



# **Installation and Operation of asanetwork Network Manager Version 3.0 or later**

# Installation and Operation of asanetwork Network Manager Version 3.0 or later



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## 1. Requirements

### 1.1. Minimum PC Hardware requirements

1.3 GHz CPU, recommended: 2,0 GHz or better.  
1GB RAM, recommended 2 GB or better.

### 1.2. Supported Operating Systems

Microsoft Windows XP with SP3  
Microsoft Windows Server 2003 with SP1, x86 and x64  
Microsoft Windows Vista with SP2, x86 and x64  
Microsoft Windows Server 2008 with SP2, x86 and x64  
Microsoft Windows 7 with SP1, x86 and x64  
Microsoft Windows Server 2008 R2, x86 and x64  
Microsoft Windows Server 2012 und 2012 R2  
Microsoft Windows 10 Preview  
Microsoft Windows Server Technical Pr

### 1.3. Unsupported Operating Systems

All operating systems prior to Windows XP are unsupported.

### 1.4. Required runtimes

Microsoft .Net Framework 4.0  
Microsoft Visual C++ Runtime 2010

### 1.5. Differences between Web-Setup and Complete-Setup

The installation is available as Web-Setup and as a Complete-Setup.

The file name for the Web-Setup is Netman.Net.InstallerX.Y.B.0.exe. X, Y are Version numbers and B is the actual Build number. The Web-Setup has a size of about 8MB. An active internet connection is required during the setup to download additional components when required. This reduces the overall size of the download. The whole setup is packed as one executable file.

The Complete Setup has a size of approx. 201MB and contains all components for x86 and x64 installations. The file name is Netman.Net.InstallerX.Y.B.0.zip. After download you can extract all files onto a USB thumb drive and use that setup for offline installations.

## 2. Performing an initial installation

Please read the next sections carefully before you start the setup process.

### 2.1. Where should the network manager be installed?

If the customer operates a Windows Server, then install network manager on the server because this is the most stable environment.

If there is no server, then please select this workstation, which is always online or switch on very early in the morning.

Do not install on a testing device and also do not install multiples copies in the same network.

### 2.2. Preparation of copy protection

Network Manager 3.0 uses an USB model with a **new** internal format. The new model is used since network manager 2.0 and is marked with a red cross line.

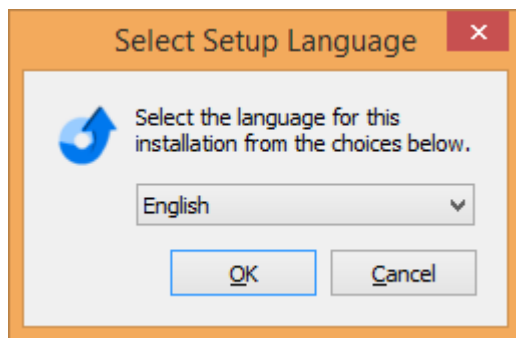
You can't use existing USB models from version 1.0. You have to replace these by asanetwork (fee-based).



**Important:** Do **not connect** the USB copy protection model at this time. First install the network manager software! If you have already connected the USB model on Windows XP, abort the driver installation and leave the USB model connected.

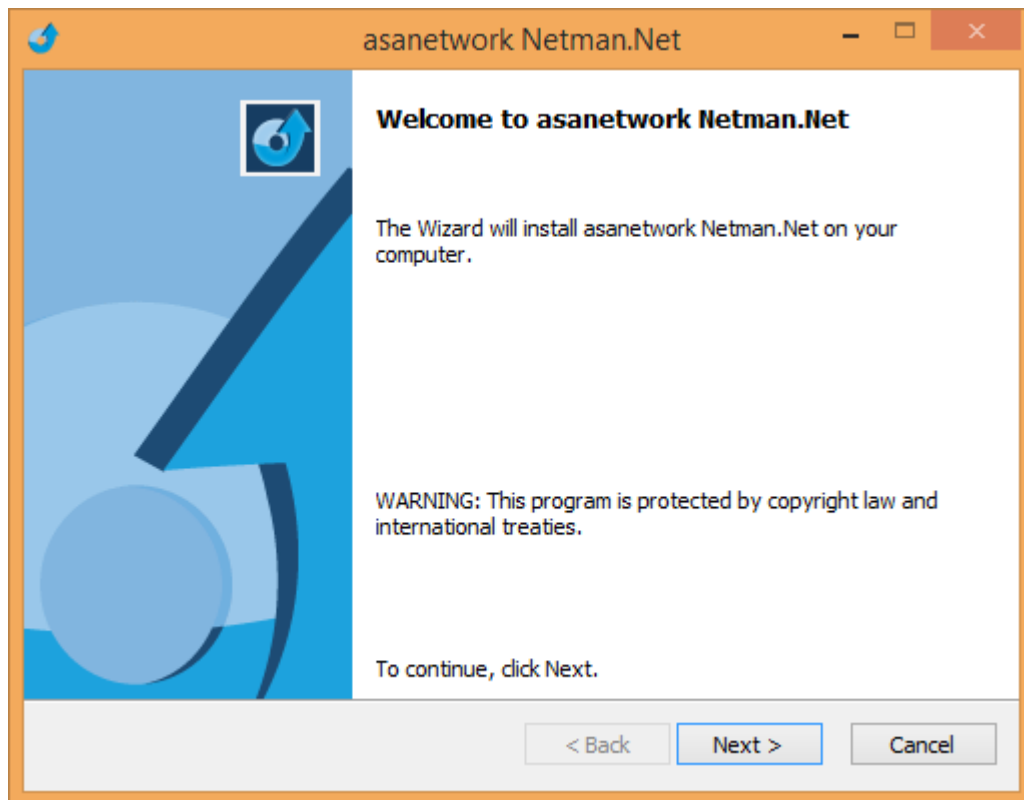
### 2.3. Installation process

**Important:** You need administrative rights for any installation. Run *netmanX.Y.B.0.exe*. Select the installation language and proceed with OK:

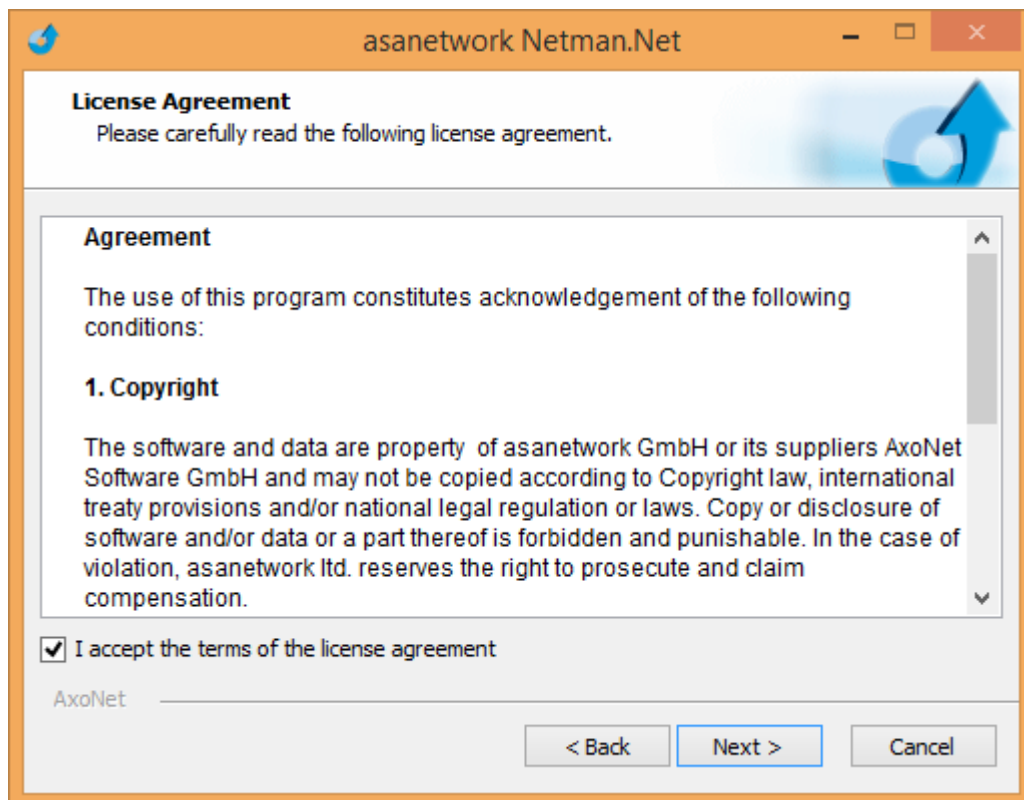


Then the setup checks the prerequisites like .Net Framework 4.0 and Visual C++ Runtime 2010. Should any of these be missing, the installer will now download and install the missing prerequisites:

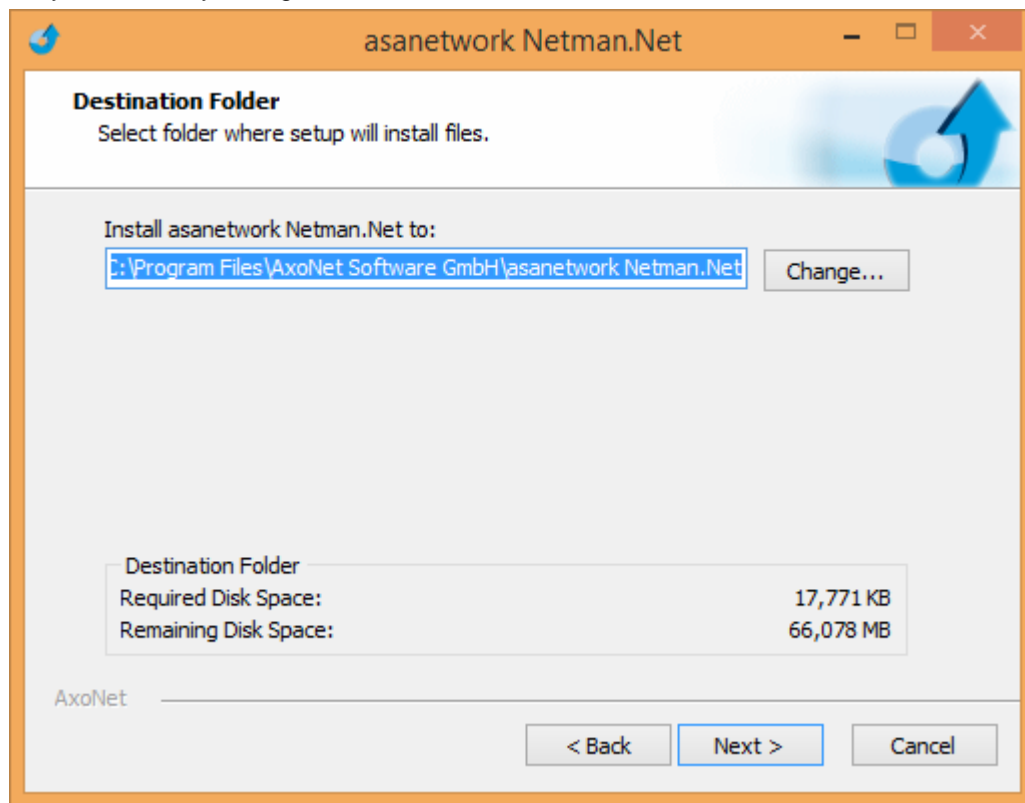
Then the installation continues:



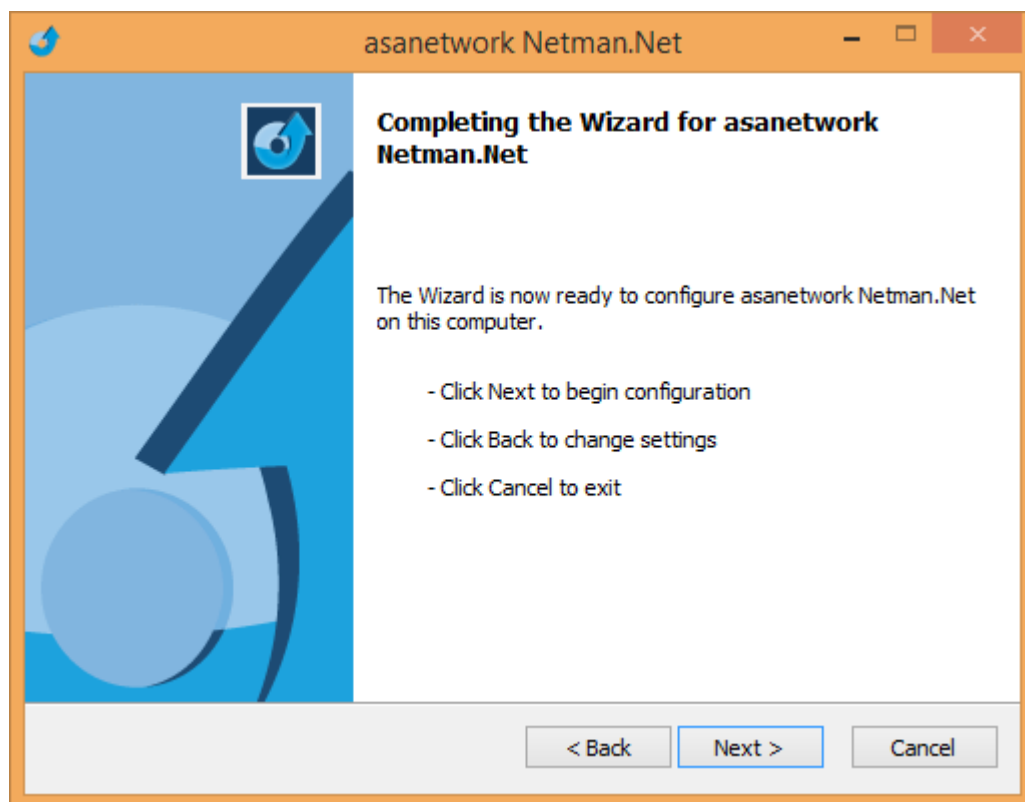
Read the license terms and confirm, then click "Next".



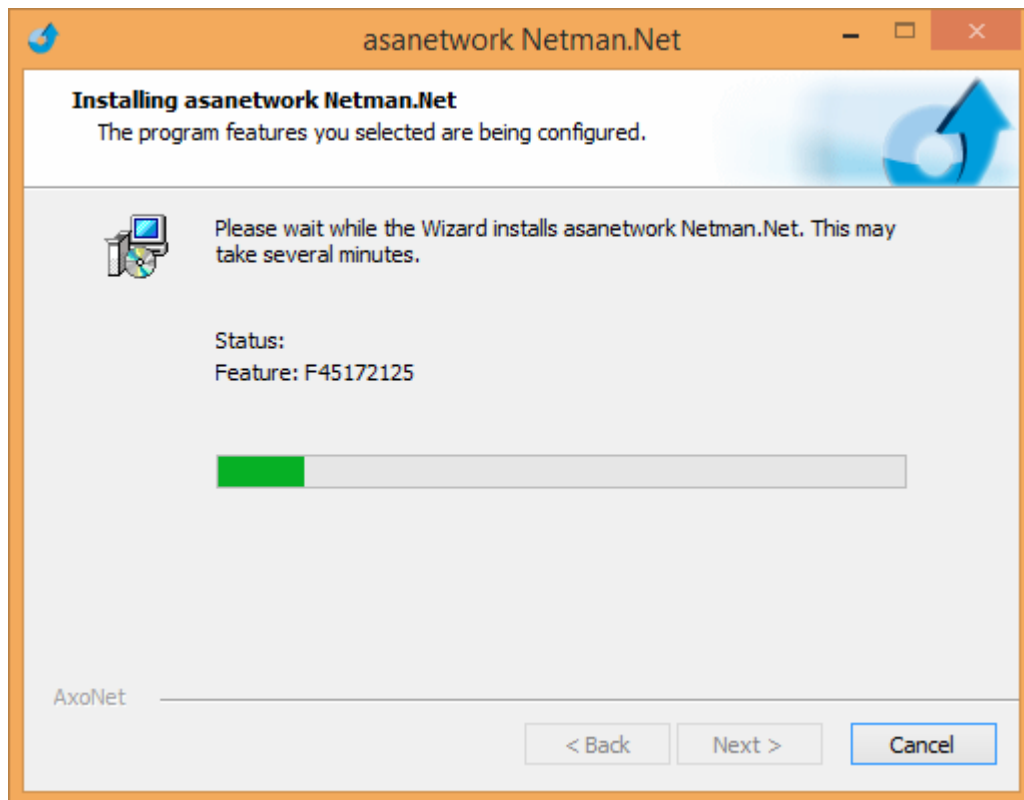
Only if necessary change the installation folder:



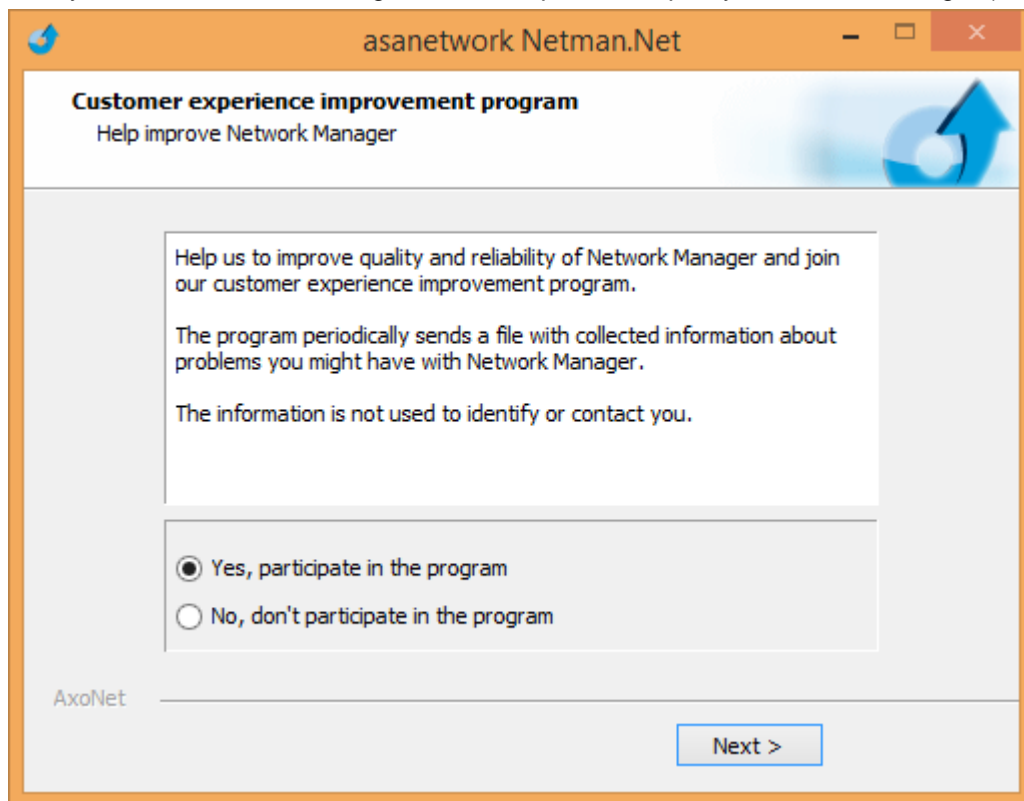
Now we have entered all required information for the setup:



In the next step, files will be copied:

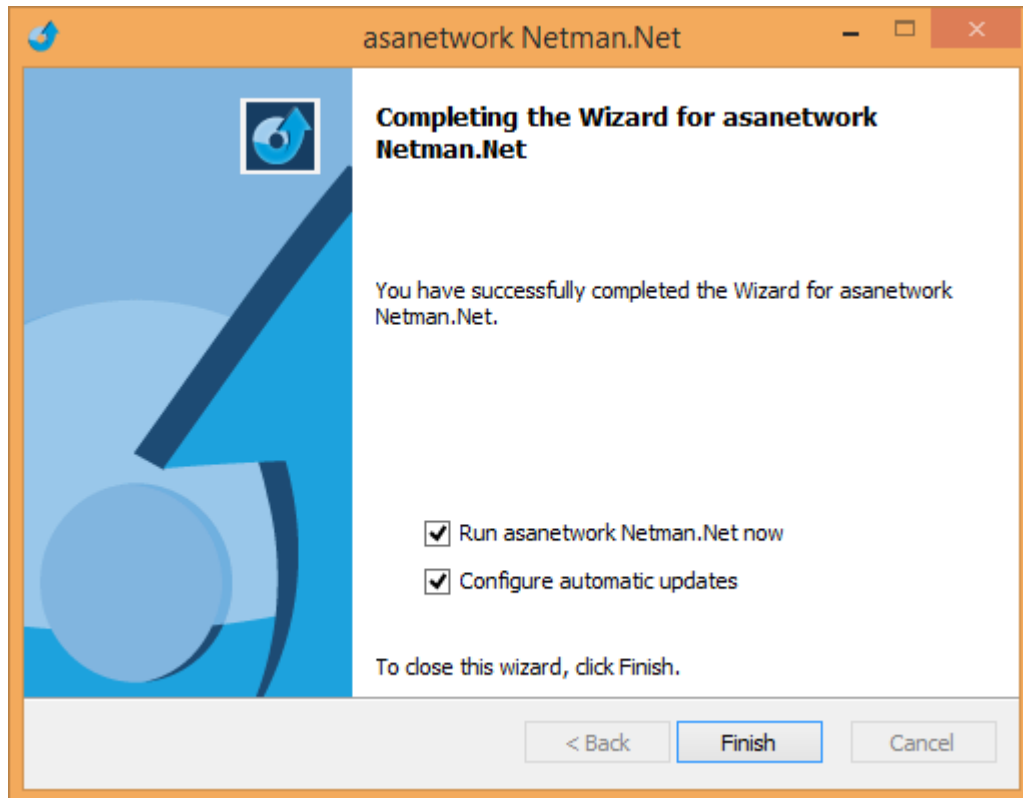


Now you should enable sending of data to improve the quality of network manager (see also chapter 6.4.2)



Finished! If this is an initial installation it is time to **connect** the USB copy protection model **now**.





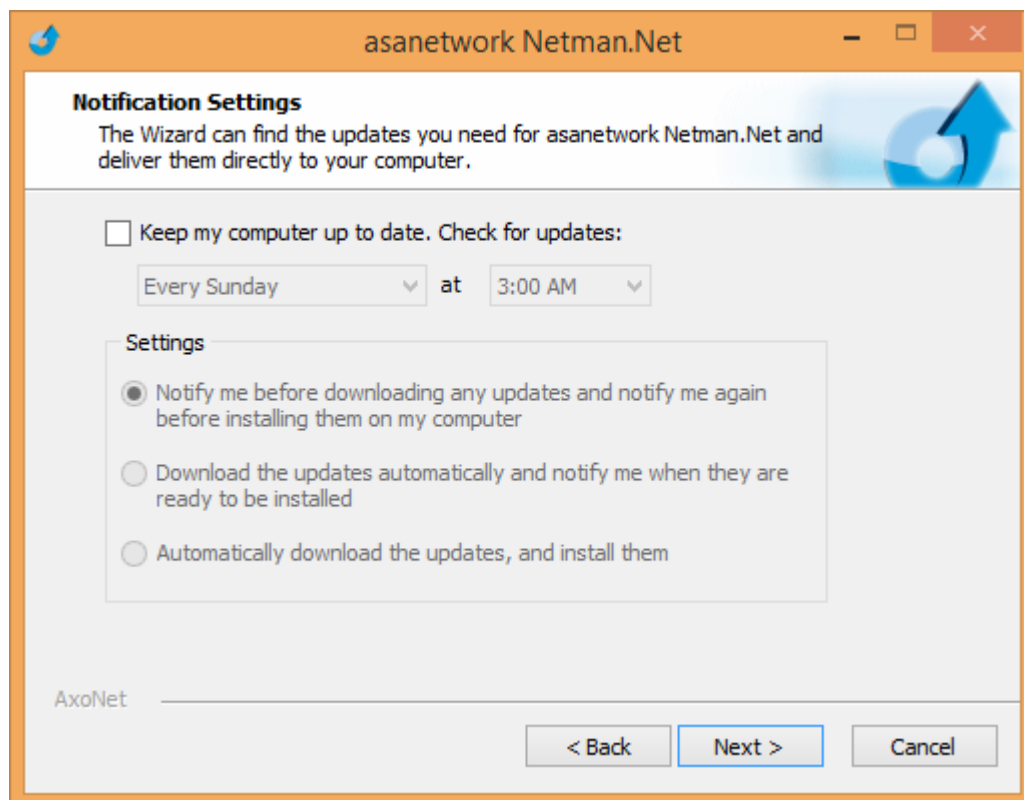
When you click Finished, network manager gets started and you can proceed with the configuration of automatic updates.

## 2.4. Setting up automatic updates

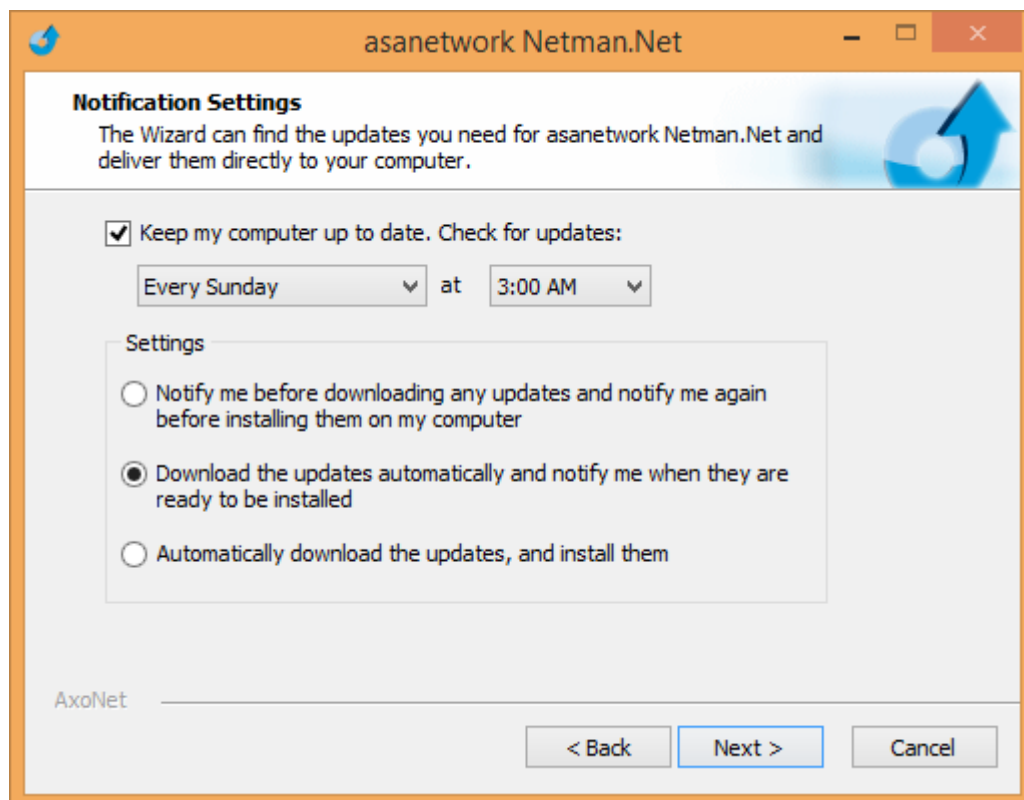
After installation, the configuration of automatic updates is offered. If you skipped this, the configuration is offered again on your next login.

You can always run the configuration manually. Go to Start menu, asanetwork and select „Configure Network Manager updates“.

If you do not want to check for updates, remove the check mark and click on “Next”:

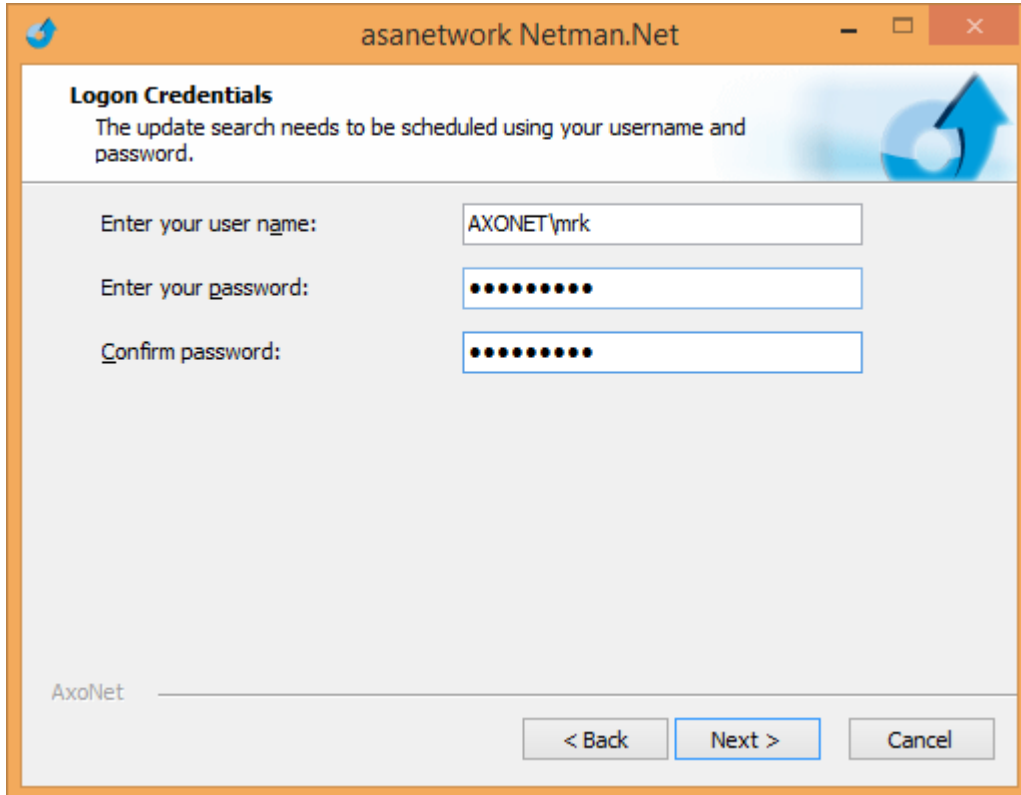


If you want to use automatic updates, select day, time and method and click on “Next”:



Note: The check is only running if you are logged in!

Finally you have to enter your password for the scheduler:



asanetwork Netman.Net

**Logon Credentials**  
The update search needs to be scheduled using your username and password.

Enter your user name:

Enter your password:

Confirm password:

AxoNet

< Back   Next >   Cancel

Finished, automatic updates are now configured.

## 2.5. Running a manual check for updates

You can always start a manual check via start menu, asanetwork->Check for updates. When updates are available, a tray icon is displayed.

Or open the monitor application (see 7), select menu help/check for updates.

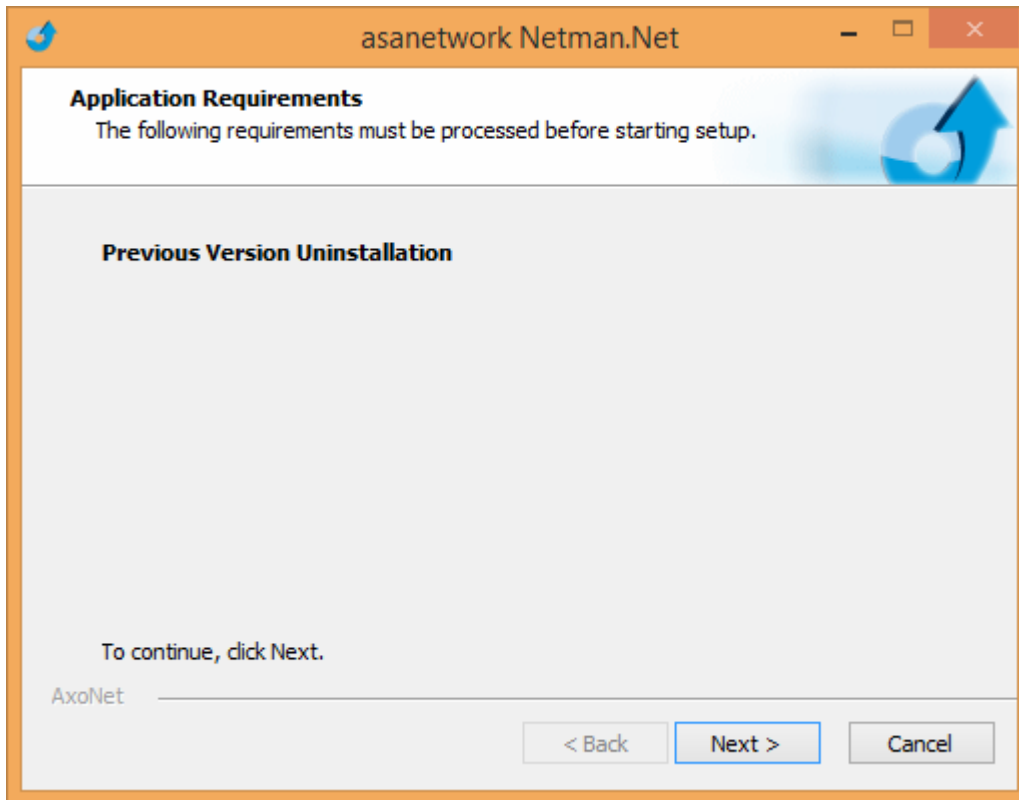
## 3. Performing an update

### 3.1. Updating from old versions up to 1.8.x

There is no direct update path. Please uninstall version 1.8.x, then install version 3.0 or later.

### 3.2. Performing updates from versions 2.x to 3.9

The setup detects, that a version 2.x or later is already installed. This version needs to be uninstalled first before setup can continue. The existing data base is not removed.



After the previous version has been removed, setup will work exactly in the same way as documented in chapter 2.3.

#### 3.2.1. Data base format

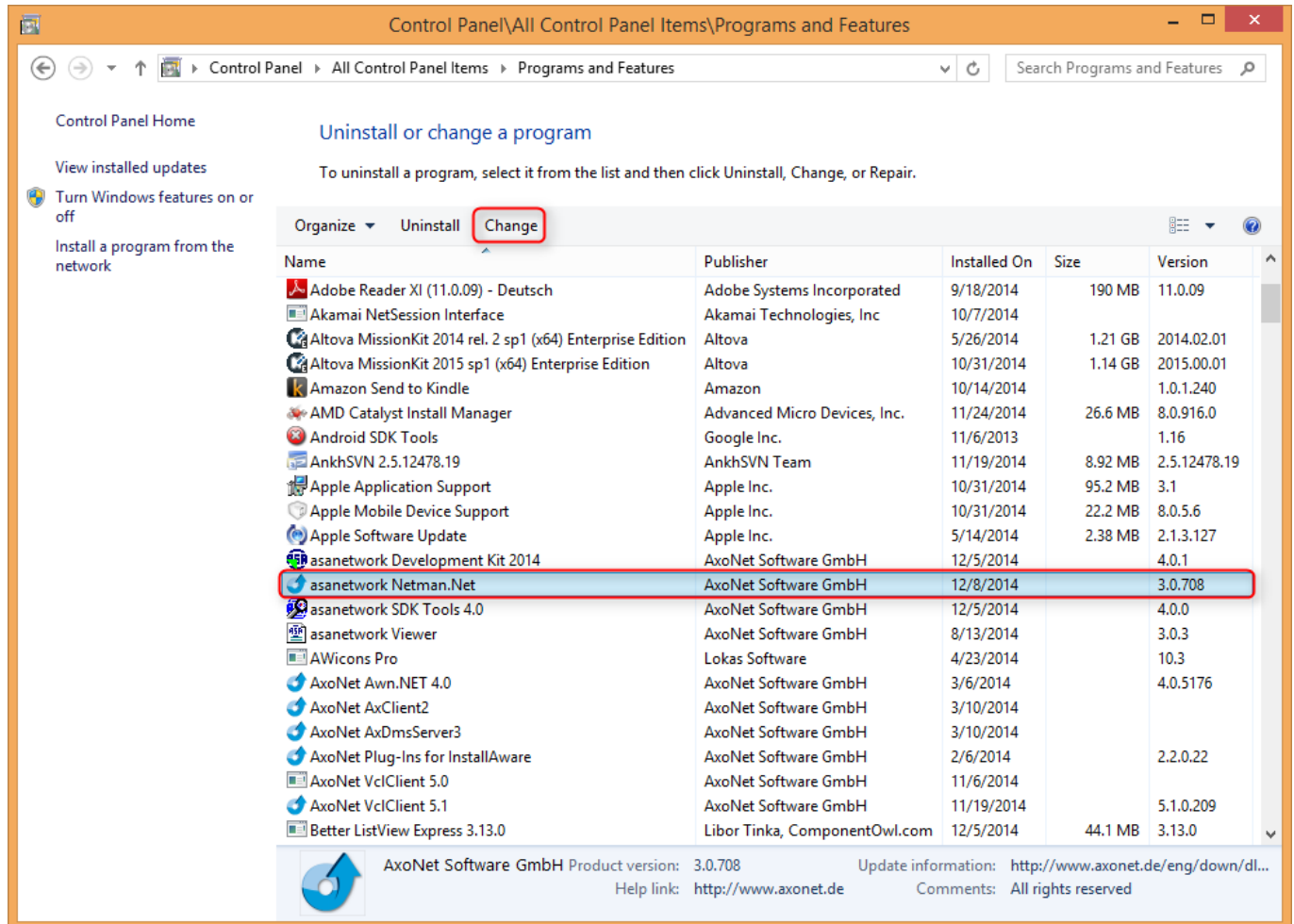
Version 3.0 uses an updated data base schema. An existing data base is automatically upgraded, a backup copy is saved as Netman.Net.tdbd.version2-backup in the DB directory.

### 3.3. Performing updates from versions 3.x to 3.y

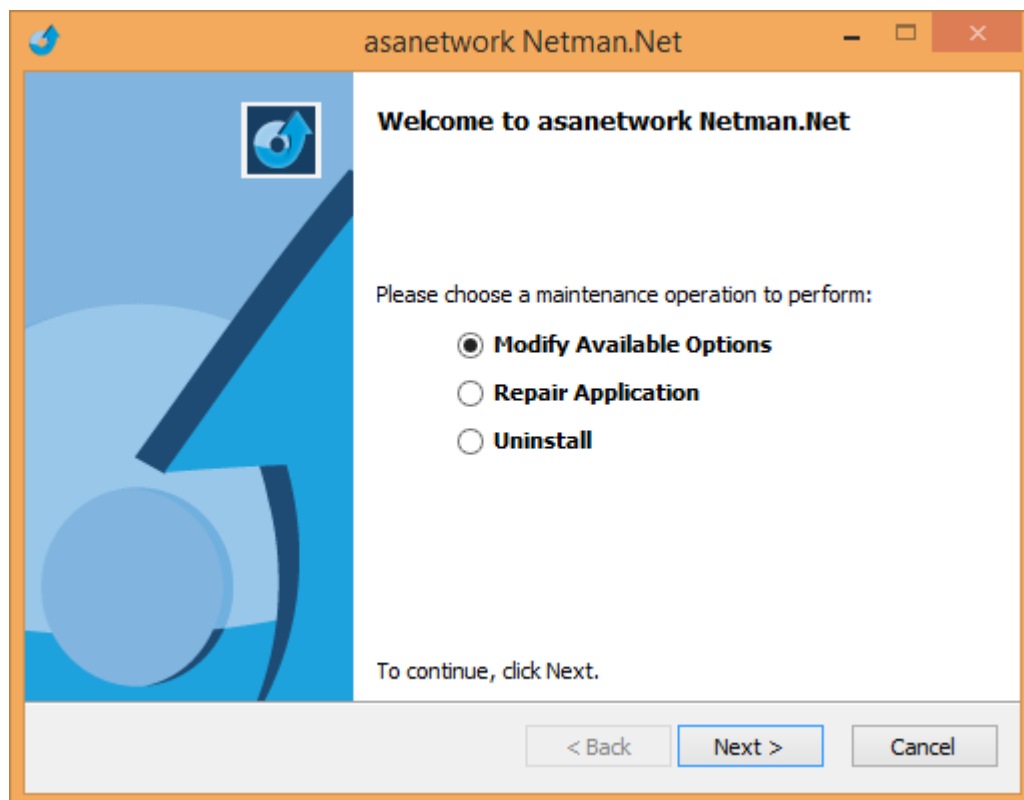
The setup detects, that a version 3.x or later is already installed. This version is automatically removed during the update. The existing database and settings are not removed.

## 4. Performing a repair installation or modification

To repair or modify network manager, go to control panel, then select “Add/Remove Programs” (XP, 2003) or “Programs and Features” (Vista and later)



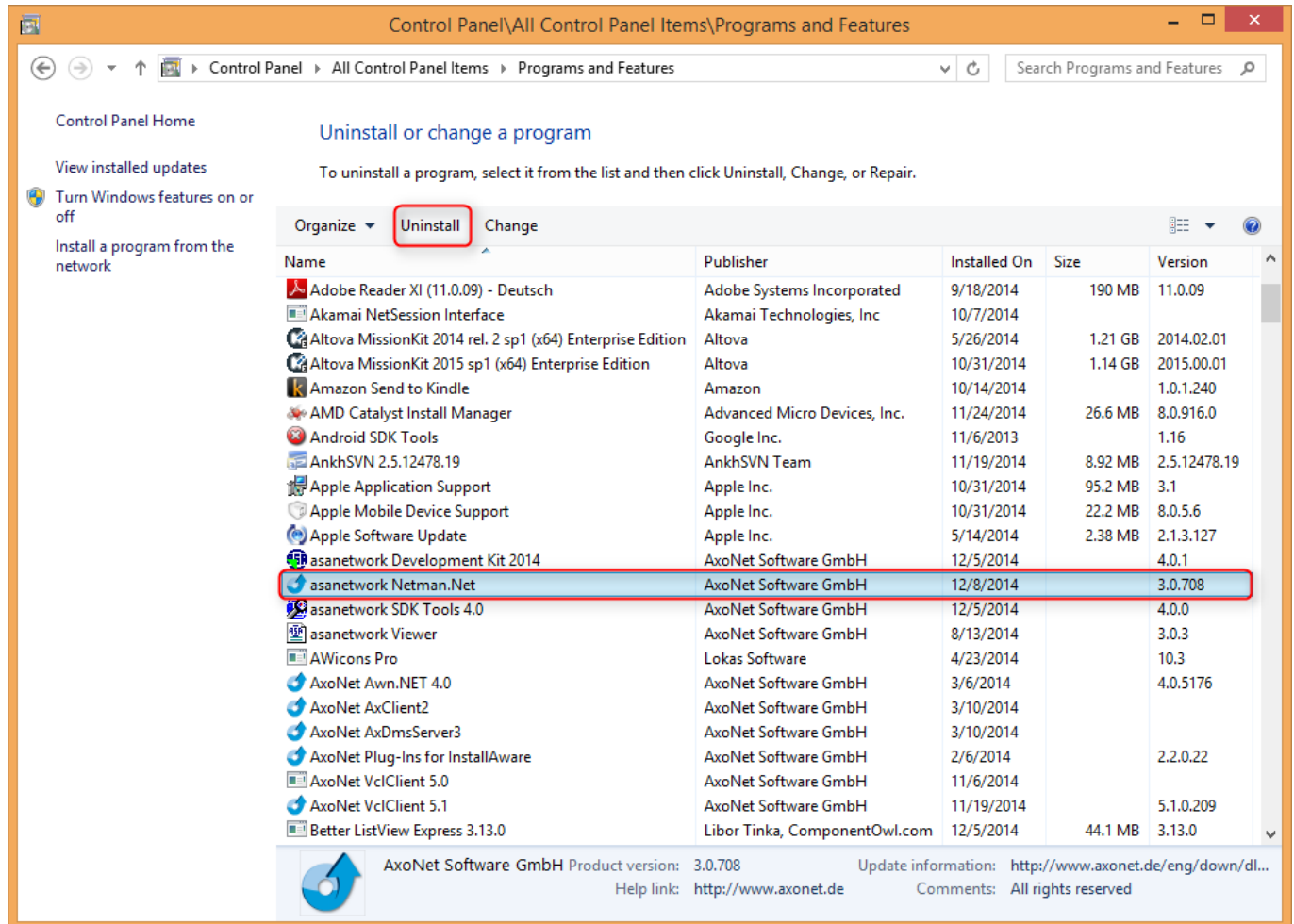
Select network manager and click on the “Change” button.

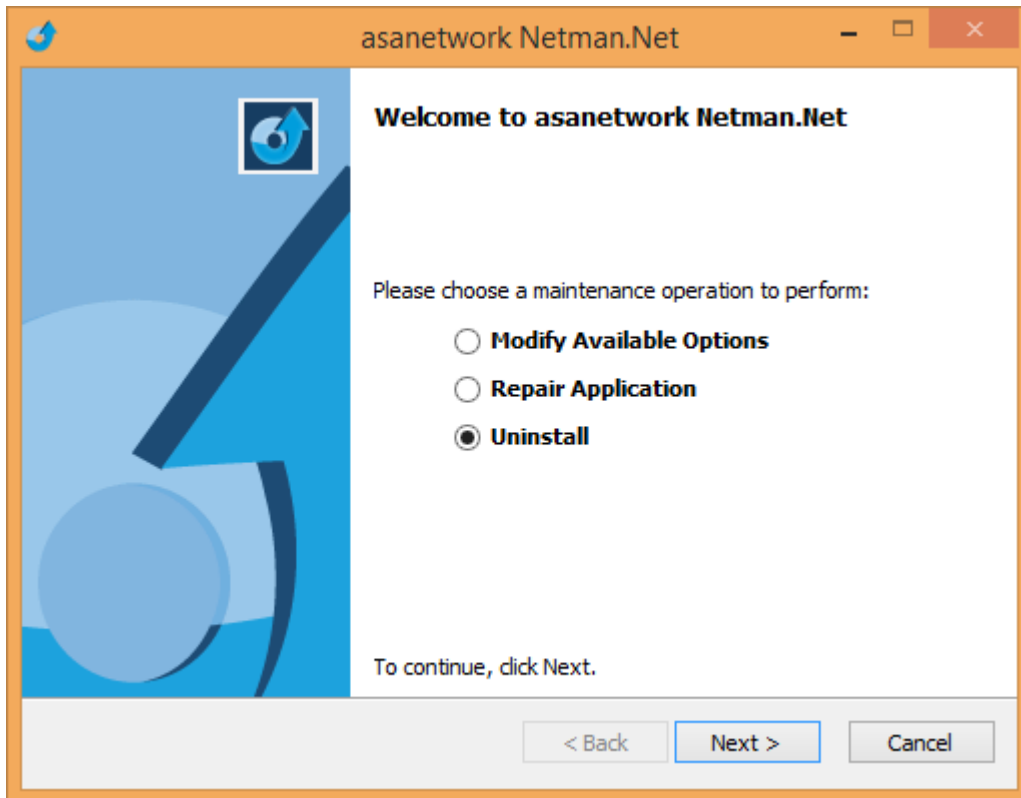


If you select repair, all files are verified and copied again if necessary.

## 5. Removing network manager

To uninstall network manager, go to control panel, then select “Add/Remove Programs” (XP, 2003) or “Programs and Features” (Vista and later) .





If you select uninstall, network manager is removed from the computer. The database is not removed in case you want to install again. To remove the database, delete directory C:\ProgramData\Axonet Software GmbH\Netman.Net.



## 6. Operation of network manager

### 6.1. Used directories

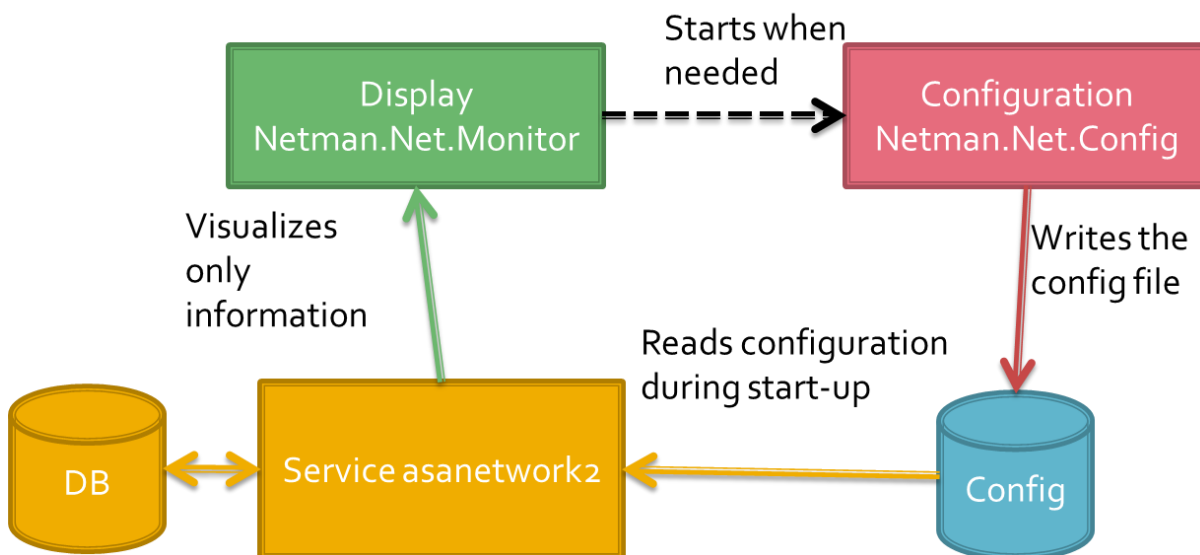
After a standard installation these directories are used:

- A program files directory which contains all executables:  
C:\Program Files\AxoNet Software GmbH\asanetwork Netman.Net
- An application data directory which contains log files and the data base:  
C:\ProgramData\Axonet Software GmbH\Netman.Net (Windows Vista and later) or  
C:\Documents and Settings\All users\Applicationdata\Axonet Software GmbH\Netman.Net (XP, 2003)  
which holds the sub directories Logs and DB.

### 6.2. Components

Network manager consist of several components (modules):

- A Windows service called asanetwork2, which represents network manager and which accesses a configuration file and the data base
- A configuration tool, which writes the configuration file
- A monitor application which visualizes internal data of network manager



### 6.3. The Windows service asanetwork3

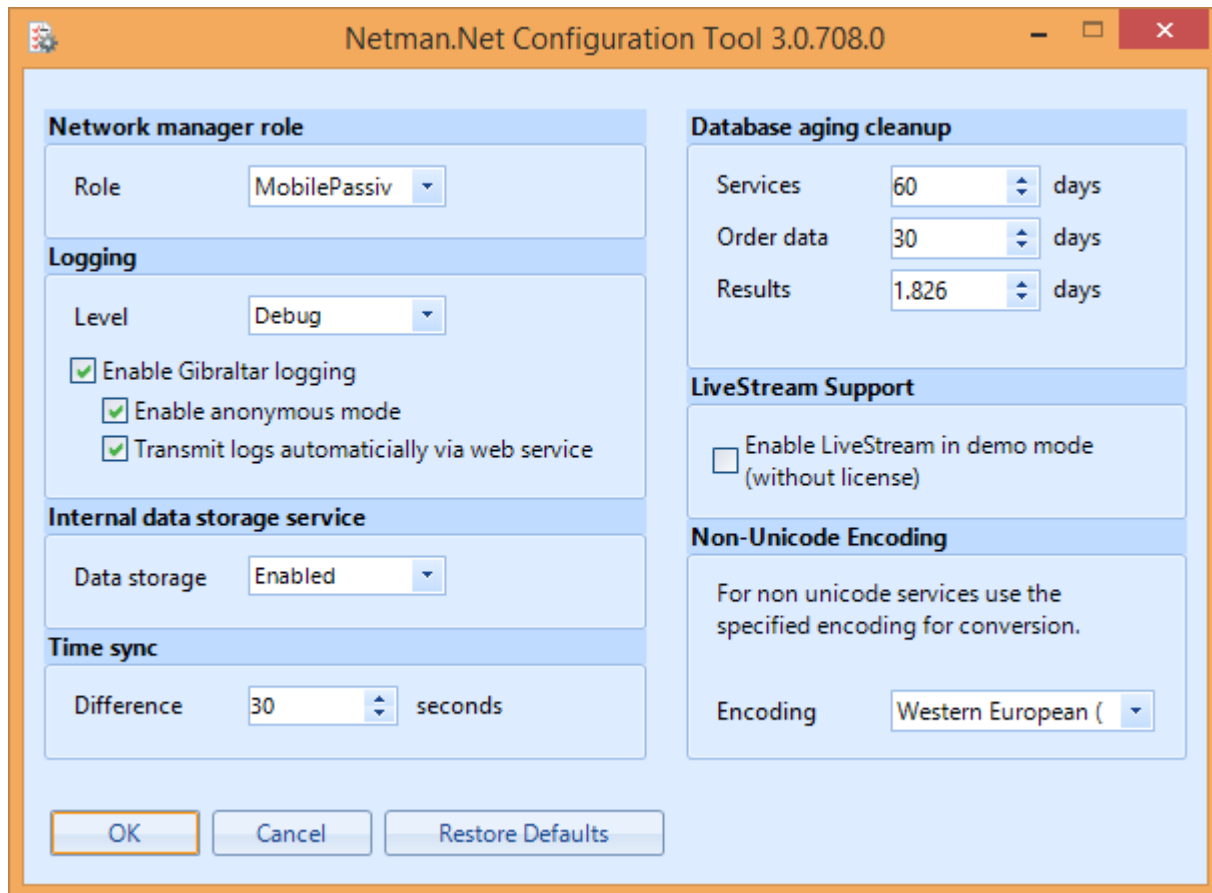
The Windows service asanetwork3 is the heart of network manager. The service is responsible for the functionality and works invisibly in the background. The service starts automatically when the machine boots, a user login is not required. You can use traditional Windows tools to control the service.

## 6.4. The configuration tool Netman.Net.Config

To run the configuration tool, either use Start, Programs->asanetwork->Netman.Net.Config or use the monitor application (file menu).

### Note:

Network manager runs fine with default settings, there are not many reasons to change these values:



When you change settings, the OK button gets enabled. When you click on OK, the new settings are saved and the service is restarted to apply the settings.

### 6.4.1. Role

The role defines how a conflict in the operation of multiple network managers will be covered:

- **AlwaysActive** – suppresses other network managers configured as mobile passive
- **MobilePassive** (Default) – active while there's no other network manager, otherwise the one with the lowest IP address is running

You have to change that setting if a network manager is running on a notebook for mobile applications and another network manager is running on a server. If the notebook is plugged into the network with the server we have two instances running in the same network and get a conflict. To allow such operating modes, the network manager on the notebook will be running in the mobile, passive role. The network manager on the server will use the always active role.

### 6.4.2. Logging

The network manager service logs internal data for fault analysis and improvement. The log is saved each day as a text log in directory Logs and if possible, automatically transmitted via Gibraltar. Gibraltar is a product which allows to collect and transmit data for product improvement (CEIP = customer experience improvement program).

You can change the protocol level between Trace (full details) and Errors (only errors). Only increase the level to debug or trace when required and advised to do so, because in Trace mode you get huge log files.

If Gibraltar logging is enabled, all logging data is also written to the Gibraltar log data base and sent to a web service when enabled. These logs can then be downloaded by authorized persons to improve network manager.

User should run Gibraltar in anonymous mode which suppresses all personal data and does not permit any identification of the user. For specific troubleshooting this setting should be enabled if necessary after consultation of customer service.

### 6.4.3. Data storage service

A data storage service is used in asanetwork to store results for other services. This setting should be enabled.

### 6.4.4. Time sync

In the standard configuration, every service with a time difference of more than 30 seconds gets a time sync message.

### 6.4.5. Data base aging and clean-up

Data stored in the data storage service is removed after a certain amount of time:

- Services after 60 days
- Orders after 60 days
- Results after 5 years (= 1826 days)

These settings should only be decreased in situations with high load after consultation of customer service.

### 6.4.6. LiveStream support

Network manager runs in three different modes

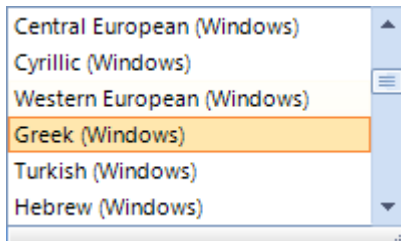
- Without license, LiveStream mode not enabled
  - Only local connection are permitted
  - All services are allowed
- With license (USB copy protection key)
  - Local and remote connections are possible and permitted
  - All services are allowed
- Without license, LiveStream mode enabled
  - Local and remote connections are possible and permitted
  - Only LiveStream service is allowed

## 6.4.7. Non-Unicode Encoding

Old applications using protocol version 01.xx use an 8 Bit character encoding. If server and clients use different regional or language settings, select the matching language here.

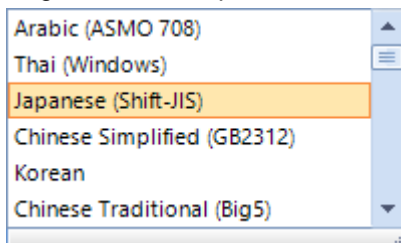
### Example 1

English server, Greek workstations or test equipment: Recommended setting Greek (Windows)



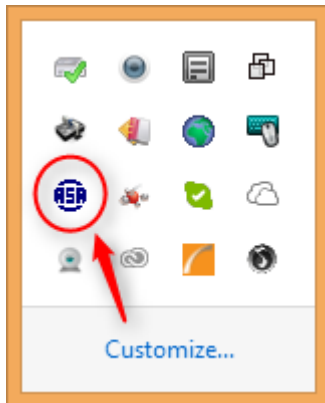
### Example 2

English server, Japanese workstations or test equipment: Recommended setting Japanese (Shift-JIS)

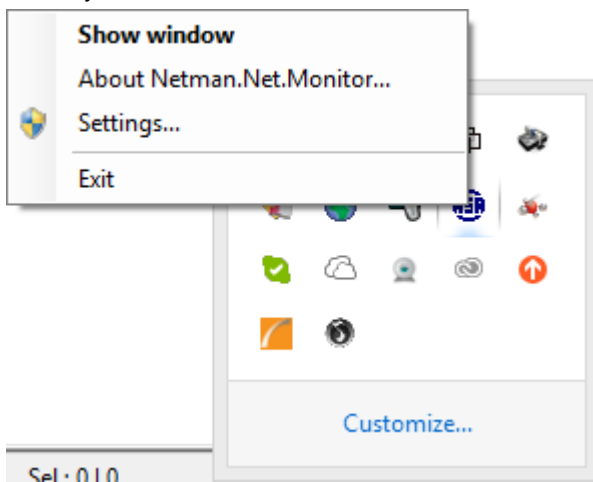


## 7. Monitoring application Netman.Net.Monitor

On user login, a monitoring application is started automatically and displayed as icon in the task bar:

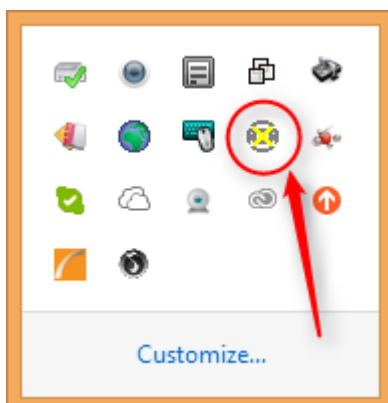


When you move the mouse over the icon, a short status is displayed, a right click displays the context menu:



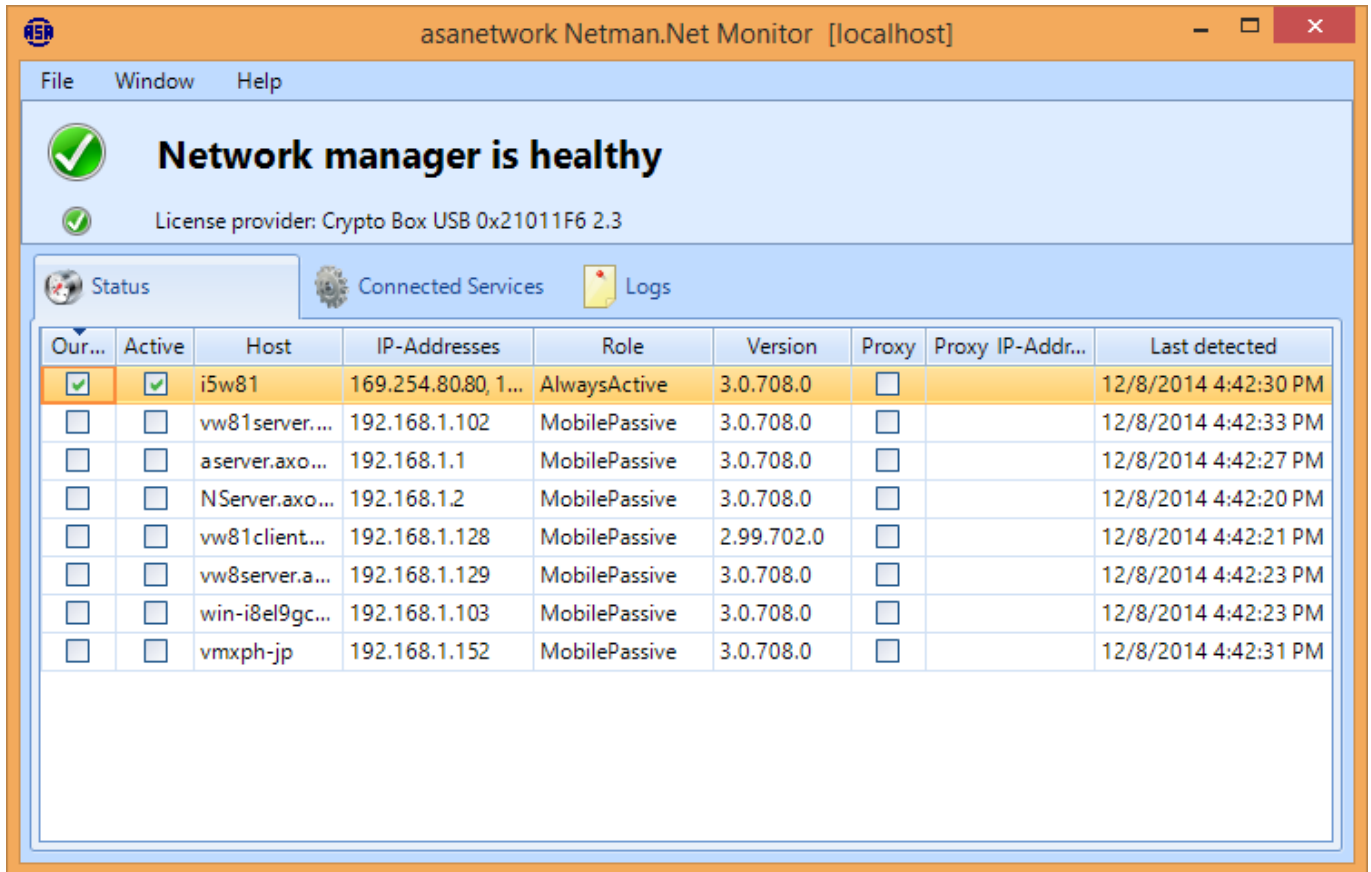
Icon colors are used to signal internal states:

- Blue icon – ok
- Gray icon with a yellow cross – currently not active
- Yellow icon – no connection to the windows service



## 7.1. Show windows

The main window is displayed when you double click the icon or when you select “Show window” from the context menu.



The main window display 3 areas: On top a menu bar, below a short status and on bottom a selection of different views.

## 7.2. Menu bar

### File menu

- Connect to network manager..., see 0
- Settings, runs the configuration tool, see 6.4
- Open Explorer in application folder (db/logs), runs Windows file explorer
- Exit, closes the monitoring application

### Window menu

- State, displays a list of network managers and the currently active network manager
- Services, display a list of all connect asanetwork services
- Log, display a local log of the monitoring application

### Help


- Check for updates
- About, shows version numbers and copyright information

## 7.3. Short status


The short status is used to display the current state of this network manager:

### 7.3.1. Normal operation, licensed

Network manager is operational and displays the license provider




### Network manager is healthy


 License provider: Crypto Box USB 0x21011F6 2.3

### 7.3.2. Only LiveStream

In this state, network manager only accepts connections from LiveStream services.




### Network manager is healthy


 Not licensed, only LiveStream enabled!

### 7.3.3. Not licensed (demo mode)

Network manager accepts only local connections




### Network manager is healthy


 Not licensed, demo mode

### 7.3.4. Passive (disabled) state

Network manager is disabled, another network manager has precedence.




### Network manager is currently disabled


 Not licensed, demo mode

### 7.3.5. Errors

Errors are visualized with a yellow exclamation sign and an optional error message.

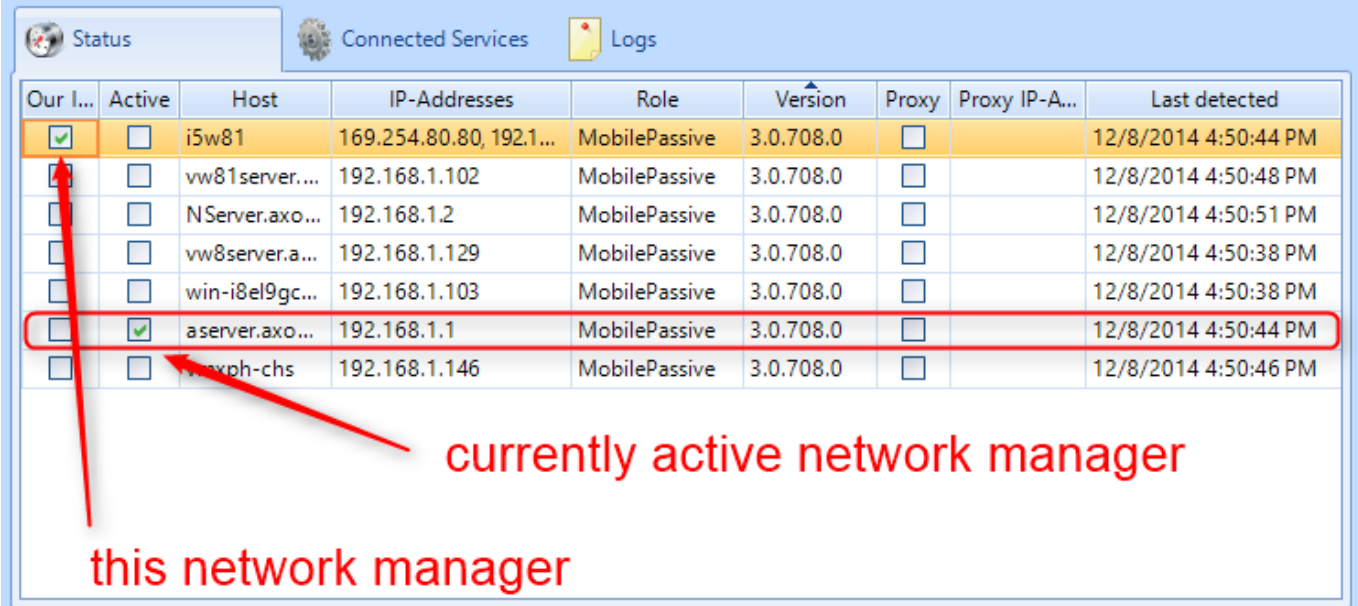


### No connection to network manager, service probably not running?

 Not licensed, demo mode

## 7.4. Status view

This view shows all network managers running in this network. The first column shows the connected (local) network manager, the second column shows the currently active network manager. You can also see IP-Addresses and version numbers.



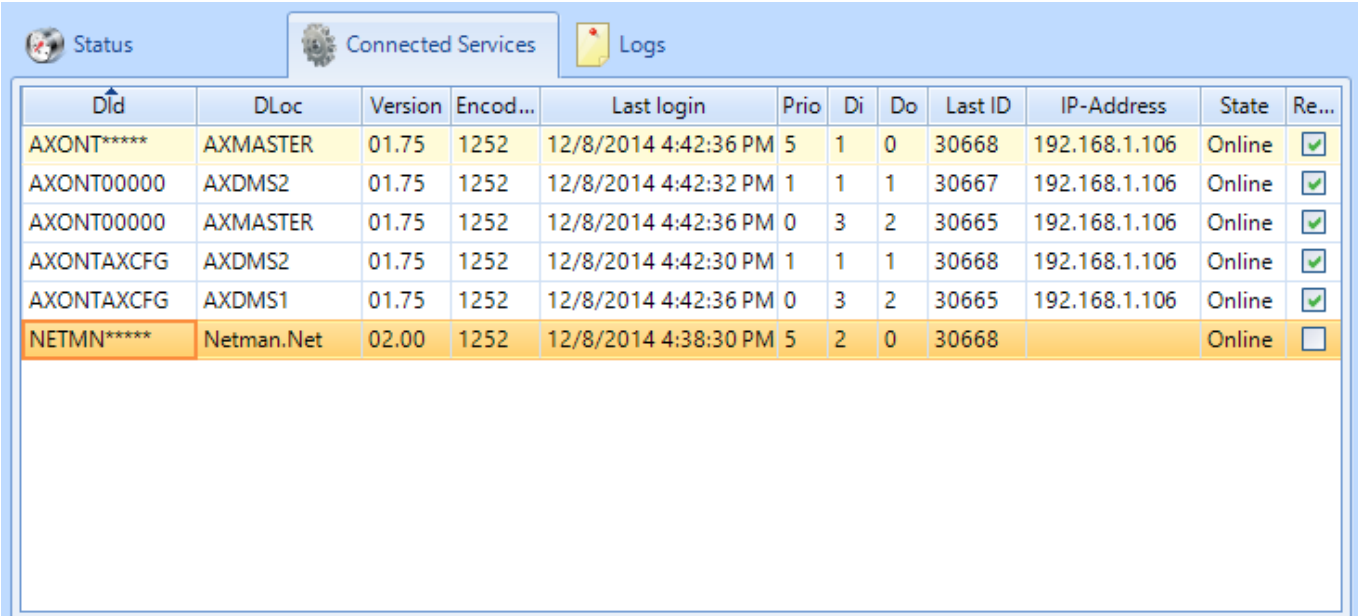
Our I...	Active	Host	IP-Addresses	Role	Version	Proxy	Proxy IP-A...	Last detected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	i5w81	169.254.80.80, 192.1...	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:50:44 PM
<input type="checkbox"/>	<input type="checkbox"/>	vw81server...	192.168.1.102	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:50:48 PM
<input type="checkbox"/>	<input type="checkbox"/>	NServer.axo...	192.168.1.2	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:50:51 PM
<input type="checkbox"/>	<input type="checkbox"/>	vw8server.a...	192.168.1.129	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:50:38 PM
<input type="checkbox"/>	<input type="checkbox"/>	win-i8el9gc...	192.168.1.103	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:50:38 PM
<input type="checkbox"/>	<input checked="" type="checkbox"/>	aserver.axo...	192.168.1.1	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:50:44 PM
<input type="checkbox"/>	<input type="checkbox"/>	vw8server.a...	192.168.1.146	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:50:46 PM

**this network manager**

**currently active network manager**

## 7.5. Connected services view

Shows a list of all connected services and their parameters:



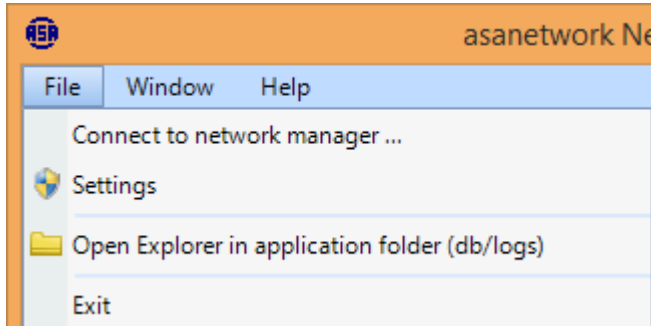
DId	DLoc	Version	Encod...	Last login	Prio	Di	Do	Last ID	IP-Address	State	Re...
AXONT*****	AXMASTER	01.75	1252	12/8/2014 4:42:36 PM	5	1	0	30668	192.168.1.106	Online	<input checked="" type="checkbox"/>
AXONT00000	AXDMS2	01.75	1252	12/8/2014 4:42:32 PM	1	1	1	30667	192.168.1.106	Online	<input checked="" type="checkbox"/>
AXONT00000	AXMASTER	01.75	1252	12/8/2014 4:42:36 PM	0	3	2	30665	192.168.1.106	Online	<input checked="" type="checkbox"/>
AXONTAXCFG	AXDMS2	01.75	1252	12/8/2014 4:42:30 PM	1	1	1	30668	192.168.1.106	Online	<input checked="" type="checkbox"/>
AXONTAXCFG	AXDMS1	01.75	1252	12/8/2014 4:42:36 PM	0	3	2	30665	192.168.1.106	Online	<input checked="" type="checkbox"/>
NETMN*****	Netman.Net	02.00	1252	12/8/2014 4:38:30 PM	5	2	0	30668		Online	<input type="checkbox"/>

Use this view to quickly check for services, which are not ready to receive (last column).

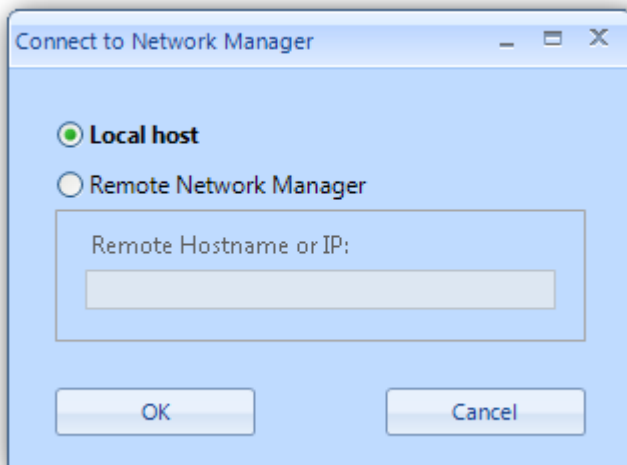


## 7.6. Connect to another Network Manager

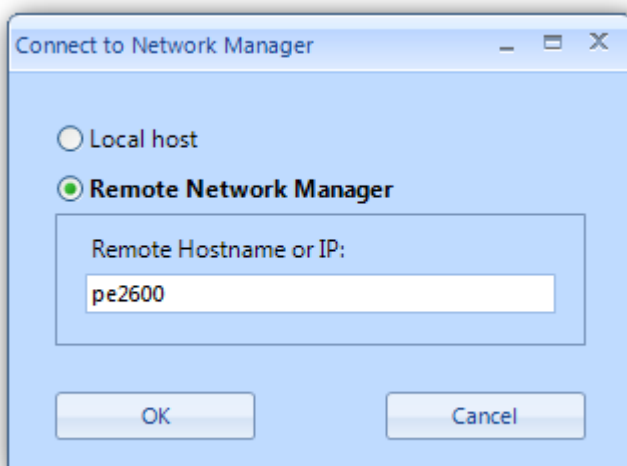
The monitoring application can show information from a remote network manager. Click on File/Connect to network manager... to bring up the connection dialog:



The monitoring application is connected to the local instance by default.



Now select Remote Network Manager. Enter a name or IP-Address of a remote machine:



When the connection has been successfully established, the state of the remote machine is displayed. The title now shows the name in braces.

# Installation and Operation of asanetwork Network Manager Version 3.0 or later

asanetwork Netman.Net Monitor [aserver]

File Window Help

**Network manager is healthy**

License provider: Martin Rothschink, AxoNet Software GmbH

Status Connected Services Logs

Our I...	Active	Host	IP-Addresses	Role	Version	Proxy	Proxy IP-A...	Last detected
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	AServer	192.168.1.1, 127.0.0.1	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:44:58 PM
<input type="checkbox"/>	<input type="checkbox"/>	i5w81.axon...	192.168.1.85	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:45:00 PM
<input type="checkbox"/>	<input type="checkbox"/>	nserver.axo...	192.168.1.2	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:44:51 PM
<input type="checkbox"/>	<input type="checkbox"/>	vmxph-jp	192.168.1.152	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:45:01 PM
<input type="checkbox"/>	<input type="checkbox"/>	vw81server....	192.168.1.102	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:44:48 PM
<input type="checkbox"/>	<input type="checkbox"/>	vw8server.a...	192.168.1.129	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:44:53 PM
<input type="checkbox"/>	<input type="checkbox"/>	win-i8el9gc...	192.168.1.103	MobilePassive	3.0.708.0	<input type="checkbox"/>		12/8/2014 4:44:53 PM

## 8. Firewall-Konfiguration

Data exchange in asanetwork is using TCP port 23232. Server discovery uses UDP port 23232. Only these ports are required for current operations.

Netman.Monitor is using TCP port 23231 to connect to his Windows Service. This port is only required for remote access.

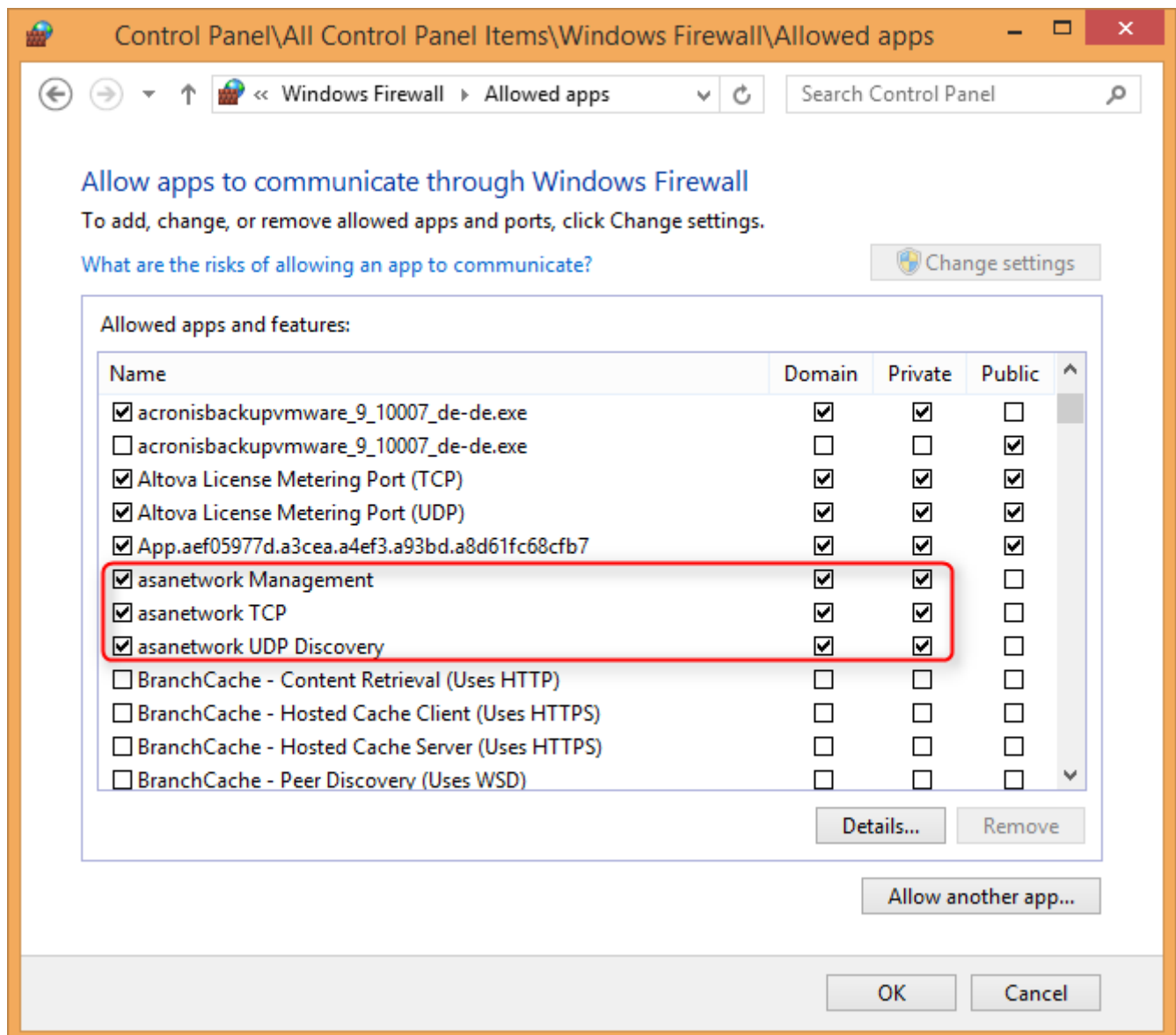
### 8.1. Windows-Firewall

The installer adds 3 exception rules to the firewall:

asanetwork TCP, Port 23232 used for asanetwork

asanetwork UDP, Port 23232 used for asanetwork

asanetwork TCP, Port 23231 used for monitoring application



**Note:** These rules apply to home (private) and domain networks but not to public networks. Should it be necessary to access public networks you have to add these exceptions manually!

### 8.2. Other Firewalls

Some security products use other firewalls. These have to be configured manually.

## 9. Executing silent installations

To run silent installations (without a user interface or any user intervention) add command line parameters to the setup executable.

### 9.1. Command line parameter

Add these parameters to the setup program *netmanX.Y.B.0.exe*:

/s	silent install
/no_updates	create no shortcuts for automatic updates, do not offer to set-up automatic updates
/l=<logfile>	create a log; <logfile> is the full path to the desired log file, e.g. /l=c:\temp\installlog.txt
NAME=Value	set Variable NAME to Value

Variables used independent from each other:

TARGETDIR	Installation folder, default C:\Program Files\AxoNet Software GmbH\asanetwork Netman.Net
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### 9.2. Examples

Note: Always run a silent install with logging to trace problems later on.

#### 9.2.1. Silent Install with default folder

Netman.Net.Installer3.0.708.exe /s

#### 9.2.2. Silent Install with non-default path and logging

Netman.Net.Installer3.0.708.exe /s TARGETDIR=x:\mynetman /l=c:\netman\_install.log

## 10. Known Limitations

### 10.1. Limitations in demo mode

In demo mode only local connections are accepted by the network manager. You can't exchange data with other systems. All local installed applications are useable.

## 11. Common problems

Below you will find typical errors that occur during operation.

### 11.1.1. Damaged data base

Usually happens during a computer crash or hard disk failure.

A damaged data base is automatically repaired during start-up. If the repair fails, a new data base is created. In some cases this may fail and you have to rename the data base manually. Open a command prompt, stop the service, rename the data base (only the file, not the directory), then restart the service:

```
net stop asanetwork2
ren "C:\ProgramData\Axonet Software GmbH\Netman.Net\DB\Netman.Net.tdbd" "Netman.Net.tdbd.old"
net start asanetwork2
```

## 12. Where do I get product updates and documentation?

Product updates and documentation are available from <http://www.axonet.de/products/asanetwork-products-for-users/network-manager> To verify your current version, open Network manager and select Help/About...

## 13. In case of trouble

Please contact the service of your local vendor who installed asanetwork at your location.

If you have *installation problems* you can additionally contact:

AxoNet Software GmbH  
Fax (+49) 7021 735601  
Email: [support@axonet.de](mailto:support@axonet.de)  
<http://www.axonet.de>