

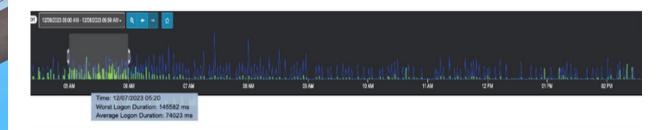
Success Story: Healthcare organization facing long VDI logon times for medical-staff members

Background

Large Not-for-profit healthcare organization located in the United States.

Challenges/Needs

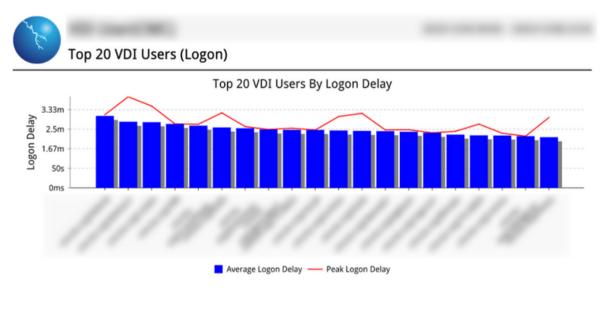
Mission-critical medical staff using VDI were experiencing long login times everyday in the morning, especially during the peak hour for logins around 7 am to 8 am.



Uila Observations & Recommendations

Logon Issues

Using Uila, the IT team was able to identify the top 20 users experiencing the longest logon times





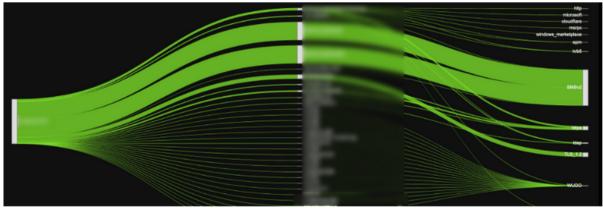
VDI clients go through multiple steps as part of a typical logon process. It was observed that the longest delay for the VDI users in this case was the Windows Shell Load time as shown below. The shell load time is the time it takes for the Window shell to load, i.e. Explorer. Shell load time starts when Logon Monitor receives a notification from Windows when shell load is starting. It ends when the taskbar window is created.



G Lõu KA	0.0 C 11124 I	28 NA (97	3		Dec 7, 2025 5:51 AM	r
Legen Duration BLAST GPU Process Alarms Dependent Services Convensation Network	CPU Memory Storage User Experience Log Analysis					
Lagon Time	12/07/2023 05:50 AM					
Legen Duration	\$43117 ms					
Broker Dutation	944 ma					
Agent prepare Duration	812 ma					
Protocol Startup Duration	812 ma					
Authentication Startup Duration Slide Show	NA					
Agent Duration Stildle Show	142173 ma					_
Client Connect Weit Duration	21971 ms					
Client Logon Duration	120201 ma					_
user0P0	10725 ma					
userhafie	46 ma					
NiveLoad	NA					
thelload	61634 ma			_		
00wr	47177 ma					_
App Launch Duration	NA					

Profile Server Issues

The Profile Servers are heavily involved with Shell load time during login as shown below.

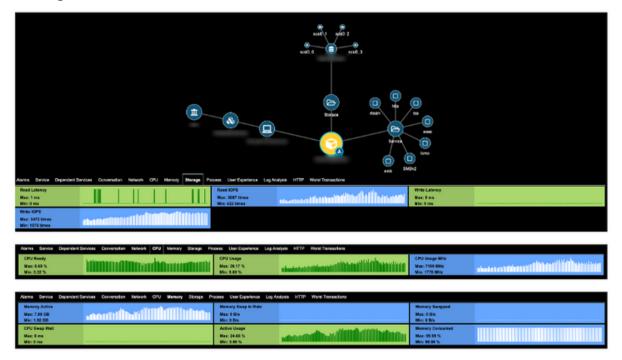




It is observed that the Profile Servers are not performing at its optimum level for all SMB (file share) requests. Most of the time, they seem to be ok, but at times the performance is below expectation when talking to both the VDI desktops. As shown in the image below, there are many SMB file sharing transactions observed that are taking longer than expected.

	O Flar	O Filter	O Flor	0 mm	0 Filer			
Application Response C Time	cters 0	Server	O Service O	Request 0	Reply C		Time	
9678			SM8v2	30207_amb2 create	172.20.3.32445	Dec 12,	2023 5 36 /	ψ.
9850			5448+2	47466:smb2 close	445camb2 read	Dec 12,	2023 5.52 /	AMP.
9734			5M0v2	62658:smb2 query Info	443:smb2 doe	Oec 12,	2023 5.47.	AM.
9683			5M8v2	22439 smb2 close	172.20.3.321445	Dec 12,	2023 5.53 /	-
9630			5M8v2	19753 .smb2 close	172.20.3.321445	Owc 12,	2023 5:24 /	AM.
9595			5M8v2	172.16.240.237/6788	172.20.3.321445	Dec 12,	2023 5:38 /	AM
9504			5M0v2	172.16.240.177100202	172.20.3.32448	Oec 12,	2023 5:29 /	AM
9497			\$40+2	39200_sm62 dose	443:smb2 loc8	Oec 12.	2023 5:02 /	AM.
9373			5440+2	22437:amb2 create	445:amb2 create	Owc 12,	2023 5:32 /	AM.
9329			540-2	62658:smb2 close	445:smb2 does	Owc 12,	2023 5:31 /	AM.

Also, after reviewing the resources of the Profile servers on the infrastructure side, it was observed that the Profile Server does not seem to suffer from any resource bottlenecks on the CPU, Memory or Storage side.



Recommendation

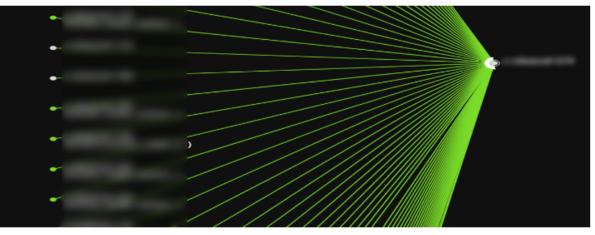
As there are no infrastructure issues, it is recommended that the IT team should look into other issues that could cause the Profile Server to be slow, like drive mapping, file sharing, printer, etc.



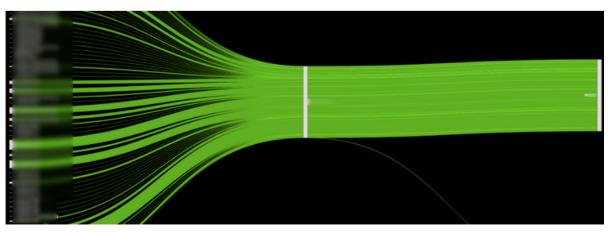
Even though 99% of the SMB transactions are executed at optimal performance, but there are a few transactions that are slow and may have a direct impact on the logon time.

Windows Update Issues

It is observed that WUDO (Windows Update) and the swarm protocol is enabled on all the VDI desktops as shown below. You can observe the Windows Update is one of the top traffic generators in the environment. All the VDI desktops are trying to update and download using bittorrent (swarm) making everything slow. It was observed that the Virtual Desktop Windows is constantly exchanging messages with a few dozen other desktops for Windows Updates.



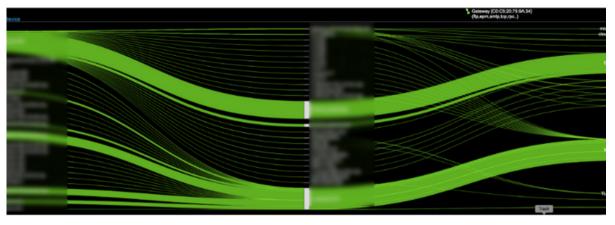
Also, the WUDO (Windows Update Distribution Optimization) traffic is constant and the traffic volume is significant.



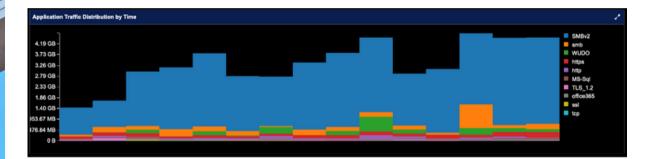
WUDO generates as much traffic and activities as profile servers. This WUDO behavior competes against profile server operations. See figure on the next page.

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While evaluating all your Desktop traffic, the WUDO traffic ranked among the highest, second only to SMBv2 (Profile Servers).



Recommendation

Uila recommended that the IT team should disable windows update (wudo) service to improve the performance of the logon durations for their VDI users.

Uila Benefits

Uila's recommended changes on the profile server and windows updates helped the organization overcome the long VDI logon challenges faced by the mission critical medical staff. Turning off the Windows Update was especially impactful. The VDI Logon time dramatically improved from the usual average multi-minute scale to much less than a minute in the worst case.

All of this was done without making any comprehensive infrastructure resource investment.