



**Massachusetts Institute of Technology**

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## DevOps Engineer Position Description

February 9, 2015

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## General Characteristics

Individuals within the DevOps Engineer role work closely with clients and IT team members to understand the departmental stakeholder requirements that drive the analysis and design of quality technical solutions. These solutions must be aligned with Institute and IT strategies and are in compliance with the MIT's architectural standards. DevOps Engineers are involved in the full life cycle of an application.

DevOps Engineers are team members of an agile development process. They are responsible for the design and implementation of applications' build, release, deployment, and configuration activities. Other responsibilities include working with internal business partners to gather requirements, prototyping, architecting, implementing/updating solutions, building and executing test plans, performing quality reviews, managing operations, and triaging and fixing operational issues.

DevOps Engineers must be able to adjust to constant business change; common types of changes include new requirements, evolving goals and strategies, and emerging technologies. DevOps Engineers require the ability to interact, develop, engineer, and communicate collaboratively at the highest technical levels with clients, vendors, partners, and all levels of MIT staff.

## Career Path

The following section is intended to serve as a general guideline for each relative dimension of project complexity, responsibility and education/experience within this role. This table is not intended for use as a checklist to facilitate promotions or to define specific responsibilities as outlined in a job description. Actual responsibilities and experiences may vary.

Title	<i>DevOps Engineer I</i>	<i>DevOps Engineer II</i>	<i>DevOps Engineer III</i>	<i>DevOps Engineer IV</i>
<b>Dimension</b>				
<b>Work Complexity</b>	<ul style="list-style-type: none"> <li>• Works on <b>smaller, moderately complex</b> tasks in support of a project that requires a singular area of expertise.</li> <li>• Works as a project team member.</li> <li>• Increased skill in a <b>single technical environment</b> and knowledge of a specific business area.</li> </ul>	<ul style="list-style-type: none"> <li>• Works on <b>moderate to complex tasks</b> in support of <b>one or more projects</b> that require a singular area of expertise.</li> <li>• Works as a project team member, or <b>independently on small projects</b>.</li> <li>• <b>Increased skill in multiple technical environments</b> and knowledge of a specific business area.</li> </ul>	<ul style="list-style-type: none"> <li>• Works on <b>complex, major or highly visible tasks</b> in support of <b>multiple projects</b> that require <b>multiple areas</b> of expertise.</li> <li>• Works as a project team member or <b>as a project lead</b>.</li> <li>• <b>Works on projects that may span a broad range of applications</b>.</li> <li>• <b>Supports multiple applications</b>.</li> <li>• <b>Expertise in multiple technical environments</b> and knowledge of <b>one or more business areas</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Leads complex projects/programs</b> that require multiple areas of expertise.</li> <li>• <b>Provides subject matter expertise and technical direction</b>.</li> <li>• Works on projects that <b>span</b> a broad range of applications.</li> <li>• Supports multiple applications.</li> <li>• Expertise in multiple technical environments and possesses business knowledge that spans <b>multiple</b> business areas.</li> </ul>
<b>Typical Responsibilities</b>				
<i><b>Project Planning</b></i>	<ul style="list-style-type: none"> <li>• Participates in project planning processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Participates in project planning processes.</li> <li>• <b>Creates and shares development estimates</b></li> </ul>	<ul style="list-style-type: none"> <li>• Participates <b>and/or leads</b> in project planning processes.</li> <li>• Creates and shares</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Leads</b> in project planning processes.</li> <li>• <b>Collaborates with project managers to prioritize</b></li> </ul>

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
		and operational requirements to enable accurate planning with realistic timelines.	development estimates and operational requirements to enable accurate planning with realistic timelines.	<b>development of capabilities.</b> <ul style="list-style-type: none"> <li>Creates and shares development estimates and operational requirements to enable accurate planning with realistic timelines.</li> <li><b>Contributes to strategic planning meetings and provides guidance and expertise on system options, risk, cost vs. benefits, and impacts on departmental processes and goals.</b></li> </ul>
<b>Relationship Management</b>		<ul style="list-style-type: none"> <li>May serve as a liaison between client partners, IS&amp;T and vendors in coordination with project managers to provide technical solutions that address user needs.</li> </ul>	<ul style="list-style-type: none"> <li><b>Serves</b> as a liaison between client partners, IS&amp;T and vendors in coordination with project managers to provide technical solutions that address user needs.</li> </ul>	<ul style="list-style-type: none"> <li>Serves as a liaison between client partners, IS&amp;T and vendors in coordination with project managers to provide technical solutions that address user needs.</li> <li><b>Coordinates communication and activities between technical teams.</b></li> </ul>
<b>Business Requirements</b>	<ul style="list-style-type: none"> <li>Assists in the gathering of business requirements.</li> <li>May write functional specifications.</li> </ul>	<ul style="list-style-type: none"> <li><b>Assesses client needs utilizing a structured requirements process (gathering, analyzing, documenting, and managing changes).</b></li> <li><b>Writes and communicates business requirements and</b></li> </ul>	<ul style="list-style-type: none"> <li>Assesses client needs utilizing a structured requirements process (gathering, analyzing, documenting, and managing changes).</li> <li>Writes and communicates business requirements and functional specifications for</li> </ul>	<ul style="list-style-type: none"> <li>Assesses client needs utilizing a structured requirements process (gathering, analyzing, documenting, and managing changes).</li> <li><b>Leads</b> development and communicates business requirements and</li> </ul>

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
		<b>functional specifications for the implementation of client solutions.</b> <ul style="list-style-type: none"> <li>• <b>Analyzes client operations to understand their strengths and weaknesses to uncover opportunities for improvements.</b></li> </ul>	the implementation of client solutions. <ul style="list-style-type: none"> <li>• Analyzes client operations to understand their strengths and weaknesses to uncover opportunities for improvements.</li> </ul>	functional specifications for the design and implementation of client solutions. <ul style="list-style-type: none"> <li>• Analyzes client operations to understand their strengths and weaknesses to uncover opportunities for improvements.</li> </ul>
<i>Design</i>	<ul style="list-style-type: none"> <li>• <b>May create</b> technical design specifications.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Works closely with architects to assure all systems are in line with IS&amp;T's long-term strategy.</b></li> <li>• <b>Creates</b> technical design specifications.</li> </ul>	<ul style="list-style-type: none"> <li>• Works closely with architects to assure all systems are in line with IS&amp;T's long-term strategy.</li> <li>• Creates technical design specifications.</li> <li>• <b>Reviews technical design specifications developed by junior levels.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Works closely with architects to assure all systems are in line with IS&amp;T's long-term strategy.</li> <li>• Creates technical design specifications <b>and assists in sizing technical requirements.</b></li> <li>• Reviews and <b>advises</b> on technical design specifications developed by junior levels.</li> </ul>
<i>Development</i>	<ul style="list-style-type: none"> <li>• Develops/builds IT solutions to meet business requirements.</li> <li>• Installs and configures solutions.</li> <li>• Translates business and technical requirements into test cases, test scenarios and scripts.</li> <li>• Develops and/or implements reusable components.</li> <li>• Assists with the</li> </ul>	<ul style="list-style-type: none"> <li>• Develops/builds IT solutions to meet business requirements.</li> <li>• Installs and configures solutions.</li> <li>• Integrates solutions with other applications and platforms outside the framework.</li> <li>• Translates business and technical requirements into test cases, test scenarios and scripts.</li> </ul>	<ul style="list-style-type: none"> <li>• Develops/builds IT solutions to meet business requirements.</li> <li>• Installs and configures solutions.</li> <li>• Integrates solutions with other applications and platforms outside the framework.</li> <li>• Develops, executes, and documents test plans.</li> <li>• Creates test plans.</li> <li>• Executes testing efforts</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Leads project teams</b> in developing/building IT solutions to meet business requirements.</li> <li>• Installs and configures solutions.</li> <li>• <b>Coordinates development activities with other groups.</b></li> <li>• <b>Develops custom integration solutions including major enhancements,</b></li> </ul>

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
	<p>identification, creation, and maintenance of test data.</p> <ul style="list-style-type: none"> <li>• Develops interface stubs and simulators, as needed.</li> <li>• Performs script maintenance and updates due to changes in requirements or implementations.</li> <li>• Assists with setup and maintenance of test environments for both manual and automated testing.</li> </ul>	<ul style="list-style-type: none"> <li>• Develops and/or implements reusable components.</li> <li>• <b>Codes and documents custom test automation frameworks.</b></li> <li>• <b>Maintains new and existing object reference files.</b></li> <li>• Performs script maintenance and updates due to changes in requirements or implementations.</li> <li>• Assists with setup and maintenance of test environments for both manual and automated testing.</li> </ul>	<p>across the life cycle.</p> <ul style="list-style-type: none"> <li>• Designs, develops, and implements reusable components.</li> <li>• Codes and documents custom test automation frameworks.</li> <li>• Maintains new and existing object reference files.</li> <li>• Performs script maintenance and updates due to changes in requirements or implementations.</li> <li>• <b>Sets up and maintains</b> the test environments for both manual and automated testing.</li> </ul>	<p><b>interfaces, functions and features.</b></p> <ul style="list-style-type: none"> <li>• Creates test plans.</li> <li>• Executes testing efforts across the life cycle.</li> <li>• <b>Leads and guides</b> the design, development of reusable components.</li> <li>• Codes and documents custom test automation frameworks.</li> <li>• Maintains new and existing object reference files.</li> <li>• Performs script maintenance and updates due to changes in requirements or implementations.</li> <li>• Sets up and maintains the test environments for both manual and automated testing.</li> </ul>
<b>Standards, Policies, and Procedures</b>	<ul style="list-style-type: none"> <li>• Adheres to standards and procedures.</li> <li>• Reviews modules for quality assurance.</li> </ul>	<ul style="list-style-type: none"> <li>• Adheres to standards and procedures.</li> <li>• Reviews modules for quality assurance.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>May assist in defining DevOps and quality guidelines and standards.</b></li> <li>• Adheres to standards and procedures.</li> <li>• Reviews modules for quality assurance.</li> <li>• <b>Checks for compliance with all standards, policies and procedures.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Assists</b> in defining DevOps and quality guidelines and standards.</li> <li>• <b>Ensures</b> the adherence to standards, policies and procedures.</li> <li>• Reviews modules for quality assurance.</li> <li>• Checks for compliance with all standards, policies and procedures.</li> </ul>

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
				<ul style="list-style-type: none"> <li>• <b>Develops convergence plans to meeting standards, as needed.</b></li> </ul>
<b>Deployment</b>	<ul style="list-style-type: none"> <li>• Deploys new modules, upgrades and fixes to the production environment.</li> <li>• Makes modules production-ready by moving them to libraries, completing forms, following procedures, completing version control documents, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Builds automated deployments using configuration management technology.</b></li> <li>• Deploys new modules, upgrades and fixes to the production environment.</li> <li>• <b>Documents and completes knowledge transfer to production support.</b></li> <li>• <b>Works with Release Management to ensure modules are production-ready.</b></li> <li>• <b>Validates deployments.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Builds automated deployments using configuration management technology.</li> <li>• Deploys new modules, upgrades and fixes to the production environment.</li> <li>• Documents and completes knowledge transfer to production support.</li> <li>• Works with Release Management to ensure modules are production-ready.</li> <li>• <b>Creates release notes, deployment plans, etc.</b></li> <li>• <b>Verifies the functionality of components and services and ensures deployment meets client's expectations.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Builds automated deployments using configuration management technology.</li> <li>• <b>Contributes to and reviews deployment plans; schedules the installation of new modules, upgrades and fixes to the production environment.</b></li> <li>• Works with Release Management to ensure modules are production-ready.</li> <li>• Creates release notes, deployment plans, etc.</li> <li>• Verifies the functionality of components and services and ensures deployment meets client's expectations.</li> </ul>
<b>Maintenance (Break/Fix)</b>	<ul style="list-style-type: none"> <li>• <b>May perform</b> ongoing routine application maintenance tasks.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Performs</b> ongoing routine application maintenance tasks.</li> <li>• <b>Assists in establishing requirements, methods and procedures for routine maintenance.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Plans and performs</b> ongoing routine application maintenance tasks.</li> <li>• Assists in establishing requirements, methods and procedures for routine maintenance.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Plans</b> ongoing routine application maintenance tasks.</li> <li>• <b>Establishes</b> requirements, methods and procedures for routine maintenance.</li> </ul>
<b>Production Support</b>	<ul style="list-style-type: none"> <li>• May assist in production support.</li> </ul>	<ul style="list-style-type: none"> <li>• May assist in production support.</li> </ul>	<ul style="list-style-type: none"> <li>• May assist in production support.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Oversees</b> and assists in production support.</li> </ul>



Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
	<ul style="list-style-type: none"> <li>May troubleshoot existing information systems to identify errors or deficiencies and develops solutions.</li> </ul>	<ul style="list-style-type: none"> <li>May troubleshoot existing information systems to identify errors or deficiencies and develops solutions.</li> </ul>	<ul style="list-style-type: none"> <li>May troubleshoot existing information systems to identify errors or deficiencies and develops solutions.</li> </ul>	<ul style="list-style-type: none"> <li>May troubleshoot existing information systems to identify errors or deficiencies and develops solutions.</li> </ul>
<b>Performance Management</b>		<ul style="list-style-type: none"> <li>Evaluates existing applications and platforms and provides recommendations for improving performance by conducting gap analysis, identifying feasible alternative solutions, and assisting in the scope of modifications.</li> <li>May perform automated/load tests and address any issues.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluates existing applications and platforms and provides recommendations for improving performance by conducting gap analysis, identifying feasible alternative solutions, and assisting in the scope of modifications.</li> <li>May perform automated/load tests and address any issues.</li> </ul>	<ul style="list-style-type: none"> <li><b>Leads the technical evaluation and selection process</b> for improving performance by <b>overseeing</b> gap analysis studies, feasible alternative solutions, and <b>recommending and/or approving</b> the scope of modifications.</li> </ul>
<b>Vendor Management</b>		<ul style="list-style-type: none"> <li><b>May work</b> with vendors to resolve problems and develop solutions.</li> </ul>	<ul style="list-style-type: none"> <li><b>Works</b> with vendors to resolve problems and develop solutions.</li> <li><b>Evaluates vendor solutions to ensure compliance with requirements and cost-effectiveness.</b></li> </ul>	<ul style="list-style-type: none"> <li>Works with vendors to resolve problems and develop solutions.</li> <li><b>May assist in negotiation efforts for contracts with external vendors or individuals.</b></li> <li>Evaluates vendor solutions to ensure compliance with requirements and cost-effectiveness.</li> </ul>
<b>Business Continuity</b>		<ul style="list-style-type: none"> <li><b>May participate</b> in the development of contingency plans including</li> </ul>	<ul style="list-style-type: none"> <li><b>Participates</b> in the development of contingency plans including</li> </ul>	<ul style="list-style-type: none"> <li><b>Leads</b> the development of contingency plans including reliable backup</li> </ul>

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
		reliable backup and restore procedures.	reliable backup and restore procedures. <ul style="list-style-type: none"> <li>• <b>Participates in the identification of continuity/disaster recovery risks and mitigation plans.</b></li> <li>• <b>Assists in the development of disaster recovery plans with service providers.</b></li> </ul>	and restore procedures. <ul style="list-style-type: none"> <li>• <b>Identifies</b> continuity/disaster recovery risks and mitigation plans.</li> <li>• Assists in the development of disaster recovery plans with service providers and network carriers.</li> <li>• <b>Ensures readiness of enterprisewide plans.</b></li> </ul>
<i>Documentation/ User Guides</i>	<ul style="list-style-type: none"> <li>• Documents functions and changes to new or modified modules and test activities/results.</li> </ul>	<ul style="list-style-type: none"> <li>• Documents functions and changes to new or modified modules and test activities/results.</li> <li>• <b>Assists in the development of user guides and training documentation for systems.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Documents functions and changes to new or modified modules, test activities/results and <b>other areas (e.g., error handling, backup/recovery procedures)</b></li> <li>• Assists in the development of user guides and training documentation for systems.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Ensures all applications are documented according to standards.</b></li> <li>• <b>Promotes effective use of information technology by educating users on system functionality.</b></li> <li>• Assists in the development of user guides and training documentation for systems.</li> </ul>
<i>Technology Evaluation and Research</i>		<ul style="list-style-type: none"> <li>• <b>May evaluate</b> new application packages and tools and <b>may perform</b> research on best practices.</li> <li>• <b>May provide</b> recommendations for the solutions.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Evaluates</b> new application packages and tools and <b>performs</b> research on best practices.</li> <li>• <b>Provides</b> recommendations for the solutions.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluates new application packages and tools and performs research on best practices.</li> <li>• Provides recommendations for the solutions.</li> </ul>
<i>Training</i>			<ul style="list-style-type: none"> <li>• May prepare and present formal training to IT staff, as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• May prepare and present formal training to IT staff, as needed.</li> </ul>
<i>Coaching and Mentoring</i>		<ul style="list-style-type: none"> <li>• Provides technical coaching and mentoring to</li> </ul>	<ul style="list-style-type: none"> <li>• Provides technical leadership, coaching and</li> </ul>	<ul style="list-style-type: none"> <li>• Provides technical leadership, coaching and</li> </ul>

Title	<i>DevOps Engineer I</i>	<i>DevOps Engineer II</i>	<i>DevOps Engineer III</i>	<i>DevOps Engineer IV</i>
		less-experienced team members.	mentoring to team members. <ul style="list-style-type: none"> <li>• <b>Provides technical guidance or system process expertise.</b></li> <li>• <b>Develops reports and presentations for senior management, as needed.</b></li> </ul>	mentoring to team members. <ul style="list-style-type: none"> <li>• Provides technical guidance or system process expertise.</li> <li>• <b>Provides performance feedback to managers.</b></li> <li>• Develops reports and presentations for senior management, as needed.</li> </ul>
<b>Typical Education/Experience</b>	<ul style="list-style-type: none"> <li>• Bachelor's degree in Programming/Systems or Computer Science or other related field. Or equivalent work experience.</li> <li>• Typically requires 0–3 years of programming experience.</li> <li>• Requires working knowledge of one programming language.</li> <li>• Comfort with frequent, incremental code, testing and deployment.</li> </ul>	<ul style="list-style-type: none"> <li>• Bachelor's degree in Programming/Systems or Computer Science or other related field. Or equivalent work experience</li> <li>• Typically requires <b>3-5</b> years of programming experience.</li> <li>• <b>Experience</b> working in applications, systems or IT operations.</li> <li>• <b>Knowledge of an agile team environment and process.</b></li> <li>• <b>Excellent troubleshooting and problem solving skills.</b></li> <li>• Requires working knowledge of <b>two or more</b> programming languages.</li> <li>• Comfort with frequent, incremental code, testing</li> </ul>	<ul style="list-style-type: none"> <li>• Bachelor's degree in Programming/Systems or Computer Science or other related field. Or equivalent work experience</li> <li>• Typically requires <b>5-7</b> years of <b>analysis</b> and programming experience.</li> <li>• Experience working in applications, systems or IT operations.</li> <li>• <b>Demonstrates knowledge of a broad range of hardware and software products.</b></li> <li>• <b>Experience working in</b> an agile team environment.</li> <li>• <b>Demonstrated ability to analyze and interpret complex problems or processes, identify and understand requirements, and develop alternate</b></li> </ul>	<ul style="list-style-type: none"> <li>• Bachelor's degree in Programming/Systems or Computer Science or other related field. Or equivalent work experience</li> <li>• Typically requires <b>7 or more</b> years of analysis and programming experience.</li> <li>• Experience working in applications, systems or IT operations.</li> <li>• Demonstrates <b>in-depth</b> knowledge of a broad range of hardware and software products.</li> <li>• Experience <b>leading</b> an agile team environment</li> <li>• Demonstrated ability to analyze and interpret complex problems or processes, identify and understand requirements and develop alternate</li> </ul>

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
		and deployment.	<b>solutions.</b> <ul style="list-style-type: none"><li>• <b>Experience designing, developing, testing, and deploying applications/ systems using proven or emerging technologies, in a variety of technologies and environments.</b></li><li>• <b>Experience with automation tools.</b></li><li>• <b>Strong troubleshooting and problem solving skills.</b></li><li>• Requires working knowledge of two or more programming languages.</li></ul>	<b>solutions.</b> <ul style="list-style-type: none"><li>• Experience designing, developing, testing, and deploying applications/ systems using proven or emerging technologies, in a variety of technologies and environments.</li><li>• <b>Strong grasp</b> of automation tools.</li><li>• Strong troubleshooting and problem solving skills.</li><li>• Requires working knowledge of two or more programming languages.</li></ul>

## Explanation of Proficiency Level Definitions

Proficiency scale definitions are provided to help determine an individual's proficiency level in a specific competency. The rating scale below was created as a foundation for the development of proficiency level definitions used for assessments.

<b>Being Developed: (BD)</b>	Demonstrates <b>minimal</b> use of this competency; limited knowledge of subject matter area; needs frequent assistance and <b>close supervision</b> for direction. Currently developing competency.
<b>Basic: (B)</b>	Demonstrates <b>limited</b> use of this competency; basic familiarity of subject matter area; needs additional training to apply without assistance or with <b>frequent supervision</b> .
<b>Intermediate: (I)</b>	Demonstrates <b>working or functional proficiency</b> level sufficient to apply this competency effectively without assistance and with <b>minimal supervision</b> ; working/functional knowledge of subject matter area.
<b>Advanced: (A)</b>	Demonstrates <b>in-depth proficiency</b> level sufficient to assist, consult to, or lead others in the application of this competency; in-depth knowledge in subject matter area.
<b>Expert: (E)</b>	Demonstrates broad, in-depth proficiency sufficient to be recognized as an <b>authority or master performer</b> in the applications of this competency; recognized authority/expert in subject matter area.

As you complete the competency assessment, read all of the proficiency level definitions for a competency (provided in the next section) and select the one that is most characteristic of the demonstrated performance. If more than one definition is descriptive, select the highest level that is typically exhibited.

## Summary Proficiency Matrix

The chart provides a summary of proficiency ratings.

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Competencies</b>				
<b>Adaptability:</b> Demonstrates flexibility within a variety of changing situations while working with various individuals and groups. Changes own ideas or perceptions in response to changing circumstances. Alters standard procedures when necessary, and multi-tasks as required.	B	I	A	A
<b>Analytical Thinking:</b> Able to breakdown raw information and undefined problems into specific, workable components that in-turn clearly identifies the issues at hand. Makes logical conclusions, anticipates obstacles and considers different approaches that are relevant to the decision making process.	BD	B	I	A
<b>Business Function Knowledge:</b> Uses an understanding of business functions to analyze and propose technical strategies for the business. Assesses benefits, risks, and costs.	BD	B	I	A
<b>Communications for Results:</b> Expresses technical and business concepts, ideas, feelings, opinions, and conclusions orally and in writing. Listens attentively and reinforces words through empathetic body language and tone.	B	I	I	A
<b>Openness to Learning:</b> Openness to Learning: Takes personal responsibility for personal growth. Acquires strategies for gaining new knowledge, behaviors and skills. Builds on and applies existing knowledge. Engages in learning from others both within and outside the organization. Tries new approaches and broadens scope of work to learn from work assignments.	BD	B	I	A
<b>Problem Solving:</b> Anticipates, identifies and defines problems. Seeks root causes. Develops and implements practical and timely solutions.	BD	B	I	A

Title	<i>DevOps Engineer I</i>	<i>DevOps Engineer II</i>	<i>DevOps Engineer III</i>	<i>DevOps Engineer IV</i>
<b>Systems Thinking:</b> Ability to plan and account for impacts of system development efforts across architectural system components, critical business processes, data and applications. Conceptualizes the impact of changes to system platforms as a result of system acquisition, system merger, or implementation of enterprise-wide systems.	<b>B</b>	<b>I</b>	<b>A</b>	<b>E</b>
<b>Teamwork:</b> Collaborates with other members of formal and informal groups in the pursuit of common missions, vision, values and mutual goals. Places team needs and priorities above personal needs. Involves others in making decisions that affect them. Draws on the strengths of colleagues and gives credit to others' contributions and achievements.	<b>B</b>	<b>I</b>	<b>A</b>	<b>A</b>
<b>Thoroughness:</b> Demonstrates attention to detail and accuracy. Defines and organizes tasks, responsibilities and priorities. Takes responsibility for timely completion.	<b>B</b>	<b>I</b>	<b>A</b>	<b>A</b>

## Proficiency Matrix

The following charts illustrate proficiency levels for each competency.

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Competencies</b>				
<b>Adaptability:</b> Demonstrates flexibility within a variety of changing situations while working with various individuals and groups. Changes own ideas or perceptions in response to changing circumstances. Alters standard procedures when necessary, and multi-tasks as required.				
<b>Being Developed (BD):</b> Recognizes and responds appropriately to new or changing situations. Adjusts priorities to meet changing demands. Determines when whether or not others' points of view are reasonable or valid.				
<b>Basic (B):</b> Listens to others' opinions and acknowledges the value of difference. Maintains flexibility and attempts new approaches as needed to accomplish objectives. Able to multi-task effectively. Adjusts to changing priorities. Readily adopts new procedures and technology.	✓			
<b>Intermediate (I):</b> Handles multiple projects and duties simultaneously, prioritizing as needed. Devises flexible approaches that are easily adopted by all levels and types of people. Works creatively to respond to a specific situation. Quickly resolves new challenges in a changing environment. Interprets the spirit of a policy to meet business goals and client needs. Respects and responds sensitively to others' reluctance to change. Fosters flexibility through cross-training and developmental work assignments.		✓		
<b>Advanced (A):</b> Calmly takes control of high-pressure situations. Maximizes the output of limited resources. Shifts tactics and redefines organizational priorities. Implements new practices when original approach and assumptions are no longer valid. Conducts transition planning and fosters employee involvement. Manages high-level milestone accomplishments across multiple change activities. Recommends large-scale change interventions.			✓	✓
<b>Expert (E):</b> Demonstrates resilience and applies contingency plans in the face of significant obstacles. Assesses and redefines strategies as needed to adapt in a dynamic environment. Manages change and minimizes stress by developing techniques or plans activities in advance. Takes a visible role in leading and sponsoring the successful transition of structure and resources, and increases in productivity. Invests in people through communication and education. Provides clarity of the need for change and benefits to all. Applies best leadership practices and managerial techniques to drive significant change initiatives.				



Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Analytical Thinking:</b> Able to breakdown raw information and undefined problems into specific, workable components that in-turn clearly identifies the issues at hand. Makes logical conclusions, anticipates obstacles and considers different approaches that are relevant to the decision making process.				
<b>Being Developed (BD):</b> Gathers and links data. Reviews for non-conformity and gathers further information in response to routine problems. Identifies direct cause and effect relationships. Breaks down tasks and problems into manageable components. Solicits guidance as needed to assess importance and urgency. Escalates issues of a non-routine nature as needed.	✓			
<b>Basic (B):</b> Collates and reports information. Solicits guidance to define criteria and assign values of importance and urgency. Sorts information in order of importance. Investigates to define problems more accurately. Identifies trends and exceptions. Identifies relationships and linkages between components. Identifies variable potential causes and effects. Escalates issues of an exceptional nature.		✓		
<b>Intermediate (I):</b> Coordinates the information gathering and reporting process. Reviews trends and compares to expectations. Conducts research to define problems and prepares responses to anticipated questions. Prioritizes multiple issues and opportunities. Identifies relationships and linkages within several information sources. Anticipates issues that are not readily apparent on the surface. Identifies root causes and effects. Defines priorities within performance objectives. Reports and identifies areas that need guidance in order to resolve complex issues. Anticipates the possible outcome of potential solutions.			✓	

Title	<i>DevOps Engineer I</i>	<i>DevOps Engineer II</i>	<i>DevOps Engineer III</i>	<i>DevOps Engineer IV</i>
<b>Advanced (A):</b> Determines criteria for assessing issues and opportunities. Establishes clear goals and priorities needed to assess performance. Identifies relationships and linkages between different information sources. Anticipates issues that are not readily apparent on the surface. Identifies root causes and effects. Establishes clear goals and priorities. Anticipates potential problems and develops solutions needed to resolve them. Systemically analyzes relationships between apparently independent problems and issues. Reviews and cross-reviews reports. Identifies trends as well as isolated events. Translates analytical reports into management presentations, and provides guidance to resolve issues. Anticipates the possible outcome of potential solutions. Identifies areas of significant concern or opportunity. Probes and initiates research to identify critical problems.				✓
<b>Expert (E):</b> Establishes strategic goals and enterprise-wide priorities. Uses techniques of advanced business and organizational analysis to identify and assess problem definitions and potential solutions, and compares and contrasts them against predetermined criteria. Creates framework for reviewing large volumes of unorganized data. Probes for and points to subtle and unclear relationships in highly complex matters and evaluates the merit of problem definitions and potential solutions. Anticipates the possible outcome of potential solutions. Systemically identifies and resolves complex enterprise-wide issues, while educating senior leaders as to their solution.				

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Business Function Knowledge:</b> Uses an understanding of business functions to analyze and propose technical strategies for the business. Assesses benefits, risks, and costs.				
<b>Being Developed (BD):</b> Asks questions to determine the needs of a specific business function. Assessed the impact on business functional requirements prior to taking action.	✓			
<b>Basic (B):</b> Assesses the needs of primary business functions. Suggests technical solutions for business functions, and implements action plans to improve ongoing business performance in ways that minimize day-to-day disruption of operations.		✓		
<b>Intermediate (I):</b> Involves the key players in identifying operating needs, issues and solutions. Proposes technical plans that are aligned with business objectives and technical requirements. Takes and leads actions to enhance business function standards and performance with the participation of business and technical partners.			✓	
<b>Advanced (A):</b> Engages business and technical leaders in the identification of medium-term business solutions consistent with best practices for cross-functional implementation. Sets the direction for and steers medium-term enhancements of integrated standards and significant business performance drivers across multiple areas of responsibility.				✓
<b>Expert (E):</b> Participates in setting the strategic direction of and drivers for multiple lines of business. Applies superior industry benchmarks to proposals for organization-wide initiatives. Sponsors capital intensive, strategic business change. Reviews long-term business and technical solutions proactively. Evaluates high -risk proposals and defines parameters for contingency plans that ensure seamless change to the enterprise.				

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Communications for Results:</b> Expresses technical and business concepts, ideas, feelings, opinions, and conclusions orally and in writing. Listens attentively and reinforces words through empathetic body language and tone.				
<b>Being Developed (BD):</b> Speaks and writes to peers in ways that support transactional activities. Shares information and asks questions prior to taking action.				
<b>Basic (B):</b> Converses with and writes to peers in ways that support transactional and administrative activities. Seeks and shares information and opinions. Explains the immediate context of the situation, asks questions with follow-ups, and solicits advice prior to taking action.	✓			
<b>Intermediate (I):</b> Conducts discussions with and writes memoranda to all levels of colleagues and peer groups in ways that support troubleshooting and problem solving. Seeks and shares relevant information, opinions, and judgments. Handles conflict empathetically. Explains the context of inter-related situations, asks probing questions, and solicits multiple sources of advice prior to taking action.		✓	✓	
<b>Advanced (A):</b> Converses with, writes reports and creates/delivers presentations to all levels of colleagues and peer groups in ways that support problem solving and planning. Seeks a consensus with business partners. Debates opinions, tests understanding and clarifies judgments. Brings conflict into the open empathetically. Explains the context of multiple inter-related situations, asks searching, probing questions, and solicits expert advice prior to taking action and making recommendations.				✓
<b>Expert (E):</b> Converses with, writes strategic documents and creates/delivers presentations to internal business leaders and as well as external groups. Leads discussions with senior leaders and external partners in ways that support strategic planning and decision-making. Seeks a consensus with business leaders. Debates opinions, tests understanding and clarifies judgments. Identifies underlying differences and resolves conflict openly and empathetically. Explains the context of multiple, complex inter-related situations. Asks searching, probing questions, plays devil's advocate, and solicits authoritative perspectives and advice prior to approving plans and recommendations.				

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Openness to Learning:</b> Takes personal responsibility for personal growth. Acquires strategies for gaining new knowledge, behaviors and skills. Builds on and applies existing knowledge. Engages in learning from others both within and outside the organization. Tries new approaches and broadens scope of work to learn from work assignments.				
<b>Being Developed (BD):</b> Seeks out learning opportunities on the job through orientation and by asking for personal instruction, guidance from a supervisor, and by observing others. Devises strategies to learn new tasks quickly using job aids, tools, and documentation such as written procedures and process descriptions to get background and instructional information.	✓			
<b>Basic (B):</b> Identifies knowledge gaps. Asks questions of subject matter experts and seeks help when needed. Uses information resources and learning tools. Keeps abreast of information, developments and best practices within a field of expertise (e.g., by reading, interacting with others, or by attending learning events).		✓		
<b>Intermediate (I):</b> Analyzes errors, successes and failures, and sets strategies to rectify and increase knowledge. Solicits non-defensively performance feedback after each assignment. Identifies personal strengths and weaknesses, and defines areas for self-development. Converses with others about the effectiveness of and improvements needed to implement an idea or technique.			✓	
<b>Advanced (A):</b> Explores how to use previous knowledge, ideas or techniques that have worked in the past and can be applied to other settings. Solicits non-defensively performance and personal feedback. Identifies personal strengths and weaknesses, and defines areas for self-improvement. Solicits feedback on the effectiveness of and improvements needed to implement improvement strategies. Analyzes errors, successes and failures and sets strategies to rectify and increase knowledge. Creates a personal learning plan. Identifies learning strategies that adapt to own learning style. Seeks multiple sources of information and perspectives. Maintains a professional and personal network of contacts, within and beyond organizational boundaries.				✓
<b>Expert (E):</b> Questions traditional approaches to find new ways of doing things. Takes aggressive and calculated risks in experimentation. Solicits non-defensively organizational, political and personal feedback from senior leaders and customers. Solicits feedback on improvements needed to make enterprise-wide strategies effective. Sets direction for the personal growth of self and the organization. Creates and shares with others a personal learning plan, using learning strategies that support own learning and work style. Seeks multiple perspectives. Uses as a sounding board a professional and personal network of experts and strategic advisors, within and beyond organizational boundaries.				

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Problem Solving:</b> Anticipates, identifies and defines problems. Seeks root causes. Develops and implements practical and timely solutions.				
<b>Being Developed (BD):</b> Asks questions and looks for data that helps to identify and differentiate the symptoms and root causes of every day, defined problems. Suggests remedies that meet the needs of the situation and those directly affected. Escalates issues appropriately.	✓			
<b>Basic (B):</b> Investigates defined issues with uncertain but limited cause. Solicits input in gathering data that help identify and differentiate the symptoms and root causes of defined problems. Suggests alternative approaches that meet the needs of the organization, the situation, and those involved. Escalates issues with suggestions for further investigation and options for consideration.		✓		
<b>Intermediate (I):</b> Applies simple problem-solving methodologies to diagnose and solve operational and interpersonal problems. Determines the potential causes of the problem and devises testing methodologies for validation. Shows empathy and objectivity toward individuals involved in the issue. Analyzes multiple alternatives, risks and benefits for a range of potential solutions. Recommends resource requirements and collaborates with impacted stakeholders.			✓	
<b>Advanced (A):</b> Diagnoses problems using formal problem-solving tools and techniques from multiple angles and probes underlying issues to generate multiple potential solutions. Proactively anticipates and prevents problems. Devises, facilitates buy-in, makes recommendations and guides implementation of corrective and/or preventive actions for complex issues that cross organizational boundaries and are unclear in nature. Identifies potential consequences and risk levels. Gains support and buy-in for problem definition, methods of resolution, and accountability.				✓
<b>Expert (E):</b> Anticipates long-term problem areas and associated risk levels with objective rationale. Uses formal methodologies to forecast trends and define innovative strategic choices in response to the potential implications of multiple integrated options. Generates and solicits the approval of senior leadership prior to defining critical issues and solutions to unclear, multi-faceted problems of high risk which span across and beyond the enterprise.				

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Systems Thinking:</b> Ability to plan and account for impacts of system development efforts across architectural system components, critical business processes, data and applications. Conceptualizes the impact of changes to system platforms as a result of system acquisition, system merger, or implementation of enterprise-wide systems.				
<b>Being Developed (BD):</b> Seeks advice and guidance on critical linkages between the assigned customer's business, technology, and system platforms. Responds to problems by ascertaining the interaction and interdependencies of key system components.				
<b>Basic (B):</b> Investigates the critical relationships between primary business, technology and systems platforms. Devises approaches that recognize the interdependencies of key system components.	✓			
<b>Intermediate (I):</b> Researches the critical and underlying relationships between primary business, technology and systems platforms. Devises approaches that integrate system components.		✓		
<b>Advanced (A):</b> Plans improvements that take into account the critical, underlying and less apparent relationships between business, technology and systems platforms. Devises approaches that integrate system components for assigned clients. Conducts risk evaluations and resolves issues regarding significant changes and upgrades.			✓	
<b>Expert (E):</b> Sponsors strategic long-term improvement plans that take into account the critical, underlying and less apparent relationships between multiple complex business, technology and systems platforms. Devises and evaluates plans that integrate system components across existing and new businesses. Reviews risk evaluations and approves significant changes and upgrades.				✓

Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Teamwork:</b> Collaborates with other members of formal and informal groups in the pursuit of common missions, vision, values and mutual goals. Places team needs and priorities above personal needs. Involves others in making decisions that affect them. Draws on the strengths of colleagues and gives credit to others' contributions and achievements.				
<b>Being Developed (BD):</b> Participates willingly by supporting team decisions, assisting other team members, and doing his/her share of the work to meet goals and deadlines. Informs other team members about client-related decisions, group processes, individual actions, or influencing events. Shares all relevant and useful information.				
<b>Basic (B):</b> Takes initiative to actively participate in team interactions. Without waiting to be asked, constructively expresses own point of view or concerns, even when it may be unpopular. Ensures that the limited time available for collaboration adds significant customer value and business results.	✓			
<b>Intermediate (I):</b> Actively solicits ideas and opinions from others to quickly accomplish specific objectives targeted at defined business outcomes. Openly encourages other team members to voice their ideas and concerns. Shows respect for differences and diversity, and disagrees without personalizing issues. Utilizes strengths of team members to achieve optimal performance.		✓		
<b>Advanced (A):</b> Consistently fosters collaboration and respect among team members by addressing elements of the group process that impedes, or could impede, the group from reaching its goal. Engages the “right people”, despite location or functional specialty, in the team by matching individual capabilities and skills to the team’s goals. Works with a wide range of teams and readily shares lessons learned.			✓	✓
<b>Expert (E):</b> Identifies and improves communication to bring conflict within the team into the open and facilitate resolution. Openly shares credit for team accomplishment. Monitors individual and team effectiveness and recommends improvement to facilitate collaboration. Considered a role model as a team player. Demonstrates high level of enthusiasm and commitment to team goals under difficult or adverse situations; encourages others to respond similarly. Strongly influences team strategy and processes.				



Title	DevOps Engineer I	DevOps Engineer II	DevOps Engineer III	DevOps Engineer IV
<b>Thoroughness:</b> Demonstrates attention to detail and accuracy. Defines and organizes tasks, responsibilities and priorities. Takes responsibility for timely completion.				
<b>Being Developed (BD):</b> Applies attention to detail to routine tasks defined in formal, written procedures and oral instructions. Seeks guidance on the quality and the degree of completion required for completing new tasks. Reprioritizes, as new deadlines are set. Responds constructively to customer feedback on task output.				
<b>Basic (B):</b> Performs tasks according to quality and output standards. Takes initiative to ensure that outcomes meet internal and external customer requirements. Solicits feedback on performance in new tasks. Measures accuracy using performance metrics. Sets improvement standards to reduce errors, omissions and oversights.	✓			
<b>Intermediate (I):</b> Demonstrates operational agility. Uses organizational systems that result in multiple critical activities to be identified and completed on time. Renegotiates priorities as necessary. Puts systems in place and uses them to monitor and detect errors and problems. Tests and inspects outputs, and applies quality checks prior to work submission.		✓		
<b>Advanced (A):</b> Identifies potential areas of conflicting priorities and vulnerability in achieving standards. Reviews department's progress against established goals, objectives, service level targets and project milestones. Supports others in achieving deliverables by efficiently allocating resources and providing common organizing systems, techniques and disciplines. Maintains a proactive work review and approval process prior to assignment completion. Solicits internal and external customer evaluation of performance and devises measures for improvement.			✓	✓
<b>Expert (E):</b> Sets the vision, defines the value and acts as role model for creating a culture that sets superior standards and delivers on time and on budget. Agrees upon service level and project expectations with senior leaders. Reviews enterprise's progress against established goals, objectives, service level targets and project milestones. Devises strategies for delivering large-scale projects on time. Proactively conducts business review meetings for reprioritization of resources and taking corrective action to respond to strategic initiatives. Holds self and leadership team members accountable for achievements, publicly recognizing successes. Identifies areas of potential vulnerability in achieving strategic business drivers. Supports the enterprise in achieving deliverables by investing in world-class organizational processes.				

**Any questions regarding this Report  
should be addressed to:**

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