adaptiva

Installing Adaptiva Web WakeUp for ConfigMgr 2012

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What is Adaptiva Web WakeUp?

Green Planet helps organizations shutdown computers when not in use. This helps save power, reduce carbon emissions and lower the energy bill. There may be occasions in which end-users require remote access to their machines post work hours. Instead of leaving the machine on perpetually, IT can now shutdown idle machines, and through Web WakeUp, provide end-users the ability to remotely wake up their machines, at any instant, through a simple web page.

Before launching Web WakeUp, an end user will have to provide authentication. Post verifying this data the Web WakeUp page will load with all the machines on which a user has recently logged in. The user can then proceed to wake up any of these machines by simply clicking a button. The web site then uses Adaptiva Server to wake up the specified machine, and displays status about the outcome of the operation. A user cannot wake up a machine that is not in his purview.

Once the Adaptiva Web Wakeup web site has been installed and configured by the administrator, end users can visit the web site's home page to wake up their machines whenever desired.

As many Adaptiva Web Wakeup sites can be created as desired, and Windows load balancing can be used to scale the web sites and provide redundancy. The entire operation of the web site has been carefully designed to be fully automatic, scalable, and robust. Adaptiva Server's deep integration with SCCM ensures that the Adaptiva Web Wakeup web site functions remarkably well and scales to hundreds of thousands of users with ease.

Prerequisites

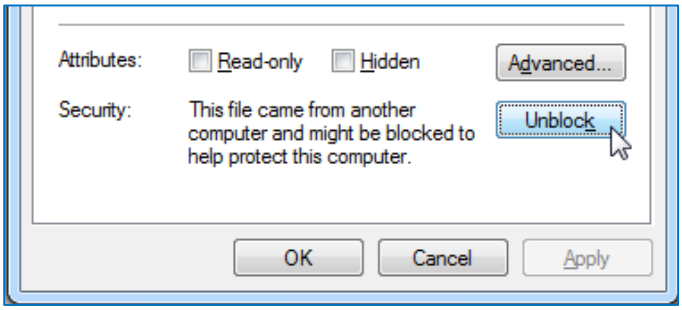
- Supported Operating Systems:
    - Windows Server 2008 and 2008 R2
    - Windows Server 2012 and 2012 R2
- Web WakeUp Domain Service Account:

  A domain service account is required to allow the Web WakeUp IIS application to connect to the SQL server hosting the ConfigMgr database. This service account should have limited rights.

- The AdaptivaWebWakeup.ZIP file which contains the web components and files required for installing the Adaptiva Web Wakeup web site. By default, the ZIP file is included in the Adaptiva server source folder.

  Note: Verify that the ZIP file isn't "blocked" in Windows. Sometimes files downloaded from the Internet are blocked for security reasons. To verify, open the Properties of the file, and if the Unblock button is present, click Unblock to unblock it. Click OK and check again if it is

blocked. Depending on the location of the ZIP file, you might have to move the file to a location in your user profile such as the desktop, to unblock it, then copy it back to where it was located before. Another option is to use the Sysinternals Stream utility to unblock files.



Web Server Installation

IIS and ASP.NET Roles and Features

The following roles and features must be installed on the server hosting the Web WakeUp site. See below for specific commands which can be executed to automatically install the required roles and features:

Role: Web Server (IIS)

- Web Server
  - Common HTTP Features
  - Default Document
  - Directory Browsing
  - HTTP Errors
  - Static Content
- Health and Diagnostics
  - HTTP Logging
  - Request Monitoring
- Performance
  - Static Content Compression
- Security
  - Request Filtering
  - Windows Authentication
- Application Development
  - .NET Extensibility 3.5
  - ASP.NET (3.5)
  - ISAPI Extensions

- ISAPI Filters
- Management Tools
  - IIS Management Console
  - IIS 6 Management Compatibility
    - IIS 6 Metabase Compatibility
    - IIS 6 Scripting Tools
    - IIS 6 WMI Compatibility

Features:

- .NET Framework 3.5(.1) Features
- NET Framework 3.5(.1)

IIS Installation Commands for Windows Server 2008 and 2008 R2

From an administrative command prompt, enter:

```
DISM.exe /Online /Enable-Feature /FeatureName:NetFx3 /FeatureName:IIS-
WebServerRole /FeatureName:IIS-WebServer /FeatureName:IIS-ISAPIFilter
/FeatureName:IIS-ISAPIExtensions /FeatureName:IIS-NetFxExtensibility
/FeatureName:IIS-ApplicationDevelopment /FeatureName:IIS-ASPNET
/FeatureName:IIS-IIS6ManagementCompatibility /FeatureName:IIS-LegacyScripts
/FeatureName:IIS-Metabase /FeatureName:IIS-WindowsAuthentication
/FeatureName:IIS-WMICompatibility
```

IIS Installation Commands for Windows Server 2012

From an administrative command prompt, enter:

```
DISM.exe /Online /Enable-Feature /FeatureName:NetFx3ServerFeatures
/FeatureName:NetFx3 /FeatureName:IIS-WebServerRole /FeatureName:IIS-WebServer
/FeatureName:IIS-HealthAndDiagnostics /FeatureName:IIS-RequestMonitor
/FeatureName:IIS-ISAPIFilter /FeatureName:IIS-ISAPIExtensions
/FeatureName:NetFx4Extended-ASPNET45 /FeatureName:IIS-NetFxExtensibility
/FeatureName:IIS-ApplicationDevelopment /FeatureName:IIS-ASPNET
/FeatureName:IIS-IIS6ManagementCompatibility /FeatureName:IIS-LegacyScripts
/FeatureName:IIS-Metabase /FeatureName:IIS-WindowsAuthentication
/FeatureName:IIS-WMICompatibility
```

Note: If .NET Framework 3 isn't already installed, you may need to have the Windows source media.

To install .Net Framework 3, Add the following to the command line:

```
/source:<Server2012MediaLocation>\Sources\SxS
```

Ex: /source:E:\Sources\SxS

Once complete, restart the server if needed. Prior to proceeding verify that the **World Wide Web Publishing Service** is Running. If the service is not running, start it.

Adding the Service Account to the IIS_IUSRS Group

The Web WakeUp domain service account needs to be added to the local IIS_IUSRS group on the Web WakeUp server so that it has access to .NET and the web page files.

Installation

Creating the Web WakeUp Site

1. Extract the contents of AdaptivaWebWakeupSite.zip to any folder. This document will assume that the folder being used is **C:\Wake**.
2. Create a folder with the path **C:\Wake\ICA**.
3. Copy the following files from C:\Wake\2012-Integration to **C:\Wake\ICA**.
   - CheckPower.exe
   - Wake.exe

   Note: Also verify that these files are unblocked. See the Prerequisites section for more information.

Creating the Web WakeUp Service Application Pool

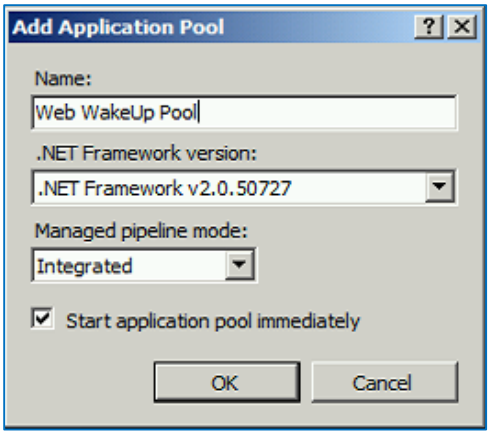
1. Open the Internet Information Services (IIS) Manager console from **Administrative Tools**.
2. Navigate to **<Server>\Application Pools** and in the "Actions" pane, select **Add Application Pool**.
3. In the "Add Application Pool" dialog:

   Name: Enter a name for the new application pool, ex: Web WakeUp Pool

   .NET Framework version: 2.0.50727

   Managed pipeline model: Integrated

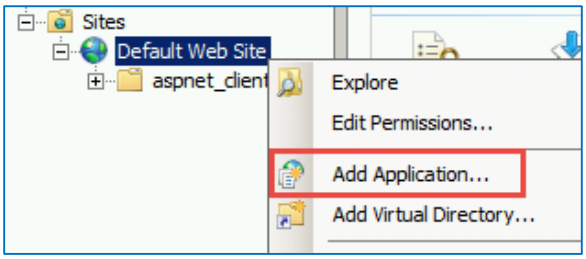
   Start application pool immediately: Checked



4. Click **OK** to create the Application Pool.

Creating the Web WakeUp IIS Application

1. Navigate to the <localserver>\Sites\Default Web Site node.
2. Right-click the **Default Web Site** node, and select **Add Application** from the context menu.

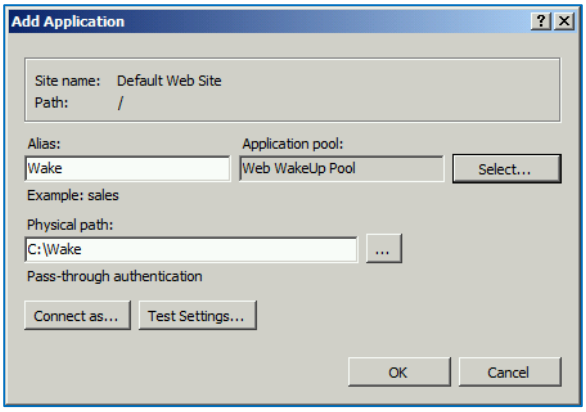


3. In the "Add Application" dialog box, enter the following:

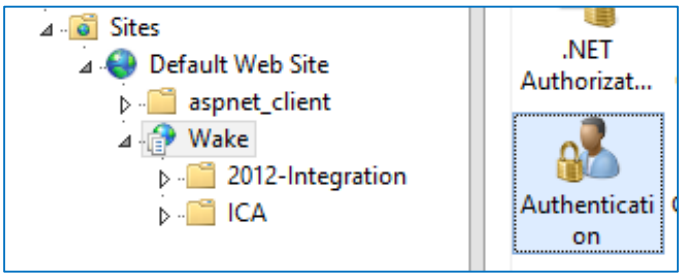
   Alias: This can be any alias which will become part of the URL users must type to access the Web WakeUp service. In this example, the alias will be **Wake**.

   Physical Path: The location to the folder where AdaptivaWebWakeup.ZIP file was unzipped. **Ex: C:\Wake**.

   Application pool: Click the **Select...** button and choose the **Web WakeUp Pool**.



4. Click **OK** to create the application.
5. Make sure the Wake application is selected, then in the "Details" pane, double-click **Authentication**.

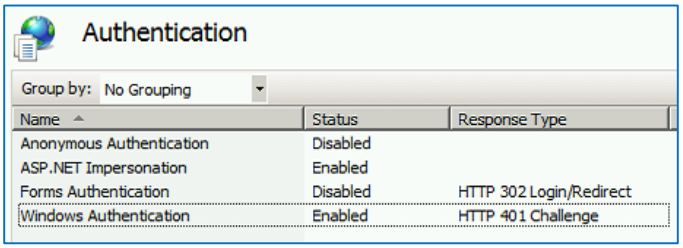


6. In the "Authentication" settings, verify and set the following:

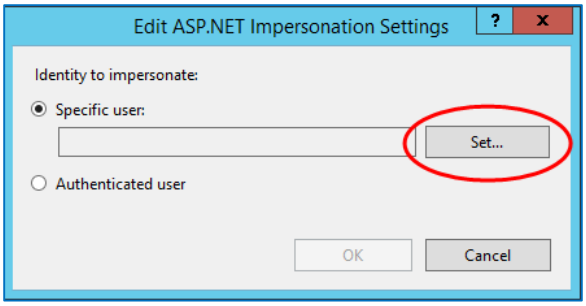
   Anonymous Authentication: Disabled

   ASP .NET Impersonation: Enabled

   Windows Authentication: Enabled



7. Right-click **ASP.NET Impersonation** and in the context menu, select **Edit**.
8. In the "Edit ASP.NET Impersonation Settings" dialog, select **Specific User** theN select the **Set...** button.



Enter the domain\username and password of the Web WakeUp service account then click **OK**. Then click **OK** again to save the configuration.

9. Double-click the Wake application again, and in the "Details" pane, under the ASP.NET section, open **Application Settings**.
10. Make the following modifications for the Application settings:

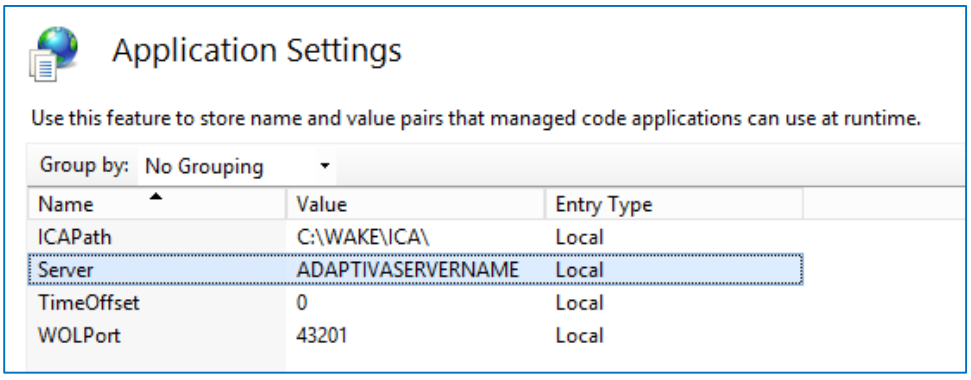
    ICAPath: Set the value of this property to the folder where Wake.exe is located**. Ex: C:\Wake\ICA**

    Note: A backslash at the end of the path is required.

    Server: Set the value of this property to the name of the Adaptiva server.

    TimeOffset: If the web server and Adaptiva Server are in different time zones, set the value of the TimeOffset property to the time difference in hours. (If the web server is ahead, the value is negative, else the value is positive)

    WOLPort: Set the value of this property to the listening port of the Adaptiva Server. The default value of 43201 is already set.



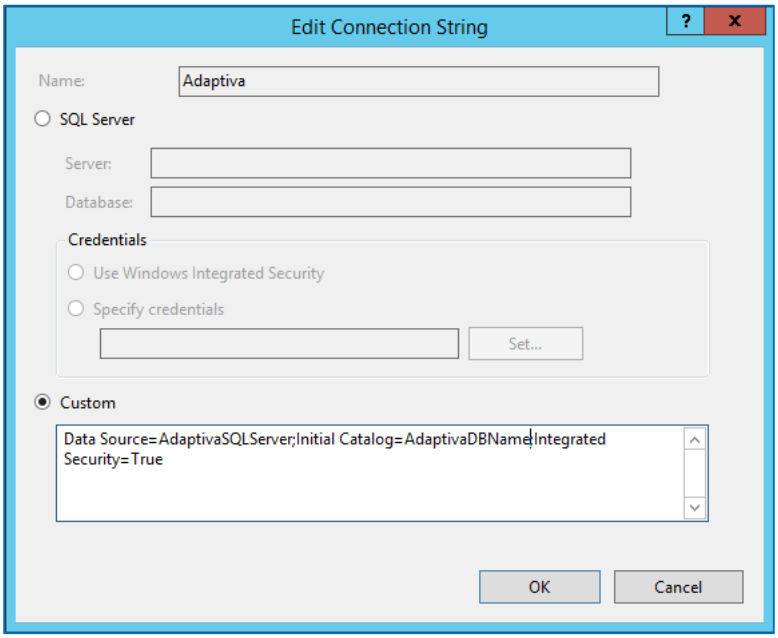
11. Double-click the Wake application again, and under the ASP.NET section, open **Connection Strings**.
12. Select and Edit the **Adaptiva** property with the SQL server name hosting the Adaptiva database and the name of the Adaptiva database name.

```
Data Source=AdaptivaSQLServer;Initial Catalog=AdaptivaDBName;Integrated Security=True
```

Where **AdaptivaSQLServer** is the name of the SQL server and **AdaptivaDBName** is the name of the Adaptiva database.

Note: If the Adaptiva database is running in a named instance, provide the database server name and instance.

Ex: SQLServer\Instance



Click **OK** to save the entry.

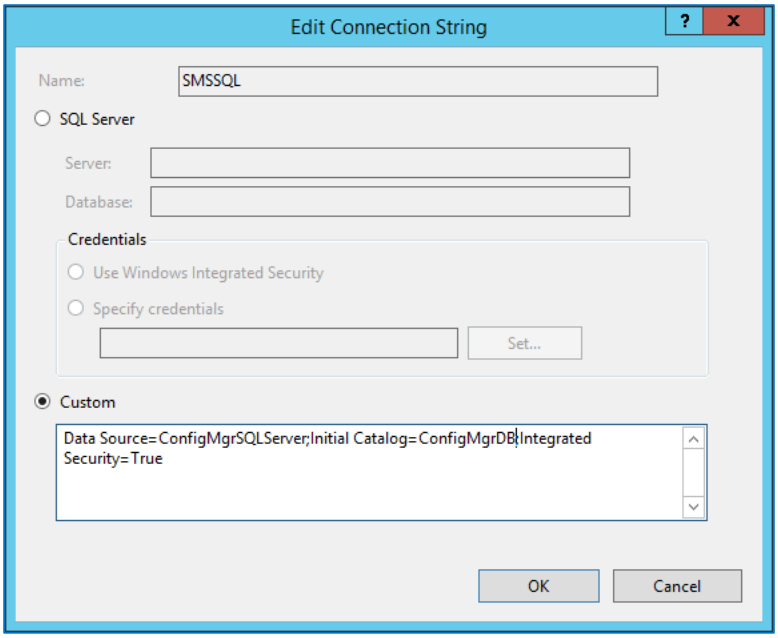
13. Select and Edit the **SMSSQL** property with your server information:

```
Data Source=ConfigMgrSQLServer;Initial Catalog=ConfigMgrDB;Integrated Security=True
```

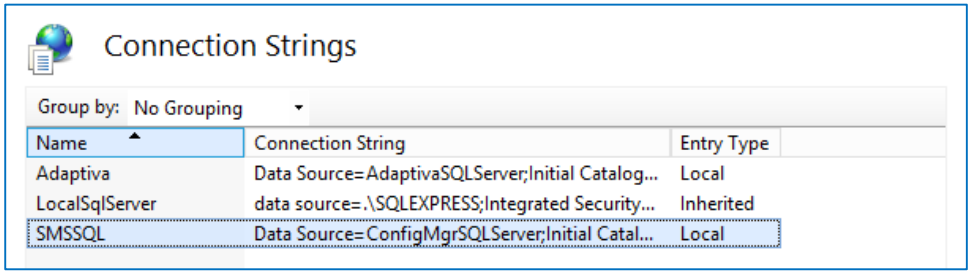
Where **ConfigMgrSQLServer** is the name of the SQL server hosting the ConfigMgr database, and **ConfigMgrDB** is the name of the ConfigMgr Database.

Note: If the ConfigMgr database is running in a named instance, provide the database server name and instance.

Ex: SQLServer\Instance



Click **OK** to save the setting.



Adaptiva Database Configuration

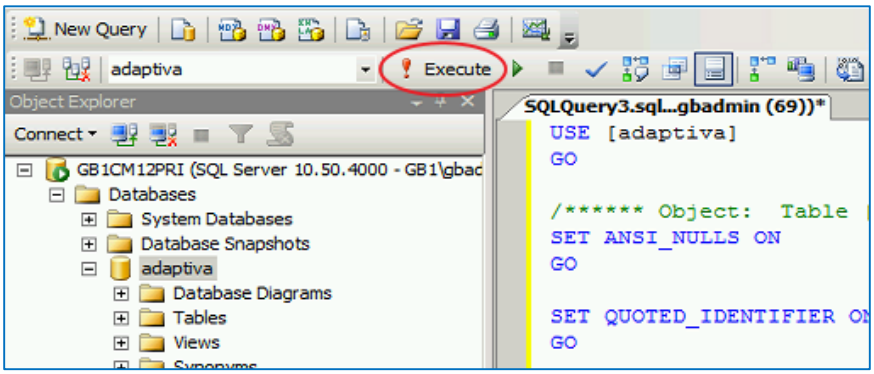
Status Table Creation

A table must be created in the Adaptiva database to support Web WakeUp functionality.

1. Acquire the following file from the Web WakeUp server: **C:\Wake\2012-Integration\StatusTable.sql**.
2. Connect to the SQL server which hosts the Adaptiva database.
3. Open Microsoft SQL Management Studio and connect to the appropriate instance.
4. Navigate to **<SQLServer> - Databases** and select the **Adaptiva** database.
5. Double-click the file: **StatusTable.sql** which should open the SQL query editor.

Note: If the Adaptiva database is named something other than "adaptiva" the Use statement in the query will need to be modified to reflect the name of the Adaptiva database. Ex: USE [MyDatabaseName]

6. Click the **Execute** button to execute the query.

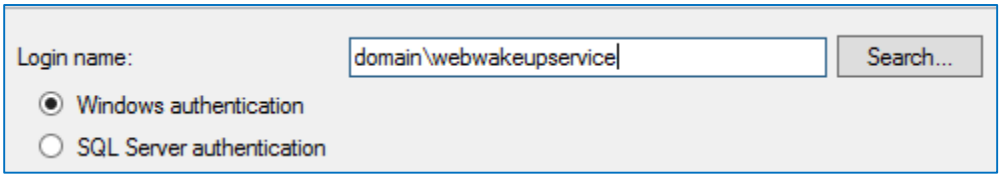


7. The result pane should display the message: **Command(s) completed successfully**.
8. For additional verification, expand **Adaptiva / Tables** and verify that the **dbo.GP_WOL** table exists.

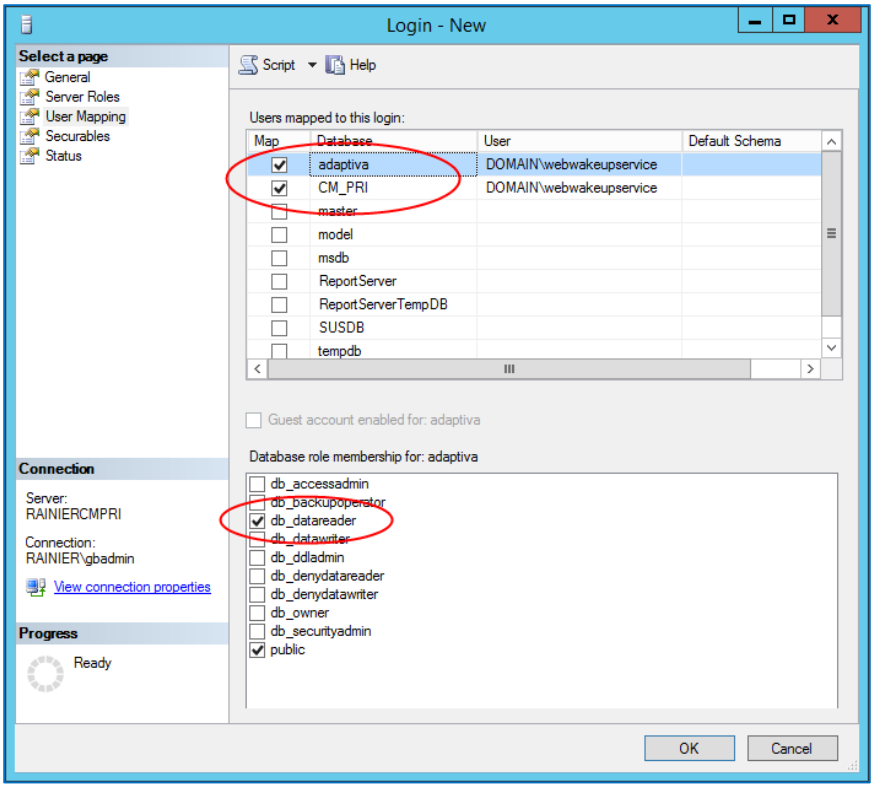
SQL Permissions

The Web WakeUp domain service account will need read access to both the Adaptiva and the Configuration Manager databases. The following section describes the process.

1. In SQL Management Studio, Navigate to **<SQLServer> - Security**.
2. Right-Click the **Logins** folder and select **New Login…** from the context menu.
3. In the "Login-New" dialog, enter the **domain \ username** of the Web WakeUp Service account.



4. Select the "User Mapping" page on the left, then check the box next to the name of the ConfigMgr database. In the bottom section, grant the account **db_datareader**.
5. Check the box next to the Adaptiva database, and in the bottom section, grant the account **db_datareader** as well.



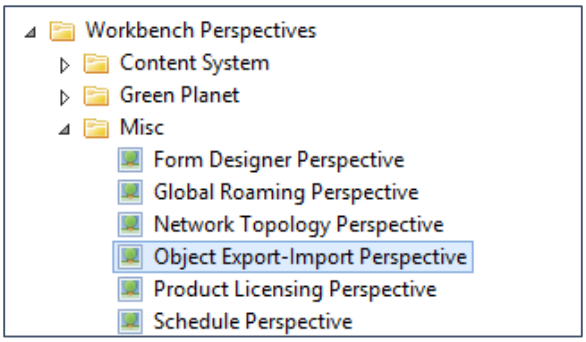
6. Click **OK** to save the configuration.

Configuring the WOL Workflows

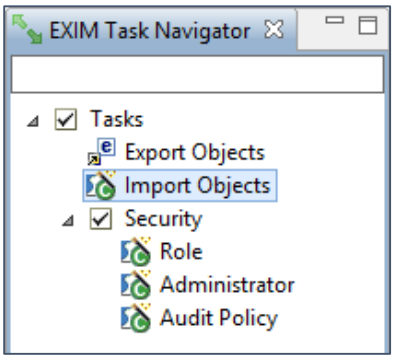
Importing the WoL Workflows

Three workflows need to be imported into the Adaptiva Workbench. The workflows can be found on the Web WakeUp server under **C:\Wake\2012-Integration**.

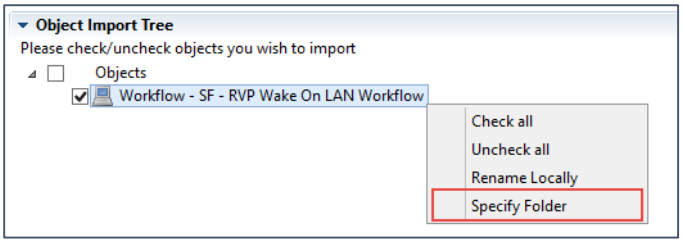
1. On the Adaptiva Server, open the **Adaptiva Workbench**.
2. In the "Workbench Perspectives" pane, expand **Workbench Perspectives / Misc** folder, then launch the **Object Export-Import Perspective**.



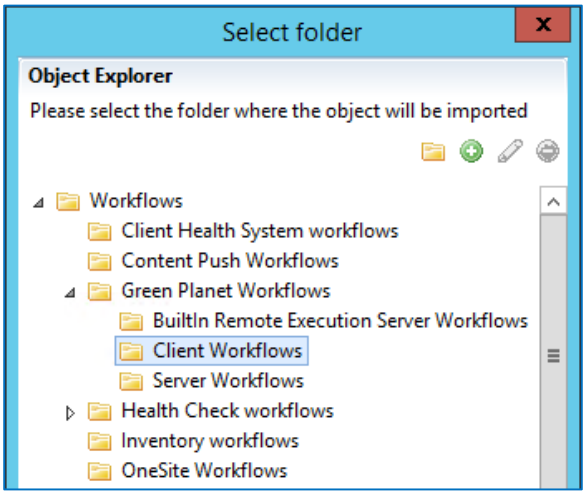
3. In the EXIM Task Navigator select **Import Objects**.



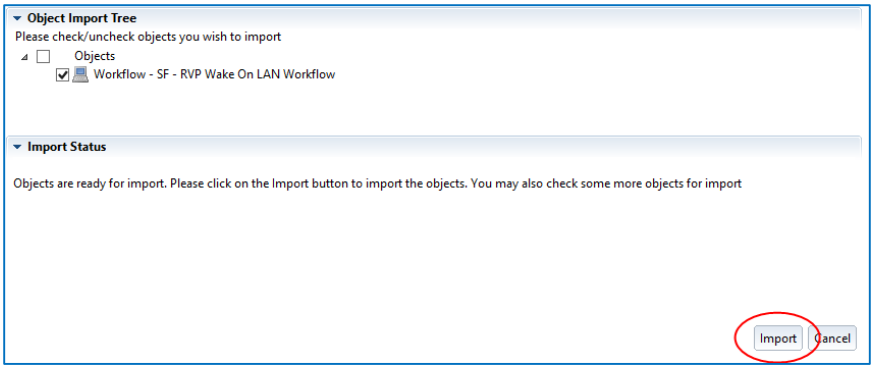
4. In the Explorer window, select the **Workflow_SF - RVP Wake On LAN Workflow.obex** file located in the C:\Wake\2012-Integration folder.
5. The workflow should show in the editor, but a folder must be specified. Right-click the workflow and in the context menu, select **Specify Folder**



6. In the "Select Folder" dialog, select **Workflows / Green Planet Workflows / Client Workflows** and then click **OK**.



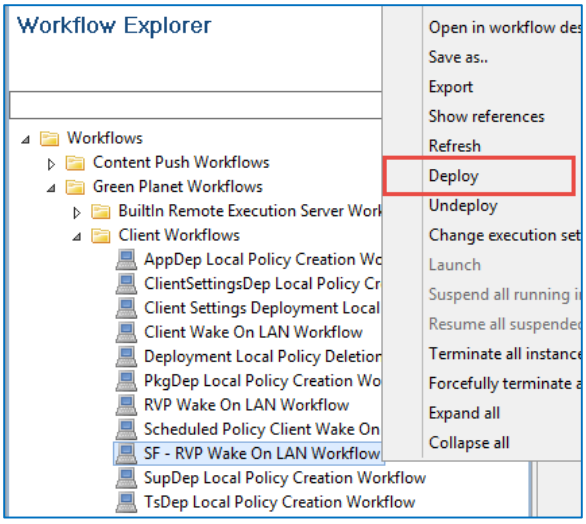
7. In the "Import Status" section at the bottom of the editor, click the **Import** button.



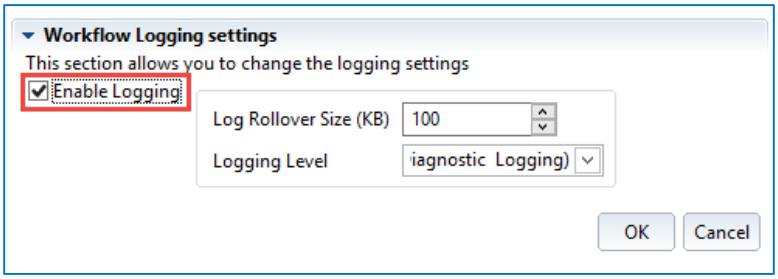
8. In the EXIM Task Navigator, select **Import Objects** again and select the **Workflow_SF – Register Workflow.obex** file.
9. In the editor, right-click the workflow and in the context menu, select **Specify Folder**.
10. This time, in the "Select Folder" dialog, select **Workflows / Green Planet Workflows / Server Workflows** instead of the Client Workflows and then click **OK**.
11. In the "Import Status" section at the bottom of the editor, click the **Import** button.
12. In the EIM Task Navigator, select **Import Objects** again and select the **Workflow_SF - Server WoI Status Uploader.obex** file.
13. In the editor, right-click the workflow and in the context menu, select **Specify Folder**.
14. In the "Select Folder" dialog, select **Workflows / Green Planet Workflows / Server Workflows** and then click **OK**.
15. In the "Import Status" at the bottom of the editor, click the **Import** button.
16. Close the "Object Export-Import Perspective".

Deploying the WoL Workflows

1. Click the **Home** button, then expand the **Misc** folder and open the **Workflow Designer Perspective**.
2. In the "Workflow Explorer", open **Workflows / Green Planet Workflows / Client Workflows**.
3. Right-click the **SF – RVP Wake On LAN Workflow** and in the content menu, click **Deploy**.



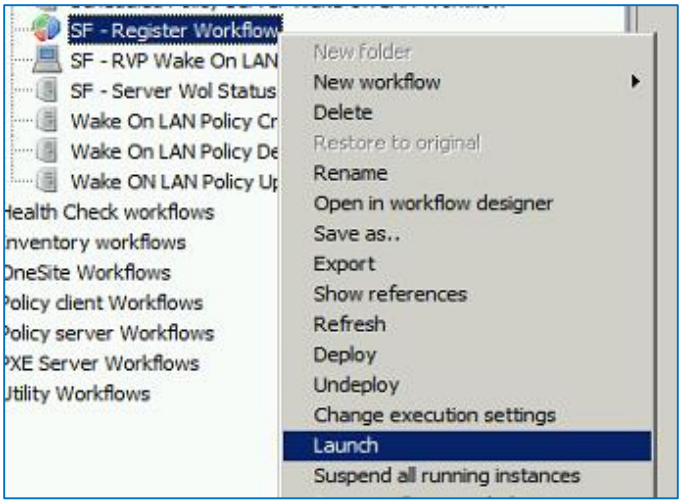
4. In the "Workflow Settings" dialog, check the box next to **Enable Logging** and then click **OK**.



5. In the Workflow Explorer, open **Workflows / Green Planet Workflows / Server Workflows**.
6. Right-Click the remaining two imported workflows, **SF – Register Workflow** and **SF – Server WoI Status Uploader** and select the **Deploy** option in the content menu. Click **OK** in the "Workflow Settings" dialog.

   Note: For the two remaining server workflows, it is not required to Enable Logging in the Workflow Settings dialog.

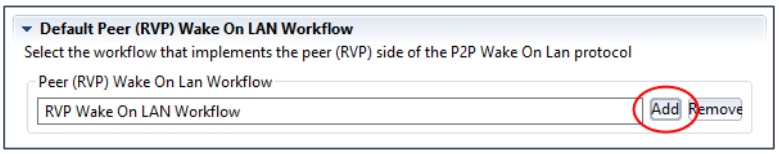
7. Right-click the **SF – Register Workflow**, and in the context menu, select **Launch**.



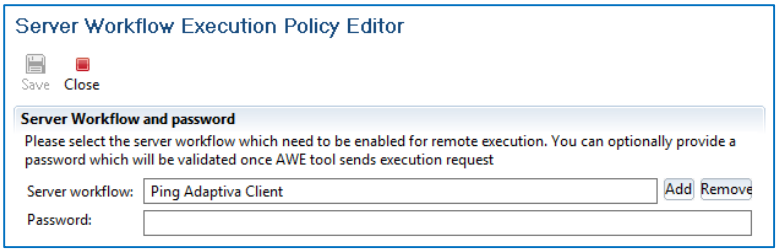
Note: There is no UI for this workflow, and unless an error is displayed, it should be considered successful.

Configuring the WoL Workflow

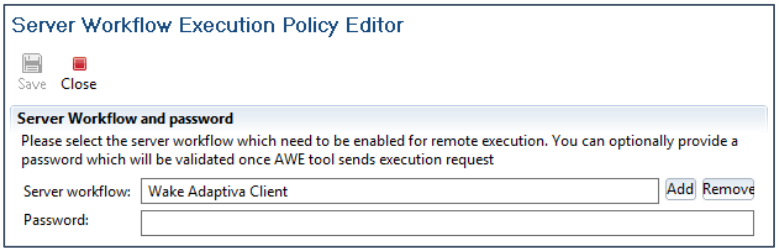
1. Click the **Home** button and in Workbench Perspectives, navigate to the **Green Planet / Wake On Lan** folder then select **Global Wake On Lan Settings**.
2. In the settings editor, in the "Default Peer (RVP) Wake On LAN Workflow" section, click the **Add** button.



3. In the Workflow Explorer dialog, navigate to **Workflows / Green Planet Workflows / Client Workflows** and select the **SF – RVP Wake On LAN Workflow** and then click **OK**.
4. Click the **Save** button at the top of the screen to save the change.
5. Click the **Home** button and navigate to the **Misc** folder and open the **Tools Foundry Perspective**.
6. In the "Tools Foundry Task Navigator", select **Create Server Workflow Execution Policy**.
7. Next to the "Server workflow" field, click the **Add** button.
8. In the Workflow Explorer, type "ping" in the search field and select the **Ping Adaptiva Client** workflow then click **OK**.



9. Click the **Save** button, and select the **Server Workflow Execution Policies** folder then click **OK**.
10. Double-click the **Create Server Workflow Execution Policy** in the Navigator pane again to create a new workflow.
11. Next to the Server workflow field, click the **Add** button.
12. In the Workflow Explorer, type "**wake ada**" in the search field and select the **Wake Adaptiva Client** workflow then click **OK**.



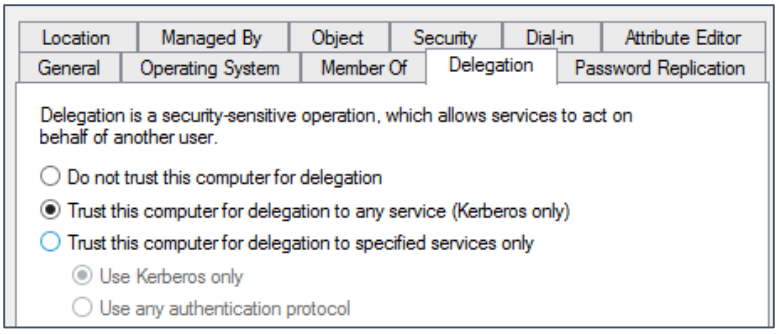
13. Click the **Save** button, and select the Server Workflow Execution Policies folder then click OK.

Enabling Delegation

If the Web WakeUp site is not hosted on the server hosting the ConfigMgr SQL database, clients connecting to the web site from other computers will not be able to authenticate and will receive an error when visiting the Web WakeUp page. To resolve this issue, the computer hosting the Web WakeUp site, must be trusted for delegation in Active Directory.

To configure the web server to be trusted for delegation follow the process below:

1. Logon to a computer which has the Active Directory Users and Computers snap-in installed using an account which has permissions to modify the web server's computer account.
2. In Active Directory Users and Computers, select the **View** menu, and enable **Advanced Features**.
3. Search for or navigate to the computer account hosting the Web WakeUp site, and open its **Properties**.
4. Select the Delegation tab and choose the option: Trust this computer for delegation to any service.



Click **OK** to save this setting.

Note: In older versions of Active Directory, this setting may located in the General tab as "Trust this computer for delegation."

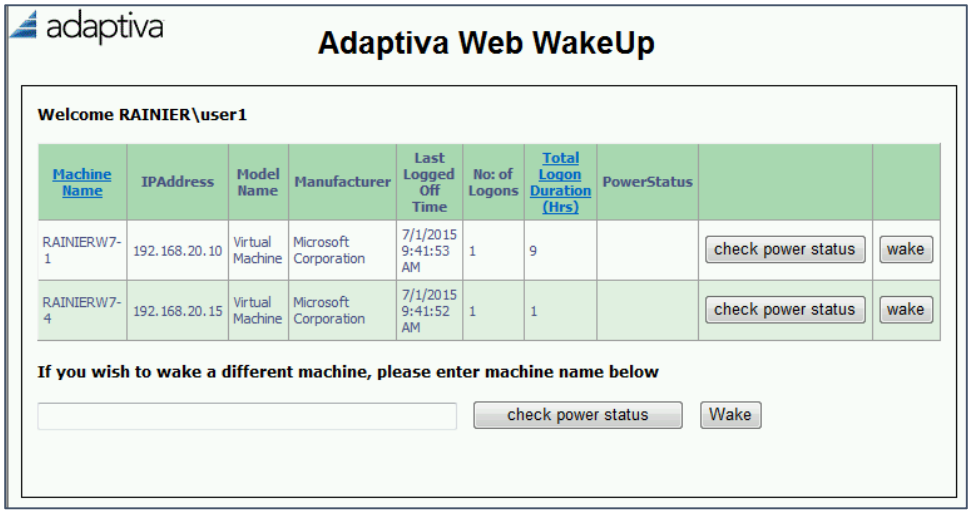
5. Wait for directory replication to occur, then on the remote client, log off then log back on again to clear any Kerberos tickets, then attempt to connect to the Web WakeUp server web page: http://<servername>/Wake

Using the Web WakeUp Site

To access the Web WakeUp site, open a browser and visit: **http://localhost/Wake** in the browser or **http://<servername>/Wake**

Web WakeUp will query the ConfigMgr database to get a list of machines that the user has logged on to. The user can click the **check power status** button to see if the machine is on or off.

If the machine is off, the user can click the **wak**e button to wake the machine.



If a machine isn't listed, the user can enter the machine name in the text box and click **check power status** or **wake** to wake the machine..