

IT as a Game Changer

Technology Considerations in
Attracting and Servicing Top Students

Steve Bulmer – VP, Professional Services

June 15, 2016



Agenda

- **About The Walker Group**
- **Information Technology Today in Higher Education**
- **Information Technology and Purposeful Academic Alignment**
- **Top 10 IT Topics 2016 (EDUCAUSE IT Issues Panel 2015 – 2016)**
- **“Divest, Invest, Differentiate”**
- **3 Transformative Technologies:**
 - Virtual Desktop Infrastructure
 - Hyperconverged Infrastructure
 - Wireless Local Area Networking
- **Conclusions**

About the Walker Group

The Walker Group is:

- **End-to-end IT solutions provider**
 - IT Infrastructure
 - Managed Services
 - Digital Marketing Services
- **65 employees & growing 30% YoY**
- **35 engineers licensed & certified**
- **Social Enterprise**
- **Over 400 clients in Connecticut**
- **Currently serving clients CT-MA-RI-NY-NH**
- **State contracts: NYS OGS, CT NASPO, PEPPM**
- **NERCOMP Solutions Provider and EDUCAUSE Partner**

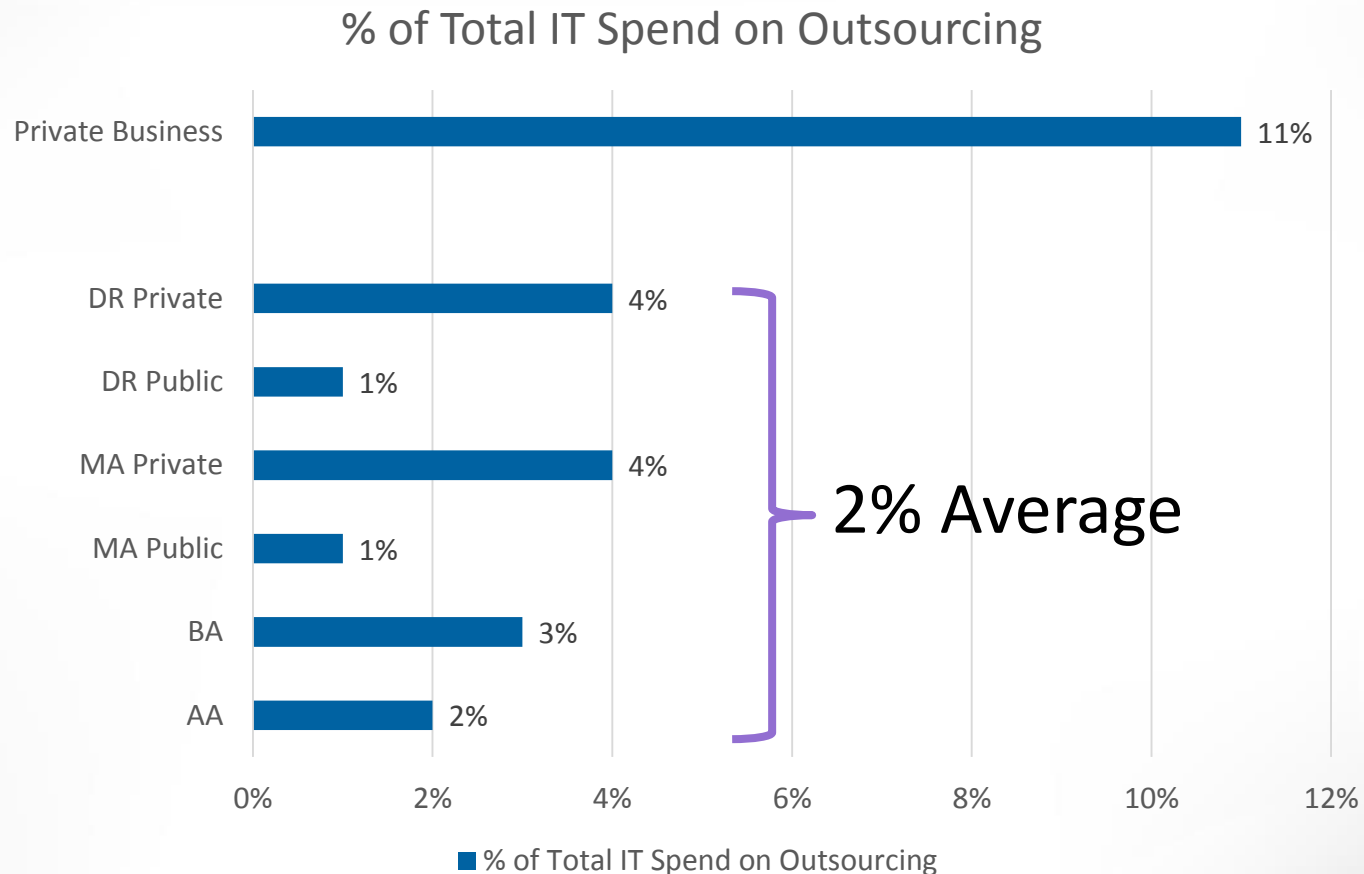
State of IT in Higher Ed

Percent of Central IT Budget Spent on Running, Growing or Transforming the Institution

Run	80%
Grow	13%
Transform	5%

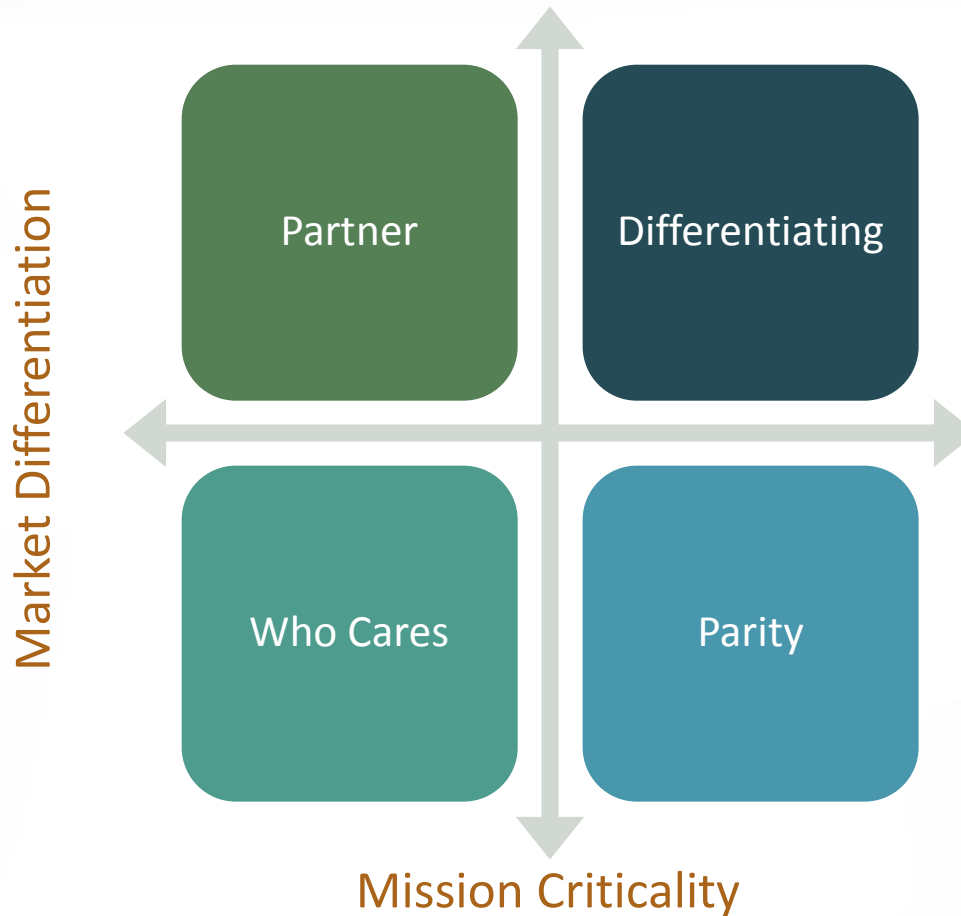
Source: Excerpted from EDUCASE Core Data Survey Report, 2015; Does not total 100% due to rounding.

Central IT Still a Relatively DIY Mindset



Sources: Computer Economics September 2014; EDUCASE Core Data Survey Report, 2015;

IT Purpose Alignment Model



Source: Niel Nickolaisen, "Aligning to Purpose," *EDUCAUSE Review* 49, No 3 (May/June 2014)

Differentiate - Reinvest - Divest

Differentiate

- Those IT Services and Capabilities that are true Market Differentiators for your Institution
- A few core services offerings with investment in technology to give competitive advantage

Reinvest

- In human resources to manage new service delivery models
- In IT technology growth to provide meaningful value in delivering services
- In IT Security to preserve a safe learning environment

Divest

- Divest from complex legacy IT Platforms, Services, Org Structures to take advantage of new paradigms
- Divest from non-Standard information organization or platforms that hinder efficiency
- Moving from legacy, historical services onto emerging technologies in 61% of CDS responses

EDUCAUSE Top 10 IT Issues 2016

- 1) Information Security
- 2) Optimizing Educational Technology
- 3) Student Success Technologies
- 4) IT Workforce Hiring and Retention
- 5) Institutional Data Management
- 6) IT Funding Models
- 7) BI and Analytics
- 8) Enterprise Application Integration
- 9) IT Organizational Development
- 10) E-learning and Online Education



IT Issues and Thematic Actions

Topic	Theme for 2016
1) Information Security	Reinvest
2) Optimizing Educational Technology	Differentiate
3) Student Success Technologies	Differentiate
4) IT Workforce Hiring and Retention	Reinvest
5) Institutional Data Management	Divest
6) IT Funding Models	Reinvest
7) BI and Analytics	Differentiate
8) Enterprise Application Integration	Divest
9) IT Organizational Development	Reinvest
10) E-learning and Online Education	Differentiate

Today's IT Technology Topics

Virtual Desktop Infrastructure

Hyperconverged IT Infrastructure

Wireless Networking

Virtual Desktop Infrastructure



Virtual Desktops

User's desktop that transcends physical computers and can be used from any device, almost anywhere with a network connection

Secure

- Moves desktop and vulnerabilities from endpoint to the Data Center / Cloud
- Essential part of BYOD strategy and virtual lab expansion

Operational and Cost Efficiency

- Manage more desktops per IT Employee
- More shared resources available to Student FTE via virtual labs
- Standardized desktops and user experience
- Publish educational and distance learning apps consistently
- Optimize computer lab support (refresh/rebuild/customize)

Considerations with VDI

Complete a Pilot or Proof of Concept

- Provides best information for scaling and capacity based on real data
- What IOPS do I need?
- What is my CPU/RAM load?

Consider your user base:

- Who are they and what resources do they need access to?
- How will they access VDI and from what locations?

Set Expectations with users & executives

- The desktop is across campus
- Do I need to support BYOD devices/networks as well as campus LAN?
- Can I connect my USB thumb drive to this thin client?

Cost factors:

- Savings on management/labor?
- Productivity/Efficiency
- Look for long term savings/ROI

Educational Technology Services: Most common teaching and learning support services for faculty

	All nonspecialized U.S.	AA	BA	MA public	MA private	DR public	DR private
Classroom technology	100%	100%	100%	100%	99%	100%	100%
Classroom technology support for faculty	100%	100%	100%	100%	99%	100%	100%
Learning management support for faculty	100%	99%	99%	100%	100%	100%	100%
Learning management training for faculty	100%	99%	99%	100%	100%	100%	100%
Technology-enhanced spaces (e.g., labs, technology-enabled collaborative spaces, etc.)	100%	100%	99%	100%	99%	100%	100%
Faculty group training in use of educational technology	99%	99%	97%	100%	99%	99%	100%
Faculty individual training in use of educational technology	99%	99%	98%	100%	100%	100%	100%



Virtual Desktop Strategic Play

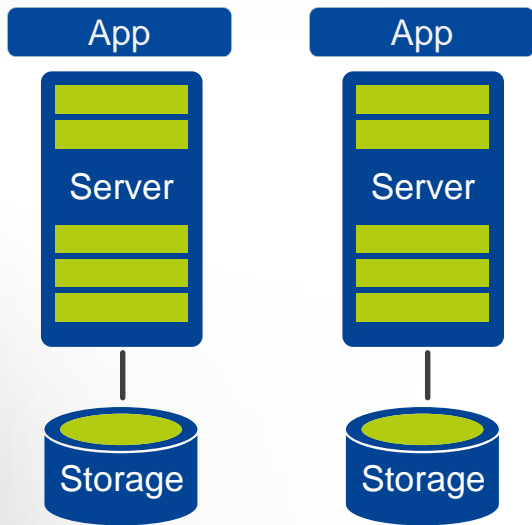
Topic	Theme for 2016
1) Information Security	Reinvest
2) Optimizing Educational Technology	Differentiate
3) Student Success Technologies	Differentiate
4) IT Workforce Hiring and Retention	Reinvest
5) Institutional Data Management	Divest
6) IT Funding Models	Reinvest
7) BI and Analytics	Differentiate
8) Enterprise Application Integration	Divest
9) IT Organizational Development	Reinvest
10) E-learning and Online Education	Differentiate

Hyperconverged Infrastructure

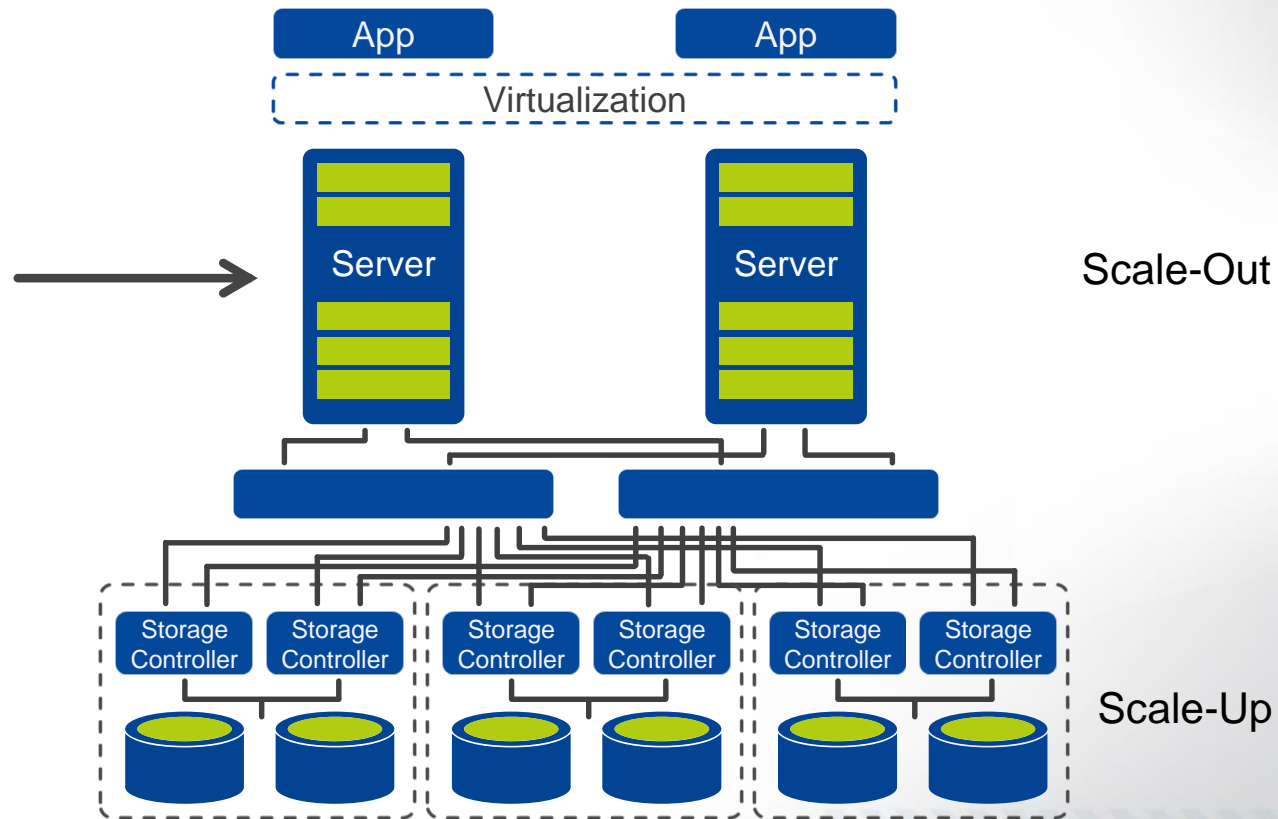


Processing Paradigm Evolution

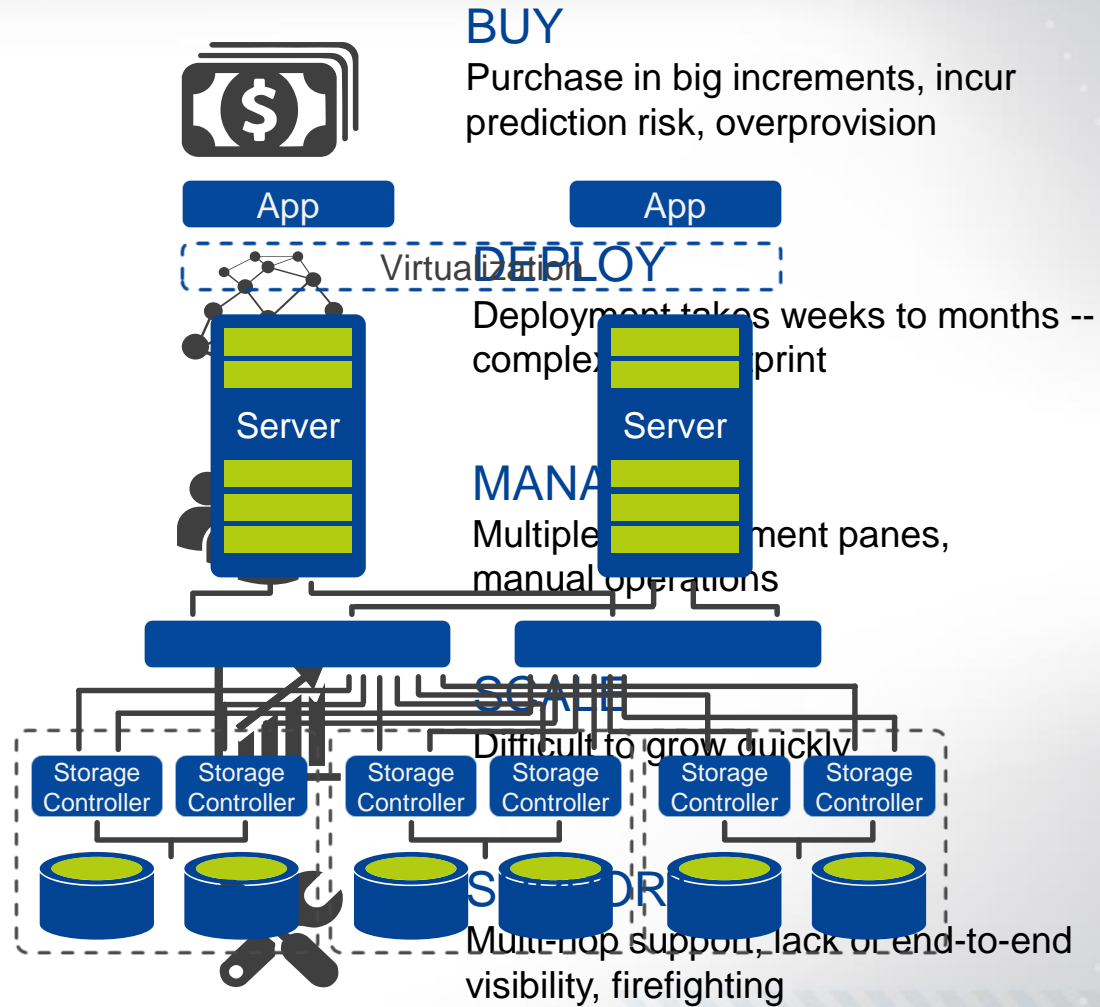
1990s



Today



Legacy Challenges



Hyperconverged Benefits

Agile

Provisioning in hours, not days or weeks



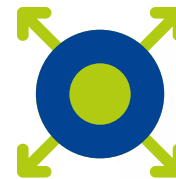
Simple

No specialized skills required to operate



Secure

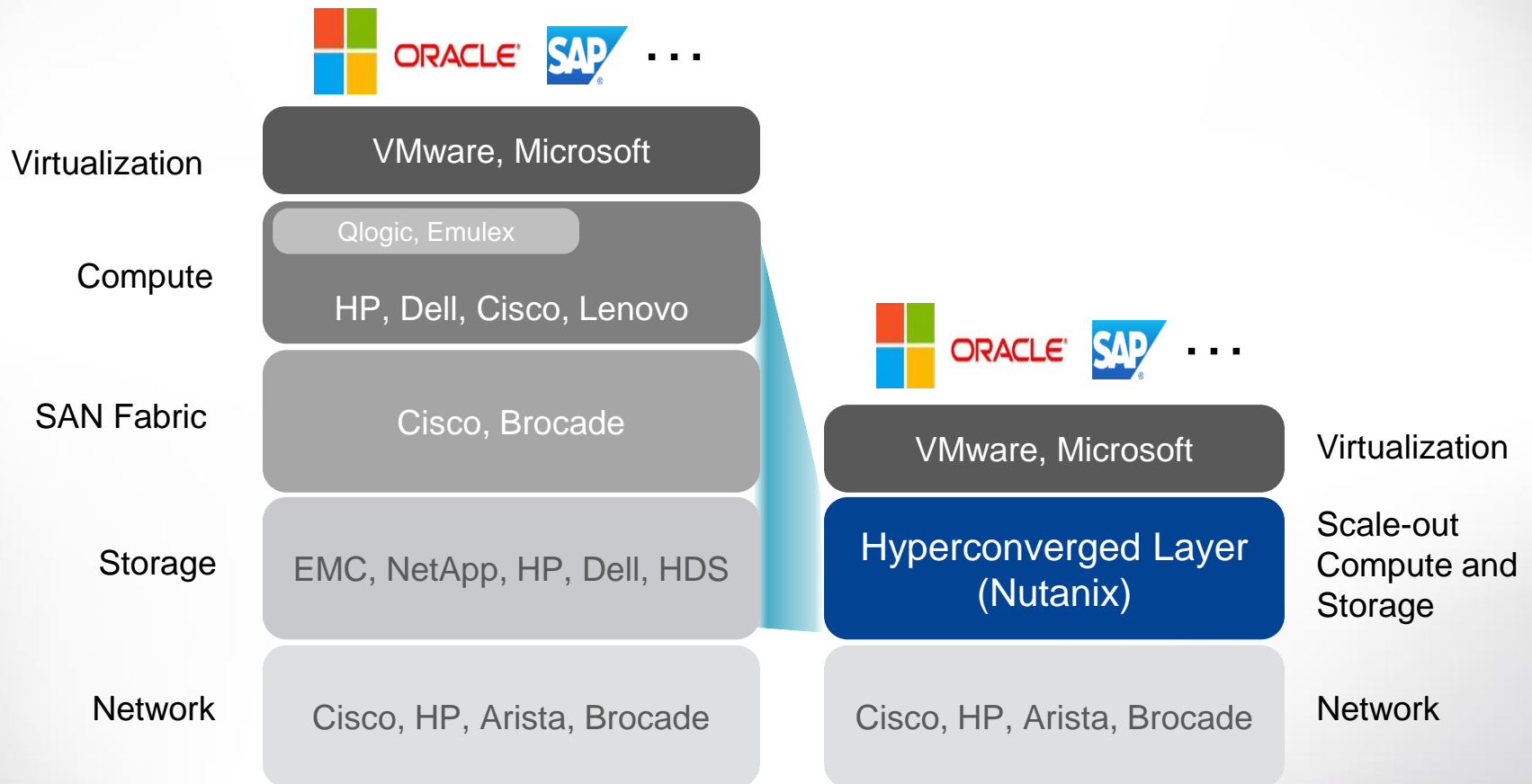
Privacy and control without significant overhead



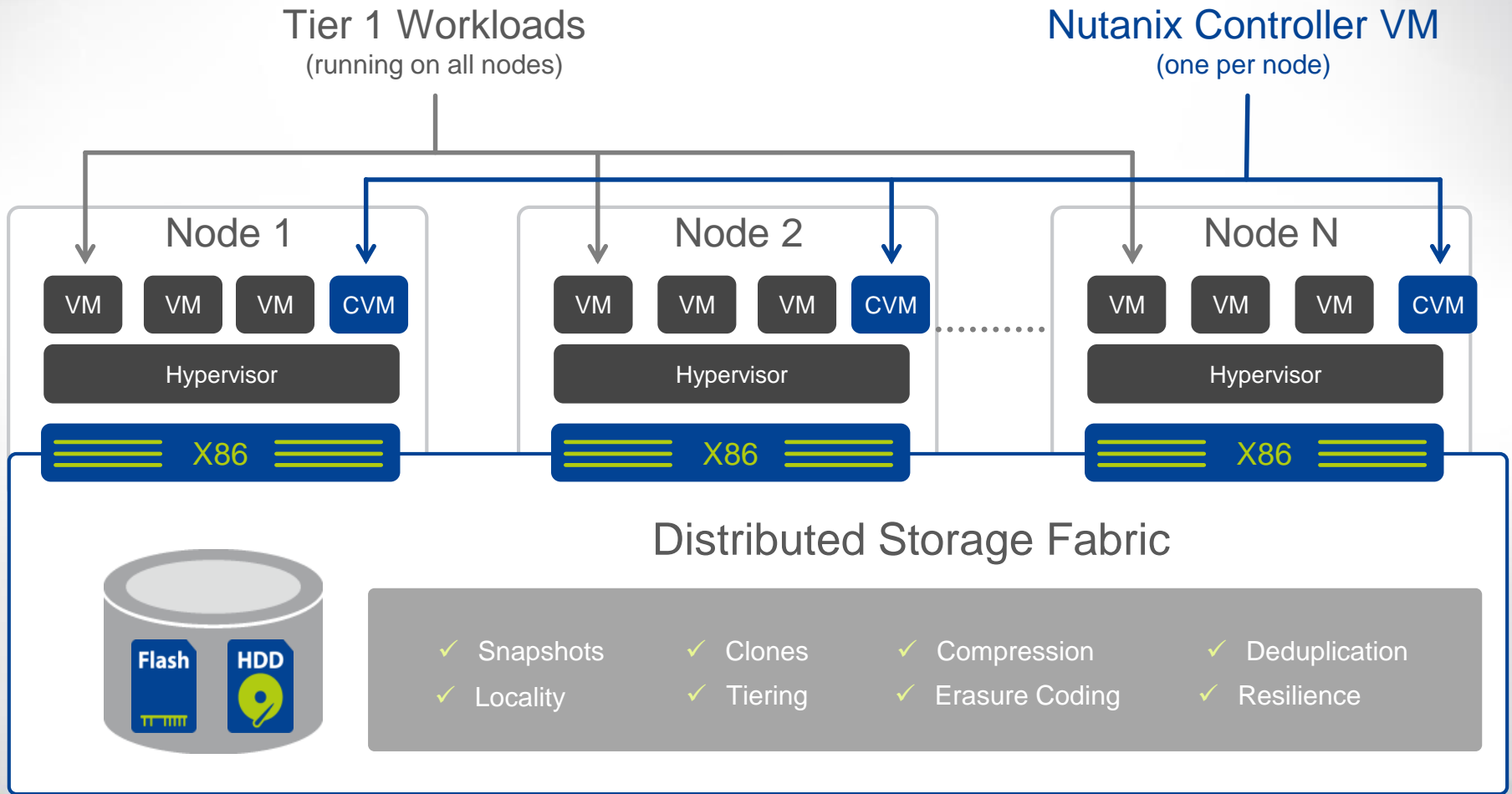
Scale-out

Predictable capacity growth with consumption-based pricing

Simplification and Standardization



Nutanix Architecture



Case Study: University of St Joseph's

Why Hyperconvergence and VDI at USJ?

(Jesse Lunt, Associate Director of Information Technology; NERCOMP 2016)

For the Students

- Access to University S/W 365 days anywhere with Internet Access

It is Efficient

- One location to update every computer

IT Team is Engaged and Excited

- Keep those Geeks Happy

Long term Cost Savings

- Average PC replacement takes 4 hours every 3 – 4 years
 - \$22/hr for 300+ machines costs \$26,000
 - Over 5 years that's \$52,800 in IT Salary alone
- Cost per normal desktop is \$630 over 5 years that is \$1260
- Cost per VDI (monitor, thin client, licensing) \$1,200 over 5 years

Hyperconvergence (& VDI) Strategic Play

Topic	Theme for 2016
1) Information Security	Reinvest
2) Optimizing Educational Technology	Differentiate
3) Student Success Technologies	Differentiate
4) IT Workforce Hiring and Retention	Reinvest
5) Institutional Data Management	Divest
6) IT Funding Models	Reinvest
7) BI and Analytics	Differentiate
8) Enterprise Application Integration	Divest
9) IT Organizational Development	Reinvest
10) E-learning and Online Education	Differentiate

But We Already have Wireless?

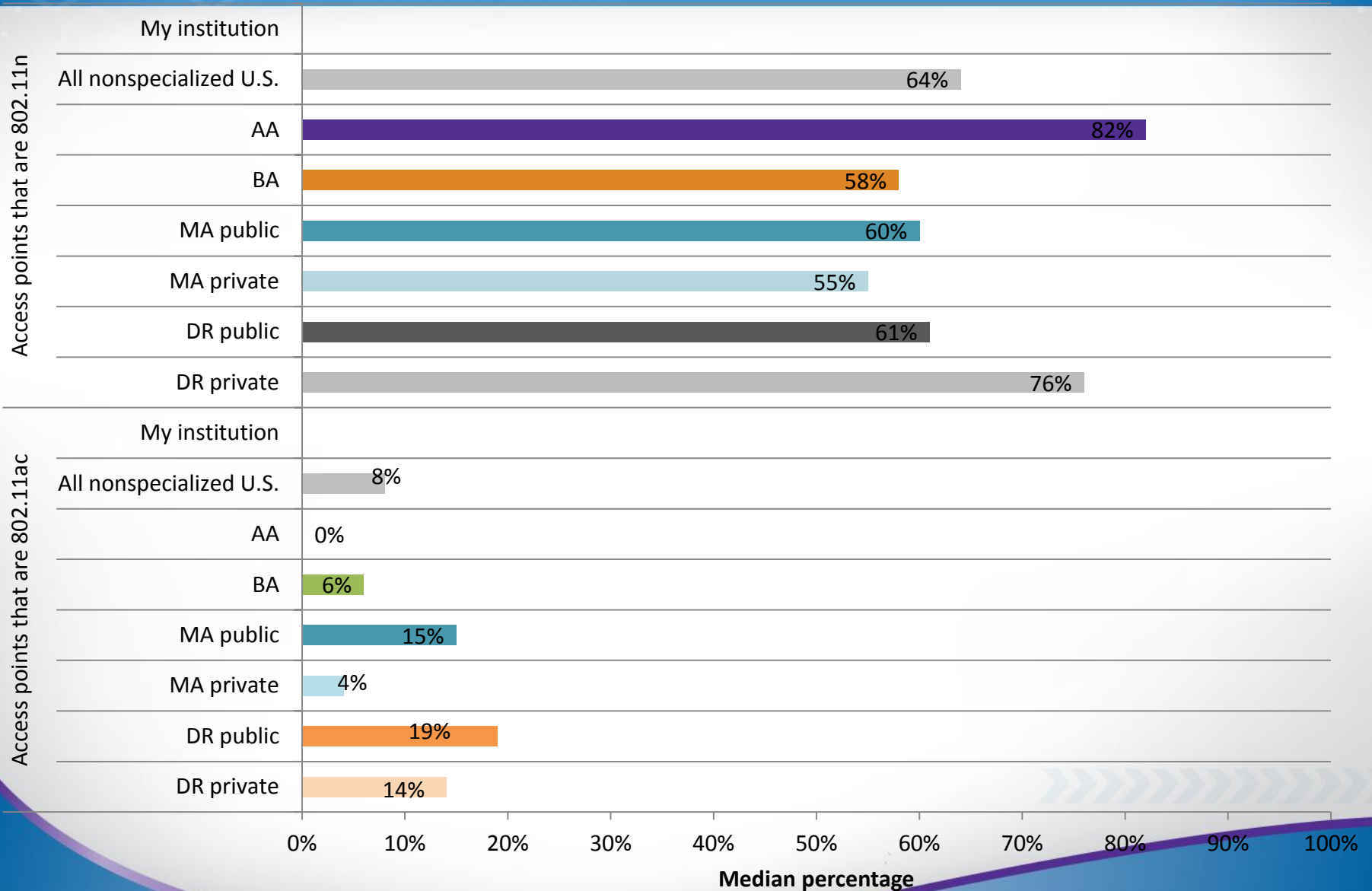
Yes, but strategic trends are making ubiquitous, fast wireless access paramount for reinvestment *and student attraction!*

Moving to 802.11n and 802.11ac Wave 1 and Wave 2

Convenience and Quality of Educational Experience

- Access to Content from Anywhere
- Access to Content from Any Device (including BYOD)
- Increased faculty-student Virtual Office Hours
- Expanded virtual office hours to accommodate non-traditional students
- Increased use of bandwidth-hungry media (video, large complex models, multi-point collaboration)

CDS: Wireless network configuration



Trends in Wireless Ubiquity

Density

- Not just # of Access Points but total device connections and throughput required

Management

- Centralized, web-based, controller-less management
- Bandwidth and content monitoring capabilities
- Autonomous self-healing at the AP level

Speed

- Moving to Gigabit speeds with 802.11ac
- Support for large events (varied user load)

Security

- Role-based security at individual user level
- Device and perimeter awareness

Wireless Networking Strategic Play

Topic	Theme for 2016
1) Information Security	Reinvest
2) Optimizing Educational Technology	Differentiate
3) Student Success Technologies	Differentiate
4) IT Workforce Hiring and Retention	Reinvest
5) Institutional Data Management	Divest
6) IT Funding Models	Reinvest
7) BI and Analytics	Differentiate
8) Enterprise Application Integration	Divest
9) IT Organizational Development	Reinvest
10) E-learning and Online Education	Differentiate

Conclusions

The latest technology trends in:

- *VDI*
- *Hyperconverged Infrastructure*
 - *Wireless technologies*

should be a key component of an institutional
Differentiation and Reinvestment strategy
for competitive advantage
and student attraction and retention.

Comments / Questions?

"Insanity: Doing the same thing over and over again and expecting different results." - Albert Einstein

www.TheWalkerGroup.com

