Solving Scalability and Disaster Problems with Cloud

JOE CLARKE
About Me

Location
Cleveland, Ohio

Qualifications
Joe brings over 12 years of architecture, planning, and implementation expertise in the hybrid cloud, virtualization space and end user computing spaces. Prior to solution architecture at Advizex, Joe worked in house at a large bank and hospital in Northeast Ohio.

- Joe is one of 8 global (5 US) dual VCDX certified professionals with an EUC specialization
- Successfully planned, designed, and implemented multiple large-scale cloud migration, virtual desktop and server projects
- Joe has led desktop and server virtualization efforts for numerous organizations
- Deep infrastructure expertise (storage, compute, networking)

Certifications
- Azure SA Expert
- AWS SA Associate
- VCDX6-DCV
- VCDX5-DTM
- MCSE, MCITP
- MCTS-SCCM
Enterprise Spending on Cloud and Data Centers

Source: Synergy Research Group
Worldwide Whole Cloud Outlook

2021 ($706.6B)

55.7% As-a Service

2025 ($1,301B)

64.1% As-a Service

What Businesses Want: Hybrid Cloud

- Consume IT so it looks and feels like Public Cloud – no longer want to do “hardware refreshes”
- “C” Suite Direction – not in the data center business
- Secure IT environment
- Build as you grow vs. buy as you grow
What is desired, versus often purchased
WHAT IS CLOUD?

Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction.
The Customer Only Responsibility Model
The AWS Shared Responsibility Model
essential  adjective

es·sen·tial  |  i-ˈsen(t)-shəl  

Definition of essential (Entry 1 of 2)

1  : of, relating to, or constituting essence : INHERENT

2  a  : of the utmost importance : BASIC, INDISPENSABLE, NECESSARY
   // an essential requirement for admission to college
CHARACTERISTICS OF CLOUD

• Broad network access
• Resource Pooling
• Measured Service
• Rapid elasticity
• On-demand self service
Private Cloud
The cloud infrastructure is provisioned for exclusive use by a single organization comprising multiple consumers (e.g., business units).

Public Cloud
The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider.

Hybrid Cloud
The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability (e.g., cloud bursting for load balancing between clouds).
HYBRID CLOUD
Unified Operating Model

Private Clouds \[\xrightarrow{\text{Data & Apps}}\] Public Clouds
Seems obvious, but...
Scaling out... without scaling back in... is growth.
We don’t really do cloud. Thanks!

Mr. Customer
CIO

Mobile: 123.456.7890

Sent by
Public Cloud OEMs are also moving in the direction of hybrid so they can exist in on-premises datacenters when the use case is right.
What are the tipping points for leveraging hybrid cloud?
What are the tipping points for leveraging hybrid cloud?

- Executive mandate
- Hardware lead time becomes untenable for the business
- A need to quickly service a region without an existing datacenter footprint
- Continued flexibility to expand to new regions quickly
- Desired services are not currently available in the private cloud catalog and can’t be added quickly
- Scale and Descale
- Availability requirement makes leveraging cloud a better option
- The SaaS offering makes more sense
- The applications demand it
- Lack of expertise to build a private cloud
So how is Advizex helping solve problems with cloud today?

- Matching the “grid power” vs “generator” IT use cases to the right problem
- Solving the hardware lead time problem with hyper-scalers at the ready
- Enabling true hybrid cloud capability through CMP offerings and our services teams
- Building custom compute light, storage dense DR offerings
- Optimizing configurations by helping move to well architected
- Managed services to ensure cloud providers are fulfilling their duties
- Modernization of collaboration tools to work from anywhere securely
- Building applications in cloud native formats to be portable
- Untangling the complexity of the cloud bill and helping optimize costs
The first time an out-of-control cloud bill shows up
Unified Operating Model

Private Clouds  Data & Apps  Public Clouds
Closing Comments

• Exciting – Change is omnipresent
• Challenging – Evolve vs. Transform
• Story Problems – These excite us