Skill Area and Skill Proficiency

(6) IT Specialist

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Area

Job category: IT Specialist

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Area of IT Specialist

	Specialty area	Skill Item
Job category common skill item	All specialty area	**●Technology** Latest technology trends, Latest IT Market Trends, Basis of Computer Science, Computer System Structure, Basic Knowledge of Product, Understanding and Utilization of Network Technology, Internet Technology, Relational Database Fundamentals, IT Infrastructure Development Process, System Management, Problem Solving Techniques, Security and Personal Information, Basis of System Non-Functional Requirement **●Software Engineering** Application Development Process, Application Development Technology **●Analysis of Business Operations** Business Knowledge, Industry knowledge, Generic Business Contents, Latest Trends of Generic Business Operation, Compliance and Regulations, **●Consulting Techniques Utilization** Selection and utilization of consulting techniques, Understanding and Utilization of Analysis Tools and Models **●Knowledge Management and Utilization** Management and utilization of knowledge **●Project Management** Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management **●Leadership** Leadership **●Communication** 2Way communication, Transmission of information, Organization and analysis and retrieval of information **●Negotiation** Negotiation
Specialty fields specific skill item	Platform	**●Platform System Architecture** Platform Requirement Definition Techniques, System Architecture Design Methods, Platform Design Techniques, Platform Architecture Technologies, etc. **●Platform Product Utilization Technology** Product Knowledge (Platform) **●Platform Component Related Technology** Platform Technology, Middleware Technology, System Diagnostic Techniques, Failure Measure Technology
	Network	**●Network System Architecture** Requirement Definition of Network System, Network Design, Network System Installation and Migration, Operation, Maintenance and Management of Network System **●Network Product Utilization Technology** Network System Technology Trends, Network Product Knowledge **●Network Component Related Technology** Network Standards
	Database	**●Database System Architecture** Database Requirement Definition, Logical Database Design Technology, Transaction Design Technology, Reliability Design of Database System, Data Migration Design, Database Operation Design, Implementation and Test to Database Management System (DBMS), Database Operation Technology, etc. **●Utilization Technology of Database Product** Utilization Technology of Database Related Product **●Database Component Related Technology** Significant Technology of Database Development, Conceptual Data Modeling Techniques, Database Related Technology Trends, Relational Model
	Application common Infrastructure	**●System architecture of Application Common Infrastructure** Requirement Definition Techniques of Application Common Infrastructure, Application Method Design Techniques, Application Common Infrastructure Design Technique ●Application Common Infrastructure Component Related Technology Framework Component Techniques, Linkage Techniques among Systems, Object Oriented Techniques, Legacy Migration Techniques
	System management	**●System Management System Architecture** System Management Plan, System Operational Management Design, System Operational Method Techniques, Operating System Architecture, Maintenance Techniques **●Utilization Technology of System Management Product** Operation Management Software Products **●System Management Component Related Technology** Service Delivery, System Operation, System Maintenance Standards, Contingency Planning, Operating System Improvement, System Investment Assessment Techniques, System Audit Techniques
	Security	**●Security System Architecture** Security Policy Formulation, Formulation of Security Standards, Security System Planning, Security System Requirement Definition, Security System Design, Implementation and Inspection of Security System, Security System Installation Assistance, Security System Operating Management, Security Failure (Incidents and Accidents), Security Analysis, Security Review (Assessment and Improvement of Security System), Implementation and Assistance of Information Security Audit **●Security Component Related Technology** Industry Specific Security Requirement and Cases, Consulting Implementation, Security Technique Trends, Security and Personal Information, Computer Forensics (Tracking for Preservation of Evidence)

<Note> Important skills and knowledge for IT professionals are marked with "X" in skill dictionary (corresponding table of ITEE) even if that skills and knowledge are not belonged to the specialty field in the job category as IT Specialist.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Proficiency/Knowledge Items

Job category: IT Specialist

Specialty field: Platform

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Technology [Knowledge Items] -Latest technology trends -Latest IT market trends -Basis of computer science -Computer system structure -Basic knowledge of product -Understanding and utilization of network technology -Internet technology -Relational database fundamentals -IT infrastructure development process -System management -Problem solving techniques -Security and personal information -Basis of system non-functional requirement	Level 7	
	Level 6	Able to formulate design, development and installation methodology of system platform framework, by leading the selection of application technologies based on the latest technology trends, and to make plans for the system platform framework design, development, and installation methodology, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team about highly complex technical problems.
	Level 5	Able to lead the selection of application technologies based on the latest technology trends, to provide technical guidance to team, and to practice solving of highly complex technical problems, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to lead the selection of application technologies based on the latest technology trends, and to practice solving of highly complex technical problems, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the selection of application technologies based on the latest technology trends, and to practice technical problems solving in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Software engineering [Knowledge Items] -Application development process -Application development technology	Level 7	
	Level 6	Able to carry out the operation by leading technical team about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the operation by providing technical guidance to the team about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the operation by providing advice to the less-experienced team members about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a technical team leader in the project with less than10 persons during peak periods..
	Level 3	Able to carry out the operation by utilizing software engineering techniques in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Analysis of Business Operations [Knowledge Items] -Business knowledge -Industry knowledge -Generic business contents -Latest trends of generic business operation -Compliance and regulations	Level 7	
	Level 6	Able to carry out complex and advanced analysis of business operation and technical requirements from the perspective of industry and technical trends, as a person responsible for the project from 50 or more persons during peak periods.
	Level 5	Able to carry out analysis of business operation and technical requirements, as a person responsible for the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out analysis of business operation and technical requirements, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to carry out analysis of business operation and technical requirements in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Utilization of consulting techniques [Knowledge Items] -Selection and utilization of consulting techniques -Understanding and utilization of analysis tools and models	Level 7	
	Level 6	Able to carry out the project successfully by utilizing the consulting techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the project successfully by utilizing the consulting techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by utilizing the consulting techniques, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the project by utilizing the consulting techniques, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Knowledge Management and Utilization [Knowledge Items] -Management and utilization of knowledge	Level 7	
	Level 6	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Project Management [Knowledge Items] -Project Integration Management -Project Scope Management -Project Time Management -Project Cost Management -Project Quality Management -Project Human Resource Management -Project Communications Management -Project Risk Management -Project Procurement Management	Level 7	
	Level 6	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project plan formulation, plan implementation, and change management in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Leadership [Knowledge Items] -Leadership	Level 7	
	Level 6	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by issuing instructions and orders, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to participate in the assigned area of the project, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Communication [Knowledge Items] -2-Way communication -Transmission of information -Organization, analysis, and retrieval of information	Level 7	
	Level 6	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members, and to perform organization, analysis and retrieval of information.
	Level 5	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members and to perform organization, analysis and retrieval of information.
	Level 4	Able to perform the project by keeping good communication with project members, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to facilitate proper team communication, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Negotiation [Knowledge Items] -Negotiation	Level 7	
	Level 6	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to make an agreement on technical problems with project team members, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to obtain information and data required for the project through negotiation, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Platform system architecture [Knowledge Items] -Platform requirement definition techniques -System architecture design methods -Platform design techniques -Platform Implementation Technologies -Platform Architecture Technologies	Level 7	
	Level 6	Able to lead platform system architecture, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team in highly complex system architecture.
	Level 5	Able to lead platform system architecture, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to provide technical guidance for the team in highly complex system architecture.
	Level 4	Able to lead platform system architecture, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out platform system architecture in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Platform product utilization technology [Knowledge Items] -Product knowledge (Platform)	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of platform product utilization technology, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team, as well as to carry out highly complex technical problem solving, based on latest technical trend of platform product utilization technology, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of platform product utilization technology, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out technical problem solving in the assigned area, based on latest technical trend of database product utilization technology, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Platform

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Platform component related technology [Knowledge Items] -Platform technology -Middleware technology -System diagnostic techniques and failure measure technology	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of platform component related technology, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team as well as to carry out highly complex technical problem solving, based on latest technical trend of platform component related technology, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of platform component related technology, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to practice technical problem solving, based on latest technical trend of platform component related technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Proficiency/Knowledge Items

Job category: IT Specialist

Specialty field: Network

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Technology [Knowledge Items] -Latest technology trends -Latest IT market trends -Basis of computer science -Computer system structure -Basic knowledge of product -Understanding and utilization of network technology -Internet technology -Relational database fundamentals -IT infrastructure development process -System management -Problem solving techniques -Security and personal information -Basis of system non-functional requirement	Level 7	
	Level 6	Able to lead the selection of application technologies based on the latest technology trends, and formulate design, development, and installation methodology of the network framework, as a person responsible for technical team in large-scale network project with 300 nodes or more. In addition, able to lead a technical team about highly complex technical problems. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to lead the selection of application technologies based on the latest technology trends, to provide technical guidance to team, and to practice solving of highly complex technical problems, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to lead the selection of application technologies based on the latest technology trends, and to practice solving of highly complex technical problems, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to carry out the selection of application technologies based on the latest technology trends, and to practice technical problems solving in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Software engineering [Knowledge Items] -Application development process -Application development technology	Level 7	
	Level 6	Able to carry out the operation by leading technical team about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to carry out the operation by providing technical guidance to the team about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to carry out the operation by providing advice to the less-experienced team members about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to carry out the operation by utilizing software engineering techniques in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Analysis of Business Operations [Knowledge Items] -Business knowledge -Industry knowledge -Generic business contents -Latest trends of generic business operation -Compliance and regulations	Level 7	
	Level 6	Able to carry out complex and advanced analysis of business operation and technical requirements from the perspective of industry and technical trends, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to carry out analysis of business operation and technical requirements, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to carry out analysis of business operation and technical requirements, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to carry out analysis of business operation and technical requirements in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items		Skill Proficiency	
[Job category common skill item] ●Consulting techniques utilization [Knowledge Items] -Selection and utilization of consulting techniques -Understanding and utilization of analysis tools and models		Level 7	
		Level 6	Able to carry out the project successfully by utilizing the consulting techniques, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs)
		Level 5	Able to carry out the project successfully by utilizing the consulting techniques, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
		Level 4	Able to carry out the project successfully by utilizing the consulting techniques, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
		Level 3	Able to carry out the project successfully by utilizing the consulting techniques, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Knowledge Management and Utilization [Knowledge Items] -Management and utilization of knowledge	Level 7	
	Level 6	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Project Management [Knowledge Items] -Project Integration Management -Project Scope Management -Project Time Management -Project Cost Management -Project Quality Management -Project Human Resource Management -Project Communications Management -Project Risk Management -Project Procurement Management	Level 7	
	Level 6	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to perform the project by carry out project plan formulation, plan implementation, and change management in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Leadership [Knowledge Items] -Leadership	Level 7	
	Level 6	Able to carry out the whole processes by issuing instructions and orders, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to carry out the whole processes by issuing instructions and orders, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to carry out the project by issuing instructions and orders, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to participate in the assigned area of the project, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Communication [Knowledge Items] -2-Way communication -Transmission of information -Organization, analysis, and retrieval of information	Level 7	
	Level 6	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in large-scale network project with 300 nodes or more. In addition, able to carry out proper 2Way communication and transmission of information with technical team members, and to perform organization, analysis and retrieval of information. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. In addition, able to carry out proper 2Way communication and transmission of information with technical team members, and to perform organization, analysis and retrieval of information. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to perform the project by keeping good communication with project members, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to facilitate proper team communication, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Negotiation [Knowledge Items] -Negotiation	Level 7	
	Level 6	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in large-scale network project with 300 nodes or more (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to make an agreement on technical problems with project team members, as a technical team leader in small-scale network project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to obtain information and data required for the project through negotiation, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Network system architecture [Knowledge Items] -Requirement definition of Network system -Network design -Network system installation and migration -Operation, Maintenance and management of Network system	Level 7	
	Level 6	Able to lead network system architecture, as a person responsible for technical team in large-scale network project with 300 nodes or more. In addition, able to lead technical team about highly complex system architecture. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to lead network system architecture, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. In addition, able to provide technical guidance for the technical team about highly complex system architecture. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to lead network system architecture, as a technical team leader in the project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to carry out system architecture and maintenance in the assigned area, as a member of technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Network product utilization technology [Knowledge Items] -Network system technology trends -Network product Knowledge	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of network product utilization technology, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs)
	Level 5	Able to provide technical guidance to team, as well as to carry out highly complex technical problem solving, based on latest technical trend of network product utilization technology, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of network product utilization technology, as a technical team leader in the project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs)
	Level 3	Able to carry out technical problem solving, based on latest technical trend of network product utilization technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Network

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Network component related technology [Knowledge Items] -Network standards	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of network component related technology, as a person responsible for technical team in large-scale network project with 300 nodes or more. (Note: Number of nodes does not include clients and HUBs).
	Level 5	Able to provide technical guidance to team as well as to carry out highly complex technical problem solving, based on latest technical trend of network component related technology, as a person responsible for technical team in medium-scale network project with 100 or more but less than 300 nodes. (Note: Number of nodes does not include clients and HUBs).
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of network component related technology, as a technical team leader in the project with less than 100 nodes. (Note: Number of nodes does not include clients and HUBs).
	Level 3	Able to carry out highly complex technical problem solving, based on latest technical trend of network component related technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Proficiency/Knowledge Items

Job category: IT Specialist

Specialty field: Database

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Technology [Knowledge Items] -Latest technology trends -Latest IT market trends -Basis of computer science -Computer system structure -Basic knowledge of product -Understanding and utilization of network technology -Internet technology -Relational database fundamentals -IT infrastructure development process -System management -Problem solving techniques -Security and personal information -Basis of system non-functional requirement	Level 7	
	Level 6	Able to lead the selection of application technologies based on the latest technology trends, and to formulate the database framework design, development, and installation methodology, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team about highly complex technical problems.
	Level 5	Able to lead the selection of application technologies based on the latest technology trends, to practice solving of highly complex technical problems and to provide technical guidance to team , as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to lead the selection of application technologies based on the latest technology trends, and to practice solving of highly complex technical problems, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the selection of application technologies based on the latest technology trends in the assigned area, and to practice technical problems solving, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Software Engineering [Knowledge Items] -Application development process -Application development technology	Level 7	
	Level 6	Able to perform the operation, by leading technical team on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the operation, by providing technical guidance to team on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the operation, by providing advice to less-experienced members on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to practice the operation by utilizing software engineering technology in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Analysis of Business Operations [Knowledge Items] -Business knowledge -Industry knowledge -Generic business contents -Latest trends of generic business operation -Compliance and regulations	Level 7	
	Level 6	Able to carry out complex and advanced analysis of business operation and technical requirements, from the perspective of industry and technical trends, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out analysis of business operation and technical requirements, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out analysis of business operation and technical requirements, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out analysis of business operation and technical requirements in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items		Skill Proficiency	
[Job category common skill item] ●Utilization of consulting techniques [Knowledge Items] -Selection and utilization of consulting techniques -Understanding and utilization of analysis tools and models		Level 7	
		Level 6	Able to carry out the project successfully by utilizing consulting techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
		Level 5	Able to carry out the project successfully by utilizing consulting techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
		Level 4	Able to carry out the project by utilizing consulting techniques, as a technical team leader in the project with less than 10 persons during peak periods.
		Level 3	Able to carry out the project, by utilizing consulting techniques, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Knowledge Management and Utilization [Knowledge Items] -Management and utilization of knowledge	Level 7	
	Level 6	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Project Management [Knowledge Items] -Project Integration Management -Project Scope Management -Project Time Management -Project Cost Management -Project Quality Management -Project Human Resource Management -Project Communications Management -Project Risk Management -Project Procurement Management	Level 7	
	Level 6	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project plan formulation, plan implementation, and change management in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Leadership [Knowledge Items] -Leadership	Level 7	
	Level 6	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by issuing instructions and orders, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to participate in the assigned area of the project, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Communication [Knowledge Items] -2-Way communication -Transmission of information -Organization, analysis, and retrieval of information	Level 7	
	Level 6	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members, and to perform organization, analysis and retrieval of information.
	Level 5	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members and to perform organization, analysis and retrieval of information.
	Level 4	Able to perform the project by keeping good communication with project members, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to facilitate proper team communication, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Negotiation [Knowledge Items] -Negotiation	Level 7	
	Level 6	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to make an agreement on technical problems with project team members, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to obtain information and data required for the project through negotiation, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Database system architecture [Knowledge Items] -Database requirement definition -Logical database design technology -Transaction design technology -Reliability design of database system -Data migration design -Database operation design -Implementation and test to database management system (DBMS) -Database operation technology -Database operation design	Level 7	
	Level 6	Able to lead database system architecture, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team in highly complex system architecture.
	Level 5	Able to lead database system architecture, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to provide technical guidance to the team in highly complex system architecture.
	Level 4	Able to lead database system architecture, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out database system architecture in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Utilization technology of database product [Knowledge Items] -Utilization technology of database related product	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of database product utilization technology, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team, as well as to carry out highly complex technical problem solving, based on latest technical trend of database product utilization technology, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of database product utilization technology, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out technical problem solving, based on latest technical trend of database product utilization technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Database

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Database component related technology [Knowledge Items] -Significant technology of database development -Conceptual data modeling techniques -Database related technology trends -Relational model	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of database component related technology, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team as well as to carry out highly complex technical problem solving, based on latest technical trend of database component related technology, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of database component related technology, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to practice technical problem solving, based on latest technical trend of database component related technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Proficiency/Knowledge Items

Job category: IT Specialist

Specialty field: Application Common Infrastructure

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Technology [Knowledge Items] -Latest technology trends -Latest IT market trends -Basis of computer science -Computer system structure -Basic knowledge of product -Understanding and utilization of network technology -Internet technology -Relational database fundamentals -IT infrastructure development process -System management -Problem solving techniques -Security and personal information -Basis of system non-functional requirement	Level 7	
	Level 6	Able to lead the selection of application technologies based on the latest technology trends, and to formulate the application common infrastructure framework design, development, and installation methodology, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team about highly complex technical problems.
	Level 5	Able to lead the selection of application technologies based on the latest technology trends, to provide technical guidance to team, and to practice solving of highly complex technical problems, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to lead the selection of application technologies based on the latest technology trends, and to practice solving of highly complex technical problems, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the selection of application technologies based on the latest technology trends in the assigned area, and to practice technical problems solving, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Software Engineering [Knowledge Items] -Application development process -Application development technology	Level 7	
	Level 6	Able to perform the operation, by leading technical team on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the operation, by providing technical guidance to the team on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a person responsible for technical team in the project from 10 but less than 50 persons during peak periods.
	Level 4	Able to perform the operation, by providing advice to less-experienced members on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to practice the operation work, by utilizing software engineering technology in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Analysis of Business Operations [Knowledge Items] -Business knowledge -Industry knowledge -Generic business contents -Latest trends of generic business operation -Compliance and regulations	Level 7	
	Level 6	Able to carry out complex and advanced analysis of business operation and technical requirements, from the perspective of industry and technical trends, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out analysis of business operation and technical requirements, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out analysis of business operation and technical requirements, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out analysis of business operation and technical requirements in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Utilization of consulting techniques [Knowledge Items] -Selection and utilization of consulting techniques -Understanding and utilization of analysis tools and models	Level 7	
	Level 6	Able to carry out the project successfully by utilizing consulting techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the project successfully by utilizing consulting techniques, as a person responsible for technical team in the project with 10 but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by utilizing consulting techniques, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the project, by utilizing consulting techniques, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Knowledge Management and Utilization [Knowledge Items] -Management and utilization of knowledge	Level 7	
	Level 6	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Project Management [Knowledge Items] -Project Integration Management -Project Scope Management -Project Time Management -Project Cost Management -Project Quality Management -Project Human Resource Management -Project Communications Management -Project Risk Management -Project Procurement Management	Level 7	
	Level 6	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project plan formulation, plan implementation, and change management in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Leadership [Knowledge Items] -Leadership	Level 7	
	Level 6	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by issuing instructions and orders, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to participate in the assigned area of the project, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Communication [Knowledge Items] -2-Way communication -Transmission of information -Organization, analysis, and retrieval of information	Level 7	
	Level 6	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members, and to perform organization, analysis and retrieval of information.
	Level 5	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members and to perform organization, analysis and retrieval of information.
	Level 4	Able to perform the project by keeping good communication with project members, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to facilitate proper team communication, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Negotiation [Knowledge Items] -Negotiation	Level 7	
	Level 6	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to make an agreement on technical problems with project team members, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to obtain information and data required for the project through negotiation, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●System architecture of Application Common Infrastructure [Knowledge Items] -Requirement definition techniques of application common infrastructure -Application method design techniques -Application common infrastructure design technique	Level 7	
	Level 6	Able to lead system architecture of application common infrastructure, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team in highly complex system architecture.
	Level 5	Able to lead system architecture of application common infrastructure, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to provide technical guidance to the team in highly complex system architecture.
	Level 4	Able to lead system architecture of application common infrastructure, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out system architecture of application common infrastructure in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Application Common Infrastructure

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Application Common Infrastructure component related technology [Knowledge Items] -Framework component techniques -Linkage techniques among systems -Object oriented techniques -Legacy migration techniques	Level 7	
	Level 6	Able to lead technical team in highly complex technical problems, based on latest technical trend of application common infrastructure component related technology, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team as well as to carry out highly complex technical problem solving, based on latest technical trend of application common infrastructure component related technology, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of application common infrastructure component related technology, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to practice technical problem solving, based on latest technical trend of application common infrastructure component related technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Proficiency/Knowledge Items

Job category: IT Specialist

Specialty fields: System Management

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Technology [Knowledge Items] -Latest technology trends -Latest IT market trends -Basis of computer science -Computer system structure -Basic knowledge of product -Understanding and utilization of network technology -Internet technology -Relational database fundamentals -IT infrastructure development process -System management -Problem solving techniques -Security and personal information -Basis of system non-functional requirement	Level 7	
	Level 6	Able to formulate design, development and installation methodology of system management framework, by leading the selection of application technologies based on the latest technology trends, and to make plans for the system platform framework design, development, and installation methodology, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team about highly complex technical problems.
	Level 5	Able to lead the selection of application technologies based on the latest technology trends, to practice solving of highly complex technical problems and to provide technical guidance to team, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to lead the selection of application technologies based on the latest technology trends, and to practice solving of highly complex technical problems, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the selection of application technologies based on the latest technology trends in the assigned area, and to practice technical problems solving, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Software Engineering [Knowledge Items] -Application development process -Application development technology	Level 7	
	Level 6	Able to perform the operation, by leading technical team on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the operation, by providing technical guidance to team on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the operation, by providing advice to less-experienced members on software engineering technologies such as optimum development techniques, development support tools, and testing techniques, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to practice the operation by utilizing software engineering technology in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Analysis of Business Operations [Knowledge Items] -Business knowledge -Industry knowledge -Generic business contents -Latest trends of generic business operation -Compliance and regulations	Level 7	
	Level 6	Able to carry out complex and advanced analysis of business operation and technical requirements, from the perspective of industry and technical trends, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out analysis of business operation and technical requirements, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out analysis of business operation and technical requirements, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out analysis of business operation and technical requirements in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Utilization of consulting techniques [Knowledge Items] -Selection and utilization of consulting techniques -Understanding and utilization of analysis tools and models	Level 7	
	Level 6	Able to carry out the project successfully by utilizing consulting techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the project successfully by utilizing consulting techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by utilizing consulting techniques, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the project by utilizing consulting techniques, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Knowledge Management and Utilization [Knowledge Items] -Management and utilization of knowledge	Level 7	
	Level 6	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Project Management [Knowledge Items] -Project Integration Management -Project Scope Management -Project Time Management -Project Cost Management -Project Quality Management -Project Human Resource Management -Project Communications Management -Project Risk Management -Project Procurement Management	Level 7	
	Level 6	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project plan formulation, plan implementation, and change management in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Leadership [Knowledge Items] -Leadership	Level 7	
	Level 6	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by issuing instructions and orders, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to participate in the assigned area of the project, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Communication [Knowledge Items] -2-Way communication -Transmission of information -Organization, analysis, and retrieval of information	Level 7	
	Level 6	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members, and to perform organization, analysis and retrieval of information.
	Level 5	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members and to perform organization, analysis and retrieval of information.
	Level 4	Able to perform the project by keeping good communication with project members, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to facilitate proper team communication, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Negotiation [Knowledge Items] -Negotiation	Level 7	
	Level 6	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to make an agreement on technical problems with project team members, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to obtain information and data required for the project through negotiation, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●System management system architecture [Knowledge Items] -Operation related system assessment -System management plan -System operational management design -System Operational method techniques -Operating system architecture -Maintenance techniques	Level 7	
	Level 6	Able to lead system management system architecture, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team in highly complex system architecture.
	Level 5	Able to lead system management system architecture, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to provide technical guidance to the team in highly complex system architecture.
	Level 4	Able to lead system management system architecture, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out system management system architecture in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Utilization technology of system management product [Knowledge Items] -Operation management software products	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of utilization technology for system management product, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team, as well as to carry out highly complex technical problem solving, based on latest technical trend of utilization technology for system management product, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of utilization technology for system management product, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out technical problem solving, based on latest technical trend of utilization technology for system management product in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
System Management

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●System management component related technology [Knowledge Items] -Service delivery -System operation -System maintenance standards -Contingency planning -Operating system improvement -System investment assessment techniques -System audit techniques	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of system management component related technology, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team as well as to carry out highly complex technical problem solving, based on latest technical trend of system management component related technology, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of system management component related technology, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to practice technical problem solving, based on latest technical trend of system management component related technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Skill Proficiency/Knowledge Items

Job category: IT Specialist

Specialty field: Security

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Technology [Knowledge Items] -Latest technology trends -Latest IT market trends -Basis of computer science -Computer system structure -Basic knowledge of product -Understanding and utilization of network technology -Internet technology -Relational database fundamentals -IT infrastructure development process -System management -Problem solving techniques -Security and personal information -Basis of system non-functional requirement	Level 7	
	Level 6	Able to formulate design, development and installation methodology of system platform framework, by leading the selection of application technologies based on the latest technology trends, and to make plans for the system security framework design, development, and installation methodology, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team about highly complex technical problems.
	Level 5	Able to lead the selection of application technologies based on the latest technology trends, to provide technical guidance to team, and to practice solving of highly complex technical problems, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to lead the selection of application technologies based on the latest technology trends, and to practice solving of highly complex technical problems, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the selection of application technologies based on the latest technology trends, and to practice technical problems solving in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Software Engineering [Knowledge Items] -Application development process -Application development technology	Level 7	
	Level 6	Able to carry out the operation by leading technical team about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the operation by providing technical guidance to the team about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the operation by providing advice to the less-experienced team members about soft engineering techniques such as optimal development techniques, development support tools and testing techniques, as a technical team leader in the project with less than10 persons during peak periods..
	Level 3	Able to carry out the operation by utilizing software engineering techniques in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Analysis of Business Operations [Knowledge Items] -Business knowledge -Industry knowledge -Generic business contents -Latest trends of generic business operation -Compliance and regulations	Level 7	
	Level 6	Able to carry out complex and advanced analysis of business operation and technical requirements from the perspective of industry and technical trends, as a person responsible for the project from 50 or more persons during peak periods.
	Level 5	Able to carry out analysis of business operation and technical requirements, as a person responsible for the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out analysis of business operation and technical requirements, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to carry out analysis of business operation and technical requirements in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Utilization of consulting techniques [Knowledge Items] -Selection and utilization of consulting techniques -Understanding and utilization of analysis tools and models	Level 7	
	Level 6	Able to carry out the project successfully by utilizing the consulting techniques, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the project successfully by utilizing the consulting techniques, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by utilizing the consulting techniques, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out the project by utilizing the consulting techniques, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Knowledge Management and Utilization [Knowledge Items] -Management and utilization of knowledge	Level 7	
	Level 6	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project effectively and with high quality, by carrying out properly database creation, utilization, maintenance and management of knowledge in the whole process from project preparation, start to completion, and post completion, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project effectively and with high quality, by carrying out database creation, utilization, maintenance, and management of knowledge, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Project Management [Knowledge Items] -Project Integration Management -Project Scope Management -Project Time Management -Project Cost Management -Project Quality Management -Project Human Resource Management -Project Communications Management -Project Risk Management -Project Procurement Management	Level 7	
	Level 6	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to perform the project by carry out project plan formulation, plan implementation, and change management in collaboration with project managers, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to perform the project plan formulation, plan implementation, and change management in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Leadership [Knowledge Items] -Leadership	Level 7	
	Level 6	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to carry out the whole processes by issuing instructions and orders as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out the project by issuing instructions and orders, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to participate in the assigned area of the project, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Communication [Knowledge Items] -2-Way communication -Transmission of information -Organization, analysis, and retrieval of information	Level 7	
	Level 6	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members, and to perform organization, analysis and retrieval of information.
	Level 5	Able to speak about the information technology with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to carry out proper 2Way communication and transmission of information with technical team members and to perform organization, analysis and retrieval of information.
	Level 4	Able to perform the project by keeping good communication with project members, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to facilitate proper team communication, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Job category common skill item] ●Negotiation [Knowledge Items] -Negotiation	Level 7	
	Level 6	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to set up a goal and make an agreement on technical issues based on a logical basis with the person in charge of customer side, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to make an agreement on technical problems with project team members, as a technical team leader of the project with less than 10 persons during peak periods.
	Level 3	Able to obtain information and data required for the project through negotiation, by understanding the project team status accurately, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Security system architecture [Knowledge Items] -Security policy formulation -Formulation of security standards -Security system planning -Security system requirement definition -Security system design -Implementation and Inspection of security system -Security system installation assistance -Security system operating management -Security failure (incidents and accidents) -Security analysis -Security review (assessment and improvement of security system) -Implementation and assistance of information security audit	Level 7	
	Level 6	Able to lead security system architecture, as a person responsible for technical team in the project with 50 persons or more during peak periods. In addition, able to lead technical team in highly complex system architecture.
	Level 5	Able to lead security system architecture, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods. In addition, able to provide technical guidance to the team in highly complex system architecture.
	Level 4	Able to lead security system architecture, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out security system architecture in the assigned area, as a technical team member

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Specialty field:
Security

Skill Proficiency/Knowledge Items of IT Specialist

Skill Item and Knowledge Items	Skill Proficiency	
[Specialty field specific skill item] ●Security component related technology [Knowledge Items] -Industry specific security requirement and cases -Consulting implementation -Security technique trends -Security and personal information -Computer forensics (tracking for preservation of evidence)	Level 7	
	Level 6	Able to lead technical team about highly complex technical problems, based on latest technical trend of security component related technology, as a person responsible for technical team in the project with 50 persons or more during peak periods.
	Level 5	Able to provide technical guidance to team, as well as to carry out highly complex technical problem solving, based on latest technical trend of security component related technology, as a person responsible for technical team in the project with 10 or more but less than 50 persons during peak periods.
	Level 4	Able to carry out highly complex technical problem solving, based on latest technical trend of security component related technology, as a technical team leader in the project with less than 10 persons during peak periods.
	Level 3	Able to carry out technical problem solving, based on latest technical trend of security component related technology in the assigned area, as a technical team member.

©2010 Ministry of Economy, Trade and Industry. INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN