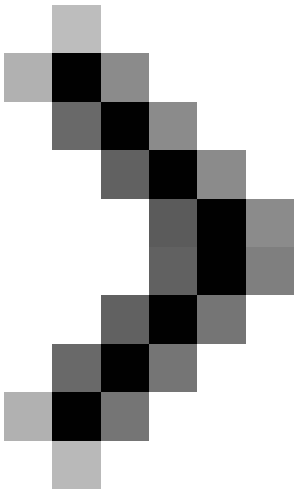
Create Site to Site VNP with the ISA 2006 Firewall Branch Office Connection Wizard - Part 2

In Part 2 of this series, we will introduce you to the DNS issues needed to work out, install CSS, and create ISA Firewall arrays.

In Part 2 of this series, I will show you how to configure a site to site virtual private network (VPN) using the Branch Office Connectivity Wizard in the ISA 2006 Firewall . necessary for the solution to work, in addition to installing CSS and creating ISA Firewall arrays for the main office and branch office.

In the first part of this series, I talked about the example network infrastructure and discussed some concepts in creating site to site VPNs.



Create Site to Site VNP with ISA 2006 Firewall Branch Office Connection Wizard - Part 1
In the second part of this article series, I will talk about the DNS issues needed for working solutions, in addition to installing CSS and creating ISA Firewall arrays for the main office and office. branch.

Configure the main office DNS server to reject dynamic updates, *add* static DNS entries (Host (A) Record) to arrays and branch office ISA Firewall.

Before starting the CSS installation at the main office and ISA Firewall arrays, the first step we need to do is to configure the DNS server on the corporate network to reject dynamic updates. We need to do that so that when the branch ISA Firewall connects to the office ISA Firewall itself, it will use the unregistered virtual IP address in DNS to replace the actual internal IP address of the ISA ISA Firewall. branch office. This also prevents the main office ISA Firewall from registering its virtual IP address in DNS.

This is a common problem with site to site VPN connections. For example, suppose you use Web proxy and Firewall client on the main office network and those clients are configured to use the name of the ISA Firewall to connect to the Firewall and Web proxy services of the ISA Firewall. Everything works well until there is a site to site connection. After the site to site connection is established, the virtual office's virtual IP address will register itself in DDNS (Dynamic DNS). Now when the Web proxy and Firewall clients try to connect to the main office ISA Firewall, they will try to connect to the virtual IP address of the main office ISA Firewall (RAS interface address) and connections from the Web proxy and Firewall client will fail.

Another scenario when registering a virtual interface (RAS) address raises the problem when the branch office ISA Firewall tries to connect to the main office CSS. When a site to site connection is established, the branch office ISA Firewall registers its virtual RAS interface address in CSS. CSS tries to communicate with the branch office Firewall array using this address and the connection will fail.
We can avoid these problems by disabling DDNS on the DNS server. You might ask, 'Do we need to do this permanently or just need a way to configure the demand-dial interface so that we don't need to register in the DDNS?' Answer is possible'.
We need to create Host (A) records in the Active Directory integrated DNS with the following machines:

- **isa2006se.msfirewall.org (10.0.0.1)**
- **isa2006branch.msfirewall.org (10.0.1.1)**
- **main.msfirewall.org (10.0.0.1)**
- **branch.msfirewall.org (10.0.1.1)**

There is no need to enter records for CSS machines or domain controllers because they are installed and registered in DNS using DDNS. We don't have to worry about those machines because their IP address information won't change according to the connection status of the site to site VPN connection.
Before creating the Host (A) record, you need to create a reverse lookup zone for the branch office network ID. In our current example, the branch office network ID is 10.0.1.0/24. Follow the steps below to create a reverse lookup zone:

1. In the Domain controller, click **Start** , and then point to **Administrative Tools** . Click **DNS** .
2. In the **DNS management** console, open the server and click the **Reverse Lookup Zones** button.
3. Right-click the **Reverse Lookup Zone** button and click **New Zone** .
4. On the **Welcome to the New Zone Wizard page** , click **Next** .
5. On the **Zone Type** page, select the **Primary Zone** option and click **Next** .

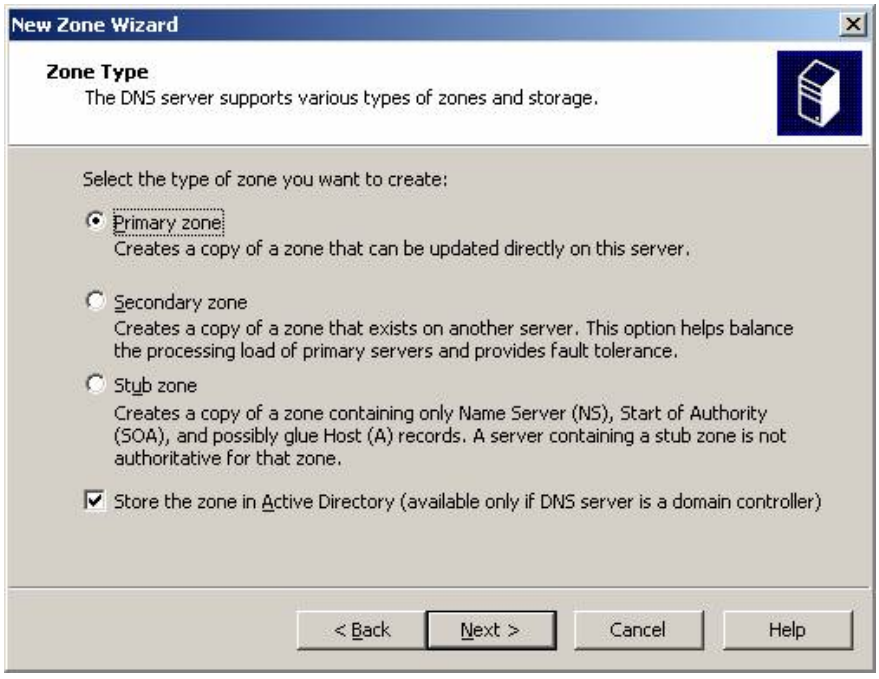


Figure 1

6. In the **Active Directory Zone Replication Scope page** , select the option **To all DNS servers in the Active Directory domain msfirewall.org** . We select this option because there is only one domain (domain) in the organization. If you have multiple domains, you can create a copy of this reverse lookup zone for all DNS servers in the forest. Click **Next** .

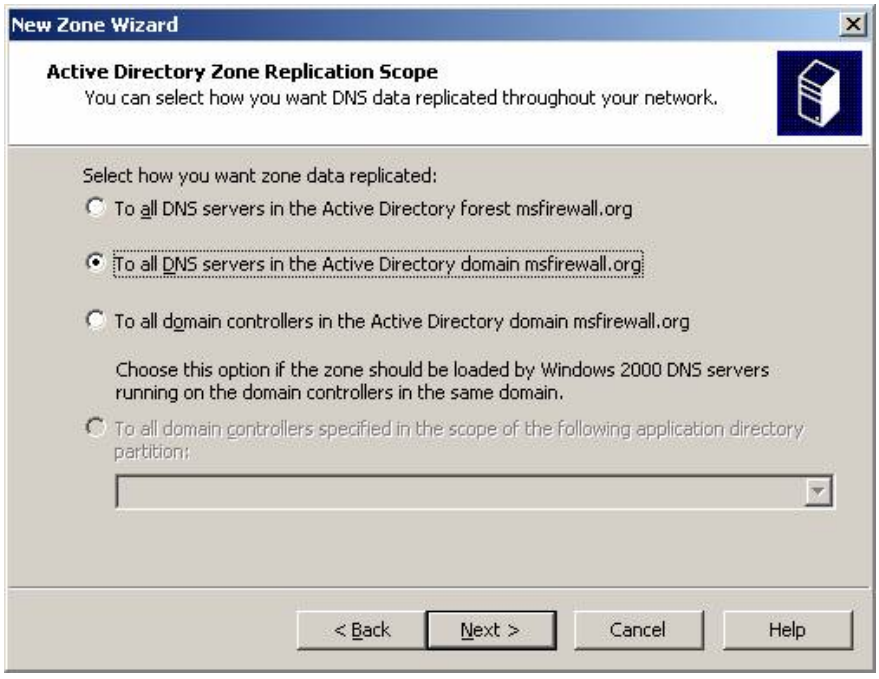


Figure 2

7. On the **Reverse Lookup Zone Name page** , select the **Network ID** option and enter the network ID for the branch office in the text box. In this example, the branch office network ID is 10.0.1.0/24, so we'll enter **10.0.1** and click **Next** .

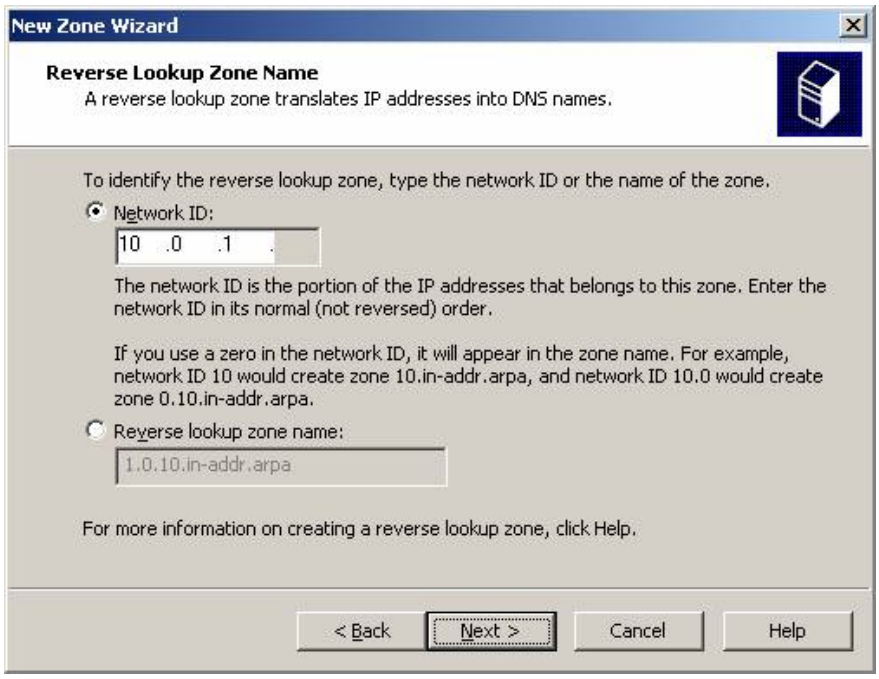


Figure 3

8. On the **Dynamic Update** page, select the option **Allow only secure dynamic updates (recommend for Active Directory)** . Click **Next** .

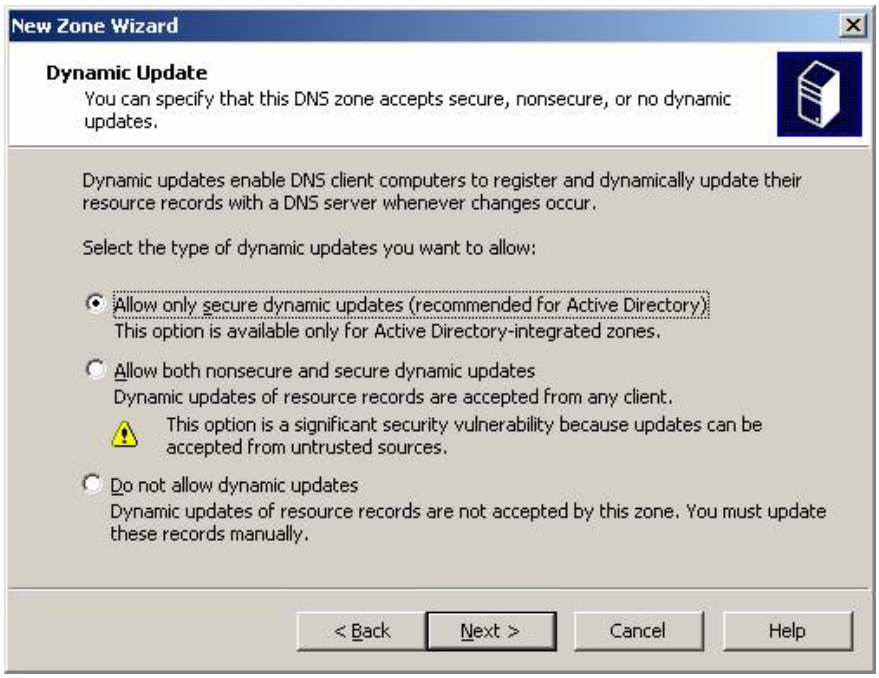


Figure 4

9. Click **Finish** in the **Completing the New Zone Wizard page** .
10. You will see a new area in the left pane of the **DNS management** interface.

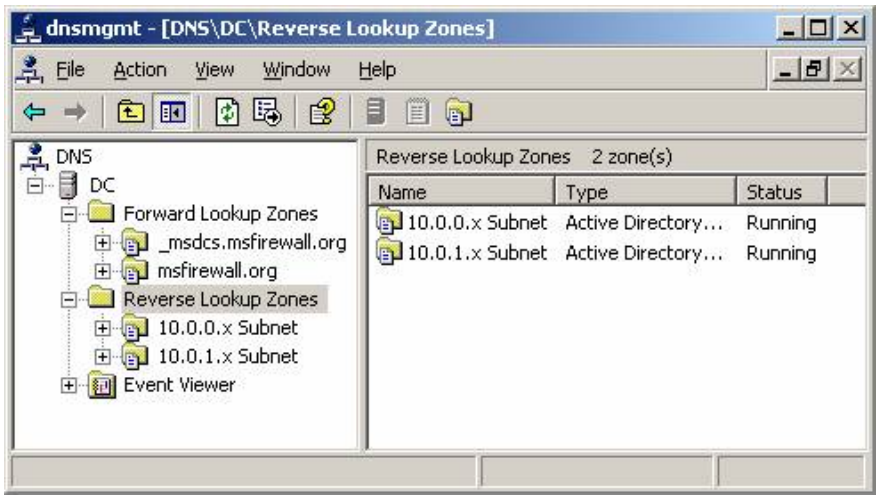


Figure 5

Now we are ready to create the Host (A) record. Use the procedure below to add Host (A) record to DNS:

1. On the Domain controller, click **Start** , point to **Administrative Tools,** and click **DNS.**
2. In the **DNS management** interface, open the server, and then click the **Forward Lookup Zones** button. Click the **msfirewall.org** button **.**
3. Right-click the **msfirewall.org** button and click the **New Host** command **(A).**
4. In the **New Host** dialog box, enter the name of the server in the **Name (uses parent domain name if blank) section** . In this example, we will enter the name of the branch office ISA Firewall, which is **isa2006branch** . The FQDN will appear in the **Fully qualified domain name (FQDN) box.** Enter the internal IP address of the branch office ISA Firewall in the **IP address** text box. In this example, the IP address of the branch office ISA Firewall is **10.0.1.1** , so we'll enter that address into the text box. Click **Add Host** .

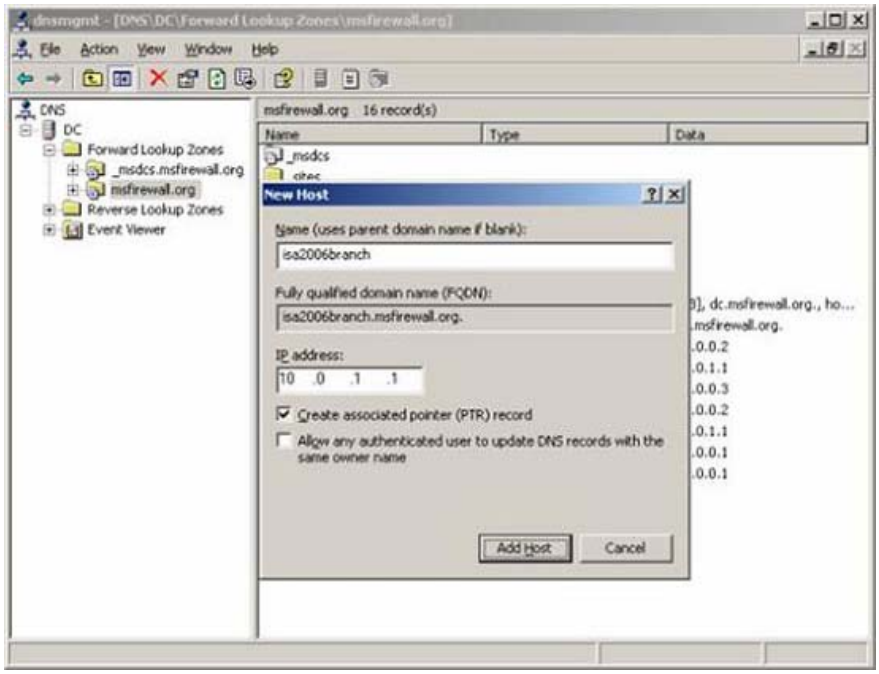


Figure 6

5. To open the **Add Host** dialog box to allow you to enter more Host (A) entries. Enter the name and IP address information for the entries noted in the list above for the internal ISA Firewall, as well as the array.
6. After entering the records, click **Cancel** in the **New Host** dialog box.
7. Your list needs to look like the image below.

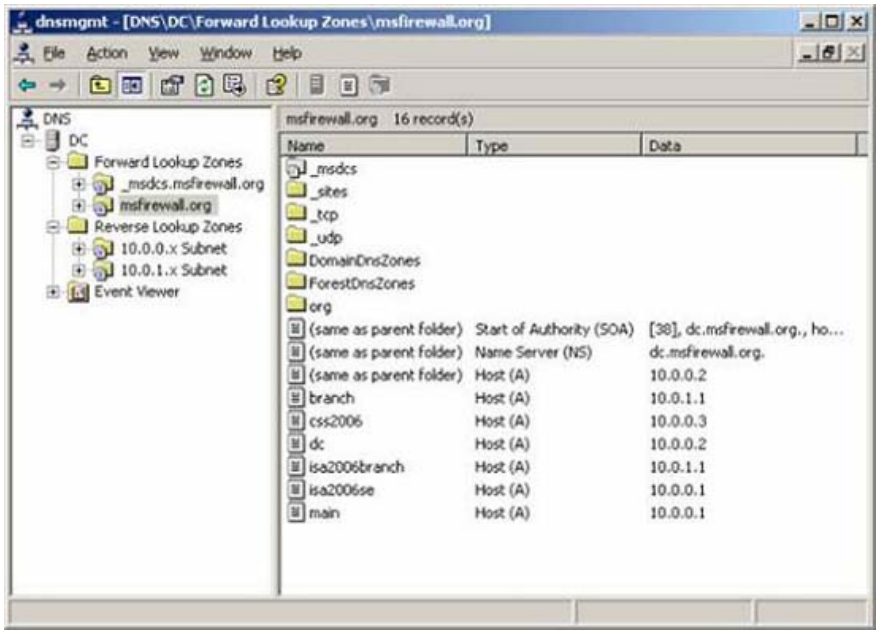


Figure 7

8. Now we need to load these entries into the DNS database. This can be done by restarting the DNS server. In the **DNS console** , right-click the server name and point to **All Tasks** , click **Restart** .

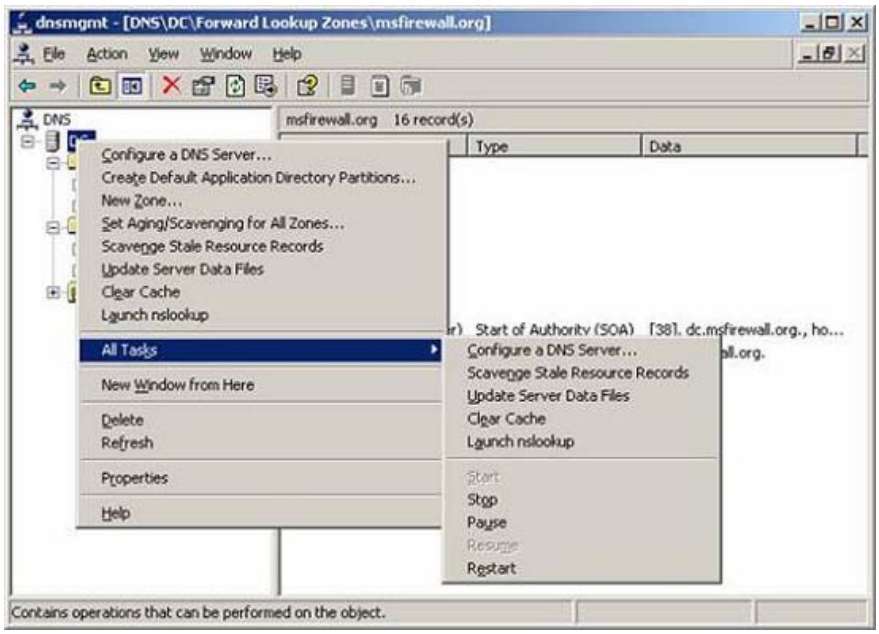


Figure 8

To end the DNS configuration, we need to disable dynamic updates (at least temporarily). In the left pane of the DNS interface, click the **msfirewall.org** entry in the **Forward Lookup Zones** button. Right-click the **msfirewall.org** button and click **Properties** .

In the **Properties** dialog box, click the **General** tab. On the **General** tab, select the **None** option from the **Dynamic updates** drop-down list. Click **OK** . There is no need to restart the DNS service for this option to take effect. Minimum DNS interface window.

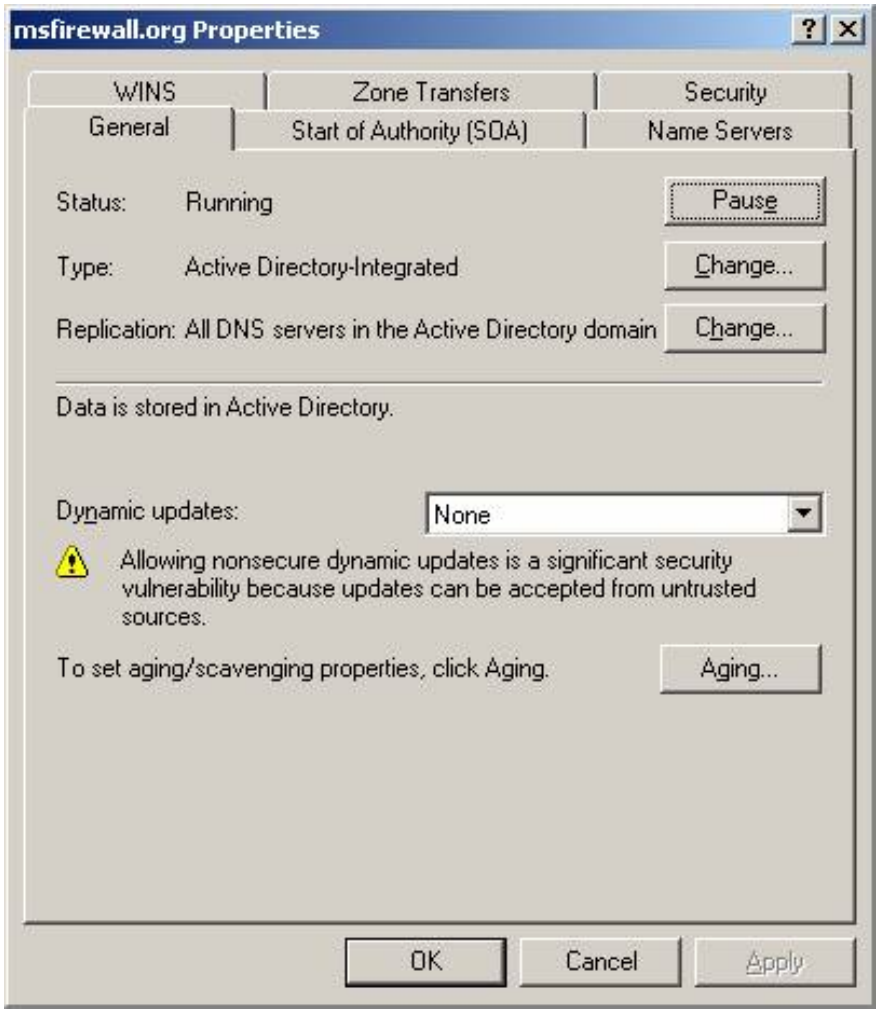


Figure 9

Install CSS on a dedicated CSS machine

Now that the important step in DNS setup has been completed, we need to move on to the next step, which is the step of installing CSS on a dedicated CSS computer. Although it is possible to install CSS on a Domain controller or even on the ISA Firewall array itself, the best and safest configuration is to place the CSS on a dedicated device.

In the ideal setting, CSS is placed on a dedicated security network, no other computers and no traffic are allowed to access the CSS computer from any other network segment, using ISA Firewall we can protect CSS before all other machines. However, to simplify things in this series, we don't set things up that way.

Follow these steps to install CSS on a dedicated CSS computer:

1. Put the ISA 2006 CD into the computer. If the system does not automatically start the CD, double-click the **ISAAutorun.exe** file to launch the autorun menu.
2. In the autorun menu, click on the **Install ISA Server 2006 link.**

3. Click **Next** in the **Welcome to the Installation Wizard page for Microsoft ISA Server 2006**
4. Select the option **I accept the terms in the license agreement** on the **License Agreement** page and click **Next** .
5. Enter your customer information on the **Customer Information** page and click **Next** .
6. On the **Setup Scenarios** page, select the **Install Configuration Storage Server option** and click **Next** .

Figure 10

7. Click **Next** in the **Component Selection** page **.**

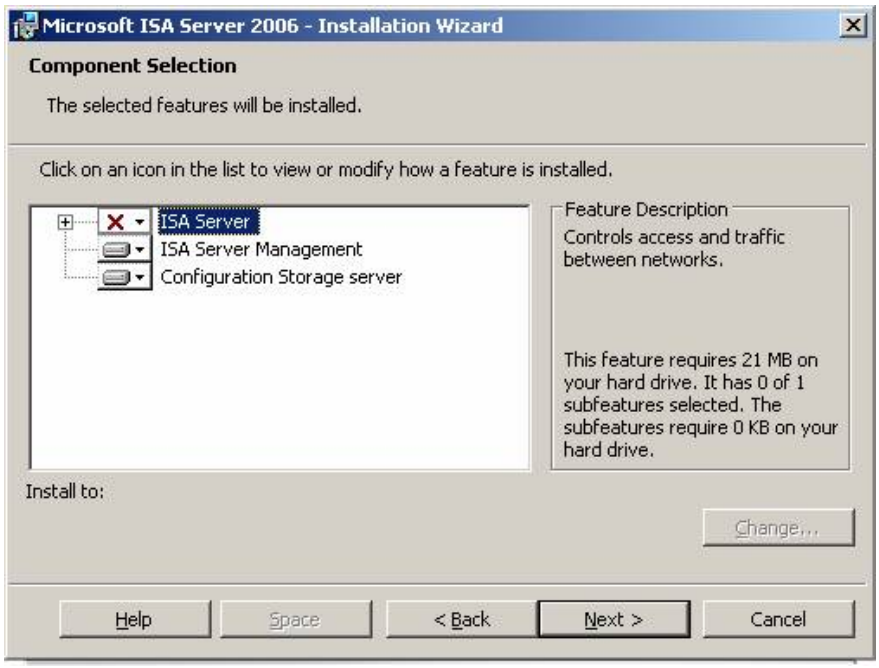


Figure 11

8. On the **Enterprise Installation Options** page, select the option **Create a new ISA Server enterprise** . This option allows you to create a new enterprise. In contrast, the **Create a replica of the enterprise configuration option** allows you to copy an existing ISA Firewall enterprise, which can be used as a backup CSS when the main CSS crashes. In this example, we need to create a new enterprise that will have all our arrays. Click **Next** .

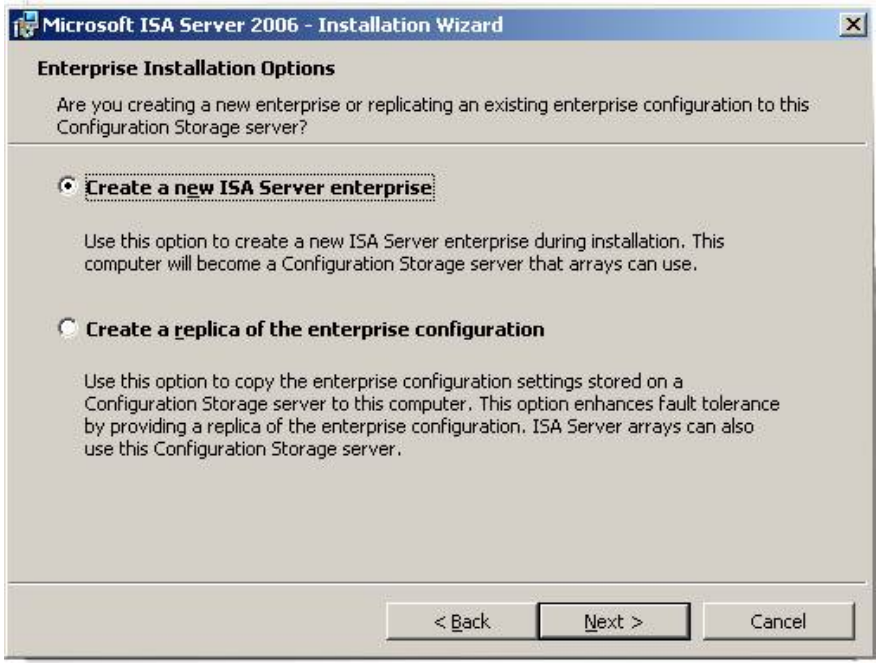


Figure 12

9. In the **New Enterprise Warning** page, you will see value information in using an enterprise to manage all arrays. Click **Next** .

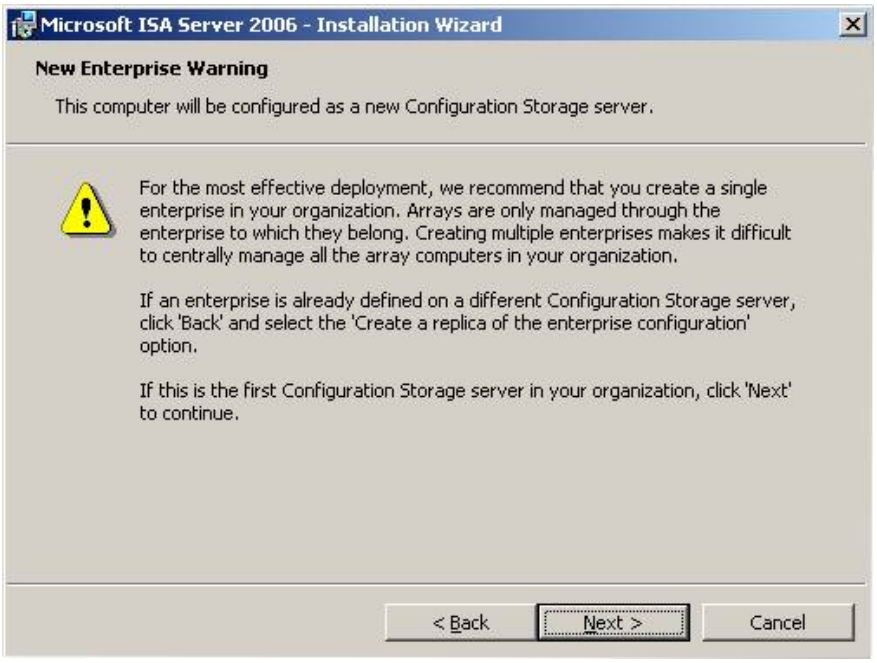


Figure 13

10. In the **Create New Enterprise** page, enter a name for the new ISA Firewall enterprise in the **Enterprise name** name box. In this example, we will use the name **Enterprise** . You can enter a description for this ISA Firewall enterprise in the **Description** box. Click **Next** .

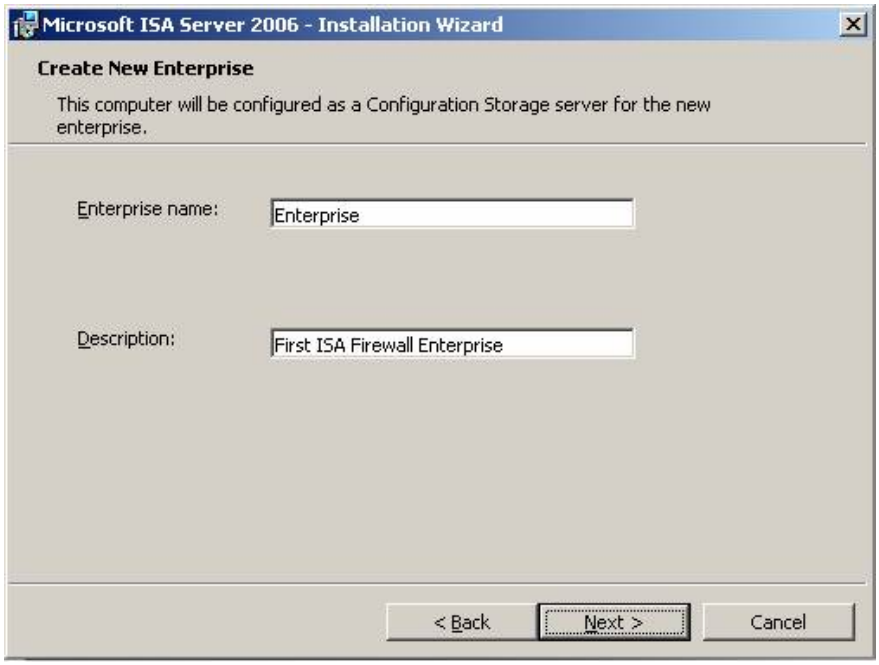


Figure 14

11. In the **Enterprise Deployment Environment** dialog box, you need to choose between two deployment options on the same domain or in the same workgroup. Best for security issues ISA Firewall as well as easy configuration you should choose to be part of the same domain. So we'll do it with the best option.

    Since we will deploy a secure configuration, ISA Firewall and CSS members are part of the same domain, so choose the option **I am deploying in a single domain or in trust domains** . Click **Next** .

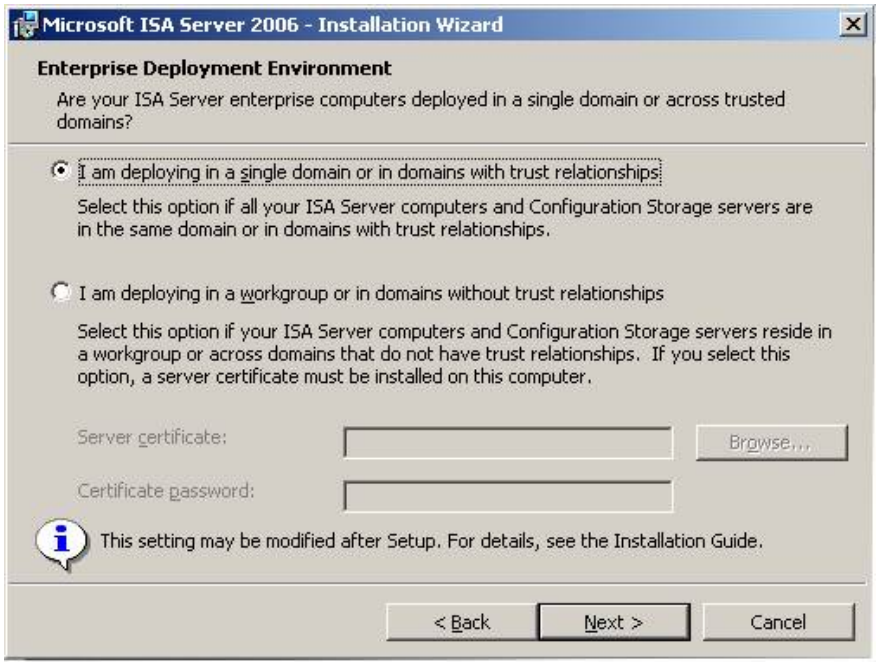


Figure 15

12. On the **Ready to Install the Program page** , click **Next.**

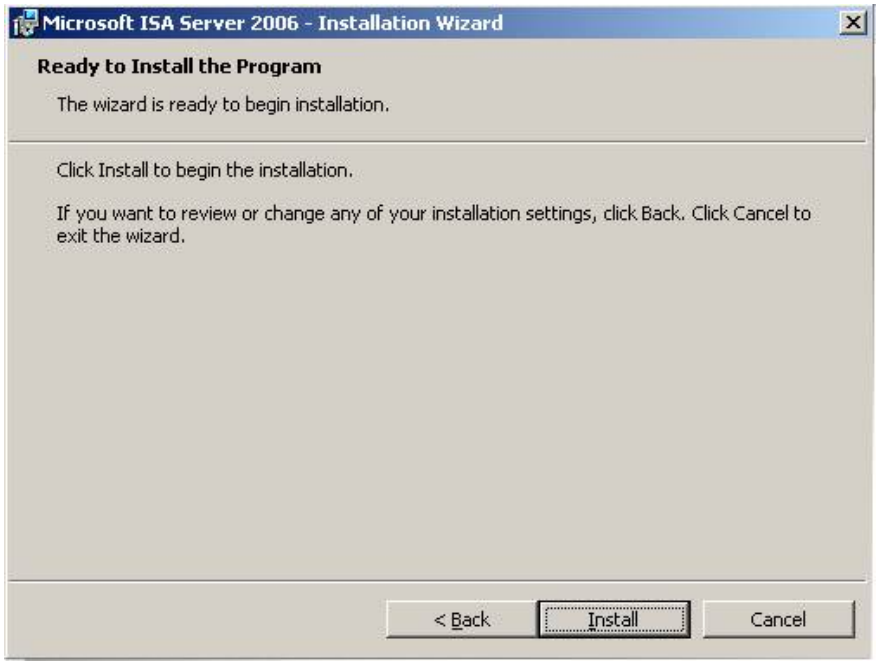


Figure 16

13. The progress bar will show the status of the installation and what actions the installer is performing at a certain time.

Figure 17

14. On the **Installation Wizard** page, click the **Invoke ISA Server Management** entry **when the wizard closes** and click **Finish** .

Figure 18

Create arrays and configure Enterprise Management Station

Now we are ready to create arrays for the main and branch offices. The primary array is a set of ISA Firewalls that act as logical firewalls, all of which have the same policy and configuration. An ISA Firewall array can consist of 1 to 32 servers. At least one interface on each ISA Firewall array member must be on the same network ID as all other members of the ISA Firewall array in the same ISA Firewall array, this interface is used for internal array communication. In fact, this means that you cannot extend arrays for entire WAN links or site to site VPNs, since all interfaces in the remote office will be on a different network ID than the network ID at main office.

In the example used in this series, we will have two arrays: the main office array named **Main** and the array for the branch office named **Branch** . We can completely create multiple main office arrays and multiple branch office arrays and each array can contain up to 32 members. In practice, however, branch offices typically contain typical array members, while large offices and large branch offices can accommodate 2 to 32 member servers.

One of the biggest advantages in using multiple array members is that CARP and NLB network load balancing mechanisms allow you to achieve flux efficiency equal to the total number of array members over the time that link speed has. available for each array member.

For example, with dynamic data inspection, a typically configured ISA Firewall can pass through traffic at approximately 1.5Gbps. If you have a main office array containing 5 array members, the array throughput will be 7.5Gbps. Calculate the cost of a hardware firewall with 7.5Gbps throughput and compare it to the cost of a 5-member array.

You will be impressed by the cost savings as well as the ability to replace components at affordable prices.

Let's go back to the ISA Firewall console. After clicking **Finish** on the last page of the installation wizard, the ISA Firewall interface will open as a secure website. Follow these steps to add CSS to **Enterprise Remote Management** stations in enterprise policy:

1. Read the page **Protect the ISA Server Computer** and then close it.
2. In the ISA Firewall console, open the **Enterprise** button, and then open the **Enterprise Policies** node. Click the **Default Policy** button **.**

Figure 19

3. Click the **Toolbox** tab in the Task Pane. Click the **Network Objects** title. Click the **Computer Sets** folder, and then double-click the **Enterprise Remote Management** entry.

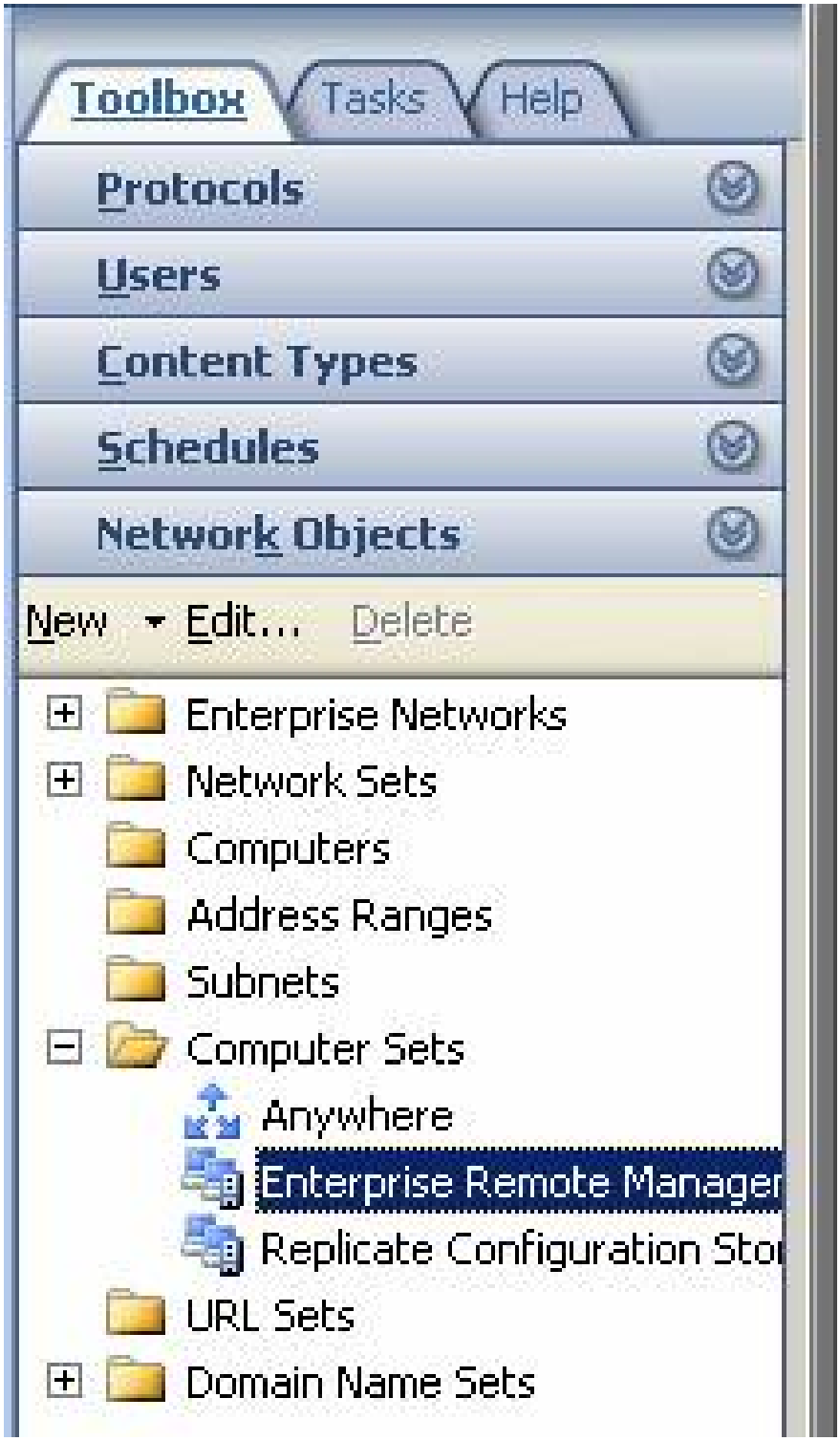


Figure 20

4. In the **Enterprise Remote Management Computers Properties** dialog box **,** click the **Add** button and click the **Computer** entry.

Figure 21

5. In the **New Computer Rule Element** dialog box, enter a name for the CSS machine, which also acts as a remote management station. We will name this computer CSS and enter its name in the **Name** box. In the **Computer IP Address** box, enter the IP address of the CSS machine. In our example, the IP address is **10.0.0.3** . Enter the description for that machine in the **Description (optional)** box. Click **OK** in the **New Computer Rule Element** box.

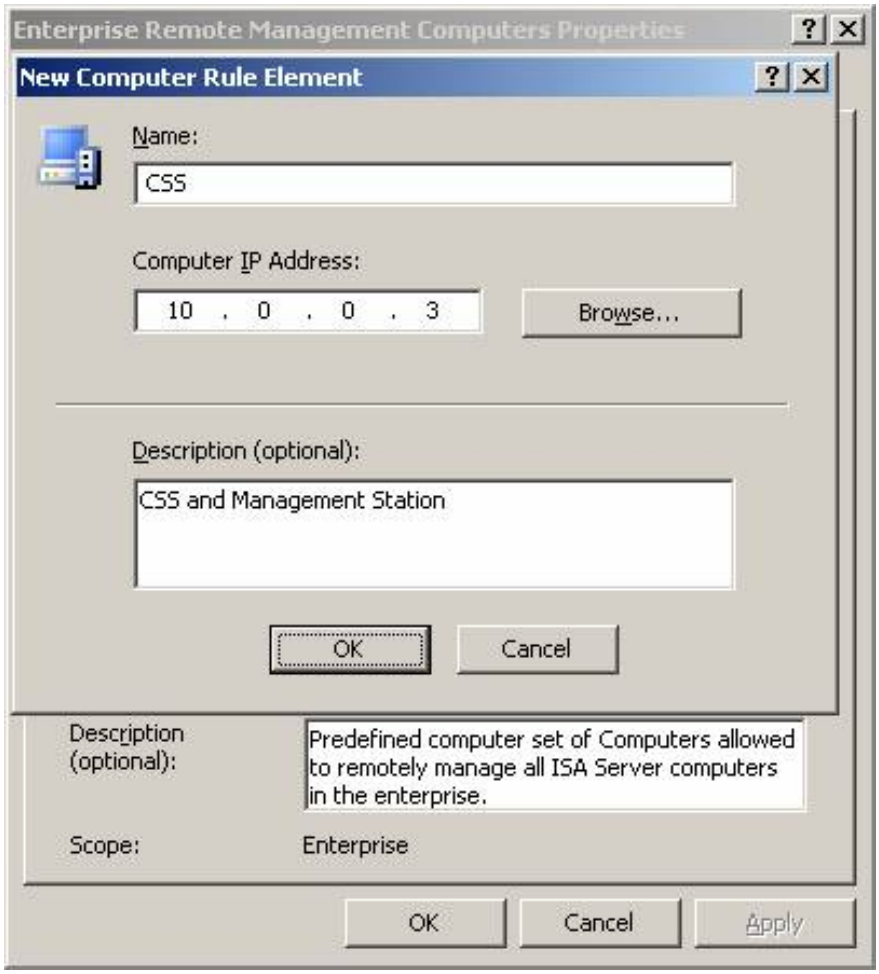


Figure 22

6. Click **OK** in the **Enterprise Remote Management Computers Properties box** .
7. Click **Apply** to save the changes and upgrade the firewall policy. Click **OK** in the **Apply New Configuration** box.

Now we need to create arrays. There will be two arrays in this scenario: a main office array and a branch office array. Both arrays will be managed in the same ISA Firewall enterprise and can use centralized enterprise policies. Follow the steps below to create the **Main** array:

1. In the left pane of the ISA Firewall console, right-click the **Arrays** node. Click the **New Array** command **.**

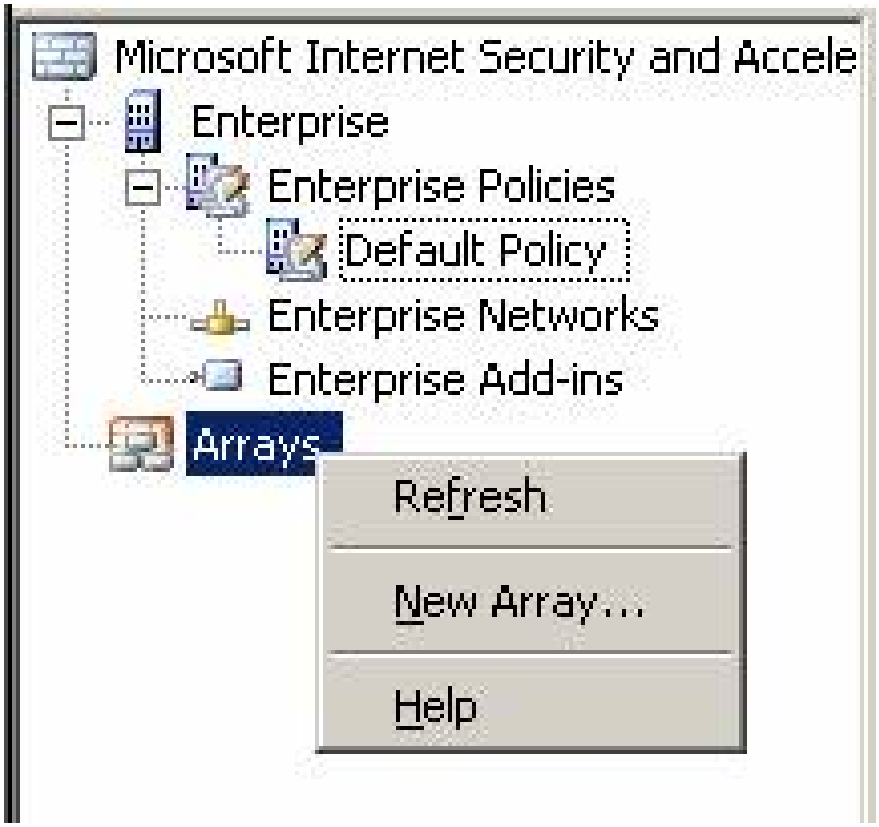


Figure 23

2. In the **Welcome to the New Array Wizard box** , enter a name for the array in the **Array name** box. In this example, we will name the array **Main** . Click **Next** .

Figure 24

3. In the **Array DNS Name** box, enter a FQDN to distinguish the array name. This is very useful when you use NLB or client side CARP to load balance. In this example, we will use the name **main.msfirewall.org** to resolve the IP address of the internal interface of the main office ISA Firewall office. If NLB is enabled, this name will resolve to an internal VIP, and if using client side CARP, we will have Host (A) records for this name and use DNS round robin for distribution. Initial connection to receive information. Click **Next** .

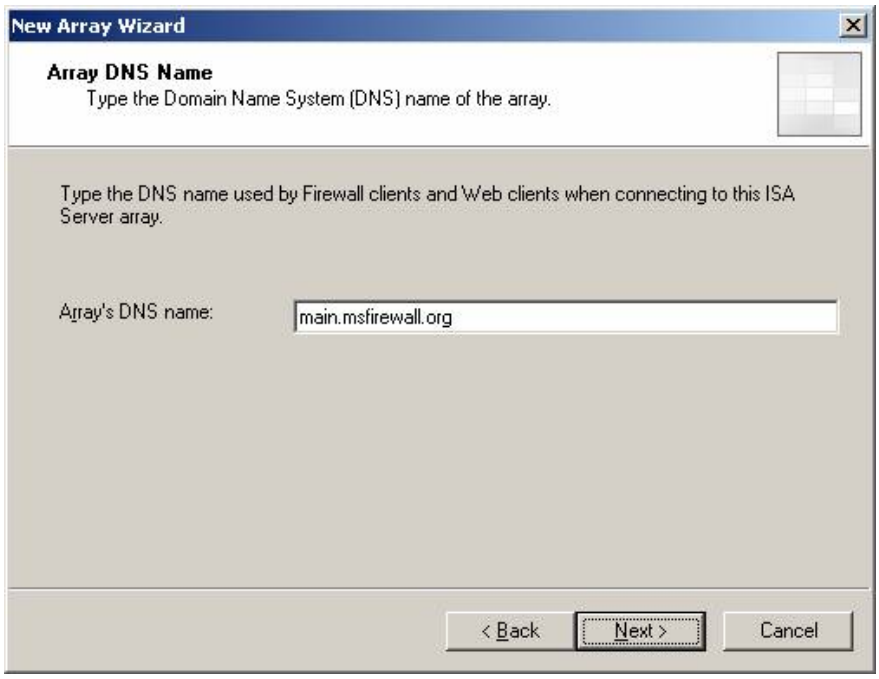


Figure 25

4. On the **Assign Enterprise Policy** page, select the default option, **Default Policy** . We will then examine how to use enterprise policies that apply to all arrays managed by the same ISA Firewall enterprise. Click **Next** .

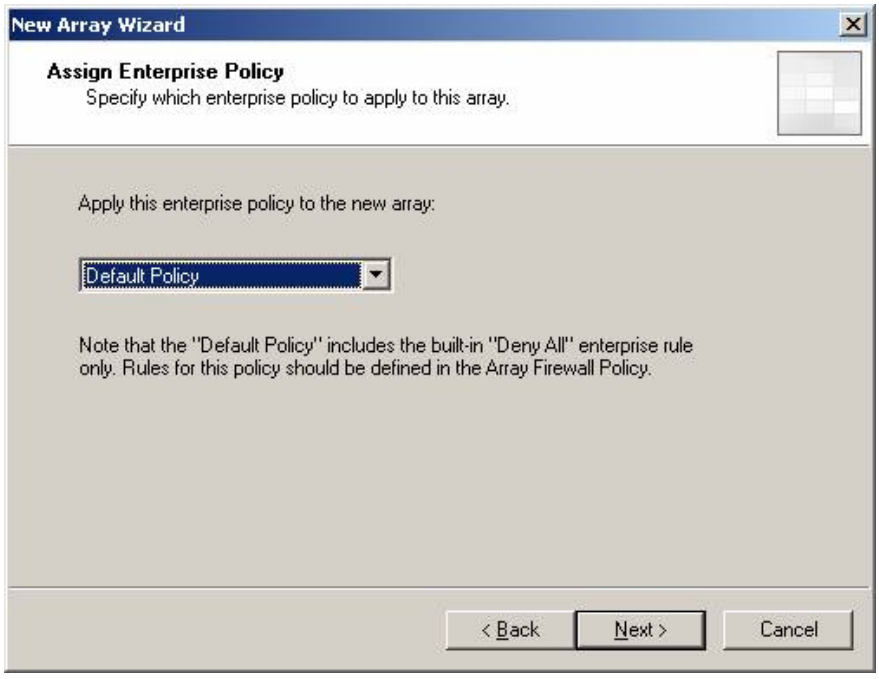


Figure 26

5. On the **Array Policy Rule Types page** , you can centrally control some types of rules that are configured by array administrators. Leave the default **'Deny' Access Rules, 'Allow' Access Rules and Publishing rules (Deny and Allow)** enabled and click **Next** .

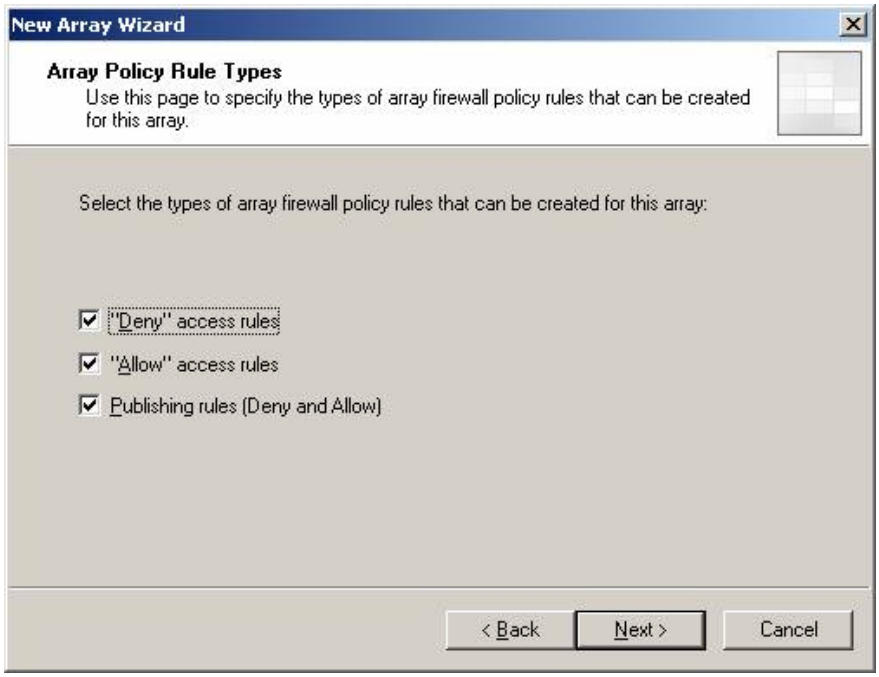


Figure 27

6. Click **Finish** on the **Completing the New Array Wizard page.**

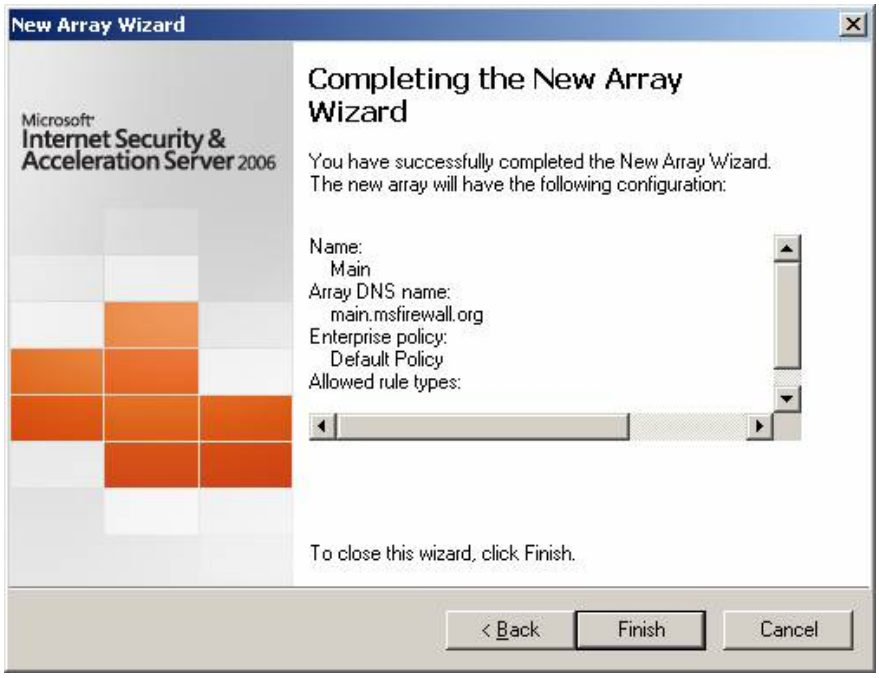


Figure 28

7. The process bar **Creating a new array** appears when the array is created.

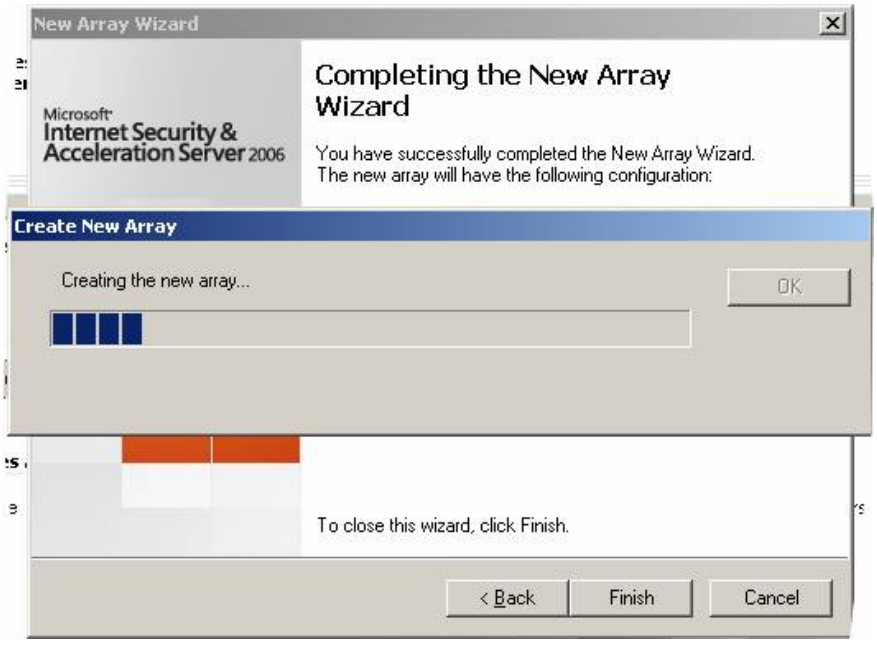


Figure 29

8. Click **OK** after **The new array was successfully created** .

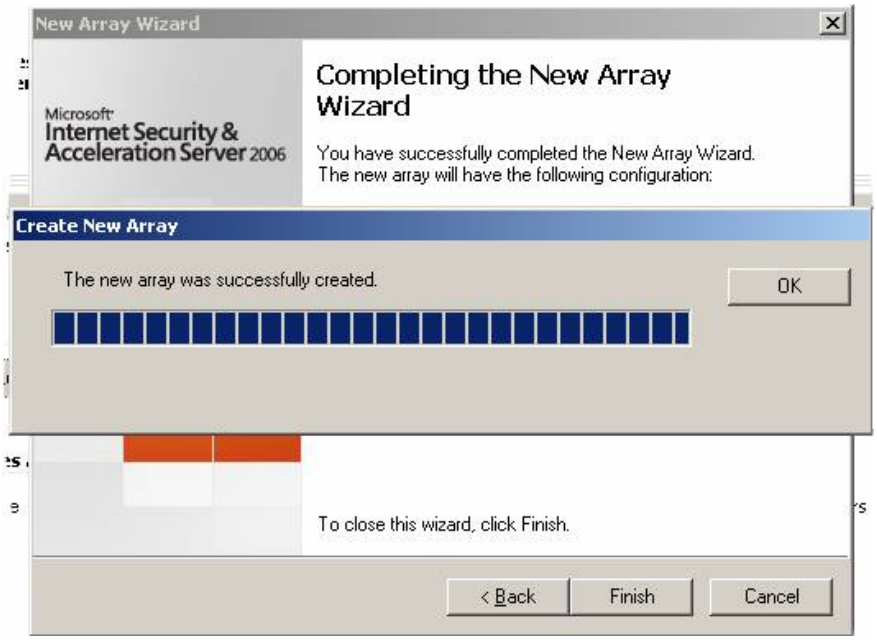


Figure 30

9. Click **Apply** to save the changes and upgrade the firewall policy. Click **OK** in the **Apply New Configuration** box.

Let's create the branch office array:

1. Right-click on the **Arrays** button and click **New Array** .

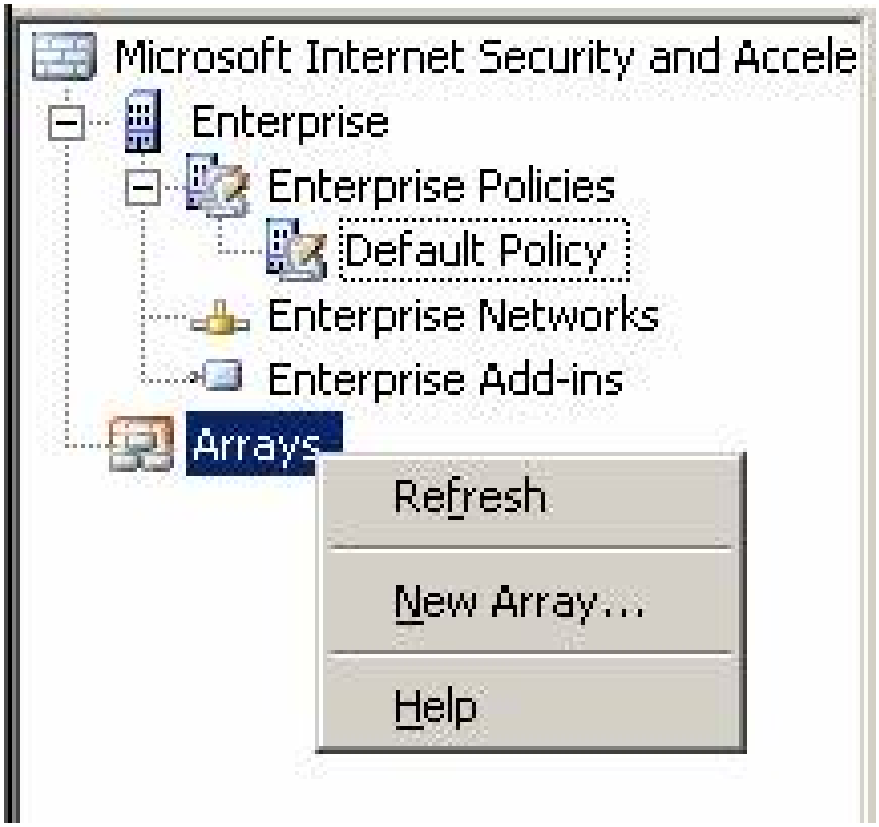


Figure 31

2. Enter **Branch** in the **Array name** box. Click **Next** .

Figure 32

3. Enter **branch.msfirewall.org** in the **Array's DNS name** box. This name will resolve to an IP address within the branch office ISA Firewall. Click **Next** .

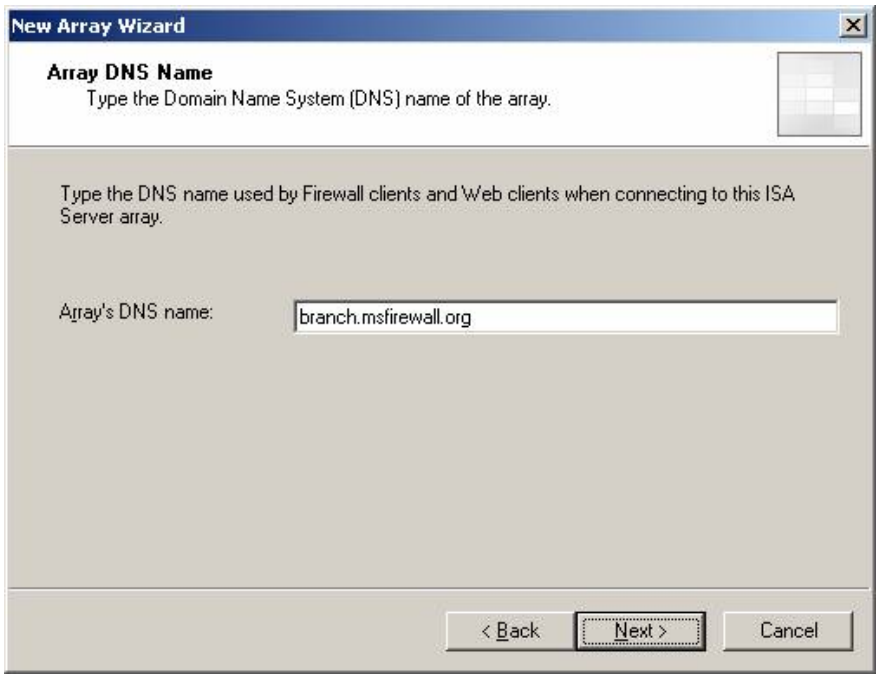


Figure 33

4. Accept the **Default Policy** entry on the **Assign Enterprise Policy** page and click **Next** .

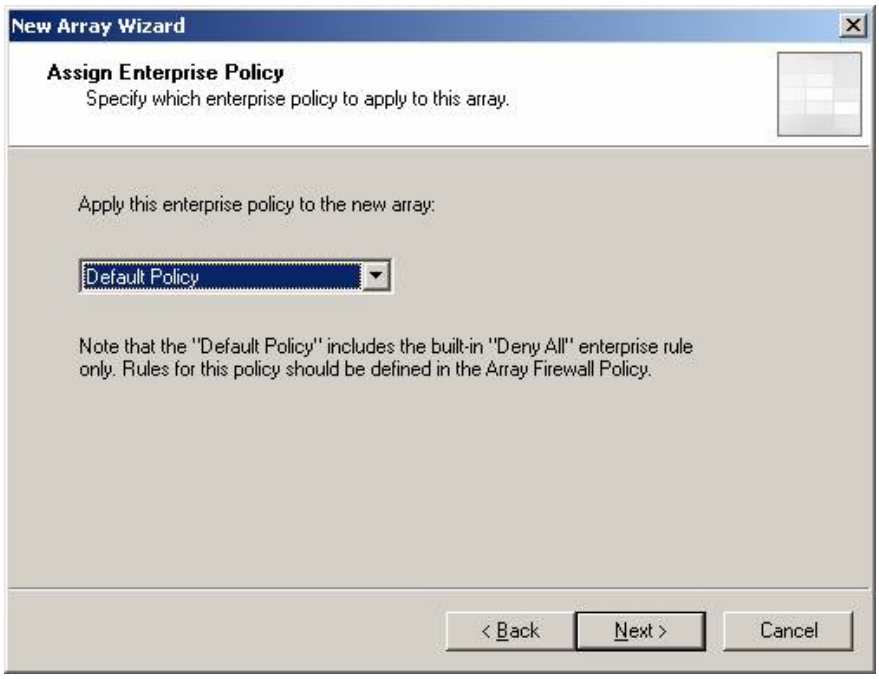


Figure 3 * 4

5. Accept the default settings on the **Array Policy Rule Types page** and click **Next** .

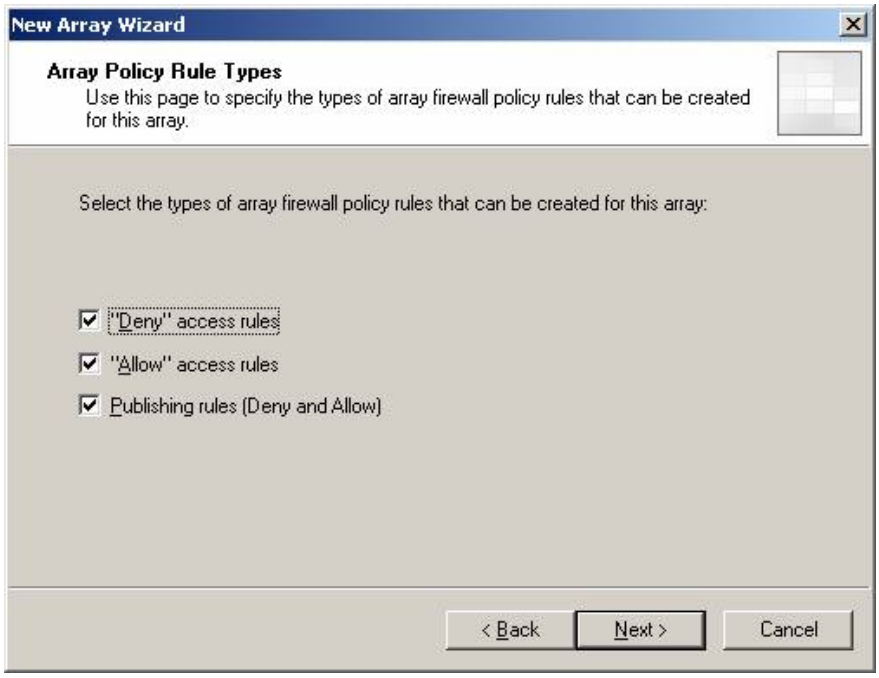


Figure 35

6. Click **Finish** on the **Completing the New Array Wizard page.**

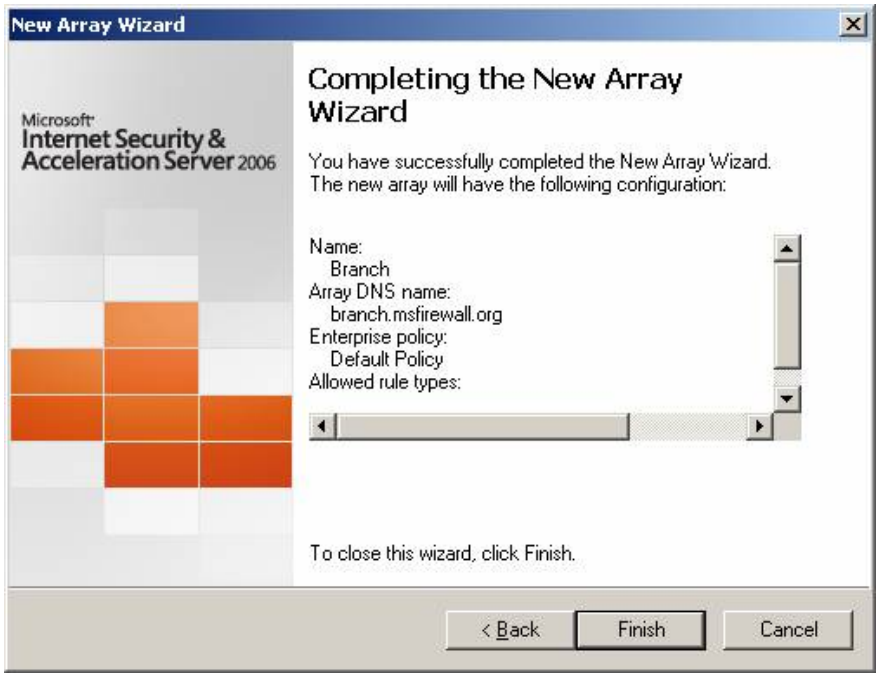


Figure 36

7. The status bar indicates the progress of the new array creation process.

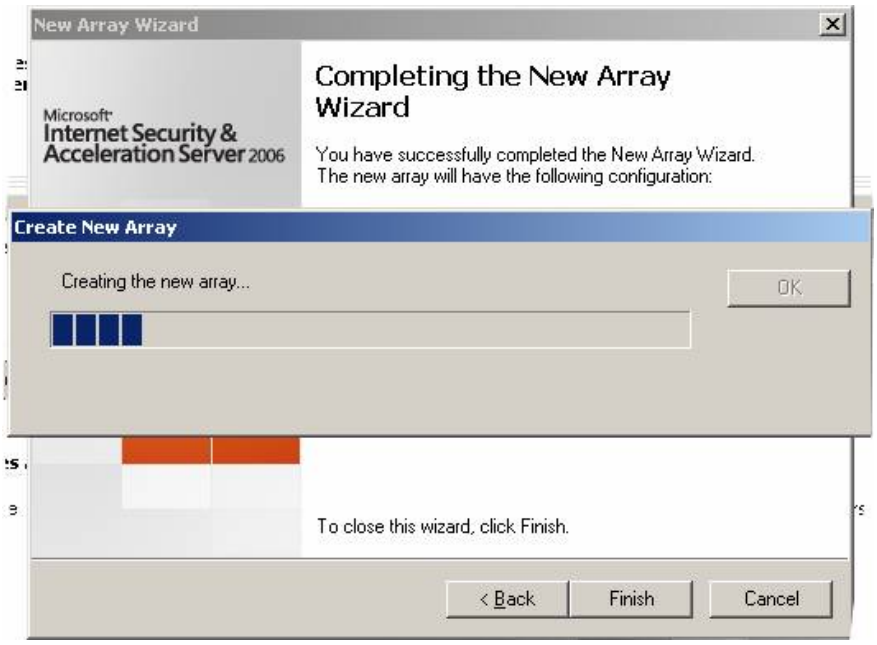


Figure Figure 37

8. Click **OK** when you see **The new array was successfully created** .

Figure 38

9. Click **Apply** to save the changes and update the firewall policy. Click **OK** in the **Apply New Configuration** box.

One last thing needs to be done before the end. Click on the link above in the middle pane that relates to the customer experience improvement program. You will be taken to the **Customer Feedback** box. You should join this program because it will help the ISA Firewall product group understand how you use the ISA Firewall and how to respond to problems that you may encounter with the ISA Firewall. What information will be sent to Microsoft and the end result will make a ISA Firewall product more stable and secure for you and anyone who uses the ISA Firewall.

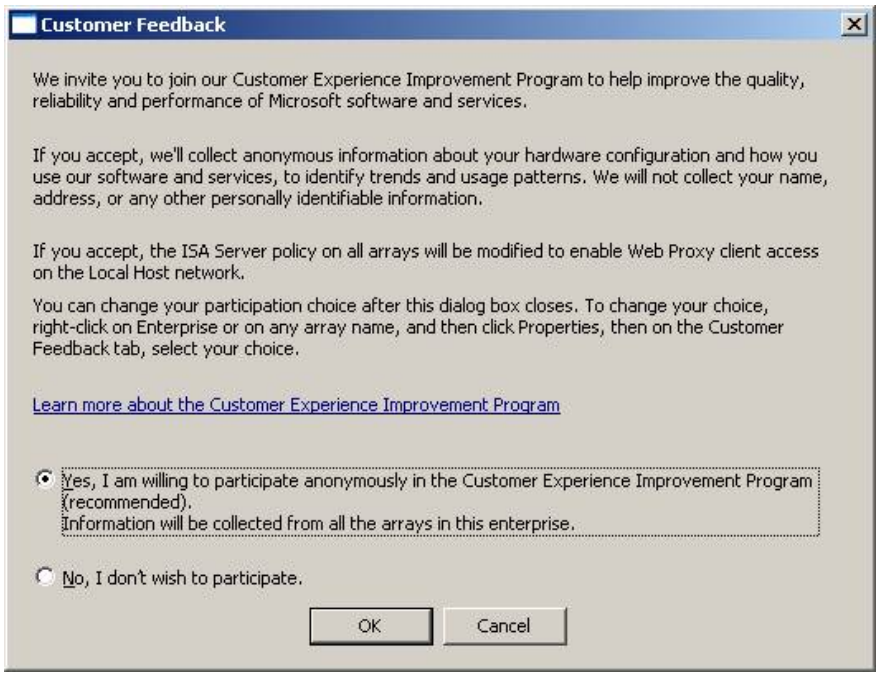


Figure 39

Conclude

In this section, we have configured the DNS server with Host (A) record to support the solution. After configuring DNS, we installed CSS on a dedicated CSS machine and configured the main office and branch offices. In the next part of this series, we will show you how to create an answer file and then use it for creating a site to site VPN connection, then join the branch office ISA Firewall to the domain and CSS main office.

You finished reading the article "**Create Site to Site VNP with the ISA 2006 Firewall Branch Office Connection Wizard - Part 2**" edited by the **TipsMake** team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.