How California Polytechnic State University Centralized IT to Provide a Modern Software Hub for Students
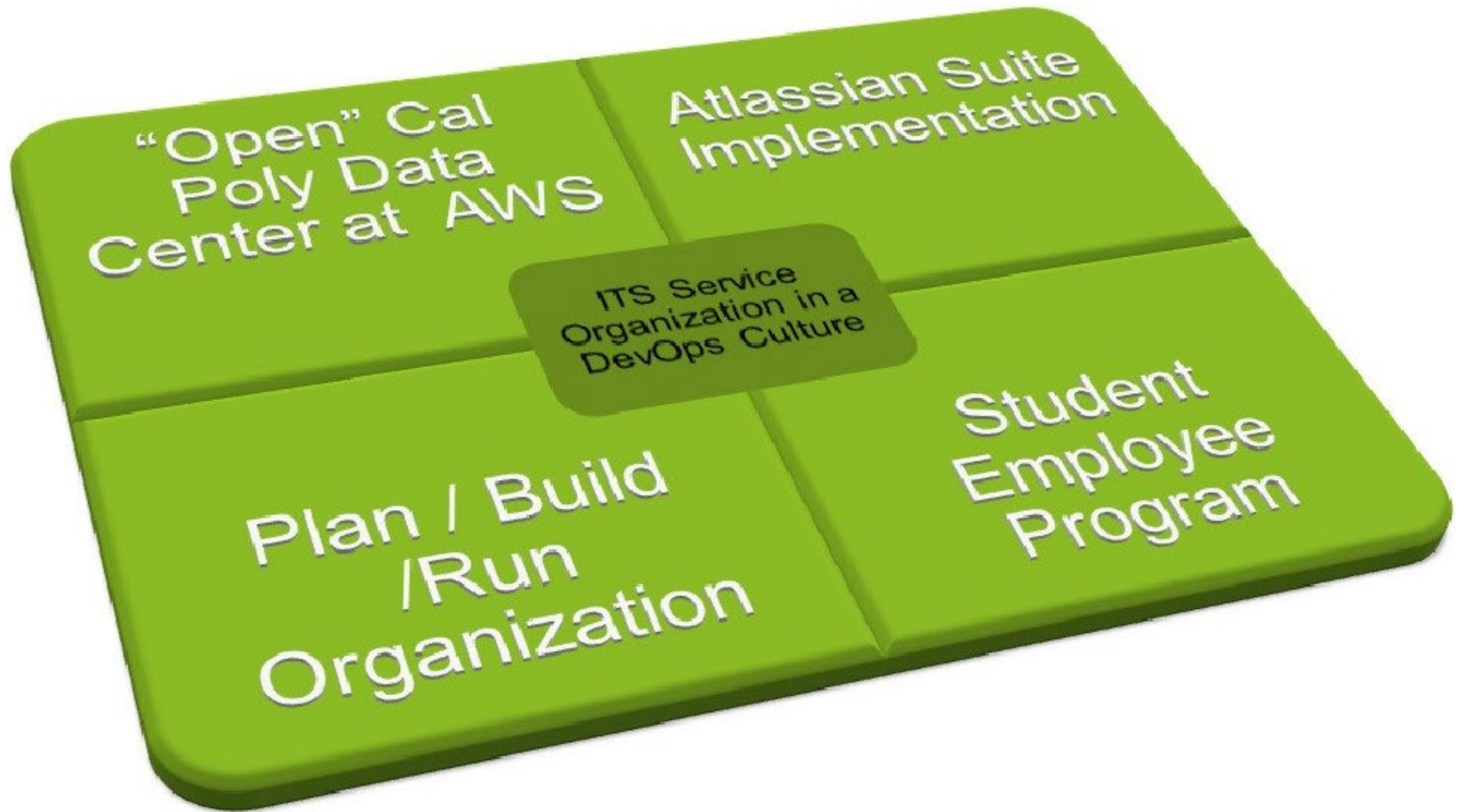
EDUCAUSE Industry & Campus Solutions series

Modern IT Organization

"Open" Cal Poly Data Center at AWS

Atlassian Suite Implementation

ITS Service Organization in a DevOps Culture

Plan / Build /Run Organization

Student Employee Program

CAL POLY

Current State: Organized by Technical Functions

*Org Dev

	App Dev & Info Mngmt	Customer & Tech Support	Enterprise App Services	Security	Enterprise Network Services	Enterprise Infrastructure Services
Plan						
Build						
Run						

Engage with IT in many places to:

1) Order a service
2) Receive help with a service
3) Request a new service

Inefficiency

Silos

Delays

Low Agility

Future State: Cal Poly ITS Framework

Service Strategy (Plan)	Service Design (Build)	Service Operations (Run)
Project Management Services Business & Communications Office IT Governance	Enterprise Engineering Services Academic Technology Services	Operations
←	DevOps	→

One "front door" to IT to:

1) Order a service
2) Receive help with a service
3) Request a new service
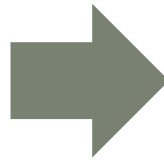
Streamlined

DevOps Approach

Agility

Cost

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WEB & SUPPORT CENTER METRICS
September 2021

ITS Website & Service Catalog
Front door to ITS service and support
tech.calpoly.edu | tech.calpoly.edu/services

50K

Knowledge Base (KB)
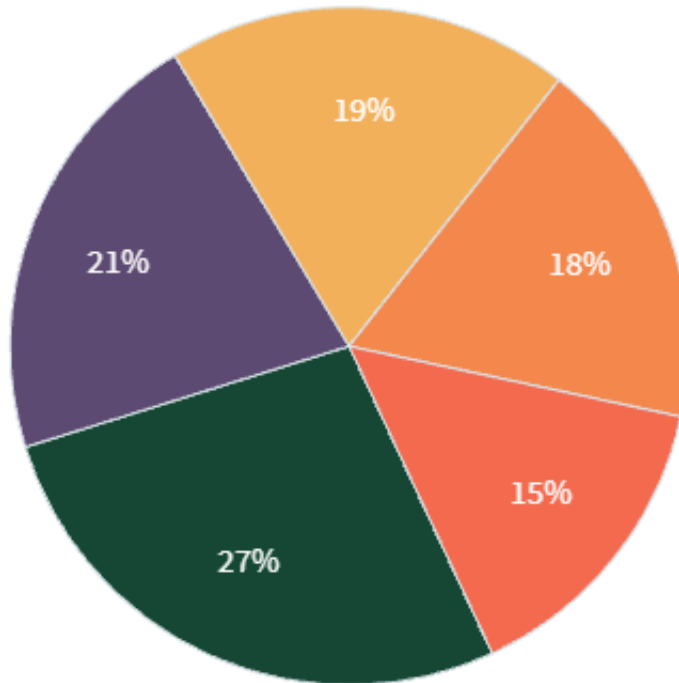How-to and troubleshooting articles
calpoly.atlassian.net

35K

Support Center
Request support or a service
calpoly.atlassian.net/servicedesk
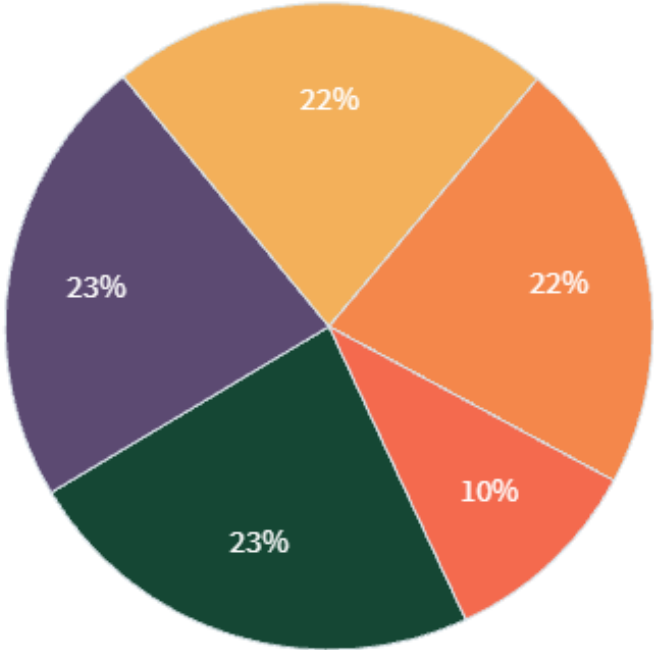
4K

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SUPPORT CENTER

REQUESTS

- Student Housing — 518
- Computer Support & Consultation — 405
- Desk Phone & Voicemail — 367
- Wired Network & Cabling — 338
- Wi-Fi — 281

Pie chart values: 27%, 21%, 19%, 18%, 15%

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SERVICE CATALOG

PAGEVIEWS

■	WiFi - Connect to Cal Poly Networks	5,020
■	Virtual Computer Labs	4,856
■	PolyCard	4,747
■	Cal Poly Portal	4,676
■	eduroam	2,181

KNOWLEDGE BASE
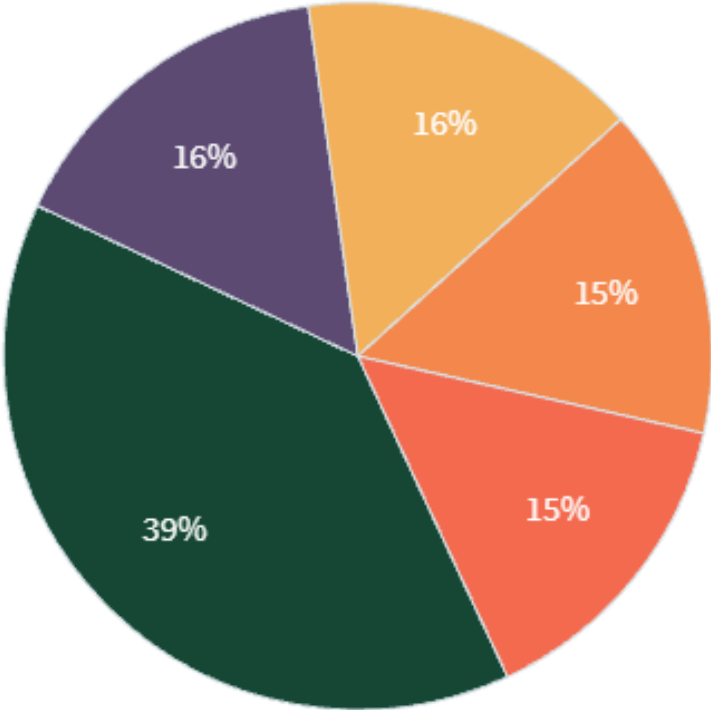
PAGEVIEWS

■	Connect to CP-IoT-Secure	4,353
■	Set up VPN	1,762
■	Install Office (Desktop) from Office 365	1,739
■	Get a PolyCard	1,697
■	Connect to eduroam	1,627

Pie chart segments: 39%, 16%, 16%, 15%, 15%

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UTILIZATION

Customer KB Page Views	KB Views by Internal Teams	JSM Requests July – October 2022	Agent Hours Logged
88,670	16,382	13,014	11,584

requests created vs. resolved
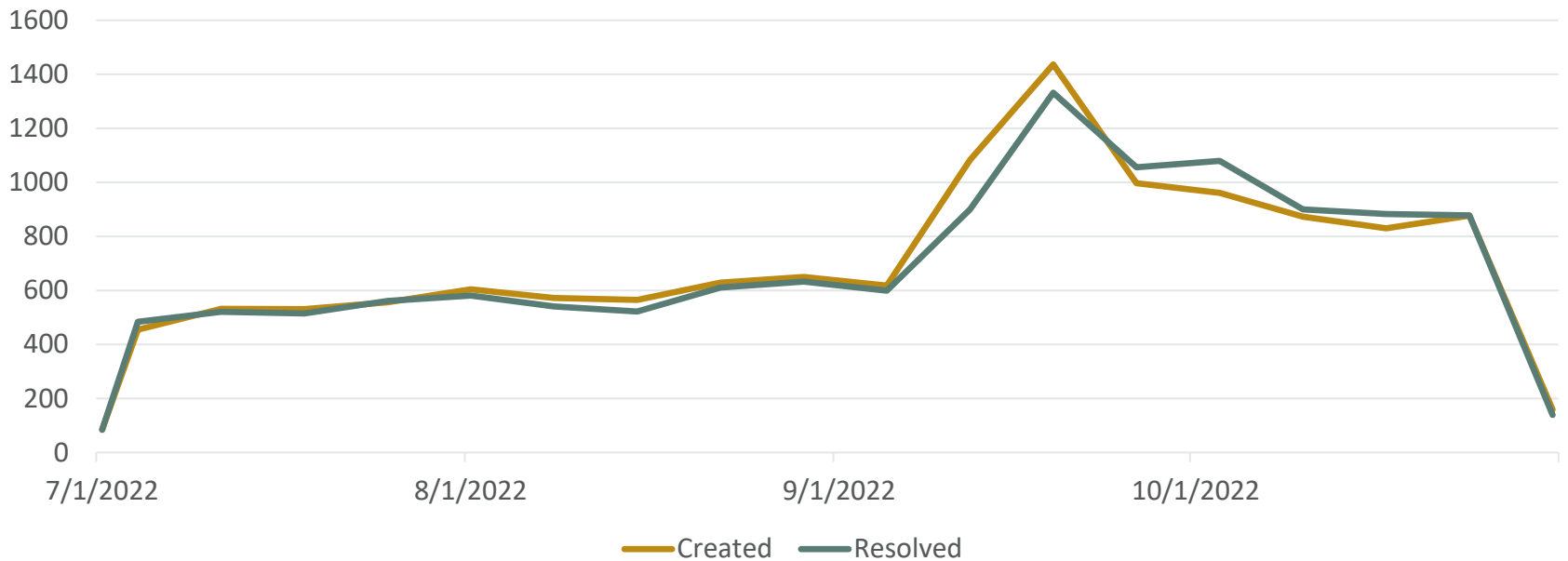
40% increase in request volume from Fall 2021 to Fall 2022

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Service tracking

HELP REQUEST ESCALATIONS	TIME TO FIRST RESPONSE	TIME TO RESOLUTION	SATISFACTION RATING
16.4%	82%	85%	4.92

REQUESTS RESOLVED BY TEAM & HOURS LOGGED

Bar chart showing Resolved Requests and Hours Logged by team.

Legend: ■ Resolved Requests ■ Hours Logged

Teams (top to bottom): Client Services, Infrastructure, Triage, Applications, Service Desk, Security

X-axis: 0, 1,000, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000

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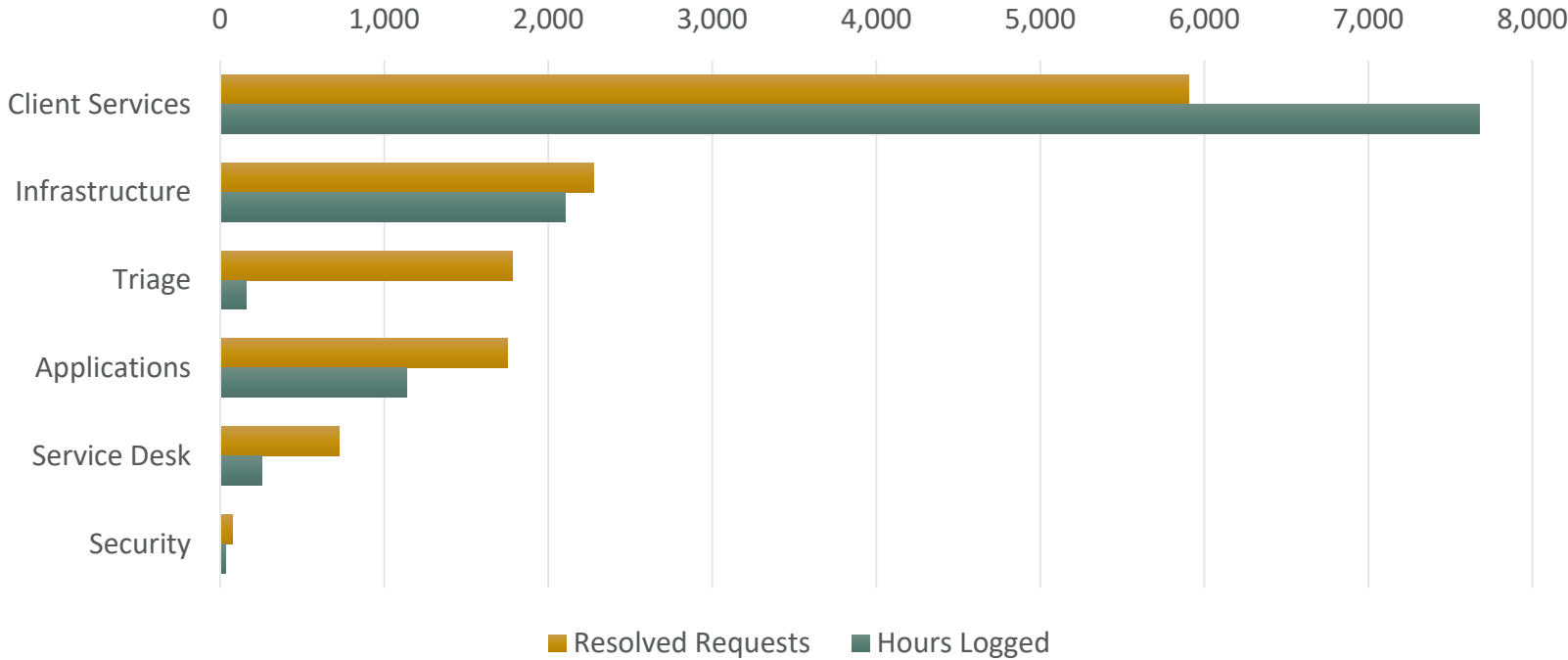
Tiered Support Success

ESCALATION OF HELP REQUESTS

1.4% Escalation to Engineering Teams

15% Escalation to Operations Teams

Requests · Escalations to Ops · Escalations to Eng

Service Desk · Client Services · Applications · Infrastructure · Security · Totals
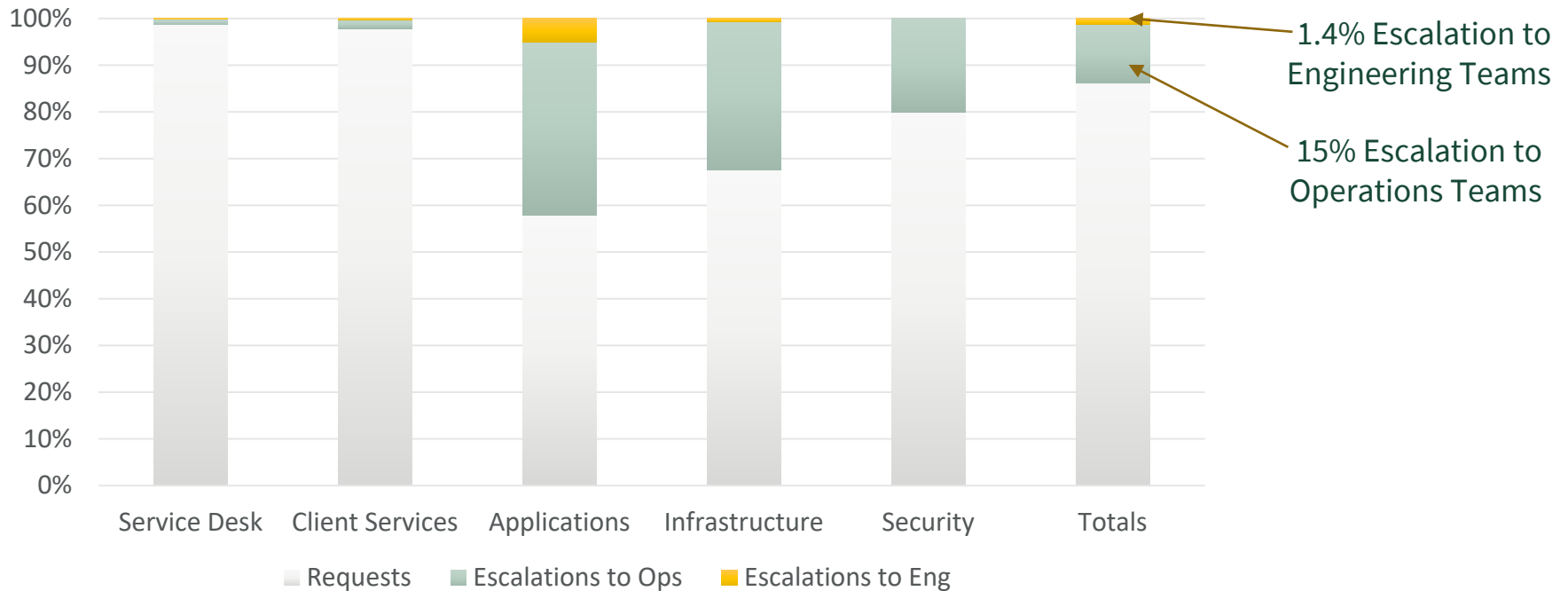
Software Services

comprehensive, strategic, modern

1 Consistent Versions & Automation

Updated 131 software packages - creating Apple, Windows, and Virtual lab versions. Full automation can be used to install these packages remotely.

2 Software Hub

A one-stop shop for the software needed to teach, learn and work. The hub provides access to install software on personal computers. The next phase of the project will enable self-installation on work computers.

3 Campus Labs Refreshed

All campus computer labs were refreshed using the new version of the software. This has created consistency in labs across campus, making it easier for students to work on a computer wherever the location. Faculty can also dependably know the software version they should use for instruction.

4 Virtual Labs Rebuilt

The virtual computer labs were rebuilt using the new versions of software. In addition, the environment was upgraded to faster & more graphically oriented specifications to help support intensive apps such as Solidworks, Autocad and ArcGIS Pro.

Software Services
comprehensive, strategic, modern

Outcomes:
- creates equity in access for all students
- simplifies software for everyone
- consistent versions and pervasive access makes it much easier for students to do their work & faculty to teach
- automated, remote installs reduce the overall time it takes to deliver software
- self-service for personal computers (and soon work computers) means that people can access what they need, when needed without needing to ask.

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Search Apps

All Available — 68

- ♥ Favorites — 0
- ⊘ Unavailable — 6

OS ⌄

CATEGORIES ⌃

- Accessibility — 1
- Antivirus — 1
- CAD — 13
- Creative — 4
- Development — 2
- Education — 1
- Engineering — 10
- GIS — 2
- Productivity — 10
- Simulation — 12
- Statistical — 14
- Technical Support — 1
- Utilities — 2
- Video — 1

Adams
MSC Software

Virtual Computer Labs

Availability: Virtual Computer Labs

Adams is the most widely used multibody dynamics and motion analysis software in the world. Adams helps engineers to study the

Advanced Design System
Keysight Technologies

Virtual Computer Labs

Availability: Virtual Computer Labs

PathWave ADS offers integrated design guidance via templates to help you get started faster. Extensive component libraries make it easy to

Anaconda
Anaconda Inc.

Download via Anaconda.com

Availability: External Website

The world's most popular open-source Python distribution platform. Anaconda offers the easiest way to perform Python/R data science

ArtiosCAD
Esko

Virtual Computer Labs

Availability: Virtual Computer Lab

The world's most popular structural design software for packaging, ArtiosCAD is designed to boost productivity for packaging professionals

Autodesk
Autodesk

Download via Autodesk.com

Adobe Creative Cloud
Adobe, Inc.

Download via Adobe.com

Availability: External Website

Adobe Creative Cloud offers a collection of software used for graphic design, video editing, web development, and photography.

Alteryx Designer
Alteryx Inc.

Virtual Computer Labs

Availability: Virtual Computer Labs

The leading solution for data prep, blending and analytics, with drag-and-drop capabilities that speed up every step of the analytic process.

ArcGIS Pro
Esri

Virtual Computer Labs ⌃

Download

Computer Labs

ArcGIS Pro is the latest professional desktop GIS application from Esri. With ArcGIS Pro, you can

AutoCAD
Autodesk Inc.

Virtual Computer Labs ⌄

Availability: Download via Autodesk.com, Virtual Computer Labs

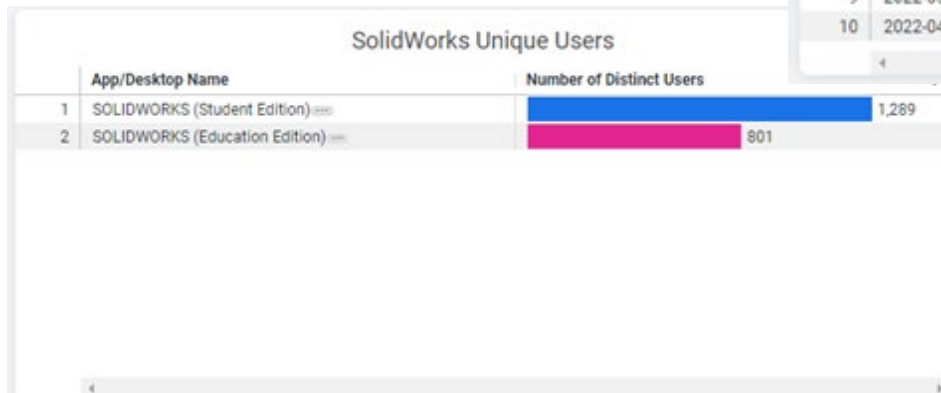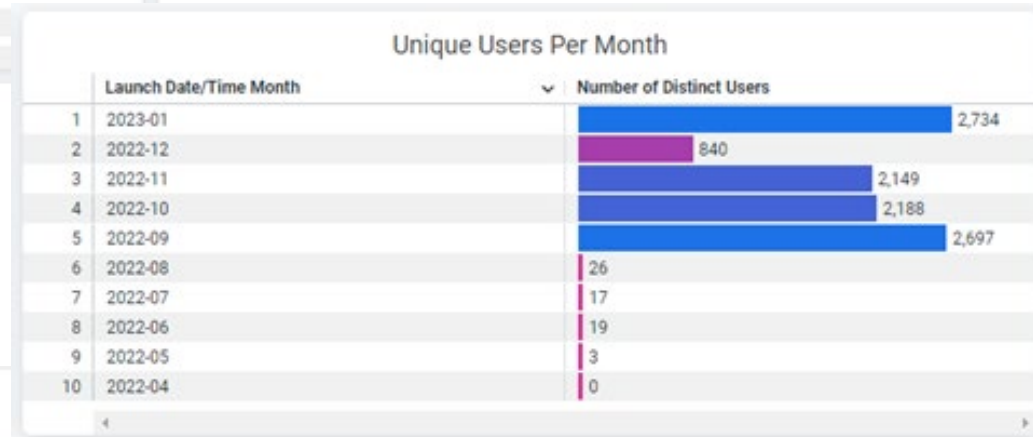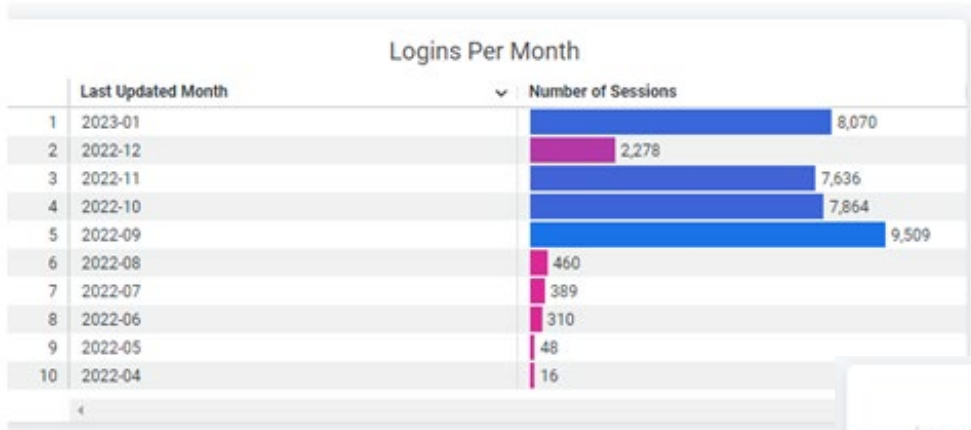AutoCAD is computer-aided design (CAD) software that is used for precise 2D and 3D

Bluebeam Revu
Bluebeam, Inc.

Virtual Computer Labs

AppsAnywhere Users Dashboard

Logins Per Month

	Last Updated Month	Number of Sessions
1	2023-01	8,070
2	2022-12	2,278
3	2022-11	7,636
4	2022-10	7,864
5	2022-09	9,509
6	2022-08	460
7	2022-07	389
8	2022-06	310
9	2022-05	48
10	2022-04	16

Unique Users Per Month

	Launch Date/Time Month	Number of Distinct Users
1	2023-01	2,734
2	2022-12	840
3	2022-11	2,149
4	2022-10	2,188
5	2022-09	2,697
6	2022-08	26
7	2022-07	17
8	2022-06	19
9	2022-05	3
10	2022-04	0

SolidWorks Unique Users

	App/Desktop Name	Number of Distinct Users
1	SOLIDWORKS (Student Edition)	1,289
2	SOLIDWORKS (Education Edition)	801

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AppsAnywhere Usage Dashboard

Total App Launches

	App/Desktop Name	Delivery Method Descriptor	Number of Launches	
1	SOLIDWORKS (Education Edition) ...	https://idp.calpoly.edu/idp/profile/SAML2/...		3,407
2	Minitab ...	https://idp.calpoly.edu/idp/profile/SAML2/...		3,361
3	SOLIDWORKS (Student Edition) ...	https://www.solidworks.com/SEK		3,134
4	JMP Pro ...	https://idp.calpoly.edu/idp/profile/SAML2/...	1,972	
5	Microsoft Access ...	https://idp.calpoly.edu/idp/profile/SAML2/...	1,226	
6	JMP Pro ...	/var/www/appsanywhere/secure/jmp_pro...	1,213	
7	Microsoft Power BI ...	https://idp.calpoly.edu/idp/profile/SAML2/...	1,153	
8	Adobe Creative Cloud (Student Edition) ...	https://e5.onthehub.com/WebStore/Offeri...	811	
9	Microsoft Excel ...	https://idp.calpoly.edu/idp/profile/SAML2/...	796	
10	R Studio ...	https://idp.calpoly.edu/idp/profile/SAML2/...	750	
11	JMP Pro ...	/var/www/appsanywhere/secure/jmp_pro...	736	

Total App Launches by Operating System

	App/Desktop Name	Delivery Method Descriptor	Operating System	Number of Launches	
1	SOLIDWORKS (Student Edition) ...	https://www.solidworks.com/SEK	Windows		3,133
2	Minitab ...	https://idp.calpoly.edu/idp/profile/SAML2/...	macOS		2,741
3	SOLIDWORKS (Education Edition) ...	https://idp.calpoly.edu/idp/profile/SAML2/...	macOS	1,737	
4	SOLIDWORKS (Education Edition) ...	https://idp.calpoly.edu/idp/profile/SAML2/...	Windows	1,651	
5	JMP Pro ...	https://idp.calpoly.edu/idp/profile/SAML2/...	macOS	1,304	
6	JMP Pro ...	/var/www/appsanywhere/secure/jmp_pro...	macOS	1,213	
7	Microsoft Access ...	https://idp.calpoly.edu/idp/profile/SAML2/...	macOS	1,142	
8	Microsoft Power BI ...	https://idp.calpoly.edu/idp/profile/SAML2/...	macOS	1,069	
9	JMP Pro ...	/var/www/appsanywhere/secure/jmp_pro...	Windows	734	
10	MATLAB ...	/var/www/appsanywhere/secure/matlab/...	Windows	699	
11	MATLAB ...	/var/www/appsanywhere/secure/matlab/...	Windows	699	

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AppsAnywhere Utilization Dashboard

Launch Demand - Typical Week (Last 90 Days)

Launch Demand - Typical Day (Last 30 Days)
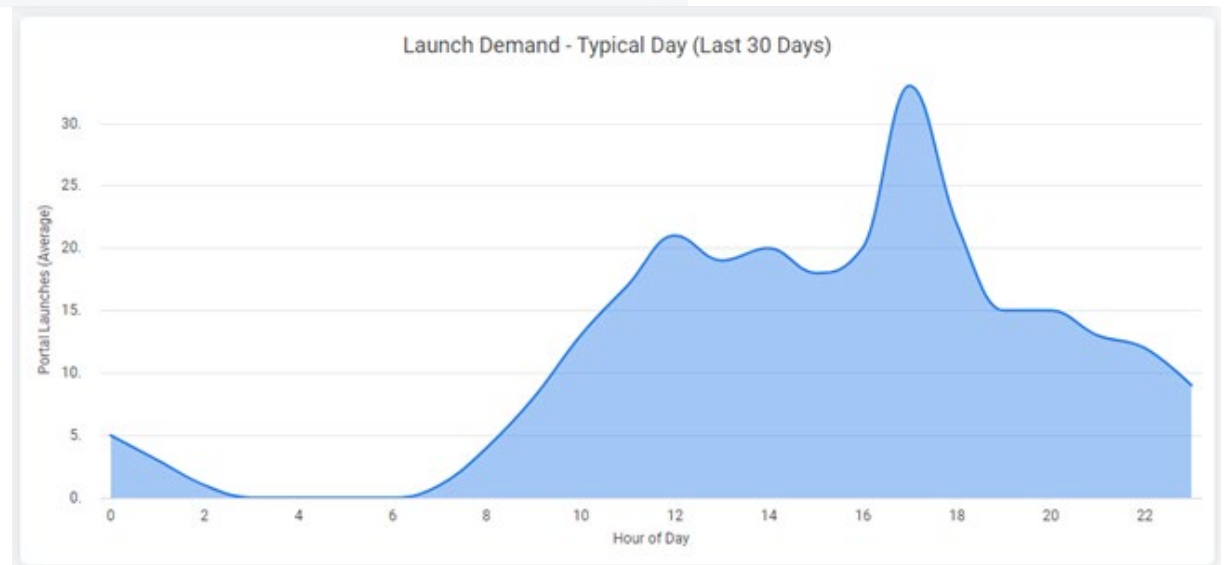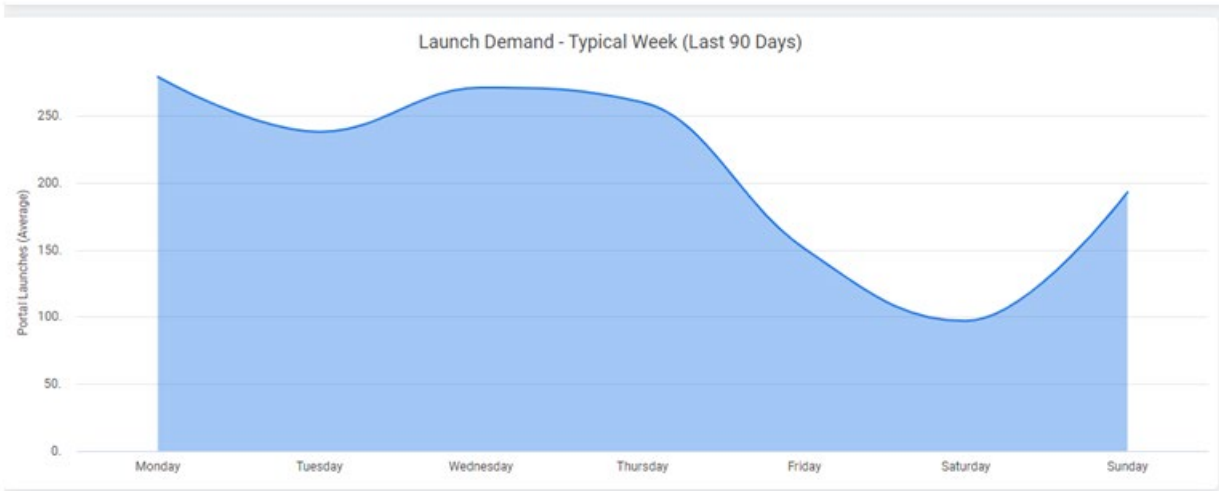
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