

Path to Cloud

Cloud technology is now mature, but true Enterprise adoption is still young and options are still emerging. As such this article is in the early stages.

Why Move to Cloud?

The key to taking this path is asking yourself **why** and what **parts of the cloud** to take advantage of. At this revision of this article, I'm doing a brain dump and then going to boil it down.

| Advantage | Primary Driver | Comment | Devil's Advocate View |
|------------------------------|----------------|---------------------------------------|--|
| Remove Hardware Dependencies | Cost | | |
| Can Expand and Contract | Integrity | | |
| Infrastructure as a Service | Consistency | | |
| Cheaper | Cost | I'm not quite convinced this is true. | People costs don't go down but go up. Developers are not operators. It is my opinion you can't just have DevOps people but also need OpsDev folks. |
| ... | | | |

To What Extent is Your Application and Environment Compliant to the Cloud Advantages?

Anything can be put on the cloud, but especially with large enterprises where millions of dollars and legacy complexity is involved use this checklist,

| Question | Why Do You Care? | What Do You Lose? | What Can you Do? |
|---|--|-------------------|------------------|
| Can you achieve consistency across environments IST, UAT and Production? | | | |
| Can the design be zero footprint ? | | | |
| Are the applications clone-able without impact? | | | |
| Do you have a single chocking point? For example, the application relies on 1 giant legacy database or some host systems? | So what if your web applications can scale during busy periods. You still choke at your database. And scaling may actually reduce performance with too many connections to the database. | | |

You do not have to be able to say yes to everything. However, it changes the nature of your design.

Team Considerations

- Developers can not suddenly become DevOps.
- You need OpsDev viewpoint as much as DevOps.
- Management and budget are different.
- Cloud Platform expertise is a must (either bake in project to build or though tough to get because still young hire). Better, do both. Expertise at this point (Jan 2017) is still limited and if you are not similar to Google, LinkedIn, Netflix expert probably does not know traditional IT required for your company.
- To write up here... what kind of talent attributes we need and key challenges we've seen.
- How to grow full stack DevOps and OpsDev staff.

Cloud Smoke Test

Have the cloud "smoke test" up front before the project starts. These are also great questions to ask to understand and validate the success of moving to Cloud,

| Question | Cloud Advantage | Value Commentary |
|---|-----------------|------------------|
| Demonstrate environment can be torn down and built up within minutes from recipe. | | |
| See the environment be torn down and built up in different environments, IST, UAT and Production? | | |
| Show the environment scales up and down? | | |
| | | |

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Here is high level path and approach to Cloud taking the Bonsai Framework approach.

| Technical Narrative | Functionality | Description | Business Values | Technical Value | More Details |
|--------------------------------------|--------------------------------------|-------------|--|-----------------|-------------------------|
| Make Transportable - Zero Foot Print | | | <ul style="list-style-type: none">StabilityFaster DeploymentScalabilityCloud compatible | Uniformity. | |
| Cookie Cutter | Infrastructure as Code using Scripts | | Fast delivery of environments. | | Code as Infrastructure. |
| Cost Benefits on the Cloud | | | | | |
| Prove On the Cloud | | | Reduce risk. | | |
| | | | | | |
| Run on the Cloud | | | Save Money with Pay as you Go. Instant capacity. Go virtual with no more hardware. | | |
| Implement CICD | | | | | |
| Build with CICD | | | | | |
| | | | | | |
| Add Salt | Monitoring and Alerting | | | | |
| | Cleanup Automation | | | | |
| | Backups | | | | |
| | | | | | |
| Security | Security Hardening | | | | |
| Build from Recipe | CiCD | | | | |
| | | | | | |
| Insurance | Disaster Recovery | | | | |
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