

# Pulseway

## User Manual

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# 1. Description



Pulseway provides an innovative solution for monitoring and managing your computers using a securely encrypted mobile app that gives you total control of your systems from anywhere, anytime.

This manual is made to guide the reader through the installation, configuration and use process without the need for any background experience in the domain.

## 2. Installation

Pulseway requires an agent to be installed on each monitored PC and will communicate using a secured connection with a remote server from where the information will be passed on to the mobile client.

Pulseway Agent supports the following operating systems:

- Microsoft® Windows® XP or newer.
- Apple® Mac OS X Snow Leopard or newer.
- Almost all Linux distributions.

Supported Mobile Devices:

- Apple® iOS based Mobile Devices
- Google® Android based Mobile Devices
- Microsoft® Windows Phone® based Mobile Devices
- Blackberry® based Mobile Devices
- Windows 8 Devices

### 2.1. Installing Pre-requirements

- Microsoft® Windows® Operating Systems Pre-requirements:

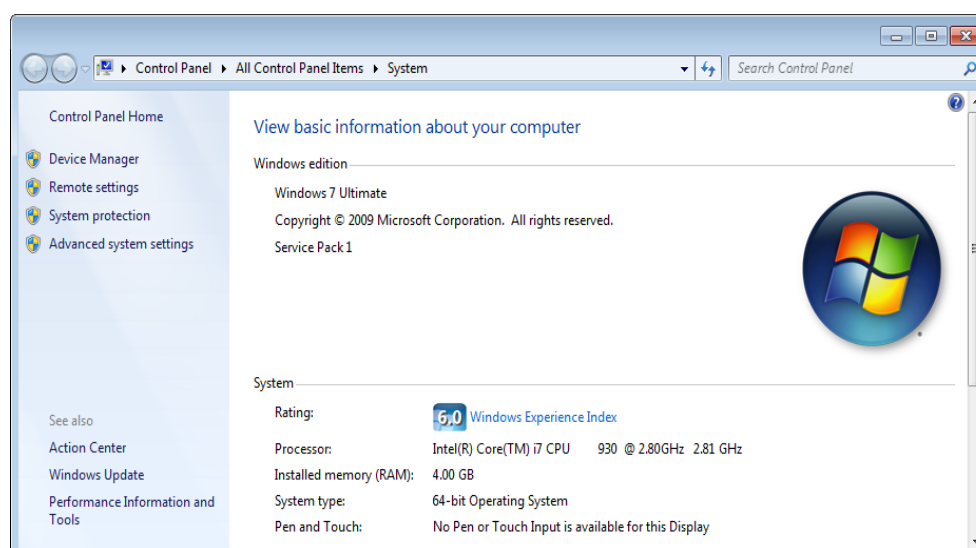
Microsoft .NET Framework 4.0:

<http://www.microsoft.com/en-us/download/details.aspx?id=17718>

### 2.2. Installing on Microsoft® Windows® OS's

Before you start downloading Pulseway you need to know what your windows architecture is.

To find out whether you're running a 64bit or a 32bit operating system you need to go to Control Panel and go to System. There you will need to look for your **System Type** as shown in the picture below.



After you find your system architecture go to <http://www.pulseway.com/downloads> and download the appropriate version for your system: Pulseway for Windows x64 (64 bit) or the x86 (32 bit).

After you downloaded the installer follow the instructions in the setup screen and a Pulseway icon will be automatically created on your Desktop.

## 2.3. Installing on Apple® Mac OS's

To install Pulseway on a Mac operating system all you need is to download the appropriate version <http://www.pulseway.com/downloads>, Pulseway for Mac.

After you have the \*.dmg file in your computer double click on it and a license agreement will show up.

After you have read the license agreement and if you agree with it click on the **Agree** button and a window like this will show up.



Now you need to select the Pulseway icon from the left and drag it into the Applications folder (the icon on the right).

**Note:** You will be prompted to insert your password to authorize the installation.

## 2.4. Installing on Red Hat Enterprise Linux based OS's

Open up your terminal (a ssh connection will work too) and run the linux installer.

```
rpm -Ivh http://www.pulseway.com/download/pulseway_x64.rpm
```

Or if your operating system is working on 32 bit architecture:

```
rpm -Ivh http://www.pulseway.com/download/pulseway_x86.rpm
```

Follow the instruction process (where you don't know what to type just leave the default value).

## 2.5. Installing on Debian Linux based OS's

Open up your terminal (a ssh connection will work too) and run the linux installer.

```
wget http://www.pulseway.com/download/pulseway_x64.deb
```

Or if your operating system is working on 32 bit architecture:

```
wget http://www.pulseway.com/download/pulseway_x86.deb
```

Then start the installation process:

```
dpkg -i pulseway_x64.deb  
or  
dpkg -i pulseway_x86.deb
```

Follow the instruction process (where you don't know what to type just leave the default value).

## 2.6. Installing on RaspberryPi (Raspbian)

Open up your terminal (a ssh connection will work too) and run the linux installer.

```
wget http://www.pulseway.com/download/pulseway_armhf.deb
```

Then start the installation process:

```
dpkg -i pulseway_armhf.deb
```

Follow the instruction process (where you don't know what to type just leave the default value).

## 2.7. Installing on Apple© Mobile Devices

In order to install Pulseway on Apple® based mobile devices you will need an apple account.

To create an Apple Account you need to download and install iTunes from: [here](#).

After you have an Apple account just open App Store from your mobile device:



Then go the Search tab and search for Pulseway. Then you will need to tab on the Free icon to reveal the install button, tab the install button and you will be prompted for your Apple password then the application will install.

## 2.8. Installing on Google® Android® based Mobile Devices



To install Pulseway on your Android device open up the Market application and search for Pulseway. The application is free of charge so you will be able to download it without having to pay for anything at all. After the application description page opens tap to install it.

After a few seconds, depending on your connection speed you will find Pulseway in your application list.

## 2.9. Installing on Microsoft® Windows Phone® based Mobile Devices



On your Windows Phone® device open up marketplace application and search for Pulseway.

Pulseway app should be among the first applications in the search results.

Tap on install and after a few seconds you will find Pulseway in your application list.

## 2.10. Installing on Microsoft® Windows © 8



Bring up the start menu (with the Metro UI) and click on the “Microsoft Store” icon then search for Pulseway.

Pulseway app should be among the first applications in the search results.

Once it’s installed you will find Pulseway in your applications list.

## 3. Account Configuration

The first part of the configuration (and the most important one) represents your account information.

Without correct configuration your computer will not show up on mobile devices and will not be monitored.

Account configuration is split into four categories:

1. Account Details
2. Account Management
3. Computer Information
4. Dedicated Server

### 3.1. Account Details

In order to configure your Account you need to have one created. If you already have an account you may skip to **3.1.2. Validating Account**.

Pulseway Manager will not allow you to configure or start the service until you provide a valid account.

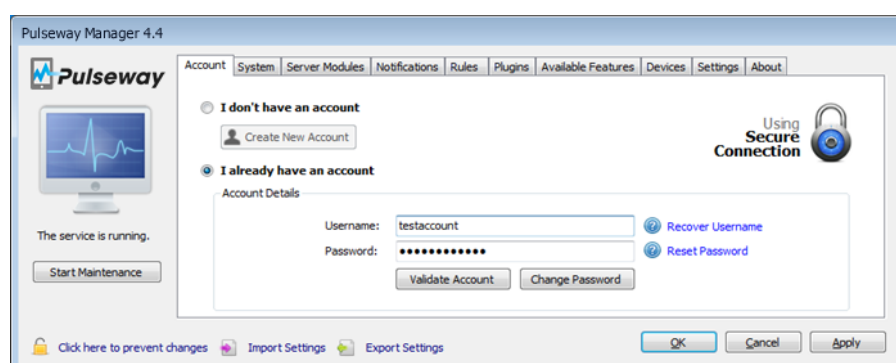
#### 3.1.1. Creating a new account

In order to create a new account Pulseway requires you to input some personal information such as *Name*, *Company*, *Country*, *Email Address* and *Username*. This information is only used to identify you as the owner of your account and for billing purposes. Read our [Privacy Policy](#) to learn more about your privacy.

Once the code has been inserted and it was confirmed your account is activated and ready to use.

#### 3.1.2. Validating Account

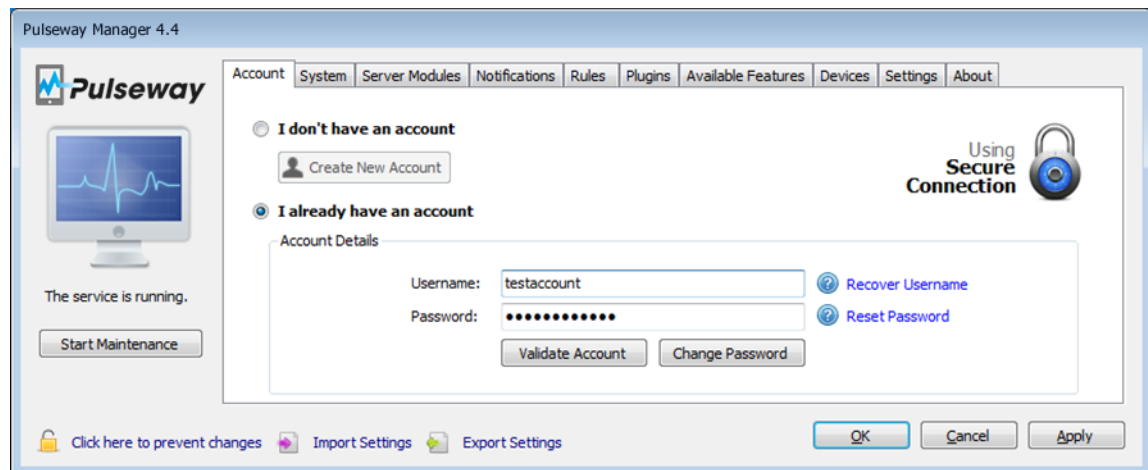
Validating your account is important because it will help you understand why your computer is not showing up on the mobile devices. If you click it you will know if your account is valid and no problems were detected.



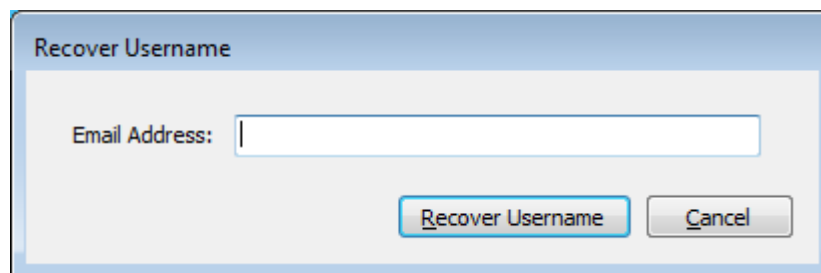
If any error is printed out when you click **Validate Account** please post the error in our [forums](#) in order to investigate the problem.

### 3.1.3. Recovering Account's Username

If by any chance you forgot your username click the **Recover Username** link on the right of the *username* field and you will be prompted for your email address that is associated with your account.



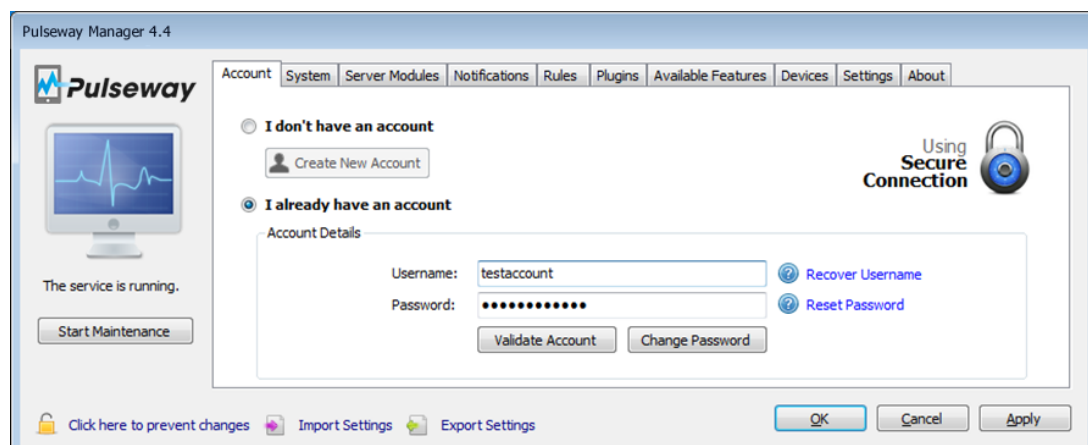
Your email address is requested to confirm account ownership.



After 5 minutes (usually instantly) you will receive an email containing your username.

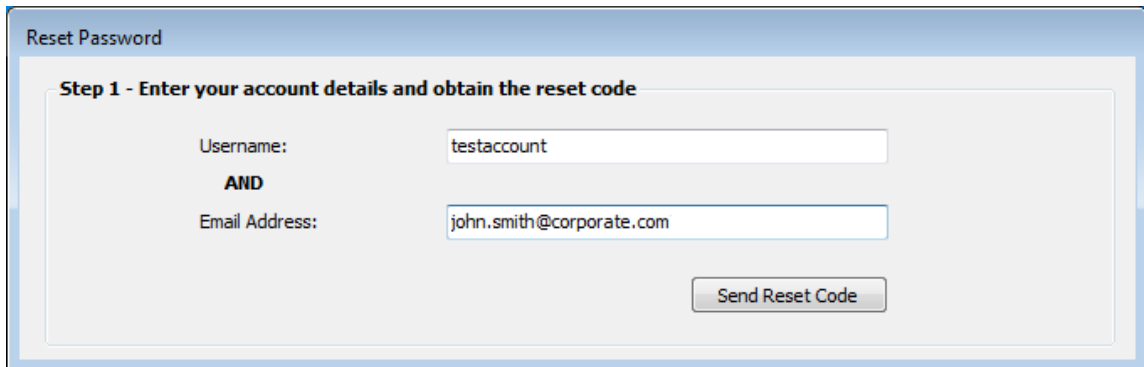
### 3.1.4. Recovering Account's Password

If by any chance you forgot your password click the **Reset Password** link on the right of the *password* field and you will be prompted for your username and email address that is associated with your account.





Enter the reset code you from your mailbox then input a new password and confirm it to complete the process. Optionally you can choose a custom password propagation time that will permit computers that are configured with the old password to automatically update it to the new one.



**Reset Password**

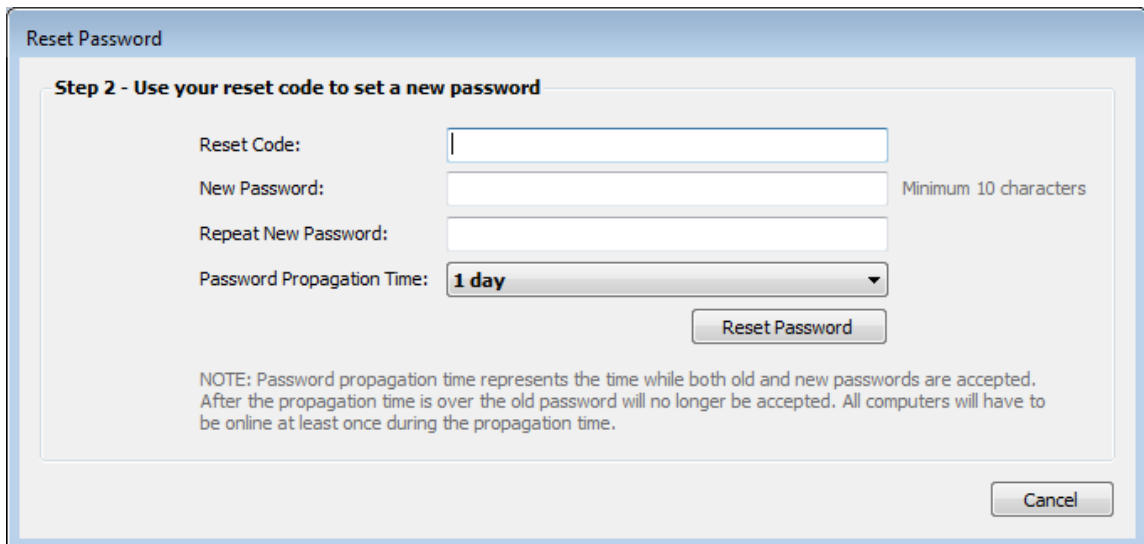
**Step 1 - Enter your account details and obtain the reset code**

Username:

**AND**

Email Address:

After 5 minutes (usually instantly) you will receive an email containing your new password reset code that will be used to change your password and propagate the changes to your computers.



**Reset Password**

**Step 2 - Use your reset code to set a new password**

Reset Code:

New Password:  Minimum 10 characters

Repeat New Password:

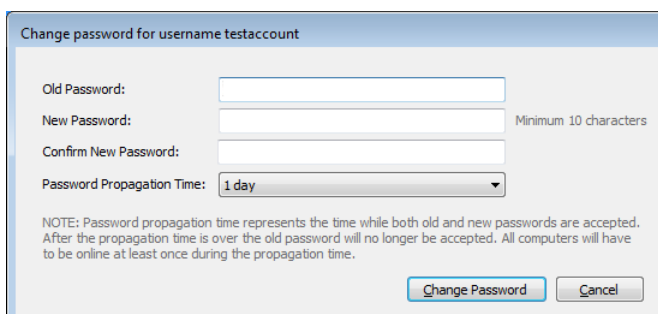
Password Propagation Time:

NOTE: Password propagation time represents the time while both old and new passwords are accepted. After the propagation time is over the old password will no longer be accepted. All computers will have to be online at least once during the propagation time.

**Note:** Password propagation system is using secure socket layer (SSL) connection.

### 3.1.5. Changing Account's Password

If you would like to change your password click the **Change Password** button under the *password* field and the following window will show up.



**Change password for username testaccount**

Old Password:

New Password:  Minimum 10 characters

Confirm New Password:

Password Propagation Time:

NOTE: Password propagation time represents the time while both old and new passwords are accepted. After the propagation time is over the old password will no longer be accepted. All computers will have to be online at least once during the propagation time.

The Password Propagation Time represents the time while both old and new passwords are accepted, also during this time all computers that have the old password will automatically switch to the new password without any user action at all.

**Note:** The computers have to be online at least once during the password propagation period in order to automatically change the password.

## 3.2. Account Management

Account Management panel holds your account control panel. From here you can change your account details, activate security features, manage your subscription, manage your registered computers and control registered devices and their policies.

All Account Management functions are protected with your account's password to prevent unauthorized changes.

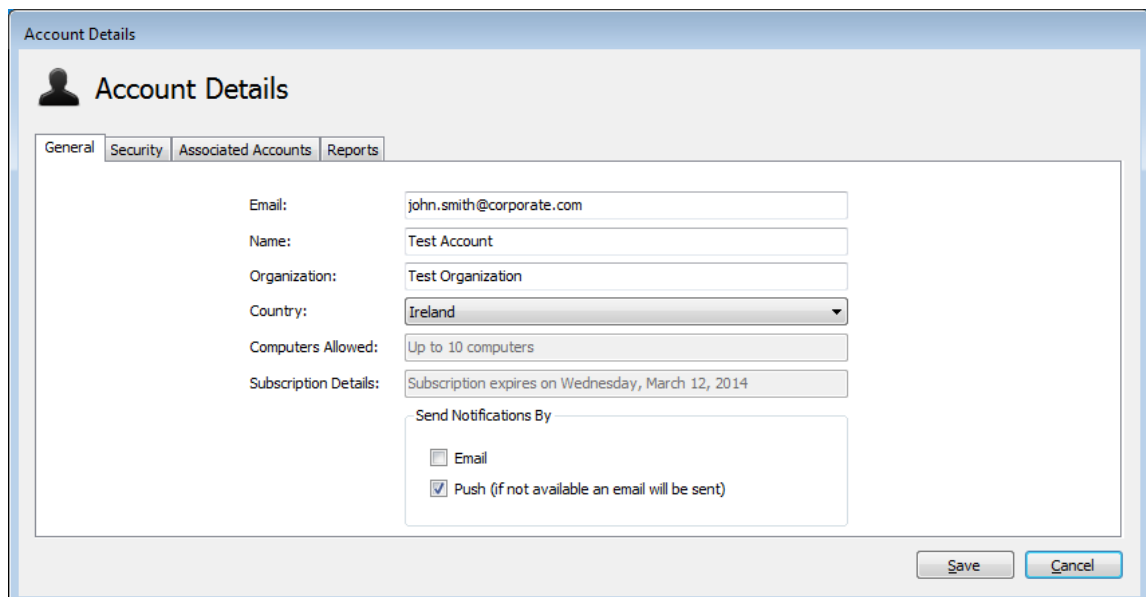
### 3.2.1. Account Details

From Account Details Management you can change your account information you inserted when you created your account and changing your notification settings.

Please note that the notification settings are global. This means that if you disable push notifications all mobile devices will stop receiving push notifications.

#### 3.2.1.1. Modifying Account Details

If you would like to change your account details just modify the field you would like to change and press the **Save** button.



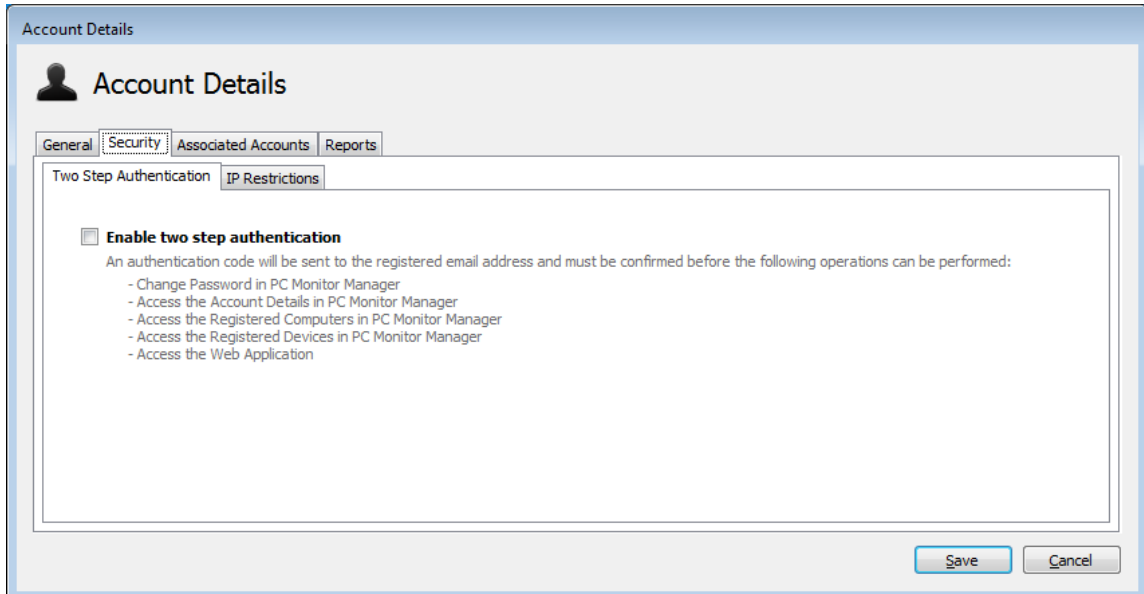
The screenshot shows the 'Account Details' management window. It has a title bar 'Account Details' and a header with a user icon and the text 'Account Details'. Below the header are four tabs: 'General' (selected), 'Security', 'Associated Accounts', and 'Reports'. The 'General' tab contains several form fields: 'Email' (john.smith@corporate.com), 'Name' (Test Account), 'Organization' (Test Organization), 'Country' (Ireland), 'Computers Allowed' (Up to 10 computers), and 'Subscription Details' (Subscription expires on Wednesday, March 12, 2014). At the bottom of the form is a section 'Send Notifications By' with two checkboxes: 'Email' (unchecked) and 'Push (if not available an email will be sent)' (checked). At the bottom right of the window are 'Save' and 'Cancel' buttons.

#### 3.2.1.2. Two Step Authentication

Two-Step Authentication adds another layer of security to your account that will prevent unauthorized changes to your account.

If enabled the following actions will require a confirmation code that will be sent to the email registered on your account:

- Password change from Pulseway Manager
- Access the registered computers from Pulseway Manager
- Access the registered devices from Pulseway Manager
- Access the Web Application



**Account Details**

General Security Associated Accounts Reports

Two Step Authentication IP Restrictions

☐ **Enable two step authentication**

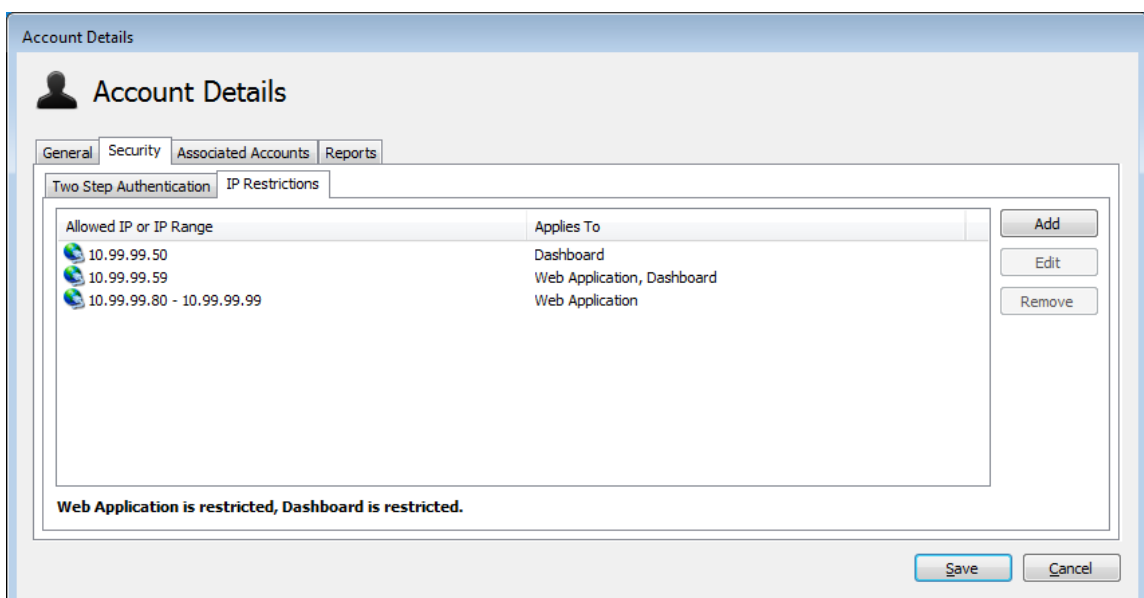
An authentication code will be sent to the registered email address and must be confirmed before the following operations can be performed:

- Change Password in PC Monitor Manager
- Access the Account Details in PC Monitor Manager
- Access the Registered Computers in PC Monitor Manager
- Access the Registered Devices in PC Monitor Manager
- Access the Web Application

Save Cancel

### 3.2.1.3. IP Restrictions




IP Restrictions prevent unauthorized access to the Dashboard application and Web Application by adding authorized IP addresses to your account. You can mix accesses to web application and dashboard using single IP addresses or even IP ranges.



**Account Details**

General Security Associated Accounts Reports

Two Step Authentication IP Restrictions

Allowed IP or IP Range	Applies To
 10.99.99.50	Dashboard
 10.99.99.59	Web Application, Dashboard
 10.99.99.80 - 10.99.99.99	Web Application

Add Edit Remove

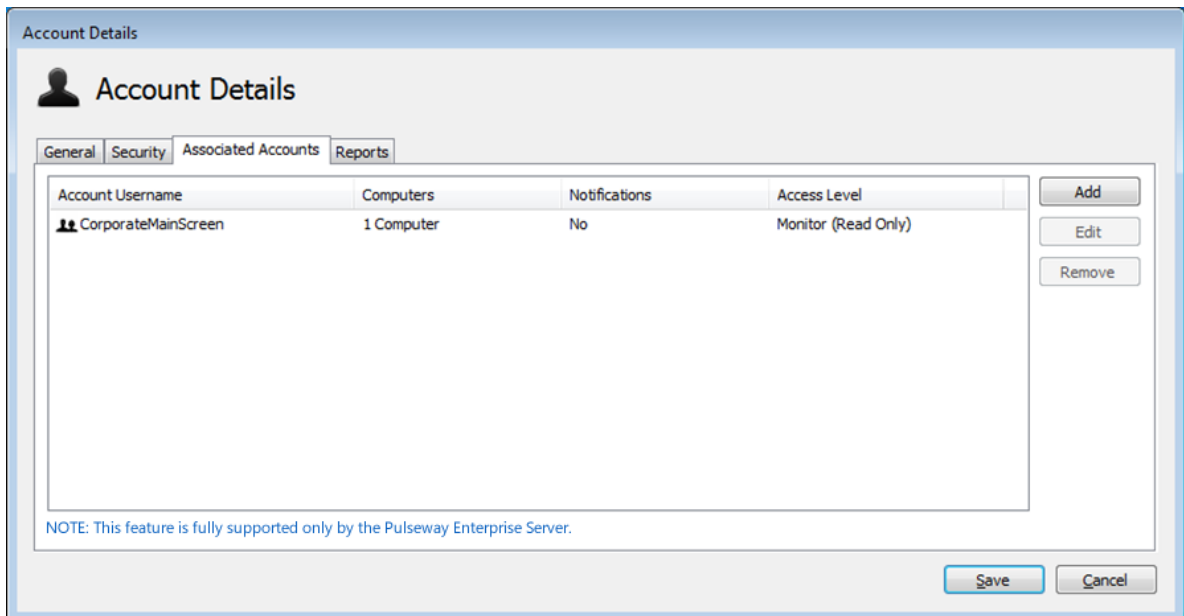
**Web Application is restricted, Dashboard is restricted.**

Save Cancel

### 3.2.1.4. Associated Accounts

Associating accounts gives the possibility of sharing computers among two or more accounts.

An associated account will gain access to the computer you choose to share in read-only mode or full control and if allowed, receive notifications from selected computers. To add an Associated Account you need to know the other person's usernames and link them to your account from Pulseway Manager application in Account Details screen at **Associated Accounts** tab.



Account Username	Computers	Notifications	Access Level
CorporateMainScreen	1 Computer	No	Monitor (Read Only)

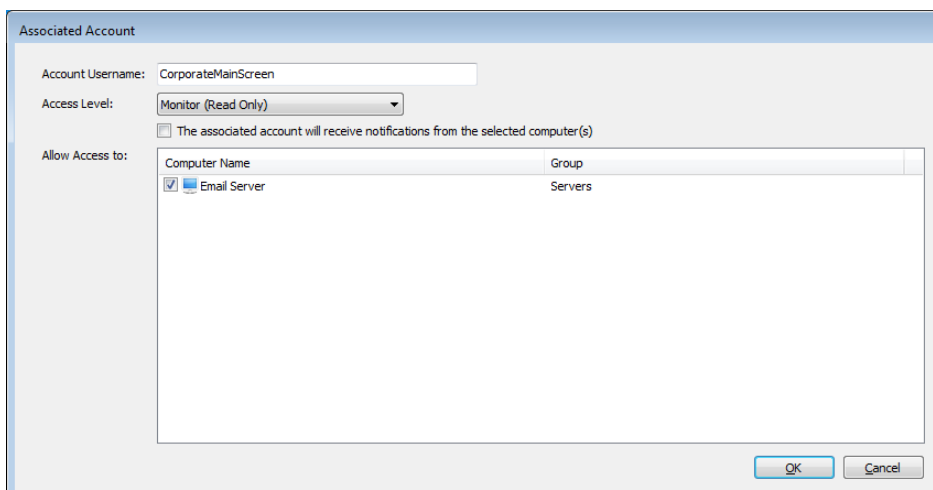
NOTE: This feature is fully supported only by the Pulseway Enterprise Server.

Common Scenarios for associating accounts:

- Monitor and control a machine and give your client access to see the status of their machine.
- Share access to servers with all your technicians so that when a problem arises they will know.
- Share a computer with a support technician in read only mode to look at the logs without actually having access to the computer itself.

**Note:** You can only use Associated Account if you have a Pulseway Enterprise Server.

To add an associated account just click on **Add**, enter the person's username at Account Username, set the access level, choose if you would like the associated account to receive notifications and allow access to the selected computers.



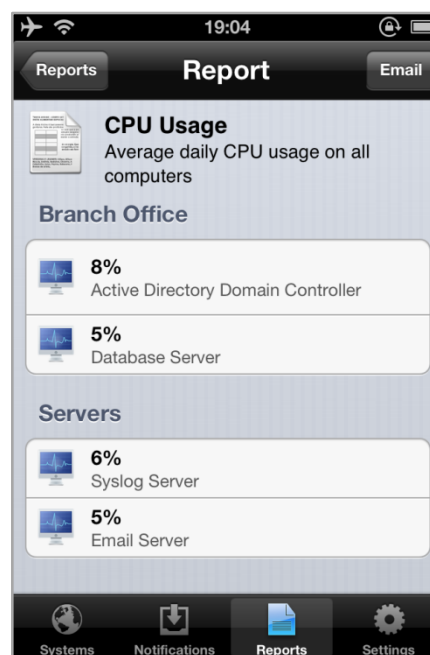
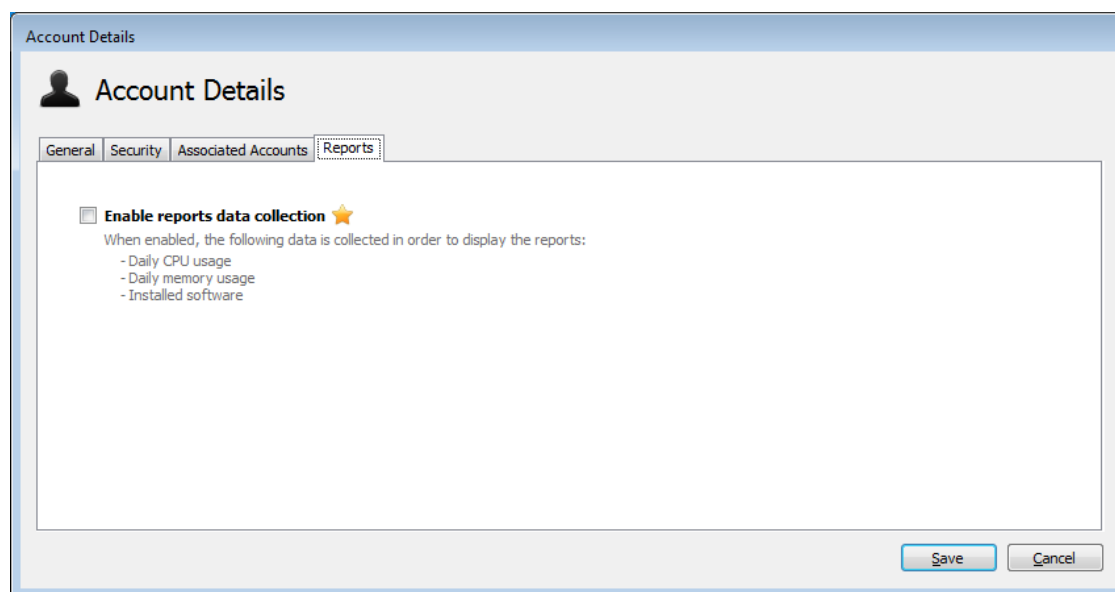
Computer Name	Group
<input checked="" type="checkbox"/> Email Server	Servers

### 3.2.1.5. Reports

Reports give you a quick overall insight on your monitored computers. A report contains values that are critical on understanding an ongoing situation or detecting new problems before they occur. In order for Pulseway to start gathering report data you must agree with Report Privacy Policy and activate it from Account Details.

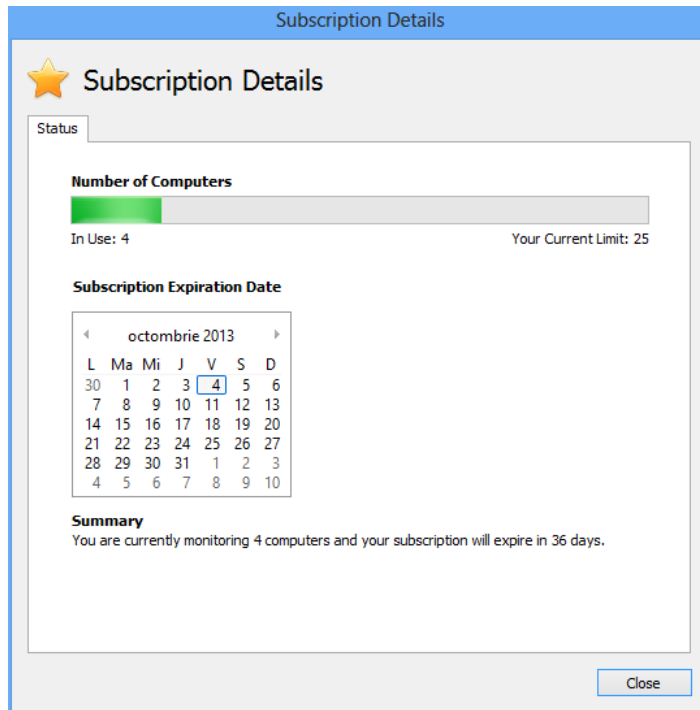
Current report types are:

- Average CPU Usage
- Average Memory Usage
- Installed Software



### 3.2.2. Subscription Details

Subscription details give you an overview of your current subscriptions expiration date and computer limit. You can purchase a subscription from the [Account Control Panel](#) on the website.



**Subscription Details**

Status

**Number of Computers**

In Use: 4 Your Current Limit: 25

**Subscription Expiration Date**

octobre 2013

L	Ma	Mi	J	V	S	D
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

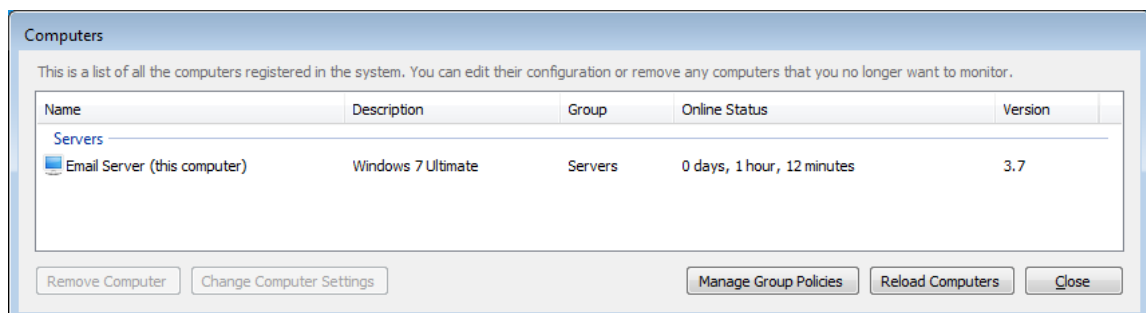
**Summary**

You are currently monitoring 4 computers and your subscription will expire in 36 days.

Close


### 3.2.3. Managing Registered Computers

Clicking the **Registered Computers** button will take you to a list of all computers that are assigned to your account. The list contains its display name, the group, OS version, online status and the version of the Pulseway Agent.



**Computers**

This is a list of all the computers registered in the system. You can edit their configuration or remove any computers that you no longer want to monitor.

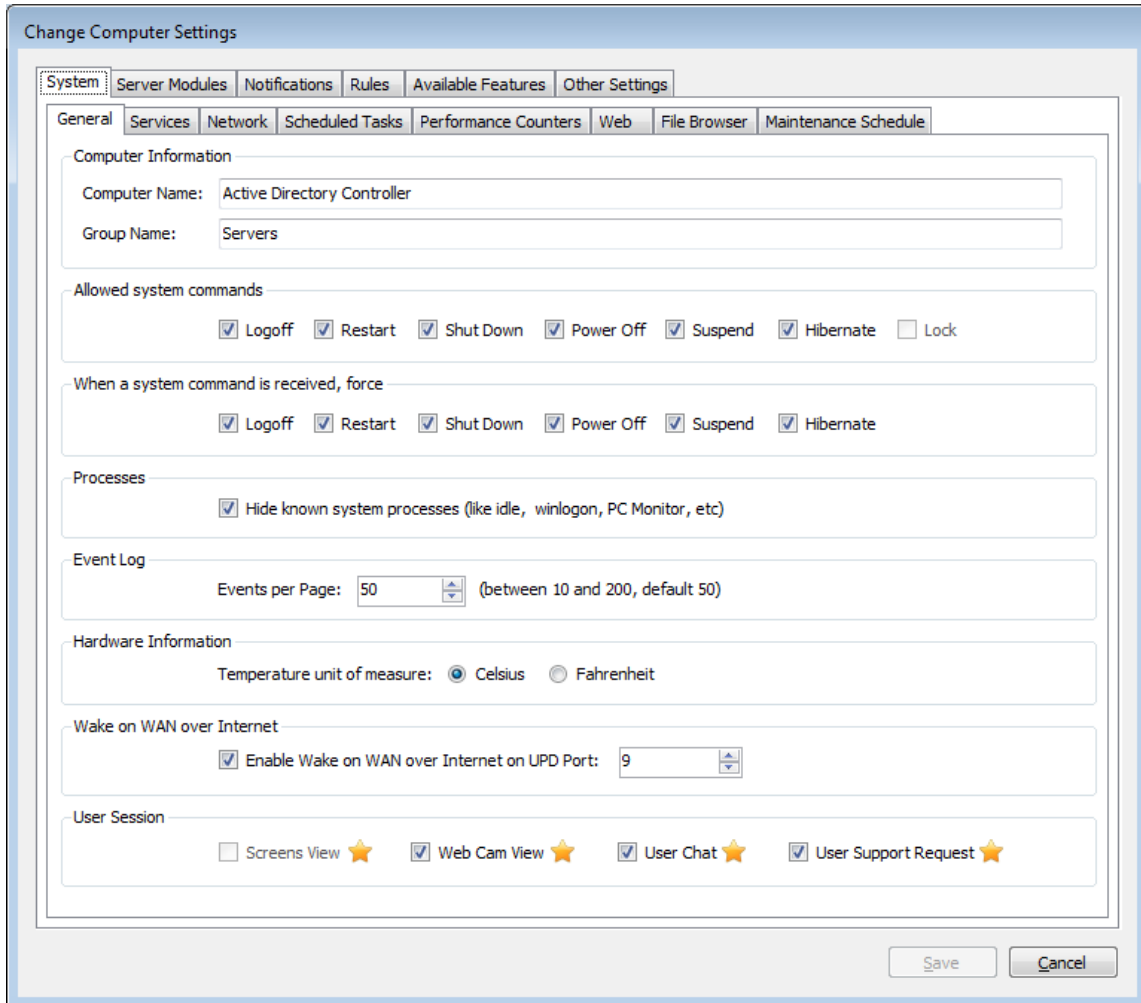
Name	Description	Group	Online Status	Version
<b>Servers</b>				
 Email Server (this computer)	Windows 7 Ultimate	Servers	0 days, 1 hour, 12 minutes	3.7

Remove Computer Change Computer Settings Manage Group Policies Reload Computers Close

Clicking on **Remove Computer** will remove the selected computer from your account and if the target is online the Pulseway agent will be instructed to remove the configuration.

#### 3.2.3.1. Changing Registered Computer's Configuration

Changing a computer's configuration can be very useful if you don't have access to that specific computer or if you prefer doing it remotely. Just select the online computer, click **Change Computer Settings** and you will be able to perform the changes you need just like you would do from Pulseway Manager at the local PC.



**Change Computer Settings**

System | Server Modules | Notifications | Rules | Available Features | Other Settings

General | Services | Network | Scheduled Tasks | Performance Counters | Web | File Browser | Maintenance Schedule

**Computer Information**

Computer Name: Active Directory Controller

Group Name: Servers

**Allowed system commands**

☒ Logoff ☒ Restart ☒ Shut Down ☒ Power Off ☒ Suspend ☒ Hibernate ☐ Lock

**When a system command is received, force**

☒ Logoff ☒ Restart ☒ Shut Down ☒ Power Off ☒ Suspend ☒ Hibernate

**Processes**

☒ Hide known system processes (like idle, winlogon, PC Monitor, etc)

**Event Log**

Events per Page: 50 (between 10 and 200, default 50)

**Hardware Information**

Temperature unit of measure: ☒ Celsius ☐ Fahrenheit

**Wake on WAN over Internet**

☒ Enable Wake on WAN over Internet on UPD Port: 9

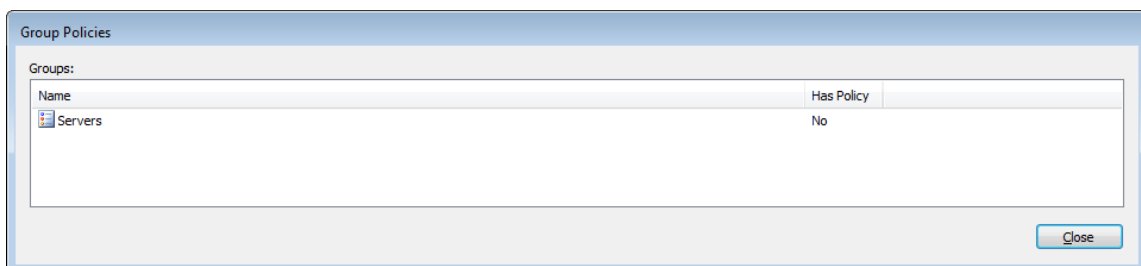
**User Session**

☐ Screens View ☒ Web Cam View ☒ User Chat ☒ User Support Request

Save Cancel

**Note:** Both agents must have the same version in order to perform remote configuration changes.

### 3.2.3.2. Manage Group Policies



**Group Policies**

Groups:

Name	Has Policy
Servers	No

Close

Group Policies provides the centralized management and configuration of Pulseway configuration. Group Policies work on computer groups and they overwrite the configuration of all computers in the group.

Group Policies is commonly used in enterprise environments to quickly configure new computers and to ease the configuration update process. Once a Group Policy has been created all computers will automatically update their configuration based on the policy.

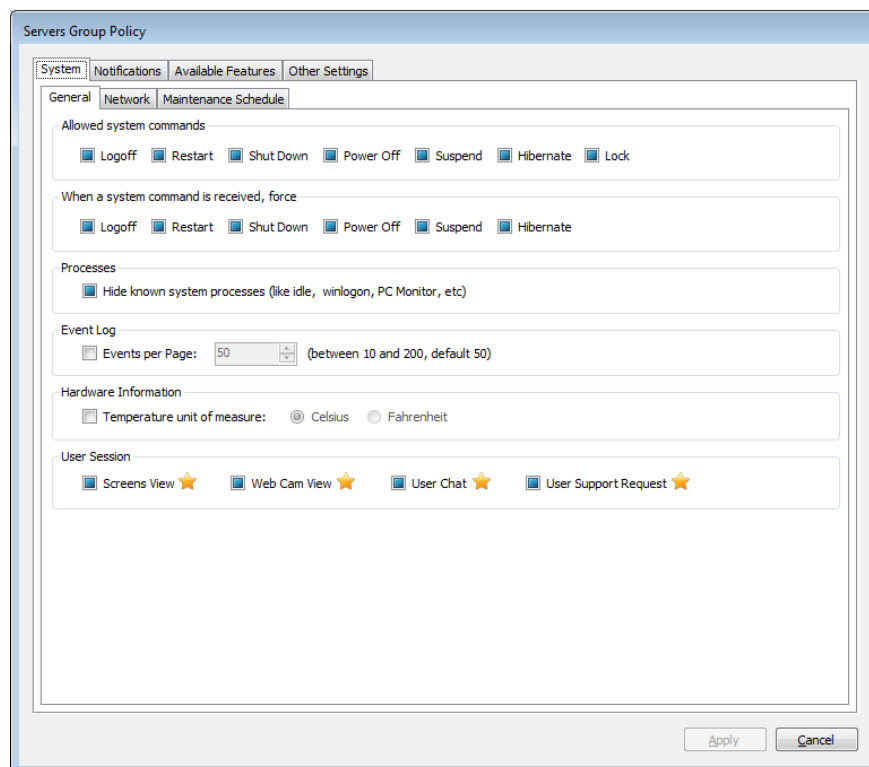
Also computers that are added in a group that has a policy will change its configuration according to the policy.

There are two types of group policies:

- **Default policies** will affect all monitored computers, changing all settings that are configured in the policy that don't conflict with other policy.
- **Explicit policies** only affects computers that are part of the group. Explicit policies have priority over the default so that if an explicit policy has a setting configured the default policy will not be checked for that setting.

### Adding a Group Policy

In order to add a Group Policy you must decide if you would like to affect all computers or only a specific group. After you select the group from the **Manage Group Policies** window you can choose to create a policy or to update if it already exists.



A policy setting has three states:

- ☒ Checked
- ☐ Unchecked
- ☐ Undecided

**Note:** Group policy changes are not reflected in the Pulseway Manager. The Manager only allows you to edit the local configuration; at runtime, in the Pulseway service, group policy settings will take priority over local configuration.

If a setting is **Checked** or **Unchecked** will be propagated to computers thus overwriting its value.

Leaving a setting as **Undecided** will not propagate any changes to the computer and the existing value on computers will remain untouched.



### Removing a Group Policy

If you would like to remove a Group Policy select it from **Manage Group Policies** window and then click on **Remove Policy**.

Removing a Group Policy will stop propagating configuration changes to monitored and new computers.

**Note:** Removing a Group Policy is permanent and cannot be undone. If you would like to preserve your configured policy you can export it into a file.

### Exporting a Group Policy

After you have configured your policy you can export it into a file for backup purposes. You can do so by selecting the policy from **Manage Group Policies** window and then clicking on the **Export Policy** button. This will open a save dialog asking you where to save the file on your computer.

An exported Group Policy can be used to import it on other accounts, to copy a policy to a different group and to restore a backup copy of a policy.

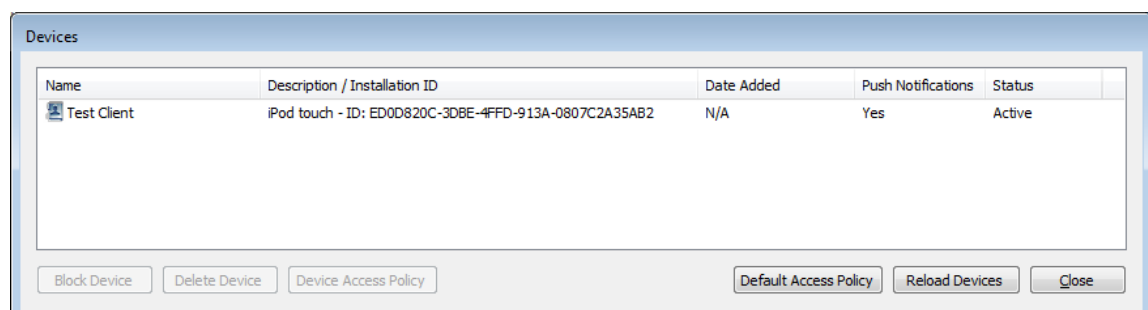
### Importing a Group Policy

If you would like to import an exported Group Policy you need to have the exported \*.pcmgp file on your local computer or in a network path. You can start the import process from **Manage Group Policies** window by clicking the **Import Policy** button after you have selected an existing group. An open dialog will show asking you to where is the exported file located.

**Note:** If you import a Group Policy over an existing one the policy will be overwritten.

## 3.2.4. Managing Registered Devices

The Registered Devices form lets you control the mobile devices that use your account. You will get a list with all the devices that are registered on your account, their installation ID's, PUSH notification status and the overall status (Active or Blocked).



Blocking a device will disable the application's functionality on your account until you unblock it. Deleting a device will remove it from the list, however if the device will use your Pulseway under your account it will show up again. This is useful when you would like to remove a device from receiving PUSH notifications without actually performing any changes on the mobile device itself.

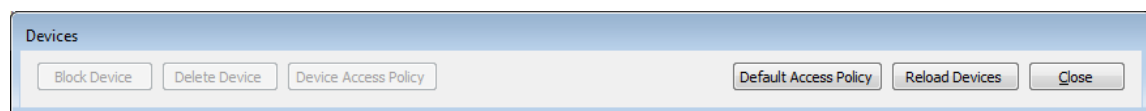
### 3.2.4.1. Creating Device Access Policies

Creating **Device Access Policies** help you control the computers that a specific device has access to.

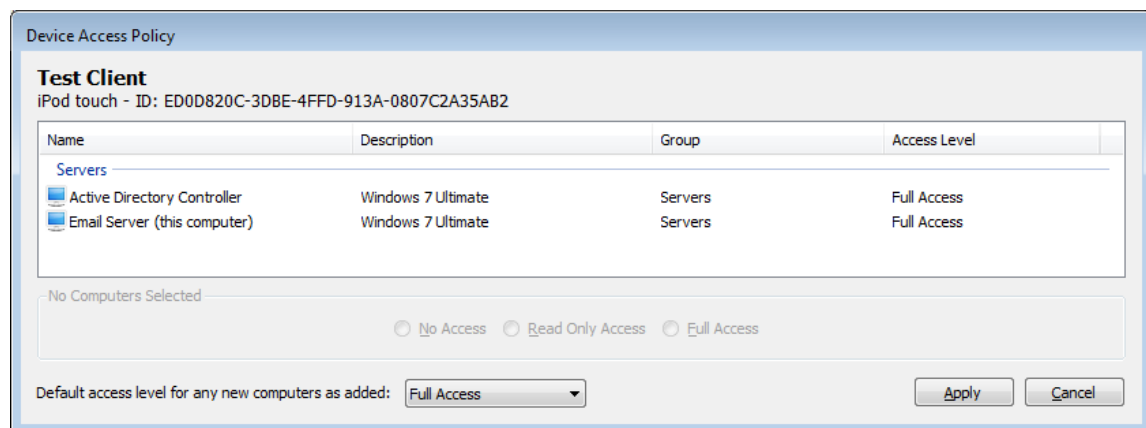
There are two types of Device Access Policies:

- Explicit Policy (for a specific device)
- Default Policy (for all devices that don't have an explicit policy)

To create an explicit policy you need to click a device from the Registered Devices form and click the **Device Access Policy** button, or if you would like to change the default policy you need to click the **Default Access Policy** button.



On the form that opens you will see a list of all the computers that are registered on your account.



From here you can set the Access for each computer and default access for new computers.

## 3.3. Computer Information

Computer Information keeps the identification settings for the specific computer.

- **Computer Name**
- **Group Name**

These settings will not affect your existing computer name and workgroup and will only be used to keep an order in your computer list.

You can use Group Name field for the Branch Office Location, Datacenter Rack Coordinates or whatever fits best for your case. Computer Name can be its user's First Name, Asset number or anything you want.

## 3.4. Dedicated Server

The dedicated server setting is reserved for the customers that own a Pulseway Enterprise Server.

This field will represent the hostname of your server; however, incorrectly changing this setting will result in loss of communication with the cloud servers and loss of the ability to view the device on mobile clients.

## 4. System Configuration

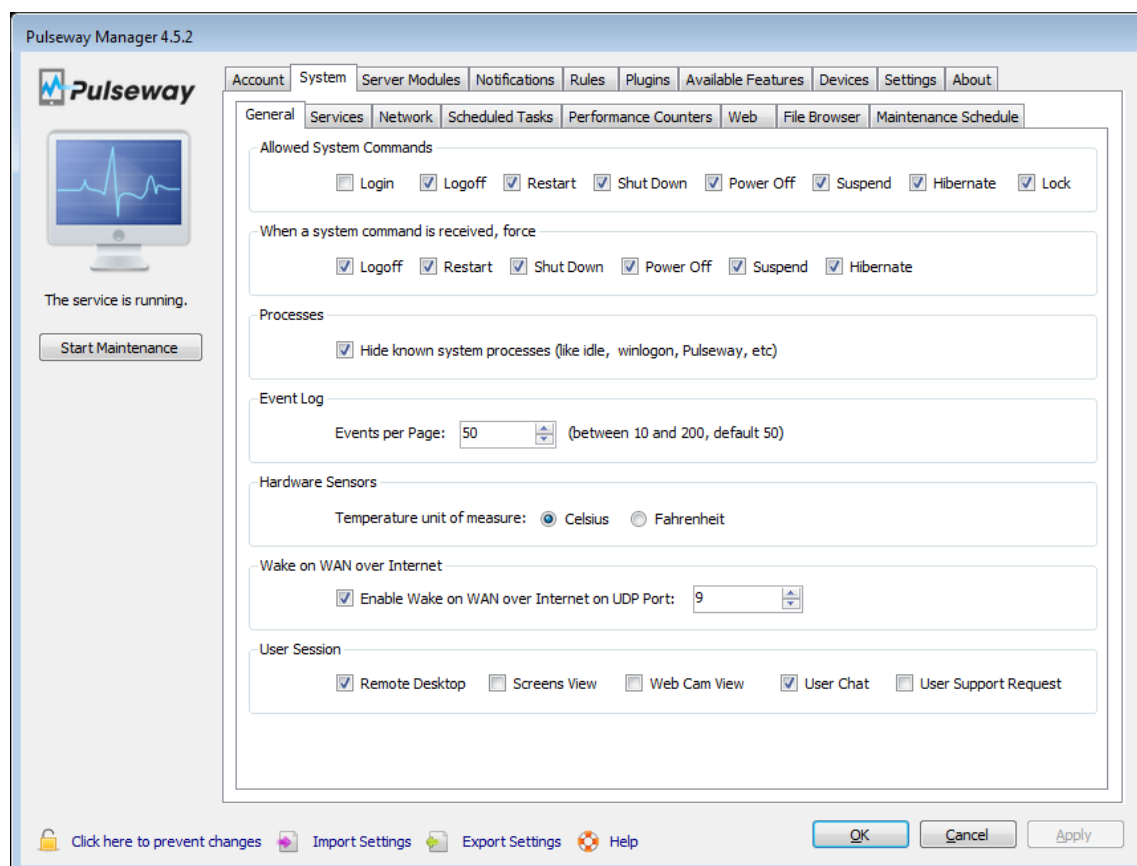
System Configuration settings represent configuration of Pulseway features that are used for the local machine.

The supported system features are:

- System Commands
- Process Commands
- Event Log Browsing
- Hardware Sensors
- Wake on WAN Commands
- Screen View
- Webcam View
- Service Commands
- Network Monitoring
- Scheduled Task Commands
- Performance Counter Browsing
- File Browser

### 4.1. General Settings

General System Settings controls which features will be available to the mobile device and their configuration.



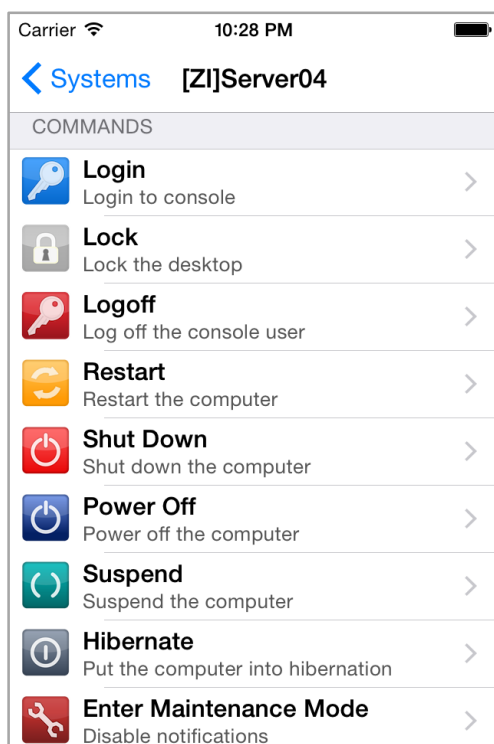
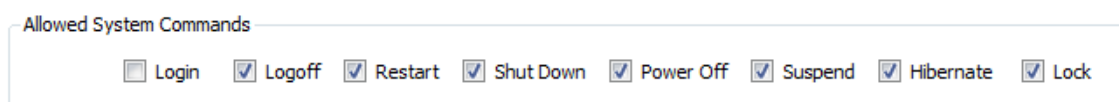
### 4.1.1. Allowed System Commands

Some system administrators would like to prevent hardware damage to the computers the operator share access to and disable the Power Off command which is a hard shutdown that can cause data loss.

By default all System Commands are enabled, however, you get the option to customize their availability.

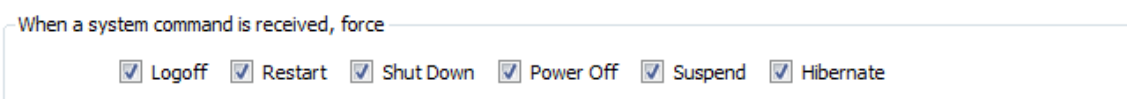
For example if you would like to allow only restart commands to be sent, just uncheck all boxes except restart.

Login command is only supported by Microsoft® Windows Vista® or Microsoft® Windows Server 2008® (or newer) and if Secure Attention Sequence (Control + Alt + Delete) is enforced by Group Policy then the Microsoft® Windows 7® or Microsoft® Windows Server 2008R2® (or newer) is required.



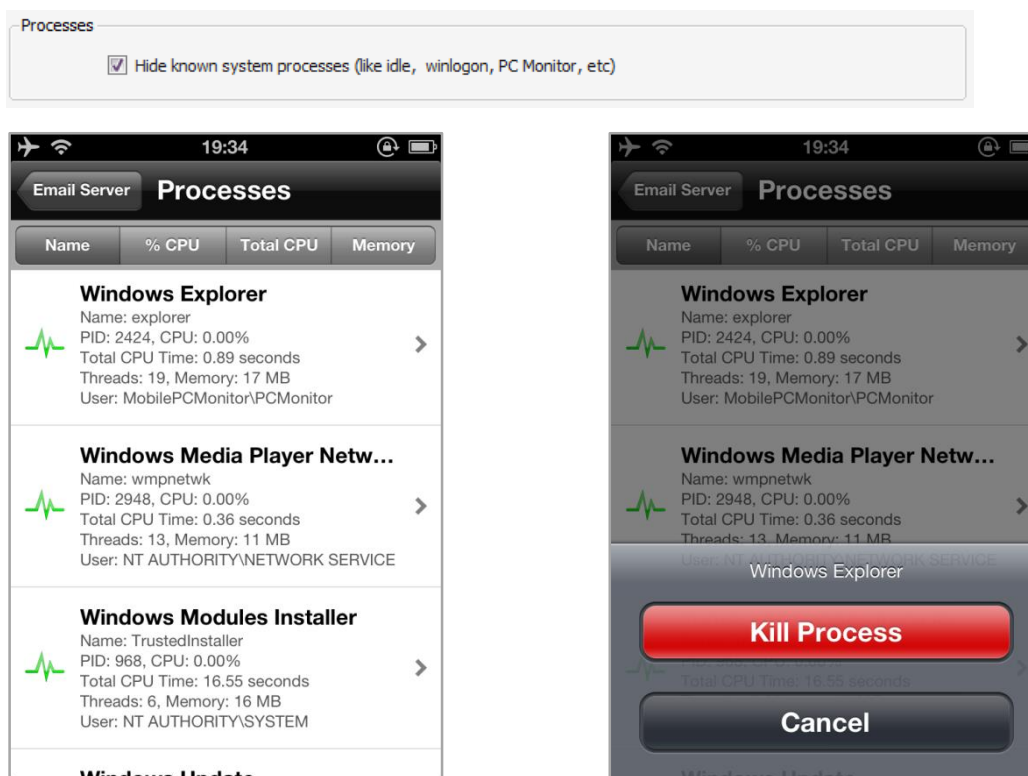
### 4.1.2. System Command Force Attribute

The force attribute forces the application to close so that you will know for sure that the system will execute your command. This can cause loss of data if any opened application contains unsaved data.



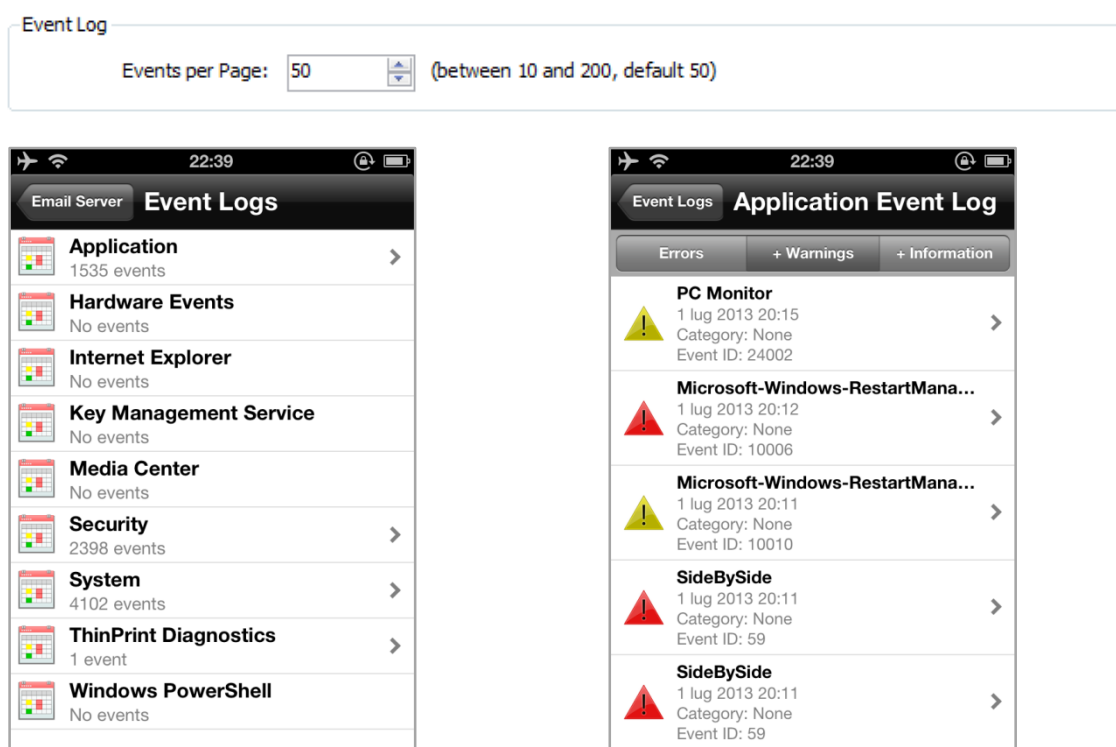
### 4.1.3. Process Browsing

Process Browsing has only one setting which is used to hide known processes like (system, idle, pulseway).



### 4.1.4. Event Log Browsing

Browsing through the event logs of an operating system is crucial to understand the current status of the hardware and software components. Pulseway offers the ability to limit the amount of log entries per page in order to increase browsing speed and reduce bandwidth usage.



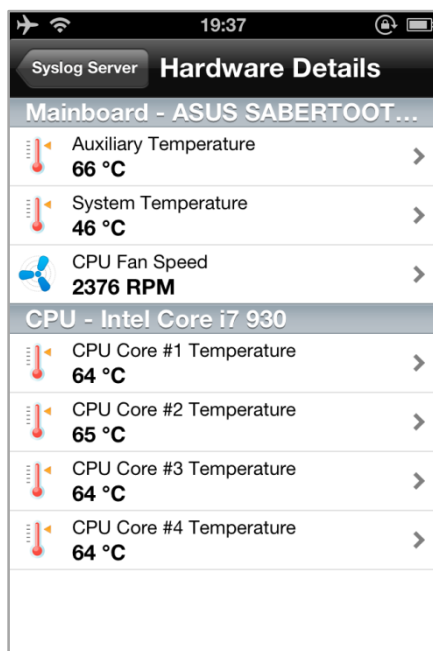
**Note:** Tapping on the pen icon on the upper right corner will create a Draft email with the contents of the log entry.

#### 4.1.5. Hardware Sensor Settings

It's always a good idea to monitor your hardware's sensor and temperatures and Pulseway helps you keep a close eye on them. You can configure your temperature unit of measure from the Agent:

Hardware Sensors

Temperature unit of measure: ☒ Celsius ☐ Fahrenheit



Mainboard - ASUS SABERTOOT...	
Auxiliary Temperature	66 °C
System Temperature	46 °C
CPU Fan Speed	2376 RPM
CPU - Intel Core i7 930	
CPU Core #1 Temperature	64 °C
CPU Core #2 Temperature	65 °C
CPU Core #3 Temperature	64 °C
CPU Core #4 Temperature	64 °C

#### 4.1.6. Wake on WAN

Wake On WAN requires:

- A motherboard that supports Wake on Lan
- A wired network adapter that supports Wake on Lan
- Wake on Lan activate on BIOS
- Proper port forwarding if computer is behind a router/firewall

By default Wake on Lan is using UDP port 9, so if your computer is behind a router or a firewall you will need to forward that port. More information can be found at [www.portforward.com](http://www.portforward.com).

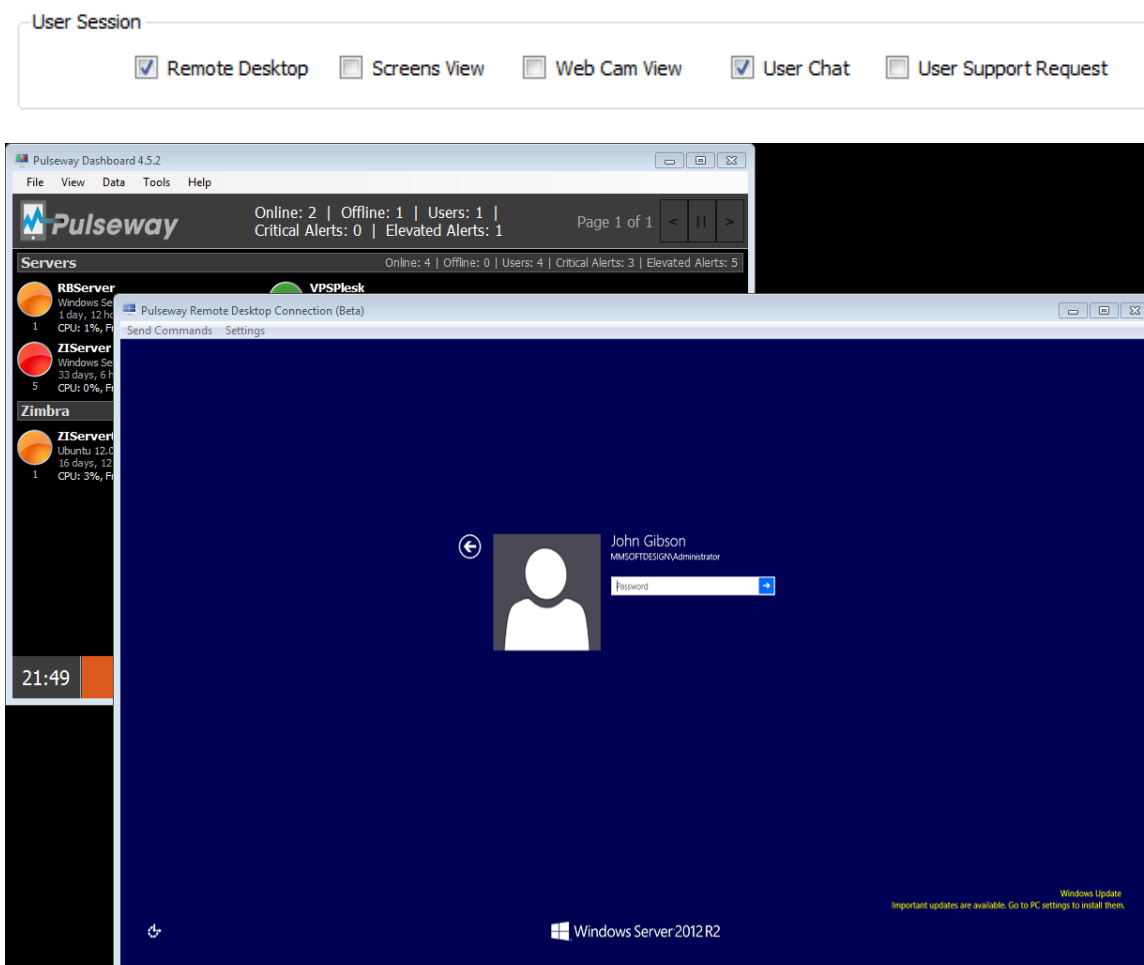
Wake on WAN over Internet

☒ Enable Wake on WAN over Internet on UDP Port:



#### 4.1.7. Remote Desktop

Remote Desktop enables you to connect to all monitored computers and control any remote or console session. Use Pulseway Dashboard to connect to any active remote desktop sessions or to the console session on the remote computer. Right click a system and select “Remote Desktop” to get started.

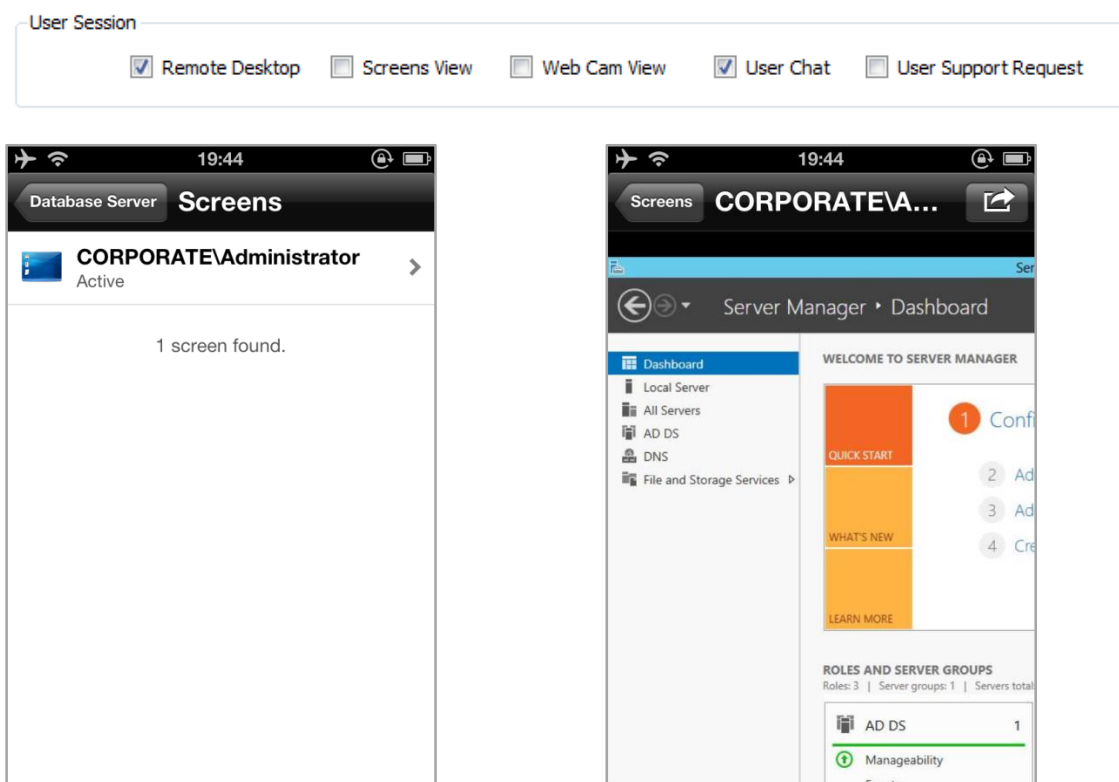




**Note:** You need to have Pulseway User Agent (Chapter 11.2) enabled in order to use Remote Desktop!

#### 4.1.8. Screen View

Live view or Screen view allows its user to view the screen of any user session, extremely useful for terminal servers where multiple user sessions are used. This feature requires an active subscription to be activated (*Trial users cannot use Screen View*).



**Note:** You need to have Pulseway User Agent (Chapter 11.2) enabled in order to use User Chat!

#### 4.1.9. Webcam View

Webcam View is also useful to see if you forgot the rack door open or to see if someone is using the computer. This feature requires an active subscription (*Trial users cannot use Webcam View*).



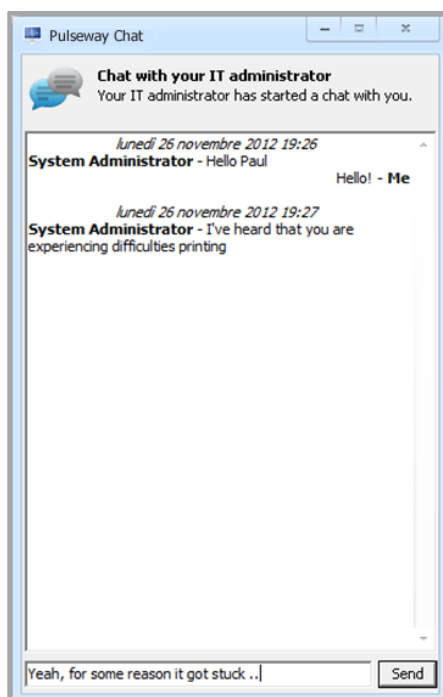


**Note:** You need to have Pulseway User Agent (Chapter 11.2) enabled in order to use Webcam View!

#### 4.1.10. User Chat

User Chat empowers system administrators to engage on a live chat with any user session on the monitored computer. One or more administrators starts the chat session from the mobile client and then the user will notice a chat window on their desktop. During the chat session the administrator has the option to close the chat thus disabling user's message sending ability.

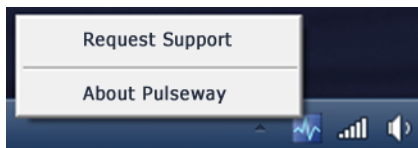
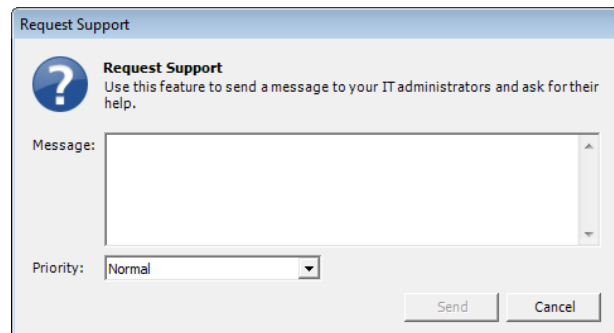
**Note:** More than one administrator can engage on a User Chat at the same time.



**Note:** You need to have Pulseway User Agent (Chapter 11.2) enabled in order to use User Chat!

#### 4.1.11. User Support Request

User Support Request permits users to request support from system administrator with just one click. Pulseway administrators will receive a notification and will have the ability of a live chat with the user. Using Pulseway's management tools an administrator can quickly identify and resolve even complex problems with ease while on the go using just the mobile clients.

**Request Support**  
Use this feature to send a message to your IT administrators and ask for their help.

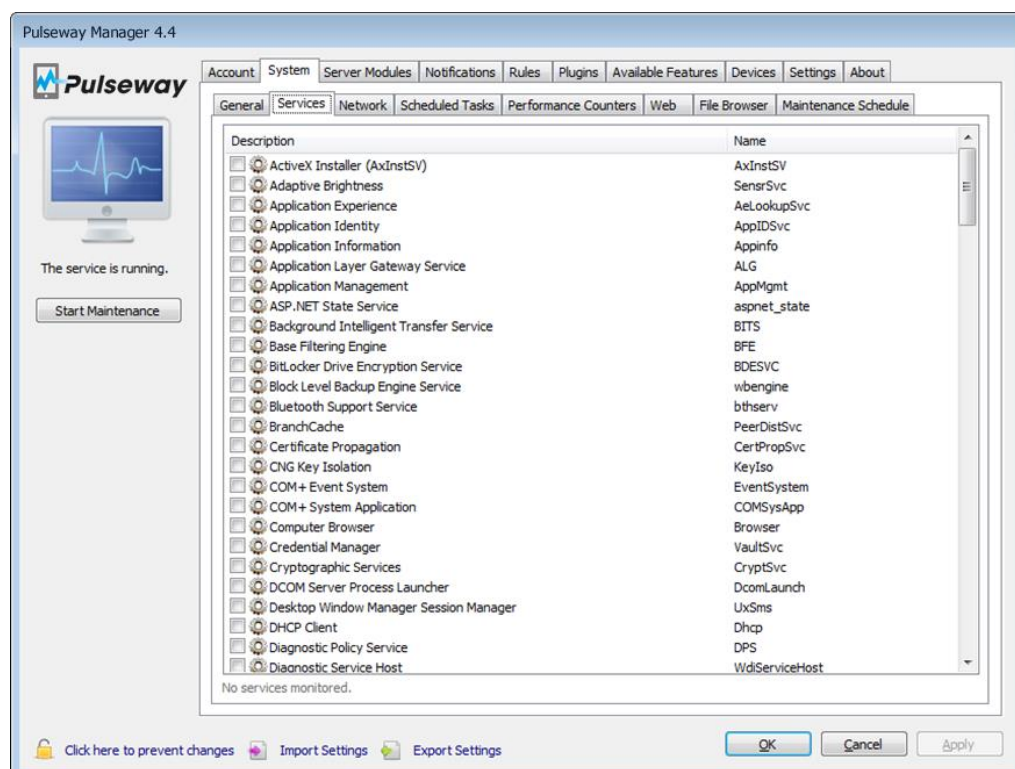
Message:

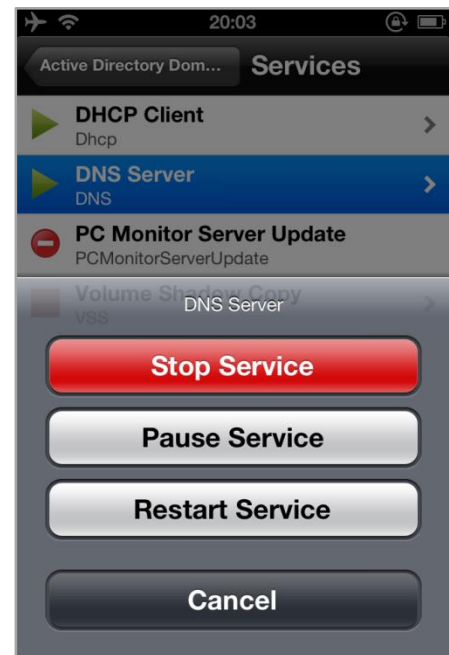
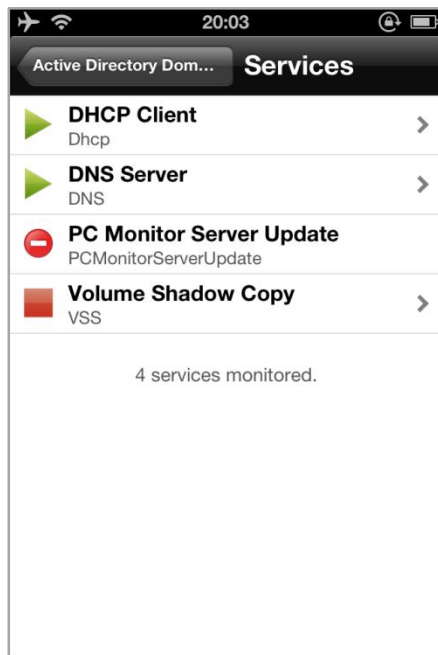
Priority:

**Note:** You need to have Pulseway User Agent (Chapter 11.2) enabled in order to use User Chat!

## 4.2. Service Monitoring

Service Monitoring gives you the ability of viewing the status of monitored services, getting notified when a service is stopped and the ability to start/stop monitored services.





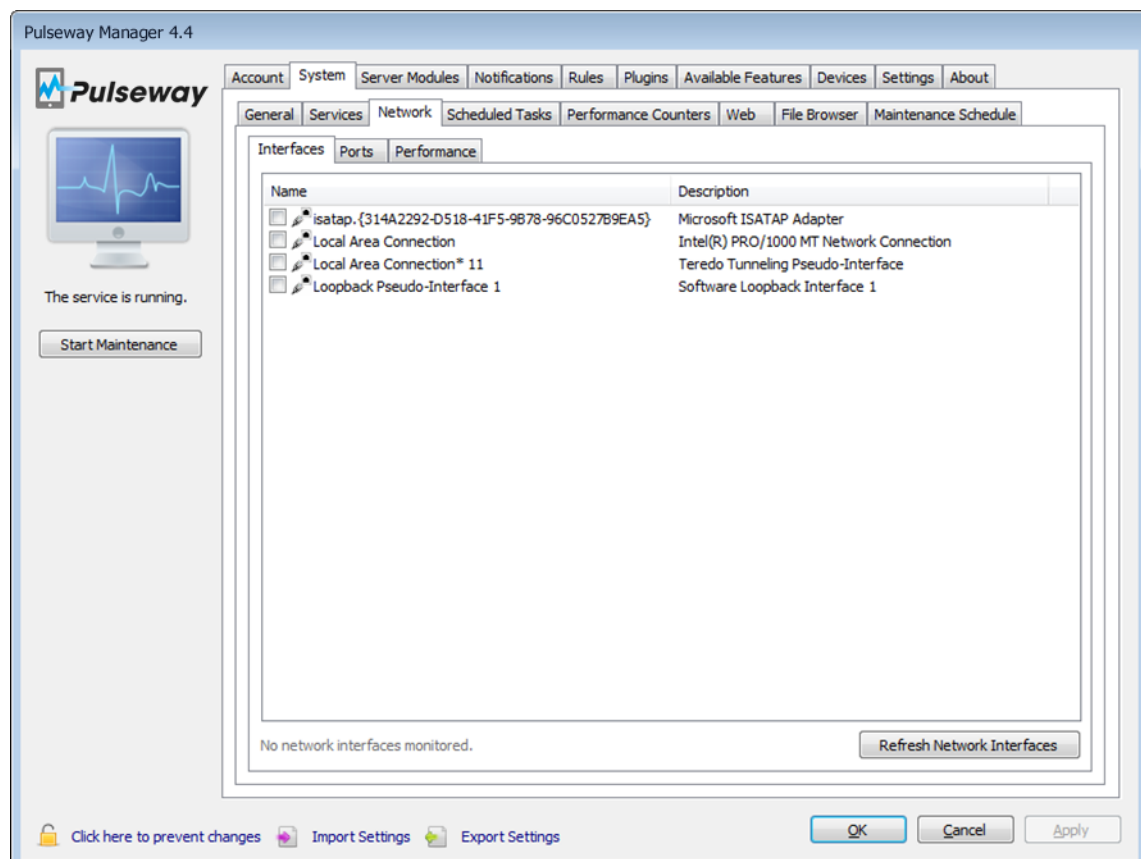
### 4.3. Network Monitoring

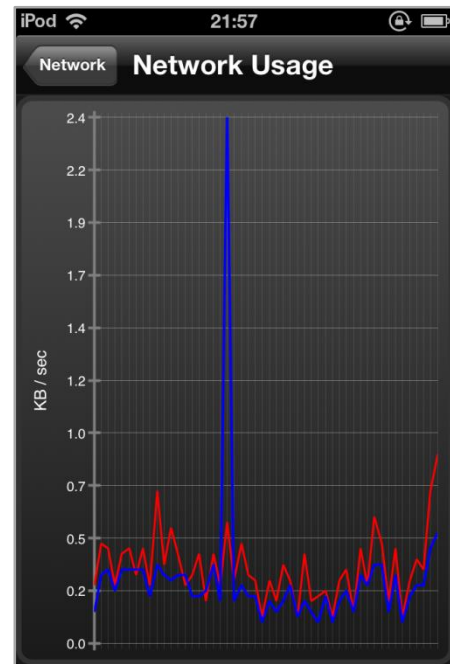
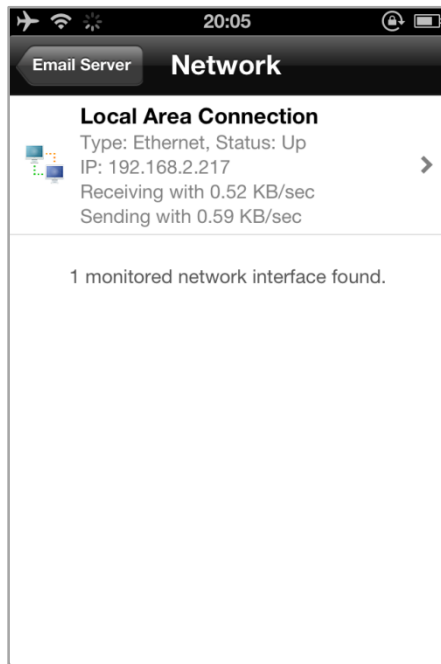
Network monitor consists in three important parts:

- Network Interface Monitoring
- Port Monitoring
- Performance Monitoring

#### 4.3.1. Network Interface Monitoring

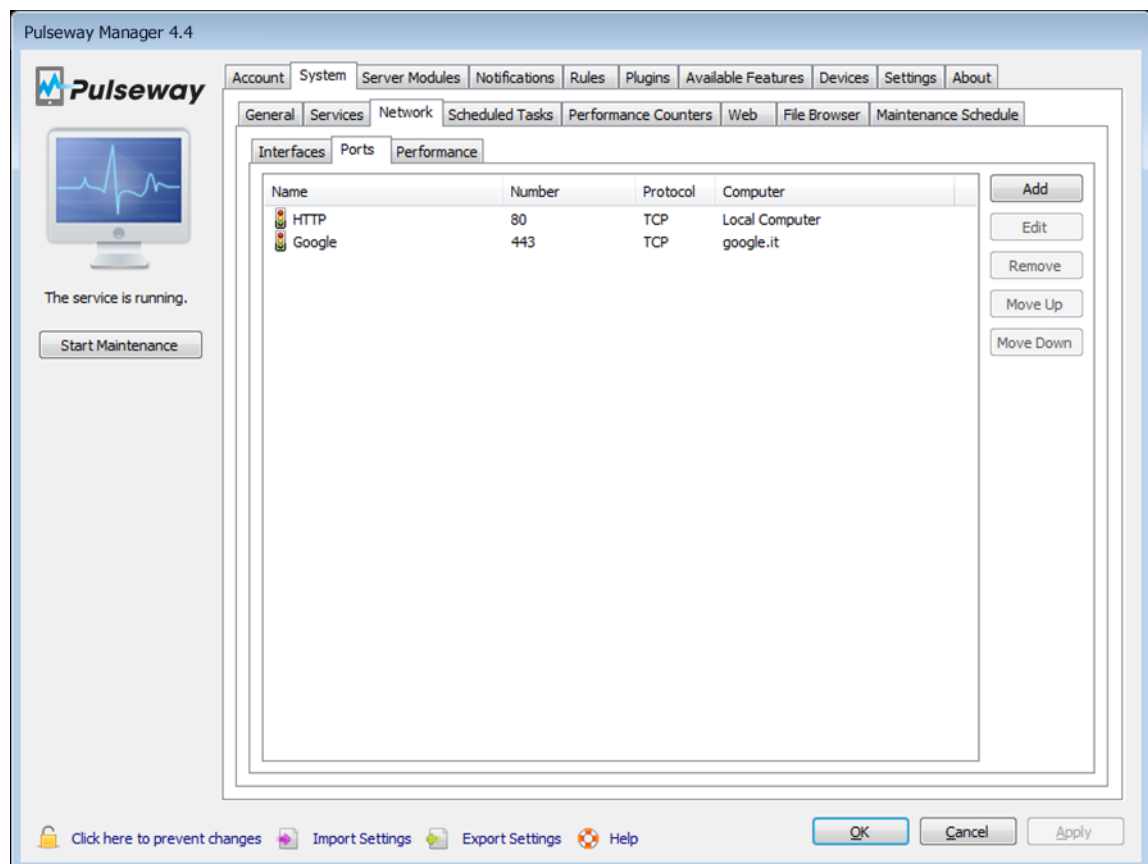
Network interface monitoring gives you details about current traffic and its configuration.

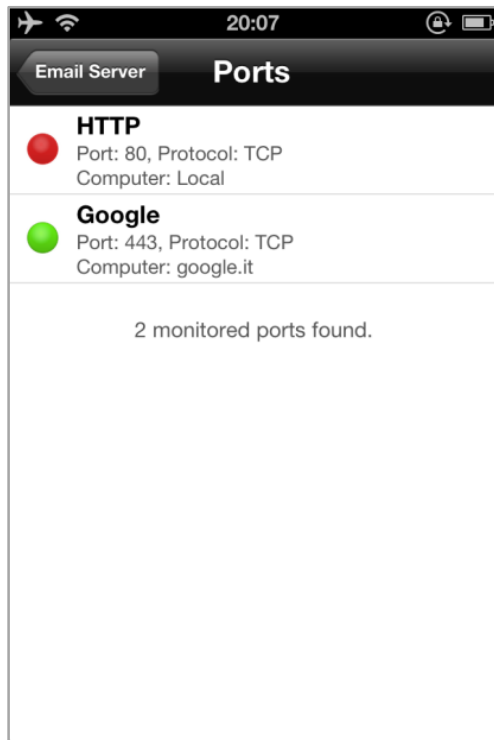




### 4.3.2. Port Monitoring

Keeping under control your opened ports can indicate a lot of problems, such as network overflow, service failure or even server downtime.



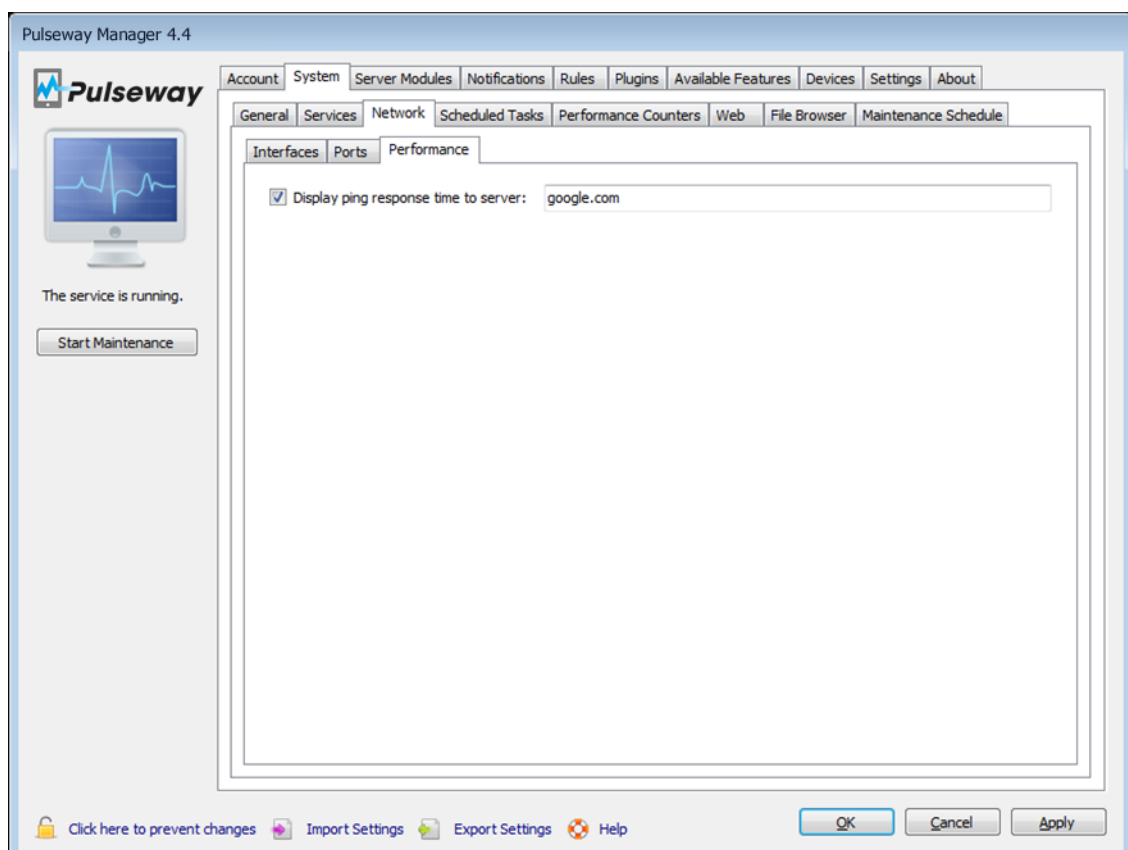


Port Monitoring supports:

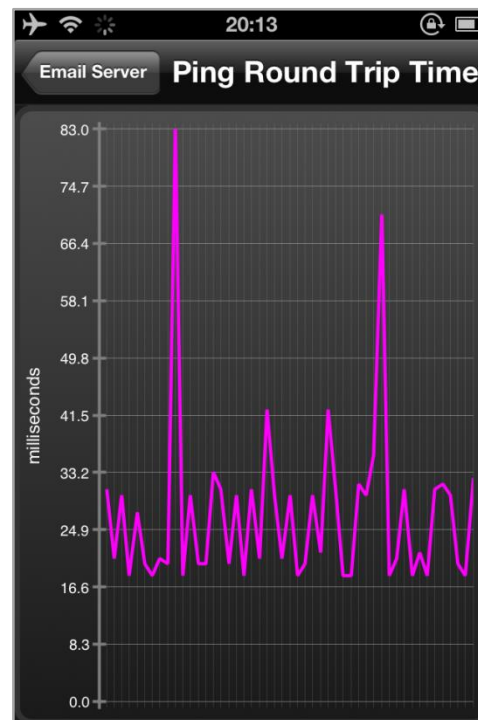
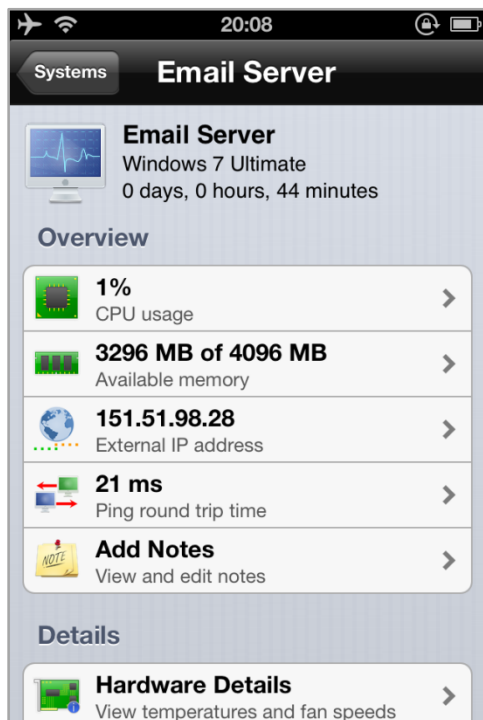
- Local and Remote TCP ports
- Local UDP ports

### 4.3.3. Performance Monitoring

Performance Monitoring gives you a hint on the ping of your monitored IP. This can help you understand if your network is being overloaded at that moment.

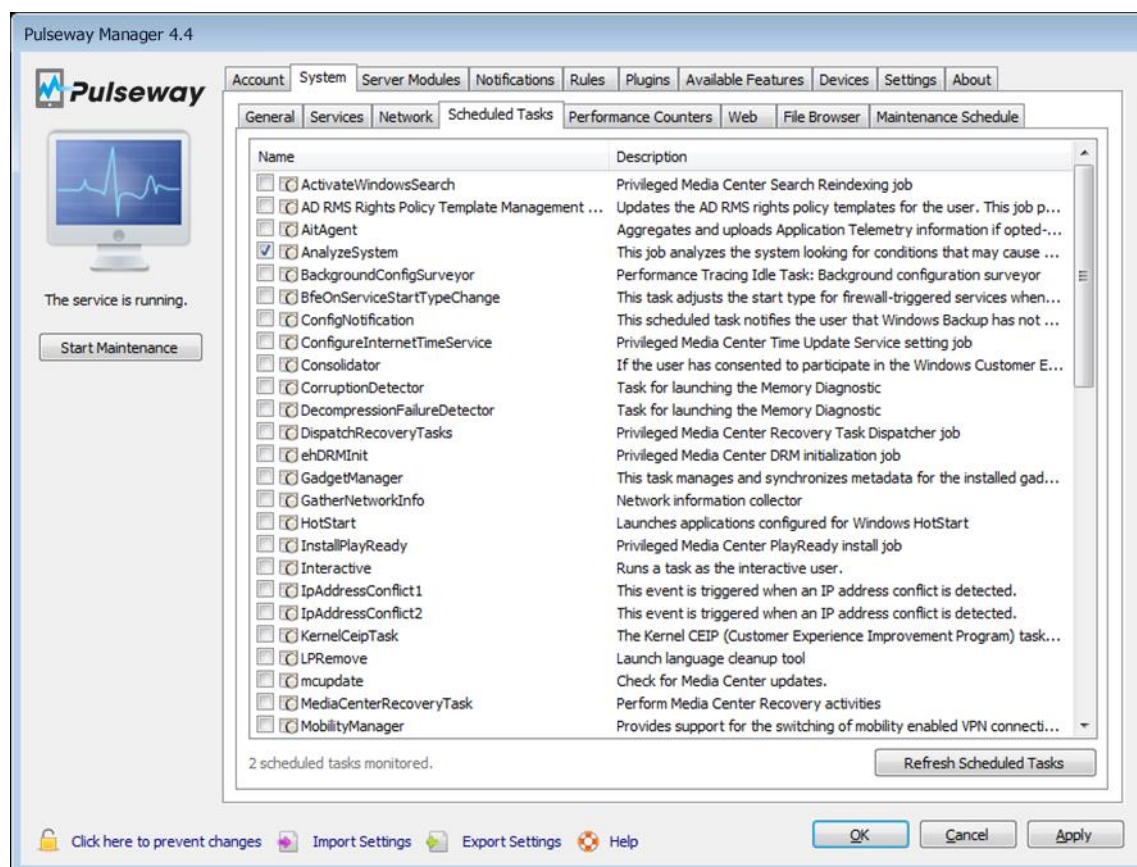


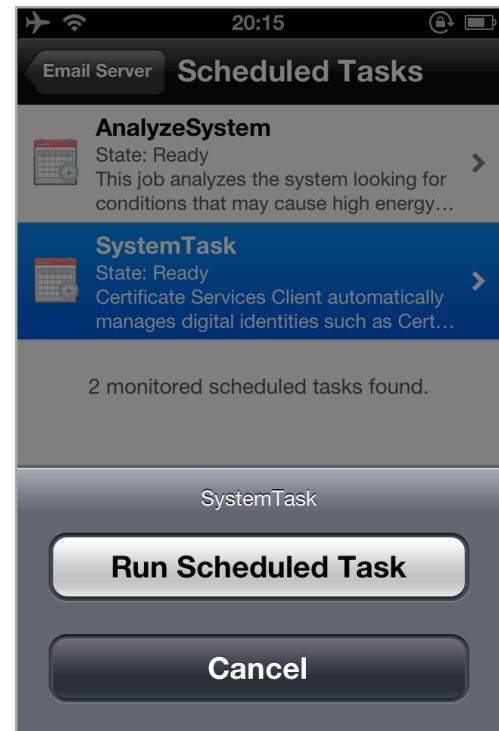
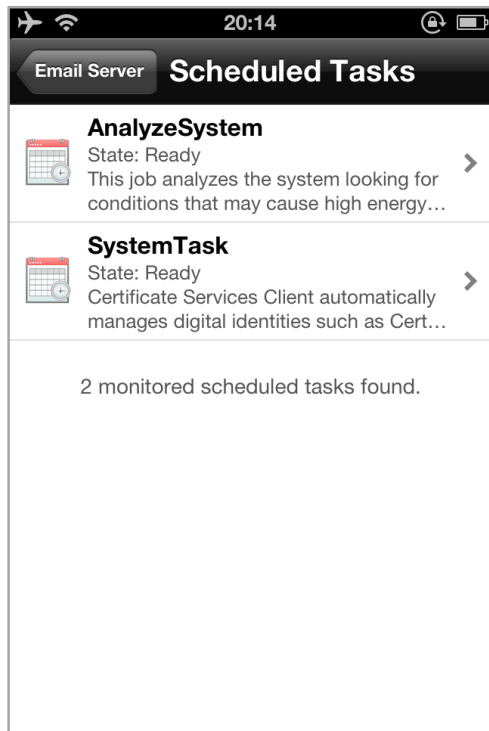




## 4.4. Scheduled Task Monitoring

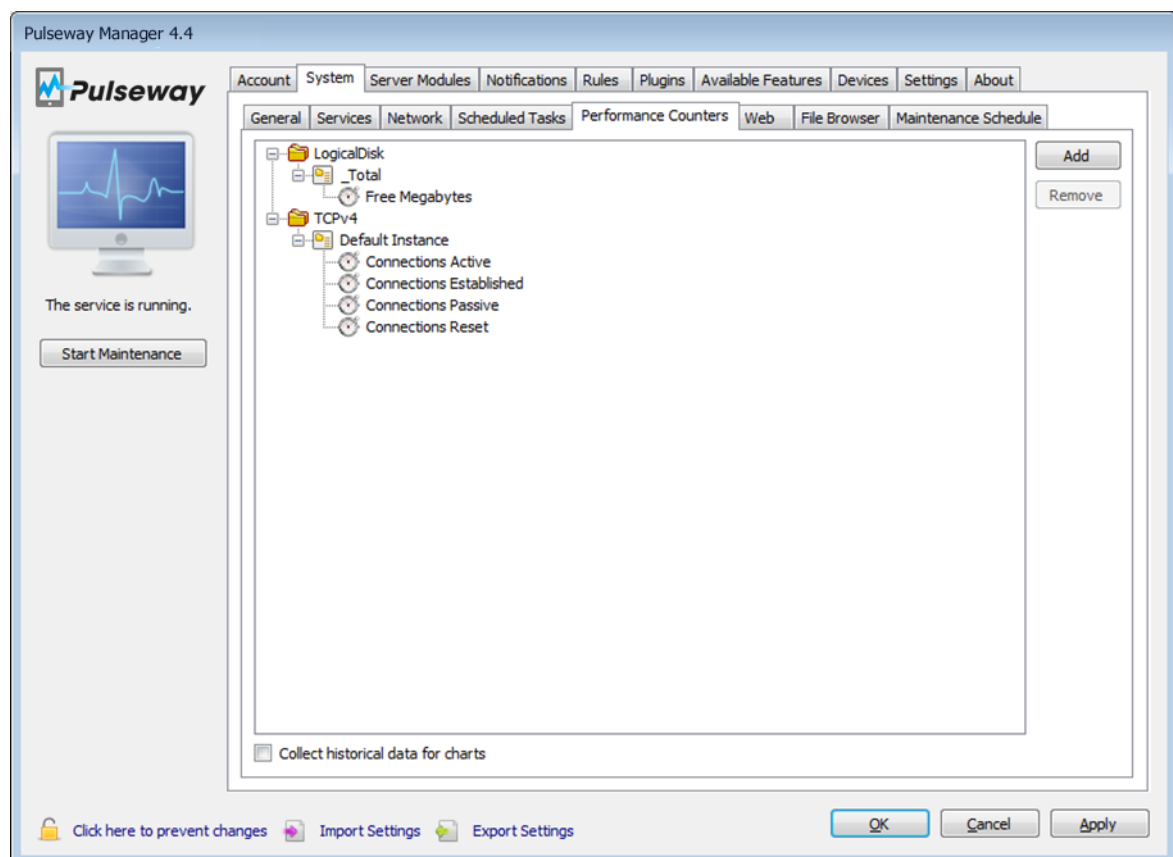
Scheduled Tasks are crucial for a stable backup system for most scenarios, having the ability to monitor and fire them from a mobile client just makes them even more useful.



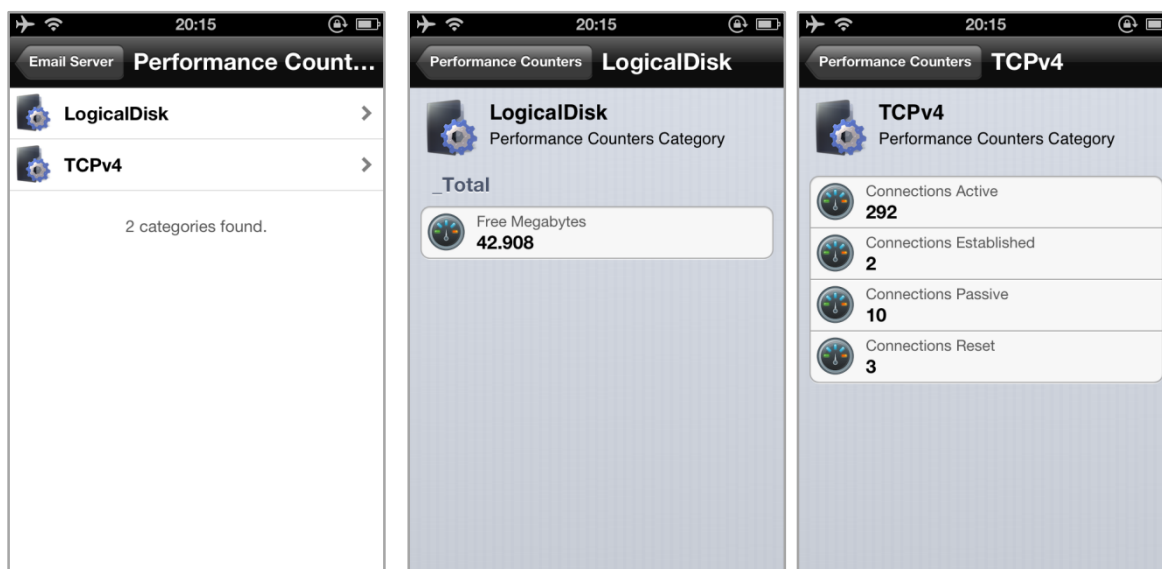


## 4.5. Performance Counter Monitoring

Counters are used to provide information as to how well the operating system or an application, service, or driver is performing. The counter data can help determine system bottlenecks and fine-tune system and application performance.







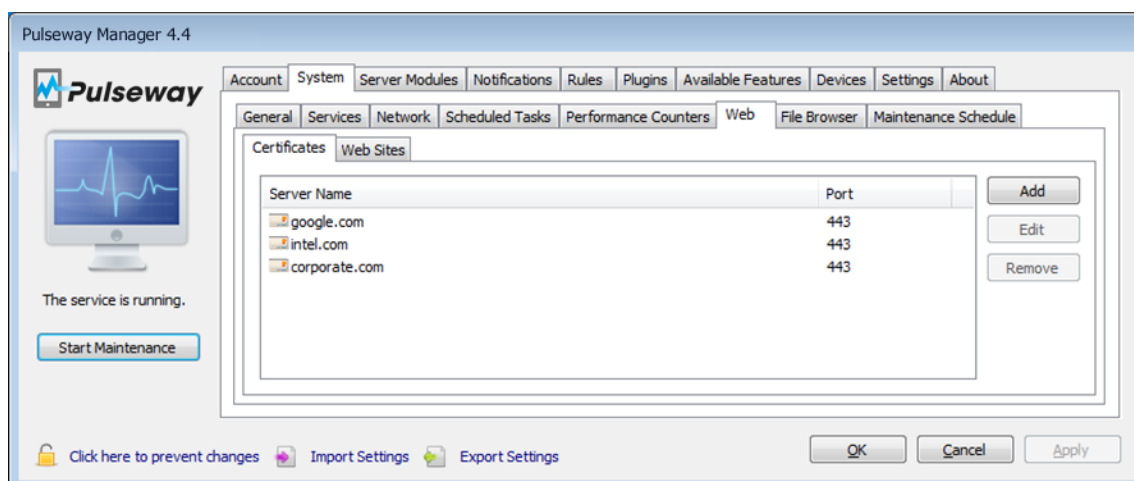
## 4.6. Web Configuration

From the Web tab you can configure:

- SSL Certificate Monitoring
- Web Sites Monitoring

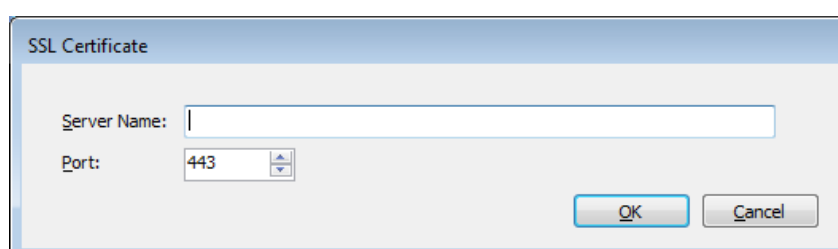
### 4.6.1. SSL Certificate Monitoring

Using SSL Certificate Monitoring you can keep track of your certificates on local and remote hosts in one two easy steps. You can monitor any server that you can connect to and uses SSL connection.



To monitor a SSL certificate click on Add button and fill in the following fields:

- Server Name (Hostname of the server)
- Port (Port of the service you wish to monitor)

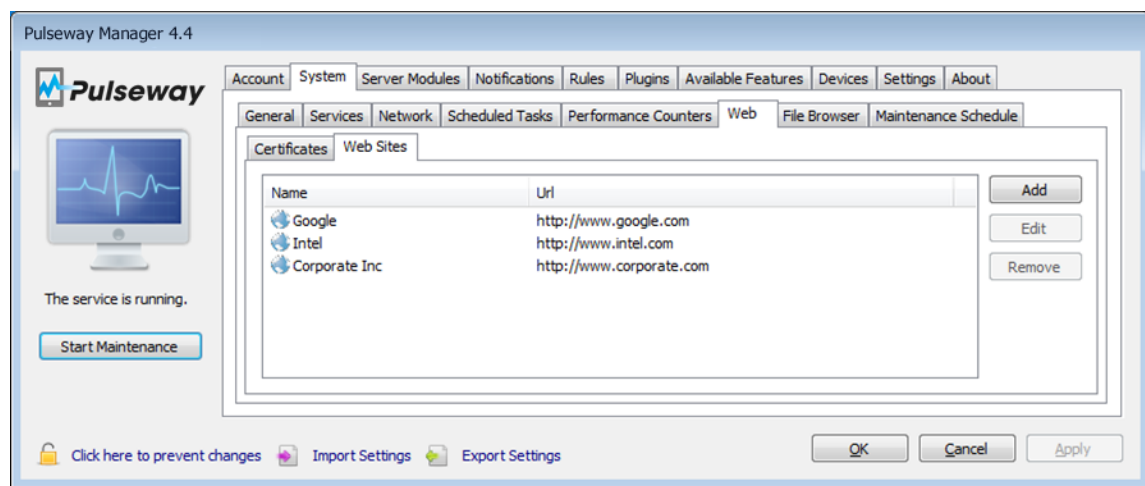


You will be informed when:

- A certificate has expired, is no longer trusted (revoked) or has become invalid.
- A certificate will expire soon.
- The certificate is valid however does not secure the identify of specified host.

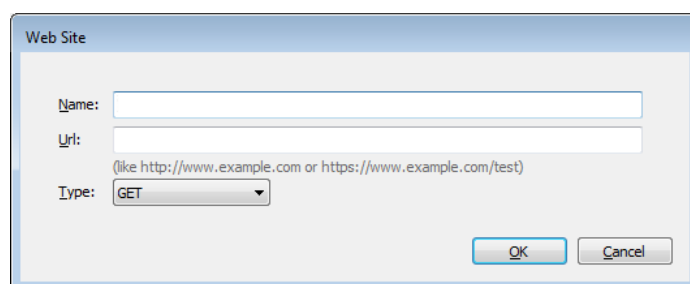
#### 4.6.2. Web Sites Monitoring

Sometimes port and service monitoring is not enough to monitor a website. Maybe the content got moves and the web server is returning a 404 error code or the service is down due to invalid configuration and returns 503 error code. With web site monitoring you can monitor your web sites by testing the return codes.



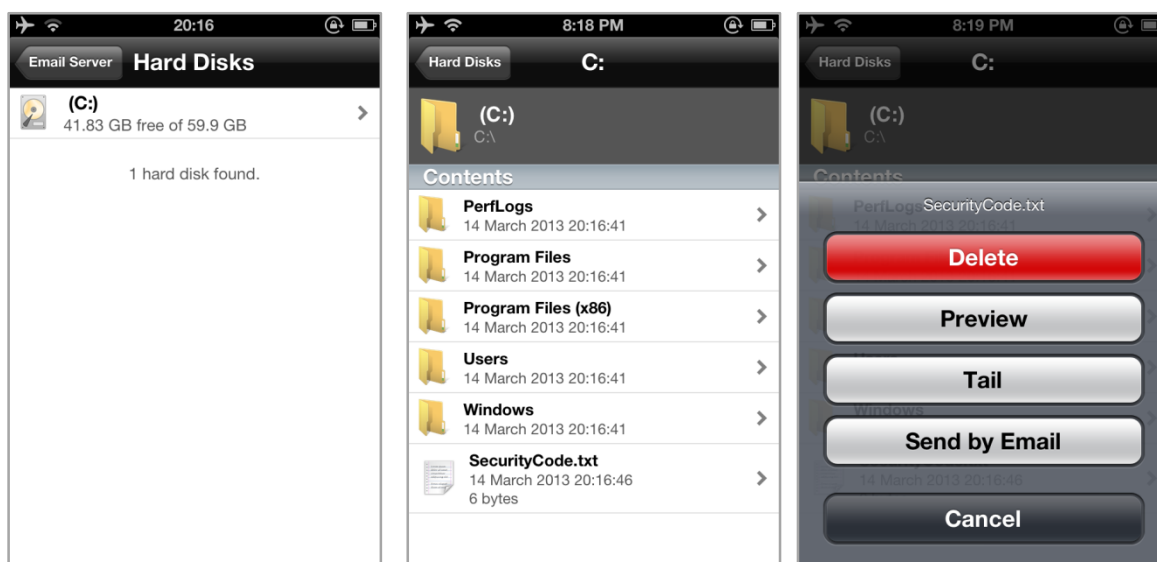
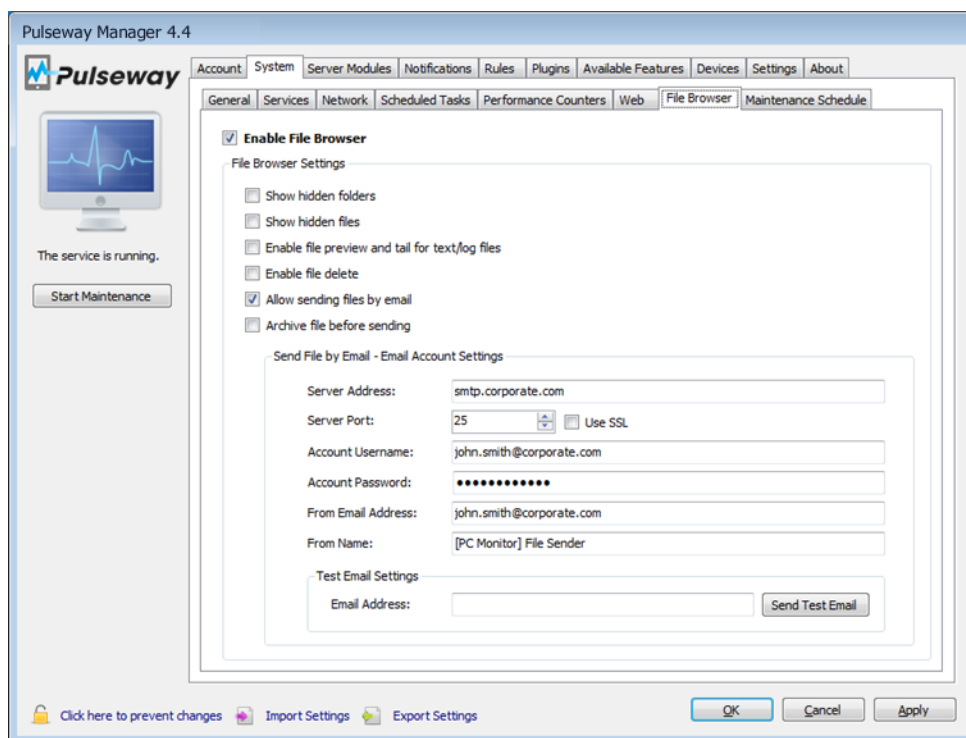
To monitor a web site click on Add button and fill in the following fields:

- Name (A friendly name for the website that will be displayed on the device)
- URL (Target URL that will be tested. URL must contain the protocol)
- Method (HEAD or GET)



### 4.7. File Browser Configuration

File Browser allows you to view the directory/file structure of the target computer, preview files and if configured email them.



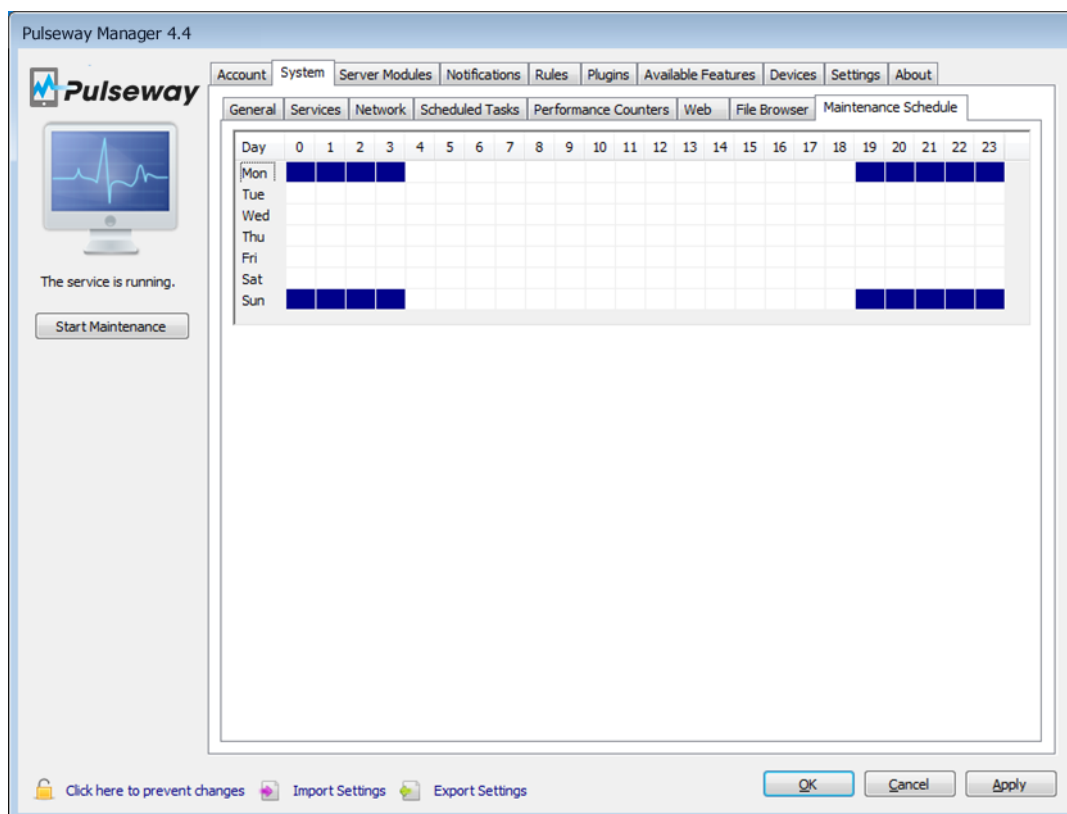
#### 4.7.1. Email Configuration

Pulseway Agent requires a valid email configuration in order to properly send files to your mailbox.



### 4.8. Maintenance Schedule

If you have Scheduled Maintenance on your servers you can use this feature enabled Maintenance Mode (Chapter 15). To schedule maintenance for a specific Monday at 10PM you need to click on the white block on the “Monday” row and the “20” column.

If your Maintenance happens Saturday and Sunday from 10PM to 3AM your schedule should look like this:



Legend:

-  A filled block means that Maintenance Schedule is active during select hour.
-  An empty block means that Maintenance Schedule is inactive during select hour.

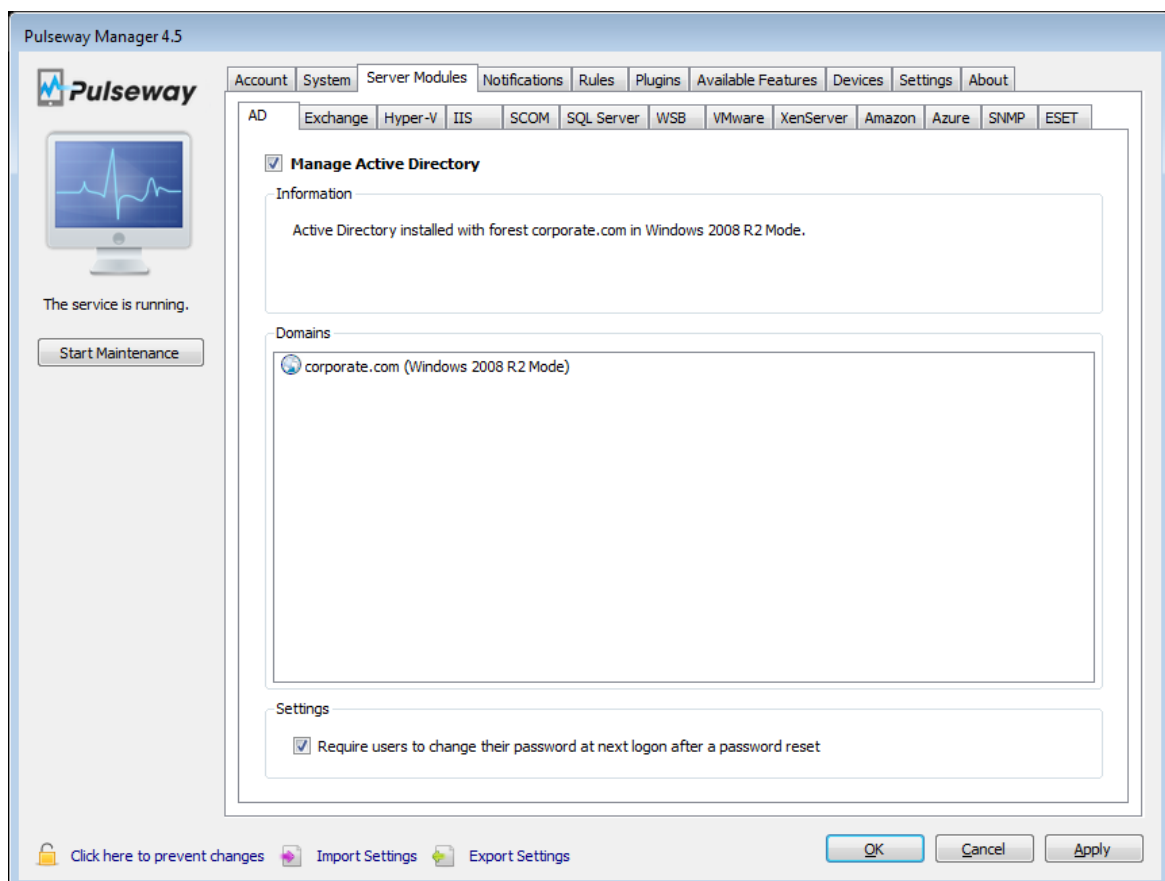
## 5. Server Modules

Pulseway supports the following server modules:

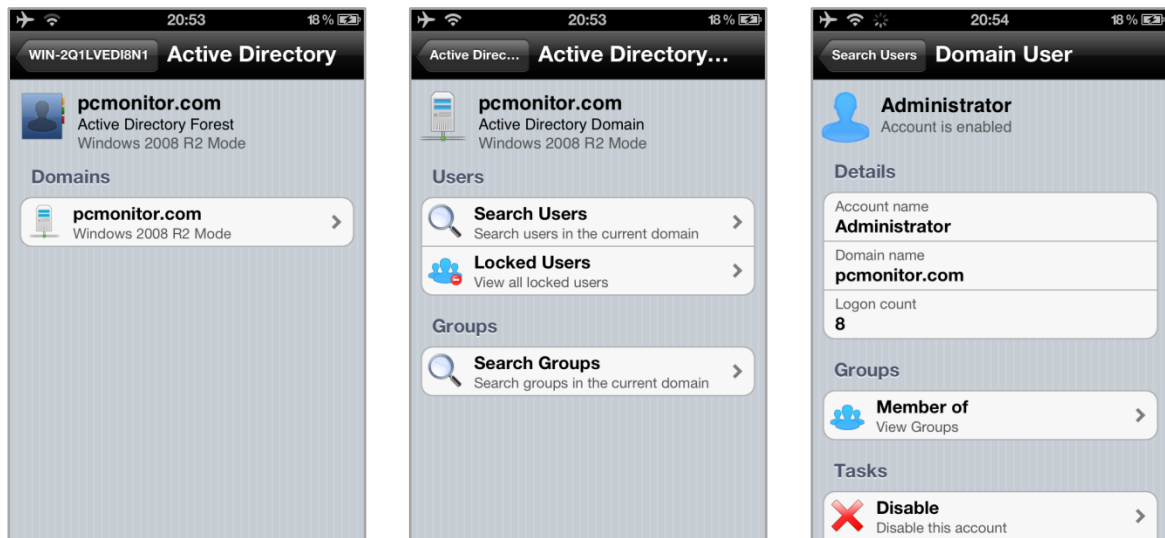
- Active Directory (AD)
- Microsoft® Exchange® Server
- Microsoft® Hyper-V® Server
- Internet Information Server® (IIS)
- System Center Operations Manager (SCOM)
- Microsoft® SQL Server®
- Windows Server Backup (WSB)
- VMware® vSphere® Server
- Citrix® XenServer®
- Amazon Web Services
- Windows Azure
- Simple Network Management Protocol (SNMP)
- ESET Remote Administrator (ERA)

### 5.1. Active Directory (AD)

A lot of companies that use Active Directory are having trouble managing it. Pulseway is here to help you overcome the problem. To enable Active Directory monitoring just enable it from the **Server Modules** tab in the Pulseway Manager.

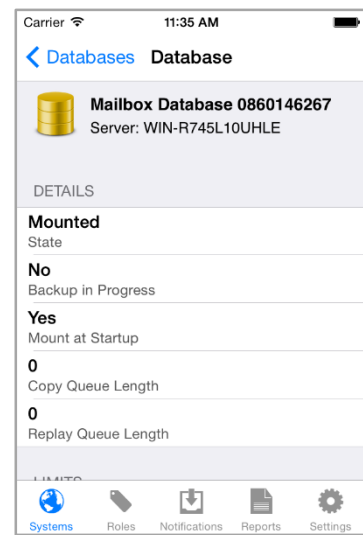
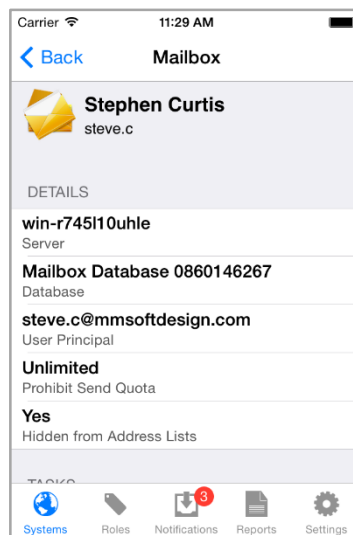
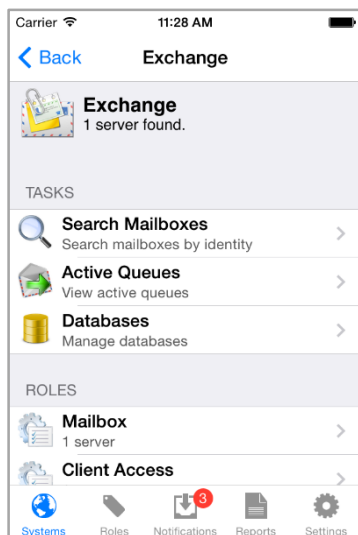
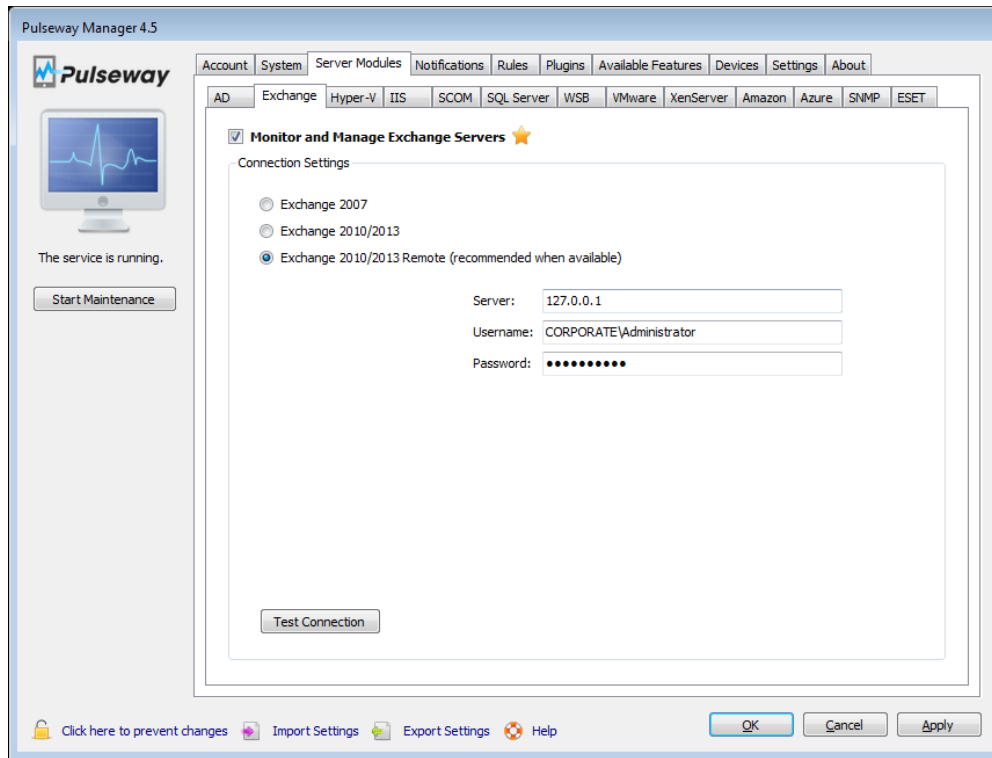


**Note:** If “Require users to change their password at next logon after a password reset” is checked note that after each password reset of a user via Pulseway the user’s password will be marked to be changed at next logon. Until the user changes the password Windows Server by design denies any security logins to Windows Shares, Exchange Mailboxes and all other Active Directory Based logins. A user with its password marked for changing is the same as a user with an expired password.



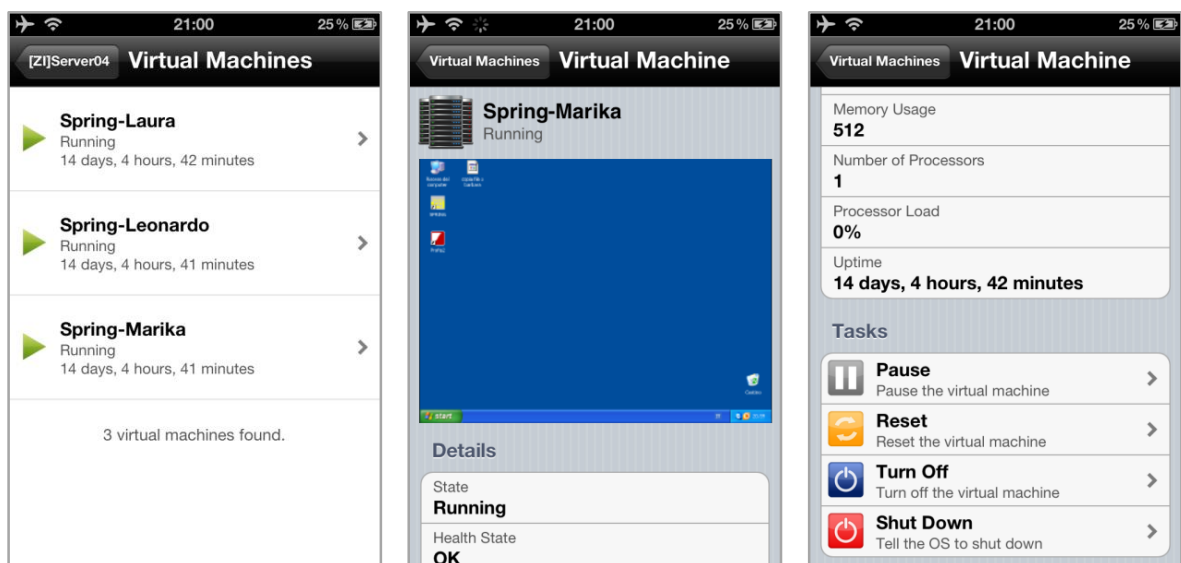
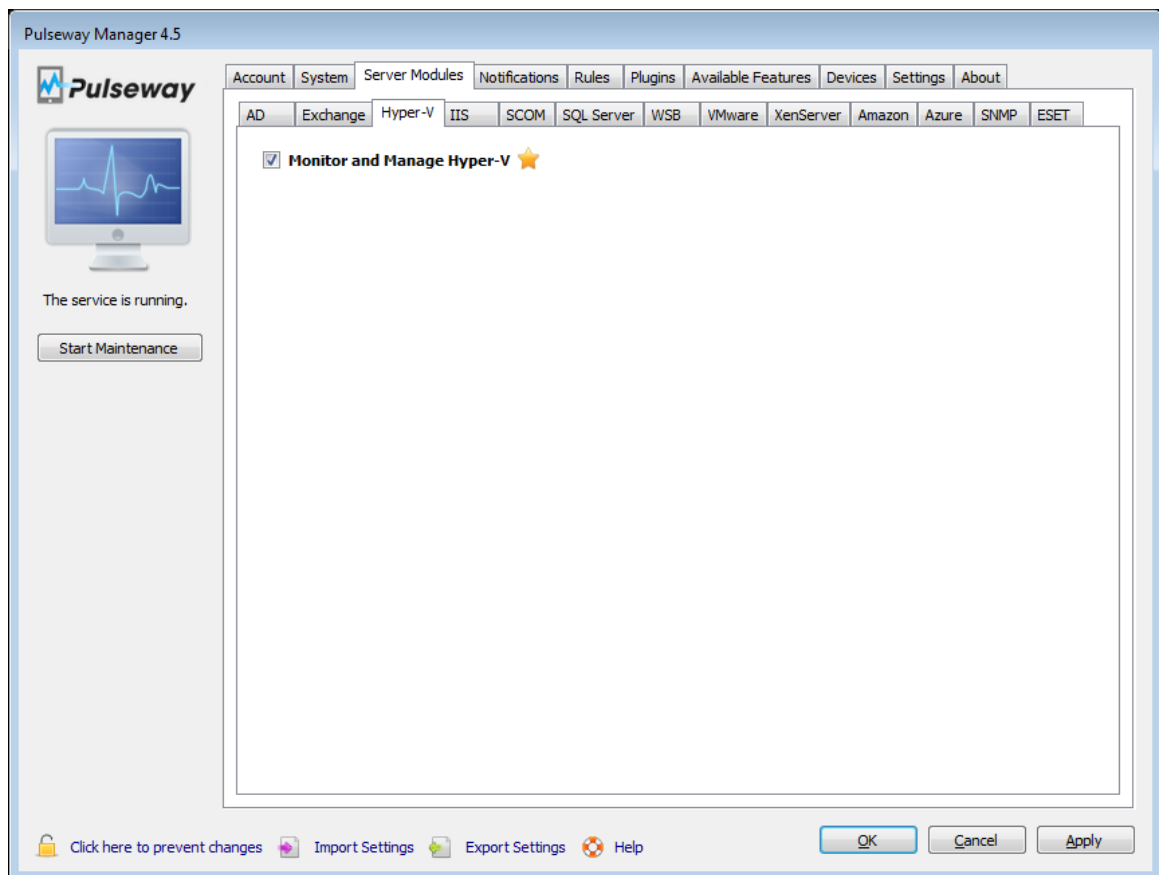
## 5.2. Microsoft® Exchange® Server

Microsoft® Exchange® Servers are in the top list of the most used email servers. They handle billions of email every day, however, configuring and maintaining them can be an issue for any system administrator. Pulseway is here to help. Just enable the Server module and configure the settings, if the server is not locally installed you can monitor a remote one.



### 5.3. Microsoft® Hyper-V® Server

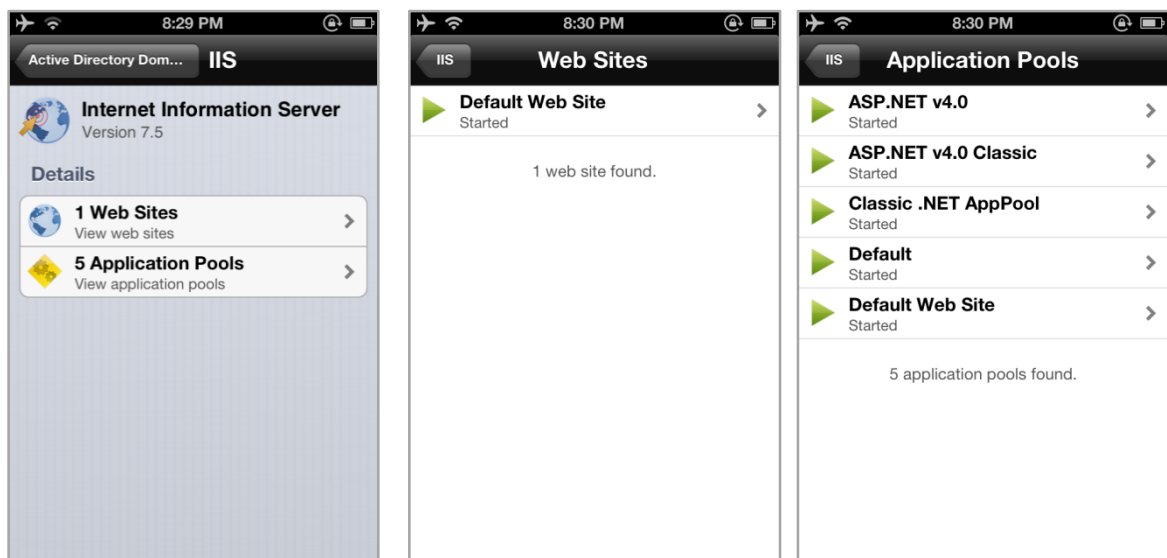
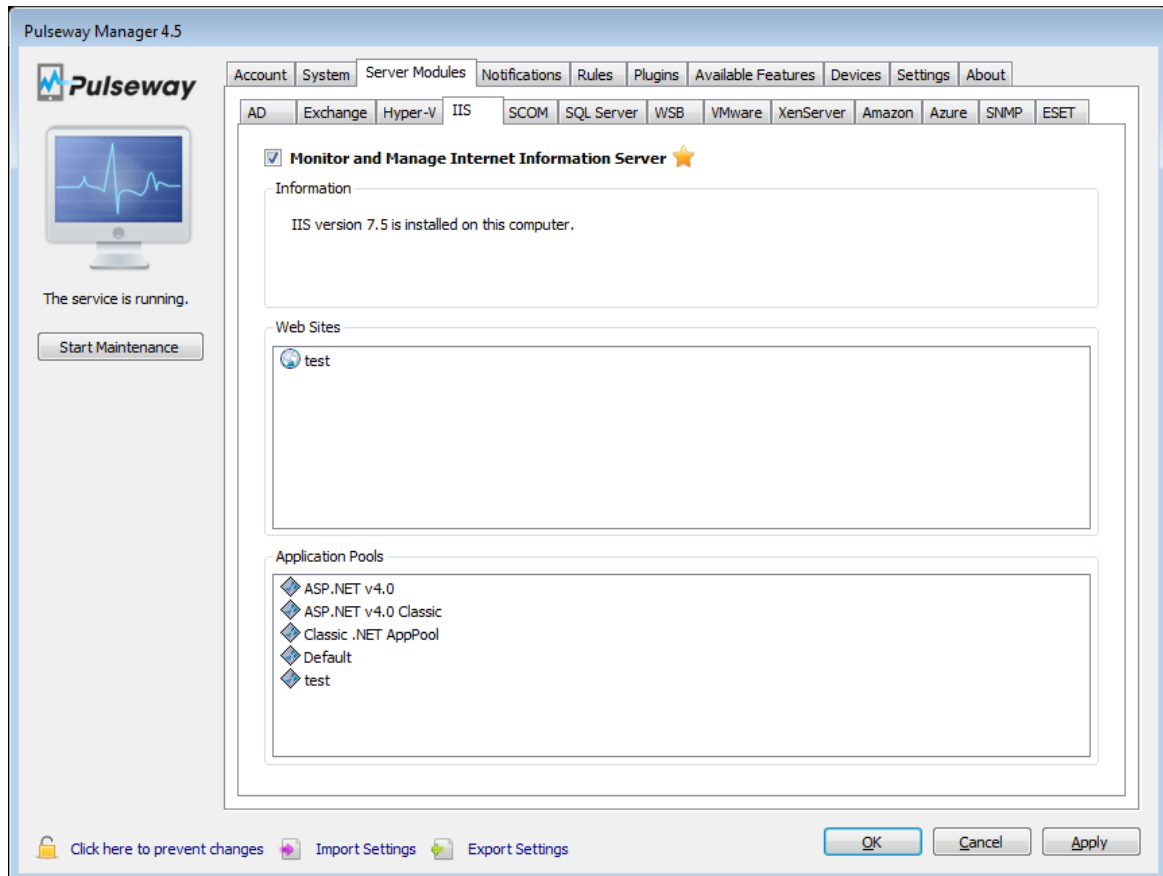
Microsoft® Hyper-V® Server is Microsoft's virtualization technology that is embedded into Microsoft® Windows Server® 2008 and above. It provides quick and easy access to virtualization configuration and parameters right from the Server Manager. To control the Hyper-V server just enable its server module.



## 5.4. Internet Information Server© (IIS)

Internet Information Server is Microsoft's Web Server. It supports all popular technologies including html, php, asp, aspx.





## 5.5. System Center Operations Manager

System Center Operations Manager (SCOM) is a cross-platform management system for operating systems and hypervisors. It uses a single interface that shows state, health and performance information of computer systems. SCOM provides alerts generated according to some availability, performance, configuration or identifying security situations. It works with Microsoft Windows Server and Unix-based hosts.

**SDK Installation:**

Before you can start monitoring your SCOM deployment you need to copy the SDK (Software Development Kit) from the Management Group Server to your Pulseway installation directory.

You can find the SDK assemblies at %ProgramFiles%\System Center 2012\Operations Manager\Server\SDK Binaries.

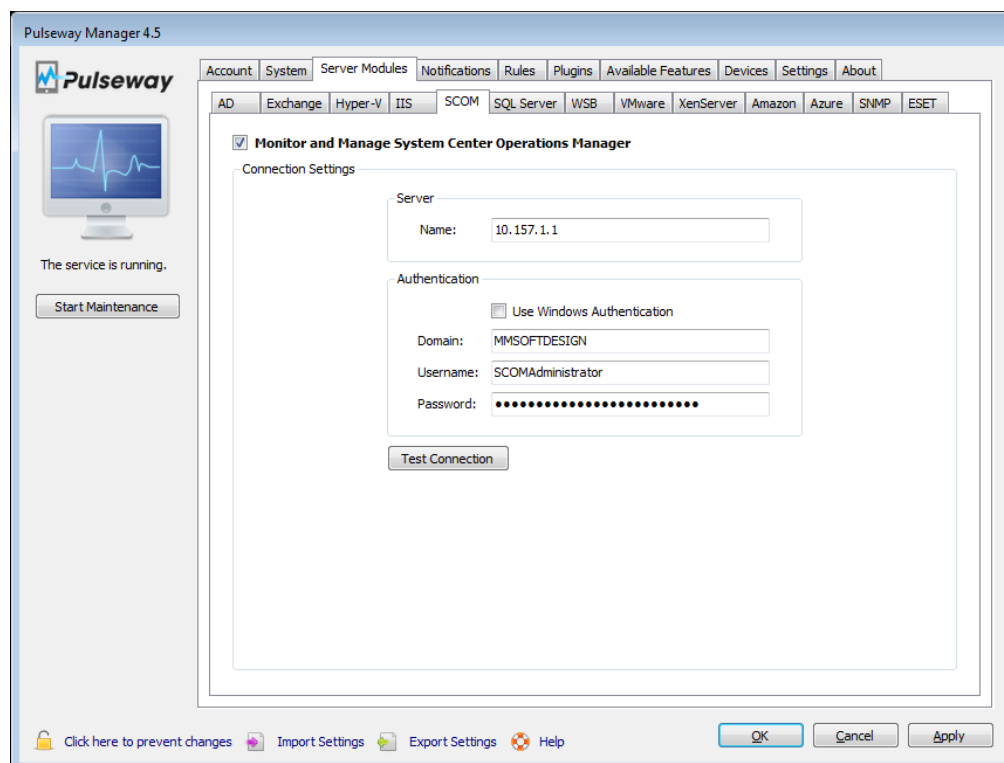
#### Required assemblies:

- Microsoft.EnterpriseManagement.Core.dll
- Microsoft.EnterpriseManagement.Runtime.dll
- Microsoft.EnterpriseManagement.OperationsManager.dll

**Note:** Pulseway Service and Manager must be restarted for the SCOM SDK installation to be detected.

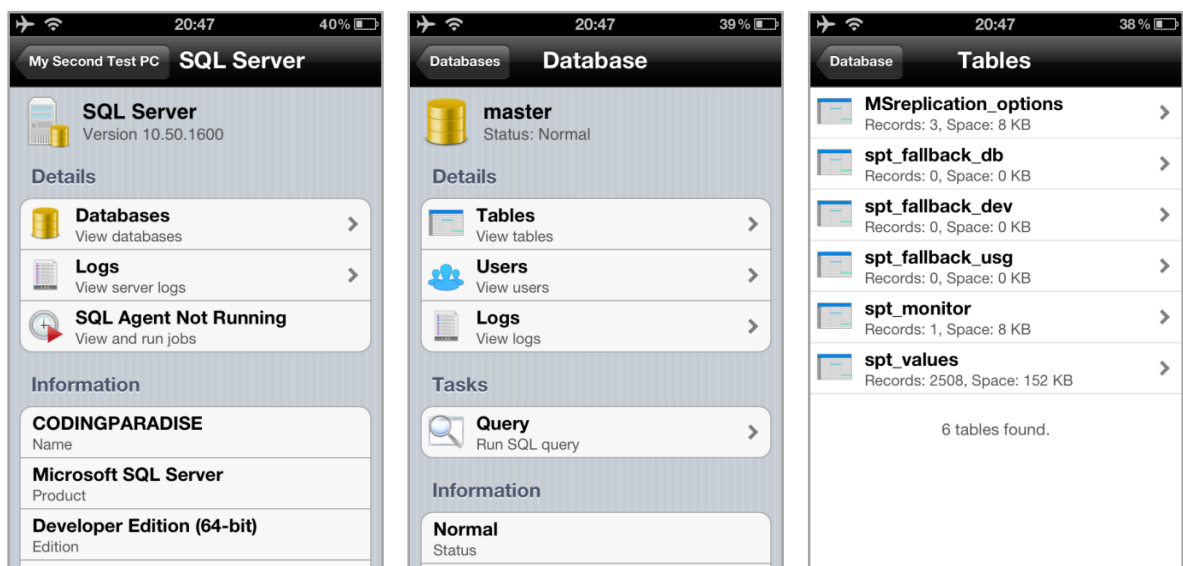
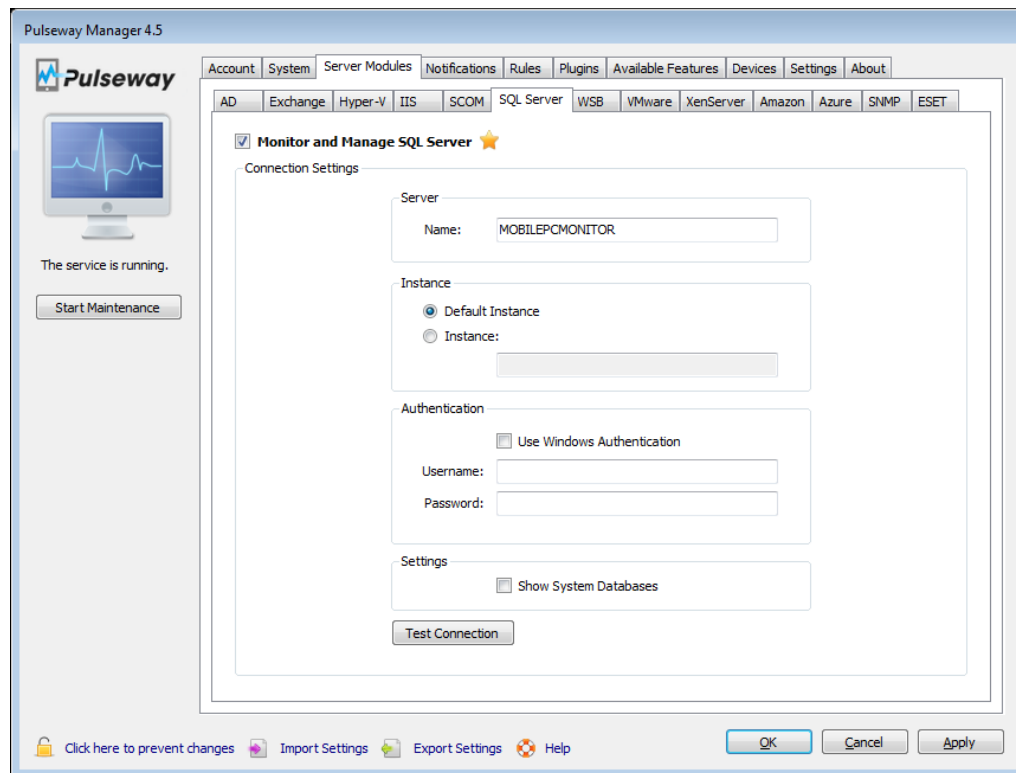
#### Connection Settings:

- In order to connect you must fill in the configuration details in Pulseway Manager.
- Server Name: FQDN or IP address of the management group server
- Use Windows Authentication: If checked Pulseway will connect to SCOM using the LocalSystem account.
- Domain: NETBIOS name of the domain
- Username: User with access to the SCOM Console
- Password: The password for the user



## 5.6. Microsoft® SQL Server®

Microsoft® SQL Server® is one of the most popular database servers available on the market. With Pulseway you can view the table data, execute queries, view logs and much more.



## 5.7. Windows Server Backup

Windows Server Backup is a set of tools from Microsoft that provide a complete solution for your day-to-day backup and recovery needs. You can use Windows Server Backup to back up a full server (all volumes), selected volumes, the system state, or specific files or folders - and to create a backup that you can use for bare metal recovery.

### Minimum Requirements

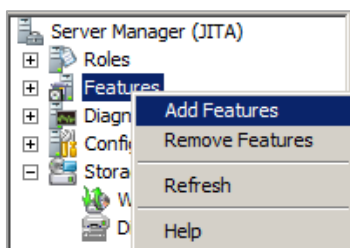
- Windows Server 2008 R2 (or newer)

- Windows Server Backup and Windows Server Backup Command Line Tools features installed.
- Windows PowerShell
- User in “Backup Operators” or “Administrators” user group configured in Pulseway Manager at PowerShell impersonation.

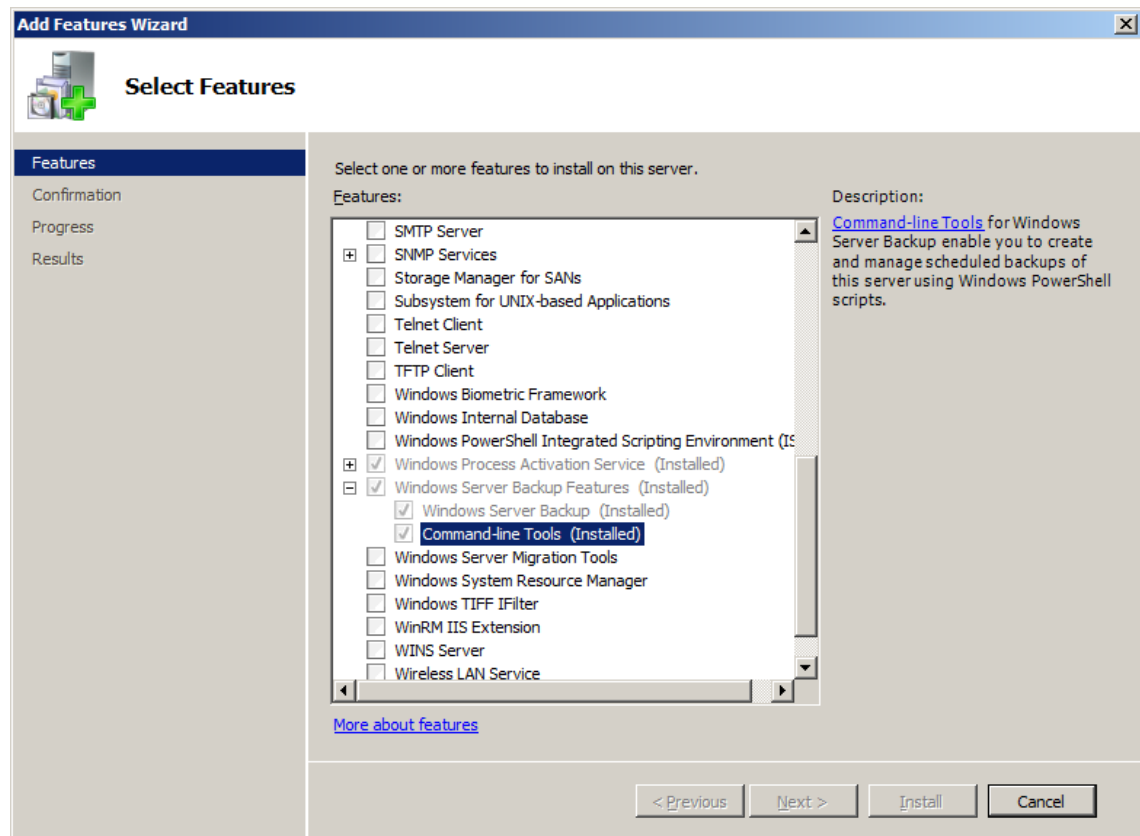
**Note:** PowerShell Impersonation Setup Instructions are covered at: [11.2. Runtime Configuration](#)

## Installing Windows Server Backup Command Line Tools Feature

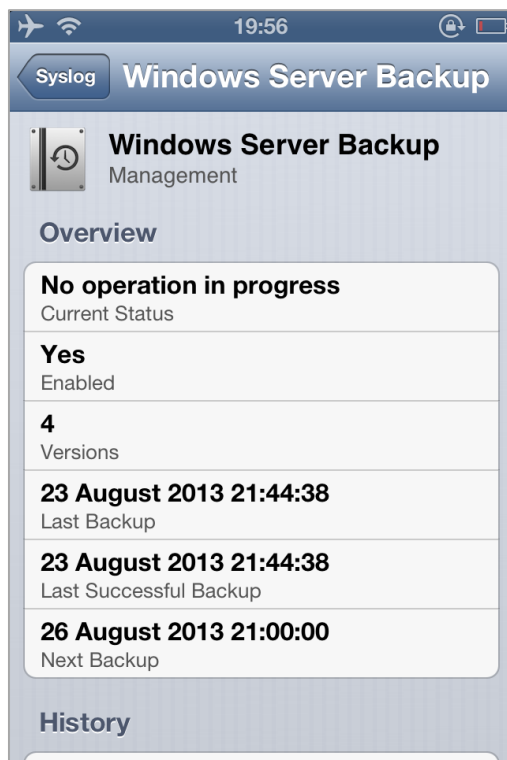
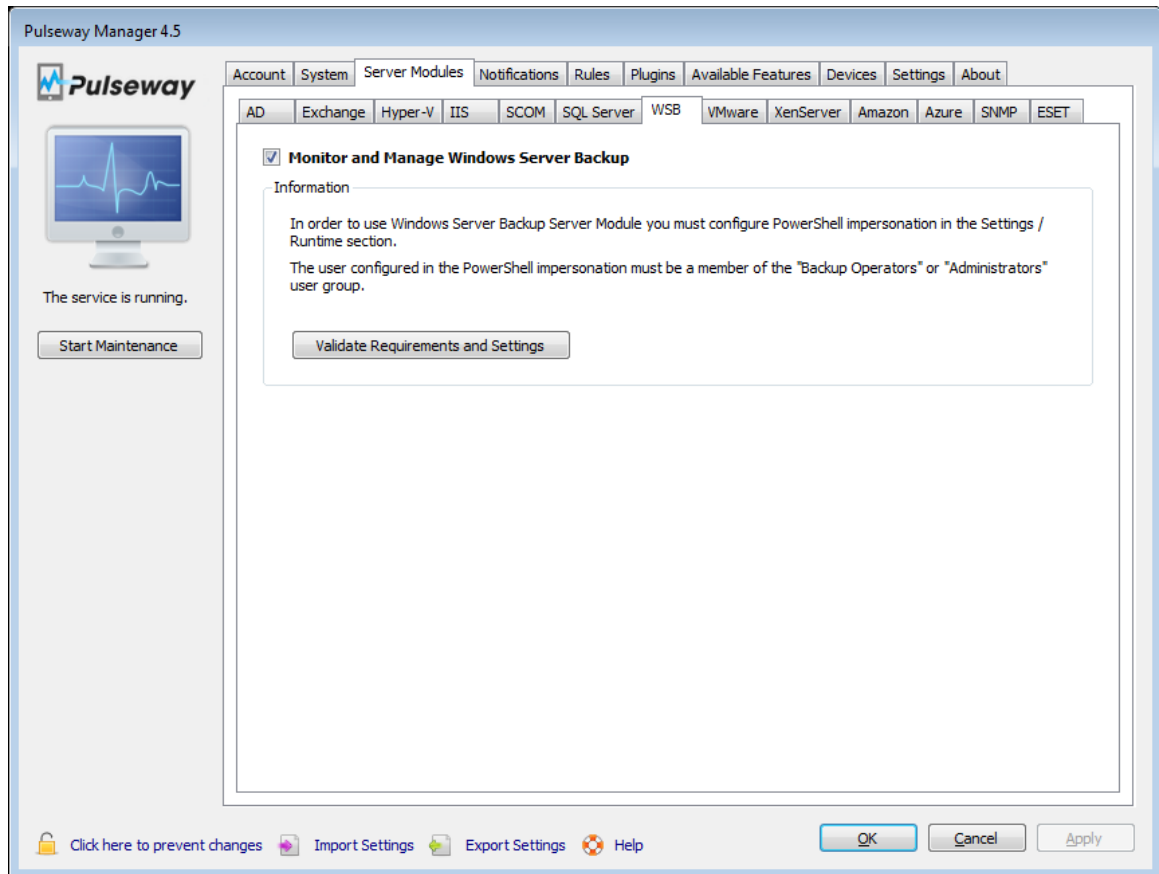
Install Windows Server Backup Command Line Tools by starting up ServerManager, right clicking on “Features” on the left side of the screen then clicking on “Add Features” button.



Locate and expand “Windows Server Backup Features” node then make sure “Command-line Tools” is checked then click on “Install” button (if necessary).

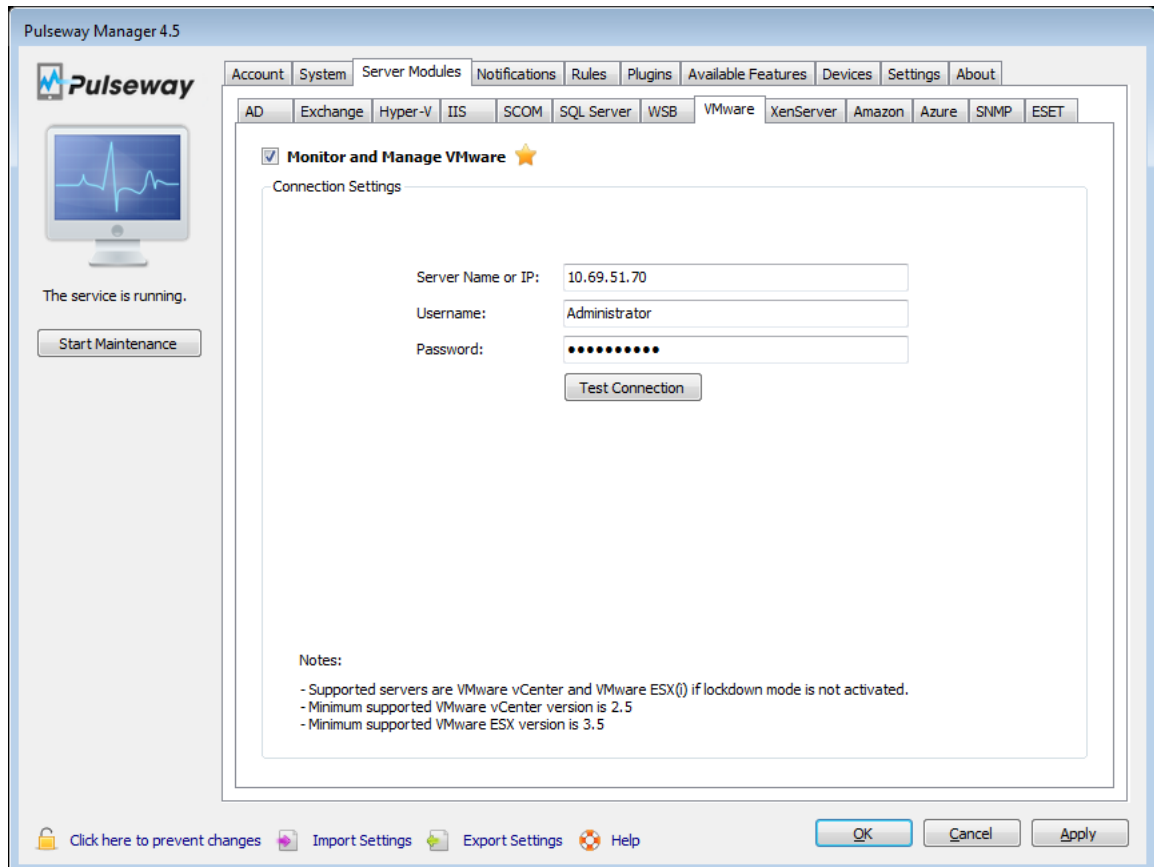


After everything is installed and configure you can test Windows Server Backup configuration by clicking on the “Validate Requirements and Settings” button.



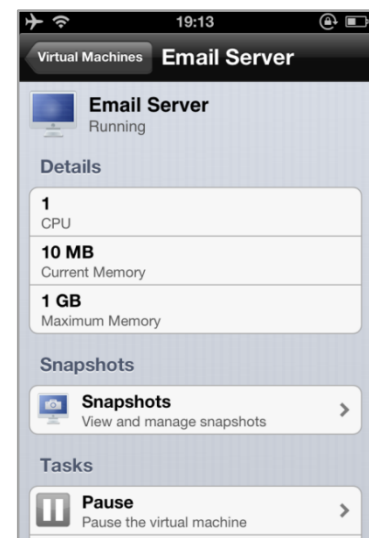
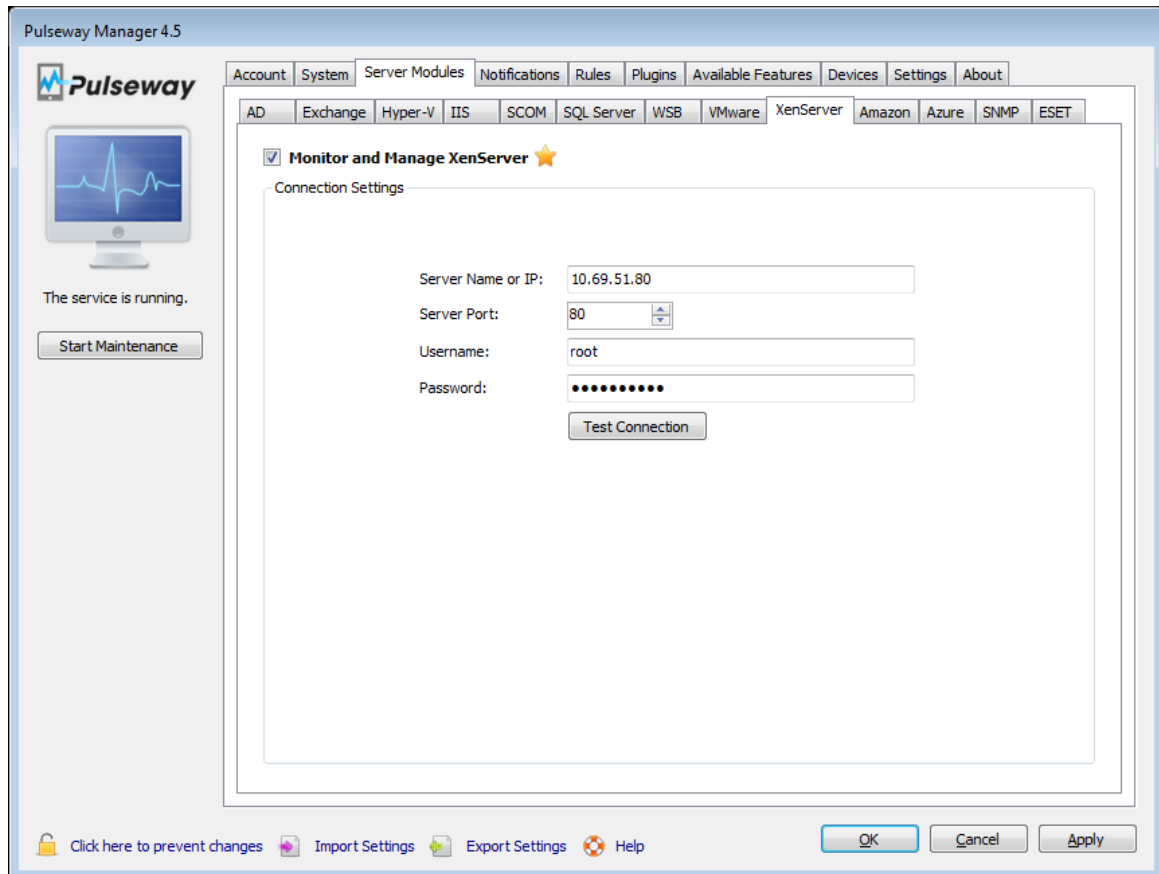
## 5.8. VMware® vSphere® Server

Pulseway supports VMware ESXi and vCenter. To enable the server module just type in your *server IP*, *username* and *password*.



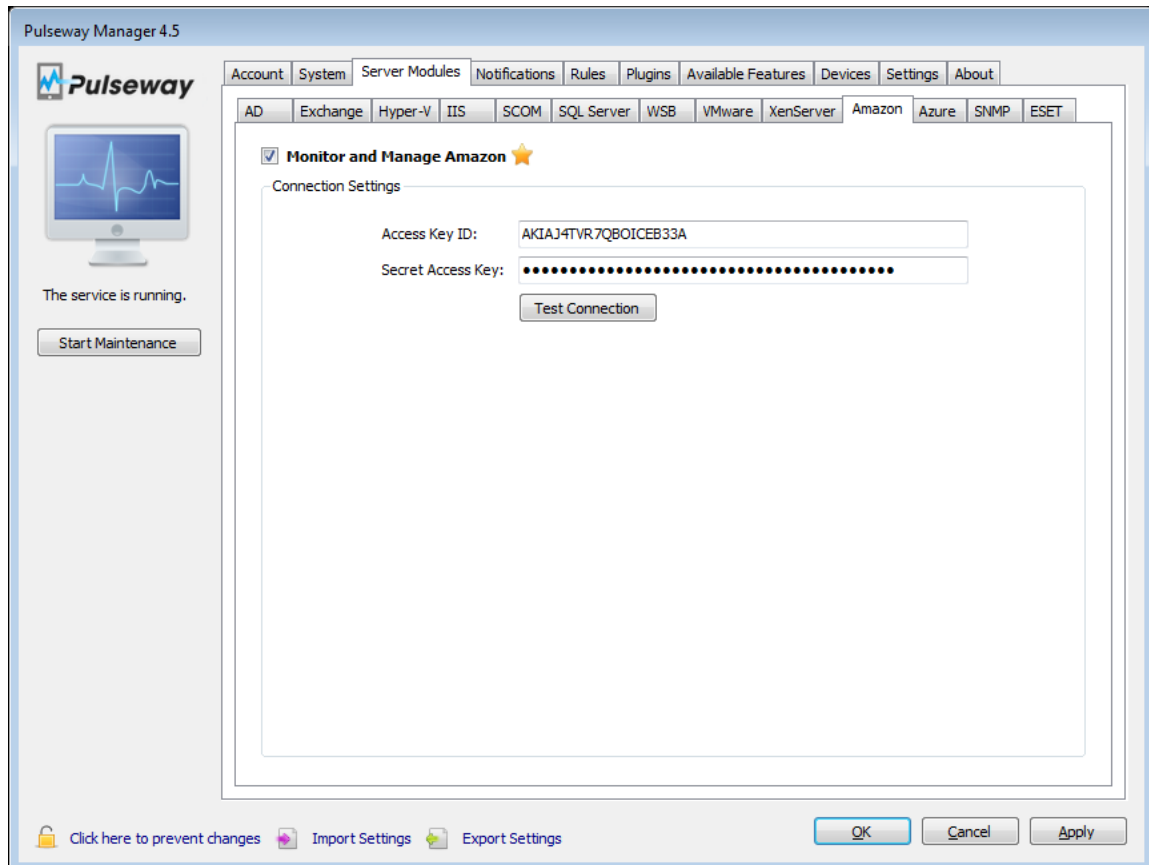
## 5.9. Citrix® XenServer®

Citrix® XenServer® is a free hypervisor from Citrix Systems. Just like VMware vSphere, Xen Server allows you to create multiple virtualized environments and make use of enterprise ready features like vApps, Snapshots, High Availability and many more.



## 5.10. Amazon Web Services

Amazon Web Services is a collection of remote computing services (also called web services) that together make up a cloud computing platform, offered over the Internet by Amazon.com. The most central and well-known of these services are Amazon EC2 and Amazon S3. The service is advertised as providing a large computing capacity (potentially many servers) much faster and cheaper than building a physical server farm.



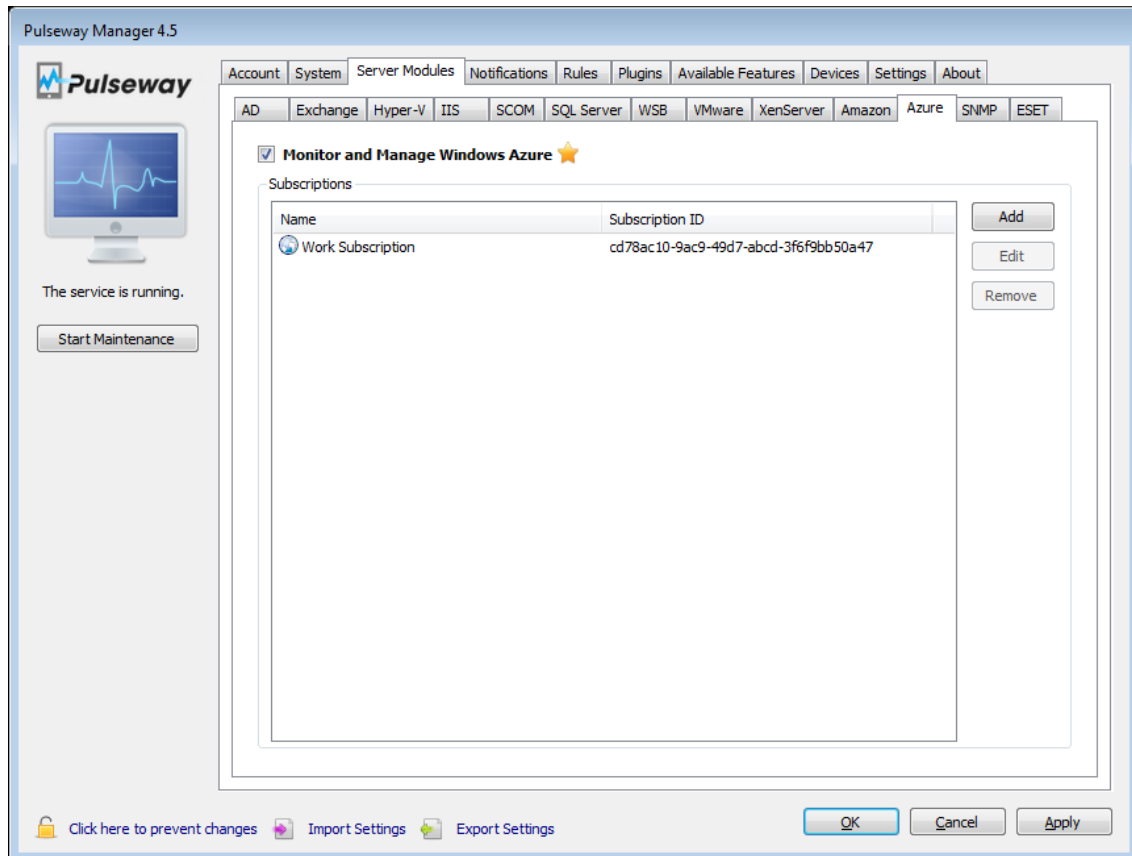
Locating your AWS Account's Access Key:

- Go to: <https://portal.aws.amazon.com/gp/aws/securityCredentials>
- Sign in using your account credentials
- In the body of the page you will be presented with a section called Access Credentials
- Copy your Access Key ID (or create a new one) into the Pulseway Manager application
- Click the "Show" link in the right of the Access Key Field to show the Secret Access Key
- Copy your Secret Access Key into Pulseway Manager and click on Test Connection to verify it

## 5.11. Windows Azure

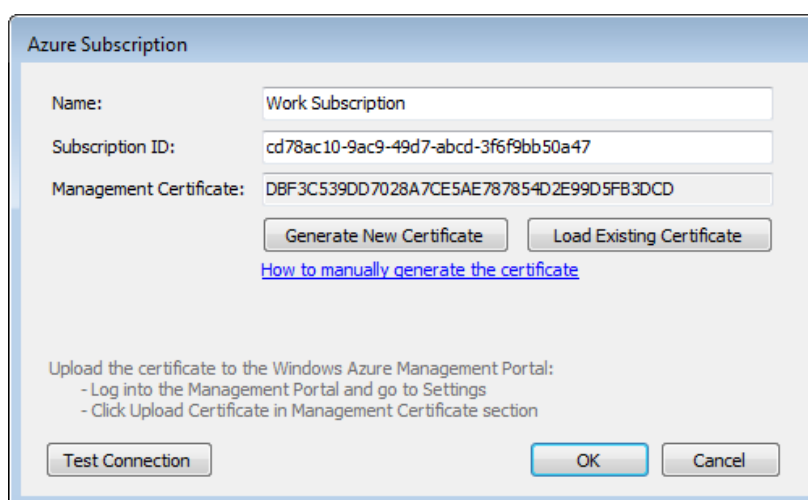
Windows Azure is a cloud computing platform and infrastructure, created by Microsoft, for building, deploying and managing applications and services through a global network of Microsoft-managed datacenters. It provides both platform as a service (PaaS) and infrastructure as a service (IaaS) services and supports many different programming languages, tools and frameworks, including both Microsoft-specific and third-party software and systems.





Configuring Pulseway to monitor a Windows Azure subscription:

- Click on “Add” button and you will be presented with an “Add Azure Subscription” window
- Choose a name for the subscription. (The name is a friendly label to help you identify monitored subscriptions)
- Type or paste your Windows Azure Subscription ID
- Generate or Load an existing Management Certificate



Locating your Windows Azure Subscription ID:

- Go to: <https://manage.windowsazure.com/#Workspace/AdminTasks/ListUsers>
- Login using your Administrator's (or delegated Administrator) live account
- Copy Subscription ID that's associated with your user into Pulseway Manager

Manually Generating a Management Certificate:

- Go to: <http://slproweb.com/products/Win32OpenSSL.html>
- Download and install Win32 OpenSSL v1.0.1e Light (or newer), do not change installation path
- Open command prompt (cmd) and browse "C:\OpenSSL-Win32\bin" - Command: "cd C:\OpenSSL-Win32\bin"
- Execute command: "set OPENSSL\_CONF=C:\OpenSSL-Win32\bin\openssl.cfg"
- Execute command: "openssl genrsa -out pulseway.key 2048"
- Execute command: "openssl req -new -x509 -key pulseway.key -out pulseway.cer -days 3650 -subj /CN=pulseway"
- Copy pulseway.cer from "C:\OpenSSL-Win32\bin" directory to a safe location
- Upload the certificate to Windows Azure Management Portal

Uploading a Management Certificate to Windows Azure Management Portal:

- Go to: [Management Portal](#)
- Login using your Windows Azure Administrator's (or delegated Administrator) live account
- Click on the "Upload" button
- Click on the "Browse for file" button and select your management certificate file
- Click on "OK"

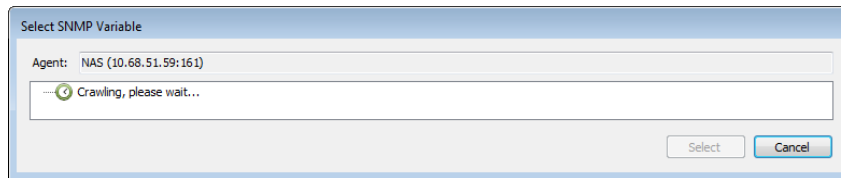
**Note:** You may monitor more than one Windows Azure subscription on the same computer.

## 5.12. Simple Network Management Protocol (SNMP)

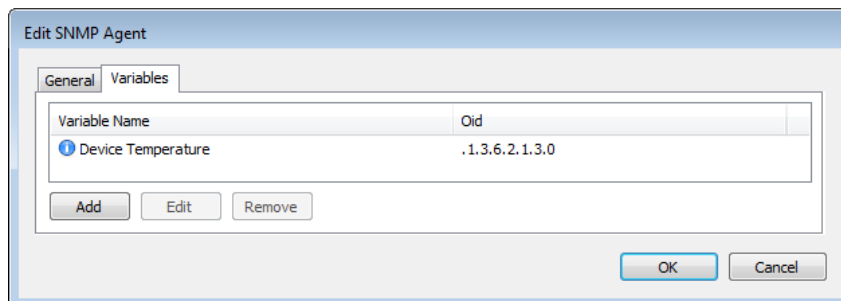
Simple Network Management Protocol (SNMP) is an "Internet-standard protocol for managing devices on IP networks". Devices that typically support SNMP include routers, switches, servers, workstations, printers, modem racks, and more. It is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention. SNMP is a component of the Internet Protocol Suite as defined by the Internet Engineering Task Force (IETF). It consists of a set of standards for network management, including an application layer protocol, a database schema, and a set of data objects. SNMP Agents expose 'MIB Objects' expressed as Variables.

SNMP Server module allows SNMP agent exploring, crawling for exposed variables, displaying real-time values on the mobile clients and monitoring variables for changes using configured rules.

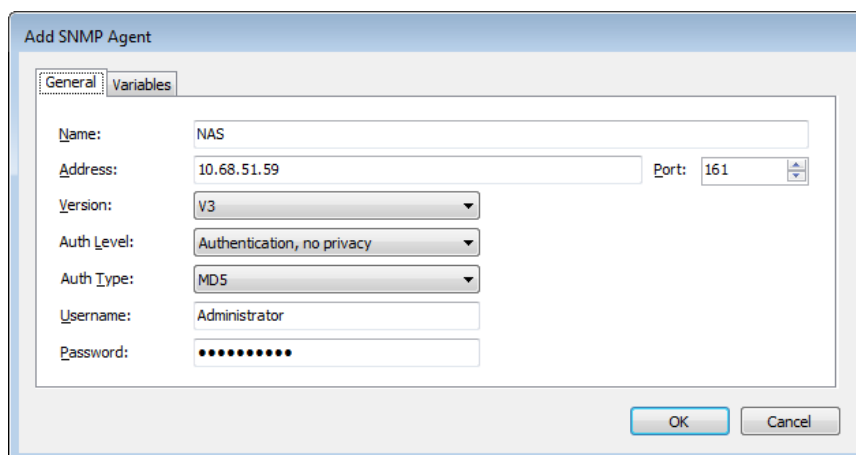
Using Pulseway Manager you start by discovering your network for SNMP agents or you can manually add them by providing the connection details.



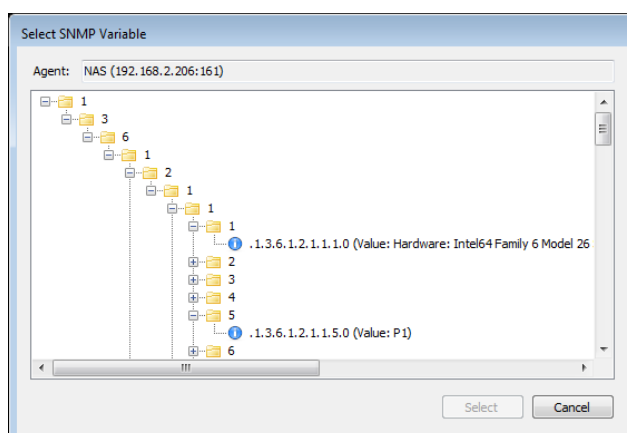
After the SNMP agent configuration is complete you need to add the variables you wish to monitor. You can add variables from the Edit Agent dialog inside the Variables tab.



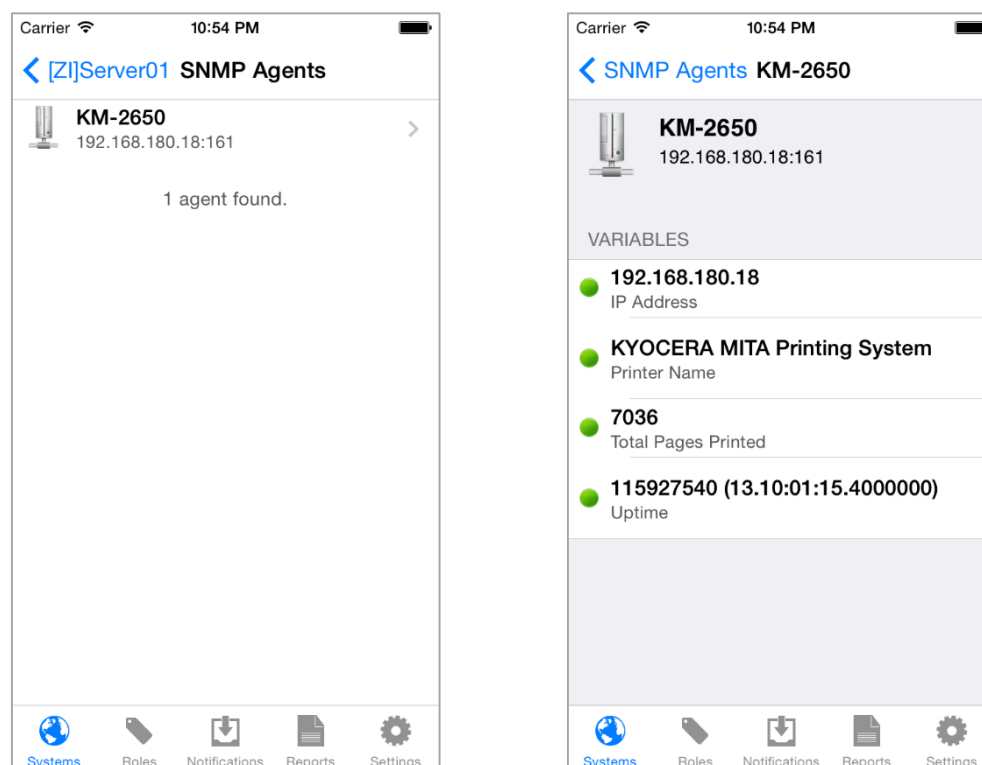
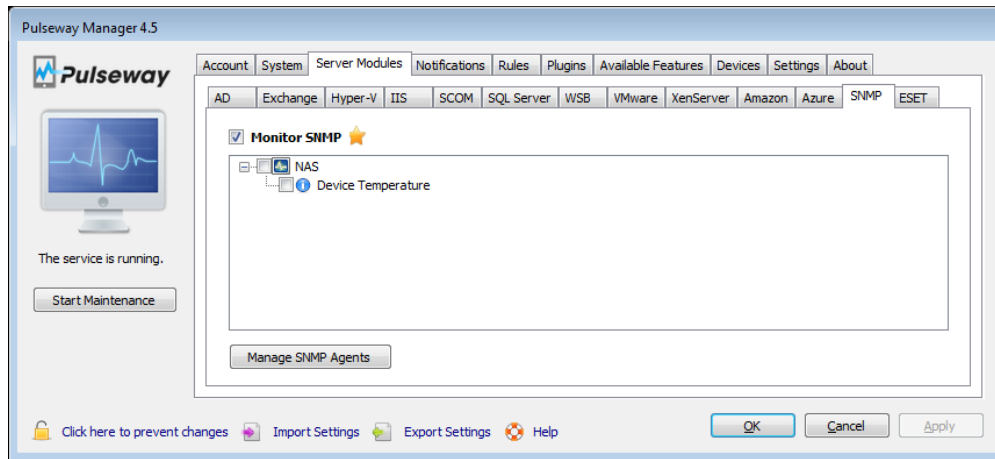
In order to correctly identify each of the variable's type and usage you need to consult the "SNMP MIB Reference Guide" released by the vendor of the agent. The MIB Document contains information regarding each variable exposed by the SNMP agent.



It is possible to manually write the variable Oid (Object identifier) or using the crawl ("..." button in the Add Variable dialog) feature.



After you configured the variables you would like to monitor you can select which variables you would like to be displayed on the mobile devices.



**Note:** Choosing not to display a variable does not affect the ability to get notifications for that variable.

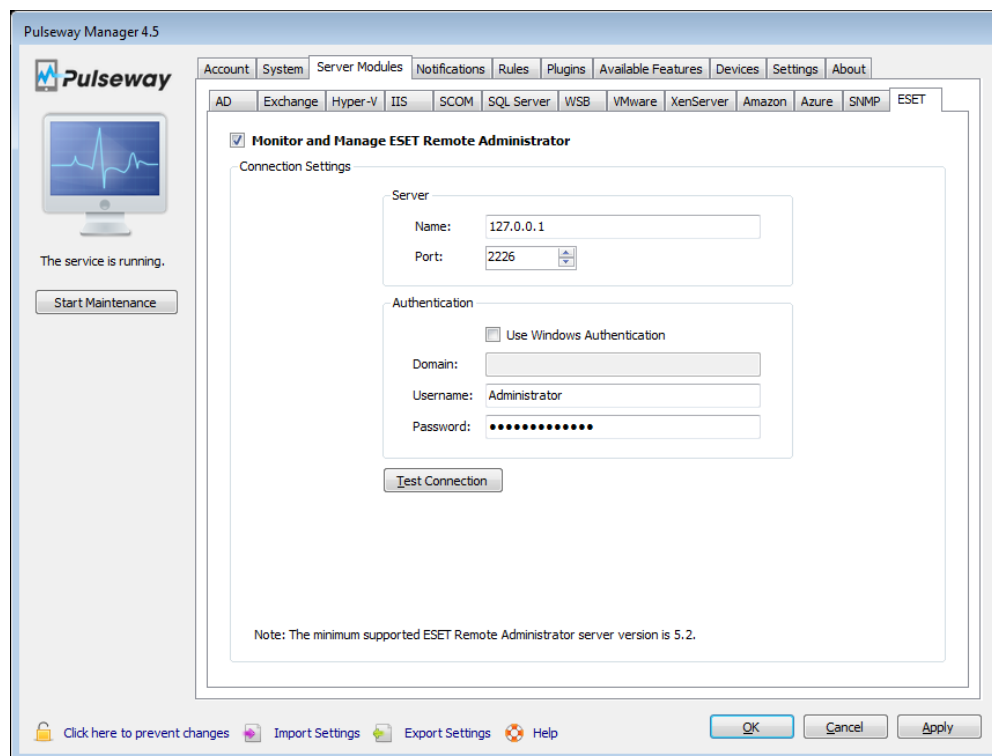
Inside the Notifications tab in Pulseway Manager, Server Modules sub tab in SNMP sub tab you can configure notifications for monitored SNMP variables.

## 5.13. ESET Remote Administrator (ERA)

ESET Remote Administrator enables you to manage ESET endpoint, server and mobile business products across your network – whether large or small – effectively and efficiently.

ERA server module allows you to monitor security products from the ESET business family. Once configured, you can get notified when monitored security products identify threats,

browse clients, start full system scans and read scan logs for information about identified threats.



You can connect to a local or remote ERA server using the following connection parameters:

- Server Name: Hostname or IP address of the ERA server
- Port: Command-line console port
- Use Windows Authentication: If enabled, NTLM authentication will be used
- Authentication Domain: NETBIOS name of the domain (if applicable)
- Username: Use your LDAP username if Windows Authentication is enabled or an ERA console account if ERA Authentication is used (ERA Authentication is used when Windows Authentication is not enabled)
- Password: The password of the account specified

## 6. Notification Settings

Notification settings are divided into ten categories:

- Status Notifications
- Performance Notifications
- Process Notifications
- Ping Notifications
- Storage Notifications
- Event Log Notifications
- Hardware Sensor Notifications
- Performance Counter Notifications

- Server Module Notifications
- Service Notifications

Notifications will be delivered using PUSH or email messages depending on the configuration on your account. To change the notification delivery method go to **Account** tab, and click the **Account Details** button.

You can use the **Send a test notification to all devices** button to test your notification delivery method and the end devices.

## 6.1. Status Notifications

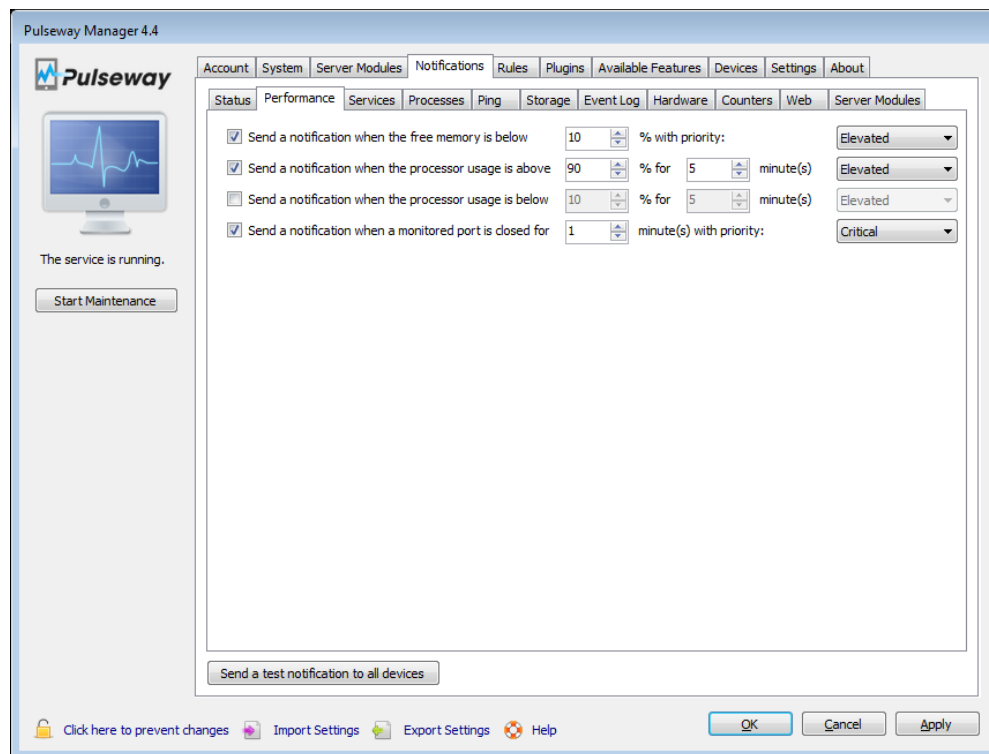
Status notifications are:

- Offline notification
- Online notification
- Shutting down notification
- Entering a suspended state notification
- Resumed a suspended state notification
- Battery low notification
- User logged in notification
- User logged out notification
- Updates available notification
- Application installed notification
- Application uninstalled notification
- Removable disk removed notification
- Removable disk inserted notification
- Public IP changed notification
- S.M.A.R.T. disk error notification
- Firewall is disabled notification
- Antivirus is disabled notification
- Antivirus is outdated notification

To enable a notification just enable the box before its label and save your settings, the changes will be applied in real time, no computer or service restart is required.

## 6.2. Performance Notifications

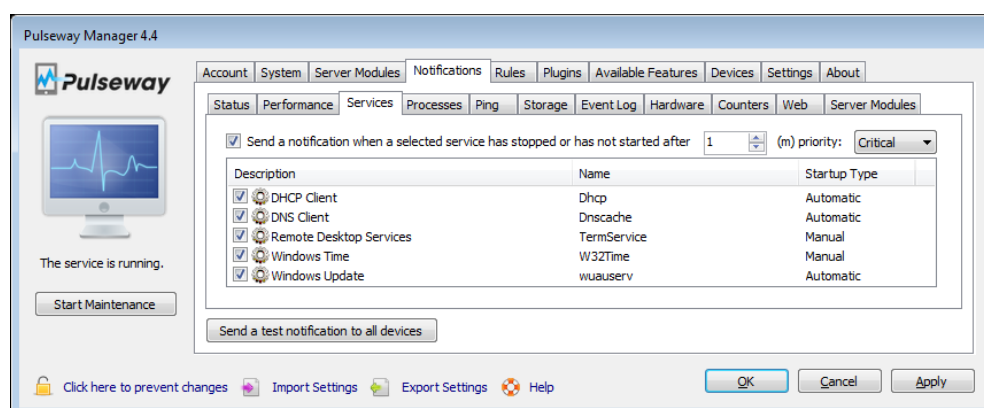
Performance notifications represent your current service performance: service downtime, free memory below required threshold, processor usage below or above normal values or port is detected as closed.



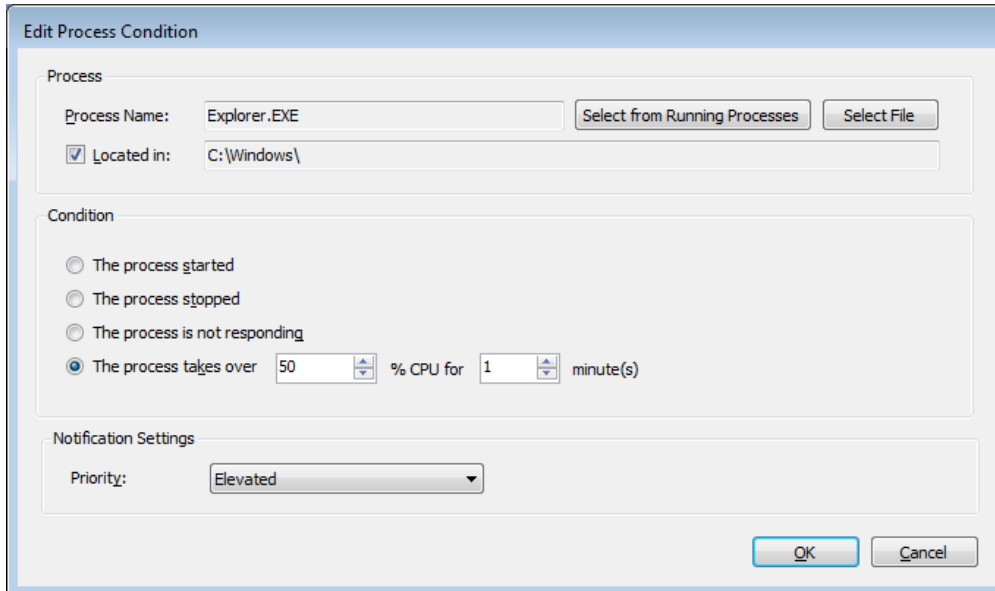
**Note:** You will be notified if a monitored service is has “Automatic” startup type and is not started when Pulseway Service starts.

### 6.3. Service Notifications

Service notifications can be configured to only notify a specific service out of the full monitored services list. The notification timer is defaulted to send notifications after one minute of the service status change.



### 6.4. Process Notifications



**Edit Process Condition**

**Process**

Process Name:

☒ Located in:

**Condition**

☐ The process started  
☐ The process stopped  
☐ The process is not responding  
☒ The process takes over  % CPU for  minute(s)

**Notification Settings**

Priority:

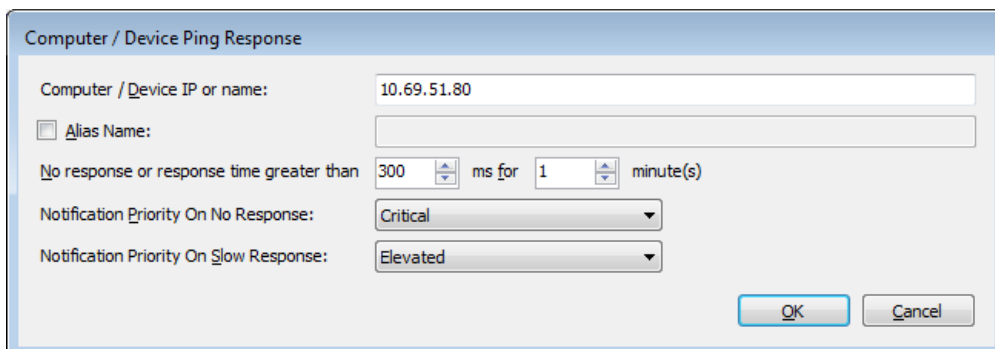
Process monitoring supports four conditions:

- The process has started
- The process has stopped
- The process is not responding
- The process takes over (configurable) % for (configurable) minute(s).

**Note:** All process notifications have customizable notification level.

## 6.5. Ping Notifications

Monitoring ping replies is very useful to know when your network becomes unresponsive or overloaded.



**Computer / Device Ping Response**

Computer / Device IP or name:

☐ Alias Name:

No response or response time greater than  ms for  minute(s)

Notification Priority On No Response:

Notification Priority On Slow Response:

The first field represents the IP address (or hostname [FQDN]) of the target computer/device. The Alias (short part of hostname) of the computer/device.

## 6.6. Storage Notifications

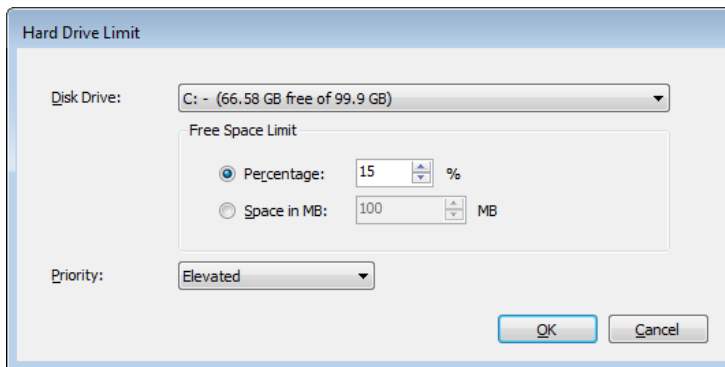
Pulseway supports:

- Low Disk Space Notifications
- File Change Notifications

### 6.6.1. Low Disk Space Notifications



Low disk space notifications are critical notifications that nobody wants to see but wishes to receive at the same time. They can help you identify filled storage devices and avoid future problems.



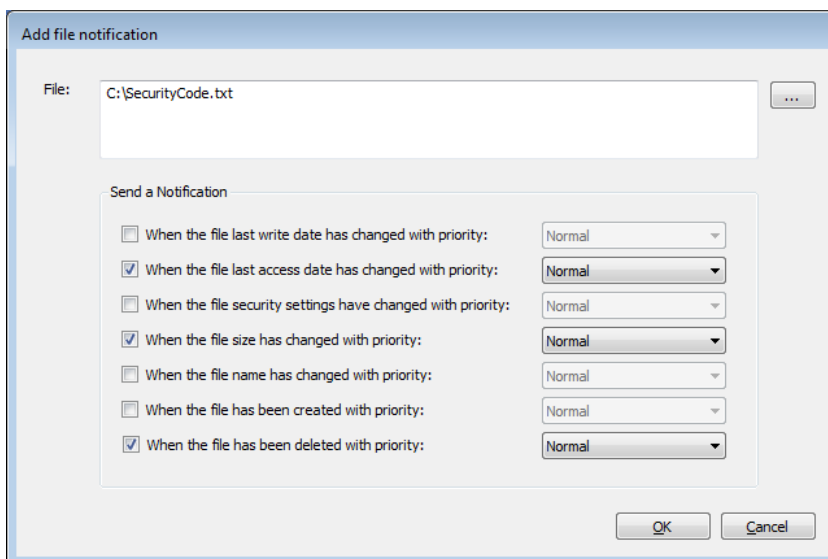
Monitoring low disk space is possible using a percentile value or a fixed amount of megabytes (1 gigabyte is 1024 megabytes). Priority field controls the priority of the low disk space notification.

**Note:** Disk Drive represents the partition not the actual disk. Free Space Limit represents the threshold for the notification.

### 6.6.2. File Change Notifications

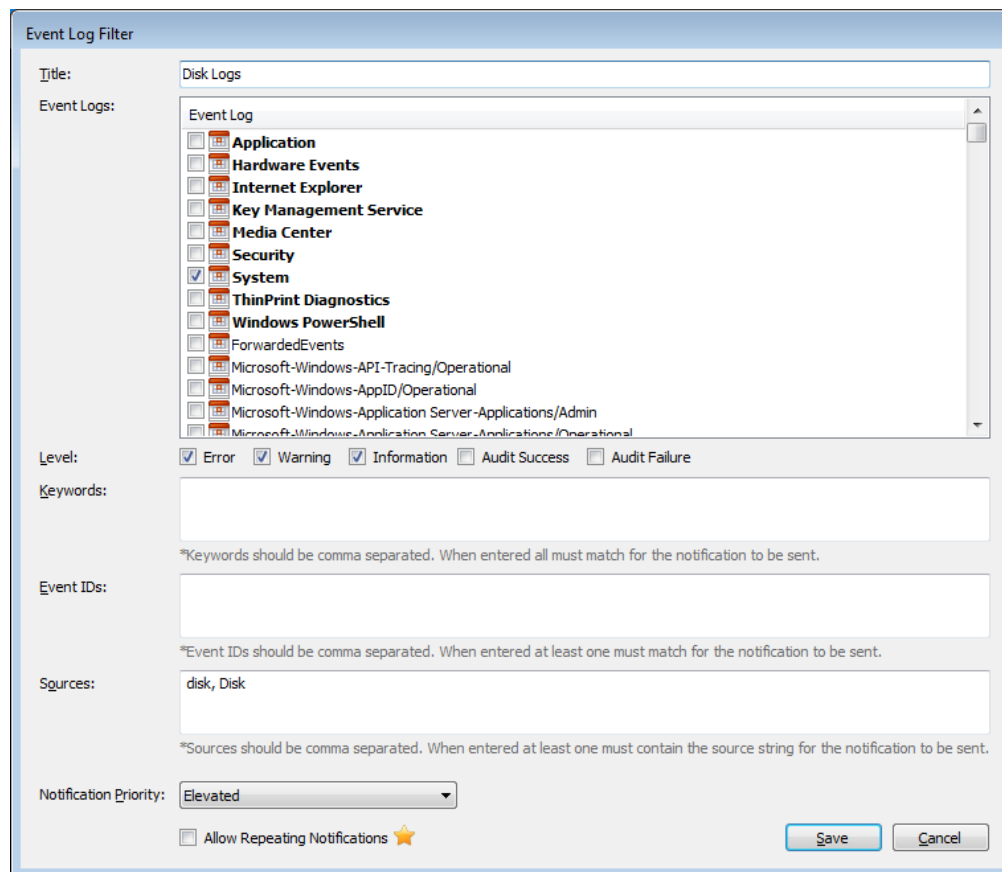
File notifications allows monitoring a file or folder for changes. When configured you may receive a notification for the following file changes:

- Last Write Date
- Last Access Date
- File Security
- File Size
- File Name
- File Creation
- File Deletion



## 6.7. Event Log Notifications

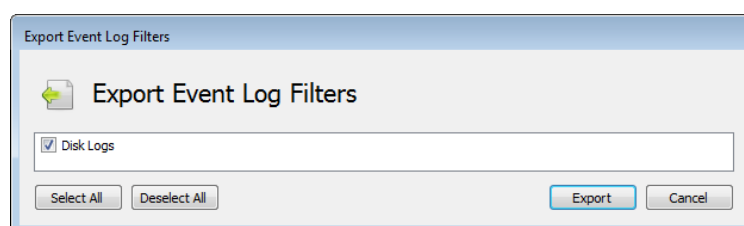
Monitoring event logs for problems is an easy way to identify a problem before turns into something irreversible. Here is an example of a disk event monitoring:



Event Log, Level, Keywords, Event IDs, Sources are all filters that can be used all at the same time.

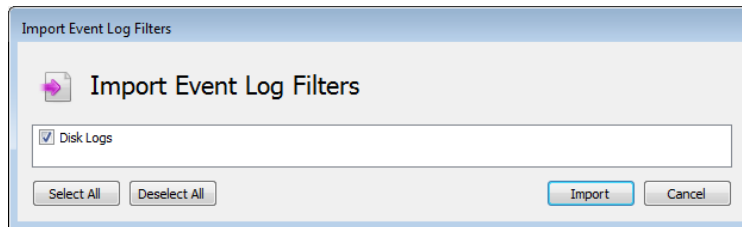
### 6.7.1. Exporting Event Log Notification's Configuration

If you would like to use the same configuration for your event log monitoring you can export only the event log monitoring configuration to a file and import it back to all your computers.



### 6.7.2. Importing Event Log's Notification's Configuration

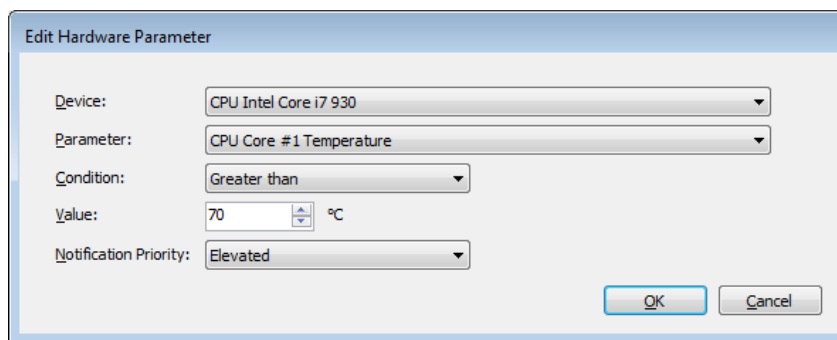
Importing Event Log notification's configuration requires the exported file to be located on an accessible path and the local user to have read permissions on the file.



You will get a chance to choose which event logs you would like to import from the file.

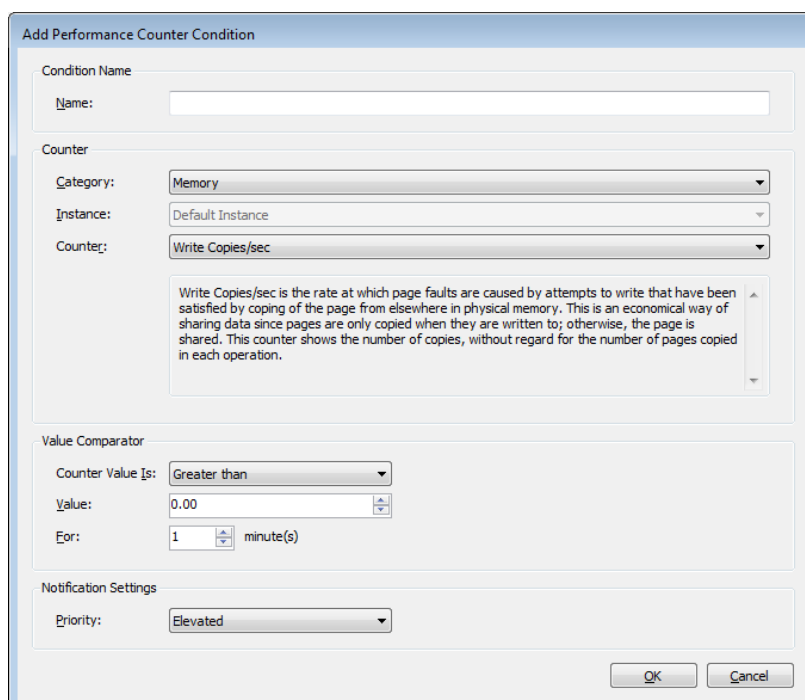
## 6.8. Hardware Sensor Notifications

In order to monitor your hardware sensors your devices must be supported by Pulseway. If you don't see any devices it means that you either are running Pulseway inside a virtualized environment or your hardware is not yet supported. We are constantly upgrading our supported hardware so check frequently for upgrades or ask on our forums to see if anyone else is having a similar problem with their hardware.



## 6.9. Performance Counter Notifications

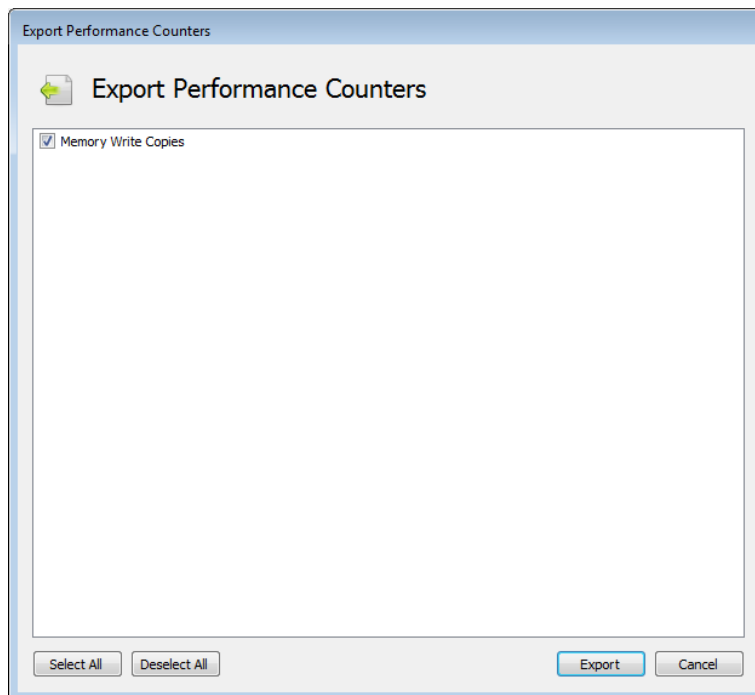
Performances counters provide you an easy access to complex parameters of your system's components. Monitoring these will keep you updated if something goes out of normal parameters.



The picture is for demonstration purposes only and does not represent a real monitoring setting.

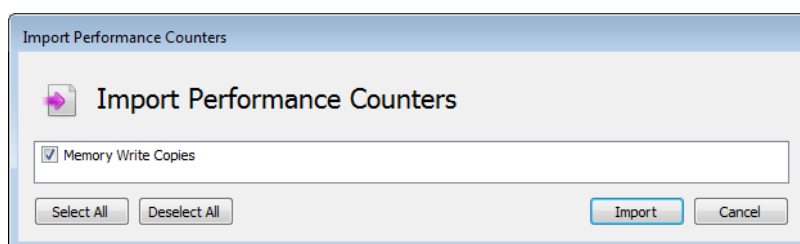
### 6.9.1. Exporting Performance Counter Notification's Settings

Exporting your performance counter notification's settings can be useful if you would like to apply the same configuration to multiple devices. Just export your settings in files and import them into as many computers as you need.

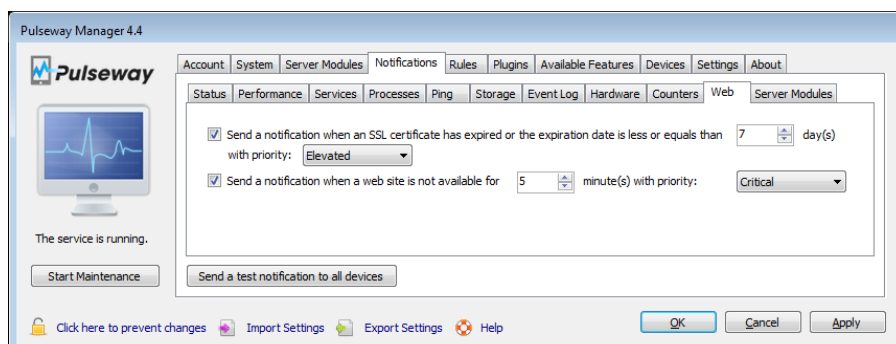


### 6.9.2. Importing Performance Counter Notification's Settings

To import performance counter notification's settings you will need to provide a valid path and to make sure that the local user has read access to the file.



## 6.10. Web Notifications



If you opted to monitor a website or a SSL Certificate you can enable the following notifications:

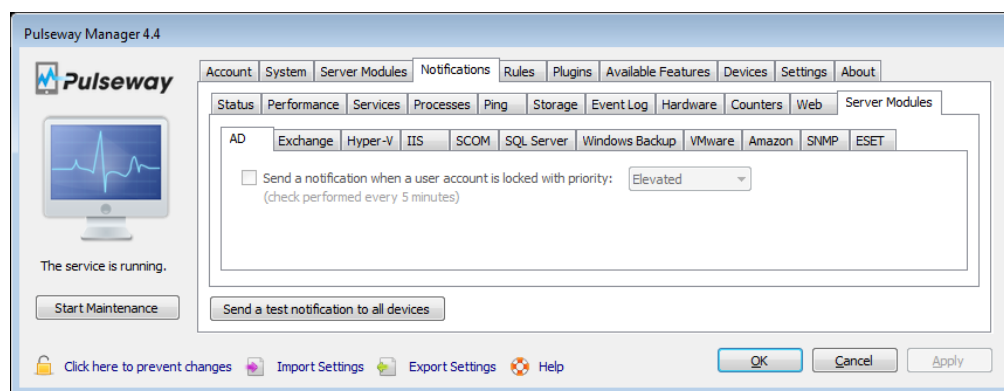
- Notification if a monitored SSL Certificate has expired or the expiration date is less than a configured amount of days.
- Notification if a website becomes unavailable after a configured amount of minutes.

## 6.11. Server Module Notifications

Server module notifications hold all notification preferences regarding active server modules.

### 6.11.1. Active Directory

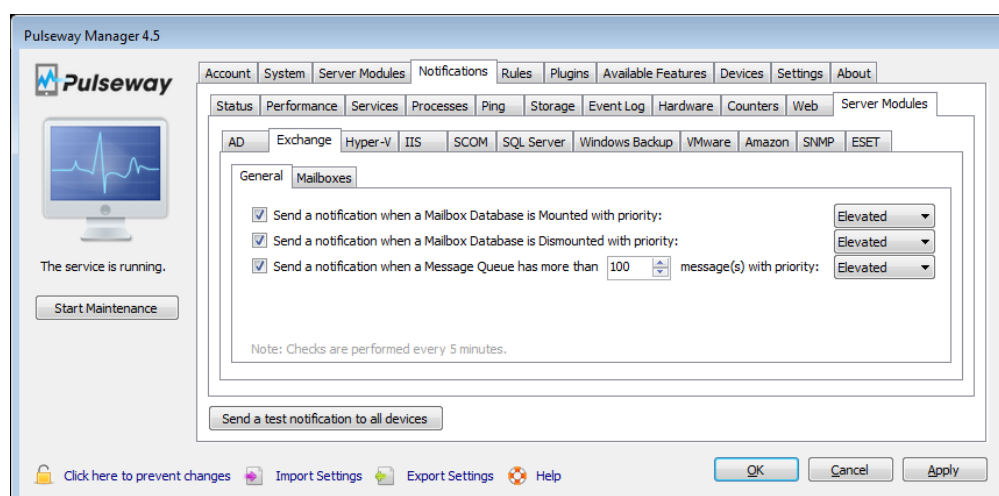
Also in the Active Directory tab you can choose to be notified whenever an active directory user gets locked out.

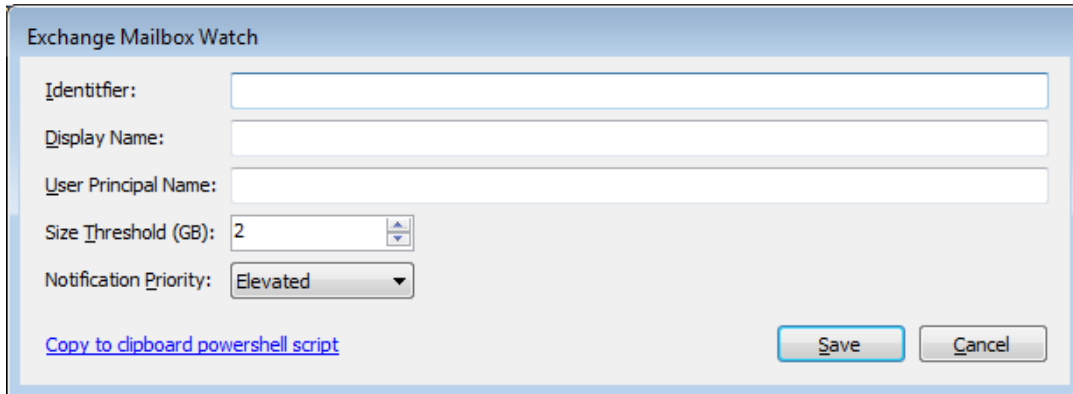


### 6.11.2. Microsoft Exchange Server

Exchange server module can send notifications for the following conditions:

- Database gets Mounted / Dismounted
- Message Queue exceeds preconfigured limit
- Mailbox size exceeds preconfigured limit





**Exchange Mailbox Watch**

Identifier:

Display Name:

User Principal Name:

Size Threshold (GB):

Notification Priority:

[Copy to clipboard powershell script](#)

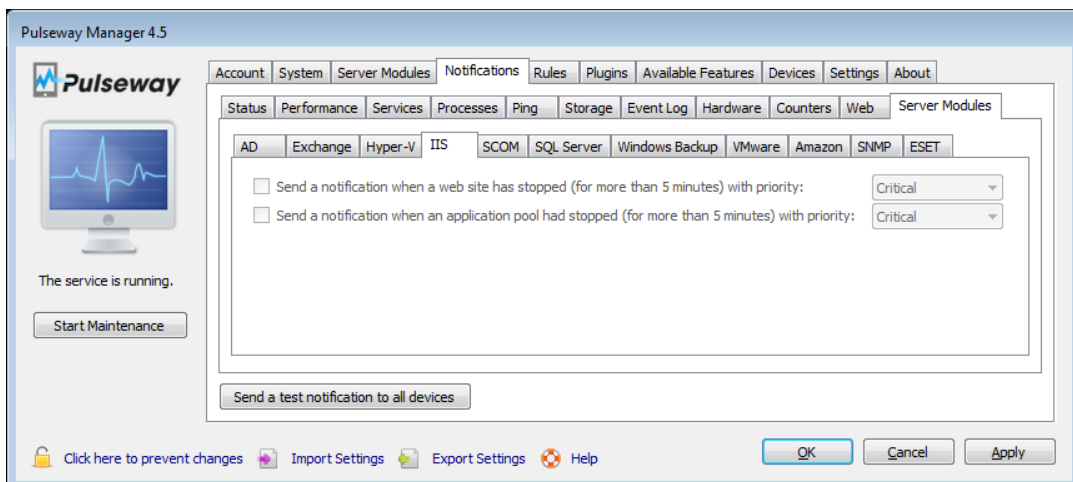
To add a monitored mailbox you need to execute a script in the Exchange Management Shell that gives you the information Pulseway needs:

- Mailbox Identifier
- Display Name (you can change this field)
- User Principal Name (email address)
- Size Threshold (GB) (Notification threshold)
- Notification Priority

**Note:** When possible, Pulseway will automatically fill in the required values.

### 6.11.3. IIS

From this screen you can choose to receive a notification if a website or an application pool is stopped for more than five minutes.



**Pulseway Manager 4.5**

Account System Server Modules **Notifications** Rules Plugins Available Features Devices Settings About

Status Performance Services Processes Ping Storage Event Log Hardware Counters Web Server Modules

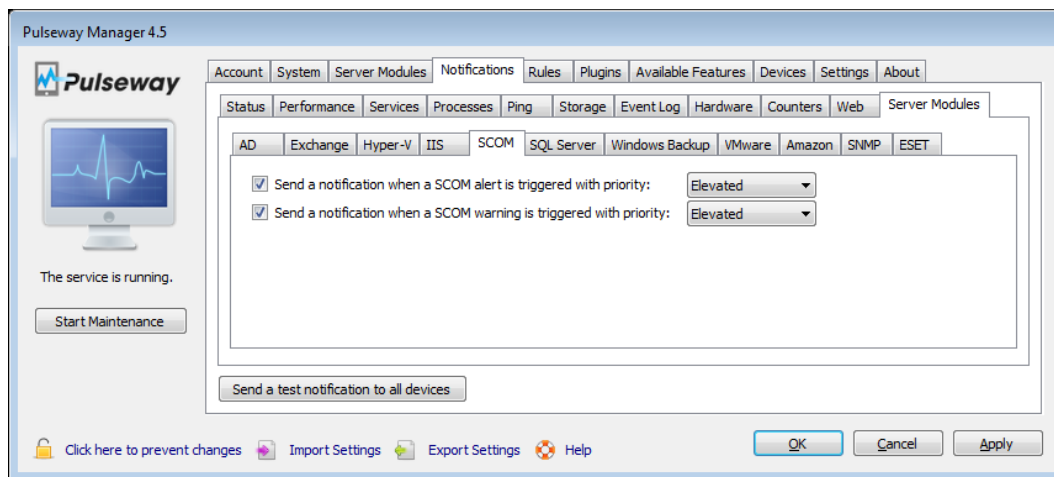
AD Exchange Hyper-V **IIS** SCOM SQL Server Windows Backup VMware Amazon SNMP ESET

☐ Send a notification when a web site has stopped (for more than 5 minutes) with priority:

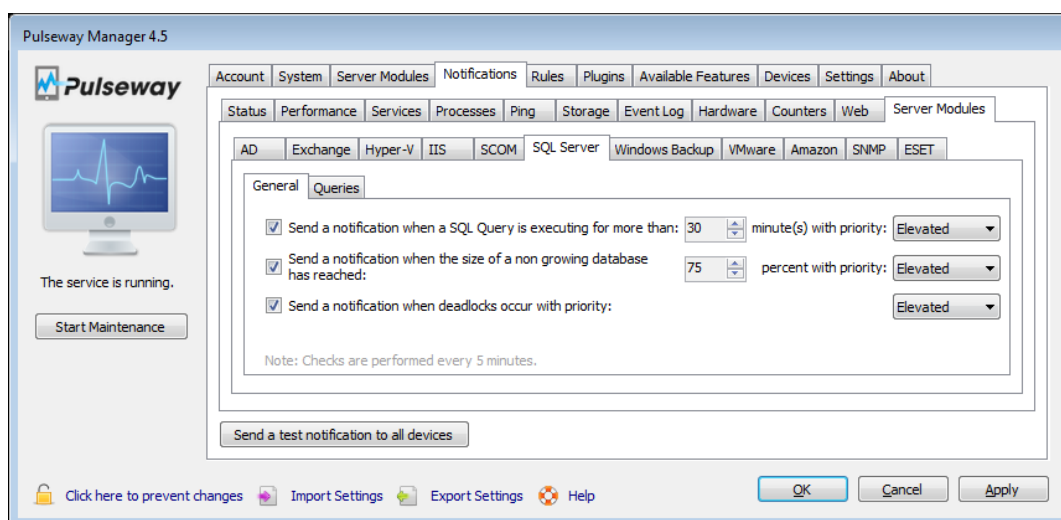
☐ Send a notification when an application pool had stopped (for more than 5 minutes) with priority:

### 6.11.4. SCOM

SCOM module can notify whenever an alert triggers or reaches warning state.



### 6.11.5. SQL Server



SQL Server module can notify on:

- Long query execution times
- Deadlocks
- Almost filled databases with auto-growth disabled
- Custom query filters

A custom query filter represents a monitored query that has one or more conditions and when they match, a notification is delivered.

**Edit SQL Query**

Display Name:

Database Name:

Query:

Execution Interval:  minute(s)

Query Result:

Count
15

Conditions:

Column Name	Operator	Value
Count	Less	100
Count	Greater or equal	70

Notify When:  with priority:

On Query Error:  with priority:

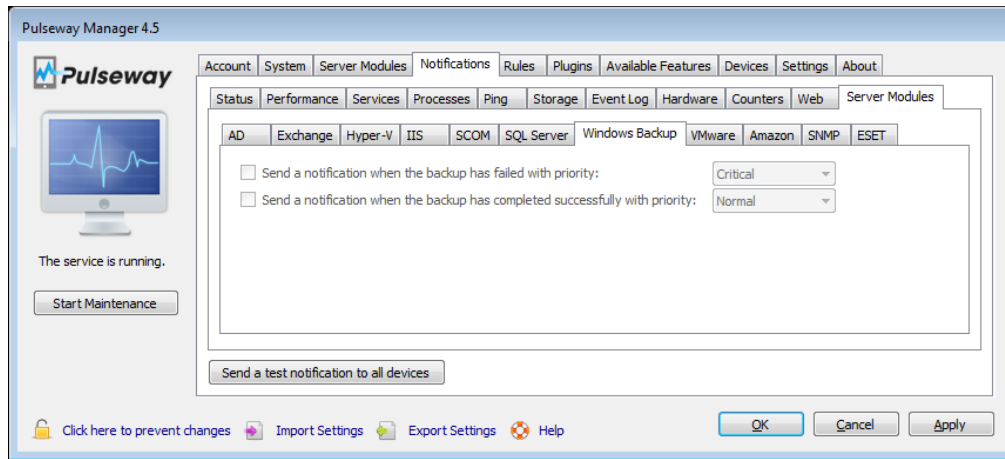
Custom query filters have the following parameters:

- Display Name: A unique display name that is used to identify the purpose of the filter
- Database Name: The name of the database that the query will be executed upon
- Query: A SQL statement that returns one row of results with at least one column
- Execution Interval: Interval in minutes of the query execution
- Conditions: One or more conditions that will be evaluated after the query executes
- Notify When: Controls whether all conditions must match in order to deliver the notification
- Notify When Priority: Priority of the notification that will be delivered when the conditions match
- On Query Error: Controls if a notification will be delivered when the query fails to execute
- On Query Error Priority: Priority of the notification that will be delivered when the query fails to execute

### 6.11.6. Windows Backup

Windows Server Backup module can notify whenever a backup operation has failed or completed successfully.

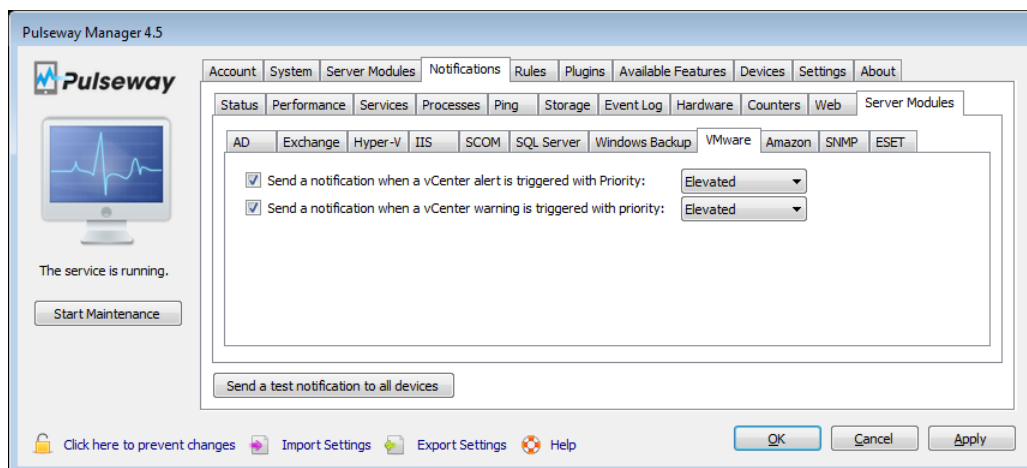




### 6.11.7. VMware

You can monitor VMware vSphere alarms only if you connect to VMware vCenter. Use the check boxes to filter out notifications that get sent by their state: Warning or Alert.

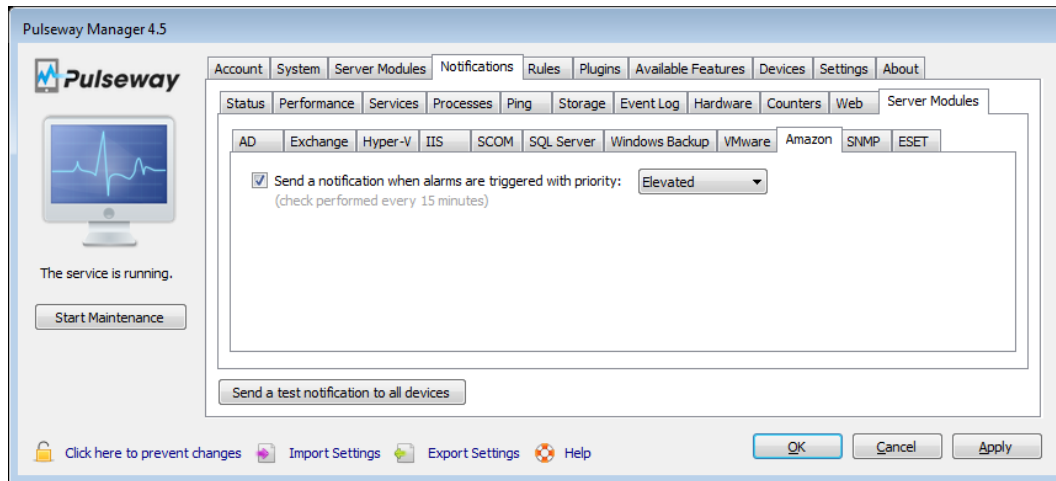
**Note:** The check for triggered alarms is performed every 5 minutes.



### 6.11.8. Amazon

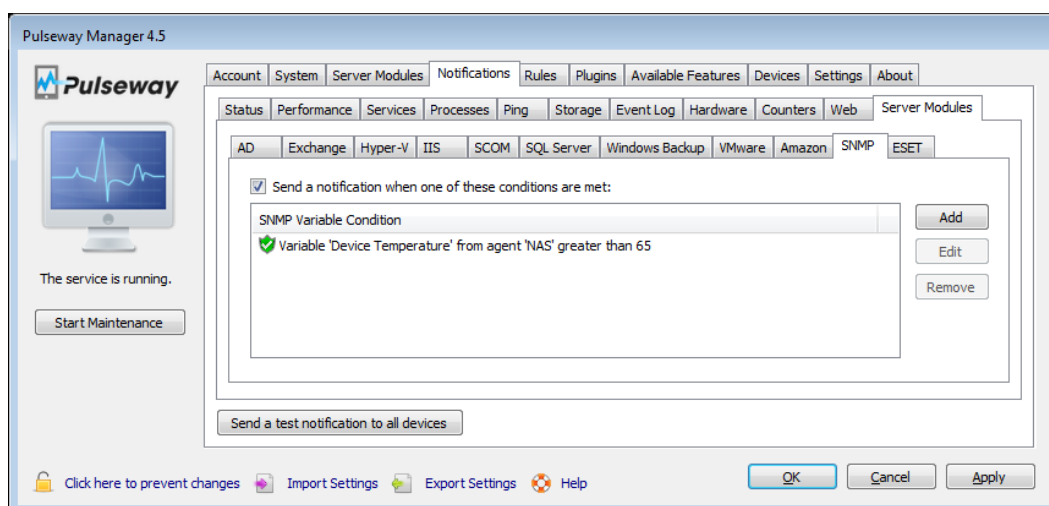
Inside the “Amazon” tab you may opt in to receive a notification when alarms get triggered.

**Note:** The check for triggered alarms is performed every 15 minutes.

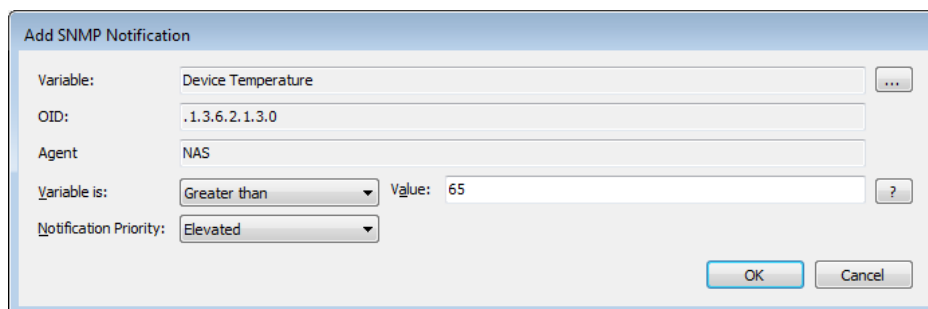


### 6.11.9. SNMP

“SNMP” tab contains a list of notification rules for monitored SNMP Variables. To configure SNMP notifications you must first add a SNMP agent and the variables that you are interested in. Consult the MIB Document released by the device’s or software’s vendor to get an accurate information of each variable’s purpose.



To add a SNMP click on “Add” button, select a variable from the monitored variables list by pressing the “...” button and double clicking (or selecting a variable and pressing “OK”), input variable’s type and choose a notification condition.



**Note:** You may have more than one notification rule for one SNMP variable.

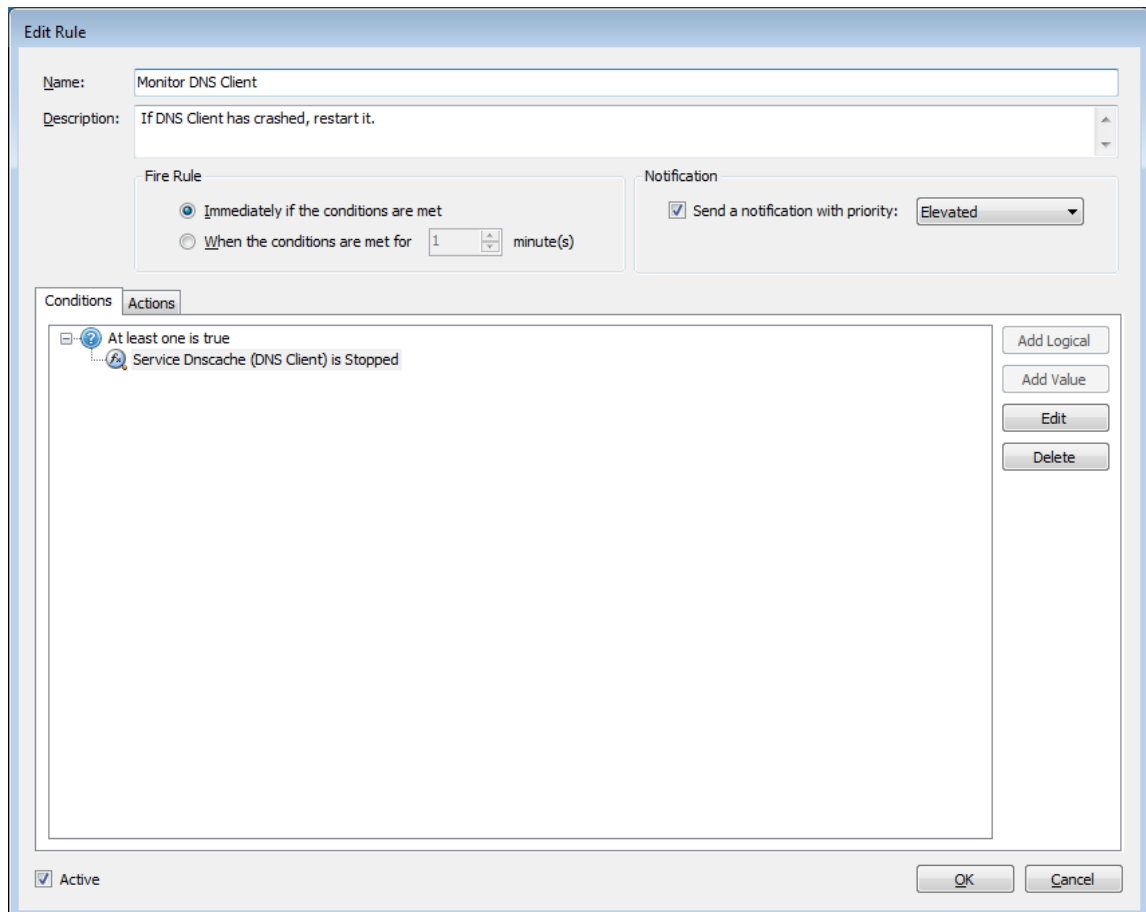
## 7. Rule Configuration

Rules represent an automated disaster recovery that can make you trust your servers even more.

If your service crashes you can configure Pulseway to automatically restart it and run a scheduled task.

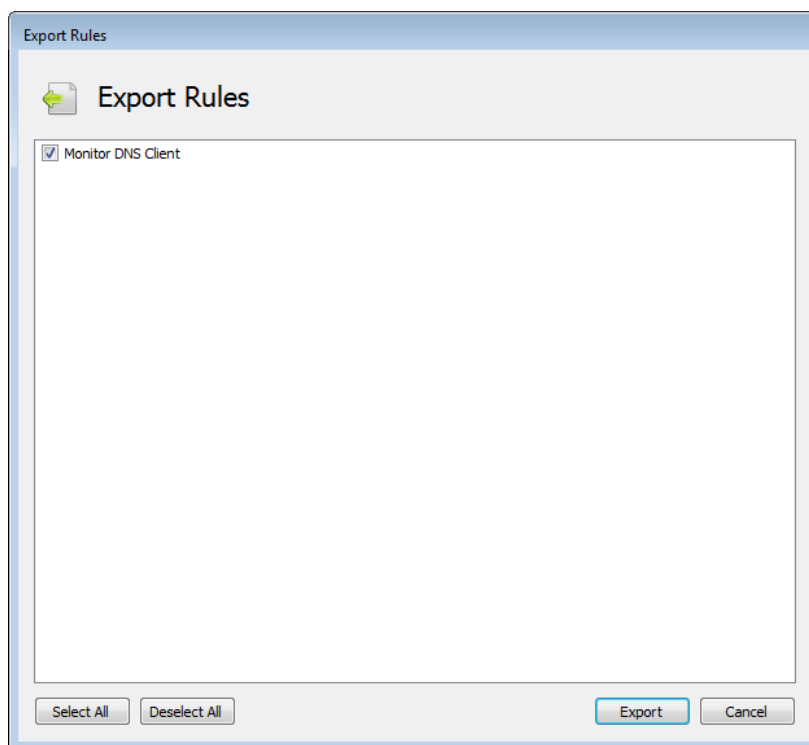
### 7.1. Adding Rules

Rules require two things: **Conditions** and **Actions**. There can be multiple kinds of conditions such as Day of Week, Performance Counter value, Service status and Time of day and the only action supported is starting scheduled tasks. So let's create a rule that will run FixDNSClient Scheduled task if my DNSClientService is stopped. You can add any Logical condition if you only add one value for it. And for actions we instructed Pulseway to fire our scheduled task.



### 7.2. Exporting Rules

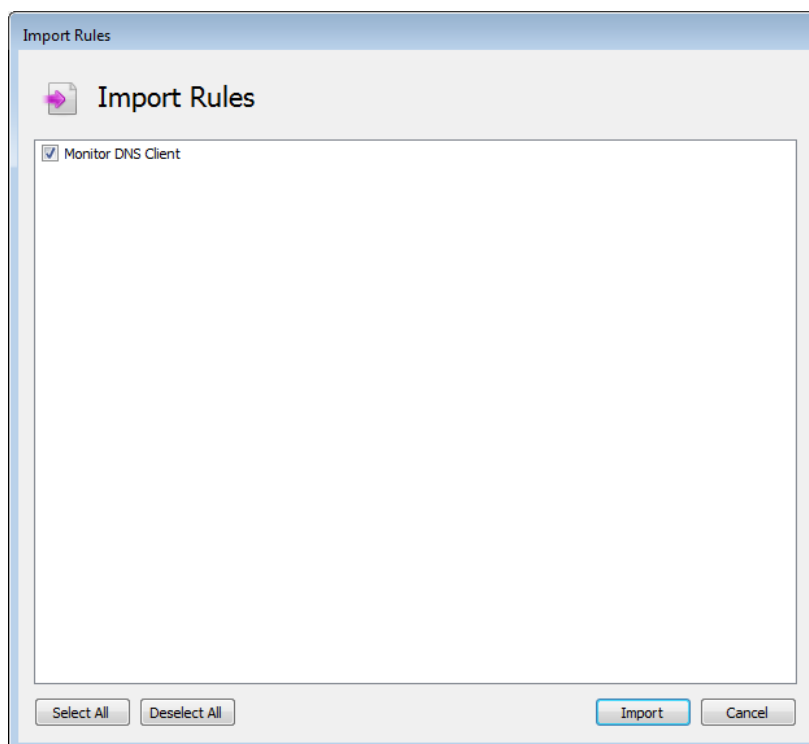
Rules can become troublesome configuring on a lot of machines. In order to avoid that situation you can export your rules into a file so that you can import it later on other machines. To export rules just click on **Export** in the Rules tab:



### 7.3. Importing Rules

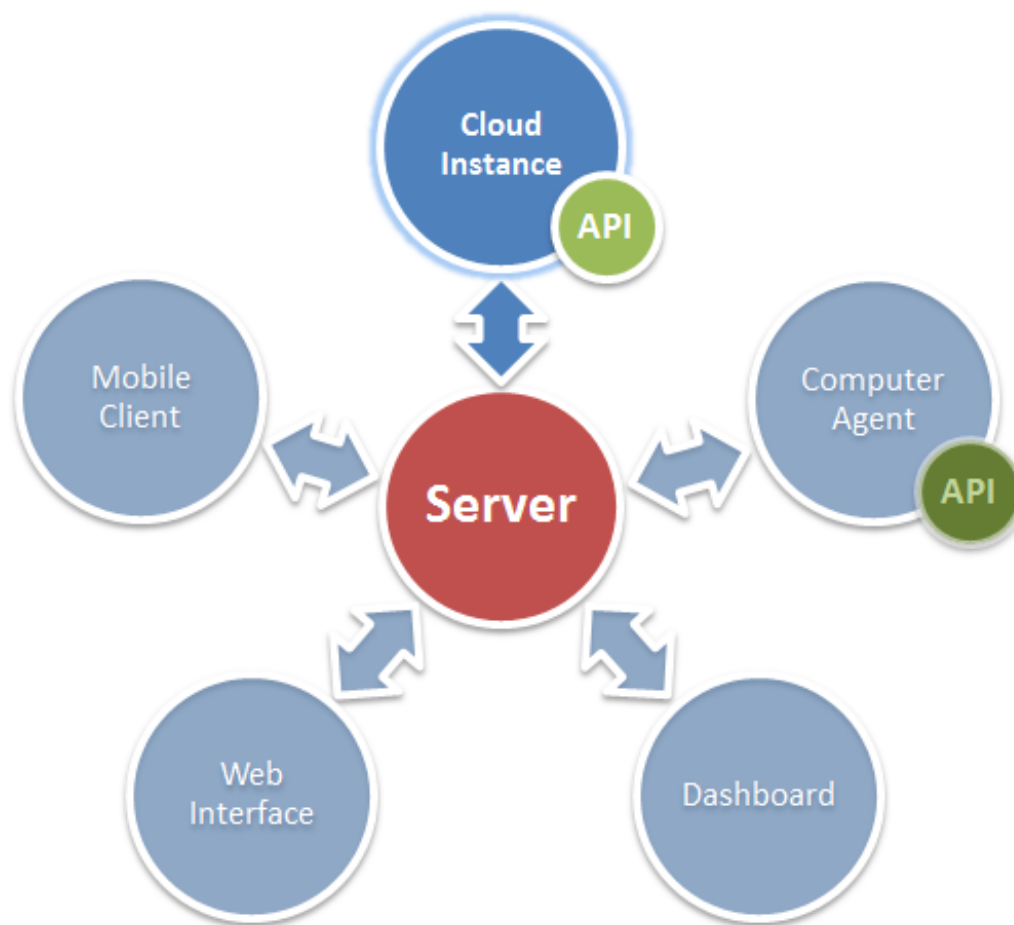
After you have exported your rules into a file, copy it at some accessible path, make sure your user has read permissions on the file and click **Import** from the Rules tab on the Pulseway Manager.

You will be prompted to choose which rules you would like to import:



## 8. Plugin Configuration

Pulseway exposes an **Application Programming Interface (API)** which can be used to add new features that meet your business needs. Just as every company likes to manage their industry their own way, Pulseway was designed to adapt to the requirements of the clients without any changes to its current infrastructure. Let's consider you want to manage and monitor some data from your current accounting application from your mobile device.



### 8.1. Installing Plugins

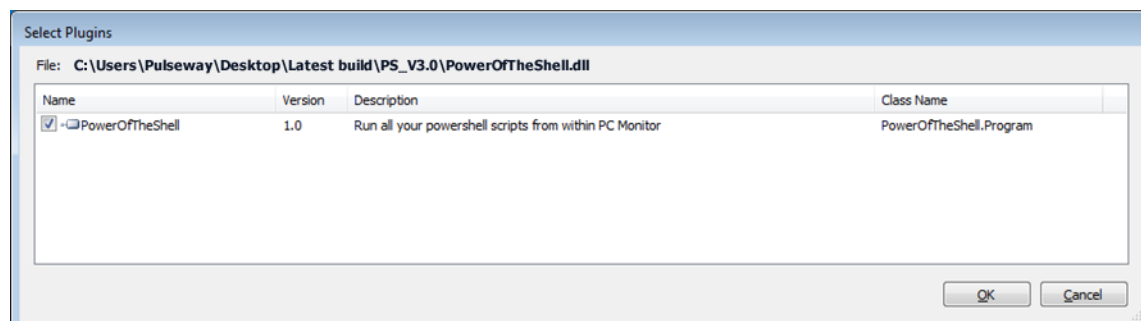
To install plugins you must first have them in your computer. Our [community](#) is a great place to start looking for them.

After you have downloaded a plugin, extract it and read its installation notes. Most plugins only require you to “install” them; however, some require extra configuration. For this example we chose “Power of the Shell” plugin released by Cptrico.

Extract the contents of the downloaded archive, and copy the PowerOfTheShell.dll and config.xml files to any folder you wish, just make sure you don't delete it after that. Open config.xml with your favorite text editor and change the path of the built in script or add

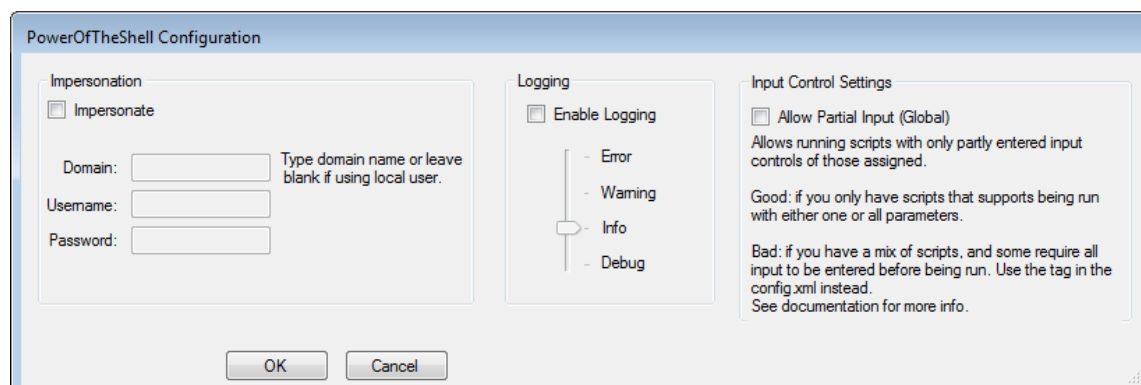
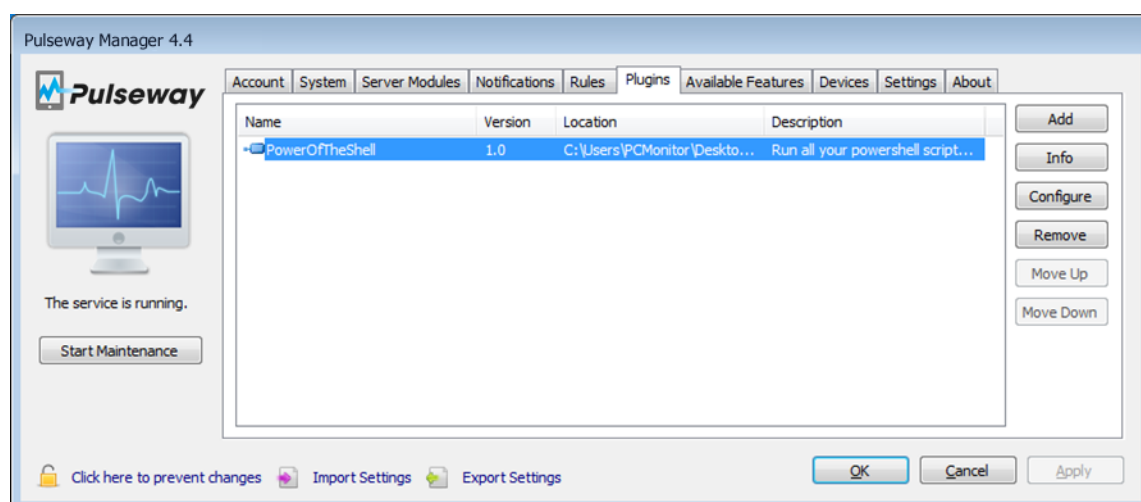
your own entries. Just make sure that the path is valid and that the local user account has access to it.

Open up Pulseway Manager, click on the **Plugins** tab and click on **Add**. Point to the PowerOfTheShell.dll file and click **Ok**. On the next window make sure that PowerOfTheShell is selected and click **Ok**.



## 8.2. Configuring Plugins

After you have installed your plugin click on it from the Pulseway's Manager Plugins tab and then select **Configure** from the right. Then configure the plugin with your Impersonation details.



## 8.3. Creating Plugins

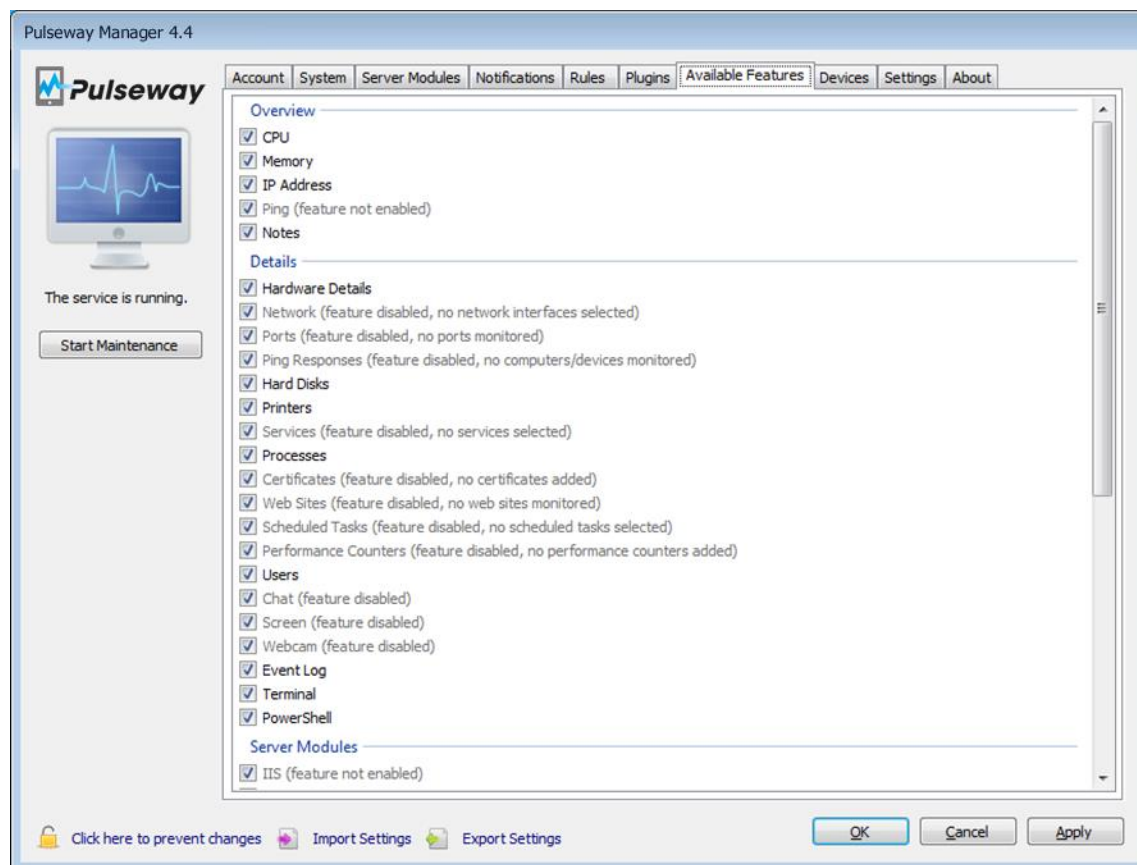
If you are interested in creating your own plugins we have some tutorials for each type of implementation needs.

[Click here](#) to visit our API page.

Please note that we do not offer API level support. If you require API level support feel free to ask at our community [here](#).

## 9. Display Settings

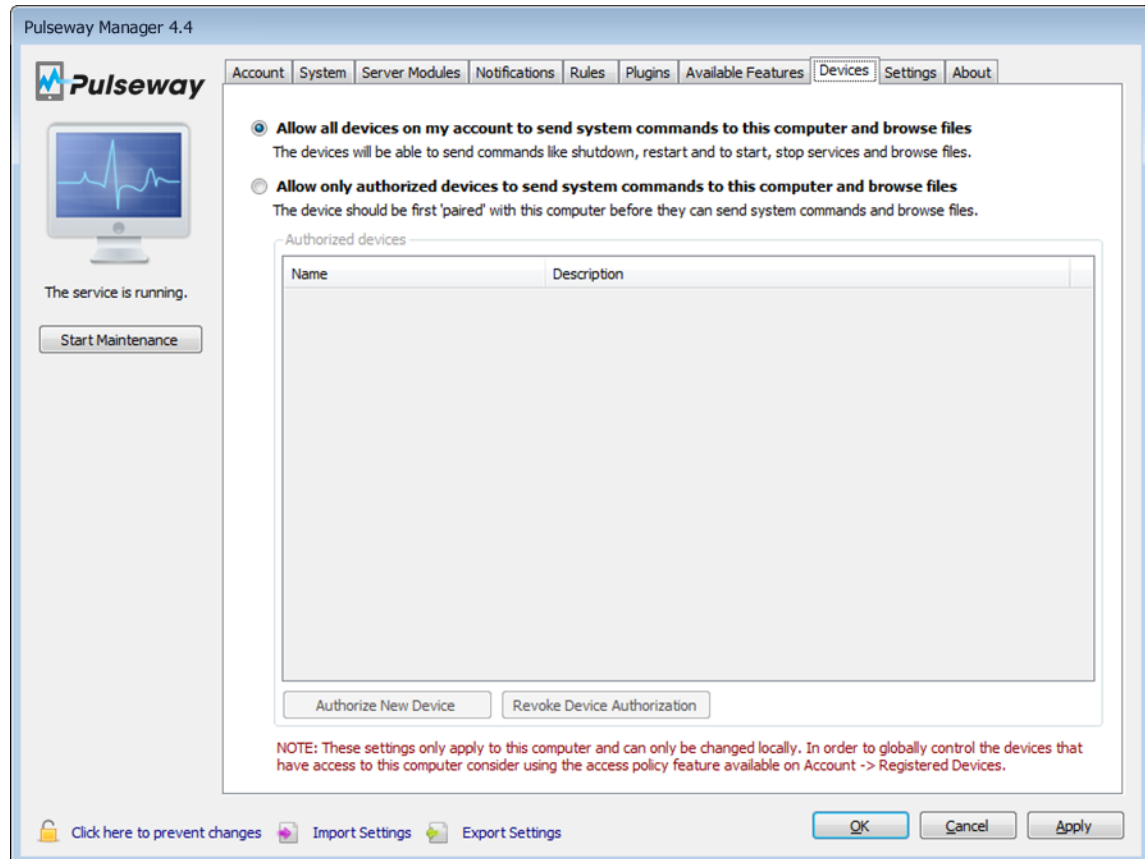
Using display settings (or **Available features**) you can restrict some fields to be shown on mobile clients. By default, all configured modules will automatically show up on your device, however, there are situations when you would like to prevent this without changing any configuration such as maintenance.



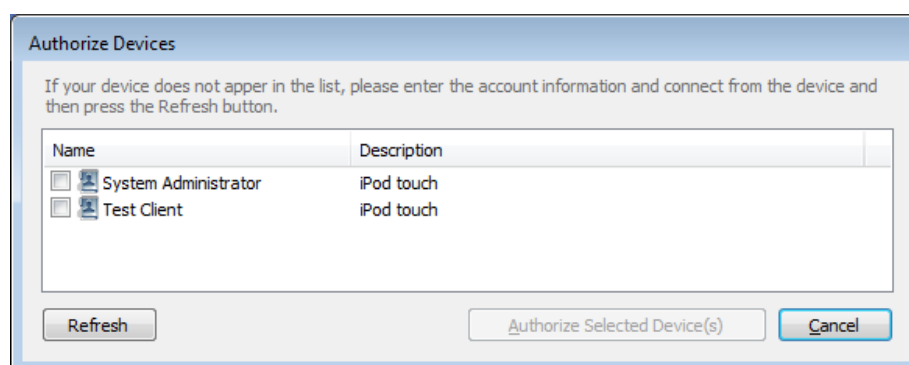


## 10. Device Settings

In addition to the Device Access Policies you can set another layer of security by specifically allowing only a list of pre-approved devices to control your computer regardless of any policies set for the computer or device.



Click on Authorize New Device to add devices the authorized devices list.

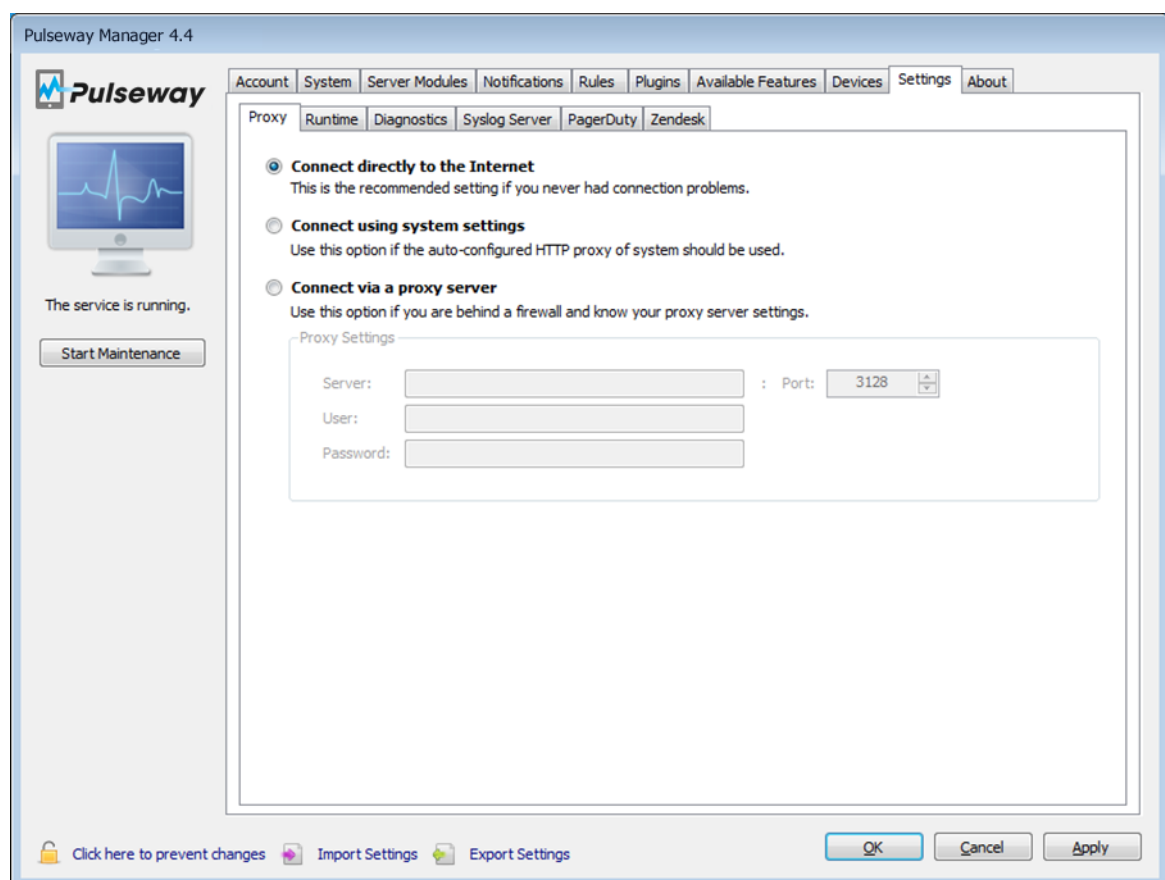


# 11. Settings

These settings represent global connection, performance and logging switches. Please only change these settings if you are instructed to do so by your network administrator or support agent.

## 11.1. Proxy Configuration

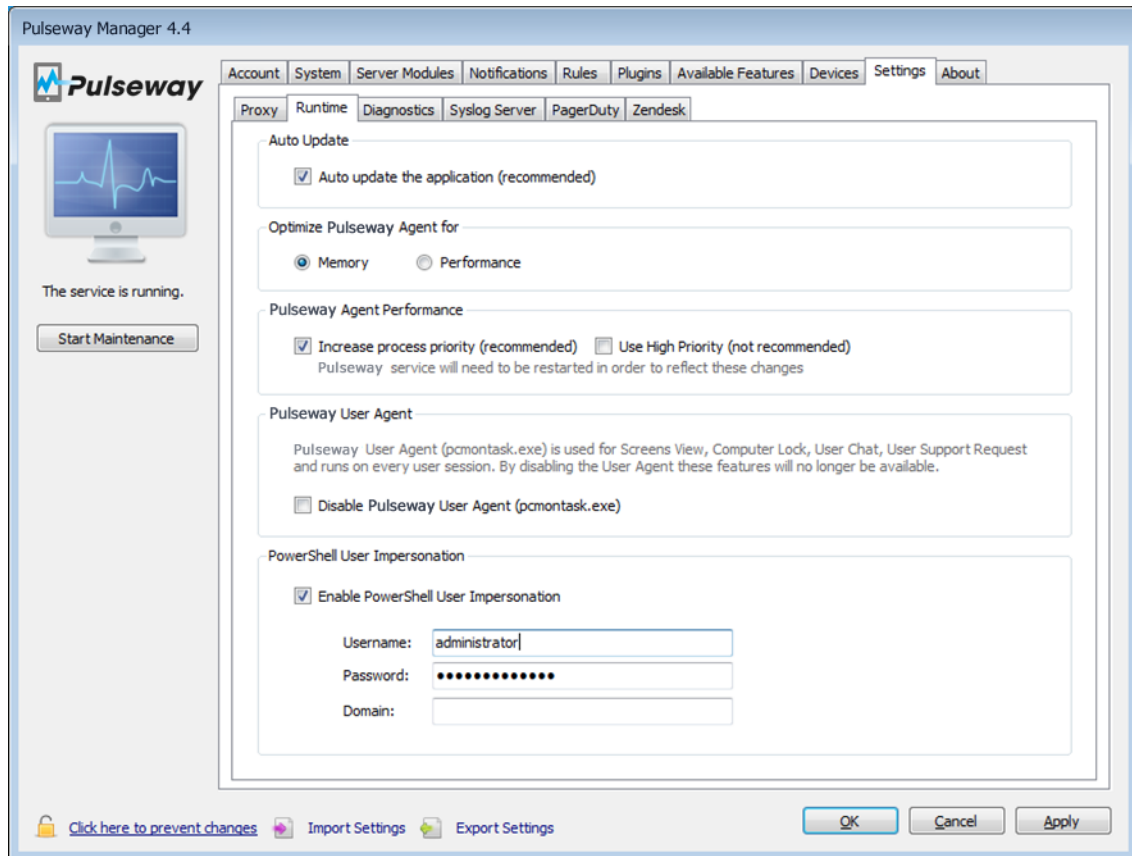
A proxy server is a server (a computer system or an application) that acts as an intermediary for requests from clients seeking resources from other servers. If your internet connection relies on such connection then you must configure it here. If you are unsure what to do, contact your network administrator.



## 11.2. Runtime Configuration

Runtime configuration covers settings for Pulseway's core modules:

- Auto Updater
- Performance Manager
- Pulseway User Agent
- PowerShell User Impersonation



Auto Updater keeps your Pulseway up to date automatically. It is highly recommended that you leave this on.

Pulseway can be optimized to perform faster or to constrain its memory consumption to a minimum.

Increasing priority to Pulseway will ensure that Pulseway calls will be prioritized so that the amount of time you have to wait until you receive data back is kept to a minimum.

**Pulseway User Agent** is required for User Session Commands (Screen View, Webcam View, User Chat and User Support Request).

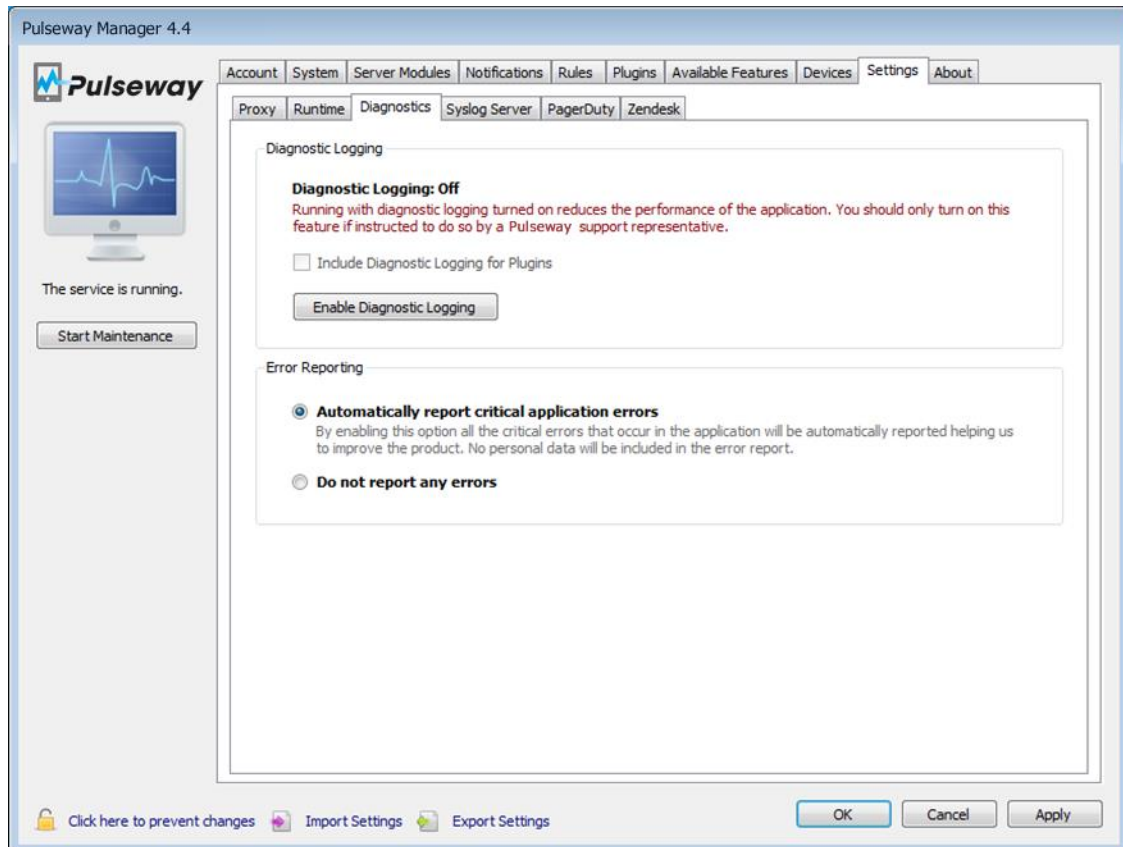
**Note:** The User Agent will run on each user session on the computer. On terminal servers this can become a nuisance and can be disabled.

PowerShell User Impersonation will run PowerShell commands as the user configured. Compile the domain box **only** if your computer is part of a domain.

## 11.3. Diagnostic Collection

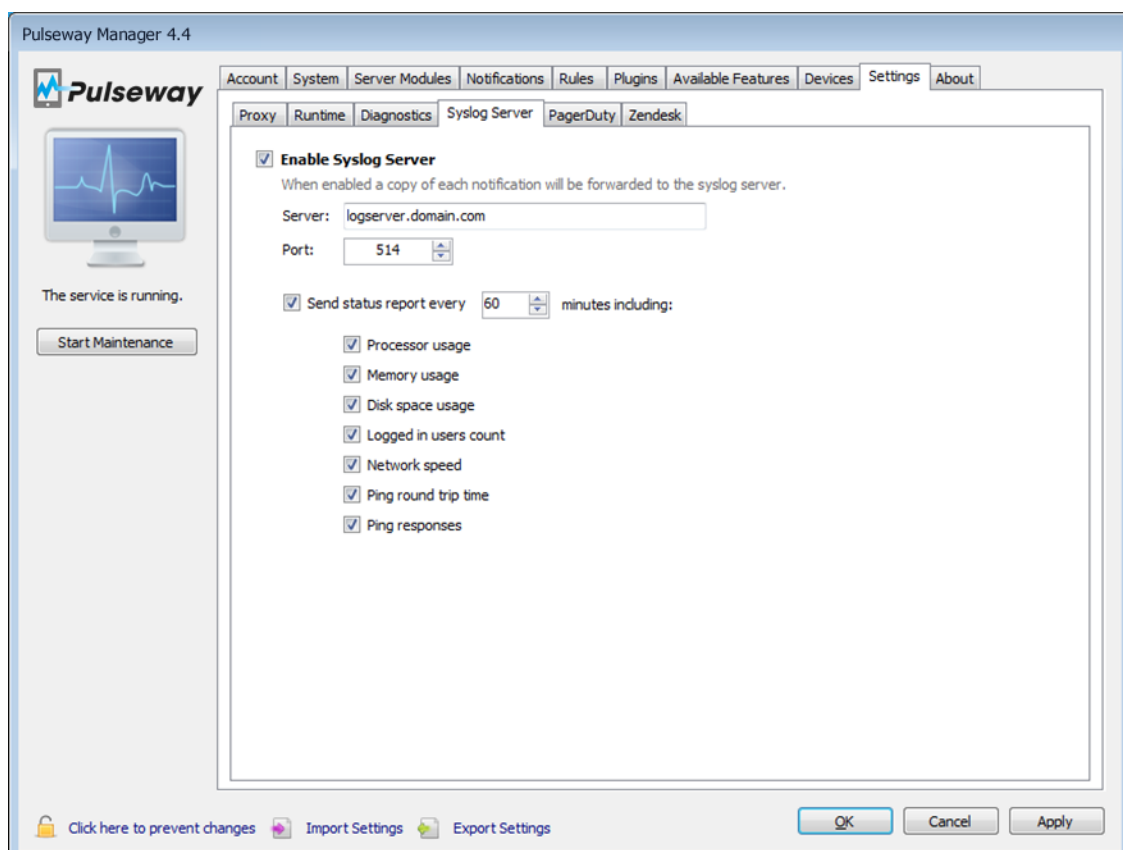
Enabling Diagnostic Logging will force Pulseway's modules and plugins to write debugging logs to a file called **trace.txt**. This is something you don't want to enable on a production environment as it slows down Pulseway's services. Developers use this feature for debugging their plugins.

Automatic Error Reporting represents automatic error log sending to our cloud servers. This helps us identify bugs and fix them before you even notice. **No personal data will be included in these reports!**



## 11.4. Syslog Forwarding

Syslog is a standard for computer data logging. It separates the software that generates messages from the system that stores them and the software that reports and analyzes them.



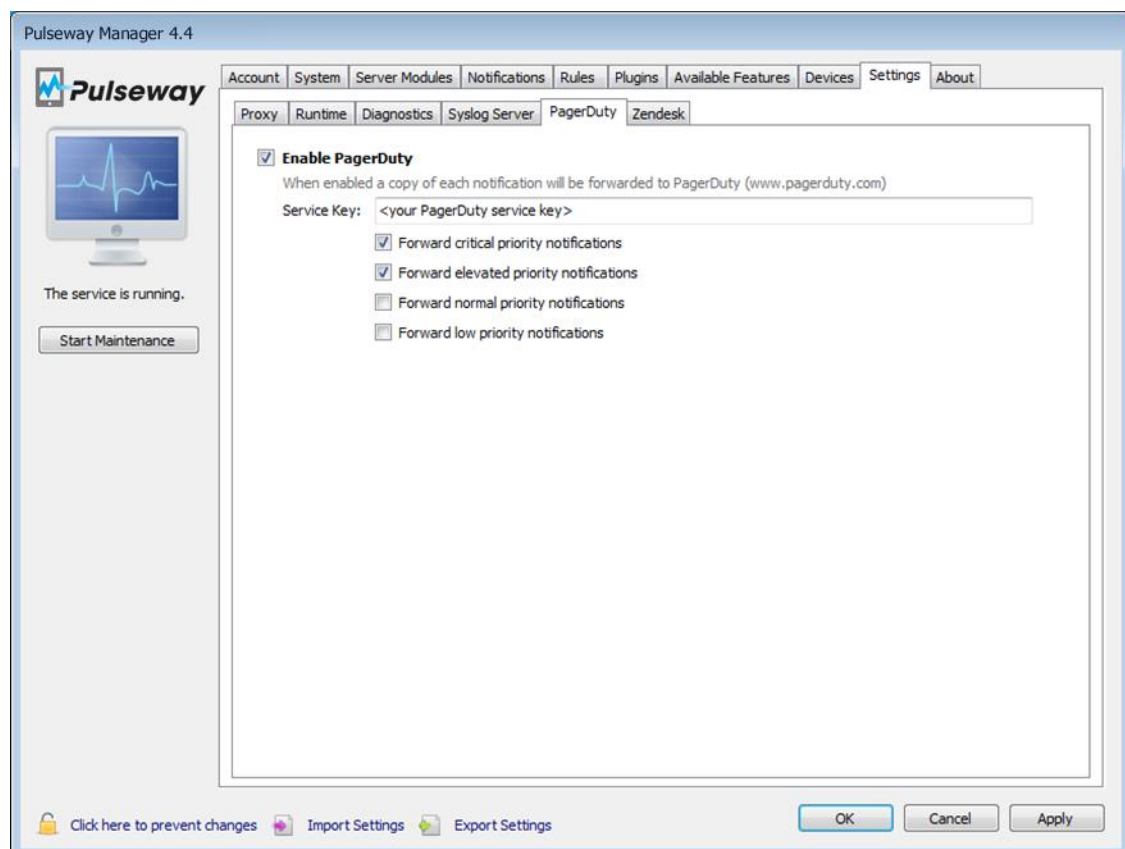
You may choose to receive a status report containing one or more of the following:

- Processor usage
- Memory usage
- Disk space usage
- Logged in users count
- Network speed
- Ping round trip time
- Ping responses

**Note:** Pulseway notifications will be sent even if the Syslog server is inaccessible.

## 11.5. PagerDuty Forwarding

PagerDuty is an alarm aggregation and dispatching service for system administrators and support teams. It collects alerts from your monitoring tools, gives you an overall view of all of your monitoring alarms, and alerts an on duty engineer if there's a problem.



In order to be able to forward notifications to PagerDuty you must have a service key.

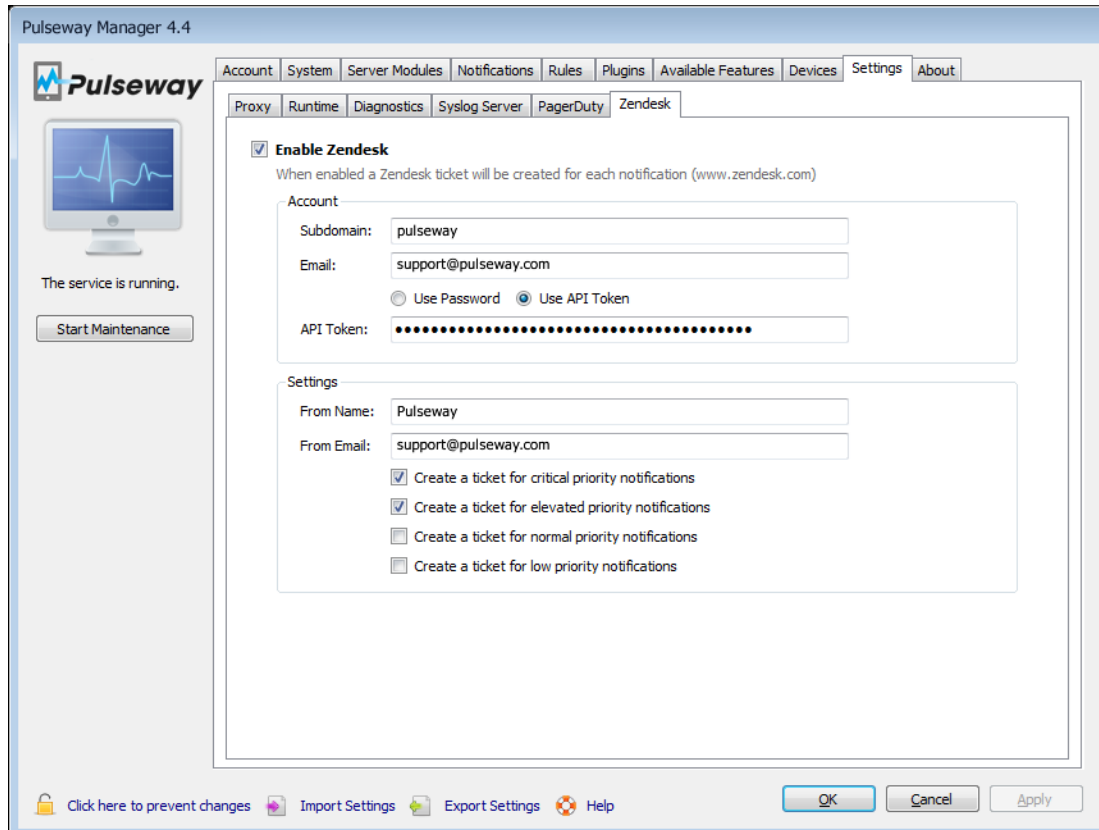
### Steps on creating a PagerDuty service:

1. Log into your PagerDuty dashboard.
2. Click on Services tab.
3. From the right hand side of the screen click the "Add Service" button.
4. Enter a service name that is easy for you to recognize (i.e. Pulseway).

5. Select an Escalation Policy that fits your needs.
6. Select “Generic API system” as Service Type.
7. Click on “Add Service” button at the bottom of the screen.
8. Copy the “Service API Key” value into Pulseway Manager.

## 11.6. ZenDesk Forwarding

Zendesk is a SaaS suite that offers help desk ticketing, issue tracking, and customer service support.



### Zendesk Configuration:

#### Account:

- Subdomain: The subdomain assigned to your account. It's the name you type before [zendesk.com](https://pulseway.zendesk.com) (Example: If the console url would be [pulseway.zendesk.com](https://pulseway.zendesk.com) the subdomain is: pulseway).
- Email: Email address you use to login to Zendesk console.
- Authentication Type: Select Password if you wish to quickly get Zendesk forwarding or go to Zendesk and get your API Token.

#### Settings:

- From Name: Name of the ticket requester (Usually customer / company name).
- From Email: Email of the ticket requester. All ticket updates will be sent to this address.

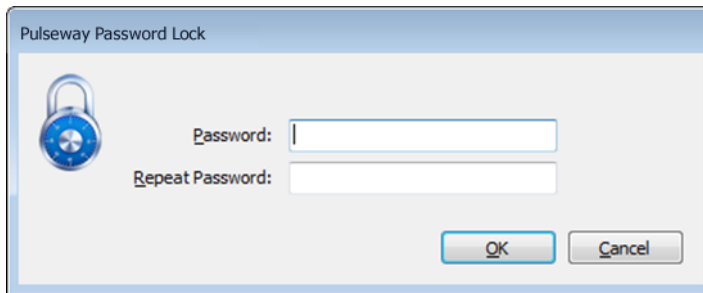
- Notification Filter: You can select which notification priorities will be sent to Zendesk (Critical, Elevated, Normal or Low).

**Getting a ZenDesk API Token:**

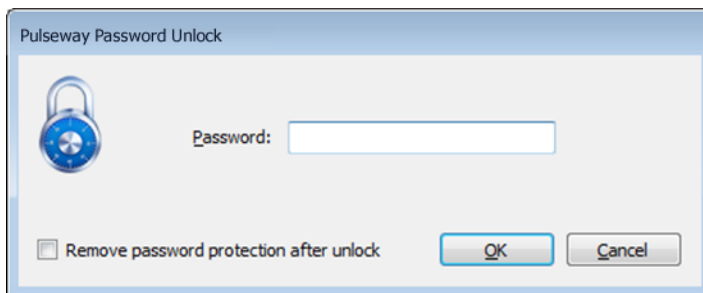
1. Login to Zendesk console (usually companyname.zendesk.com).
2. Go to Settings (click the gear icon).
3. Look for Channels section and click on API.
4. Make sure that Token Access is enabled and copy your API Token then paste it into Pulseway Manager.

## 12. Manager Security Lock

Pulseway Agent comes with a built in security lock that will prevent unauthorized changes to the settings. To enable it click the lock in the lower left corner of the Pulseway Manager icon.



After the lock is activated every time you start Pulseway the entire configuration will be locked for changes. To temporary or permanently disable the security lock just click the lock icon again, insert the password and everything will unlock.

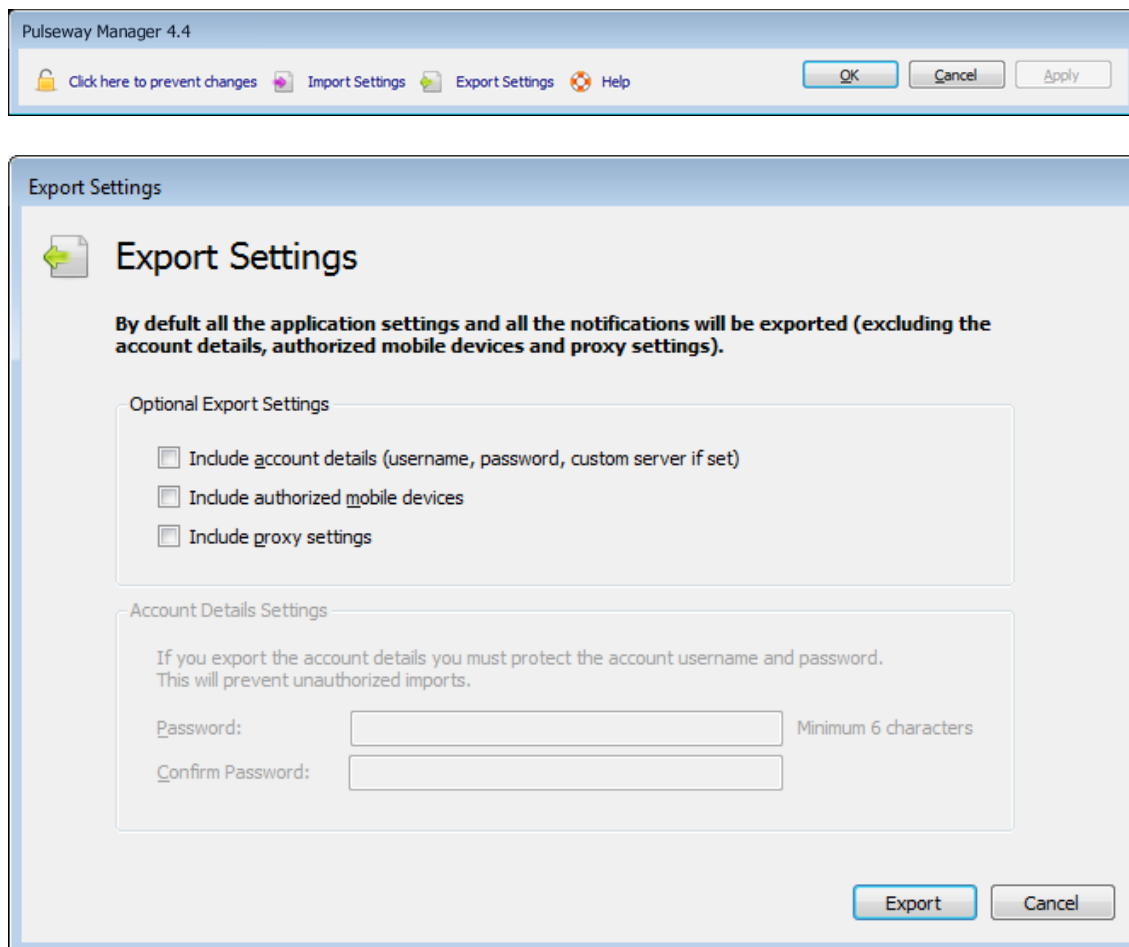




## 13. Exporting Configuration

Exporting the configuration is very useful if you plan to reinstall the computer. It's a safe and easy process that can help you save time.

Start by fully configuring the current Pulseway installation. After you are ready, click on **Export Settings** link in the bottom on the screen:



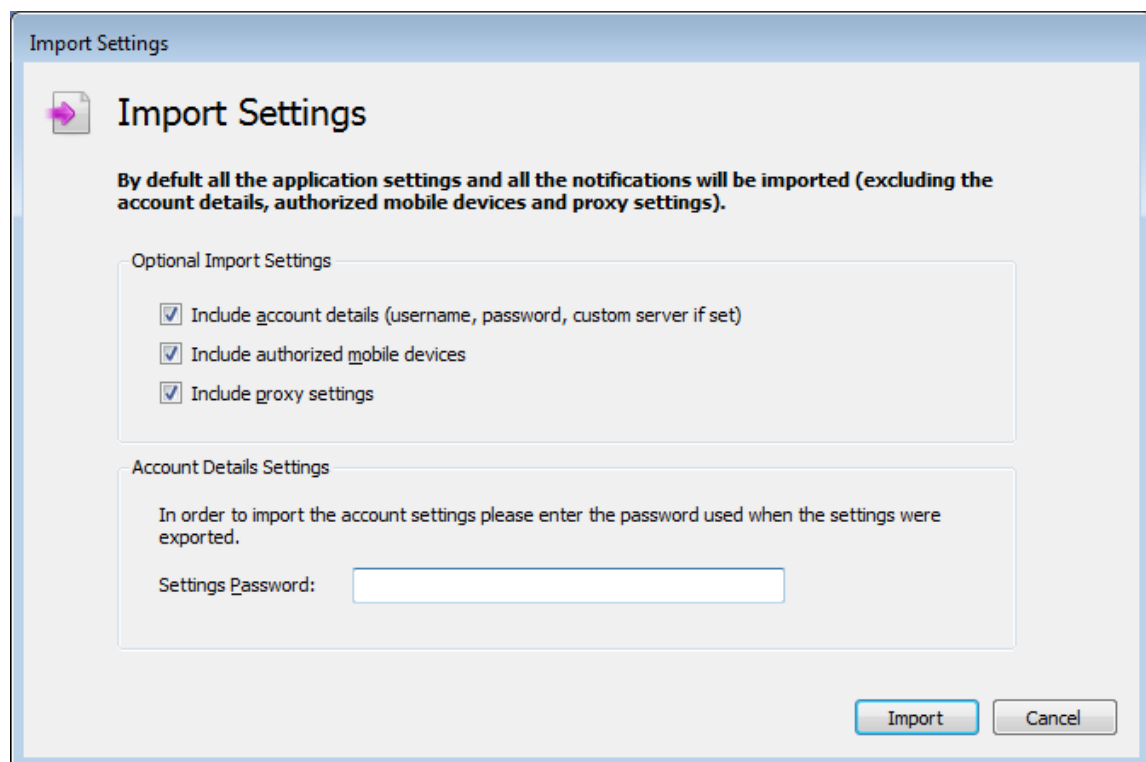
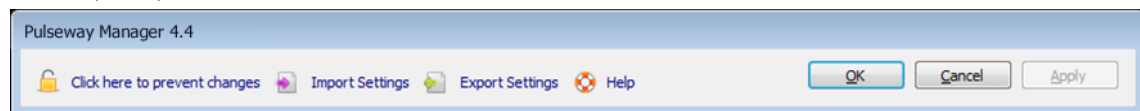
The image shows the 'Pulseway Manager 4.4' application window with the 'Export Settings' dialog box open. The dialog box has a title bar 'Export Settings' and a main area with a document icon and the title 'Export Settings'. Below the title, it states: 'By default all the application settings and all the notifications will be exported (excluding the account details, authorized mobile devices and proxy settings)'. There are two sections: 'Optional Export Settings' with three checkboxes: 'Include account details (username, password, custom server if set)', 'Include authorized mobile devices', and 'Include proxy settings'. Below this is 'Account Details Settings' with a warning: 'If you export the account details you must protect the account username and password. This will prevent unauthorized imports.' It has two input fields: 'Password:' and 'Confirm Password:', with a 'Minimum 6 characters' label next to the password field. At the bottom right are 'Export' and 'Cancel' buttons. The main application window has a menu bar with 'Click here to prevent changes', 'Import Settings', 'Export Settings', and 'Help', and buttons for 'OK', 'Cancel', and 'Apply'.

You get to choose if you would like to include account details, authorized mobile devices and proxy settings. Also for security reasons you can encrypt the configuration file with a password that will be asked when you try to restore the configuration.

## 14. Importing Configuration

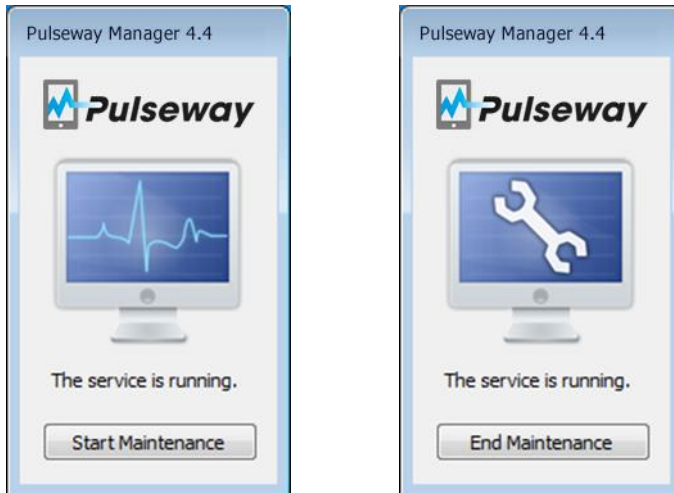
In order to restore the configuration you must have the exported configuration file in your computer or at an accessible path, with read rights on the file and if you used one the encryption password at the export process.

Click on **Import Settings** from the lower side of the Pulseway Manager application to start the import process.



## 15. Maintenance Mode

Maintenance Mode is an overall switch for notifications. When Maintenance Mode is enabled all notifications modules are disabled thus decreasing the load Pulseway inflicts on the computer so that the maintenance process will be a smooth one.



**Note:** During Maintenance Mode's Activity no notifications (email or push) will be delivered!

## 16. Unattended Installation

An Unattended Installation is an automated installation technology that you can use to install with no user intervention. Unattended installation is typically used during large-scale rollouts when it would be too slow and costly to have administrators or technicians interactively install the operating system on individual computers.

To perform an unattended installation you need to have an installation kit of Pulseway in your computer. You can download it for free from here: <https://www.pulseway.com/downloads>.

After you have the installation kit you must place it in a folder where it will be accessible by all the computers you wish to install it. Now you must instruct all computers that you want to install the computer to run one of the following commands:

**UNC\_PATH\Pulseway\_xNN.msi /qn config=FFF configpassword=PPP**

Replace the following placeholders:

- NN -> Architecture of the Operating System (86 or 64)
- FFF -> The UNC path for the configuration file to be imported
- PPP -> The password for the configuration file

Or:

**UNC\_PATH\Pulseway\_xNN.msi /qn username=UUU password=PPP group=GGG server=SSS**

Replace the following placeholders:

- NN -> Architecture of the Operating System (86 or 64)
- UUU -> Your Pulseway username
- PPP -> Your Pulseway password (in clear text)
- GGG -> The group you wish your computer to join
- SSS -> The Dedicated Server URL (if assigned to your account)

## 17. Support

Pulseway support is divided into two types:

- Community Support – is offered by the community at the Pulseway's forums.
- Technical Support – is handled by our support agents and consists of remote support for installation, configuration and troubleshooting during normal office hours 9am-5pm BST Monday to Friday excluding public holidays. Technical support requires the purchase of technical support incidents (TSIs). Enterprise servers have bundled TSIs. Please contact your reseller for more information.

**Support Email (TS only):** [support@pulseway.com](mailto:support@pulseway.com)

**Support Phone (TS only):** +353 (1) 6190234

**Sales Email:** [sales@pulseway.com](mailto:sales@pulseway.com)