Nimsoft® Monitor™

NM Server Release Notes and Upgrade Guide

v5.6.1

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Chapter 1: Requirements

The following sections describe supported environments for Nimsoft Monitor Server (NMS).

Supported Platforms

Nimsoft Server runs on the following operating system and database combinations. The latest information is available from the Nimsoft Compatibility Support Matrix, which is updated regularly.

Windows Server 2003 and Windows Server 2008

- Microsoft SQL Server 2008 and 2008 R2
- MySQL Server 5.1 and 5.5 (see note below)
- Oracle 11g R1 and R2

Red Hat Enterprise Linux (RHEL) versions 5 and 6 on X86 and AMD64 hardware

- MySQL Server 5.1 and 5.5 (see note below)
- Oracle 11g R1 and R2

SUSE Linux Enterprise Server (SLES) versions 10 and 11 on X86 and AMD64 hardware

- MySQL Server 5.1 and 5.5 (see note below)
- Oracle 11g R1 and R2

Solaris 10 on SPARC and Intel X86

- MySQL Server 5.1 and 5.5 (see note below)
- Oracle 11g R1 and R2.

Note: Nimsoft Server does not support disk compression on Windows due to the fact that compression reduces disk I/O performance. The Nimsoft Hub message queue is stored on disk, and is constantly undergoing read and write activity.

Note: Nimsoft is aware of significant improvements in the performance and scalability of MySQL with the release of version 5.5. As a result Nimsoft highly recommends MySQL version 5.5 over MySQL version 5.1. This Nimsoft product supports both versions, but support for MySQL version 5.1 will be discontinued in a future release.

Nimsoft Infrastructure

Nimsoft Infrastructure is part of the Nimsoft Server installation. If you want to install just the Nimsoft Infrastructure (hubs, robots, or probes) on an additional UNIX® system, the following UNIX® systems are supported:

- AIX
- HP-UX
- Linux
- Solaris
- TRU64

More information is also available from the Nimsoft Compatibility Support Matrix, which is updated regularly.

Additional System Requirements

If using MySQL 5.1, please ensure that you are running version 5.1.16 or later. NM server 5.61 requires support for REFERENTIAL_CONSTRAINTS.

The database must be case *insensitive* when handling queries.

For NM server 5.61, database free space check is not implemented for Oracle and MySQL.

To install Service Level Manager component on Windows, you also need MDAC 2.8 or newer installed.

Supported Languages

Nimsoft Server is available in these languages:

- English
- Simplified Chinese
- Japanese
- Spanish
- Brazilian Portuguese

Chapter 2: Installation Considerations

The following sections describe important issues to know about when installing Nimsoft Server.

Java Virtual Machine (JVM) requirements

In order to run the installer, you must have the Java Virtual Machine (JVM) 1.6 or later installed on the machine. We recommend JRE 1.6.26.

Note: There is a known issue with JRE 1.6.29 (Java 6 version 29) when working with MS SQL Server (See: http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=7105007). This can cause the installation to hang (see Chapter Three "Known Issues").

As a result Nimsoft recommends that customers install JRE 1.6x, up to and including JRE 1.6.26 (Java 6 version 26). Preliminary indications are that JRE 1.7.0 (Java 7) functions correctly. However Java 7 is, at publication time, an "early access" release and not yet officially recommended.

New and Legacy Installers

A new InstallAnywhere-based installer is available with NM server 5.61--unifying installation under Windows, Linux, and Solaris. This exists along with the legacy InstallShield Windows-only installer and is slated to replace it.

The new Install Anywhere-based installer does not include, nor update, the following legacy components, which have been deprecated and are no longer required with Nimsoft Server v5.61/UMP 2.6:

- report_engine
- variable_server
- group_server
- dashboard_server
- ACE 1.x

The components listed above support the legacy Enterprise Console and Service Level Manager (SLM) applications, which have been superseded by UMP functions.

ACE 1.x has superseded by ACE 2.x as part of the Service Oriented Configuration (SOC) architecture.

Legacy Installer

The legacy InstallShield Windows installer remains available for users who continue to use the legacy Windows components. If you wish to update, and make use of, the five components listed above you must use the legacy InstallShield Windows installer.

Note: that the legacy InstallShield installer supports Windows installations using MS SQL Server only. For MySQL and Oracle environments, use the new InstallAnywhere installer.

System Sizing

For the latest sizing information, please refer to the section "Capacity Planning" in the *Nimsoft Server Installation Guide* available on the Nimsoft support download page.

Increased memory usage with RHEL v6

Nimsoft has observed higher memory requirements for certain core components of NM Server, including data_engine, in some cases 3X what is consumed on RHEL v5. If installing on RHEL v6, be sure to take this into account and provision sufficient system memory.

Increased Database Storage Requirements

The data_engine version 7.53 (as shipped with NMS 4.3x) changed the set of indexes which it creates on the QoS data tables RN_QOS_DATA_xxxx. These indexes continue to be used by the data_engine included with NM Server 5.61. However, this change is not applied to existing RN_QOS_DATA-tables and they will continue with the old index set until updated as described in section "Upgrade of indexing for sample data tables."

In general the increased requirement for storage will range from 25% to 50%, where the increase will be about 50% if you start with an installation which has only the clustered index on the sample data table.

To illustrate the increased requirements for disk, let's assume that we have a table RN_QOS_DATA_0001 which requires about 20GB storage when using NMS 4.2 and earlier. If upgrading to NMS 5.x, and at the same time upgrading the indexes as described in this section, the same table will now require approximately 30GB storage.

Required Login Privileges

Note: Use a login with Administrator (Windows) or root (UNIX®) privileges when installing or upgrading to NM Server 5.61:

- If using an existing database, make sure that the login used during installation or upgrade maps to the database's dbo.
- If the database is created by the Nimsoft Server installation, the database's dbo will automatically be mapped to the login used in the installation.

Installing one or more Hubs?

It is recommended that at least two Nimsoft Hubs should be installed on the same Domain and network to avoid loss of user/security data--such as Nimsoft user definitions ACLs etc., in case your Hub computer crashes. With more than one Hub, this information is mirrored between the Hubs.

Chapter 3: Upgrade Considerations

The following sections describe important issues to know about when upgrading from a previous version of Nimsoft Server.

NOTE: Before preparing for the installation/upgrade, make sure you have read and understood the contents of Chapter 6: Known issues.

Supported Upgrade Path

You can upgrade directly to 5.61 from these prior Server versions:

- 5.12
- 5.60

Note: For older Server versions, follow this path when upgrading to the latest release:

Version 3.35 -> 3.60 -> 4.11 -> 4.31-> 5.12 -> 5.61

Server version 3.60 is at http://support.nimsoft.com/downloads/360/nimBUS server.exe. When upgrading to version 3.60, please check the upgrade guide http://support.nimsoft.com/downloads/360/NimBUS Server 360 Upgrade Guide.pdf.

Back Up Your System before Upgrading

Make sure you make a backup of your Nimsoft installation. On Windows, the default location is C:\Program Files(x86)\Nimsoft. For Linux and Solaris, it is /opt/nimsoft. If you installed to a custom location, back up the Nimsoft folder at that location.

Also make sure that you make a backup of your database. NM server 5.61 contains a non-reversible upgrade script that changes the database structure of some tables.

Deactivate the distsrv Probe Before Upgrading

In general, it is best to turn the distribution server (distserve probe) off and allow its job queue to clear before updating NM Server. This is especially a good idea in large deployments that have remote archives linked across a WAN.

Chapter 4: Upgrading Nimsoft Server

Following is the recommended sequence of steps involved in upgrading a Nimsoft domain consisting of several hubs and robots.

The upgrade of NM server 5.61 consists of a chain of updates to the modules you currently have installed. Do *NOT* restart your system until all modules have been installed, even if you receive system prompts to restart at intermediate points in the process

Update Unified Management Portal (UMP)

If your Nimsoft deployment includes UMP, identify the Nimsoft system(s) running UMP and upgrade these systems before upgrading Nimsoft Server. Be sure to run the latest Unified Management Portal installer from the machine where Nimsoft Server is installed. This is required as many of the files that support UMP are deployed on the Nimsoft Server.

Download the UMP installer from the Downloads tab of the Nimsoft support website (http://support.nimsoft.com http://support.nimsoft.com, login required) and launch it on the Nimsoft Server host. Then follow the installer prompts.

Note: Nimsoft Server 5.61 supports only UMP version 2.6, so be sure to upgrade UMP to 2.6 before upgrading Server to 5.61. More than one step may be required, as in the example below.

Example: **When running NM Server 5.11 and UMP 2.1.1 prior to upgrade:**

1. Upgrade NMS to 5.12
2. Upgrade UMP to version 2.5.2, then upgrade NMS to version 5.60
3. Upgrade UMP to version 2.6, then upgrade NMS to version 5.61.

Update the Server

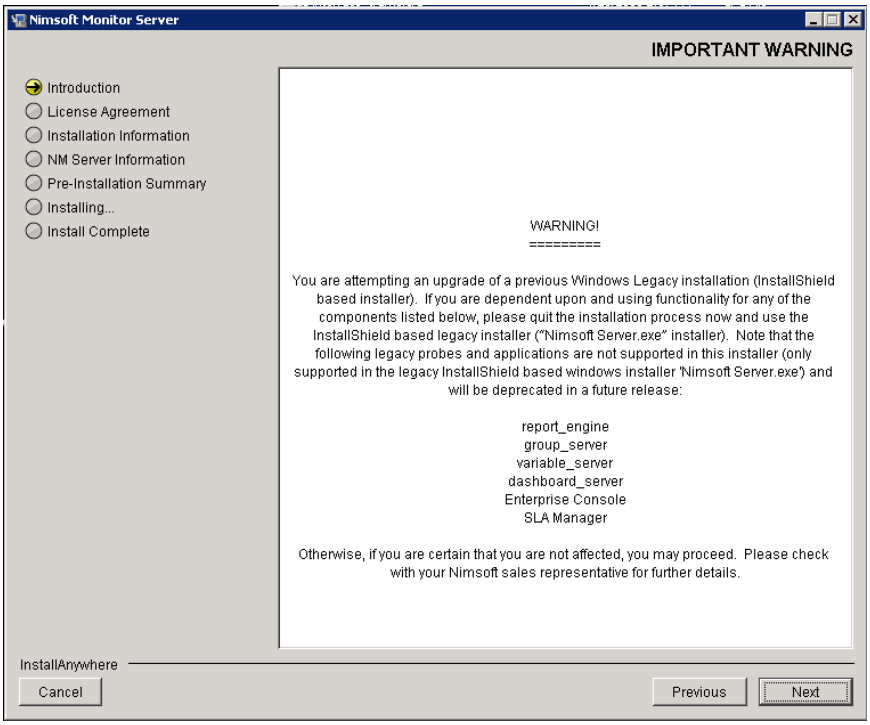
1. Identify the Nimsoft systems containing Nimsoft Server and upgrade these systems by starting the InstallAnywhere-based installNMS.exe installer or the Nimsoft Server.exe legacy installer (recommended when legacy Nimsoft components are deployed and still in use. See the "Important Warning" screen below). These installers are available from the Downloads tab of the Nimsoft support website (http://support.nimsoft.com http://support.nimsoft.com, login required). Remember that, in most cases, the Nimsoft Server runs on the same computer as the Nimsoft primary Hub.

   Note: Before updating Nimsoft Server, ensure that package forwarding (configured in the distsrv probe) is disabled and the job queue for distsrv is clear. If the distsrv job queue has jobs pending, the update will not successfully complete. After the upgrade is successfully performed, re-enable package forwarding in distsrv if desired.

   Note: If you have customized probes in your probe archive, we recommend you move/clean out the archive, leaving only the basic infrastructure probes in it. After all installers/upgrades have finished, especially those for UMP and UR (Unified Reporter), you can selectively move probes back into the archive.

2. Follow the prompts in the install wizard to upgrade the server. The procedure is similar to a fresh install (see the Nimsoft Server Installation Guide for details) but with some differences, noted here:

    a. When an existing Nimsoft Server installation is detected, the new installer will display a warning message about support for certain legacy components. (The legacy installer does not display this message.) See the section above "New and Legacy Installers" for more information.



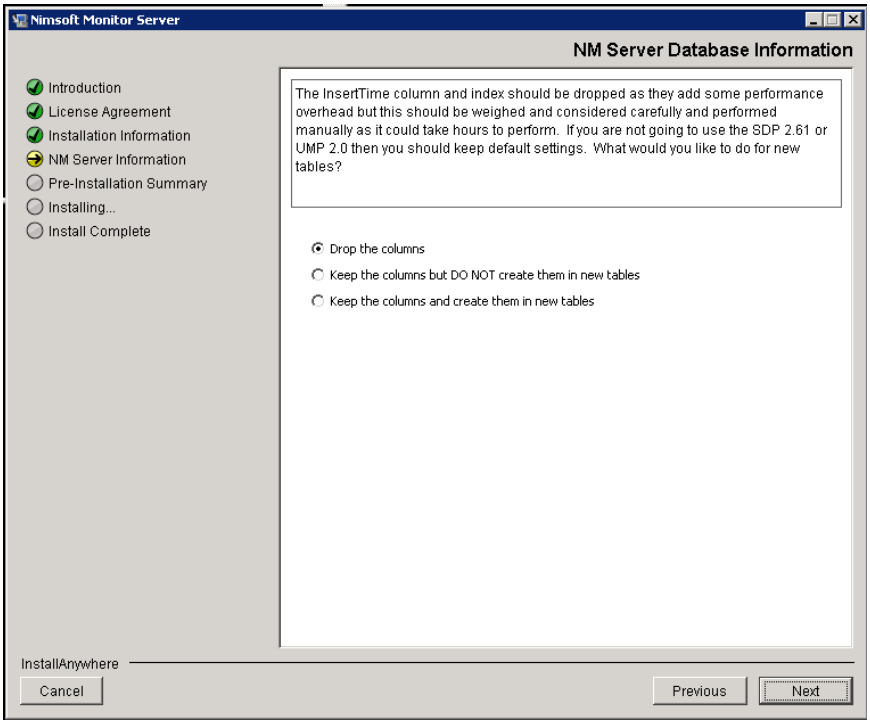
    b. Later in the procedure, the installer will display a dialog box where you can elect to drop the inserttime column from the database schema, which is the default action.

    We recommend choosing the default (**Drop the Columns**), as it provides improved performance, except in these cases:

    - If you are still using the legacy SDP console, or an older version of UMP (prior to version 2.5.0)
    - If you use custom dashboards that queries against the inserttime column. Dashboards and reports that use SQL Views will not function properly if **Drop the Columns** is chosen.

Note that, depending on database size, making the **Drop the Columns** choice can lengthen install time significantly (several hours).

The legacy installer and new installer dialog screens differ somewhat in appearance, but the information presented is essentially the same. The screen for the new installer is shown below:



Update Infrastructure Manager

On all servers and workstations that have Infrastructure Manager installed (verify by checking **Start > All Programs > Nimsoft Monitoring**), you should upgrade to the version included with the Server 5.61 update:

1. On an upgraded Nimsoft Server, launch the Nimsoft Server web page by double-clicking the shortcut named **Nimsoft Server** located on the desktop. Make a note of the URL given in the browser window—you will use it in the procedures below.
2. Open an Internet Explorer browser on the machine you want to upgrade Infrastructure Manager, using the URL found in step 1.
3. Click on **Client Installation**.
4. On the web page that appears, choose the link **Infrastructure Manager** to install the new version on that machine.
5. Repeat this procedure to upgrade additional machines.

Update Hubs

1. Identify any additional systems which contain a Nimsoft Hub and Infrastructure (**Control Panel->Add/Remove** programs to view).
2. To upgrade each of these systems, open an Internet Explorer browser on each machine with the URL found in step 1 of the procedure: "Upgrade Infrastructure Manager."
3. Choose **Client Installation**.
4. On the web page that appears, choose the link **Windows Robot, Hub, Distribution Server, Alarm Server** to upgrade the Nimsoft Hub and Infrastructure on that machine.
5. Repeat this procedure for additional hub upgrades.

Update Robots

On Windows systems:

1. Within the Archive of your upgraded server (or another Hub with an updated archive), locate the **robot_update** package
2. Drag and drop this package from the Archive onto the icon of the robot you wish to update.

or:

1. Identify other systems which contain a Nimsoft Robot (**Control Panel->Add/Remove** programs to view)
2. Upgrade these systems by starting Internet Explorer browser with the URL from the "Upgrade Infrastructure Manager" procedure and choose **Client Installation**.
3. Choose the link **Windows Robot** to install the Nimsoft Robot on that machine. Repeat this procedure for additional robot upgrades.

On UNIX® systems:

1. Similar to the procedure for Windows systems described above, drop the **robot_update** package from an updated Archive onto the icon of the Robot you wish to update.
2. Repeat the procedure for additional robots upgrades.

Warning: Do not drop the robot_update on a Hub icon in the Infrastructure Manager tree! Doing so will include the robot on which the Hub is running and cause a restart of the Hub robot. This will make part of the distribution fail. Other robots belonging to this Hub will failover to a secondary Hub (if present), creating problems for the distribution and you will end up with some robot updates not completing.

You can either drop the robot_update on each robot separately or build a group(s) of non-Hub robots to mass-distribute the Robot. Hub-robots should be updated individually (dropped on each robot icon) and not on the Hub icon.

Verification of successful installation/upgrade

The installation wizard will confirm it has completed, but it is advisable to check the output of the installation process closely in order to detect any failure(s). One indication that the installation was successful is that one can read the text "**Nimsoft Server 5.61**" in the main browser window after double-clicking on the "Nimsoft Server" icon on the desktop. Another indication is that all your probes/components in the main windows of the Nimsoft Manager have the correct versions. Check the installed user interfaces (**Help->About**) for the following versions:

User Interfaces	Version 5.61	Prior release (5.60)
Enterprise Console	4.03	4.00.1
Infrastructure Manager	4.03	4.00.1
Service Level Manager	4.74	4.74
Alarm Subconsole	2.72	2.72
LogViewer	1.1.3	1.1.3
Dr. Nimbus	1.5.3	1.5.3
Backend components	**Version 5.61**	**Prior release (5.60)**
distsrv	5.21	5.21
hdb	5.52	5.51
hub	5.66	5.66
spooler	5.52	5.51
install_unix	4.71	4.71
aix_5	(4. 71)	(4. 71)
hpux_11	(4. 71)	(4. 71)
linux_22	(4. 71)	(4. 71)
linux_23	(4. 71)	(4. 71)
solaris_10_i386	(4. 71)	(4. 71)
solaris_8_sparc	(4. 71)	(4. 71)
tru64	(4. 71)	(4. 71)
aix_5_64	(4. 71)	(4. 71)
hpux_11_64	(4. 71)	(4. 71)
hpux_11_ia64	(4. 71)	(4. 71)
solaris_8_sparcv9	(4. 71)	(4. 71)
solaris_10_amd64	(4. 71)	(4. 71)
linux_23_64	(4. 71)	(4. 71)
linux_23_ppc64	(4. 71)	(4. 71)
nas	3.72	3.71
robot_update	2.91 & 5.52	2.91 & 5.50
controller	5.52	5.51
as400 robot	5.50	5.50

group_server (MSSQL only, not needed for new installations)	2.66	2.66
nis_server	1.5	1.47
httpd	1.46	1.46
nimldr	3.54	3.54
dashboard_server (MSSQL only, not needed for new installations)	1.71	1.71
variable_server (MSSQL only, not needed for new installations)	3.40	3.40
data_engine	7.86	7.85
report_engine (MSSQL only, not needed for new installations)	7.92	7.90
sla_engine	3.52	3.52
audit	1.20	1.20
qos_engine	2.63	2.63
relationship_services	1.56	1.56
fault_correlation_engine	1.56	1.56
Discovery components	**Version 5.61**	**Prior release(5.60)**
NIS Manager	2.2.0	2.2.0
cisco_monitor	3.11	3.11
interface_traffic	5.01	5.01
net_connect	2.71	2.71
ace (windows legacy) ace (new multiplatform version)	1.37 2.6	1.37 2.54
assetmgmt	1.24	1.24
discovery_agent	3.3	3.29
discovery_server	3.28	3.25
Rsp	2.72	2.72
Redist	**Version 5.61**	**Prior release (5.60)**
VS-2008 REDIST x86	1.0	1.0
VS-2008 REDIST x64	1.0	1.0

Note: The table above lists the version numbers of all probes provided with Nimsoft Server release 5.61. Nimsoft on occasion provides newer versions of certain probes between Server package releases. You can find the latest probe updates on the Nimsoft Support website http://support.nimsoft.com (Download and Archive pages) as they are made available.

Checking the database upgrade

The best way to check that the database update is successful is to use a SQL tool (e.g. **SLM Manager->Tools->SQL Query**) and execute the following statement:

```
select * from tbnVersion
where ModuleName = 'NIS_SLM'
```

This query should return:

- **4.81** (SQL and MySQL)
- **4.82** (Oracle).

Upgrade of indexing for sample data tables

The data_engine version 7.53 (shipped with NM Server 4.3x) changed the set of indexes which it creates on the QoS data tables RN_QOS_DATA_xxxx. However, this does not apply to existing RN_QOS_DATA-tables so those continue with the old index set.

Please review section "Increased database storage requirements" for information on the increased size of sample data tables due to upgraded indexes since NMS version 4.2.

In most cases, it is advisable to also update/change the indexing for existing RN-tables. However, since it is not mandatory and it can take a long time to execute, this task is not undertaken automatically by the NM server Installer nor the data_engine.

Executing the procedure spn_ins_NISCC after having upgraded to NM server 5.61 will perform an even more detailed analysis of the sample data tables and will report any issues which should be resolved:

- Log onto your database server
- Execute the following commands to analyze tables:
  `spn_ins_NISCC 'list','all'`
- Execute following command the review result of analysis:
  `select * from vwn_ins_NISCC`
- If the analysis above revealed any issues, you can run the following commands in order to resolve the issues:
  `spn_ins_NISCC 'fix','all'`
- To review what has been resolved, execute the command:
  `select * from vwn_ins_NISCC`

As each database vendor has a different implementation with respect to execution of stored procedures, detailed steps are provided for each database below.

You can change the value for the second argument (default 'all') to any number ('10' for example) to reduce the number of issues which should be reported/fixed. This is useful in situations where you do not have time to fix all issues in one execution.

Note: It is strongly advised to stop the data_engine probe and all other activity against database while executing the spn_ins_NISCC with fix-option. This can be accomplished by placing the Primary Hub and Robots working against it into maintenance mode.

SqlServer

```
declare @lEM varchar(max), @lRC int;

-- analyse sample data tables
exec spn_ins_NISCC 'list', 'all', 5, @lEM, @lRC;

-- review result of analysis
select * from vwn_ins_NISCC;

-- resolve any issues
exec spn_ins_NISCC 'fix', 'all', 5, @lEM, @lRC;

-- review result of resolving issues
select * from vwn_ins_NISCC;
```

Oracle

```
ALTER SESSION SET NLS_SORT=BINARY_CI;
ALTER SESSION SET NLS_COMP=LINGUISTIC;
/
set serveroutput on;
/

-- analyse sample data tables
declare  lRC number; lEM varchar2(255);
begin
       spn_ins_NISCC('list', 'all', 5, lEM,lRC);
       dbms_output.put_line('lRC=' || lRC || ', lEM' || lEM);
end;
/

-- review result of analysis
select * from vwn_ins_NISCC;

-- resolve any issues
declare  lRC number; lEM varchar2(255);
begin
       spn_ins_NISCC('fix', 'all', 5, lEM,lRC);
       dbms_output.put_line('lRC=' || lRC || ', lEM' || lEM);
end;
/

-- review result of resolving issues
select * from vwn_ins_NISCC;
```

Mysql

```
-- analyze sample data tables
call spn_ins_NISCC('list','all', 5, @lEM,@lRC);

-- review result of analysis
select * from vwn_ins_NISCC;

-- resolve any issues
call spn_ins_NISCC('fix','all', 5, @lEM,@lRC);

-- review result of resolving issues
select * from vwn_ins_NISCC;
```

Advanced indexing for report_engine/group_server (MS SQL Server only)

If using legacy report_engine or group_server, components, for example when generating "on demand reports" from Dynamic Views, there is a particular scenario which requires modification of the standard indexing of the RN_QOS_DATA-tables.

RN-tables which have a very high number of distinct table_ids, as compared to the number of samples, will suffer performance degradation using standard indexing. A typical example is the RN-table for QoS data gathered by the net_connect or interface_traffic probes. For this combination the old clustered index over (table_id, sampletime) provides better performance compared to the non-clustered index over (table_id,sampletime) which replaced it, which generates an excessive amount of I/O.

The explanation is that report_engine's queries typically require non-indexed columns to qualify the rows required, something the clustered index handles fairly well. The remedy is to drop the current non-clustered index over (table_id,sampletime) and create a new non-clustered index over (table_id,sampletime,tz_offset, samplerate, samplevalue) as shown below:

```
create nonclustered index
   AllNClIdx
on
   rn_qos_data_0001_all(table_id,sampletime)
include
   (tz_offset,samplerate,samplevalue,samplemax)
```

Adding such an index to the designated RN-tables will reduce I/O to about the same level as for the old clustered index. Please note that this index takes additional disk space--if you have data requiring 1 GB then the table with indexing will require a total of approximately 1.5 GB.

For details on updating existing RN_QOS_DATA tables on your system, see Appendix A in this guide.

Chapter 5: New and Changed Functionality

This section describes new and changed functionality in Nimsoft Server.

User Interfaces

- Infrastructure Manager 4.03—added an ACL to support user definitions for the Cloud User Experience Monitor portlet (formerly WatchMouse integration).

Probes

- ACE v2.6 probe updated to support:
  - Application of an SOC monitor directly to a system without having to attach it to a template. After updating to v5.61 and UMP 2.6, and using the Unified Service Manager (USM) portlet, you now have the ability to apply a monitor to an individual computer system; previously with USM a monitor template could only be applied to a group of computer systems.
  - Filtering by user tags in UMP, useful when building a group that will have a template applied to it (in UMP 2.6).

Component Changes and Fixed Problems

ACE (2.6)

- Application of an SOC monitor directly to a system without having to attach it to a template
- Filtering by user tags

data_engine (7.86)

- Various bug fixes

data_engine (7.87) (interim release)

- Custom QoS data unit labeling bug fixed

discovery _server (3.28)

- Default Java heap increased to 1GB (from 256MB), sufficient to support up to 2000 Robots. (For each 2K increment of installed Robots beyond that, the Java heap space should be increased by another 1GB)

discovery _server (3.29) (interim release)

- Add top level support for SNMP ENTITY-MIB
- Improved accuracy and performance.
- Requires discovery_agent 3.31

discovery _agent (3.31)

- (Interim release) Supports discovery_server 3.29

nas (3.72)

- Replication issue fixed.

Chapter 6: Known Issues and Workarounds

The following section describes known issues in the product, and workarounds in some cases.

Installation Fails Due to Java JRE Version

When installing Server 5.61, the installer may lock up after clicking Next in the Verify Database window. This occurs if Java 6 Version 29 (1.6.29) is installed on the system. If this is the case, uninstall 1.6.29 and revert to Java 6 Version 26 (1.6.26).

Note: There is a known issue with JRE 1.6.29 (Java 6 version 29) when working with MS SQL Server (See: http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=7105007 http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=7105007).

As a result Nimsoft recommends that customers install JRE 1.6x, up to and including JRE 1.6.26 (Java 6 version 26). Preliminary indications are that JRE 1.7.0 (Java 7) functions correctly. However Java 7 is, at publication time, an "early access" release and not recommended.

Linux Installation: Access denied for user 'root'

Valid on Linux: When attempting to install the NM Server to run against a MySQL database, after entering the database server information, the following error (or its equivalent) is received:

```
ERROR 1045 (28000): Access denied for user 'root'@'<your Nimsoft hostname>' (using password: YES)
```

Cause: Either remote privileges have not been established, or the password identified for remote systems is not consistent with what is set on the database server locally.

Solution: Perform these steps (to set up access from any host):

1. Login to the MySQL database locally (i.e. on the actual server hosting MySQL).
2. Issue these commands:

```
mysql> use mysql;
mysql> UPDATE user SET password=PASSWORD("<your password>") where User = 'root';
mysql> GRANT ALL PRIVILEGES ON *.* TO root@'%' IDENTIFIED BY '<your password>'
WITH GRANT OPTION;
mysql> GRANT TRIGGER ON *.* TO root@'%' IDENTIFIED BY '<your password>';
mysql> GRANT SUPER ON *.* TO root@'%' IDENTIFIED BY '<your password>';
mysql> FLUSH PRIVILEGES
```

Or to set up access from a particular host, for example "HostX," issue these commands:

```
mysql> use mysql;
mysql> UPDATE user SET password=PASSWORD("<your password>") where User = 'root'
AND Host = 'HostX';
mysql> GRANT ALL PRIVILEGES ON *.* TO root@'HostX' IDENTIFIED BY '<your password>'
WITH GRANT OPTION;
mysql> GRANT TRIGGER ON *.* TO root@'HostX' IDENTIFIED BY '<your password>';
mysql> GRANT SUPER ON *.* TO root@'HostX' IDENTIFIED BY '<your password>';
mysql> FLUSH PRIVILEGES;
```

UMP probes need restarting after an upgrade to NM server 5.61

For data time-stamping to work correctly across a distributed Nimsoft deployment, the Nimsoft Server, the UMP server, and the database server must all be set to the same time zone, regardless of the geographic locations of the servers.

New Windows installer for Server 5.61 does not support console (command-line) mode

Due to localization issues, running the InstallAnywhere Windows installer in console or command-line (CLI) mode is not supported in Server version 5.61. Wizard or GUI modes operate without issue.

Legacy Windows installer for Server 5.61 no longer supports MySQL and Oracle

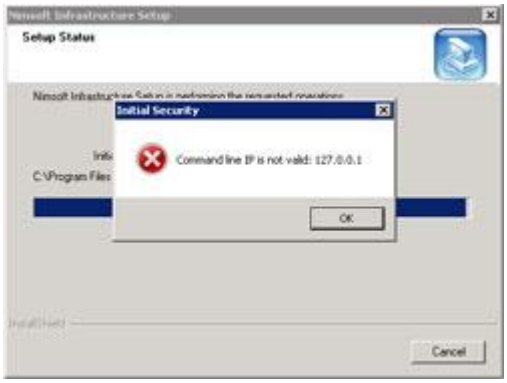
When using the legacy Windows installer, installation will only succeed when installing NM Server to run against a SQL Server database.

Installing NM Server/Hub: "Command Line IP is not valid: 127.0.0.1" popup error

The error screen shown below may be seen installing an NM Server (Hub) using NimBUS Infrastructure.exe and running any of these commands:

- WebPublish (during login)
- Distribution (during login)
- DMZ Setup Wizard (during configuration).

The error screen below is benign may safely be ignored:



Simply click **OK** and continue.

Nimsoft processes on RHEL 6.1 x86-64 consume more memory than on other Linux platforms

- Processes on RHEL v6 64-bit systems can take up to 3 times the amount of virtual and resident memory per process compared to previous releases of RHEL or other operating systems
- Processes on RHEL v6 32-bit systems can take several times more virtual memory, but resident memory per process are roughly equivalent.

Oracle Users Must Add Key to dashboard_engine Probe

Valid with Oracle databases only

During the NM Server installation, the installer attempts to set up the connection with the Oracle database.

Note: When prompted to enter a service name, first enter the SID for the table space you plan to use. If the system prompts you that it cannot connect to the database using the SID, enter a service name instead.

Then, if you used a service name instead of an SID, at the end of the UMP installation you may see an error message listing probes (which rely on the database connection) that have failed to start. If this occurs, add a **Key** and **Value** to the dashboard_engine probe. This will repair the dashboard_engine database connection, and allow any probes that rely on it to start.

Follow these steps:

1. Open Infrastructure Manager, and locate the dashboard_engine probe under the **Service** node.
2. Press <Shift> and right-click on the dashboard_engine in the list of probes to the right.
3. Raw Configure opens.
4. Open the Data folder and add the following **Key** and **Value**:
5. Key: jdbc_url_template
6. Value: jdbc:oracle:thin:{1}/{2}@{0}:{7}:{your_SID}
7. Apply the new key and value, then restart dashboard_engine.

UMP probes need restarting after an upgrade to NM server 5.61

If you have UMP installed, you should restart the wasp and dashboard_engine probes to avoid any issue logging into UMP after an upgrade to NM server 5.61.

SDP is no longer supported with NMS 5.1x or later

If you are still using SDP, you will need to upgrade to UMP (v2.6) before installing NM Server 5.61.

LDAP authentication: Non-domain admin group users cannot log in to NM Server

An LDAP user cannot log into NM Server unless the Active Directory user is a member of the LDAP domain admin group. The LDAP group policy on NM Server does not matter--it can be users, admins, guests, but unless the active directory user is part of the domain admins group, he or she will not be able to log in.

Probes not activated after Nimsoft Server installation

During Server installation several components are distributed and configured. On slow systems we have occasionally seen situations where some of the probes were not started during the installation. This can be detected in Infrastructure Manager, and can be fixed often by simply activating the probe manually.

Occasionally some probes do not start after installation

In some situations, some of the probes do not start after the installation of NM Server due to lack of system resources available.

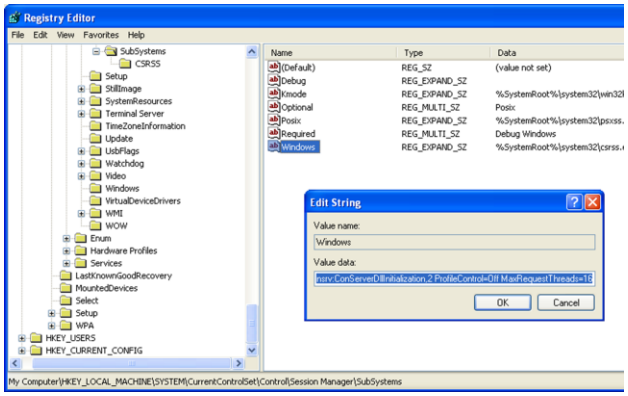
If you experience this problem, edit the registry key HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Session Manager\SubSystems\Windows

```
%SystemRoot%\system32\csrss.exe ObjectDirectory=\Windows SharedSection=1024,3072,512,Windows=On
SubSystemType=Windows ServerDll=winsrv:UserServerDllInitialization,3
ServerDll=winsrv:ConServerDllInitialization,2 ProfileControl=Off MaxRequestThreads=16
```

The value marked bold is initially set to **512.** You can solve the problem by increasing this value to **1024**.

See also the following article for further information

http://support.microsoft.com/kb/184802 http://support.microsoft.com/kb/184802



Windows 2008 permission issues

Problems when launching dashboards from the Nimsoft Server main window. The problem can be solved by adding the site as a trusted site (Internet Options > Trusted sites).

Write privileges are required for writing to the Nimsoft Program Files folder. If logged on as a user without administrator privileges after the installation, you must manually set these write privileges.

AIX computers not found by discovery, using SNMP

Certain types of AIX computers might not be found when running discovery, using SNMP. The reason is that the format in the computer description field cannot be read (AIX sends binary data as description over the SNMP API that we use).

Uninstalling Nimsoft Server fails, using Add/Remove Programs in the Control Panel

Uninstalling Nimsoft from the Add/Remove Programs control panel applet may sometimes fail. The problem is that the path to Ctor.dll does not have quotes, even though there is a space in the path.
To solve this, you should find the path to Ctor.dll in the registry and add quotes as shown below:

```
"C:\PROGRA~1\COMMON~1\InstallShield\engine\6\Intel 32\Ctor.dll"
```

Then attempt to uninstall Nimsoft again.

Activating discovery and configuration of an existing interface_traffic probe on the server

The Nimsoft discovery function will automatically turn on encryption of community strings in the probe configuration file on the discovery computer. Prior to activating the discovery function, please enable encryption on the interface traffic probe. Failing to enable encryption will cause existing configurations to stop working due to invalid community strings. Interface_traffic probes on other robots are not affected.

Certain DB query combinations exhibit degraded performance under new DB indexing

To improve overall database read/write performance through reduction of fragmentation, NIS indexing was changed in version 5.1.x of NM Server and these changes have been maintained in version 5.61. In certain cases performance has been negatively impacted. For example, when the table to be queried has a large number of rows and table_id is very selective--performance under the new indexing can be slower than with the old indexing approach. Here is an example report_engine query template that illustrates a potentially slow query:

```
SELECT
   AVG(samplevalue), STDEV(samplevalue), MIN(samplevalue), MAX(samplevalue),
MIN(samplerate)
FROM
   <rn_table> WITH (NOLOCK)
WHERE
   DATEADD(s,ISNULL(tz_offset,25200) - 25200,sampletime) between '<startdate>' and
'<enddate>'
and
   table_id = <table_id>
```

There are two ways to improve performance in this scenario. Appendix A gives one approach, updating the index, which will allow the above example to run faster.

A second approach, again taking the above query as an example, is to not use the DATEADD function on index columns (an alternative is to force it to use Idx1). Here is a suggested revision to the example query:

```
SELECT
   AVG(samplevalue), STDEV(samplevalue), MIN(samplevalue), MAX(samplevalue),
MIN(samplerate),COUNT(*)
FROM
   rn_qos_data_0001_xxx WITH (NOLOCK)
WHERE
   sampletime between '2010-10-08 09:00:00.000' and '2010-10-08 17:00:00.000'
and
   table_id = 2931842
```

Chapter 7: Localization Issues

The following sections describe known localization issues in the product, and workarounds in some cases.

Non-localized text in Unified Service Manager portlet after upgrade to NM Server 5.61

In the Unified Service Manage portlet within UMP, if you select the Windows or UNIX server group in the left-hand navigation pane, the Description field in the right-hand pane displays English text, instead of the localized language.

Appendix A: Advanced Indexing to Improve DB Performance

This section applies for MS SQLServer and when using the legacy report_engine/group_server probes, for example when running "on demand reports" from Dynamic Views. The objective is to improve performance for a particular database/reporting scenario, as described in the section "Advanced indexing for report_engine/group_server (SQL Server only)."

Important: The advanced indexing described in this section is not supported with partitioned database tables.

For new QoS data

To enable a covering index for new RN_QOS_DATA tables, run this command:

```
update tbn_de_Config
      set ConfigValueNumeric = 0
where ConfigName = 'CreateMinimalTSIndex'
```

This will result in Idx1 be a covering index for new RN tables, which enhances performance at the cost of disk space.

For existing QoS data

To enable covering indexes on existing RN_QOS_DATA-tables, run the following commands.

Note: The index update may take several hours, depending on database size.

For tables using the samplemax field:

```
declare @tName varchar(100)
declare @time varchar(30)

Declare tableHasMax CURSOR FOR
      select
      'RN_QOS_DATA_' + reverse(stuff('0000' , 1,  len(cast(s.qos_def_id as
varchar(max))), reverse(cast(s.qos_def_id as  varchar(max)))))
      from S_QOS_DEFINITION s
      where hasmax = 1 and type = 0
      order by qos_def_id asc
OPEN tableHasMax
Fetch tableHasMax into @tName

WHILE @@FETCH_STATUS = 0
BEGIN

      set @time = convert(varchar(30), getdate(), 121);

      RAISERROR('%s %s starting', 0, 1, @time, @tname) WITH NOWAIT;

      exec spn_utl_IndexAdmin__DropIndex @TableName = @tName, @Target = 'Idx1';

      exec spn_utl_IndexAdmin @mode='createindex', @IndexName='Idx1',
@IndexColumns='(sampletime, table_id) include (samplerate, samplevalue, samplemax,
tz_offset)', @IndexType='nonclustered', @IndexOptions ='(fillfactor=75)',
@TableNamePattern=@tName

      RAISERROR('%s %s done', 0, 1, @time, @tname) WITH NOWAIT;

      Fetch tableHasMax into @tName
      END
CLOSE  tableHasMax
DEALLOCATE tableHasMax
```

For tables without the samplemax field:

```
declare @tName varchar(100)
declare @time varchar(30)

Declare tableHasMax CURSOR FOR
      select
      'RN_QOS_DATA_' + reverse(stuff('0000' , 1,  len(cast(s.qos_def_id as
varchar(max))), reverse(cast(s.qos_def_id as  varchar(max)))))
      from S_QOS_DEFINITION s
      where hasmax = 0 and type = 0
      order by qos_def_id asc
OPEN tableHasMax
Fetch tableHasMax into @tName

WHILE @@FETCH_STATUS = 0
BEGIN

      set @time = convert(varchar(30), getdate(), 121);

      RAISERROR('%s %s starting', 0, 1, @time, @tname) WITH NOWAIT;

      exec spn_utl_IndexAdmin__DropIndex @TableName = @tName, @Target = 'Idx1';

      exec spn_utl_IndexAdmin @mode='createindex', @IndexName='Idx1',
@IndexColumns='(sampletime, table_id) include (samplerate, samplevalue,
tz_offset)', @IndexType='nonclustered', @IndexOptions ='(fillfactor=75)',
@TableNamePattern=@tName

      RAISERROR('%s %s done', 0, 1, @time, @tname) WITH NOWAIT;

      Fetch tableHasMax into @tName
      END
CLOSE  tableHasMax
DEALLOCATE tableHasMax
```