TRANSFORM THE GOVERNMENT IT DATA CENTER INTO A DYNAMIC SERVICE - ORIENTED DELIVER CENTER

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Technology Trends

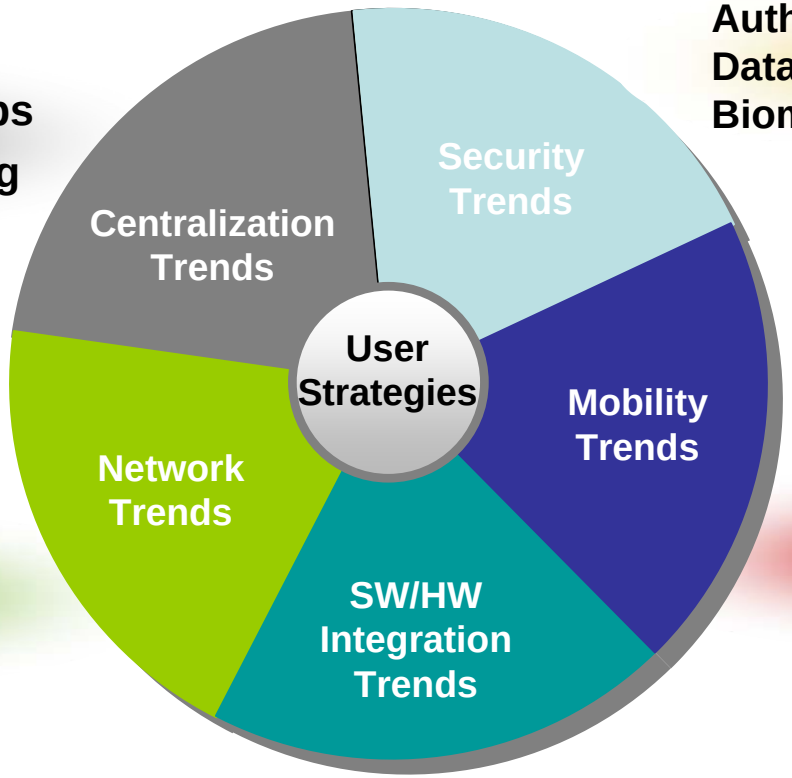
Current technology trends promote the development of different user strategies base on diverse business requirements ...

Server Based Desktops

Centralized Messaging

Authentication (i.e. SSO)

Data/App Protection (i.e. Biometrics)



IP Convergence (i.e. Voice over IP)

Bluetooth

"Free Seating"

Wireless Access

Convenience Devices (i.e. Blackberry)

Application Integration (i.e. Click-to-Dial)

End user Evolution

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Mainframe Computers 1960's - 70's

Lots of zfold Paper - Very difficult for users to have DR access

First

Minicomputer 1970's - 80's

Real time access via Wyse General Purpose Terminals – Connectivity meant that the users still had to be near the computers

Second

PC's - 1980's Client Servers -1990's

Real time access, local analysis and graphical presentation of data. Networking is in its infancy, but not one cared since the data was at hand

Third

Thin Computing Now!

Online access with central control DR capabilities are dramatically simplified, however the users want even more!

Fourth

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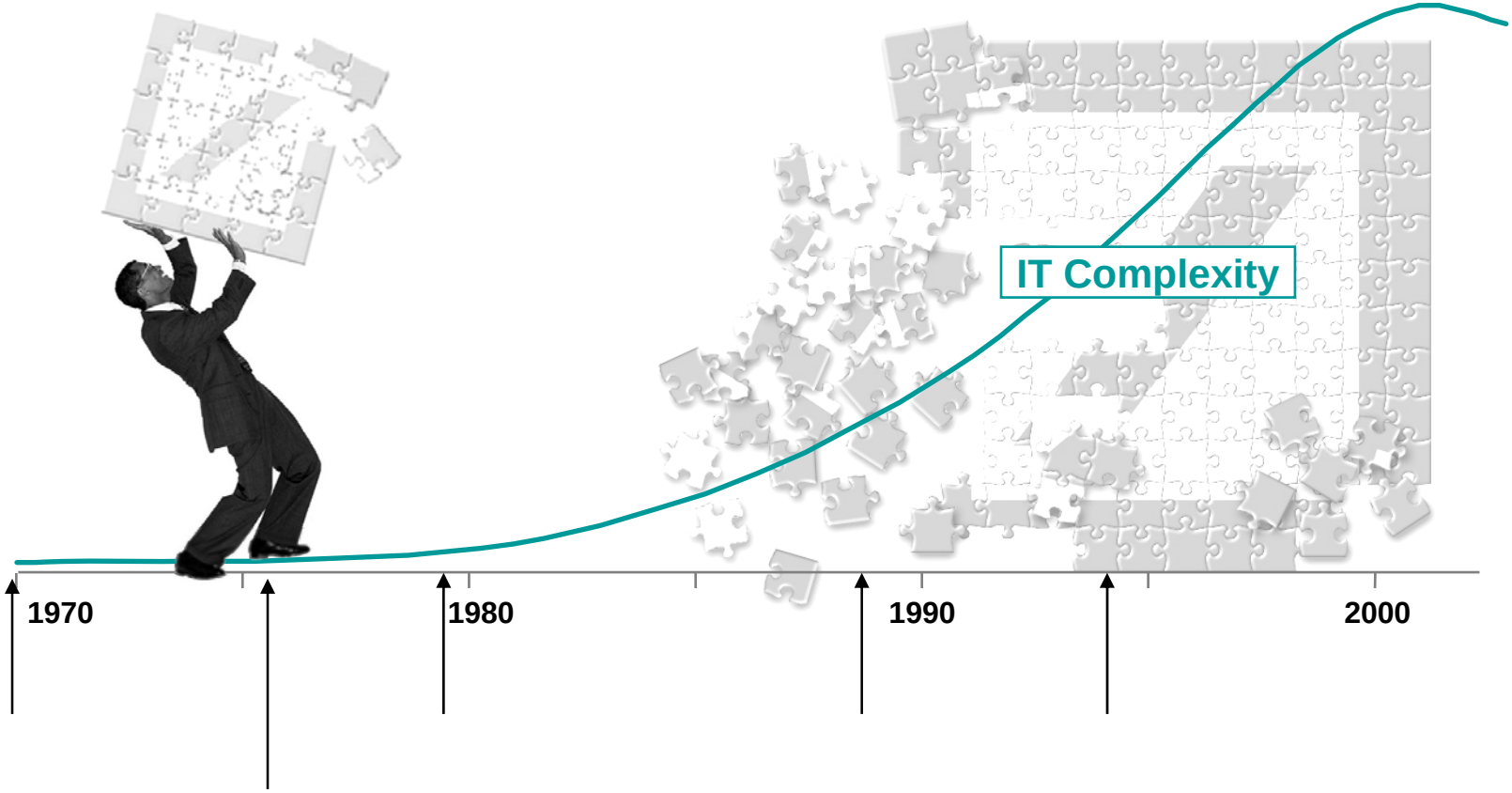
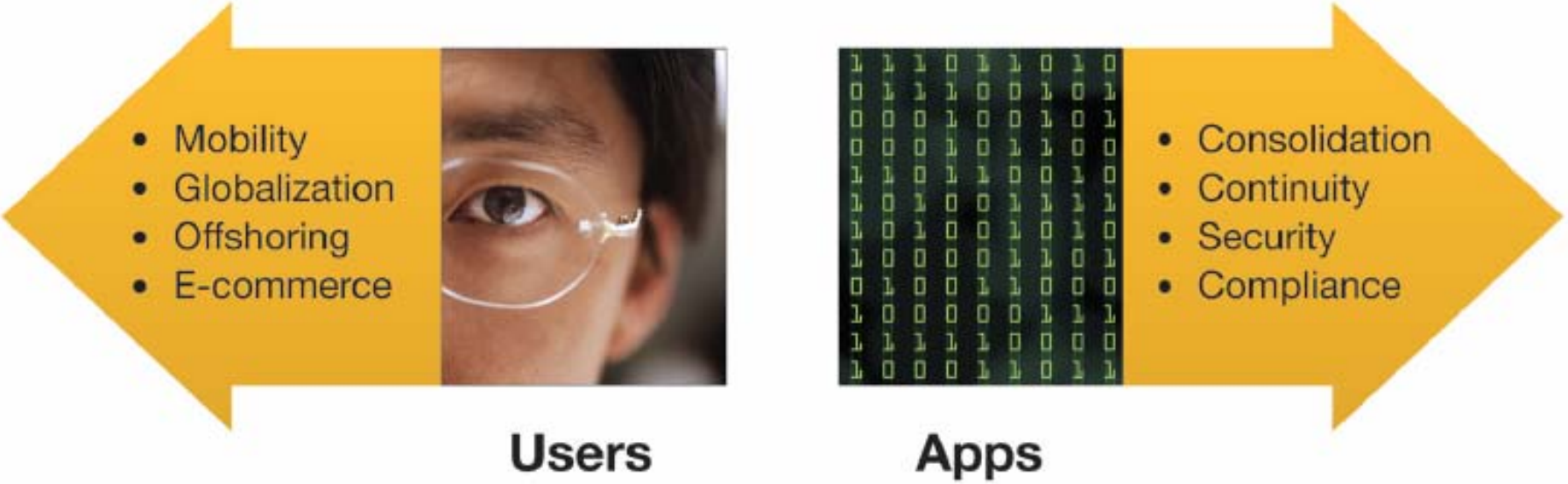
The Price of Growth is Complexity



* in PCAM, Source PCAM-GT Strategy & Governance

Application Delivery Infrastructure



IT Expenses

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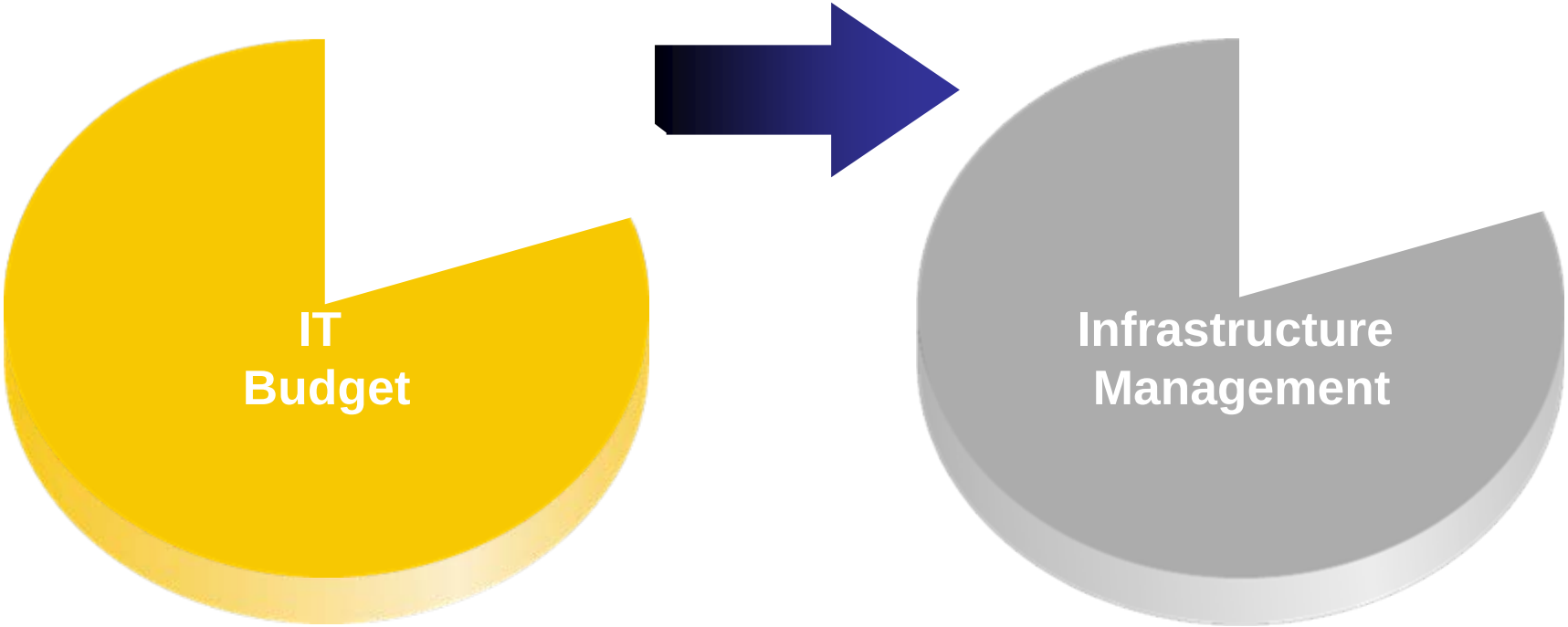
80% Infrastructure Management

80% Desktop Management



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Desktop Expenses

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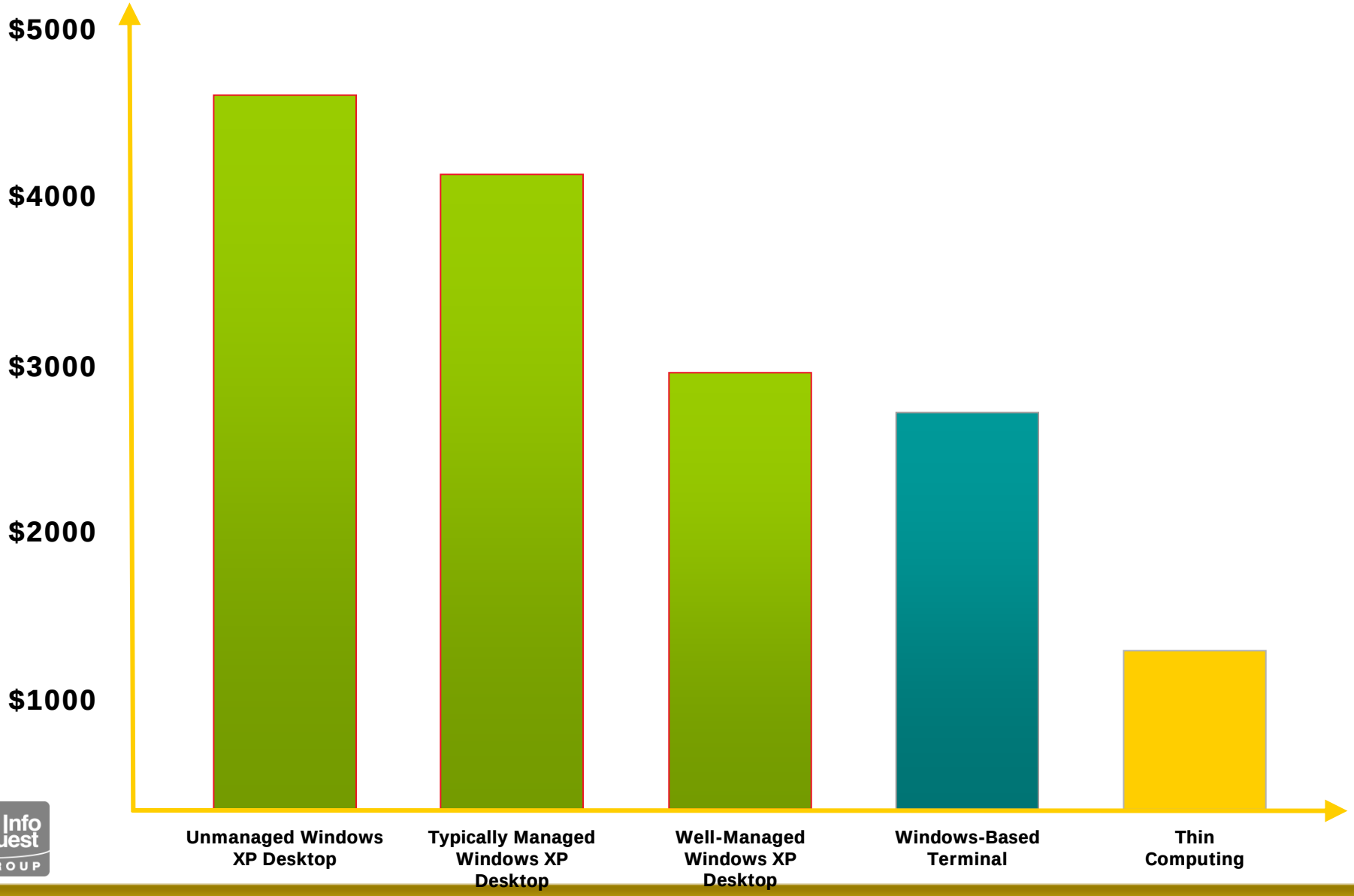

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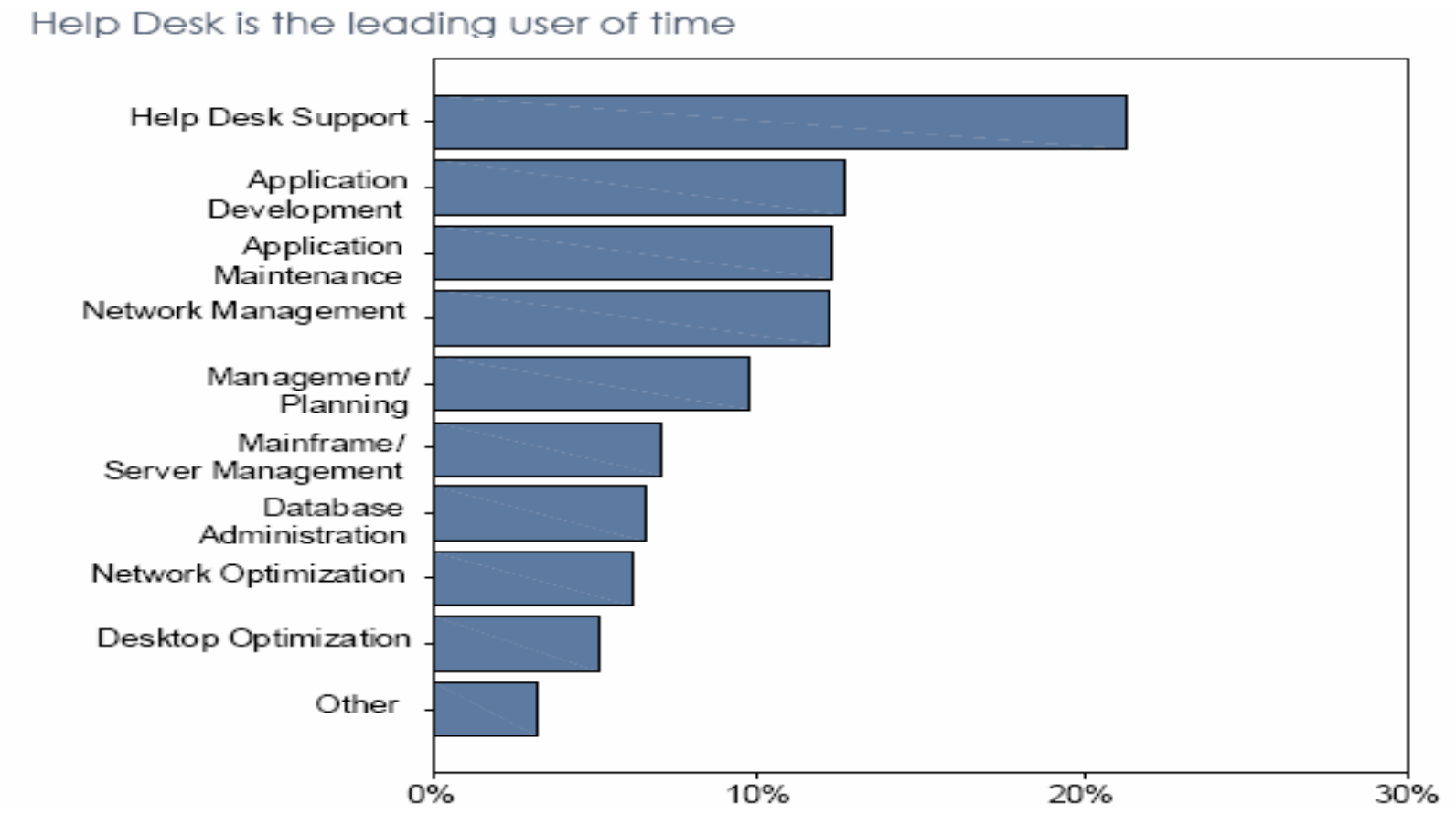
Average Percent of IT time spent Per task area



Source : Info-Tech

Conventional Approach

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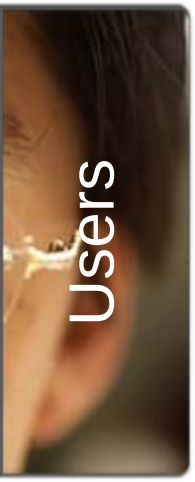

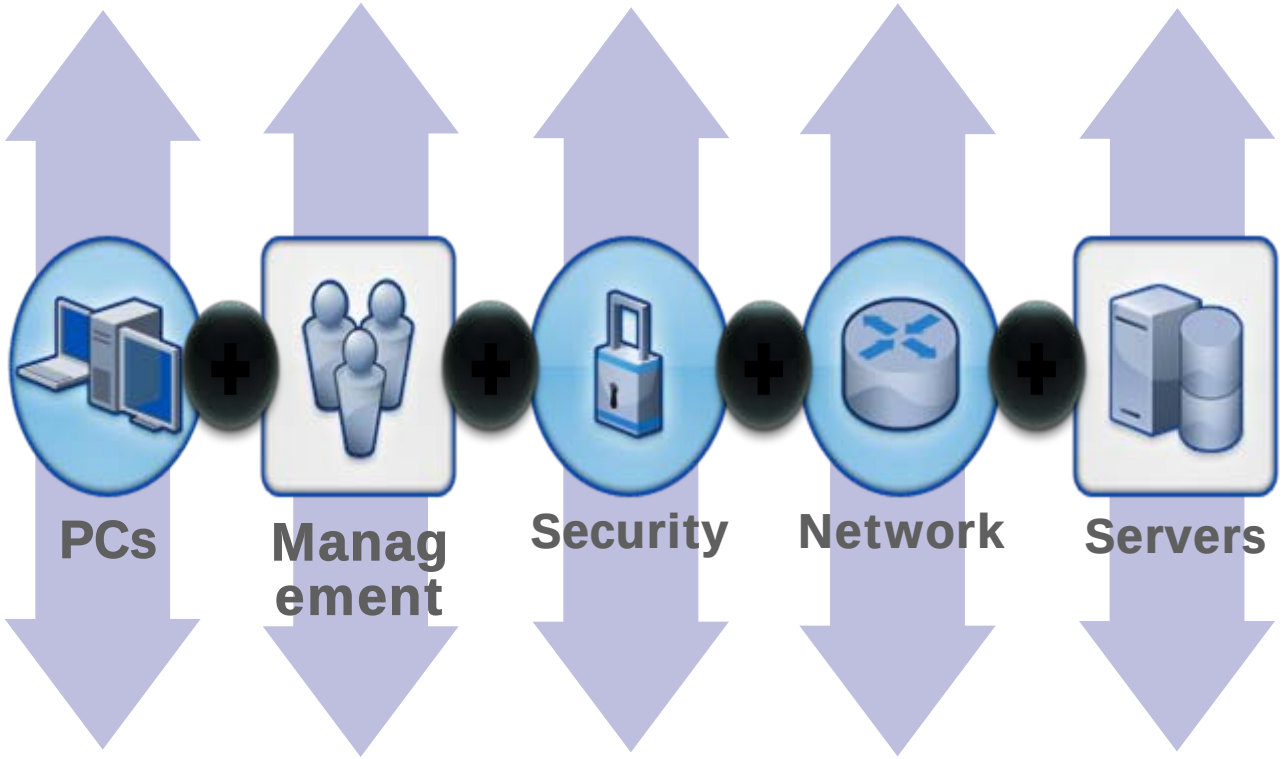

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Challenges at the Branches

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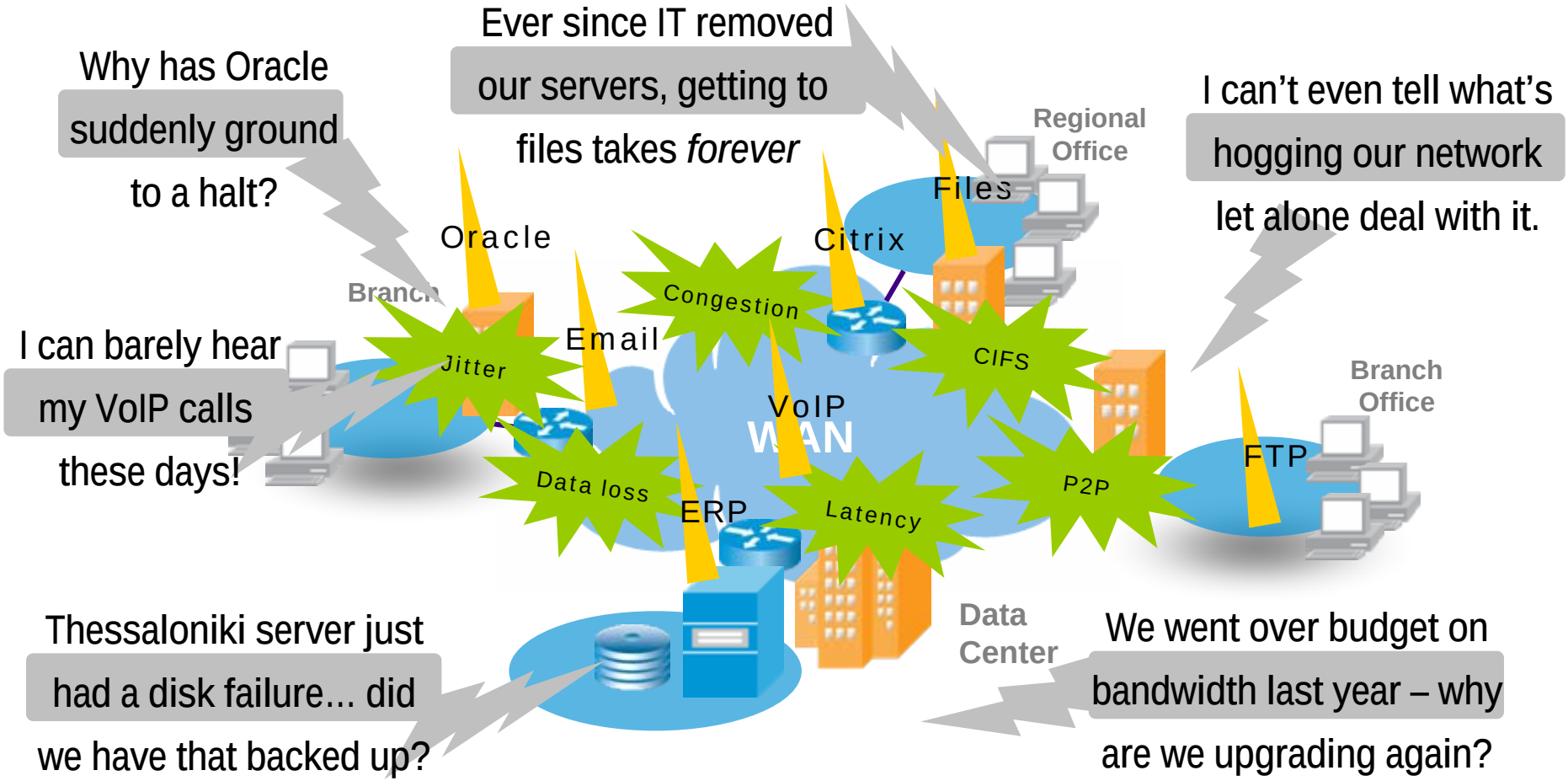

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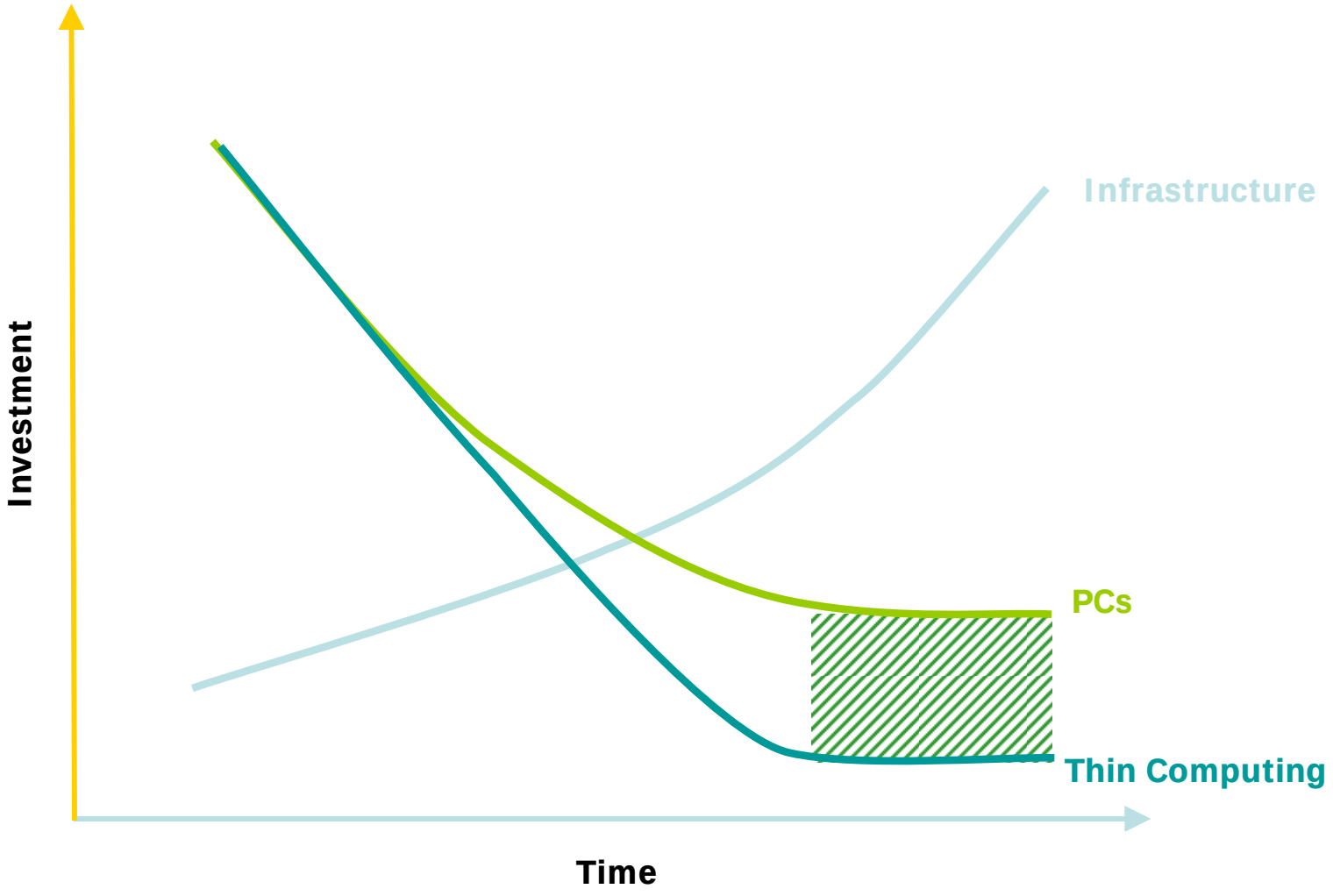
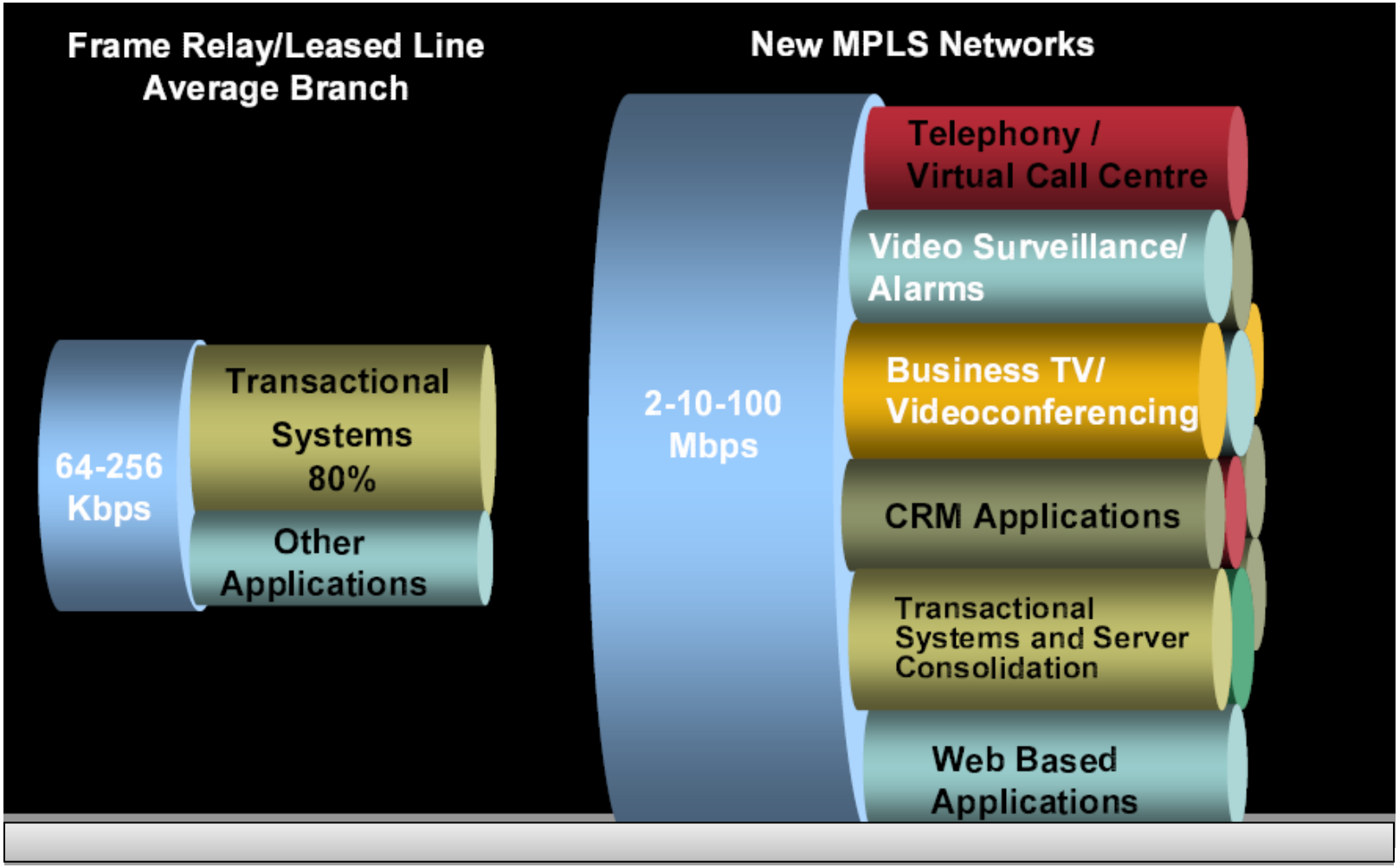
The Migration Journey



Network Challenges: Convergence Through Bandwidth Explosion



The Migration Journey

	From	To
Infrastructure	Islands; Physical Limitatio	Consolidated; Virtual
Applications	Disconnected; Maintenance	Integrated; Innovation
Services	Fragmented; Device-Specific	Shared; Consistent
Network	Components; Connectivity	Architecture; Intelligence

What is Application Delivery?

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Users

Provide Desktops as a Service

Deliver Applications

Build Dynamic Datacenters

Apps

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any location

any number of people

The On-Demand Organization

any device

any connection

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Visionary concept

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- On-demand Government IT:
  - Virtualization of the Datacenter resources and Secure access to private information over any kind of networks using any type of devices.
- Access infrastructure:
  - A core business system because it solves a major business problem:
    - right information, securely, easily, instantly to every one, whenever, wherever.
- Key Business benefits:
  - Improved operational efficiency
  - Cost reduction
  - Security

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Justify it

- Saves $$$
- Leverages existing infrastructure
- Aligns multiple projects
- Increases Application Control
- Improves App and Data Security

Proven with over 200.000 customers and 70 M desktops worldwide
More than 750 customers in Greece and 45.000 desktops

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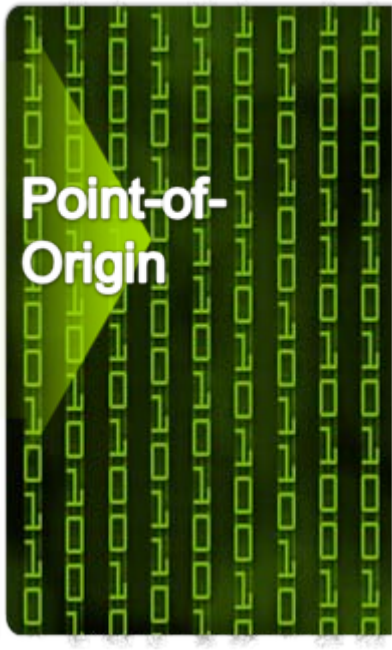
Turning datacenters into delivery centers

Any Network



Users

Apps

Turning datacenters into delivery centers

Virtualise

Stream

Share

Any Network

Users

Apps

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Turning datacenters into delivery centers

Protect

Control

Any Network

Users

Apps

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Optimize

Accelerate

Any Network

Users

Apps

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Measure

Monitor

Support

Any Network

Users

Apps

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Turning datacenters into delivery centers

Dynamic coupling of people and applications over the network

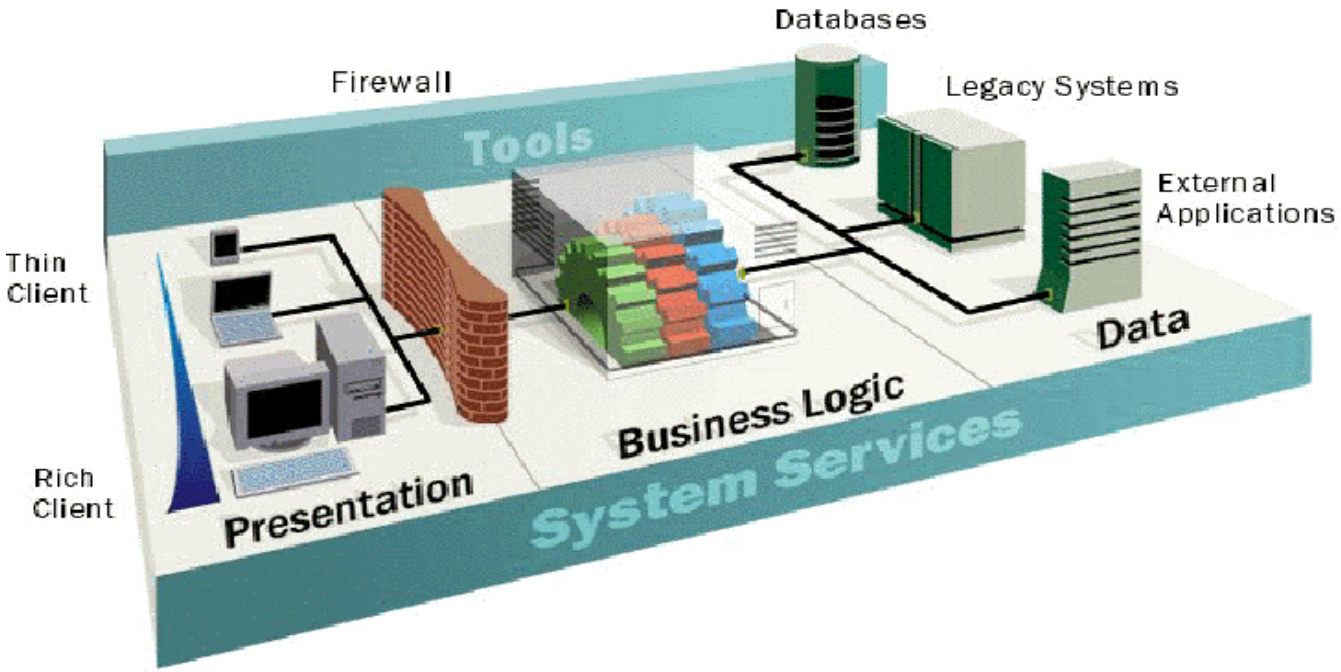
Any Network

Users

Apps

Server-centric Computing

- Centralized IT
- All user Applications running “secure” on central servers
- Universal Access - any type of device access



Citrix Delivery Center
Transform the datacenter into the delivery center

Virtualization Application Deployment—The Promise

A new desktop paradigm

- Low cost branch delivery
- Extend PC life (cost avoidance)
- Break Win/tel obsolescence cycle
- Improved branch productivity
  - Time to Toggle between applications
  - Application loads
  - Print file delivery
  - Reduced PC hangs
- Operational improvements
- Transparent deployment, no user training

The Challenge With Desktops Computing Today

Cost of acquisition

Information security

Cost of software deployment and maintenance

Cost of hardware deployment and maintenance

Manageability of multiple applications

Complexity and vulnerability to attack

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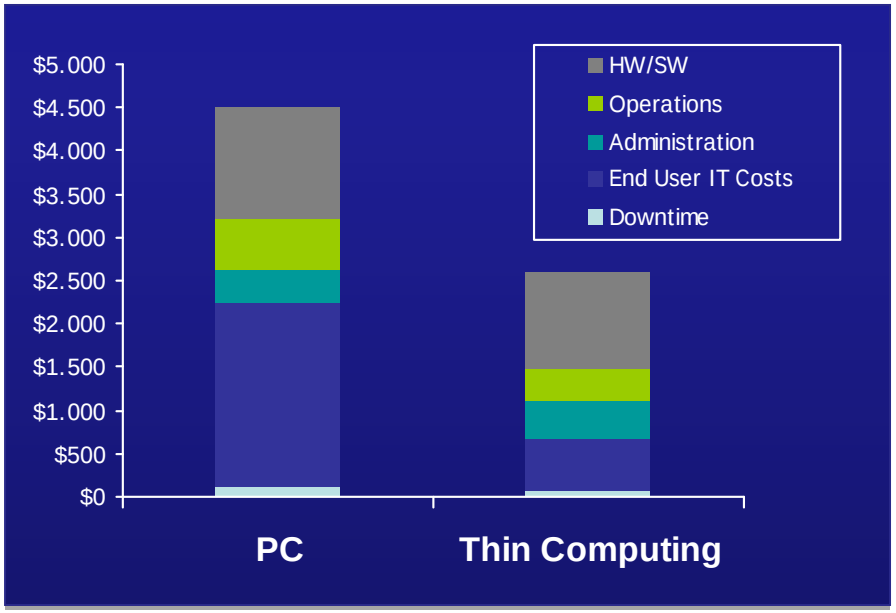
Thin Computing Address the Challenges Head On

Cost Benefits



40 % Reduction HW and SW costs

29 % Reduction IT operations costs

88 % Reduction worker downtime

78 % Increase IT staff productivity

Source: Gartner Inc (8/05), IDC (11/05), and Wyse Estimates

Business Benefits

- Security / Privacy
- Compliance
- Manageability
- Reliability
- Rapid Deployment
- Power / Noise / Cooling

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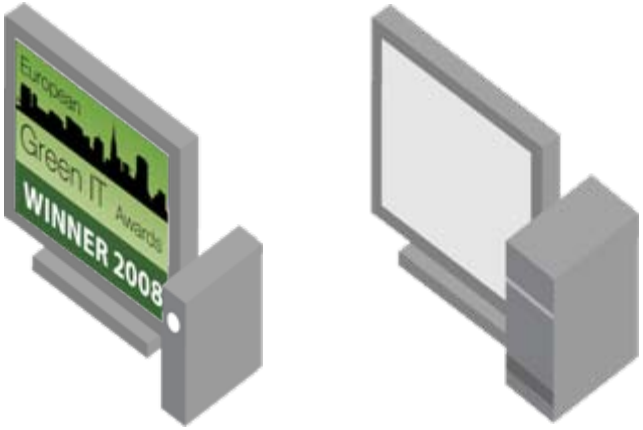
Energy Efficiency

- Reduce energy usage by up to 90%
- Less materials used in manufacture
- Lower transportation costs
- Longer service life
- Fewer parts to recycle
- 90% reduction in e-waste



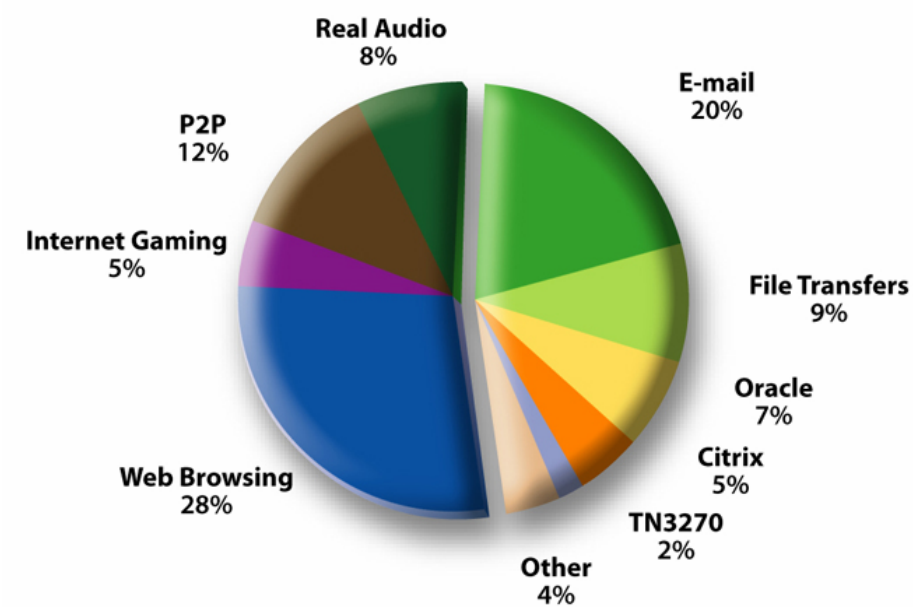
Thin clients

Network
How is it supporting key applications?

- **Typical Network**
  - 50-150 applications on the network
  - Three to ten are customer-critical
  - 40-70% of traffic is recreational

- **Symptoms of 'rigid network**
  - Key applications are unavailable or slow to perform
  - Complaints from end users, poor productivity
  - Business processes suffer
  - IT investments –networks and applications—at risk

Typical Mix of Application Traffic



54% of bandwidth to recreational applications
14-20% of traffic to customer-critical applications

Distributed Network: Congestion is a disruptive issue

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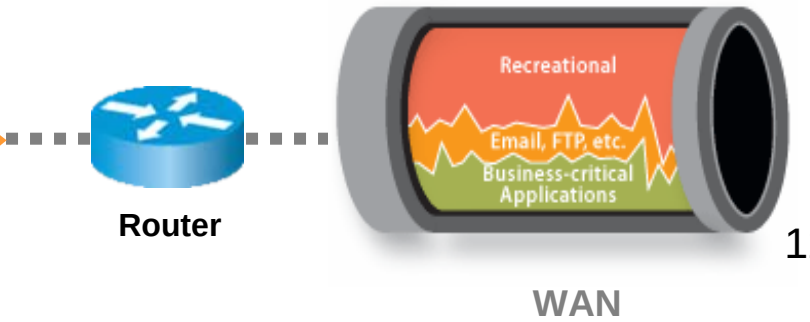
Recreational & Malicious apps:
Surfing the Internet, iTunes, VOD, P2P, Skype, Virus & Worm propagation

Bandwidth-hungry apps:
Email, File Transfers, Backup, Database Sync, Distributed Storage

Latency Sensitive Customer Critical Apps:
SAP, Oracle, Siebel, Citrix, PeopleSoft, VoIP,IP Video, Mainframe

Branch Offices

10Mbps to 1Gig



Router

All apps compete for less bandwidth

WAN

128kbps to 2-4 Mbps

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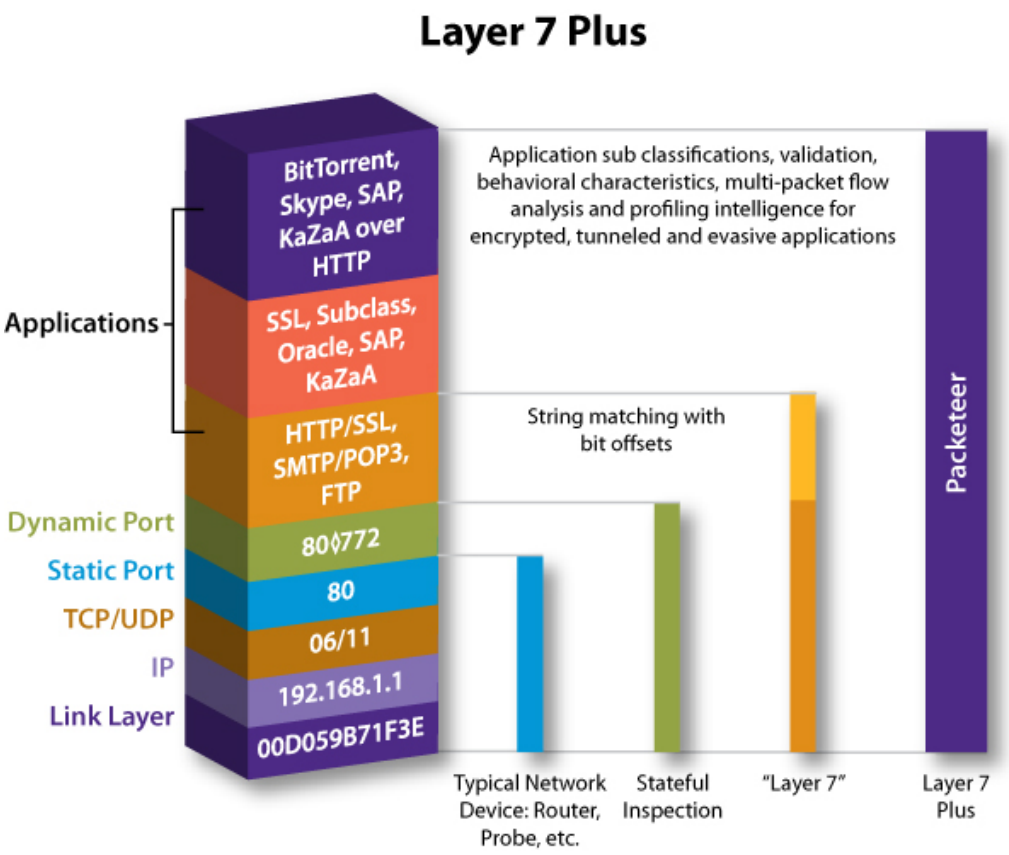
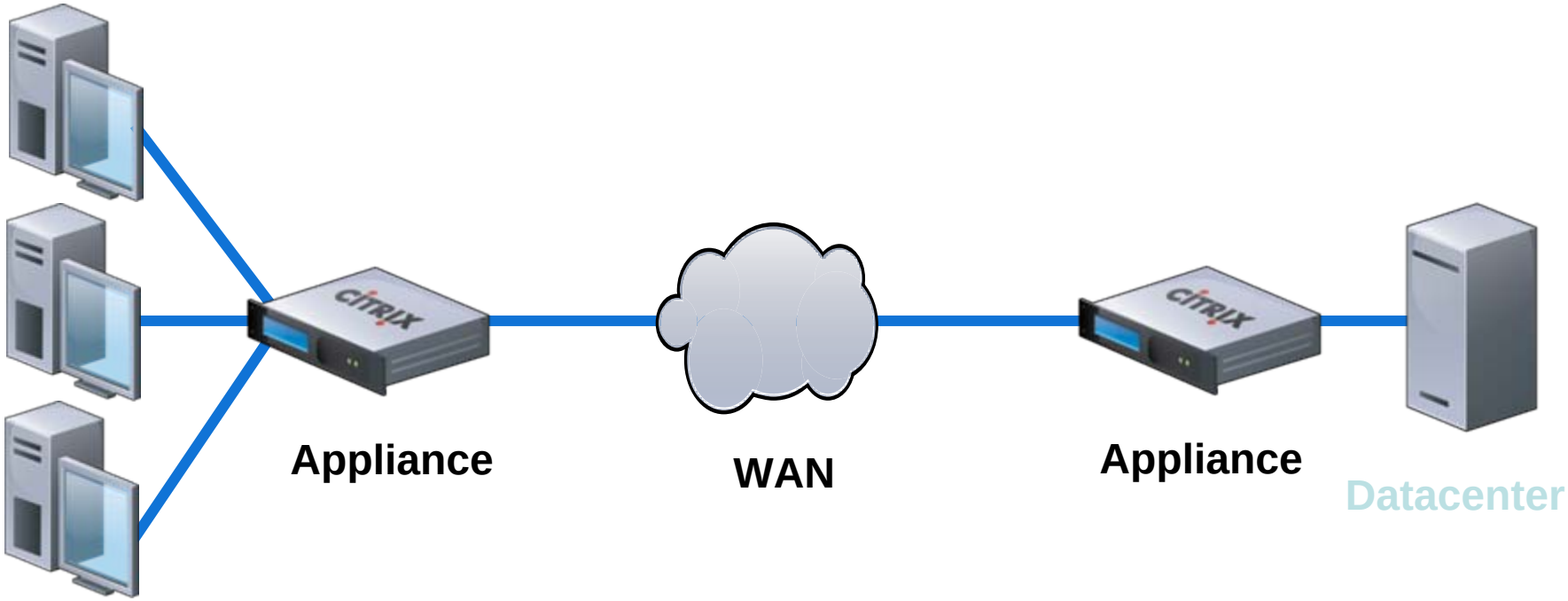
Visibility
Assess Problems & Choose Right Tools

- *Identify* applications on the network
- *Measure* utilization by application
- *Benchmark* response times & SLA's for key applications
- *Diagnose & isolate* causes of performance problems



Optimization of WAN Branch office Links



Branch Office Users

- Accelerates all applications to branch users
- Compress Citrix Traffic 2x times!
- Software Client solution
- Improves bandwidth efficiency by up to 75%

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Make the WAN feel like the LAN

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The Essentials

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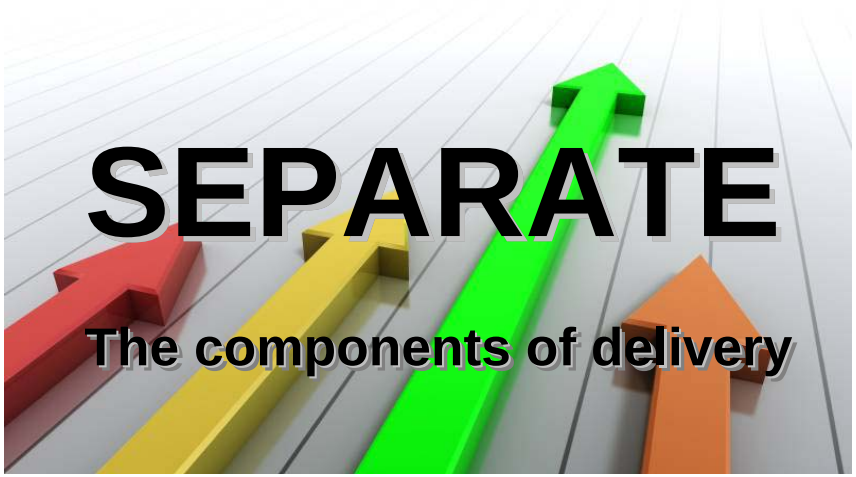

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The Essential

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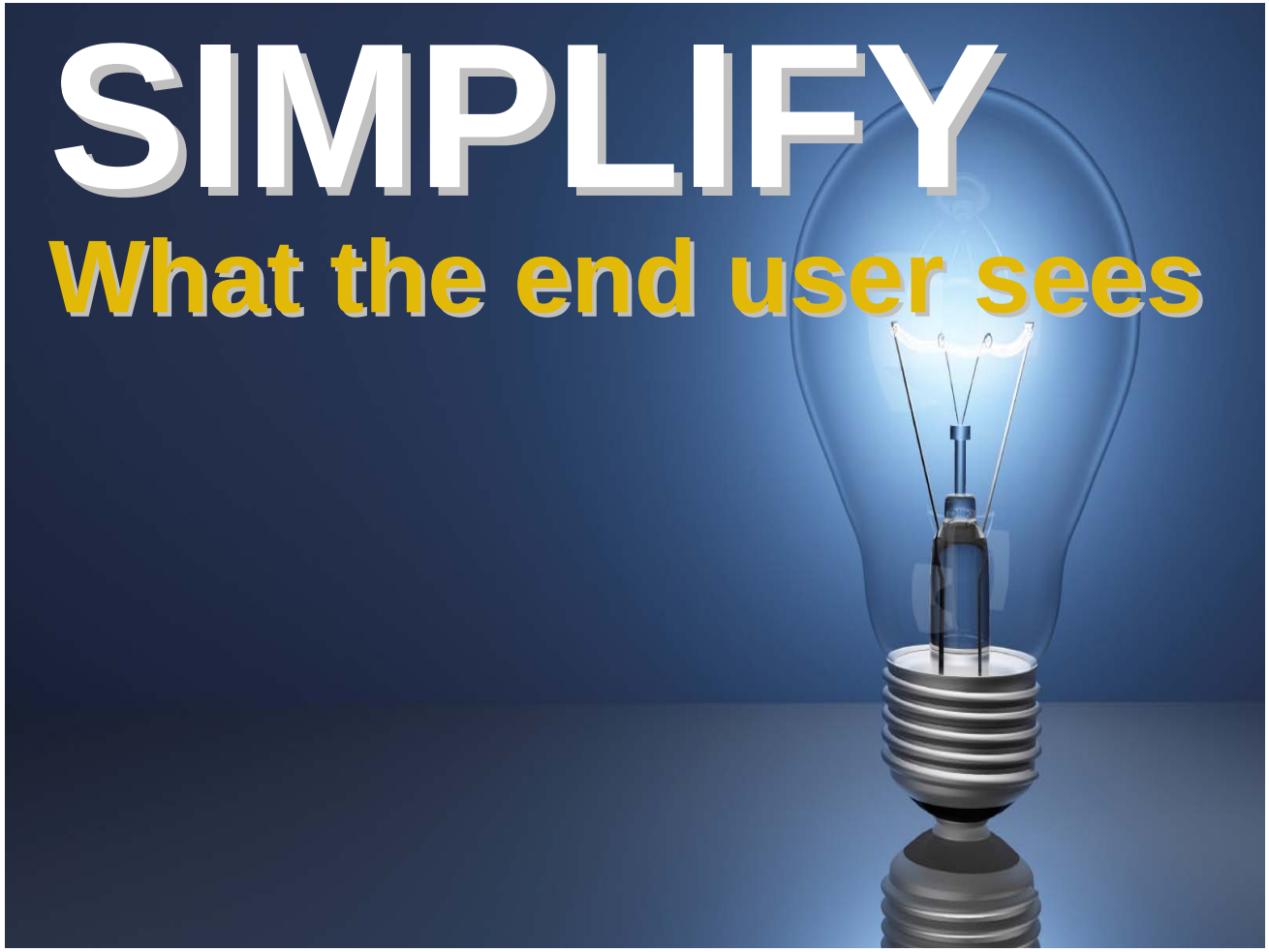

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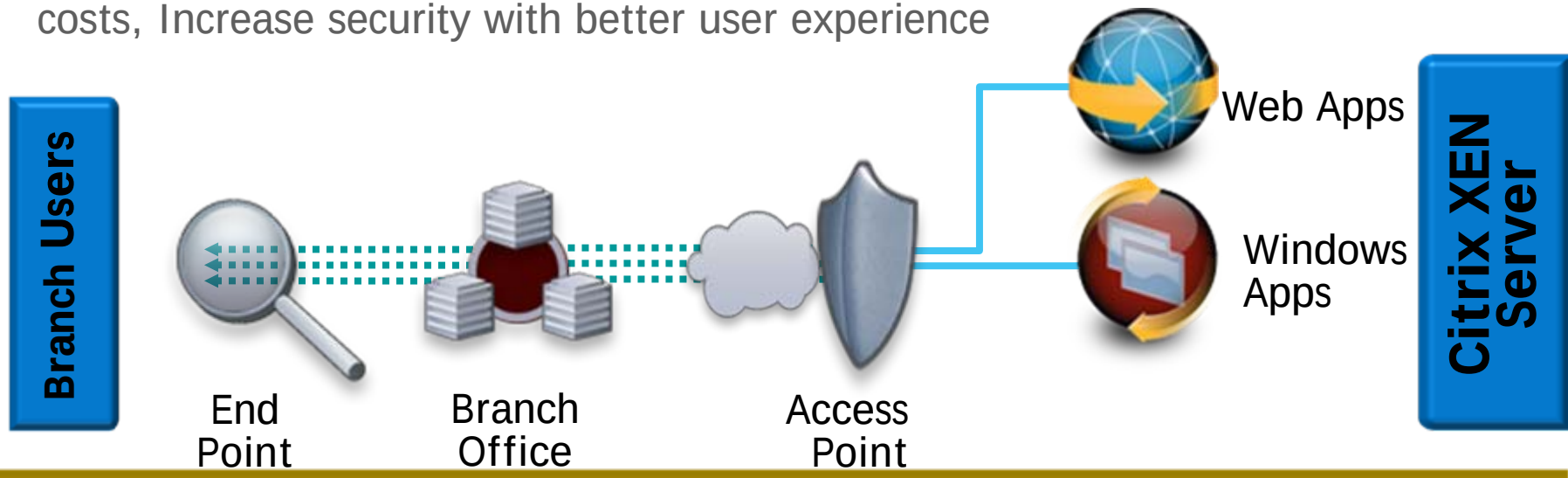
Application Delivery case study

End to end Citrix Application delivery implementation

- Full virtualization of production servers using Citrix XENserver Para-virtualization Technology
- Centralization of all bank's applications using XEN app (ex Presentation Server)
- Thin clients
- Main Target: Minimized Administration, Bandwidth and Help desk costs, Increase security with better user experience



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