# Installing, Configuring, and Using Shared Recovery Site Support

VMware vCenter Site Recovery Manager 5.0, 5.1, and their updates

VMware vCenter Site Recovery Manager (SRM) is typically used to protect a specific instance of vCenter by pairing it with another vCenter instance with which it shares replicated datastores. The first instance (the protected site) is configured to failover to the second instance (the recovery site) in such a way that all of the protected virtual machines at the protected site are added to the inventory of the recovery site, and recovered under the control of a plan that enables the recovery site to assume full responsibility for providing the services formerly hosted at the protected site. This one-to-one relationship of protected site to recovery site cannot accommodate use cases in which multiple protected sites are configured to failover to a single recovery site. That sort of use case is characteristic of organizations that must provide a single recovery site with which multiple protected sites (remote field offices, for example) can pair. It is also a requirement for service providers who want to offer business continuity (recovery site) services to multiple customers.

From version 4.0 onwards, SRM includes a feature, shared recovery site support, that enables many-to-one pairings of protected sites with a recovery site. This technical note explains how to install and configure shared recovery site support.

## Overview of Shared Recovery Site Workflow

When configured for shared recovery site support, SRM supports the same procedures and workflows that it does in the normal configuration. However, configuring for shared recovery site support leads to some specific behavior.

- SRM server installation must be initiated from the Windows command shell using a special command-line option. The installation process includes an extra step that specifies a custom SRM extension name, which is used by a protected site to pair with the shared recovery site.

- When you log into an SRM Server instance at a site on which more than one SRM pair is running, SRM prompts you to select one of the SRM pairs. See "Connecting to SRM" on page 3.

## Installation

For each shared recovery site customer, you must install SRM once at the customer site and again at the recovery site. Both installations must specify the same custom SRM extension. Each SRM server installation at the shared recovery site must have a dedicated system. You cannot install multiple instances of the SRM server on a single system.

To enable shared recovery site support, run the SRM installer from the Windows command line, as shown in Example 1.

**Example 1.** Installer Command Line

```
<SRM Installer.exe> /V"CUSTOM_SETUP=1"
```

When run from the command line using this option, the SRM installer presents additional screens on which you specify a unique SRM extension to be used by a pair of sites.

## Select a Plugin Identifier

At the screen VMware vCenter Site Recovery Manager Plugin Indentifier, select **Custom SRM Plugin identifier**. The **Default SRM Plugin Identifier** option does not support the shared recovery site configuration.

## Specify a Custom SRM Extension

The **Custom SRM Extension** screen presented by the installer has three fields:

- **SRM ID** – A string of up to 29 ASCII characters from the set of ASCII upper- lower-case characters, digits, the underscore, the period, and the hyphen. The underscore, period, and hyphen cannot be used as the first or last characters of the SRM ID, and cannot appear adjacent to one another.

- **Organization** – A string of up to 50 ASCII characters that specifies the organization that created the extension.

- **Description** – A string of up to 50 ASCII characters that provides a description of the extension.

Example 2 illustrates example values for these strings.

**Example 2.**  SRM Extension Information

```
SRM ID: Example_Manhattan
Organization: Example Corporation
Description: Recovery site for Example Corp Manhattan office
```

NOTE   If you install SRM with a custom extension, you can still create an additional installation for the same vCenter instance, using the default extension, or vice versa.

## Install the SRM Client Plug-In

After the SRM server installation is complete, install the SRM client plug-in as described in the SRM *Administration Guide*. You can install the SRM client plug-in from any SRM Server instance, regardless of whether or not it is configured for shared recovery site protection. After you install the SRM client plug-in, client plug-ins from other SRM Server instances running on the shared site show as **Available** in the Manage Plug-ins interface. Only install the client plug-in once. Subsequent installations simply overrwrite each other.

# Site Pairing

When you pair a protected site with a shared recovery site, several constraints apply:

- Both sites must have been installed specifying the same custom SRM extension.

- Both sites must have specified the same authentication method. If certificate-based authentication is used, the certificates on both sites must be set up in the same way. If credential-based authentication is used, both sites must specify the same values for Organization and Organization Unit. The value you specify for Organization in the Specify a Custom SRM Extension page has no relation to the value that you specify for Organization when you configure credential-based authentication. For information about certificate-based authentication and credential-based authentication, see "SRM Authentication" in the *Site Recovery Manager Administration Guide*.

- A single shared recovery site can support a maximum of 10 protected sites. However, some limitations apply when running parallel recoveries with vSphere Replication from multiple sites. See KB 2008061.

# Connecting to SRM

When you log into an SRM Server instance at a site on which more than one SRM pair is running, SRM prompts you to select one of the SRM pairs. This mostly occurs when you log into an SRM Server instance on the recovery site, since the recovery site is shared with more than one protected site. However, if you set up the protection site to be protected to multiple recovery sites, you also see this prompt when logging into SRM on the protected site.

For each SRM extension registered at the shared recovery site, this dialog box lists the **SRM ID**, **Organization**, and **Description** that were supplied when the extension was created.

NOTE  When connecting to the shared recovery site, every customer can see all of the SRM extensions registered for the site, including company names and descriptions.

# Shared Recovery Site Administration

At a shared recovery site, multiple customers share a single vCenter Server and in some cases a single ESX host. The vCenter administrator at the shared recovery site must manage permissions so that each customer (where customer is defined as the owner of an SRM extension) has sufficient privileges to configure and use SRM, but no customer can access resources that belong to another customer.

As a consequence of the above, the only supported configuration for a shared recovery site is for one company to control all the protected sites and the recovery site.

## Users and Groups

Any customer with adequate permissions must be able to access the recovery site to create, test, and run recovery plans. The vCenter administrator at the shared recovery site should create a separate user group for each customer. None of the customers' user accounts should be a member of the vCenter Administrators group.

## Shared Customer Resources

All customers have read access to all folders of the recovery site vCenter Server.

In some cases, customers also share a common datacenter and ESX host. No customer should be given permission to rename, move or delete the datacenter or host. No customer should be given permission to create virtual machines outside the customer's dedicated folders and resource pools. No customer should be allowed to change roles or assign permissions for objects that are not dedicated to the customer's own use.

To prevent unwanted propagation of permissions across different organizations' resources, permissions on the vCenter root folder, datacenters, and hosts should not be propagated.

## Isolated Customer Resources

Each customer should be assigned a separate virtual machines folder in the **Virtual Machines and Templates** inventory view. Set permissions on this folder to prevent any other customer's virtual machines from occupying it. For example, set the Administrator role (with the propagate option on) for the customer on the customer's folder. This arrangement prevents duplicate name errors that might otherwise occur when multiple customers protect virtual machines that have identical names. This folder should also contain all of the customer's placeholder virtual machines, so that they can inherit its permissions. Other customers should be assigned no permissions for this folder

Customers should also have dedicated resource pools, datastores, and networks, all protected in a similar way.

## Tasks

In the **Recent Tasks** window, users who have permissions to view a task target can see tasks initiated by other users. This means that all customers will see all tasks that have a shared resource, such as a shared host, datacenter or the vCenter root, as a target.

## Events

Events posted by all instances of SRM associated with a shared recovery site have identical permissions. A user who can see events from any instance of SRM can see events from all instances.

## Known Issues

The following known issues are present in this feature at SRM 5.0 and 5.1.

- Selecting **Change** when you run the Site Recovery Manager Plugin installer to repair an installation obliges you to close the vSphere Client. Change mode allows you to either repair or remove the SRM client plugin, but not to change it. Selecting **Repair** when you run the SRM client plugin installer does not oblige you to close the vSphere Client.

- All customers of a shared recovery site could have access to other customers' folders and potentially to other information at the shared site.