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Microsoft Intune Autopilot Deployment & implementation

Time logs 11/4/2024 to 11/10/2024

17.25 hours accumulated in this period

Date	Duration	Type	Description of completed work	Challenges and/or Next steps
11/4/24	1.25 hours	Meeting with supervisor	The meeting focused on discussing the project's progress, particularly addressing several critical troubleshooting issues, such as storage, performance, and efficiency of the virtual machine. While I was able to resolve the storage issue, I noticed that the VM was still running very slowly. To move forward, I opted to use a device with sufficient storage capacity.	Challenge: Improving the virtual machine's performance, particularly in terms of storage capacity, speed, and efficiency. Access to a device with greater processing power and additional RAM would significantly boost the VM's speed and responsiveness. Furthermore, fine-tuning the VM settings and using SSD storage rather than an HDD could further enhance its overall performance.
11/6/2024	4 hours	Implementation	• Create an additional virtual machine • Reset the virtual machine directly from PC and Hyper-V manager • Fix troubleshooting resources allocations • Complete new virtual hard drive wizard to drive storage issue • Directly uploading the hardware hash to an MDM service using Windows PowerShell scripts: PowerShell.exe -ExecutionPolicy Bypass Install-Script -Name Get-WindowsAutopilotInfo -Force Set-ExecutionPolicy -Scope Process -ExecutionPolicy RemoteSigned Get-WindowsAutopilotInfo -Online	
11/7/24	3.5 hours	Demonstration, implementation	• Captured a live demonstration of the virtual machine setup and installation process. • Captured a live demonstration of using Windows PowerShell to directly upload the hardware hash to an MDM service via scripts. • Created a third virtual machine because the second one was running too slowly, impacting the project timeline. • Short meeting with supervisor	
11/8/24	2.5 hours	Research	• How to update from Microsoft windows 11 home to pro for free. (Because Hyper-V manager does not run on Windows Pro) • How to use the Command Prompt to recover your Windows Product Key. • Read “Windows Autopilot Reset”	

11/9/24	1hours	Demo prep	Prepare the second demo recording prepare a 2–5-minute video • Diagrams, including changes since initial draft • Prototype showing initial implementation of your design ideas • Updates to your Project Management Board since the beginning of the semester • Updates to your Version Control Repository since the beginning of the semester • Time Logs - one time log document per individual, showing accumulated project activities from the beginning of the semester	
11/9/24	3.5hours	Research, Troubleshooting	• Enable TMP which stands for Trusted Platform Module. This is a special purpose microprocessor which provides cryptography services to a compute platform. • Manage BitLocker on the VM. It warns that using disk encryption software other than BitLocker or Windows device encryption might prevent Windows from starting after encryption. If this happens, a full Windows reinstall may be necessary, resulting in data loss. • Autopilot reset the virtual machines on Microsoft Intune and watches the behavior behind the scenes. • Check for possible Windows Updates • Record 2nd demo	Challenges: Some difficulties arose when performing an Autopilot reset, as one of the devices failed unexpectedly, and I am currently investigating the cause. Additionally, managing BitLocker drive encryption has proven challenging due to various troubleshooting issues.
11/10/24	1.5 hours	Documentation	Write out reflection, time logs on the time spent on the project this period, commit to GitHub repository, and update board management	**Next:** - Troubleshooting BitLocker encryption - autopilot reset failure - Add an Enterprise App Catalog app to Microsoft Intune - Prepare Win32 app content for upload.

Reflection

What were your main goals in this period?

The primary goals during this period were to progress with the deployment and configuration of Microsoft Intune Autopilot, optimize virtual machine performance, and prepare for the second demo recording. This included tasks such as creating additional virtual machines, resetting them when necessary, troubleshooting storage issues, and using PowerShell scripts to automate the upload of hardware hashes. Additionally, I focused on preparing demo recordings, updating project documentation, and refining diagrams and prototypes to reflect the latest progress.

What were the main challenges during this phase? Were you able to meet the challenge, if so, what helped? It not, what could help?

One of the significant challenges was dealing with the Autopilot reset process. One device failed unexpectedly during the reset, and I am currently investigating the root cause of the issue. Additionally, managing BitLocker drive encryption posed difficulties, particularly when it came to troubleshooting conflicts with other disk encryption software, which could potentially result in system boot failures. To overcome these challenges, research into troubleshooting techniques and leveraging Windows documentation helped resolve some issues. However, better hardware with increased processing power and dedicated support for TPM could streamline the encryption and reset processes. Further, more thorough testing and optimization of PowerShell scripts might help in reducing errors during device configuration.