

# Clustering SAP Content Server using the Veritas agents for Apache and SAPMaxDB

This document includes the following topics:

- [Introduction](#)
- [Prerequisites](#)
- [Configuring SAP Content Server](#)
- [Sample VCS configuration](#)

## Introduction

This document describes how to cluster an SAP Content Server setup in a Veritas Cluster Server (VCS) environment using the following Veritas agents:

- Veritas High Availability Agent for Apache
- Veritas High Availability Agent for SAP MaxDB

## Prerequisites

Before you cluster the SAP Content Server setup, make sure you have completed the following installation tasks:

- Installed and configured Veritas Cluster Server (VCS). For more information about installing and configuring VCS, refer to *Veritas Cluster Server Installation Guide*.
- If the SAP Content Server installation is based on SAP MaxDB, make sure the Veritas agent for SAP MaxDB is installed. The agent can be downloaded from the Symantec Veritas Operations Services (VOS) site:  
<https://vos.symantec.com/agents>
- Installed the SAP Content Server as per the guidelines provided in the product documentation.

## Configuring SAP Content Server

To configure SAP Content Server in a Veritas Cluster Server (VCS) environment, perform the following steps:

1. Configure the service group for the Apache instance on which SAP Content Server is installed. For instructions on configuring service groups for Apache in a VCS environment, see *Veritas High Availability Agent for Apache Installation and Configuration Guide*.
2. Configure the service group for the Apache instance on which SAP Cache Server is installed. If you have not installed and configured SAP Cache Server, omit this step.
3. Configure the service group for the SAPMaxDB instance on which SAP Content Server is configured. For instructions on configuring service groups for SAPMaxDB in a VCS environment, see *Veritas High Availability Agent for SAP MaxDB Installation and Configuration Guide*.
4. Create a service group dependency between the service group for Apache and the service group for SAPMaxDB. This service group dependency must be of the type: 'online global soft'.

Run the following command to create the service group dependency:

```
# hagrps -link Apache_Content_Service_Grp SAPMaxDB_Service_Grp  
online global soft
```

5. If you have installed SAP Cache Server on an Apache instance, also run the following command. This command creates a service group dependency between the service group for the Apache instance that hosts SAP Cache Server and the service group for SAPMaxDB:

```
# hagrps -link Apache_Cache_Service_Grp SAPMaxDB_Service_Grp online  
global soft
```

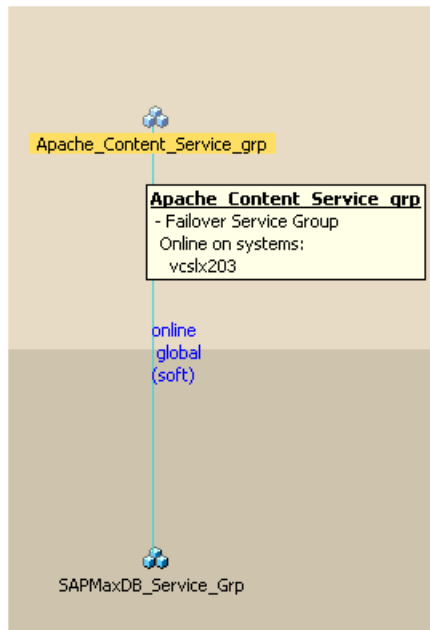
Group dependencies are as follows:

- The Apache service group as parent.
  - The SAPMaxDB service group as child.
6. If the Content Server and Cache Server installation is based on file system, skip steps 3 to 5, and complete the following steps:
  7. Use the shared file system for the installation. Create the Mount, Volume, and DiskGroup resources for the file system in the corresponding Apache service group, and create a dependency between them. For more information, see the *Bundled Agents Reference Guide*.
  8. Create the dependency between the Apache resource and the Mount resource.

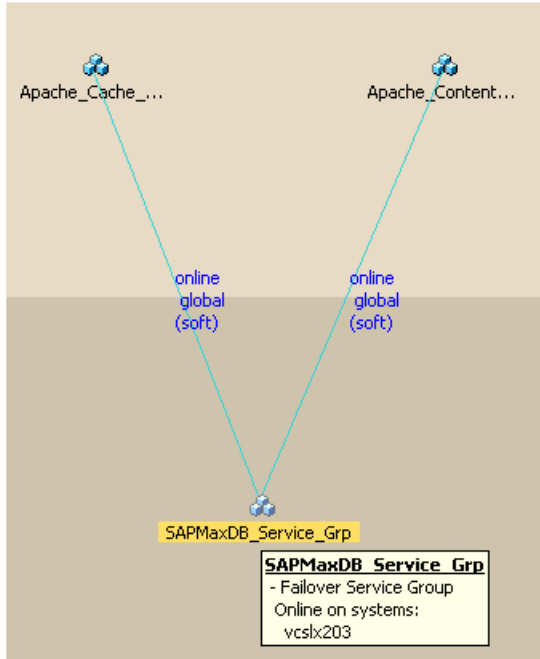
## Sample VCS configuration

The following figures illustrate a sample VCS configuration.

**Figure 1-1** Dependency between Apache and SAPMaxDB service groups



**Figure 1-2** Dependency between Apache service groups (for SAP Content Server and Cache Server) and SAPMaxDB service group



**Figure 1-3** Resource configuration for Content Server installation based on File System

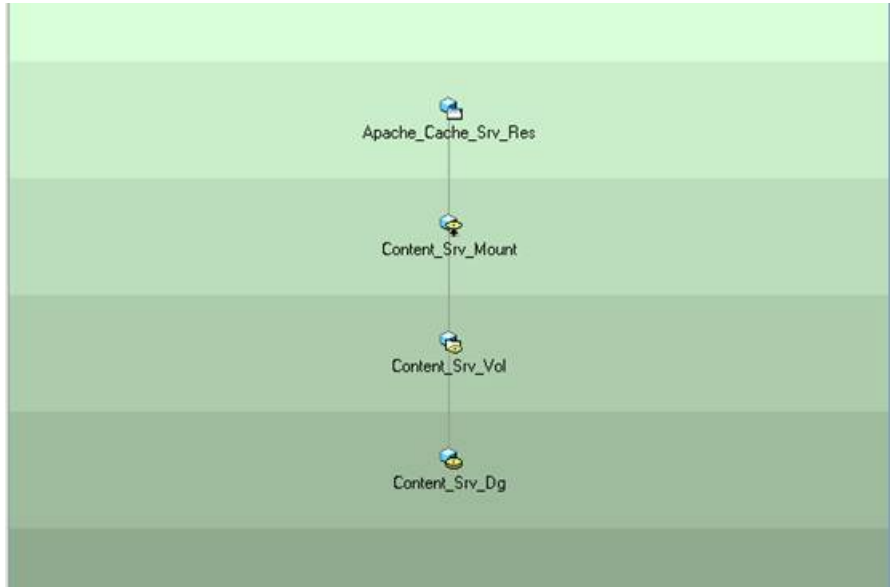
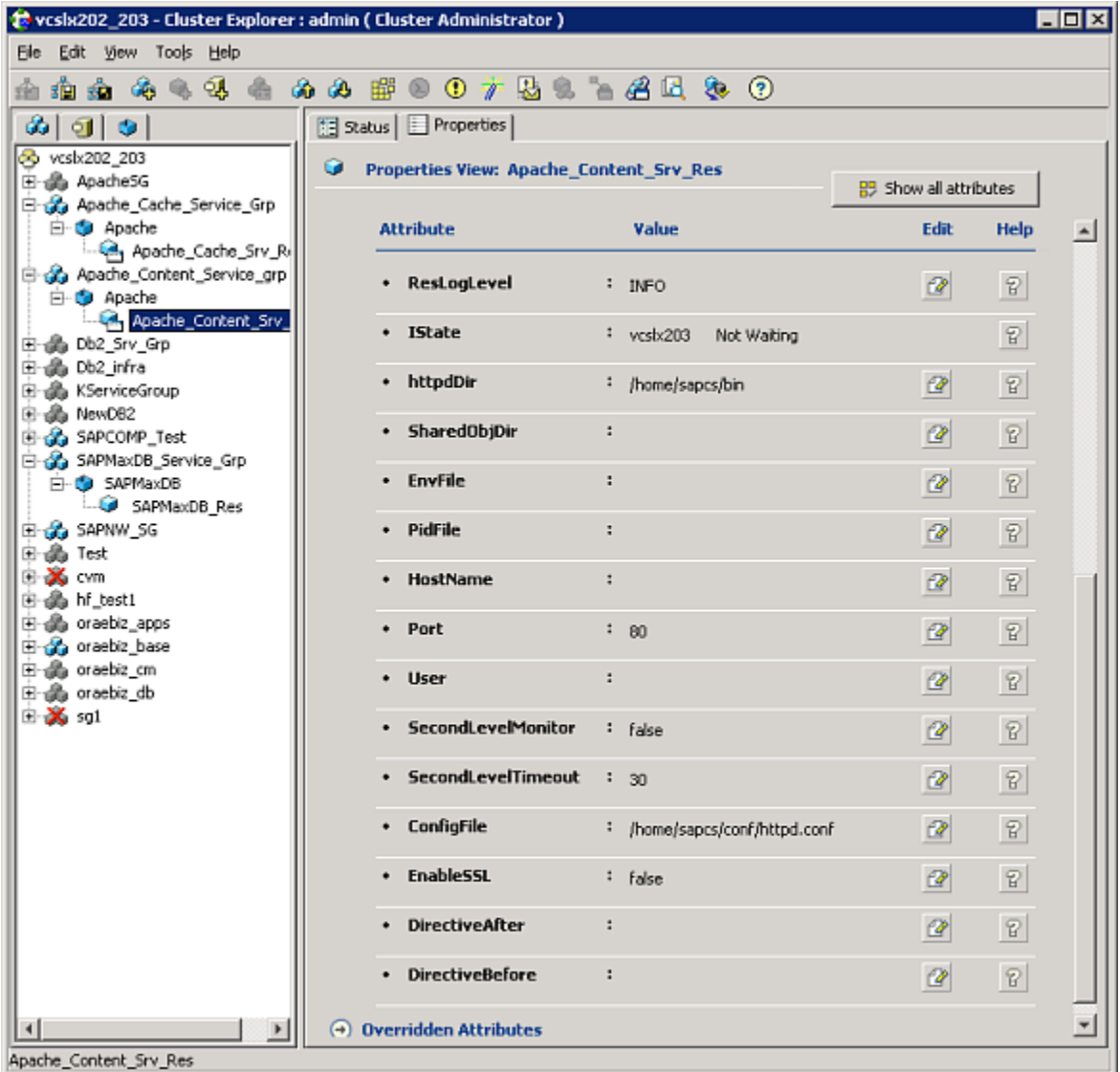


Figure 1-4 Properties view: Attributes for Apache instance that hosts SAP Content Server



**Figure 1-5** Properties view: Attributes for Apache instance that hosts SAP Cache Server

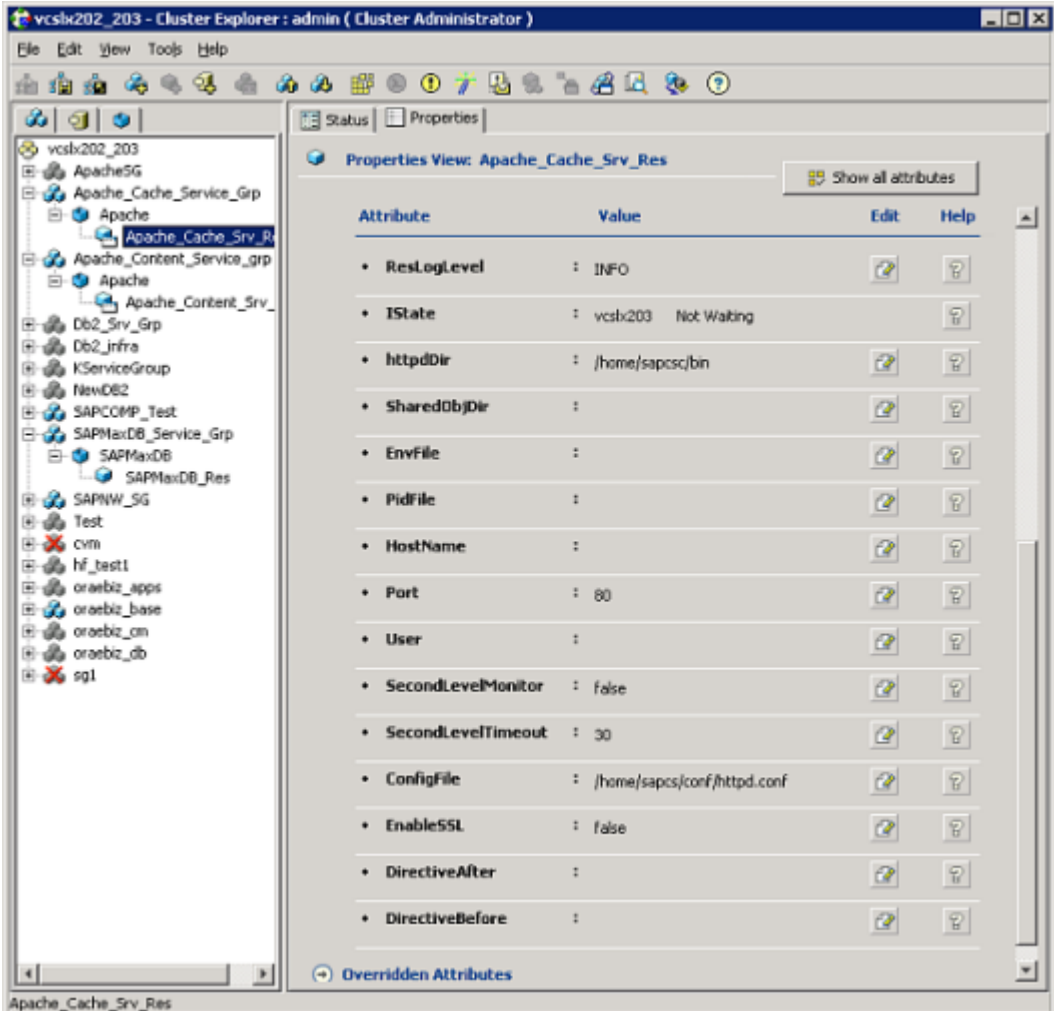


Figure 1-6 Properties view: Attributes for SAPMaxDB instance that hosts SAP Content Server

