

A person is running away from the camera on a paved path that leads into the distance. The scene is bathed in the warm, golden light of a sunset or sunrise, with long shadows cast on the path. The background is slightly blurred, showing greenery and trees.

Limitless Learning

End-User Computing Solutions for Higher Education

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Dell EMC Commercial Presales

DELLTechnologies

The next industrial revolution is upon us


Now is a time of unprecedented change.

Technology is transforming the way we live and work

The internet of things is transforming how every industry operates

We want everything now and we want it anywhere

The 4th industrial revolution is changing the workforce

A photograph of four business professionals (two men and two women) in a modern office environment. They are gathered around a table, looking at a laptop. The office has large windows overlooking a green landscape. A potted plant is visible on the left. The image is overlaid with a semi-transparent dark grey box containing text.

New types
of workers

20-30% are “independent,”
42% would quit due to inferior technology

New types
of work

Dynamic collaborative teams
working anytime, anywhere

New expectations for
work environment

Consumer experiences shape
workplace IT consumption model

Changing How We Learn

Modernisation is Becoming a Requirement to Meet...

Increasing Student, Faculty, and Staff Expectations



Higher education is competitive.
“Students expect access to elegantly designed, user friendly self-service resources....”
86% of undergrads have a smartphone; 47% have a tablet.

Changing Demographics and Priorities



40% of all university students are older than 25 and 33% of students enrolled in higher education courses take at least one online course.

Growing Security Concerns and Tighter Budgets



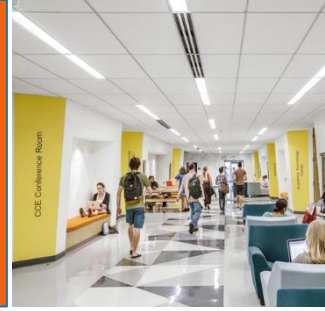
727 education breaches occurred during 2005-2014 and the average number of records exposed per breach was 27K.

Learning Happens Everywhere; And Every Place is Now a Learning Space

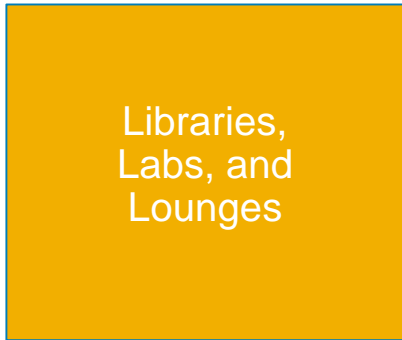
Classroom
Lectures



Online /
at Home



Libraries,
Labs, and
Lounges



But the Business of Higher Education is Changing

Online delivery models are creating new, low-cost competition

Fee-based course enrollment is increasing scrutiny by would-be students

More institutions = less revenue

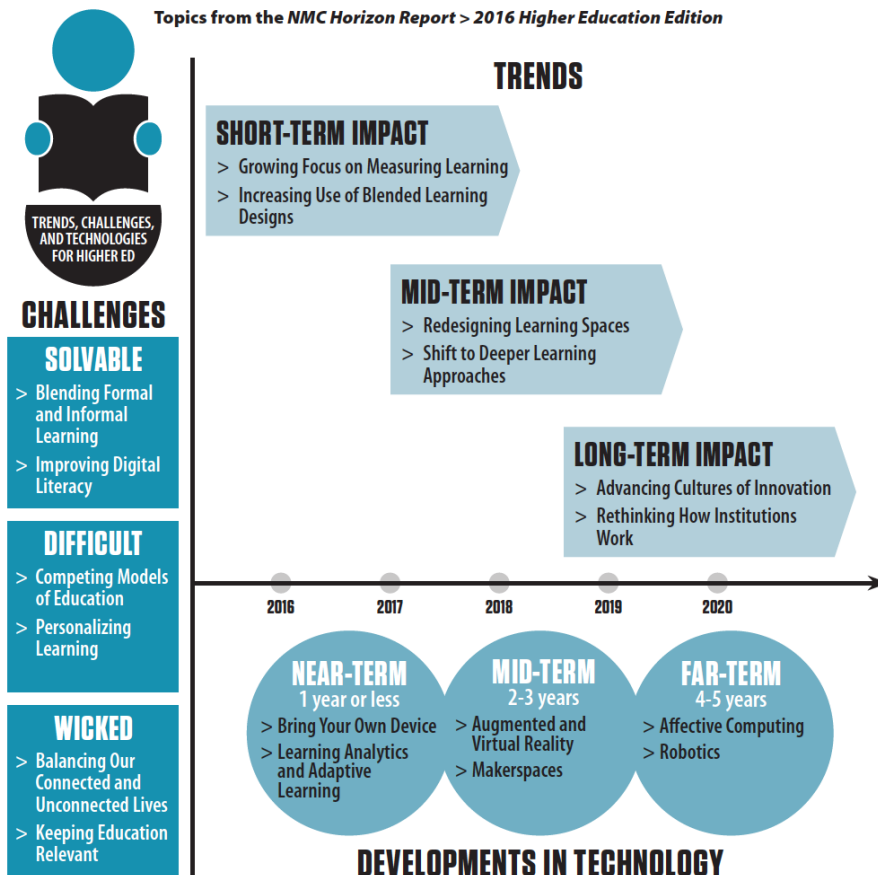


Institutional collaboration is impacting research and IP ownership

Changing course consumption and student outputs are requiring teaching and exam techniques to evolve

Critical Near and Long Term Initiatives

NMC Horizon Report: 2016 Higher Education





Securely Meet Student, Faculty, and Staff Work Styles

Bring Your Own Device (BYOD) Initiatives and Secure Digital Backpacks

- Give students always-available, customized access to digital courseware through one workspace
- Use centralized resources to deliver apps and data to both user and institution-owned devices
- Safely enable access to your network for the 3+ connected devices students bring to campus
- Support secure collaboration from anywhere
- Decrease IT help-desk load



Deliver Uninterrupted Access to Learning Resources

Computer Labs in the Cloud and Online Learning

- Provide 24/7 virtual desktop access to all educational resources, on- or off-campus
- Deliver high-performance full, web, and 3D apps outside of traditional computer labs
- Enable online learning while decreasing costs with fast, reliable workspaces hosted as a service or on-premises



Safeguard Personal Data and Intellectual Property

Security, Compliance, and Privacy

- Trust any user and secure any endpoint or application
- Assign policy-based access by student and course load
- Protect research and intellectual property by harnessing data in the data center and also on endpoint devices
- Easily customize security levels by department (e.g., medical school, business school, financial aid department, athletics department)
- Detect Cyber Threats
- Limit access to sensitive data if a breach occurs
- Enable rapid wiping of university data from devices



COSTS

Maximise Operational Efficiencies and Reduce Costs

Optimize Application and Device Use

- Rapidly deploy and provision desktops
- Simplify classroom- and institution-wide device, application, email and content management
- Maximize investments by prolonging the life of existing infrastructure and redefining traditional replacement cycles
- Integrate current campus IT infrastructure with key infrastructure components such as NACs, student information systems, etc.
- Improve environmental performance

Day in the Life – Student Perspective

9:00AM

A new student enrolls using credentials.

7:30PM

In a coffee shop off-campus at night, the student is able to show her work from earlier in the day on her smartphone and gets feedback from her classmates.

4:30PM

Later at the library, the student accesses a published 3D app on a personal laptop (app provisioned based on engineering class load)



2:30PM

Sitting in a lounge, the student takes a history class online with her personal laptop. She is securely signed-on automatically to the web content.

10:15AM

Student's 3 devices are configured for Wi-Fi & email and provisioned with applications and desktops.

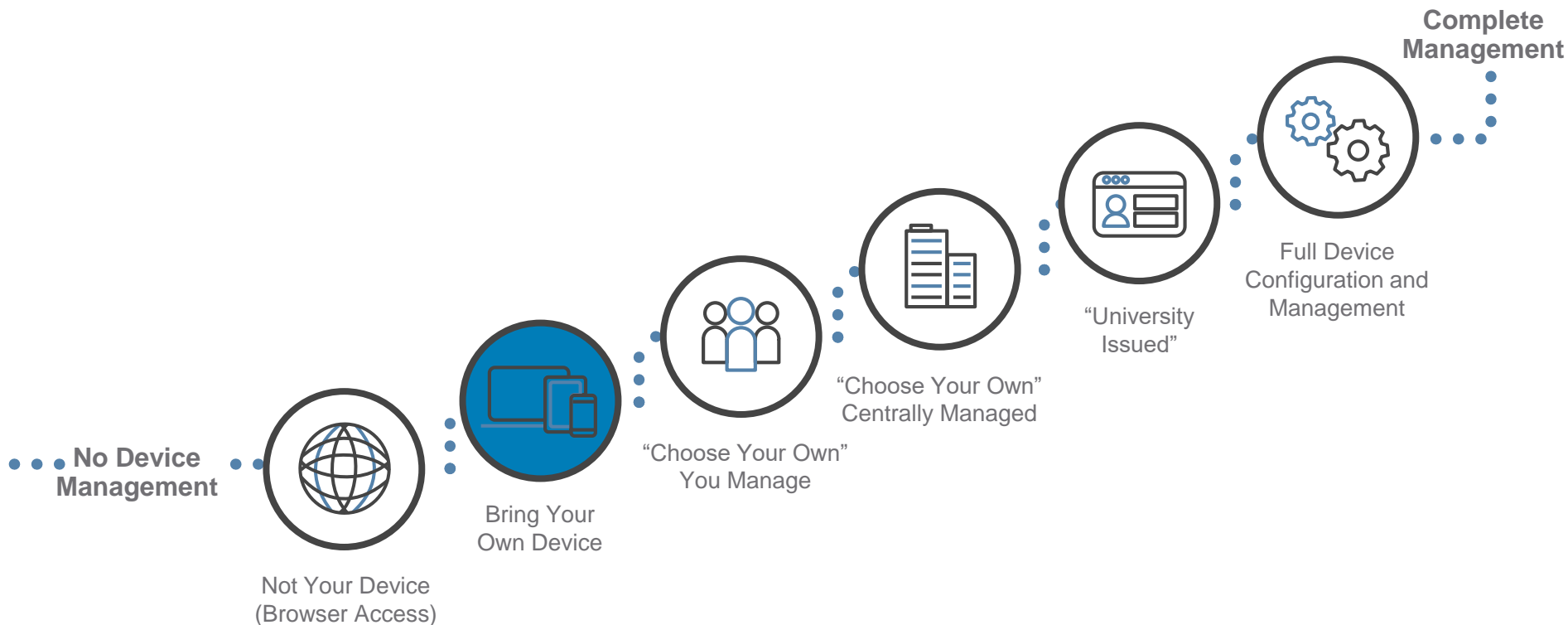
11:30AM

Student attends orientation class — showing campus maps, resources, etc. and can easily follow along on her tablet.

1:15PM

Student attends an engineering class, accesses productivity and course apps on a workstation in the lab but is also shown how to access the same from her own devices.

Managed or Unmanaged: Controlled Freedom



Architecture for transformation



Student



Faculty



Staff



- Advanced desktop mgmt
- Federated single sign-on
- Multi factor authentication

Workforce access

Service portal
Role-based access control, policies



- Secure apps and data
- Containerized Mobile app mgmt.
- VPN tunneling per app

- Image lifecycle management
- Backup & recovery

Application image library

Productivity applications
Persona-focused applications and data
Packaged, virtualized, server or cloud delivery



- Secure, encrypted content creation and access for mobile apps

- Windows or Linux on dedicated device
- iOS, Android images

Operating system library

Client device OS
Server OS



- Windows or Linux as virtual image

- Windows virtual desktop
- Linux virtual desktop
- Packaged applications
- Real-time application and image delivery

Virtual Desktop

Desktop Applications as a Service



- User profile and policy mgmt.
- Operations dashboard
- Capacity mgmt dashboard



Multi-cloud IaaS

Virtualized server, storage, network resource pools
Private, public or hybrid clouds



- Dynamically rebalance compute workload across virtual environment



Monitoring metering & management

Workforce service management

Application management

Unified endpoint management

Performance and capacity management



Security

Identity and access
(authentication, single sign on)

Micro-segmentation

Anti-virus, intrusion detection, data loss prevention

Secure connectivity



PC

Where Might You Begin?

Modernise and
mobilise learning
environments

Improve The
Campus Computing
Experience

Enhance security
and privacy

Improve
efficiencies and
reduce costs

Mobilise Everything

Manage Any Device on Any OS

Enable all mobile devices, applications, and content while accelerating your mobile strategy with VMware AirWatch.®

Access Any Application, Anywhere

Deliver desktops and apps, including desktop, SaaS, and mobile apps, through a single platform with VMware Workspace™ ONE.™

Ensure Security and Reliability

Enable secure and highly available mobile experiences with AirWatch and VMware NSX® network virtualization.



Consumer Simple. Enterprise Secure.

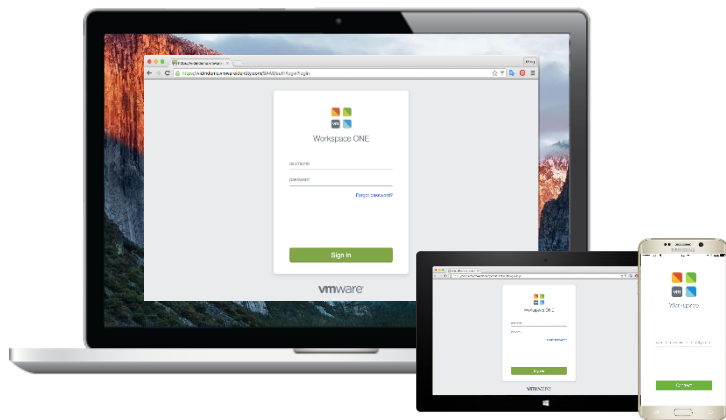


Apps, Devices, Identity, Collaboration, IoT

Delivering an integrated experience for any application, on mobile and desktop.

VMware Workspace ONE™

Enabling Limitless Learning

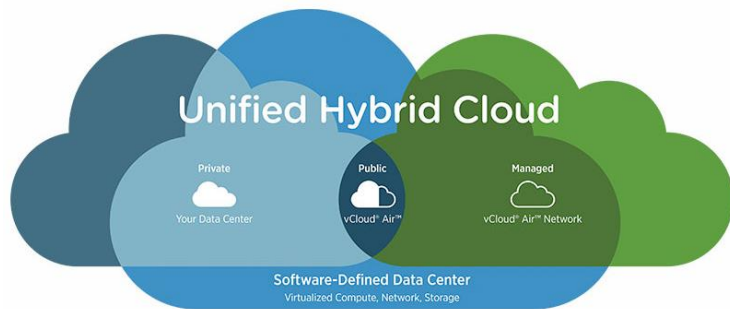


Consistent Access Experience

Any Device

Secure Conditional Access

Secure Email

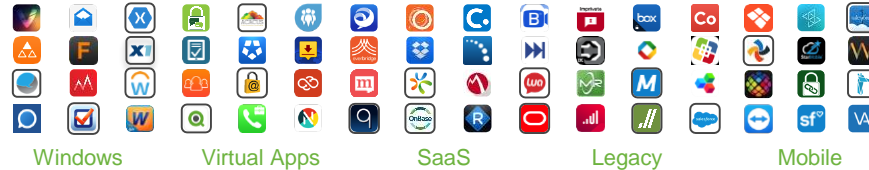


Workspace ONE



Self-Service Organisation App Store w/ One Touch SSO

1.5M
Apps



Workspace ONE Apps Suite



Conditional Access with Data Loss Prevention



UNIFIED END POINT MANAGEMENT

- OTA Device Configuration
- App Provisioning & Configuration
- Entitlement Management
- Automated Remediation



IDENTITY, SECURITY & COMPLIANCE

- Federation / Authentication
- Access Policy
- Reporting, Auditing & Analytics
- Compliance Automation



WINDOWS AS A SERVICE

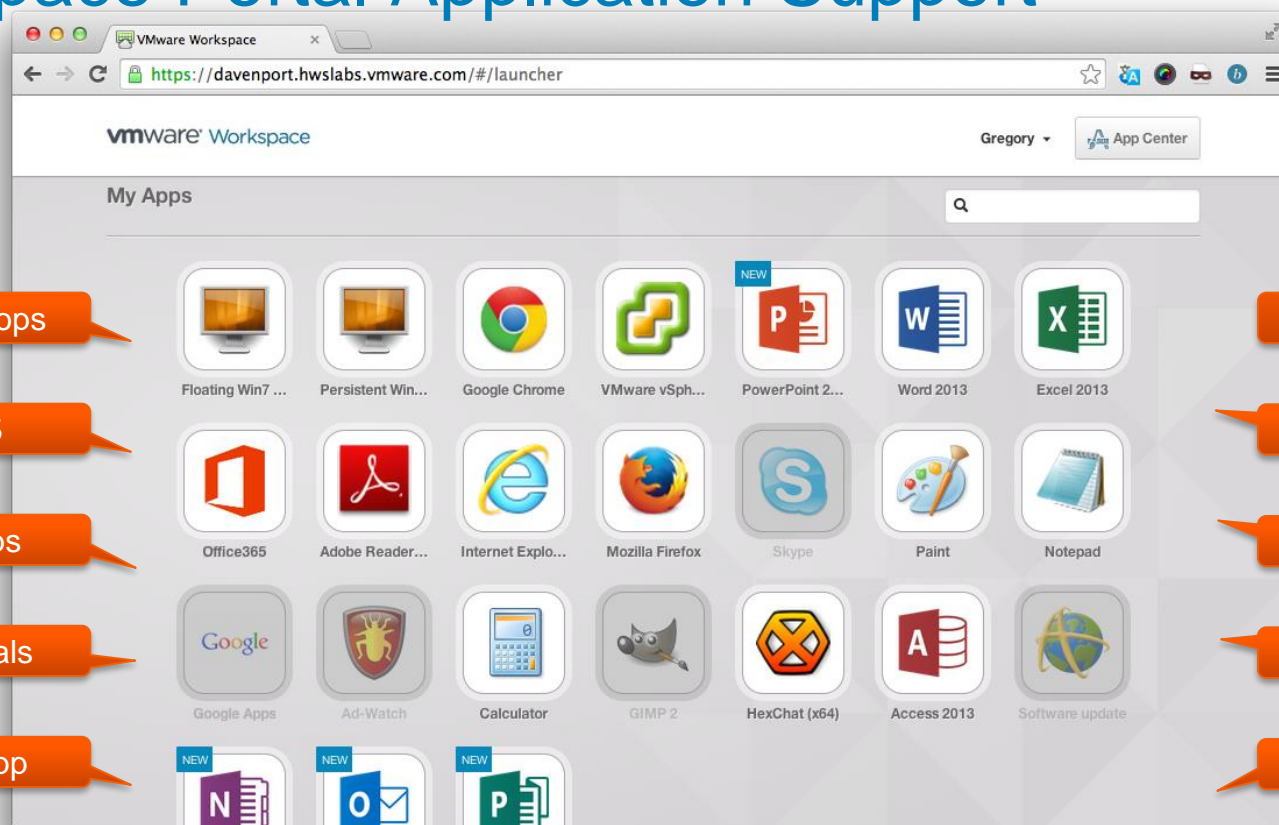
- Full Desktops or Seamless Apps
- Cloud or On-Premises
- Complete Isolation

Flexible App Lifecycle Management Platform (Develop, Deploy, Manage, Support)

SECURITY & NETWORK VIRTUALIZATION



Workspace Portal Application Support



Virtual Desktops

Office 365

Google Apps

App Approvals

Citrix XenApp

App Catalog

View Hosted Apps

ThinApp Packages

Context Aware

Custom Branding

One login | One experience | Any device

IT Transformation

Improve experience, enhance security, reduce costs

Application Modernisation

App modernisation delivers compelling experiences and outcomes through a pervasive adoption of modern, liquid architecture, lean engineering / agile practices, data analytics and a people first culture.



Infrastructure Modernisation

Infrastructure modernisation uses modern Dell EMC infrastructure products to enable a Hybrid cloud platform, drive cost efficiencies, mobile workloads, and increase speed.



IT Business Process Automation

Process automation drives speed and efficiency throughout business and IT processes, software development lifecycles, and software-defined data center operations.



Modern data center architecture



Enterprise Hybrid Cloud



Service Catalog



Operational
management

vRealize Operations



Self-service
and automation

vRealize Automation



Financial
transparency

vRealize Business

Disaster Recovery



Software Defined Data Center

vmware
vSphere

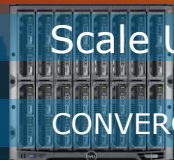


vmware
NSX

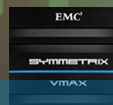
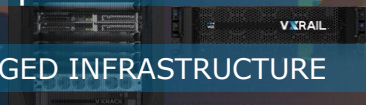
DPAD



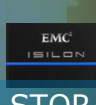
Scale Up & Scale Out



CONVERGED INFRASTRUCTURE



TIERED STORAGE



vmware®

vCloud Air™
vCloud Air™ Network

virtustream

Microsoft Azure

Benefits of the modern data center

IT Benefits



30% Lower infrastructure costs



80% Lower provisioning costs



10-30% Higher utilization rates



Infrastructure engineers focus more on services than components

Customer Benefits



Infrastructure is managed as a utility and always available for consumption



Faster provisioning times



Self service capabilities

Four Customers Driving Digital Learning Experiences

University of South Carolina Upstate



A digital workspace
for every student,
faculty & staff



University of Massachusetts, Lowell



High-performance
computing from
anywhere



Duke University



Control over the
information that
matters



Florida Atlantic University



Increased ROI



Dell Technologies is a **unique family of businesses** that provides the essential infrastructure for organizations to build their digital future, transform IT and protect their most important asset, information.

Dell Technologies consists of 7 brands:





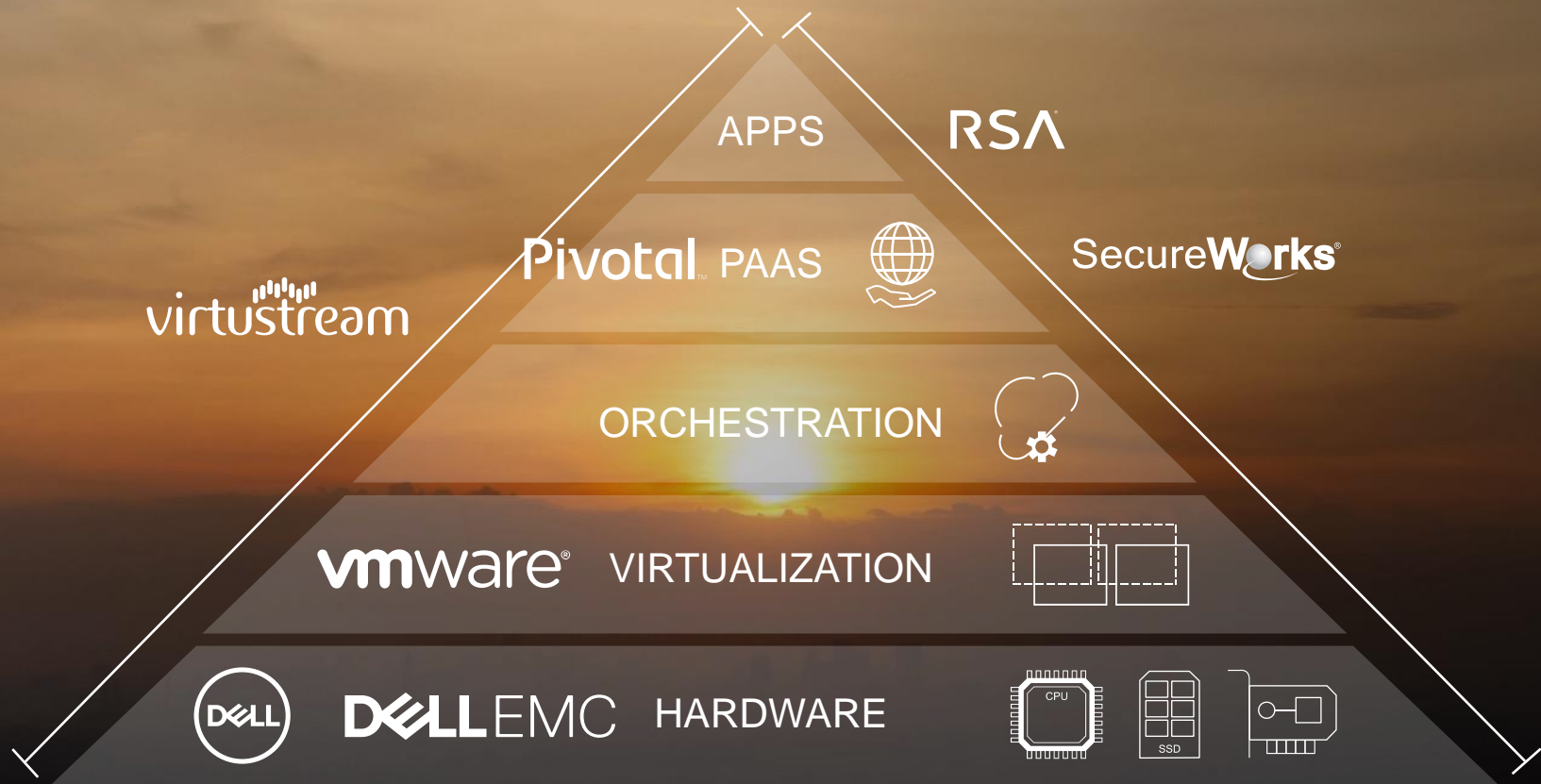
We're a unique family that's **better together**

We are laser-focused on delivering solutions that customers need to propel businesses forward

Our portfolios are complementary

But also offer choice, helping customers avoid lock-in

The building blocks of Modern IT





Creating the digital future together