

# The Open Group IT Architect Certification Program

---

## **How to enhance the value of the IT Architect to the business**

*A White Paper by:*

Len Fehskens, World Wide Architect Profession Office, HP Services

Walter Stahlecker, Director of Industry Initiatives, HP

Mike Sylvia, DE & World Wide Architect Profession Executive, IBM

Andras Szakal, DE & Chief Software Architect, IBM Federal Software

Cristina Woodbridge, World Wide IT Architect Profession Leader, IBM

July, 2005

## ***The Open Group IT Architect Certification Program***

Copyright © 2005 The Open Group

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the copyright owners.

Boundaryless Information Flow™ is a trademark and UNIX® and The Open Group® are registered trademarks of The Open Group in the United States and other countries. All other trademarks are the property of their respective owners.

The Open Group IT Architect Certification Program

Document No.: W053

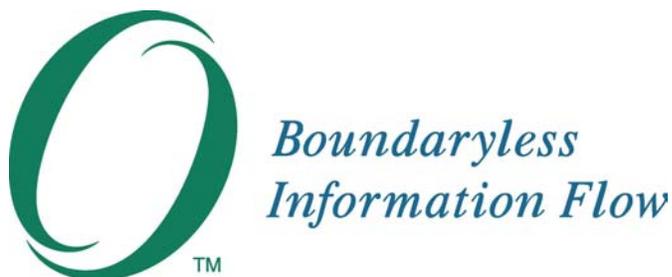
Published by The Open Group, July, 2005

Any comments relating to the material contained in this document may be submitted to:

The Open Group  
44 Montgomery St. #960  
San Francisco, CA 94104

or by email to:

[ogpubs@opengroup.org](mailto:ogpubs@opengroup.org)



*Boundaryless Information Flow™  
achieved through global interoperability  
in a secure, reliable, and timely manner*

## **Executive Summary**

---

IT Architecture is becoming the discipline that separates success from failure in large or complex IT projects. The ones that succeed have a well-designed architecture that supports (and is responsive to changes in) the business need as it evolves and changes to respond to market and competitive pressures.

This document is a proposal to The Open Group membership and also to practicing IT Architects – and companies who employ them – with an interest in helping to define and shape the program.

IT Architecture is an essential foundation to realize the vision of Boundaryless Information Flow™, which enables secure access to integrated information whenever and wherever needed.

## **Introduction**

### **Purpose**

The purpose of this document is to communicate a proposal to The Open Group for the design and development of an IT Architect certification program. The Open Group IT Architect certification program that is proposed provides for an appraisal and validation of third-party IT Architect certification programs – affiliate certifications – and for direct IT Architect certification of individuals by The Open Group. The program proposed within this document will be referred to as The Open Group IT Architect Certification Program (hereafter, simply “the proposed program”). As with all standards, the process and nomenclature described by this document are expected to evolve and change according to the needs of the industry.

### **Audience**

This document is a proposal for consideration issued to The Open Group membership. This document is confidential to The Open Group. Members are invited to participate and contribute to this proposal. Intellectual property contributed to the development of this program becomes the property of The Open Group. This document is intended to provide an overview of the proposed program by the working group responsible for the launch and development of the standard. The proposed program is officially defined by the documents that were developed under The Open Group consensus process. These documents include the Certification Conformance Requirements, Accreditation Conformance Requirements, and the policy documents for certification and accreditation as well as the FAQ. Reference The Open Group web site and these documents for additional information.

### **Motivation**

Companies or organizations interested in developing a certification program will find this document of interest. The proposed program will provide a method for these institutions to externally leverage their existing certification programs. The proposed requirements contained herein are intended to be minimally intrusive to companies who have already established robust IT Architect certification programs of their own. Individuals who are currently performing the role of an IT Architect will find the concept of professional certification of great value. Consumers of IT-related consulting will be encouraged to find a mechanism for evaluating the skills of existing and future IT Architects providing consulting services. Companies that do not already have IT Architect certification programs will find value in establishing a certification program that raises and standardizes the skills of IT Architects within their organizations. The IT industry will find value in a common process and certification framework that normalizes the industry’s interpretation of requirements for the certification of IT Architects. This framework is evolutionary and will change as the IT industry changes. The authors believe that this process can become a vehicle for continuously improving architectural skills across the IT industry.

### **Relationship to TOGAF**

The development of the proposed program is orthogonal to the very important work of The Open Group Architecture Forum and the development of The Open Group Architecture Framework (TOGAF). TOGAF certification and TOGAF skills are not necessarily required for member participation or contribution to the proposed program.

## **Overview**

### **Goals**

The goals of the proposed program are to:

- Elevate the practice of IT architecture in the industry and the professionals who perform it through the validation of profession credentials and quality control.
- Define a set of standards for IT Architect certification programs.
- Obtain IT industry recognition and validation of IT Architect certification programs executed by companies and organizations and, by extension, to recognize the certification credentials that are attained by the professionals who go through those programs.
- Provide a certification channel for individuals who cannot avail themselves of a certification program recognized by The Open Group.

### **Style**

The proposed program is different from other certification schemes.

There are many certification programs in the marketplace today. There are some common characteristics that can be observed with most of these programs. Two of those characteristics are particularly germane to a discussion of the proposed program:

- Many certification programs are tests of knowledge only.
- There are few, if any, which truly apply to the practice of IT architecture.

The proposed program is different because it is designed to validate the existence of those entities in a professional that enable the effective practice of IT architecture. The proposed program is also different because its validations are skills and experience-based – it goes beyond validating the existence of knowledge.

The 600-700 certification programs in the industry today generally fall into three categories: vendor-specific, vendor-neutral, and hybrids of the two. Most are focused on the installation, configuration, operation, maintenance, and/or use of products and technologies. These certification programs are focused on the IT specialists who perform those roles. A few are focused on other key areas of the IT business including project management. Over 90% are vendor-specific. And while most provide value to their target audience, virtually none set the bar for the practice of IT architecture. The proposed program is designed to change that.

## ***The Open Group IT Architect Certification Program***

Another common characteristic of certification programs in the marketplace is that most test or validate the existence of relevant knowledge – but little beyond. “Book learning” is a critical first step to becoming effective at anything. But the effectiveness, potential, and the degree and value of contribution rise to a new level as relevant skills and experience are gained in a topical area. It is clearly important to “know” a subject. It is more valuable to have applied that knowledge. It is for that reason that the proposed program is based on an assessment of IT Architect skills and experience, not just tests of knowledge.

### **Form**

The proposed program will be available in two forms:

1. *Affiliate certification* where individual certifications are obtained through IT Architect certification programs executed by companies and organizations that have been accredited by The Open Group
2. *Direct certification* where The Open Group or a designated affiliate functions as the certifying organization. The Open Group may designate certain affiliate organizations to stand as proxies for The Open Group in order to manage the certification process according to the guidelines established by The Open Group.

Information on both of these forms is available in the following sections.

## **The IT Architect: Roles & Responsibilities**

### **What is an IT Architect?**

The IT Architect defines, or architects, solutions to client business problems through the reasoned application of IT. Those solutions are manifested as architectures and can include systems, applications, and process components. They may also involve the application and integration of a broad variety of products, technologies, and services, various systems and applications architectures, and diverse hardware and software components.

Like a building architect, much of the IT Architect's work is focused on the front end of the solution lifecycle: listening to clients, understanding their business requirements, and systematically forming incrementally more detailed definitions of the structures of an IT solution – an architecture. The IT Architect may also be involved during the construction of a solution as an advocate for the client, as the ultimate authority on the architecture that was produced to address the client's business problem, and to provide technical leadership and guidance to the construction team.

### **Role and Rise of the IT Architect**

The need to define the role of the IT Architect arose in response to industry demands for expertise in a number of disciplines involved in client-related professional engagements. Since then the need for professionals who can apply broad and extensive IT expertise to the solution of business problems has grown and been widely recognized.

### **Value of the IT Architect to the Business**

IT Architects perform a very valuable role in an organization. They are in the unique position of viewing both the business need and the solution implementation side of a problem. This bigger picture view allows IT Architects to ensure that solutions fit within the organization's business direction, comply with their IT standards, and support the enterprise architecture. IT Architects are the technical conscience of an engagement, responsible for the viability of the solution.

### **Characteristics of the IT Architect**

The key skill and contribution IT Architects bring to their pursuits is the creation of architectures that address business problems. In order to do that effectively, IT Architects must possess and exhibit the following characteristics.

#### ***Skills and experience producing architectures***

IT Architects *produce* architectures, the definition of the structures of an IT solution to a business problem. In order to accomplish this they must be proficient at the techniques that go into the formulation of architectures, including requirements discovery and analysis, formulation of solution context, solution alternatives identification and assessment, technology selection, and architectural configuration.

#### ***Appropriate technical skills and experience, including technical breadth***

IT Architects require working-level skills and experience with many application and infrastructure (operational) products, technologies, and services. While often relying on professionals with specialized skills for the construction, implementation, and operation aspects of solution delivery in many of these areas, the IT Architect must have enough skills and experience across them to be able to successfully architect appropriate solutions of heterogeneous components.

Beyond that base of technical breadth, effective IT Architects usually possess additional architectural skills in one or more technical focus areas.

#### ***Disciplined, method-driven execution***

The IT Architect uses formal methods to guide and drive the development of solutions, the management of their work, and the production of their deliverables.

#### ***Full lifecycle experience***

In the development of architectures that address business problems, the IT Architect is primarily focused on the front end of the solution lifecycle. Full lifecycle experience – in particular, the knowledge and appreciation of the construction, implementation, and management aspects of the solution lifecycle – enables the IT Architect to produce solution designs that are truly viable and that can be successfully constructed, implemented, operated, and managed. An effective IT Architect should have some full lifecycle experience.

## ***The Open Group IT Architect Certification Program***

### ***Leadership***

The effective IT Architect is a leader, providing knowledge, technical, and team leadership skills in their work, to their clients, and for their teams.

### ***Strong personal and professional skills***

The IT Architect must have a high level of communications, consulting, and client relationship skills. The IT Architect must be able to clearly communicate complex technical and business concepts, both to clients and to team members, and to negotiate change. Problem solving of client business and technical issues is a principle role of the IT Architect, and s/he must be capable of effectively identifying and framing problems, leading the collection of elements of information, and integrating this information to produce timely and thoughtful decisions. The IT Architect must employ communication skills appropriate to the customer's geographic, social, and industry culture.

### **Types of Architects – Sample Architect Disciplines**

In addition to the base of fundamental skills, IT Architects are expected to develop a higher level of proficiency in one of several areas of architectural focus, called *disciplines*. These disciplines reflect the organization requirements and IT industry views of the IT Architect role and they become updated accordingly. It is assumed that the types and requirements of IT Architect disciplines will evolve with the needs of the IT industry. The proposed program will address the discipline requirements for skills and experience after the base framework has been established and deployed. The following describes two of the potential disciplines against which candidates might obtain certification.

#### ***Application Architecture***

An IT Architect in the Application Architecture discipline designs applications required to automate business processes and meet business needs. The resulting design may run on multiple platforms and may be composed of multiple software packages and custom components. This discipline performs critical evaluation and selection and/or development of the software components and hardware requirements of the applications and data, and prepares for the development of the application by evaluation and selection of development methods, development processes, best practices, and tools.

Architects in this discipline are responsible for applications-related quality, performance, availability, scalability, and integrity as well as other non-functional requirements. Architects in this discipline also maintain the functional interface to applications and are responsible for ensuring application usability.

#### ***Enterprise Architecture***

The Enterprise Architecture discipline defines a high-level enterprise-wide IT architecture focusing on the mapping of IT capabilities to business needs. The focus is on defining the relationships, flows, and implementation of business (processes, activities, functions, information) applications, data, and technology in the enterprise and the transitional process necessary for implementing technology in response to changing business needs.

## ***The Open Group IT Architect Certification Program***

Other disciplines may include Business Architecture, Information Architecture, and Infrastructure Architecture. The exact composition of disciplines will be established in a future version of the program.

### **Defining Additional Disciplines**

Different affiliate companies or organizations will have the ability to define architectural disciplines against which they can certify individuals. The stipulation being that the description of the discipline is well-formed and supported by the industry or the business needs of the affiliate and ratified by The Open Group as part of affiliate accreditation.

### **Example IT Architect Roles**

While IT Architects share the same overall skills or characteristics, the role they perform may vary based on more tactical business-driven requirements from their organization or work activity. Some examples of these roles follow.

#### ***Business Analyst***

IT Architects may lead and coordinate activities to understand a client's business problem and translate them into requirements that can be implemented and verified.

#### ***Methodologist***

In this role, the IT Architect leads customers in selecting, employing, and influencing the use of appropriate methodologies and design tools to achieve the desired business and technical results.

#### ***Project Advisor***

IT Architects may also lead project technical teams in ensuring that the business vision is free of architectural errors, and observing the deployed system to harvest lessons for future projects.

#### ***Solutions Designer***

In this role, IT Architects analyze a customer's business and IT challenges and design a comprehensive solution that integrates smoothly into the customer's environment, and is checked carefully for reliability, availability, and scalability.

#### ***Technology Advisor***

IT Architects may also lead architectural engagements in promoting the cause of technology, and of specific technologies, in order to achieve buy-in from the enterprise's management and IT communities, seeking to create new opportunities as well as advance existing sales efforts.

## The Certification Program: Details

The proposed program is intended to facilitate the normalization of architectural experience recognition among corporate, affiliate, and individual members of The Open Group. The Open Group will support two different routes to IT Architect profession certification. The first path is through accredited corporate or affiliate certification programs. In addition, individuals may obtain certification directly by applying for certification through The Open Group. In either case, applicants for certification must be a member of The Open Group or have membership in The Open Group Architecture Forum or a future membership option (e.g., affiliate membership).

An individual who obtains certification through an Accredited Certification Program (ACP) accredited by The Open Group will obtain an *affiliated or third-party* certification. This process may be referred to henceforth as affiliated, third-party, accredited, or simply ACP certification.

An individual who may not have the option to obtain third-party certification can submit an application for certification directly through The Open Group. This path will be henceforth referred to as *direct certification*. The Open Group reserves the right to determine the viability of the direct certification program.

Both certification paths require the same base level of experience and architectural skills in order to be recognized as a certified IT Architect. However, a company may levy additional certification requirements on their employees in order to satisfy internal skills requirements. Specific requirements above and beyond the base profession certification requirements are called *extended certification requirements* or simply *extended requirements*. For example, an extended certification requirement for the affiliated path may include experience with a proprietary corporate methodology.

### Third-Party Accreditation and Certification

The affiliated certification and accreditation process is intended to be compatible with a corporation or organization's existing profession [certification] processes and skills requirements. The goal of the affiliated accreditation process is to firewall proprietary corporate intellectual capital from contamination or disclosure with the certification process. For example, many IT service organizations have their own proprietary architectural methodologies or skills that are related to proprietary corporate practices. Affiliated certification still requires that individuals attain an equivalent level of architectural skills and experience as defined by The Open Group ITAC Working Group.

An individual can apply for a third-party certification only if their company/organization is an ACP. Accreditation is not limited to companies but can be obtained by any organization that meets the accreditation requirements – such as a government agency. ACPs may only certify those individuals who are formal members of their organization; i.e., employees. Future regional ACPs may be established to certify an individual in-proxy for The Open Group *direct* certification program.

Third-party accreditation is a framework for managing certifications by corporations or organizations. The accreditation process is intended to ensure that affiliates require equivalent

## ***The Open Group IT Architect Certification Program***

IT architecture skills and experience requirements from their applicants. Accreditation also ensures that the organization is effectively managing the certification and profession board process. The Accreditation Conformance Requirements document provides oversight problem tracking mechanisms to add rigor and reliability to the process of accreditation and certification. The Open Group will manage the accreditation process. A non-disclosure agreement, which is part of The Open Group certification service agreement, is necessary to ensure that proprietary corporate or organizational information is effectively protected.

### **Direct Certification**

The direct certification process is similar to affiliate certification but does not require corporate or organizational support. An application for certification is made directly through The Open Group IT Architecture Profession Forum. The direct certification process supports individuals who are not members of an affiliate certification program. While the certification framework is identical to the affiliate program, The Open Group may levy additional IT architecture profession skills and experience requirements as the standard evolves. Specific requirements above and beyond the base profession certification requirements are called *extended certification requirements* or simply *extended requirements*. For example, an extended certification requirement for an ACP certification path may add additional conformance requirements levied by the ACP to support the organization's business. It is beyond the scope of this document to identify extended requirements for the direct certification path. Extended certification requirements will be approved during the third-party accreditation process according to the Accreditation Policy and Accreditation Conformance Requirements.

### **Affiliated Certification**

The affiliated certification process consists of the following elements:

- Corporate/organizational accreditation
- Board certification by an accredited organization
- Proof of certification
- Recognition of affiliated certification

Each phase of this process must be completed in order to obtain an affiliated certification. The following sections define each phase of the overall affiliated certification process.

#### **Corporate or Organizational Accreditation**

The process of accreditation ensures that a company or organization has effectively:

- Established a recognized IT architecture profession certification program
- Effectively mapped the process of managing the certification process to The Open Group third-party accreditation process established by the Accreditation Conformance Requirements and the Accreditation Policy
- Managed board evaluation of candidates' certification applications in a consistent manner according to the Conformance Requirements and Certification Policy

## ***The Open Group IT Architect Certification Program***

In addition, the Accreditation Policy provides for periodic evaluation and inspection of the affiliate certification program.

A company or organization must first submit an application for accreditation to The Open Group. Once received, The Open Group ITAC staff ensures that that applicant is a member of The Open Group or Architecture Forum in good standing. Additional application fees may apply to support the staff required for accreditation. Once the application for accreditation has been received and verified, The Open Group will initiate the process of establishing a non-disclosure agreement with the organization or corporation. Should a non-disclosure agreement fail to be established, the process is suspended and any submitted application fees will be refunded.

After a non-disclosure agreement has been established, The Open Group will provide an accreditation application to the company or organization. During the process an accreditation facilitator will be assigned to the application to manage the process and resolve questions. The accreditation application must be fully completed before an accreditation evaluation can be initiated. A company or organization may not submit certification candidates until the accreditation process is complete. Retroactive recognition of affiliate certification applications *may* be considered by The Open Group ITAC staff. Retroactive recognition of affiliated certifications depends on how closely previous certification applications map to the certification framework requirements. A retroactive accreditation would allow for the grandfathering of some of the ACP staff – to be determined at the time of accreditation. The contents of the third-party accreditation application and process are managed solely by The Open Group ITAC staff with input and oversight from The Open Group ITAC Working Group.

The affiliated accreditation application consists of two major sections. First, the company or organization must agree to accept the *certification framework* as defined by the conformance and policy documents. In addition, the affiliate applicant must map their skills and experiential requirements to the framework elements – should a certification program already exist. For example, one conformance requirement is to have obtained education in at least two separate architecture methodologies. The methodologies must adhere to accepted and recognized methodology practices. Therefore, the affiliate applicant must map their methodology to the methodology framework requirements and provide the affiliate accreditation facilitator with a copy of the methodology documentation for evaluation. This evaluation is simply to ensure that the applicant has established a valid methodology and that the deliverables of the methodology have a mapping to accepted norms.

The second major section of the accreditation application is the submission of a reference certification application by which all certification applicants will be evaluated. The affiliate will require all certification applications adhere to the same format and certification requirements as outlined by their reference certification application and the ACP conformance requirements. The Open Group ITAC staff (or recognized proxy) will validate the format and contents of the reference application according to the certification framework requirements. Specific skills and experience requirements mandated by the certification framework will be defined in sequent sections of this document. Additional requirements may be levied by The Open Group IT Architecture Profession Forum, as outlined in future IT architecture profession documents published by The Open Group. Other information validated by the facilitator is the existence of the affiliate's certification board members and their role in the evaluation of certification applicants.

## ***The Open Group IT Architect Certification Program***

Once the third-party accreditation application has been submitted, the facilitator makes a recommendation for accreditation. The facilitator may enlist the advice of other staff members in evaluating the application for accreditation. However, the facilitator will not disclose the results of the evaluation or the contents of the application with members of The Open Group ITAC Working Group – which consists of members of The Open Group Board of Directors or their representatives. The only information that is disclosed to members of The Open Group ITAC Working Group during the accreditation process is the notification of successful accreditation of a company or organization.

In some cases the facilitator will require changes to the affiliate application before accreditation is granted. This may include additional skills requirements, changes to the reference application, or modifications to the affiliate’s board certification process. The following table summarizes the requirements necessary to complete affiliate accreditation.

<b>Required Accreditation Artifacts</b>	
<b>Accreditation Requirement</b>	<b>Description</b>
Open Group Membership	An affiliate must be a company or organization that is a member of The Open Group in good standing.
Signed Accreditation Service Agreement	The affiliate must review and sign the affiliate service agreement. This protects both the affiliate and The Open Group from intellectual property contamination.
Verification of Affiliate Certification Program	The Open Group ITAC staff must be provided with proof that the affiliate has established an internal IT architecture certification program.
Affiliate/Accreditation Application	The affiliate must complete and submit the affiliate application. This includes the affiliate’s reference certification application and any extended requirement mandated by the affiliate.
Communication Plan	The affiliate must provide a plan to cohesively and effectively communicate information pertaining to the affiliate’s certification process and criteria.
Affiliate Certification Board	The affiliate must provide the names of the individuals that will staff the affiliate’s certification board. Mature affiliate certification boards will be staffed with certified members of the profession.

### **Evaluating Member Candidates**

Once accredited, an ACP is granted the authority to certify members of the affiliate company or organization. Individuals that obtain certification through an ACP company or organization are recognized as certified under the proposed program. The process for obtaining a certification is outlined in the accreditation application and the conformance requirements. The conformance requirements must be strictly adhered to by the accredited entity. Individuals that believe that they comply with the certification skills and experience requirements can submit a certification application to the affiliate ACP board for review. The profession board is staffed with members of the affiliate/ACP company or organization.

The ACP certification application contains skill requirements as defined by the certification conformance requirements. The applicant will self-rate themselves against each of the mandatory skills requirements. Some skills require greater proficiency than others. Required skills are rated as *Limited* (low proficiency) and *Expert* (high proficiency). Refer to subsequent sections within this document that describe skill levels and proficiency ratings.

## ***The Open Group IT Architect Certification Program***

The ACP certification applicant must complete all sections of the application before the application can be accepted by the ACP for board review. The applicant must complete the entire skills evaluation section. In addition, the applicant must possess the necessary minimal skill proficiency rating to be considered for certification.

The ACP certification applicant is also required to provide *experience profiles*. Sometimes this is referred to as *experience profiles* or simply *profiles*. Each experience profile is a written description of an applicant's role and experiences as an architect on an IT project. Two of the three required profiles must document experiences in which the project was a success. The applicant must have acted in the role of an architect from conception to deployment of the solution. This *does not* imply that the candidate must be an implementer, developer, or coder. The candidate must have been involved with the project from inception to deployment. Success is defined as meeting the customer's conformance requirements. Experience profiles may include experiences that have been gained from working outside of the affiliate company or organization. However, recognition of this requirement is solely the purview of the affiliate company or organization. An affiliate applicant must have three (3) experience profiles necessary to satisfy the minimal application requirements. Additional profiles may be included but no more than five (5) will be accepted within a single certification application. The stronger the experience profile the more favorably the applicant will be evaluated by the certification board. Example experience profile requirements are defined in subsequent sections of this document.

The ACP board members review the application for compliance to the certification conformance requirements and any additional/extended requirements levied by the ACP. All requirements for certification must be communicated to the affiliate profession members before certification applications can be accepted. Profession affiliates may establish a schedule for submission and evaluation of certification applications. It is suggested that ACPs not exceed more than four (4) certification board reviews in one (1) year. Conducting fewer than four board reviews annually ensures the integrity of the overall process of certification.

If the ACP board determines that an application adheres to all required conformance requirements and extended certification requirements, the application for certification is referred for board interview. Board interview is the process of reviewing the application with the applicant in person. This does not mean that affiliates are prohibited from choosing to use remote methods of evaluating a candidate such as but not limited to phone interviews, conference calls, or web white boarding sessions. However, it is suggested that a candidate be interviewed and evaluated in person by at least one certification board member. Certification board interviews are intended to help determine the validity of the submitted written application. The board interviews the certification applicant as another method of ensuring the applicant possesses the required architectural skills and experiences. The process for conducting affiliated certification board reviews is conducted in similar fashion to the direct certification board reviews. The ACP board consists of IT architecture profession leaders and previously certified individuals who are tasked with the responsibility to maintain the integrity of the affiliate's IT architecture profession and the certification process for the company or organization. The proposed program requires the oversight of a board process and individual review of written applications.

Once the certification board review of an applicant is complete, the affiliate company or organization submits the list of certified candidates to The Open Group ITAC staff. The Open Group ITAC staff verifies the membership of the submitted certification applicants as members

## ***The Open Group IT Architect Certification Program***

of the ACP; e.g., employees. Additional processing may be necessary to complete the recognition of the ACP certification. For example, there may be a nominal processing charge for the submission of affiliate certifications depending upon their membership level within The Open Group. The Open Group ITAC staff will then validate the certification of the candidates that have been submitted by the ACP (accredited affiliate). The newly certified members will be posted on The Open Group web site and their names added to the IT architecture certification directory (database). In addition, each individual will be provided with a letter of accommodation and a certificate of recognition of their accomplishment. Individuals interested in the certification status of an individual will have access to the certification directory listing on The Open Group web site.

The Open Group ITAC staff is tasked with oversight and management of the ACP (affiliate) certification program. This includes managing the process of accreditation, issuing and announcing certifications, and periodic validation of affiliate certification programs. Validation is the process of evaluating the integrity of the affiliate certification process. This includes ensuring that the affiliate company or organization is adhering to the certification processes and requirements outlined by the affiliate's accreditation application. In addition, The Open Group ITAC staff is responsible for an annual validation and verification of a subset of an affiliate's candidate certification applications. This process is done in conjunction with the affiliate company or organization's certification board. The process of affiliate validation and verification ensures the integrity and standard by which affiliates manage their certification programs.

The Open Group ITAC staff has the power to suspend recognition of affiliate certification for any of the following reasons:

- The ACP (affiliate) is not managing certifications according to the process defined in the accreditation application.
- Board reviews are not conducted with integrity.
- ACP certification applications are incomplete or do not conform to the affiliate reference application format.
- The affiliate does not maintain good standing as a member of The Open Group.

The suspension of an affiliate company or organization does not affect the recognition of previously certified ACP members/individuals – unless those members are no longer in good standing.

## **Direct Certification**

The direct certification program must follow the same guidelines and certification requirements as the ACP/affiliate certification process. However, the direct process is intended for individuals that are not part of a company or organization that has applied for affiliate accreditation. Certifications are considered transferable and individuals may move from on ACP to another and bring forth their credential. The direct certification program is managed by The Open Group ITAC staff. Professional IT Architects (individual applicants) apply directly to The Open Group.

## ***The Open Group IT Architect Certification Program***

The Open Group ITAC Working Group will establish the certification conformance requirements for the direct certification route. However, both direct and ACP (affiliate) certification are based on the same certification framework. The only difference being the direct certification template complies directly with the conformance criteria and does not contain extended certification requirements. The core framework skills and experience requirements defined by the conformance criteria are identical for both certification paths. The Open Group certification board may choose to levy *extended certification requirements* similar to those mandated by an affiliate; however, extended requirements are not part of the current program. For example, The Open Group certification board could offer an extended certification that required TOGAF training as an element of the methodology skills requirements. The Open Group ITAC Working Group is responsible for managing and developing the core framework requirements as defined by the policy and conformance requirements documents. These documents are managed according to The Open Group consensus process. This process ensures membership feedback and oversight. Furthermore, it ensures alignment of certification programs with needs and objectives of The Open Group membership.

The direct certification process and the certification conformance criteria (skills and experience requirements) will be available to The Open Group membership via the Internet. An individual must be a member of The Open Group in order to access the program materials. Membership requirements are established by The Open Group Board of Directors and posted on the Open Group web site ([www.opengroup.org](http://www.opengroup.org)). Certification candidates that believe they meet the certification criteria will download and complete the certification application. The certification application will be developed by The Open Group ITAC Working Group and reviewed by The Open Group membership. As with the affiliate application, individuals must strictly comply with the skills and experience certification requirements.

Once complete, the certification candidates submit their application to The Open Group certification board for review and consideration. In addition, the candidate submits a nominal fee for certification processing at the time of application submission. The fee is non-refundable but will allow the candidate to re-submit an application twice. Certification candidates may submit a package three times per annum. However, the frequency of per annum certification application submissions may be modified by The Open Group membership participating in The Open Group ITAC Working Group as defined by the conformance requirements and reviewed by the membership.

The Open Group direct certification board will review applicants for certification once per quarter. Board review dates will be posted on The Open Group web site. Applicants that miss the submission date will be reviewed during the subsequent review cycle. The Open Group reserves the right to limit the number of applicants per review cycle. The board will review each application for completeness, consistency, and compliance to certification criteria. Those applications that meet these initial criteria are referred for board interview. Three members of the certification board will be assigned to interview the individual. Board interviews will take place either face-to-face during an Open Group conference or via a teleconference. The primary objective of the board interview is to verify the information and validate the individual's professional experience. Applicants who are found to have willingly misrepresented their skills or experience may be censured by The Open Group certification board and banned from partaking in future certification reviews for a minimal period of one year. The board may, at any time, resend a certification for similar reasons.

## ***The Open Group IT Architect Certification Program***

The Open Group direct certification board then evaluates each certification application and makes a recommendation for certification. At least two of the three board members assigned to an application must concur with the recommendation to certify. Should an application be rejected, the board will provide a set of recommendations necessary to enhance the individual's compliance to certification criteria.

If The Open Group direct certification board finds that an applicant possesses the necessary criteria for certification, the applicant is notified of the decision and presented with a certificate. In addition, the applicant's name is listed in the certification directory. Direct certifications are valid for three (3) years before an individual is required to re-certify. The re-certification will not require a board interview if the application for re-certification is accepted. Re-certification applications are intended to ensure that certified IT Architects continue to hone their skills and maintain their status as practitioners of the profession. The development of the re-certification application is the responsibility of The Open Group with input from The Open Group IT Architecture Profession Forum. The Open Group certification board and The Open Group Board of Directors must ratify the form of the proposed re-certification application.

## **Certification Skills Criteria**

### **Recommended Foundation Skill Requirements**

There are two types of skills that all candidates for certification must assess themselves against. These are core foundation skills and discipline skills. In order to be certified you must demonstrate that you meet or exceed the minimum skill level defined for each of the skills.

### **Assessing and Justifying Your Skills**

The candidate will use the proposed standards when assessing their skill levels. The core foundation skills all require a skill level rating of *Deep* in order to qualify for certification. Discipline and extended skill requirements may include skill ratings below *Deep* as defined by the particular certification program. However, the authors urge members to limit discipline and extended skill assessment requirements to those skills that require an *Applied* skill rating or above. It is important for candidates to provide accurate skill assessments. Certification board reviews will evaluate the accuracy of a candidate's skill assessment. Candidates will be asked to justify *Expert* proficiency assessments.

### **Core Foundation Skills**

The following is a list of the proposed core foundation skills for all IT Architect certifications notwithstanding additional discipline skills. Core foundation skills are also referred to as the *framework skills* or *foundation skills*. The candidate should be able to perform the following list of skills without assistance. The candidate should have in-depth knowledge and the ability to lead others to perform the defined core skills. The candidate should be able to indicate that they have met these skill level criteria in repeated situations successfully. The core foundation skills can be categorized into architecture skills, people skills, and project management skills.

## *The Open Group IT Architect Certification Program*

<b>Core Foundation Skills</b>		
<b>Category</b>	<b>Skill</b>	<b>Description</b>
People	Apply Communication Skills	Demonstrate good written communications, including the use of proper grammar, spelling, document organization, clarity, and use of content appropriate for the audience. Demonstrate good verbal communications, including strong eye contact, responsiveness to questions, ability to stay on subject, use of good feedback, and follow-up questions, etc., so that effective two-way communications is demonstrated.
People	Lead Individuals & Teams	Given a scope of architectural work to be accomplished, plan the work, form a team to perform the work, and guide the team in performing the work to completion.
People	Perform Conflict Resolution	Mediate opposing viewpoints and negotiate equitable solutions to ensure successful and stable outcomes.
Project Management	Manage Architectural Elements of an IT Project Plan	Given a project plan, identify those elements of the plan that put the integrity of the architectural elements at risk and manage those elements through to the agreement by the client/project manager that the project has been successfully completed.
Business	Understand Business Aspects	Understand business objectives, strategies, and measures.
Architecture	Develop IT Architecture	Given one or more business requirements, create the structures of a solution which can be validated to meet those requirements.
Architecture	Use Modeling Techniques	Use modeling techniques – such as business function and business process modeling, prototyping, benchmarking, and performance modeling – to describe the problem space, to size the solution, and to validate that the proposed architecture addresses the business requirements.
Architecture	Perform Technical Solution Assessments	Given a technical solution and the underlying business requirements that drove its development, assess the technical integrity and risks inherent in that solution in such a way that the recommendations and findings are appropriate and implementable.
Architecture	Apply IT Standards	Given project requirements that call for or would benefit from the use of standards, establish, implement, and enforce appropriate standards in the creation and implementation of the solution to meet those requirements.
Architecture	Establish Technical Vision	Given requirements and a list of stakeholders, identify approaches, tools, techniques, and technologies to meet the requirements, and explain the present and future rationale so that stakeholders accept the choices and agree with the rationale.
Architecture	Use of Techniques	Given an architectural question, use and apply various techniques – such as data collection, data analysis, hypothesis, and solution formulation – to produce a supportable answer to the question.
Architecture	Apply Methods	Given a work effort select method, adapt, apply, and enforce the use of that method to successfully guide the creation of work products that meet the requirements of the work effort.

## The Open Group IT Architect Certification Program

Core Foundation Skills		
Architecture	Define Solution to Functional and Non-Functional Requirements	Given the functional and non-functional requirements, define a solution that meets the stated requirements using the organization's and industry standard procedures and tools.
Architecture	Elicit Stakeholder Requirements	Given approved business goals, objectives, and constraints, document, clarify, refine, detail, and prioritize functional and non-functional requirements.
Architecture	Establish Architectural Decisions	Determine, document, and communicate architectural decisions to support and rationalize the design of the solution.
Architecture	Validate Conformance of Solution to the Architecture	Given a set of requirements, define and execute strategies and plans for ensuring and demonstrating that the solution satisfies the documented architecture.
Architecture	Perform as Technology Advisor	Maintain IT industry knowledge to advise on technical trends and techniques and apply them to the development of solution designs.

## Experience Criteria

The proposed program requires that certification candidates reviewed under either an *affiliated certification* or under The Open Group *direct certification* program be asked to demonstrate that they have at least the following experience:

**Requirement:** The candidate must possess at least three (3) years' experience producing architectures.

**Justification:** The proposed program is intended to recognize those individuals that possess both the required skills and a level of experience that suggests that they have mastered the ability to successfully perform in the role of IT Architect over time.

**Requirement:** The candidate must have experience architecting IT solutions which involved the application and integration of a broad variety of products, technologies, and services; encompassed both functional (application) and infrastructure components; and must be aligned with the business requirements and meet the customer acceptance criteria.

**Justification:** An architect recognizes design patterns and mitigates risk to projects because they have experience with the technologies of the prevailing era. An experienced architect will understand application-level design principles as well as systems and infrastructure design patterns. However, architectures are not just simply regurgitated patterns or solutions. They are aligned with the business problem. A successful architecture is manifested in the successful deployment of the resulting system/application. Successful deployment is predicated upon meeting the end users' acceptance criteria. Ultimately the application or system must provide value back to the business.

**Requirement:** The candidate must have experience with multiple types of systems and applications architectures, and multiple hardware and software platforms.

**Justification:** A certified IT Architect has had exposure working with different application architectures, software, and hardware platforms. Through this experience, a certified IT Architect can apply best practices and effectively select the design that most appropriately satisfies requirements and mitigates risk to the project.

## ***The Open Group IT Architect Certification Program***

**Requirement:** The candidate must have repeated and successful experience applying a recognized design methodology.

**Justification:** The proposed program is intended to recognize those candidates who have successfully designed and deployed applications/systems and have followed a recognized methodology for eliciting the requirements, designing, developing, and deploying the system or application. This certification is focused on practicing IT Architects who must possess the ability to apply a methodology in order to elicit the required artifacts necessary to design and develop the resulting system or application.

**Requirement:** The candidate must provide proof of three architectural project experiences within which:

- The candidate was involved in the production of an architecture and solution that involved some significance, challenge, and complexity.
- The candidate was the lead IT Architect on the project – or in charge of a major sub-work effort within the project – and was accountable for the design of the solution s/he produced.
- The solution design work was performed under the guidance of a formal design methodology.
- Two of the three profiles must document involvement in projects that were successfully deployed or, in the case of an architectural framework, successfully adopted.

**Justification:** A professional IT Architect must have a proven track record of successfully designing and deploying IT applications or systems. Systems or applications that require the skills of an architect are usually of significant complexity to warrant the need for the role. The experience profile must substantiate the candidate's role as the architect (or the architect of a sub-system or component) on a project that was successfully deployed. The experience profile must provide the specifics about each project on which the candidate performed the role of the architect.

**Requirement:** The candidate participated as an architect across the full lifecycle of at least one work effort within which they performed architectural work.

**Justification:** A true professional architect must have experience performing in the role of the architect for at least one project or work effort from inception through deployment.

The following table defines the proposed experience requirements for the proposed program. Experience is measured in the certification application through the documentation of experience profiles.

## *The Open Group IT Architect Certification Program*

<b>Required Experience</b>	
<b>Experience</b>	<b>Description</b>
Lead Strategy/Design/Implementation of Solution	Full lifecycle experience – in particular, the understanding and appreciation of the construction, implementation, and management aspects of a solution lifecycle – enables the IT Architect to produce solution designs that are truly viable and that can be successfully constructed, implemented, operated and managed. A certified IT Architect must have some full lifecycle experience.
Maintain Domain Expertise	Demonstrated expertise in applying architectural skills in a given industry or technical domain.
Contribute to Architecture Community	Demonstrated contributions to the architecture profession; for example, mentoring, publications, teaching, research collaboration, or participation in professional organizations.
Demonstrated Architectural Capability	Design sufficiently complex, challenging, and relevant architectures.
Broad Technical Experience	Candidates must have a broad set of technical and architectural experiences obtained during the design, development, and deployment of applications or systems on different platforms (software or hardware).
Application of Tools and Methods	Demonstrated repeated use of design methodologies and tools.
Demonstrated Success	Candidates must have acted in the role of the lead IT Architect of at least two successful architectural engagements.
Perform as a Lead Architect	Performed as a lead IT Architect in the development of an architecture or a major sub-system or component.

## Certification Guidelines Summary

The criteria for recognizing a certified IT Architect is summarized in the following table. The process of evaluating skills and experience shall be through a combination of written documentation and certification board interview. Skill and experience requirements may be augmented with extended experience requirements by an affiliate certification program. Base education requirements that are aligned to discipline skill requirements may also be mandated according to the certification program.

<b>Skills and Experience Requirements</b>		
<b>Education *</b>	<b>Skills and Experience</b>	<b>Experience Profiles</b>
<ul style="list-style-type: none"><li>• Formal Methodology Training – TOGAF, RUP, Fusion, etc.</li><li>• Project Management</li><li>• Design/Modeling – UML, MDA</li></ul>	<ul style="list-style-type: none"><li>• At least 3 years producing architectures</li><li>• Broad technical capabilities</li><li>• Repeated experience with a methodology</li><li>• Full lifecycle experience</li><li>• IT Architect on 3 successful projects</li><li>• Meets base framework skills</li><li>• Meets concentration skills requirements</li></ul>	<p>Must submit 3 experience profiles that adhere to the following requirements.</p> <ul style="list-style-type: none"><li>• Documents the applicant's role in designing an IT solution to a business problem</li><li>• Sufficiently complex, challenging, and relevant to the organization or company</li><li>• Solution must be viable and successfully deployed</li><li>• Must have served as the lead IT Architect</li></ul>

\* Education requirements may be amended according to the requirements of the certification program. The above table defines the base education requirements to obtain certification under the proposed program.

### Certification Skills Proficiency Evaluation and Ratings

Certification candidates provide the certification board with a self-assessment of their skills proficiency. Skills will be evaluated according to a candidate's proficiency and experience to perform required certification elements. A certified IT Architect is expected to possess a skills rating according to the proficiency rating defined in the Conformance Requirements document. The majority of the skills a certified IT Architect will possess will be rated as *Deep*. This exemplifies the candidates in depth knowledge of the architecture profession and their ability to perform tasks with limited assistance. A candidate must provide documentation that supports any skill that is assessed at the *Expert* level. Certification board reviewers are encouraged to validate a candidate's assessment of *Expert* skills.

## The Open Group IT Architect Certification Program

Skills Levels and Proficiency Ratings		
Level	Proficiency	Experience
Limited	Limited or no knowledge	None.
General	General conceptual knowledge only	Limited – read about it, some education.
Applied	Applied knowledge	Performs with assistance.
Deep	In-depth knowledge	Mastered the current state-of-the-art.
Expert	Expert knowledge	Advances the state-of-the-art.

### Additional/Extended Education Requirements

An ACP (affiliate) must require the basic educational requirements as defined within this document. Educational requirements above and beyond that of the framework are called *extended education requirements*. The primary educational requirement of the base framework is formal training in a recognized methodology. A recognized methodology can be a derivative of a popular methodology that is supported by an affiliate. For example, if an affiliate has a formal proprietary methodology that is used in context of their consulting business. However, the affiliate is required to show that any proprietary methodology follows the recognized norms for IT development methodologies. The Open Group ITAC staff evaluates proprietary methodologies under the certification service agreement and non-disclosure agreement. Additional educational requirements must be focused on skills pertaining to the role of an IT Architect. For example, project management, architectural best practices, or leadership skills. Additional or extended education requirements that are not pertinent to the role of an IT Architect will not be permitted.

### Certification Application

The following table defines the required sections of the framework affiliate and direct certification applications. ACPs may require additional application elements. However, all ACPs must include the mandatory application elements. Application elements may appear in a different order or in different form as defined by the affiliate's accreditation application.

Mandatory Application Elements	
Application Element	Section Information
Candidate information sheet	Page which contains candidate identification information and names of nominee endorsements.
Table of contents	Table of contents for entire package.
Self-assessment against skills required of all certified IT Architects	Assessment of core framework skills – core framework skills are base requirements for all certified architects.

## The Open Group IT Architect Certification Program

### Mandatory Application Elements

Skill assessment of applicable architecture discipline. Note: Skill requirements for disciplines will be identified by affiliates or as part of the continuing efforts of The Open Group IT Architecture Profession Forum.	Declaration of architecture discipline under which the candidate will be evaluated. Supported disciplines differ according to certification affiliate. Examples of architecture disciplines include: Enterprise Architecture, Applications Architecture, Information Architecture, Integration Architecture, Infrastructure Architecture, Systems Management, and Operations Architecture.
Justification of <i>Expert</i> skill assessments	Candidates must provide a written discription of why they believe they possess an <i>Expert</i> skill.
Documentation of compliance with experience requirements	A candidate must provide supporting evidence of experience requirements. For example: "This section describes the projects on which the candidate has performed the role of IT Architect. Refer to experience defined by the Conformance Requirements document."
Documentation of compliance with education requirements	A candidate must provide evidence that they have obtained formal methodology training or any required training outlined by an affiliate certification program. Education requirements are defined by affiliate certificaion programs or by The Open Group ITAC Working Group for direct certificaion.
Documentation of candidate's Experience Profiles	The candidate must provide substantial documentation that proves they have successfully performed in the role of an IT Architect. Documentation must correspond to the base experience requirements defined in this document and any extended experience requirements mandated by the affiliate certification program.

## **About The Open Group**

The Open Group is a vendor-neutral and technology-neutral consortium, whose vision of Boundaryless Information Flow™ will enable access to integrated information within and between enterprises based on open standards and global interoperability. The Open Group works with customers, suppliers, consortia, and other standards bodies. Its role is to capture, understand, and address current and emerging requirements, establish policies, and share best practices; to facilitate interoperability, develop consensus, and evolve and integrate specifications and Open Source technologies; to offer a comprehensive set of services to enhance the operational efficiency of consortia; and to operate the industry's premier certification service. Further information on The Open Group can be found at [www.opengroup.org](http://www.opengroup.org).