



Hawaii Green IT

The NightWatchman Management Center Installation Guide

A unique power management solution. Save energy, the environment and money

The NightWatchman Management Center Installation Guide

Version 5.6 document revision 6

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Contents

Section 1	Introduction	1
1.1	New in NightWatchman Management Center 5.6	1
1.2	Conventions used in this guide	1
	Cross references	1
	Notes	1
	Code fragments and command-lines	2
1.3	Who is this guide for?	2
Section 2	Requirements	3
2.1	Overall Requirements.....	3
	NightWatchman Management Center Single Installation Requirements	3
2.2	Split Installation Component Requirements	4
	NightWatchman Management Center Architecture	4
	NightWatchman Management Center Port Usage.....	5
	Database Component Requirements.....	6
	Report Console and Website Component Requirements	6
	Import Wizard Component Requirements	7
	NightWatchman Console Component Requirements	7
	Web Service Component Requirements.....	8
	Console Service Component Requirements.....	9
2.3	Using the NightWatchman Management Center with 1E WakeUp	9
Section 3	Installing	11
3.1	Simple interactive installation.....	11
3.2	NightWatchman Management Center Default Installation Steps.....	11
	Default installation using the installer wizard	11
	Environment Configuration	13
3.3	NightWatchman Management Center Custom Installation Steps	14
	Custom installation steps.....	15
3.4	Installing using quiet mode.....	17
	General installer switches	17
	Database installer switches.....	18
	Console Service installer switches	18
	NightWatchman Console installer switches	19
	Report Console installer switches.....	19
	Web Service installer switches.....	20
	Installer command-line examples	20
3.5	Default file locations	20
Section 4	Uninstalling and Repairing	21
4.1	Uninstalling the NightWatchman Management Center	21
	Additional information.....	21
4.2	Repairing the NightWatchman Management Center	21

Section 5	Upgrading	22
5.1	Earliest Version Upgrade Support.....	22
5.2	NightWatchman Client and 1E WakeUp Agent Version Support.....	22
5.3	NightWatchman Console Beta	22
5.4	Upgrading Best Practice	23
Section 6	Troubleshooting	24
6.1	Contact 1E support.....	24
	Creating a technical report.....	24
Section 7	Further Information	25
7.1	Contact details.....	25
	Website	25
	Telephone and fax.....	25
	Post	25
	Sales.....	25
	Technical support.....	25
Appendix A	Installer Command-line Switches	26
	ACTIVE_DIRECTORY_SERVER	26
	ADDLOCAL	26
	ADMINACCOUNT	26
	CONSOLE.....	26
	CONSOLESERVICE.....	27
	DROPOLddb.....	27
	ENVSETUP.....	27
	INSTALLDIR	27
	LOGPATH	27
	REPORTCONSOLE.....	27
	REPORTCONSOLEHOSTHEADER.....	27
	REPORTCONSOLEIISPORT	28
	REPORTCONSOLEIPADDRESS.....	28
	SERVICELOCATION.....	28
	SQLSERVER.....	28
	SVCPASSWORD	28
	SVCUSER	28
	WEBSERVICE.....	28
	WEBSERVICEHOSTHEADER.....	29
	WEBSERVICEIISPORT	29
	WEBSERVICEIPADDRESS.....	29
Appendix B	Existing 1E WakeUp Server 5.6 Integration	30
B.1	The Global Settings Table	30
B.2	Restarting the Console Service	31
Appendix C	Web Service Secure Communications	32

- C.1 Configuration of client certificates for authentication..... 32
 - Required certificates 32
 - Locating certificates on the client certificate store 32
 - Multiple certificates with the same Subject and Issued By fields..... 32
 - Revoking certificates..... 32
- C.2 Server configuration 33
- C.3 Client configuration 33
 - Using HTTPS encrypted communications 33
 - Using HTTPS with client certificate authentication..... 33

Section 1 Introduction

A unique power management solution. Save energy, the environment and money

NightWatchman Management Center provides a centrally controlled computer power management system that saves energy and money and helps protect the environment. Combining two powerful award-winning solutions into a single package, the NightWatchman Management Center provides automated computer shut down and wake up capabilities together with detailed, accurate reporting.

This combination of enhanced control and increased knowledge of network-wide computer power consumption behavior makes NightWatchman Management Center the only serious choice for professional IT managers.

1.1 New in NightWatchman Management Center 5.6

NightWatchman Management Center improves the user experience during: installation, the configuration of NightWatchman and 1E WakeUp and the creation of reports. These improvements are described in more detail below:

- **Easy installation** - NightWatchman Management Center is now even easier to install. A single installer can now install all the core reporting and configuration components in one operation. The 1E WakeUp Server installer supports both SMS/ConfigMgr and stand-alone modes. Leaving just the NightWatchman clients and 1E WakeUp agents to be installed on the computers you want to manage.
- **Greater control** - The NightWatchman Console now supports central configuration of 1E WakeUp Computer Health policies.
- **Enhanced Security** - NightWatchman and 1E WakeUp communications with the NightWatchman Management Center have been updated to additionally support HTTPS over and above the default use of HTTP.
- **Greater independence from management solutions** - The Intel® AMT addition for 1E WakeUp has been extended to support non-SMS/ConfigMgr configurations.
- **Enhanced Data Import** - The Import Wizard now allows the NightWatchman Organization and Location groups to be updated from a larger number of sources than was previously supported. The Wizard has also been made available from the command-line for the first time, enabling Administrators to schedule updates to ensure that the group data is kept in closer synchronisation with the source.
- **Improved Reports Interface** - The Report Console now provides detailed help for each provided report that describes the data being represented, the parameters that are used and the purpose of the report.

1.2 Conventions used in this guide

This section shows how to interpret the different styles used in this document to denote various types of information.

Cross references

Cross references are shown in italics. Cross references may be to diagrams or tables in the current document or to other documents. For example, the following paragraph references a document from the NightWatchman set:

After reading this installation guide, you can get more detailed information on reports in *The NightWatchman Management Center Reporting Guide*.

Notes

Notes are shown in white on an orange background. For example, the following note provides some useful information:

NOTE: always pay attention to notes.

Code fragments and command-lines

This manual uses *Lucida Console* typeface plus a shaded background to denote code fragments and command-lines. For example, the following shows a NightWatchman Management Center installer command-line:

```
msiexec /i NightwatchmanManagementCenter.msi ACTIVE_DIRECTORY_SERVER=ACME  
ADMINACCOUNT=ACME\Roger.Wilco SVCUSER=ACME\SVCAccount SVCPASSWORD=Pswd  
SQLSERVER=ACMESQL /qn
```

1.3 Who is this guide for?

This guide will help systems administrators install the NightWatchman Management Center in single server or split server mode.

Section 2 Requirements

The following OS and security requirements need to be met for a successful installation of the NightWatchman Management Center.

2.1 Overall Requirements

The following table shows the complete set of requirements needed to install the NightWatchman Management Center onto a single server.

Note: the NightWatchman Management Center is not supported on servers configured as Domain Controllers.

NightWatchman Management Center Single Installation Requirements	
These are the requirements for installing all the components of NightWatchman Management Center onto a single server	OS Requirements
	<ul style="list-style-type: none"> Windows Server 2003 Windows Server 2008
	Prerequisites
	<ul style="list-style-type: none"> SQL 2005 SP2 or SQL 2008 SQL must be configured to use Case Insensitive collation (part of the default collation method) SQL Server Agent must be started and set to automatic IIS 6 or above IIS Windows Authentication .NET Framework 2.0 SP1 (required for the report console and web service websites, must be installed in addition to .NET Framework 3.5 SP1) .NET Framework 3.5 SP1
	Accounts needed during installation
	<ul style="list-style-type: none"> NightWatchman Console Service account. This should be a domain account The installation account will be set as the primary NightWatchman Console administrator
	Installation account permissions
<ul style="list-style-type: none"> Domain user account with local administration permissions Sysadmin on target database 	

2.2 Split Installation Component Requirements

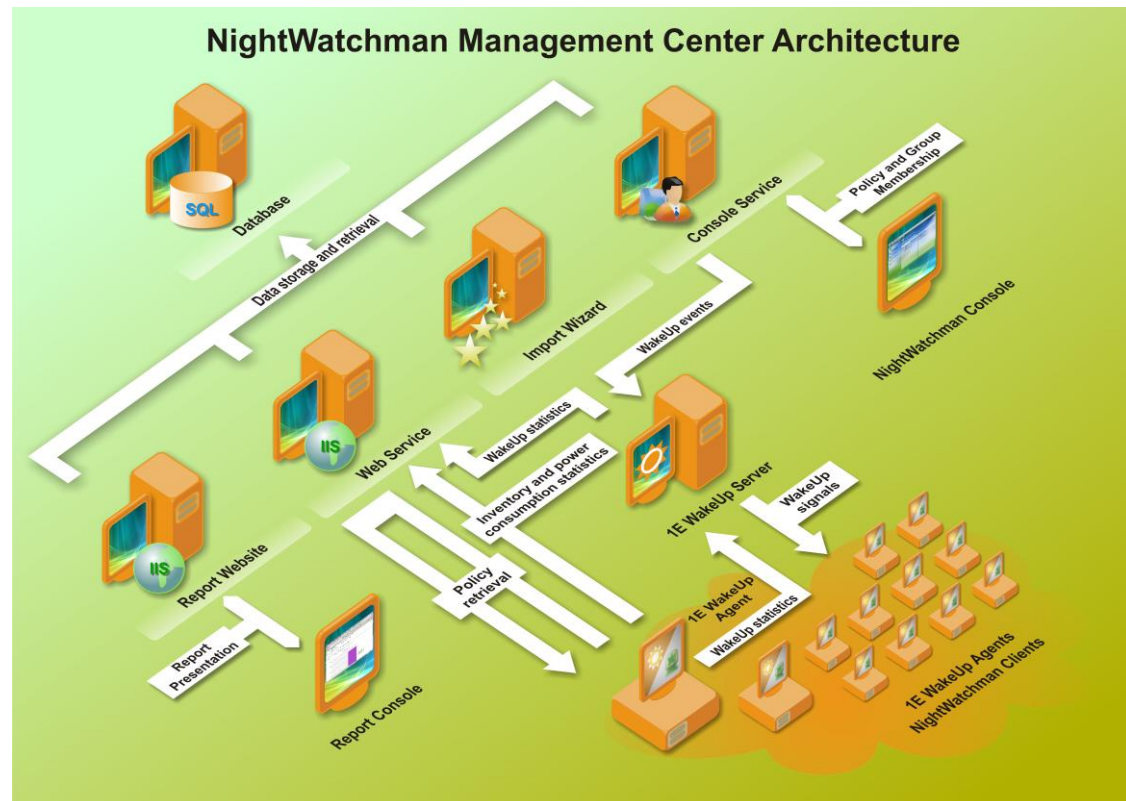
NightWatchman Management Center supports a distributed installation where each of the components may be installed onto its own server. This section describes the requirements for each component.

Note: none of the NightWatchman Management Center components support installation on servers configured as Domain Controllers.

NightWatchman Management Center Architecture

The following diagram shows the components of the NightWatchman Management Center and how they work together to provide centralized management of power policies and computer power states.

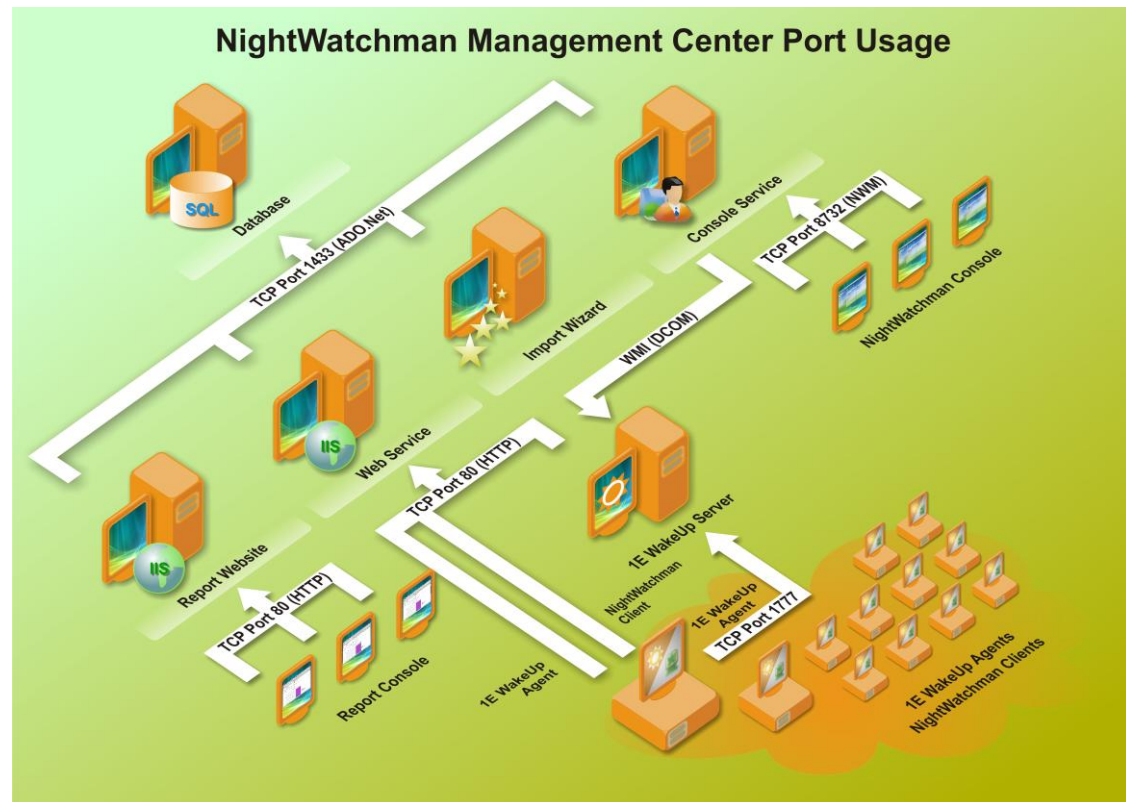
Figure 1 - The NightWatchman Management Architecture



NightWatchman Management Center Port Usage

The following diagram shows the ports used for each component of the NightWatchman Management Center. When installing in split installation mode you will need to open the appropriate ports for the distributed components.

Figure 2 - NightWatchman Management Center Port Usage Diagram



These ports and communications channels are described in the following table:

Components	Ports/Comms
Access to the Database Component from the Report Website, Web Service, Import Wizard and Console Service	TCP Port 1433 (ADO.Net)
Access to the Report Website from the Report Console	TCP Port 80 (HTTP)
Access to the Web Service from the 1E WakeUp Agent, 1E WakeUp Server and NightWatchman Client	TCP Port 80 (HTTP)
Access from the Console Service to the 1E WakeUp Server	WMI (DCOM)
Access from the NightWatchman Console to the Console Service	TCP Port 8732 (NWM)

When implementing a split installation of NightWatchman Management Center the database component must be installed first. The following table shows the requirements for each individual component of the NightWatchman Management Center.

Database Component Requirements	
The database component for the NightWatchman Management Center holds all the information returned by the NightWatchman clients and the 1E WakeUp agents and forms the basis for the reports.	OS requirements
	<ul style="list-style-type: none"> Windows Server 2008 Windows Server 2003
	Prerequisites
	<ul style="list-style-type: none"> SQL 2005 SP2 or SQL 2008 SQL must be configured to use Case Insensitive collation (part of the default collation method) SQL Server Agent must be started and set to automatic
	Installation account permissions
	<ul style="list-style-type: none"> Domain user account with local administration permissions Sysadmin on target database
	Number of supported instances
	You may only have one instance of the NightWatchman Management Center database per implementation.
	Related installer switches
ADDLOCAL, DROPOLDDB, ENVSETUP, SQLSERVER	

Report Console and Website Component Requirements	
The Report Console provides the report website for viewing the NightWatchman and 1E WakeUp reports.	OS requirements
	<ul style="list-style-type: none"> Windows Server 2008 Windows Server 2003
	Prerequisites
	<ul style="list-style-type: none"> IIS 6 or IIS 7 IIS Windows Authentication (required for IIS 7) .NET Framework 2.0 SP1
	Number of supported instances
	You may only have one instance of the report website per implementation.
	Related installer switches
	ADDLOCAL, REPORTCONSOLE, REPORTCONSOLEHOSTHEADER, REPORTCONSOLEIISPORT, REPORTCONSOLEIPADDRESS, SQLSERVER

Import Wizard Component Requirements	
The import wizard populates reporting group data in the database.	OS requirements
	<ul style="list-style-type: none"> Windows Server 2008 Windows Server 2003
	Number of supported instances
	You may only have one instance of the import wizard per implementation. Recommend it goes on the db machine for performance reasons when large numbers of machines are being regrouped.
	User account requirements
	To run the Import Wizard successfully you will need the following permissions: <ul style="list-style-type: none"> <i>Launch import wizard</i> permissions set in the Security section of the NightWatchman Console. This is a post NightWatchman Management Center Console Component implementation step. You must also have permissions on the database (either full dbowner or as a member of the import wizard db role)
	Prerequisites
	<ul style="list-style-type: none"> .NET Framework 3.5 SP1
	Related installer switches
ADDLOCAL	

NightWatchman Console Component Requirements	
The NightWatchman Console provides the user interface for managing NightWatchman client computers.	OS requirements
	<ul style="list-style-type: none"> Windows Vista (Business, Enterprise, Enterprise x64 and Ultimate) Windows XP (including x64) Windows Server 2008 Windows Server 2003
	Prerequisites
	<ul style="list-style-type: none"> .NET Framework 3.5 SP1
	Number of supported instances
	You may have multiple instances of the NightWatchman Console up to a maximum of 10. The NightWatchman Console must be installed on a network enabled computer with network access to the server where the Console Service is running.
	Related installer Switches
	SERVICELOCATION, CONSOLE

Web Service Component Requirements	
<p>The Web Service handles communications between the NightWatchman clients, 1E WakeUp agents and the database.</p>	OS requirements
	<ul style="list-style-type: none"> • Windows Server 2008 • Windows Server 2003
	Prerequisites
	<ul style="list-style-type: none"> • IIS 6 or above • .NET Framework 2.0 SP1
	Number of supported instances
	<p>You may have multiple instances of the Web Service, up to a maximum of 3, feeding into a single database. This enhances scalability allowing different regions to feed into their own instance of the Web Service.</p> <p>You would also need multiple instances if you wanted to implement a hybrid environment that used both http and https communications.</p> <p>To implement these you would need to set the NightWatchman Clients and 1E WakeUp implementations in each region to communicate with the appropriate Web Service using the appropriate protocol.</p>
	Related installer Switches
SQLSERVER, WEBSERVICE, WEBSERVICEHOSTHEADER, WEBSERVICEIISPORT, WEBSERVICEIPADDRESS	

Console Service Component Requirements	
The Console Service handles communications between the NightWatchman Console and the database.	OS requirements
	<ul style="list-style-type: none"> Windows Server 2008 Windows Server 2003
	Prerequisites
	<ul style="list-style-type: none"> .NET Framework 3.5 SP1
	Number of supported instances
	You may only have one instance of the Console Service per implementation.
	Accounts needed during installation
	<ul style="list-style-type: none"> Console Service account, this should be a domain account NightWatchman Console administrator(s) account. This can be a domain user or group account - used to define the primary NightWatchman Console administrators
	Console Service account requirements
	<p>If you intend to use the NightWatchman Console to implement remote wakeups the following WMI permissions must be set for the Console Service account on the designated 1E WakeUp Server. This must be done after installing the 1E WakeUp Server</p> <p>Add the Console Service account to the <i>N1E/WakeUp</i> and <i>SMSWAK</i> namespaces and set the following permissions:</p> <ul style="list-style-type: none"> Execute Methods Full Write Enable Account Remote Enable <p>The following instructions show how these permissions can be set:</p> <ol style="list-style-type: none"> Run the WMI MMC (wmimgmt.msc), plug-in on the 1E WakeUp Server Right-click on the root node and select <i>Properties</i>. In the <i>WMI Control (Local) Properties</i> dialog select the <i>Security</i> tab Navigate to the <i>N1E/WakeUp</i> node and click the <i>Security</i> button. In the <i>Security for ROOT\N1E\WakeUp</i> dialog add the <i>Console Service</i> account and check the permissions listed above. Navigate to the <i>SMSWAK</i> node and click the <i>Security</i> button. In the <i>Security for ROOT\SMSWAK</i> dialog add the <i>Console Service</i> account and check the permissions listed above.
Related installer switches	
SQLSERVER, ACTIVE_DIRECTORY_SERVER, ADMINACCOUNT, SVCUSER, SVCPASSWORD, CONSOLESERVICE	

2.3 Using the NightWatchman Management Center with 1E WakeUp

To support on-demand wakeups from the NightWatchman Console, and to send wakeups for the alarm clock and maintenance window functionality you need the following version of 1E WakeUp:

- 1E WakeUp 5.6

This must also be registered as the master wakeup service with the NightWatchman Management Center. This can be done during installation or upgrade of 1E WakeUp and requires that the NightWatchman Management Center Console Service is restarted afterwards. See the 1E WakeUp Installation Guide for more details.

Section 3 Installing

This section describes the steps involved in a default and custom installation of the NightWatchman Management Center.

3.1 Simple interactive installation

NightWatchmanManagementCenter.msi is used to install the components for the NightWatchman Management Center. This can be run interactively using the install wizard or silently, without interaction, using the installer command-line switches, as described in heading 3.4 - *Installing using quiet mode*.

3.2 NightWatchman Management Center Default Installation Steps

Here we describe the recommended order for installing NightWatchman Management Center Components and related products:

1. Install NightWatchman Management Center as described in *Table 1* below
2. Install the 1E WakeUp Server(s) selecting to register one 1E WakeUp Server as the NightWatchman Management Center WakeUp Provider
3. When configuring integration with 1E WakeUp add the WMI permissions to the Console Service account as described in *Console Service Component Requirements*.
4. Restart the NightWatchman Management Center Console Service
5. Install 1E Web WakeUp 1.5
6. Install the NightWatchman Clients and 1E WakeUp Agents

Default installation using the installer wizard

The following table shows the screens and the interactions displayed during a default installation.

Table 1 - Default installation steps

1. The Welcome Screen	
No interaction required here, just click <i>Next</i>	
2. License Agreement	
You must read and then accept this license information by clicking on the <i>I accept the terms in the license agreement</i> option, before you can continue with the installation. Once this is done click <i>Next</i> to go to the next screen	
3. Prerequisite Checks	
This screen contains a number of pre-requisite checks that are run before the installation can continue. If any pre-requisite checks are not met the components dependent on those pre-requisites will not be installed in the <i>Typical</i> setup and will not be available for selection in <i>Custom</i> setup.	
4. Setup Type	
Here you select the type of installation you want to perform	
Setup Type	Description
Typical	Select this option to perform a default installation with all components being placed on the local server
Custom	Select this option to customize the components being installed
To perform a default installation you select the Typical option, the following steps assume that this has been done	
5. Database Server Configuration	
A <i>Typical</i> installation will attempt to install the database to the default database instance on the local server, so this screen is only shown when the installer cannot detect one	

On this screen you specify the server or instance where you want the NightWatchman Management Center database installed. In effect this option allows you to install the database on a remote server and the rest of the NightWatchman Management Center components on the local server

The database can be specified using the following formats:

Format	Description
(Local)	Configures the use of the local default instance
ServerName	Configures the use of a remote server using the default instance
ServerName\Instance	Configures the use of a remote server and named instance using a dynamic port
ServerName, Port	Configures the use of a remote server and instance defined by its fixed port

When installing onto clustered SQL you will need to use the *ServerName\Instance* format to locate the clustered SQL instance. For this to work the domain administrator will need to have manually registered SPN for the SQL instance if the SQL Server is running under a domain user account

Not checking the *Drop any existing NightWatchman Management Center Database* option will prompt the installer to upgrade the data in any existing database after installing the new one

Checking the *Drop any existing NightWatchman Management Center Database* option will prompt the installer to remove any existing database before installing the new one

6. Service Account Information

On this screen you configure the Console Service account.

The Console Service account must be specified in the following format:

Domain\Account

You will also need to set the password for this account

Appropriate permissions are granted to this account by the installer. However, if you intend to use the NightWatchman Management Center Console to implement remote wakeups you will need to set some additional WMI permissions to the service account for the 1E WakeUp namespaces, as described in *Console Service account requirements*.

7. Environment Setup

In this screen you select the size of organization where the NightWatchman Management Center will be running. This tailors the NightWatchman database settings to provide the correct balance between responsiveness and database load. The size options and the corresponding settings are described in *Table 2 - Environment Configuration Settings* below.

8. Ready to Install the Program

By this stage all the information for the default installation has been gathered. Click *Next* to begin the installation. Click *Back* to go back and change options or click *Cancel* to exit without installing

9. Finish

Once the product has been successfully installed simply click on the *Finish* button to end the installation wizard

Environment Configuration

The NightWatchman Management Center modifies its configuration options based on the size of the environment where it is being installed. The following table shows the configuration options set when the *very small*, *small*, *medium* and *large* environment settings are chosen in the NightWatchman Management Center installer.

Table 2 - Environment Configuration Settings

Option	Description												
Very Small	<p>Select this option to install in a lab environment, typically between 10-50 clients</p> <p>This sets the following configuration options in the database:</p> <ul style="list-style-type: none"> Set the <i>1E NightWatchman, Process load</i> SQL Server Agent Job to run every 5 minutes Set the <i>1E NightWatchman, Process summaries</i> SQL Server Agent Job to run every 10 minutes Set the following parameters in the <i>tbNWM_Dimension_GlobalSettings</i> table: <table border="1"> <thead> <tr> <th>Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>PowerPolicyPollRetryIntervalMins</td> <td>5</td> </tr> <tr> <td>PowerPolicyPollIntervalMins</td> <td>15</td> </tr> <tr> <td>NWMReportingMaxBatchSendIntervalSecs</td> <td>300</td> </tr> <tr> <td>NWMReportingMinMessagesPerBatch</td> <td>5</td> </tr> <tr> <td>NewUnassignedComputersTaskIntervalMins</td> <td>5</td> </tr> </tbody> </table>	Parameter	Value	PowerPolicyPollRetryIntervalMins	5	PowerPolicyPollIntervalMins	15	NWMReportingMaxBatchSendIntervalSecs	300	NWMReportingMinMessagesPerBatch	5	NewUnassignedComputersTaskIntervalMins	5
Parameter	Value												
PowerPolicyPollRetryIntervalMins	5												
PowerPolicyPollIntervalMins	15												
NWMReportingMaxBatchSendIntervalSecs	300												
NWMReportingMinMessagesPerBatch	5												
NewUnassignedComputersTaskIntervalMins	5												
Small	<p>Select this option to install in an environment that has between 50-5,000 clients</p> <p>This sets the following configuration options in the database:</p> <ul style="list-style-type: none"> Set the <i>1E NightWatchman, Process load</i> SQL Server Agent Job to run every 30 minutes Set the <i>1E NightWatchman, Process summaries</i> SQL Server Agent Job to run every 1 hour Set the following parameters in the <i>tbNWM_Dimension_GlobalSettings</i> table: <table border="1"> <thead> <tr> <th>Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>PowerPolicyPollRetryIntervalMins</td> <td>30</td> </tr> <tr> <td>PowerPolicyPollIntervalMins</td> <td>90</td> </tr> <tr> <td>NWMReportingMaxBatchSendIntervalSecs</td> <td>3600</td> </tr> <tr> <td>NWMReportingMinMessagesPerBatch</td> <td>5</td> </tr> <tr> <td>NewUnassignedComputersTaskIntervalMins</td> <td>5</td> </tr> </tbody> </table>	Parameter	Value	PowerPolicyPollRetryIntervalMins	30	PowerPolicyPollIntervalMins	90	NWMReportingMaxBatchSendIntervalSecs	3600	NWMReportingMinMessagesPerBatch	5	NewUnassignedComputersTaskIntervalMins	5
Parameter	Value												
PowerPolicyPollRetryIntervalMins	30												
PowerPolicyPollIntervalMins	90												
NWMReportingMaxBatchSendIntervalSecs	3600												
NWMReportingMinMessagesPerBatch	5												
NewUnassignedComputersTaskIntervalMins	5												

Medium	<p>Select this option to install in an environment that has between 5,000 and 50,000 clients</p> <p>This sets the following configuration options in the database:</p> <ul style="list-style-type: none"> • Set the <i>1E NightWatchman, Process load</i> SQL Server Agent Job to run every 1 hour • Set the <i>1E NightWatchman, Process summaries</i> SQL Server Agent Job to run every 4 hours • Set the following parameters in the <i>tbNWM_Dimension_GlobalSettings</i> table: <table border="1" data-bbox="395 535 1318 815"> <thead> <tr> <th>Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>PowerPolicyPollRetryIntervalMins</td> <td>30</td> </tr> <tr> <td>PowerPolicyPollIntervalMins</td> <td>500</td> </tr> <tr> <td>NWMReportingMaxBatchSendIntervalSecs</td> <td>7200</td> </tr> <tr> <td>NWMReportingMinMessagesPerBatch</td> <td>15</td> </tr> <tr> <td>NewUnassignedComputersTaskIntervalMins</td> <td>30</td> </tr> </tbody> </table>	Parameter	Value	PowerPolicyPollRetryIntervalMins	30	PowerPolicyPollIntervalMins	500	NWMReportingMaxBatchSendIntervalSecs	7200	NWMReportingMinMessagesPerBatch	15	NewUnassignedComputersTaskIntervalMins	30
Parameter	Value												
PowerPolicyPollRetryIntervalMins	30												
PowerPolicyPollIntervalMins	500												
NWMReportingMaxBatchSendIntervalSecs	7200												
NWMReportingMinMessagesPerBatch	15												
NewUnassignedComputersTaskIntervalMins	30												
Large	<p>Select this option to install in an environment that has 50,000 or more clients</p> <p>This sets the following configuration options in the database:</p> <ul style="list-style-type: none"> • Set the <i>1E NightWatchman, Process load</i> SQL Server Agent Job to run every 1 hour • Set the <i>1E NightWatchman, Process summaries</i> SQL Server Agent Job to run nightly at 2am • Set the following parameters in the <i>tbNWM_Dimension_GlobalSettings</i> table: <table border="1" data-bbox="395 1131 1318 1406"> <thead> <tr> <th>Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>PowerPolicyPollRetryIntervalMins</td> <td>30</td> </tr> <tr> <td>PowerPolicyPollIntervalMins</td> <td>1500</td> </tr> <tr> <td>NWMReportingMaxBatchSendIntervalSecs</td> <td>14400</td> </tr> <tr> <td>NWMReportingMinMessagesPerBatch</td> <td>25</td> </tr> <tr> <td>NewUnassignedComputersTaskIntervalMins</td> <td>60</td> </tr> </tbody> </table>	Parameter	Value	PowerPolicyPollRetryIntervalMins	30	PowerPolicyPollIntervalMins	1500	NWMReportingMaxBatchSendIntervalSecs	14400	NWMReportingMinMessagesPerBatch	25	NewUnassignedComputersTaskIntervalMins	60
Parameter	Value												
PowerPolicyPollRetryIntervalMins	30												
PowerPolicyPollIntervalMins	1500												
NWMReportingMaxBatchSendIntervalSecs	14400												
NWMReportingMinMessagesPerBatch	25												
NewUnassignedComputersTaskIntervalMins	60												

3.3 NightWatchman Management Center Custom Installation Steps

Here we describe the recommended order for installing NightWatchman Management Center Components and related products:

1. Install the NightWatchman Management Center Database Component before any other Component or product is installed
2. Install the remaining Components for the NightWatchman Management Center in any order
3. Install the 1E WakeUp Server(s) selecting to register one 1E WakeUp Server as the NightWatchman Management Center WakeUp Provider
4. When configuring integration with 1E WakeUp add the WMI permissions to the Console Service account as described in *Console Service Component Requirements*.
5. Restart the NightWatchman Management Center Console Service
6. Install 1E Web WakeUp 1.5
7. Upgrade the NightWatchman Clients and 1E WakeUp Agents

Custom installation steps

To perform a split installation you need to run a *Custom* installation, the following table describes the custom installation steps presented after the user selects *Custom* in the *Setup Type* screen, described in *step 4 - Setup Type* in the previous table.

5. Custom Setup							
<p>On this screen you select the features from the NightWatchman Management Center that you want to install. You will need to run the installer once for each group of components you want to install separately</p> <p>The available features are given in the following table:</p>							
Feature	Description						
Database	<p>Installs the NightWatchman Management Center reporting database.</p> <p>For the specific requirements of this component see <i>Database Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p>						
Report Console	<p>Configures the reporting side of the NightWatchman Management Center. This consists of the following optional sub-features:</p> <table border="1"> <thead> <tr> <th>Sub-feature</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>NightWatchman Reports</td> <td>Installs the NightWatchman power consumption and performance reports</td> </tr> <tr> <td>WakeUp Reports</td> <td>Installs the 1E WakeUp computer availability reports. This includes the optional <i>ConfigMgr</i> feature which provides reports that are specific to when 1E WakeUp is being used in conjunction with SMS/ConfigMgr.</td> </tr> </tbody> </table> <p>For the specific requirements of this component see <i>Report Console and Website Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p>	Sub-feature	Description	NightWatchman Reports	Installs the NightWatchman power consumption and performance reports	WakeUp Reports	Installs the 1E WakeUp computer availability reports. This includes the optional <i>ConfigMgr</i> feature which provides reports that are specific to when 1E WakeUp is being used in conjunction with SMS/ConfigMgr.
Sub-feature	Description						
NightWatchman Reports	Installs the NightWatchman power consumption and performance reports						
WakeUp Reports	Installs the 1E WakeUp computer availability reports. This includes the optional <i>ConfigMgr</i> feature which provides reports that are specific to when 1E WakeUp is being used in conjunction with SMS/ConfigMgr.						
Services	<p>Configures the NightWatchman Management Center services. This consists of the following optional sub-features:</p> <table border="1"> <thead> <tr> <th>Sub-feature</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Web Service</td> <td> <p>Installs the Web Service component that handles communications between the NightWatchman clients, 1E WakeUp agents and the database.</p> <p>For the specific requirements of this component see <i>Web Service Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p> </td> </tr> <tr> <td>Console Service</td> <td> <p>Installs the Console Service component that handles communications between the NightWatchman console and the database. This includes the optional <i>Import Wizard</i> feature, used to populate the NightWatchman group tables from Active Directory or from computers already stored in the database.</p> <p>For the specific requirements of this component see <i>Console Service Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p> </td> </tr> </tbody> </table>	Sub-feature	Description	Web Service	<p>Installs the Web Service component that handles communications between the NightWatchman clients, 1E WakeUp agents and the database.</p> <p>For the specific requirements of this component see <i>Web Service Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p>	Console Service	<p>Installs the Console Service component that handles communications between the NightWatchman console and the database. This includes the optional <i>Import Wizard</i> feature, used to populate the NightWatchman group tables from Active Directory or from computers already stored in the database.</p> <p>For the specific requirements of this component see <i>Console Service Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p>
Sub-feature	Description						
Web Service	<p>Installs the Web Service component that handles communications between the NightWatchman clients, 1E WakeUp agents and the database.</p> <p>For the specific requirements of this component see <i>Web Service Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p>						
Console Service	<p>Installs the Console Service component that handles communications between the NightWatchman console and the database. This includes the optional <i>Import Wizard</i> feature, used to populate the NightWatchman group tables from Active Directory or from computers already stored in the database.</p> <p>For the specific requirements of this component see <i>Console Service Component Requirements</i> under heading <i>2.2 - Split Installation Component Requirements</i>.</p>						
Console	<p>Installs the NightWatchman Management Console. You can install multiple instances of the NightWatchman Management Console.</p> <p>For specific requirements of this component see <i>NightWatchman Console</i></p>						

	<i>Component Requirements</i> under heading 2.2 - <i>Split Installation Component Requirements</i> .
<p>On this screen you can also set the installation directory for each component. For the overall product this defaults to:</p>	
<p>C:\Program Files\1E\Nightwatchman Management Center\</p>	
<p>You can change the default by clicking the <i>Change...</i> button and navigating to your preferred installation directory</p>	
<p>When the correct selections have been made click <i>Next</i> to go to the next screen</p>	
<p>6. Database Server Configuration</p>	
<p>Here you specify the server where you want the NightWatchman Management Center database installed</p>	
<p>Format</p>	<p>Description</p>
(Local)	Configures the use of the local default instance
ServerName	Configures the use of a remote server using the default instance
ServerName\Instance	Configures the use of a remote server and named instance using a dynamic port
ServerName, Port	Configures the use of a remote server and instance defined by its fixed port
<p>When installing onto clustered SQL you will need to use the <i>ServerName\Instance</i> format to locate the clustered SQL instance. For this to work the domain administrator will need to have manually registered SPN for the SQL instance if the SQL Server is running under a domain user account</p>	
<p>Checking the Drop any existing NightWatchman Management Center Database option will prompt the installer to remove any existing database before installing the new one</p>	
<p>7. Website Configuration</p>	
<p>Here you configure any custom data for the NightWatchman Management Center reporting website</p>	
<p>To customize the settings you first check the Custom IIS settings checkbox. The remaining controls then become enabled. These can be used to define individual settings for the NightWatchman Management Center Report Console and Web Service Components:</p>	
<p>Feature</p>	<p>Description</p>
IIS Port	Sets the IIS port used by the Report Console Website or the Web Service
IP Address	Sets the IP Address used by the Report Console Website or the Web Service
Host Header	<p>Sets the Host Header used by the Report Console Website or the Web Service. This will be the server name used to locate the Website or Web Service.</p> <p>The customized Report Console Website name would then be used when browsing to the report console.</p> <p>The customised Web Service name will then need to be set in all the NightWatchman clients and 1E WakeUp agents when locating the Web Service.</p> <p>In order to use the customized names once they have been set you will need to have defined the appropriate DNS settings to dereference to the IP address location of the server hosting the Report Console Website or Web Service.</p>

8. Console Service Config

On this screen you configure the administrator account for the NightWatchman Console and the Console Service account.

The NightWatchman Management Center Console administrator account is used to assign further permissions in the NightWatchman Management Center Console. This may be a user or group account and must be specified in the following format:

```
Domain\Account
```

The Console Service account must also be specified in the following format:

```
Domain\Account
```

You will also need to set the password for this account

Appropriate permissions are granted to the Console Service account by the installer. However, if you intend to use the NightWatchman Management Center Console to implement remote wakeups you will need to set some additional WMI permissions to the Console Service account for the 1E WakeUp namespaces, as described in *Console Service account requirements*

9. Environment Setup

In this screen you select the size of organization where the NightWatchman Management Center will be running. This tailors the NightWatchman database settings to provide the correct balance between responsiveness and database load. The size options and the corresponding settings are described in *Table 2 - Environment Configuration Settings* above.

When the selection has been made, click the *Next* button to go to the next screen

10. Ready to Install the Program

All required information has now been entered, so just click the *Next* button to begin the installation process

11. Finish

Once the product has been successfully installed simply click on the *Finish* button to end the installation wizard

3.4 Installing using quiet mode

You can install NightWatchman Management Center without interaction using the silent option provided by the Microsoft Installer application. This option allows you to batch the installation and install onto a large number of machines easily. By installing silently you are implicitly agreeing to the license terms displayed in the installation wizard when running interactively.

The silent option is set on the Microsoft Installer command line using the `/qn` switch.

There are a number of optional configuration switches which are described in *Appendix A - Installer Command-line Switches*.

Note: silent installation will still run the pre-requisite checks prior to installing the selected components. If these are not met the affected components will not install.

The following table describes the command-line switches in terms of how they correspond to the steps provided in the interactive installation:

General installer switches

The following installer switches define some general settings for the NightWatchman Management Center:

Installer Switch	Description
INSTALLDIR	Sets the base installation directory for the NightWatchman Management Center components
LOGPATH	Sets the location for the NightWatchman Management Center log files

Database installer switches

The following installer switches configure the NightWatchman Management Center database:

Installer Switch	Description
SQLSERVER	Sets the location of the SQL server where the NightWatchman Management Center database will be installed.
DROPOLddb	Sets the installer to drop any existing Agility Framework Reporting database before installing the new NightWatchman Management Center database.
ENVSETUP	Specifies the size of the organization where the NightWatchman Management Center is being installed. This changes specific running parameters on the NightWatchman Management Center database.
ADDLOCAL	To install the database <i>ADDLOCAL</i> needs to be set to a value that includes the text <i>Database</i> . The values are case sensitive. The following shows the installer switch set to just install the database: <pre>ADDLOCAL=Database</pre>

Console Service installer switches

The following installer switches configure the NightWatchman Management Center Console Service:

Installer Switch	Description
ACTIVE_DIRECTORY_SERVER	Sets the location for the Active Directory server
ADDLOCAL	To install the Console Service <i>ADDLOCAL</i> needs to be set to a value that includes the text <i>ConsoleService</i> . The values are case sensitive. The following shows the installer switch set to just install the Console Service: <pre>ADDLOCAL=ConsoleService</pre> <p>The following shows the installer switch set to just install the Import Wizard:</p> <pre>ADDLOCAL=ImportWizard</pre>
ADMINACCOUNT	Sets the primary NightWatchman Management Center Administrator account. This must be specified in the format <i>Domain\User</i>
CONSOLESERVICE	Sets the installation directory for the NightWatchman Management Center Console Service
LOGPATH	Sets the location for the NightWatchman Management Center log files
SQLSERVER	Sets the location for the SQL server instance
SVCPASSWORD	Sets the password of the service account for the Console Service.
SVCUSER	Sets the user name of the service account for the Console Service. This must be specified in the format <i>Domain\User</i> .

NightWatchman Console installer switches

The following installer switches configure the NightWatchman Console:

Installer Switch	Description
ADDLOCAL	To install the NightWatchman Console <i>ADDLOCAL</i> needs to be set to a value that includes the text <i>Console</i> . The values are case sensitive. The following shows the installer switch set to just install the NightWatchman Console: <code>ADDLOCAL=Console</code>
CONSOLE	Sets the installation directory for the NightWatchman Console
LOGPATH	Sets the location for the NightWatchman Management Center log files
SERVICELLOCATION	Sets the location for the Console Service Component when installing the NightWatchman Console remotely.

Report Console installer switches

The following installer switches configure the NightWatchman Management Center Report Console:

Installer Switch	Description
ADDLOCAL	To install the Report Console <i>ADDLOCAL</i> needs to be set to a value that references any of its sub-components. The values are case sensitive. The following shows the installer switch set to install all of the Report Console sub-components: <code>ADDLOCAL="NightwatchmanReports, WakeUpReports, ConfigMgr"</code>
LOGPATH	Sets the location for the NightWatchman Management Center log files
REPORTCONSOLE	Sets the installation directory for the NightWatchman Management Center Report Console
SQLSERVER	Sets the location for the SQL server instance
REPORTCONSOLEHOSTHEADER	Sets the host header for the NightWatchman Management Center Report Console
REPORTCONSOLEIISPORT	Sets the IIS port to be used for the NightWatchman Management Center Report Console
REPORTCONSOLEIPADDRESS	Sets the IP address for the NightWatchman Management Center Report Console

Web Service installer switches

The following installer switches configure the NightWatchman Management Center Web Service:

Installer Switch	Description
ADDLOCAL	To install the Web Service <i>ADDLOCAL</i> needs to be set to a value that includes the text <i>WebService</i> . The values are case sensitive. The following shows the installer switch set to just install the Web Service: <code>ADDLOCAL= webService</code>
LOGPATH	Sets the location for the NightWatchman Management Center log files
SQLSERVER	Sets the location for the SQL server instance
WEBSERVICE	Sets the installation directory for the NightWatchman Management Center Web Service
WEBSERVICEHOSTHEADER	Sets the host header for the NightWatchman Management Center Web Service
WEBSERVICEIISPORT	Sets the IIS port to be used for the NightWatchman Management Center Web Service
WEBSERVICEIPADDRESS	Sets the IP address for the NightWatchman Management Center Web Service

Installer command-line examples

The following installer command-line sets a default installation where all the components are installed locally:

```
msiexec /i NightwatchmanManagementCenter.msi ACTIVE_DIRECTORY_SERVER=ACME
ADMINACCOUNT=ACME\Roger.wilco SVCUSER=ACME\SVCAccount SVCPASSWORD=Pswd
SQLSERVER=ACMESQL /qn
```

The following example installer command-line will install just the NightWatchman Console:

```
msiexec /i NightwatchmanManagementCenter.msi ADDLOCAL=Console
SERVICELOCATION=ACME023 /qn
```

where the NightWatchman Management Center Console Service has been installed previously on the server *ACME023*.

3.5 Default file locations

After a default installation the various programs and files associated with NightWatchman Management Center will be placed in the default installation directory:

```
C:\Program Files\1E\Nightwatchman Management Center
```

Section 4 Uninstalling and Repairing

The installer also supports uninstallation and repair. The following headings show how these operations are performed and steps that need to be taken.

4.1 Uninstalling the NightWatchman Management Center

NightWatchman Management Center can be removed from a machine using the *Add or Remove Programs* item in the *Control Panel*. NightWatchman Management Center has its own entry in the *Currently Installed Programs*: listbox. To uninstall select the NightWatchman Management Center item and click on the *Remove* button subsequently displayed.

Additional information

The NightWatchman Management Center entry in the *Add or Remove Programs* dialog also contains a means to access support information for the product. This contains links to the 1E website and the currently installed NightWatchman package version number.

4.2 Repairing the NightWatchman Management Center

During a repair or re-installation, certain information stored for the 1E WakeUp Server is not available to the installer. If you intend to re-install or repair NightWatchman Management Center you will also need to set the 1E WakeUp Provider settings in the global settings table, as described in *Appendix B - Existing 1E WakeUp Server 5.6 Integration*.

The following command-line shows how to implement a repair for the NightWatchman Management Center:

```
msiexec /fvom NightWatchmanManagementCenter.msi
```

Section 5 Upgrading

This section describes considerations to take in to account when upgrading to the latest version of the NightWatchman Management Center.

5.1 Earliest Version Upgrade Support

This section describes the earliest components supported for upgrading by the NightWatchman Management Center installer. Versions prior to these should be uninstalled before running the new installer.

Component/Product	Version
Agility Framework Reporting	2.1.1.2
NightWatchman Product Pack	5.0.2.0
1E WakeUp Product Pack	5.0.3.1
NightWatchman Console	1.0.1.85

5.2 NightWatchman Client and 1E WakeUp Agent Version Support

Although we recommend that all instances of the 1E WakeUp Agents and NightWatchman Clients are upgraded to the latest versions. During a staggered upgrade process the following versions of the NightWatchman Client will at least still be able to return some information to the latest version of NightWatchman Management Center:

- NightWatchman Client Version 5.0.1.7 or later

The following versions of the 1E WakeUp Agent will be able to send Computer Health data to the latest version of NightWatchman Management Center:

- 1E WakeUp Agent 5.5.1.166 or later

We recommend upgrading all NightWatchman Clients and 1E WakeUp Agents earlier than these versions as the first step in the 5.6 1E WakeUp Agent and NightWatchman Client rollout to make sure that these computers are made able to send information as soon as possible, while all other computers pending upgrade will at least still be able to send valid information.

5.3 NightWatchman Console Beta

The NightWatchman Management Center installer does not support the beta version of the NightWatchman Console. If you installed the beta version you must uninstall it before running the NightWatchman Management Center installer.

Warning! If you have previously upgraded the database to Agility Framework Reporting version 5.5 without upgrading the NightWatchman Console to a fully supported version you will first need to upgrade to NightWatchman Console 1.0.1.85 before running the NightWatchman Management Center installer.

5.4 Upgrading Best Practice

This section describes the order and considerations for upgrading all the components in the NightWatchman Management Center, including the 1E WakeUp Server, 1E WakeUp Agents and NightWatchman Clients.

The order for upgrading is the same as the installation order, as follows:

1. Upgrade the NightWatchman Management Center Database Component (formerly known as Agility Framework) prior to upgrading any other Component or associated Product
2. Upgrade the remaining Components for the NightWatchman Management Center in any order
3. Upgrade the 1E WakeUp Server(s) selecting to register one 1E WakeUp Server as the NightWatchman Management Center WakeUp Provider
4. When configuring integration with 1E WakeUp add the WMI permissions to the Console Service account as described in *Console Service Component Requirements*.
5. Restart the NightWatchman Management Center Console Service
6. Upgrade to 1E Web WakeUp 1.5 - if this is already installed re-run the installer to reset some of its stored procedures
7. Upgrade the NightWatchman Clients and 1E WakeUp Agents:
 - a. Upgrade all NightWatchman Client Versions earlier than 5.0.1.7
 - b. Upgrade all 1E WakeUp Agents Versions earlier than 5.5.1.166
 - c. Upgrade any remaining 1E WakeUp Agents and NightWatchman Clients

Section 6 Troubleshooting

When troubleshooting problems with the NightWatchman Management Center you should first check that all the requirements have been met, as set out in *Section 2 - Requirements*. After checking the requirements you should then create a technical report of the problem which will help 1E support quickly determine the cause.

6.1 Contact 1E support

The first thing that should be included in the technical report are the log files. To help determine the cause of technical problems NightWatchman Management Center keeps a number of log files that report on the behaviour of each component.

The following table lists the log files that belong to the NightWatchman Management Center:

Component	Log file
Console Service	NWM.ServiceHost.exe.log
NightWatchman Console	NWM.Console.exe.log
Web Service	Webservice.log
Import Wizard	ImportWizard.exe.log
Import Scripts	ImportWizard_Script.log

By default these files are located on the servers where the components are running in the following directory for Windows Server 2008:

```
C:\ProgramData\1E\NightwatchmanManagementCenter
```

And the following directory for Windows Server 2003:

```
C:\Documents and Settings\All Users\Application Data\1E\
NightwatchmanManagementCenter
```

Creating a technical report

The technical report should contain the following information:

- The NightWatchman Management Center log files.
- Version number of the NightWatchman Management Center.
- The OS, version number and patch level the machine is running.

You should then email the details of the problem encountered along with the above information to <mailto:support@1e.com>. A technical consultant will then contact you to help find a suitable solution.

Section 7 Further Information

After you have completed the installation and initial configuration of the NightWatchman Management Center, additional configuration and user interface information can be found in the NightWatchman Console on-line help file. That interactive guide provides information about how to use the console.

For more detailed questions about specific situations that may be relevant to your network you are always welcome to contact 1E directly. Our contact details are provided below.

7.1 Contact details

1E provide a number of SMS/ConfigMgr enhancement tools as well as consultancy services. This section provides information on how to get information about 1E and contact details for the various departments within 1E.

Website

The essential resource for information about 1E and its products is the website.

<http://www.1e.com/>

Telephone and fax

The following UK numbers are available for telephone and fax enquiries:

Tel: +44 (0)20 8326 3880

Fax: +44 (0)20 8840 9578

The following number is available in the United States of America:

Tel: 1-800 516 6938

Post

The postal address for 1E is:

Head Office:
1E Ltd,
97-107 Uxbridge Rd,
London W5 5TL, UK

Sales

To contact the sales department at 1E you can use the following email address:

<mailto:sales@1e.com>

Technical support

To contact the technical support department at 1E you can use the following address:

<mailto:support@1e.com>

Appendix A Installer Command-line Switches

The NightWatchman Management Center installer contains various switches that can be set on the MSIEXEC command line. The complete supported set is provided in the following table.

Table 3 - The complete NightWatchman Management Center installer switches

Switch	Description																		
ACTIVE_DIRECTORY_SERVER	Sets the location for the active directory server. This is used by the NightWatchman Management Center to manage security permissions for the NightWatchman Management Center Console users.																		
ADDLOCAL	<p>Specifies the NightWatchman Management Center Components you want to install. You can specify more than one component on a single command-line by using a comma separated list.</p> <p>The component values are case sensitive and may be one of the following:</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Database</td> <td>Installs the database component</td> </tr> <tr> <td>NightWatchmanReports</td> <td>Installs the NightWatchman Reports component</td> </tr> <tr> <td>WakeUpReports</td> <td>Installs the 1E WakeUp reports component</td> </tr> <tr> <td>ConfigMgr</td> <td>Installs the 1E WakeUp Configuration Manager related reports component</td> </tr> <tr> <td>WebService</td> <td>Installs the Web Service component</td> </tr> <tr> <td>ConsoleService</td> <td>Installs the service for the NightWatchman Console</td> </tr> <tr> <td>ImportWizard</td> <td>Installs the Import Wizard component</td> </tr> <tr> <td>Console</td> <td>Installs the NightWatchman Console</td> </tr> </tbody> </table>	Value	Description	Database	Installs the database component	NightWatchmanReports	Installs the NightWatchman Reports component	WakeUpReports	Installs the 1E WakeUp reports component	ConfigMgr	Installs the 1E WakeUp Configuration Manager related reports component	WebService	Installs the Web Service component	ConsoleService	Installs the service for the NightWatchman Console	ImportWizard	Installs the Import Wizard component	Console	Installs the NightWatchman Console
Value	Description																		
Database	Installs the database component																		
NightWatchmanReports	Installs the NightWatchman Reports component																		
WakeUpReports	Installs the 1E WakeUp reports component																		
ConfigMgr	Installs the 1E WakeUp Configuration Manager related reports component																		
WebService	Installs the Web Service component																		
ConsoleService	Installs the service for the NightWatchman Console																		
ImportWizard	Installs the Import Wizard component																		
Console	Installs the NightWatchman Console																		
ADMINACCOUNT	<p>Sets the basic NightWatchman Management Center Console administrator account. This account is used to assign further permissions in the NightWatchman Management Center Console. This account must be specified in the following format:</p> <p><code>Domain\Account</code></p>																		
CONSOLE	<p>Sets the installation directory for the NightWatchman Management Center Console. By default this is set to:</p> <p><code><installdir>\console</code></p> <p>Where <code><installdir></code> is defined by the INSTALLDIR installer command-line switch.</p>																		

CONSOLESERVICE	<p>Sets the installation directory for the Console Service. By default this is set to:</p> <pre><installdir>\ConsoleService</pre> <p>Where <i><installdir></i> is defined by the INSTALLDIR installer command-line switch.</p>										
DROPOLDDB	<p>Sets whether any existing Agility Framework Reporting database is dropped during installation. This may take one of the following values:</p> <table border="1" data-bbox="639 501 1315 636"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Do not drop any existing database</td> </tr> <tr> <td>1</td> <td>Drop any existing database</td> </tr> </tbody> </table>	Value	Description	0	Do not drop any existing database	1	Drop any existing database				
Value	Description										
0	Do not drop any existing database										
1	Drop any existing database										
ENVSETUP	<p>Specifies the size of the organization where the NightWatchman Management Center is being installed. This may take one of the following values:</p> <table border="1" data-bbox="639 748 1315 972"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Very Small</td> </tr> <tr> <td>2</td> <td>Small</td> </tr> <tr> <td>3</td> <td>Medium</td> </tr> <tr> <td>4</td> <td>Large</td> </tr> </tbody> </table>	Value	Description	1	Very Small	2	Small	3	Medium	4	Large
Value	Description										
1	Very Small										
2	Small										
3	Medium										
4	Large										
INSTALLDIR	<p>Sets the base installation directory for the NightWatchman Management Center. By default this is set to:</p> <pre>C:\Program Files\1E\Nightwatchman Management Center</pre>										
LOGPATH	<p>Sets the directory for the NightWatchman Management Center log files.</p> <p>On Microsoft Windows Server 2008 the default is:</p> <pre>C:\Programdata\1E\NightwatchmanManagementCenter</pre> <p>On Microsoft Windows Server 2003 the default is:</p> <pre>C:\Documents and Settings\All Users\Application Data\1E\NightwatchmanManagementCenter</pre>										
REPORTCONSOLE	<p>Sets the installation directory for the NightWatchman Management Center Report Console. By default this is set to:</p> <pre><installdir>\ReportConsole</pre> <p>Where <i><installdir></i> is defined by the INSTALLDIR installer command-line switch.</p>										
REPORTCONSOLEHOSTHEADER	<p>Sets the host header for the NightWatchman Management Center Report Console.</p> <p>You would then need to use this name when browsing to the report console.</p> <p>In order to use the name once it has been set you will need to have defined the appropriate DNS settings to dereference it to the IP address location of the server hosting the Report Console web site.</p> <p>For example the following installer switch sets the Report Console host header to the name 1EReports</p> <pre>ServerName=1EReports</pre>										

REPORTCONSOLEIISPORT	Sets the IIS port to be used for the NightWatchman Management Center Report Console.										
REPORTCONSOLEIPADDRESS	Sets the IP address for the NightWatchman Management Center Report Console										
SERVICELOCATION	Sets the location of the Console Service, used when installing the NightWatchman Management Center Console on a different computer to the Console Service. This is specified as the server name where the Console Service is installed.										
SQLSERVER	<p>Sets the location for the SQL server instance. This can be defined in the following formats:</p> <table border="1"> <thead> <tr> <th>Format</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>(Local)</td> <td>Configures the use of the local default instance</td> </tr> <tr> <td>ServerName</td> <td>Configures the use of a remote server using the default instance</td> </tr> <tr> <td>ServerName\Instance</td> <td>Configures the use of a remote server and named instance using a dynamic port</td> </tr> <tr> <td>ServerName, Port</td> <td>Configures the use of a remote server and instance defined by its fixed port</td> </tr> </tbody> </table> <p>When installing onto clustered SQL you will need to use the <i>ServerName\Instance</i> format to locate the clustered SQL instance. For this to work the domain administrator will need to have manually registered SPN for the SQL instance if the SQL Server is running under a domain user account.</p>	Format	Description	(Local)	Configures the use of the local default instance	ServerName	Configures the use of a remote server using the default instance	ServerName\Instance	Configures the use of a remote server and named instance using a dynamic port	ServerName, Port	Configures the use of a remote server and instance defined by its fixed port
Format	Description										
(Local)	Configures the use of the local default instance										
ServerName	Configures the use of a remote server using the default instance										
ServerName\Instance	Configures the use of a remote server and named instance using a dynamic port										
ServerName, Port	Configures the use of a remote server and instance defined by its fixed port										
SVCPASSWORD	Sets the password for the Console Service account.										
SVCUSER	<p>Sets the Console Service account. This must be specified in the following format:</p> <pre>Domain\Account</pre> <p>Appropriate permissions are granted to this account by the installer. If you intend to use the NightWatchman Management Center Console to implement remote wakeups you will need to set some additional WMI permissions to the service account for the 1E WakeUp namespace.</p>										
WEBSERVICE	<p>Sets the installation directory for the NightWatchman Management Center Web Service. By default this is set to:</p> <pre><installdir>\webService</pre> <p>Where <i><installdir></i> is defined by the INSTALLDIR installer command-line switch.</p>										

WEBSERVICEHOSTHEADER	<p>Sets the host header for the NightWatchman Management Center Web Service. This will be the server name used to locate the Web Service.</p> <p>The customised name will then need to be used in all the NightWatchman clients and 1E WakeUp agents when locating the Web Service.</p> <p>In order to use the name once it has been set you will need to have defined the appropriate DNS settings to dereference it to the IP address location of the server hosting the Web Service.</p> <p>For example the following installer switch sets the Report Console host header to the name 1EWebService</p> <pre>ServerName=1EWebService</pre>
WEBSERVICEIISPORT	<p>Sets the IIS port to be used for the NightWatchman Management Center Web Service.</p> <p>This defaults to the standard IIS port 80.</p> <p>The customised port will then need to be used in all the NightWatchman clients and 1E WakeUp agents when locating the Web Service.</p>
WEBSERVICEIPADDRESS	<p>Sets the IP address for the NightWatchman Management Center Web Service</p> <p>This defaults to the standard IIS IP address.</p> <p>The customised IP address will then need to be used in all the NightWatchman clients and 1E WakeUp agents when locating the Web Service.</p>

Appendix B Existing 1E WakeUp Server 5.6 Integration

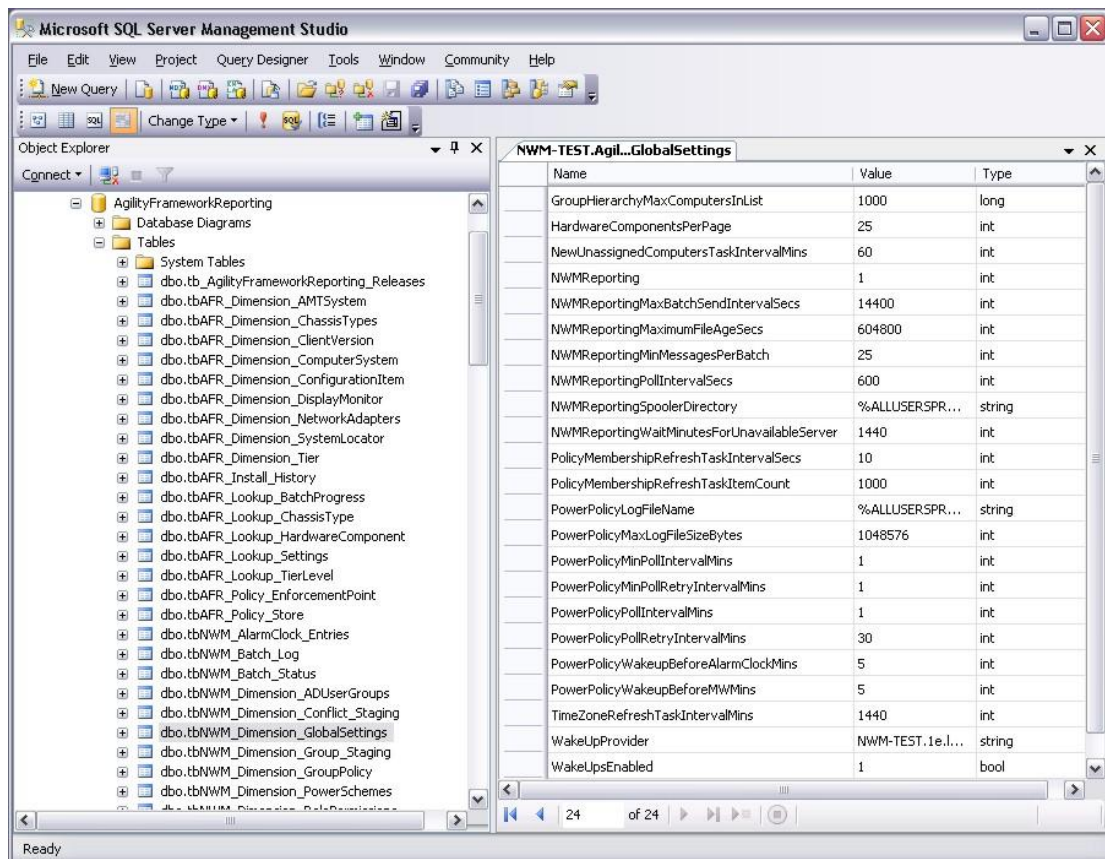
The connection between the NightWatchman Management Center and the designated 1E WakeUp Server is normally set up during 1E WakeUp installation. This requires that the NightWatchman Management Center is installed first and the 1E WakeUp Server is installed or updated afterwards.

If for some reason the 1E WakeUp Server has been installed first you will need to configure the location for the 1E WakeUp Server by hand by setting the 1E WakeUp Provider settings in the NightWatchman Management Center Global Settings table in the NightWatchman Management Center database. This must be done as a post installation step.

B.1 The Global Settings Table

This global settings table is called *tbNWM_Dimension_GlobalSettings* and is part of the *AgilityFrameworkReporting* database, as shown selected and open in Figure 3.

Figure 3 - The global settings table



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'AgilityFrameworkReporting', with the 'GlobalSettings' table selected under the 'tbNWM_Dimension' folder. The main window displays the table's data, which includes various configuration parameters and their values.

Name	Value	Type
GroupHierarchyMaxComputersInList	1000	long
HardwareComponentsPerPage	25	int
NewUnassignedComputersTaskIntervalMins	60	int
NWMReporting	1	int
NWMReportingMaxBatchSendIntervalSecs	14400	int
NWMReportingMaximumFileAgeSecs	604800	int
NWMReportingMinMessagesPerBatch	25	int
NWMReportingPollIntervalSecs	600	int
NWMReportingSpoolerDirectory	%ALLUSERSPR...	string
NWMReportingWaitMinutesForUnavailableServer	1440	int
PolicyMembershipRefreshTaskIntervalSecs	10	int
PolicyMembershipRefreshTaskItemCount	1000	int
PowerPolicyLogFileName	%ALLUSERSPR...	string
PowerPolicyMaxLogFileSizeBytes	1048576	int
PowerPolicyMinPollIntervalMins	1	int
PowerPolicyMinPollRetryIntervalMins	1	int
PowerPolicyPollIntervalMins	1	int
PowerPolicyPollRetryIntervalMins	30	int
PowerPolicyWakeUpBeforeAlarmClockMins	5	int
PowerPolicyWakeUpBeforeMWMins	5	int
TimeZoneRefreshTaskIntervalMins	1440	int
WakeUpProvider	NWM-TEST.1e.l...	string
WakeUpsEnabled	1	bool

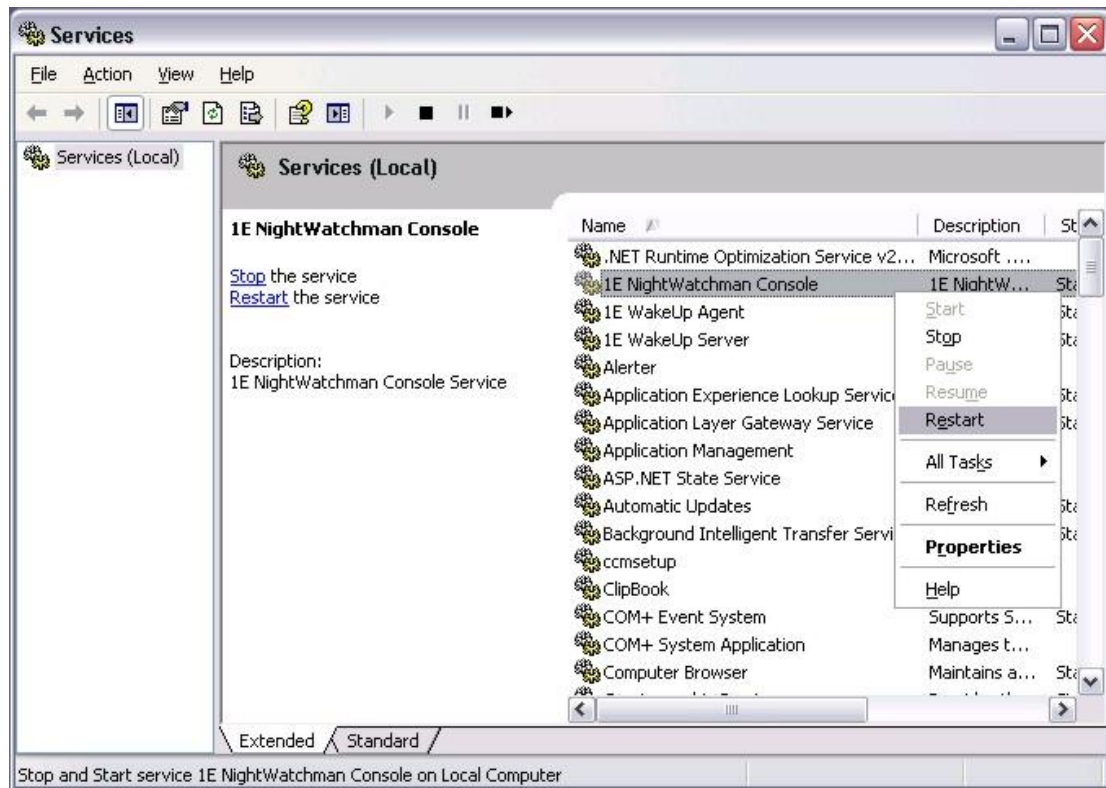
To configure the wake up provider you have to make the following changes:

- Set *WakeUpProvider* to the name of the server where the 1E WakeUp Server to be used as the registered wake up provider is installed
- Set *WakeUpsEnabled* to 1

B.2 Restarting the Console Service

After making the changes to the table you will need to restart the NightWatchman Management Center Console Service Component before the changed values are used, as shown in *Figure 4*.

Figure 4 - Restarting the NightWatchman Management Center Console Service



Appendix C Web Service Secure Communications

This section describes the steps needed to configure the NightWatchman Management Center Web Service to use secure communications. Steps to configure an IIS web site to use secure channel communications or client certificate authentication are beyond the scope of this document.

To configure the NightWatchman Management Center Web Service to use secure communications you need to perform the following steps:

1. Prepare IIS for the level of secure communications and authentication you require - i.e. install certificates into the certificate stores on the server and client computers in the correct locations etc.
2. Install the NightWatchman Management Center Web Service component
3. Configure the *AFWebService* website to use secure communications
4. Configure the NightWatchman Clients and 1E WakeUp Agents to communicate with the *AFWebService* using HTTPS using a client certificate, if necessary

C.1 Configuration of client certificates for authentication

Here we describe specific items that must be taken into account when setting up client certificates for authentication.

Required certificates

The following certificates are required to enable secure communications with client authentication.

- To enable secure channel communications the server requires an SSL certificate
- For client authentication you need a Client Authentication certificate that should be placed in each client's certificate store and a matching certificate from the same certification authority that should be placed in the server certificate store

Locating certificates on the client certificate store

The Client Authentication certificate must be located in one of the following logical stores in the Computer account Certificate Store on the client:

- Third Party Root Certification Authorities
- Trusted Root Certification Authorities

If the certificate is placed in any other logical stores it will not be located by the NightWatchman Clients or by the 1E WakeUp Agents

Multiple certificates with the same Subject and Issued By fields

We recommend that you only define a single certificate for given *Subject* and *Issued By* fields. It is possible to define multiple certificates with the same Subject and Issued By fields. The NightWatchman Clients and 1E WakeUp Agents will only return the first certificate found matching the Subject and Issued By fields.

Revoking certificates

Trust is based on the CA certificate entries in the Web server's Trusted Root Certification Authorities machine certificate store. When revoking certificates you also need to remove them from the server certificate store.

C.2 Server configuration

The web service may be configured to use secure communications as follows:

- **Use secure channel (SSL)** - this sets the communications to be encrypted using a an SSL certificate issued by an external certification authority (CA) or by a server that acts as a CA on your Windows domain. When this option is selected the NightWatchman Clients and 1E WakeUp Agents need to be configured to use HTTPS for reporting by setting the *SECUREREPORTINGSERVER* parameter, as described under heading C.3 - *Client configuration*.
- **Use client certificate authentication**- this sets the server to prompt the client for a valid Client Authentication certificate for mutual authentication. This requires that the NightWatchman Clients and 1E WakeUp Agents are configured to iterate through their local certificate store to match a certificate by issuer or by subject to send back to the server when challenged. The server will validate the CA in the certificate before initiating the connection. The NightWatchman Clients and 1E WakeUp Agents are configured to retrieve a particular certificate by setting either the *CERTISSUER* or *CERTSUBJECT* parameters, as described under heading C.3 - *Client configuration*.

C.3 Client configuration

Here we describe the configuration of the NightWatchman Clients and 1E WakeUp Agents to be set for all Clients and Agents that will return information to the NightWatchman Management Center Web Service when configured to use HTTPS.

Using HTTPS encrypted communications

To use HTTPS for reporting you need to specify the *SECUREREPORTINGSERVER* parameter on the NightWatchman Client or 1E WakeUp Agent installer command-line.

SECUREREPORTINGSERVER must be set to the fully qualified domain name for the server hosting the NightWatchman Management Center Web Service.

For example the following shows a 1E WakeUp Agent installer command-line that sets the use of https for communications without client certificate authentication, where this has been set up on the server called *ACMESVR*:

```
C> msixec /i wakeUpAgt.msi SECUREREPORTINGSERVER=ACMESVR /qn
```

Using HTTPS with client certificate authentication

To use HTTPS with client certificate authentication you will also need to set the *CERTISSUER* or *CERTSUBJECT* parameters on the NightWatchman Client or 1E WakeUp Agent installer command-line. These must be set to either the name of the certificate issuer or subject respectively.

For example the following shows a 1E WakeUp Agent installer command-line that sets the use of https for communications using client certificate authentication, where this has been set up on the server called *ACMESVR* using a certificate specified by the subject *ACMECOMS*:

```
C> msixec /i wakeUpAgt.msi SECUREREPORTINGSERVER=ACMESVR CERTSUBJECT=ACMECOMS /qn
```