IO30

Managing VMware Infrastructure with Windows PowerShell

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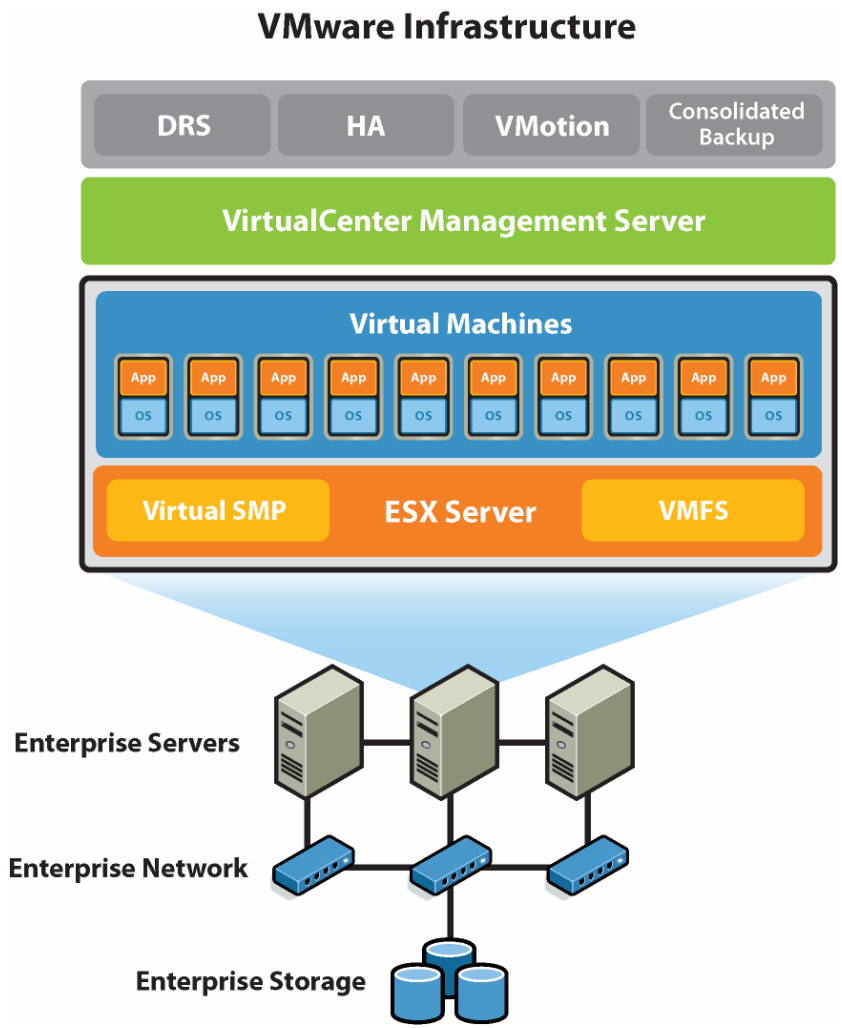
Goals

- To demonstrate VMware Infrastructure management through Windows PowerShell
- To help you save time and simplify your job

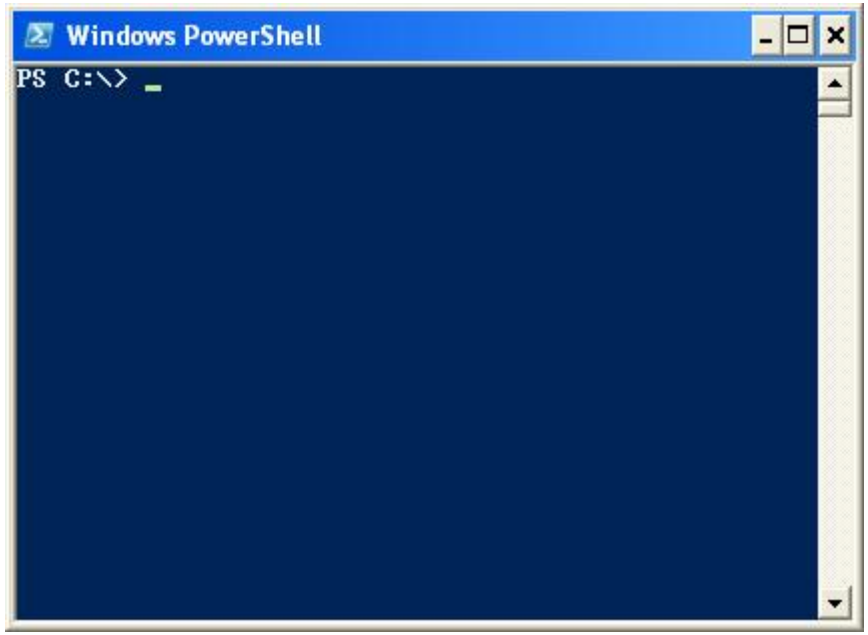
VMware Infrastructure

- **Rich functionality**
  - Provisioning
  - Monitoring and management
  - Host management
  - Resource pools
  - High Availability
  - Dynamic Resource Scheduling
- **Rich Interfaces**
  - Clients
  - APIs
  - Toolkits



Windows PowerShell from 10,000 Feet

- **PowerShell is**
  - A shell
  - A scripting language
  - Object-based
  - .NET-based
  - Extensible

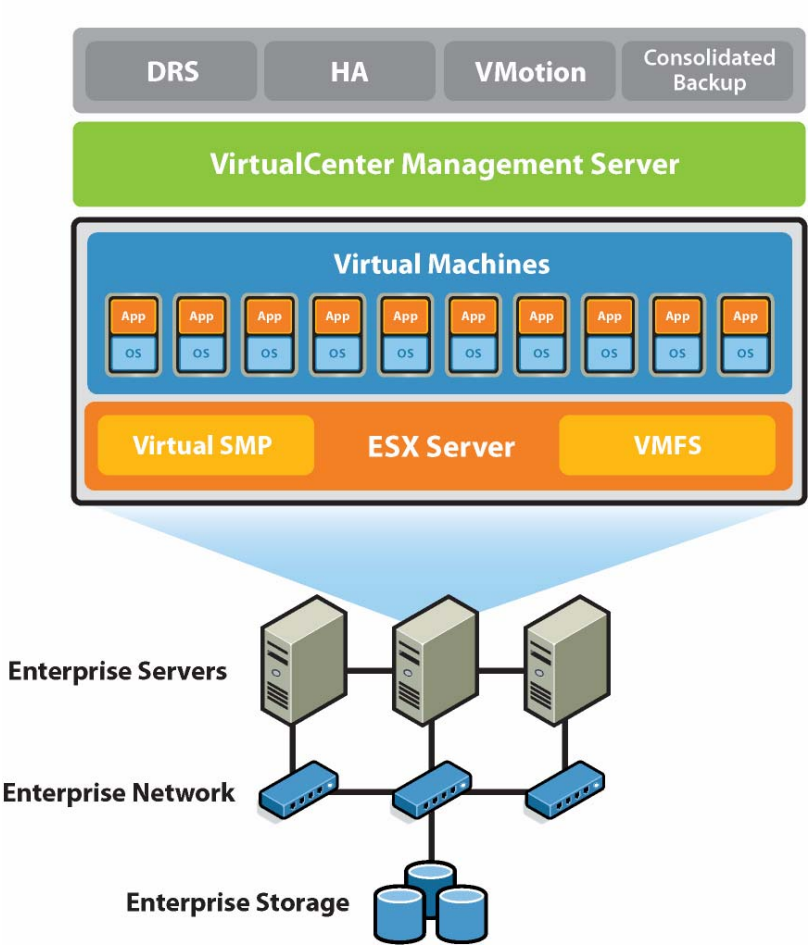


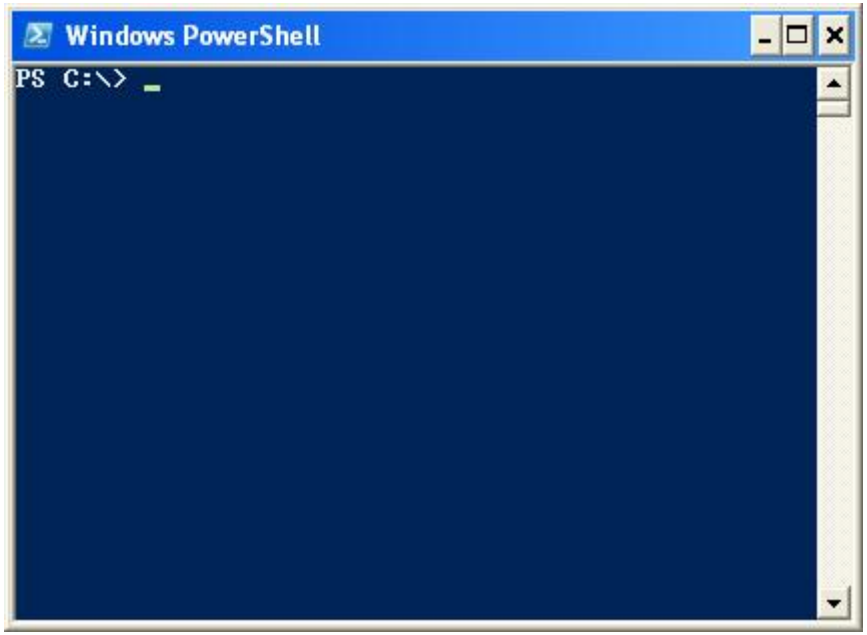
- **The management environment for Microsoft Windows system administrators going forward**

Windows PowerShell from Ground-Level

- **“Hello world.”**
- **ls | sort**
- **([xml](new-object net.webclient).DownloadString("http://blogs.msdn.com/powershell/rss.aspx")).rss.channel.item | format-table title,link**
- **Get-Mailbox | where {$_.name –like “a*”} | Set-Mailbox -StorageQuota 100mb**

Two Great Tastes





Scenarios

- Change virtual machine networking configuration
- Remove floppy drives from a set of virtual machines
- Snapshot a set of virtual machines
- Performance analysis
- Provisioning workflow


DEMO

Networking Scenario Highlights

- **Single Server**
  - Get-VC …
  - $vms = Get-VM | where {$_.name -like “qa*”}
  - $vms | Get-NetworkAdapter | where {$_.NetworkName -eq “red”} | Set-NetworkAdapter -NetworkName “blue”
- **Multiple Servers**
  - $vcs = Get-VC …
  - $vcs += Get-VC …
  - Get-VM -Server $vcs | where {$_.name -like “qa*”} | Get-NetworkAdapter | where {$_.NetworkName -eq “red”} | Set-NetworkAdapter -NetworkName “blue”

Floppy Drive Scenario Highlights

- Get-VC …
- $vms = Get-VM -name “webTier*”
- $vms | Get-FloppyDrive | Remove-FloppyDrive

Snapshot Scenario Highlights

- **Single Server**
  - Get-VC…
  - Get-VM | where {$_.State -eq “PoweredOn”} |
    New-Snapshot -name “Daily Snapshot”
- **Multiple Servers**
  - $vcs = Get-VC…
  - $vcs += Get-VC…
  - Get-VM -Server $vcs | where {$_.State -eq “PoweredOn”} |
    New-Snapshot -name “Daily Snapshot” -memory

Performance Analysis Highlights

- **PowerShell Scripts**
  - Reusable
  - Easy to share
  - Signed for security
- **PowerShell Ecosystem**
  - PowerGadgets
  - PowerGUI
  - Others

A Natural Fit for Workflows

- **Sample PowerShell Cmdlets:**
  - Get-VM
  - New-VM
  - Remove-VM
  - Set-VM
  - Get-CDDrive
  - New-CDDrive
  - Remove-CDDrive
  - Set-CDDrive
- **Cmdlets are task-oriented interfaces**
- **Workflows are about organizing tasks into business processes**

Summary

- **Using PowerShell to manage VMware Infrastructure:**
  - Will save you time
  - Enables automation
  - Leverages and increases your familiarity with PowerShell
  - Benefits as the PowerShell ecosystem grows

Questions?

- **IO30**
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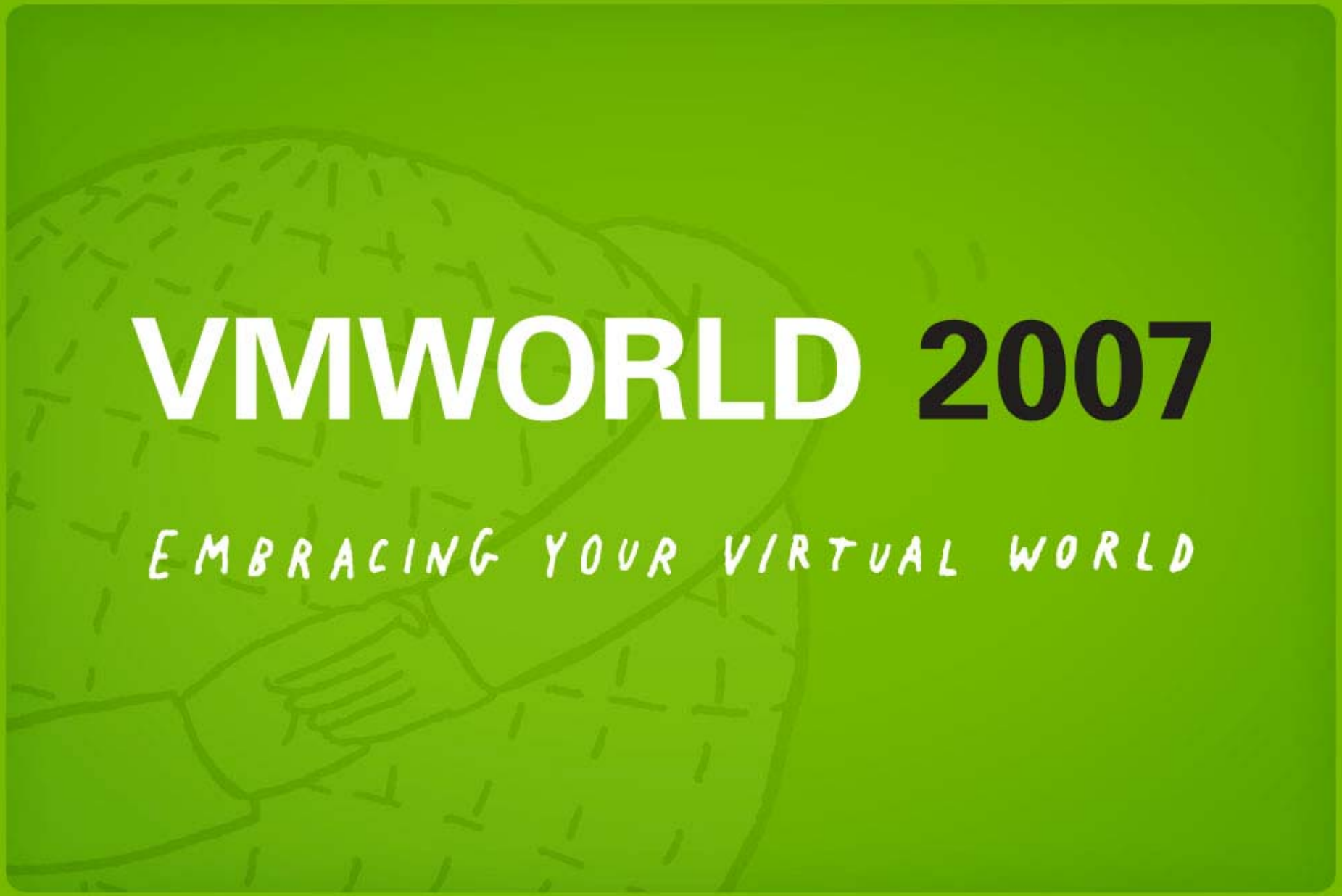
- **Antonio Dias**
- **VMware**

- **To learn more: www.vmware.com/go/vipowershelltoolkit**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