



# Parallels Mac Management for Microsoft SCCM

Deployment Guide

v5.0 Update 1

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# CHAPTER 1

## Introduction

The guide is for network and Microsoft System Center Configuration Manager (SCCM) administrators who are planning to deploy Parallels Mac Management for SCCM in their organization. This guide assumes that the reader has knowledge of SCCM, its architecture, and its components.

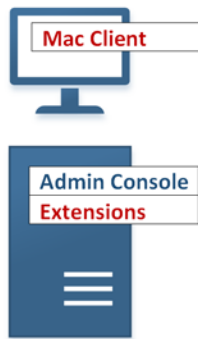
The guide does not cover topics related to user rights and other system requirements. This information can be found in the Parallels Mac Management for SCCM Administrator's Guide [http://download.pmm.parallels.com/v3.5/ga/docs/en\\_US/Parallels-Mac-Management-for-SCCM-2012-Administrators-Guide.pdf](http://download.pmm.parallels.com/v3.5/ga/docs/en_US/Parallels-Mac-Management-for-SCCM-2012-Administrators-Guide.pdf).

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## Glossary

SMS	System Management Server (the core component of System Center Configuration Manager)
CAS	Central Administration Site
DP	SCCM Distribution Point
MP	SCCM Management Point
Admin Console	SCCM Administrative Console
WDS	Windows Deployment Services
BITS	Background Intelligent Transfer Service
Parallels Mac Management	Parallels Mac Management for SCCM
Proxy	Parallels Configuration Manager Proxy
Extensions	Parallels Configuration Manager Console Extensions
NetBoot	Parallels NetBoot Service
SUP	Parallels OS X Software Update Point
WSUS	Windows Server Update Services
Mac Client	Parallels Mac Client



Represents a Mac with Parallels Mac Client installed

Represents a Windows computer with SCCM and/or Parallels Mac Management components installed

## Solution Overview

Parallels Mac Management is a software plug-in that extends SCCM 2012 and 2012 R2 with the ability to fully manage Mac OS X systems. With Parallels Mac Management you can manage Mac and Windows computers using SCCM as your only management system.

## Components Overview

Parallels Mac Management consists of the following components:

**Parallels Configuration Manager Proxy:** A Windows service application that acts as a proxy between SCCM and Mac computers. The application must be installed on a computer running Windows Server 2008 SP2 or later.

**Parallels Configuration Manager Console Extensions:** A set of dynamic libraries that extend the Configuration Manager console to provide a graphical user interface enabling you to manage OS X computers. This component must be installed on the computer where the Configuration Manager console is installed.

**Parallels NetBoot Server:** NetBoot is a technology from Apple that enables Mac computers to boot from a network. You must install this component if you plan to deploy OS X images on Mac computers.

**Parallels OS X Software Update Point:** Allows you to manage Apple software updates (patches) for OS X using the native SCCM functionality. The component requires Windows Server Update Services (WSUS) and must be installed on the same server as WSUS.

**Parallels Mac Client:** A client application that enables communication between a Mac computer on which it is installed and Parallels Configuration Manager Proxy. The client inventories hardware and software installation information, enables the automated installation of software packages and security patches, and is used to apply compliance policies.

## CHAPTER 2

# Deployment Configurations

This chapter describes various Parallels Mac Management deployment configurations.

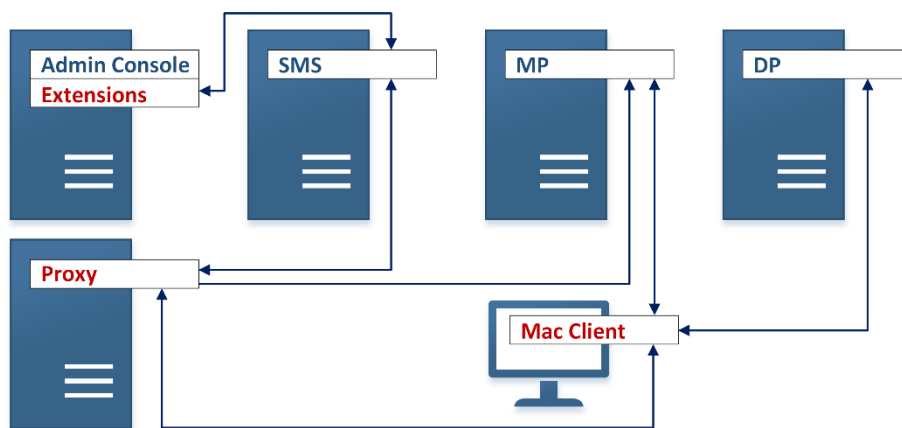
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## Deploying to a Standalone SCCM Site

The diagram below represents a standalone SCCM installation. The arrow lines represent communication channels between Parallels Mac Management and SCCM components.

Figure 1: Deployment to a standalone SCCM site



The above diagram shows each SCCM and Parallels Mac Management component installed on a separate computer. More often than not, your SCCM deployment will have several components that coexist on the same computer.

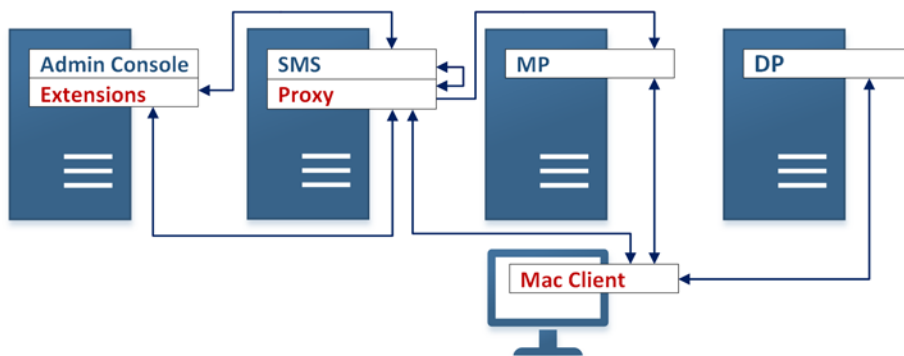
## Installing Parallels Console Extensions

A standalone SCCM site would have at least one computer with SCCM Administrative Console (Admin Console) installed. It could be installed on the same server that has the System Management Server (SMS) provider installed or on a separate computer. *You must install Parallels Mac Management Extensions (Extensions) on a computer that has the Admin Console installed.*

## Installing Parallels Configuration Manager Proxy

Parallels Configuration Manager Proxy (Proxy) can be installed on any computer that resides within SCCM site boundaries and can establish a connection to the server hosting the SMS provider. In Figure 1 (p. 6), Proxy is installed on a separate computer. In most cases, installing Proxy on a server that has the SMS provider installed (Figure 2 below) is recommended.

Figure 2: Proxy installed on the SMS server



## Deploying to a Primary Site with Secondary Sites

If a primary site in your SCCM installation has secondary sites, you may deploy Parallels Mac Management to the primary site or secondary sites.

### Deploying to a Primary Site

When deploying Parallels Mac Management to a primary site, follow the same procedure as described in **Deploying to a Standalone SCCM Site** (p. 6).

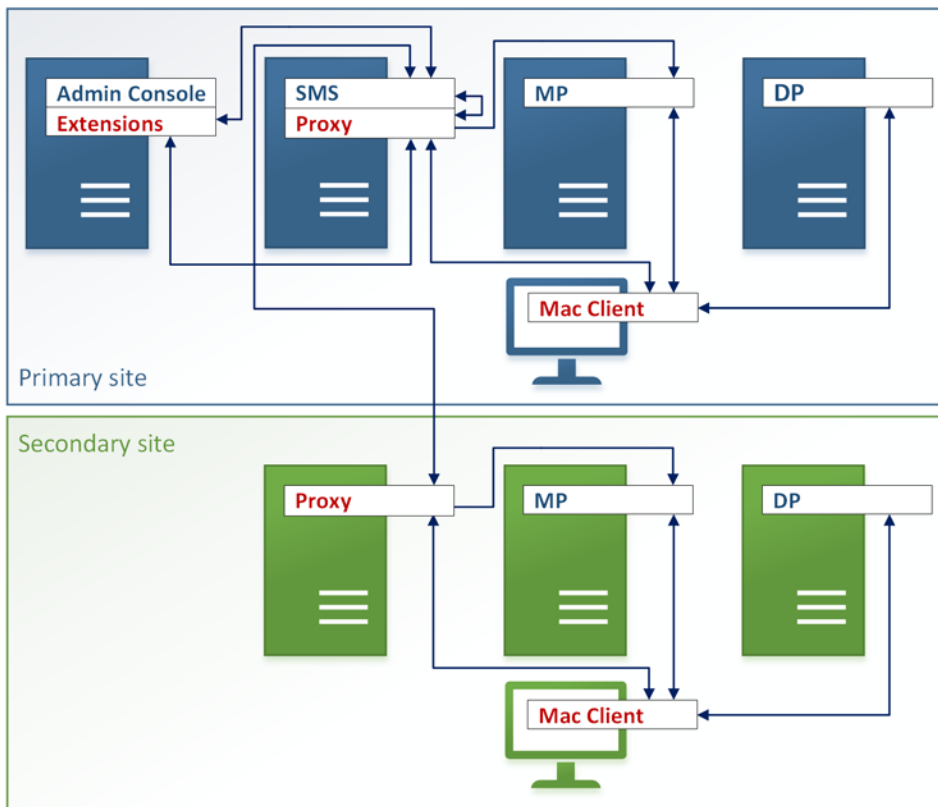
### Deploying to a Secondary Site

Proxy should be deployed to all secondary sites. *While this is not required, it is highly recommended.*

Deploying Proxy to all secondary sites has the following benefits:

- Allows more efficient use of bandwidth. If Proxy is not installed in a secondary site, Parallels Mac Clients (Mac Clients) in that site will have to communicate with Proxy in the primary site.
- Simplifies manual Mac Client enrollment. If Proxy is not installed in a secondary site and you try to manually enroll Mac Clients, you will have to use Active Directory (AD) credentials that have client enrollment privileges assigned in the primary site.

Figure 3: Secondary site with Parallels Configuration Manager Proxy installed



## Deploying to a Central Administration Site

The only additional step to perform when deploying Parallels Mac Management in a Central Administration Site (CAS) environment is to install Parallels Console Extensions on the computer hosting the CAS Configuration Manager Console. However, this step is optional.

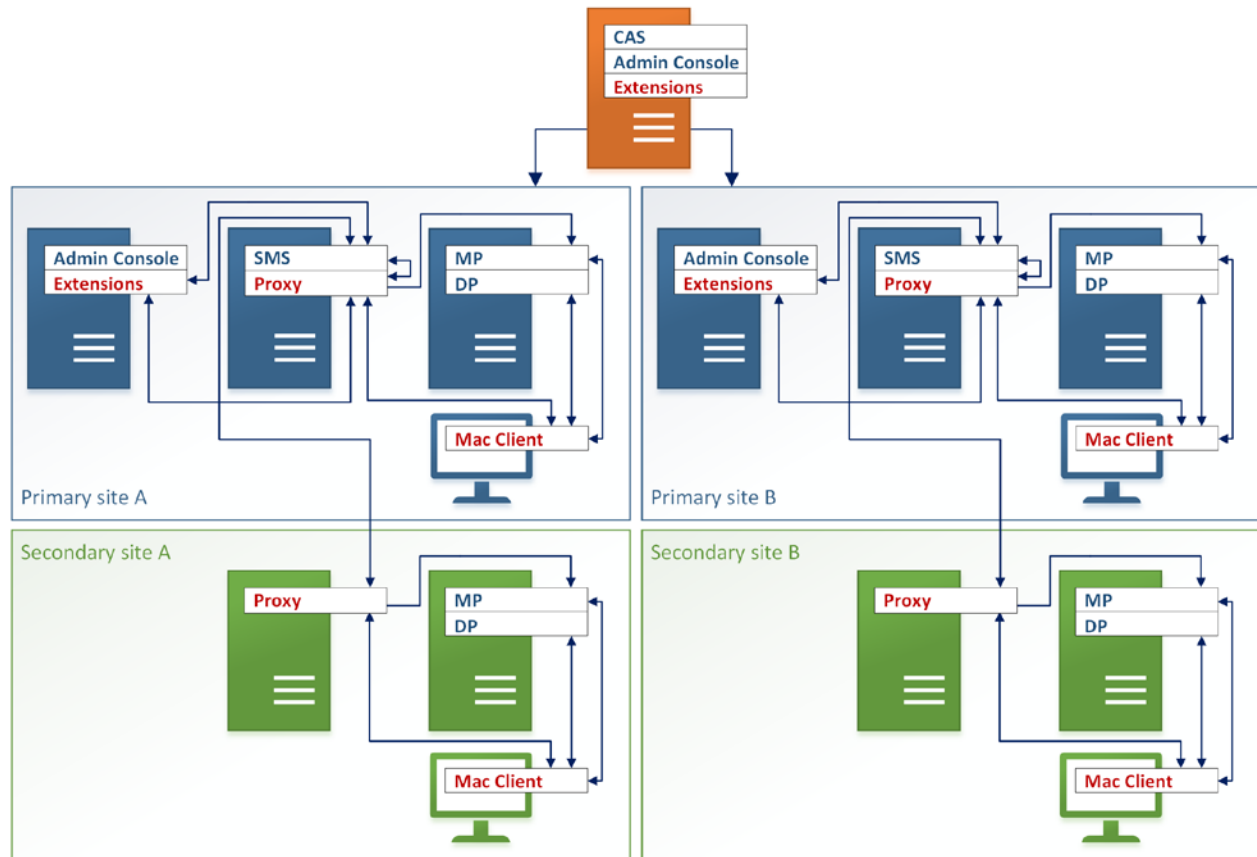
The following features are not supported by Parallels Console Extensions when Parallels Mac Management Extensions are installed on a CAS:

- Configuration of Parallels Network Discovery
- Retrieval of escrowed FileVault 2 personal keys



- OS X image deployment functionality

Figure 4: Deploying Parallels Mac Management in a CAS environment



## Deploying Parallels NetBoot Server

NetBoot is a technology from Apple that enables Mac computers to boot from a network. You must install this component if you plan to deploy OS X images on Mac computers.

The server on which Parallels NetBoot Server (NetBoot) will be installed must meet the following requirements:

- The SCCM Distribution Point (DP) role is installed on this server.
- Windows Deployment Service (WDS) is installed and running. If WDS and DHCP are both installed on this server, the "Do not listen on port 67" option must be selected in the WDS service properties.
- The server is a PXE service point.
- BITS 4.0 is installed.

Background Intelligent Transfer Service (BITS) transfers files (downloads or uploads) between a client and a server and provides progress information related to the transfers.

These requirements remain the same for any SCCM deployment configuration, whether it's a standalone, primary, or secondary site deployment.

Figure 5: Deploying NetBoot



## CHAPTER 3

# OS X Software Update Management

Parallels Mac Management for Microsoft SCCM allows you to manage OS X software updates (patches) using the native SCCM functionality. Using this functionality you can import the information about available OS X software updates into SCCM and then deploy the updates to Macs in your organization.

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## Required Components

### Windows Server Update Services (WSUS)

Windows Server Update Services (WSUS) must be installed and configured for local publishing of updates. Installation instructions are available at the following location:

<https://msdn.microsoft.com/en-us/library/bb902479>

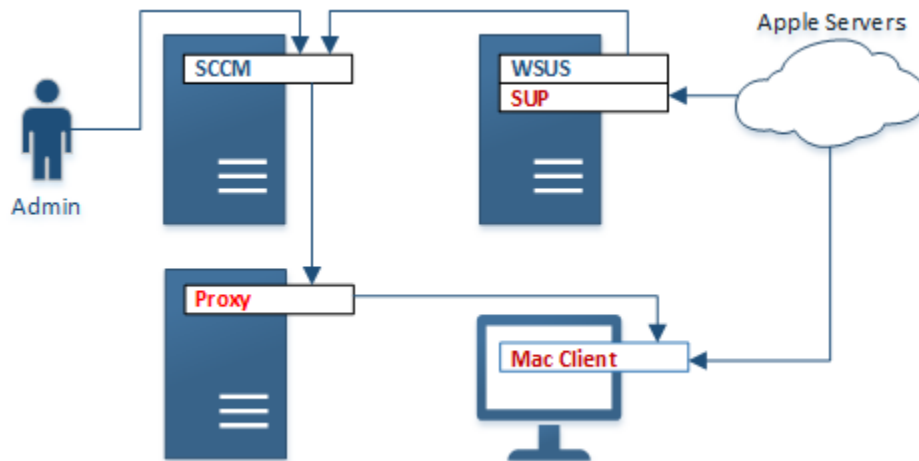
On the web page, refer to the "To set up the update server for locally-published content" section.

### Parallels OS X Software Update Point

This is a component of Parallels Mac Management that enables OS X patch management in SCCM. It must be installed on a computer where WSUS is installed.

## Download Updates From Apple's Servers

This is the default configuration. It is the simplest scenario in which OS X update catalogs and packages are downloaded from Apple's servers over the Internet.

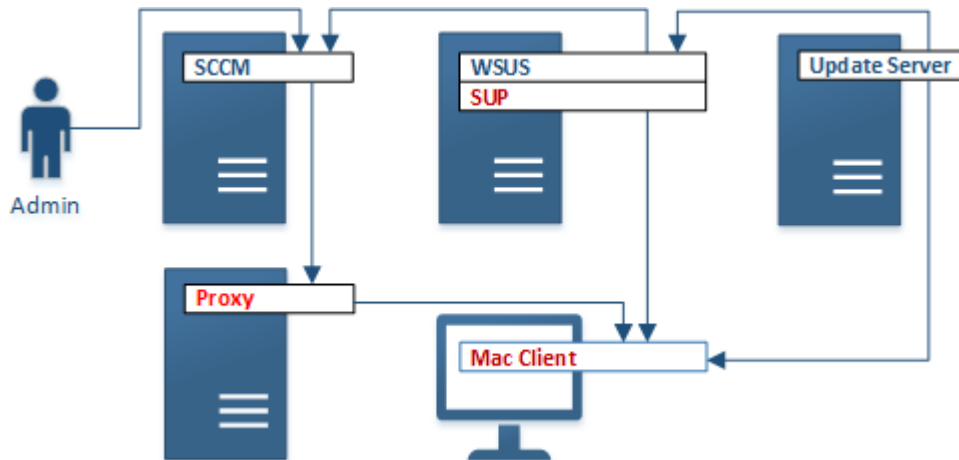


When this scenario is used, OS X updates are installed on Macs as follows:

- 1 Parallels OS X Software Update Point (SUP) downloads OS X update catalogs from Apple and imports them into WSUS.
- 2 WSUS is synchronized with SCCM.
- 3 The SCCM administrator deploys updates to Macs.
- 4 Macs download deployed updates from Apple's servers, after which the updates are silently installed on them.
- 5 A Mac user can check for updates using the standard OS X functionality and install any of the available updates.

## Download Updates From a Local Update Server

This configuration allows you to use a local update server to host OS X update catalogs and update packages.



When this scenario is used, OS X updates are installed on Macs as follows:

- 1 Parallels OS X Software Update Point (SUP) downloads OS X update catalogs from the local update server (Update Server) and imports them into WSUS.
- 2 WSUS is synchronized with SCCM.
- 3 The SCCM administrator deploys updates to Macs.
- 4 Macs download update catalogs from Parallels OS X Software Update Point and then download update packages from the local update server.
- 5 The deployed updates are silently installed on a Mac.
- 6 A Mac user can check for updates using the standard OS X functionality and install any of the available updates. Please note that the OS X Software Update service will use the update catalogs that were downloaded from Parallels OS X Software Update Point, not the Apple's servers. Update packages will also be downloaded from the local update server.

**Note:** To use this configuration, you need a local update server (Update Server). Parallels Mac Management does NOT include this functionality. You will have to use the Apple's OS X Server or a third-party software to act as a local update server.

## Restrict Which Updates a Mac User Can Install

This configuration allows you to restrict which updates a Mac user can see and install. Note that this configuration can use Apple's servers or a local update server.

When this scenario is used, OS X updates are installed on Macs as follows:

- 1** Parallels OS X Software Update Point downloads OS X update catalogs from Apple's servers or the local update server (depending on the configuration) and imports them into WSUS.
- 2** WSUS is synchronized with SCCM.
- 3** The SCCM administrator deploys updates to Macs.
- 4** Macs download full update catalogs from Apple's servers or the Parallels OS X Software Update Point (depending on the configuration). The catalogs are then filtered to include only the updates that were deployed in SCCM. If a Mac user now checks for available updates using the standard OS X functionality, they will not be able to see and install hidden updates.
- 5** Macs download update packages from the location specified in a catalog (Apple's servers or a local update server).
- 6** The deployed updates are silently installed on a Mac.
- 7** If a Mac user checks for updates using the standard OS X functionality, they will see only the updates that were deployed (or none at all if the updates have already been installed on this Mac).

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