From Services to Solutions

Joy meets her customer

Ethan:
Hi Joy, it's Ethan from JJ Tech Inc. Nice to meet you!

Joy:
Hi, Ethan nice to meet you too. Thanks for calling. Let's get started. Would you mind taking a minute to tell me about your situation.

Ethan:
Not at all! So JJ Tech Inc is a large online clothing seller. We've been in busines for 8 years now and have experienced steady growth since the beginning. About two months ago, we acquired a small company, VeroniqueCorp Gear. They make unique custom t-shirts and hoodies. Their customers can design their own, or they offer artists services to help with design. They have a lot of musicians and theater group clients. I am the regional IT director, so I absorbed their infrastructure. Their site does some neat things and we plan to keep it as is for the time being, but we need to make it a lot more robust.

Joy:
Sounds like a great line of work! What kinds of issues are you running into?

Ethan:
As I said, the functionality is good; it just hasn't been performing well recently. During certain hours, it's really slow to respond to users.

Joy:
Why do you think that is?

Ethan:
They had a contractor design the app and infrastructure, and he did a fine job, but it's running in house on just 2 or 3 servers. It was more than enough to start the site, but now, not so much.

Joy:
I get it. So why not just add more resources?

Ethan:
Actually, they were in the process of looking that when we came in. Once I did an audit of the site, I started noticing some other things as well. For example, JJ Tech Inc credit card system is PCI compliant. While their system is secure, it's not compliant yet, so more work needs to be done there as well. Also, now that my team is involved, it just doesn't make sense to rely on a contractor.

Joy:
Make sense to me! Are there any other issues?

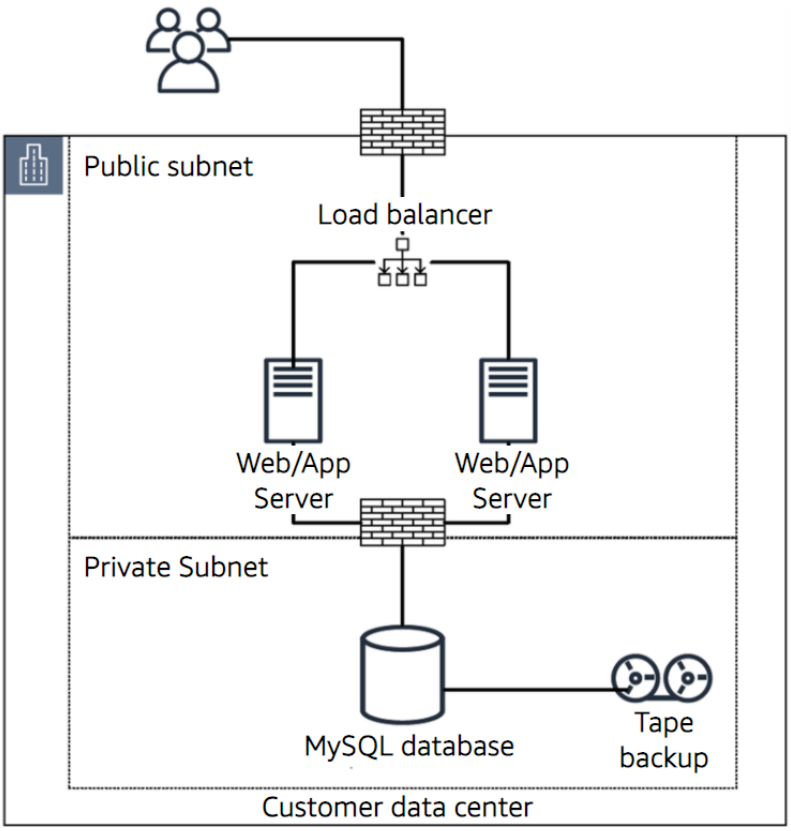
Ethan:
Actually yeah. We didn't gain any IT staff in the acquisition, so we're also hoping that once everything is in place, we want it to be a low touch environment. At least from a day-to-day perspective. That will allow us to focus our energy on implementing new functionality as well.

Joy:
I understand completely! If you don't mind, could you send me some details on the applications in question. Once I have that, I can start working on a proposed solution for you right away. I will be in touch when I have something to share and we can schedule a meeting.

Ethan:
Sounds great. Thanks Joy, I look forward to hearing from you. Bye

Joy:
Bye bye.

Shown below is the current architecture that JJ Tech Inc is targeting for migration.
It's an e-commerce web application which was developed in Java and is a monolithic. It's a 2-tier solution, meaning a separate web and database tier. The web front end and application are deployed to a pair of load balanced web/app servers. The web/app servers are running Apache Web Server running on Ubuntu Linux distribution. They are running in a public subnet accessed by customers through a firewall with port 80 and 443 open. The database is MySQL running on a single server with no redundancy. It is located in a private subnet behind a firewall which only allows traffic on port 3306 from the web/app server via a hard-coded IP address rule. The database is backed up via a weekly full backup and a nightly incremental back up to tape using commercial tape backup software.



Assuming you're Joy and you have seen the customer's current architecture, and now have a solid understanding of the customer's challenges. You have a pretty good idea of which services and features would address those challenges, but you certainly should do more research- you need to put something amazing infront of the customer – something that covers all the bases: security, availability, cost-optimization. After doing your research on best practices, come up with ways to optimize the solution and make sure it's validated against real-world use cases. Come up a solution design for the customer which directly addresses their business challenges while being secure, cost-efficient, scalable and compliant.