## Introduction

- Challenges Deploying Microsoft Exchange without Virtualization
- Misconceptions about Virtualizing Microsoft Exchange
- Benefits of Virtualizing Microsoft Exchange
- Advantages of Virtualizing Microsoft Exchange on Nutanix
  - Commercial
  - Architectural/Technical
    - High Availability
    - Performance
    - Scalability
  - Operational (BAU)

## Challenges deploying Exchange w/o Virtualization

- Dependency on the hardware platform
  - eg: Device Drivers / No mobility
- Physical hardware must be oversized to cater for growth
- Additional silo/s of resources are created & need to be managed
- Delayed time to market for new servers due to procurement
- Generally inefficient use of compute and/or storage resources





## Challenges deploying Exchange w/o Virtualization

- Inc reased demands in the d atac enter
  - eg: Rackspace , Power, Cooling , Net work & Storage comms
- Limited/No ability to scale compute resources without downtime
- Inc reased complexity/cost for
  - Hardware Maintenance / Repair
  - Business Continuity & Disaster Recovery
  - Patching and general BAU tasks



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## Misconceptions about Virtualizing Exchange

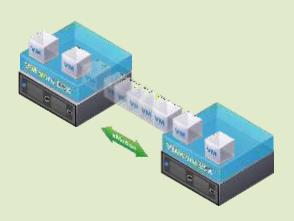
- Microsoft do not support Exchange on VMware
- Reduced or Poor performance
- Must use Direct Attached Storage
- Must have dedicated spindles / storage for Exchange
- Exchange does not work on NFS
- vSphere features such as HA/DRS & vMotion are not supported
- Exchange DAGs\* are not supported for VMs
- No availability benefits when using DAGs
- Poor performance on Thin Provisioned VMDKs
- Support options for MS products running in VMs

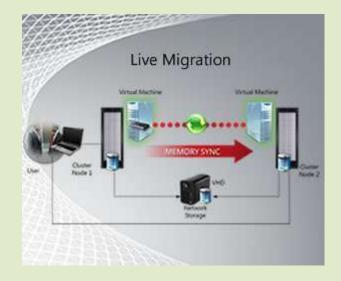


\* Patab Support policy for MS software running in non-Microsoft hardware

## Advantages of Virtualizing Exchange (1 of 2)

- No dependency on Hardware type
  - Eg: Avoids purchasing/sizing for forecasted 3-5 year requirements
- Reduced CAPEX Purchase only HW required for initial deployment
  - Ability to save on CAPEX and avoid over sizing and wasted investment
- Reduced time to market when deploying/expanding Exchange env.
  - New Exchange servers can be stood up in hours not weeks/months
- Increased ROI from Compute/Storage/Network
  - Higher utilization levels for servers and network with minimal wastage





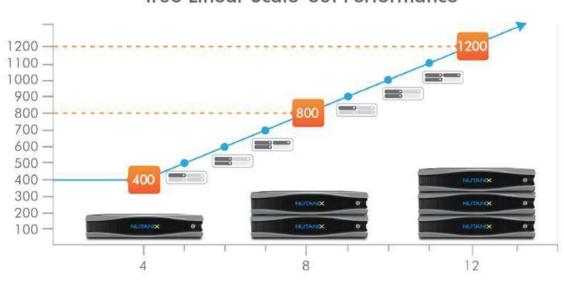
## Advantages of Virtualizing Exchange (2 of 2)

- Ability to quickly/easily scale without downtime
  - Eg: ESXi hosts can be added to the cluster without downtime
- Lower D atac enter & OPEX costs
  - Eg: Less rack space, power , cooling , equipment , maintenance contracts etc
- Use vMotion / Live Migration to achieve zero downtime HW maintenance
- Reduced complexity for Business Continuity & Disaster Recovery
- Ability to scale out Exchange server roles without additional HW
- Benefits of using Snapshots / Cloning & other Hypervisor features



# Advantages of Virtualizing Exchange on Nutanix – Commercial (1 of 4)

- <u>Further</u> Reduced CAPEX Just 3 node initially then 1 node at a time
  - Start with just 3 nodes, and scale one node at a time forever!
  - Ability to scale compute & storage linearly where required with the option of compute or storage heavy nodes while avoiding
- Increased Ability to scale quickly/easily without downtime
  - Eg: Nutanix nodes can be added without downtime, increasing the entire clusters performance
  - No delay in having capacity available due to having to expand RAID groups etc



True Linear Scale-out Performance

# Advantages of Virtualizing Exchange on Nutanix – Commercial (2 of 4)

- <u>Further</u> Reduced time to market when deploying
- expanding the Infrastructure to support Exchange
  - New Nutanix clusters can be built in <30 mins
  - New Nutanix nodes can be added in <10 mins</li>
  - No messing around with expanding RAID groups
  - Easier and faster than ordering a PIZZA!



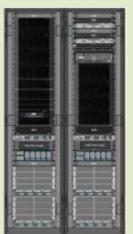
#### • <u>Increased</u> ROI from Compute/Storage/Network

- Higher utilization levels for servers and network with minimal wastage
- No requirement for a dedicated Storage Network (IP or FC)
- Reducing network requirements
- Single Storage pool provides maximum capacity utilization without degrading performance due to the Nutanix scale out, shared nothing architecture with one virtual Nutanix controller per node

# Advantages of Virtualizing Exchange on Nutanix – Commercial (3 of 4)

- Further Reduced D atac enter & OPEX costs
  - Eg: Less rack space, power , cooling , equipment , maintenance contracts etc
  - Much Lower Entry Cost & smaller scaling increments

Traditional Pre-Architected Converged Products 1 or more Racks of Equipment (42RU / rack)





2RU per 4 Nodes (84 nodes per Rack!)

- No need for Storage Subject Matter Expert (SME)
  - The Nutanix solution is simple to deploy and manage any System Adm inc an doi t!



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