SCCM in IT Infrastructure

What is **SCCM** – System Center Configuration Manager, is a Microsoft tool used for managing large groups of computers running Windows, macOS, and various other operating systems. It is part of the Microsoft System Center suite and provides a range of functionalities for system administration.

* Software Development – automate the deployment of applications and updates across devices.
* Path Management – Manages and deploys updates and patches to keep systems secure and up-to-date.
* Asset Management – Helps track hardware and software inventory, enabling administrators to manage resources effectively.
* Compliance Settings – Monitors and enforces compliance with security policies and configurations.
* Operating System Deployment – Facilities the installation and configuration of operating systems on multiple devices.
* Remote control – Provides tools for remote troubleshooting and support.
* Reporting – Offers robust reporting features to analyze system performance and compliance.

Pre-requisite in a production Environment: Hierarchy of Sites of 3 Types

1. Stand-alone Primary Site – with associated Client Computers, a primary site that’s suitable for smaller deployments but can be expanded at a later time. A stand-alone primary site has all of the System Center Configuration Manager Components (SCCM) installed on one site. A diagram of a row of laptops

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2. A Secondary-site – it requires SQL Server express or SQL Server database for the storage of Configuration Manager data. It can support 15,000 desktops. It must be installed from the CM Console. It does not require an administrator because admin functions are controlled at the Central Administration site or primary site. A screenshot of a computer

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Benefits of using Stand-alone site – applies with the other two.

* SQL Replication traffic reduced
* Limited Bandwidth
* If more than 500 clients

Problems using a Secondary Site

* Slow database replication
* Use Management Point or Distribution Point site service roles.

A diagram of several laptops

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3. Central Administration Site (CAS) – is a top Level of the hierarchy. Users or Devices not supported and more than one Primary Site required. A diagram of a computer network

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Benefits of using Central Administration site:

* Large Scale Deployments
* Supports 25 primary sites
* Provides a central point of administration that can support devices that are distributed across the globe.

Reasons not to use a CAS:

* Complex hierarchies are very slow. For example, the amount of time that applications take to reach the client at the bottom of the hierarchy can be extremely long.
* For best performance, it is recommended to keep your SQL database on your primary SCCM Server.

Here is the recommend Site Hardware with SQL Database on the Same Server: A table with numbers and text

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Software: Here’s a list of software that you will need:

* Windows Server 2016 or 2019
* SQL Server with the appropriate update or SQL Server 2017
* SSRS SQL Server Reporting Services
* ADK, SCCM with EP Software version 1902 or later
* Windows PE