

# Configuring Discovery and Boundaries in Configuration Manager 2012 R2

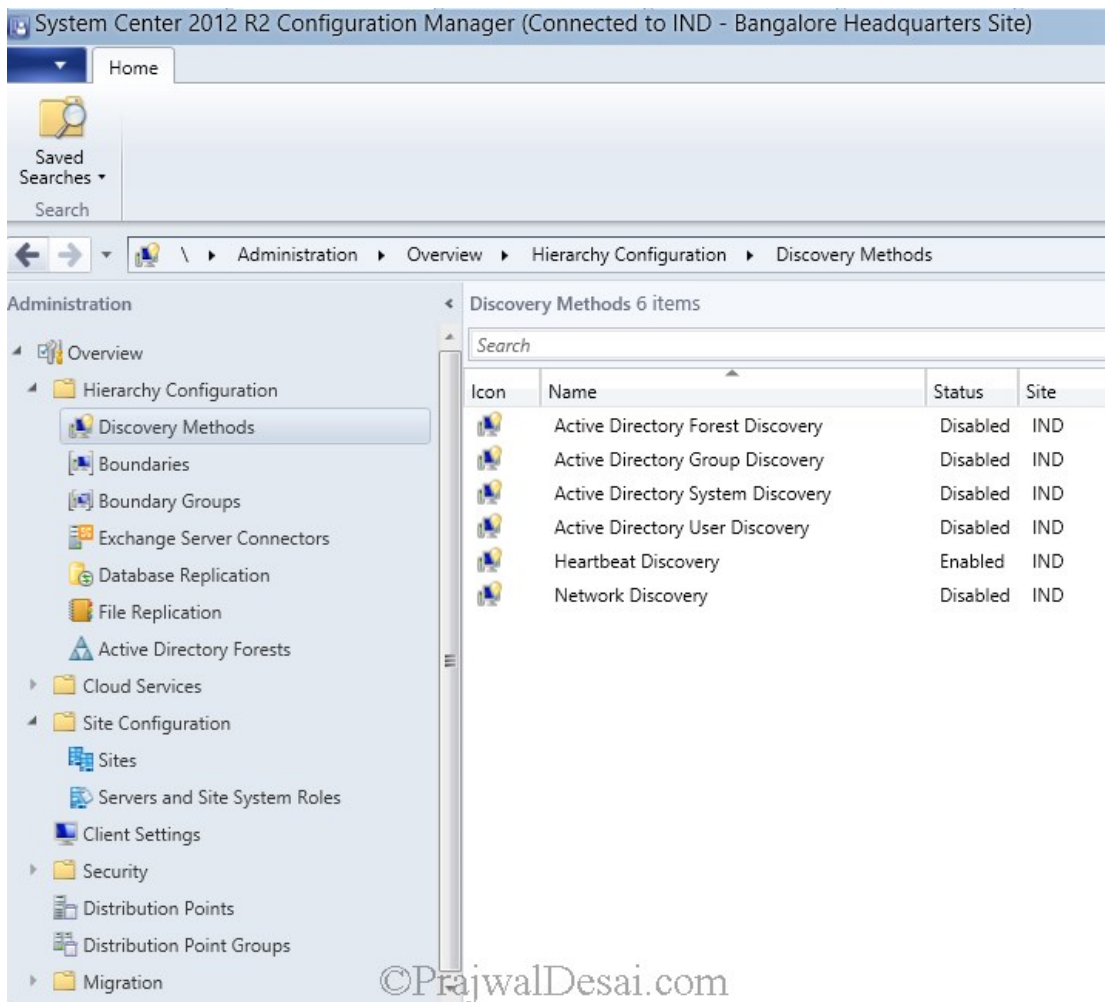
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In this post we will see the steps for configuring discovery and boundaries in configuration manager 2012 R2. In my previous deployment series of [SCCM 2012](#) and [SCCM 2012 SP1](#) we have seen much about the discovery methods and boundaries, this post is no different when it comes to configuring discovery and boundaries in configuration manager 2012 R2. We will begin with discovery methods available in configuration manager 2012 R2.

So what are discovery methods in configuration manager 2012 ? In simple terms when you have resources in your company and to gather the resource information, configuration manager 2012 R2 makes use of methods called discovery methods. Configuration Manager 2012 R2 uses a variety of discovery methods to gather resource information and each of the discovery methods gathers information about different objects. Lets see one by one..

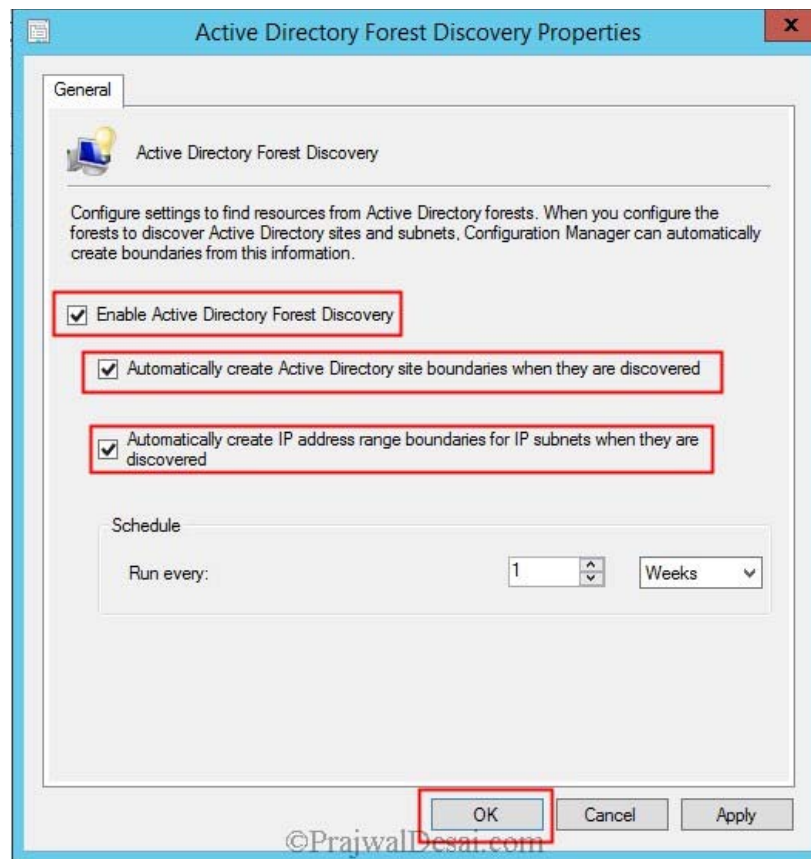
**Active Directory Forest Discovery** – As the name suggests it discovers Active Directory sites and subnets, and then creates Configuration Manager boundaries for each site and subnet from the forests which have been configured for discovery. With this discovery method you are able to automatically create the Active Directory or IP subnet boundaries that are within the discovered Active Directory Forests.

You can see in the below screenshot that except Heartbeat Discovery all the other discovery methods are disabled (not configured) by default.



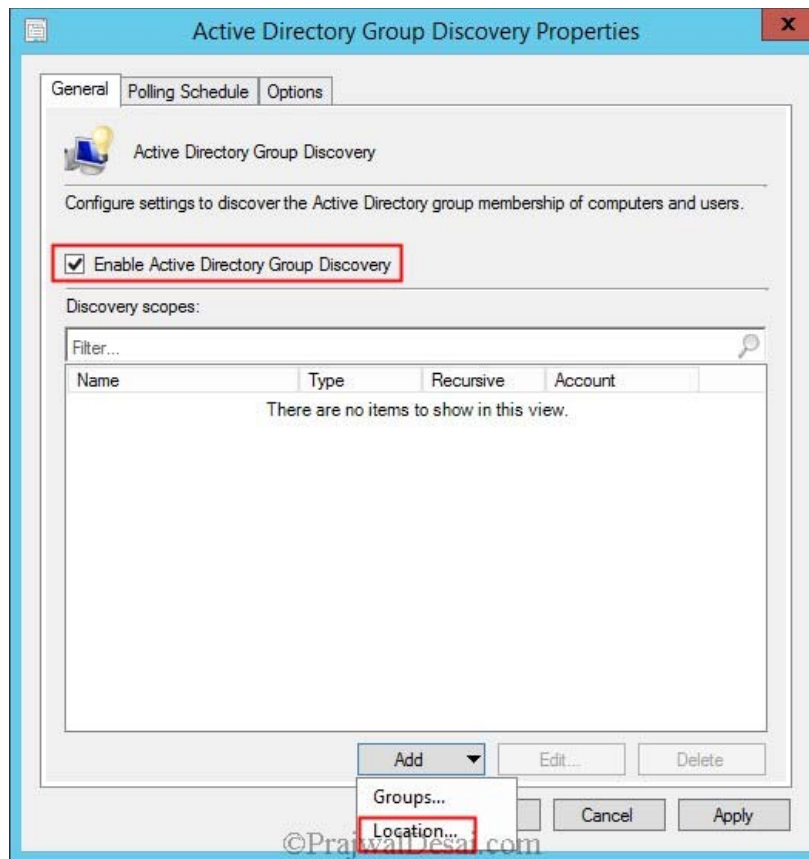
Launch the System Center 2012 Configuration Manager R2 Console. On the left pane select the **Administration**, expand **Hierarchy Configuration**, Select **Discovery Methods**. On the right pane double click **Active Directory Forest Discovery**. Check all the boxes to

enable the **AD Forest Discovery**. With this all the Active Directory site boundaries are created automatically along with IP address boundaries. Click on **Apply**. When you click on **Apply**, it asks you to **run the full discovery as soon as possible**. Click on **Yes**. Click on **OK**.

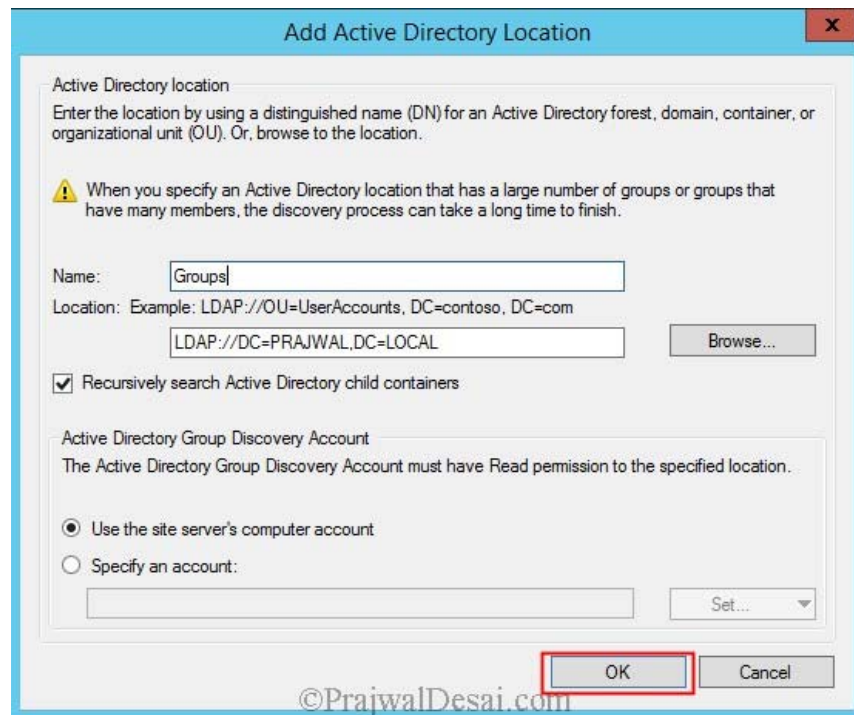


**Active Directory Group Discovery** – The Active Directory Group Discovery discovers the groups from the defined location in the Active Directory. The Discovery Process discovers local, global, and universal security groups, the membership within these groups. When you configure the Group discovery you have the option to discover the membership of distribution groups. With the Active Directory Group Discovery you can also discover the computers that have logged in to the domain in a given period of time.

To enable the **Active Directory Group Discovery**, Double click the **Active Directory Group Discovery** and check the box which says "**Enable Active Directory Group Discovery**". Once you do that at the bottom you must add the Groups or the Location. Click on **Add** and click on **Location**.



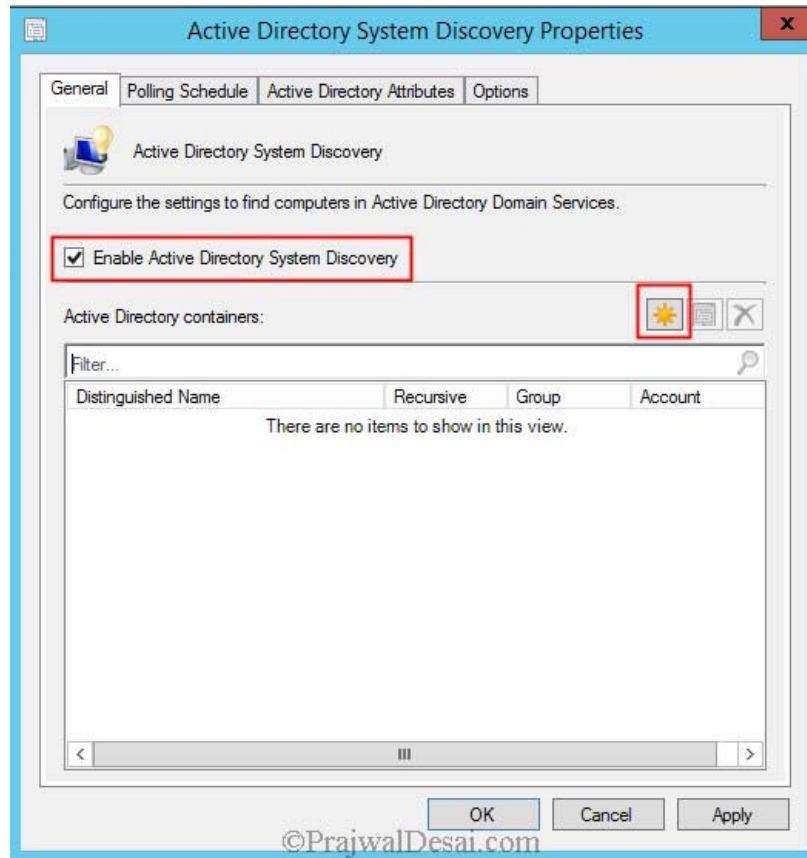
Click Browse to specify the location. Select the **Active Directory Container**. In this example I have selected the Domain **PRAJWAL.LOCAL**. Click on **Apply**. When you click on **Apply**, it asks you to **run the full discovery as soon as possible**. Click on **Yes**. Click on **OK**.



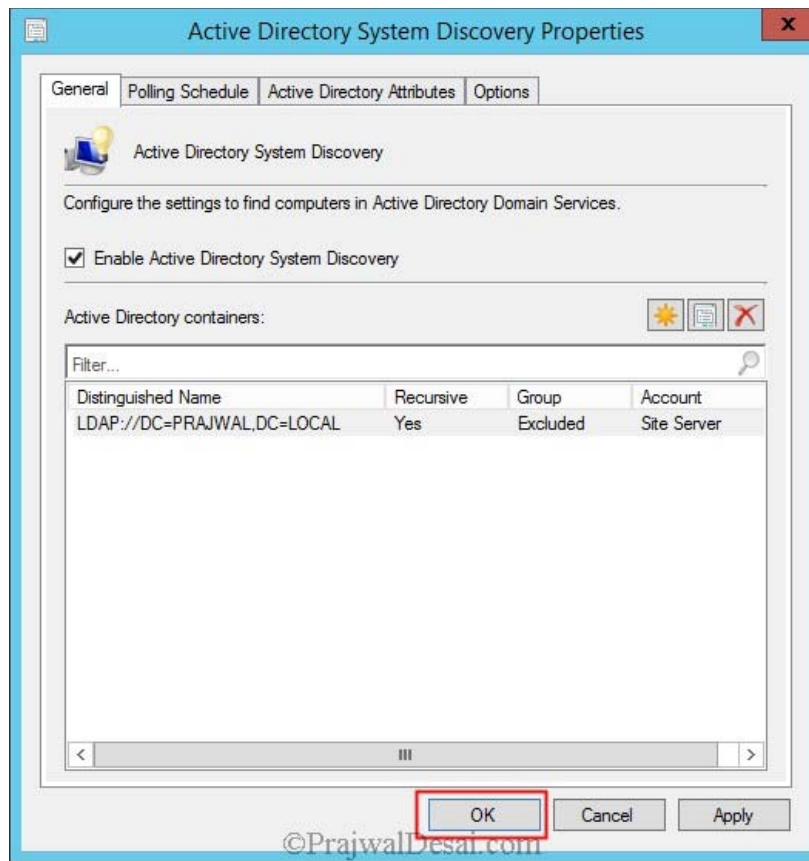
**Active Directory System Discovery** – If you want to discover the computers in your organization from specified locations in Active Directory Domain Services then we use Active Directory System Discovery. In order to push the SCCM clients into the computers, the resources must

be discovered first. There is an option to discover the computers that have logged on to a domain in given period of time, this way you won't discover obsolete computer accounts from the Active Directory.

Right Click **Active Directory System Discovery** and click on **properties**. Click on **Enable Active Directory System Discovery**.

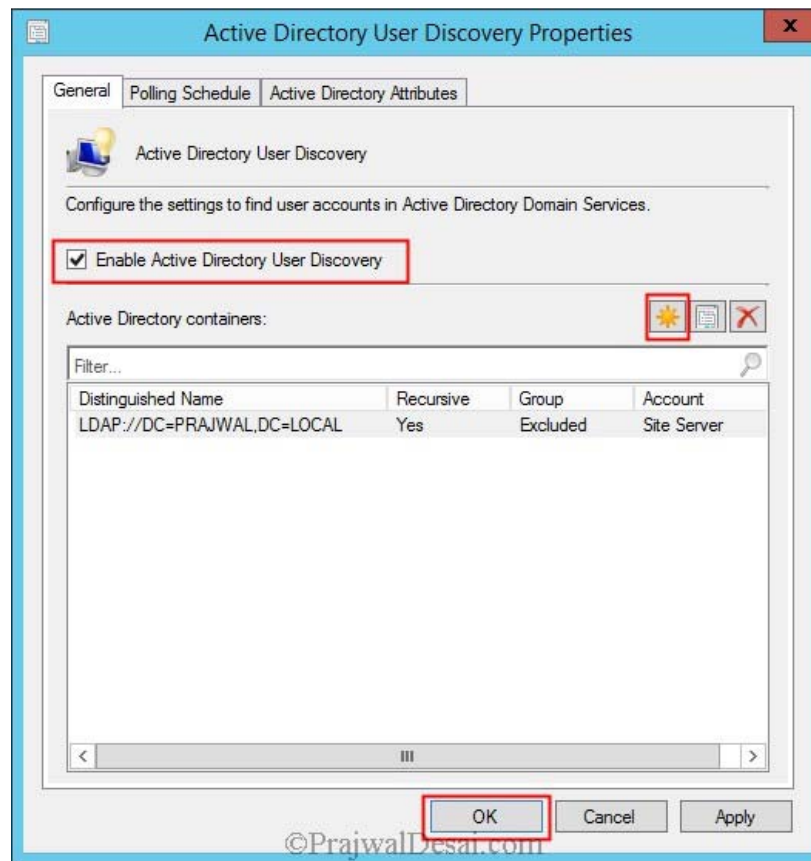


To add the Active Directory Containers click on the Orange color icon. Click on **Browse** and select the **domain**. click **OK**. Click on **Apply**. Run the **full discovery** by clicking **Yes**. Click on **OK** and close the properties page.



**Active Directory User Discovery** – This Discovery process discovers the user accounts from your Active Directory domain. You will have to specify the Active Directory container to search for the user accounts. There are some good options to discover the user accounts like the option to discover the user objects based on the attributes, recursively search AD child containers, discover objects within the AD groups.

Double click the **Active Directory User Discovery**, Enable the **Active Directory User Discovery**. select the **Active Directory Container**. Click on **OK**.



**HeartBeat Discovery** – The HeartBeat Discovery runs on every Configuration Manager client and is used by Active Configuration Manager clients to update their discovery records in the database. The records (Discovery Data Records) are sent to the management point in specified duration of time. Heartbeat Discovery can force discovery of a computer as a new resource record, or can repopulate the database record of a computer that was deleted from the database. Note that the HeartBeat Discovery is enabled by default and is scheduled to run every 7 days.

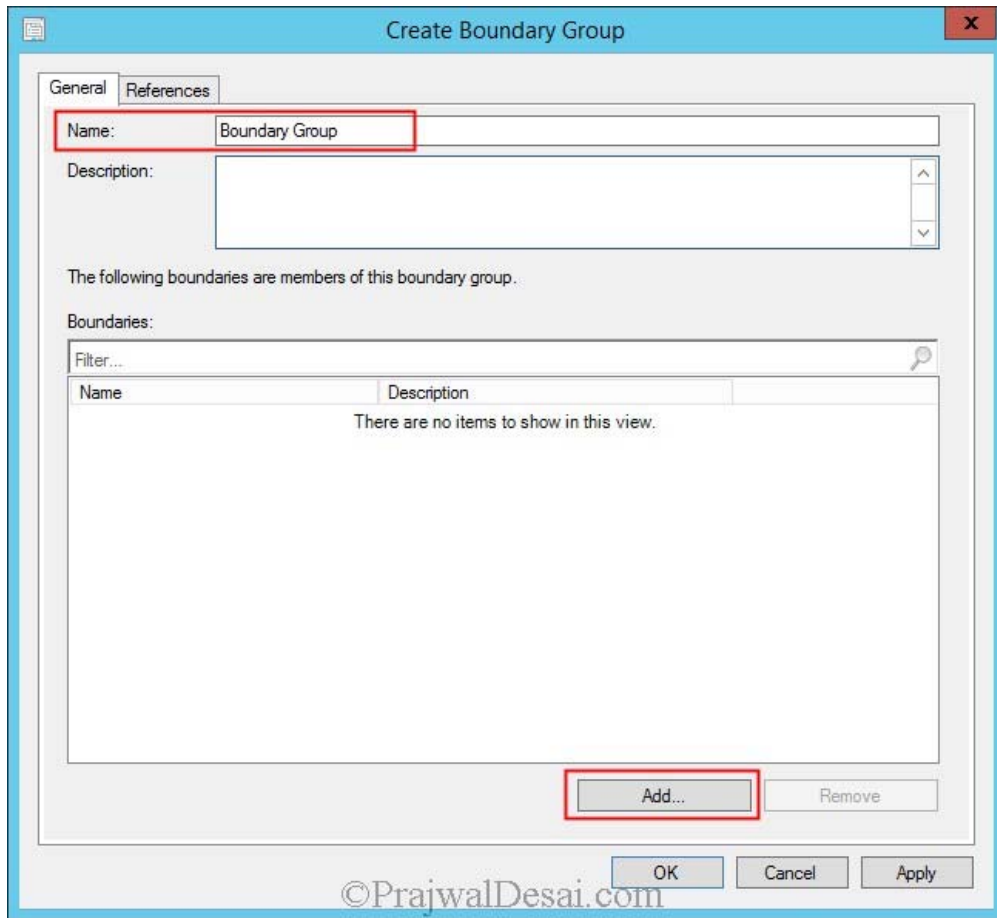
**Network Discovery** – The Network Discovery searches your network infrastructure for network devices that have an IP address. It can search the domains, SNMP devices and DHCP servers to find the resources. It also discovers devices that might not be found by other discovery methods. This includes printers, routers, and bridges. In this post we will not configure the Network Discovery method as its not required here.

**Concept Of Boundaries** – A boundary is a network location on the intranet that can contain one or more devices that you want to manage. Boundaries can be an IP subnet, Active Directory site name, IPv6 Prefix, or an IP address range, and the hierarchy can include any combination of these boundary types. To use a boundary, you must add the boundary to one or more boundary groups. Boundary groups are collections of boundaries. By using boundary groups, clients on the intranet can find an assigned site and locate content when they have to install software, such as applications, software updates, and operating system images.

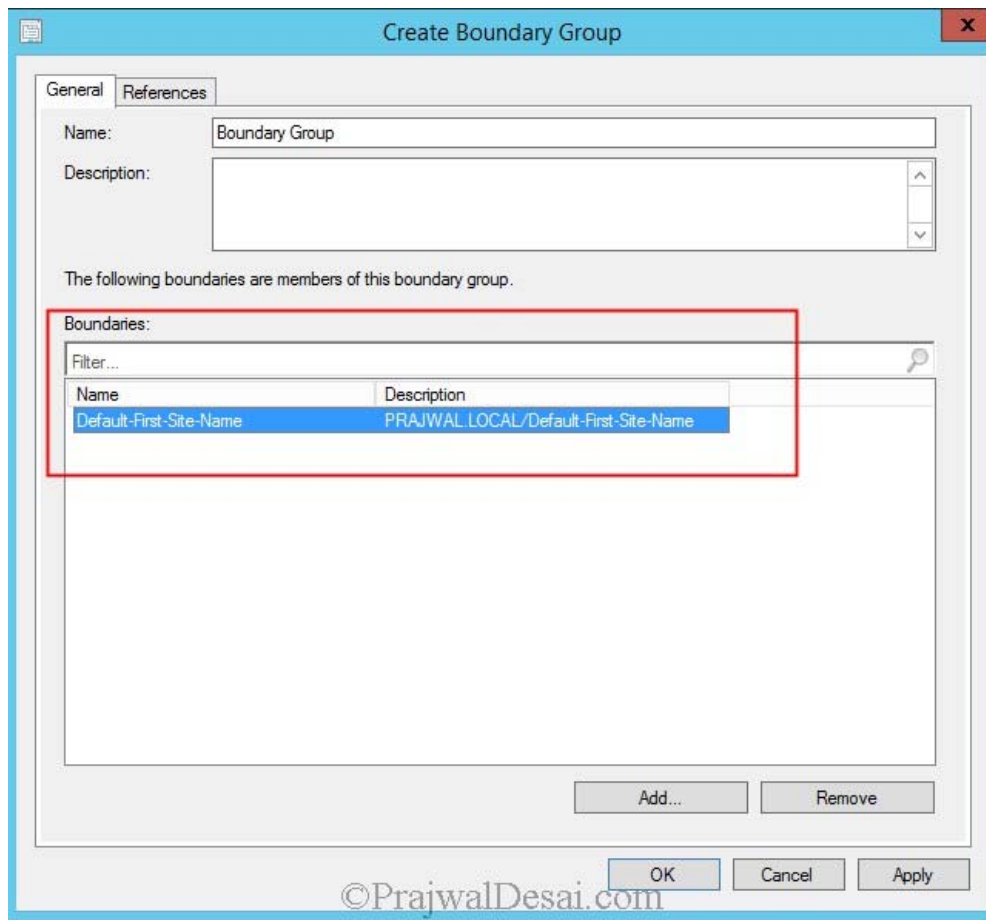
### Note

When we run the Active Directory Forest Discovery, the boundaries are discovered automatically.

Since we have run the Active Directory Forest Discovery method we need not create a boundary here, we will create a Boundary Group. Now we need to add the Boundary to the **Boundary groups**. In the Configuration Manager console, select **Boundary Groups**, right click and click on **create a boundary group**. Provide a name to the boundary group and click on **Add**.



On the **Add Boundaries** window select the boundary, in our case there is only one discovered boundary and that is the **Default-First-Site-Name**. Click on **Apply**.



Click on **References** tab, check **Use this Boundary group for site assignment**. To add the **site system servers**, click **Add** and select the **Site System Server**. Click on **OK**.



