



Hybrid Cloud Checklist for Successful Implementations

Hybrid cloud challenges IT professionals to view technology implementations in a very different manner. Hybrid solutions require a focus on business outcomes, and agency missions.

Questions need to be considered prior to embarking on a hybrid deployment such as:

- What do you want to accomplish?
- What are you currently doing on premises and/or in the public cloud?
- Is a hybrid cloud architecture a good fit for the organizations planned use cases?
- Have you reviewed similar agency use cases and lessons learned from hybrid implementations?

After carefully reviewing the above questions, proceed with the following checklist of areas to consider.

- Develop initial use cases. Prioritize the use cases in order to determine which ones will be pursued initially. Do not try to implement all use cases in the beginning as it will complicate your initial implementation. The Taneja Group recommends starting with one or two scenarios and working out any issues before moving on to additional use cases.
- Identify the specific apps required to support those use cases. Determine whether the identified applications are candidates for the hybrid cloud, and prepare contingency plans for non-cloud suitable workflows.
- Determine and document your requirements for key service-level agreement (SLA) metrics. This includes SLA areas such as storage performance, availability, security and quality of service, as well as network bandwidth and latency. Ensure that integration alternatives are also evaluated against the same requirements.
- Evaluate public cloud providers to ensure the hybrid cloud integration goes as smooth as possible. Be sure to analyze items such as virtual private network (VPN)



connectivity, infrastructure as a service offerings, service and usage terms, and corresponding costs. Ensure the provider's Infrastructure as a Service (IaaS) offerings meet the identified requirements identified above. Evaluate the anticipated costs of the hybrid implementation, and compare them to the desired benefits to ensure justification of moving forward.

- Narrow your integration choice to one or two options. The best hybrid cloud implementation choices might include purpose-built software, cloud-enabled apps with built-in integration capabilities or cloud storage gateway functionality.
- Take inventory of the existing infrastructure. Decide what additional systems/software may be required for the implementation.
- Analyze storage management needs. Determine how your current management tools and processes will need to adapt in order to accommodate the hybrid cloud project.
- Scope out the resources and skill sets required to implement and maintain each integration option on your short list. This will assist an agency in analyzing which options are able to be accomplished and supported within a given budget. Keep in mind the required staff, both in terms of skills and numbers will change with each use case/workflow deployed to the hybrid cloud. A major advantage to cloud migrations in general, is that there is a reduction in IT administration and maintenance duties, freeing IT staff for new innovative tasks. In some cases it may be necessary to reassign staff depending on skills and agency needs.
- Design the hybrid approach with flexibility and future needs in mind. When designing a hybrid solution focus on open data, and technologies as well as FedRamp compliant vendors to avoid being locked into a particular vendor or solution at the expense of future innovation and flexibility.

This checklist will enable agencies to get a feel for the type of hybrid cloud solution that will best satisfy their needs. Each agency is unique, therefore the best approach is to begin small with a few use cases and develop specific lessons learned that can be duplicated in future deployments.