**ECPI University**

**Cloud Solution:**

**Lab 1**

**CIS 142**

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**Introduction**

ECPI university integrates many assets from multiple vendors, both internally and externally, to provide a good software platform for students to interact with learning resources. I find that ECPI’s services is very well developed and very well maintained. I find their service to be very intelligently integrated with the Microsoft, Citrix, LMS Video & other development platforms. This project is a very well thought out project, involving the best & most efficient technology resources to train their students in the same technologies that they have intelligently developed. I think this shows a lot of skill, talent & knowledge maintained by the school. Their learning resources also display hands on & industrial standard of technology currently used in the market.

Here are some of the Technologies that ECPI University use

**Technology In Use**

**Campus Canvas Server:** *SAAS Cloud Service*

The Canvas application Server is a central web application unit that is provided to students to interact with many services hosted on the cloud. I would classify this as a private clouding service that is integrated in a hybrid cloud architectural network. Seen from the perspective of a student, I can classify this service as a software level Cloud service (SAAS). Its purpose is to provide an interface for students and professors to interact with.

The Campus Canvas Server hosts a software service on the cloud to allow students access into the ECPI learning modules. Canvas acts like a Software Cloud Service that will host a discussion environment and enable communication between professors and students to keep track of progression within different classes. This Cloud service also interacts with many other cloud applications, including Microsoft’s email server, Microsoft’s integrated cloud services: such as, Outlook, One drive, MS Word & etc. Canvas also contain their own file sharing server to allow students to upload & download documents for class. This service also must have a dedicated database to store user information and changes in posted assignments & updates to student record. Along with database changes, there has to be particular workflows developed alongside SQL to run tasks to update multiple databases & integrated services to run other external tasks; such as, sending information to an SMS server to send text message updates to students; integrate and update Canvas student mobile application also send email updates through a customized SMTP service. We also have a tech support team that act as an outsourced provider through the cloud.

**Email Server:** (SAAS) / (IDAAS) Cloud Service

The email service hosted by ECPI university acts through a public cloud provider, hosted by Microsoft Outlook. This service is then integrated to ECPI’s Domain DNS name, which is configured in Microsoft’s domain query. From the perspective of A common student-user, this service acts as a software interface. Maybe from the perspective of infrastructure or developers, whom had to develop this feature, this service may act as a “Platform Service,” that had to be configured through Microsoft’s console.

Also, this Email service is integrated to be used in SSO features with other web-sites, acting as an Identity authentication Cloud service. So, we have multiple usages with student email accounts into ECPI resources.

**VPUB:** (SAAS) Cloud Service

Virtual Publications is a Cloud platform that enables users to browse through a directory of information. The service provided here is a File server that is hosted on a web-server to provide a catalog search into its database of documents. This service acts as a Software Level service

**Alfresco Database:** (PAAS) Cloud Service

Alfresco is a platform for developers to create applications to interact with its database. Alfresco hosts a database service, operating on a prebuilt operating system an database service that is managed by them.

**VCASTLE Environment:** SAAS / PAAS Cloud Service

VCastle is an environment that was built by the Net-Development group to host multiple learning resources for ECPI university campus **(3)**. VCastle stands for “Virtual Castle,” it provides a platform into many virtual services to run lab simulations, specialized applications to develop applications for ECPI homework assignments. So, If this service is developed by ECPI University, I would consider this a private cloud service using a particular platform hosting. In the perspective of students, The way the service is used: “hosted application on a virtualized server, manipulated on a Web site,” This service acts as a Software for user interaction but it is used like a platform, offering operating system and applications for use but can be custom built the way you like.

**Xendesktop:** PAAS Cloud Service

Xen-desktop hosts another platform level cloud service provider. I would classify Xen-desktop as a public cloud provider that is available for consumer use. They offer mostly platform level services: Pre-built virtualized systems. The service that Xen-desktop provides are built on the platform layer but it the entire service acts like a software for accessibility into these platforms.

**LMSVids (Streaming Media):** SAAS Cloud Service

Software service that hosts videos, similar to you-tube.

**Conclusion**

In summary, ECPI university contains a very well-integrated hybrid Cloud service that enables students to interact with their courses and obtain a fairly strong level of education. I myself, find it really convenient to read through the lecture notes and text book when I am on the train. The ability to use all of ECPI resources with an internet connection is very revolutionary and powerful service that we see in education today. Otherwise, it may not have been done before without the introduction of Clouding services. The cost for implementing this service would have been too great to manage without Cloud computing resources.

**References**

**(1)** Candrlic, Goran. (2013). *Cloud Computing- Types of Cloud Computing.* Retrieved from: <https://www.globaldots.com/cloud-computing-types-of-cloud/>

**(2)** *New VCastle Service Elevates World Wide Learning into the Cloud*. (2018).Retrieved From: <https://www.netdevgroup.com/support/documentation/ecpi_vcastle.pdf>

# **(3)** *Deliver secure virtual apps and desktops.* (2018). Citrix. Retrieved From: [Link](https://www.citrix.com/products/citrix-virtual-apps-and-desktops/?utm_campaign=WWWB0613CXDTRDIYDR&utm_medium=Paid+Search+(SEM)&utm_source=sem-wss-xende-us-en-sea-go&utm_term=xendesktop&utm_content=xd-think&ctm_programid=wwwb0613cxdtrdiydr&gclid=Cj0KCQjw3ebdBRC1ARIsAD8U0V4VJHbnnNcC5epLJmw3px5b2lw_nz65R-ggfmzNHYeIyuX7T3wuu94aAhcdEALw_wcB)