- I.T. Professional –

Case Report by:

**Jon:**

Software Solution Architect

**Rav:**

Network Engineering, PHP Developer, UX Designer

**Dane:**

Software Engineering

**Damian:**

Life as an IT Professional

**Aaron:**

Cyber Security Analyst

**Jaime:** Added Comments on

Solution Architect Case Report

Network Engineer Case Report

UX Designer Case Report

**" SOFTWARE / SOLUTION ARCHITECT "**

***Reported by: Jon***

**What kind of work is done by the Solution Architect?**

**Article Comments:**

REF **Article 1**: [<https://www.reddit.com/r/aws/comments/44rt9p/solution_architects_what_is_a_day_in_the_life_like/>] According to reddit.com forum that *“Not all solutions architects do architect work.”* Architects tend to be more involved with the overall design of the project, and not so much with the simpler implementation tasks, which is more for engineers. In day to day of a (SA)Architect may fall on reviewing existing environments, planning new ones, traveling abroad, building huge infrastructure for massive companies, doing migrations, writing scripts, scripting infrastructure, taking exams, studying, all sorts. Some (SA)Architect may require travel. (SA)Architect might be exposed working on troposphere CloudFormation environments, scripting code deploy and Jenkins integrations, writing python scripts using BOTO to create new VPCs and link with VPNs dynamically, building RPMs, chef cookbooks for application deployment, you name it.

REF **Article 2**: [.] According to quora.com forum, Most *Solution Architect* (SA) will be involved in management discussions whenever new project proposal or requirements come to the team or company. He is responsible for giving inputs on time is taken for project completion, risks, complexities, resources required, manpower required, etc.  His inputs are most valuable to management to take the decisions for any projects.  Management will try to leverage his knowledge to take important project decisions.

**My Comments:**

*“In my observation Solution Architect and Engineer are totally in a different area, however, they are always related to each other. You can either do the same position but always different ways and just related. In my investigation Solution Architect can attain training in* ***AWS*** *Amazon Web Services and have certification. The most business using this cloud computing platform to utilize for their growing business to manage their interaction with their clients producing analysis and report as AI application minimizing paper works and workload for producing reports to all department of the business. This is not requirements for Solution Architect rather a helping hand to do the role with high-quality performance especially if you are working along with the business have data server structure in AWS. I notice that the Solution Architect always-on design, planning, and management. Solution Architect brainstorming knowledge throughout the team. Even Solution Architect is not on hands-on duties but should always have wide knowledge in various different methods which really helps the team produce high quality and productive product. “*

* *Jon Ara*

*“As Software Engineer is responsible for analysing, designing and creating the different programs, based on knowledge in multiple areas, and types of programming languages ??that should be used to achieve the requested project.”*

* *Jaime*

**What kinds of people does the Solution Architect interact with?**

**Article Comments:**

REF **Article 1**: [<https://www.reddit.com/r/aws/comments/44rt9p/solution_architects_what_is_a_day_in_the_life_like/>] According to reddit.com forum, Most *Solution Architect* (SA) “focus *on a specific set of products and therefore don't have specific customers, but most have dedicated customers”.* The list of duties for a customer depends on that customer's current level of AWS adoption. In the beginning, it involves a LOT of intro talks with lots of teams.

REF **Article 2**: [<https://www.quora.com/What-are-the-day-to-day-activities-of-a-software-architect>] According to quora.com forum, *Solution Architect* (SA*)keeping knowledge sharing with team members and newcomers. Helping team during project deliveries and follow up with other teams for whatever required to deliver the project on time.*

**My Comments:**

*“I notice that Solution Architect does not have much hands-on interaction with costumer rather just have a role of making sure that the team produces what is requires and making the product in the highest level of quality for their costumer. In my investigation, most of the time the Interviewer or Business consultant are the one engaging on the process getting information from the client to pass onto the team and then Solution Architect will make a plan how to built the product item per item involving Software Engineer in the process. Solution Architect is more involved with the team enhancement, follow-ups, and progress of the project meaning the Solution Architect are always interacting with the people who have the same field desire of Information Technology.”*

* *Jon Ara*

*“Software or solution architect must deal with different types of people, corporations, organizations etc. since it will have to demonstrate knowledge in different branches, to achieve the proposed objectives.”*

* *Jaime*

**Are they also other IT professionals? Clients? Investors? The general public?**

**Article Comments:**

REF **Article 1**: [<https://www.reddit.com/r/aws/comments/44rt9p/solution_architects_what_is_a_day_in_the_life_like/>] According to reddit.com forum, Most *Solution Architect* require source knowledge or pre-sales work meaning outsourcing the other methods outside the company’s capabilities. *Solution Architect* often interacts with mixed teams, so you learn how to quickly answer high-level questions on a variety of topics. Later on, as the customer takes their first steps, it may involve POCs, whiteboard sessions, and collaboration with an implementation team (either internal or external to the customer). The career outlook for Solution Architect is fantastic and lots of opportunities internally and externally. Sourcing from LinkedIn interest, even without actively promoting some of the massive worldwide companies that Solution Architect worked with.

REF **Article 2**: [<https://www.quora.com/What-are-the-day-to-day-activities-of-a-software-architect>] According to quora.com forum, A *Solution Architect* does sync up calls with onshore teams for anything (project related, issues follow up, customer related issues, knowledge transfer, future projects discussions and follow up project road maps, etc).

**My Comments:**

*“I notice that Solution Architect can be a client because most of Solution Architect have may build lots of portfolios specializing in a particular area in the IT industry. Other Solution Architect may engage to other Solution Architect to get their project done, meaning they can also be in the general public as an observer.”*

* *Jon Ara*

**Where does the Solution Architect spend most of their time?**

**Article Comments:**

REF **Article 1**: [<https://www.reddit.com/r/aws/comments/44rt9p/solution_architects_what_is_a_day_in_the_life_like/>] According to reddit.com forum, Most Solution Architect is generally on the sales side of the house. They know a ton about AWS and different use cases and best practices but they don't normally get into the thick of the project. They spend a lot of time designing the best case and trying to crystal ball what it will cost.

**My Comments:**

*“In my observation Solution Architect most involved in planning case to case bases and making the team achieving the target goal and not as hands-on duties like the Software Engineer rather an organizer or planner which have wide knowledge in a different type of methods and platforms that includes knowledge to all new development available in the market. In my investigation Solution Architect always outsourcing new ideas from different types of IT department to create a new product that will help to provide the requirements on the project.”*

* *Jon Ara*

*“In analysing the client's ideas and ordering them to create the code.”*

* *Jaime*

**What aspect of their position is most challenging?**

**Article Comments:**

REF **Article 1**: [<https://www.reddit.com/r/aws/comments/44rt9p/solution_architects_what_is_a_day_in_the_life_like/>] According to reddit.com forum, It’s easy to let yourself get out of shape, and it’s your responsibility to come up with little projects to get hands-on practice with a new service or feature (and you really do need to do this - without getting hands-on it’s WAY too common to think that something can be easily done when in fact it’s difficult or impossible, or just simply not the right way to do it). Technically that’s part of your job, but of course, just keeping all the various balls in the air and context switching between customers takes up the whole day if you let it, so time management skills are critical.

**My Comments:**

*“In my observation Solution Architect have limited area in developing his skills for hands-on building the product but what makes him to be a good Solution Architect should then know all available methods or platform in building their product, so meaning still have to take knowledge intake and be updated as much as possible be skilled like the Software Engineers who actually involved in creating the product. In my investigation, the Solution Architect can also be a Software Engineer as they are closely working to each other. It is up to the person how to enhance their skills in the technical aspect of Information Technology skills.”*

* *Jon Ara*

**" NETWORK ENGINEER "**

***Reported by: Rav***

**What kind of work is done by the Network Engineer?**

REF **Article 3**: [ <https://www.pcage.edu/2017/10/08/a-day-in-the-life-of-a-network-engineer/> ]

*“This IT professional is a network engineer. His main role in the company is to design, implement and maintain the computer networks within a company. As opposed to network administrators that handle more day to day support of the network, a network engineer focuses on high-level design and planning. By selecting the correct technologies and making sure they are implemented correctly, network engineers ensure a high performing network for all its users.”*

* *Rav*

*“It is responsible for the communication networks to work in a company or organization. And will be in charge of data infrastructure.”*

* *Jaime*

**What kinds of people does the IT professional interact with? Are they other IT professionals? Clients? Investors? The general public?**

*“Network engineers, according to the article, would speak with department heads or certain members of staff to accommodate any of their networking requirements. In the instance of the article, it is training on how to do a particular task on a network. They also delegate tasks to people in your team, i.e. network technicians. Again, in this case, a part of the training was delegated towards a network technician. They would also be involved in meetings with department heads and colleagues on maintaining and implement new products/services into their network.”*

* *Rav*

*“Normally deal with non-technical people, who assumed that any problem in the computer is due to a network failure, also must maintain a communication with service providers.”*

* *Jaime*

**Where do the IT professionals spend most of their time?**

*“Depending on where they work, it can range from within an office or within a server farm. Either way, they would generally be sitting down at a desk for most of their day. If there is some kind of malfunction with the server, you might have to visit the physical server itself to make sure it gets fixed. Depending on where you work it might be some distance away, especially if your company employs off-site data centers. “*

* *Rav*

*“In keeping the equipment optimized and functional for the demands of the company or organization.”*

* *Jaime*

**What aspect of their position is the most challenging?**

*“I would say having to maintain such a large network would be the most challenging, as not only do you need to fix issues that arise occasionally during your work hours, but you might have to stay late to resolve more complicated issues.”*

* *Rav*

*“The challenge is to maintain stable channels of communication in the company or organization, and every day the systems are put to test, with data that no longer only contains text information, if not also must deal with audio, video, etc.”*

* *Jaime*

**" PHP Developer "**

***Reported by: Rav***

**What kind of work is done by the PHP Developer?**

REF **Article 4**: [ https://blog.growthfunders.com/a-day-in-the-life-dan-ord-senior-php-developer ]

*“PHP Developers primarily work within the realms of web development in today’s industry but they are also known to develop programs as well. One of the things that all PHP Developers have in common, as the name suggests, is that they utilize the dynamic scripting language PHP. Besides web development, PHP can be utilized for business applications as well. Their roles range from web site administration, software testing and user training. “*

* *Rav*

**What** **kinds of people does the IT professional interact with? Are they other IT professionals? Clients? Investors? The general public?**

*“In the article’s case, the PHP developer is in a senior position and therefore overseers a great deal more than a normal PHP developer would. Dan Ord’s role is to oversee all Linux-based projects that come into the company. This means that he would generally be speaking to upper management about how they want to implement the ideas that they would have. He also mentions he replies to support tickets, which means he would be fixing user specific to widely known issues reported by the users from within the company. “*

* *Rav*

**Where do the IT professionals spend most of their time?**

*“He would spend most of his time in front of a desk, answering support tickets or otherwise in meetings where he would be either planning on current and future tasks or showcasing the work he has already done to management and employees.”*

* *Rav*

**What aspect of their position is the most challenging?**

*“The most challenging project he mentions is the current app he is working on which he has full control over. I tend to agree with him with regards to being in charge of large-scale projects that affect the company’s performance as the direction it takes based on this outcome.”*

* *Rav*

**" UX Designer "**

***Reported by: Rav***

**What kind of work is done by the UX Designer?**

REF **Article 5**: [ <https://www.youtube.com/watch?v=ORZlHuD22UQ> ]

*“A UX Designer focuses on creating a smooth user experience of a product or service. In this case, the UX Designer is responsible for the UI (User Interface) and the UX of an app. He designs the look and feel of the app which then gets passed onto the developers to create into the mobile platform. He is responsible for creating a user environment that both caters to the need of the client, platform and good user experience principals.”*

* *Rav*

*“UX Designer, is the person or group that is responsible for creating the appearances of the programs, and we can say that it is the connection between the system and the end user.”*

* *Jaime*

**What kinds of people does the IT professional interact with? Are they other IT professionals? Clients? Investors? The general public?**

*“The designer would interact with the app developer team in sending them the necessary amount of detail for them to be able to create the app, a QA team to catch any missed details, colleagues to gain potential feedback on an aspect of the design he’s created and finally with the client in order to gain feedback for the app he is making and implement any changes.”*

* *Rav*

*“Interact with the client that asks for the program, the developer how create and the end user that the program or app will be occupied.”*

* *Jaime*

**Where do the IT professionals spend most of their time?**

*“The designer would spend most of their time in front of a computer or in front of the client/colleagues for meetings about the work they are doing.”*

* *Rav*

*I love it when a programmer spends time improving the UX of their system, and most of this time it for traying to make friendly the interface.”*

* *Jaime*

**What aspect of their position is the most challenging?**

*“He mentions that the biggest challenge is that he “has to work with both the restraints of the product itself and the client’s expectations. Juggling what the client wants and the user needs can be hard, but it’s important to find the right balance”.*

* *Rav*

*The UI designer must think as a user, make it friendly and connect the ideas of the develop to make it work as the client wants.”*

* *Jaime*

**" Software Engineer "**

***Reported by: Dane***

**What kind of work is done by the Software Engineer?**

REF **Article 6**: [ <https://www.roberthalf.com.au/our-services/it-technology/software-engineer-jobs> ]

*The following list of duties and responsibilities was taken from the website:* [*https://www.roberthalf.com.au/our-services/it-technology/software-engineer-jobs*](https://www.roberthalf.com.au/our-services/it-technology/software-engineer-jobs)

* *Improving system quality by identifying issues and common patterns, and developing standard operating procedures*
* *Enhancing applications by identifying opportunities for improvement, making recommendations and designing and implementing systems*
* *Maintaining and improving existing codebases and peer review code changes*
* *Liaising with colleagues to implement technical designs*
* *Investigating and using new technologies where relevant*
* *Providing written knowledge transfer material*

REF **Article 7**: [ <https://www.fullstackacademy.com/blog/what-do-software-engineers-do> ]

*“Software Engineers use their extensive knowledge of programming languages, engineering principles, and IT systems to produce software products that can be used for applications such as interactive games, web pages, robotics, network controls, mobile devices and basically anywhere you would find software. It is their job to liaise with businesses or people to discuss their needs, then provide a software solution to meet those needs. A Software Engineer needs to address the entire software development lifecycle - to analyse the needs, and then design, test and develop software in order to meet those needs.”*

* *Dane*

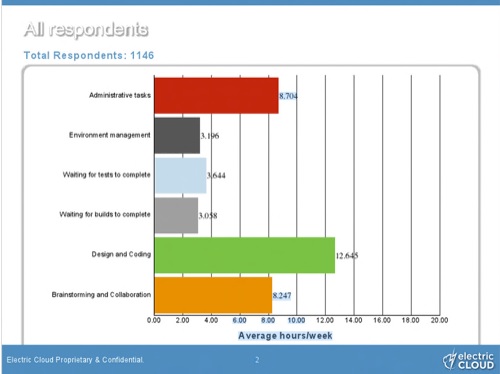
**What kinds of people does the IT professional interact with? Are they other IT professionals? Clients? Investors? The general public?**

*“This can depend on the type of Software Engineer (SE) they are. Application SE's are more client facing, as it is their job to design and implement software for the client, or the client’s customers to interact with. They will also interact with other IT professionals as well as Project Managers, Analysts, Marketing Staff, and Test Engineers to ensure the product is delivered as desired and on time.”*

* *Dane*

**Where do the IT professionals spend most of their time?**

REF **Article 8**: [ <https://readwrite.com/2013/04/25/how-software-developers-really-spend-their-time/> ] *Software Engineers spend their time as shown in the image below:*

*[](https://readwrite.com/2013/04/25/how-software-developers-really-spend-their-time/)*

**Where do the IT professionals spend most of their time?**

REF **Article 9**: [ <https://halistechnology.com/2015/04/30/the-hardest-part-of-software-development/> ]*On the website suggested perhaps the most challenging part**being a Software Engineer is communication.*

*“They describe the challenges faced when people have different ideas, or that people may have**a different understanding of what the actual requirements are.”*

* *Dane*

**" Life as an IT Professional "**

***Reported by: Damian***

**What kind of work is done by the IT Professional?**

*“I watched some video's on YouTube searching for Life as an IT professional to be able to gain an insight into the day to day running in the industry, I will link the video's below.”*

* *Damian*

REF **Video 1**: [ <https://www.youtube.com/watch?v=om8AygYdrto> ]

*The first person talks about what he does on a day to day basis.*

*“Works with Microsoft products like windows, windows server, and runs a ticketing system for IT related problems. The tasks he does is checking tickets, going out in the field making user accounts and account management with access and active directory. Day to day life varies and no day is the same he summarises that he is an IT services technician and pretty much does everything.”*

* *Damian*

**What kinds of people does the IT professional interact with? Are they other IT professionals? Clients? Investors? The general public?**

REF **Video 2**: [ <https://www.youtube.com/watch?v=PCmkTcFYrX8> ]

*The second person started his IT career in the navy and describes how even if you don't have a technological background you still need to learn how to use computers.*

*“He studied IT at university and it was more about a theory whereas being in the navy it was more hands on. He works in the customer service department where he helps customers troubleshoot their problems at home for an internet service provider. Helping people get back online and set up their own home networks and collates with various departments in the company to help customers with their problems. He communicates with customers and has to work out which department is needed to solve the issue as may need to send a field technician to customer's premises or if it's a network problem. His key skills would be Customer service, working in a team, Communication, Problem-solving, to help customers get back to using their service as quick as possible.”*

* *Damian*

**Where do the IT professionals spend most of their time?**

REF **Video 3**: [ <https://www.youtube.com/watch?v=vt79JcPfZQA> ]

*The third person I viewed is a software engineer who works for a company that is a home services supplier.*

*“Her work is more to being web development and explains that their backend systems are written in python and the front end or website is HTML java and CSS. The team she works in writes a lot of code and in a fast-paced environment where they push and implement it into their various systems then go back and kill all the bugs with their code. Her knowledge would be able to fluently write HTML java and CSS along with python and other various programming languages.”*

* *Damian*

***report by Aaron Bowden***

**“Cyber Security Analyst”**

**What kind of work is done by a Cyber Security Analyst?**

*“My research has revealed that the profession of Cyber Security Analyst is becoming more and more popular as the world becomes more dependent on technology. It is apparent that there is currently a high demand for Cyber Security Analyst’s and the Australian Government predicts the number of people working in this field will increase strongly to 41 000 by 2022 (The Australian Government, 2019). According to Rasmussen College, the kind of work typically performed by a Cyber Security Analyst’s includes ‘planning and carrying out security measures to protect computer networks and systems. This work also includes ‘keeping tabs on threats and monitoring networks for any breaches in security’ (Rasmussen. Edu 2019). To me, this means Cyber Security Analyst’s must maintain subject matter expertise in areas such as cryptography, IT trends and security, understanding how to defend against cyber threats.”*

* *Aaron*

**What kinds of people does a Cyber Security Analyst interact with?**

*“According to the Job Outlook website published by the Australian Government, Cyber Security Analyst’s liaise with a variety of different people including security vendors, suppliers, and service providers (The Australian Government, 2019). This website also highlights that Cyber Security Analysts are ‘required to provide troubleshooting advice and support to clients in diagnosing, resolving and repairing hardware and software malfunctions’ (The Australian Government, 2019). To me, this means Cyber Security Analyst’s would need to deal with both technical and non-technical stakeholders. It would be important for Cyber Security Analyst’s to have excellent communication skills to be able to communicate using technical jargon with other IT professionals, whilst also being able to communicate threats and advice to clients who could include members or a business or members of the general public, depending on who the client is. “*

* *Aaron*

**Where does a Cyber Security Analyst spend most of their time?**

*“Deakin University published an interview with Colby, a Security Analyst at Deloitte, who stated that their average day in this profession involves internal and external testing. Colby states that their average day involves simulating a cyber-attack, writing an assessment and ‘providing a report to the client which details the steps involved in exploiting each vulnerability discovered and recommendations to secure the affected system.’ (Deakin University, 2019). To me, this means Cyber Security Analyst’s would spend the majority of their time utilising technical skills to simulate attacks and then utilising general skills in report writing and communication to provide their findings to their clients.”*

* *Aaron*

**What aspect of this position is most challenging?**

*“In the same interview published by Deakin University, Colby stated the challenge of this position is that ‘security analysts must continually adapt to stay a step ahead of cyber criminals. This involves monitoring current trends in cybercrime, the latest methods and exploits used by attackers to infiltrate systems, and new developments in technology.’ (Deakin University, 2019). To me, this means that Cyber Security Analyst’s must continue to be subject matter experts. I would think it is likely they must continuously consume information and update and maintain their skills in order to perform their duties effectively. I imagine this would require a significant commitment to ongoing learning which would be very time consuming.”*

* *Aaron*

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