

EXCHANGE 2010



MICROSOFT® EXCHANGE SERVER 2010

This Exchange 2010 solution architecture is sized and architected according to the requirements detailed here. It is intended to serve as a blueprint or example for organizations whose requirements are similar. Each organization's requirements will differ and include other considerations not listed here. For a configuration sized to your specific requirements please contact your Dell representative.

AGILE CONSOLIDATED MODEL 50,000 MAILBOXES ON M1000e/PS6500X VIRTUALIZED

Organizational Profile:

- 50,000 mailboxes
- 1.5GB average mailbox size limit
- .1 IOPS per user (~100 messages/day)

Hardware Requirements:

- Dell EqualLogic PS6500 iSCSI SAN (4u/48 drive)
- PowerEdge M1000e (blade chassis)
- PowerEdge M610 blade servers
- DR configuration for site resiliency

Not Included:

- Backup and recovery infrastructure
- UM and Edge Roles

AGILE CONSOLIDATED MODEL 50,000 MAILBOXES ON M1000e/PS6500 VIRTUALIZED

Input	Detail	
Number of mailboxes	50,000	
I/O Profile	0.1 IOPS	
Size of mailbox	1.5GB	
Number of copies	2 copy DAG stretched over 2 sites	
Recommended Solution	Detail	
ESX/Hyper-V Servers	14 x PowerEdge M610 (7 servers on Local site and 7 servers on remote site)	
ESX/Hyper-V Servers per site	5 x PowerEdge M610	2 x PowerEdge M610
(Processor/Memory)	2 x Quad-Core processors /48 GB memory	2 x Quad-Core processors /96 GB memory
Mailbox Server Virtual Machine	1 x VM on each Host server	2 x VM on each Host server
(Processor/Memory)	4 x vCPU / 34 GB virtual memory (5200 Mailbox users per VM)	4 x vCPU / 44 GB virtual memory (6000 Mailbox users per VM)
CAS Server Virtual Machine	1 x VM on each Host server	N/A
(Processor/Memory)	2 x vCPU / 8 GB memory	N/A
HUB Server Virtual Machine	1 x VM on each Host server	N/A
(Processor/Memory)	1 x vCPU / 4 GB memory	N/A
Storage Array	6 x Dell EqualLogic PS 6500E on local site 6 x Dell EqualLogic PS 6500E on remote site	
Storage Configuration	Detail	
Disk Type	SATA - 1TB	
RAID Type	RAID 10	
Database Volumes	67 Active + 67 Passive Database	
Mailbox per Database Volume	750 Mailboxes	
Additional parameters	Data and Logs combined 12 Hot Spare Drives in each site 3% estimated additional storage space available NTFS Allocation unit size = 64KB for both DB and Log	

RECOMMENDED HARDWARE CONFIGURATION

