Career Bands, Career Levels, Functions and Disciplines

General Overview

This section provides job matching documentation used for this survey report.

- Career Band Summary Descriptions for the Supervisory/Management Career Band (M), Professional Career Band (P) and Technical Support Career Band (T)

  The Global Grade(s) aligned with each level also are noted. Global Grade differentiators are shaded since North America survey participants only match to Career Levels.

- Function and Discipline Listing

- Function and Discipline Descriptions

NOTE: The job matching methodology presented here is for survey purposes only and is not a job evaluation process. Although this survey methodology is related to the Willis Towers Watson Career Map and Global Grading methodologies, it may not align directly with specific client implementation of one of these leveling methodologies. Therefore it is critical to align your internal levels to the survey levels based on a careful review of the survey definitions to ensure proper job matching.

Career Map and the Global Grading System, when formally implemented, enable the alignment of reward and talent management programs across businesses. When used as internal leveling tools, these methodologies take into account the specific organizational context of a job and the detailed set of associated accountabilities and demands. The outcomes of these processes are highly organization-specific, while survey job descriptions and levels are by their nature generic. Therefore, organizations that use Career Map or the Global Grading System as their internal leveling tool are still required to match their jobs to this survey using the job matching process outlined in this Participant Guide.

An organization’s internal Global Grade or Career Level may act as a starting point, but as the Career Levels and Global Grades contained in these surveys represent a typical or generic organization, there may be differences between the internal value a specific organization places on a job and where the job should be mapped for purposes of external comparison.
Career Bands, Career Levels, Functions and Disciplines

Career Band Summary Descriptions

**Supervisory/Management Career Band (M)**
- Accountable for managing people, setting direction and deploying resources; typically is responsible for performance evaluation, pay reviews and hire/fire decisions
- Results are primarily achieved through the work of others and typically depend on the manager's ability to influence and negotiate with parts of the organization where formal authority is not held
- Progression within Career Band reflects acquisition of broad technical expertise, business and industry knowledge, and process and people leadership capabilities
- Accountable for business, functional or operational areas, processes or programs

**Professional Career Band (P)**
- Work is primarily achieved by an individual or through project teams, with emphasis on technical/discipline knowledge rather than managing people
- Requires the application of expertise in professional area(s) to achieve results
- Progression within the Career Band reflects increasing depth of professional knowledge, project management and ability to influence others
- Entry-level jobs within the Professional Career Band typically require a university degree or equivalent work experience that provides knowledge of and exposure to fundamental theories, principles and concepts

**Technical Support Career Band (T)**
- Performs specialized technical tasks required to support operations (e.g., IT development, research support, skilled trade)
- Requires vocational training or the equivalent experience and may require external certification but typically does not require a university degree
## Career Bands, Career Levels, Functions and Disciplines

### Career Level General Profiles

<table>
<thead>
<tr>
<th>Supervisory/Management Career Band (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M5 Senior Group Manager (aligns with Global Grade 17)</strong></td>
</tr>
<tr>
<td>- Applies only to large international or global organizations</td>
</tr>
<tr>
<td>- Provides leadership and direction through Group and/or Senior Managers</td>
</tr>
<tr>
<td>- Has accountability for the performance and results of:</td>
</tr>
<tr>
<td>- A large, strategically important function in an extremely large market and/or</td>
</tr>
<tr>
<td>- Diverse disciplines (e.g., within Human Resources - Training, Recruitment and Compensation &amp; Benefits) or departments within a large geography or division and/or</td>
</tr>
<tr>
<td>- A large, strategically important discipline within a major region and/or</td>
</tr>
<tr>
<td>- A medium-sized global corporate discipline or department</td>
</tr>
<tr>
<td>- Develops, adapts and executes strategies to achieve key business objectives in area of responsibility</td>
</tr>
<tr>
<td>- Decisions are guided by organization and functional strategies and objectives</td>
</tr>
</tbody>
</table>

| **M4 Group Manager (aligns with Global Grade 16)** |
| - Provides leadership and direction through Senior Managers and Managers |
| - Has accountability for the performance and results of: |
|   - A large, strategically important discipline in an extremely large market; and/or |
|   - Related disciplines or a medium-sized function in a large market or medium-sized division; and/or |
|   - A medium-sized discipline or department in a major region |
| - Adapts and executes functional or departmental business plans and contributes to the development of functional or departmental strategies |
| - Decisions are guided by functional or major operational segment strategies and priorities |

| **M3 Senior Manager (aligns with Global Grades 14 and 15)** |
| - Provides leadership to managers; may also provide leadership to supervisors and/or professional staff |
| - Has accountability for the performance and results of multiple related units |
| - Develops departmental plans, including business, production, operational and/or organizational priorities |
| - Controls resources and policy formation in area of responsibility |
| - Decisions are guided by resource availability and functional objectives |

### Global Grade 15 Differentiators

- Looks beyond existing methodologies and own discipline to define and resolve complex problems
- Develops plans and delivers results in fast-changing businesses and/or regulatory environments
- Provides input to functional or departmental strategy
- Manages large, potentially diverse teams of managers and/or senior professionals
- In Global Grade 16 or 17 organizations, typically contributes directly to business priorities and planning

### Global Grade 14 Differentiators

- Identifies applications of functional knowledge and existing methodologies to complex problems
- Manages large teams of professionals and/or junior managers
- In Global Grade 16 or 17 organizations, typically has accountability for a function
Career Bands, Career Levels, Functions and Disciplines

Career Level General Profiles (continued)

<table>
<thead>
<tr>
<th>Supervisory/Management Career Band (M) (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M2 Manager (aligns with Global Grades 12 and 13)</strong></td>
</tr>
<tr>
<td>● Manages professional employees and/or supervisors or supervises large, complex support, production or operations team(s)</td>
</tr>
<tr>
<td>● Has accountability for the performance and results of a team within own discipline or function</td>
</tr>
<tr>
<td>● Adapts departmental plans and priorities to address resource and operational challenges</td>
</tr>
<tr>
<td>● Decisions and problem-solving are guided by policies, procedures and business plan; receives guidance from senior manager</td>
</tr>
<tr>
<td>● Provides technical guidance to employees, colleagues and/or customers</td>
</tr>
<tr>
<td><strong>Global Grade 13 Differentiators</strong></td>
</tr>
<tr>
<td>● Accountable for the budget, performance and results of a medium-sized team or multiple small teams of employees</td>
</tr>
<tr>
<td>● Exercises full management authority, including performance reviews, pay decisions, recruitment, discipline, termination and other personnel actions</td>
</tr>
<tr>
<td>● Addresses issues with impact beyond own team based on knowledge of related disciplines</td>
</tr>
<tr>
<td><strong>Global Grade 12 Differentiators</strong></td>
</tr>
<tr>
<td>● Accountable for results of a small team of employees</td>
</tr>
<tr>
<td>● Exercises limited management authority; sets employee performance objectives, conducts performance reviews and recommends pay actions</td>
</tr>
<tr>
<td>● Defines team operating standards and ensures essential procedures are followed based on knowledge of own discipline</td>
</tr>
<tr>
<td><strong>M1 Supervisor (aligns with Global Grades 10 and 11)</strong></td>
</tr>
<tr>
<td>● Coordinates and supervises the daily activities of a support, production or operations team</td>
</tr>
<tr>
<td>● Sets priorities for the team to ensure task completion; coordinates work activities with other supervisors</td>
</tr>
<tr>
<td>● Decisions and problem-solving are guided by policies, procedures and business plan; receives guidance and oversight from manager</td>
</tr>
<tr>
<td>● Typically does not spend more than 20% of time performing the work supervised</td>
</tr>
<tr>
<td><strong>Global Grade 11 Differentiators</strong></td>
</tr>
<tr>
<td>● Accountable for the results of a large and/or moderately complex support or production operations team including subordinate work leaders</td>
</tr>
<tr>
<td>● Applies acquired expertise to analyze and solve problems without clear precedent</td>
</tr>
<tr>
<td>● Provides input on resource planning and policy development</td>
</tr>
<tr>
<td>● Coaches team members on performance, completes employee performance evaluations and recommends pay actions</td>
</tr>
<tr>
<td><strong>Global Grade 10 Differentiators</strong></td>
</tr>
<tr>
<td>● Accountable for the results of medium-sized routine support or production operations teams</td>
</tr>
<tr>
<td>● Solves problems based on practice and precedent</td>
</tr>
<tr>
<td>● Trains team members and provides input to employee performance evaluations</td>
</tr>
</tbody>
</table>
# Career Bands, Career Levels, Functions and Disciplines

## Career Level General Profiles (continued)

### Professional Career Band (P)

#### P6 Renowned Expert (aligns with Global Grades 16 and 17)

- Is recognized as an external thought leader within strategic function or discipline
- Has broad and comprehensive expertise in leading-edge theories, techniques and/or technologies within own function or discipline
- Proactively identifies and solves the most complex problems that impact the management and direction of the business
- Participates in the development of the product or business strategy
- Leads multidisciplinary projects or initiatives
- Progression to this level is typically restricted on the basis of individual capabilities and business requirements

**Global Grade 17 Differentiators**

- Only applies to large international or global businesses
- Contributes as top thought leader worldwide, whose achievements include major innovations that change and advance the industry and/or profession
- Leads the largest projects/initiatives that have a significant impact upon a complex, global business

#### P5 Master (aligns with Global Grade 15)

- Is recognized as an expert within the organization and has in-depth and/or breadth of expertise in own discipline and broad knowledge of other disciplines within the function
- Anticipates internal and/or external business challenges and/or regulatory issues; recommends process, product or service improvements
- Solves unique and complex problems that have a broad impact on the business
- Contributes to the development of functional strategy
- Leads project teams to achieve milestones and objectives
- Progression to this level is typically restricted on the basis of business requirements
- Typically operates with broad latitude in a complex environment

**Global Grade 16 Differentiators**

- Typically found in Global Grade 18 or higher organizations
- Contributes thought leadership and innovation that influences change and advancement of the industry and/or profession
- Leads large projects/initiatives that impact the business on a domestic or international scale

**Global Grade 14 Differentiators**

- Identifies applications of functional knowledge and existing methodologies to complex problems
- Serves as an expert within own function and discipline
- Leads functional teams or projects and serves as a best practice/quality resource

**Global Grade 13 Differentiators**

- Guides others in resolving complex issues in specialized area based on existing solutions and procedures
- Serves as an expert within own discipline
- May lead function teams or projects and serves as a best practices/quality resource
- Trains/mentors junior staff

#### P4 Specialist (aligns with Global Grades 13 and 14)

- Is recognized as an expert in own area within the organization
- Has specialized depth and/or breadth of expertise in own discipline or function
- Interprets internal or external issues and recommends solutions/best practices
- Solves complex problems; takes a broad perspective to identify solutions
- May lead functional teams or projects
- Works independently, with guidance in only the most complex situations
- Progression to this level is typically restricted on the basis of business requirement

**Global Grade 14 Differentiators**

- Identifies applications of functional knowledge and existing methodologies to complex problems
- Serves as an expert within own function and discipline
- Leads functional teams or projects and serves as a best practice/quality resource

**Global Grade 13 Differentiators**

- Guides others in resolving complex issues in specialized area based on existing solutions and procedures
- Serves as an expert within own discipline
- May lead function teams or projects and serves as a best practices/quality resource
- Trains/mentors junior staff
Career Bands, Career Levels, Functions and Disciplines

Career Level General Profiles (continued)

Professional Career Band (P) (continued)

P3 Career (aligns with Global Grades 11 and 12)
- Has in-depth knowledge in own discipline and basic knowledge of related disciplines
- Solves complex problems; takes a new perspective on existing solutions
- Works independently; receives minimal guidance
- May lead projects or project steps within a broader project or have accountability for ongoing activities or objectives
- Acts as a resource for colleagues with less experience
- May represent the level at which career may stabilize for many years or even until retirement

Global Grade 12 Differentiators
- Uses best practices and knowledge of internal or external business issues to improve products/services or processes
- Typically resolves complex problems or problems where precedent may not exist
- Often leads the work of small project teams; may formally train junior staff
- Works independently

Global Grade 11 Differentiators
- Contributes to process improvements
- Typically resolves problems using existing solutions
- Occasionally leads the work of small project teams; provides informal guidance to junior staff
- Works independently

P2 Intermediate (aligns with Global Grade 10)
- Has working knowledge and experience in own discipline
- Continues to build knowledge of the organization, processes and customers
- Performs a range of mainly straightforward assignments
- Uses prescribed guidelines or policies to analyze and resolve problems
- Receives a moderate level of guidance and direction

Global Grade 9 Differentiators
- Has limited discretion to vary from established procedures
- Has limited work experience involving basic concepts and procedures
- Works under general supervision

Global Grade 8 Differentiators
- Has no discretion to vary from established procedures
- Has no related work experience or has work experience but requires formal training in theories/concepts in own function
- Works under close supervision
- Entry-level graduate in the "probationary" period

P1 Entry (aligns with Global Grades 8 and 9)
- Performs routine assignments in the entry level of the Professional Career Band
- Has conceptual knowledge of theories, practices and procedures within a discipline typically acquired through a college or university degree or the equivalent work experience
- Develops competence by performing structured work assignments
- Uses existing procedures to solve routine or standard problems
- Receives instruction, guidance and direction from more senior level roles

Global Grade 9 Differentiators
- Has limited discretion to vary from established procedures
- Has limited work experience involving basic concepts and procedures
- Works under general supervision

Global Grade 8 Differentiators
- Has no discretion to vary from established procedures
- Has no related work experience or has work experience but requires formal training in theories/concepts in own function
- Works under close supervision
- Entry-level graduate in the "probationary" period
Career Band, Career Levels, Functions and Disciplines

Career Level General Profiles (continued)

Technical Support Career Band (T)

T4 Lead/Advanced (aligns with Global Grades 9 and 10)
- Has advanced and specialized expertise, typically developed through a combination of job-related training and considerable work experience
- Proposes improvements to processes
- May act as a lead, coordinating and facilitating the work of others but is not a supervisor
- Works autonomously within established procedures and practices
- Spends a majority of working time performing the same work processes and activities as employees on team

Global Grade 10 Differentiators
- Performs a variety of the most complex tasks and/or may lead one or more teams
- Analyzes the most complex technical problems and delivers solutions where precedent may not exist

Global Grade 9 Differentiators
- Performs a variety of complex tasks and/or may lead a team in the performance of a variety of tasks that are often routine
- Solves complex problems of a recurring nature

T3 Senior (aligns with Global Grades 7 and 8)
- Has full proficiency in a range of technical processes or procedures (or deep skills in a single area) through job-related training and considerable work experience
- Completes a variety of atypical assignments
- Works within defined technical processes and procedures or methodologies and may help determine the appropriate approach for new assignments
- Works with a limited degree of supervision, with oversight focused only on complex new assignments
- Acts as an informal resource for colleagues with less experience

Global Grade 8 Differentiators
- Performs highly complex and varied tasks
- Typically has specialized external certification
- Guides and supports junior team members; may assist in their formal orientation and training

Global Grade 7 Differentiators
- Performs moderately complex and varied tasks
- May have specialized external certification
- Guides junior team members

T2 Intermediate (aligns with Global Grade 6)
- Has working knowledge and skills to perform a defined set of analytical/scientific methods or operational processes
- Applies experience and skills to complete assigned work within own area of expertise
- Works within standard operating procedures and/or scientific methods
- Works with a moderate degree of supervision

T1 Entry (aligns with Global Grade 5)
- Has basic skills in an analytical or scientific method or operational process
- Works within clearly defined standard operating procedures and/or scientific methods and adheres to quality guidelines
- Works with close supervision
Functions and Disciplines Listing

**AIC**  
Information Technology  
AIC000-EX  
Chief Information Officer  
AIC002-EX  
Top Information Technology Executive  
AIC010-EX  
Top Information Security Executive  
AIC035-EX  
Top Technology Platforms Executive

**AID**  
IT Development  
AID010-EX  
Top Applications Development Executive  
AID015-EX  
Top E-commerce Technology Executive  
AID100-EX  
Top Enterprise Resource Planning Executive

  AID000  
  IT Development Generalist/Multidiscipline  
  AID010  
  Application Development  
  AID015  
  Internet/Web Application Development  
  AID020  
  Business Systems Analysis  
  AID040  
  Systems Software Development  
  AID050  
  Software Quality Assurance and Testing  
  AID060  
  Database Design and Analysis  
  AID090  
  Network Planning and Implementation  
  AID100  
  Enterprise Resource Planning  
  AID999  
  IT Development - No Applicable Discipline

**AIT**  
IT Administration  
AIT005-EX  
Top Technology Infrastructure Executive  
AIT035-EX  
Top Telecommunications Executive

  AIT000  
  IT Administration Generalist/Multidiscipline  
  AIT010  
  Computer Systems Administration  
  AIT015  
  Website Administration  
  AIT020  
  IT Help Desk Support  
  AIT025  
  IT On-Site Support  
  AIT030  
  Database Administration  
  AIT040  
  Network Control/Administration  
  AIT050  
  Email Administration  
  AIT060  
  IS Disaster Recovery/Business Continuation  
  AIT070  
  IS and Cyber Security  
  AIT080  
  IT Training/Documentation  
  AIT999  
  IT Administration - No Applicable Discipline
Career Bands, Career Levels, Functions and Disciplines

Functions and Disciplines Definitions

<table>
<thead>
<tr>
<th>Code</th>
<th>Function</th>
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<tbody>
<tr>
<td>AIC</td>
<td>Information Technology</td>
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</tbody>
</table>

**Chief Information Officer**
- Establishes the strategic direction of the organization's information technology resources
- Identifies changes in computer and systems technology and communicates these changes to senior management
- Provides support to information users and determines information needs throughout the organization
- Identifies systems software and hardware necessary for the successful integration of information systems
- Coordinates through subordinate staff the operations of the technology functions on a day-to-day basis

**Top Information Technology Executive**
- Directs the information technology functions on a day-to-day basis
- Provides direction and control of activities such as systems design and analysis, applications and systems programming, database management, network systems, telecommunications and data processing operations
- Establishes computer operations control policies and procedures and designates priorities for computer operations and applications development work

**Top Information Security Executive**
- Has primary responsibility for developing strategies used in the protection of the organization's information systems from unauthorized access and use
- Develops information security policies and procedures
- Evaluates and recommends hardware and software to provide the appropriate level of protection for data, software and hardware

**Top Technology Platforms Executive**
- Has primary responsibility for developing and integrating the organization's core technological platforms and is not focused on the maintenance of internal systems
- Responsibilities include technology standards, technology convergence, technology migration and/or new product development
- May be responsible for promoting the technological vision of the organization among industrial partners
### Functions and Disciplines Definitions (continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Function</th>
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</thead>
<tbody>
<tr>
<td><strong>AID</strong></td>
<td><strong>IT Development</strong></td>
</tr>
</tbody>
</table>

Designs, develops, modifies, adapts and implements short- and long-term solutions to information technology (IT) needs through new and existing applications, systems architecture, network systems and applications infrastructure. Reviews system requirements and business processes; codes, tests, debugs and implements software solutions.

**Applicable Career Bands**
- M (Supervisory/Management)
- P (Professional)
- T (Technical Support)

**Discipline**

<table>
<thead>
<tr>
<th>Code</th>
<th>Function</th>
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</thead>
<tbody>
<tr>
<td><strong>AID010-EX</strong></td>
<td><strong>Top Applications Development Executive</strong></td>
</tr>
<tr>
<td></td>
<td>● Has primary responsibility for the organization's applications programming and systems analysis activities</td>
</tr>
<tr>
<td></td>
<td>● Oversees analysis and preparation of systems feasibility studies, design of new computer systems and programs, and revision of existing computer systems and programs</td>
</tr>
<tr>
<td></td>
<td>● Directs coding, testing, installation and maintenance of all business and scientific applications programs</td>
</tr>
<tr>
<td></td>
<td>● Develops systems design standards and quality control standards for programmers</td>
</tr>
<tr>
<td><strong>AID015-EX</strong></td>
<td><strong>Top E-commerce Technology Executive</strong></td>
</tr>
<tr>
<td></td>
<td>● Has primary responsibility for designing, developing, implementing and maintaining the organization's e-commerce systems, including web interfaces and related internal databases and systems</td>
</tr>
<tr>
<td></td>
<td>● Identifies changes in e-commerce and related systems technology, communicates these changes to senior management, and helps develop overall e-commerce strategy to meet the organization's needs and goals</td>
</tr>
<tr>
<td><strong>AID100-EX</strong></td>
<td><strong>Top Enterprise Resource Planning Executive</strong></td>
</tr>
<tr>
<td></td>
<td>● Has primary responsibility for directing and coordinating all enterprise resource planning (ERP) business management systems to integrate all facets of the business, including planning, manufacturing, sales and marketing</td>
</tr>
<tr>
<td></td>
<td>● Reviews and evaluates project feasibility studies based on management's requirements and priorities and implements the installation and operation of ERP systems</td>
</tr>
<tr>
<td></td>
<td>● Typically manages the implementation of more widely accepted software applications such as SAP and Oracle</td>
</tr>
<tr>
<td><strong>AID000</strong></td>
<td><strong>IT Development Generalist/Multidiscipline</strong></td>
</tr>
<tr>
<td></td>
<td>● Designs, develops, modifies, adapts and implements short- and long-term solutions to information technology (IT) needs through new and existing applications, systems architecture, network systems and applications infrastructure</td>
</tr>
<tr>
<td></td>
<td>● Reviews system requirements and business processes; codes, tests, debugs and implements software solutions</td>
</tr>
<tr>
<td></td>
<td>● Responsibilities are within the IT Development Function as a generalist or in a combination of Disciplines</td>
</tr>
<tr>
<td><strong>AID010</strong></td>
<td><strong>Application Development</strong></td>
</tr>
<tr>
<td></td>
<td>● Provides application software development services or technical support typically in a defined project</td>
</tr>
<tr>
<td></td>
<td>● Develops program logic for new applications or analyzes and modifies logic in existing applications</td>
</tr>
<tr>
<td></td>
<td>● Codes, tests, debugs, documents, implements and maintains software applications</td>
</tr>
<tr>
<td></td>
<td>● Analyzes requirements and maintains, tests and integrates application components</td>
</tr>
<tr>
<td></td>
<td>● Ensures that system improvements are successfully implemented</td>
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Functions and Disciplines Definitions (continued)

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<tr>
<th>Code</th>
<th>Function</th>
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<tbody>
<tr>
<td>AID</td>
<td>IT Development (continued)</td>
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</tbody>
</table>

**Discipline**

**AID015 Internet/Web Application Development**
- Designs and develops primarily Internet/web pages and applications such as e-commerce and content-driven websites
- Codes, tests, debugs, documents and implements web applications using a variety of languages and platforms such as HTML, Java, PHP, JSP, Python, AJAX, JavaScript, ASP, CGI, Perl, XML
- Develops proof-of-concepts and prototypes of easy-to-navigate user interfaces (UI) that consist of web pages with graphics, icons and color schemes that are visually appealing
- Ensures that applications are compatible across multiple computing platforms and browsers
- May require familiarity with streaming media concepts and techniques, including digital video and audio compression standards such as MP3, WAV and MPEG
- May also involve responsive web design techniques

**AID020 Business Systems Analysis**
- Acts as a liaison between the IT development group and business units for the development and implementation of new systems and enhancement of existing systems
- Evaluates new applications and identifies systems requirements
- Evaluates new IT developments and evolving business requirements and recommends appropriate systems alternatives and/or enhancements to current systems
- Prepares communications and makes presentations on system enhancements and/or alternatives

**AID040 Systems Software Development**
- Designs, develops, tests, debugs and implements operating systems components, software tools and utilities
- Determines systems software design requirements
- Ensures that system improvements are successfully implemented and monitored to increase efficiency
- Generates systems software engineering policies, standards and procedures

**AID050 Software Quality Assurance and Testing**
- Conducts a wide range of quality control tests and analyses to ensure that software meets or exceeds specified standards and end user requirements
- Drafts, revises and approves test plans and scripts to ensure alignment with standards and IT strategy
- Creates test data files with valid and invalid records to thoroughly test program logic and verify system flow
- Coordinates with users to plan user acceptance testing, alpha and beta testing
- Ensures that system tests are successfully completed and documented and all problems are resolved

**AID060 Database Design and Analysis**
- Analyzes, designs, creates and implements databases, including data models, logical and physical databases, data dictionaries and schemas, access methods, device allocations, validation checks, organization and security
- Develops and implements database recovery plans and procedures
- Develops and implements database analysis and development policies, standards and procedures
- Collaborates with database software vendors and external technical support on issues such as software upgrades, problems and potential solutions

**AID090 Network Planning and Implementation**
- Researches networking requirements; prepares detailed architectural and installation plans
- Conducts internal studies of network performance and traffic analysis
- Researches problems, conducts cable and equipment installations, and evaluates new technologies
### Functions and Disciplines Definitions (continued)

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<td>IT Development (continued)</td>
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**Discipline**

<table>
<thead>
<tr>
<th>Code</th>
<th>Enterprise Resource Planning</th>
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<tbody>
<tr>
<td>AID100</td>
<td>- Configures, implements, maintains and upgrades enterprise resource planning (ERP) application modules (e.g., Human Resources, Finance, Supply Chain Management)</td>
</tr>
<tr>
<td></td>
<td>- Analyzes user requirements to determine ERP system configuration and customization</td>
</tr>
<tr>
<td></td>
<td>- Provides ongoing ERP system support</td>
</tr>
<tr>
<td></td>
<td>- May participate in defining requirements and selecting software vendors</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>IT Development - No Applicable Discipline</th>
</tr>
</thead>
<tbody>
<tr>
<td>AID999</td>
<td>- Responsibilities are within the IT Development Function but are not described in other Discipline summaries</td>
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</tbody>
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Functions and Disciplines Definitions (continued)

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<tr>
<td>AIT</td>
<td>IT Administration</td>
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</table>

Manages the Information Technology (IT) infrastructure within an organization, including the physical network (e.g., LANs/WANs, servers, terminals) as well as server applications and software (e.g., PeopleSoft, Oracle). Configures, installs, maintains and upgrades server applications and hardware.

**Applicable Career Bands**
- M (Supervisory/Management)
- P (Professional)
- T (Technical Support)

**Discipline**

<table>
<thead>
<tr>
<th>Code</th>
<th>Top Technology Infrastructure Executive</th>
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<tbody>
<tr>
<td>AIT005-EX</td>
<td>Has primary responsibility for the strategic and operational direction of the organization's technological infrastructure, including planning, design, implementation and maintenance</td>
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<tr>
<td>AIT035-EX</td>
<td>Assures the seamless interface across different systems and the effective operations of LANs/WANs, mainframe and minicomputer platforms</td>
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**Top Telecommunications Executive**
- Has primary responsibility for designing, implementing and maintaining the organization's voice and data communications networks
- Ensures that the installed systems are operating effectively and that proposed systems will meet the organization's needs in the future
- Collaborates with systems software programmers and may provide some direction in the installation and maintenance of the telecommunications network software

**IT Administration Generalist/Multidiscipline**
- Administers the IT infrastructure within an organization, including the physical network (e.g., LANs/WANs, servers, terminals) as well as server applications and software (e.g., PeopleSoft, Oracle)
- Responsibilities are within the IT Administration Function as a generalist or in a combination of Disciplines

**Computer Systems Administration**
- Configures, installs, maintains and upgrades computer systems hardware and software
- Administers and maintains security of operating systems
- Restores files or systems by designing, writing and implementing back-up procedures
- Provides operational support for the organization's information systems and peripheral equipment such as application servers, database servers, web servers, desktops, printers and storage devices
- Performs recovery procedures, scheduling and back-ups and monitors batch processes

**Website Administration**
- Plans and administers web systems hardware and operating system server software, including web server setup and implementation
- Maintains and monitors website functionality (e.g., links, calculators, news feeds) and website security
- Conducts performance monitoring, capacity planning, workload modeling and predictive analyses to identify and resolve potential issues (e.g., performance, security breaches)
- Collaborates with internal and/or external resources (i.e., content owners, editors, web developers) to maintain current information and tools on the organization's website(s)
- Troubleshoots network problems and security issues

**IT Help Desk Support**
- Provides technical support to the organization's internal users of computer applications and hardware (e.g., PCs, servers, mainframes)
- Answers questions regarding system procedures, online transactions, systems status and downtime procedures and is typically located within a call center
- Collaborates with network services, software systems engineering and/or application development in order to restore service and/or identify problems
- Maintains a troubleshooting tracking log ensuring timely resolution of problems
### Functions and Disciplines Definitions (continued)

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<tr>
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<tbody>
<tr>
<td>AIT</td>
<td>IT Administration (continued)</td>
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</table>

#### Discipline

**AIT025 IT On-Site Support**
- Provides on-site technical support to the organization's internal users of computer applications and hardware (e.g., PCs, servers, mainframes)
- Collaborates with network services, software systems engineering and/or application development in order to restore service and/or identify problems
- Typically resolves issues referred by help desk support

**AIT030 Database Administration**
- Administers database utilities, monitors the relationships between the database users and applications, and maintains the organization's databases across multiple platforms and computing environments
- Applies understanding of relational database concepts and query languages in order to design required summary or aggregation tables to support analyses
- Collaborates with technology/infrastructure staff to identify data relationships and functional requirements; analyzes and resolves issues related to information flow and content
- Maintains database support tools, database tables and dictionaries and recovery and back-up procedures
- Performs data modeling studies and develops detailed data models; maintains data model and entity relationship diagrams

**AIT040 Network Control/Administration**
- Provides technical expertise in the management of a public and/or private network; tests and analyzes network facilities, including network control software, routers, switches, lines, modems, adapters and servers
- Installs, supports and/or maintains LANs and/or WANs; evaluates and recommends networking product and software upgrades
- Performs technical analyses of software, hardware and transmission facilities using various diagnostic tools in support of efficient network operations
- Monitors data traffic and controls network resource performance to ensure high-quality transmission
- Identifies, diagnoses and resolves technical problems related to network failure/integrity and usage of PC hardware and software

**AIT050 Email Administration**
- Provides overall administration and support for email applications to ensure that the system's integrity and security are not compromised
- Embargoes incoming email on notice of virus alert, assesses the impact of the virus on email applications and works with other IT administrators to identify affected systems
- Measures and maintains email capacity and utilization and notifies users when utilization exceeds established limits
- May administer GroupWare systems

**AIT060 IS Disaster Recovery/Business Continuation**
- Develops and tests plans to ensure the continuity of critical business functions and minimizes information loss in the event of a disaster (e.g., fire, flood, hurricane, earthquake)
- Sets up hot sites so that backup systems can be brought up and running quickly
- Institutes loss-reduction mechanisms to lessen exposure to disaster risks such as sprinkler systems, insurance policies and evacuation procedures
- In the event of disaster, assesses damage to computer hardware, vital records, etc., to determine what should be salvaged, restored or replaced
## Functions and Disciplines Definitions (continued)

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### AIT070 IS and Cyber Security
- Evaluates, tests, recommends, develops, coordinates, monitors and maintains information systems (IS) and cyber security policies, procedures and systems, including access management for hardware, firmware and software
- Ensures that IS and cyber security architecture/designs, plans, controls, processes, standards, policies and procedures are aligned with IS standards and overall IS and cyber security
- Identifies security risks and exposures, determines the causes of security violations and suggests procedures to halt future incidents and improve security
- Develops techniques and procedures for conducting IS and cyber security risk assessments and compliance audits, the evaluation and testing of hardware, firmware and software for possible impact on system security, and the investigation and resolution of security incidents
- Implements IS and cyber security policies and takes measures against intrusion, frauds, attacks or leaks

### AIT080 IT Training/Documentation
- Develops, coordinates and conducts IT training, educational and orientation programs for users
- Develops and maintains documentation of information technology systems and applications and coordinates incorporation of documentation within applications (e.g., online help)
- Develops, implements and/or approves training and documentation policies, standards and procedures
- Maintains records and prepares documentation of training programs, scheduling, employee attendance and training program effectiveness

### AIT999 IT Administration - No Applicable Discipline
- Responsibilities are within the IT Administration Function but are not described in other Discipline summaries