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Event: "How to be a Successful IT Architect?" - Paul Preiss, President and Founder of the International Association of Software Architects (IASA), 11/23/07

1. What is the best path for training?

A: There are currently very few options available for training in the market. Most courses are 1-3 days and introductory at best. The best option to start receiving effective training is to become a supporter of the IASA training program.

2. Do you think that IASA should build a repository of templates, diagrams and sample documents that can be used by its members?

A: Absolutely. IASA is committed to developing just such a repository in its "content repository". We are currently at version 0.5 of the existing repository and are delivering 1.0 in Jan/Feb of 08.

3. Are there any certification examinations proposed for aspiring associate architects?

A: Yes. The associate certification will be based on the skills and training available in the IASA training program which includes roughly 88 courses (800 hrs) of practical skills training and is being developed in 2008. The certification will be an online, timed evaluation of those skills.

4. Is there a formal methodology you should consider to use as an IT Architect?

A: There are a number of formal methodologies depending on what you are working on. For example ATAM from the SEI is a methodology for architecture analysis. Other methodologies exist for other skills. The IASA will be identifying and reviewing most of the main ones as a part of the training program.

5. What specific training is needed or expected for certification?

A: The associate certification will require an individual to take or test out of 350-400 hrs of foundation skills courses plus 150 hrs of training in your selected specialization (software, infrastructure, business, or information architecture). It will be possible to test out of each of these components. Once you have acquired the knowledge-based components via training or testing, IASA will expect you to complete the experience-based internship or show equivalent previous experience to qualify for professional certification. More information can be found at <http://www.iasahome.org/web/home/educationprogram>

6. Is IASA going to cultivate a structured approach to business process architectures e.g. Ould's RIVA?

A: IASA will cultivate the resources for our members from practicing architects including frameworks and structured learning. We do not promote any one framework or process over another but will facilitate our members reporting on the successes of implementing individual architecture options.

7. What kind of certification program one can undertake to become an IT architect?

A: There are currently 4-5 architect certifications on the market. The top two are the IT Architect Certification from The Open Group (a vendor consortium) and the Microsoft Certified Architect program. Neither program has training or a rigorous body of knowledge to help architects master the skills. IASA is focused on training and skills acquisition. Until those are available we do not recommend any certification.

8. How many IT Architects are implementing SOA and what are the hurdles?

A: We do not currently have estimates on this.

9. Next Generation Architects. I notice that Master architects aren't a target for training. Is there an opportunity for further career and skill development by creating relationships with other organizations that would be relevant to people at that stage of their career. Examples are educational opportunities e.g. MBA (an example of this is the chiefly business school MBA in technology management), or professional organizations like the Institute of Management Consultants, etc.

A: We are working on many of these relationships now. Master architects will be candidates for continuing education more so than fundamental training. We expect to have many many opportunities for them to further their careers through IASA relationships and partnerships.

10. What can you tell us about academic graduate degrees paralleling the certification process you describe?

A: Our first step is to identify and provide a baseline skill set and knowledge base for the professional architect. At that time we will begin working with academic degree programs to ensure that masters' degrees or other degrees are available through standard academic institutions and which map to the identified skill set. We are already working with colleges for this purpose. There are only a few such degree programs available today that we are aware of.

11. Should an IT architect have a development background? Is it mandatory?

A: In today's world, a practicing architect must have an IT background. For example, it is difficult to be a software architect without a development background now. It is difficult to be an infrastructure architect without an operations or data center background now. However, this will change. In the future you will not need to be a developer to be a software architect because they are separate professions.

12. What advice do you have for someone to break into the data architect field?

A: The conditions for becoming an architect are not optimal since each employer often defines the role for themselves (and it is often extremely different from place to place). However getting into information architecture is about helping to ensure a competitive advantage through information management and growth. First you will want to read all of the foundations skills articles from the IASA pages (www.iasahome.org/web/home/skillset). This will help you start thinking like an architect. Next you will want to get involved with an existing information architect to see where your current skills are. The key is getting involved in an information architecture project as quickly and in whatever capacity you can. The best way to do this is to find or grow a project in your current environment.

13. What, if any, professional pre-conditions are being proposed here for a career as an architect?

A: The conditions for professional practice are:

- To be considered an associate architect or architect intern (needing supervision) you must complete the associate education and certification.
- To be considered a professional architect (practice without supervision) you must have your associate certification, complete your internship (or equivalent experience) and pass a written and oral examination by a board of professional architects.
- To be considered a master architect you must have significant years experience, regularly complete continuing education and pass the oral and written examination by a board of master architects.

14. When does a senior developer already architecting solutions transition to an official architect?

A: When they pass the appropriate level of training and certifications based on their current level of experience (associate, professional or master)

15. What is the essential difference between design and architecture?

A: Design is a skill associated with creative problem solving and is used by many professions (engineer, building architect, etc). Architecture is technology strategy. It is the ability to choose the best strategy to ensure competitive advantage. To that end architects employ design skills as tools to ensure effective solutions for their business.

16. The Role of the Architect might change a lot in view of Agile development methodologies like Scrum. How should Architects brace for this?

A: Methodologies and frameworks as well as technology options etc. change constantly. Architects must recognize the need for continued professional education. They must also understand their power to impact the acceptance and use of these techniques. Further we must identify a regular review and best

practices process by which we can truly evaluate the success of new initiatives and techniques. In other professions the body for doing so is generally the professional association. This is the reason we founded IASA.

17. What role should an architect play on a development team?

A: This is a complicated question. A pat answer would assume that all contexts and organizations are the same, which they are not. However a good answer is that architects and developers or development leadership are peers with completely different job purposes. The architect is there to ensure the technology strategy is met or exceeded; the developers are there to ensure the application is implanted properly. Different contexts such as outsourcing often impact this.

18. What is the Importance of database architecture?

A: To reduce information architecture to simply the database field is too limiting. The goals of the information architect are to use data, information, and even knowledge to best provide competitive advantage. Given the number of organizations who use information poorly this is a tremendously important specialization.

19. What is the importance of using the right words (quality attributes) to negotiate with customer?

A: Words are everything to architects. The rigorous definition of our profession is dependent on the ability to agree upon a basic body of knowledge. The sooner you start using the right terms in a standard way the easier and more stable projects will become. See the IASA dictionary at <http://www.iasahome.org/web/home/ITarchitecture/Glossary>

20. This is a question regarding the integration of solutions when two different companies merge - what are the impacts of integrations and their drivers?

A: Wow big question. IASA would be happy to schedule a webinar and training session on this topic.

21. How do you do what's technically right for the long run - when the business is only worried about their quarterly bonuses?

A: There are always going to be issues that get in the way of technology strategy especially when people (including IT) think of technology as only a cost-center instead of a competitive advantage. The best way to do this is with real ROI figures. It is very difficult to argue with a technology strategy based on real cost savings or better new revenue. Make sure it is written down; architecture does not happen in the board room, it is only communicated there.

22. Is it better to implement fully built pieces one by one or a skeleton with basic functions first?

A: This doesn't have a generic answer. Architecture is about what is best in what context. The answer for space shuttle software/hardware is completely different then a startup.

23. How to you document the ROI for Architecture?

A: Interesting. This question could mean what's the ROI for having architects at all? Or it could mean how do you document ROI for a specific architecture. I will go with the second since it is more focused on realizable skills; however, we must as a profession be able to make the case for the bigger more general question - why does a company need architects?

There are numerous techniques for ROI calculations. Cost benefit analysis is by far the most common but many people feel that there are tremendous flaws in it. It also matters what scope you are referring to. For example the ROI calculation of a major CRM strategy is going to be tremendously different than the evaluation of a new product platform for a software category. What matters is that you have the tools and the skills. I recommend that you get involved with the IASA training program to acquire these skills sooner rather than later.

24. What is the best way to implement Governance? If you had to choose the most important deliverable on a project what would it be?

A: This question is a very large one as well. IASA intends to offer an online and in person course in governance starting in early 08.