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Topic: Application Packaging

Pre-req	Topic	Outcome	Number of Days	Lab Requirement	Lab Session Details	Level
Basic CMD commands,Software Basic knowledge	**Application Packaging**	Device Drivers - Handling with in MSI, Related files and locations and examining logs for successful instalation of Drivers.	Day 1	VM with 16 GB	Windows Directories,extension for Drivers	L2
		Identifying Kernel Drivers. Handling Kernel Drivers within MSI.	Day 1		Driver package audio ,VLC	L2
		Handling Services and Printers in MSI	Day 1	Admin Studio Installed on VM	Windows Services commandline	L2
		Addins : Excel, Powerpoint And word addins. COM Addins. Load Behaviour value.	Day 1	MS-Office installed on VM	Architecture,ARP entries,Debug	L2
		Difference between User, Admin, and System Context.	Day 1		Installtion,repair of Software	L2
		Logon Scripts to populate User Profile Data	Day 1		Win OS logon script and policies	L2
		Active Setup Versioning to ensure it runs each Time during a fresh install.	Day 1		User context copying profile	L2
		Windows 10 Vs Win 11 basics relevant to App Pack to be discussed	Day 1			L2
		Handling Scheduled Tasks and its use cases.	Day 1	Win zip,Irfan view,Chrome ,SAP source Setup	Practicals on 5 softwares	L3
		User Prompts for Various Use Cases. (Reboot Prompts, Close Open Apps and etc.)	Day 2		Supreess Reboot and UI prompts	L2
		Using Windows Tools for Debugging: LogonSessions,Autologon,Process Explorer ,Psexec,PSTools,RegMon,Whois,SysMon	Day 2			L2

		Vulnerability applications clean up from a lockdown environment. Remove Bulk versions of apps via scripts.	Day 2		Automated scripts for Junk cleaning	L3
		Complex applications : Office 365, SAP	Day 2		Repackage of Admin studio real demo	L3
		Task Sequence to install multiple Appication in a sequence with multple reboots.	Day 2		OSD ,App deployment demo as available/req	L3
		Log Files, Event Viewer for troubleshooting MSI errors.	Day 2		ICE errors and Troubleshooting	L2
		Intune Free trial Subscription - How to enrol	Day 2	5 Free IOS application	Creation of Intune subscribtion	L2
		Walkthrough over Intune Applications (Windows)	Day 2	Skype,VLC,winzip IPA files copied on VM	Licenses,portal and interdepandence with Office 365	L2
Windows ,IOS and Android basic OS knowledge,cloud console basic	Intune Application Packagin	LOB and Win32 Apps	Day 2	Source of Content prep tool to copy on VM	Conversion using intunewin	L2
		Intunewin conversion - Compatible version to upload to Intune	Day 2	5 Free APK files on VM	IOS/Android/Windows 3 application Conversion	L2
		Interactive and Non-Interactive Applications	Day 3		Commadline and reboot supression	L2
		Required and Available App assignments	Day 3	Internet Enabled on VM	Creation of assignemnt group and admin users	L2
		Groups, Dynamic queries, Users	Day 3		User mapping and isolation in assignment groups	L3
		Process Flow for an Application on Windows client via IME service. (From Polling to detection, to installation , to detection and toast notifications as success/failure)	Day 3		Different codes and inclusing Powershell scripts	L3

		Registries with respect to LOB and Win32Apps	Day 3		Regedit refrences and changes	L2
		Specific Registries with Application GUID which give you the status of Installation/Uninstallation.	Day 3		Upgrade ,major and minor versions	L2
		Log File locations	Day 3		Debugging and troubleshooting using Logs	L2
		Company Portal	Day 3		Registering Devices in intune portal methods	L2
		How to Sync once app assignments are done. (Intune Device Sync/ Company Portal Local side Sync)	Day 3		Policy and rules for wi fi and app installtion	L2
		Breakdown of events in log files.	Day 3		Event logs,error codes and debugging	L3
		Introducing to Cmdlets	Day 3			L2
		The PowerShell Pipeline	Day 4			L2 & L3
		Key Cmdlets	Day 4			L2
		WMI & PowerShell	Day 4			L2 & L3
Cmdlets Commands basic	PowerShell Advanced Briefing	Pipeline Filtering & Operators	Day 4		Hands on Function,Wmi quesries,objects and arrays	L2 & L3
		Input, Output & Formatting	Day 4			L2 & L3
		Scripting Overview	Day 4			L2 & L3
		Objects, Arrays, Variables	Day 4			L2 & L3
		Scope	Day 4			L2 & L3
		More Operators	Day 4			L2 & L3
		Scripting Constructs	Day 4			L2 & L3
		Modularization	Day 5			L2 & L3

Basic Powershell Cmdlets	**PowerShell App Deploy Toolkit**	Understand basic platform value, concepts and usage	Day 5			L2
	Introduction	Overview of the Tool	Day 5	Source of powershell app deploy Toolkit Copied on VM	PSADT 8.3 version installtion,execution,deployment methods,installtion of exe and msi,cheatsheets use,shrotcuts,logo change,writing files,uninstallation and integration with intune	L2
		Folder Structure	Day 5			L2
		Tool Configuration	Day 5			L2
		Template Script	Day 5			L2
		Predefined Environment Variables defined within Script and its usage	Day 5			L2
		Commands for Installation/Uninstallation	Day 5			L2
	Day to Day Activities	Execute-MSI - Installation and Uninstallation	Day 5			L2 & L3
		Execute-Process	Day 5			L2 & L3
		Execute-MSP	Day 6			L2 & L3
		Install-MS Updates	Day 6			L2 & L3
		Create Active Setup	Day 6			L2 & L3
		Copy/Delete/Move File and Folders	Day 6			L2 & L3
		Get-Registry Key	Day 6			L2 & L3
		Create/Delete/Modify Registries	Day 6			L2 & L3
		Start/Stop Services	Day 6			L2 & L3
		Process check and Delete	Day 6			L2 & L3
		Loop based scipting operations	Day 6			L2 & L3
		Set-Ini Value	Day 6			L2 & L3
	Logging	Toolkit Logging location and how its configured	Day 6			L2 & L3
		MSI/MSP Logging	Day 6			L2 & L3
		Invidia Command logging within Script	Day 6			L2 & L3

		How to catch return Codes with in PowerShell.	Day 6			L2 & L3
	UI Prompts	Show-Installation Prompt	Day 6			L2 & L3
		Show-InstallationWelcome	Day 7			L2 & L3
		Show-InstallationProgress	Day 7			L2 & L3
		Show-DialogBox	Day 7			L2 & L3
		Show-Baloontip	Day 7			L2 & L3
		Get-Pending Reboot	Day 7			L2 & L3
		REBOOT Prompts	Day 7			L2 & L3
MSI and Windows Essentials Basic	**MSIX**	MSIX Technology Fundamentals with Architecture	Day 7		Certificate publisher,whitelisting app,creation of MSIX conversion,error debugging,	L2 & L3
		MSIX Benefits and Why MSIX?	Day 7			L2 & L3
		Current Limitations	Day 7			L2 & L3
		Microsoft MSIX Packaging Tool and other editor	Day 7			L2 & L3
		MSI to MSIX Feasibility Analysis	Day 7			L2 & L3
		Creation of Packages	Day 7			L2 & L3
		Editing\ Updating existing package	Day 7			L2 & L3
		Standard Rules and Regulations for Creating/Adding Package information Fields	Day 7			L2 & L3
		Handing Application Updates	Day 8			L2 & L3
		User Settings along with Data Associated within the Packages	Day 8			L2 & L3
		Digital Signing requirement and Implementation	Day 8			L2 & L3
		Certificate renewal or update	Day 8			L2 & L3
		Package Support Framework (PSF)	Day 8			L2 & L3
		Handling of the output files when its extracted with relevant operations performed to fix the package / scripting	Day 8			L2 & L3

		PowerShell and MSIX involved operations and troubleshooting	Day 8			L2 & L3
		Install location and Troubleshooting logs	Day 8			L2 & L3
		MSIX Package testing process & Troubleshooting	Day 8			L2 & L3
		Different way of Publishing & Troubleshooting	Day 8			L2 & L3
		Most used troubleshooting tools for MSIX Packages	Day 8			L2 & L3

Topic: Powershell App Toolkit

Topic	Outcome
PowerShell App Deploy Toolkit	Understand basic platform value, concepts and usage
Introduction	Overvew of the Tool
	Folder Structure
	Tool Configuration
	Template Script
	Predefined Environment Variables defined within Script and its usage
	Commands for Installation/Uninstalation
Day to Day Activities	Execute-MSI - Installation and Uninstallation
	Execute-Process
	Execute-MSP
	Install-MSUPdates
	Create Active Setup
	Copy/Delete/Move File and Folders
	Get-RegistryKey
	Create/Delete/Modify Registries
	Start/Stop Services
	Process check and Delete

	Set-Ini Value
Logging	Toolkit Logging location and how its configured
	MSI/MSP Logging
	Invidual Command logging within Script
	How to catch return Codes with in PowerShell.
UI Prompts	Show-InstallationPrompt
	Show-InstallationWelcome
	Show-InstallationProgress
	Show-DialogBox
	Show-Baloontip
	Get-Pending Reboot
	REBOOT Prompts

Topic: SCCM

Table of Contents	SCCM Administration L1 (Ver 1.1)
Performance Outcomes	Following are the outcomes post the training
	1. User will be able to gain good understanding of SCCM core concepts, features and functionality.
	2. User will be able to understand and explore the SCCM Site Architecture and install SCCM and its various components.
	3. User will be able to create and deploy software packages, manage client devices and troubleshoot common issues.
	4. User will be able to analyze log files and error message to diagnose problems.

Sr. No	Topics	Subtopics
1	Overview of Microsoft System Center Configuration Manager	New features on SCCM
		Benefits of Implementing Configuration Manager in an Organization
		Overview of the Configuration Manager Hierarchy and History.
		What Is a Central /Primary / Secondary Site?
		Configuration Manager Site System Roles/Changes
		How Data Flows and Replicates in a Hierarchy
		Monitoring Site and Component Status
		Managing Components by Using Configuration Manager Service Manager
		What Are Configuration Manager Log Files?
2	Planning and Deploying a Stand-Alone Primary Site	Planning a System Center Configuration Manager Stand-Alone Primary Site Deployment
		Extending the Active Directory Schema
		Installing a Configuration Manager Site Server
		What is Updates and Servicing, Service Connection Point, SCP Modes of operation
		SCP and telemetry data upload
		Performing Post-Setup Configuration Tasks /Verifying the Installation/Status Messages/Configuring Boundaries and Boundary Groups/Installing site System Roles
3	Managing computers devices in the enterprise	Overview of the Configuration Manager administrative tools

		Tools for monitoring and troubleshooting a Configuration Manager site.
		Introduction to queries and reports
		Brief introduction to PowerShell, Discovering CMDLETS, Help File, Get-member CMDLET.
		Using Windows PowerShell with Configuration Manager
		Using Configuration Manager Service Manager to manage components.
		Monitoring site and component status
		Reviewing log files by using the Configuration Manager Trace tool
		Discussion on WMI, WMI Explorer, Creating data queries, Query Builder
		Configuring a Reporting Services point
		Creating a report by using Report Builder, Report Subscriptions
4	Preparing the management infrastructure to support desktop devices.	Configuring site boundaries and boundary groups
		What Is Resource Discovery?
		Configuring resource discovery
		Overview of User and Device Collections
		Configuring user and device collections
5	Managing the Configuration Manager Client	Overview of the Configuration Manager Client /Supported Clients

		Deploying Configuration Manager Clients /Overview of the Client Installation Process
		Client Push/Software Update Point/Group Policy/Manual/Logon Script/Software Distribution
		Managing Client Agents
		Configuring and Monitoring Client Status
		Client Activity, Client Health
		Client Online Status
		Health attestation for System Centre Configuration Manager
		Client health on Trustworthy BIOS, TPM, and boot software configurations enabled.
		Managing Custom Client Settings
6	Managing inventory for PCs and applications.	Overview of Inventory Collection
		Configuring Hardware /software Inventory
		Discussion on WMI, WMI tools
		Deep dive into the inventory process
		Extending hardware inventory IDMIF vs NOIDMIF
		Modifying configuration.mof and creating custom WMI Classes
		Troubleshooting inventory
		Tracking Application using Software Metering
		Importing License to AI
7	Distributing and managing content used for deployments	Preparing the infrastructure for content management

		Push DP, Pull DP, Cloud DP, Installing a new distribution point.
		Distributing and managing content on distribution points, Logs
		Folders structure in a DP, Single Instance Library Benefit
		Prestaged content
		ConfigMgr Tool - Content Library Explorer
		On-Demand Content Distribution
		Distribution Point Groups
8	Maintaining software updates for managed PCs.	Overview of Software Updates /Prerequisites for the Software Updates Feature
		Synchronizing the Software Update Catalog Metadata
		Preparing the Configuration Manager Site for Software Updates
		Managing Software Updates, Creating Software Update Groups and Deployment Packages
		Sort, filter, or search the All-Software Updates list.
		WSUS clean-up task, Office 365 Updates option and synchronization, Multiple ADR deployment
		Software Updates Reports, Monitoring and Troubleshooting Software Updates
9	Implementing Endpoint Protection for managed PCs.	Overview of Endpoint Protection in Configuration Manager
		Prerequisites for the Endpoint Protection Feature

			Configuring and Monitoring Endpoint Protection Policies
			Client Settings for Endpoint Protection
			Automate Endpoint protection deployment for updates.
10	Managing compliance and secure data access.		Managing configuration items and baselines
			Viewing compliance settings and reports
			Configuring remediation in compliance settings
			Using compliance information to create collections.
11	Managing and maintaining a Configuration Manager site.		Configuring role-based administration
			Configuring remote tools
			Overview of Configuration Manager site maintenance
			Performing backup and recovery of a Configuration Manager site

Topic: Nexthink

Ref Material:

1: https://learn.nexthink.com/learn/learning-path/nexthink-infinity-fundamentals

Path à Login to Nexthink Community Portal à Learn à Nexthink learn à Nexthink Infinity Fundamentals

Learning Hours: 1 Hour

Section 2: Nexthink Content Management

Ref Material:

1: https://learn.nexthink.com/learn/learning-path/nexthink-content-management

Path à Login to Nexthink Community Portal à Learn à Nexthink learn à Nexthink Content Management

Learning Hours: 7.5 Hours

Section 3: Troubleshooting with Nexthink

Ref Material:

1: https://learn.nexthink.com/learn/learning-path/troubleshooting-with-nexthink

Path à Login to Nexthink Community Portal à Learn à Nexthink learn à Troubleshooting with Nexthink

Learning Hours: 5 Hours

Topic: EMM

1	Introduction to Microsoft Endpoint Manager	· What is Microsoft Endpoint Manager?
		· Understand Microsoft Intune
		· Understand Microsoft Endpoint Configuration Manager
		· Learn about Cloud Attach
		· Understand Desktop Analytics
		· Learn about Endpoint analytics
		· Understand Windows Autopilot
2	Protect your endpoint environment with Microsoft Endpoint Manager	· Learn about managing and protecting devices
		· Learn about managing and protecting apps
		· Learn about managing and protecting your organization's data
		· Understand the endpoint environment
		· Understand platform considerations
3	Understand device management using Microsoft Endpoint Manager	· Understand provisioning
		· Learn about enrolling devices
		· Understand device configuration
		· Explore how to protect devices
		· Learn about retiring devices
		· Understand device enrollment methods

4	Understand app management using Microsoft Endpoint Manager	· Understand the app management lifecycle
		· Learn about configuring apps
		· Understand how to protect apps
		· Learn about protected apps
		· Understand how to apply the data protection framework
5	Understand Conditional Access policies using Microsoft Endpoint Manager	· Learn about policy management based on groups
		· Understand Conditional Access
		· Learn about using Conditional Access
		· Understand the benefits of Conditional Access
		· Learn about implementing security rules
6	Analyze and resolve compliance issues using Microsoft Endpoint Manager	· Learn about Intune tenant status
		· Review Intune service health
		· Understand the Troubleshooting + support workload
		· Learn about Intune reports
		· Understand endpoint analytics
		· Review connector status
		· Understand client health with co-management
7	Benefits of Microsoft Endpoint Manager	· Learn about endpoint security
		· Learn about unified endpoint management
		· Review protecting data without enrollment
		· Understand methods to increase user productivity
		· Learn about the benefits of co-management
		· Maximize your return on investment