

Installing Adaptiva Web WakeUp for ConfigMgr 2012

🚄 adaptiva

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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.

A	ttributes: Security:	■ <u>R</u> ead-only ■ <u>H</u> idden This file came from another computer and might be blocked to help protect this computer.	Advanced Unblock
		OK Cancel	Apply

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

- 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.
- 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



Add Application Pool
Name:
Web WakeUp Pool
.NET Framework version:
.NET Framework v2.0.50727
Managed pipeline mode:
Integrated 💌
Start application pool immediately
OK Cancel

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.



Add Application		<u>? ×</u>
Site name: Default Web Site Path: /		
Alias:	Application pool:	
Wake	Web WakeUp Pool	Select
Example: sales		
Physical path:		
C:\Wake		
Pass-through authentication		
Connect as Test Settings		
	ОК	Cancel

- 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

Authentication			
Group by: No Grouping -			
Name 🔺	Status	Response Type	
Anonymous Authentication	Disabled		
ASP.NET Impersonation	Enabled		
Forms Authentication	Disabled	HTTP 302 Login/Redirect	
Windows Authentication	Enabled	HTTP 401 Challenge	

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



Edit ASP.NET Impe	ersonation Settings ? ×
Identity to impersonate:	
Specific user:	Sat
 Authenticated user 	J.C.
	OK Cancel

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.

Application	Settings		
Use this feature to store nam	ne and value pairs that mana	ged code applications can us	se at runtime.
Group by: No Grouping	•		
Name 📩	Value	Entry Type	
ICAPath	C:\WAKE\ICA\	Local	
Server	ADAPTIVASERVERNAME	Local	
TimeOffset	0	Local	
WOLPort	43201	Local	

- 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*

	Edit Connection String	ĸ
Name:	Adaptiva	
O SQL Server		
Server:		
Database:		
Credentials		
🔿 Use Wir	ndows Integrated Security	
 Specify 	credentials	
	Set	
Custom		
Data Source Security=Tr	=AdaptivaSQLServer;Initial Catalog=AdaptivaDBNameIntegrated	
	OK Cancel	

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*



	Edit Connection String	? X
Name:	SMSSQL]
○ SQL Server		1
Server:		
Database:		
Credentials		
O Use Wine	dows Integrated Security	
O Specify of the second sec	redentials	
	Set	
Custom		
Data Source= Security=Tru	:ConfigMgrSQLServer;Initial Catalog=ConfigMgrDB Integrated e	^
	ОК	Cancel

Click **OK** to save the setting.

P Connection	n Strings	
Group by: No Grouping	•	
Name 📩	Connection String	Entry Type
Adaptiva	Data Source=AdaptivaSQLServer;Initial Catalog	Local
LocalSqlServer	data source=.\SQLEXPRESS;Integrated Security	Inherited
SMSSQL	Data Source=ConfigMgrSQLServer;Initial Catal	Local

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.

Login name:	domain\webwakeupservice	Search
 Windows authentication 		
○ SQL Server authentication		

- 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**.
- Check the box next to the Adaptiva database, and in the bottom section, grant the account db_datareader as well.



8	Login - Ne	w	_ 🗆 🗙
Select a page	Script 🔻 🚺 Help		
User Mapping	Users mapped to this login:		
Securables	Map Database	User	Default Schema 🔨
E Status	adaptiva	DOMAIN\webwakeupservice	
	CM_PRI	DOMAIN\webwakeupservice	
	master		
	model		=
	msdb		
	Report Server		
	Report Server Lemp DB		
	SUSDB		
	< tempab	Ш	· ·
Connection	Database role membership for: adaptiva	3	
Server: RAINIERCMPRI	db_accessadmin db_backupoperator ✓ db_datareader		
Connection:	db_datawriter		
RAINIER\gbadmin	db_ddiadmin		
View connection properties	db_denydatawriter		
Progress	db_securityadmin		
Ready	v public		
			OK Cancel

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**.

uunen	the	• • • • • • • • •	Lybour	mporti	cispective.

—
Content System
🔈 🚞 Green Planet
⊿ 🛅 Misc
Form Designer Perspective
Global Roaming Perspective
Network Topology Perspective
Object Export-Import Perspective
Product Licensing Perspective
Schedule Perspective



3. In the EXIM Task Navigator select Import Objects.



- In the Explorer window, select the Workflow_SF RVP Wake On LAN Workflow.obex file located in the C:\Wake\2012-Integration folder.
- 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.



▼ Object Import Tree	
Please check/uncheck objects you wish to import	
⊿ Objects	
🖌 📃 Workflow - SF - RVP Wake On LAN Workflow	
 Import Status 	
Objects are ready for import. Please click on the Import button to import the objects. You may also check some more objects	for import
	\frown
	(Import ancel

- 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**.
- 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.
- In the EIM Task Navigator, select Import Objects again and select the Workflow_SF Server Wol 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

- 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.



Workflow Explorer	Open in workflow des
	Save as
	Export
	Show references
⊿ 🚞 Workflows	Refresh
Content Push Workflows	Deploy
🔺 🚞 Green Planet Workflows	Беріоу
BuiltIn Remote Execution Server Work	Undeploy
Client Workflows	Change execution set
💻 AppDep Local Policy Creation Wo	Launch
ClientSettingsDep Local Policy Cr	Suspend all running i
💻 Client Settings Deployment Local	Deserved
💻 Client Wake On LAN Workflow	Resume all suspended
💻 Deployment Local Policy Deletion	Terminate all instance
💻 PkgDep Local Policy Creation Wo	Forcefully terminate a
💻 RVP Wake On LAN Workflow	Expand all
💻 Scheduled Policy Client Wake On	Colleges all
💻 SF - RVP Wake On LAN Workflow	Collapse all
💻 SupDep Local Policy Creation Wo	rkflow
💻 TsDep Local Policy Creation Work	flow

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

Workflow Logging This section allows yo	g settings ou to change the logging	settings	
	Log Rollover Size (KB) Logging Level	100 🗘 iagnostic Logging) 🗸	
			OK Cancel

- 5. In the Workflow Explorer, open **Workflows / Green Planet Workflows / Server Workflows**.
- Right-Click the remaining two imported workflows, SF Register Workflow and SF Server Wol 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**.



SE - Register Workflow	
SF - RVP Wake On LAN SF - Server Wol Status Wake On LAN Policy Cr Wake On LAN Policy De Wake ON LAN Policy Up tealth Check workflows nventory workflows Policy client Workflows Policy server Workflows XE Server Workflows Jtliity Workflows	New folder New workflow Delete Restore to original Rename Open in workflow designer Save as Export Show references Refresh Deploy Undeploy Change execution settings Launch Support all running instances

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

Configuring the WoL Workflow

- 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.

Default Peer (RVP) Wake On LAN Workflow	
Select the workflow that implements the peer (RVP) side of the P2P Wake On Lan protocol	
Peer (RVP) Wake On Lan Workflow	\frown
RVP Wake On LAN Workflow	Add Remove
	\sim

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**.



Server Workf	low Execution Policy Editor	
E Save Close		
Server Workflow	and password	
Please select the s password which w	erver workflow which need to be enabled for remote execution. You can optional ill be validated once AWE tool sends execution request	ly provide a
Server workflow:	Ping Adaptiva Client	Add Remove
Password:		

- 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.

Server Workt	low Execution Policy Editor
Save Close	
Server Workflow	and password
Diease select the s	ener workflow which need to be enabled for remote execution. You can ontionally provide a
password which w	ill be validated once AWE tool sends execution request
	······································
Server workflow:	Wake Adaptiva Client Add Remove
Password:	

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.



Location	Managed By	Object	Security		Dial-in		Attribute Editor
General	neral Operating System		Member Of Delegation		tion	Password Replication	
Delegation behalf of a	is a security-sensitive nother user. trust this computer for	e operation, v	whicł	n allows s	ervices	to ac	t on
 Trust th 	is computer for deleg	ation to any	servi	ce (Kerbe	ros only	()	
🔿 Trust th	is computer for deleg	ation to spec	cified	services	only		
Use	e Kerberos only						
🔿 Use	e any authentication p	protocol					

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.

Welcome R	AINIER\use	r1							
<u>Machine</u> <u>Name</u>	IPAddress	Model Name	Manufacturer	Last Logged Off Time	No: of Logons	<u>Total</u> Loqon Duration (Hrs)	PowerStatus		
RAINIERW7- 1	192.168.20.10	Virtual Machine	Microsoft Corporation	7/1/2015 9:41:53 AM	1	9		check power status	wake
RAINIERW7- 4	192.168.20.15	Virtual Machine	Microsoft Corporation	7/1/2015 9:41:52 AM	1	1		check power status	wake
lf you wisł	ı to wake a d	lifferen	t machine, plo	ease ent	e r mach	n ine nam e eck power	e below	Wake	

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..