announcements.	[REQUIRED]	Yes. The News tool is an easy and flexible way to get the word out. It is equipped with an integrated HTML editor that enables you to create rich content. It is also easy to restore any deleted news items via the user interface. Announcements can be set to display or go away by a specific date. Announcements can also be used again by archiving them — saving you valuable time.
4	Ability to add text and web documents, images, and media.	[REQUIRED]	Yes. Using the HTML Editor, interactive elements; Adobe® Flash®, video, audio files, text and virtually any other item that can be displayed in HTML can be inserted almost anywhere. Furthermore, video can be recorded directly from any text area. It can also be saved directly to any page and is automatically transcoded to other formats for high or low bandwidth and for playback on mobile devices. Links to external Learning tools and internal assessments can easily be created using the HTML editor.
5	Ability to be restricted by date, group, section, and user role.	[REQUIRED]	Yes. Brightspace allows you to target your desired audience. You can use release conditions to distribute announcements within a specific course offering to a group or to all users within the course.
6	Ability to notify users that an announcement has been posted.	[REQUIRED]	Yes. Once a news item is published, learners can see it and it will also generate notifications (depending on news item availability dates and any release conditions on the item). Scheduled News items are considered published but will only become visible to users on the start date chosen by the instructor.
Assignments			
A tool must be available for users to electronically submit assignments, and shall include:			
7	Ability to use a WYSIWYG and HTML editor when creating the assignment.	[REQUIRED]	Yes. Using the HTML editor, Instructors can add or create custom instructions, attach files, record audio directly in the interface, and specify submission instructions.
8	Ability to upload text and web documents, images, and media.	[REQUIRED]	Yes. Brightspace allows you to easily upload text and web documents, images and media. Commonly used file types include: Web ASP, HTM, HTML, XHTML, etc. Audio MP3, MPA, RA, WAV, WMA, etc. Text DOC(X), RTF, PDF, TXT, WPD, etc. Video AVI, FLV, MOV, MP4, MPG, RM, SWF, WMV Data CSV, PPT(X), XLS(X), XML, etc. Developer C, CPP, CS, JAVA, PL, PY, etc. Image BMP, GIF, JPG, PNG, PSD, TIF, etc. Other ZIP, RAR, KDW, etc. We also feature a complete integration with Google Drive™ and Office 365 allowing students to upload documents easily into these cloud drives and to access them from the text editor anywhere in the platform as well as submit them directly to the Assignment area for submission to Turnitin, or grading/review by the instructor.
9	Ability to be restricted by date, group and section.	[REQUIRED]	Yes. Instructors have flexibility and control over assignment submission dropboxes and can set up separate dropbox folders for each assignment while also restricting access to the folders by date and time, group membership, or special access permissions.
10	Ability to provide alternative date/time restrictions for individual students.	Yes	The Restrictions tab empowers instructors to configure availability parameters, release conditions options, and special access availability for assignments. Special access provides flexibility for you to accommodate specific needs that learners may have. For example, you can provide special access for selected users by overriding the availability setting to give extra time to complete an assignment. The Objectives tab allows instructors to associate assignments with learning objectives.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION B			
LMS REQUIRED TOOLS (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
11	Ability to associate the assignment to a Learning Outcome.	[REQUIRED]	Yes. When editing the assignment folder, Instructors are able to associate the assignment with a learning outcome through the Objectives tab. Simply select "Associate Learning Objectives" and this assignment can be associated with one or multiple learning outcomes.
12	Ability to associate the assignment to a rubric(s).	[REQUIRED]	Yes. Instructors can assess a learner submission with a rubric associated with the Dropbox folder. Instructors can transfer rubric feedback to general feedback for the assignment in the Dropbox tool. If instructors transfer rubric feedback to general feedback, it will appear beneath any manually entered feedback. For each associated rubric, instructors can grade a user based on set criteria and can provide additional feedback in the HTML Editor.
13	Ability to provide an interface for the instructor to grade and deliver feedback.	[REQUIRED]	<p>Yes. There are many evaluative feedback features within the Dropbox tool. The in-line document viewer allows PASSHE's instructors to view documents in their browser without having to download them. This reduces issues around not having the appropriate software to view common file types, or issues with downloading and managing multiple copies of documents.</p> <p>Annotating HTML and Text Documents   The annotate action is offered on each applicable file and stored as an attachment with version indication which makes annotating HTML files and text files through the HTML Editor easier to discover.</p> <p>Online Markup   The integration with Turnitin GradeMark® for clients that use it provides a number of features to annotate documents online such as leaving text comments, markup, and highlights. This functionality is easily accessed when reviewing learner submissions to encourage instructors to provide rich feedback to learners.</p> <p>Download and Edit   Instructors can download documents, make edits in the associated software, and then attach the updated files as feedback to the learner.</p> <p>Record Audio and Video   A simple interface for recording audio feedback is available when reviewing a learner's submission. The generated audio file is attached to the feedback. Leaving video feedback is also an option. Video can be recorded within the system, is automatically transcoded to other formats for high or low bandwidth, and for playback on mobile devices.</p> <p>Access User Information and Contact Users   When evaluating, instructors have access to learner or group information visible to the evaluator and available contact methods.</p> <p>Folder Information and Properties   This is a collapsible section that provides access to information about the folder and gives options for adjusting its properties. For example, quickly add special access for a user who might need more time to submit their assignment or view the instructions for the assignment.</p> <p>Evaluation Options   We provide options to the evaluations section in the feedback panel that contains options instructors might have forgotten such as adding rubrics, class benchmarking (e.g., teachers assistants viewing how other markers scored learners by reviewing rubric and grade statistics), and workflow elements (e.g., a link to the grade book to assign zeros to users without submissions).</p> <p>Record Evaluation   We have compressed the areas to assign scores and score rubrics by adding learning objective associations in context of the rubric control.</p>
14	Ability to be linked to the Gradebook.	[REQUIRED]	<p>Yes. The Properties tab of the Dropbox tool provides an interface for you to set up the various aspects of an assignment:</p> <ul style="list-style-type: none"> <li>· associate with an existing grade item or configure a new grade item</li> <li>· add or create associated rubric provide a name for assignment</li> <li>· enable plagiarism detection (if applicable to your organization)</li> <li>· specify folder type (individual or group)</li> <li>· place the assignment in an existing category (e.g. unit 1) or create a new category</li> <li>· provide custom instructions via html editor</li> <li>· option to attach dropbox item to Brightspace ePortfolio as artifact (if applicable)</li> <li>· attach files</li> <li>· record audio directly in interface</li> <li>· specify submission instructions</li> </ul>
Calendar Tool			
15	Ability for users to create both ad-hoc and recurring events.	[REQUIRED]	<p>Yes. The Calendar tool allows instructors to manage events in multiple, easy to use, organized ways including creating events, managing recurring and restrictions of events, searching and browsing, and a bulk edit option. The Calendar tool provides ease of use and time saving convenience. Using only one open window instructors and learners can accomplish the following on an ad-hoc basis:</p> <ul style="list-style-type: none"> <li>• add content directly to an event</li> <li>• change attendees</li> <li>• add a location manage recurrence</li> <li>• manage restrictions</li> <li>• add event presenters</li> </ul> <p>When an instructor or learner with appropriate permissions edits a recurring event, the Calendar tool gives the option to update all occurrences, only the active occurrence, or the active occurrence as well as all future occurrences. This gives users maximum flexibility for changing recurring course or personal events.</p>
16	Ability to use a WYSIWYG and HTML editor when creating calendar events.	[REQUIRED]	Yes. When creating events in the Calendar tool, the Instructor will be provided with our streamlined Html Editor interface page. Using the HTML editor users with the appropriate permissions will be able to create engaging and meaningful calendar entries which can link to other parts of the course or external URLs.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION B			
LMS REQUIRED TOOLS (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
17	Ability to create events as important deadlines and reminders.	Yes	Brightspace allows you to create events as important deadlines or reminders when the learning activity is created. In addition, due dates for all of the assessment tools can be selected to show in the Calendar tool. This will include the description from the Discussion, Assignment or Quiz and the ability to add these Calendar entries to the task list for even greater visibility.
18	Ability to provide direct access to specific assignments/exams.	[REQUIRED]	Yes. Assessment items which have their due dates linked to the Calendar tool provide a direct link from the Calendar entry back to the originating tool. Students who click on this link will be delivered to the particular assessment.
Content Area			
19	Ability to create, edit and delete directories and subdirectories.	[REQUIRED]	Yes. With the Content tool instructors can create, edit and delete Content Directories and Subdirectories by clicking on the Add Module and Add Submodule fields. For course designers, the Course Builder tool utilizes drag-and-drop course design and setup to organize and manage the development of a course. Instructors can build course structure by adding modules and placeholders via drag-and-drop in the consolidated view of a course provided in the Course Builder tool. Whether starting fresh or updating existing courses, Course Builder is an excellent tool for planning and organizing course materials.
20	Ability to upload text and web documents, images, and media.	[REQUIRED]	Yes. Designed to be easy and intuitive, the Content tool provides the ability to drag and drop files from your desktop (including multiple files at once) for easy creating and updating. You can also reorder and move modules and topics via drag-and-drop capabilities. Files types that can be dragged and dropped into Content are the same file types that can be uploaded into the Assignment Folders. This includes web documents, images and various media, including MP3's and MP4's. The HTML Editor also enables course designers to insert multimedia such as Adobe® Flash®, audio files, YouTube™ videos, pictures from Flickr®, links, etc.
21	Ability to create, edit and delete HTML pages.	[REQUIRED]	Yes. The HTML Editor is available throughout Brightspace Learning Environment integrating with tools that have HTML content creating capabilities without requiring knowledge of HTML (since it can be utilized as a WYSIWYG editor). Deleting a topic within the Content tool is as simple as creating a topic. You can delete the topic link or the topic and the associated file or you can delete all topics associated with a module
22	Ability to use a WYSIWYG and HTML editor to embed web content and streaming media.	[REQUIRED]	Yes. Media files (such as Adobe® Flash® objects, video, audio, etc.) can be integrated into Brightspace Learning Environment with ease using the Insert Stuff™ feature that is available within the HTML Editor. Additionally, the Insert Stuff button has oEmbed support — an open format designed to allow embedding content from a website into another page — for Flickr®, YouTube™, and Vimeo items.  Depending upon a user's needs, media files can be uploaded and inserted in the following ways: <ul style="list-style-type: none"> <li>• Upload a media file from your computer</li> <li>• Insert a media file from within your current organizational unit (e.g. course or department) file path</li> <li>• Insert a media file from within your current organization file path</li> <li>• Insert a media file from within your shared files root path</li> <li>• Search for videos on YouTube™ and pictures on Flickr®</li> <li>• Insert a media file from Brightspace Learning Repository.</li> </ul>
23	Ability to link to internal LMS tools (assignments, discussions, exams, etc.) from content.	Yes	Adding a quicklink to an existing internal Brightspace Learning Environment tool is as simple as selecting that item from a menu. We go further by enabling Course Designers and Instructors to create Dropbox tools, surveys and checklists directly from the Inline content authoring framework.
24	Ability to link to LTI integrated 3rd party tools from content.	Yes	Brightspace Learning Environment supports IMS Learning Tools Interoperability, allowing external learning tools such as wikis, simulations, protected content, and other resources from third-party tool vendors, or developed by clients, to be integrated easily with the Content tool and wherever the HTML editor is used.
25	Ability to use search within a course to find course content.	[REQUIRED]	Yes. We make it easy for you to search in all of the modules and topics in a course via the Table of Contents area. Simply type the search keyword into the Search tool and matching entries will be displayed in the content window.
26	Ability to view statistics based on students' activity within content.	Yes	Course content statistics display the total number of users (learners), the number of users (learners) who visited course content, and the average time users (learners) spent viewing content. You can view overall course content statistics and specific statistics for individual topics. These statistics can also be exported to a CSV file for use in a spreadsheet or database for further analysis.
27	Ability to bulk copy content from one course/section to another.	[REQUIRED]	Yes. We simplify copying course components so that PASSHE instructors are utilizing their time efficiently and not repeating tasks or duplicating their efforts by reloading content into the system over and over again. Brightspace Learning Environment allows instructors to copy, and therefore reuse, content from previous course offerings into new course offerings using the Copy Course Components tool.
28	Ability to export content as a zip package.	[REQUIRED]	Yes. When exporting, course components are exported to an IMS CP compliant zip file which is a standard file format based on the IMS Content Packaging Specification. Some of the specific course components that can be exported from Brightspace Learning Environment are as follows: checklists, content, course files, discussions, dropbox content, external links, grade books, news, question libraries, quizzes, release conditions, schedules, and self assessments.
29	Ability to associate content to a Learning Outcome.	Yes	Learning Outcomes can be easily associated with Content topics when creating or editing the Content Topic. Furthermore the Course Builder tool allows learning Outcomes to be added via drag and drop to increase the efficiency of designing a course.
Discussions			
30	Ability for students to attach text and web documents, images, and media to topics/threads.	[REQUIRED]	Yes. When creating a Post in a Discussion Topic, students are able to leverage the strength of the HTML Editor. The HTML Editor provides abilities such as adding documents, and links to external URLs and the "Insert Stuff" button to add Images, Videos and Audio files to enhance their posts, all of this without requiring knowledge of HTML (since the HTML Editor can be utilized as a WYSIWYG editor).

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION B			
LMS REQUIRED TOOLS (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
31	Ability for students to embed URLs in topics/threads.	Yes	Students can add URL's quickly and easily within their Discussion Posts by clicking on the "Insert Quicklink" tool in the HTML Editor and choosing "URL". We make adding quicklinks even easier by allowing the student to simply cut and paste a URL right into the message of their Discussion Post.
32	Ability for students to embed streaming audio/video in topics/threads.	[REQUIRED]	Yes. Students can record and embed video directly in Brightspace Learning Environment without special software or knowledge of HTML. Using the "Insert Stuff" option of the HTML Editor, students can copy an embed code from a streaming service and paste that embed code in the window provided. In addition, When a student clicks the Record Audio button (associated with the Discussion Post), a Flash® (ActionScript) component collects audio data from users' microphone and generates .wav files which are stored with the associated tool. The sizes of the files are determined in the Config Variable Browser in the Media Platform area, and access to the Record Audio functionality is controlled by role permissions. Media files (such as Adobe® Flash® objects, video, audio, etc.) can be integrated into Brightspace Learning Environment with ease using the Insert Stuff™ feature that is available within the HTML Editor. Additionally, the Insert Stuff button has oEmbed support — an open format designed to allow embedding content from a website into another page — for Flickr®, YouTube™, and Vimeo items. Depending upon a user's needs, media files can be uploaded and inserted in the following ways: Upload a media file from your computer. Insert a media file from within your current organizational unit (e.g. course or department) file path. Insert a media file from your locker file. Search for videos on YouTube™ and pictures on Flickr®.
33	Ability to have anonymous postings.	[REQUIRED]	Yes. Topics and forums can be set up to be anonymous. This means that posters will be anonymous to each other. Instructors could be given permission to peek at the poster's identity if that ability was desired.
34	Ability to set release conditions (i.e., hide/show dates) for multiple discussions.	[REQUIRED]	Yes. The ability to create release conditions is available in almost every tool in Brightspace Learning Environment and goes far beyond simple date-based release. Items can be released based on complex criteria including content views, quiz scores, outcomes achievement, group membership, discussion postings, and many others. There are more than 20 selectable conditions. Release conditions can be added via the 'restrictions' tab at both the forum and topic level within the discussions tool. Release conditions can be applied to multiple discussions by leveraging the 'attach existing' feature that recognizes conditions already in use in the course.
35	Ability to search topics/threads.	[REQUIRED]	Yes. Discussion topics and threads are easily searchable. Users simply enter a key word into the Search For field and press Search. This will return all relevant results for the key word entered. Advanced search options are also available which can search based on key word in the subject or message body, first or last name of author, average rating, flagged status, message start or end date, and the message status (read or unread).
36	Ability to moderate topics/threads.	[REQUIRED]	Yes. The option to allow moderators to approve posts before they are displayed in a topic or forum can be enabled by selecting a checkbox. If there are multiple topics which need to be moderated simply place them under a forum with this checkbox enabled. Selecting this option will require a moderator to approve posts to topics before they display to users.
37	Ability to use a WYSIWYG and HTML when creating and responding to forums, topics/threads.	[REQUIRED]	Yes. The HTML Editor integrates with all Brightspace Learning Environment tools that enable you to create HTML content. Using the HTML Editor, users can edit discussion topics, post discussion topics, add Images, videos, internal and external links, equations, tables and much more. The versatility of the HTML Editor helps to engage students of all technical abilities.
38	Ability to associate the topics/threads to a rubric(s).	[REQUIRED]	Yes. Instructors have the ability to score associated rubrics while assessing a learner's topic posts. Rubrics associated with a topic will appear inline on the Topic Score Details screen. By placing the rubric inside the Topic Score Detail modal, you can copy the rubric score to the topic score within a single screen, if desired. Keep track of where you are in the rubric with ease via the floating header bar which reduces scrolling and includes the learner's profile picture, name, number of threads, number of replies, topics score, publish flag, and calculation method for post-based scoring.
39	Ability to associate the topics/threads to a Learning Outcome.	[REQUIRED]	Yes. Instructors can associate a discussion topic with a Learning Outcome, during creation or when editing the Discussion Topic. This can be done easily by selecting the "Objectives" tab and searching for the appropriate Learning Outcome. Discussion activities are evaluated using a rubric.
Gradebook			
40	Ability to configure grading based on Points and/or Weights percentages.	[REQUIRED]	Yes. Grading systems determine how grade items in an instructor's grade book contribute to a learner's final grade. Our solution provides three grading system options: Weighted   Grade items can count as a percentage of a final grade worth 100 per cent. Points   Grade items can be worth a certain amount of points that are totalled for a final grade. Formula   Instructors can define a custom formula for how grade items contribute to a final grade
41	Ability to assign weights to items and categories.	[REQUIRED]	Yes. The weighted system calculates grade items as a percentage of a final grade worth 100 per cent. The maximum points that an instructor assigns to individual grade items can be any value, but their contribution towards the category they belong to and the final grade is the percentage value (weight) assigned to them. Grade items in a category count as a percentage of that category and not of the final grade. Therefore, grade items in a category should combine to a weight of 100 per cent. For example, if a category is worth 10 per cent of the final grade with two equally-weighted grade items, the weight of each grade item is 50 per cent (its contribution to the category) not 5 per cent (its contribution to the final grade).
42	The ability to provide an option of making grade items available for students to view.	[REQUIRED]	Yes. There are a variety of ways to release grades. When releasing a final grade from the Enter Grades page, instructors can choose to release grades to specific learners or release all grades.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION B			
LMS REQUIRED TOOLS (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
43	The ability to provide an option of providing bonus items.	[REQUIRED]	Yes. Bonus questions can be easily created within the Quizzes tool by checking the bonus question option when defining question values. The bonus value is equal to the point value assigned to that quiz question. Within the Grading tool, instructors can create bonus Grade Items by selecting the "Bonus" check box. Bonus items are not included in the maximum points for a category or final grade. They are added on top of the calculated grade. Bonus items cannot make users' grades exceed the maximum points specified, unless the Can Exceed option is selected.
44	Ability for grade items to be linked to specific assignments and exams.	[REQUIRED]	Yes. We offer flexibility in the setup of your Grade book. Instructors can associate quizzes, dropbox folders, and discussion forums and topics with grade items and grade them directly from associated tools such as the Quizzes tool, the Dropbox tool, and the Discussions tool.
45	Ability to link to student submissions from the gradebook.	Yes	To help save time and improve workflows when grading, in the standard gradebook view, context links are available for every grade item to take instructors from a grade to the source of the grade.
46	Ability to create and set custom grade schemes.	Yes	Instructors can create and set custom grade schemes.
47	Ability to associate and score a rubric from the gradebook.	Yes	If a Rubric has been associated with a Grade item, the Grade item can be assessed using that Rubric to make it very easy to evaluate the Students from one view.
48	Ability to sort students by students first and last name, and ID#.	[REQUIRED]	Yes. To support large class sizes, the Grades tool allows instructors to view grades by individual learner, group, course, or section — effective for applying changes to an entire group of learners or a sub-section of learners. Instructors can also save time and easily navigate to submissions and assessments via the Enter Grades through icons, links, and context menus.
49	Ability to score items by letter grade, simple score grade, pass/fail scales and complete/incomplete.	[REQUIRED]	Yes. Instructors have the ability to score items by letter grade, simple score grade, pass/fail scales and complete/incomplete. A grade scheme allows instructors to organize learners' performances on grade items into levels of achievement. Each achievement level has its own range of acceptable grades and a symbol such as a numeric value (i.e., 2.0, 3.0, 3.5, 4.0), letter (i.e., F, D, C, B, A, A+), or text description (i.e. Below Expectations, Meets Expectations, Exceeds Expectations).
50	Ability to sort by score on grade item.	[REQUIRED]	Yes. In the Gradebook it is very easy to Search for a particular Grade Score on a Grade item. The Advanced Search features allow the instructor to search based upon a Score. Simply select the Grade item, the factor, and the value and the gradebook view will align to those criteria. This makes it very easy for an instructor to view trends in the results. When viewing a particular Grade Item we have made it very easy to sort the grade values from highest to lowest or lowest to highest by selecting the "Grade" column header. Selecting the column header will refresh the view; a new chevron (triangle) icon will appear beside the column header indicating the direction of the values, and all other columns will align to this selection.
51	Ability to calculate or use a function to determine final grade.	Yes	Instructors can have the gradebook automatically calculate the grade, or use a formula to determine the final score.
52	Ability to select grade calculation options (e.g. simple weighted mean of grades).	Yes	Brightspace provides instructors with several different methods for calculating grades. This includes simple weighting of items, weighting of categories and items, points values for items or categories, and the ability to add complex formulas.
53	Ability to export student grade data to Excel and as a CSV file.	[REQUIRED]	Yes. Instructors have the option to export grades via a CSV file which can open in Excel
54	Ability to allow data to be imported into an existing grade item(s).	Yes	Instructors have the option to enter grades in a simple spreadsheet-style interface or they can import grades from Microsoft® Excel® or CSV file formats.
Quizzes/Exams			
55	Ability to create questions based on the following types [Fill in the Blank/Short Answer, Long Answer/Paragraph, Matching, Multiple Choice, True or False]	[REQUIRED]	Yes. The following question types (formats) are available in the Quizzes tool: Arithmetic (2+2), Fill-in-the-blanks (FIB), Long Answer (LA), Matching (MAT), Multiple Choice (M/C), Multi-Select (M-S), Multi-Short Answer (MSA), Ordering (ORD), Short Answer (SA), Significant Figures (x10), and True or False (T/F). Instructors can also add text and image information to questions.
56	Ability to create question pools/libraries.	[REQUIRED]	Yes. The Question Library is a central repository for the questions instructors create, copy, and import within a course. The Question Library is a real time-saver since it provides a simple and easy way for questions to be stored and reused throughout a course's assessment tools. Keep a course's assessment questions in one place by using the Question Library as the central location by importing questions created within the Quizzes, Surveys, and Self Assessments tools into the Question Library for organization and future use. You can also easily make questions available for use across your course offerings with the ability to share the Question Library to other courses by using the Import/Export/Copy Course Components tool.
57	Ability to import question pools/libraries from external resources.	[REQUIRED]	Yes. Via the Quizzes tool, questions can be imported from external test banks in adherence to IMS QTI standards. The system also accepts delimited files, such as text files, spreadsheet files, CSV files, and more. Several file formats for batch mode importing of test questions are available for use including standard text or spreadsheet files such as CSV files. This allows users to import questions from familiar question/test generators such as Respondus® or Questionmark™.
58	Ability to randomize quiz answers to questions.	[REQUIRED]	Yes. Quiz answers can be randomized within each question to help support academic integrity.



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION B			
LMS REQUIRED TOOLS (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
59	Ability to randomize quiz questions.	[REQUIRED]	Yes. Inserting a random section into a quiz ensures that each learner will receive a unique set of questions. The random section pulls from a designated pool of questions stored in the Question Library. After selecting the questions from the library, instructors can specify how many questions from the random question pool each learner should see. The random section will then randomly select this number of questions for each learner that takes the quiz.
60	Ability to use a WYSIWYG and HTML editor when creating questions.	[REQUIRED]	Yes. Question creation is made even more dynamic with the use of the HTML or WYSIWYG editor. Content creators and instructors can use the HTML Editor as a WYSIWYG editor and have the option to edit the HTML code. Also, preview and toggle between fullscreen — whichever suits you best creatively. Using the HTML Editor, interactive elements; Adobe® Flash®, video, audio files, tables, Equations and text and virtually any other item that can be displayed in HTML can be inserted into the Quiz Questions, Quiz description, Question Answers, Question Hints and Question Feedback. Even students can use the HTML Editor to craft their responses to Quizzes if they have the permission to do so.
61	Ability to add audio/video components to quizzes or exams.	[REQUIRED]	Yes. The HTML Editor enables course designers to insert multimedia such as Adobe® Flash®, audio files, YouTube™ videos, pictures from Flickr®, links, etc. into Quizzes and Exams.
62	Ability to allow for faculty to restrict quizzes by date, group, section, password, IP address.	Yes	Our solution provides restriction and security options so that you can deliver secure testing. In the Quizzes tool, you can secure your quizzes by adding restrictions such as release conditions (Group and Section enrollment), passwords, and IP address ranges. Instructors are also able to create custom learning paths for each learner since the Restrictions tab allows for special access for specific users.
63	Ability to grade objective quizzes automatically and reveal results to students.	[REQUIRED]	Yes. Assignments, as well as quizzes, can be added as automatically graded items. All quiz question types can be auto-graded except for the long answer/essay format. Otherwise, quiz and grade item activities can be configured for automatic evaluation meaning that a learner's completion of an activity is determined automatically based on their quiz score or grade on a grade item. Submission views can be enabled to show Quiz results immediately or at a later date. Submission views can be further edited to show question answers, student answers, or both.
64	Ability to provide general and individual question feedback.	Yes	Instructors can provide feedback on Quizzes in both general and individual ways. Within the quiz question is a space for immediate feedback to be provided. This feedback will appear once a student selects an answer in a Self-Assessment. For a quiz, this response-level feedback is provided once a student submits the quiz. Additionally, the instructor can provide Attempt feedback, Question Feedback and Sub-Section Feedback on Student submissions.
65	Ability for faculty to reopen access to a quiz for a specific individual.	[REQUIRED]	Yes. Instructors are able to create custom learning paths for each learner since the Restrictions tab allows for special access for specific users. For example, if a learner with special needs considerations requires more time on a quiz or test, the instructor can reopen and provide them special access to that quiz for an extended period of time.
66	Ability to reset a user's quiz/exam attempt.	[REQUIRED]	Yes. One of the many flexible features of Manage Quizzes is the ability to enable "Allow Reset" which allows you to reset users' grades; if you select this check box, a delete icon appears beside each quiz attempt.
67	Ability to extend the time of a users' attempt to take a quiz/exam.	Yes	The ability to provide special access to learners with special needs is available in the Quizzes tool. Testing periods and dates and times can all be adjusted through the Special Access tool.
68	Ability to provide faculty with reporting that identifies questions that are missed most often.	[REQUIRED]	Yes. Beyond creating and delivering quizzes, we equip you with meaningful knowledge and statistics to give you a picture of what works and what can be further developed. The Quizzes tool natively provides you with reports on question difficulty, learner performance, completion time for quiz and individual questions, which learners have tried the quiz, and quality and characteristics of quizzes and individual items or questions. This is also available as an Insights report
69	Ability for faculty to override/adjust scores on an individual question for all users.	Yes	An individual question can be re-scored. This new score will apply to all learners that have taken the quiz, and the new quiz question will be shown to all learners that have yet to take the quiz.
Class Roster			
70	Ability to provide the official list of students and assigned faculty that have been added by the Student Information System (SIS).	[REQUIRED]	Yes. The Classlist tool will provide the official list of students and assigned faculty for a course, as sent by the SIS of record.
71	Ability to sort users by first and last name, ID#, e-mail, and role.	Yes	The Classlist tool enables instructors to filter their view by Users, Groups and Sections. Tabs can also be used to filter the view based upon Role or a group of Roles. Instructors are also able to interactively sort their view by First and Last name, OrgdefinedID, Email, Role and Last Accessed time. For larger classes, the Search tool provides filtering for Role, Flagged, Online Status, Active, Locked, and Last Access (based upon time and date).
72	Ability to send e-mail to selected individuals, groups, or entire sections of users.	[REQUIRED]	Yes. Email is integrated through other Brightspace Learning Environment tools including the Classlist tool. Emails can be filtered by specific course association, group or sections within a course or by personal or course related messages. The Email tool provides the ability to search Message List. Search fields include "from", "subject", and "body" and the file attachments area supports drag and drop.
73	Ability to manually enroll and dis-enroll users to the roster (e.g. guest speaker, teaching assistant, etc.).	[REQUIRED]	Yes. Granular permissions can be given for faculty to be able to manually enroll and dis-enroll specific roles from the roster. This means that a faculty may be able to enroll a TA but not a student. This is flexible.
Rubrics			

### LMS Functionality & Technical Requirements

SECTION B			
LMS REQUIRED TOOLS (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
74	Ability to create, edit and deploy holistic and analytical rubrics.	<b>[REQUIRED]</b>	Yes. instructors can create, publish and deploy Holistic or Analytic rubrics to manually or automatically evaluate learner performance on activities linked to competencies and learning objectives conducted through a variety of course tools including the Quizzes tool, Dropbox tool, the Grades tool, the Discussions tool, and Brightspace ePortfolio items.
75	Ability to use multiple criteria with multiple levels.	Yes	The Brightspace Rubric tool allows for multiple criteria with varying levels and/or points associated with each criteria and level. This allows for complex rubrics and flexible assessment and feedback.
76	Ability to associate rubrics with other LMS tools for assessment purposes.	<b>[REQUIRED]</b>	Yes. Rubrics can be associated with Individual Assignments, Group Assignments, Discussions, Surveys, Quizzes, Grade items, and manually graded Learning Activities for assessment purposes.
77	Ability to set rubrics as draft/active.	<b>[REQUIRED]</b>	Yes. By default a new rubric is set to "Draft" and must be activated. Other statuses are also available.
78	Ability to copy rubrics from one course/section to another.	<b>[REQUIRED]</b>	Yes. Instructors can copy Rubrics from one course/section to another using the Import/Export/CopyCourseComponents tool. Furthermore Rubrics can be shared from the Organization to all courses if an institution-wide Rubric is needed for evaluation. Organization level rubrics have the added advantaged of preventing the rubric from being changed or edited at the Course Offering level.

### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
<b>User Authentication</b>			
1	Ability to support Federated Identity Management for SSO – InCommon Membership.	[REQUIRED]	Yes. Our system can be implemented in a manner that fully complies with ICAM (Identity, Credential, and Access Management) guidelines. One thing to note - our system does not need to be the identity management system — we can integrate with external identity stores through LDAP, Shibboleth, or other SAML 2.0 compliant systems. Therefore, if PASSHE has an ICAM compliant identity management system, the overall system will still comply.
2	Ability to prevent users from logging in from more than one location.	[REQUIRED]	Yes. User Session Limit can be set at 0 which allows for an infinite number of simultaneous log ins. In order to prevent users from logging in from more than one location, simply set that configuration variable as 1. When set as 1, if a users credentials are used to log into a second location, the Learning Environment will automatically log out the original login location and send a pop up message informing them why that device was logged out.
3	Describe the LMS's class enrollment capabilities beyond the basic enrollment of students in a class instructed by a single faculty member. Will the administrators have an automated method to enroll students from other System universities and recognize guest lecturers by leveraging InCommon Federated Identity?	Partial	Using an upload function through the standard web interface, the Brightspace platform provides the ability to create, enroll, withdraw, delete, and update user records and enrollments in batches through the use of formatted text files. Students and lecturers could be automatically enrolled if passed through an SIS export from their home university. InCommon Federated Identity would be leveraged to enable them to login seamlessly.
4	Describe how students and guest lecturers from other universities in the same LMS or those from universities not in the same LMS, but still participate in the InCommon Federated Identity are able to participate in courses.	Yes	The student or guest lecturer would navigate to the guest university login. They would select InCommon Federated Identity and select their originating university. From there, they would input their credentials and be given access to the guest university.
5	Will the instructors of record for a course have the capability, at each university's discretion, be able to easily add guest lecturers and guest students directly to their courses without intervention of the administrators? These guests would also participate in the InCommon Federation.	Yes	Yes. There are two scenarios. In a situation where two schools are sending their SIS exports to each other, the instructor of record can easily search for and enroll guest students and lectures into their course. The guest would sign in using their federated identity. In a situation where the user is external to an agreement between the two schools, or even the PASSHE system, the instructor could have the ability to create a user from their classlist. As long as they use the same username and email as the guests' home LMS, then when the guest logs in through the InCommon login page, they will be connected to the created account and allowed in.
<b>Performance</b>			
6	How do you define quality of system performance? (Slow down vs go down).	Yes	D2L deploys Application Performance Monitoring (APM) software which considers a variety of metrics to indicate the quality of the end user experience. These metrics have been developed based on typical user expectations, and the actual end user experience is reported back to the Network Operations Center (NOC) staff who take corrective action (add additional web servers, expand database resources etc.) should the APM report the responsiveness dipping below a preset threshold. D2L does not publically provide specific metrics on our slow down vs go down thresholds.
7	Define how you handle performance monitoring, redundancy protocols, system backups, and similar systems.	Yes	There is a rich amount of reporting and logging native to Brightspace Learning Environment that can provide granular detail on user activities. Three methods of monitoring are in place to ensure that NOC (Network Operations Center) staff are alerted to problems and potential issues with customer sites. Infrastructure Monitoring   Through the use of Microsoft Systems Center Operation Manager and other SNMP monitoring systems, the NOC is alerted to events that relate to the SaaS infrastructure such as RAM, disk space, CPU and network utilization threshold warnings. Application Monitoring   A monitoring system that recreates the use of end user functions through synthetic transactions will alert the NOC should an issue with a customer occur. External Monitoring   Monitoring from outside our data centers is used to validate external connectivity and responsiveness of the production SaaS environment. We are open to considering further dialogue around health/performance of PASSHE's systems, should the case require it. Through the use of our optional product offering, Brightspace Insights, clients are provided with a wide array of metrics and demographic information. Moreover, with system or analytics-based logging and reporting, we utilize several internal tools for data center management and reporting.



### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
8	How are performance failovers communicated to administrators?	Yes	Brightspace Cloud clients are provided with a client dashboard that displays a snapshot view of their system's status at no additional cost. The dashboard provides valuable insight into recent site activity. The metrics in the dashboard are as follows: Showing Up/Down status of the customer's site Raw uptime over the past 30 days Site performance over the last 30 minutes Composite availability, combining raw uptime and site performance, over the past 30 days
Student Information System (SIS) Integration			
Existing Integrations			
9	Does your product have an existing integration with one or any of the following Student Information Systems? [Datatel, Ellucian, Banner/Luminis, Jenzabar, Oracle PeopleSoft, Power Campus] Which ones?	[REQUIRED]	Yes. We have extensive experience in integrating various Student Information Systems (SIS) and enterprise systems (e.g. HRIS, UIS), including Oracle PeopleSoft with the Brightspace platform via the Integration Pack for Student Information Systems (IPSIS). The Holding Tank was designed and implemented with the intent to be vendor neutral and has proven to be effective in integrating with SIS systems such as Colleague® by Ellucian (formerly from Datatel), Banner® by Ellucian (formerly SunGard), Oracle® PeopleSoft, and numerous other proprietary systems (such as Power Campus and Jenzabar) using XML files.
10	Provide a name of the institution for each of the supported Student Information Systems you responded to above in #6.	Yes	Datatel – Monmouth University, Millersville University Ellucian (redundant – Ellucian owns Datatel & Banner) Banner/Luminis – Dalhousie University, Slippery Rock University Jenzabar – Daytona State College, Lock Haven University PeopleSoft – Rochester Institute of Technology, West Chester University PowerCampus – Springfield Public Schools
Describe how your system automates class creation, user creation, user enrollments, withdrawals, grade returns, etc.:			
11	Bulk (file upload) option for creation of courses and users?	[REQUIRED]	Yes, the Bulk Course Create utility enables instructors and administrators to create multiple courses at once using an automated process. Course packages can be associated with the batch upload as well. The Bulk User Management Tool also ingests a CSV file that will batch create, modify, delete users.
12	Bulk (file upload) option for enrolling users into courses?	[REQUIRED]	Yes, the Bulk User Management Tool can also enroll and unenroll users through an upload CSV.
13	Do you offer real-time interface between SIS and LMS with one or any of the above mentioned systems? (#6)	Yes	Brightspace provides both generic and platform specific real time integrations with the mentioned SIS. Banner Real-time Adaptor is a turn key solution and PeopleSoft LIS is certified with PeopleSoft. All other SIS can be integrated using our IPSIS integration.
14	Do you offer support for recurring batch file date integration between SIS and LMS with one or any of the above mentioned systems? (#6)	Yes	We offer this through our Standard SIS integration. This integration automates the creation of users, organizational units, and enrollments through the transfer of a CSV file formatted according to our specifications. This transfer occurs daily via a scheduled batch process which includes: ·Standard Configuration and Functionality ·Data is transferred using CSV format files via SFTP in scheduled daily batch job ·Org Units Supported: departments, semesters, course templates, course offerings, and course sections ·Roles Supported: Learner and Instructor ·Memberships Supported: Course Offerings and Course Sections ·Access to Section Association Interface for manual course offering and section association management ·Used for manual manipulation of relationships between course offering and sections ·Create SIS section associations ·Modify course offering and section associations ·Merge course offerings ·Configure what association to pull grades back to the SIS from (if using Grades Export) ·Two Types of Logging: ·CSV Adapter Log (Text file in SFTP account and CSV format or file structure errors) ·Brightspace Learning Environment System Log (data processing errors)
15	Set course start/end dates from the SIS?	Yes	Standard SIS integration does define start and end dates for courses in the Learning Environment based on data from the SIS.

### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
16	Set courses as Inactive/Unavailable to students by default (e.g. allow faculty to make the assigned course available to students)?	Yes	By default all courses that are automapped and created in Brightspace can be set at inactive.
17	Is there maximum number of students that can be enrolled into a single course site? What is the maximum?	Yes	There is no known upper limit on the amount of students that can be enrolled into a single course. Clients on Brightspace have had tens of thousands of students enrolled in a single course without issue.
18	Does your LMS have the capability to allow extended course access for individual students, PAST the end date? Explain how this is managed.	Yes	Flexibility in our product is the key. Access to a course is based upon the role that the user has in a course. The access to past/present/future courses is set in the Manage Roles and Permissions tool. Here you could create a role called "Special Access", for example, and provide this role with the ability to access "Past Courses". If an Administrator or Instructor changes the role for a standard student to a special access role then the student would be able to continue with their course, beyond the end date.
19	Can user roles be applied to specific areas in the organization's hierarchy (i.e. department, school, programs)?	Yes	Since roles allow you to customize permissions for different users and different circumstances, you can create any number of roles for your organization and give individual users any number of roles for different organization units in your system.
20	Does your system support preferred name, and if so how?	Yes	When an SIS integration is set up, it is possible to define fields that are controlled by the SIS and those that are controlled by the LE. If the 'first name' field is controlled by the LE, it could be updated in the LE to a preferred name. This would be the name shown in the roster and unofficial transcript, but would still be connected to the original name in the SIS transcript of record.
<b>Application Program Interface (API)</b>			
21	Detail additional API functions that integrate with the SIS such as predictive analysis of student success, and academic advising management.	Yes	The Brightspace Valence API could provide a number of details about student performance or useful for academic advising, such as grades, overdue items, and calendar items for specific users. Alternatively, a data export that combines data such as student course access, last discussion post, average grade, and overdue items could be bulk exported and imported into the SIS. For academic advisors, Valence has an API that can create and associate academic advisors in an SIS to their advisees in the Brightspace Learning Environment.
22	Detail any system/platform changes that may be required when implementing the additional functions listed in #18.	Yes	An additional role will need to be created that mimics the student role but with the ability to see a course beyond the start or end date. Then the instructor role will need to have the permission to enroll a student with that role. The SIS integration must also be configured to ignore course level role changes.
<b>Combine Courses</b>			
23	Ability to combine courses to single course site, while keeping students in their respective groups/sections.	[REQUIRED]	<p>Yes. Courses that are not cross-listed in the SIS can still be chosen to be mapped together manually through the course mapping tool, in order to share the same org unit in the Brightspace platform. This is a common occurrence for classes with multiple sections but only one instructor, or common course material across classes.</p> <p>Yes, we can combine one course section with another section using the cross-listing feature via one of the following tools:</p> <ul style="list-style-type: none"> <li>• The Course Mapping Interface (CMI) when using the Holding Tank SIS integration.</li> <li>• The Cross-listings Management Interface (CLMI) when using the Banner® by Ellucian SIS integration.</li> <li>• The Section Association tool (SA) when using IPSIS and its LIS v2.0 Adapter for SIS integration.</li> </ul> <p>Course offerings also support multiple sections so several sections can be under one course. Administrators can map course offerings from previous semesters to new offerings.</p> <p>The following types of course mapping are possible through each of the cross-listing tools:</p> <ul style="list-style-type: none"> <li>• mapping a single listing to a new course</li> <li>• mapping multiple listings to one new course</li> <li>• mapping a single listing to a pre-existing course</li> </ul> <p>Training on cross-listing is provided during the implementation of PASSHE's SIS integration and particular steps may vary depending on the type of integration you choose. In brief, courses are passed by your SIS into our system. Prior to courses beginning, the administrator uses the appropriate cross-listing tool to choose the courses that need to be combined. Enrollments will then map to the new cross-listed course offering in Brightspace Learning Environment.</p>

### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
24	Ability for student data in a course to be restored (if formerly withdrawn student re-enrolls).	<b>[REQUIRED]</b>	Yes. user statistics and data remains tied to the courses. If a course is still active and the user has withdrawn and then subsequently re-enrolls into that course, their user data will immediately be available and that Student can continue where they have left off.
25	Ability for system administrators to un-combine courses via the GUI.	Yes	Unmapping a course with sections can be accomplished through our cross-listing tools. The method is dependent upon the type of tool and SIS integration that is being used.  Also see #23 response for details on course mapping.
26	Ability to combine sections listed under different departments or programs.	Yes	Administrators can map course offerings from previous semesters or other departments to new offerings.
27	Ability to allow guest students or lecturers from other InCommon universities to be added to courses.	Yes	D2L can provide single sign-on using the Brightspace Integration Pack for Authentication Solution's Shibboleth authentication. Shibboleth is an authentication system that allows Brightspace to work with Shibboleth-based identity providers and discovery services including those from the InCommon. When Brightspace Integration Pack for Authentication Solutions is configured and enabled, Brightspace users can login using their Shibboleth-based credentials, eliminating the need for them to create a Brightspace-specific account. The Brightspace Integration Pack for Authentication Solutions can be configured to utilize multiple identity providers through InCommon.
System Administration			
28	Ability to turn on/off options or tools system-wide within the university instance.	<b>[REQUIRED]</b>	Yes. Administrators have flexibility and control through an array of easily-accessible administration tools on the minibar. This includes the "Organizational Tools" link that provides Administrators with the ability to set tools as available or unavailable.
29	Ability to control deployment timing of a feature that has been part of an update.	Yes	To effectively manage this increased frequency of change, through Continuous Delivery, we provide enhanced release documentation and other resources to support the adoption of these changes. Furthermore, we work with the client advisory group to define the types of features that may be disruptive to existing workflows and practices so we can plan appropriately. Depending on the change, a change might be managed by a new tool setting that allows instructors to decide if they want to enable the feature; a new configuration variable or role permission that allows administrators to control the release of the feature to different users; or a new tool version that allows administrators to delay the adoption of a major tool redesign until after appropriate testing.
30	Ability to control who has access to tools on a department level.	Yes	Since roles allow you to customize permissions for different users and different circumstances, you can create any number of roles for your organization and give individual users any number of roles for different organization units in your system. All levels in Brightspace are considered to be organization units, including departments.
31	Mechanism to create, modify, and assign roles for users with varying permissions.	<b>[REQUIRED]</b>	Yes. With over 500 distinct permissions, the number of unique roles that can be created, in the Roles and Permissions tool, is endless. The Brightspace platform provides the ability to set advanced access and security permissions for roles at any level of your organization, all the way down to an individual tool or feature within a tool. This way, when you create a new user account, you can quickly link that account to a set of unique permissions simply by assigning the user a particular role. Additionally, each user can be assigned more than one role within different organizational units.
32	Mechanism/tool that can be deployed by campus administrators to backup, purge/archive courses in accordance with local course retention policies.	<b>[REQUIRED]</b>	Yes. Brightspace Learning Environment has a couple of ways to archive courses. A popular method, used by many of our clients, is to simply make courses inactive. Inactive courses remain on the system, but users cannot use them for instruction. This does not impact the performance of the system in any way, and allows authorized users immediate access to previous materials and longitudinal reporting. Restoring these inactive courses is a simplified process that can be accomplished with one click. Administrators can backup courses using the Import/Export/Copy Components tool found in each course or with the Bulk Course Export batch Utility. Course content is exported into IMS CP, that can be re-imported at anytime. Administrators can also archive one or multiple courses using the data purge tool (what course tools are archived is specified by the Administrators). With Data Purge, courses data and user data will be exported into xml packages for offline viewing and the data will be permanently removed from the system in a separate process.

### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
33	Ability to create, edit and delete announcements to all users on an organization level.	[REQUIRED]	Yes. The Global News tool is accessed from the Admin Tools menu and allows you to create news items that display across your entire organization as soon as you publish it for viewing. For example, administrators might use a Global News posting to make all system users aware of a scheduled maintenance window during which time the site is unavailable, to announce a weather-related closing, or to announce an important appointment. News items can be edited or deleted as required by users with appropriate permissions. The Global News tool also utilizes release conditions to restrict accessing and viewing Global News postings to specific roles, course offerings, or groups. Since this tool reaches across your whole organization, it is typically used by administrators, but you can grant other users permissions to use it — our solution is flexible that way.
34	User activity tracking - ability to query system for specific user data such as verifying login times, and last access to course.	[REQUIRED]	Yes, the User Progress Dashboard includes login details such as the access date, days since last access, and IP address. Furthermore the administrative reporting tool provides a useful interface through which reports can be created detailing system activity. The reporting tool enables the selection of a wide variety of data to report on and to shape reports through the use of filters and other parameters. Verifying login times is one example of a report that is available.
35	User activity tracking - ability to query system for specific user data such as when a user accessed certain resources such as when they opened the syllabus or quiz, with date/time/IP addresses.	[REQUIRED]	Yes. The User Progress Dashboard provides a summary and details on tool usage including: the Checklist tool, the Competencies tool, the Content tool, the Discussions tool, the Grades tool, the Quizzes tool, and the Surveys tool. This also includes login details such as the access date, days since last access, and IP address. Learners and instructors can compare the progress of an individual user to that of the rest of the class.
36	Reporting for system processing?	[REQUIRED]	Yes, the Brightspace Learning Environment comes with a system log that records system processing error logs. Each different kind of SIS integration (premium or basic) has its own kind of logging for errors that occur in the SIS to LE transition of information. For example, Basic SIS integration has a CSV adapter log that is sent to an SFTP location. Premium IPSIS integration has an extensive built-in logging to troubleshoot integration issues. Log information is accessible via a web browser.
37	Ability to review and export usage to monitor and predict growth.	Yes	Brightspace Insights provides reports that allow organizations to review and export usage to monitor and predict growth. Course Access   Gain quick insight into how often course participants have accessed selected courses. The Course Access report lets users with appropriate permissions such as instructors search for course participants with course access defined as all, no access, below average, or above average. Search for these participants by selecting a course, multiple roles, a date range of interest, and the participants' enrollment status. This provides insight into trends relating to course access. Brightspace Learning Environment Logins   This report gives administrator the ability to delve different levels of information about how Brightspace Learning Environment is being used. The Brightspace Learning Environment Logins report displays information around logins to Brightspace Learning Environment for all selected roles within a selected date range. This report provides admin visibility into the growth of user system access while providing the flexibility to examine specified roles. User Tool Access   The User Tool Access report displays the number of times Brightspace Learning Environment users, in selected roles and a selected course offering, have accessed selected tools in Brightspace Learning Environment over a date range of interest. This report can be leveraged at both the organization and the course offering level providing instructors and admin the ability to identify growth trends in tool usage.
38	Ability to review and export daily reports of course creation, user creations, adds/drops within specific courses, etc.	Yes	Yes, Brightspace Insights Engagement Reports can provide a log of all enrollments and withdrawals performed in Brightspace Learning Environment. This information is also available through the native administrative reporting in the Learning Environment.
39	Ability to review and export daily reports of error logs.	Yes	Brightspace has both error logs for the Learning Environment, as well as error logs for the SIS integration. The System Log in the LE displays logged information for system errors, warnings, debugging, and general information. View log message summaries and details, filter and view messages by log type and date range. This log can be filtered daily and then can be printed by printing the page that is displaying the information. For all error logs related to SIS integration, these log files are in a daily, exportable format.

### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
<b>Branding</b>			
40	Ability for each campus to customize branding of their instance of the LMS.	[REQUIRED]	Yes. We offer robust flexibility when it comes to empowering you to customize your interface and shape your learning experience with control over your branding, administration, and functionality across your organization. Many aspects of our solution can be tailored by your administrators and course designers to align with the vision and brand of each campus: colors, features to accommodate accessibility, homepage layout, interface development (widgets), languages, navigation bar layout, organizational units and structures, presentation settings, navigation settings, roles and permissions, and system variables.
41	Ability to provide custom banners and icons on course homepage, header, footers, etc.	[REQUIRED]	Yes. Individual institutions and courses can create custom banners for their course homepages - including headers and footers. Also, via our Creative Services, we can professionally customize your interface and brand. We get that each organization has unique needs and a unique brand story to share. With that in mind, we offer a Custom Branding solution that PASSHE can purchase. The level of Custom Branding provided is distinctive to meet your specific needs — including branding your learning environment, the alignment of existing collateral, or even end-to-end brand development. Custom course templates and other assets can be matured or created to support the creation of consistent learning experiences.
42	Ability to customize and configure branding on a course level.	[REQUIRED]	Yes. Individual courses can customize their branding dependent on permission. This can be easily managed via the navigation and themes tool with 'edit course'. D2L also has an optional automated Course Branding Tool that enables multiple kinds of course branding and homepages to be pushed to child courses automatically across an organization.
43	Ability to create and customize course content page HTML/CSS templates.	Yes	Brightspace's Content Tool allows for HTML/CSS templates to be used to create content.
44	Ability to share course content page HTML/CSS templates	Yes	Instructors can select from pre-defined document templates when creating new documents in the Content tool. When a document template is selected, the new document will pull all of the content and styles from the templates which can be modified as desired. If the Template is stored in the Shared Files area then it can be accessed by other users (such as courseware developers) who have appropriate permissions.
45	Ability to customize, share, and restrict navigation schemes.	Yes	Navigation schemes can be customized and shared with specific children or copied into specific courses. Navigation schemes can be restricted.
<b>Onsite Training, Webinars &amp; Documentation</b>			
46	Onsite transitional training for LMS administrators?	[REQUIRED]	Yes, via Administrator orientation videos: These are deployed directly into the production instance of Brightspace Learning Environment. These are intended to give PASSHE administrators a brief introduction to the administrative capabilities of Brightspace Learning Environment. As no transitional training is required, we recommend other training like Best Practices & Upgrade training to allow administrators to get the most out of the existing Brightspace system. D2L delivers flexible training options including onsite programs that can be customized to meet the identified training goals of PASSHE. D2L was top-ranked for 'Ongoing Training and Support Services' by the Ovum: Selecting an Online Learning Platform for Higher Education, 2015-2016.
47	Describe the level of configuration support that will be available to LMS administrators.	[REQUIRED]	Yes. During implementation, after reviewing high level requirements, we will install the production instance and implement base system configuration. Once this has been completed, our consultants will meet with PASSHE Stakeholders to review requirements and business process and make system configuration recommendations.
48	Assistance configuring the system (course shell & navigation templates, system roles)?	[REQUIRED]	Yes. Our implementation consultants and trainers will work with your institutions to configure the system so that it reflects your unique needs. A priority in our training is to ensure that your administrators are comfortable with making the changes required to permissions and templates as their needs change. Documentation is also available through the Brightspace Community along with video tutorials and discussion areas to pose questions to our larger Brightspace client base.
49	Onsite training opportunities for instructional designers and faculty (content development, assignment creation, rubric creation)?	[REQUIRED]	Yes. We offer optional training courses and materials, such as Best Practices training that can be purchased to supplement your initial product training. This training session covers best practices for online teaching using the Brightspace Learning Environment. The specific areas of focus are content and course design, communication, assessment, and multimedia. This training is intended to provide more in-depth strategies for getting the most out of Brightspace Learning Environment and assumes that participants have basic familiarity with the product already.



### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
50	Documentation, video tutorials, webinars for faculty & LMS administrators?	[REQUIRED]	Yes. We equip our users with a range of resources to set them up for success. Via the Brightspace Community, you have access to user guides, release information, videos, and help packages designed for administrators, instructors, and learners that cover the most frequently used aspects of our Brightspace solutions: <a href="https://community.brightspace.com/resources/documentation">https://community.brightspace.com/resources/documentation</a> .
51	In-system user help tutorials?	Yes	At various points in the Learning Environment, contextual help is available to explain, using examples, how a tool or feature might be used. Shorter, informational help text is available to explain fields where needed. PASSHE also has the large video training library available on the Brightspace Community that can be leveraged to deliver additional support to end users.
52	Best practices as well as technology?	Yes	We provide our clients with access to electronic versions of the latest and archived versions of technical documentation, quick start guides, and user guides free of charge. Training documents can be downloaded from the Brightspace Community website which also includes user guides, training documents, best practices, and tutorials. Help file packages are also available for download.
53	Universal design and ADA compliance?	Yes	Our documentation, including D2L Help, is released online and is available to users with accessibility needs. We have taken great care to structure D2L Help so that it correctly meets WCAG 2.0 standards, ensuring that screen readers and other assistive technologies can navigate online help pages effectively. Pages include landmarks, nested headers, list markup, and fully-accessible search. Documentation can be accessed via the Brightspace Community.
Base Analytics Tool			
54	Does your base product offer reporting?	[REQUIRED]	Yes. There is reporting available in our base LE product. It will be referred to below as Brightspace Analytics.
Describe the level of granularity, and explain the process for how the data can be exported for the criteria listed below.			
55	System error logs and performance.	Yes	Through our online support portal, client administrators have access to a dynamic system status page that provides insight into the performance of the Brightspace Cloud environment such as up time and status and response time. This enhanced reporting option is available with our Gold and Platinum support packages. For Learning Environment and SIS integration error logs and exporting please see the answers in #36 and #39
56	System usage and users' frequency accessing specific tools.	Yes	Brightspace Analytics can track a granular level of activity for every user within the system for monitoring and reporting purposes. We can do this without compromising any system performance or additional hardware. There are two levels of tracking: course level and system wide. At the course level, the User Progress Dashboard provides a summary and details on tool usage across a range of tools. This also includes login details such as the access date, days since last access of the course, and IP address. Instructors can compare the progress of an individual user to that of the rest of the class. At the System Wide level, overall system usage can be seen through a sessions report in the Admin Reporting area.
57	Volume of users accessing system on specific days/times.	Yes	The Brightspace Analytics administrative reporting tool provides a useful interface through which reports can be created detailing system activity. The reporting tool enables the selection of a wide variety of data to report on and to shape reports through the use of filters and other parameters.  The data available to report on is contained in datasets. Datasets are predefined categories of data; for example, users or organization units. Once a dataset is chosen to report on, a render type which is the format that the report displays in such as a bar graph or a table can be selected and custom filters can be added to show specified and relevant results. The volume of users accessing the system is available through either sessions or logins report dataset and can be grouped and displayed by days and times to understand overall load and peak times.

### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
58	Ability to aggregate student progress.	Yes	The Class Progress Dashboard that is part of Brightspace Analytics provides learner performance across the entire class. Instructors select four performance indicators on which to track a learners' progress. Each performance indicator has a visualization to highlight overall progress, recent activity, and calls out areas of concern. The resulting dashboard is then displayed as a table for comparison and printing. Instructors may also click on a performance indicator to drill down into the details of learner progress. The following are available performance indicators: checklist, content, discussions, dropbox, grades, login history, objectives, quizzes, and surveys. User access to objects (content topics) are viewable in the system via the User Progress tool and viewable/downloadable (CSV) in the content report that instructors can get at within the Content tool. They are also available for more complex reporting and download as CSV or as PDF (the latter for formatted reports and charts) within Brightspace Insights (our optional product).
59	Ability to execute predictive modeling.	No	In the Brightspace Analytics system, there is no specific predictive analytics function. The optional Brightspace Student Success System is an early intervention system that empowers institutions with predictive analytic tools to improve student success, retention, completion, and graduation rates. Brightspace Student Success System uses statistical analysis to generate predictive models that enable PASSHE to identify at-risk students and intervene appropriately to improve their rate of success and increase institutional effectiveness. In providing early identification of at-risk students, predictive analytics enables instructors to identify and understand where issues exist and to eliminate them by creating appropriate resolution plans to address the problem. Therefore, graduation and retention rates can increase when at-risk students are identified early and supported throughout the term. Visualization and statistical indicators provide diagnostic insights to aid in the design of individualized interventions.
60	Ability for administrators and/or faculty to determine if students made any attempt to access assignments, assessments, and if any errors were encountered.	Yes	Administrators, in the Brightspace Learning Environment, can track error messages through System Log tool. The logging levels can be adjusted from warnings all the way to debug level of information. For quizzes, instructors can see if users opened a quiz, closed a quiz, etc. If assessments and assignment are linked to through the Content tool, instructors can easily see if students accessed the tools as well.
61	Ability to provide and export data related to how many courses are using specific tools, native to the LMS, and integrated from third-parties.	No	This type of information is not currently available through our Brightspace Analytics. This is available in our optional Insights tool and will also report on tools which are associated with our database through Caliper.
62	Ability to provide and export detailed student system tracking (log in, log out, last accessed, LMS activity, IP address, etc.).	Partial	In the Brightspace Analytics administrative reporting tool, a report on the Login dataset can be created that can include, Log in, log out, last accessed, session duration, IP address, impersonation sessions, session timeouts, among other fields. This report is available for export. Granular activity within the LMS during that session is not available in this dataset. Some of this information would be available through the Course Progress and User Progress tool. It could also be available through a custom export if needed.
63	Ability to provide and export detailed student tracking available for each course tool (i.e. track how many discussion posts were read, how long students spent on each quiz question, etc.).	Yes	The analytics available in Brightspace Analytics equips instructors with inline advanced statistics from various tools to help inform decisions and understanding of course activity. With many of these statistics, reports can be generated and CSV files can be exported for further analysis. Advanced statistics are available from the Classlist tool (enrollment statistics), the Content tool (content access), the Discussions tool (forum and topic statistics including posts read), the Grades tool (class and user statistics), the Quizzes tool (user and question statistics, how long a user was in a quiz and moved from page to page), the Rubrics tool (competencies and completion), the Seating Chart tool (attendance and participation), and the User and Class Progress tools.
64	Ability to track user progress in courses.	Yes	Within the User Progress tool, a new Summary Report combines summaries from all the tools on a single page and highlights the newest updates. From this report, instructors can expand/collapse section to drill in as required. The tool sections are as follows: Grades, Objectives, Content, Discussions, Dropbox, Quizzes, Checklist, Surveys, and Login History.

### LMS Functionality & Technical Requirements

SECTION C			
LMS FEATURES and FUNCTIONALITY (Brightspace Learning Environment)			
#	Question	Yes/No	Supplier Response
65	Comprehensive reporting features on the behavior of the LMS (e.g. error logs) as well as the behavior of students. Exporting and viewing options available?	Yes	Many areas of Brightspace Learning Environment include audit trail logging with a web interface for inspecting the audit trail. These include changes to role permissions (in the roles and permissions tool) and changes to grade values within a course as well as the System Log which can include security errors (i.e. when a user tries to access something they are not authorized to see). The System Log displays logged information for system errors, warnings, debugging, and general information. View log message summaries and details, filter and view messages by log type and date range. Access logs include the log of user login attempts, records of user accesses to specific objects in the system (such as content topics), and the actual web server logs of each URL access. The login attempts log is both viewable and downloadable (CSV) via Brightspace Analytics (our standard reporting tool included with Brightspace Learning Environment). User access to objects (content topics) are viewable in the system via the User Progress tool and viewable/downloadable (CSV) in the content report that instructors can get at within the Content tool. They are also available for more complex reporting and download as CSV or as PDF (the latter for formatted reports and charts) within Brightspace Insights (our optional product).



### LMS Functionality & Technical Requirements

SECTION C					
LMS FEATURES and FUNCTIONALITY					
INTEGRATION					
#	Question	Yes/No	API, LTI, Web Services	Data Return	Supplier Response
<b>Describe how your system manages the following integrations:</b>					
1	<b>Textbook Publishers</b>				
	Cengage Learning	Yes	LTI	Yes	Deep links, Course Builder, Grades Return. CengageNow and CengageNowv2.
	CourseSmart	Yes	LTI	No	Integration also with VitalSource. Vitalsource is Caliper compliant.
	Macmillan	Yes	LTI	Yes	Asset Deep Linking, SSO, and Gradebook sync with LearningCurve Quizzing.
	McGraw Hill	Yes	LTI	Yes	McGraw Hill Connect and Gradebook Sync. Caliper compliant data return.
	Pearson	Yes	LTI	Yes	Pearson MyLab and Gradebook Sync. IMS CC and LTI with Realize content.
	Sage	Yes	N/A	No	Import Sage Course Cartridge.
2	<b>Student Response Systems</b>				
	TurningPoint Technologies	Yes	API	Yes	Participant list, roster, and grade results integration.
	i>Clicker	Yes	LTI	Yes	Student Registration, roster sync, polling data, gradebook sync, ReefClicker.
	Top Hat	Yes	API	Yes	Roster sync, grades sync.
3	<b>Learning Tools</b>				
	Learning Objects, Campus Pack (Blog/Wiki/Journal)	yes	API, LTI	Yes	Blog, wiki, journal, podcast, discussion board, content, collab space, etc. roster sync, grade sync. Caliper compliant data return.
	Microsoft Office 365	Yes	Web Services, LTI	Yes	Deep integration. Email, Calendar, Drive. submit assignments from Drive. LTI with OneNote.
	Podcasting	Yes	LTI, API	No	Podcasts can be embedded or tools like LearningObjects Campus Pack Podcast tool through LTI.
	Social Media (Twitter, Facebook, etc.)	Yes	URL	No	Users can connect their social media and share profile, Learning Objects, eportfolio presentations.
	SmartTutor	yes	API	No	SSO
	WordPress	yes	LTI	No	LTI plugin for Wordpress.
4	<b>Assessment Tools</b>				
	Respondus Lock Down Browser and Campus	Yes	Web Services	No	Deep integration for quizzing with LockDown Browser
	StudyMate	Yes	LTI	Yes	Includes grades sync.
	Examity	Yes	API	No	SSO into Examity.
	Software Secure	Yes	API	No	SSO
	Turnitin / GradeMark / PeerMark	Yes/Yes/yes	API, LTI	Yes	Deep integration in Assignments with TII and Grademmark, Generic LTI integration for all products.
	LiveText	Yes	LTI	Yes	SSO and grades sync.
	TK20	Yes	LTI	Yes	Students can submit assignments, grades sync.
5	<b>Audio and Video</b>				
	Kaltura	Yes	API	Yes	Upload, share, assign content. search and embed in html editor. Caliper data return.
	Sonic Foundry MediaSite	Yes	LTI	No	Integration with MediaSite and MyMediaSite.
	YouTube	Yes	API	No	Search and Embed YouTube through HTML editor.
6	<b>Library Systems</b>				
	Magna Publications	Yes	LTI	No	LTI with group online subscription service.
	EBSCO Host	Yes	LTI	No	LTI to curriculum builder. Use of persistent links to materials. SSO.
	Atlas Systems Ares	Yes	LTI	No	LTI integration through link to ecourse reserves.
	Films on Demand	Yes	API	No	Booklist Widget integration with Films on Demand through WorldCat. Embed player option also available.

### LMS Functionality & Technical Requirements

SECTION C					
LMS FEATURES and FUNCTIONALITY					
INTEGRATION					
#	Question	Yes/No	API, LTI, Web Services	Data Return	Supplier Response
<b><i>Describe how your system manages the following integrations:</i></b>					
7	<b><i>Other</i></b>				
	Sharable Content Object Reference Mode (SCORM)	Yes	N/A	Yes	Import SCORM packages, send grade to gradebook.
	Gradebook enhancements (e.g. STACK)	Unknown	Unknown	Unknown	
	Student Assessment proctoring (e.g. Examity, ProctorCam, etc.)	Yes	API	No	Proctor track, Respondus LockDown, Examity, SmarterProctoring, Secure Exam Proctor, Prow and Biomids. SSO.

### LMS Functionality & Technical Requirements

SECTION D			
ENHANCED LMS ANALYTICS TOOLS (Brightspace Insights)			
#	Question	Yes/No	Supplier Response
<b><i>Provide a detailed description for each of the following:</i></b>			
1	Ability to aggregate data from current LMS environment and other external data into the tool.	Yes	Brightspace Data Platform is Caliper compliant and can bring in data regarding access of external tools (including learning apps, content publishers, online tools, and other learning management systems). This data can be displayed in our new Brightspace Insights reports on tool usage, for example. Other data, such as admission scores, overall institutional performance and demographic information can be added to the optional tool Brightspace Student Success System's 'Preparedness' domain from the institution's SIS.
2	Ability to extract the data on a basic level, and across students' courses/programs.	Yes	Brightspace Insights extracts data from the Brightspace Learning Environment and transforms it into practical reports for administration and instructors. Basic reports such as tool access, instance load/access, quiz statistics, gradebook heatmaps, and at-risk analysis are available, as are cross-program analysis such as outcome alignment across programs, and student achievement on outcomes across courses and time. The optional Brightspace Student Success System analyses historical offerings of a single course across students to predict success for learners. The new Brightspace Data Platform (BDP) ingests event driven data to power Brightspace Insights reports about students' programs and courses. The amount of events being sent to the BDP continues to grow and will eventually encompass far more than just basic level information.
3	Ability for criteria and levels to be associated with learning outcomes.	Yes	You can associate activities with relevant learning objectives and have users complete them so you can evaluate their learning objective achievements. Activities include quizzes, surveys, dropbox folders, discussion topics, grade items, manual assessments, and content. Brightspace Insights reporting provides program chairs, curriculum committees, instructors, and accreditation bodies insight into how well course participants have met the defined course learning outcomes. The information can be viewed at an aggregated level across course offerings or in a detailed course view.
4	Demonstrate how your system outputs learning outcomes summaries for a single student, course, or entire program.	Yes	Outcomes reporting for a single student or a course are available in Brightspace Course Analytics. A single student's progress against outcomes can be seen best through the User Progress tool. Roll-up, at-a-glance review of course progress against learning outcomes is visible in Course Progress. In addition, Brightspace Insights offers a Individual Progress against Outcomes over Time report, which answers the question "how does a particular student's achievement rate vary across courses". For Course level outcome reporting: Brightspace Insights offers Course Learning Outcome Evaluation report which provides both an aggregate view or a course detail view of course progress longitudinally. This report provides the ability to select terms or semesters to report on outcome achievement for a selected period of time. You can also select individual course offerings, providing an ability to view outcome achievement for select course offerings in total or individually. The Program Learning Outcome Report in Brightspace Insights shows combined achievement rate for competencies across all of the courses where associated learning objectives are evaluated. Learning outcomes are grouped with their aligned course templates, each displaying a bar that highlights the percentage of completed to not completed outcome achievements. Other reports include: Competency Progress across Courses, and Competency Progress By Course.
5	Ability to weight criteria in a rubric.	Yes	Brightspace Rubrics allows you to add multiple criteria with varying levels and weight (value) assigned to each level and criteria.
6	Ability to establish checklists of competencies met and award badges or certificates.	Yes	Students can see the competencies that they have achieved, or need to achieve, in their user progress. In the user progress view, they can see what assessments and content are aligned to each competency. As students complete competencies, they can be awarded badges and certificates using the Brightspace Awards tool. Learners can view the badges and certificates they have earned via "My Awards", and they can also look at what awards are available to decide what else they want to strive for. Learners also have the ability to share a badge to their Mozilla Backpack directly from Brightspace Learning Environment, and from there, to any of their preferred social media sites such as Facebook. Learners can also print a PDF certificate, even after the course is completed.

### LMS Functionality & Technical Requirements

SECTION D			
ENHANCED LMS ANALYTICS TOOLS (Brightspace Insights)			
#	Question	Yes/No	Supplier Response
<i>Provide a detailed description for each of the following:</i>			
7	Ability to access a library of standards that can also be customized.	Yes	Brightspace Competencies framework is interoperable with the Achievement Standards Network, powered by D2L. ASN provides a library of standards that can be imported and used by an institution running Brightspace. Multiple standards can be used at the same time, and any standard can be customized. Institutions can also create their own standards that they want to evaluate their programs on more broadly, or individual instructors can align their content to their own standards if desired.
8	Ability to associate learning outcomes with course content and assessments.	Yes	Learning Outcomes can be associated with course content and with assessments such as Quizzes, quiz questions, Surveys, Discussions, and Grade Items. Students are able to get a big picture view of how their outcomes are tied to the material they read and the assessments they are taking.
9	Ability to store data that makes running queries over massive amounts of information practical.	Yes	We have made significant innovations to our data strategy in the last few years and continue to transform and improve the tools we are using to collect and expose data. D2L aims to provide data in an easy to consume and actionable manner, allowing you to drive results. Part of this is the delivery of the Brightspace Data Platform (BDP). The BDP is an enterprise class, multi-tenant, cloud hosted infrastructure powered by Hadoop. Hadoop is an open source framework for the distributed storage and processing of very large structured and unstructured datasets that overwhelm traditional relational databases. With the BDP we are moving away from daily ETL transfers of data in a structured warehouse to streaming events in a distributed data store. As a result, events are captured in near-real time, improving upon first generation capability of updating data on a 24-hour basis. The BDP is Caliper compliant and therefore also captures events outside the LMS from third party Caliper compliant vendors, providing a more holistic view of the learning experience. The BDP is accessed through a service layer of RESTful API or ODBC. This means that BDP provides a mechanism for storing and mining of data extremely efficiently. Data within the BDP can be leveraged by Brightspace Insights as well as client side Business Intelligence tools. We are confident that the BDP is built with proven technologies that are engineered to handle the explosion of data in the education technology sector, ensuring customer data is safe, secure, scalable and cost-effective. We are excited about the future of the technology and its impact on Brightspace Insights as we move more of our standard reports from reliance on our previous datasets to the BDP and create new and exciting dashboards with just-in-time data driven by streaming events in the Learning Environment.
10	Ability to view, create and manipulate reports.	Yes	Reports available in the Insights console for instructors are run using a defined dataset and render type, but users can apply a filter to the results to display a portion of them. For example, an instructor can choose to only display users who have logged in to their course during the last week, sessions that were longer than thirty minutes in duration, or statistics on a particular quiz question. Filters are a way of narrowing down a report to see only results that meet a desired set of criteria such as a certain time range or group of users. Data can also be exported and manipulated offline by instructors. Administrators have more control over ad hoc reporting abilities and access to data to create and manipulate reports.

## LMS Functionality & Technical Requirements

SECTION D			
ENHANCED LMS ANALYTICS TOOLS (Brightspace Insights)			
#	Question	Yes/No	Supplier Response
<i>Provide a detailed description for each of the following:</i>			
11	Ability to customizable a digital dashboard of learning analytics with comprehensive data visualizations.	Yes	<p>Brightspace Analytics (within Brightspace Learning Environment) includes the powerful and customizable Class Progress tool. This dashboard gauges learner performance across the entire class with nine available indicators of performance of which the instructor customizes the 4 to be displayed to best report on their class. The dashboard is displayed as a table for easy comparisons. You can search for specific learners and can customize how the progress reports appear by determining which sections to include and controlling the thresholds for the color indicators used in the visualization charts.</p> <p>For Instructors, analytics components are available to customize Instructor course home pages to build personalized functionality into their core workflows. These components include Course Overview, which is part of Brightspace Insights and Predicted Grades, which is part of the optional S3 product and deliver the right data, at the right time and in the right place in way that is easily actionable. For administrators, the Insights Console allows for a dashboard homepage that can display chosen data visualizations and drill down reports.</p>
12	Ability to use the data for predictive analytics and the development of learning pathways.	Yes	<p>Optional Brightspace Student Success System is an early intervention system that empowers institutions with predictive analytic tools to improve student success, retention, completion, and graduation rates. Brightspace Student Success System uses statistical analysis to generate predictive models that enable PASSHE to identify at-risk students and intervene appropriately to improve their rate of success and increase institutional effectiveness.</p> <p>In providing early identification of at-risk students, predictive analytics enables instructors to identify and understand where issues exist and to eliminate them by creating appropriate resolution plans to address the problem. Therefore, graduation and retention rates can increase when at-risk students are identified early and supported throughout the term. Visualization and statistical indicators provide diagnostic insights to aid in the design of individualized interventions. Interventions can take the form of providing additional materials or communications to students to help them succeed. When patterns start to develop for students that are at-risk, release conditions can be worked into course content to provide remedial learning pathways for students. In addition, optional Brightspace LEAP leverages data that surrounds a student's experience in the course and creates a more personalized approach that will better engage students with the right learning materials, and create a learning path that is appropriate to the student's accomplishments and pace in the course. Using optional Student Success to identify at risk learners and then also using optional Brightspace LeAP to provide learners with the right material for their needs means that an instructor can focus class time on the topics in course that will assist students the most.</p>
13	Ability to view data at student, course, and program level.	Yes	<p>Data and analytics in Brightspace is available at multiple levels. At a student level, the User Progress tool shows interactions and statistics across all areas of a course. Insights reports for students that are available include: Individual Progress against Competencies Over Time, Grade heatmaps, and optional Student Success System data visualizations such as the win-loss chart, sociogram and assessment pie chart. At a course level, the Class Progress tool in Brightspace Analytics provides at a glance visualization of how a class is doing against various indicators. Tool level reports are also available that can provide detailed information and visualizations about class performance. Brightspace Insights reports for a course level are numerous and include Content reports, Quiz statistical analysis, Course Progress on Competencies, Tool Access, Risk Analysis, Engagement, and Rubric Reports. At a Program level, the majority of reports are available in Brightspace Insights only. This includes Learning Outcome Alignment, Curriculum Mapping report and Program Learning Outcome Evaluation report.</p>

## LMS Functionality & Technical Requirements

SECTION D			
ENHANCED LMS ANALYTICS TOOLS (Brightspace Insights)			
#	Question	Yes/No	Supplier Response
<i><b>Provide a detailed description for each of the following:</b></i>			
14	Ability to view data longitudinally at student, course, and program level.	Yes	Brightspace Insights collects data and holds that data beyond the course end date (or even deletion) to aid longitudinal queries. This gives opportunities for institutions to see trends over time for students, courses, and programs. Multiple reports provide longitudinal data, that includes access and enrollment reports, individual progress against competencies over time, and course competency reports for accreditation. Optional Brightspace Student Success System, by its nature, looks at longitudinal data to provide accurate models for what makes a student successful in a particular course.
15	Ability to share rubrics on a program level.	Yes	Rubrics can be shared down from a program level to child courses.

### LMS Functionality & Technical Requirements

SECTION E			
OTHER OPTIONAL LMS MODULES			
#	Question	Yes/No	Supplier Response
<i>Describe any other optional LMS modules, including but not limited to:</i>			
1	Academic Advising	Yes	Brightspace Student Success System   This module for monitoring and evaluating progress is useful for Academic Advising. Predictive modeling and rich data visualizations transform complex learner engagement and assessment data into easily-identifiable patterns. Dynamic track and trend functionality allows advisors to closely monitor at-risk learners while inline communication tools help foster mentorship and academic guidance plans. Additionally, the Auditor functionality in Brightspace Learning Environment can aid academic advisors by allowing their accounts to be attached to the students they advise. This means that in the LE, they can view student progress at a granular level across courses and gain insight into their online learning behaviors. This is not an additional module, but it can require some additional work to set up the integration via Valence API to align academic advisors with their students through the SIS.
2	Badging	Yes	Brightspace Learning Environment has a Badging and Certificates tool called Awards. This is an included module with the Learning Environment. Students can be granted badges as they complete aspects of their course and share them with their Mozilla Backpack (if enabled by the institution). Certificates can also be awarded to students. These dynamic certificates can be set to expire and students can print and keep an offline copy.
3	Collaboration tools such as: blogs, wikis	Yes	Brightspace Wiggio is a simple toolkit that makes it easy for learners to work together in groups. Our integration with Brightspace Wiggio provides learners with enterprise-level collaboration consolidated in one place. Both inside and outside of the classroom, Brightspace Wiggio offers a central place for learners to collaborate in their study groups, project teams, clubs, sport teams, or extracurricular organizations. Brightspace Wiggio includes group creation, whiteboarding, private messaging to participants, remote desktop sharing, file sharing, and real-time polling/surveys. Wiggio is included in the Learning Environment, but does require some interactions with D2L to enable the first time.
4	Early-alert	Yes	Brightspace Student Success System is an early intervention system that empowers institutions with predictive analytic tools to improve student success, retention, completion, and graduation rates. Brightspace Student Success System uses statistical analysis to generate predictive models that enable PASSHE to identify at-risk students and intervene appropriately to improve their rate of success and increase institutional effectiveness. In providing early identification of at-risk students, predictive analytics enables instructors to identify and understand where issues exist and to eliminate them by creating appropriate resolution plans to address the problem. Therefore, graduation and retention rates can increase when at-risk students are identified early and supported throughout the term. Visualization and statistical indicators provide diagnostic insights to aid in the design of individualized interventions.
5	e-portfolio	Yes	With Brightspace ePortfolio, learners and instructors are equipped to effectively demonstrate achievement, drive connections, track learning, and share achievement. Learners can even record learning, reflect on it, and share it with others on the go via a mobile device. Brightspace ePortfolio provides an invaluable outlet for learners to share knowledge, collaborate with their peers, and showcase their accomplishments. Brightspace ePortfolio is a unique and powerful solution that enables our clients to shape the learning paths of their users and give them the opportunity to create and share their own learning journey. Brightspace ePortfolio allows learners to submit for assessment or showcase a variety of artifacts such as documents, media, links, HTML files, audio recordings, and materials from Brightspace Learning Environment (i.e. graded quizzes and assignments).



### LMS Functionality & Technical Requirements

SECTION E			
OTHER OPTIONAL LMS MODULES			
#	Question	Yes/No	Supplier Response
<i>Describe any other optional LMS modules, including but not limited to:</i>			
6	Gamification	Yes	<p>By using Brightspace Professional Services, PASSHE institutions can quickly and easily design, develop, and implement a game-based learning solution. As a result, incorporating game-based mechanics, aesthetics, and game-thinking can help engage students, motivate action, and promote better learning. Our Game-Based Learning Service is an incredible solution that will provide you with an easy way to enable your faculty to quickly improve the student experience in a course and can be injected into a course at any time — even mid-course. Using our game-based learning engine, a simple branching activity provides learners with the ability to chart their own course to each of the activities already embedded. Branching scenarios tend to be very popular with learners as they provide an immersive and interactive means through which content can be explored. Storytelling and simulation are two proven techniques for teaching complex learning objectives. The current service offering includes (but is not limited to) a content publishing component, and a gamification framework for instructors to use when creating courses. The content publishing portion is a form-based system that lets instructors create a custom look-and-feel to their game-based content, as well as create six unique activities, without having to code. The gamification portion is centered on scores, achievements, and unlocks. Users will attempt various activities on a single map in an effort to unlock all of the content available. The system currently targets formative assessment and getting users to demonstrate their knowledge, rather than summative assessment. Each map which is published will have an associated grade item with it. The user's goal is to achieve 100% on this grade item. Instructors can track user progress through the map via this grade item as well. As well, instructors can include rewards as a student progresses, and students can track progress against their peers introducing an element of competition. Lastly, in the spirit of gaming, students can create their own unique personal character via an Avatar.</p>
7	Personal Adaptive Learning	Yes	<p>Adaptive learning is a technology-driven approach to learning that leverages data surrounding a learner's experience in education to create a more personalized approach that will better engage learners with the right learning materials and create a custom learning path appropriate for a learner's accomplishments and pace in a course.</p> <p>It is commonly understood that not everyone learns at the same pace which can mean that learners risk falling behind and becoming disengaged when trying to learn in a predefined structure and pace. Brightspace LeaP is designed to address these issues by adapting learning experiences to a learner's needs and pace. Brightspace LeaP provides learners and instructors with flexibility. For example, instructors can set due dates for Brightspace LeaP assignments so they can control how long they want grades to be posted to a grade book in the learning platform while still allowing learners to access content. How Brightspace LeaP Works: as an Adaptive Learning Solution Brightspace LeaP is a learning analytics approach to adaptive learning that recommends content for learners to help them master a topic. By quizzing learners on a topic, Brightspace LeaP is able to automatically adjust and personalize learning paths. Brightspace LeaP tests a learner's knowledge of a concept through quizzing in order to provide positive reinforcement for positive outcomes and additional content to support areas where a learner needs additional study. Brightspace LeaP leverages quiz results as well as the information on the topics a student accessed to personalize a learning path for a student to master course objectives with new content and quiz questions.</p> <p>The data used to personalize a learning path is available to instructors through a management interface to ensure that instructors are always in control. Instructors are able to understand the structure of learning paths, content efficacy, and activity, and have an opportunity to customize the learning experience.</p>
8	Other (List/Describe)	Yes	<p>Brightspace Degree Compass™ is a web-based, real-time, academic advisement tool that assists students in planning their most successful path to graduation. Brightspace Degree Compass™ addresses a need to deliver the support and guidance students require to progress through their academic career and successfully graduate. Brightspace Degree Compass™ is geared toward both student and institutional success in the following ways.</p> <p>Ways Brightspace Degree Compass™ Increases Student Success</p> <ul style="list-style-type: none"> <li>• Brightspace Degree Compass™ provides students with real-time, critical academic advice and assistance.</li> <li>• Students are provided with personalized course and degree path recommendations based on the historical success of hundreds of thousands of students.</li> <li>• Brightspace Degree Compass™ monitors course selection and progress along the degree path.</li> <li>• Reduces time-to-degree with better course selection.</li> </ul> <p>Ways Brightspace Degree Compass™ Increases Institutional Success</p> <ul style="list-style-type: none"> <li>• Brightspace Degree Compass™ helps institutions meet new performance-based criteria with improved student retention and improved graduate rates.</li> <li>• Institutions can use Brightspace Degree Compass™ as an effective tool to help meet new local and federal targets for education policy reform with improved collection of course metrics that help drive deployment of new programs of study. Also, increase institutional success meeting local and federal targets with focus on academic programs needed for high-demand fields and increased numbers of graduates contributing to local and national economy.</li> </ul>



## LMS Functionality & Technical Requirements

SECTION F			
HELP DESK SERVICES			
#	Question	Yes/No	Supplier Response
1	Has your firm provided help desk services for 5 or more years?	<b>[REQUIRED]</b>	Yes - we have provided Help Desk services for over 13 years
2	Ability to provide 24/7/365 support for students, faculty, staff, and university administrators.	<b>[REQUIRED]</b>	Yes. D2L's Gold Administrator Support + Standard End User Support service package includes 24/7/365 support for students, faculty, staff and university administrators.
3	Ability to host and maintain a help desk ticketing solution.	<b>[REQUIRED]</b>	Yes. D2L both hosts and maintains a help desk ticketing solution.
Service Provider Profile			
4	Ability to provide help desk services directly; not through a sub-contractor. (If sub-contracted, include provider company name and profile.)	Partial	Yes. D2L's Administrator support is provided directly. End-User support is provided through a sub-contractor, as described in further detail in the response document.
5	Ability to provide help desk services for a public institution of higher learning.	Yes	Yes. D2L has successfully been providing help desk services to PASSHE for the last 6 years.
6	Ability to provide help desk services to a educational state system.	Yes	Yes. D2L has successfully been providing help desk services to PASSHE for the last 6 years.
Provide responses to the following items for the three public entities with which you most recently contracted:			
7	Identify three public entities with which you most recently contracted with to provide help desk services.	Yes	The University System of Georgia University of Oklahoma Western Michigan University
8	Identify which help desk-related services were provided to those clients.	Yes	Administrator Support & End User Support for all three
9	What is (was) the term of those contracts?	Yes	5 years (USG), 2 years (Oklahoma), 5 years (WMU)
Service			
10	Can your system provide an individual State System university with reduced support coverage (e.g. only weekday evenings and weekends) at a reduced cost? <b>Do not include actual pricing in your technical response. Include all related pricing in your Cost Proposal.</b>	No	Based on our experience supporting a variety of higher education clients, we have discovered that learners are active late into the night and on Saturdays and Sundays. By implementing Brightspace End User Support, you can rest assured that we will be there to help when students need help the most. Common circumstances that we are there to support include when a student has an assignment due and needs help submitting it at two o'clock in the morning, or when an instructor is trying to create their grade book and needs advice on the best way to go about it. When these circumstances arise, a team of Brightspace experts are at the ready to help 24 hours a day, 7 days a week, and 365 days a year.

## LMS Functionality & Technical Requirements

SECTION F			
HELP DESK SERVICES			
#	Question	Yes/No	Supplier Response
11	List all available support methods (toll-free phone, chat/IM, e-mail, integrations, website, etc.)	Yes	Available support methods include toll-free phone, chat/IM, and website.
12	List all available languages in which support is provided.	Yes	Brightspace End User Support is available in Brazilian Portuguese, English, and Spanish.
13	Describe how service representatives are qualified and trained to provide the services. Include the number of training hours that service representatives achieve with the LMS prior to becoming an active representative.	Yes	Agents are trained over a 20 day period, for a total of 160 hours before going into production. They take instructor-led training on the platform, going through D2L Service Desk protocols for 10 days and undergoing a nesting period for 10 days, where they shadow other agents and review incidents before they take the lead on any direct incidents (phone, chat and email). All agents are required to pass and graduate the program. This includes completed testing on specific skills and customer processes.
14	In which country or countries are the service representatives that will be providing support to the State System physically located?	Yes	Support representatives will be based in Canada, Australia and Costa Rica.
15	Supplier services and systems are secure, ADA-compliant, and FERPA-compliant?	Yes	
16	If responding to other RFP components (Online Tools, LCMS, ePortfolio, Analytics, etc.), is this proposal inclusive of support for those components? If not, is support available at additional cost for those components? <b>Do not include actual pricing in your technical response. Include all related pricing in your Cost Proposal.</b>	Partial	Support for all other RFP product components is available at additional cost. Services do not require additional support costs. Web Online Tools support is exclusively supplied through our partner newrow_ and is no additional cost.
Client Administration			
17	Ability to provide an administrative web portal for ticket access for each individual State System university.	Yes	We fully support web portal for each state system, as we do today. It is controlled by login with a Parent Login (ASC) which has the ability to see all incidents for each institution. We currently utilize ServiceNow as our incident tracking system.
18	Ability to provide access to historic ticketing data.	Yes	Our portal users have the ability to access both open and closed incidents via the reporting functionality in our helpdesk portal.

## LMS Functionality & Technical Requirements

SECTION F			
HELP DESK SERVICES			
#	Question	Yes/No	Supplier Response
19	Ability to provide reports detailing service statistics at intervals (weekly, bi-weekly, monthly, etc.) Indicate all reportable data (number of new tickets, new tickets by support method, average wait time for initial response, average time for ticket closure, percentage of ticket closures after a single interaction, user/customer satisfaction data, etc.)	Yes	The proposed Gold Support package includes historical incident reporting for all issues submitted to Brightspace Support, as well as quarterly SLO reports. The incident reports include resolution time, incident type, contact type etc. D2L also sends regular incident surveys to both Administrators and End Users. Full customer satisfaction survey results can be provided. This would include data on each specific question (Agent performance, LE Performance, Knowledge etc.) In addition to the reports for End User Support, Call Center statistics are also provided for each institution. These reports include Calls Handled, Average Speed of Answer, Calls Abandoned, Call Duration etc.
20	Ability to provide individual State System university administrative personnel with the ability to contact help desk management for emergencies outside of normal business hours.	Yes	D2L's support package includes 7/24/365 administrator, instructor and learner support.
Additional Information			
21	Provide an example of an individual ticket.	Yes	Please see the attached sample of an individual ticket with our Supporting Documents.
22	Describe the procedure for escalating tickets through an internal chain of command.	Yes	Our clients are empowered and welcomed to escalate an issue in circumstances such as a change in the urgency of an issue or if a client feels that service expectations have not been met for any reason. In the event that an issue requires escalation, clients can call, email, or log on to our online support portal to request escalation. Escalation can also be requested via your Customer Success Director.  Once a ticket has been escalated, our customer support management team will assign it to appropriate staff members for immediate attention. The support management team meets daily to discuss escalated tickets and monitor their resolution.

## LMS Functionality & Technical Requirements

SECTION F			
HELP DESK SERVICES			
#	Question	Yes/No	Supplier Response
23	Describe methodologies for tracking and measuring customer satisfaction and all data that is collected and available to individual State System universities.	Yes	Surveys are sent out after every Incident has been Resolved. Scores and comments are tracked and reported on daily. Agents are coached real-time on areas of improvements and also during regular employee/manager meetings. The Quality Assurance team and Support Management meet on a monthly basis to review data and trends and provide information to the Training team and Supervisors for plans of Incident handling improvements. Feedback and trends are shared with clients during Monthly Support Review Meetings.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION E			
WEB ONLINE TOOLS (newrow_)			
#	Question	Yes/No	Supplier Response
<b>Content and Presentation</b>			
1	Describe the ways your product engages and fosters active learning (e.g. polling, quizzing, etc.)	Yes	<p>The newrow_ video classroom engages and fosters active learning in the following ways:</p> <ol style="list-style-type: none"> <li>1. Polling and quizzes - the platform offers a simple tutorial to create polls and quizzes in no time, allowing instructors to create custom polls and quizzes to assess competency retention throughout the course. Functionality includes: <ul style="list-style-type: none"> <li>• Easily create new polls per course.</li> <li>• Display quiz as interactive overlay to the course.</li> <li>• Display results of the quiz to the class.</li> <li>• Capture results by individual student in reports for later analysis.</li> </ul> </li> <li>2. Full video, audio and text communication capabilities provide a simple and intuitive way for instructors to engage and collaborate with students and for students to connect, communicate and collaborate with their peers online.</li> <li>3. Content management system - instructors can upload class materials and share them in real time during class and allow students to access and download class material before and after class.</li> <li>4. Third party learning tool - the platform provides a flexible integration layer that enables launching and running 3rd party learning tools right from within the newrow_ video classroom. Access digital text books, lab solutions, interaction tools and assessment tools right when they need them without having to leave the classroom.</li> <li>5. Breakout rooms - instructors can assign students to breakout rooms for small-group collaboration during class and after class, allowing students to work collaboratively, share their works and documents and collaborate in small pre assigned rooms.</li> <li>6. Study rooms - open study rooms (not assigned by instructors) allow student to create their own study rooms in which they can work with their peers and it allows instructors to create open discussion rooms in various topics.</li> <li>7. Whiteboard and annotation tools - allow students to work collaboratively on course materials as they share and develop their work online.</li> <li>8. Video sharing - access your YouTube and Kaltura online video repository directly from within the classroom and share videos centrally with student. Instructors can play, pause and switch video ventrally for all students and synchronized fashion</li> </ol>
2	Describe technical support and help resources that come with your product (training guides, troubleshooting, etc.)	Yes	<p>Technical Support 24x7 standard support, which includes:</p> <ul style="list-style-type: none"> <li>• Professor could reach support rep via phone.</li> <li>• Student or professor could reach support rep via Chat.</li> <li>• Student or professor could reach support rep via Email.</li> </ul> <p>Training - Our Service include the ability to get:</p> <ul style="list-style-type: none"> <li>• Training to get started on the platform quickly.</li> <li>• Personalized training for my trainers or professors.</li> <li>• Tutorials useful in helping get students started.</li> </ul> <p>Student Training - Training students is key to a successful online class. Our structured student training together with detailed training and support documentation ensures that:</p> <ul style="list-style-type: none"> <li>• Students easily understand the platform.</li> <li>• Students have minimal problems configuring and connecting to classes.</li> </ul> <p>Assistant Training - Training students is key to a successful online class. Our structured student training together with detailed training and support documentation ensures that:</p> <ul style="list-style-type: none"> <li>• Students easily understand the platform.</li> <li>• Students have minimal problems configuring and connecting to classes.</li> </ul> <p>Additional Training - newrow_ has contracted with Seneca VLS for additional training and support of clients. Seneca, founded in 1991, is one of the most experienced providers of Virtual Learning Support ("VLS"). They have 15+ years established expertise supporting distance learning and virtual instructor led training. Their trainers and Virtual Classroom Assistants support over 7500 hours per year of Virtual Classroom delivery for corporate, higher education and non-profit clients. Their full range of services includes Virtual Classroom Assistance, strategic consulting services, instructor training, and help desk support. For further information, visit <a href="http://www.seneca.com">www.seneca.com</a> and select Virtual Learning Support.</p>
3	Does your product allow for the ability to attend and participate from mobile devices? Describe the features and functionality.	Yes	<p>The platform is accessible from mobile devices and tablets running iOS and Android operating systems. Functionality supports:</p> <ul style="list-style-type: none"> <li>• Easily see enrolled courses via mobile.</li> <li>• Easily join a live course via mobile.</li> <li>• See content and active participants.</li> <li>• Ability to join on a mobile device deep-link from the LMS.</li> <li>• Access via the newrow_ app or through a mobile browser (Puffin, etc.)</li> </ul>

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION E			
WEB ONLINE TOOLS (newrow_)			
#	Question	Yes/No	Supplier Response
4	Describe your product's multi-media capabilities (e.g. YouTube, Vimeo, MP4, etc.) Include a description of the features and functionality.	Yes	<p>newrow_ features extensive collaborative and multi media tools, including public and private chat, high-quality video and audio sharing, screen sharing, etc.</p> <p><b>High Quality Live Video Sharing</b></p> <ul style="list-style-type: none"> <li>• Upload and play online video in classes/sessions without delay.</li> <li>• Real-time video sharing allows for perfectly displayed video.</li> <li>• Search and playback video directly from YouTube, Kaltura Campus Tube, etc. Can integrate into PASSHE's specific content repository if necessary.</li> <li>• Supports HD video.</li> <li>• Download content for offline usage.</li> </ul> <p><b>Content Downloads</b></p> <p>The built in Content Management System allows students/participants to download class content during and after a live class/session.</p> <ul style="list-style-type: none"> <li>• Professor can manage content download permissions on individual files.</li> <li>• Students can download any type of content.</li> <li>• Students can preview content before its downloaded.</li> </ul> <p><b>Study rooms / small meeting rooms</b></p> <p>Courses/sessions are often designed to have in-class discussions or group projects to encourage peer learning via study groups. Functionality includes:</p> <ul style="list-style-type: none"> <li>• Easily break out to directed breakout session for in-class discussion.</li> <li>• Easily self-direct into group sessions outside of a live class.</li> <li>• Reconnect to a group session and start-up where the group left off.</li> <li>• Study rooms are persistent and are available 24X7 during and after class for ad-hoc discussion groups or assigned project groups.</li> </ul>
4 Cont	Describe your product's multi-media capabilities (e.g. YouTube, Vimeo, MP4, etc.) Include a description of the features and functionality.	Yes	<p><b>Study Room / small meeting room management</b></p> <p>Breakout sessions and study room management functionality includes:</p> <ul style="list-style-type: none"> <li>• Assigning and bringing students back from breakout rooms is useful for managing in-class discussions.</li> <li>• Instructors students how to connect to breakout rooms was easy.</li> <li>• Could call students back from breakout rooms.</li> <li>• Could assign students easily to course-long breakout sessions.</li> <li>• Could see which students didn't attend a breakout session.</li> <li>• Rooms can have separate content preloaded into each room by instructor.</li> <li>• Students/participants can upload any content into their study room.</li> <li>• Breakout sessions and study rooms can be recorded – adding additional instructional design capabilities to any course.</li> </ul> <p><b>Face-to-Face Interaction</b></p> <p>Ability to see up to 25 learners face to face on screen at the same time.</p> <ul style="list-style-type: none"> <li>• Easily see each student's face during the lecture.</li> <li>• Easily adjust instruction based on non-verbal cues.</li> <li>• Students can interact with one another on-screen with ease.</li> </ul> <p><b>Connect AV Equipment</b></p> <ul style="list-style-type: none"> <li>• Connect existing hardware or other installed audio / video technology into any class/session</li> <li>• Stream video feeds from classroom installed cameras.</li> <li>• Connect existing audio sources.</li> </ul> <p><b>Video Controls</b></p> <p>Any user's camera can be remotely controlled and adjusted to create an optimal environment based on his or her bandwidth or equipment. Includes the following functionality</p> <ul style="list-style-type: none"> <li>• Ability to adjust bandwidth consumption per camera.</li> <li>• Ability to adjust camera quality.</li> <li>• Ability to change aspect ratio.</li> <li>• Ability to pre-screen any video before bringing them on stage.</li> </ul>

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION E			
WEB ONLINE TOOLS (newrow_)			
#	Question	Yes/No	Supplier Response
4 Cont	Describe your product's multi-media capabilities (e.g. YouTube, Vimeo, MP4, etc.) Include a description of the features and functionality.	Yes	<p><b>Close Captioning</b> Closed captioning is available via overlays and expert 3rd party transcription service.</p> <ul style="list-style-type: none"> <li>• Students can join a closed captioned room.</li> <li>• Recorded video includes close caption option for on-demand viewing.</li> <li>• Transcript of the event is made available via a text file next to the video.</li> </ul> <p><b>Standard Webcam Support</b></p> <ul style="list-style-type: none"> <li>• All popular and built-in web cameras are natively supported.</li> <li>• Select correct webcam from popular hardware manufacturers.</li> <li>• Choose different cameras based on hardware configuration.</li> </ul> <p><b>Viewable Participant List</b> Participant management includes:</p> <ul style="list-style-type: none"> <li>• Search for any participant</li> <li>• See participants who raised their hand</li> <li>• Bring any/all off screen participant(s) on screen immediately</li> <li>• Ability to turn camera and audio on/off for all participants</li> <li>• Ability to adjust microphone levels</li> <li>• Ability to mute all</li> </ul>
5	Does your product allow for desktop and application sharing? Describe the features and functionality.	Yes	<p>Desktop/Application sharing enables faculty, students, staff and administration to instantly share content that wasn't uploaded to the internal Content Management System. Functionality includes:</p> <ul style="list-style-type: none"> <li>• Share your primary desktop</li> <li>• Share your secondary desktop</li> <li>• Share a section of your screen (Region)</li> <li>• Share a window on your screen</li> </ul> <p>Instructors/Moderators and those with screen share permissions can share a live stream of their computer screen for all participants to see.</p> <p>Download and install screen share application You must download and install the newrow_ Screen Share Application. It is best to download the screen share application before starting the class. Select and choose . Select on the stage when prompted to install the application. If the installer does not open automatically, open the installer from your downloads folder and complete the installation wizard.</p> <p>Share your screen After the newrow_ Screen Share Application is installed, you can share your screen with the class. Choose what you want to share from in the screen share application then click.</p> <p>*If you return to the meeting, you do not see the screen you are sharing but your participants do.</p> <p>To stop sharing your screen select or close the content window on the stage by selecting.</p>
6	Does your product allow moderators to guide participants to webpages? Describe the features and functionality.	Yes	<p>Plus Sign (Top Menu) The Plus Sign B14represents the link functionality, allowing the instructor to add a website space of their own to the course collection within newrow_ so students do not have to navigate to a separate page.</p> <p>Screen sharing Desktop/Application sharing enables faculty, students, staff and administration to instantly share web pages.</p>
7	Does your product allow moderators to upload and display documents (e.g. PowerPoint, PDF, JPG)? Describe the features and functionality.	Yes	<p><b>Content Loading</b> Ability to upload content to the correct courses in a structured way.</p> <ul style="list-style-type: none"> <li>• Upload multiple types of content (e.g., pdf, ppt, video, etc.) includes:</li> <li>• Structure content into folders.</li> <li>• Regulate what content can be downloaded</li> <li>• Synchronously edit and annotate documents.</li> <li>• Copy content and files between courses, sessions and study rooms</li> <li>• Upload distinct content into individual breakout sessions and study rooms within the course</li> </ul> <p><b>Annotate Materials</b> The content area and interactive whiteboard enables professors to annotate any material independently or collaboratively with the class. Functionality includes</p> <ul style="list-style-type: none"> <li>• Professor can annotate on blank whiteboard, content uploaded, content screen shared, content shared from SmartBoard or external tables (i.e. Wacom tablets for higher precision).</li> <li>• Students and professor can annotate together on same board.</li> <li>• Professor can annotate on any content presented to students.</li> <li>• Annotated content is saved automatically and available on Playlist for quick access.</li> </ul>



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION E			
WEB ONLINE TOOLS (newrow_)			
#	Question	Yes/No	Supplier Response
8	Does your product have an audio set up wizard? Describe the features and functionality.	Yes	<p>The newrow_ platform include built in audio VOIP capabilities. A set up wizard offers users to chose the desired audio device and set volume levels.</p> <p>in addition the platform includes an audio bridge, which provides an alternative for people to connect to the classroom when located in lower bandwidth locales or if VOIP audio problems occur. Particularly useful for international learners who wish to make a local call to participate.</p> <p>Functionality supports:</p> <ul style="list-style-type: none"> <li>• Easily see audio bridge within classroom.</li> <li>• Easily identify call-in participants via the user interface.</li> <li>• Local access number of international students</li> </ul>
9	Does your product have breakout rooms? Describe the functions and features of the breakout rooms.	Yes	<p>In addition to its full classroom experience, newrow_ also provides unlimited break out sessions and small meeting rooms (study rooms) for the use of students and faculty. The student managed study rooms are persistent and are available 24X7 during and after class for ad-hoc discussion groups or assigned project groups. In breakout sessions, students can collaborate around files shared by the instructor as well as upload their own files. Students can record their breakout sessions as well as work on a collaborative whiteboard. Instructors can share files uploaded in breakout sessions with the class. Instructors can utilize breakout sessions to divide the live class into smaller work groups to handle in-class tasks. The platform's study rooms enhance the collaborative study experience and foster peer-to-peer discussions.</p> <p>newrow_ also provides unlimited smaller collaborative workgroup meeting spaces for the use of students, faculty, staff and administrators that can be instructor, staff or administrator managed (Sessions) or open to students (Study) without any faculty, staff, or administrator involvement.</p> <p>Within the curriculum, Sessions are assignable virtual workgroup meeting spaces for instructors who wish to manage virtual office hours, breakout discussions and small group project work.</p> <p>Study rooms are open to any student in the course or a section of the course and are persistent and available 24X7 during and after class for ad-hoc discussion groups or even assigned project groups. Students can navigate to the "Study" tab from the top menu to access open, unassigned virtual rooms. This allows them to form their own study groups in between classes and meet virtually to discuss assignments, work on group projects, etc. The virtual study rooms are identical to the Sessions rooms. The platform's study rooms enhance the collaborative study experience and foster peer-to-peer discussions and learning.</p>
10	Describe your products ability to pass control. Describe the features and functionality.	Yes	No additional licenses are necessary to pass control or alter an individual's permissions during a course. Permissions can be changed at any time. Instructors can set general permissions at any time during a class in the General Settings list.
11	Describe your products accessibility capabilities (i.e. section 508 compliance and screen reader capabilities).	Yes	<p>newrow_ has completed a Voluntary Product Accessibility Template (VPAT). The Voluntary Accessibility Template is a document that evaluates how accessible a particular product is according to the Section 508 standards. In addition the newrow_ solution features keyboard shortcuts, display action log, and other accessibility assistance.</p> <p>The solution is also FERPA and HIPPA encryption compliant.</p> <p>Closed captioning is available via overlays and expert 3rd party transcription service.</p> <ul style="list-style-type: none"> <li>• Students can join a closed captioned room.</li> <li>• Recorded video includes close caption option for on-demand viewing.</li> <li>• Transcript of the event is made available via a text file next to the video.</li> </ul>
12	Does your product have an interactive whiteboard? Describe the features and functions.	Yes	<p>Whiteboard functionality exists in the classroom, breakout sessions, and study rooms within the newrow_ solution. You can use the built-in whiteboard to synchronously edit and annotate. In addition, we offer:</p> <p><b>Smart Display Integration</b></p> <ul style="list-style-type: none"> <li>• Use Smart Board or external devices such as WACOM tablets to synchronously edit and annotate documents.</li> <li>• Display Smart Board and WACOM annotations and content to online students.</li> </ul> <p><b>Annotate Whiteboard</b></p> <p>The interactive whiteboard enables professors to annotate independently or collaboratively with the class. Functionality includes</p> <ul style="list-style-type: none"> <li>• Professor can annotate on blank whiteboard and content shared from Smart Board or external tablets (i.e. Wacom tablets for higher precision).</li> <li>• Students and professor can annotate together on same board.</li> <li>• Professor can annotate on any whiteboard presented to students.</li> <li>• Annotated content is saved automatically and available on Playlist for quick access.</li> </ul>



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION E			
WEB ONLINE TOOLS (newrow_)			
#	Question	Yes/No	Supplier Response
13	Does your product provide a live text chat tool? Describe the features and functions.	Yes	<p><b>Public and Private Chat</b></p> <ul style="list-style-type: none"> <li>• Students, faculty and other participants can chat or add to the conversation during a lecture/meeting.</li> <li>• Participants can private chat with each other during the course of a lecture. If required or desired, administrators and faculty can turn off the private chat.</li> <li>• Students are able to breakout and chat amongst themselves.</li> </ul> <p><b>Questions</b></p> <ul style="list-style-type: none"> <li>• Questions can be asked privately to the instructor to address during the conference. Includes:</li> <li>• Ability for students to ask private questions via chat.</li> <li>• Ability for students to ask public questions via chat.</li> <li>• Ability for students to indicate that they have a question via a flag (raise hand functionality).</li> </ul> <p><b>Question Management</b></p> <ul style="list-style-type: none"> <li>• Students may pose any question via Chat or the private questions panel. Includes:</li> <li>• Ability to moderate any chat.</li> <li>• Ability to drag and drop any question on screen so all participants can view it.</li> <li>• Ability to flag questions for discussion.</li> <li>• Ability to receive questions privately.</li> </ul>
14	Does video follow audio regardless of audio source - regardless of how user is connected - VoIP or Telephony?	No	<p>The audio and video feeds may be separated allowing the use of audio without video and/or with a telephony bridge.</p> <p>In the classroom, an instructor can control the flow of the audio by muting all of the participants or individual participants. This eliminates confusion when multiple participants are speaking within the classroom and maintains an orderly flow to all discussions.</p> <p>For those participants off screen who wish to participate in the conversation, they simply raise their hand, and the instructor/moderator will see the hand raise and that they (the person raising their hand) are now also present at the top of the participants list. With a single click the instructor/moderator can bring the off stage participants camera live and bring them on stage to speak. The hand raise is located within the chat area of the classroom.</p>
15	How many webcams are able to be viewed simultaneously?	Yes	<p>Instructors/Moderators/Students can see each other and communicate face-to-face in the live classroom, breakout sessions, and study rooms just as they would in a physical setting.</p> <p>newrow_ supports any class or meeting size (including breakout sessions and study rooms) with up to 25 participants on screen at the same time communicating with each other using video and/or audio while collaborating over any digital media. Class size can be larger than the 25 participants on screen (unlimited) and instructors/moderators can bring non-viewed students on screen with a single click on the participants' list or their webcam feed.</p>
<b>Administration</b>			
16	Describe the roles and permissions supported by your product.	Yes	<p><b>Roles:</b> An individual can assume multiple roles on a single campus.</p> <p>At the campus-wide level there is an Administrator role.</p> <p>Administrators can set up courses and users within the newrow_ solution. For non- LMS integrations, users can be set up manually or via bulk upload of CSVs or Excel sheets. Administrators can also assign roles within courses.</p> <p>Within any course newrow_ supports three roles: Student, Assistant, and Instructor. Roles within a given course are controlled/assigned by the Administrator.</p> <p><b>Student:</b> a student is someone taking the course. They begin with a simple default set of permissions (webcam, microphone, chat, etc.), but can be assigned additional permissions by an instructor/moderator of a course.</p> <p><b>Assistant:</b> an Assistant in a secondary administrator for a given course. Assistants can control everything that an Instructor can control except enrollment and master file management.</p> <p><b>Instructor:</b> an Instructor is primary administrator for a given course. Instructors control the classroom and have access to the analytics and quick poll results for a given course. Within the course structure, instructors can access any portion of the course, including all breakout sessions, and study rooms. Instructors also manage the cloud-based file repository for the course.</p> <p><b>Set user roles for a course</b></p> <p>There are 3 roles in a course: Student, Assistant and Instructor. To run a course, at least one user should be defined as the instructor. Instructors are the moderators of a course.</p> <p>The default role of a user added to a course is a student. To add students to a course you do not need to edit their role.</p>
17	Describe the administrator features for your product (e.g. allowing guest access, session scheduling, enrollment, permissions, etc.).	Yes	<p>Each newrow_ campus has an Administrator. Administrators have access to the entire newrow_ solution for a campus.</p> <p><b>Non-Learning Management System Administration:</b></p> <p>Administrators set up courses and users within the newrow_ solution. The Administrator can set up users (including student enrollments) manually or via bulk upload of CSVs or Excel sheets (including guest access to a given course). Administrators also assign roles within courses (see roles and permissions above).</p> <p>Since there are no shared hosting environments within newrow_ (i.e. each course or section of a course receives their own classroom within the newrow_ solution), administrators do not need to worry about session scheduling, as the instructors (once assigned to the course by the administrator) would manage when the classroom is available to their students.</p> <p>The instructor of the course within the newrow_ solution manages specific course permissions.</p> <p><b>Administration Within Learning Management System (LMS) integrations:</b></p> <p>The Administrator facilitates the integration and implementation of newrow_ within the LMS. The rostering of a course is automatic and the LMS roles are carried into the newrow_ solution. Guest access within an LMS implementation can be done either through a guest login to the LMS by the campus LMS administrator or needs to be set up by newrow_ customer support for each guest.</p>
18	Does your product work as a stand-alone application (outside of LMS)? If so, describe the features and functionality.	Yes	<p>The newrow_ solution can function outside of any Learning Management System. Users of the system would simply login at newrow.com using their email and password. newrow_ can also create a newrow_ re-direct login page for any web site.</p> <p>Once you log in through newrow.com, you will land in your Course Directory post login, where you will see the names and thumbnail images associated with each of your newrow_ courses. Simply click on a thumbnail to enter the course. Upon entering the course, the user experiences all of the newrow_ for education solution's features and functionality, including breakout sessions and study rooms.</p>

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION E			
WEB ONLINE TOOLS (newrow_)			
#	Question	Yes/No	Supplier Response
19	Describe your product's reporting features.	Yes	<p>The newrow_ solution has several reporting features that are available to instructors (for their courses) and administrators (for all courses on the their campus). These include the following:</p> <p>Engagement: Measures and ranks students by number of posts within a course:</p> <p>Chart: Graphically depicts day-by-day engagement within the class, including Attendees, visits, Questions, and Chat Posts. This a great reference for instructors to see activity and engagement on days when key course concepts are being covered.</p> <p>List: Lists all users/participants and when they joined and left the class (date/time of day). This information can be exported via Excel if necessary to carry to another attendance recording solution (i.e. LMS).</p> <p>Chat History: Displays all chats by date/time of day, user name and the message itself. This information can be exported via Excel if necessary to carry to another recording solution (i.e. LMS).</p> <p>Quick Polls: Repository for all formative assessment/quick polls/survey results both summarized and by individual student/participant. This information can be exported via Excel if necessary to carry to another recording solution (i.e. LMS grade book, etc.).</p>
<b>Technical</b>			
20	Which learning management systems do you currently have an integration with?	Yes	The newrow_ solution is compliant with the LTI (Learning Tools Integration) standard and is fully integrated into most major educational learning management systems (LMS). Among our partners are Brightspace/D2L, Canvas, Blackboard, Moodle, Pearson, Sakai, and Sycamore Education. The newrow_ for education solution can be linked, integrated and/or embedded into a web site.
21	Does your product support web real time communication (Web RTC)? If so, describe the features and functionality.	No	Due to limitations (e.g., real-time video codec consistency) with the WebRTC interoperability among modern browsers (i.e., Chrome, Safari, Firefox, and Edge), newrow_ does not use WebRTC for video or audio. However, as the standard is further integrated into all browsers, newrow_ is architected to easily enable this standard once cross-browser consistency occurs or as cross-browser support requirements lessen. newrow_ is built primarily in HTML5. Many of the elements of a classroom are built in HTML allowing for optimal cross-browser functionality.
22	Is integrated telephony included as part of your standard package? If so, describe the features and functionality.	No	<p>Currently integrated telephony is not included in the newrow_ for education standard package. An audio bridge can be added to any course.</p> <p>Telephone Audio Bridge Integration</p> <p>Telephone bridge integration provides an alternative for people to connect when participant technology problems occur. Functionality supports:</p> <ul style="list-style-type: none"> <li>• Easily see audio bridge within classroom.</li> <li>• Easily identify call-in participants via the user interface.</li> </ul>
23	Does your product support cross platform compatibility? If so, list the supported platforms. (e.g. Windows, iOS, Android, etc.)	Yes	newrow_ is supported across modern browsers (i.e., Chrome, Edge / Explorer, Firefox and Safari) and Windows and Mac OSX operating systems. Student-only support is available on both iOS and Android devices.
24	Does your product allow for session recording and playback? If so, describe the accessibility features of the playback.	Yes	Session recording and playback is available. Playback will display all that is captured during the session (audio, video, presentations, text, captioning or signing). This allows for those playback viewers to see full captions, actions, or audio. Moreover, additional third-party plugins can be made available to support near real-time transcription of events to aid with playback and archive needs.
25	Describe methodologies for tracking and measuring customer satisfaction and all data that is collected and available to individual State System universities.	Yes	<p>newrow_ collects dozens of interaction points within the system. These data are summarized in the newrow_ analytics dashboard and made available via our Open APIs. This allows for interaction events to be passed back to other learning environments or data warehouses using standard web services. Each University is able to access their data as needed.</p> <p>newrow_ uses industry-leading customer service products to help manage and ensure customer satisfaction. This includes telephone, chat, and emails support as well as periodic customer satisfaction surveys. The anonymous results of the latter may be made available as needed.</p>
20	Which learning management systems do you currently have an integration with?	Yes	The newrow_ solution is compliant with the LTI (Learning Tools Integration) standard and is fully integrated into most major educational learning management systems (LMS). Among our partners are Brightspace/D2L, Canvas, Blackboard, Moodle, Pearson, Sakai, and sycamore Education. The newrow_ for education solution can be linked, integrated and/or embedded into a web site.
21	Does your product support web real time communication (Web RTC)? If so, describe the features and functionality.	No	Due to limitations (e.g., real-time video codec consistency) with the WebRTC interoperability among modern browsers (i.e., Chrome, Safari, Firefox, and Edge), newrow_ does not use WebRTC for video or audio. However, as the standard is further integrated into all browsers, newrow_ is architected to easily enable this standard once cross-browser consistency occurs or as cross-browser support requirements lessen. newrow_ is built primarily in HTML5. Many of the elements of a classroom are built in HTML allowing for optimal cross-browser functionality.
22	Is integrated telephony included as part of your standard package? If so, describe the features and functionality.	No	<p>Currently integrated telephony is not included in the newrow_ for education standard package. An audio bridge can be added to any course.</p> <p>Telephone Audio Bridge Integration</p> <p>Telephone bridge integration provides an alternative for people to connect when participant technology problems occur. Functionality supports:</p> <ul style="list-style-type: none"> <li>• Easily see audio bridge within classroom.</li> <li>• Easily identify call-in participants via the user interface.</li> </ul>
23	Does your product support cross platform compatibility? If so, list the supported platforms. (e.g. Windows, iOS, Android, etc.)	Yes	newrow_ is supported across modern browsers (i.e., Chrome, Edge / Explorer, Firefox and Safari) and Windows and Mac OSX operating systems. Student-only support is available on both iOS and Android devices.
24	Does your product allow for session recording and playback? If so, describe the accessibility features of the playback.	Yes	Session recording and playback is available. Playback will display all that is captured during the session (audio, video, presentations, text, captioning or signing). This allows for those playback viewers to see full captions, actions, or audio. Moreover, additional third-party plugins can be made available to support near real-time transcription of events to aid with playback and archive needs.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION E			
WEB ONLINE TOOLS (newrow_)			
#	Question	Yes/No	Supplier Response
25	Describe methodologies for tracking and measuring customer satisfaction and all data that is collected and available to individual State System universities.	Yes	<p>newrow_ collects dozens of interaction points within the system. These data are summarized in the newrow_ analytics dashboard and made available via our Open APIs. This allows for interaction events to be passed back to other learning environments or data warehouses using standard web services. Each University is able to access their data as needed.</p> <p>newrow_ uses industry-leading customer service products to help manage and ensure customer satisfaction. This includes telephone, chat, and emails support as well as periodic customer satisfaction surveys. The anonymous results of the latter may be made available as needed.</p>

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION H			
LCMS/CONTENT REPOSITORY (Brightspace Learning Repository)			
#	Question	Yes/No	Supplier Response
<b>Required Functionality</b>			
1	Does your company have experience providing an LCMS solution to state systems of higher education ?	Yes	Brightspace Learning Repository is in use by many large state systems in both higher education and in K-12.
2	Will the system allow for the ability to reuse content across courses, curricula, a university, or the State System? If so, describe the features and functionality.	Yes	Content can be uploaded into repositories that are shared to specific courses, or departments, or even to specific roles. Larger repositories for the entire university can also be created easily to share content. For the State System, two options exist. In a shared instance, a Learning Repository can be created that is seen across all universities in the system and certain roles can publish into it, search from it, link to it, etc. Alternatively, Brightspace Learning Repositories can be easily harvested by other repositories. This means that particular universities can set up harvesting with each other. This would allow their faculty to share resources, but would not require the need for a shared publishing administrative function.
3	Will the system allow faculty the ability to make changes in a single location that is reflected in multiple courses/sections? If so, describe the features and functionality.	Yes	When content is stored in a Brightspace Learning Repository, updates to the original learning object will be reflected in all the courses/sections that have dynamically linked to the object.
4	Does the system provide tools to manage the development process for content (including, but not limited to, version/history control, archiving, and workflow)? If so, describe the features and functionality.	Yes	The Brightspace Learning Repository provides development processes for content. Version control occurs when overwriting an existing learning object in the publishing process. When an object is overwritten, a new version is created. There is additionally an option to keep the original learning object's metadata or to also overwrite it. Simple version control provides added flexibility for users to preview and select from multiple versions of a learning object. Version control allows instructors to easily change their course links between different versions of objects and even change how they linked to an object. Therefore, instructors can dynamically link to a learning object for the newest version or stay locked into a specific version. Brightspace Learning Repository enables you to view, manage, and use older version of learning objects in local repositories. You can access versions of any learning objects that have a locked link. Brightspace Learning Repository additionally has workflows for archiving and approval of objects. Roles can be given permission to publish objects to a specific 'Review' repository. When an object is published, subscribed users will be notified through an RSS feed. Once the object is reviewed, they can transfer it to a repository that is available for search and retrieval and set to approved - completing the approval process. For archiving, objects can simply be set to 'archived' status if desired. Alternatively, objects could be moved to an archive repository or removed from search results.
5	Does the system have security levels that allow granular control of access and sharing of content? If so, describe the features and functionality.	Yes	Advanced administrative features in Brightspace Learning Repository provide clients with the ability to define and secure intellectual property and control granular permissions on data to any user within the organization. Security access to repositories leverages two features, Roles and Permissions (LE), and Trusts (LOR). Roles provide macro permissions to the Learning Repository tool (Student role could be overall denied permission under any circumstance to delete objects, for example, across the whole tool). Trust are established at the repository level and leverage the existing organizational structure to provide more granular conditions over which users can interact with a specific repository. This means that a Science Repository may establish a trust for faculty enrolled in child org units under the Science Department to publish objects into their repository, faculty not enrolled in these org units. Other faculty may be given only permission to search and add comments. Repositories could be private to a single person or course, or opened larger to the entire student body to submit and comment on. Additional support for Creative Commons attribution allows for quick and easy ways to identify learning objects that are openly available for reuse or remix. Applying a Creative Commons license to individual learning objects defines the terms under which the copyrighted learning material can be used. Finally, when a single user publishes an object, they can have permission to make the object invisible to others. This could allow the user to use their object in multiple sections, but not share it with other users searching the repository.
6	Does the system ensure that content is secured with permissions that allow faculty to deliver the content only to students in their courses, select groups, or the public? If so, describe the features and functionality.	Yes	When an instructor uploads an object, they can control the visibility of that object in a few ways. First, they could upload it into a repository that is only available to a sub section of the university. Second, they can upload the object and use creative commons licensing to control the use of the object. Third, they can 'hide' the object so that it can only be searched for by them, and they can link it into their courses for students to access. Finally, they can have the option to make the object Public. If an object is public, it has a public URL that allows external users to securely access the object. It can be shared easily with social media through social media buttons. If a Repository is a 'Public' repository, it can be externally searched through the public repository interface. An instructor can turn off the 'public' access at any time and the URL will become immediately inactive.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION H			
LCMS/CONTENT REPOSITORY (Brightspace Learning Repository)			
#	Question	Yes/No	Supplier Response
7	Does the system provide faculty with the ability to control permissions, confirm who has received the content, and run reports to see how many times and by whom the content has been viewed? If so, describe the features and functionality.	Yes	Brightspace Learning Repository tracks the full learning object cycle for each learning object: publish, usage, updates, and deletions. Administrators can run reports against the properties of their learning objects and the repositories they reside in, and also reports on how people are interacting with the learning objects, including linking, downloading, and commenting. At an instructor level, they can view the events of each learning object including the search hits, who has linked to it or downloaded it and comments. Viewing permissions are available to authorized users of the repository in addition to those enrolled in a course where the object is being utilized.
8	Does the system integrate with federated identity solutions for the purpose of single sign-on, in particular InCommon? If so, describe the features and functionality.	Yes	Brightspace Learning Repository is part of the Brightspace Learning Environment and is therefore easily integrated with federated identity solutions for SSO such as InCommon through our Integration Pack for Authentication Solutions. Users that are logged in to their university network with their InCommon credentials can seamlessly SSO into Brightspace, and therefore also into the Brightspace Learning Repository. Direct links from other areas of the university system into the Learning Repository, like to particular learning objects, can also be accommodated seamlessly while still maintaining secure and appropriate access to objects.
9	Does the company track metrics that indicate the level of reliability, availability, and performance of the system? If so, describe the features and functionality.	Yes	The Brightspace Learning Repository is part of the Brightspace Learning Environment Cloud deployment and therefore the same dashboard of up time described in Section C- LMS Features, #8 are available and cover the Repository along with the Learning Environment.
<b>Company Profile</b>			
10	Describe your experience in providing an LCMS solution to public higher education institutions and distributed state systems of higher education.	Yes	Our closest example to PASSHE was implementing our LCMS solution for eLearning Ontario which represents 72 school boards and 72 separate D2L organization websites. The Brightspace Learning Repository was configured to allow each board to maintain a repository and a common repository was shared amongst all 72 boards for enhanced collaboration. Within higher education, one of our most successful clients using Brightspace Learning Repository is National American University which has built proven workflows and policies and would be excited to share their experiences with the PASSHE system and schools
11	What functionality in the system sets your LCMS solution apart from other systems?	Yes	The Brightspace Learning Repository is tightly integrated with the Brightspace Learning Environment allowing instructors to easily add and utilize learning objects. PASSHE can expect to realize the following benefits by harnessing Brightspace Learning Repository: Provide Support for Learning Objects   Promote sharing of content and assessments through packaging into standards-based learning objects. Align Content to Learning Standards   Organize digital resources and assessments to standards or outcomes for easy searching and deployment to learners. Manage Content Efficiently   With our comprehensive metadata capabilities, share and reuse resources and improve overall course quality. Save Time   Realize dramatic time savings with centralized storage, fast and flexible browsing, powerful full-text search capabilities, advanced metadata editing, all in a clean, simplified user interface. Support Course Development   Provides a natural extension to the course creation process with deeply integrated support throughout Brightspace Learning Environment tools. Reduce Costs   Significant training, support, and file storage cost savings are realized compared to other third party learning repositories. Leverage Interoperability   Aggregate materials from a number of sources including libraries and OERs into a single search interface.
12	Which third-party LCMS suppliers does the LMS integrate with?	Yes	Brightspace Learning Environment can also integrate with Equella. Other LTI compatible LCMS could be potentially integrated with. The Brightspace Learning Repository is SRU and OAI-PMH compatible, meaning that it can search additional repositories and OERs that are of interest to your institution.
13	Does the LMS come with a bundled LCMS, or is an LCMS available as a separate module? Describe the features and functionality.	Yes	The Brightspace Learning Repository is deeply integrated in Brightspace Learning Environment via content editing, course building, question library, and the HTML Editor which is available throughout Brightspace Learning Environment. In terms of course design, our Course Builder tool enables drag-and-drop functionality of learning objects (content, quizzes, rubrics, and other assessments) from Brightspace Learning Repository directly into Brightspace Learning Environment courses. Brightspace Learning Repository comes bundled with the Brightspace Learning Environment.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION H			
LCMS/CONTENT REPOSITORY (Brightspace Learning Repository)			
#	Question	Yes/No	Supplier Response
14	What are some of the potential risks or problems that may be encountered during the implementation of an LCMS?	Yes	Lack of adoption or low adoption of the Learning Repository is the greatest and most frequent risk associated with implementation. D2L's implementation process takes into account careful consideration of the Learning Repository purpose for PASSHE in an effort to mitigate this risk. Furthermore, we offer a 5 part blog series on effective practices to increase adoption of the Learning Repository after implementation here: <a href="https://community.brightspace.com/tlc/blogs/kick_start_your_brightspace_learning_repository">https://community.brightspace.com/tlc/blogs/kick_start_your_brightspace_learning_repository</a>
<b>Functionality</b>			
15	How will the system allow for the ability to reuse content across courses, curricula, a university, or the State System?	Yes	Content can be uploaded into repositories that are shared to specific courses, or departments, or even to specific roles. Larger repositories for the entire university can also be created easily to share content. For the State System, two options exist. In a shared instance, a Learning Repository can be created that is seen across all universities in the system and certain roles can publish into it, search from it, link to it, etc. Alternatively, Brightspace Learning Repositories can be easily harvested by other repositories. This means that particular universities can set up harvesting with each other. This would allow their faculty to share resources, but would not require the need for a shared publishing administrative function.
16	How will the system allow faculty the ability to make changes in a single location that is reflected in multiple courses/sections?	Yes	When content is stored in a Brightspace Learning Repository, updates to the original learning object will be reflected in all the courses/sections that have dynamically linked to the object.
17	What are the forms in which content can be deployed from the system (i.e., web-based LMS systems, CD-ROM, print-based learning, mobile devices, etc.)?	Partial	Exporting and retrieving learning objects is equally well integrated. Export and download any learning object as a standards compliant SCORM package (or QTI format for quizzes) that can be imported into other LMS. Alternatively, a link to the original file is always available. This means you can launch a pdf learning object in a pdf viewer and print from that interface.
18	How does the system facilitate ease of use and a transparent interface to the Learning Management System?	Yes	The Brightspace Learning Repository is deeply integrated in Brightspace Learning Environment via content editing, course building, question library, and the HTML Editor which is available throughout Brightspace Learning Environment. In terms of course design, our Course Builder tool enables drag-and-drop functionality of learning objects (content, quizzes, rubrics, and other assessments) from Brightspace Learning Repository directly into Brightspace Learning Environment courses. It is a completely transparent interface.
19	Will the system allow for access of shared content created from a third party that is stored in a shared repository? If so, describe the features and functionality.	Yes	Brightspace Learning Repository supports federated search through Search/Retrieve via URL (SRU) and metadata harvesting through Open Access Initiative Protocol for Metadata Harvesting (OAI-PMH), as both a consumer and a provider. This enables searching third party repositories (such as MERLOT) from Brightspace Learning Repository and the ability to search harvested metadata from external repositories such as ePrints and DSpace, or Open Educational Resources (OERs). In addition third party authored learning materials can be published to Brightspace shared repositories. These can allow for enhance collaboration between PASSHE organizations as well as other identified stake holders.
20	Will the system include the advanced search capabilities to organize and search all content using metadata (discipline, assessment, library, publisher, etc.)? If so, describe the features and functionality.	Yes	Brightspace Learning Repository has very powerful search capabilities. Our text search gives you results based on the occurrence of your search words in a learning object's title, description, text or keywords. It also suggests alternative spellings for you to help your search. The user can specify to search in the learning object's title, description, keywords, and/or full text. Specify learning object property search restrictions: learning object type, rights, rating, status, published date, among others. Specify learning object metadata search restrictions: the user can enter values to search in any specific metadata fields including (discipline, assessment, library, publisher).
21	How does the system manage the metadata associated with locally stored content? (i.e., If a University wants to run a SharePoint server locally, can the faculty store the content in SharePoint but the LCMS will index the material so that it can be searched and shared if permissions allow?)	Yes	This could be potentially possible if a middleware was built between SharePoint and the Learning Repository that took the SharePoint ATOM XML API and translated it into either OAI-PMH metadata records or connected to the Valence RESTful API for the Learning Repository. The Brightspace Learning Repository is a passive API, the middleware piece would be informed of changes to objects in SharePoint and then update the metadata or API associated with the Learning Environment. A simpler solution is that locally stored content can have the URL of the content stored in the Learning Repository as a URL learning Object. This would be a manual process.



Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION H			
LCMS/CONTENT REPOSITORY (Brightspace Learning Repository)			
#	Question	Yes/No	Supplier Response
22	What tools does the system provide to manage the development process for content (including, but not limited to, version/history control, archiving, and workflow)?	Yes	The Brightspace Learning Repository provides development processes for content. Version control occurs when overwriting an existing learning object in the publishing process. When an object is overwritten, a new version is created. There is additionally an option to keep the original learning object's metadata or to also overwrite it. Simple version control provides added flexibility for users to preview and select from multiple versions of a learning object. Version control allows instructors to easily change their course links between different versions of objects and even change how they linked to an object. Therefore, instructors can dynamically link to a learning object for the newest version or stay locked into a specific version. Instructors can access full version control via Course Builder and HTML Editor. Brightspace Learning Repository enables you to view, manage, and use older version of learning objects in local repositories. You can access versions of any learning objects that have a locked link. Brightspace Learning Repository additionally has workflows for archiving and approval of objects. Roles can be given permission to publish objects to a specific 'Review' repository. When an object is published, subscribed users will be notified through an RSS feed. Once the object is reviewed, they can transfer it to a repository that is available for search and retrieval and set to approved - completing the approval process. For archiving, objects can simply be set to 'archived' status if desired. Alternatively, objects could be moved to an archive repository or removed from search results.
23	Does the system incorporate the following standards: IMS, metadata, OSID, LDAP authentication, SCORM, XML, and web services? If so, describe the features and functionality.	Yes	Brightspace is certified in multiple IMS standards including IMS CP, IMS-Enterprise IMS-RDCEO, IMS-QTI, IMS-CC, IMS-LTI v1.1.1 and others. Specifically, external content can be imported in a variety of IMS package standards into Brightspace and published to the Learning Repository. The Brightspace Learning Repository complies with IEEE-LOM, Learning Object Standards for Metadata Profiles, Dublin Core, CanCore and GEM for the adding of metadata to learning objects. Institutions can choose what profiles to use and build metadata profiles off of. Metadata standards are also cross-walked, enabling multiple standards to be used in the Learning Repository simultaneously. The system is also SCORM 1.2 RTE 3, and 2004 compliant. The Learning Repository can both house SCORM objects that can be dynamically linked to in course content and provide results to the gradebook seamlessly. The Learning Repository also exports to a SCORM compliant package. Brightspace adheres to HTML, XML standards for creation, display, and export of content where required. For web services, the Learning Repository has a REST API referred to as 'Valence' that can be used to create, manage, and delete repositories and objects. The Learning Repository does not incorporate the OSID standards, but does use OAI-PMH for harvesting, and SRU protocol for federated searching of external OERs.
Security			
24	At which levels will the system allow granular control of access and sharing of content?	Yes	Security access to repositories come on two levels. Roles as a whole can be given macro permissions with regards to the Learning Repository tool (Student role could be overall denied permission under any circumstance to delete objects, for example, across the whole tool). In addition, at a more granular level, permissions (called 'trusts') can be given to particular repositories for particular courses, departments, schools, and/or roles. This means that a Science Repository may give permission for faculty under the Science Department to publish objects into their repository. Other faculty may be given only permission to search and add comments. Repositories could be private to a single person or course, or opened large to the entire student body to submit and comment on.
25	How does the system ensure that content is secured with permissions that allow faculty to deliver the content only to students in their courses, select groups, or the public?	Yes	When an instructor uploads an object, they can control the visibility of that object in a few ways. First, they could upload it into a repository that is only available to a sub section of the university. Second, they can upload the object and use creative commons licensing to control the use of the object. Third, they can 'hide' the object so that it can only be searched for by them, and they can link it into their courses for students to access. Finally, they can have the option to make the object Public. If an object is public, it has a public URL that allows external users to securely access the object. It can be shared easily with social media through social media buttons. If a Repository is a 'Public' repository, it can be externally searched through the public repository interface. An instructor can turn off the 'public' access at any time and the URL will become immediately inactive.
26	How would the system allow for the ability of groups or individuals not using a Learning Management System or not otherwise associated with the client university to view or collaborate on files when authorized by the faculty member?	Yes	In the Learning Object Repository, at the object level, the right for requiring authentication to view or to make it public can be set. Learning Repository also provides the ability to enable public repositories and a public-facing homepage that allow users to search and browse for learning material without logging in. PASSHE institutions can have complete control over what repositories are public and which repositories are only available to users logged in to the LMS. Both are managed with the same administration interface. Instructors then could also have more granular control to turn on and off the public face of their object, whether or not it is in a 'public' repository. Public repositories are searched, browsed, and discovered by external search engines. They can be linked to and viewed through social media. The objects in the repositories can be downloaded to be used in any LMS (packaged as SCORM objects). Finally, Repositories can be turned into OERs by turning on OAI-PMH and sharing your access information with external institutions, either Brightspace clients, or other OAI-PMH compliant institutions.

Pennsylvania's State System of Higher Education  
D2L Ltd.  
Contract Inquiry No. 4700003087  
Attachment 6—Functionality & Technical Requirements Form

**LMS Functionality & Technical Requirements**

SECTION H			
LCMS/CONTENT REPOSITORY (Brightspace Learning Repository)			
#	Question	Yes/No	Supplier Response
27	How does the system provide faculty with the ability to control permissions, confirm who has received the content, and run reports to see how many times and by whom the content has been viewed?	Yes	Brightspace Learning Repository tracks the full learning object cycle for each learning object: publish, usage, updates, and deletions. Administrators can run reports against the properties of their learning objects and the repositories they reside in, and also reports on how people are interacting with the learning objects, including linking, downloading, and commenting. At an instructor level, they can view the events of each learning object including the search hits, who has linked to it or downloaded it and comments.
28	What tools does the system provide for digital rights management tools to allow faculty to easily offer an end-user license, especially for assigning Creative Commons licensing?	Yes	Brightspace Learning Repository allows for Creative Commons license to be easily added as metadata on learning objects, it displays this information to end users, and allows them to restrict their searches based on rights information. If files that are protected with their own internal digital rights management scheme are uploaded into the system, those files are not modified and would continue to contain any rights information they may have within them.
29	What processes are available in the system to allow faculty to easily back up or export content from the system and/or import external content into the system?	Yes	The Import/Export/Copy Components tool allows instructors to copy quizzes, content, grade items, discussion forums, dropbox forums, dropbox folders, and nearly every other type of component for another course offering. This method would be the primary way to backup the original Learning Objects that have been published into the Learning Repository. There is no bulk export or import ability directly in the Learning Repository for a single instructor. There is a bulk import ability for Administration. Administrators could help instructors import a large amount of individual items through the Bulk LOR utility. Alternatively, instructors can bulk import materials into a course shell and bulk publish to the Learning Repository from there.
Technical			
30	Does the system provide equal web browser access to Macintosh, PC, and Linux/Unix users (without workaround solutions), including multiple versions of operating systems? If so, describe the features and functionality.	Yes	The Brightspace platform, including Learning Repository, will operate on any end user's operating system such as Windows® operating system, Mac OS®, UNIX® operating systems, and Linux®. Ultimately, it is web browser support that will determine whether or not the solution will be fully supported. Therefore, end users will only require a device with a supported browser and Internet connection.
31	How does the system handle network bandwidth management issues?		The application Brightspace Cloud environment ensures that hardware scalability to hundreds of thousands of users is possible. However, the application itself is also designed with many key features to ensure scalability and optimal performance. Some examples of this include: Consistent use of paging and faceted searching in tools such as the Learning Repository ensures that tools are usable with hundreds or thousands of objects. A caching framework to ensure that as the number of users increase, access to their preferences and permission profiles, language terms, and frequently accessed information does not cause undue stress on the database. A separate reporting data infrastructure to allow reports to run without affecting the performance of ongoing application use. From a Brightspace Cloud environment perspective, scalability is accomplished through increasing horizontal scalability of servers in the case of application and web servers, and increasing the size of database servers and storage networks.
Service			
32	Please provide metrics that indicate the level of reliability, availability, and performance of the system.		99.9% availability over the past 12 months.



## LMS Functionality & Technical Requirements

SECTION I			
TRANSITIONING STRATEGY			
#	Question	Yes/No	Supplier Response
1	Does your organization offer content migration services?	<b>[REQUIRED]</b>	Yes. However, this is not applicable as PASSHE's content is currently hosted on Brightspace and as such migration is not necessary.
2	Describe your organization's approach and how you facilitate the migration of content.	Yes	Not applicable.
3	Explain your communication to constituents throughout the transitioning process moving from the State System's existing LMS to your LMS.	Yes	Not applicable.
4	Detail your communication strategy.	Yes	Not applicable.
5	Detail the data that will be retained/migrated (content, rubrics, exams, question libraries, assignments, discussion forums and topics).	Yes	Not applicable.
6	Define what student/user data is retained/migrated (submissions, grades, feedback, assessment data, etc.).	Yes	Not applicable.