



# 5nine Cloud Monitor for Hyper-V

## Quick Start Guide

---

### Installation

Supported Operating Systems:

- Microsoft Windows Server 2008
- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008 R2 Core SP1
- Microsoft Hyper-V Server 2008 R2 SP1
- Microsoft Windows 8 Server
- Microsoft Windows 8 Server Core
- Microsoft Hyper-V 8 Server

Prerequisites: .NET Framework 4.0, Microsoft SQL Server.

Before installing 5nine Hyper-V Cloud vMonitor on Server Core/Hyper-V (GUI-less) operating system you must perform following steps:

- 1) Make sure you have Server 2008 R2 SP1 or later
- 2) Run the **core\_preinstall** batch file that is included into 5nine Cloud Monitor for Hyper-V setup archive, OR:

Enable following features on your OS:

```
DISM.exe /online /enable-feature /featurename:ServerCore-WOW64
```

```
DISM.exe /online /enable-feature /featurename:NetFx2-ServerCore
```

```
DISM.exe /online /enable-feature /featurename:NetFx3-ServerCore
```

DISM.exe /online /enable-feature /featurename:NetFx2-ServerCore-WOW64

DISM.exe /online /enable-feature /featurename:NetFx3-ServerCore-WOW64

DISM.exe /online /enable-feature /featurename:MicrosoftWindowsPowerShell

DISM.exe /online /enable-feature /featurename:MicrosoftWindowsPowerShell-WOW64

3) Install .NET 4.0 for Server Core

You can download it at

<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=22833>

4) Use command net share (or Remote Management) to share folder on Server Core machine, and copy there setup.exe, MainSetup.msi and license.txt files

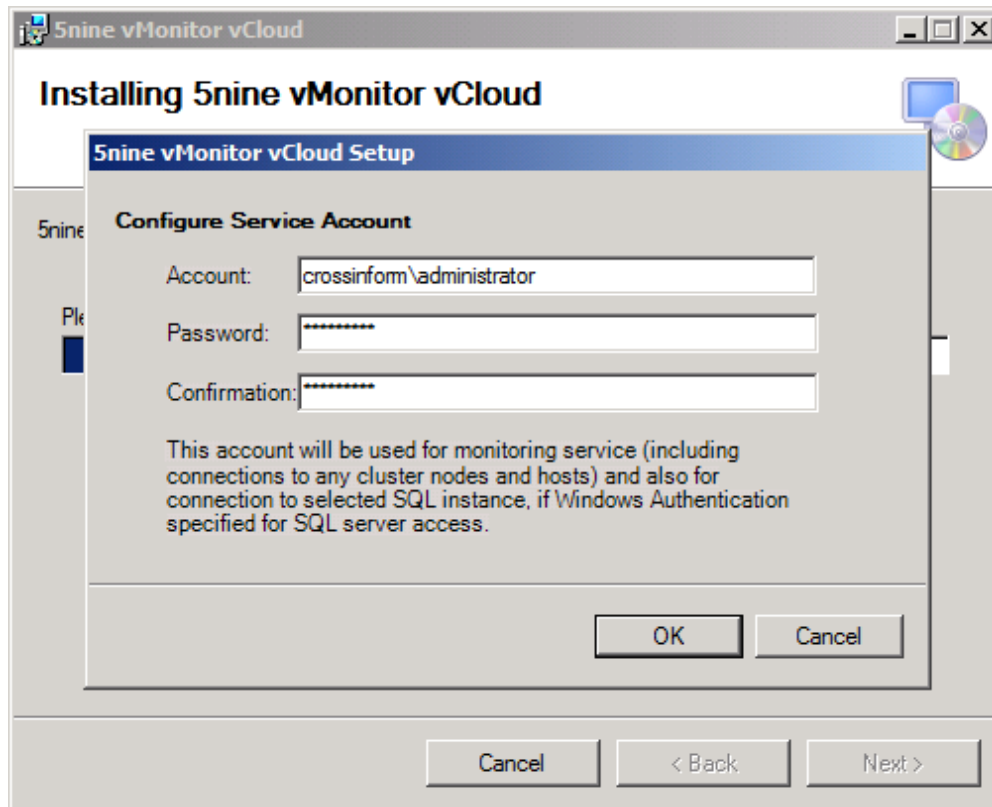
5) Execute setup.exe on Server Core machine and follow instructions described below.

Web application will be installed by default to <http://localhost:8734/FiveNine.vMonitor/Web> . You can navigate to console from any machine with browser, all necessary firewall rules will be automatically added during installation.

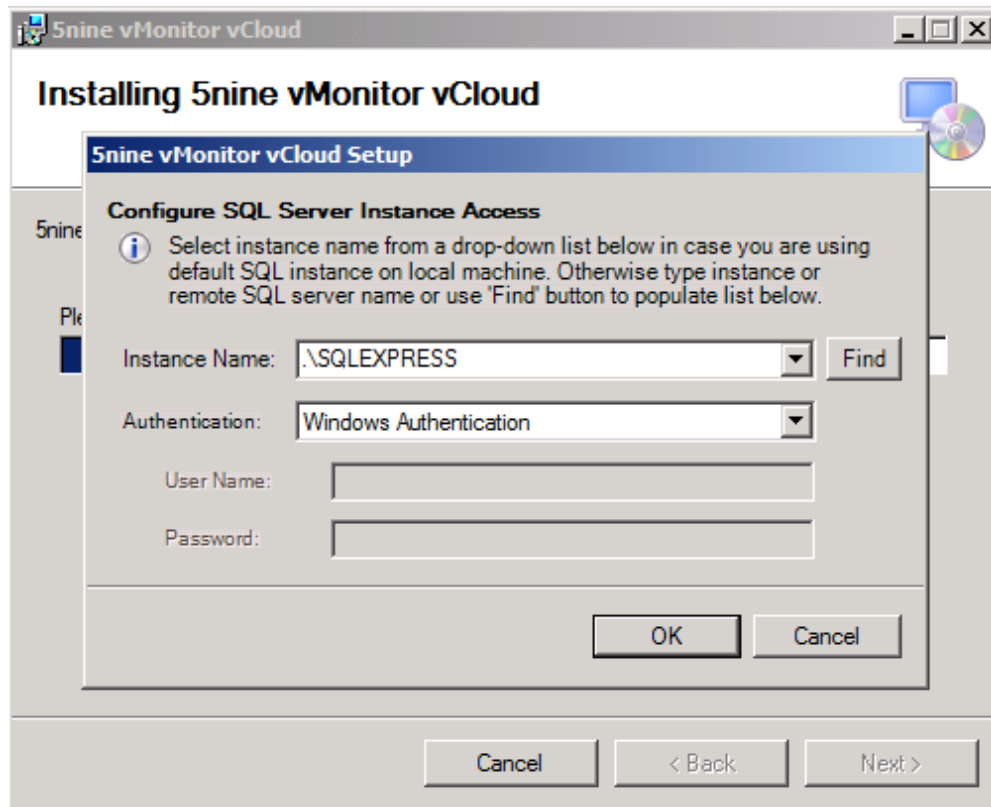
During installation you will be asked to supply some information:

- On the screen below you should provide credentials of domain user who has access to Hyper-V machines and to the SQL Server. Under these credentials 5nine.vMonitor service will be executed.

NOTE: Best practice is to not use existing real user account, but to create dedicated user with corresponding rights and assign it to the service.



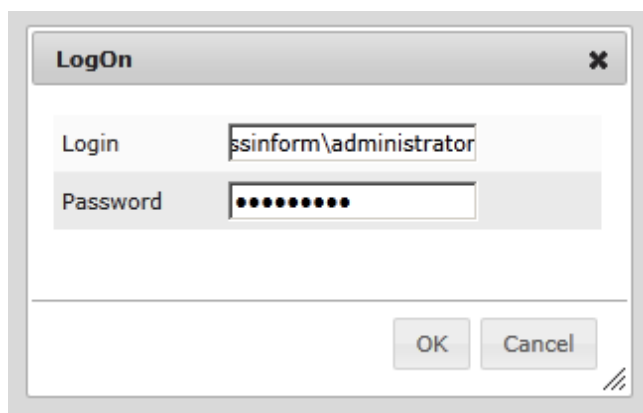
- The next screen will ask you for settings to set up database connection. Set sql instance name and authentication mode.



After setup finishes the 59vMonitor service will be automatically started.

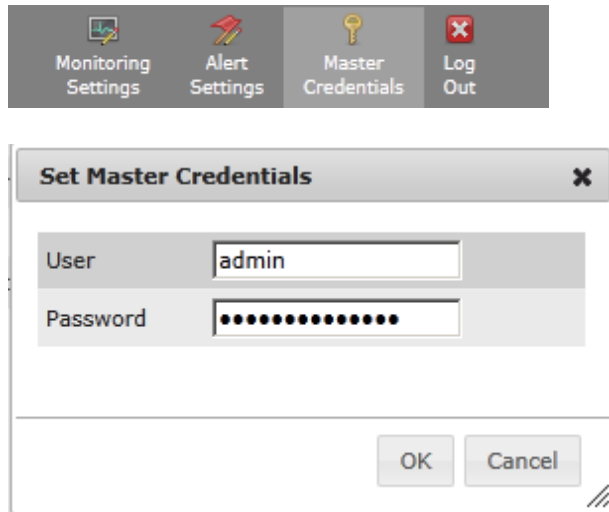
## Web Application

On opening <http://localhost:8734/FiveNine.vMonitor/Web> in browser you will be prompted to enter authentication credentials.



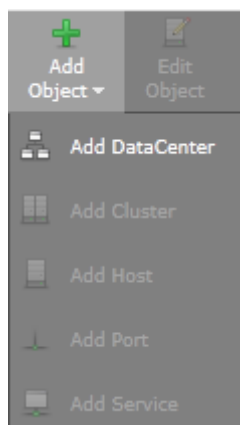
To first logon you should use credentials under which service was installed.

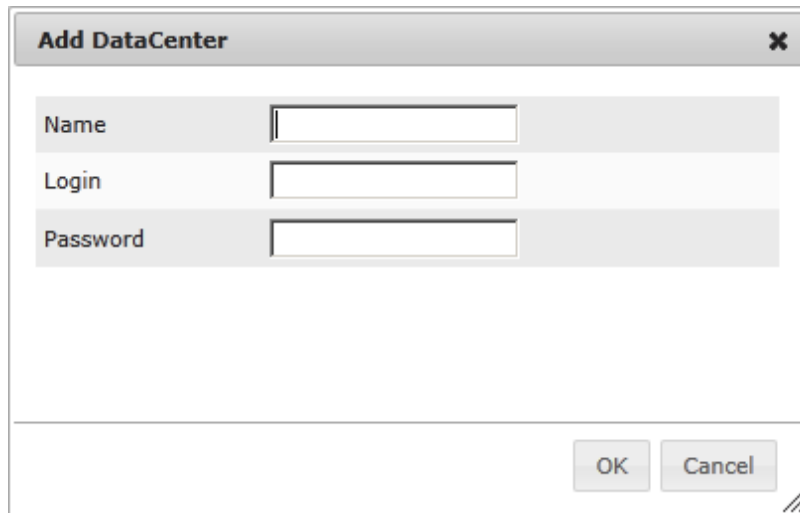
It's highly recommended execute action 'Master Credentials' and set predefined internal 'Admin' user password. Then for security reasons use only these Master credentials to log on console.



You can use these Master credentials for direct authentication to REST, OData and PowerShell API in case of building integration with own systems and when it is not desirable to use/store windows user credentials anywhere. For details about API integration see "5nine Hyper-V Cloud vMonitor API.docx" file also installed in application folder.

To begin monitoring objects firstly you must add DataCenter object. There is menu on left upper corner.

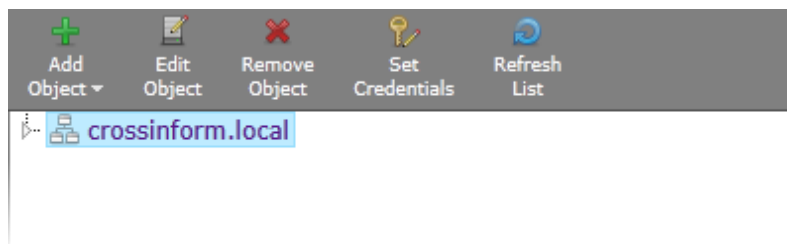




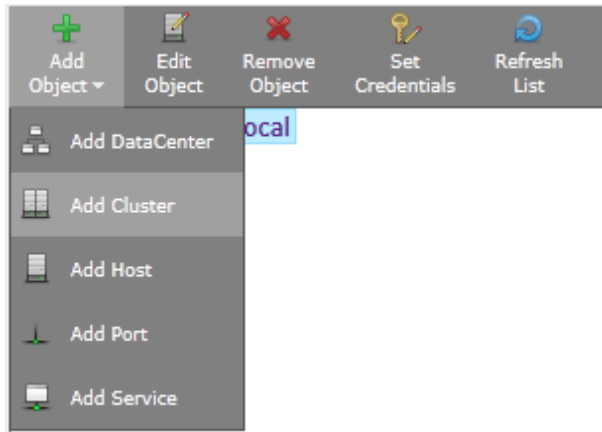
A dialog box titled "Add DataCenter" with a close button (X) in the top right corner. It contains three input fields: "Name", "Login", and "Password". At the bottom right, there are "OK" and "Cancel" buttons.

You must specify the name of DataCenter, and optionally Login and Password of windows (domain) user under which performance information will be collected from objects. In most cases you can leave these empty – then will be used credentials under which service is running. In case if you have several datacenters belonging to different domains then of course you must specify credentials for each of the datacenters. During monitoring these credentials will flow from root objects to its descendants, however you can always specify for some of the descendants its own credentials.

After DataCenter added, you can select it in the tree view and then other menus will be un-grayed.



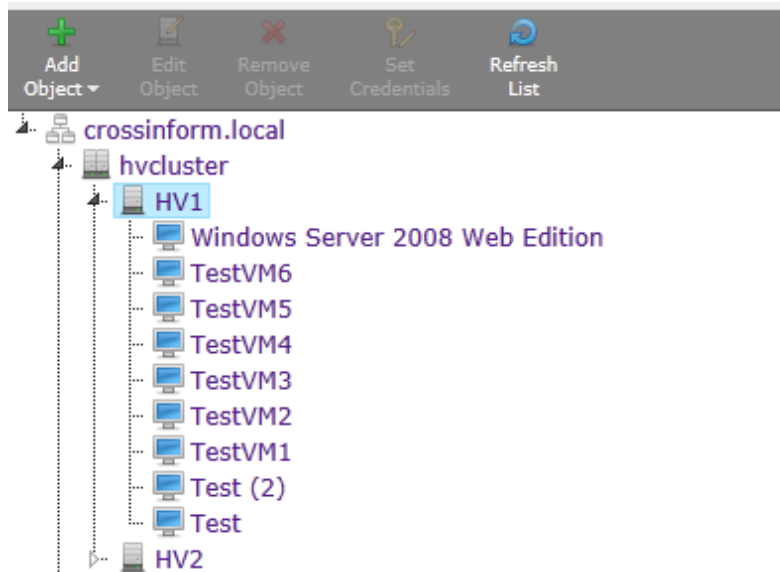
You can edit properties of the selected object, remove it or set new credentials. Also on selecting DataCenter item, there will be un-grayed dropdown menus for adding other types of objects.



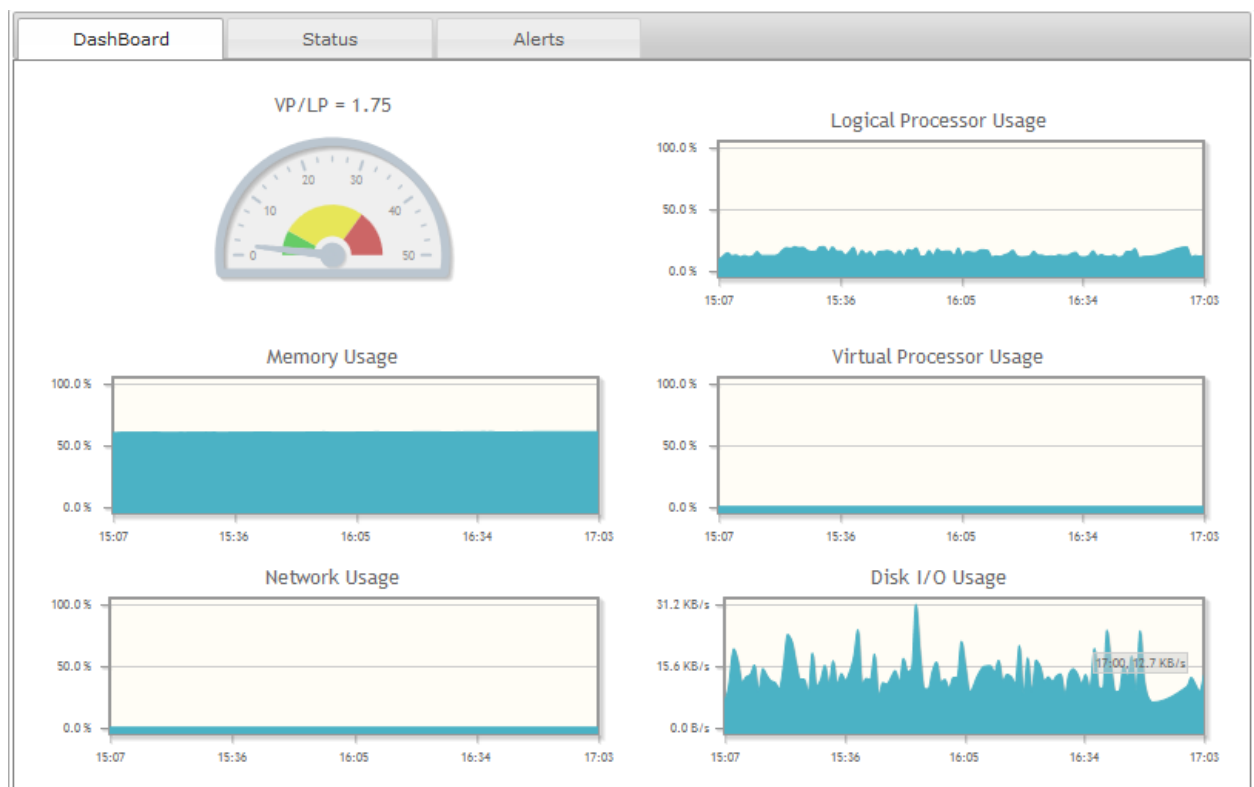
Click on Add Cluster and fill name and address fields in the appeared dialog.

A screenshot of the 'Add Cluster' dialog box. The dialog box has a title bar with the text 'Add Cluster' and a close button (X). Inside the dialog box, there are four input fields: 'Name' with the value 'hvcluster', 'Address' with the value 'HVCLUSTER.crossinfor', 'Login' (empty), and 'Password' (empty). At the bottom right of the dialog box, there are two buttons: 'OK' and 'Cancel'.

After some time (less than 1 minute) you can expand tree and see its nodes and VMs.

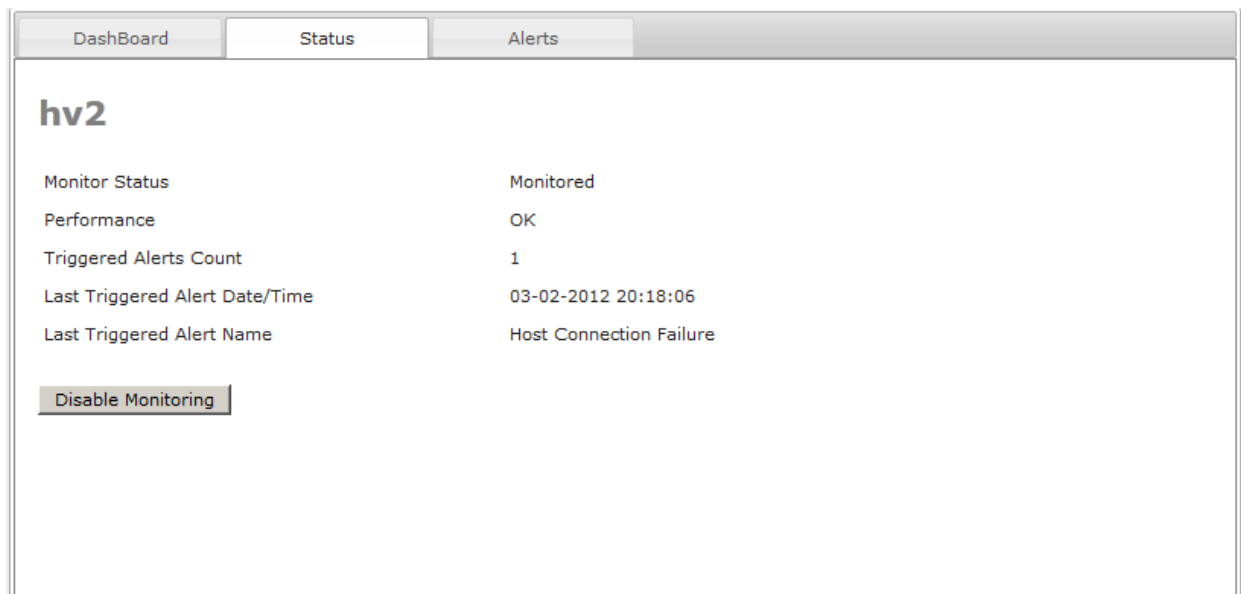


Clicking on the node will display dashboard for the selected object.

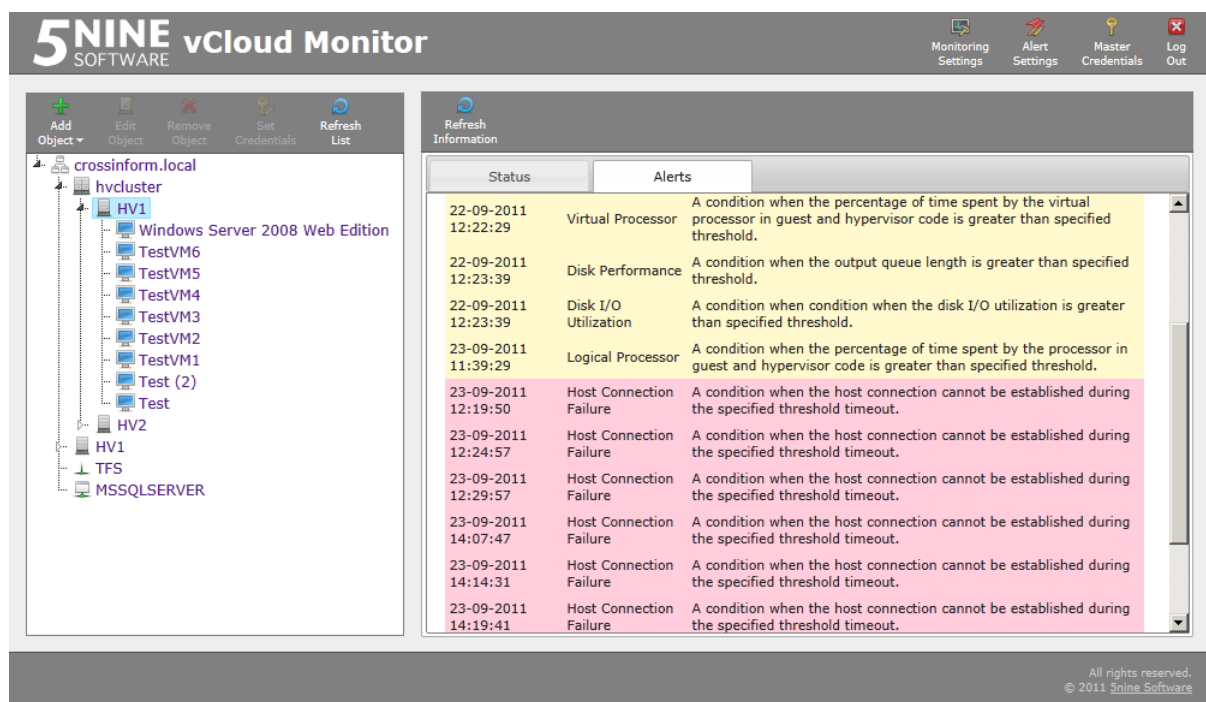




Clicking on the Status tab will display current status of selected object. Also you can Enable/Disable monitoring of the selected object.



Clicking on the Alerts tab will display list of alerts of the object.



You can browse alerts on per object basis by clicking corresponding objects in tree, or you can select datacenter and see all alerts of datacenter's descendant objects.

## 5NINE SOFTWARE vCloud Monitor

Monitoring Settings
 Alert Settings
 Master Credentials
 Log Out

Add Object
 Edit Object
 Remove Object
 Set Credentials
 Refresh List

Refresh Information

crossinform.local

Status	Alerts		
13-09-2011 14:16:53	Port	TFS	Port Connection Failure A condition when the port connection cannot be established during the specified threshold timeout.
17-09-2011 23:50:25	Node	HV1	Host Connection Failure A condition when the host connection cannot be established during the specified threshold timeout.
18-09-2011 16:25:18	Node	HV2	Available Memory A condition when the percentage of available memory is less than specified threshold.
18-09-2011 16:30:28	Node	HV2	Available Memory A condition when the percentage of available memory is less than specified threshold.
18-09-2011 17:49:58	Node	HV2	Available Memory A condition when the percentage of available memory is less than specified threshold.
21-09-2011 22:14:35	Node	HV2	Host Connection Failure A condition when the host connection cannot be established during the specified threshold timeout.
22-09-2011 11:51:56	Host	HV1	Virtual Processor A condition when the percentage of time spent by the virtual processor in guest and hypervisor code is greater than specified threshold.
22-09-2011 11:58:06	Service	MSSQLSERVER	Service Failure A condition when the service cannot be found or state is not running during the specified threshold timeout.
22-09-2011 12:03:06	Service	MSSQLSERVER	Service Failure A condition when the service cannot be found or state is not running during the specified threshold timeout.
22-09-2011 11:57:06	Host	HV1	Virtual Processor A condition when the percentage of time spent by the virtual processor in guest and hypervisor code is greater than specified threshold.
22-09-2011 12:08:06	Service	MSSQLSERVER	Service Failure A condition when the service cannot be found or state is not running during the specified threshold timeout.

All rights reserved.  
© 2011 5nine Software

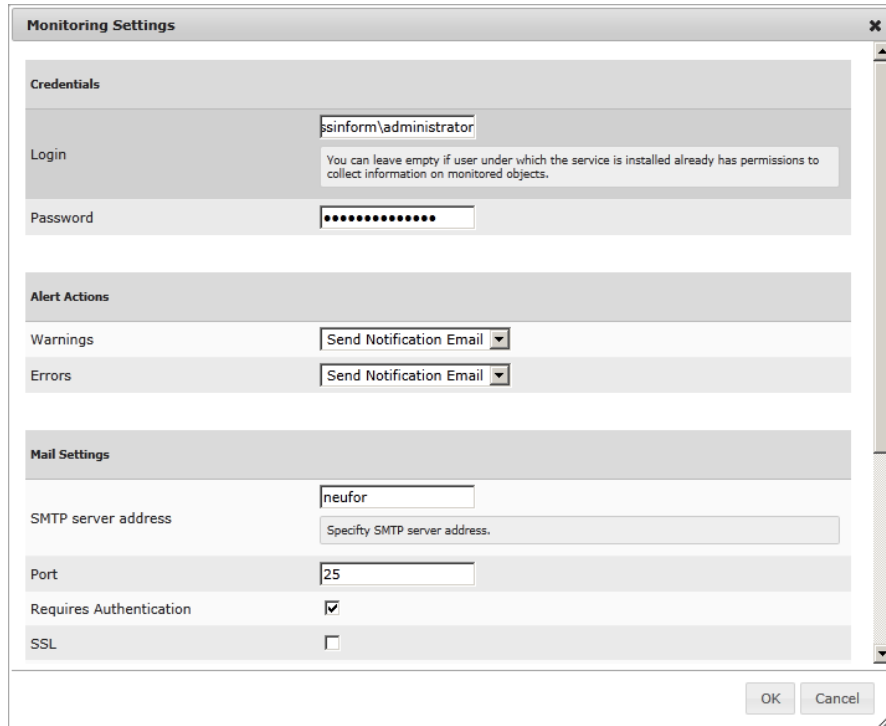
You can dismiss some of alerts or all at once by clicking corresponding clear alerts button.

Refresh Information
 Clear alerts

Clear selected alerts
 Clear all alerts

<input type="checkbox"/>	Date/Time	Name	Description
<input checked="" type="checkbox"/>	26-11-2011 17:30:52	VP to LP Ratio	A condition when the logical to virtual processors ratio is greater than specified threshold.
<input checked="" type="checkbox"/>	26-11-2011 17:30:52	Memory Performance	A condition when the rate at which pages are read from or written to disk is greater than specified threshold.
<input type="checkbox"/>	26-11-2011 15:37:59	Network Utilization	A condition when the percentage of network utilization is greater than specified threshold.
<input type="checkbox"/>	05-10-2011 13:25:18	Host Connection Failure	A condition when the host connection cannot be established during the specified threshold timeout.
<input type="checkbox"/>	23-09-2011 14:38:04	Host Connection Failure	A condition when the host connection cannot be established during the specified threshold timeout.









You can change global monitoring settings, set up SMTP alert actions and mail settings by clicking Monitoring Settings button in right-upper corner.



The image shows a 'Monitoring Settings' dialog box with three main sections: Credentials, Alert Actions, and Mail Settings. The Credentials section has fields for Login (psinform\administrator) and Password (masked with dots). The Alert Actions section has dropdown menus for Warnings and Errors, both set to 'Send Notification Email'. The Mail Settings section has fields for SMTP server address (neufor), Port (25), Requires Authentication (checked), and SSL (unchecked). There are OK and Cancel buttons at the bottom right.

Monitoring Settings	
<b>Credentials</b>	
Login	psinform\administrator <small>You can leave empty if user under which the service is installed already has permissions to collect information on monitored objects.</small>
Password	••••••••••
<b>Alert Actions</b>	
Warnings	Send Notification Email ▼
Errors	Send Notification Email ▼
<b>Mail Settings</b>	
SMTP server address	neufor <small>Specify SMTP server address.</small>
Port	25
Requires Authentication	<input checked="" type="checkbox"/>
SSL	<input type="checkbox"/>
OK Cancel	

If you want to overview current alert settings click 'Alert Settings' button in right-upper corner.

Alert Settings											
Name	Description	Category	Scope	Condition	UOM	Warning Threshold	Error Threshold	Condition Length, sec.	Report Range	Report Frequency	Enabled
 Logical Processor	A condition when the percentage of time spent by the processor in guest and hypervisor code is greater than specified threshold.	Processor	Host	Above	Percent	30	95	300	0	0	yes
 Memory Performance	A condition when the rate at which pages are read from or written to disk is greater than specified threshold.	Memory	Host	Above	Count	50	1000	300	0	0	yes
 Network	A condition when the virtual network adapter utilization is greater than specified threshold.	Network	Guest	Above	Mbps	40	600	300	0	0	yes
 Network Performance	A condition when the output queue length is greater than specified threshold.	Network	Host	Above	Count	1	2	300	0	0	yes
 Disk I/O Utilization	A condition when condition when the disk I/O utilization is greater than specified threshold.	Storage	Host	Above	MBPerSec	1	80	300	0	0	yes
 Virtual Processor	A condition when the percentage of time spent by the virtual processor in guest and hypervisor code is greater than specified threshold.	Processor	Host	Above	Percent	20	90	300	0	0	yes
 Cluster Connection Failure	A condition when the cluster connection cannot be established during the specified threshold timeout.	Health	Cluster	Equals	Count	0	1	0	0	300	yes
 Processor	A condition when guest processor load is greater than specified threshold	Processor	Guest	Above	Percent	5	20	60	0	120	yes

If you want change setting of the alert then just click pencil button on the left. Following dialog will appear.

**Modify Alert Definition** ✕

Name	Logical Processor
Description	A condition when the
Category	Processor ▾
Scope	Host ▾
Condition	Above ▾
UOM	Percent ▾
Trigger Rule	% Total Run Time
Warning Threshold	80
Error Threshold	95
Condition Length, sec.	300
Report Range	0
Report Frequency, sec.	0
Enabled	<input checked="" type="checkbox"/>

OK Cancel

If you finished working with application you can close session, by clicking Log Out button.



By default if there were no any activity during 20 minutes, session will be closed automatically.