The Open Group
Profession Framework

Louw Labuschagne
IT Consultant & Trainer
- Why do we need certification?
- Introduction to the Open CA & Open CITS
- How do I start the process?
- What about TOGAF?
- Case Study
The Open Group

- A global consortium that enables the achievement of business objectives through the development of open, vendor-neutral IT standards and certifications
- With more than 450 member organizations, we have a diverse membership that spans all sectors of the IT community — customers, systems and solutions suppliers, tool vendors, integrators and consultants, as well as academics and researchers

- Our Vision: *Boundaryless Information Flow™ achieved through global interoperability in a secure, reliable and timely manner*
Why do we need certification?
Identifying EA Skills

- There are no knowledge areas or skills defined for Enterprise Architecture that are applied consistently within certification programs.
- South African Qualifications Authority do not have a set of skills defined for EA.
- Enterprise Architecture cannot fully develop into a professional discipline without a defined set of knowledge areas and skills.
Organising Framework for Occupations

- Architecture professionals need to have professional education.
- The OFO indicate a 4 year degree as entry-level qualification for a professional occupation.
- Architecture is classified as a Information Technology occupation and thus a 4 year Information Technology degree is required for entrants.

The OFO adds value to skills development planning and implementation purposes in that it:
- provides a common language when talking about occupations;
- captures jobs in the form of occupations; and
- groups occupations into successively broader categories and hierarchical levels based on similarity of tasks, skills and knowledge.
A Bachelor’s degree in Information Systems provide **Technology-enabled Business Development**

- Business Fundamentals
- Interpersonal, Comms & Team Skills
- Technology
- Analytical and Critical Thinking
The IT / IS degree should include the following core modules:

1. Foundations of Information Systems
2. Data and Information Management
3. Enterprise Architecture
4. IT Infrastructure
5. IS Project Management
6. Systems Analysis and Design
7. IS Strategy, Management, and Acquisition
Industrial Age Skills Learning Process

- 0 – 10 hours  -> Pickup the basics
- 10 – 100 hours -> Trainee
- 100 – 1000 hours -> Apprentice
- 1000 – 10 000 Hours -> Journeyman
- 10 000 + -> Master
Dreyfus five-Stage model of the mental activities involved in direct skill acquisition

**MASTER**
masterful performance only takes place when the expert, who no longer needs principles, can cease to pay conscious attention to his performance

**EXPERT**
his repertoire of experienced situations is so vast that normally each specific situation immediately dictates an intuitively appropriate action

**PROFICIENT**
Increased practice exposes the performer to a wide variety of typical whole situations - ability to assume different perspectives in achieving long-term goal

**COMPETENT**
only after considerable experience actually coping with real situations - *instructor points out recurrent meaningful component patterns*

**NOVICE**
context-free instruction learning rules and features without experience - *non-situational*
Current EA Skills Frameworks

- The skills frameworks listed below are used within South Africa as reference frameworks, but they are not aligned resulting in non-standard Enterprise Architecture role definitions.
- There is no clear definition or alignment of knowledge areas and skills across the following common frameworks:
  - TOGAF
  - ITAC
  - Cutter Consortium
  - European e-Competency Framework
  - Skills Framework for the Information Age
  - IIBA
  - IASA
SFIA version 5
## IIBA Competency Model

<table>
<thead>
<tr>
<th>BABOK TASKS</th>
<th>PERFORMANCE COMPETENCY</th>
<th>Entry Level</th>
<th>Junior BA</th>
<th>Intermediate BA</th>
<th>Senior BA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Analysis Planning and Monitoring</strong></td>
<td>1.1.1 Selects appropriate business analysis approach</td>
<td>Novice</td>
<td>Advanced Beginner</td>
<td>Competent</td>
<td>Proficient</td>
</tr>
<tr>
<td></td>
<td>1.1.2 Evaluates project complexity, assumptions, constraints, and dependencies</td>
<td>Novice</td>
<td>Advanced Beginner</td>
<td>Competent</td>
<td>Proficient</td>
</tr>
<tr>
<td><strong>2.1 – Plan Business Analysis Approach</strong></td>
<td>1.1.3 Identifies all stakeholders</td>
<td>Advanced Beginner</td>
<td>Competent</td>
<td>Proficient</td>
<td>Proficient</td>
</tr>
<tr>
<td></td>
<td>1.1.4 Determines stakeholder influence and relationship needs</td>
<td>Advanced Beginner</td>
<td>Competent</td>
<td>Competent</td>
<td>Proficient</td>
</tr>
<tr>
<td><strong>2.2 – Conduct Stakeholder Analysis</strong></td>
<td>1.1.5 Builds and manages stakeholder (internal &amp; external) relationships. Relationships with stakeholders include: Business partners, users, vendors, customers, project team members, and management leaders</td>
<td>Advanced Beginner</td>
<td>Competent</td>
<td>Competent</td>
<td>Proficient</td>
</tr>
<tr>
<td><strong>2.3 – Plan Business Analysis Activities</strong></td>
<td>1.1.6 Develops a business analysis work-plan to manage own and teams activities, tasks, deliverables, and schedule</td>
<td>Novice</td>
<td>Advanced Beginner</td>
<td>Competent</td>
<td>Proficient</td>
</tr>
<tr>
<td><strong>2.4 – Plan Business Analysis Communication</strong></td>
<td>1.1.7 Develops effective communication plan to meet project and stakeholder needs</td>
<td>Novice</td>
<td>Advanced Beginner</td>
<td>Competent</td>
<td>Proficient</td>
</tr>
</tbody>
</table>
# TOGAF 9 Skills Framework

<table>
<thead>
<tr>
<th>Roles</th>
<th>Architecture Board Member</th>
<th>Architecture Sponsor</th>
<th>Enterprise Architecture Manager</th>
<th>Enterprise Architecture Technology</th>
<th>Enterprise Architecture Data</th>
<th>Enterprise Architecture Applications</th>
<th>Enterprise Architecture Business</th>
<th>Program/Project Manager</th>
<th>IT Designer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Modeling</td>
<td></td>
<td></td>
<td>4</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Business Process Design</td>
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<td>1</td>
<td>4</td>
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<tr>
<td>Role Design</td>
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<td>4</td>
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<tr>
<td>Organization Design</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Data Design</td>
<td>1</td>
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<td>3</td>
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<td>4</td>
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<tr>
<td>Application Design</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Systems Integration</td>
<td>1</td>
<td>1</td>
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<tr>
<td>IT Industry Standards</td>
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<tr>
<td>Services Design</td>
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<td>4</td>
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<tr>
<td>Architecture Principles Design</td>
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<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Architecture Views &amp; Viewpoints Design</td>
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<td>2</td>
<td>4</td>
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<tr>
<td>Building Block Design</td>
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<tr>
<td>Solutions Modeling</td>
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<tr>
<td>Benefits Analysis</td>
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<td>4</td>
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<tr>
<td>Business Interworking</td>
<td>3</td>
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<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Systems Behavior</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Project Management</td>
<td>1</td>
<td>1</td>
<td>3</td>
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<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
European e-Competence Framework

A. PLAN

A.1. IS and Business Strategy Alignment

Anticipates long term business requirements and determines the Information System model in line with organisation policy. Makes strategic ICT policy decisions for the enterprise (ERP, CRM, Groupware, Network etc.).

Level 1 | Level 2 | Level 3 | Level 4 | Level 5
--- | --- | --- | --- | ---
— | — | — | — | Provides strategic leadership to reach consensus and commitment from the leadership management team for the construction and implementation of long term innovative solutions.

s1. analyses business processes and architectures
s2. determines requirements for processes related to ICT Services
s3. identifies, analyses and defines user/customer needs
s4. ...

k1. knows ERP system potential and opportunities
k2. ...

s1, s2, s3, s4, k1, k2, etc.
# Architect Competency Framework

<table>
<thead>
<tr>
<th>What you KNOW</th>
<th>What You DO</th>
<th>What You ARE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-depth understanding of the domain and pertinent technologies</td>
<td>Modeling</td>
<td>Creative</td>
</tr>
<tr>
<td>Understand what technical issues are key to success</td>
<td>Tradeoff analysis</td>
<td>Investigative</td>
</tr>
<tr>
<td>Development methods and modeling techniques</td>
<td>Prepare architectural documents and presentations</td>
<td>Practical/pragmatic</td>
</tr>
<tr>
<td></td>
<td>Technology trend analysis/roadmaps</td>
<td>Insightful</td>
</tr>
<tr>
<td></td>
<td>Take a system viewpoint</td>
<td>Tolerant of ambiguity, willing to backtrack, seek multiple solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Good at working at an abstract level</td>
</tr>
<tr>
<td><strong>Consulting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elicitation techniques</td>
<td>Build “trusted advisor” relationships</td>
<td>Committed to others’ success</td>
</tr>
<tr>
<td>Consulting frameworks</td>
<td>Understand what the developers want and need from the architecture</td>
<td>Empathetic, approachable</td>
</tr>
<tr>
<td></td>
<td>Help developers see the value of the architecture and understand how to use it successfully</td>
<td>An effective change agent, process savvy</td>
</tr>
<tr>
<td></td>
<td>Mentor junior architects</td>
<td>A good mentor, teacher</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your organization’s business strategy and rationale</td>
<td>Influence business strategy</td>
<td>Visionary</td>
</tr>
<tr>
<td>Your competition (products, strategies and processes)</td>
<td>Translate business strategy into technical vision and strategy</td>
<td>Entrepreneurial</td>
</tr>
<tr>
<td>Your company’s business practices</td>
<td>Understand customer and market trends</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capture customer, organizational and business requirements on the architecture</td>
<td></td>
</tr>
</tbody>
</table>
No Standard definition of EA Skills within different Frameworks

- TOGAF

- Cutter Consortium / Bredemeyer Skills Framework

- European e-Competency Framework
  - [http://www.ecompetences.eu/](http://www.ecompetences.eu/)

- Skills Framework for the Information Age
  - [http://www.sfia.org.uk/](http://www.sfia.org.uk/)

- IIBA
  - [http://www.theiiba.org/AM/Template.cfm?Section=Home](http://www.theiiba.org/AM/Template.cfm?Section=Home)

- IASA
Introduction to the Open CA & Open CITS

- History of the Open Group Professional Framework
- Overview
- Linkage to other certification bodies
In 2004, HP and IBM approached The Open Group with a request to develop a profession framework and certification program, initially for Architects

Motivation:

- A global, independent, vendor-neutral way to assure their customers of the skills and experience of their staff
- A best practice approach
  - built upon member contributions
  - developed and maintained by consensus
Results

- Launched Open CA for IT Architects in 2005
- Open CITS for Specialists, with significant contribution also from Capgemini, launched in 2007
- We have added Business and Enterprise Architects to Open CA and extended Open CITS to include 21 specialties
- Accredited programs running within CA, HP, IBM, Philips, Raytheon.
Key points:

- Skills and experience based:
  - No specific training courses or exams.

- Peer-reviewed:
  - Three one hour board interviews by certified Architects/Specialists who ensure that your skills and experience meets the requirements.

- Vendor-neutral:
  - Developed by a consortium of globally-recognized industry leaders and administered by The Open Group - a vendor-neutral organization.

- Global:
  - The same Conformance Requirements, world-wide

- Portable:
  - Certification applies to the individual not the organization and is therefore fully transferable

- Branches on the ICT BoK “Tree”
## 3 Levels of Certification

<table>
<thead>
<tr>
<th>Level 3: Distinguished</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has significant impact on the business as Specialist, Chief/Lead Architect, Enterprise Architect or IT Architect Profession Leader</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 2: Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can perform independently and take responsibility for delivery of systems and solutions as lead architect/specialist. Typically 8+ yrs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 1: Certified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can perform with assistance/supervision, with a wide range of appropriate skills, as a contributing architect/specialist. Typically 5+yrs</td>
</tr>
</tbody>
</table>
Domains/Streams

- Architecture (Open CA)
  - IT Architect
  - Enterprise Architect
  - Business Architect

- Specialists (Open CITS)
  - Business Analysis
  - Applications Development
  - Packaged Application Implementation
  - Data Integration
  - Infrastructure Design
  - Testing
  - Security
  - IT Service Management
    - Delivery
    - Consulting
    - Operations

- Specialists ctd
  - Business Information Management
  - Infrastructure and Application Management
  - Storage Systems
  - Networking Systems
  - Servers
  - Cross Systems
  - Application Development Products
  - Application and Integration Middleware
  - Data Management
  - Content Management
  - Portal and Collaboration
7,332 certified people, from 160 organizations

CASSIDIAN Cybersecurity
ADNOC
AT&T
Acando AS
Accenture
Aduno Gruppe
Amazon
Amerant
Ampron GmbH
Apex Solution Analysis
Apogee Solutions Inc.
Aramark Uniform
Asurion
Atos
Australia Post
B-Source SA
BC Ferries
BMC Software
BMW AG
BUSINESS INTEGRATION PARTNERS
Bank of Montreal
Belastingdienst (Dutch Tax Office)
Blue Panther Group
Bluefish communications
Business Development Bank of Canada
CA Inc.
CGI
CIBC
CMT
CSC
CSV Caremark
Capgemini
Cenovus Energy Inc.
Cisco
Cognizant
Coming Incorporated
Costco
Credit Suisse AG
DATEV eG
DHBW Stuttgart
DIRECTV
DST Consulting
Daimler AG
Dassault Systemes
Deloitte
Deloitte & Touche Consulting
Department of Health & Ageing (Australia)
Department of Interior - Interior Business Center
Deutsche Bank
Dutch Tax Office
ECS Federal
EMC Corporation
EY
Ekul Technology Limited
Enbridge
Engen Petroleum Limited
Enterprise Technology Solution, LLC USA
Enterprise Thinking
Farmers Insurance
First Canadian Title
 Fonterra NZ
Fujitsu
GE
GETECH Corporation
GTS
Gartner
General Motors
Generali Deutschland Informatik Services GmbH
GFK SE
Global Services
Graphica Software
Gulf Business Machines
HP
Hitachi Data Systems (Poland) Sp. z o.o.
Hochschule fuer Technik (HSR FHO)
IBM
ICBC
IMS HEALTH
ING
IS Architecting Office, Ltd.
ITA Consulting
ITERGO
ITGAIN Consulting Gesellschaft für IT-Beratung und IT-Lösungen
Intel Corporation
JENNT
JODAYN
JPMorgan Chase
Jalser IT Strategy and Architecture Consulting
KPMG
Kadaster
Koch Business Solutions
LG CNS
LUCRUM
Leo Architecture Ltd
Liverpool
Logica
MATRIXX Software
MELLANOX TECHNOLOGIES, INC.
MRIS
Marsh & McLennan
Medifox
Microsoft
Mobiliar Insurance
Motorola Solutions
NAB
NNIT
NORD/LB
Nationwide
NetCentric Technology
NiSource
Nodavare Corporation
Nokia Siemens Networks
Novartis Pharma AG
Oakton
Oracle
PEOS-IT Management Consulting
Philips
Prolifics
Provinzial Rheinland Versicherung AG
PwC
QR Systems Inc
Quintiles
Raytheon Company
Red Hat
Riosoft Consulting
Royal Bank of Canada (RBC)
SAMSUNG SDS
SAP AG
SAS Canada
SAS Institute (NZ) Limited
SCCS, Inc
SENAC
SHD GmbH
SITA
SIX Group
SMC Salzmann Management Consulting
SR Operations
SRA International
SWITCH
SYSTEMS FLOW, INC.
Securities and Futures Commission
Selex ES Ltd
Shell
Shop Direct
Software AG
Spirit/21
Stefanini
Stringcastle Software Corp
SunTrust
T-Systems
TATA Consultancy Services
TD Bank Financial Group
TP Systems
TSE & TSE business and technology consulting
TeamSystem
Telephone and Data Systems
Telstra
Telstra Corporation Ltd
Teradata
Thales Raytheon Systems Company LLC
The KTL Group, Inc.
Tibco Software Australia
Toshiba
Travelport LLC
Triari Consulting Ltd
UPS
USAA
Unisys
Unitarc, LLC
UnitedHealthcare
University of Toronto
Uralisb
VCE
VMware
Vanilly Associates Limited
Versicherungskammer Bayern
Vodafone
Volvo Financial Services
Walmart Global Technology Services

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The Open Certified Architect Program

- **Re-Apply**
- **Certification Package**
  - Submitted to Open Group
- **Initial Review**
  - Package Accepted by Open Group
- **Board Interview**
- **Board Assessment**

Assessment Feedback

- **Reject**
- **Approval**

Incomplete Package

Measuring Skills Mastery

Certified!
How Certification Works

- Conformance Requirements define the skills and experience that Candidates must possess to achieve certification
  - [www.opengroup.org/openca/cert](http://www.opengroup.org/openca/cert) for Architects
  - [www.opengroup.org/opencits/cert](http://www.opengroup.org/opencits/cert) for IT Specialists
- Candidates may apply for certification directly to The Open Group
  - Certification Board reviews all applications and interview Candidates
- Companies may apply to have their internal staff development / certification programs Accredited by The Open Group
  - Candidates certified through an Accredited program become Open Group certified
  - HP, IBM, Raytheon, Philips and CA run accredited programs
Conformance Requirements

- Both programs have
  - Core Foundation Skills
  - Domain specific skills
  - Experience Requirements
  - Community Contribution criteria
  - Professional development criteria
- For Specialists, we also have Client Focus Skills
  - Services, Sales, Support, Training
- See draft BoK section 4
Relationships

- Partners:
  - Korean Software Technology Association – KOSTA
  - Computer Society of India

- Mappings
  - We publish mappings to e-CF and SFIA
  - G131, G132, G133, G134 at the Open Group bookstore
  - [https://www2.opengroup.org/ogsys/jsp/publications/mainPage.jsp](https://www2.opengroup.org/ogsys/jsp/publications/mainPage.jsp)

- Recognition
  - British Computer Society (BCS) accept Level 2 in Open CA and Open CITS as meeting the skill and experience requirements for CITP
    - i.e. SFIA Level 5
**Skills Framework for the Information Age (SFIA)**

<table>
<thead>
<tr>
<th>Skills in categories</th>
<th>Levels of responsibility and accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level 1 follow</td>
</tr>
<tr>
<td>Strategy &amp; Architecture</td>
<td></td>
</tr>
<tr>
<td>Business Change</td>
<td></td>
</tr>
<tr>
<td>Solution Development &amp; Implementation</td>
<td></td>
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<tr>
<td>Service Management</td>
<td></td>
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<tr>
<td>Procurement &amp; Management Support</td>
<td></td>
</tr>
<tr>
<td>Client Interface</td>
<td></td>
</tr>
</tbody>
</table>

**SFIA (Skills Framework for the Information Age)** is a simple and logical two dimensional framework consisting of skills in categories of work on one axis and levels of responsibility on the other. The framework is used as basis for defining skills by world class standards organisations like the Open Group, British Computer Society, Canadian Computer Society and the International Institute of Business Analysis.
Certification for “T-shaped” people

Generic skills and experience
People, project management, business

Other technical Certifications, e.g. Comptia, Microsoft...

Role specific skills and experience
Philips

- An Open CITS Case Study
At Philips, we strive to make the world healthier and more sustainable through innovation. Our goal is to improve the lives of 3 billion people a year by 2025.

We will be the best place to work for people who share our passion. Together we will deliver superior value for our customers and shareholders.

http://www.philips.com/about/company/missionandvisionvaluesandstrategy/index.page
In 2009, Philips embarked on project to transform their internal IT organization from a distributed to a centrally run function with specific domains for each IT discipline.

Their objectives at the start of this process were to:

- Improve Employee Engagement – Individuals were looking for career development opportunities
- Enable more Philips employees to work on, and lead, critical projects
- Support employees in their development
- Be a professional organization with professional people
- Be an attractive employer that is able to hire and retain the best people
Competence Development at Philips

- Philips carried out assessments on 900+ IT staff to benchmark them against the program.
  - Individual development plans
  - Readiness for Certification – and a plan to achieve it
- Over 140 people from the Netherlands, US and India have achieved Open CITS certification.
- Service Management streams added in 2012 at Philips’s request
Competence Development at Philips

- Philips will continue to expand their competence development framework and can identify **immediate ROI** in terms of
  - Recruitment and retention
  - Lower contractor costs on projects that are now carried out by Philips employees.

- To find out more about Competence Development at Philips IT, download a webinar by Paul Nijenhuis, Competence Group Manager [https://www2.opengroup.org/ogsys/catalog/D037](https://www2.opengroup.org/ogsys/catalog/D037)
Questions?

- www.opengroup.org/certifications

- certification@opengroup.org