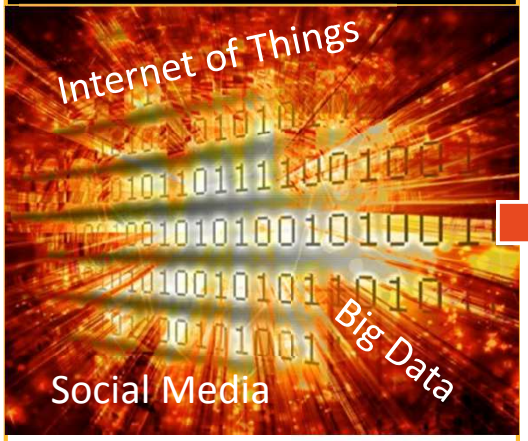
What’s new in NetBackup 7.6?

Roberto Dellavedova

Product Specialist Information Management

Key Trends: Pain Points in Data Protection

Information Explosion

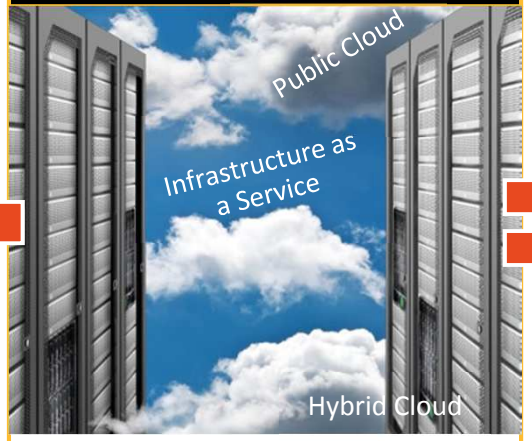


30x More Data in 2020

61.8% Unstructured Data Growth in 2014

60% Storage Space was from Copy Data in 2012

Data Center Transformation



Hybrid Data Center is the future

Software Defined Anything

63% of Workloads in Cloud by 2017

Changing Risk Landscape

Scalability?

Visibility?

Ownership?

Control ?

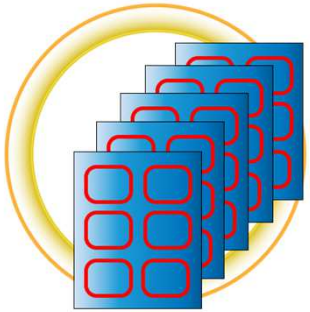
Compliance?

Privacy?

NetBackup 7.6

Better Backup for a Virtual World

Better Backup for Virtual Machine Sprawl



- Extreme Performance
- Elastic Automation
- Integrated Management

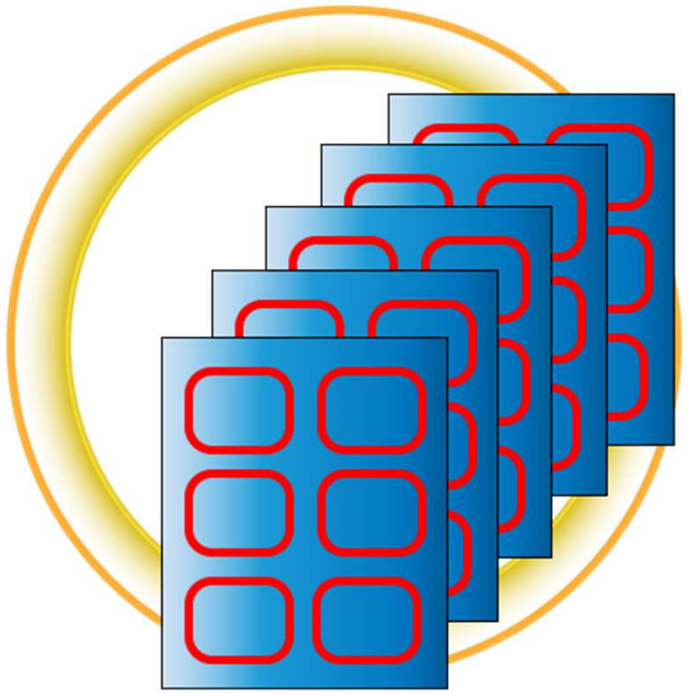
Better Backup for the Software Defined Data Center

- Protect the DNA
- Data Center Portability
- IT as Information Broker

Better Backup as a Service

- Integrated Platform
- Backup as a Service
- DR as a Service

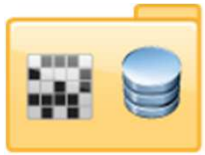
BETTER BACKUP FOR VIRTUAL MACHINE SPRAWL

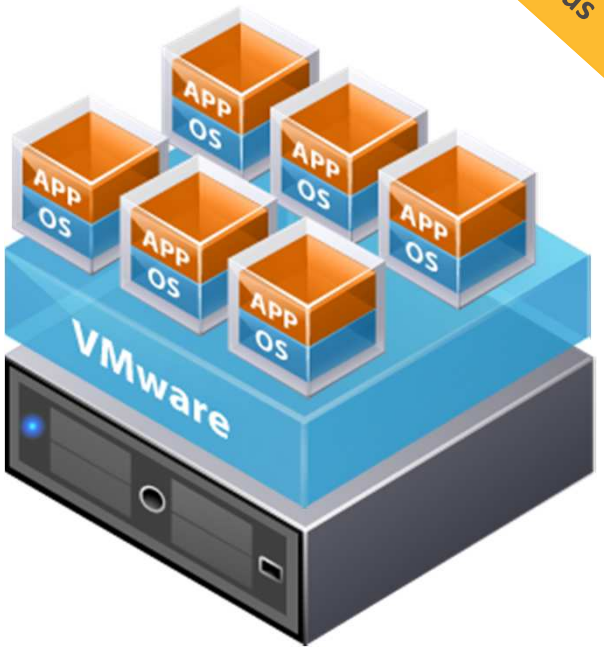


Ability to meet backup windows

Accelerator for VMware

Optimize for Source Workloads





WHAT IT DOES:

- Leverages VMware CBT (Changed block tracking)
- Backs up only changed data, then deduplicates that data
- Takes the changes and synthetically recreates a full back image

THE BENEFIT:

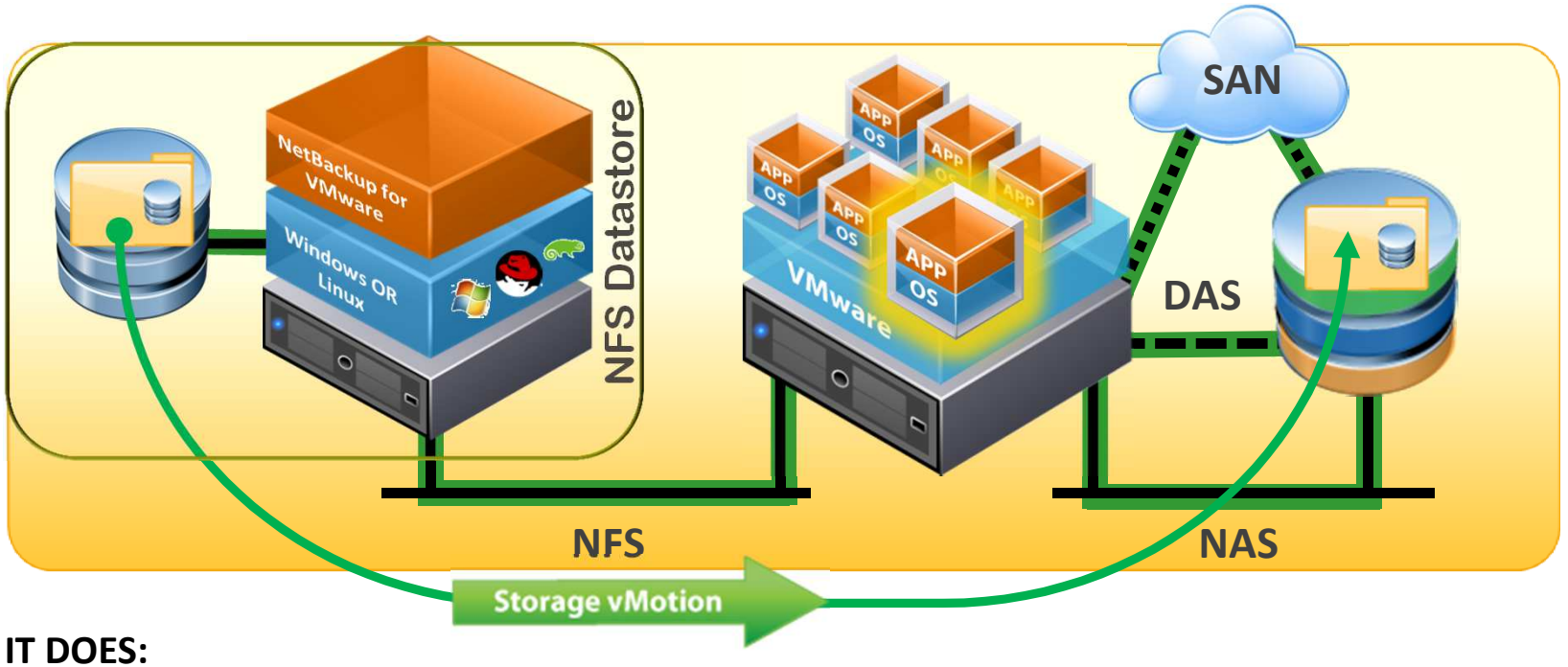
- Less processing overhead required to read just changed blocks of data
- Backing up less equals faster backup
- Full backup recoverability, impact of an incremental backup

35X FASTER BACKUPS

Ability to meet recovery SLAs

Instant Recovery and Storage vMotion

Optimize for Source Workloads



WHAT IT DOES:

- Powers on the virtual machine from backup storage
- Makes the VM visible in vCenter as soon as it's powered on
- Leverages vMotion to move the VM back to production storage

THE BENEFIT:

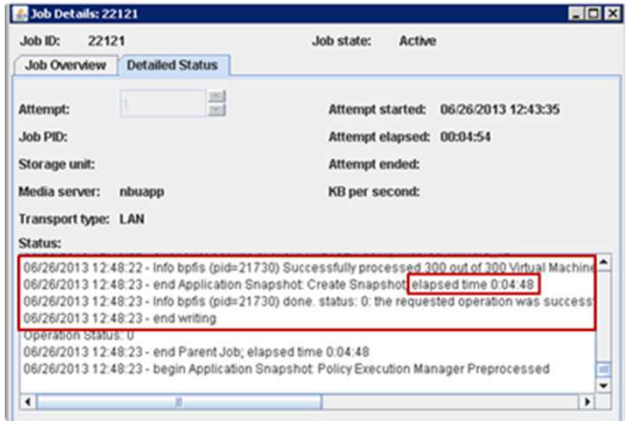
- No more waiting for the restore to occur before access to the VM can be realized
- VM Admin can see and manage the VM just as before
- vMotion moves the VM without disrupting access

400X FASTER RECOVERY

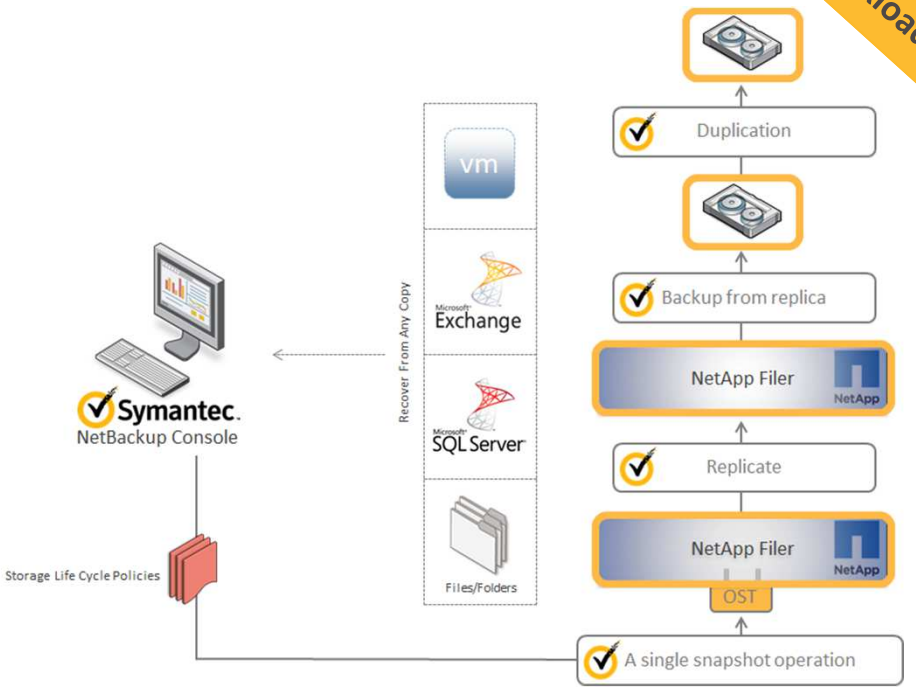
Ability to meet backup windows and recovery SLAs

Replication Director for VMware

Optimize for Source Workloads



300 VMs in 300 seconds



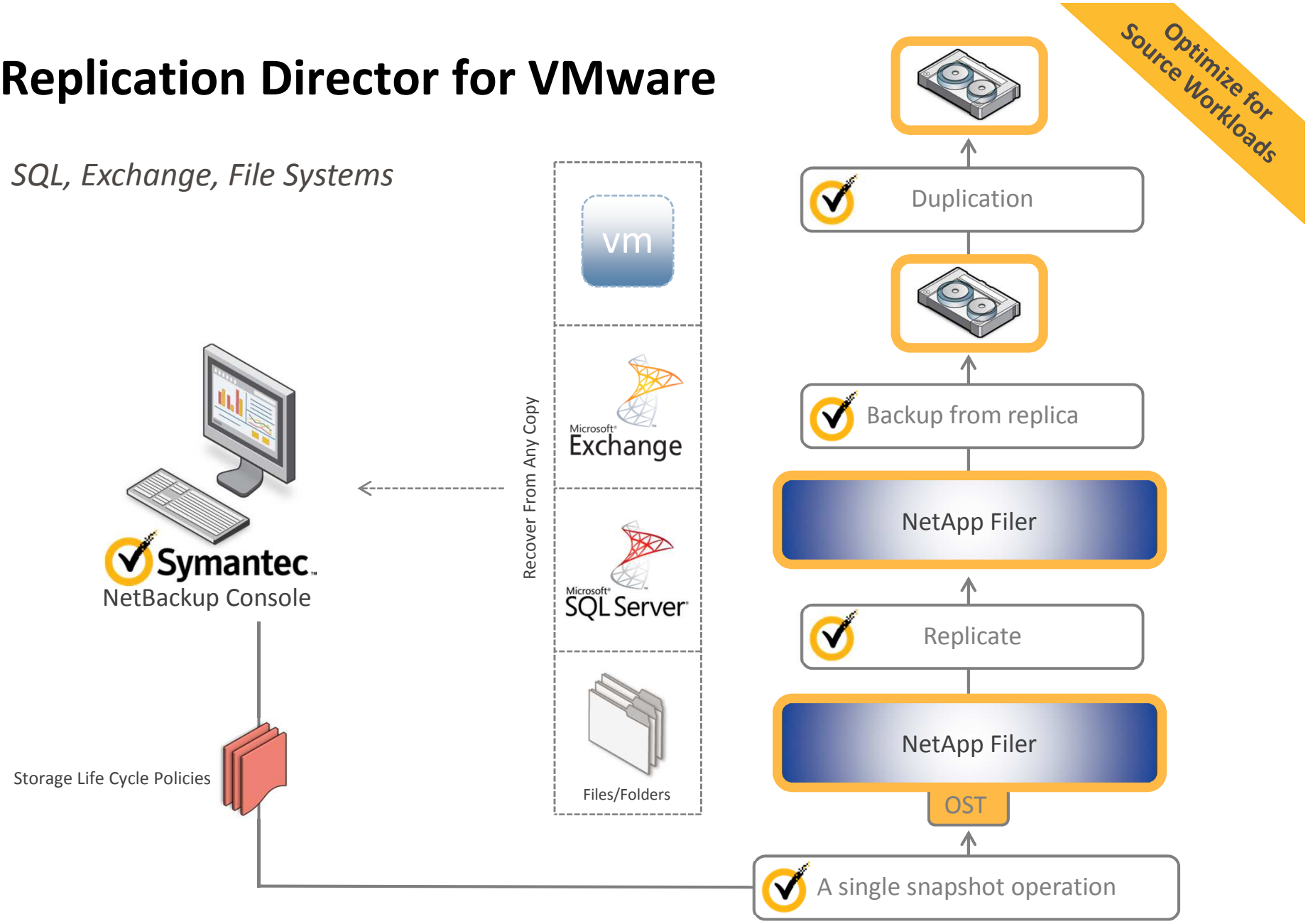
WHAT IT DOES:

- Manages 3rd party array-based snapshots and replication from within NetBackup
- Catalogs snapshot images to provide granular restore capabilities for files, folders, and applications on VMware

THE BENEFIT:

- Speed of snapshots, recoverability of NetBackup
- Very low impact on ESXi resources since snapshots happening at storage layer
- One solution to manage every snapshot and replication operation

Replication Director for VMware



Simplify the Operating Model

Semplified Backup Monitoring and recovery of VMs

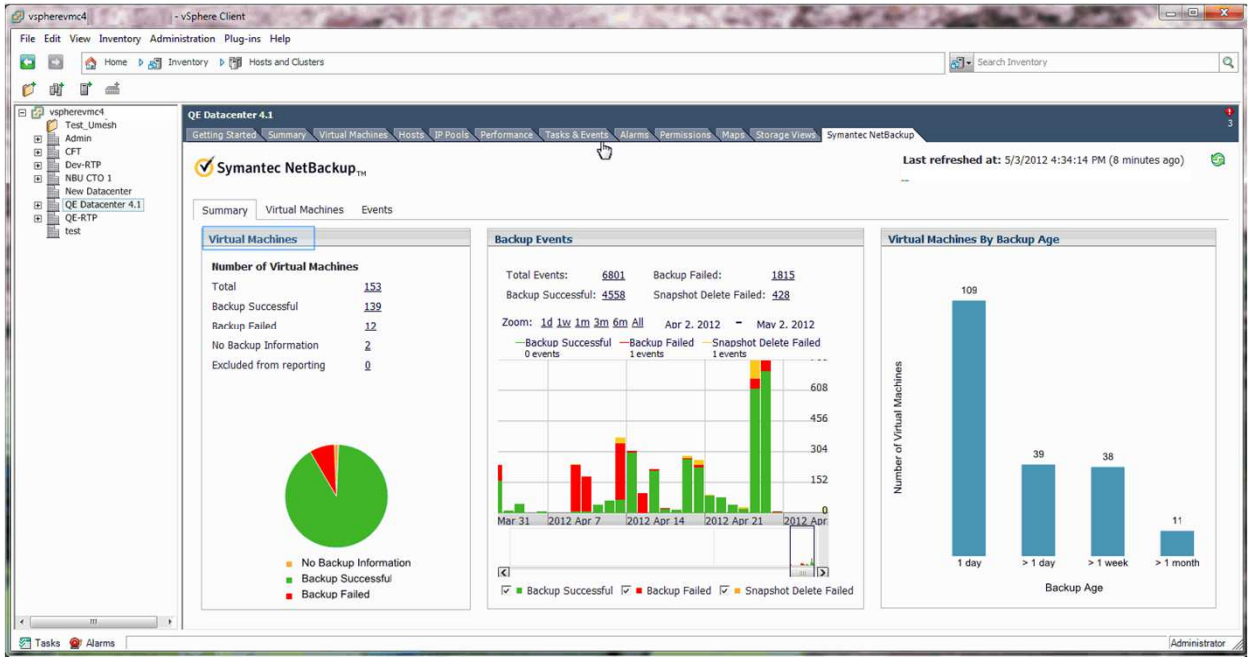
NetBackup plug-in for vCenter

WHAT IT DOES:

- **The vCenter plugin provides a management interface available to VM Admins**

THE BENEFIT:

- **Allows self-service restore**
- **Provides backup reporting**
  - **Most recent backup**
  - **Backup timeline**
  - **Success/failure**

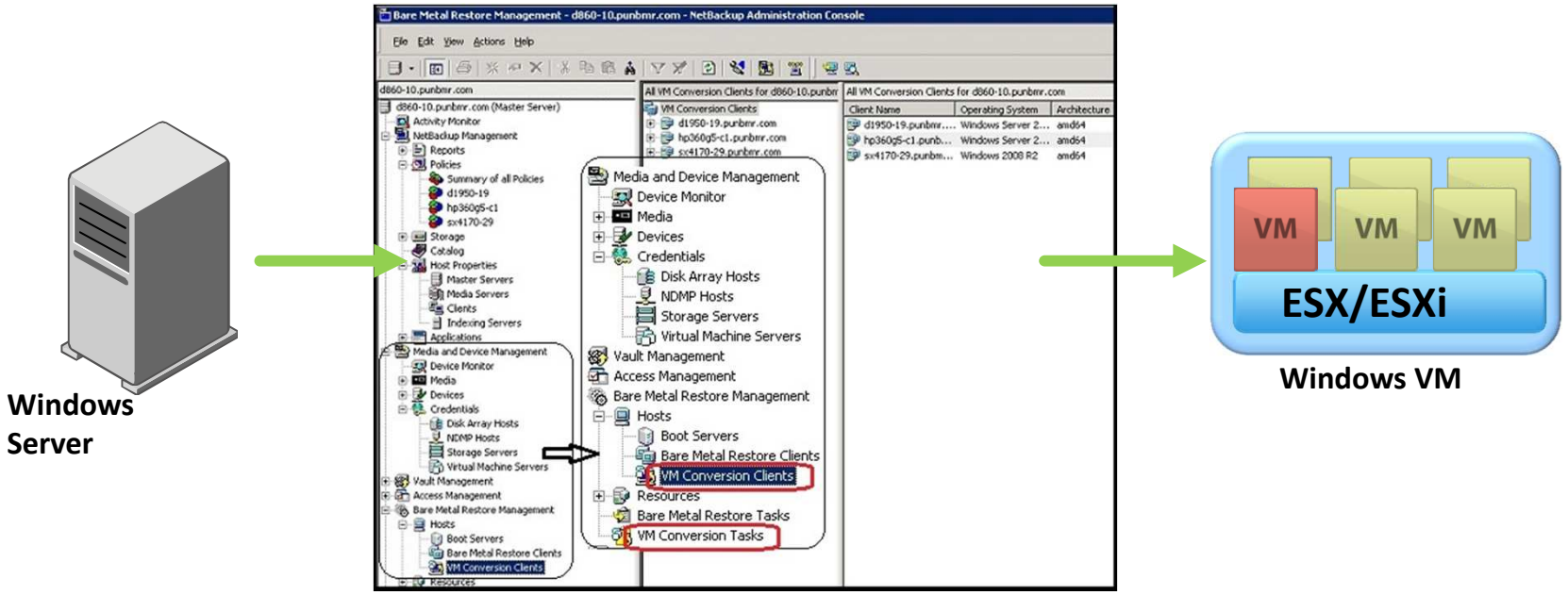


Semplified Server Recovery

Physical to virtual recovery with Bare Metal Restore

Optimize for Source Workloads

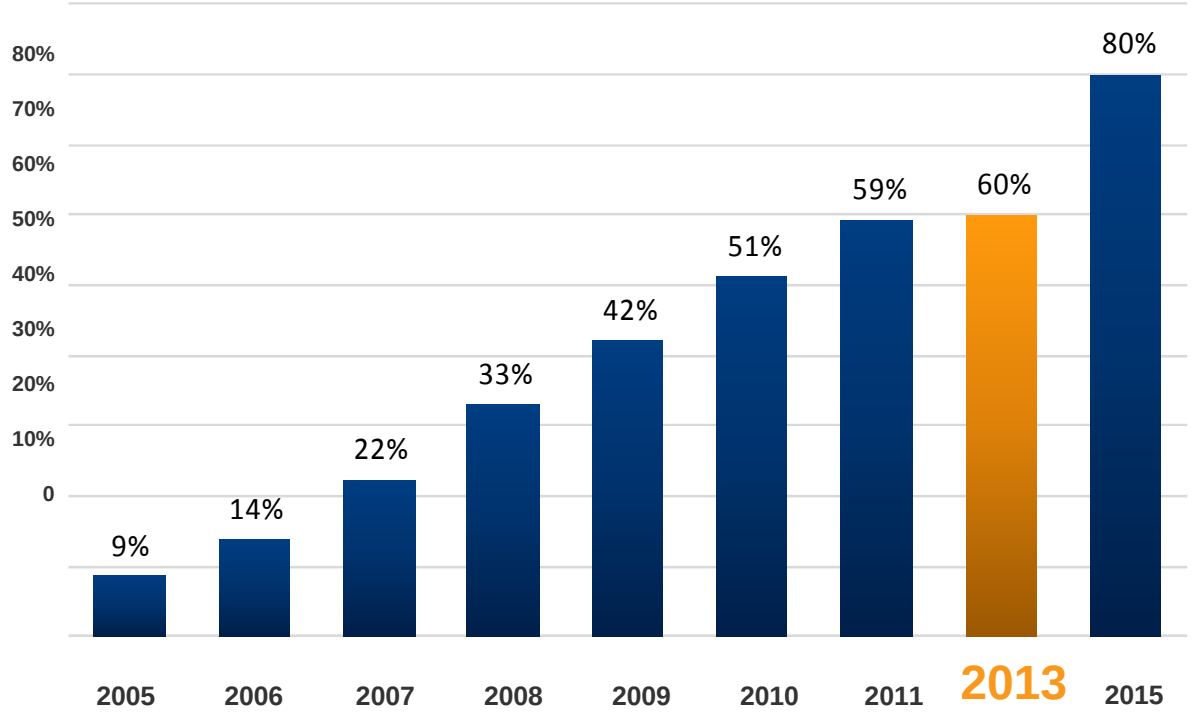
- Windows P2V integrated in the BMR console
- Combines BMR Windows backup + VM Recovery Wizard
- Eliminates VM network boot for P2V recovery



BETTER BACKUP FOR THE SOFTWARE-DEFINED DATA CENTER

Virtual Reality

% workloads on virtualized infrastructure



Source: Gartner “Magic Quadrant for x86 Server Virtualization Infrastructure” by Thomas J. Bittman, George J. Weiss, Mark A. Margevicius, Philip Dawson, June 11, 2012

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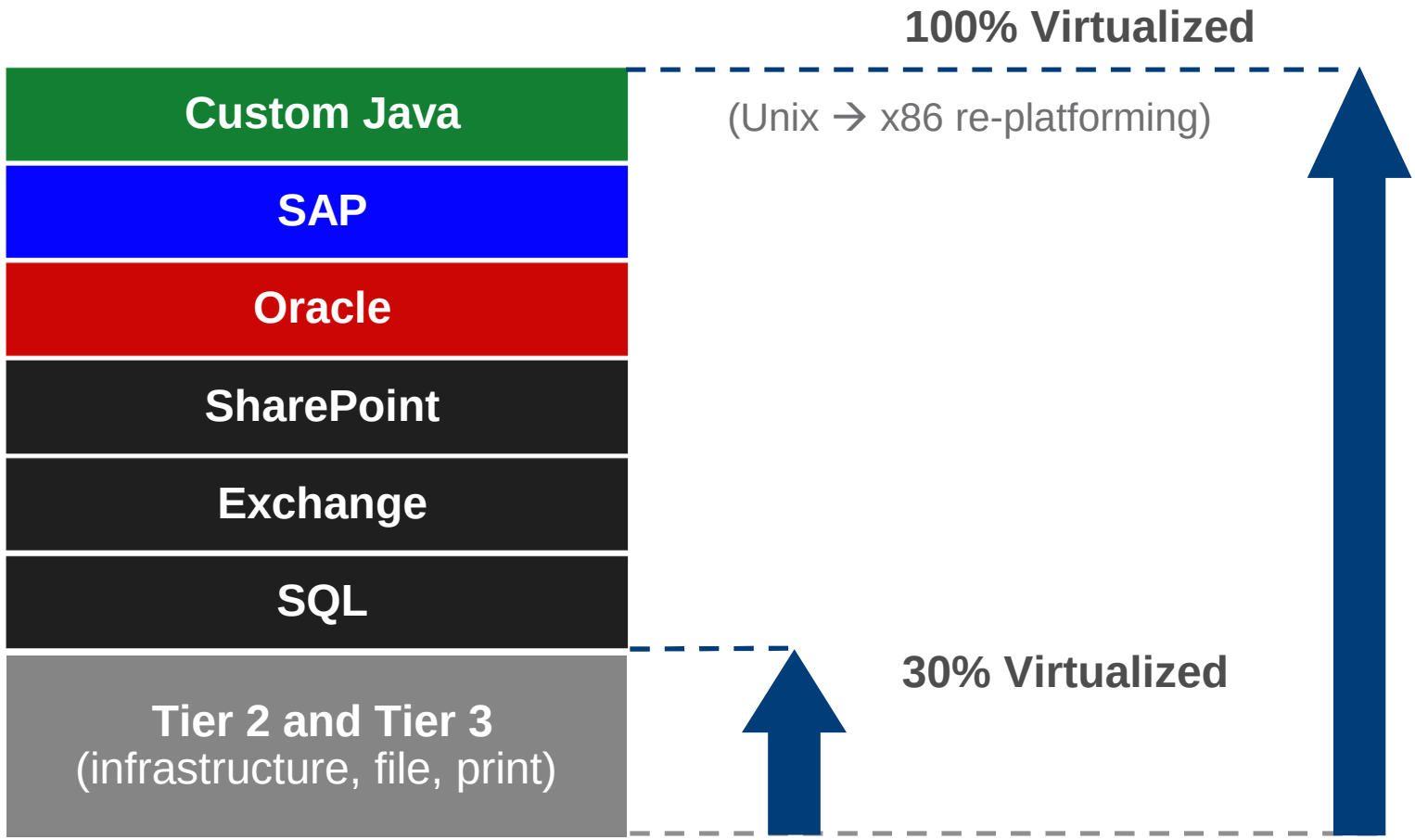
Business Critical Apps are now virtualized



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What if…

The same principles that transformed a single layer of the data center…

Abstract. Pool. Automate.

were applied to the entire data center?

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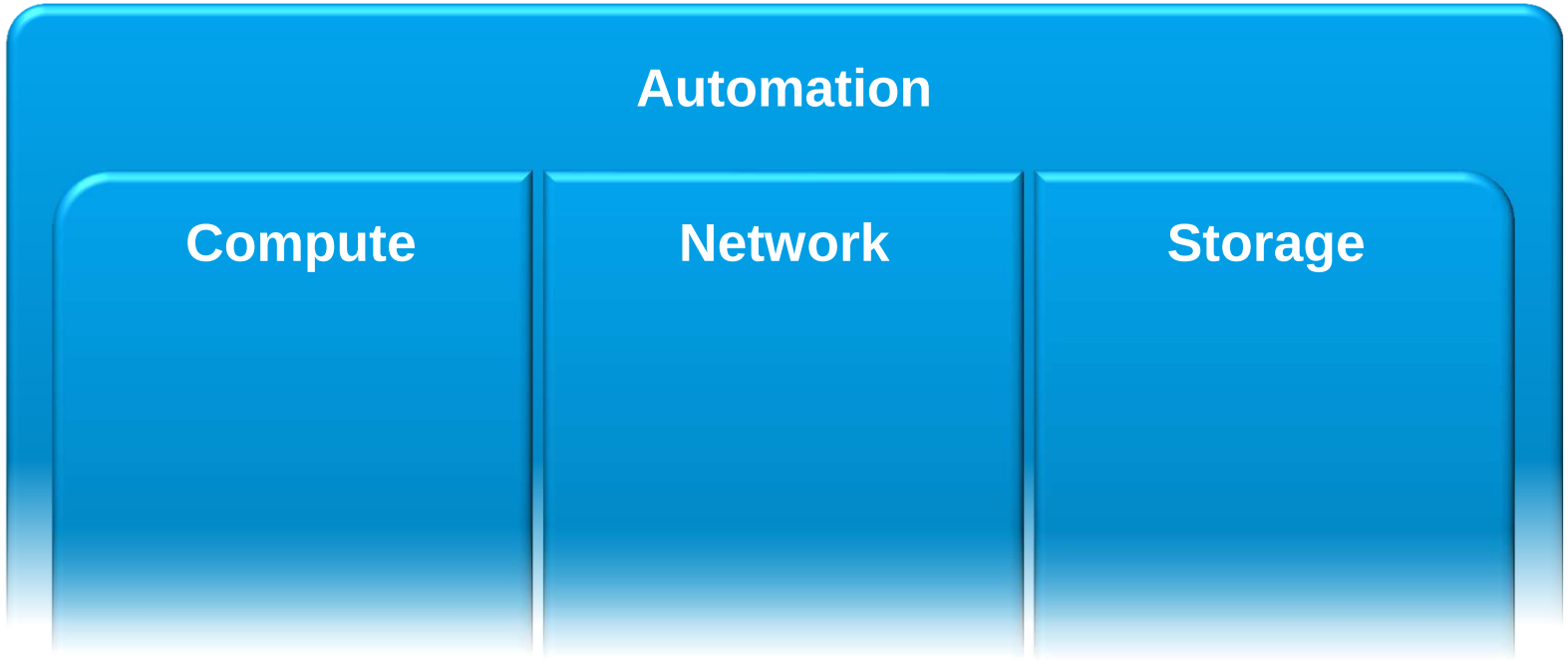
VMware's SDDC Architecture

Software-Defined Data Center



Abstract. Pool. Automate.

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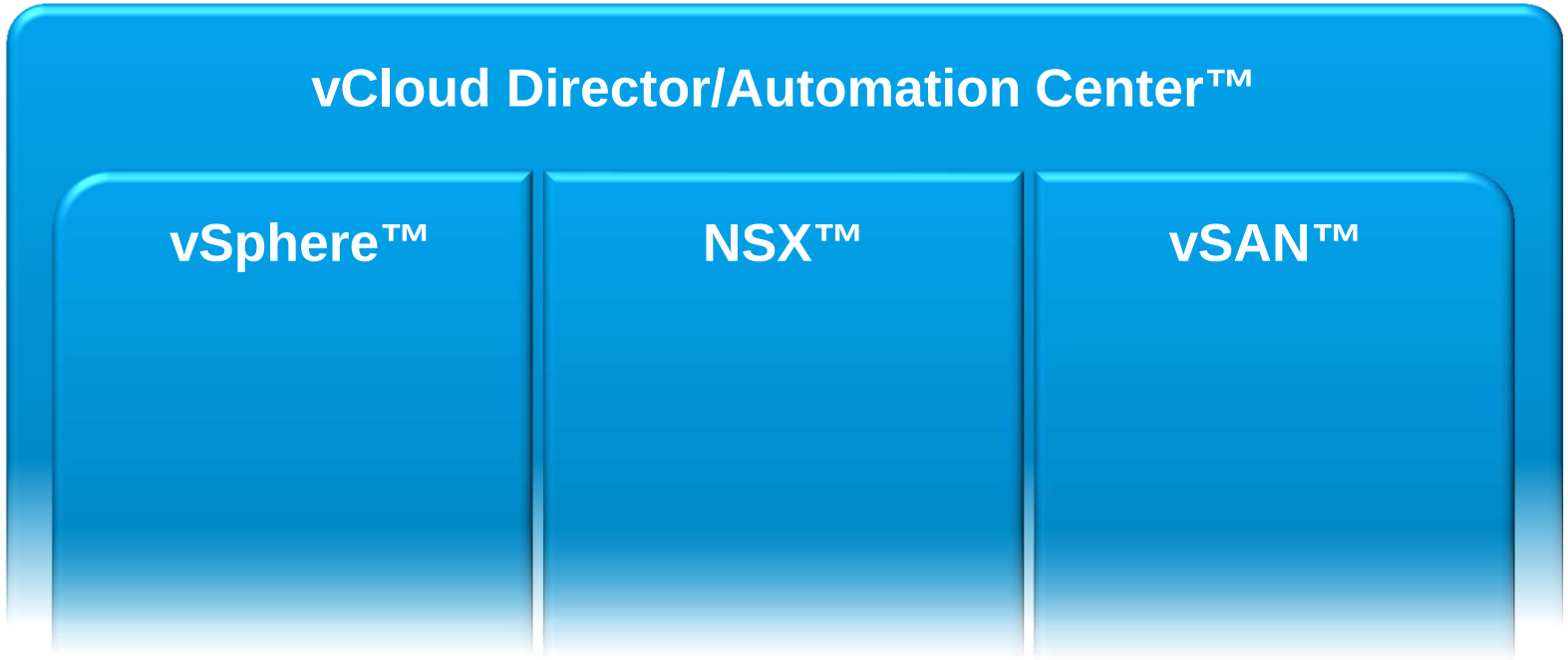
VMware's SDDC Components

Software-Defined Data Center



Abstract. Pool. Automate.

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Ability to protect the Software Defined Data Center

NetBackup for vCloud Director

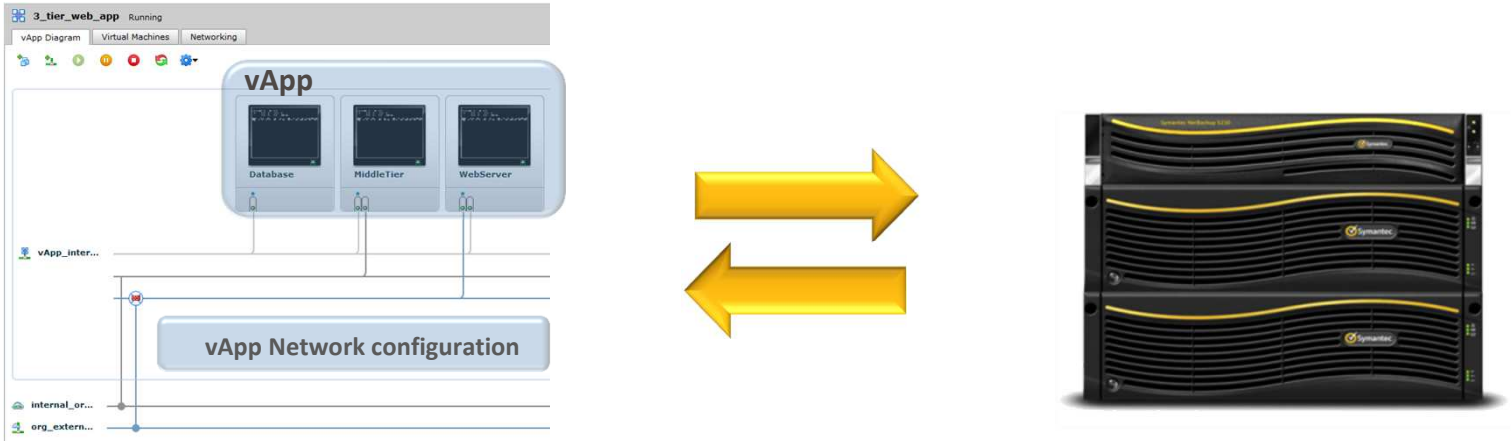
Optimize for Source Workloads

WHAT IT DOES:

- Automatically protects newly provisioned VMs (vApps)
- Restores configuration – or metadata – which includes networking and storage layers in addition to the VMs

THE BENEFIT:

- Completely scalable protection for the Software Defined Data Center
- Direct integration with vCloud Director Backup API ensures successful vApp restores
- Datacenter portability by recovering to another vCloud



The vCloud Director integration in NetBackup 7.6 release is being stress tested in

ONE OF THE LARGEST CLOUD DEPLOYMENTS IN THE WORLD

Symantec's Software-Defined Data Center

Powered by VMware vCloud Suite

35,000 VIRTUAL MACHINES

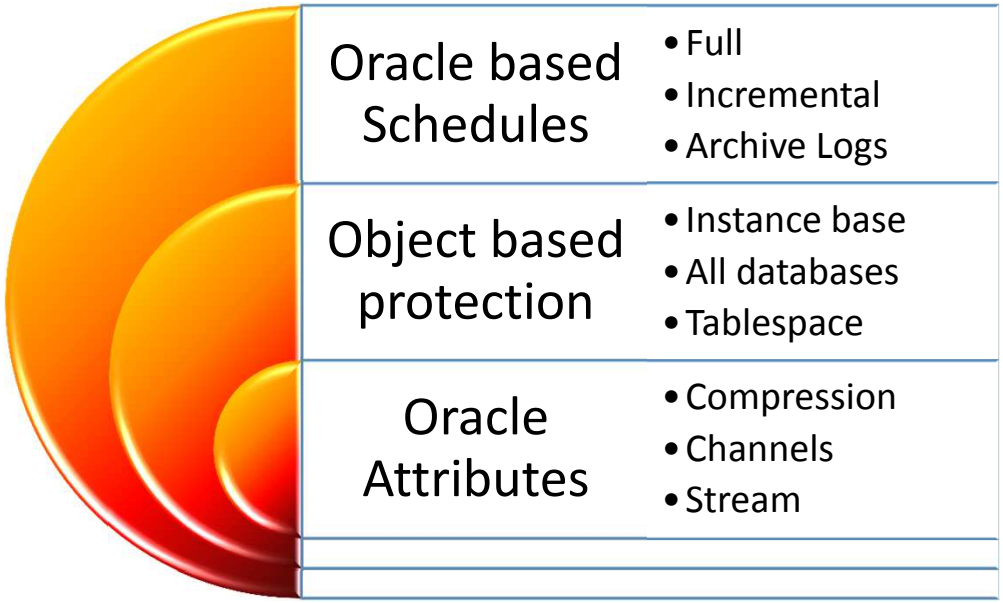
13,000 OF WHICH ARE RUNNING AT ANY GIVEN TIME…

What else…

Simplify the Operating Model

Decrease Time to provision reduce human error

Oracle Intelligent Policies



WHAT IT DOES:

- Discovers new Oracle instances and deploys backup policies to them
- Automatically generates scripts without use of RMAN
- Allows for scheduling of tasks (i.e. when to backup the DB, archive logs, etc.)

THE BENEFIT:

- Automated protection means less manual overhead to manage/protect Oracle
- Semplify Oracle backup management

NetBackup Deduplication Improvements

WHAT'S INCLUDED:

- Self-healing architecture
- Better housekeeping abilities
- Performance Improvements

THE BENEFIT:

- Faster, more resource-efficient, and more reliable deduplication performance

43% FASTER PEAK CLIENT DEDUPE PERFORMANCE

122% FASTER PEAK TARGET DEDUPLICATION

85% FASTER SINGLE STREAM RESTORE

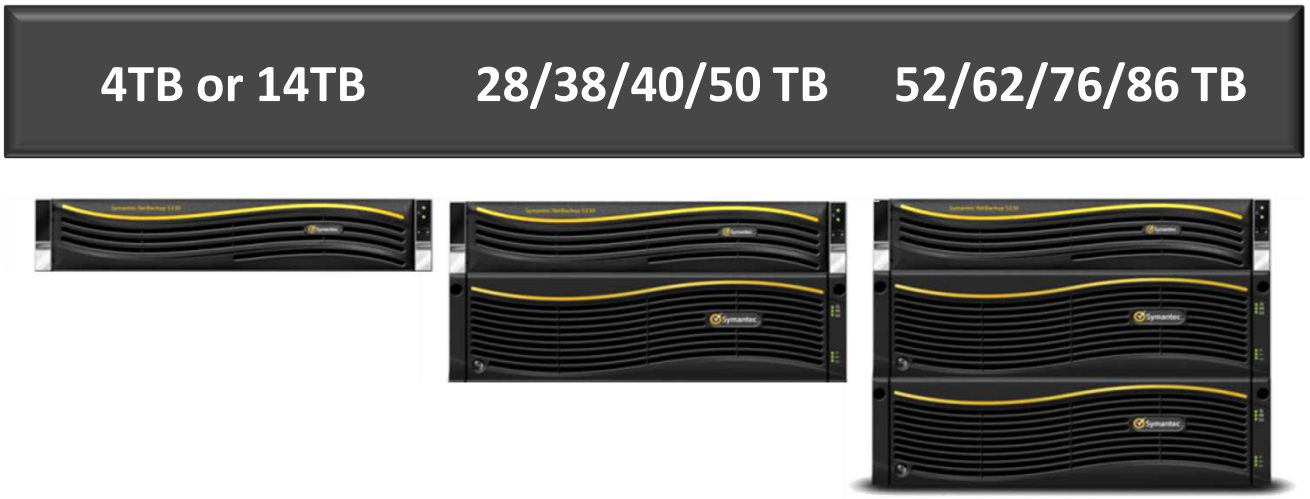
35% FASTER RESTORE SPEED (4 STREAMS)

101% FASTER RESTORE SPEED (2 STREAMS)

Deduplication improved for the Enterprise

Simplify the Operating Model

New NetBackup Appliance N5230 – 14TB configuration



Five I/O Configurations

4 1GB ETH - 2 10GB ETH
4 1GB ETH - 2 10GB ETH - 2 8GB FC
4 1GB ETH - 4 10GB ETH - 2 8GB FC
4 1GB ETH - 4 10GB ETH - 8 8GB FC
4 1GB ETH - 2 10GB ETH - 10 8GB FC

BETTER BACKUP AS A SERVICE

Better Backup as a Service

NetBackup and Biomni Integration

Simplify the Operating Model

Service Provider

Build service on the appliance form-factor

DATA PROTECTION:

- **GOLD**
- **SILVER**
- **BRONZE**

Biomni Front Office Web Portal

CUSTOMER

Local appliance for fast recovery

NETBACKUP 7.6

DEMO

NETBACKUP 7.6

Accelerator for VMware

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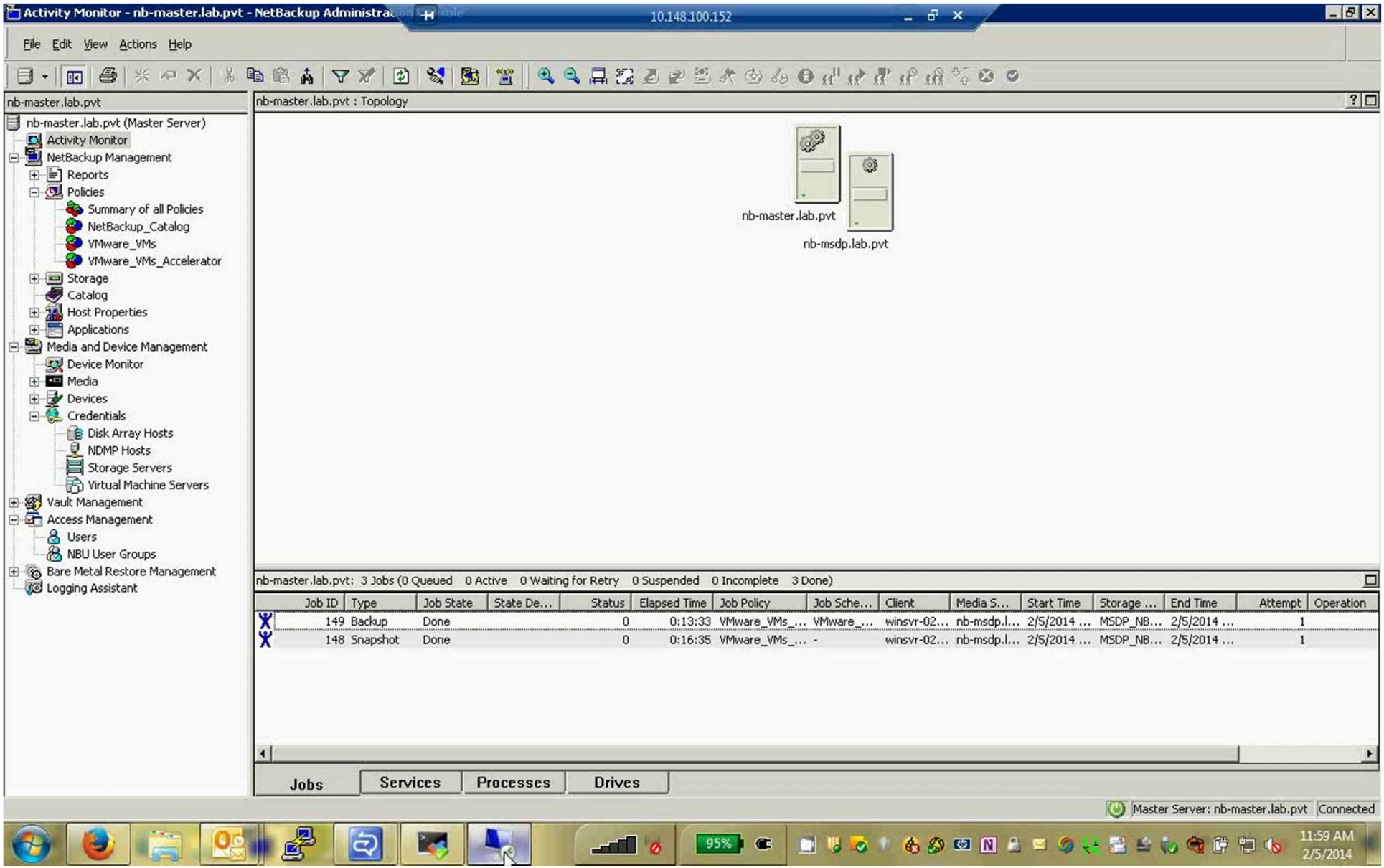
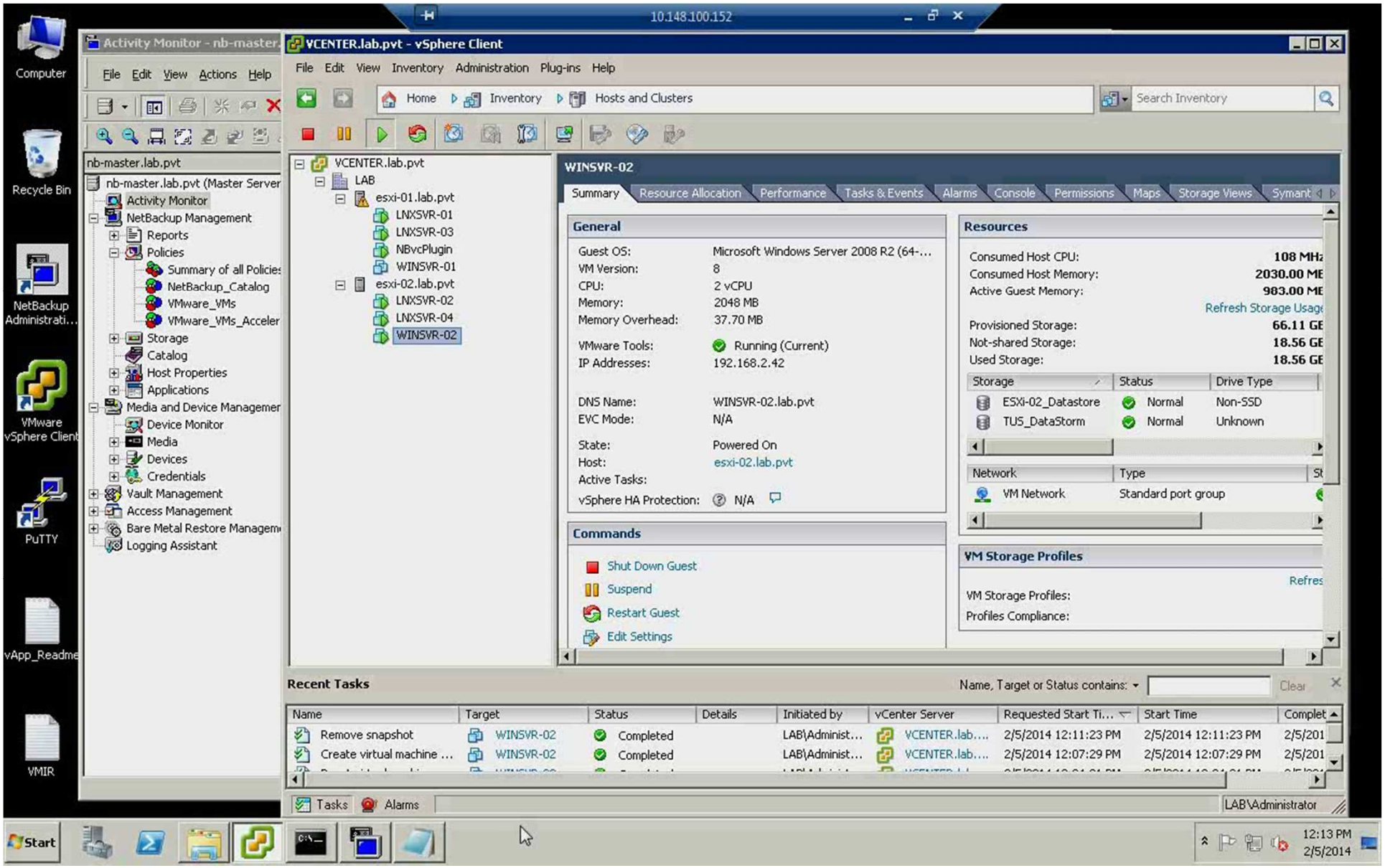

Activity Monitor - nb-master.lab.pvt - NetBackup Administra
10.148.100.152
File Edit View Actions Help
nb-master.lab.pvt
nb-master.lab.pvt (Master Server)
Activity Monitor
NetBackup Management
Reports
Policies
Summary of all Policies
NetBackup_Catalog
VMware_VMs
VMware_VMs_Accelerator
Storage
Catalog
Host Properties
Applications
Media and Device Management
Device Monitor
Media
Devices
Credentials
Disk Array Hosts
NDMP Hosts
Storage Servers
Virtual Machine Servers
Vault Management
Access Management
Users
NBU User Groups
Bare Metal Restore Management
Logging Assistant
nb-master.lab.pvt : Topology
nb-master.lab.pvt
nb-msdp.lab.pvt
nb-master.lab.pvt: 3 Jobs (0 Queued 0 Active 0 Waiting for Retry 0 Suspended 0 Incomplete 3 Done)
Job ID Type Job State State De... Status Elapsed Time Job Policy Job Sche... Client Media S... Start Time Storage ... End Time Attempt Operation
149 Backup Done 0 0:13:33 VMware_VMs_... VMware_... winsvr-02... nb-msdp.l... 2/5/2014 ... MSDP_NB... 2/5/2014 ... 1
148 Snapshot Done 0 0:16:35 VMware_VMs_... - winsvr-02... nb-msdp.l... 2/5/2014 ... MSDP_NB... 2/5/2014 ... 1
Jobs
Services
Processes
Drives
Master Server: nb-master.lab.pvt
Connected
95%
11:59 AM
2/5/2014

Symantec.

NETBACKUP 7.6

VMware Instant Recovery

Symantec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File Edit View Actions Help
nb-master.lab.pvt
nb-master.lab.pvt (Master Server
Activity Monitor
NetBackup Management
Reports
Policies
Summary of all Policies
NetBackup_Catalog
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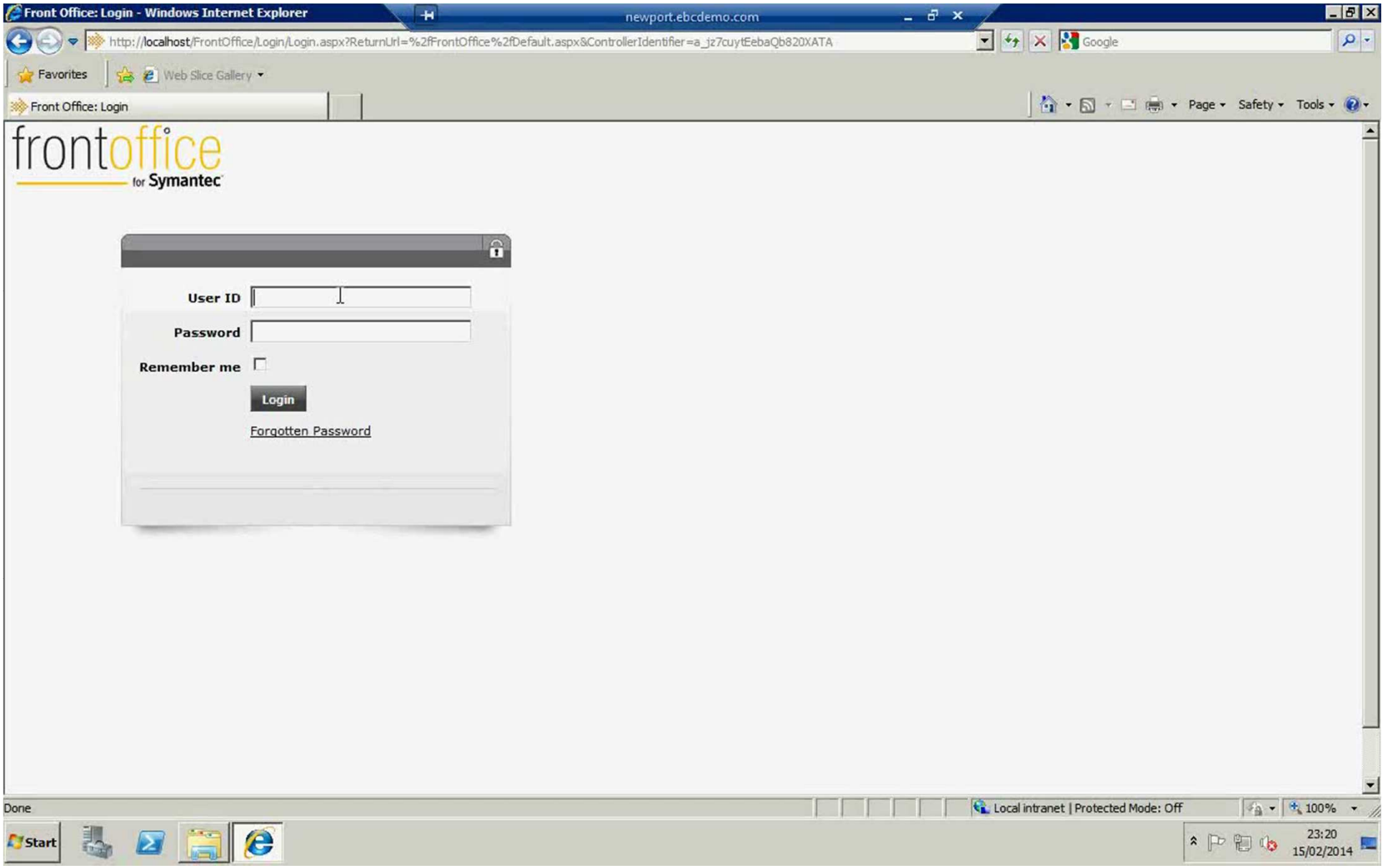
Catalog
Host Properties
Applications
Media and Device Managemer
Device Monitor
Media
Devices
Credentials
Vault Management
Access Management
Bare Metal Restore Managem
Logging Assistant
VCENTER.lab.pvt - vSphere Client
File Edit View Inventory Administration Plug-ins Help
Home Inventory Hosts and Clusters
Search Inventory
VCENTER.lab.pvt
LAB
esxi-01.lab.pvt
LNXSVR-01
LNXSVR-03
NBvcPlugin
WINSVR-01
esxi-02.lab.pvt
LNXSVR-02
LNXSVR-04
WINSVR-02
WINSVR-02
Summary Resource Allocation Performance Tasks & Events Alarms Console Permissions Maps Storage Views Symant
General
Guest OS: Microsoft Windows Server 2008 R2 (64-...
VM Version: 8
CPU: 2 vCPU
Memory: 2048 MB
Memory Overhead: 37.70 MB
VMware Tools: Running (Current)
IP Addresses: 192.168.2.42
DNS Name: WINSVR-02.lab.pvt
EVC Mode: N/A
State: Powered On
Host: esxi-02.lab.pvt
Active Tasks:
vSphere HA Protection: N/A
Commands
Shut Down Guest
Suspend
Restart Guest
Edit Settings
Resources
Consumed Host CPU: 108 MH
Consumed Host Memory: 2030.00 ME
Active Guest Memory: 983.00 ME
Refresh Storage Usage
Provisioned Storage: 66.11 GE
Not-shared Storage: 18.56 GE
Used Storage: 18.56 GE
Storage Status Drive Type
ESXi-02_Datastore Normal Non-SSD
TUS_DataStorm Normal Unknown
Network Type
VM Network Standard port group
VM Storage Profiles
VM Storage Profiles:
Profiles Compliance:
Recent Tasks
Name, Target or Status contains:
Clear
Name Target Status Details Initiated by vCenter Server Requested Start Ti... Start Time Complet
Remove snapshot WINSVR-02 Completed LAB\Administ... VCENTER.lab.... 2/5/2014 12:11:23 PM 2/5/2014 12:11:23 PM 2/5/201
Create virtual machine ... WINSVR-02 Completed LAB\Administ... VCENTER.lab.... 2/5/2014 12:07:29 PM 2/5/2014 12:07:29 PM 2/5/201
Tasks Alarms
LAB\Administrator
Start
12:13 PM
2/5/2014
Computer
Recycle Bin
NetBackup Administrati...
VMware vSphere Client
PuTTY
vApp_Readme
VMIR

NETBACKUP 7.6

Biomni Integration

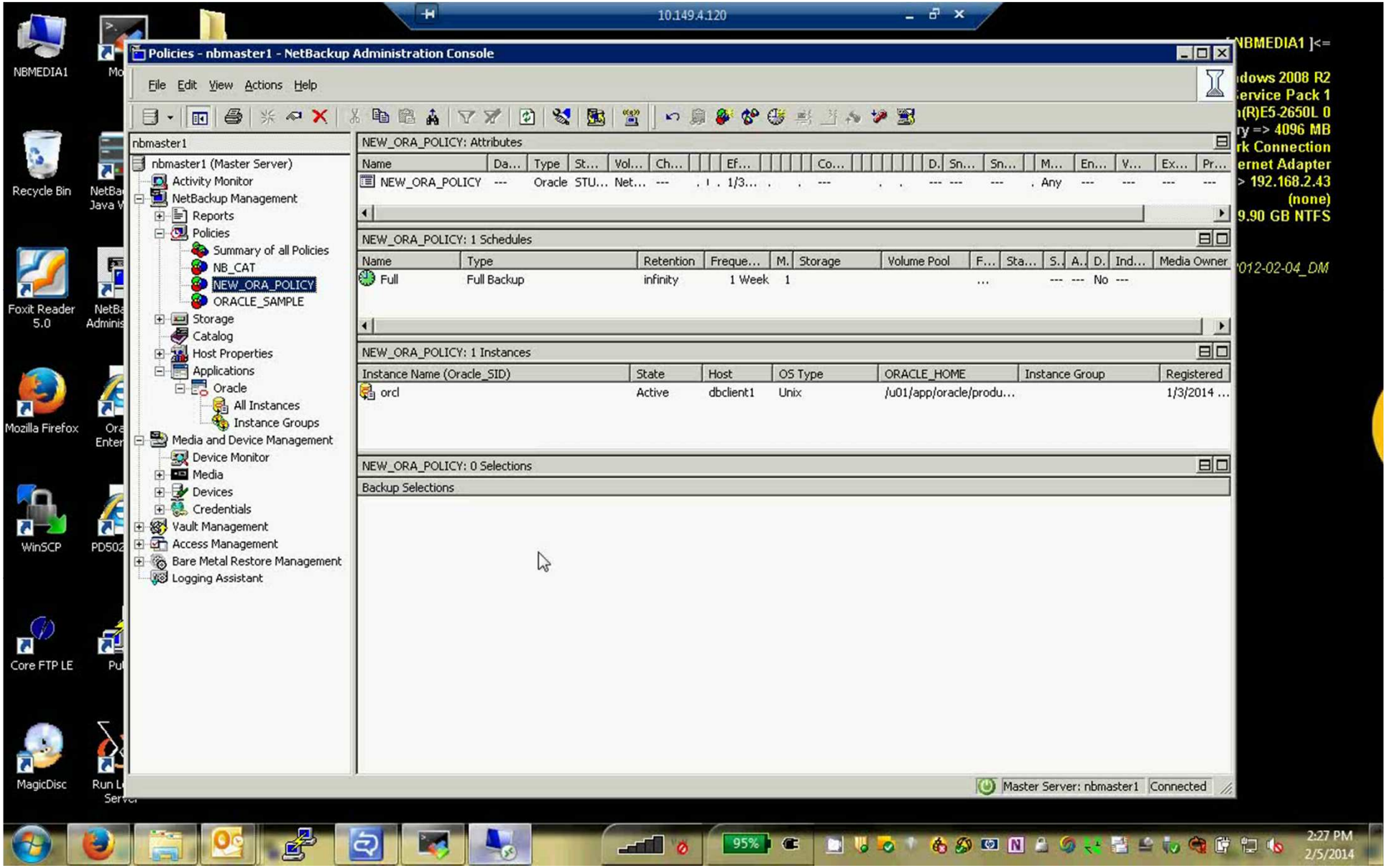
Symantec.


Front Office: Login - Windows Internet Explorer
newport.ebcdemo.com
http://localhost/FrontOffice/Login/Login.aspx?ReturnUrl=%2fFrontOffice%2fDefault.aspx&ControllerIdentifier=a_jz7cuytEebaQb820XATA
Google
Favorites
Web Slice Gallery
Front Office: Login
Page
Safety
Tools
frontoffice
for Symantec
User ID
Password
Remember me
Login
Forgotten Password
Done
Local intranet | Protected Mode: Off
100%
Start
23:20
15/02/2014

NETBACKUP 7.6

Oracle
Intelligent Policies

Symantec


10.149.4.120
Policies - nbmaster1 - NetBackup Administration Console
File Edit View Actions Help
nbmaster1
nbmaster1 (Master Server)
Activity Monitor
NetBackup Management
Reports
Policies
Summary of all Policies
NB_CAT
NEW_ORA_POLICY
ORACLE_SAMPLE
Storage
Catalog
Host Properties
Applications
Oracle
All Instances
Instance Groups
Media and Device Management
Device Monitor
Media
Devices
Credentials
Vault Management
Access Management
Bare Metal Restore Management
Logging Assistant
NEW_ORA_POLICY: Attributes
Name Da... Type St... Vol... Ch... Ef... Co... D. Sn... Sn... M... En... V... Ex... Pr...
NEW_ORA_POLICY --- Oracle STU... Net... --- 1/3... --- Any --- --- --- ---
NEW_ORA_POLICY: 1 Schedules
Name Type Retention Freque... M. Storage Volume Pool F... Sta... S. A.. D. Ind... Media Owner
Full Full Backup infinity 1 Week 1 ... --- --- No ---
NEW_ORA_POLICY: 1 Instances
Instance Name (Oracle_SID) State Host OS Type ORACLE_HOME Instance Group Registered
orcl Active dbclient1 Unix /u01/app/oracle/produ... 1/3/2014 ...
NEW_ORA_POLICY: 0 Selections
Backup Selections
Master Server: nbmaster1 Connected
NBMEDIA1
Recycle Bin
Foxit Reader 5.0
Mozilla Firefox
WinSCP
Core FTP LE
MagicDisc
95%
2:27 PM
2/5/2014

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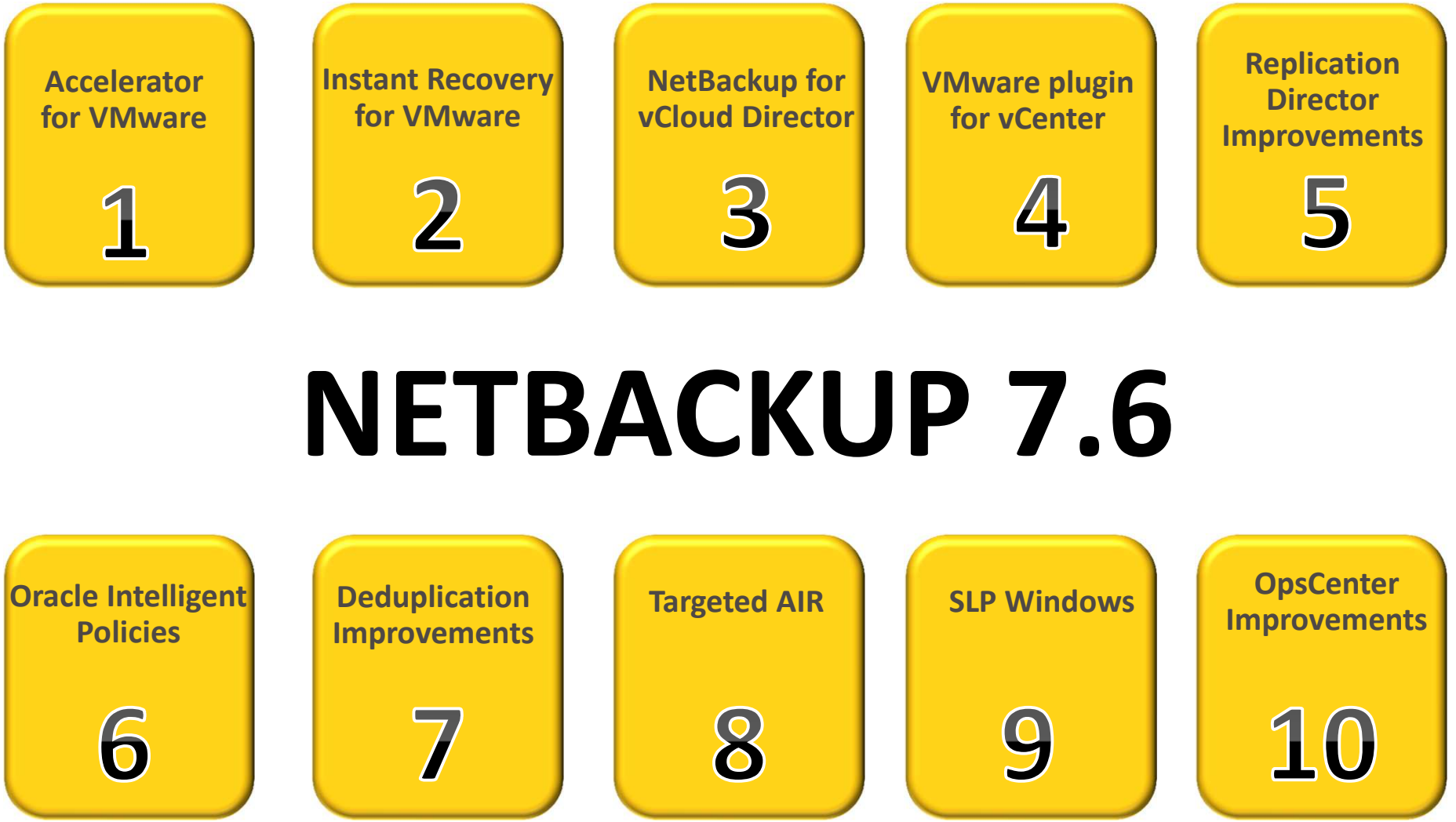
Accelerator for VMware
1
Instant Recovery for VMware
2
NetBackup for vCloud Director
3
VMware plugin for vCenter
4
Replication Director Improvements
5
NETBACKUP 7.6
Oracle Intelligent Policies
6
Deduplication Improvements
7
Targeted AIR
8
SLP Windows
9
OpsCenter Improvements
10
Symantec.

Thank you!

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