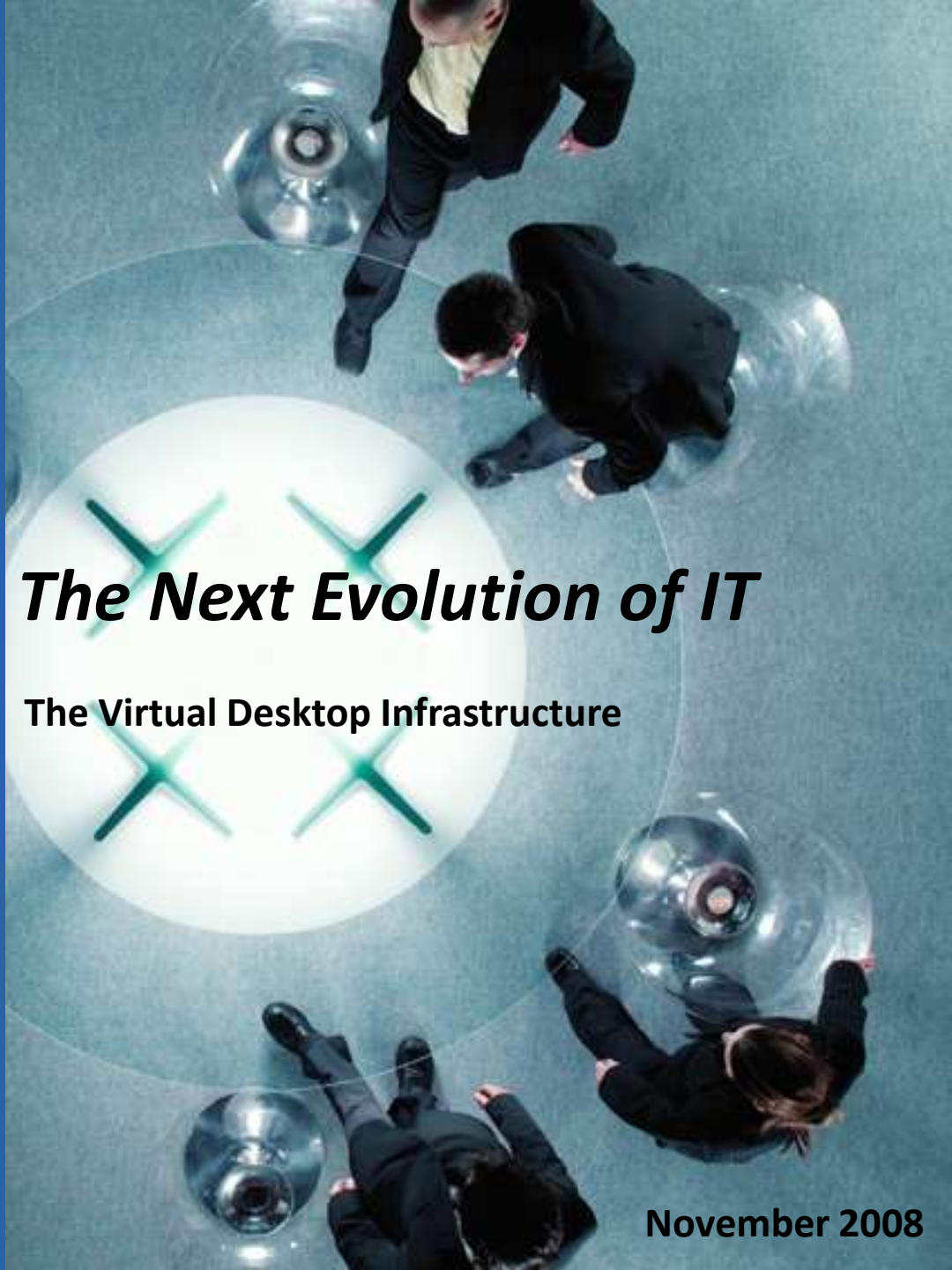




Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.



The Next Evolution of IT

The Virtual Desktop Infrastructure

November 2008

A Brief History of the term *Access* in Corporate IT Environments

- Centralized (Host/Midrange)
- Decentralized (Client-Server)
 - OS Imaging
 - Application Deployment
 - ZENWorks, SMS, Symantec, Seagate
 - Workstation Deployment
 - Desktops/Laptops
 - CDE
 - DDE
 - Wired/Wireless
- Centralized (Server Based Computing Solutions, Web Solutions)

Yester – way...

The IT Landscape is changing AGAIN before our eyes...

Virtual Desktops and Cloud Computing



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Even though the **deployment** and/or **delivery** mechanisms have **changed** through the years...

I.A.A.T.A.

The corporate computer user's **access** to **applications** and **data** is still key!



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Differentiate Application & Desktop Challenges

Application Challenges

- Application updates for everyone
- Application management challenges
- Application performance
- Frequent application updates
- Legacy applications
- Application conflicts
- Remote access for specific applications

Desktop Challenges

- Windows updates, patches and refresh
- TCO of entire desktop
- New desktop deployment
- PC refresh or migration
- Remote access for entire desktop
- Extend client hardware lifecycle



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

The IBM Business Partner logo consists of the IBM logo (eight horizontal stripes) on the left and the words "Business Partner" stacked vertically on the right, all enclosed within a white circle.

IBM
Business
Partner

Virtualization Industry Predictions

4 million virtual machines expected by 2009, 611 million virtualized PCs by 2011 and the IT infrastructure and operations deeply impacted by virtualization by 2012 Gartner - April 2008

Cisco, VMware and Citrix will dominate the virtualization market within 2010 Saugatuck Technologies - January 2008

VMware predicts the end of Windows in 5-10 years
VMware - July 2008

Virtualization will be part of nearly every aspect of IT by 2015
Gartner - July 2007

A Microsoft hypervisor for Vista expected in mid-2009
Gartner - July 2007



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Benefits of Desktop Virtualization

	Benefits for IT	Benefits for Business Users
Faster, Cheaper Support	Desk-side visits are virtually eliminated, so IT can provide faster support with lower costs	Business users don't need to wait for personnel to come onsite for support , so they can get back to work faster
Better Security and Compliance	Centralized control of applications and data ensures IT can protect corporate data, even if the remote system is lost or infected	Business users can recover rapidly from accidental data loss, laptop theft, or malware infection
Balance of Control and Usability	IT can lock down a secure, standardized, and centrally controlled corporate desktop environment	Business users can have both an open, usable, personalized desktop environment , and a corporate desktop environment
Higher Availability	IT can recover failing systems quickly and easily from central storage , using server redundancy to deliver high availability	If their own system fails, users can quickly recover their unique, personal environment on any healthy system
Workforce Productivity and Flexibility	Centralized control allows fast and easy provisioning of new systems for permanent and temporary workers in any location	Business users can be more productive and mobile, with near-immediate access to new systems regardless of location

Overall Business Benefits:

Simple fast on-demand Desktop Experiences
Device, Network & Application Independence
Content Security & Access Control
Dynamic Capacity – Peak/Off-Peak
Predictable Costs



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.



What is your desktop virtualization strategy?

As virtualization becomes more mainstream, organizations are looking to solve many issues with desktop computing challenges with desktop virtualization.

The key is making personal computing more manageable, flexible and secure by allowing multiple individual footprints to be defined on the same device – Gartner

What is your desktop virtualization strategy?

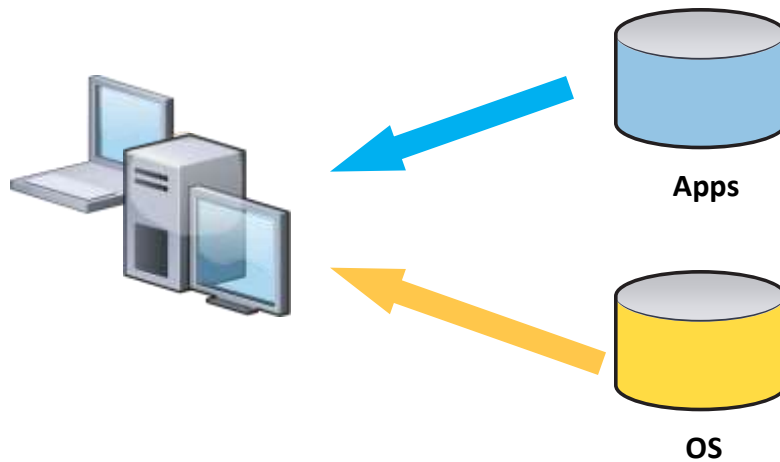


Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.



Before the Virtual Desktop...

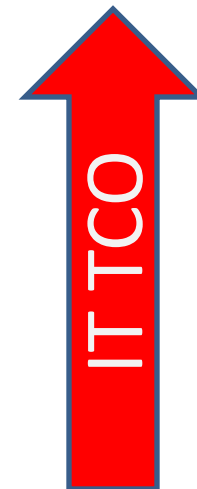


The Traditional Desktop

- Hardware
- Operating System
- Applications
- A “Personality” (user settings)

Challenges Identified with the Traditional Model

- Different types of Users have different needs
- Multiple Types of Hardware to Support
- Many Image Versions to Maintain
- Unpredictable User Activity
- Application and OS Patch Management
- Slow Provisioning Process
- Data Security

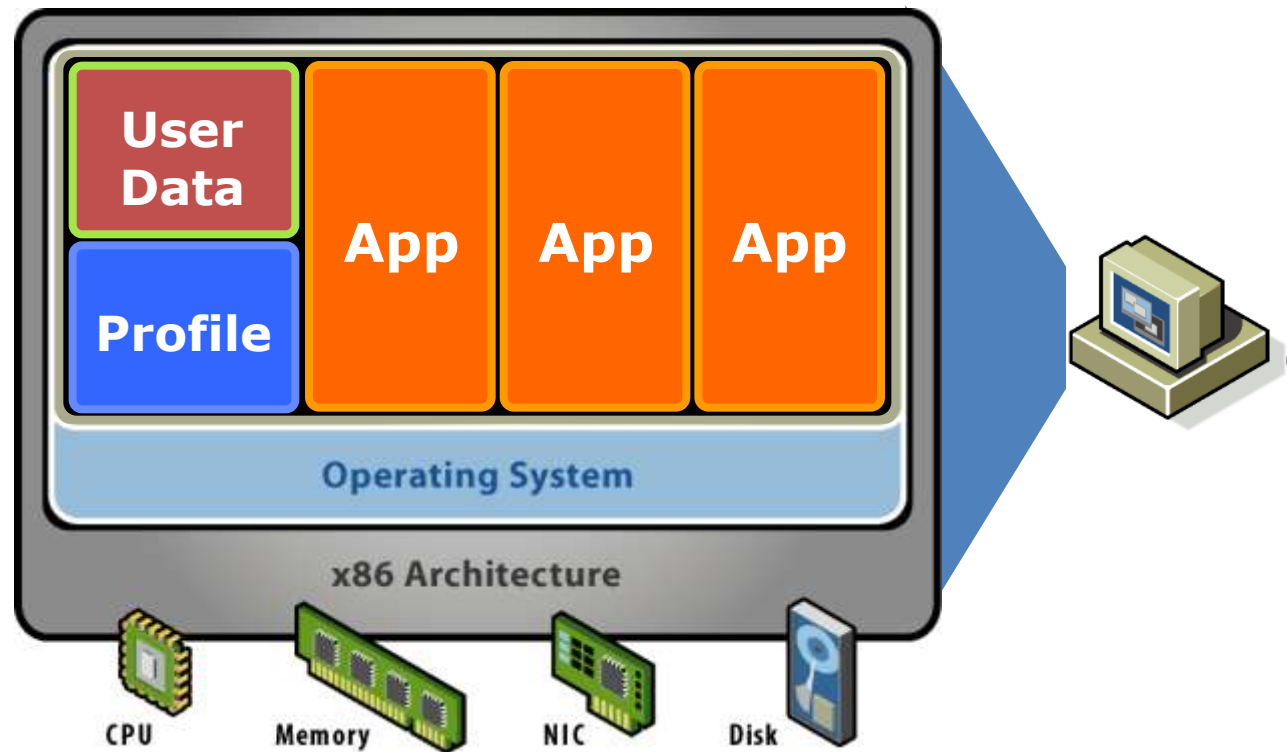


Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Typical Desktop Build



A typical desktop has everything bundled into a single device with a complex intertwined collection of software and data.

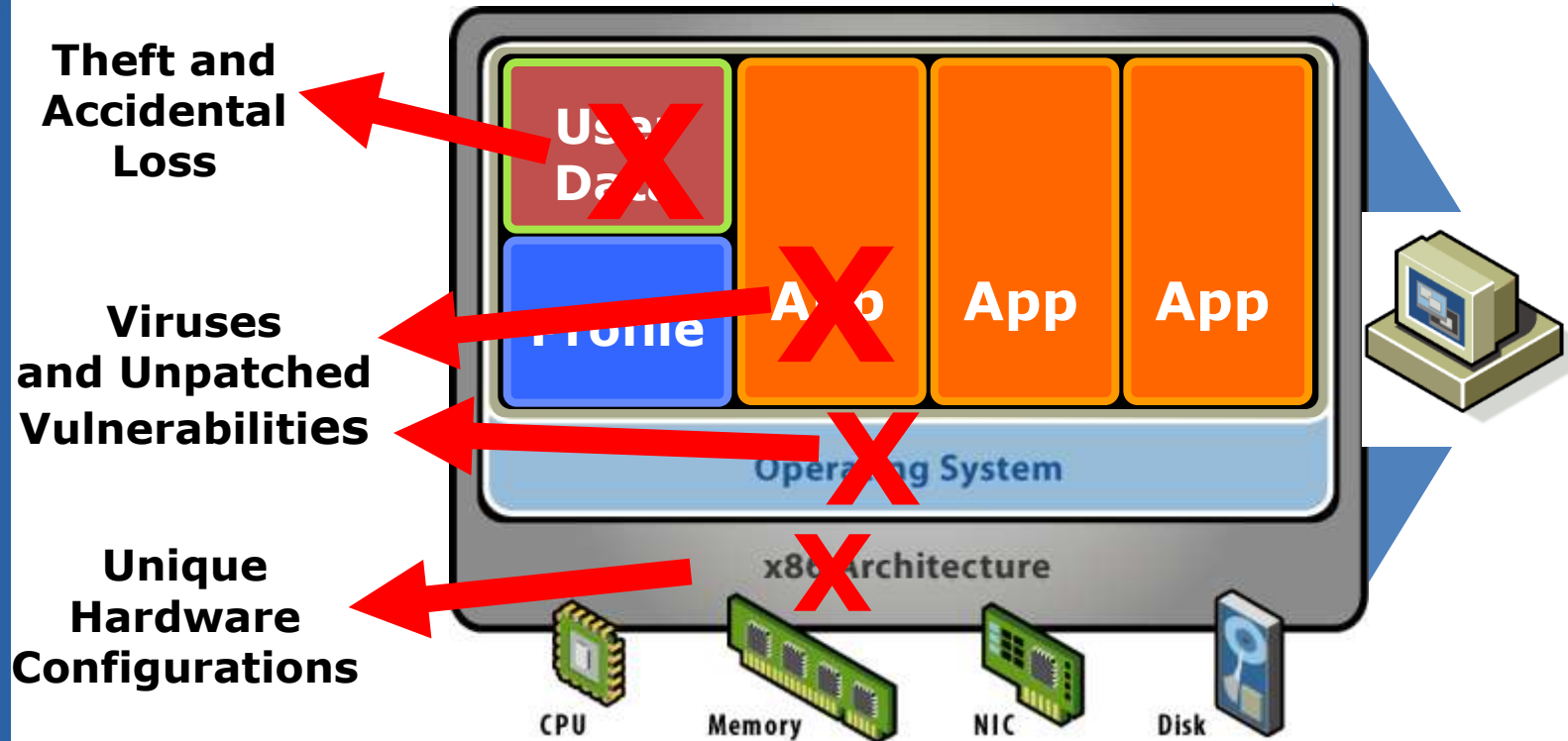


Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Management is difficult on the Edge



Many individual devices must be patched, monitored, and secured – a difficult task, especially for remote users

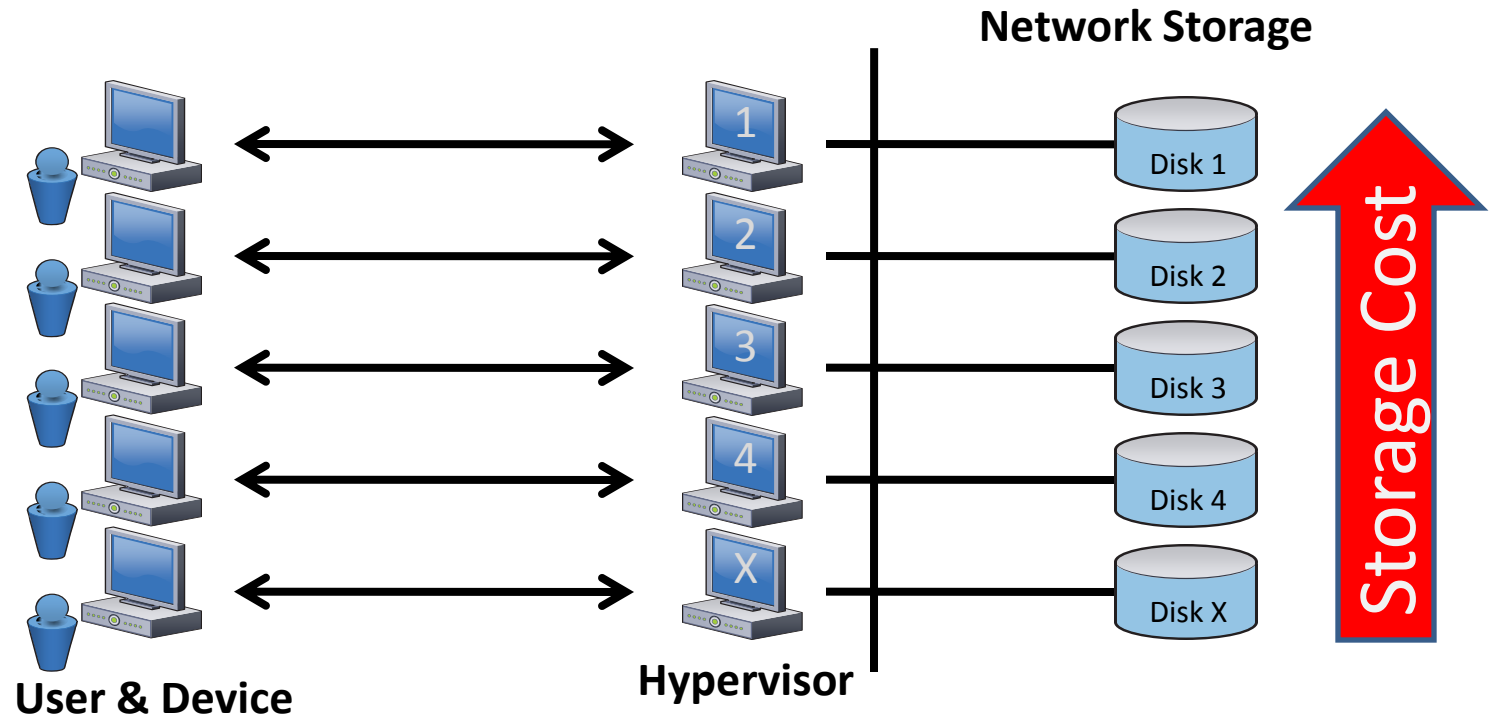


Yorel Integrated Solutions, Inc.

There's integrity inside the circle.



1st Generation VDI 1.0



VDI 1.0 Challenges:

Difficult to Manage

High Storage Costs

Application and OS Conflicts Still Exist



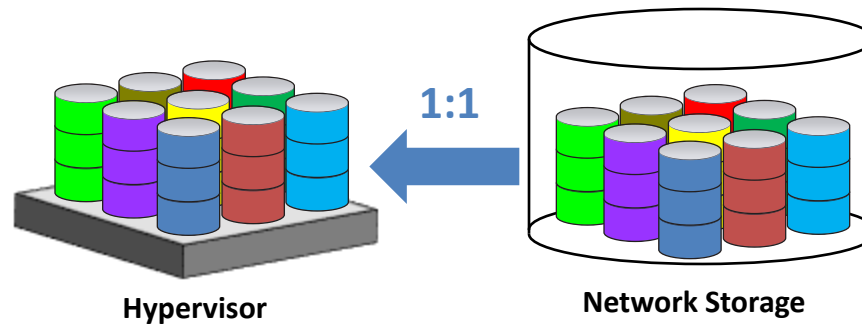
Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.



1st Generation VDI

- Single image for every desktop
- Desktops still managed individually
- Same problems, in a new location

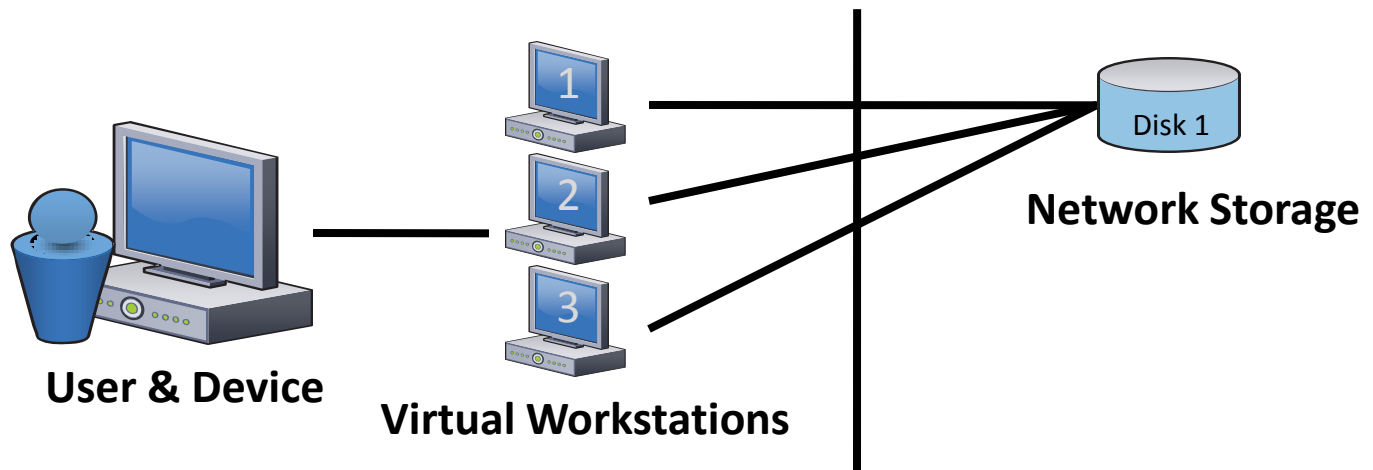


Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

2nd Generation VDI 2.0



***Pooled and Non-Persistent Users
Build Once – Leverage Infinitely!***

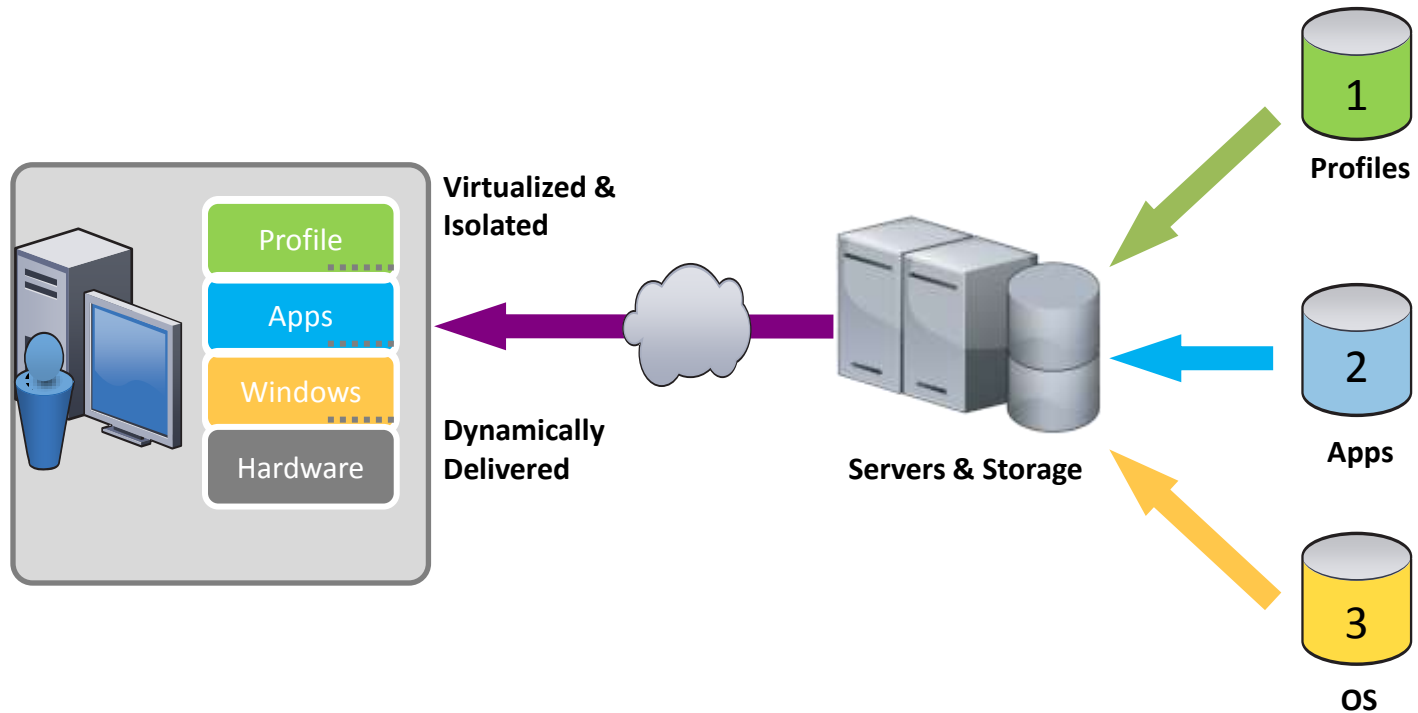


Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Decoupling the Workstation Components



Creation of the Dynamic Workstation...



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Deliver Desktops as a Service to Users Anywhere (DaaS)



High Speed Virtual
Delivery Protocol

Virtual Machine



User
Profile



Windows
Applications



OS
One image
to manage

Desktop Provisioning



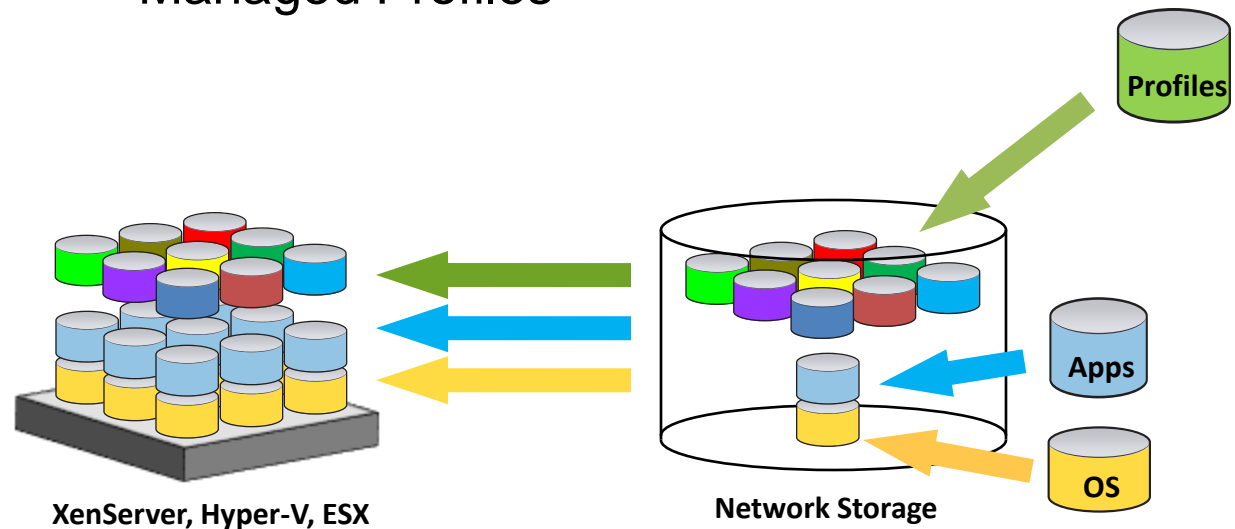
Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

2nd Generation VDI

- Single OS image to store & maintain
- Apps may or may be not installed, and stored as single image, delivered on demand and maintained centrally
- Managed Profiles



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner

Planning for Virtual Desktops

Factors	Considerations and Choices
Topology	Centralization; remote access; security enclaves; storage technologies
Endpoint Devices	Desktop Appliances; Bring Your Own PC; “fat” client devices
Performance	Virtualization technology; blade PCs; network bandwidth
OS Management	Shared golden image(s); per-user private image management; patches; anti-virus
Applications	Delivered; embedded in OS image; web apps; performance requirements
Personalization	Profile management; desktop lockdown policies; per user disk image
Business Needs	Fault tolerance; scalability; delegated administration; help desk
Costs	Storage technologies; shared/private images; hardware cost; bandwidth requirements

Yorel's VDI Assessment and Planning Offering provides businesses the roadmap to success!!



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

The IBM Business Partner logo consists of the IBM logo (eight horizontal stripes) to the left of the text "Business Partner" in a sans-serif font, all enclosed within a thin white circular border.

IBM Business Partner

To Architect a VDI Environment that is right for your business...



Understanding the user's needs is key!

Now to the whiteboard...



Yorel Integrated Solutions, Inc.

There's integrity inside the circle.

IBM Business Partner

Our Vision for your Business



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

IBM
Business
Partner



A world where **anyone** can work from **anywhere**



***Yorel Stands Out Among
the Competition...***

Yorel Saves You Time & Money!

Customers can leverage Yorel's core competencies to reduce IT Costs and provide an improved user experience – *It's expensive and slow for IT to learn to implement things for the first time...*

Give us the opportunity to pay for our services with the TCO savings created from our solutions!



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

The IBM logo is a small black square with the letters 'IBM' in white. To its right, the words 'Business Partner' are written in a smaller, black, sans-serif font.

IBM
Business
Partner

Questions?

Email: vdi@yorel.com

VDI Resources:

<http://vdi.yorel.com>

Yorel Integrated Solutions

704-594-9870

919-875-8819



Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.





Yorel Integrated Solutions, Inc.

There's integrity
inside the circle.

