VMware® Horizon™ Suite:

The Platform for Workforce Mobility

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Disclaimer

- **This presentation may contain product features that are currently under development.**

- **This overview of new technology represents no commitment from VMware to deliver these features in any generally available product.**

- **Features are subject to change, and must not be included in contracts, purchase orders, or sales agreements of any kind.**

- **Technical feasibility and market demand will affect final delivery.**

- **Pricing and packaging for any new technologies or features discussed or presented have not been determined.**

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"One employee, one computer. The only difference – some had handles"

Then:

- ✓ Tethered, known location
- ✓ IT approved, purchased and supported applications
- ✓ Single OS
- ✓ Uniform systems
- ✓ Predictable refresh/upgrade cycle
- ✓ Secure data repository

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We focused and standardized, but change didn't stop

New Device Platforms	New Apps	New User Expectations
- A new way to work - Not just Windows anymore	- SaaS, mobile apps - Quantity is increasing	- Collaboration with partners, contractors, and customers - Productivity through better technology

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Now:

- ✓ Multiple locations

- ✓ Unlimited, unvalidated, employee-sourced SaaS applications

- ✓ Multiple OS, multiple versions

- ✓ Diverse systems

- ✓ Multiple, unknown data repositories

"..employees can carry their work [and your data] in their pockets…"

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Common Responses Only Mask Problem

Ignore It		Poor IT Control Security and compliance risk
Lock It Down		Unhappy workforce IT is viewed the "bad guy"
Buy a Point Solution		Does not scale, increases cost Creates a management mess

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A New Approach Needed

Transform
Assets Into Central Services

Broker
Services Centrally by Policy

Deliver
Multi-device Access

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The Comprehensive Platform for Workforce Mobility

VMware Horizon™ Suite

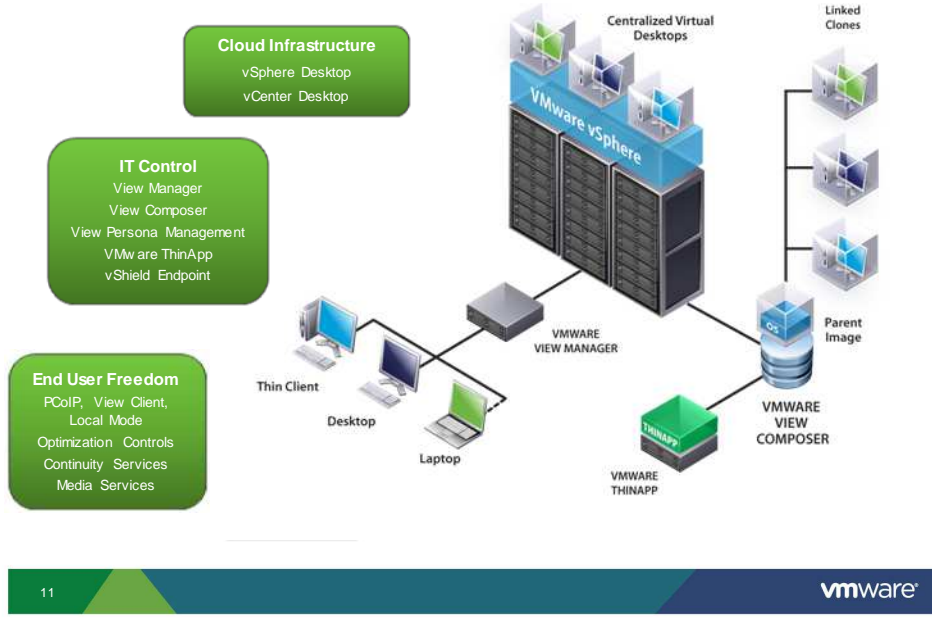| VMware Horizon View™	VMware Horizon Mirage™	VMware Horizon Workspace™
Simplify desktop and application management while increasing security and control.	Gain centralized physical/virtual desktop management.	Streamline the end-user experience with a secure multi-device mobile workspace for IT services.

VMware Horizon

The Secure, Mobile Enterprise Platform

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Horizon View

Horizon View: Manage & Execute Windows Desktops Centrally

Manage centralized virtual desktops

Highly efficient remote protocol

Users remotely access from various devices

Security & Compliance

Anywhere Access

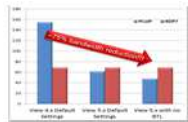Business Agility

Mobile & BYOD Access

OPEX Savings
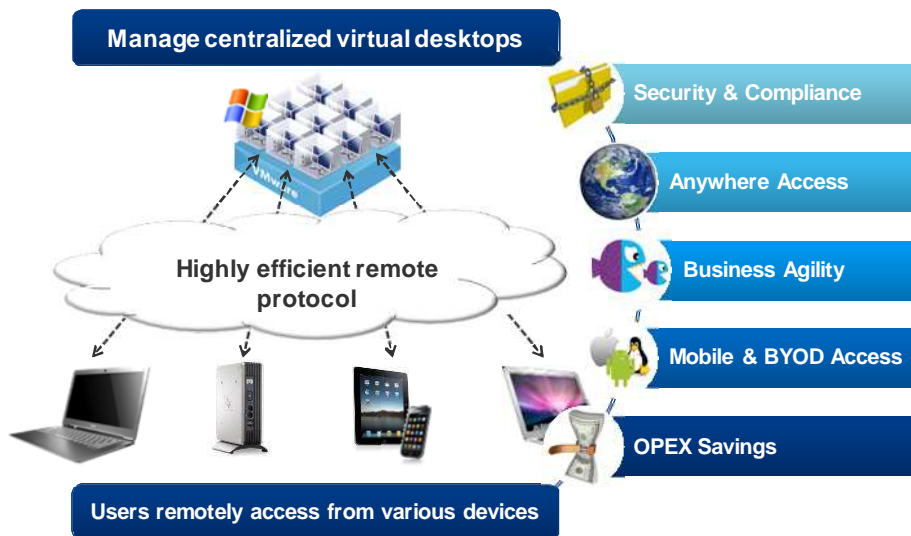
VMware View Architecture Overview

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Horizon View Highlights (last two years)

75% Reduction in Bandwidth

Media Services for UnifiedComms

View Persona Management

View Storage Accelerator

Large Scale Management

Radius Authentication

Space Efficient Disks

Media Services for 3D Graphics

Unity Touch for Mobile Clients

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Solutions They Care About

VMware EUC Solutions are enterprise-ready and proven

- ✓ Include fully validated architectures
- ✓ Include third party components
- ✓ Include all the assets and services customers need to get started
- ✓ Not on the price list and not bundled
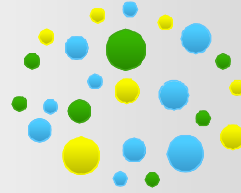
Mobile Secure Workplace	Business Process Desktop	Branch Office Desktop	AlwaysOn Desktop
Flexible and secure access to data and applications from any device anywhere	Secure access to data and applications for offshore or outsourced contact centers, developers and back office employees	Flexible and secure access to data and applications from remote and branch offices with limited or no local IT support	Highly available access to data and applications for employees requiring business continuity and disaster recovery desktops

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Broad Ecosystem Support for Validated Architectures

Infrastructure	VCE / EMC² / CISCO / DELL	f5 / atlantis COMPUTING / nimblestorage / IBM	Pivot / nexenta / NUTANIX	
WAN Optimization	CISCO		riverbed	
Security	symantec.		TREND MICRO	
UC	AVAYA	CISCO	MITEL / Lync	
Backup	EMC²		commvault	
Monitoring	xangati		ATERNITY	
Assessment	Liquidware Labs		Lakeside Software	

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FUTURE: Software Defined Storage Can Simplify Management and Reduce Cost

Reduce Desktop TCO with a "virtual SAN" on local storage

Overview

- Leverage new Software Defined Datacenter capability with Storage Virtualization
- Uses local storage on ESXi hosts
- Presents an abstracted data-store that spans multiple hosts for resiliency and removes single point of failure risks
- Delivers storage capacity and performance – Leverages SSD & HDD
- Policy based storage management

Benefits

- Simplified management and administration
- Eliminates the need for storage sizing and design
- Reduce CAPEX costs of VDI
- Scale out model – Scale IOPS, capacity & compute simultaneously

Virtual SAN

Visit the Walk-through demo:

http://vmwarewalkthroughs.com/VSAN/

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HORIZON

Horizon Mirage

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Horizon Mirage: Addresses Multiple Use-Cases

IT manages a single image centrally

Automated Win7 Deploy.

Endpoint Backup & DR

Highly efficient de-duplication & synchronization (even over WAN)

PC Refresh $ Savings

Break/Fix $ Savings

Centralized Image Mgmt.

Business as usual for users
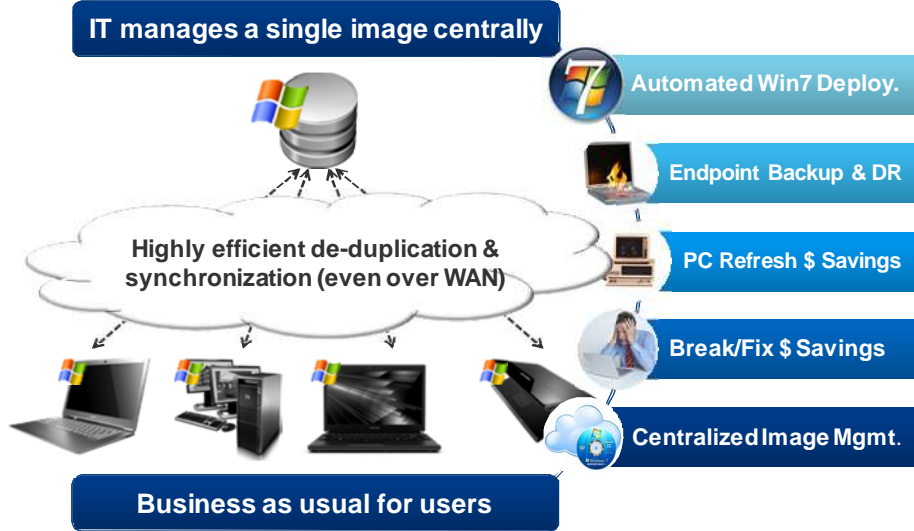
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Horizon Mirage Architecture

Mirage Servers

Mirage Admin

Load Balancer

NAS

PERSONA
APP
OS

Mirage Clients

LAN

WAN

VPN

PERSONA
APP
OS

PERSONA
APP
OS

PERSONA
APP
OS

Mac running Fusion Pro
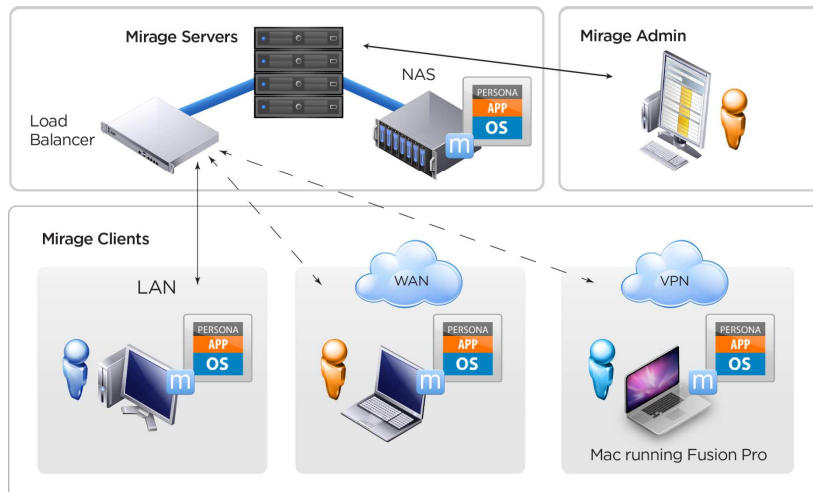
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Your PC is made of a lot of different things

Data

Background Wallpaper

Custom settings

Applications

More Applications

Operating System

Drivers

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Horizon Mirage acknowledges and works with these layers

End-User Controlled

User Data & Profile

Some Applications

Other Applications

Operating System

Drivers

IT Managed

Mirage Images

- Layers can be updated separately but are merged together at the endpoint

- Logically layers each end user's PC.

- Does not actually shift contents around on PC.

- Empowers IT to perform granular operations on some or all PC layers (without affecting other layers when not appropriate).

- User-Installed apps are installed manually by end users and are synchronized and preserved for use during migrations or desktop recovery.

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Streamlined Windows Image Management

One Base Layer for Windows and Core Apps across groups

Sales Desktops   Developer Desktops

Common Base Layer
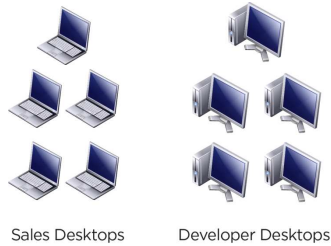
Overview
- Manage one single copy of Windows and core apps for multiple groups.
- Assign Base Layer to any kind of hardware that meets Mirage's Windows OS requirements.

Benefits
- Reduce Windows image sprawl.
- Reduce time needed to manage and deploy Windows images, patches, and updates.

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Application Layering

Assign groups of applications to desktop collections

Sales Apps   Developer Apps

Sales Desktops   Developer Desktops

Common Base Layer
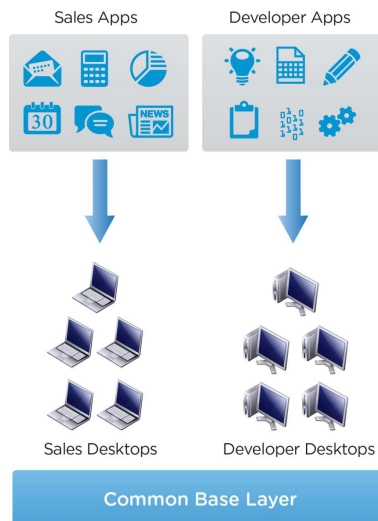
Overview
- Define a discrete applications layer independent of the base image
- Add installed applications to a desktop or collection of desktops

Benefits
- Separate OS image management from application management
- Reduced number of desktop images
- Associate application groups with lines of business or user roles

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Branch Reflector

Efficiently address remote branch offices without additional infrastructure

Mirage Servers

Single image sent across the WAN

WAN

Mirage Clients

Mirage Branch Reflector
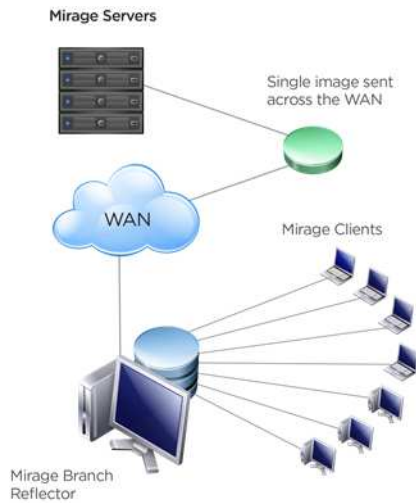
Overview

- No additional branch infrastructure
- Assign any Mirage client as a 'Branch Reflector'
- Image data transferred once over WAN

Benefits

- Lowered branch office infrastructure costs
- WAN network traffic reduced by up to 90%
- Accelerate remote Windows 7 Migrations

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Native Performance

Leverage local compute resources for online and offline productivity
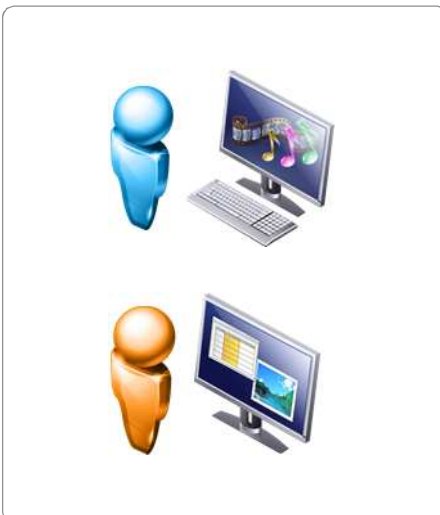
Overview

- Horizon Mirage runs on local Windows PCs and synchronizes with Mirage server when a network connection is available
- Horizon Mirage not dependent on network connection for full PC functionality and performance.

Benefits

- End-user's productivity maximized
- Work online or offline
- Leverage 3D and compute-hungry applications
- No hardware compatibility list to follow

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ADAC Saves €250,000 Migrating 2,400 Desktops to Laptops in Just Three Weeks!

Needs	VMware Solution	Benefits
Migrate 2,400 desktops to new laptops while preserving user data and 1,110 various user-installed applications.	Horizon Mirage allowed ADAC's IT team to quickly get their end-users up and running on their new laptops without sacrificing any of their user data or user-installed applications.	• Saved 250,000 Euro using Horizon Mirage over other solutions. • Completed entire migration in just three weeks, drastically reducing the time of the project. • Had full rollback capabilities if needed during migrations.

"With VMware Horizon Mirage we had exactly the same IT environment on the PC, but were able to migrate over everything that made that desktop personal to our users... IT was able to separate the IT images on the desktop PCs from the user space — applications, files and personalization."

Stefan Brandstetter, IT Manager, ADAC e.V.

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Future: Unified Image Management for Physical and Virtual Desktops

Potential use of Horizon Mirage technology for streamlined management

Overview
- Layered Image management – OS, Apps
- Mirage protection and synchronization for physical & virtual desktops
- Leverage local server storage for VDI and protect desktop images using Mirage

Benefits
- Single tool for IT to manage desktop images
- Minimized performance impact of Mirage operations in virtual desktop environments

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Horizon Workspace

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Horizon Workspace: Manage Data & Application Access

Manage policies for apps, data & more

Security & Compliance

Anywhere Access

Secure Syncing, Sharing & Remote Access

Multi-Device Access

BYOD Mobile Mgmt.

Collaboration

Users access workloads across devices

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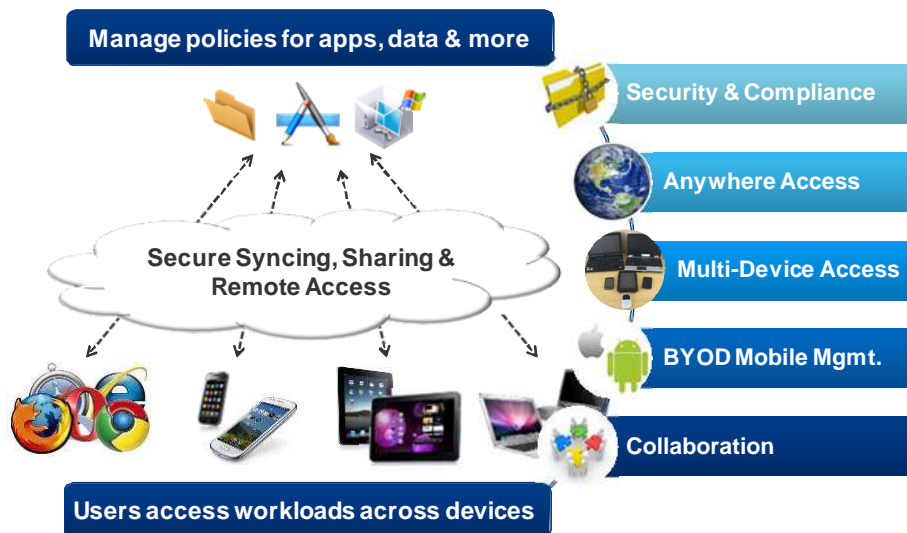
VMware Horizon Workspace serves both IT and end users

END USERS

IT ADMINS

Get access to a secure workspace that contains the user's files, apps, and Windows desktops on any device

Single management console for administration, managing security, and user entitlement policies

HORIZON

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What's Inside the Workspace for End Users

Single Hub for Accessing All Business Apps, Files and Windows Desktops

- Persistent and centralized identity
  - Integrated with directory services (AD)
  - Single sign on (SaaS, View)
- Enterprise application catalog
  - Apps customized for the device platform
  - Access to View desktops
- File sync and sharing
  - Sync across devices
  - Sharing with internal and external users
- Consistent experience across devices

Apps   **Files**   **Desktop**

Security + Policy

Any Device

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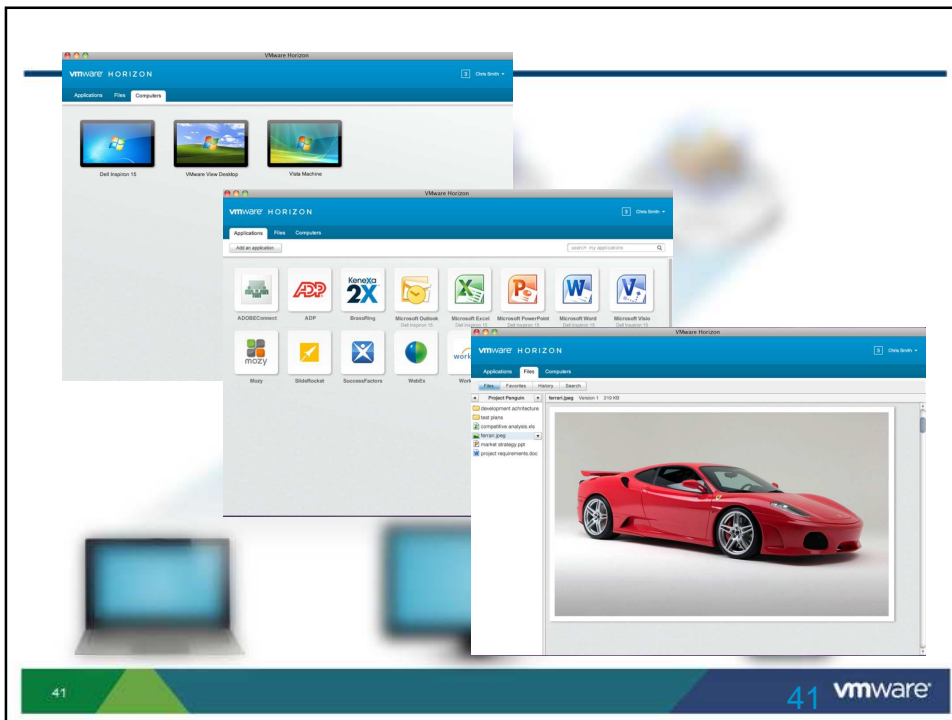
Android workspace: Isolated OS

Empower users with access to enterprise services while on the go

Full Version of Android OS

- Provide a consistent native mobile experience to employees across devices, reducing fragmentation
- Any application can by deployed to employees without modifications

Productivity Features

- Applications Exchange e-mail client, calendar, contacts, Browser, SwiftKey, etc.
- Integrated VPN

Retain complete work phone ownership through Horizon Manager

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VMware Ready devices in US

| LG Intuition | Motorola Razr M | Samsung Galaxy S3 | Samsung Galaxy S4 | Motorola Razr HD |

Next in Line:

- HTC Droid DNA
- HTC One
- LG G2 (on Verizon, AT&T, Sprint, T-Mobile)

- Motorola Droid Ultra Lineup (3 devices)
- Plus more…

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iOS: Apple redefines the game with iOS 7

- **Strategy Validation**
- **Role of Application Wrapping**
- **iOS 7, expected Fall 2013**
  - Control of "Open In" – prevents data leakage
  - Per-App VPN
  - Single Sign-On (Kerberos)
  - Volume Licensing improvements
  - MDM becomes mandatory for all use cases

- **Our Approach**
  - Embrace Apple's APIs; Don't fight Apple on App Wrapping
  - Remove App Wrapping from Horizon Workspace
  - Implement iOS7-based MDM/MAM in an upcoming release
    - Will still manage apps but will leverage MDM APIs to implement

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Horizon Product Family Pricing & Packaging

VMware Horizon Suite
/ NAMED User / CC User

Horizon View / CC User	Horizon Mirage / Named User	Horizon Workspace / Named User
View ThinApp vSphere vCenter	Mirage Fusion Pro ThinApp	Workspace ThinApp
Horizon View Add- On $190	**Mirage Windows Migration** 6 mo. Term $80	

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Horizon Workspace Strategy: User Centric Computing

- VMware **Horizon Workspace** delivers a single secure workspace to any device, desktop, laptop, BYOD or mobile
- **End-user** benefits include device freedom & anytime, anywhere access
- **Admin** benefits include simpler, centralized, **user-centric**, policy-based mgmt.

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VMware Horizon – the Platform for Workforce Mobility

For more information:

- **Product pages on vmware.com:**
  - www.vmware.com/products/desktop_virtualization/horizon-suite/overview.html
- **VMware Horizon View:**
  - www.vmware.com/products/view/overview.html
- **VMware Horizon Mirage:**
  - www.vmware.com/products/desktop_virtualization/mirage/overview.html
- **VMware Horizon Workspace:**
  - www.vmware.com/products/desktop_virtualization/horizon-workspace/overview.html

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Thank you

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