

First Seven Job Cluster Definitions

<p>Infrastructure Connectivity, Management and Engineering</p>	<p>Infrastructure connectivity covers hardware, wired, optical, wireless, satellite, cloud, and any other means of connectivity for data transmission.</p> <p>Infrastructure Management and Engineering ensures that the Information Technology and Communications Infrastructure is sufficiently robust, scalable, secure and efficient to deliver integrated services. It supports the design installation processes, physical resources, and operations required for developing, integrating, operating, and sustaining IT applications. It also addresses the day-to-day management and maintenance of IT services, systems, and applications. This definition was adapted from mitre.org with input from national IT Thought Leaders.</p>
<p>Technical Support</p>	<p>Technical support refers to services that entities provide to users of technology products or services. In general, technical support provides help regarding specific problems with a software, hardware or network product or service. In some organizations it may include training. This definition was adapted from Wikipedia with input from national IT Thought Leaders.</p>
<p>Technical Project and Program Management</p>	<p>Technical Project and Program Management comprises the planning and management of a technical initiative from concept through to a concrete deliverable. This includes overall responsibility for outcomes and requires specific knowledge of technologies, applied methodologies and development models to ensure success in planning, managing budget, estimation and execution of the project. Additionally, this area is responsible for change management. The Technical Project and Program Management serves as the liaison between the business and technical experts. This definition was adapted from Iasa Global with input from national IT Thought Leaders.</p>
<p>Data Management and Engineering</p>	<p>Database management and engineering typically utilizes specialized software to store, organize and secure data in both relational databases and in other non-relational formats. It includes capacity planning, installation, configuration, database design, migration, performance monitoring, security, troubleshooting, as well as backup and data recovery. This definition was adapted from Wikipedia.</p>
<p>Data Analytics and Predictive Modeling</p>	<p>Data Analytics and Predictive Modeling includes inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making. Business intelligence (BI) specifically focuses on extracting business information for use by decision makers. Common functions of business intelligence include reporting, data mining, process mining, benchmarking, and text mining. This definition was adapted from Wikipedia with input from IT Thought Leaders.</p>
<p>Software Development</p>	<p>Software development and engineering includes the research, design, secure creation, delivery and quality assurance/testing of computer software and applications including mobile. Additionally, web development can range from developing a simple single static page of plain text to complex web-based internet applications (web apps), and social network services. This definition was adapted from Wikipedia with input from national IT Thought Leaders.</p>
<p>Security</p>	<p>Security is the protection of internet-connected systems, including hardware, software and data, from cyberattacks. Security comprises cybersecurity and physical security -- both are used to protect against unauthorized access to data and other computerized systems designed to maintain the confidentiality, integrity and availability of data. Security includes reactive digital and network forensics to gather and analyze information during and after a breach. This definition was adapted from TechTarget with input from IT Thought Leaders.</p> <p>Security/privacy awareness and basic security concepts will be addressed in all clusters.</p>