

## Fundamentals of sites and hierarchies for Configuration Manager

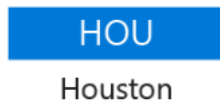
- A Configuration Manager deployment must be installed in an **Active Directory domain**. The foundation of this deployment includes **one or more Configuration Manager sites** that form a hierarchy of sites.
- Microsoft Configuration Manager (part of Microsoft Intune and formerly SCCM) **helps** IT administrators manage large groups of Windows-based computers. It provides tools for software deployment, update management, OS deployment, inventory, and more.
- **SCCM (System Center Configuration Manager)**: It is a **Microsoft tool** used by IT administrators to manage computers, applications, and updates across an organization. SCCM helps companies install software, apply updates, and manage systems on hundreds or thousands of computers — all from one central place.

### Hierarchies of sites

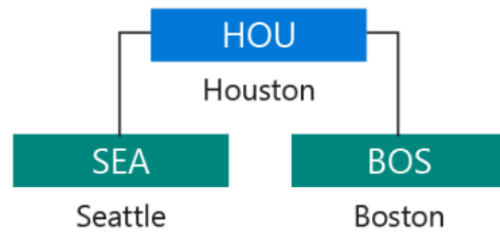
The Configuration Manager site is the **foundation** from which you will manage devices and users in your enterprise. This first site must be either a **central administration** site or a **stand-alone primary** site.

- **Central Administration Site (CAS)**: A **central administration site** is suitable for **large-scale deployments**, provides a **central point of administration**, and provides the **flexibility** to support devices that are distributed across a global network infrastructure, but does not directly manage devices. For that you must **install child-primary sites** under it to manage devices.
- **Stand-Alone Primary Site**: A stand-alone primary site is suitable for **smaller deployments** and can directly manage devices without requiring additional sites. Although it has **limitations** in terms of **deployment size**, **it supports future scalability**. You can later expand it by installing a central administration site above it, at which point the stand-alone site becomes a child-primary site. Additional child-primary sites can then be added under the central administration site to support the growing needs of the enterprise.
- **Secondary Site**: A secondary site can only be installed as a **child site under a primary site** and is used to extend the primary site's reach to remote locations with slow network connections. Although the secondary site **supports** local data transfer by compressing and managing the flow of information between the client and site, the **primary site still manages all clients**. Secondary sites help **reduce** network load and improve deployment performance in geographically distant or bandwidth-limited areas.

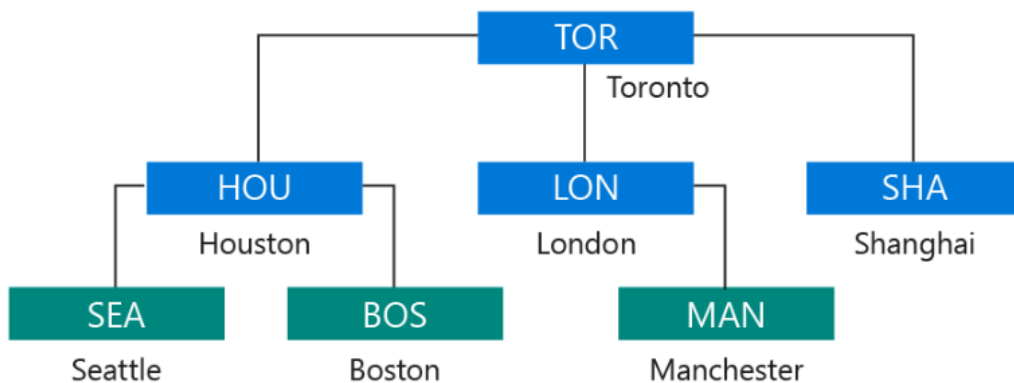
Example: Stand-alone site



Example hierarchy: Primary site with secondary sites



Example hierarchy: Central administration site with primary sites and secondary sites



#### Site System Servers and Site System Roles:

- Each Configuration Manager site includes default site system roles such as the **site server role** (assigned to the computer where the site is installed) and the **site database server role** (assigned to the SQL Server hosting the site database).
- Additional site system roles are optional and only required when their specific functionality is needed.
- Any computer hosting one or more of these roles is called a **site system server**.
- In small deployments, all roles may run on a single server, but as the environment grows, roles can be distributed to other site system servers to improve performance and scalability.