

The screenshot shows a grid of application cards. Each card includes an icon, the application name, the provider, a brief description, and a set of control icons at the bottom. Visible cards include Google Earth (Google), NVivo (QSR International), Audacity (Audacity), and VLC (VideoLAN). The interface is clean and modern, with a light blue color scheme.

# Software2

# User Day

Sheridan College

22 October 2019

Grid of application cards including Google Earth, NVivo, Audacity, and VLC.

# Welcome



Phil

Account Management Director

## **This morning**

- Software2 updates

Dave and Tony

- AppsAnywhere 2.8 and Analytics

Tony and Phil

- Sheridan College

James Duncan

- Microsoft Education

Rob Burzese

## **Lunch (12:15pm)**

## **This afternoon**

- Queens University

Graydon Smith

- Breakout/discussion sessions

- Coffee break

- Customer forum/Q&A

## **Close and tour (4:00pm)**

**Google Earth**  
Google

Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain and 3D buildings.

**NVivo**  
QSR International

An all purpose qualitative data analysis system.

**Audacity**  
Audacity

A free, open source, cross platform audio software for multi-track recording and editing.

**VLC**  
VideoLAN

A free and open source cross platform multimedia player and framework that plays most popular audio and video formats.



**Tony**  
Co-founder/President

**Software2**

Grid of application cards including Google Earth, NVivo, Audacity, and VLC.



























# Software2

Packaging  
Service

https://packaging.software2.com

**Software2** | Packaging Service

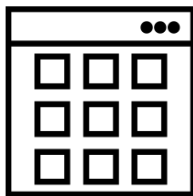
 Adobe Photoshop Band B	 Adobe Prelude Band B	 Adobe Premier Pro Band B	 Adobe Rush Band B	 Anaconda2 (Pytho... Band B	 Anaconda3 (Pytho... Band B	 Android Studio Band B	 ArcGIS Band B
 Atlas.Ti Band A	 Audacity 2.3.0 Core App	 AutoCAD Band B	 BEAST 1.10.4 Free Download	 Blender 2.79b Core App	 BlueJ 4.1.4 Core App	 Circuit Wizard Band B	 Civil 3D Band B
 E-Prime	 Im		 FZ				

# Software2

Packaging  
Service




**Subscribe**  
to the Packaging Service



**Choose apps**  
from our packaging menu



**Top-up account**  
with Packaging Credits



**Google Earth**  
Google

Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain and 3D buildings.


[Add](#) [Star](#) [Share](#) [Info](#) [Close](#)



**NVivo**  
QSR International

An all-purpose qualitative data analysis system.

[Add](#) [Star](#) [Share](#) [Info](#) [Close](#)



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[Add](#) [Star](#) [Share](#) [Info](#) [Close](#)



**VLC**  
VideoLAN

A free and open source cross-platform multimedia player and framework that plays most popular audio and video formats like...

[Add](#) [Star](#) [Share](#) [Info](#) [Close](#)



# AppsAnywhere

analytics





# Understand your software estate

When

Where

What

Who

# Monthly Management Summary

555

Total Launches

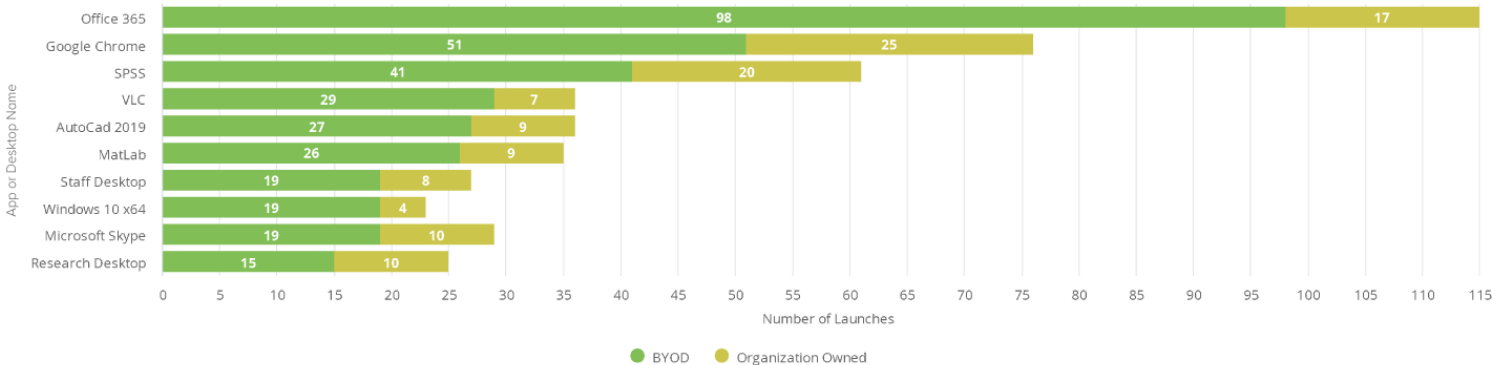
124% of 446 Last Month

99

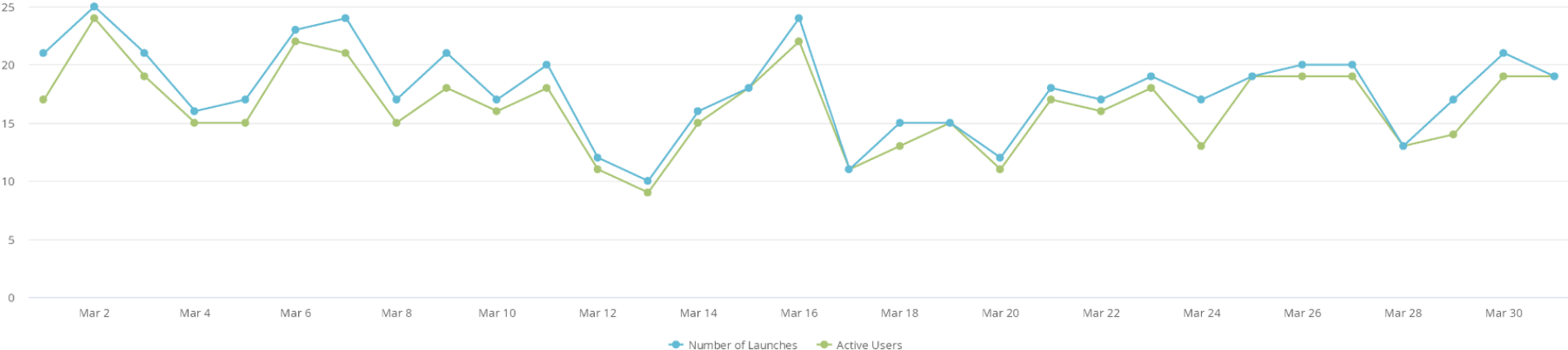
Active Users

100% of 99 Last Month

Most Popular Resources (# of Portal Launches)



Number of Launches and Active Users





Analyse your  
software usage

BYOD

Software licensing

Devices and OS

Concurrency

The image shows a blurred screenshot of the AppsAnywhere application interface. At the top, the 'AppsAnywhere' logo is visible. Below it, there are navigation tabs for 'All Available', 'My Favourites', and 'Unavailable'. There are also dropdown menus for 'Categories' and 'Operating Systems'. The main content area displays two application cards: 'Google Earth' and 'NVivo'. The 'Google Earth' card includes a description: 'Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain and 3D buildings.' The 'NVivo' card includes a description: 'An all-in-one qualitative data analysis system.'

Make informed  
decisions

VLE

SAM

Student outcomes



What's ahead?

VLE integration

Upgrade process

Window Virtual Desktop



# The pub

**Software2**











Welcome to

The Foresters Arms

Home of

**Software2**

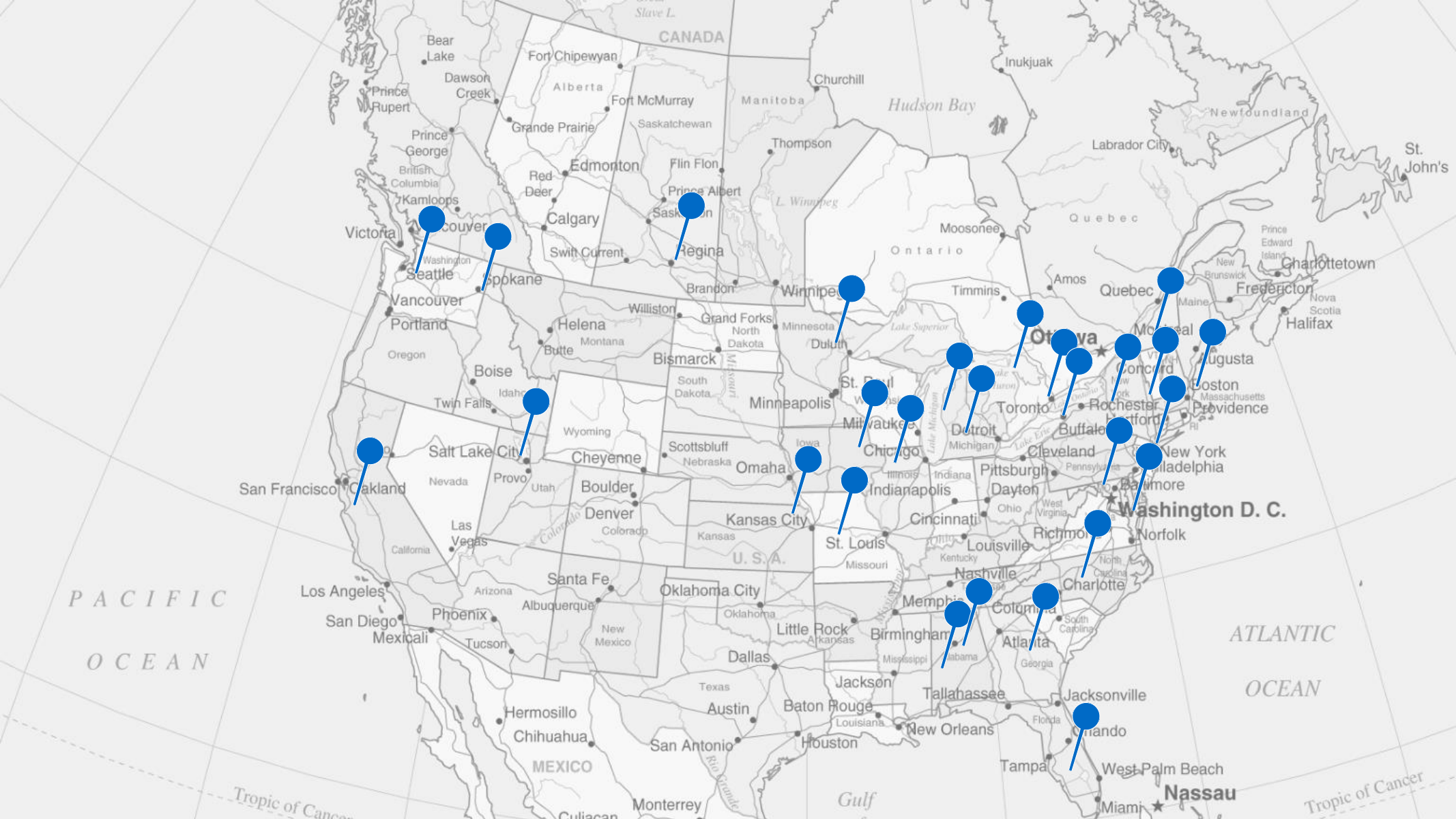


Grid of application cards including Google Earth, NVivo, Audacity, and VLC.



Dave  
VP Business Development

Software2



Google Earth  
Google

NVivo  
QSR International

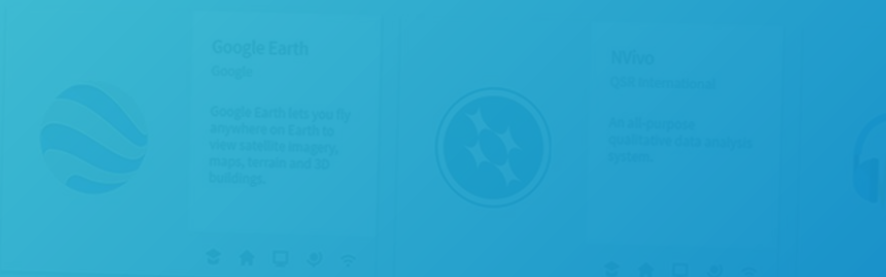
YEAR  
2019





YEAR  
2019





# New faces



Jack Kempt  
Western US & CA

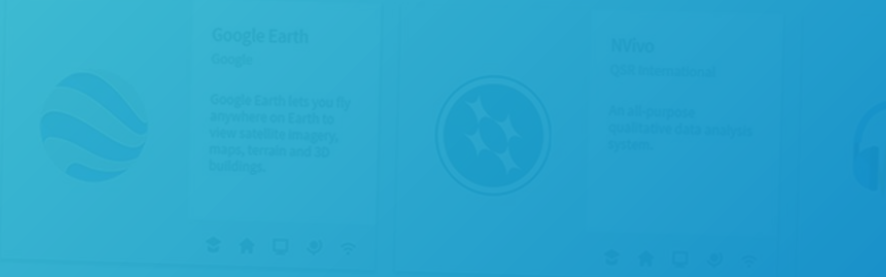


Karen Grover  
Northeastern US & CA



Chris Valada  
Southeastern US





# 2020 events

Texas A&M

ACCS

BCNET

OCCCIO

OHEIT

CANHEIT

UBTech

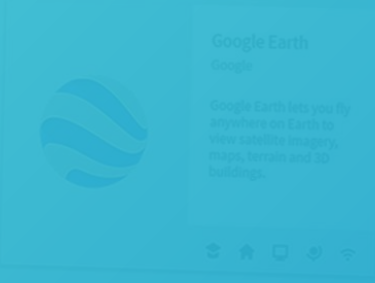
EDUCAUSE

Grid of application cards including Google Earth, NVivo, Audacity, and VLC.



Phil  
Account  
Management  
Director

Software2



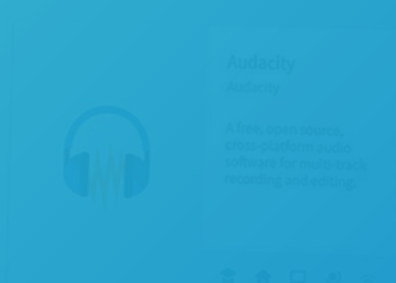
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# AppsAnywhere

2.7



# Analytics

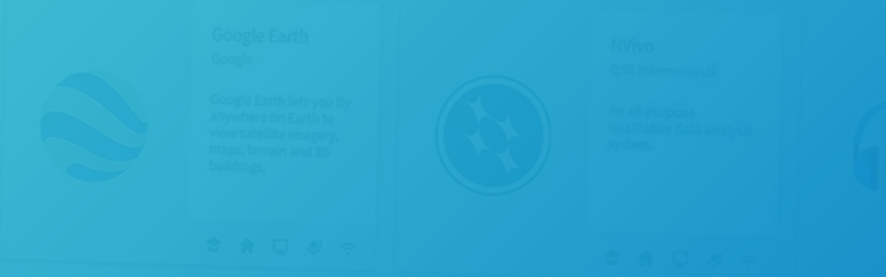
Data now tracked includes:

- Who's logging in
- Which devices they're using
- What they're launching
- How it's being delivered
- How long they're using it

The image shows a blurred screenshot of the AppsAnywhere application interface. At the top, the 'AppsAnywhere' logo is visible. Below it, there are navigation tabs for 'All Available', 'My Favourites', 'Unavailable', and 'Categories'. The main content area displays details for the 'Google Earth' application, including a circular icon with a globe and a description: 'Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain and 3D buildings.' There are also some smaller icons and a search bar visible in the interface.

# Analytics

- Built-in dashboards based on customer feedback
- Explore your own data
- Create your own reports
- Share content in any format



# What else?

- Shareable 'App-Lists'
- 508-compliance

**Google Earth**  
Google

Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain and 3D buildings.

🔍 ⭐ 🗨️ 🔄 📶

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🔍 ⭐ 🗨️ 🔄 📶

# Demo

The image shows a screenshot of the AppsAnywhere application catalog interface. The interface is displayed on a blue background. At the top, there is a navigation bar with the 'AppsAnywhere' logo and several menu items: 'All Available', 'My Favourites', 'Unavailable', 'Categories', and 'Operating Systems'. Below the navigation bar, there are two application cards. The first card is for 'Google Earth' by Google, featuring a blue globe icon and a description: 'Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain and 3D buildings.' The second card is for 'Nvivo' by QSR International, featuring a circular icon with three arrows and a description: 'An all-in-one qualitative data analysis system.' At the bottom of the interface, there are some small, partially visible text elements: 'Mac OS X 10.10.5 (14E220) (64-bit)' and 'Machine Type: User Desktop'.

# Pricing

- C\$ 5,000
- Good through 2019
- Includes remote installation and training



**Software2**



Packaging  
Service

YEAR  
2019

# The packaging revolution!



# Core apps 2019



7-Zip 18.06  
Core App



Audacity 2.3.0  
Core App



BEAST 1.10.4  
Free Download



Blender 2.79b  
Core App



BlueJ 4.1.4  
Core App



FigTree 1.4.4  
Core App



FileZilla 3.41.2  
Core App



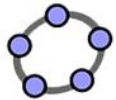
Firefox 66.0.3  
Core App



Freemind 1.0.1  
Core App



G\*Power 3.1.9.2  
Core App



GeoGebra 6.0.529  
Core App



GIMP 2.10.10  
Core App



Git 2.20.1  
Core App



Google Earth Pro 7...  
Core App



Hot Potatoes 7.0.0.7  
Core App



ImageJ 1.52a  
Core App



Inkscape 0.92.4  
Core App



IrfanView 4.52  
Core App



Java JRE 8u212  
Core App



Java SE JDK 8u212  
Core App



jEdit 5.5.0  
Core App



LTspice XVII  
Core App



Notepad++ 7.6.3  
Core App



Paint.net 4.1.5  
Core App



PuTTY 0.71  
Core App



Python 3.8.101.0  
Core App



R for Windows 3.5.2  
Core App



Rstudio 1.1.463  
Core App



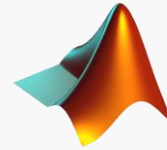
VLC Media Player 3...  
Core App



WinPython 3.7.2.0  
Core App

## Packaging on-demand

- Menu of 60+ apps
- On-demand service (with SLA)
- Packaged efficiently
- Lower pricing



# Packaging bands and credits

BAND	EXAMPLE	OFF-PEAK	PEAK (JUL-SEP)
A	SPSS, Atlas.Ti, Tableau	185 credits	250 credits
B	3DSMax, ArcGIS, AutoCAD	375 credits	500 credits
C	MATLAB, Solidworks	750 credits	1000 credits

Band C only has two apps

Credits = \$1.50 USD/CAD

# Subscription options

## Core

 \$3,000  
per year

Access to **Software2  
Packaging Service**

30 **free** packages  
(updated twice yearly)

10 packaging requests  
for **FOSS** packages

e.g. Blender, Rstudio, Google  
Earth Pro, Python, Java JRE



## Plus

 \$11,000  
per year

Everything included  
with **Core**

**6,000 credits** for  
packaging requests

Includes **up to 30 apps**  
from our packaging menu

e.g. MATLAB, NVivo, SPSS,  
AutoCAD, ArcGIS, Solidworks



Google Earth  
Google  
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VLC  
VideoLAN  
A free and open-source cross-platform multimedia player and framework that plays most popular audio and video formats like MP3, MP4, Ogg, and more.

# Sheridan

James Duncan

Information and Communications Technology Director

# Improving Software Delivery and Enabling BYOD at Sheridan College

Software2 User Day 2019





# SHERIDAN

## at a glance

**23,000**

Full-time students

**3,800**

Part-time students

**17,000**

Continuing and professional studies students

**3,700**

Full and part-time employees



<https://www.sheridancollege.ca/about/at-a-glance>

# END USER COMPUTING

managed environment at a glance

**1,800**

Windows Desktops

**1,000**

Academic

**800**

Administrative

**1,700**

Windows Laptops for Faculty and Staff

**800**

VDI Zero Clients

**90**

College-supported applications



# BYOD

## 'Mobile Computing'

- 'Mobile' programs require laptops as an integrated part of curriculum
- Sheridan was a leader in this space when it was introduced in 1998
- At the outset of the initiative, machines were owned by the College and leased to the student
- Over time, this evolved to a 'BYOD' model where students are provided the required specs and they procure their own devices

**9,000**

Students in  
Mobile Programs



**51** programs across **5** Faculties

**80 / 20**

Ratio of Windows to MacOS Mobile Programs

**Anywhere, any device, any time**

access to applications and resources

# MOBILE BYOD

## Advantages & Disadvantages

### Advantages for the student

- + Greater choice in the device that they use
- + Student owns the device

### Disadvantages for support and experience

- Lack of a known and consistent environment
- Complexity in managing software licenses
- Software deployment challenges across varying platforms and operating systems
- Hardware purchases in year 1 may have difficulty meeting system requirements of curriculum in year 3 or 4

*The end result, while net positive, presented some ongoing challenges in providing a consistent user experience to our mobile computing students*

# BYOD CHALLENGES

## Enter VDI – Use Cases

- 1. Mobile Computing**  
Provide a consistent EUC environment for programs with complex software requirements; reduce restrictive hardware requirements
- 2. Distance Education**  
Increase our ability to deliver courses with challenges software requirements remotely
- 3. Academic Computing**  
Increase operational support efficiencies
- 4. Administrative Computing**  
Efficiencies for 'task workers' and clients that require high degree of mobility

## VMware Horizon View

Infrastructure on 2 campuses

Cisco UCS / NetApp, later VMware VSAN based

**1,600**

Supported concurrent users at peak

**800**

Zero Clients (Admin & Academic)

**10**

Desktop Pools for all use cases

# VDI ENVIRONMENT

## Opportunities

- 1. Mobile Computing**  
Provide a consistent EUC environment for programs with complex software requirements; reduce restrictive hardware requirements
- 2. Distance Education**  
Increase our ability to deliver courses with challenges software requirements remotely
- 3. Academic Computing**  
Increase operational support efficiencies
- 4. Administrative Computing**  
Efficiencies for 'task workers' and clients that require high degree of mobility



## Room for Improvement

- High overall Total Cost of Ownership
- Complex to support
- User experience not ideal: students need applications, not a second desktop
- User must be online to access environment

# VDI ENVIRONMENT

## Opportunities

1. Mobile Computing  
Provide a consistent EUC environment for programs with complex software requirements; reduce restrictive hardware requirements
2. Distance Education  
Increase our ability to deliver courses with challenges software requirements remotely
3. Academic Computing  
Increase operational support efficiencies
4. Administrative Computing  
Efficiencies for 'task workers' and clients that require high degree of mobility



### Room for (continual) improvement

- Custom pools with software specific to different groups
- Similar issues w/ physical lab machines – dedicated images, creates hard scheduling constraints

# SOFTWARE DELIVERY SYSTEM

## Project Goals

1. Deliver a familiar 'app store' experience to students, faculty and staff
2. Consolidate disparate portals for software access
3. Reduce TCO of Desktop Virtualization infrastructure where possible
4. Migrate away from specialized labs
5. Increase reporting capabilities on software utilization support right-sizing licensing renewals
6. Robust application packaging system
7. Provide groundwork for cross-platform application access (e.g. Windows apps on MacOS)



## SOFTWARE DELIVERY PORTAL

Project Charter

### Abstract

This document provides an outline of the purpose, scope, and deliverables of the College's project to replace the software distribution system currently built in to AccessSheridan, which is due to be decommissioned as a part of the Portal/Intranet project.

James Duncan  
james.duncan@sheridancollege.ca



# PROJECT OVERVIEW

## Scope and Timelines

### Project Scope

- Administrative applications on managed desktops and laptops
- Academic applications on managed (e.g. lab) desktops
- (Some) academic applications on BYOD
- Administrative and academic applications in VDI

### Timeline

- Developed RFP: Dec. 2017 to Jan. 2018
- Awarded RFP: March 2018
- Project kick-off w/ Software2: April, 2018
- Project Execution: April to August, 2018
  - Build prod and QA environments
  - Training and documentation
  - Package development and testing
  - Communications
- Go-Live: September, 2018

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  5. Reporting capabilities on software utilization to right-size licensing renewals
  6. Robust application packaging system
  7. Provide groundwork for cross-platform application access (e.g. Windows apps on MacOS)
- Reduced BYOD/Mobile usage of VDI by 50% (and counting) – released capacity to be used for other, more relevant VDI use cases
  - We did not need to expand the VDI environment further as originally planned - this budget partially funded the AppsAnywhere investment
  - Opportunity to downsize infrastructure at next refresh interval

# SOFTWARE DELIVERY SYSTEM

## Project Goals

1. Deliver a familiar 'app store' experience to students, faculty and staff
  2. Consolidate disparate portals for software access
  3. Reduce TCO of Desktop Virtualization infrastructure where possible
  4. **Migrate away from specialized labs**
  5. Reporting capabilities on software utilization to right-size licensing renewals
  6. Robust application packaging system
  7. Provide groundwork for cross-platform application access (e.g. Windows apps on MacOS)
- *Still in progress* – some specialized labs still in existence, e.g. unique software pushed through SCCM task sequence

# SOFTWARE DELIVERY SYSTEM

## Project Goals

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  4. Migrate away from specialized labs
  5. Reporting capabilities on software utilization to right-size licensing renewals
  6. Robust application packaging system
  7. Provide groundwork for cross-platform application access (e.g. Windows apps on MacOS)
- *Upcoming*– will be leveraging increased analytics capabilities in v2.7  
<https://www.software2.com/resource-centre/appsanywhere-2-7-analytics-and-app-lists>
  - Will help our software asset management team make data-driven decisions around how to size renewals
  - Expect to see ongoing savings by reducing some of our licensing and by pooling some licensing procured across different business units / faculties

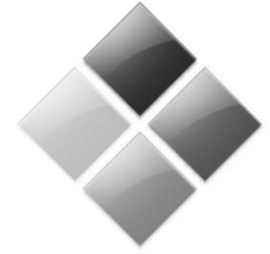
# SOFTWARE DELIVERY SYSTEM

## Project Goals

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vmware Horizon



**Parallels**<sup>®</sup>

# SHERIDAN COLLEGE

## The IT Team

- At Sheridan Apps Anywhere packaging and infrastructure is maintained by the Information Technology department (Consisting of approximately 80 full time), within that department there are several subgroups maintaining different aspects of IT
- We are members of the Computing Systems group under James Duncan (7 full time), maintaining servers, load balancing, DNS, VDI, storage, SAN, mail, images, printing and application deployment of which 3 are dedicated to application management (Pawel Basiak, Vicken Awakian, and Dave Moulton)

# SHERIDAN APPSANYWHERE

## Architecture

### Running on VMWare

- 4 Portal Servers
- 2 Admin Servers
- 4 Paging Servers
- 1 SQL Server

Roughly 2.5 Terabytes of dedicated Storage, 52 GB of memory and 48 CPUs

Sized for 20,000 end users.

AppsAnywhere 2.6.0 in production, 1.33 Client for both Windows/Mac and 9.1.5 CloudPaging Player

Currently Windows 1709 is our standard version, moving to 1903+ in the New Year

```
$ nslookup apps.sheridancollege.ca
```

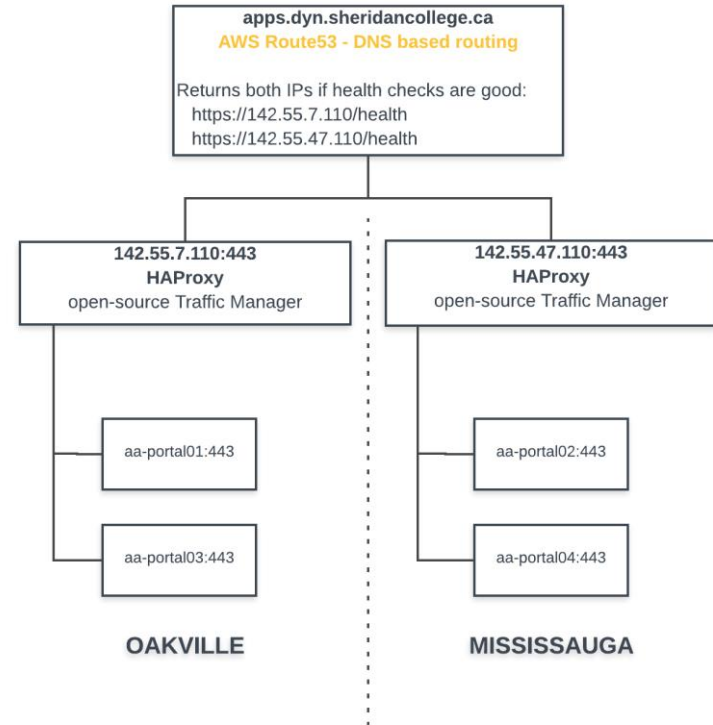
```
apps.sheridancollege.ca canonical name = apps.dyn.sheridancollege.ca
```

```
Name: apps.dyn.sheridancollege.ca
```

```
Address: 142.55.7.110
```

```
Name: apps.dyn.sheridancollege.ca
```

```
Address: 142.55.47.110
```

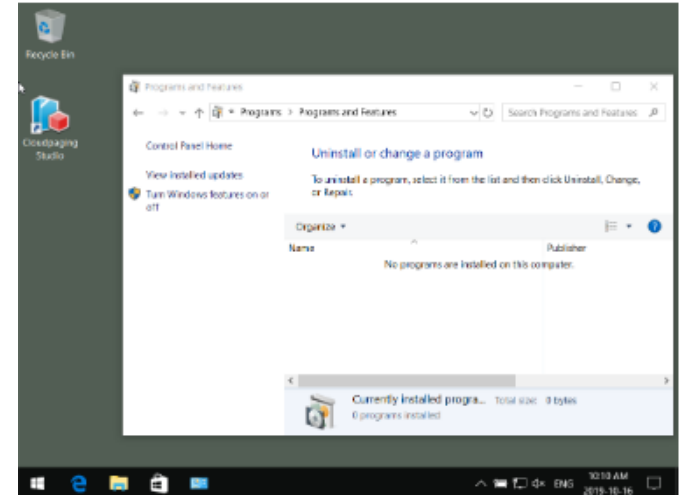


# SHERIDAN APPSANYWHERE

## Packaging

### VMware virtual appliance (OVA)

- Bare windows 10 1709, no software installed, and most services deactivated i.e. windows defender, OS updates etc. using Software 2's packaging tool.
- The OVA Includes setup files for Cloud Paging Studio, player and the software packaging tool.
- Used extensively when building new capture machines, easily imported into VMWare.
- Snapshots utilized extensively





# SHERIDAN APPSANYWHERE

## Central Repository for Projects

Shares on a server

- The repository includes all projects the team is in the midst of packaging or completed as a reference for other members of the team.
- Packages in the infancy stage of testing, are unzipped and made available to the ITS team to assist with QA
- Larger and or difficult packages are released in QA and tested.
- For efficiency shortcuts are included to QA and Production cloud paged apps repositories.
- We utilize an internal wiki to upload recipes for custom applications.

# SHERIDAN APPSANYWHERE

## QA Environment

- Used for testing AppsAnywhere Major releases and new features
- Helpful for testing application upgrades, patches, rules and or various delivery methods
- Accessible by the software requestor or anyone required to test
- We found CMtrace useful when examining log files.

# SHERIDAN APPSANYWHERE

## Software Life Cycle

- All software and licensing is handled by our Asset Management group within IT.
- Cases are assigned to our group, containing all the relevant information such as licensing, target audience, date required and environment.
- The IT AM group is responsible for the information relating to the application i.e. descriptions, rules, categorizing and managing AD memberships
- Currently we provision applications based on AD membership, a new group is created for each application deployed. Allows for granularity of permissions i.e. utilizing dynamically created class groups to release software.

# SHERIDAN APPSANYWHERE

## Facts

### **Most Popular Applications launched in our environment**

Automation Studio, Circuit Design, Clockwork, AVIMark, Labview.

### **Most Used Applications (amount of time running on the machine)**

3DS Max, 7-ZIP, Air Media, AutoCAD, Automation Studio.

### **5 Largest Applications Cloud Paged**

Lumion, Labview, Revit, Solidworks, Matlab.

# Q&A

**For more information:**

Case Study: <https://www.software2.com/customers/sheridan-college-joins-the-student-bring-your-own-device-revolution>

Webinar Recording: <https://vimeo.com/350709744>

Sheridan Resource Page: <https://it.sheridancollege.ca/service-catalogue/software/appsanywhere.html>

## **James Duncan**

Director, Information and Communication Technology

[james.duncan@sheridancollege.ca](mailto:james.duncan@sheridancollege.ca)

## **Pawel Basiak, Dave Moulton**

System Administrators

[computing-systems@sheridancollege.ca](mailto:computing-systems@sheridancollege.ca)



# Microsoft Azure Overview

Rob Burzese

National Azure Lead – Higher Education

# Azure : Reliable infrastructure for your migrated workloads

On-demand  
global scale

Best for  
Microsoft workloads

Linux, Open Source,  
and Red Hat

Purpose-built  
infrastructure

54  
regions



Best hybrid cloud  
experience for Windows  
Server



~50%  
of Azure VMs run Linux



150  
VM size options



Run SQL in Azure VMs most  
cost-effectively



1.4x  
growth of Linux



Comprehensive  
resilience: Availability  
sets, Availability zones,  
Region pairs



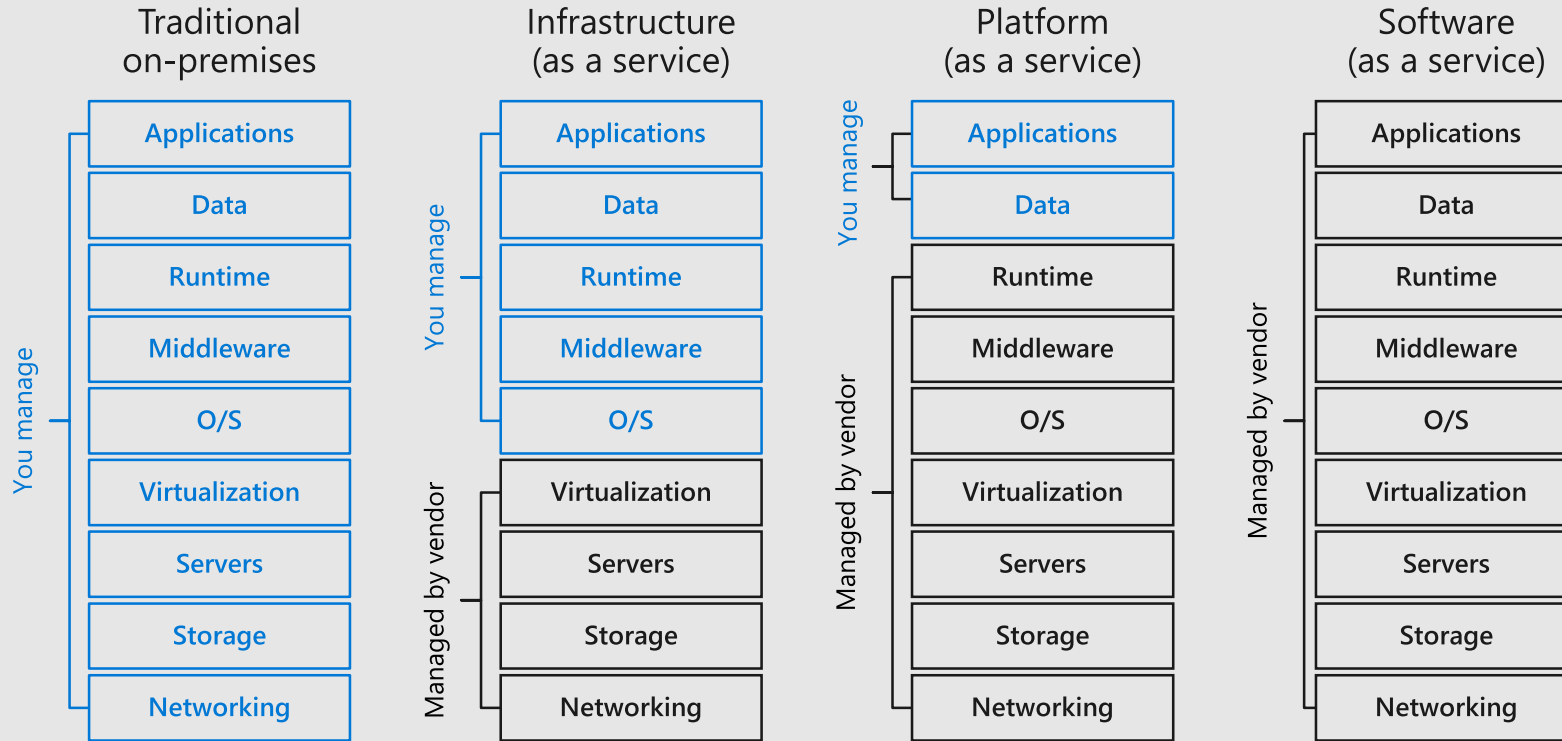
Comprehensive protection  
for hybrid environments



Co-located support  
with Red Hat

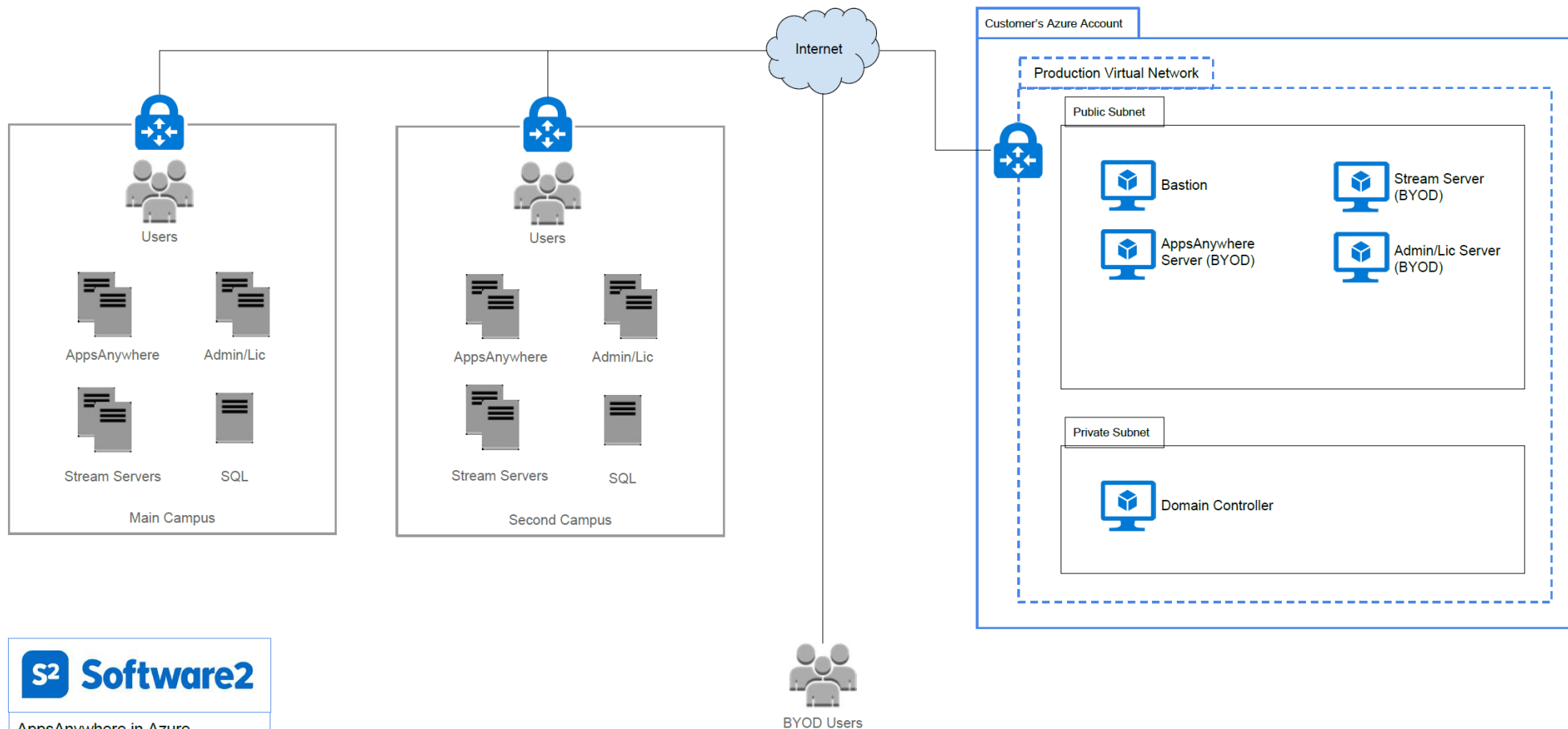


# Azure overview – IaaS / PaaS



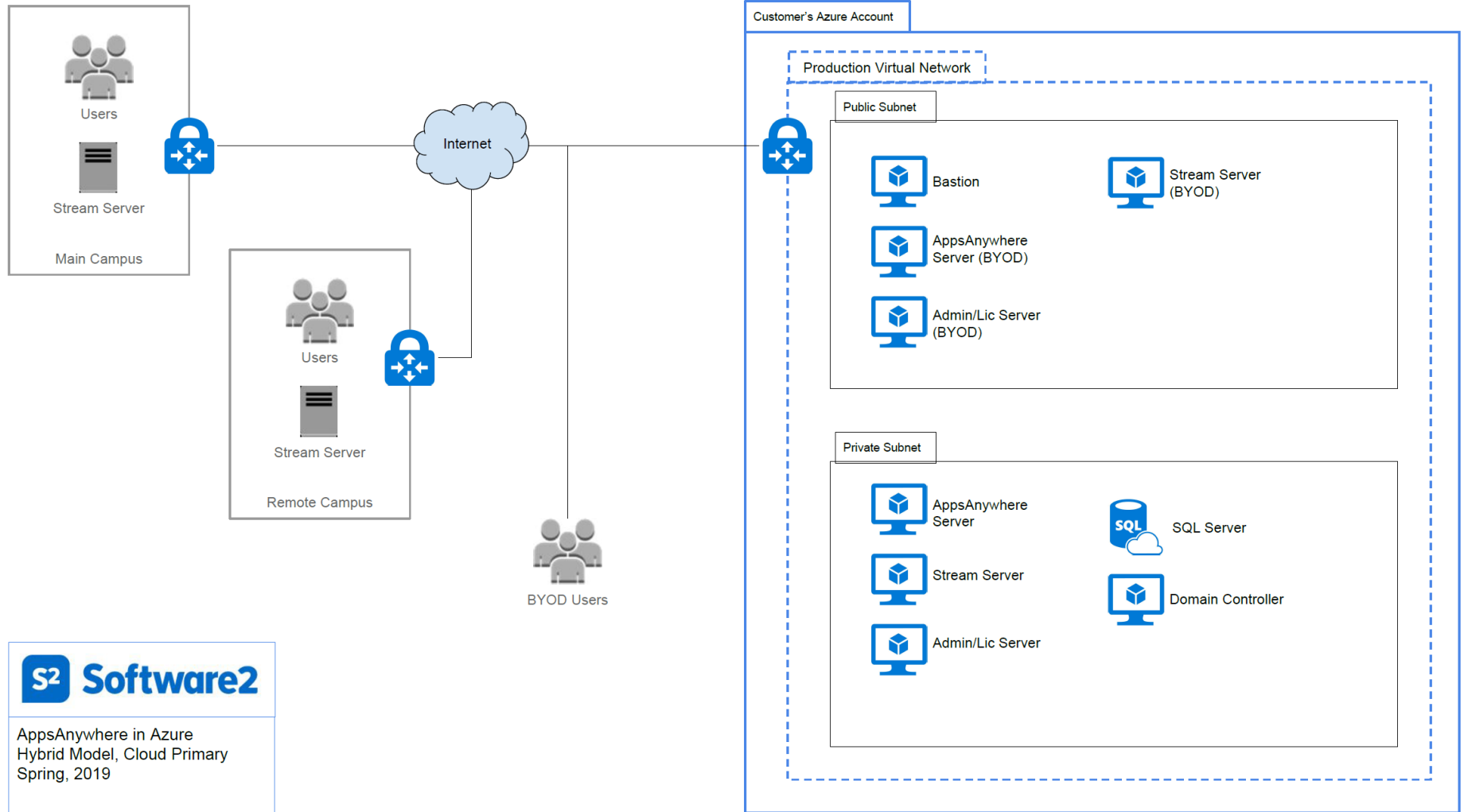


# Azure AppsAnywhere Hybrid – On prem primary



AppsAnywhere in Azure  
Hybrid Model, On Prem Primary  
Spring, 2019

# Azure AppsAnywhere Hybrid – Cloud primary



AppsAnywhere in Azure  
Hybrid Model, Cloud Primary  
Spring, 2019

A photograph of two men in a factory setting. The man on the right, wearing a grey sweater and glasses, is pointing at a large computer monitor. The man on the left, wearing a red shirt and safety glasses, is looking at the monitor. The monitor displays a data table with multiple columns and rows. The background shows industrial equipment and a factory floor with overhead lights.

# Higher Education – Azure Use Cases

# Azure Higher ED Use Cases



## Classroom Labs

### Azure Lab Services

Self service virtual lab environment – Faculty and students

### Azure WVD as a Service

Windows 10 multi-session support.

Available with M365 A3 licenses – with student-use benefit for access on any device.

Extended security updates for Windows 7 in WVD



## Research as a Service

### Hybrid Cloud Burst

Enabling cloud burst capabilities to enhance capacity to existing on-prem HPC environments

### Jupyter Hub Service

Piloting Azure AKS dynamic auto-scaling service to support cloud base Jupyter notebooks for researchers.



## Azure DevOPS

### DevTest Labs

a great experience for developers with integrated security and automated management to save money.

leverage MSDN licensing for low-cost shared dev/test services.

Education customers save with **ultra-low cost MSDN subscriptions** that cover Microsoft licenses for development and testing.

Low-code/no-code apps via **PowerApps/Flow**



## Azure for Windows

Use **on-premises Windows Server and SQL Server licenses in Azure** with one click.

Save 33-50% on IaaS VM costs and SQL PaaS offers.

Education customers save the most (lowest Windows Server and SQL Server costs).

**Reserved Instances/SQL Reserved Capacity** increases savings even more (another 20-30%)

**B-series VMs** (burstable) add low-cost IaaS option that aligns to Education scenarios.



## Azure for IT OPS

**No charge for data egress** from Azure (that's exclusive to education customers).

**Azure Cost Management:** Built in tools to manage/predict costs and optimize/save money.

**Partnership with RedHat** – integrated support for RedHat solutions on Azure.

**Partnership with Oracle** – interoperability between **Oracle Databases in OCI, Azure**. Move to cloud with optimized Oracle licensing and best-in-class Azure services.

**Partnership with VMware** - Dell Technologies and Microsoft will deliver a fully native VMware based cloud infrastructure solution on Microsoft Azure.

# How Microsoft can help

Let's have a deeper discussion about your journey to Azure.



# Keep up to date on your Azure skills as you migrate



[Microsoft.com/Learn](https://Microsoft.com/Learn)

Build skills quickly

Measure Azure skill proficiency

Role based certification & training

Free migration course  
[aka.ms/migrationresources](https://aka.ms/migrationresources)



EMPOWER  
EVERY STUDENT  
ON THE PLANET TO  
**ACHIEVE  
MORE**



Welcome to

The Foresters Arms

home of **Lunch**

**Software2**

**Software2**





**CURIOSITY  
CREATES**

**A BETTER  
WORLD**

Losing Control and Loving It: Our  
Journey to AppsAnywhere

Presented By

Paul Hiles, Stephen Hunt, and Graydon Smith.



FACULTY OF  
ENGINEERING AND  
APPLIED SCIENCE

# WHO WE ARE



FACULTY OF  
ENGINEERING AND  
APPLIED SCIENCE

**CURIOSITY  
CREATES**

## **Paul Hiles**

Manager, Support Services

## **Stephen Hunt**

Senior Director, IT & Facilities

## **Graydon Smith**

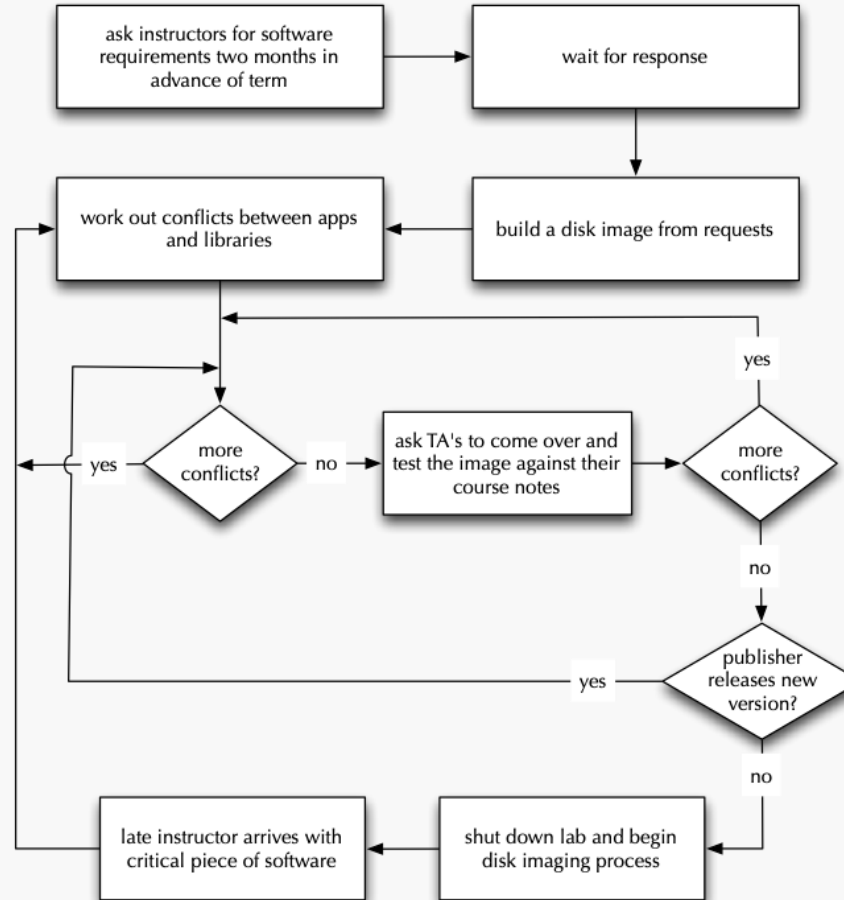
Manager, Systems & Development

# THE PAST SEEMS SO FAR AWAY

## In the beginning... labs of physical computers

- On-site maintenance requirements
- Engineering software + many programs = VERY large images
- Frequent rip+replace to keep resources on par with software needs
- You had to be in the room to use the software
- And the dreaded "disk imaging cycle of pain"...

# THE PAST SEEMS SO FAR AWAY



# THE PAST SEEMS SO FAR AWAY

**But labs had advantages as well.**

- **Lots of CPU's / memory / hard drive space to utilize**
- **Students didn't HAVE to bring a laptop**

# THE PAST SEEMS SO FAR AWAY

## So, onto virtual desktops.

- Improve ability to respond to requests for software adds/updates
- Reduce conflicts between software
- Eliminate time spent imaging drives
- Ability to access remotely
- Reduced lifecycle costs
- Nearly eliminated desktop support in 24x7 labs

# THE PAST SEEMS SO FAR AWAY

## BUT...

- Performance challenges
- Network pressure
- Perception
- Students want to use "their computer" - BYOD
- Department Heads want to reduce the space taken up by computer labs
- New active learning classrooms typically have no computers in them at all, and rely primarily on WiFi

# SO HERE WE ARE

## Virtual Software Distribution

- Take advantage of all those CPU cycles being brought to campus each year (although not publicly)
- Allow users of non-Windows computers to participate fully
- License management with flexibility
- Lose control again, but in a controlled manner
- Mimic the familiar "app store" model

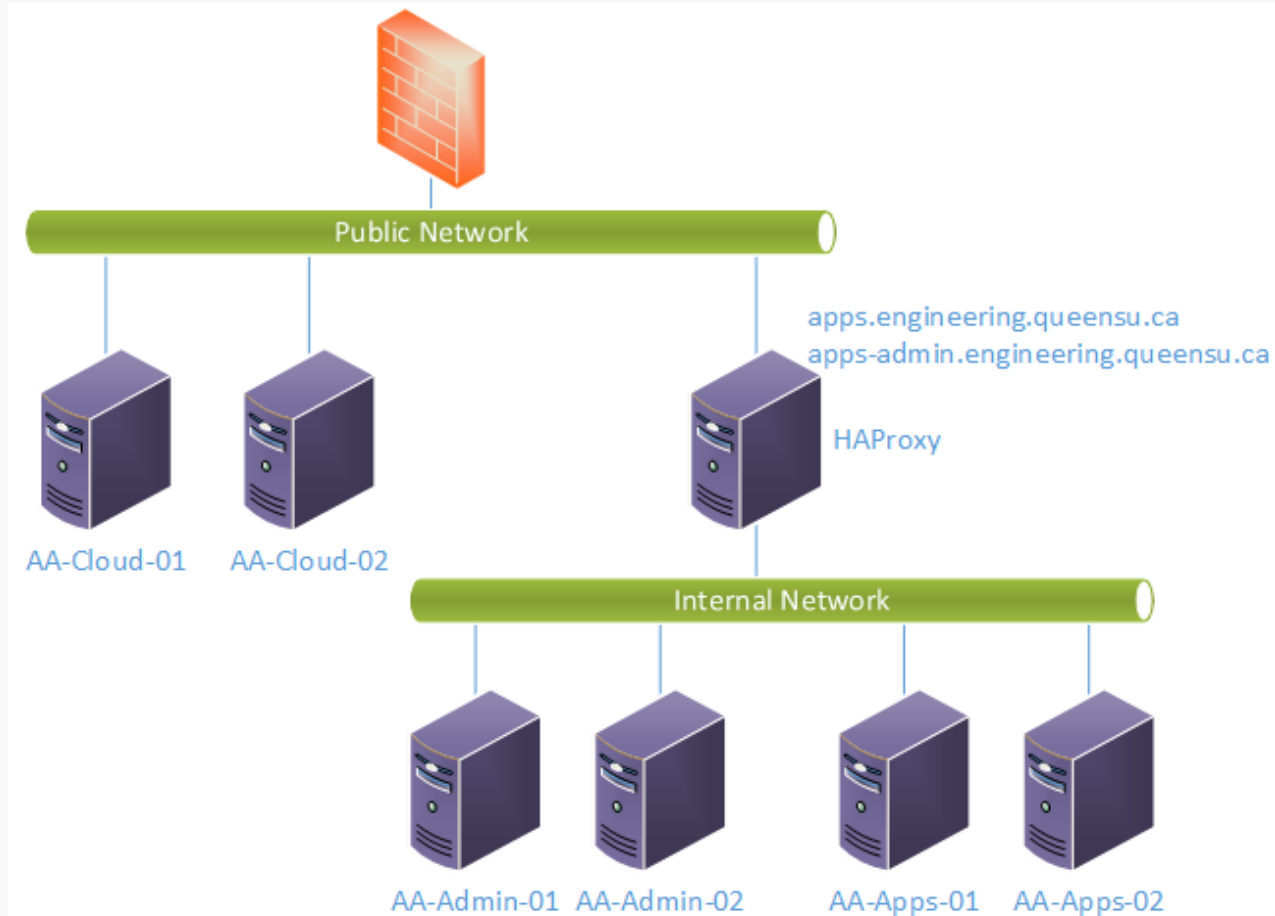


# THE LAST SIX MONTHS

## Drinking from the Software2 firehose

	App Count	
Apr 15	Implementation Kick-off Meeting	0
Apr 29	Pre-Installation Call	0
Jun 3-5	Installation and On-Site Training	0
Jun 6	Begin VDI and RDS Connection testing	
Jul 16	Official App Request Process	
Jul 24	Software2 Best Practices Workshop	
Aug 8	Parallels	
Sep 5	Term Starts	
Oct 8	The Real Parallels	
Today		

# On-Site Installation June 3



# THE LAST SIX MONTHS

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Jun 3-5	Installation and On-Site Training	5
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# VDI and RDS Configuration

## Need Non-Windows Device Support

### Horizon VDI

- Not what was expected
- Licensing

### Native RDS

- Works
- Authentication issues
- Not overly flexible
- Licensing

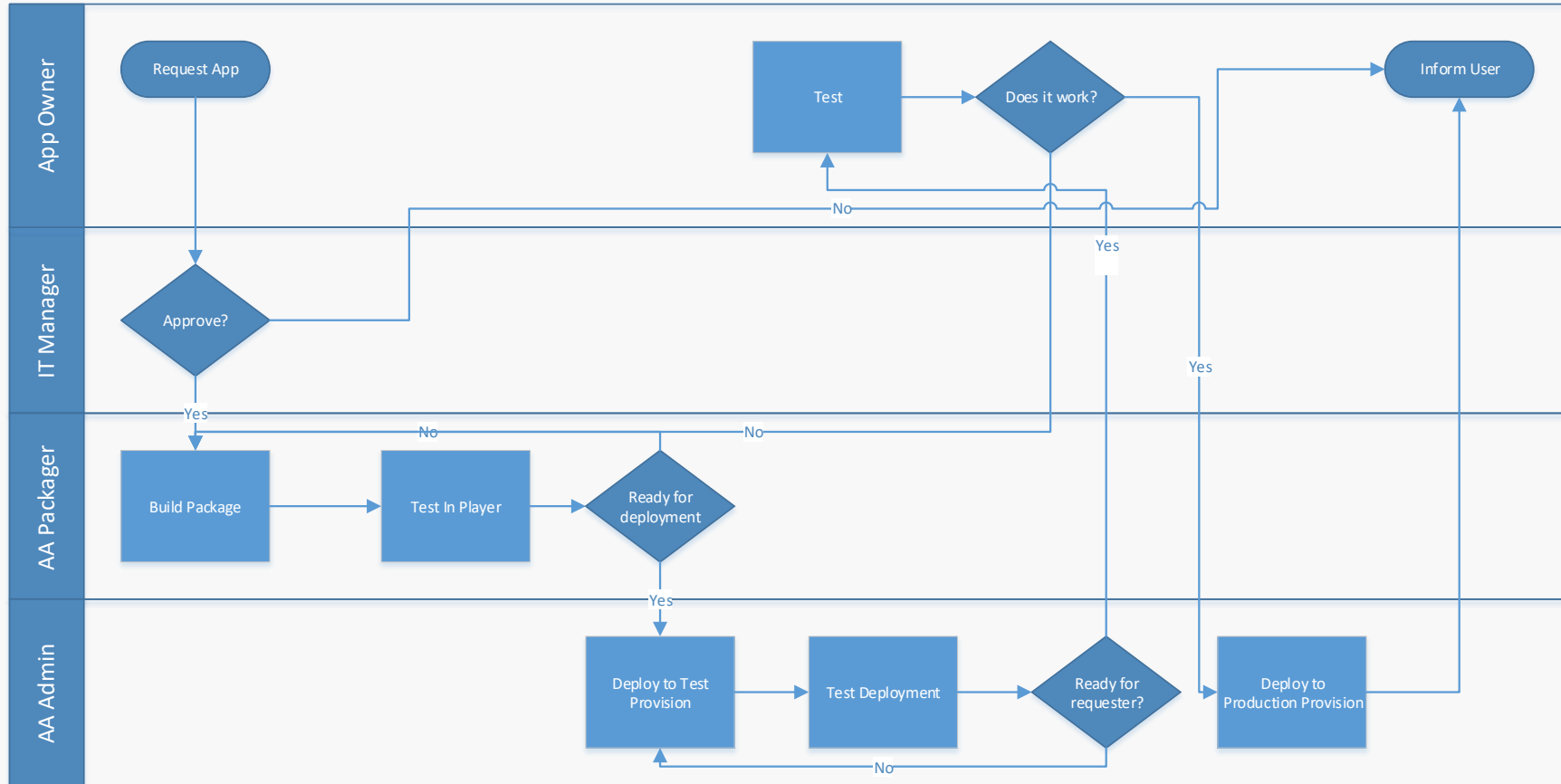
## Not making much progress

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Jun 6	Begin VDI and RDS Connection testing	7
Jul 16	Official App Request Process	10
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# Application Request Process



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Today		

# Parallels

## Horizon VDI

- Not what was expected
- Licensing

## Native RDS

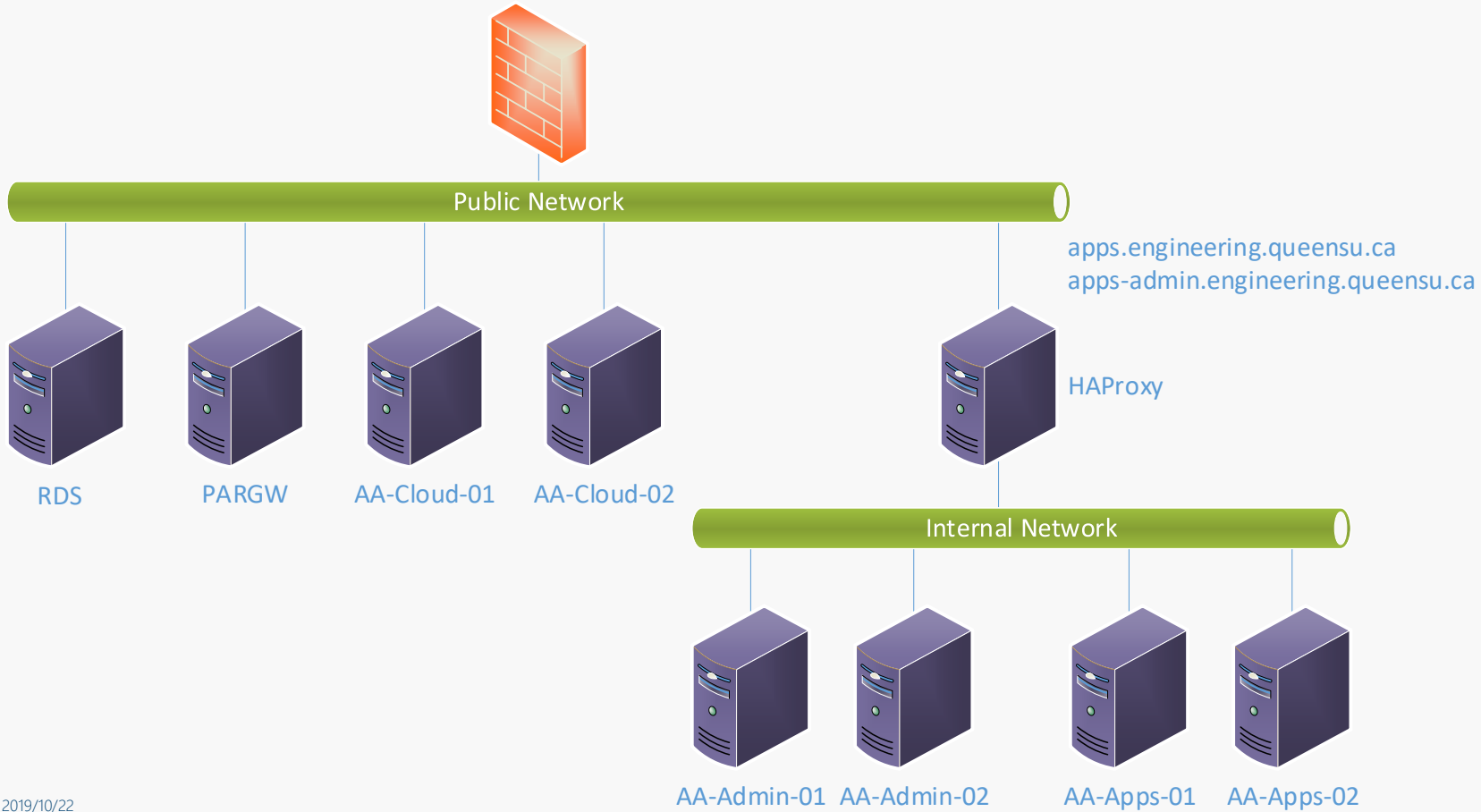
- Works
- Authentication issues
- Not overly flexible
- Licensing

## Parallels

- Easy
- Flexible
- Possibilities elsewhere



# Trial Parallels Install



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Sep 5	Term Starts	??
Oct 8	The Real Parallels	
Today		

# Term Starts

## App-a-palooza

- August 8 to September 5
- All hands on deck

## Game day

- September 5
- APSC 143 Codelite
- 3 sections of 250 students
- 500 MB package
- Wifi only classroom

## Parallels Scaling

- Still running a trial

## Start of Term

## App Count

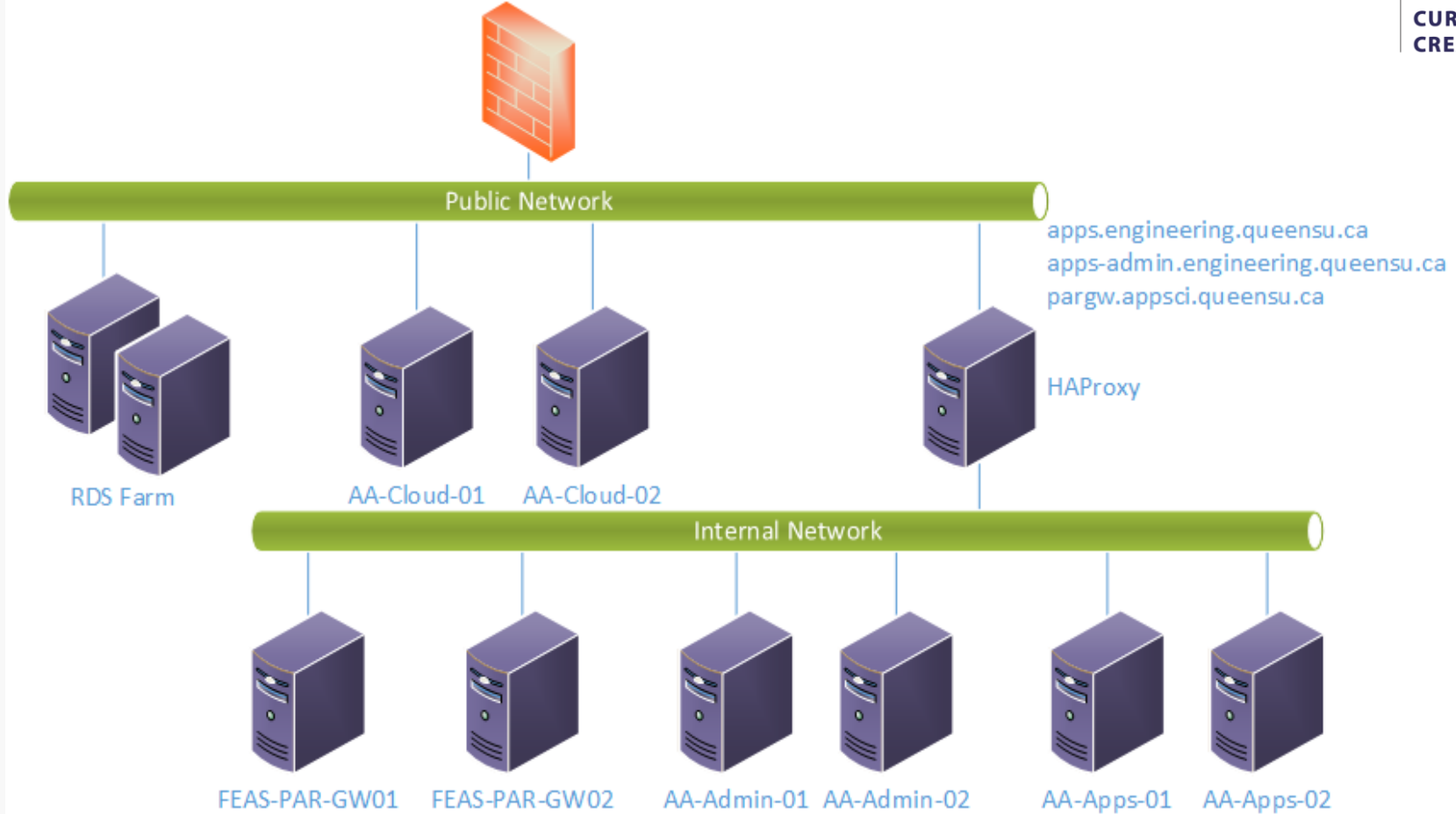
97

# THE LAST SIX MONTHS

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Oct 8	The Real Parallels	107
Today		

# Real Parallels Install



# THE LAST SIX MONTHS

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# THANK YOU

See where curiosity can lead you at  
[engineering.queensu.ca/curiositycreates](https://engineering.queensu.ca/curiositycreates)



Pause for  
feedback



AutoCAD  
Autodesk



Blender  
Blender.org



Creo View  
PTC



Foxit PDF  
Foxit Software



Google Earth  
Google



iTunes  
Apple



Microsoft Word  
Microsoft



Office365  
Microsoft



Outlook Online  
Microsoft



Quicktime  
Apple



Skype  
Microsoft



VirtualBox  
Oracle



Steam  
Valve



Zoom  
Zoom



# Breakout sessions



AutoCAD  
Autodesk



CloudBees  
CloudBees



Elasticsearch  
Elastic



Foxit  
Foxit Software



GIMP  
GIMP



iTunes  
Apple



Jitsi  
Jitsi



Office365  
Microsoft



Outlook Online  
Microsoft



Quicktime  
Apple



Skype  
Microsoft



VirtualBox  
Oracle



Zoom  
Zoom



Zoom  
Zoom

Packaging

Roll-out



AutoCAD  
Autodesk



Blender  
Blender.org



Creo View  
PTC



Foxit PDF  
Foxit Software



Google Earth  
Google



iTunes  
Apple



NVIDIA  
NVIDIA



Office365  
Microsoft



Outlook Online  
Microsoft



Quicktime  
Apple



Skype  
Microsoft



VirtualBox  
Oracle



Steam  
Valve

Licensing

BYOD

# Open forum

## Questions and answers

Software2 and Customers



AutoCAD  
Autodesk



Blender  
Blender.org



Creo View  
PTC



Foxit PDF  
Foxit Software



Google Earth  
Google



iTunes  
Apple



Microsoft Word  
Microsoft



Office365  
Microsoft



Outlook Online  
Microsoft



Quicktime  
Apple



Skype  
Skype



SolidWorks  
SolidWorks



Steam



TeamViewer  
TeamViewer

Thank you!

Sheridan College

22<sup>nd</sup> October 2019