#### WHAT TO EXPECT WHEN CONSIDERING THE CLOUD





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# **CLOUD INTRODUCTION**



# **CLOUD DEPLOYMENTS**

- Private
- Public
- Hybrid
- Combination
- Application vs. Infrastructure
- IaaS / PaaS / DaaS Huh?....



# WHY CLOUD?

- Less about saving money more about doing things differently
- Shifting CAPEX to OPEX
- Flexible and dynamic infrastructure
- Security posture / risk mitigation
  - HIPAA, ISO27001, 27018 and SSAE16 SOC1 and SOC2



# WHY CLOUD?

- Shift from operations focus to innovation focus
- HA/DR/BC = complex and costly
- Data backups explosive data growth while needing to shrink performance impacting maintenance windows



#### CHALLENGES

- Managing expectations
  - Firm management
    - Data privacy and security
    - Service availability
    - ROI
  - Staff
    - Fear of outsourcing
- Change control / maintenance



# WHAT TO CONSIDER

- Cloud strategy
  - Application/service focus?
  - Infrastructure focus?
- Security
- HA/DR/BC/Backups
- User experience (test/pilot/deploy)
- MPLS versus Internet connectivity?



# WHAT TO CONSIDER

- WAN and Internet
  - Capacity
  - Redundancy (paths, providers and DNS)
  - Acceleration
  - Public vs. private



# WHAT TO CONSIDER

- Regions where is your data?
  - Location compliance
  - Accessibility
  - Performance latency
  - High availability
- SLA's
- Exit strategy
- Cost



# A NEW WAY OF THINKING





# NEW APPROACH TO THE DATA CENTER











# **APPLICATION DRIVEN**













# **INFRASTRUCTURE DRIVEN**





#### NEW APPROACH - REFERENCE ARCHITECTURE

- Certified Solutions created through Partnership
- Turn Key Solutions
- Scale based on Need
- Best of Breed
- One Throat to Choke?











# NEW APPROACH – HYPER CONVERGED

- What is Hyper-Convergence?
  - Single vendor
  - Proprietary hardware / software
  - Inline data de-duplication / compression
  - Small footprint
  - Lower TCO/RPO

# NUTANIX.











# **COMMODITIZE - HYBRID CLOUD**



# Microsoft Azure









# **SECURITY AND COMPLIANCE**

- New model
  - Default ports and public access closed
  - Encryption, High Availability, Penetration Testing
  - Certified / Accredited / Validated / Monitored



#### **SHARED RESPONSIBILITY**

#### **Our Expertise**

Facilities Physical Security Computer Infrastructure Storage Infrastructure Network Infrastructure Virtualization Layer

#### **Your Setting**

Operating Systems Applications Security / Firewall Network Configuration Cloud Acceleration Account Management Monitoring

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# **SUPPORT & LICENSING**

- Demand 24x7x365
- Dedicated / Unlimited
- Contractual Requirements
- Knowledge Levels and Escalations
- Operating System Platforms
- Vendor licensing requirements
- Microsoft Software Assurance



# BACKUP AND DISASTER RECOVERY

- Impact on:
  - Recovery Time Objective (RTO)
  - Recovery Point Objective (RPO)
- Location of data
- Cost
- Ease of Use



#### **VENDOR MARKETPLACES**

- Third party infrastructure and apps
- Automated simply deployments
- Ability to resell reserved instances



#### IT'S NOT IF... IT'S WHEN!

