control up

vmware®

Analyzing VMware Horizon Logons

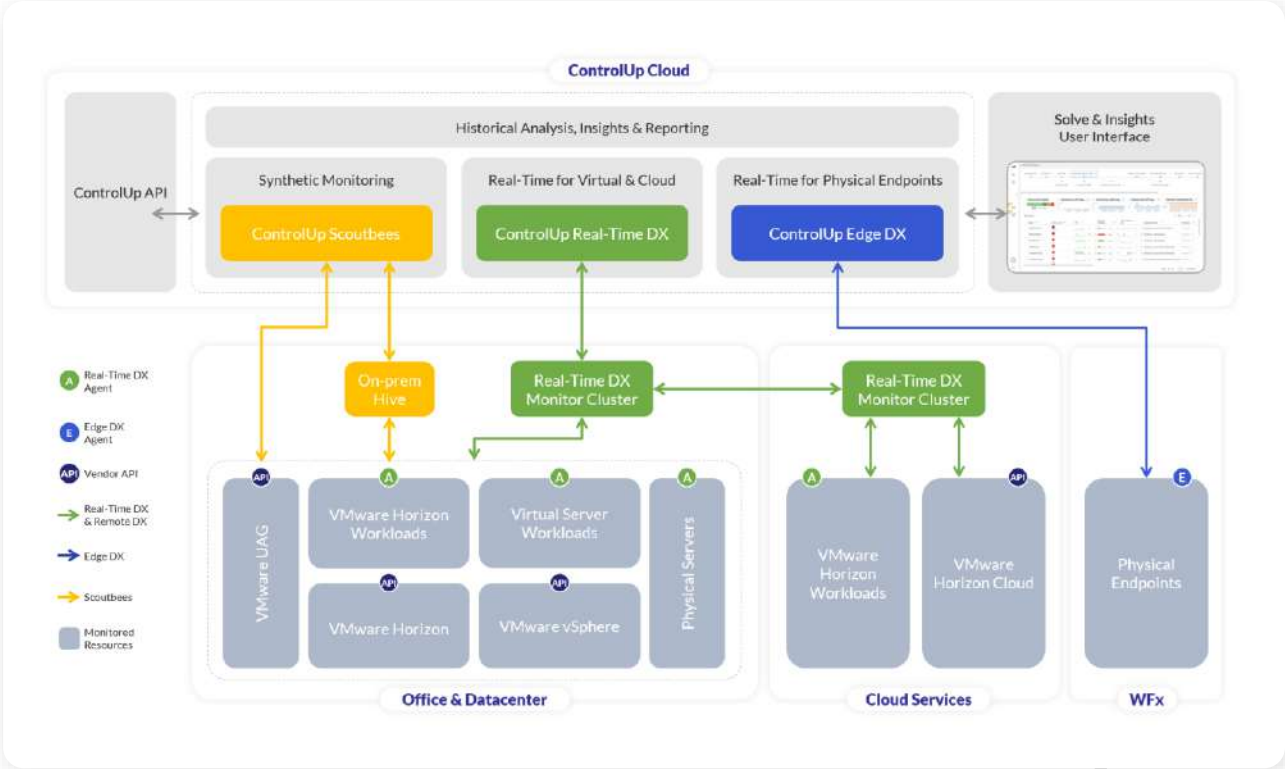
Get more from your digital experience monitoring and optimization solution

Advanced VMware Horizon Monitoring, Powered By ControlUp

While VMware Horizon provides a powerful virtualization platform, technologies and capabilities like Microsoft Windows, Active Directory, authentication, DNS, network, group policy, and third-party apps must work seamlessly to provide a great digital employee experience. This eBook will focus on improving the logon duration for EUC and VDI deployments.

Benefits of using ControlUp with VMware

Monitor, Troubleshoot & Remediate the Full VMware Stack	Improved User Experience	Simplified Management
Proactive Troubleshooting	Multiple Deployments, One Console	Extensive Reporting & Analytics



EUC Logon Duration Study

We examined operational metadata from over two million logons across 200 organizations to get an objective overview of logon durations and their effect on user productivity.

27sec

Average logon time

30min

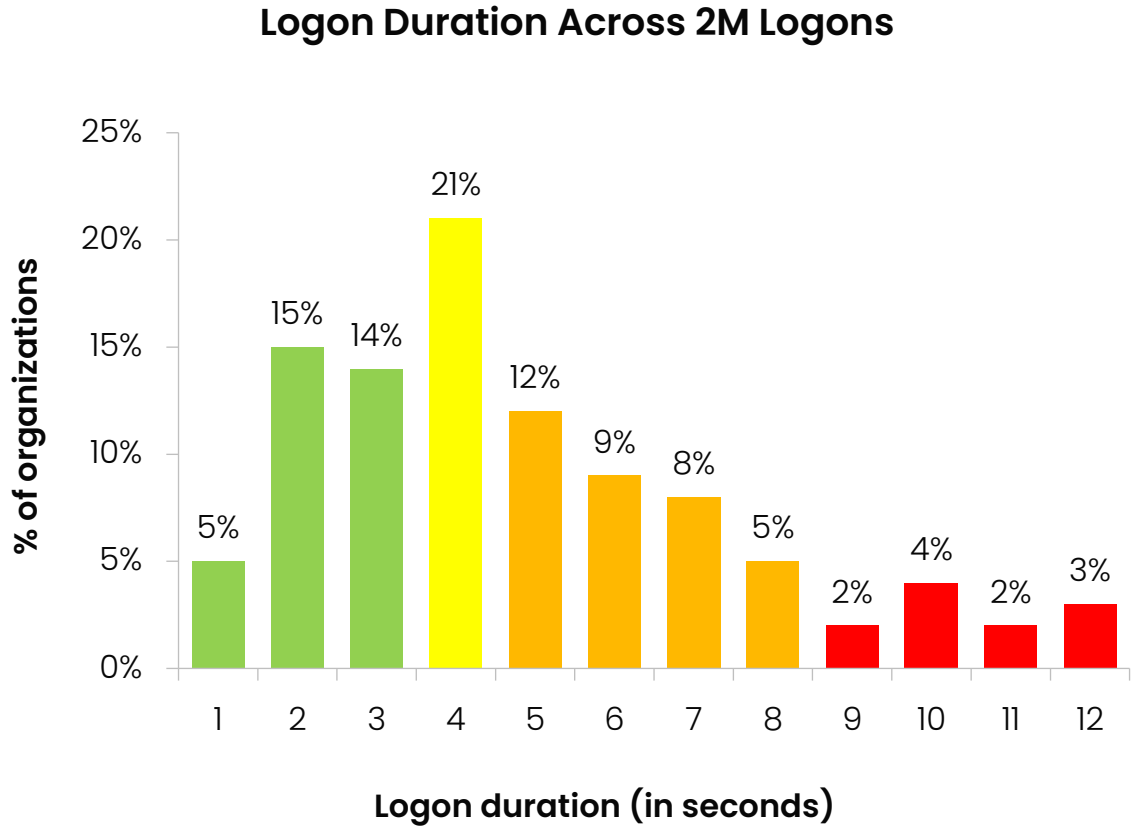
Annual loss in productivity for every **5** secs of logon delay

70%

Logons took **25** secs or longer

11%

Logons took **50** secs or longer



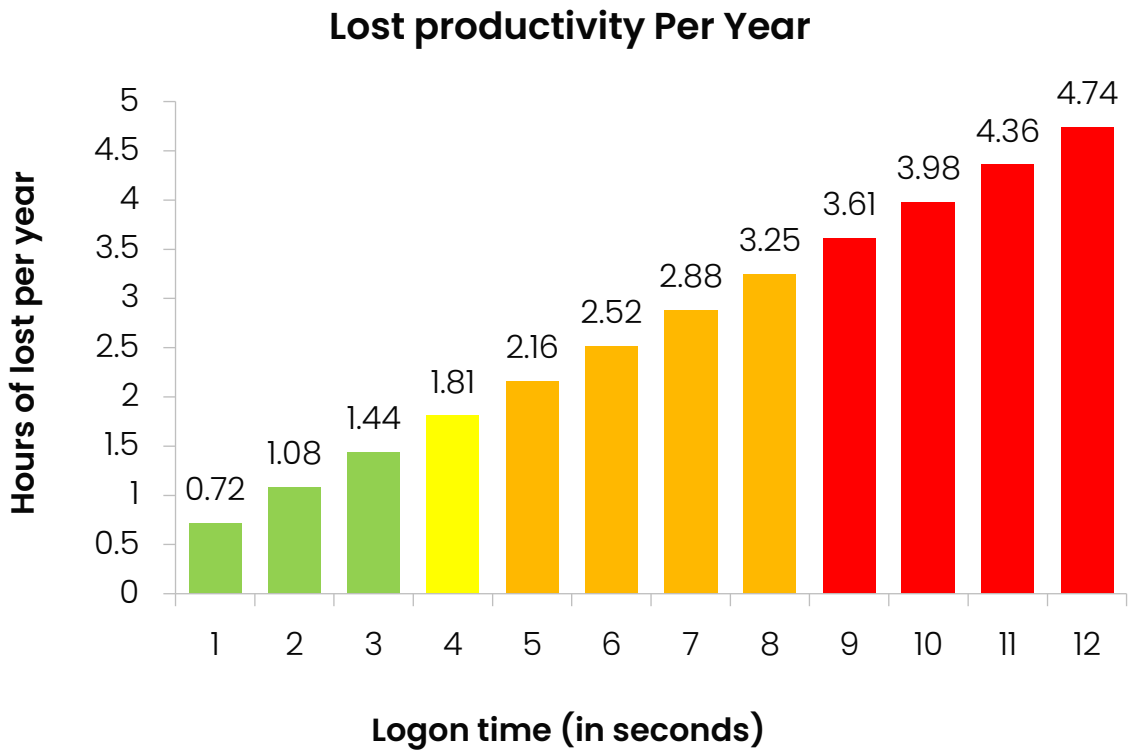
Slow Logons Hurt Productivity

A user's productivity can be hard to measure, but you can measure how long they are forced to wait before they can be productive.

1 person logs on **1** time a day » Logon takes **40 seconds** » **~3 hrs.** per year of lost productivity

1,000 people logon **3** times a day » Logon takes **40 seconds** » **~9,000 hrs.** per year of lost productivity

An organizational logon goal should be ~10 seconds



What Causes Slow Logons

The end-user computing (EUC) logon process involves an enormous number of variables and is complicated to isolate and troubleshoot.

Potential logon problem areas:

Pre-Startup Phase

- Authentication
- EUC-VDI Broker
- Protocol connection
- Workspace App
- Horizon Client

Logon Phase

- User profiles
- Group policy
- Logon scripts
- Print & driver mapping
- Client-side extensions
- AppVolumes
- FSLogix

Shell Start

- Startup applications
- AppX & Active Setup
- VMware DEM
- Scheduled tasks
- Startup scripts

ControlUp can detect all of these problems and their severity. The two most common problems are Group Policy and User Profiles.

How ControlUp Helps Shorten Logon Duration

Observe

Gain visibility into the logon experience.

- Proactive testing of resources
- Real-time capture of the logon process
- Alerting on slow logons
- The User Experience column highlights users with long logons

Analyze

Get a detailed inspection of the logon process.

- Identify slow logon phases
- Third-party technology impact
- Application & resource availability analysis
- Historical logon trend analysis
- Community metrics comparison

Optimize

Improve everyone's productivity.

- Over 300 script actions
- Recommendations for remediation
- Forecasting to plan for growth

Detecting Logon Times

ControlUp's Analyze Logon Duration script action pinpoints logon problems in real time. With ControlUp, you get an easy-to-understand overview of your user's logon duration and can drill down to discover why logons are higher than average.

- **Logon Duration**
- **Profile Load Time**
- **Group Policy Load Time**
- **Desktop Load Time**
- **Logon Duration – Other**

The ControlUp User-Interface (UI) Provides Easy to Understand and Sortable Logon Metrics

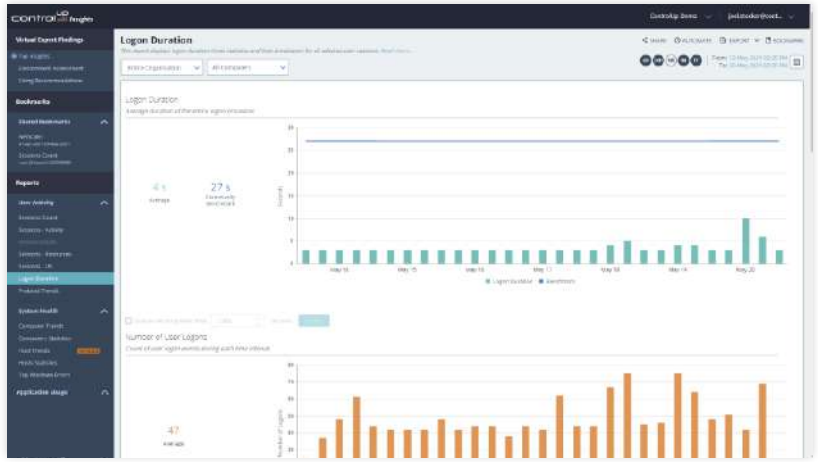
User	Stress Level	Logon Duration	Profile Load Time	Group Policy Load Time	Desktop Load Time	Logon Duration - Other
ACME\julie	Medium	222 sec	145 sec	2 sec	11 sec	64 sec
CONTROLUP\trententt	Medium	62 sec	10 sec	1 sec	7 sec	44 sec
CONTROLUP\justint	Medium	48 sec	21 sec	1 sec	5 sec	21 sec
ACME\jopart	Medium	45 sec	30 sec	2 sec	N/A	13 sec
ACME\ttyevmw	Medium	41 sec	2 sec	28 sec	7 sec	4 sec
ACME\yotarp	Medium	40 sec	24 sec	3 sec	N/A	13 sec
ACME\tabert	Medium	35 sec	3 sec	2 sec	5 sec	25 sec

Comparing Logon Times

ControlUp provides a Logon Duration report that compares your organization's logon duration to the global community.

The ControlUp logon duration report can answer questions like:

- How fast is the logon process in my network perform compared to the global average?
- What is the difference between the logon duration in peak and off-peak hours?
- Which phase of the logon process accounts for the largest portion of the total logon duration?



We are very excited about ControlUp. We use it in our day-to-day management and as a triage tool for quick and easy analysis. The ability to manage multiple registry entries, file systems and services is invaluable. This is NOT just a monitoring tool, it is really an overall server management tool. I would definitely recommend this to colleagues.

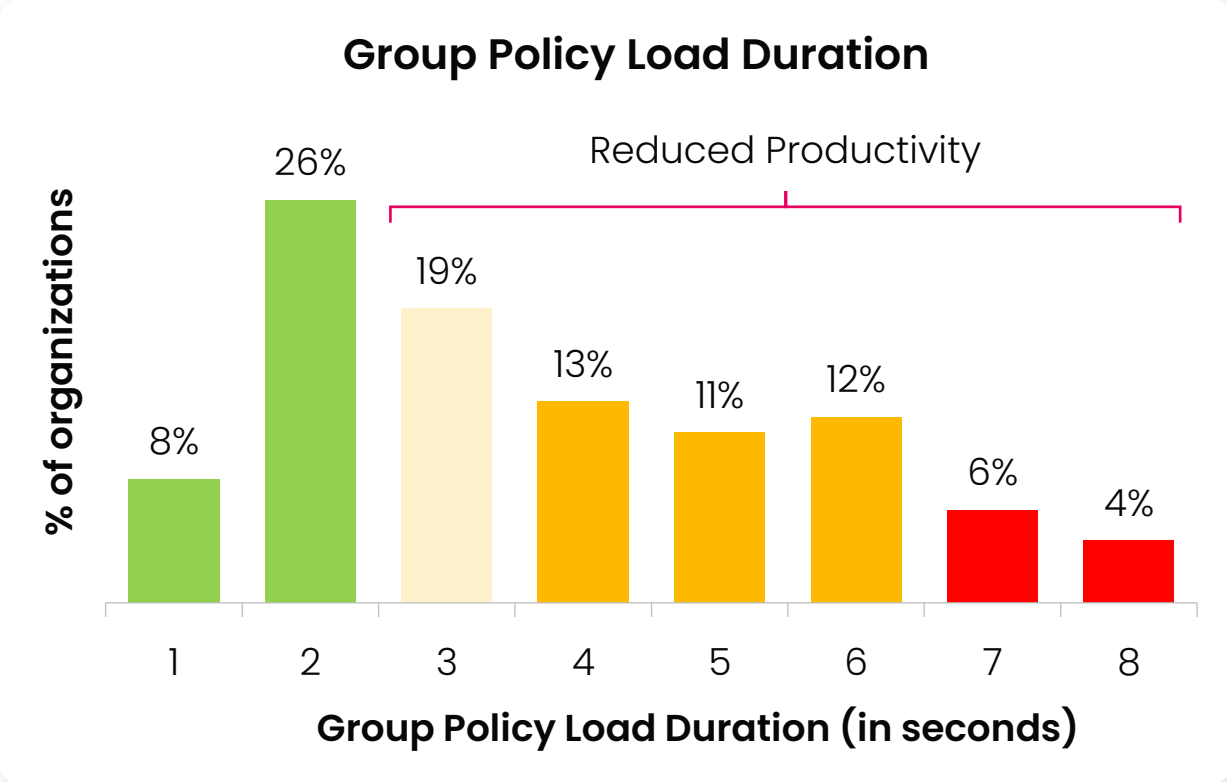
Matt Goulding | Senior Analyst, CareTech Solutions (Healthcare, Technology)

Group Policy Logon Time Problems

ControlUp's operational metadata report shows an average Group Policy logon process takes 7.5 seconds. The distribution suggests that if your organization's Group Policy processing time is above 5.8 seconds (the median), then you are slower than 50% of organizations and you have an opportunity to make a significant, impactful change.

Top Problems with Group Policy

- Network Latency
- Preferences with targeting and WMI filters
- Use of network resources such as file shares, printers, etc.

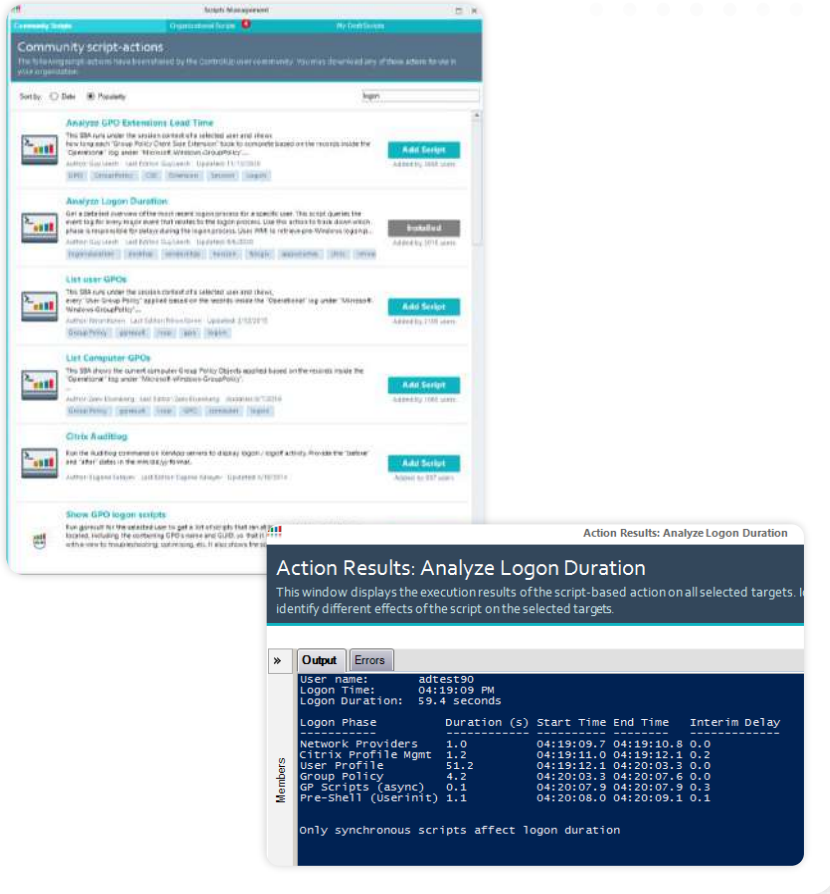


Group Policy Logon Times Solutions

ControlUp lets you easily sort data to find details on group policy load times. Then, our Virtua : Expert™ will suggest a script action to help optimize your logon durations.

Recommended Script Actions for GPO issues

- Analyze Logon Duration
- Analyze GPO Extension Load Time
- Analyze Detailed GPO Duration
- Slow GPO logon script
- Enable Auditing
- List computer GPOs



What we really like is the right click features for administration, to be able to do remote GPO management, look at the registry. The biggest feature we really love is the compare tool for the registry, the services and files system, everything. We use the tool on a daily basis.

Sean Cottrell | Secura Insurance

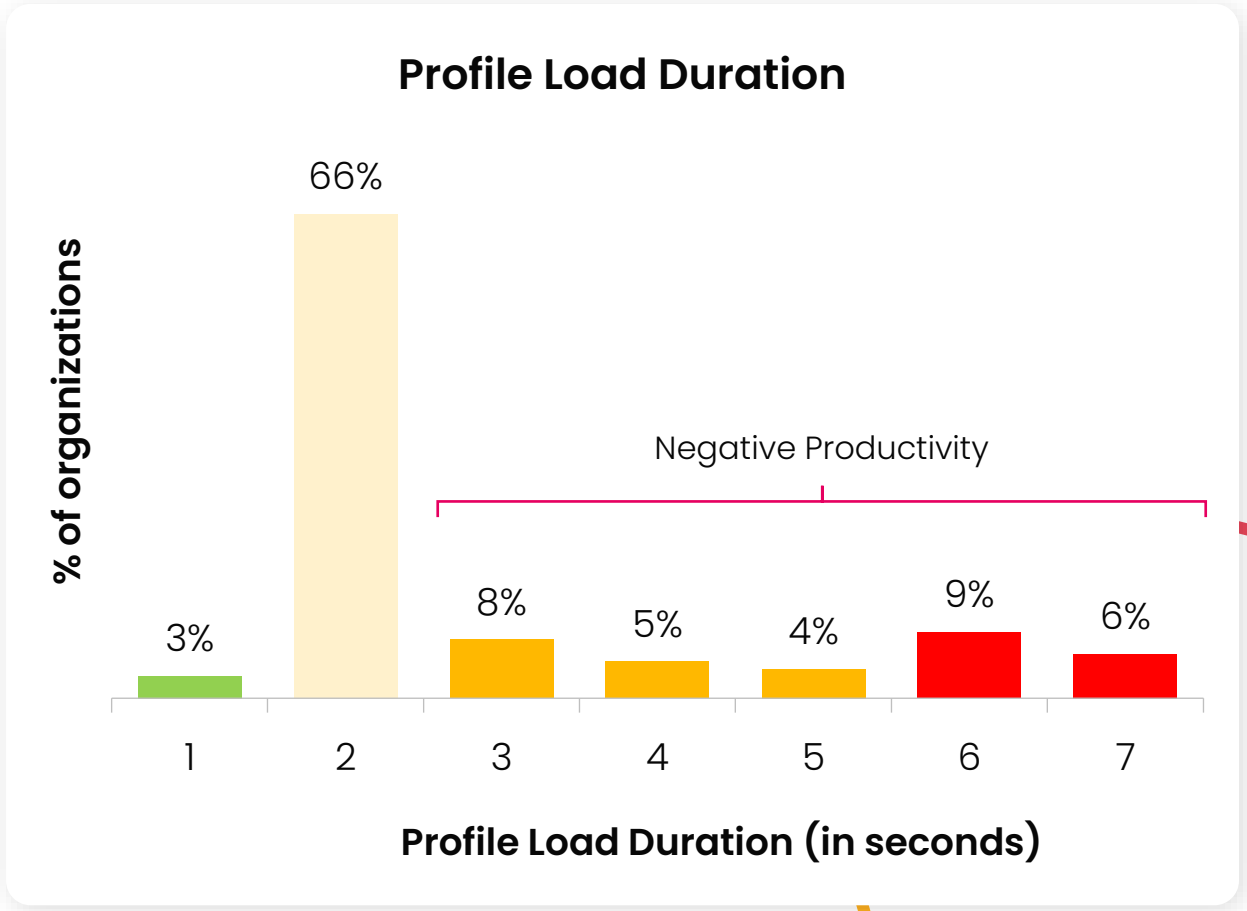
SECURA INSURANCE COMPANIES

User Profile Load Time Problems

Our operational metadata report also shows an average profile load time of two seconds. While that is not very long, the chart below shows that 15% of users in our sample wait 10 seconds or more on average to load the user profile.

Top Problems with Group Policy

- User profile size
- Storage capacity utilization
- Profile composition

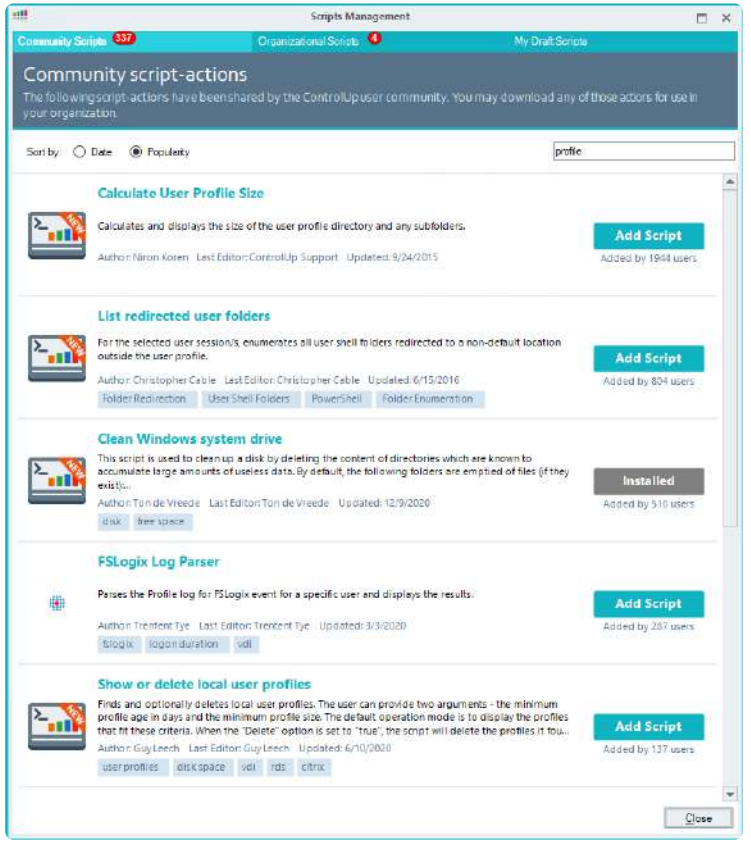


Solutions for User Profile Load Times

Profile management is an important aspect of every application or desktop virtualization implementation. Whether you have a user profile management solution or if you manage your users' profiles locally, it is important to monitor and moderate the profile size and composition (total number of files)

Recommended Script Actions

- Calculate user profile size
- Clean windows system drives
- List redirected user profiles
- Show or delete user profiles



> *We use ControlUp to take care of the user profile as well as performance issues, getting latency information and server utilization for memory and CPU. It's a great tool that makes us extremely proactive about the issues that we can see in our infrastructure.*

Daniel Ruiz | Cloud Technologies Manager
Geller and Company

GELLER & COMPANY

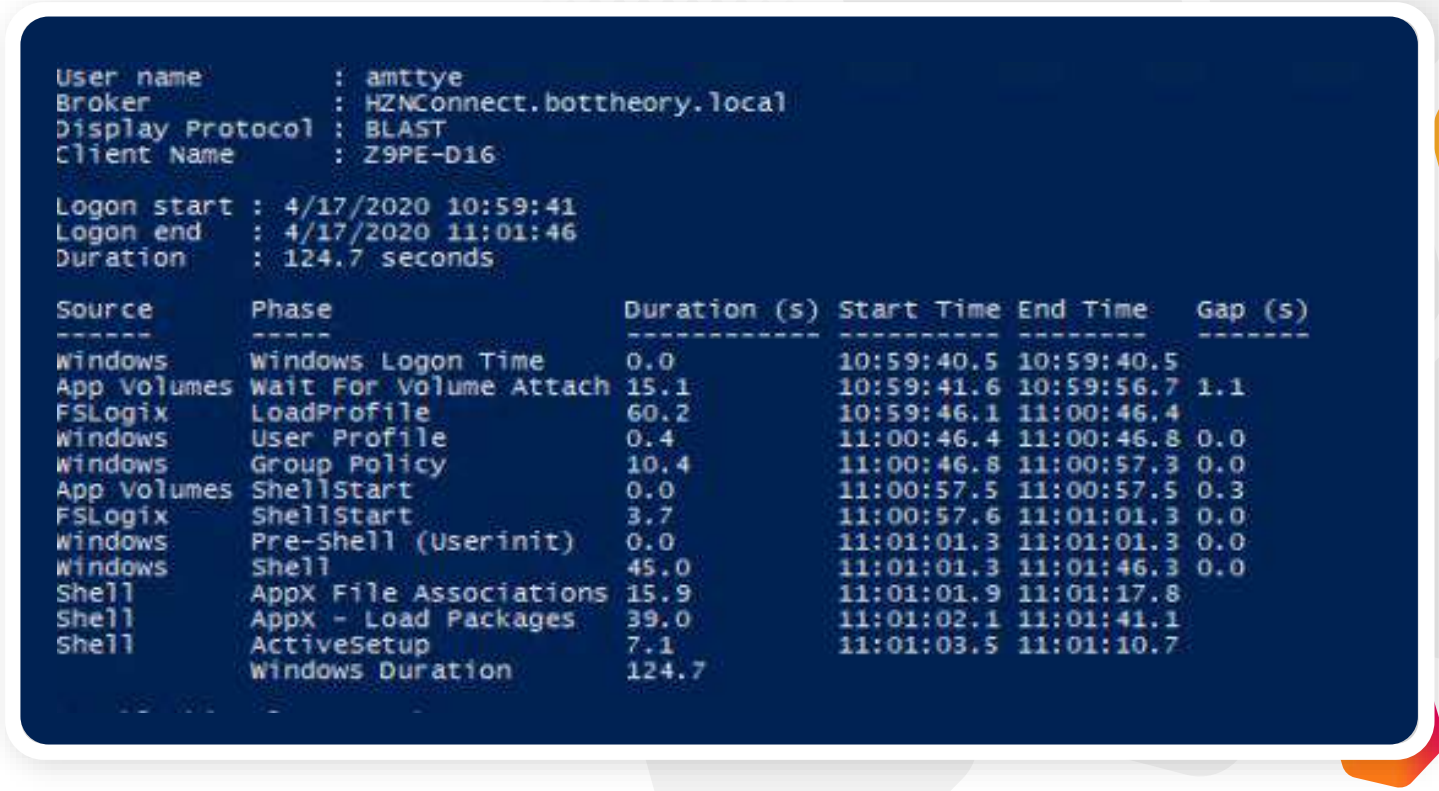
Analyzing VMware Horizon Logons

ControlUp also provides deep analyses for logon durations from technologies outside of the windows environment.

VMware Dynamic Environment Manager

VMware AppVolumes

VMware Horizon Client



```
User name         : amttye
Broker            : HZNConnect.bottheory.local
Display Protocol  : BLAST
Client Name       : Z9PE-D16

Logon start : 4/17/2020 10:59:41
Logon end   : 4/17/2020 11:01:46
Duration    : 124.7 seconds

Source      Phase                  Duration (s) Start Time End Time   Gap (s)
------      -----                  ------------ ---------- --------   -------
Windows     Windows Logon Time     0.0          10:59:40.5 10:59:40.5
App Volumes Wait For Volume Attach 15.1         10:59:41.6 10:59:56.7 1.1
FSLogix     LoadProfile            60.2         10:59:46.1 11:00:46.4
Windows     User Profile           0.4          11:00:46.4 11:00:46.8 0.0
Windows     Group Policy           10.4         11:00:46.8 11:00:57.3 0.0
App Volumes ShellStart             0.0          11:00:57.5 11:00:57.5 0.3
FSLogix     ShellStart             3.7          11:00:57.6 11:01:01.3 0.0
Windows     Pre-Shell (Userinit)   0.0          11:01:01.3 11:01:01.3 0.0
Windows     Shell                  45.0         11:01:01.3 11:01:46.3 0.0
Shell       AppX File Associations 15.9         11:01:01.9 11:01:17.8
Shell       AppX - Load Packages   39.0         11:01:02.1 11:01:41.1
Shell       ActiveSetup            7.1          11:01:03.5 11:01:10.7
            Windows Duration       124.7
```

Conclusion

ControlUp solves the topmost reported problems when supporting virtual applications and desktops. It also helps remediate troublesome work-from-anywhere issues so that your users can stay happy and productive.

Here's a recap of the Top 5 virtual application and desktop issues that we covered in this eBook.

- Slow logons in EUC environments
- Application performance issues
- Work from home issues
- Unified communications issues
- Slow virtual sessions

See it for yourself by either scheduling a demo or downloading the free trial to see how ControlUp solves these issues in your environment.

Schedule a Demo **Download Free Trial**