

Skills Framework for the Information Age

# Moving to SFIA6

A common language for skills in the digital world



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# Moving to SFIA version 6

#### If you use SFIA version 5, this guide helps you plan the adoption of version 6.

This general update of SFIA can provide an opportunity to rejuvenate your approach to the management of skills, at a time when the availability and importance of digital skills has arguably never been more important and prominent.

The SFIA 6 Reference Guide, available at www.sfia-online.org, provides complete descriptions of all the SFIA skills. This document explains the changes which have taken place in version 6.

## The need for change

Organisations and individuals use SFIA because it reflects current thinking about technology-related capabilities.

The collaborative development style involves open consultation and input from people with real practical experience of skills management in corporate and educational environments. That is what sets SFIA apart from other more theoretical approaches, and has resulted in the adoption of SFIA by organisations and individuals in nearly 200 countries.

SFIA stays current by a process of evolution, taking input from practitioners of many types from all over the world, all provided in the context of reflecting current practice. Over the years SFIA has become very influential in how people think about skills, so we will always take soundings from those working in a range of corporate, government and educational organisations.

That is how SFIA, as the world's most popular framework of information and communications technology (ICT) and digital skills, continues to evolve and stay relevant.

During 2014, we collected – mainly through the consultation website – feedback from many users of SFIA, based on their experience. Specifically, we requested suggested requirements for change, and asked that contributors confirmed the problem or opportunity, how it affected them, and how it should be dealt with. It was important that we captured this reasoning, in order to understand the need for each proposed requirement.

We received over 150 comments, telling us where the framework needed to be improved. This part of the consultation was closed in August 2014, and the validation of 'requirements' was done by members of the Project Board.

The second round of consultation sought to find solutions to the validated requirements.

In December 2014, the SFIA Foundation Board issued a statement confirming the commitment to maintaining the Skills Framework for the Information Age (SFIA) as a de facto global standard for good practice. It announced an extension to the consultation period to allow further input from employers and organisations across the globe. The extension allowed all interested parties more time to contribute. Existing identified requirements and draft solutions were made available on the consultation website, and all were invited to submit comments and suggestions for further improvement. This extended the project timeline, moving the target date for publication to June 2015.

Thanks are due to all those who have contributed by giving us the benefit of their experience.

Remember that SFIA describes individual professional skills – not knowledge, not jobs, not roles, not people, not processes, and not general areas of activity, however important they are. The comments received have been processed with that in mind.

All the content in SFIA has been reviewed, and many improvements have been made.

SFIA version 6 remains in its recognisable format but with clear improvement. It is offered as a resource for

all, to be used in all the ways mentioned in the introductory pages of the reference guide.

# **Rejected requirements**

There were a number of inputs which haven't resulted in changes being made to version 6. Many of these have helped the discussion and supported decisions about this version. Some did reflect a misunderstanding of the scope and appropriate use of SFIA, but not many fit in this category. Of course, some did conflict with other requirements, and decisions had to be made as to the most appropriate solution. Several have been retained ready for the next version as is was felt that they could not be adequately addressed in version 6. Our work on the next version starts immediately, as all continual improvement efforts must, and it will take into account all input provided for version 6.

## How to use this transition guide

Users are recommended first to read through the whole guide, identifying areas of significant change. The changes that are of significance to the organisation can then be addressed in the context of the following activities.

- **Experts**. In a large organisation that has people identified as SFIA practitioners or consultants, it will be helpful to arrange a short meeting to review the changes and decide action.
- **SFIA Accredited Partners and Consultants** should ensure that they have an in-depth understanding of the new version, so that they can provide the best quality advice and guidance to their customers.
- SFIA-based role profiles and/or job descriptions. These can be updated to reflect new skills, new levels, merged skills and skills that have changed significantly. Updates can also be made to Rate Cards, CVs/Resumés, Continual Professional Development (CPD) plans, Recruitment mechanisms, and other items using SFIA that will benefit from adopting the latest version.
- Product and Service Providers who incorporate, or rely on, SFIA content should plan updates to reflect the latest version, and be clear which version their offerings incorporate.
- **Databases**. Review any internal databases that refer to SFIA skills. A convenient way to update a database is to use the skills definitions issued by the SFIA Foundation in the form of a spreadsheet.
- Development and training. If you have documentation indicating how development needs can be satisfied by certain training and development interventions, decide whether any of the changes to SFIA affect the development advice given.
- Training and education providers can review and update the mapping of their offerings to SFIA, and make any necessary curriculum changes to each affected course.
- Management. Communicate to managers that a new version of SFIA is being adopted, and brief them on changes that require action or special attention.

# Headlines

## **Industry hot topics**

The SFIA skills and content needed to be reviewed against industry hot topics. Some contributors felt there were new skills required; others saw them as the same skills but used in a different context. Either way, the challenge for SFIA is always to demonstrate that it is relevant to the industry. The problem to be solved is that current and potential users may not see any obvious mention of the 'hot topics', and make the assumption that SFIA is not kept up to date or is not relevant.

In balancing this, it needs to be recognised that some terms are fairly short-lived and transitory, and it is difficult to predict which ones will be gone from our vocabulary long before the next version of SFIA, and which ones will have some longevity.

The contributors to the version 6 project have tried to steer a careful path of not being too extreme in either direction. Some of these terms do help in the description of skills, but there is no point in simply including popular buzzwords just to try to ensure SFIA appears in searches and appeals to those who are looking for specific words. The aim is to decide what the skill actually is, whether it is already sufficiently covered in SFIA, and if some changes or additions are required to ensure adequate coverage and avoid gaps.

Input was considered in detail, and many changes made to support those inputs. To give some examples, the following were included: social media, digital media, digital transformation and the fusion of IT and marketing and business skills; digital environment content management; the skills needed by roles such as Cloud Broker/Chief Service Office, Cloud Architect, Cloud Developer, Cloud Administrator, Automation Engineer, Cloud Coordinator/Consultant, Cloud Systems/Services Manager, Cloud Batch Administrator, Cloud Recruiter, Cloud Accountant/Financial Manager, Cloud Mentor/Educator, Cloud Security Architect/Specialist, Cloud Governance/Audit Managers and cloud interpretations of Service Catalogue Manager, Service Level Manager, Performance/Capacity Manager and Supplier/Provider Manager; managing outsourced and cloud service providers; internal account management; product management; infrastructure management – IT estate management, data centre power; communications systems – VoIP, radio, microwaves, and other VAS (Value Added Services); IP networks and satellite systems; User support; hardware store and repairs; collaboration tools; Enterprise Systems managed services.

# **Digital skills**

A significant amount of discussion and analysis has taken place around the increased use of the term 'digital skills'. The range of opinion of what exactly is meant by the term has been researched, with members of the project team reviewing all input and agreeing some changes.

The most visible of these include the updates for **Information management**, for which there was significant input from SFIA users in government from Australia and the UK, and the updates to **Marketing** to become **Digital marketing**.

# **Cyber security**

Many governments have stated that cyber security skills are essential as a weapon in the fight against terrorism, industrial espionage and information security attacks. Consultation participants provided input around this and information security in general, which prompted a major review of how this was covered in SFIA.

SFIA V5 contained three core skills for security professionals: **Information assurance**, **Information security**, and **Security administration**, all of which have been updated in V6, including adding a level 7 description for **Information security**, and level 1 and 2 descriptions for **Security administration**.

V5 also contained 10 skills which specifically included the word 'security'. Investigation identified another 22

SFIA skills which were regularly used to describe the roles of security professionals and were needed for security capabilities, but didn't include the word 'security' anywhere. Apart from demonstrating the limitations of using word search to identify relevant skills, which sadly many users resort to, it highlighted how much coverage SFIA already had for this area.

# Security references were specifically added to **Solution architecture**, **Systems development management**, **Programming/software development**, and **Testing**.

The following new skills have been added:

#### DGFS Digital forensics

#### PENT Penetration testing

It was determined that the following skills should explicitly reference security: **Solution architecture**, **Data management**, **Systems development management**, **Systems design**, **Programming/software development**, **Testing**, **Network design**, **Change management**, **Storage management**, **IT operations** (now called **IT infrastructure**), **Supplier relationship management** (content now covered by **Relationship management** and a new skill **Sourcing**), **Conformance review**, and **Technology audit** (content now merged into **Conformance review**).

Another 19 skills used by security professionals, or related to security in a wider context, did not need an explicit reference to security.

### IT

The use of the term 'IT' has been reduced, not as a mechanism to try to spread the coverage of SFIA outside of the existing space, but because the application of this term has continued to change. Many Chief Information Officers, Chief Technology Officers, and senior management personnel are involved in developing strategy, policy, and plans which they would not recognise as being just about IT. Many organisations don't have IT departments, and professionals that are covered by the skills in SFIA would not necessarily recognise themselves as IT professionals.

Where the term 'IT' was superfluous and did nothing to add to the description, it has been removed. This is an example of simplification and editing, removing text which doesn't add value and sometimes causes people to reject otherwise relevant and useful skill descriptions.

Financial management for IT has become Financial management

Sustainability management for IT has become Sustainability management

IT estate management has become Facilities management

#### Information management

As mentioned under Digital skills, the Information management area has benefited from substantial input from users around the world.

### Big Data, Agile and Cloud

All of these topics received careful consideration, resulting in updates to several skills to ensure that the skills required to address these areas are served by SFIA.

#### **SFIA levels**

The seven levels remain as before, though the wording of the generic definitions has been improved in a few places.

#### **Categories and subcategories**

There are still 6 categories, there have been some notable changes.

All but one of the category names have been changed, and they now all have a similar three-word structure. Some subcategories have moved, and several skills have moved from one category to another.

One of the issues that had been recognised in observing use of SFIA was that some users incorrectly assumed that categories contained all the skills by people working in an area which resembled a category, subcategory or individual skill. For example, those working in Service Management roles expected all their skills to be in that category, when in reality many of the skills in other categories were relevant. It should be remembered that categories and subcategories are only used to provide a grouping to ease navigation, to avoid having a single flat list. There are no definitions of categories and subcategories themselves.

- Strategy and architecture name remains unchanged
- Business change becomes Change and transformation
- Solution development and implementation becomes Development and implementation
- Service management becomes Delivery and operation
- Procurement and management support becomes Skills and quality
- Client interface becomes Relationships and engagement

#### **New skills**

SFIA version 6 has identified seven new skills, as follows:

DGFS Digital forensics

HWDE Hardware design

ITSP IT strategy and planning

PENT Penetration testing

PEMT Performance management

PROD Product management

SORC Sourcing

### **Retirement and consolidation**

No skills have been retired through lack of use, as it was determined that all skills were still useful to some users. However, the following skills have been removed because their content is sufficiently covered or has been consolidated into another skill.

SPIM **Software development process improvement** - some amendments made to DLMG **Systems development management** 

HFIN Human factors integration - content has been merged with USEV User experience evaluation

TAUD Technology audit - content has been merged with CORE Conformance review

PROC Procurement - content merged to form the new skill SORC Sourcing

SURE Supplier relationship management - content merged to form the new skill SORC Sourcing

ACMG Account management - content merged into RLMT Relationship management

#### Name changes

FMIT Financial management (previously Financial management for IT)

SUMI Sustainability management (previously Sustainability management for IT)

STPL Enterprise and business architecture (previously Enterprise and business architecture development)

DBDS Database design (previously Database/repository design)

ITOP IT infrastructure (previously IT operations)

USUP Incident management (previously Service desk and incident management)

DCMA Facilities management (previously IT estate management)

CSMG Customer service support (previously Client services management)

PORT **Porting/software configuration** (previously **Porting/software integration**)

LEDA Learning assessment and evaluation (previously Learning and development assessment)

MKTG Digital marketing (previously Marketing)

HCEV User experience design (previously Ergonomic design)

### New levels for existing skills

SCTY Information security now has a level 7 description RSCH Research now has a level 2 description SUST Sustainability strategy now has a level 4 description DATM Data management now has descriptions at levels 2 and 3 PROF Portfolio, programme and project support now has a level 6 description HCEV User experience design (previously Ergonomic design) now has a level 2 description USEV User experience evaluation now has a level 6 description SCAD Security administration now includes descriptions at levels 1 and 2 TMCR Learning design and development now has a level 6 description RESC Resourcing now has a level 4 description QUMG Quality management now has a level 4 description

# Removed levels for existing skills

USUP **Incident management** (previously **Service desk and incident management**) no longer has a description at level 1 as this aspect is covered within the **Customer service support** skill.

# Changes – category by category

# As well as name changes and new skills, there are many examples of improved wording, and some skills have new levels.

In the tables below, new skill level-statements added in SFIA 6 have highlighted level numbers. The 'Status' column indicates the type of change in SFIA 6. 'Changed' means that the text of the skill and/or its level-descriptions have changed. 'New skill' means that the skill has been introduced in SFIA 6. 'Name/content changed' means that the label for the skill has changed (though the four-letter code for the skill is unchanged), and that the text description has also changed. 'Retired' means that the skill is not included in SFIA 6.

Category	Subcategory	Skill	Levels	Status
Strategy and	Information strategy	IT governance GOVN	56	7 changed
architecture		IT strategy and planning ITSP	56	7 new skill
		Information management IRMG	456	7 changed
		Information systems coordination <mark>Isco</mark>	6	7 changed
		Information security <b>SCTY</b>	3 4 5 6	7 changed
		Information assurance INAS	56	7 changed
		Analytics INAN	3 4 5 6	7 changed
		Information content publishing ICPM	123456	changed
	Advice and guidance	Consultancy CNSL	56	7 changed
		Technical specialism тесн	456	changed
	Business strategy and planning	Research <b>RSCH</b>	23456	changed
		IT management ITMG	56	7 no change
		Financial management <b>FMIT</b>	456	name/content changed
		Innovation INOV	56	changed
		Business process improvement	56	7 no change
		Enterprise and business architecture <b>STPL</b>	56	7 name change
		Business risk management BURM	456	7 changed
		Sustainability strategy <b>sust</b>	4 5 6	changed
	Technical strategy and planning	Emerging technology monitoring EMRG	456	changed
		Continuity management COPL	4 5	no change
		Software development process improvement <mark>SPIM</mark>		retired
		Sustainability management <mark>SUMI</mark>	56	name change

#### Strategy and architecture

Category	Subcategory	Skill	Levels	Status
		Network planning NTPL	5 6	no change
		Solution architecture <b>ARCH</b>	5 6	changed
		Data management DATM	23456	changed
		Methods and tools METL	4 5 6	no change

#### Change and transformation (was Business change)

**Relationship management** sub-category has moved to **Relationships and engagement** (previously **Client interface**) category into a merged sub-category called **Stakeholder management** 

Skills management sub-category has moved to the Skills and quality category	
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Category	Subcategory	Skill	Levels	Status
Change and	Business change	Portfolio management POMG	56	7 changed
transformation	implementation	Programme management <b>PGMG</b>	6	7 changed
		Project management PRMG	456	7 changed
		Portfolio, programme and project support <b>PROF</b>	23456	changed
	Business change	Business analysis <b>BUAN</b>	3456	changed
	management	Requirements definition and management <b>REQM</b>	23456	no change
		Business process testing BPTS	456	no change
		Change implementation planning and management <b>CIPM</b>	56	changed
		Organisation design and implementation <b>ORDI</b>	56	changed
		Benefits management <b>BENM</b>	56	changed
		Business modelling <b>BSMO</b>	23456	no change
		Sustainability assessment SUAS	456	no change

#### Development and implementation (was Solution development and implementation)

Human factors sub-category has been renamed User experience

Category	Subcategory	Skill	Levels	Status	
Development and implementation	Systems development	Systems development management <b>bLMG</b>	5 6 7 changed		
		Data analysis <b>DTAN</b>	2345	no change	
		Systems design <b>DESN</b>	23456	changed	
		Network design <b>NTDS</b>	5 6	changed	
		Database design <b>DBDS</b>	23456	name change	
		Programming/software development <b>prog</b>	2345	changed	

Category	Subcategory	Skill	Levels	Status
		Animation development <b>ADEV</b>	3456	no change
		Safety engineering <b>SFEN</b>	3456	no change
		Sustainability engineering <b>suen</b>	456	changed
		Information content authoring <b>INCA</b>	123456	changed
		Testing <b>TEST</b>	123456	changed
	User experience	User experience analysis <b>UNAN</b>	345	changed
		User experience design <b>HCEV</b>	23456	name/content changed
		User experience evaluation <b>Usev</b>	23456	changed
		Human factors integration HFIN		retired
	Installation and	Systems integration <b>SINT</b>	23456	no change
	integration	Porting/software configuration <b>Port</b>	3456	name/content changed
		Hardware design <b>нwde</b>	456	new skill
		Systems installation/decommissioning <b>HSIN</b>	12345	changed

#### **Delivery and operation (was Service management)**

**Service strategy** subcategory has been retired as those skills have moved to the **Business strategy and planning** subcategory in the **Strategy and architecture** category

Category	Subcategory	Skill	Levels	Status
Delivery and	Service design	Availability management AVMT	456	changed
operation		Service level management SLMO	234567	7 no change
	Service	Service acceptance <b>SEAC</b>	456	changed
	transition	Configuration management CFMG	23456	changed
		Asset management ASMG	456	changed
		Change management CHMG	23456	changed
		Release and deployment <b>RELM</b>	3456	no change
	Service operation	System software SYSP	345	no change
		Capacity management <b>СРМG</b>	456	changed
		Security administration SCAD	123456	changed
		Penetration testing <b>PENT</b>	4 5 6	new skill
		Radio frequency engineering RFEN	23456	no change
		Application support ASUP	2345	changed

Category	Subcategory	Skill	Levels	Status
		IT infrastructure ITOP	1234	name/content change
		Database administration <b>DBAD</b>	2345	changed
		Storage management <b>STMG</b>	3456	changed
		Network support <b>NTAS</b>	2345	no change
		Problem management PBMG	345	changed
		Incident management USUP	2345	name/content changed
		Facilities management DCMA	3456	name changed

#### Skills and quality (was Procurement and management support)

**Supply management** subcategory has been retired as those skills are now covered in the **Stakeholder management** subcategory within the **Relationships and engagement** category

Category	Subcategory	Skill	Levels	5		Status
Skills and quality	Skill management	Learning and development management ETMG	3	45	67	changed
		Learning assessment and evaluation LEDA	3	45	6	name/content changed
		Learning design and development TMCR		45	6	changed
_		Learning delivery ETDL	3	45		changed
		Teaching and subject formation <b>TEAC</b>		5	6	changed
	People management	Performance management <b>PEMT</b>		45	6	new skill
		Resourcing <b>RESC</b>		4 5	6	changed
		Professional development PDSV		45	6	changed
	Quality and conformance	Quality management QUMG		4 5	67	changed
		Quality assurance QUAS	3	45	6	no change
		Quality standards Qust	23	45		changed
		Conformance review <b>CORE</b>	3	45	6	changed
		Safety assessment SFAS		5	6	no change
		Digital forensics DGFS		45	6	new skill
		Technology audit TAUD				retired

#### **Relationships and engagement (was Client interface)**

**Client support** subcategory has been renamed **Stakeholder management** and now includes new, renamed and changed skills

Sales support has moved to the Sales and marketing subcategory

PROD Product management has been added

USUP Service desk and incident management has become Incident management as the service desk

elements have been consolidated into **Customer service support** (the new name for **Client services management**)

Category	Subcategory	Skill	Levels	Status
Relationships and	Stakeholder	Procurement <b>PROC</b>		retired
engagement	management	Supplier relationship management <b>sure</b>		retired
		Sourcing sorc	234567	new skill
	Sales and marketing	Contract management ITCM	456	changed
		Relationship management RLMT	4567	name/content changed
		Account management ACMG		retired
		Customer service support	123456	name/content changed
		Digital marketing мктс	23456	name/content changed
		Selling SALE	4 5 6	changed
		Sales support <b>SSUP</b>	123456	no change
		Product management <b>PROD</b>	3 4 5 6	new skill

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