



The Open University

M226 SFIAplus®

Framework Guide

SFIPlus® Framework

1	Characteristics of Generic SFIPlus Levels	3
2	Skills and Categories in SFIPlus	4
3	SFIPlus Work Activities	6
3.1	Business/information systems strategy and planning	6
3.2	Systems Development	6
3.3	Human Factors	10
3.4	Installation and Integration	11
3.5	Business Change Management	13
3.6	Infrastructure	13
3.7	Operation	15
3.8	User Support	17
3.9	Supply Management	19
3.10	Quality	19
3.11	Resource management	19
3.12	Education & Training	20
3.13	Sales and Marketing	20

1 Characteristics of Generic SFIAPlus Levels

The levels of the SFIAPlus framework that are relevant for M226 are Level 1: Follow; Level 2: Assist, and Level 3: Apply. The generic descriptions of these three levels are given in the following table.

	Level 1: Follow
Autonomy	Works under close supervision. Uses little discretion. Expected to seek guidance in unexpected situations.
Influence	Interacts with department.
Complexity	Performs routine activities in a structured environment. Requires assistance in resolving unexpected problem.
Business skills	Uses basic information systems and technology functions, applications, and processes. Demonstrates an organised approach to work. Capable of learning new skills and applying newly acquired knowledge. Basic oral and written communication skills. Contributes to identifying own development opportunities.
	Level 2: Assist
Autonomy	Works under routine supervision. Uses minor discretion in resolving problems or enquiries. Works without frequent reference to others.
Influence	Interacts with and may influence department. May have some external contact with customers and suppliers. May have more influence in own domain.
Complexity	Performs range of varied work activities in a variety of structured environments.
Business skills	Understands and uses appropriate methods tools and applications. Demonstrates a rational and organised approach to work. Awareness of health and safety issues. Identifies and negotiates own development opportunities. Sufficient communication skills for effective dialogue with colleagues. Able to work in a team. Able to plan, schedule and monitor own work within short time horizons. Can absorb technical information when it is presented systematically and apply it effectively.
	Level 3: Apply
Autonomy	Works under general supervision. Uses discretion in identifying and resolving complex problems and assignments. Specific instruction is usually given and work is reviewed at frequent milestones. Determines when problems should be escalated to a higher level.
Influence	Interacts with and influences department/project team members. Frequent external contact with customers and suppliers. In predictable and structured areas may supervise others. Decisions may impact work assigned to individual/phases of project.
Complexity	Broad range of work, sometimes complex and non routine, in variety of environments.
Business skills	Understands and uses appropriate methods tools and applications. Demonstrates analytical and systematic approach to problem solving. Takes initiative in identifying and negotiating appropriate development opportunities. Demonstrates effective communication skills. Contributes fully to the work of teams. Can plan, schedule and monitor own work (and that of others where applicable) competently within limited time horizons and according to health and safety procedures. Is able to absorb and apply new technical information. Is able to work to required standards and to understand and use the appropriate methods, tools and applications. Appreciates wider field of information systems, how own role relates to other roles and to the business of the employer or client.

2 Skills and Categories in SFIAPlus

The grouping of Skills into Categories and Sub-categories is shown in the following table.

Category	Sub-category	Skills
Strategy and Planning	Information strategy	Information management
	Advice and guidance	Consultancy Technical specialism
	Business/information systems strategy and planning	Research; Innovation Business process improvement Strategic application of information systems Business risk management Information security Information assurance
	Technical strategy and planning	Systems architecture Emerging technology monitoring Continuity management Software development process improvement Network planning Methods and tools
Development	Systems development	Systems development management Data analysis Systems design Network design Database design Programming/software development Safety engineering Web site specialism Systems testing
	Human factors	Systems ergonomics Content creation Non-functional needs analysis Usability evaluation Human factors integration
	Installation and integration	Systems integration Porting/software integration Systems installation/decommissioning
Business Change	Business change management	Business analysis Programme management Project management Business process testing Change implementation planning and management Organisation design and implementation Benefits management
	Relationship management	Stakeholder relationship management

Service Provision	Infrastructure	Configuration management Change management Capacity management System software Security administration Radio frequency engineering Availability management Financial management for IT
	Operation	Data protection Application support Management and operations Network control and operation Database administration Service level management
	User support	Network support Problem management Service desk and incident management
Procurement & management support	Supply management	Procurement Supplier relationship management
	Quality	Quality management Quality assurance Quality standards Compliance audit Safety assessment
	Resource management	Project office Asset management Information systems coordination Client services management Professional development Resourcing
Ancillary skills	Education and training	Education and training management Training materials creation and maintenance Education and training delivery
	Sales and marketing	Account management Marketing Selling Sales support

3 SFIAPlus Work Activities

Each task defined in the SFIAPlus framework specifies a number of work activities, some of which may be optional, which characterise that task. The task definitions below are arranged in the thirteen sub-categories in the SFIAPlus framework for which tasks are defined at levels 1, 2 or 3. More detail will be found in the SFIAPlus framework itself, which can be accessed through the Career Developer software.

3.1 Business/information Systems Strategy and Planning

Research - Level 3

- Within given research goals, builds on and refines appropriate outline ideas for research, i.e. evaluation, development, demonstration and implementation.
- Reports, both orally and in writing, on work carried out and may contribute sections of material (but probably not complete articles) of publication quality.
- With little direction, searches technical literature, reads relevant articles and gains an up-to-date knowledge of any relevant field within information and communications technology.
- Makes useful contributions to technical brainstorming sessions.
- Acquires, under guidance, a deep knowledge and understanding of the research field being studied.
- Organises, under guidance, a personal archive of relevant material in an efficient and effective manner in accordance with any standards or procedures in force.

Information security - Level 3

- Applies and maintains specific security controls as required by organisational policy and local risk assessments to maintain confidentiality, integrity and availability of business information systems.
- Determines when security issues should be escalated to a higher level.
- Demonstrates effective communication of security issues to business managers and others.

Information assurance - Level 3

- Applies procedures to assess security of information and infrastructure components. Identifies risks of unauthorised access.
- Applies procedures to audit integrity of information and assess compliance with information security policies and standards.
- Applies procedures to assess compliance of hardware and software configurations to policies, standards, legal and regulatory requirements.
- Communicates information assurance issues effectively to users of systems and networks.

3.2 Systems Development

Data analysis - Level 2

- Within a project environment, assists in the investigation of application data requirements, documenting them according to the required standards utilising the prescribed methods and tools.
- Within a project environment, applies data analysis and data modelling techniques, based upon a general understanding of the business process, to establish, modify or maintain a data structure and its associated components (entity descriptions, relationship descriptions, attribute definitions).
- Responds to requests from database designers and other application development team members for explanations of and further information about data structures and associated components.

- Assists in the development and maintenance of project data standards. This may include the adoption and possible extension of corporate data standards through the appropriate procedures.

Data analysis - Level 3

- EITHER: Within a project environment, investigates application data requirements, documenting them according to the required standards utilising the prescribed methods and tools, OR: Within a (non-project) corporate environment, assists in the investigation of corporate data requirements, documenting them according to the required standards utilising the prescribed methods and tools.
- EITHER: Within a project environment, applies data analysis and data modelling techniques, based upon a detailed understanding of the business process, to establish, modify or maintain a data structure and its associated components (entity descriptions, relationship descriptions, attribute definitions), OR: Within a (non-project) corporate environment, applies data analysis and data modelling techniques, based upon a general understanding of the corporate information requirements, to establish, modify or maintain a data structure and its associated components (entity descriptions, relationship descriptions, attribute definitions).
- EITHER: Within a project environment, leads the development and maintenance of project data standards, which may include the adoption and possible extension of corporate data standards through the appropriate procedures, OR: Within a (non-project) corporate environment, assists in the development and maintenance of corporate data standards.
- Within a project environment, advises database designers and other application development team members on the details of data structures and associated components.
- Assists in the quality assurance of project developed data structures and associated components (entity descriptions, relationship descriptions, attribute definitions).

Systems design - Level 2

- Designs simple applications using templates and tools to specify user/system interfaces, including for example: menus, screen dialogues, inputs, reports, validation and error correction procedures, and processing rules.
- Assists as part of a team on design of components of larger systems.
- Produces components of detailed designs, such as: physical data flows, file layouts, common routines and utilities, program specifications or prototypes, and backup, recovery and restart procedures.
- Documents all work using required standards, methods and tools, including prototyping tools where appropriate.
- Constructs and executes test plans, to verify correct operation of completed systems.

Systems design - Level 3

- Working alone on simple systems and modifications to existing systems, or with colleagues on more complex systems, specifies user/system interfaces, including for example: menus, screen dialogues, inputs, reports, validation and error correction procedures, and processing rules.
- Translates logical designs into physical designs taking account of target environment, performance requirements and existing systems. Produces detailed designs including for example: physical data flows, file layouts, common routines and utilities, program specifications or prototypes, and backup, recovery and restart procedures.
- Documents all work using required standards, methods and tools, including prototyping tools where appropriate.
- Produces logical system designs showing for example: processes, objects, data flows, inputs, stored data and outputs. Identifies common processes.
- Working with data analysis colleagues where appropriate, produces or updates system object/data models and correlates these with corporate models.

- Working with database design or database administration colleagues where appropriate, translates object and data models into appropriate DB schemas within design constraints.
- Constructs, interprets and executes test plans to verify correct operation of completed systems.

Database design - Level 2

- Translates and implements simple development project requirements into physical database structures.
- Assesses proposed changes to object and data structures and implements these changes in the physical representation of these data structures.
- Assists in the (object) database management system (O/DBMS) support activities for operational database systems.
- Gains an understanding of the standards for object and data management and the procedures for systems development and ensures that they are followed in practical work.
- Gains awareness of the context of object and data management within the IS function and within the employer's business.
- Maintains an awareness of developments in object and data management systems, tools and techniques.
- Gains an understanding of the capabilities, application and constraints of data retrieval mechanisms and tools.

Database design - Level 3

- Develops specialist knowledge of database (DB) concepts, object and data modelling techniques and design principles.
- Translates object and data models into appropriate DB schemas within design constraints.
- Works with clients/users on development projects to make effective use of (object) database management systems (O/DBMS), query languages, other DB tools and techniques. Interprets installation standards to meet particular project needs and produces database components as required.
- Works with clients/users to define their needs for O/DBMS, other DB tools and facilities, evaluating potential solutions, demonstrating, installing and commissioning selected products.
- Constructs, extends or maintains, tests, corrects and documents software components of O/DBMS to achieve well engineered products.

Programming/software development - Level 2

- Designs simple programs and program modifications from supplied specifications, using agreed standards and tools, to achieve a well engineered result.
- Creates and amends programs in accordance with the design.
- Plans, designs and conducts tests of programs; corrects errors and re-tests to achieve an error-free result.
- Documents all work in accordance with agreed standards.
- Takes part in reviews of supplied specifications.
- Takes part in reviews of own work.

Programming/software development - Level 3

- Designs moderately complex programs and program modifications from supplied specifications, using agreed standards and tools, to achieve a well engineered result.
- Creates and amends programs in accordance with the design.
- Plans, designs and conducts tests of programs; corrects errors and re-tests to achieve an error-free result.
- Documents all work in accordance with agreed standards.
- Conducts reviews of supplied specifications, with others as appropriate.

- Takes part in reviews of own work. Takes part in reviews of the work of colleagues.

Safety engineering - Level 3

- Documents the results of hazard and risk analysis activities.
- Documents safety validation results for inclusion in a safety case.
- Assists with the collection of safety assurance evidence.
- Undertakes all work in accordance with agreed safety, technical and quality standards, using appropriate methods and tools.
- Documents all work in accordance with required standards.
- Traces safety requirements from a range of sources.

Web site specialism - Level 2

- Uses defined tools, templates and standards to create simple, well designed and engineered web pages with specified content and layout. Tests pages and corrects coding errors.
- Designs the content and appearance of simple web pages within a well-defined framework, or under close supervision.
- Takes account of basic publishing constraints, including organisational policy, intellectual property rights and data protection legislation.
- In response to precise requests, obtains and analyses web site usage data from server logs or other sources and presents it effectively.

Web site specialism - Level 3

- Uses agreed tools, templates and standards to create moderately complex, well designed and engineered web pages with specified content and layout. Tests pages and corrects coding errors. Takes account of bandwidth and browser compatibility issues.
- Designs the content and appearance of moderately complex web pages within agreed style guidelines, or in close collaboration with clients/users. Is aware of the special requirements of the visually impaired and hard of hearing.
- Maintains own familiarity with basic publishing constraints, including organisational policy, intellectual property rights and data protection legislation.
- Uses appropriate tools to make finished web material available on a web server within a defined directory scheme, taking account of the basic configuration of the web server software.
- Maintains familiarity with key web sites, and applies this knowledge, where appropriate, to own work in terms of coding techniques, design style, off-site links etc.
- In response to well specified requests, obtains and analyses web site usage data from server logs or other sources and presents it effectively.
- Uses agreed tools and techniques to provide basic web interfaces to new or existing applications.
- Liaises with clients/users to clarify details of requirements specifications, present finished page designs and answer basic technical queries.

Systems testing - Level 2

- Interprets and executes supplied sets of simple test cases using agreed methods and standards.
- Checks test results, and documents test failures and successes compared with pre-determined criteria.
- Reports test results to supervisor and/or other colleagues in a clear and concise manner.
- Assists other members of the systems development team in improving software functionality and performance by discussing test results with them.

Systems testing - Level 3

- Interprets and executes sets of moderately complex test scripts using agreed methods and standards.

- Checks test results, and documents test failures and successes compared with pre-determined criteria, in accordance with agreed standards.
- Reports test results to supervisor and/or other colleagues in a clear and concise manner.
- Analyses test requirements, designs and builds simple test case suites, test scripts, and test procedures (with expected results) to be executed by less experienced colleagues.
- Uses normal operating facilities, test scripts, diagnostic tools, technical manuals and systems documentation to identify, diagnose and report on basic system errors.

3.3 Human Factors

Systems ergonomics - Level 3

- Working with design colleagues, applies ergonomics tools and methods to allocate functions, and design user interaction and users' jobs, taking available opportunities to optimise accessibility, usability and health and safety.
- Contributes to detailed designs including for example: user interface (including colour / language / presentation / input methods), user documentation, program specifications, and backup, recovery and restart procedures.
- Documents all work using required standards, methods and tools, including prototyping tools where appropriate.
- Constructs, interprets and executes test plans to verify accessibility and usability of completed systems.

Content creation - Level 2

- Gains an understanding of publications support activities such as drafting, illustrating, printing etc. and the processes and procedures for calling upon these.
- Takes initiative to develop a broad understanding of technical publication concepts, tools and methods and the way in which these are implemented.
- Develops sufficient practical knowledge of, and ability to use fluently, the standards, (including national and international standards), methods, tools, techniques and processes involved in the creation and maintenance of technical publications.
- Becomes familiar with, and develops expertise in, use of the technical publications tools available.
- Makes changes to technical documentation in response to change control instructions and in line with change control procedures.
- Works with colleagues and clients to create new sections of technical documentation through all stages of the publication process as support literature.
- Works with more senior colleagues to gather and analyse information by handling actual products, reading technical specifications created by development staff and interviewing development, sales, marketing and support staff.

Content creation - Level 3

- Acquires information about users and information systems by handling actual products, reading technical specifications created by development staff, and interviewing development, sales, marketing and support staff.
- With assistance from senior colleagues, designs individual documentation plans for those documentary items for which responsible.
- Creates drafts for review of items for which individual document plans exists.
- Organises reviews of draft material. With reference to senior colleagues, consolidates comments from reviews (technical, editorial, commercial) and prepares further drafts as necessary.
- Manages the configuration of documentary items and documentation project files, within own area of responsibility.
- Organises final review and testing of documentary items.

- With reference to senior documentation staff, organises production and distribution of approved documentary items.

Non-functional needs analysis - Level 3

- Working with analysts, designers, service level management and clients/users, applies tools and methods to identify the non-functional requirements of users, their characteristics and tasks. Identifies security, capacity, operational, technical and support issues, and tests feasibility and likely cost of meeting perceived requirements.
- Works with colleagues and clients/users to identify the technical, organisational and physical environment in which the product or system will operate.
- Documents work using the required standards, methods and tools.
- Takes part in client/user meetings and assists in presenting issues and solutions both orally and in writing.
- Assists colleagues and clients/users in defining acceptance tests for automated systems, focussing on testing non-functional aspects of the system.

Usability evaluation - Level 2

- Assists in setting up test laboratory or field equipment. Tests and prepares computer, video and audio equipment for recording trials. Labels and manages media.
- Sets up and tests components of products and services to be evaluated. Operates equipment during trials. Archives media and files test materials, according to procedures.
- Maintains the test environment.

Usability evaluation - Level 3

- Sets up test laboratory or field equipment. Tests and prepares computer, video and audio equipment for recording trials. Labels and manages media.
- Sets up and tests IT-enabled products and services to be evaluated. Operates equipment during trials. Performs, analyses and documents evaluations according to a plan. Archives media and files test materials.
- Produces and distributes survey materials. Administers routine surveys. Receives and collates returns. Carries out preliminary scoring of surveys. Performs routine statistical calculations.
- Constructs, interprets and executes test plans to verify accessibility and usability of completed systems.
- Identifies potential improvements in design of product and service components which are being evaluated.

3.4 Installation and Integration

Systems integration - Level 2

- Produces software builds, for loading onto target hardware, from software source code (typically held within a configuration management system).
- Conducts a series of tests as defined in an integration test specification and records the details of any failures in a concise but complete manner.
- Carries out fault diagnosis relating to simple failures, reporting the results of the diagnosis in a clear and concise manner.
- Develops sufficient practical knowledge of the integration environment to be able to function effectively without frequent reference to others.

Systems integration - Level 3

- Defines the software modules that comprise an integration build and produces a build definition for generation of the software.
- Accepts software modules from software developers, ensuring that they meet the defined software test criteria and produces software builds for loading onto target hardware from software source code (typically held within a configuration management system).

- Configures the hardware environment as required by the system being integrated.
- Produces integration test specifications as required by project integration plans, conducts tests as defined in these specifications and records the details of any failures in a concise but complete manner.
- Carries out fault diagnosis relating to moderately complex problems, reporting the results of such diagnosis in a clear and concise manner.
- Produces system integration reports as required by the project integration plan.

Porting/software integration - Level 3

- Assists in the configuration of software and equipment for the systems testing of platform specific versions of one or more software products.
- Assists in the systems testing of platform specific versions of the software product(s), documenting faults, implementing resolutions and retesting to agreed standards.

Systems installation/decommissioning - Level 1

- Following agreed procedures, performs simple installations, replaces consumable items, checks correct working of installation and advises supervisor and, if appropriate, users.
- Assists with the collection of information and records as directed, observing associated administrative and clerical procedures.
- Documents all work in accordance with required standards.
- Contributes, as required, to investigations of problems and faults concerning the installation of hardware and/or software.
- Within skills and experience, provides assistance to users. Requests assistance, according to escalation procedures, keeping records of each request, including contact information, action taken, and feedback to user.
- Assists with investigation of failed installations, change requests and more complex installations.

Systems installation/decommissioning - Level 2

- Responding to instructions or following agreed plans, installs or removes hardware and/or software, using supplied installation instructions and tools; follows agreed standards, including those for electrical work. Takes defined action on simple problems, confirms correct working of installations and advises supervisor and, if appropriate, users.
- Conducts tests of the hardware and/or software affected using supplied test procedures and diagnostic tools. Corrects malfunctions, calling on help from more experienced colleagues if required. Documents results in accordance with agreed procedures.
- Carries out routine collection of information and records as directed. Reports unforeseen or exceptional events.
- Documents all work in accordance with required standards, including reporting details of all hardware/software items that have been installed and removed so that configuration management records can be updated.
- Within skills and experience, provides assistance to users. Requests assistance, according to escalation procedures, keeping records of each request, contact information and action taken, including feedback to user.
- Assists with more complex installations, evaluates change requests and works with allied functions.

Systems installation/decommissioning - Level 3

- Installs or removes hardware and/or software, using supplied installation instructions and tools; follows agreed standards, including those for electrical work. Agrees the timing of the work with those affected, eg users, operations management, including, where appropriate, hand-over to client.
- Conducts tests of the hardware and/or software affected using supplied test procedures and diagnostic tools. Helps to resolve problems and faults, and corrects

malfunctions, calling on help from more experienced colleagues if required.
Documents results in accordance with agreed procedures.

- Carries out required routine collection of information and records, including using network management systems and appropriate performance analysis equipment to monitor installation performance against agreed service levels. Takes action on known or moderately complex problems, advising superiors and specialists only when their attention is required.
- Reports details of all hardware/software items that have been installed and removed so that configuration management records can be updated.
- Provides guidance and assistance to less experienced colleagues in the execution of routine tasks and ensures that all safety, security, clerical and administrative procedures are completed correctly.
- Provides assistance to users in a professional manner following agreed procedures for further help or escalation of request. Maintains accurate records of user requests, contact details and outcome. Provides feedback to users.
- Contributes, as required, to the development of installation procedures and standards.

3.5 Business Change Management

Business analysis - Level 3

- Works with colleagues and clients/users to investigate and model business functions, processes, information flows and data structures, using methodical and consistent techniques.
- Works with colleagues and clients/users to investigate operational requirements and problems, contributing to improvements in automated and non-automated components of new or changed processes/procedures, organisation and equipment.
- Works with colleagues and clients/users in specifying information flows, processes/procedures and data objects that will meet the business requirements.
- Documents work using the required standards, methods and tools.
- Takes part in client/user meetings and assists in presenting issues and solutions both orally and in writing.
- Assists colleagues and clients/users in defining acceptance tests for automated systems.
- Assists in defining, planning and justifying (in business terms) projects to develop/implement automated and non-automated components of new or changed processes.

3.6 Infrastructure

Configuration management - Level 3

- Uses the appropriate operating systems, hardware, tools and/or paper documents to maintain the configuration management system, including the configuration management database (CMDB). Ensures that necessary data, forms and configuration items (CIs) are available for use by all authorised personnel.
- Monitors and documents baselines and releases of CIs for formal test and delivery, ensuring that necessary data is available for use by those producing and/or using the baselined CIs.
- Monitors and documents the reporting, investigation and outcome (i.e. clearance, cancellation or concession) of all defects and problems reported against the CIs. Ensures that necessary data is available for use by the problem management function and others carrying out investigations and ensuing actions.
- Monitors and documents the analysis, implementation, review and test of proposed changes to all CIs and structures, linking them to defects/problems reported where applicable. Monitors and documents re-releases of changed items, ensuring that

necessary data is available for use by those carrying out analyses and ensuing actions.

- Maintains a document reference library, ensuring that current and archived versions of document CIs are available for reference by and/or loan to all authorised personnel.

Change management - Level 3

- Assists with the production of schedules of requests for change (RFC) for managing changes to the live infrastructure.
- Transcribes data on to the change management database, ensuring accuracy and consistency of data.
- Carries out simple enquiries on the status of changes, using the change database where appropriate.
- Contacts clients/users (for whom change management service is provided) to raise queries and provide information, entering details on to the client/user database where appropriate.
- Circulates change documentation to a defined distribution of clients/users.
- Assists with the provision of awareness material to clients/users to explain the importance of a structured change management process.

System software - Level 3

- Assists with preparation of software implementation procedures with fall back contingency plans. Installs and tests new versions of system software.
- Investigates potential and actual service problems and recommends solutions. Follows formal procedures to plan and test proposed solutions.
- Prepares and maintains operational documentation for relevant system software products. Advises systems development and service delivery staff on the correct and effective use of system software.
- Collects performance data to monitor system efficiency against published service level agreements. Monitors both resource usage and failure rates of installed systems and provides feedback to management.
- Gathers performance statistics from the IT platforms to enable recommendations for the tuning of system software. Applies system software parameters to maximise throughput and efficiency.

Security administration - Level 3

- Investigates and reconciles violation reports and logs generated by automated policing mechanisms. Investigates any other minor security breaches, in accordance with established procedures and security standards. Compiles reports and recommendations for management follow-up.
- Assists users in defining their needs for new access rights and privileges. Operates and administers logical access controls relating to one or more platforms in order to provide continuous and secure access to information services.
- For all services and systems within IS Security Management, maintains auditable records and user documentation. For example, assists in the preparation and maintenance of business recovery plans, particularly in the data collection and compilation/production/distribution phases of the exercise.
- Provides advice and handles most enquiries relating to information security, contingency planning and other related activities with only infrequent reference to more senior staff for assistance.

Radio frequency engineering - Level 2

- Assists with setting up, tuning and functional checks of radio frequency elements of analogue and digital systems.
- Resolves faults down to the level of line replaceable unit (LRU) – i.e. “black box” components of a complex system, designed for easy isolation and replacement. Escalates according to given procedures.
- Carries out user confidence checks. Escalates faults according to given procedures.

Radio frequency engineering - Level 3

- Deploys, sets up, and tunes radio frequency elements of analogue and digital systems, following maintenance schedules and using appropriate tools and test equipment.
- Incorporates hardware/firmware modifications to Radio Frequency elements of analogue and digital systems.
- Interprets automatic fault/performance indications and resolves faults down to discrete component level (beyond LRU) or escalates according to given procedures.

3.7 Operation

Application support - Level 2

- Receives and logs requests for support from help desk, other service delivery staff and/or users.
- Within own area of competence, investigates problems and other requests for support and determines appropriate actions to take.
- Within own area of competence and working closely with more senior colleagues, provides correct responses to requests for support by means of for example: making modifications to system parameters, developing work-arounds or site-specific enhancements, reconfiguring systems, changing operating procedures, training users or operations staff, producing additional documentation, or escalating requests to systems development staff or software suppliers. Ensures all work is carried out and documented in accordance with required standards, methods and procedures.
- In accordance with agreed procedures, monitors application systems or modules for which responsible by regular scrutiny of reports from the applications software, systems software or service delivery staff. Notes problems and identifies performance trends. With assistance from more senior colleagues where necessary, takes corrective action to improve performance and to avoid problems arising.
- Monitors progress of requests for support and ensures users and other interested parties are kept informed.

Application support - Level 3

- Receives and logs requests for support from help desk, other service delivery staff and/or users. Prioritises requests in accordance with agreed criteria.
- Within own area of competence, and following agreed procedures, investigates problems and other requests for support and determines appropriate actions to take.
- Uses application management software and tools to collect agreed performance statistics.
- Within own area of competence, provides correct responses to requests for support by means of for example: making modifications to system parameters, developing work-arounds or site-specific enhancements, reconfiguring systems, changing operating procedures, training users or operations staff, producing additional documentation, or escalating requests to systems development staff or software suppliers. Ensures all work is carried out and documented in accordance with required standards, methods and procedures.
- In accordance with agreed procedures, monitors application systems for which responsible by regular scrutiny of reports from the applications software, systems software or service delivery staff. Notes problems and identifies performance trends. Referring to more senior colleagues where necessary, takes corrective action to improve performance and to avoid problems arising.
- Monitors progress of requests for support and ensures users and other interested parties are kept informed.
- Liaises with systems development staff or software suppliers on the development of system enhancements to overcome known problems or further fulfil user requirements.

Management and operations - Level 1

- Carries out routine operations that control data processing, peripherals, and communications and networking equipment, including start-up, shutdown and normal re-start procedures.
- Carries out routine monitoring, logging and reporting tasks. Reports problems and other unforeseen or exceptional events to supervisor. Carries out and observes all associated administrative and clerical procedures.
- Handles movement of media to and from storage locations. Loads and unloads media onto devices and enters necessary commands to enable media to be used.
- Strictly follows all relevant instructions and procedures relating to malfunction, safety and security.

Management and operations - Level 2

- Carries out routine operations that control data processing, peripherals, and communications and networking equipment, including start-up, simple re-configuration, shutdown and normal re-start procedures.
- Carries out routine monitoring, logging and reporting tasks, taking defined action on simple problems. Reports unforeseen or exceptional events to supervisor. Carries out and observes all associated administrative and clerical procedures.
- Follows strictly, but using judgement where necessary, all relevant instructions and procedures relating to malfunction, safety and security.
- Modifies queuing parameters and job priorities within defined limits, to improve job throughput or the processing of output.

Management and operations - Level 3

- Carries out all routine tasks associated with operating and controlling the installed hardware and software. This may include multiple hardware or software platforms.
- Carries out required monitoring, logging and reporting tasks. Takes action on known errors and documented workarounds, logging such actions and advising supervisor or specialists when management or specialist attention is required.
- Accepts data, media, consumables and other items required for the processing of work and takes responsibility for the movement, storage and dispatch of such items as are required, and for other routine functions associated with data management.
- Responds to simple enquiries from users, specialists and others and takes appropriate action within defined limits of responsibility or area of specialism to deal with processing priorities, running tests, or facilitating and overseeing installation, removal, upgrading and repair of equipment.
- Instructs less experienced colleagues in the execution of routine tasks, particularly those tasks or procedures that relate to malfunction, safety, and security, and ensures that all clerical and administrative procedures are completed correctly.

Network control and operation - Level 3

- Answers and processes calls and enquiries at a help desk, personally resolving the majority of referred problems. Accepts escalations and initiates first-level support action.
- Following agreed procedures, carries out routine configuration/installation and provides sufficient information for reconfiguration of hardware and software.
- Uses standard procedures and tools to carry out defined system backups, restoring data where necessary.
- Uses network management systems tools to collect routine network load and model performance statistics. Creates routine reports as required.
- Investigates, diagnoses and resolves low impact network problems within service level agreement tolerances, referring to network users, other staff, and suppliers, as necessary.
- Under supervision, implements network changes and maintenance routines, utilising the appropriate tools and test equipment.
- Provides an experienced response to calls and enquiries at a call handling centre.

Database administration - Level 2

- Using standard procedures and tools, assists in the (object) database management system support activities for operational databases.
- Uses database management tools to investigate database problems in accordance with service level agreements, referring to database users, and other staff as necessary.
- Enrols users, and monitors user access to databases.
- Either assists users or acts on their behalf to create simple query definitions in order to extract data on an ad hoc basis.

Database administration - Level 3

- Using standard procedures and tools, carries out defined tasks associated with the planning, installation, upgrade, operation, control and maintenance of one or more databases.
- Uses database management tools to investigate, diagnose and resolve database problems in accordance with service level agreements, referring to database users, other staff and suppliers as necessary.
- Enrols users, maintains system security, and monitors user access to databases.
- Either assists users or acts on their behalf to create complex query definitions in order to extract data on an ad hoc basis.
- Collects and provides statistics to assist with planning activities.

Service level management - Level 2

- Uses the facilities of the tools and systems available, as directed, to monitor and report on regular activities which are subject to SLA (Service Level Agreement), or OLA (Operational Level Agreement) such as job activity, transaction processing, network activity, database activity, etc.
- Working under supervision, uses sampling techniques, where appropriate, and statistical analysis to monitor irregular activities which are subject to SLA or OLA, such as response times to service requests.
- Monitors, logs and reports on actual service provided as compared to that required by SLAs and OLAs.

Service level management - Level 3

- Uses the facilities of the tools and systems available to monitor and report on regular activities which are subject to SLA OR OLA such as job activity, transaction processing, network activity, database activity, etc.
- Uses sampling techniques, where appropriate, and statistical analysis to monitor irregular activities which are subject to SLA OR OLA such as response times to service requests.
- Monitors, logs and reports on actual service provided as compared to that required by SLA OR OLAs.
- Participates in regular review meetings between service providers and users.

3.8 User Support

Network support - Level 2

- Uses network management systems software and appropriate analysis equipment to collect routine network load statistics, and create reports as required.
- Carries out routine configuration/installation and reconfiguration of hardware and software.
- Uses network management tools to assist in investigation and resolution of network problems.
- Using standard procedures and tools, carries out defined tasks associated with the maintenance of local and wide area networks for communication of data, voice, text or images within one or more computer systems.

- Using standard procedures and tools, carries out defined backup of data, together with any required restoring of such data.

Network support - Level 3

- Uses network management systems software and appropriate analysis equipment to collect routine network load statistics, model performance, and create reports as required.
- Carries out routine configuration/installation and reconfiguration of hardware and software.
- Uses network management tools to investigate, diagnose and resolve network problems within service level agreement tolerances, referring to network users, other staff, and suppliers, as necessary.
- Using standard procedures and tools, carries out defined tasks associated with the planning, installation, upgrade, operation, control and maintenance of local and wide area networks for communication of data, voice, text or images within one or more computer systems.
- Using standard procedures and tools, carries out defined backup of data, together with any required restoring of such data.
- Carries out surveys to establish network connection requirements.

Service desk and incident management - Level 1

- Following agreed procedures, receives requests for support and provides routine advice to users on systems, products and services which are available to them.
- Promptly allocates calls which require response from more experienced colleagues, as appropriate.
- Follows standard procedures, documenting problems, progress checking, and ensuring that diagnostic information is provided for error resolution and incident analysis.

Service desk and incident management - Level 2

- Following agreed procedures, receives and handles requests for information, and provides routine advice to users on systems, products and services which are available to them.
- Following agreed procedures, receives and handles requests for support, provides information to enable problem resolution and promptly allocates unresolved calls as appropriate.
- Provides an effective interface between users and service providers, including documenting problems, progress checking, and ensuring all diagnostic information is provided for error resolution and incident analysis.
- Assists users to make more effective use of desk-top systems, products and services, making initial diagnosis of problems and advising known solutions where applicable.
- For all products, services and systems within own area of responsibility, demonstrates, installs, and commissions desk-top systems and their routine upgrades. Provides information on updates, known errors, changes in availability, new facilities, etc.

Service desk and incident management - Level 3

- Following agreed procedures, provides advice to users on systems, products and services which are available to them.
- Responds to requests for support by providing information to enable problem resolution and promptly allocates unresolved calls as appropriate.
- Provides an effective interface between users and service providers, including external commercial suppliers where applicable. This interface includes documenting problems, progress checking, and ensuring all diagnostic information is provided for error resolution and incident analysis.

- Assists users in making more effective use of desk-top systems, products and services. Makes initial diagnosis of any problems and advises known solutions where applicable.
- For all products, services and systems within the area of responsibility, demonstrates, installs and commissions desk-top systems and their routine upgrades. Provides information on updates, known errors, changes in availability, new facilities etc.
- Interprets technical or procedure manuals on behalf of non-technical users and provides routine training in normal usage of systems, products and services, providing information on the full range of capabilities.

3.9 Supply Management

Supplier relationship management - Level 3

- Acts as routine contact point between organisation and supplier.
- Collects, reviews and reports on supplier performance data. Resolves problems, or escalates them to more experienced colleagues.
- Checks invoices from suppliers to establish whether they are valid.

3.10 Quality

Quality assurance - Level 3

- Uses appropriate methods and tools, in the development, maintenance, control and distribution of quality and environmental standards.
- Makes technical changes to quality and environmental standards, according to documented procedures.
- Distributes new and revised standards.

Quality standards - Level 2

- Distributes new and revised quality standards according to documented procedures.
- Updates department and quality group documentation according to documented procedures.

Quality standards - Level 3

- Distributes new and revised quality standards according to documented procedures.
- Makes agreed changes to quality standards according to documented procedures.
- Updates department and group quality documentation according to documented procedures.

Compliance audit - Level 3

- Collects and collates evidence as part of formally conducted and planned audits of information and communications technology applications.
- Examines records as part of specified testing strategies for evidence of compliance with management directives, or the identification of abnormal occurrences.
- Compares records with expectations arising from the standards governing the work.

3.11 Resource management

Project office - Level 2

- Assists with the compilation of project management reports.
- Maintains programme and project files from supplied actual and forecast data.

Project office - Level 3

- Provides basic advice and guidance on individual project proposals and plans.
- From supplied planning and actual data, uses spreadsheet and project management software to set up work breakdown structures and project networks. Produces planned and updated project and summary reports, including cost breakdowns and summaries.

- Maintains programme and project files. Services project assurance teams, and quality review meetings.
- Maintains project performance metric data and estimating models. Reviews models and recommends changes.
- Administers project and programme change control.

3.12 Education & Training

Education & Training Delivery – Level 3

- Teaches, instructs and/or trains students in IT knowledge, techniques and skills using appropriate methods, equipment and materials. The students may be of differing levels of ability and are likely to have no background in IT.
- Supervises students carrying out practical work, advising and assisting where necessary.
- Provides detailed instruction where necessary and responds to student questions, seeking advice in exceptional conditions beyond own competence.
- Assists with the development of examples and case study material for use within pre-defined courses.

3.13 Sales and Marketing

Marketing - Level 3

- Works with technical and non-technical customer representatives, at a working level, to determine needs and identify marketing and sales opportunities.
- Assists in market research in areas such as market needs and trends, customer satisfaction, sales performance, competition analysis and technology developments (secondary research).
- Assists in maintaining records of marketing information such as the organisation and its capabilities, products and their descriptions, clients and prospects, competitors and marketing activities (primary research).
- Assists in the organisation and staging of marketing events such as seminars, exhibitions, presentations and product launches.
- Assists in the preparations of marketing materials such as brochures, advertising copy, mail-shots and articles for publication.

Sales Support (Level 1)

- Typically by telephone, or email, provides customers with routine information on the features, operational requirements, products and services supported.
- Assists in investigating and overcoming simple problems.
- Provides customers with routine information on updates, known errors, changes in availability, new facilities, etc.

Sales Support (Level 2)

- Provides customers with routine advice and guidance on the features, operational requirements, integration and portability of systems, products and services supported.
- Demonstrates, installs and commissions software or hardware units and their routine upgrades.
- Assists in investigating and overcoming simple problems.
- Provides customers with routine information on updates, known errors, changes in availability, new facilities, etc.
- Working from instructions or specifications provided, develops prototypes or demonstration systems to illustrate the features and/or feasibility of systems, products and services supported.

Sales support - Level 3

- Provides customers with advice and guidance on the features, operational requirements, integration and portability of systems, products and services for which support is provided.
- Assists in devising effective solutions to customers' defined requirements for new and enhanced systems, products and services.
- Demonstrates, installs and commissions hardware/software systems, products and services and their upgrades.
- Diagnoses and resolves straightforward problems.
- Provides customers with information on updates, known errors, changes in availability, new facilities, etc.
- Designs and develops prototypes or demonstration systems to illustrate the features and/or feasibility of systems, products and services supported.