SFIA 9 – a framework for cloud-computing skills

The global skills and competency framework for the digital world

Cloud Development and Delivery

Solution Architecture

		1	2	3	4	5	6	7
Requirements definition and management	REQM		2	3	4	5	6	
Solution architecture	ARCH				4	5	6	
Systems design	DESN		2	3	4	5	6	
Feasibility assessment	FEAS		2	3	4	5	6	

Software Engineering / DevOps

		1	2	3	4	5	6	7
Software design	SWDN		2	3	4	5	6	
Programming/software development	PROG		2	3	4	5	6	
Functional testing	TEST	1	2	3	4	5	6	
Non-functional testing	NFTS	1	2	3	4	5	6	
Systems integration and build	SINT		2	3	4	5	6	
Release management	RELM		2	3	4	5	6	
Deployment	DEPL		2	3	4	5	6	
Configuration management	CFMG		2	3	4	5	6	
Software configuration	PORT		2	3	4	5	6	

Cloud Data and Analytics

		1	2	3	4	5	6	7
Data management	DATM		2	3	4	5	6	
Database administration	DBAD		2	3	4	5		
Data analytics	DAAN		2	3	4	5	6	7
Data science	DATS		2	3	4	5	6	
Machine learning	MLNG		2	3	4	5	6	
Data engineering	DENG		2	3	4	5	6	

Cloud Technical Foundation

Cloud Infrastructure and Operations

		1	2	3	4	5	6	7
Infrastructure operations	ITOP	1	2	3	4	5		
System software administration	SYSP		2	3	4	5		
Network design	NTDS		2	3	4	5	6	
Network support	NTAS	1	2	3	4	5		
Storage management	STMG		2	3	4	5	6	
Database administration	DBAD		2	3	4	5		
Availability management	AVMT			3	4	5	6	
Configuration management	CFMG		2	3	4	5	6	
Change control	CHMG		2	3	4	5	6	

Platform Management

		1	2	3	4	5	6	7
Systems and software lifecycle engineering	SLEN			3	4	5	6	7
System software administration	SYSP		2	3	4	5		
Configuration management	CFMG		2	3	4	5	6	
Methods and tools	METL		2	3	4	5	6	

Edge Computing / IoT

		1	2	3	4	5	6	7
Real-time/embedded systems development	RESD		2	3	4	5	6	
Hardware design	HWDE		2	3	4	5	6	

Decommissioning

		1	2	3	4	5	6	7
Facilities management	DCMA		2	3	4	5	6	
Asset management	ASMG		2	3	4	5	6	
Systems installation and removal	HSIN	1	2	3	4	5		

A cloud operating model needs skills to execute the technical cloud-computing and also a range of other skills which are re-useable in the wider organisational context.

For professionals outside of the technical cloud domain, a foundational understanding of cloud-computing principles is necessary. They need the skills for their own specialism and the know-how to exploit and benefit form the opportunities offered by cloud-computing.

If you can't find a skill you are looking for, try the full SFIA framework.

Cloud Business and Strategy

Cloud Strategy and Leadership

		1	2	3	4	5	6	7
Strategic planning	ITSP				4	5	6	7
Business process improvement	BPRE		2	3	4	5	6	7
Portfolio management	POMG					5	6	7
Emerging technology monitoring	EMRG				4	5	6	
Innovation management	INOV					5	6	7
Investment appraisal	INVA				4	5	6	

Cloud Product Management

		1	2	3	4	5	6	7
Product management	PROD		2	3	4	5	6	
User research	URCH		2	3	4	5	6	
User experience analysis	UNAN		2	3	4	5		
User experience design	HCEV		2	3	4	5	6	
Customer experience	CEXP		2	3	4	5	6	
User experience evaluation	USEV		2	3	4	5	6	

Cloud Financials [FinOps]

		1	2	3	4	5	6	7
Financial management	FMIT				4	5	6	
Cost management	COMG		2	3	4	5	6	
Budgeting and forecasting	BUDF		2	3	4	5	6	
Capacity management	CPMG		2	3	4	5	6	
Benefits management	BENM			3	4	5	6	
Demand management	DEMM				4	5	6	
Business intelligence	BINT		2	3	4	5		
Measurement	MEAS		2	3	4	5	6	
Financial analysis	FIAN		2	3	4	5	6	

Cloud Transformation

Enterprise Architecture

		1	2	3	4	5	6	7
Enterprise and business architecture	STPL					5	6	7
Business process improvement	BPRE		2	3	4	5	6	7
Business modelling	BSMO		2	3	4	5	6	
Business situation analysis	BUSA		2	3	4	5	6	

Cloud Migration and Transformation

		1	2	3	4	5	6	7
Organisational capability development	OCDV					5	6	7
Stakeholder relationship management	RLMT				4	5	6	7
Technology service management	ITMG					5	6	7
Systems development management	DLMG				4	5	6	7
Programme management	PGMG						6	7
Project management	PRMG				4	5	6	7
Portfolio, programme and project support	PROF		2	3	4	5	6	
Organisational change management	CIPM		2	3	4	5	6	
Organisational change enablement	OCEN				4	5	6	
Process testing	PRTS	1	2	3	4	5	6	
Service acceptance	SEAC			3	4	5	6	

SFIA provides a structured and consistent approach to defining skills for cloud-computing.
Each skill is clearly described, supplemented by guidance notes, and detailed level-by-level practice descriptions that align with the framework's 7 levels of responsibility. This uniform structure ensures ease of navigation and understanding, seamlessly integrating professional skills with behavioural factors to outline comprehensive role expectations. The consistent detail across all levels ensures robustness, allowing for precise skills and competency assessment.
The clarity in describing the nuances of cloud-computing roles at every responsibility level makes it invaluable for developing and benchmarking cloud-computing capabilities within an organisation.

Cloud Governance and Security

Cloud Security and Resilience

		1	2	3	4	5	6	7
Security operations	SCAD	1	2	3	4	5	6	
Identity and access management	IAMT	1	2	3	4	5	6	
Continuity management	COPL		2	3	4	5	6	
Incident management	USUP	1	2	3	4	5	6	
Problem management	PBMG		2	3	4	5		
Vulnerability assessment	VUAS		2	3	4	5		

Cloud Governance and Compliance

		1	2	3	4	5	6	7
Information security	SCTY		2	3	4	5	6	7
Information assurance	INAS		2	3	4	5	6	7
Information and data compliance	PEDP				4	5	6	
Governance	GOVN						6	7
Risk management	BURM		2	3	4	5	6	7
Audit	AUDT		2	3	4	5	6	7

Cloud Sourcing and Supplier Management

		1	2	3	4	5	6	7
Sourcing	SORC		2	3	4	5	6	7
Contract management	ITCM		2	3	4	5	6	7
Supplier management	SUPP		2	3	4	5	6	7
Service catalogue management	SCMG		2	3	4	5		

Cloud People and Skills

Cloud Upskilling & Talent Management

		1	2	3	4	5	6	7
Organisation design and implementation	ORDI			3	4	5	6	7
Job analysis and design	JADN			3	4	5		
Workforce planning	WFPL				4	5	6	
Resourcing	RESC		2	3	4	5	6	
Competency assessment	LEDA		2	3	4	5	6	
Professional development	PDSV				4	5	6	

Cloud Education and Training

		1	2	3	4	5	6	7
Learning and development management	ETMG		2	3	4	5	6	7
Learning design and development	TMCR		2	3	4	5		
Learning delivery	ETDL		2	3	4	5		

Generic attributes

Attributes

		1	2	3	4	5	6	7
Autonomy	AUTO	1	2	3	4	5	6	7
Complexity	COMP	1	2	3	4	5	6	7
Influence	INFL	1	2	3	4	5	6	7
Knowledge	KNGE	1	2	3	4	5	6	7

Business skills/Behavioural factors

		1	2	3	4	5	6	7
Collaboration	COLL	1	2	3	4	5	6	7
Communication	COMM	1	2	3	4	5	6	7
Improvement mindset	IMPM	1	2	3	4	5	6	7
Creativity	CRTY	1	2	3	4	5	6	7
Decision-making	DECM	1	2	3	4	5	6	7
Digital mindset	DIGI	1	2	3	4	5	6	7
Leadership	LEAD	1	2	3	4	5	6	7
Learning and development	LADV	1	2	3	4	5	6	7
Planning	PLAN	1	2	3	4	5	6	7
Problem-solving	PROB	1	2	3	4	5	6	7
Adaptability	ADAP	1	2	3	4	5	6	7
Security, privacy and ethics	SCPE	1	2	3	4	5	6	7

SFIA Levels of responsibility

SFIA's attributes of Autonomy, Influence and Complexity are the key to determining level of impact, responsibility and accountability. Click the SFIA level to find the details.

SFIA Level 1 Follow	SFIA Level 2 Assist	SFIA Level 3 Apply	SFIA Level 4 Enable	SFIA Level 5 Ensure, advise	SFIA Level 6 Initiate, influence	SFIA Level 7 Set strategy, inspire, mobilise
Performs routine tasks under close supervision, follows instructions, and requires guidance to complete their work. Learns and applies basic skills and knowledge.	Provides assistance to others, works under routine supervision, and uses their discretion to address routine problems. Actively learns through training and on-the-job experiences.	Performs varied tasks, sometimes complex and non-routine, using standard methods and procedures. Works under general direction, exercises discretion, and manages own work within deadlines. Proactively enhances skills and impact in the workplace.	Performs diverse complex activities, supports and guides others, delegates tasks when appropriate, works autonomously under general direction, and contributes expertise to deliver team objectives.	Provides authoritative guidance in their field and works under broad direction. Accountable for delivering significant work outcomes, from analysis through execution to evaluation.	Influences the organisation significantly, makes high-level decisions, shapes policies, demonstrates thought leadership, fosters collaboration, and accepts accountability for strategic initiatives and outcomes.	Operates at the highest organisational level, determines overall organisational vision and strategy, and assumes accountability for overall success.

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