IT Business

Our Mission

The mission of *IT Business* is to provide a platform for discussion and analysis of the successful use of IT to enhance business processes.

IT Business Brief

Future Proofing the IT Staff
Part 2 of 2

by Gary Audin
Delphi, Inc.

Ashton, Metzler & Associates

Leverage Technology & Talent for Success

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A note from the founders

In a prior IT Business Brief, Gary Audin began the process of addressing this question by looking at the scope of knowledge and skill that are needed for the IT staff to function effectively in a converged environment.

In this second of two parts, he continues the discussion by addressing the need for assessment in the certification process. Additionally, he examines the difference between various types of certificates and certifications.

- Steven Taylor, Distributed Networking Associates / Webtorials

Jim Metzler
jim@itbusinessmedia.com

Steven Taylor
steve@itbusinessmedia.com

Part 2 of 2

Future Proofing the IT Staff

This two-part paper focuses on the IT staff and its ability to perform in a converged network environment. Part 1 discusses the scope of knowledge and skills necessary for the IT staff to successfully perform their jobs. Part 2 investigates the need for assessing the staff's skills and knowledge, as well as the meaning of certificates and certification.

Certification: What is the Value?

The number of articles, trainers and vendors in the certification business is exploding. Certification can bring objectivity to the evaluation processes for hiring and promoting the IT staff. It also makes them more valuable and costly. Certified IT staff is more mobile and, therefore, the certification investment may be lost when the employee moves to another job. The employee becomes more competitive in the market and can command a higher salary. This is both a win and lose situation for the enterprise.

Unfortunately, there are multiple IT certifications from many different organizations, especially in the field of information security. The total number of certifications of all types worldwide exceeds 600. Each certification covers only one aspect of IT. The IT industry needs a basic set of certifications that address a broad range of IT subjects. This is

where vendor-neutral cross training becomes important.

Taking the course, reading the textbooks and relying on experience can suggest that the individual is competent, However, it is the assessment tools and test results that really provide the measure of the individual's knowledge and skills. These assessment tools are hard to calibrate since there is no national certification standard for all of IT.

Certification, Where Art Thou?

Certifications are not limited to Information and Communications Technology (ICT). There are certifications in other industries, but all have the same problems. If a certification is not accepted by a particular industry and demonstrated to be valid, it has no value. The certification community needs to:

1. Develop consistent job titles and job description skill standards

2. Produce strong and valid justifications and statements of the certification value

3. Provide for certification portability

4. Improve the employment potential for certified professionals

5. Create a program that ensures continued improvement for the certificate holder

This not to say that certifications are useless. What the ICT industry needs to do is move forward with the present growth while improving the value

of certifications. Too many competing certifications can lead to a confused market and distrust of the certification process. Certification for vendor products should come from the vendors. Certifications in technology should be vendor independent and vendor neutral. Enterprises must budget for certification the same way they budget for training and not expect the employee to foot the certification bill.

Defining Certification for Convergence

An understanding of certification's value proposition, as part of a larger system of credentials, begins with an understanding of what it is and what it is not. Certifications differ from skill standards, certificates, assessments, and licenses. Within the Information and Communications Technology (ICT) industry, certifications are industry-accepted credentials voluntary obtained from professional associations; trade and/or industry associations; firms or proprietary organizations. An individual's knowledge and/or skill in a particular subject area is verified against a set of predetermined standards by means of an assessment. The assessment provides an impartial, third-party verification of a person's expertise, and industry-driven, tangible evidence of that person's achievement of necessary proficiency levels. As such, they formally attest to, and publicly recognize, an individual's attainment of the knowledge and skills required for a specific role within an

occupational cluster or across an industry sector.

Certifications are similar to licenses in that both are credentials that provide formal verification that an individual has met a predetermined proficiency standard associated with specific knowledge and skills relevant to a particular role. However, licenses are granted to individuals solely by governmental agencies to regulate the practice of a profession for the purpose of the protection of the public. They are mandatory for certain professions in certain states, and they provide individuals the right to practice. Certifications, on the other hand, are voluntary, granted by "industry stakeholders," and only provide individuals "title protection" (being able to call oneself an MCSE, for example) or right to title (that is, title control) and not a formal right to practice.

What, Then, is a Certificate?

Certifications are also typically confused with certificates. The latter is another form of a credential that documents the fact that an individual has successfully completed a class or program. The definition of "successful completion" varies from one program to another. For most, successful completion is defined in terms of attendance. An individual need not successfully pass an assessment to obtain a certificate. As such, certificates do not provide third party, objective validation of the knowledge and skills required to perform specific roles and/or work behaviors.

Where Do Skill Standards Fit?

Certifications should also not be confused with skill standards. Skill standards are performance specifications that identify the knowledge and skills an individual needs to succeed in the workplace. They delineate what a person must know and be able to do in order to perform related work successfully at a specific job, within an occupational cluster or across an industry sector. Quality certifications are based on skill standards, but they are not the skill standards per se. Instead, certifications provide formal documentation that an individual, by successfully passing an assessment (or a battery of assessments), has met the performance specifications identified in the skill standards.

Assessments for Certification

Finally, assessments, although a critical element of the process that results in attaining a certification (hereafter "certification process") should also not be confused with certifications. Assessments are instruments used to measure an individual's standing with respect to a specific set of knowledge and skills. To be used in a certification process, assessments must be reliable, valid, objective, unbiased, and criterion referenced. It is important to note that there are proprietary firms currently offering assessments (at times under the guise of "certifications") of work-related knowledge and skills that do not lead to certifications (as defined above).

To differentiate between offerings that are questionable "certifications" and true certifications, the enterprise needs to look closely at the supporting mechanisms, including:

1. Procedures for identifying skill standards

2 Procedures for accrediting curriculum

3. Validation of corresponding assessment tools

4. Objectivity of administration protocols

5. Reliability of protocols for ensuring data security

6. Mechanisms for tracking compliance, candidate verification, and re-certification associated with the "certification process."

Who Else is in the Game?

There are a few programs that venture to provide vendor-neutral convergence training. Their quality, depth, length and assessment measurements vary considerably. Some are as short as a one-day course with a 40-question exam. The Telecommunications Industry Association (TIA), www.tiaonline.org, created the best-known program. It has developed two certification programs for those who are going to sell or service convergence technologies. Convergence Technologies Professional (CTP) is a five-day course with a single 65-question proctored exam. Certified in Convergent Network Technologies (CCNT) is a self-paced web-based study program with six exams comprising a total of 450 questions. Several vendors, as a stepping stone to their product training, endorse both the CTP and CCNT programs. The CTP program is taught by training vendors that are independent of TIA.

Where Are We Now?

Currently, there are both vendor-specific and vendor-neutral certifications in the ICT world. The former comprises certification programs from such companies as Microsoft, Avaya, and Cisco, that focus on specific products and the knowledge and skills required to operate and work with those products. The latter focuses on foundational knowledge and skills that underlie the technologies associated with the products themselves (for example, CompTIA). For the most part, proprietary firms and/or product/service vendors, such as Microsoft and Cisco, offer vendor-specific certifications. Vendor-neutral certifications are offered by trade associations, (CompTIA), professional associations (IEEE), or academic institutions. The ICT certification landscape is dominated by data and application, but not convergence, certifications. Of the top 50 certifications in 2003, based on volume, only one, Avaya, focuses on telecom knowledge and skills.

Every organization that uses ICT is in the same predicament as enterprises, government agencies and vendor organizations. All are facing the same issues with convergence. Although future proofing the IT organization may never truly be possible, all organizations have to face the fact that, without cross training, convergence success will be a difficult and costly goal to attain.

Gary Audin - President of Delphi, Inc. (delphi-inc@att.net). He is a systems integrator by experience who has published many articles, has taught more than 2000 seminars, developed Computer Based Training and Video Assisted Instruction in communications and computer technologies.