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## Deploying the ARRAY-APV System with Microsoft Office SharePoint Server 2010

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- Configuring the ARRAY-APV system for Microsoft Office SharePoint 2010



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## Deploying the ARRAY-APV System with Microsoft Office SharePoint Server 2010

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## Introducing the ARRAY and Microsoft Office SharePoint Server 2010 configuration

Welcome to the ARRAY and Microsoft® Office® SharePoint® 2010 Deployment Guide. This guide contains step-by-step procedures for configuring ARRAY devices for Office SharePoint 2010 resulting in a secure, fast and available deployment.

Microsoft Office SharePoint Server 2010 enables enterprises to develop an intelligent portal that seamlessly connects users, teams, and knowledge so that people can take advantage of relevant information across business processes to help them work more efficiently.

For more information on Microsoft Office SharePoint Server 2010, see <http://www.microsoft.com/sharepoint/default.msp>

For more information on the ARRAY devices included in this guide, see

<http://www.arraynetworks.net/entry.asp?PageID=109>.

- Configuring the ARRAY-APV system for Microsoft Office SharePoint 2010, on page 3.

### Prerequisites and configuration notes

The following are general prerequisites for this deployment; each section contains specific prerequisites:

- All of the configuration procedures in this document are performed on ARRAY devices. For information on how to deploy or configure Microsoft Office SharePoint 2010, consult the appropriate Microsoft documentation.
- This document is written with the assumption that you are familiar with both the ARRAY devices and Microsoft Office SharePoint 2010. For more information on configuring these products, consult the appropriate documentation.
- This Deployment Guide assumes that you have already installed the ARRAY devices in your network. It also assumes that you have performed basic configuration tasks such as creating Self IP addresses and VLANs. For more information on how to install ARRAY devices and configure the basic settings, refer to the appropriate Application Guide, WebUI Handbook and CLI Handbook.

## Configuring the ARRAY-APV system for Microsoft Office SharePoint 2010

The first section in this Deployment Guide is for configuring the ARRAY-APV WebUI for the SharePoint 2010 devices.

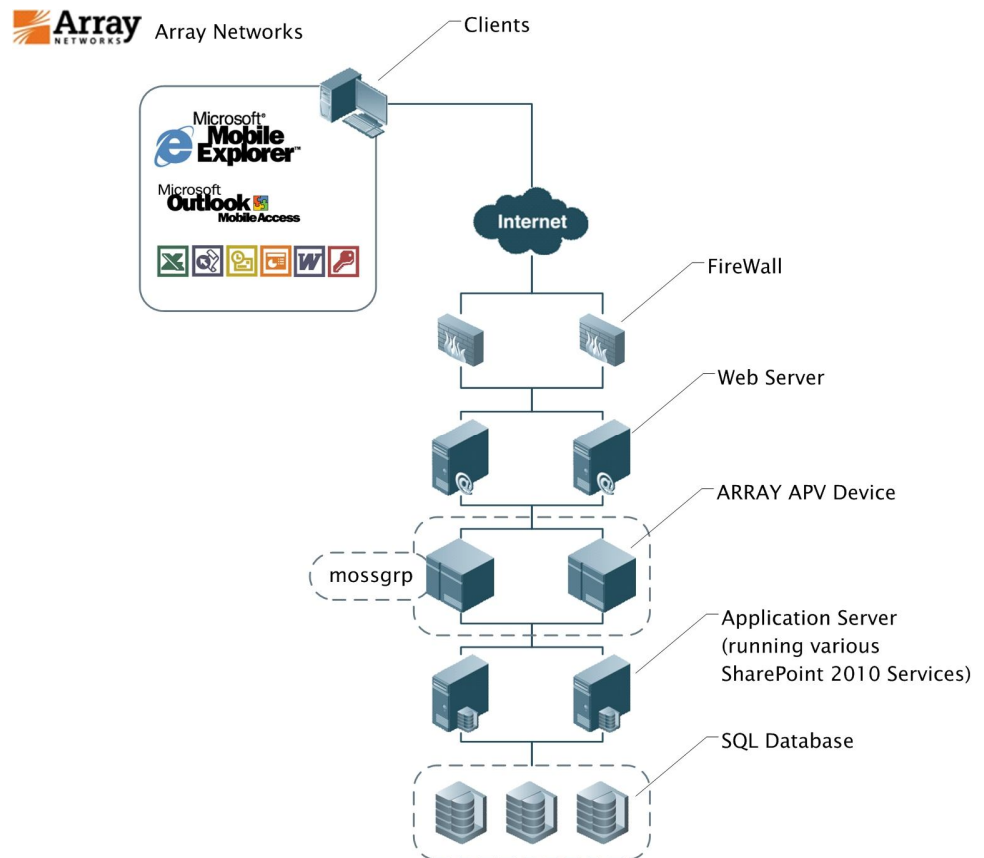
### Prerequisites and configuration notes

The following are prerequisites for this deployment:

- ☐ The ARRAY-APV system should be running version 6.5.1 or later and later include updates for HTTP profiles to more reliably support use with Microsoft Office SharePoint Server.  
Through the use of HTTP profiles, it is possible to use advanced features such as compression and HTTP iRule methods in conjunction with a SharePoint Server deployment.
- ☐ For certain optional optimization features, the appropriate module on the ARRAY-APV system must be licensed (such as compression and RAM Cache).
- ☐ The Microsoft Office SharePoint Server must be the 2010 edition.
- ☐ All of the configuration procedures in this document are performed on the ARRAY-APV system. For information on how to deploy or configure the Office SharePoint Server 2010, consult the appropriate Microsoft documentation. You should have at least basic familiarity with both products.

## Configuration example

The ARRAY-APV system provides intelligent traffic management and high availability for Microsoft Office SharePoint Server 2010 deployments.



*Figure 1.1 ARRAY-APV SharePoint Server logical configuration*

## Configuration Tasks

To configure the ARRAY-APV and SharePoint 2010 devices for integration, you need to complete the following procedures:

- Connecting to the ARRAY-APV device
- Creating the real service
- Creating the group
- Creating the SLB virtual server
- Checking the SLB Virtual Service Status and visit the web site to view the result

## Connecting to the ARRAY-APV device

Use the following procedure to access the ARRAY-APV web-based Configuration utility using a web browser.

### To connect to the ARRAY-APV system using the Configuration utility

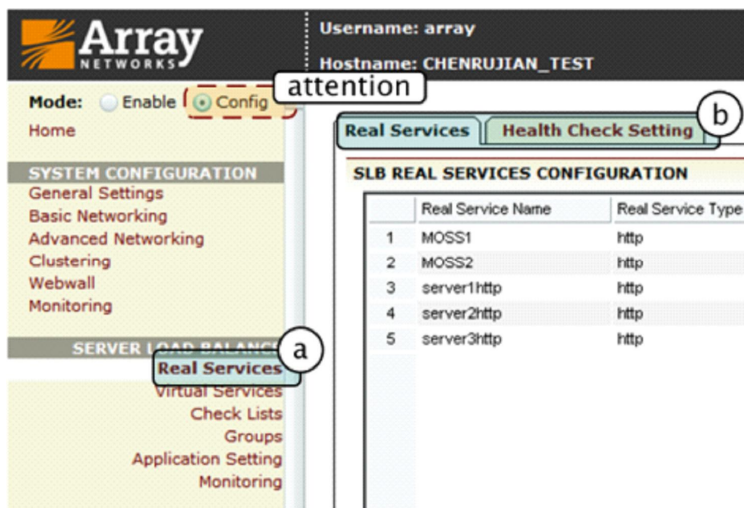
1. In a browser, type the following URL:  
https://<administrative IP address of the ARRAY-APV device>  
A Security Alert dialog box appears, click Yes. The authorization dialog box appears.
2. Type your user name and password, and click **OK**.  
The Array Networks Pilot Login screen opens.
3. Type your enable password, and click Login.  
The welcome screen opens.

Once you are logged onto the ARRAY-APV system, the Welcome screen of the new Configuration utility opens. From the Configuration utility, you can configure and monitor the ARRAY-APV system, as well as access online help, download SNMP MIBs and Plug-ins, and even search for specific objects.

## Creating the real service

The first step in setting up your network architecture with the Array performing SLB tasks is to create and configure your real services.

Make certain you are in Config mode and have selected the feature link Real Services from the sidebar [a]. The configuration window will display two tabs [b]. The default page is Real Services.



Username: array  
Hostname: CHENRUJIAN\_TEST

Mode: ☐ Enable ☒ Config

Home

SYSTEM CONFIGURATION

- General Settings
- Basic Networking
- Advanced Networking
- Clustering
- Webwall
- Monitoring

SERVER LOAD BALANCE

- Real Services** (a)
- Virtual Services
- Check Lists
- Groups
- Application Setting
- Monitoring

Real Services Health Check Setting (b)

SLB REAL SERVICES CONFIGURATION

	Real Service Name	Real Service Type
1	MOSS1	http
2	MOSS2	http
3	server1http	http
4	server2http	http
5	server3http	http

Figure 1.2 Creating the real service

### To create a real service

1. Click on the "Health Check Setting" tab [a], a new window will display. Input the fields relating to the Response String [b]. In our example we need to input "**HTTP/1.1 401 Unauthorized**". Finish the Health Check Setting by clicking "SAVE CHANGES" [c].

**Real Services** **Health Check Setting** a

**Real Services** **Health Check Setting** c **SAVE CHANGES**

**HEALTH CHECK SETTING**

Enable Health Check: ☒

Health Check Interval(seconds): 5

Server Timeout(seconds): 5

Enable Failover: ☐

Retries Before Failover: 3

Request Index: 0 Request String: HEAD / HTTP/1.0\r\n\r\n

Existing Requests: 0 HEAD / HTTP/1.0\r\n\r\n Delete Clear

Response Index: 1 Response String: HTTP/1.1 401 Unauthorized b

Existing Responses: 1 HTTP/1.1 401 Unauthorized Delete Clear

Figure 1.3 Creating the real service



2. Select the action link “**Add Real Service Entry**” [a]. The configuration window will present a new screen.
3. The new screen is for you to configure real servers. Depending on which type of real service is specified, certain parameter fields will appear, change or disappear in relation to what the requirements for the setting entail. Input the fields relating to the real services, including Real Service Name, IP, Port, Maximum Connections, Session Timeout, Real Service MAC, and Output Interface. In our example, we type **MOSS1** and **MOSS2** as the Real Service Names, and input the IP addresses **10.3.0.90** and **10.3.0.89** as our MOSS1 and MOSS2 web site. Because our example will demonstrate Web Service, we set Real Service Port to be **80** [b].
4. Then set the health check type for the real service via the selector [c], and configure the related parameters of health check.
5. Notice the parameter fields may vary with different health check types. In our example, we select the http Health Check Type [d]. Make certain we have selected the "1 HTTP/1.1 401 Unauthorized" [e].
5. Finish the creation of the real service and its health check configuration by clicking “**save**” on the desired action link [f].

The screenshot displays the 'SLB REAL SERVICES CONFIGURATION' interface. At the top, there are tabs for 'Real Services' and 'Health Check Setting'. Below the tabs is a table with columns: 'Real Service Name', 'Real Service Type', 'Real Service IP', 'Real Service Port', and 'Real Service Status'. To the right of the table are links: 'Delete Real Service Entry' and 'Add Real Service Entry' (labeled 'a').

The 'ADD REAL SERVICE ENTRY' form is shown below the table. It has a title bar with 'Cancel | Save & Add Another | Save' (labeled 'f'). The form is divided into two sections: 'REAL SERVICE SET' and 'HEALTH CHECK SETUP'.

In the 'REAL SERVICE SET' section, the following fields are visible:
 

- Real Service Name: MOSS1 (labeled 'b')
- Real Service Type: http (dropdown)
- Real Service IP: 10.3.0.90
- Real Service Port: 80
- Connection Limit: 1000

In the 'HEALTH CHECK SETUP' section, the following fields are visible:
 

- Health Check Type: tcp (dropdown, labeled 'c')
- Health Up Limit: 3
- Health Down Limit: 3

Below the 'HEALTH CHECK SETUP' section, there are two more dropdown menus:
 

- Health Check Type: http (dropdown, labeled 'd')
- Request Index: 0 HEAD / HTTP/1.0\r\n\r\n
- Response Index: 1 HTTP/1.1 401 Unauthorized (labeled 'e')

Figure 1.4 Creating the real service

## Creating the group

The next step is to create a group containing the real service you just created.

It is time to assign the previously defined real services to groups. A group is first defined by using the slb group method command. This command will define a group to which you may add real servers.

Make certain you are in Config mode and have selected the feature link Groups from the sidebar [a]. The configuration window will display two tabs. Click on the “Groups” tab [b].

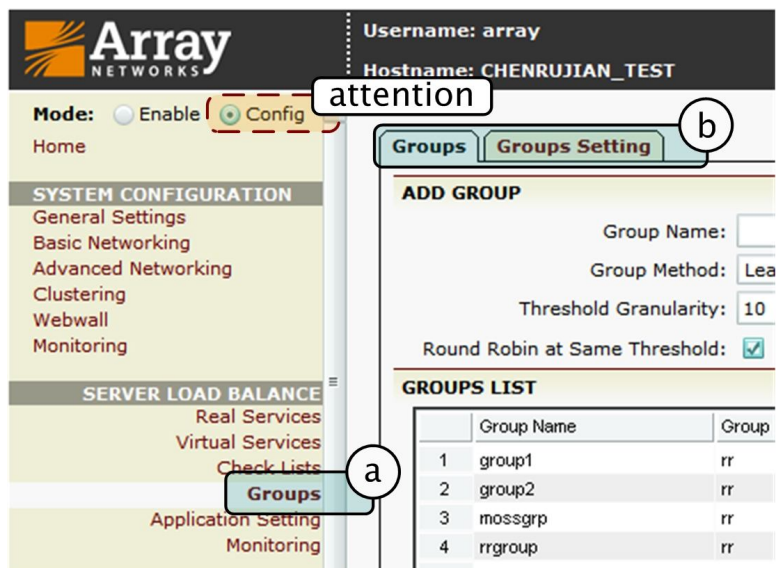


Figure 1.5 Creating the group

### To create the group

1. Input the group name **mossgrp** [a]. Select Round Robin group method by selecting from the pull down menu [b]. Depending on which method is selected, certain parameter fields will change, appear or disappear [c]. After making configurations on those parameter fields, click on the action link “Add” [d]. Then the newly created mossgrp will be displayed in the sort ready table below [e]. Choose mossgrp in the table and double click on it or click on the action link “Edit” [f]. A new configuration page will be displayed.

**Groups** **Groups Setting**

**ADD GROUP**

Group Name: mossgrp

Group Method: Round Robin

L2 SLB Group: ☐

**GROUPS LIST**

	Group Name	Group Method
1	group1	rr
2	group2	rr
3	mossgrp	rr
4	rrgroup	rr

Figure 1.6 Creating the group

2. You can modify the group method and relevant configurations in the area [a]. Depending on which method is selected, certain parameter fields will change, appear or disappear.
3. Assign the configured real services MOSS1 and MOSS2 to the newly created groups by using the pull down menu “Eligible Reals” [b]. Set the “Weight” parameter [c] if the group method is rr, pi, ph, hh, hc, ic or rc, or set the “Cookie Value” parameter if the group method is pc, or set the “URL Value” parameter if the group method is pu. Then, click on the “Add” action link [d] and the assigned real services MOSS1 and MOSS2 will appear in the display window [e].
4. Also at this page, there is a display window showing the current running statistics of the particular group [f].

**Groups** **Groups Setting**

**GROUP INFORMATION**

Group Name: mossgrp

Group Method: Round Robin

L2 SLB Group: ☐

Keep group member configuration only: ☐

\* Note: Change group parameter may not success because of the compatibility among real service type, group method, policy and virtual service.  
For example:  
Group member and group method is not compatible: A group with TCP member can not change method from Round Robin to Insert Cookie.  
Group method and virtual service type is not compatible: A Hash Header method group can not associate with a FTP virtual service by any policy.  
Group method and policy is not compatible: A group with insert cookie method can not associate with virtual service by policies except default and insert cookie.

**GROUP SETTINGS**

Number of Active Real Servers: 0 (1-65535)

**GROUP MEMBERS**

Eligible Reals: MOSS1

Weight: 1

Priority: 0

	Real Service Name	Weight	Priority	Active	Reason
1	MOSS1	1	0	YES	
2	MOSS2	1	0	NO	HEALTH

**GROUP STATISTICS**

Group Name	Method	Hits
mossgrp	rr	18

Figure 1.7 Creating the group

## Creating virtual service

The next step in this section is to create a virtual service.

A Virtual IP is an IP address that you define and that will service requests for the content which a group is designed for. For example, if group1 is a set of image servers, we could define a VIP of 10.3.47.254 that is tied to mossgrp. Any requests made to this Virtual IP will be passed to either the Cache or SLB subsystem depending on your cache and SLB settings. In essence you are hiding your internal architecture by only exposing one IP and not many.

Make certain you are in the Config mode and have selected the feature link Virtual Services from the sidebar [a]. The configuration window will display four tabs [b]. The Virtual Services page is displayed by default.

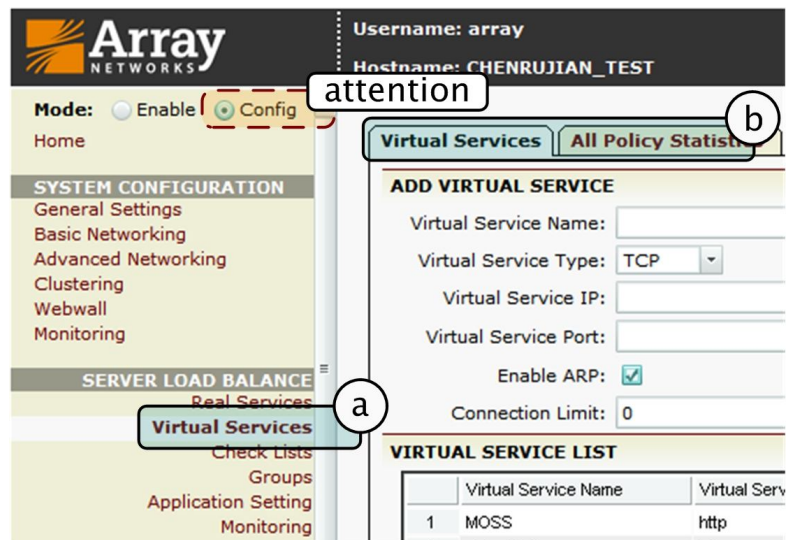


Figure 1.8 Creating the virtual server

### To create a virtual server

1. Set the virtual service's name to be MOSS [a]. Use the check box to enable the virtual service [b]. Select the virtual service type http from the selector [c]. Set the virtual service IP and port 80 [d]. Use the check box to enable ARP [e]. Set the maximum number of open connections per virtual service [f]. Depending on which type of virtual service is specified, certain parameter fields will appear, change or disappear. Click on the desired action link [g] to add a virtual service. Once a virtual service is added, it will be displayed within the table. Select a virtual service in the table and double click on it or click on the action link "Edit" [h]. A new configuration window will present a new series of tabs for completing virtual services configuration.

**Virtual Services** | All Policy Statistics | Policy Order Templates | Virtual Service Global Setting

**ADD VIRTUAL SERVICE**

Virtual Service Name:  this Service: ☒

Virtual Service Type:

Virtual Service IP:

Virtual Service Port:

Enable ARP: ☒

Connection Limit:

**g** Add

**VIRTUAL SERVICE LIST** Delete|Edit

	Virtual Service Name	Virtual Service Type	Virtual Service IP	Virtual Service Port	Enable ARP
1	MOSS	http	10.3.47.254	80	YES

**h**

Figure 1.9 Creating the virtual server

2. You may select from created virtual services via the selector [a], and modify configurations about the virtual service in the area [b]. Then, click on “Save” [c]. More parameter fields [d] are also displayed for completing settings of the selected virtual service.
3. Select the pre-created mossgrp [e] and set it to be the default group [f]. Click add button to save this Virtual Service-SLB Group association [g]. The mossgrp will be shown in the ASSOCIATE GROUPS list [h].

Select Virtual Service: MOSS [Back to top menu]

**Virtual Service Settings** | **Virtual Service Statistics** | **URL Rewrite** | **URL Filter** | **HTTP Forwarding**

**VIRTUAL SERVICE INFORMATION**

Virtual Service Name: MOSS Virtual Service Type: HTTP

Virtual Service IP: 10.3.47.254

Virtual Service Port: 80

Enable ARP: ☒

Connection Limit: 0

\* Note: Change virtual service parameter will delete all original configuration of this virtual service: policy, URL rewrite, URL filter etc.

**VIRTUAL SERVICE SETTING**

TCP Timeout:

Redirect All HTTP Requests to HTTPS: ☐

Enable OWA Support: ☐

Additional HTTP Request Headers:

HTTP Client IP Headers:

Remove Port From Location Header: ☐

Rewrite Redirections From Backend to Use HTTPS: ☐

Enable X-Forwarded-For for this service: ☒

Remove Port From Location Header: ☐

Rewrite Redirections From Backend to Use HTTPS: ☐

Enable X-Forwarded-For for this service: ☒

Mode: Use System Mode Operate as Transparent Proxy Operate as Reverse Proxy

Enable this Service: ☒

**ASSOCIATION GROUPS**

Eligible Groups: mossgrp Eligible Policies: default

	Eligible Groups	Policy Name	Eligible Policies	Attribute	Value
1	mossgrp		default		

**Add Delete**

Figure 1.10 Creating the virtual server



## Checking the status

Please selected the feature link Monitoring from the sidebar [a]. The configuration window will display four tabs [b]. The Status page is displayed by default.

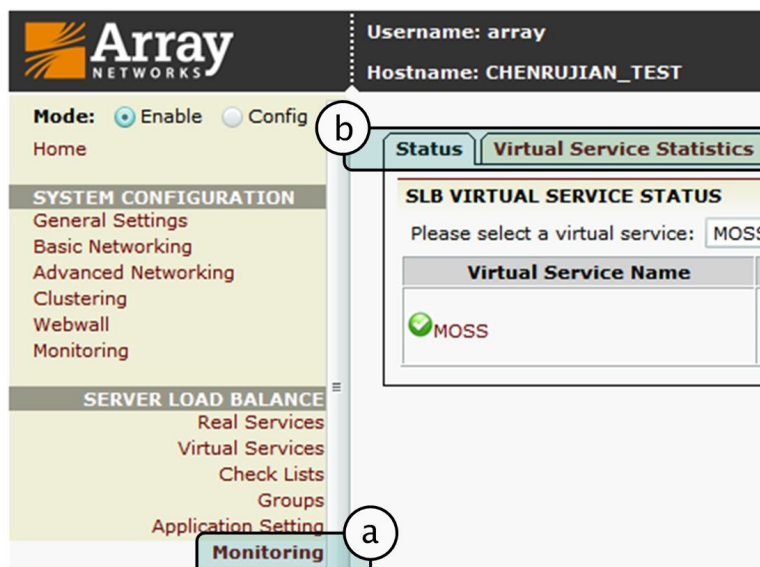


Figure 1.11 Check the status

### To check the status

1. Click on the “**Groups**” tab [a]. Select MOSS virtual service method by selecting from the pull down menu [b]. More parameter fields [c] are displayed. The targets are ok when they are green marked. Here we click on the “**MOSS**” [d], the virtual services statistics of MOSS will appear in the display window [e].

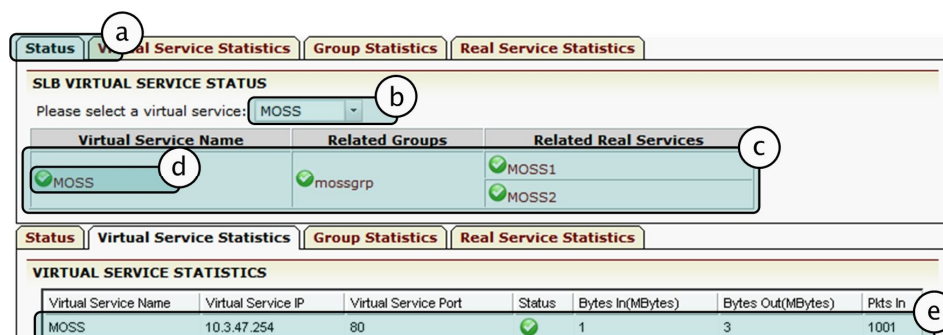


Figure 1.12 Check the status

2. Select on the “Group Statistics” page [a]. Click on the action link “View Details” behind “mossgrp” method [b]. The “Real Service Statistics” window will display [c]. And we can check the status of Real Services “MOSS1” and “MOSS2” [d].

Status

Virtual Service Statistics

Group Statistics

Real Service Statistics

GROUP STATISTICS

Name	Related Real Services	
group1	<a href="#">View Details</a>	
group2	<a href="#">View Details</a>	
mossgrp	<a href="#">View Details</a>	
rrgroup	<a href="#">View Details</a>	

Status

Virtual Service Statistics

Group Statistics

Real Service Statistics

REAL SERVICE STATISTICS

	Real Service Name	Real Service IP	Real Service Port	Status	Bytes In(MBytes)	Bytes Out(MBytes)	Pkt
1	MOSS1	10.3.0.90	80	✓	0	0	0
2	MOSS2	10.3.0.89	80	✓	0	0	0

Figure 1.13 Check the status

3. Open your browser and type the IP address of your web site. The authorization dialog box appears. Type your user name and password, and click **OK**. The main page screen opens.

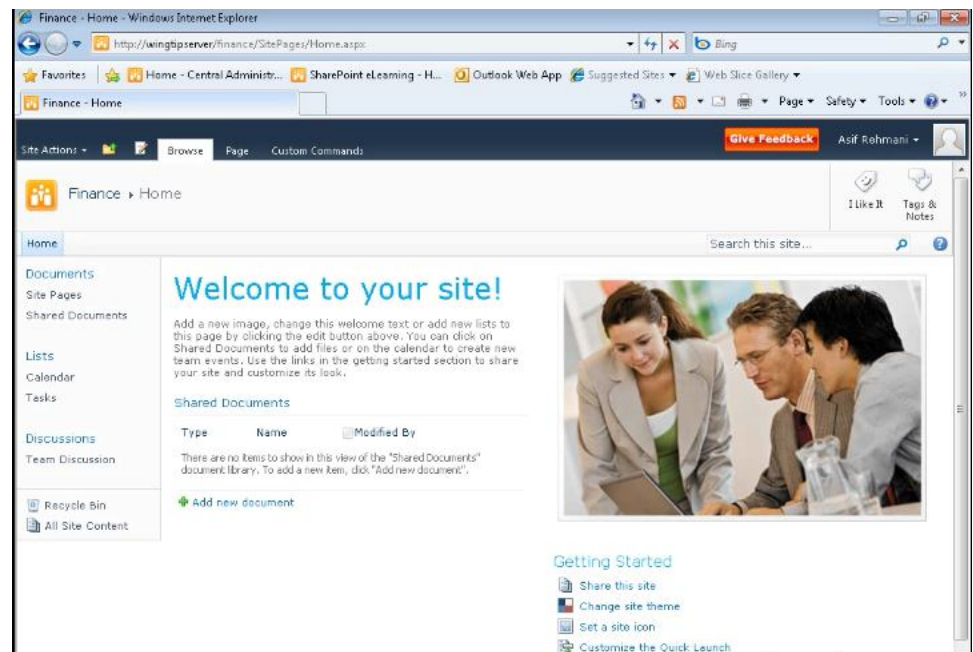


Figure 1.14 Check the status