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 You 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?		

Path to Cloud

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			• Stability • Faster Deployment • Scalbility • Cloud 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				