UNMS Network Management System

Copyright Statement for Intellectual Property and Confidential Information

Table of contents

4

Before you start ….

➔ **Do not forget to document your configurations**

UNMS II is a flexible system that can be individually adapted to your requirements. Some functions depend on preparatory work that must be carried out to enable the desired function.

➔ **Think about the task the UNMS II shall do before staring any confguration**

Die UNMS II von der Grundstruktur her sehr logisch aufgebaut, aber gerade dann, wenn Sie mit IIS arbeiten müssen, kommt es immer wieder zu seltsamen Ergebnissen, deren Ursache auf eine Fehlkonfigruation im IIS zurückzuführen ist. In einigen Fällen muss man wissen, welches Konfigurationsmenü im IIS dafür zuständig ist und entsprechend dokumentieren.

➔ **Make 1 - 2 test installations**

The basic structure of UNMS II is very logical, but especially when you have to work with IIS, strange results occur again and again, the cause of which can be traced back to a misconfiguration in IIS. In some cases, you have to know which configuration menu in IIS is responsible for this and document it accordingly.

➔ **Regular performed backups will safe time and nervs**

Especially if you are planning a major change, you should create a backup in order to be able to return to the original state at any time. Otherwise, you could run the risk of a major data loss when running system changes.

➔ **Check whether your version of UNMS II supports the desired function.**

The scope of functions and possibilities of UNMS depends on the version. If a function cannot be carried out, there may be two reasons for this:

1. your version of UNMS II cannot perform this function due to the software licensing.

2. the framework condition for this function is not fulfilled.
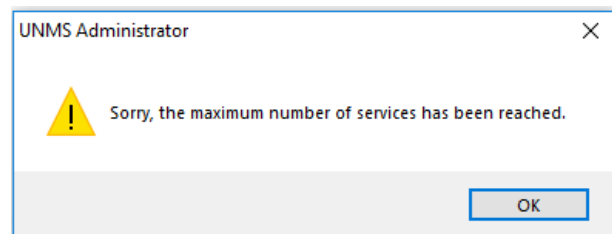
1. Quick Install

Preparation Windows Features – Add the IIS
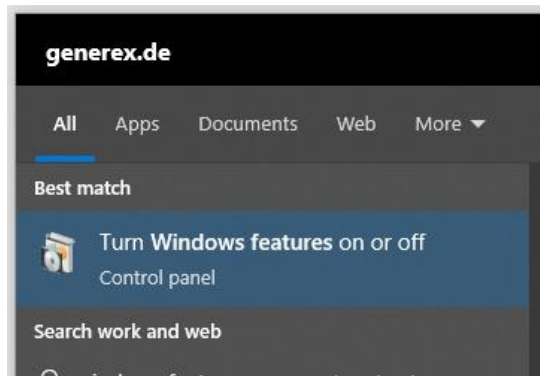
A UNMS II uses Microsoft's Internet Information Service (IIS) to to deliver all configured information via a http in a format a standard web browser can handle. Due to this fact the UNMS 2 installer takes care for this and checks if the IIS is available on the machine the installation shall be caried out. If the required services and modules are not available, the installation fails. The following Windows features are necessary for the operation of the UNMS II:

Windows 7
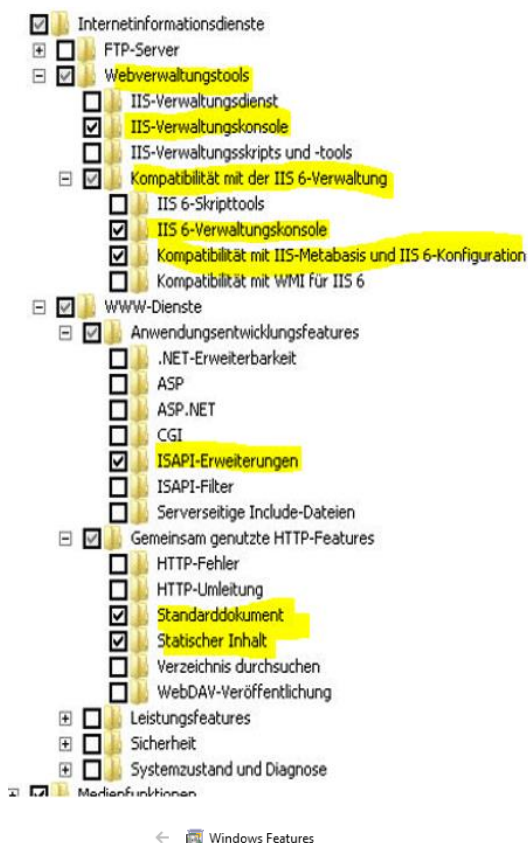
Windows 10
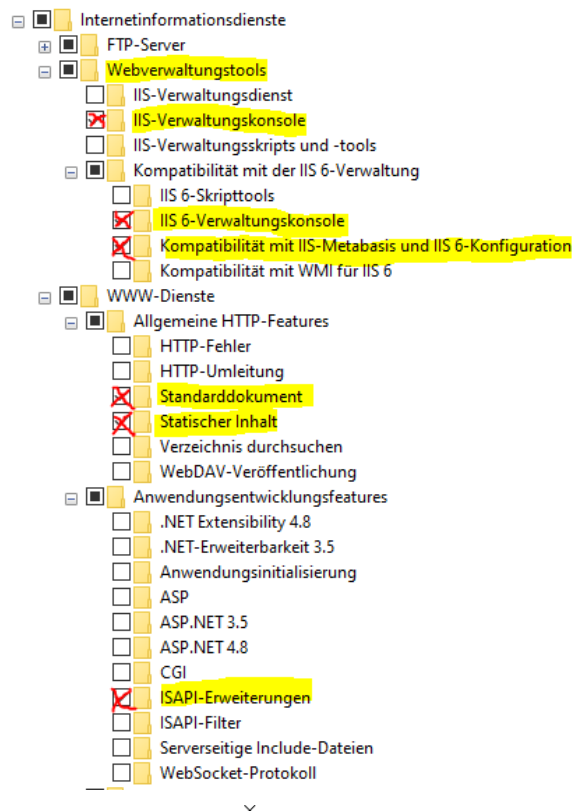
Furthermore, the installation of UNMS II needs increased system rights, since, among other things, services running in the background are also installed, which must be available independently of a user or administrator console.

Therefore, the installation can only be initiated if executed from the Windows context menu "As administrator".:
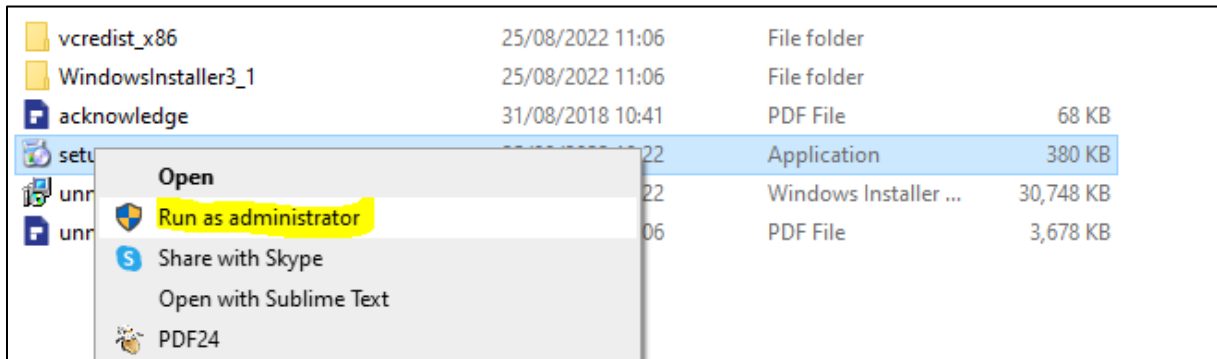
The installation dialogue guides through the installation process:
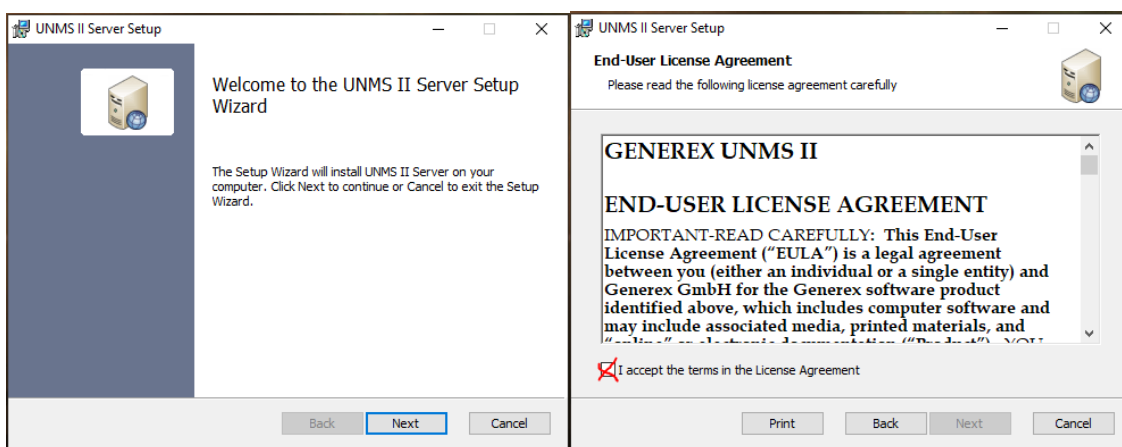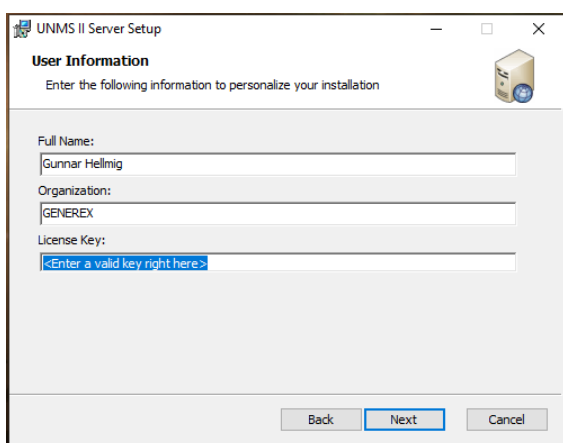
Click next …   … Accept End-User License agreement …
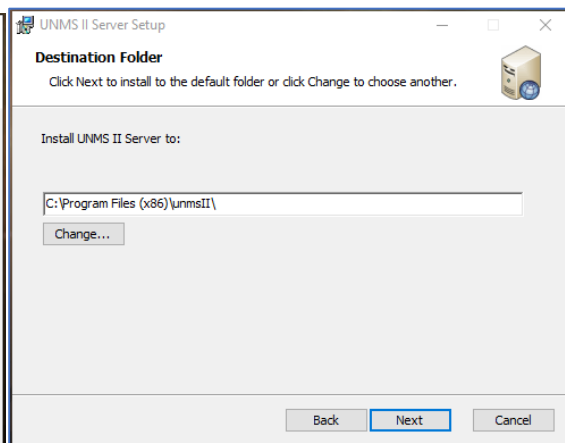
… Enter the license key…   … Choose destination path …
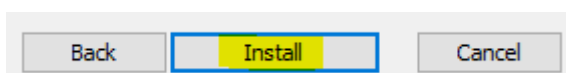
…And click "Install" to finish

When you start UNMS II for the first time, you will be greeted with the following screen:
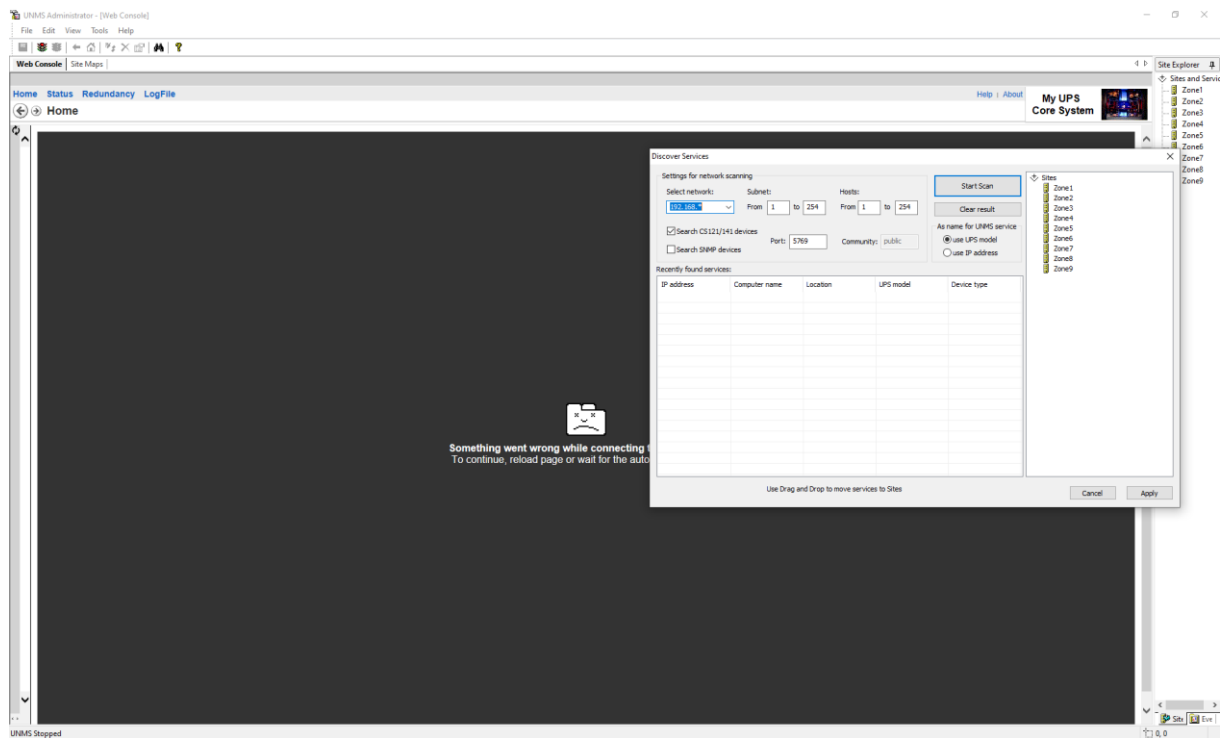
To check whether the UNMS II has been installed correctly and the IIS service is also running as requested, first press Cancel on Discover services and then press the small red traffic light in the top left-hand corner to start the UNMS regularly.
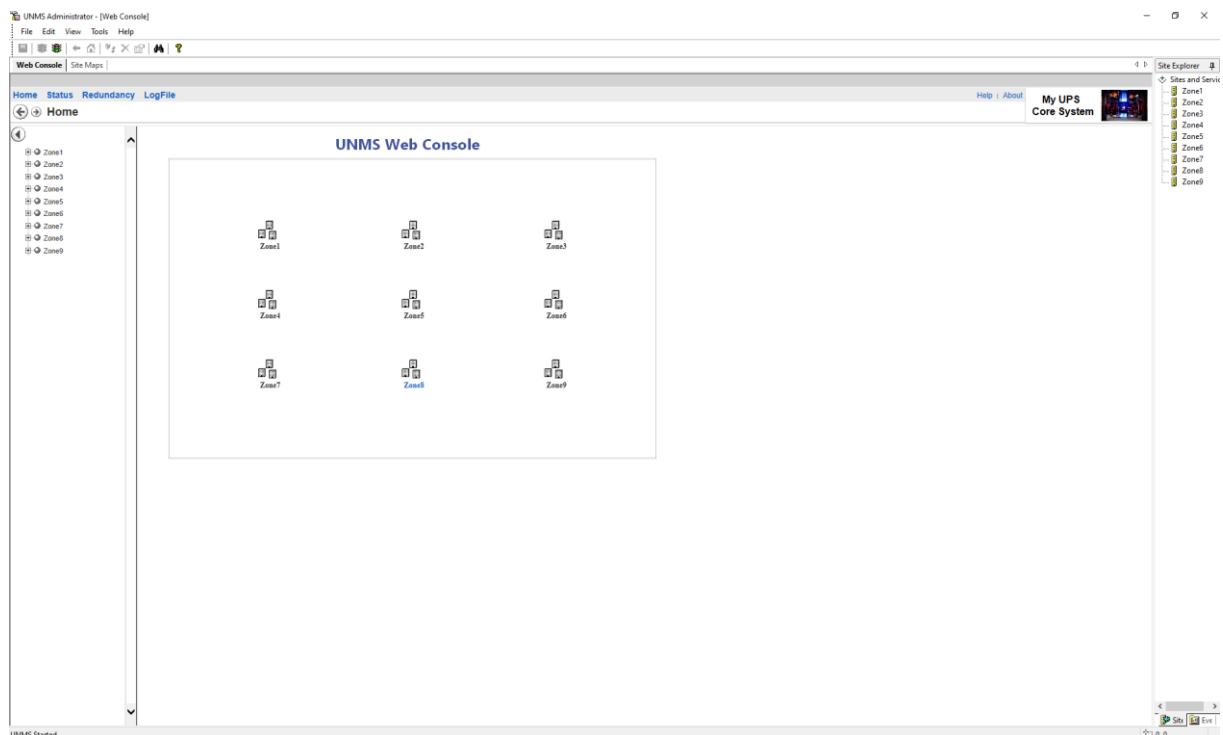
If you see the following screen, the UNMS is set up correctly and you can start with the configuration work:

The web interface shows an unconfigured standard layout with 9 predefined zones. Since no devices are stored yet

Note: If the UNMS does not display a web interface at start-up: Check the IIS

The Internet Information Service is a very sensitive (and bitchy) tool within a Windows installation..

1. Check whether the web page management is active:
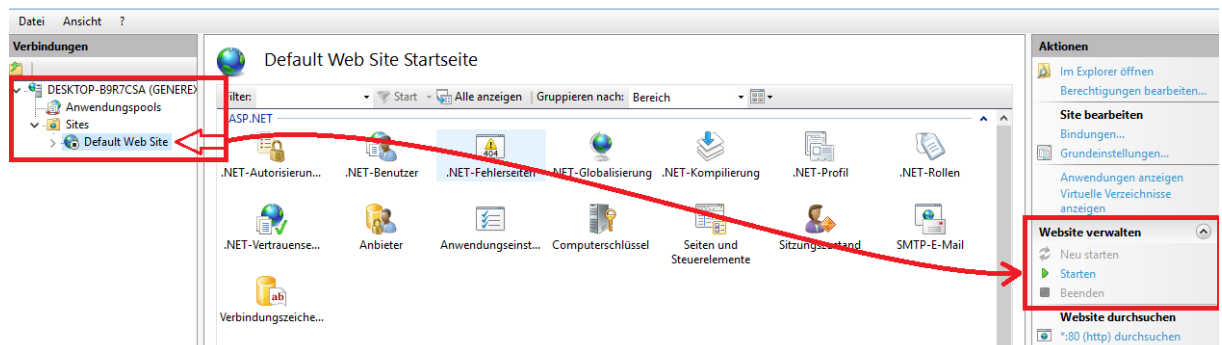
Opposite Default Web Site is the item Manage Web Page. This service must be started, otherwise the IIS will not deliver any web pages to a web browser.

2. Check the bindings
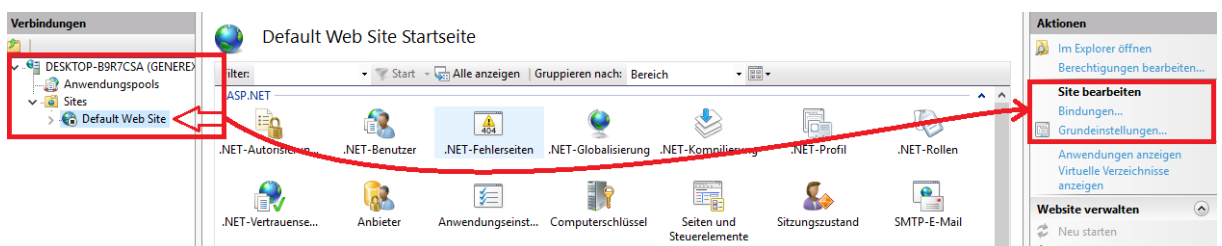
hen you open this window, you will find port bindings. Here you must find at least http port 80 with the IP address *, if you want to use https, correspondingly also port 443:
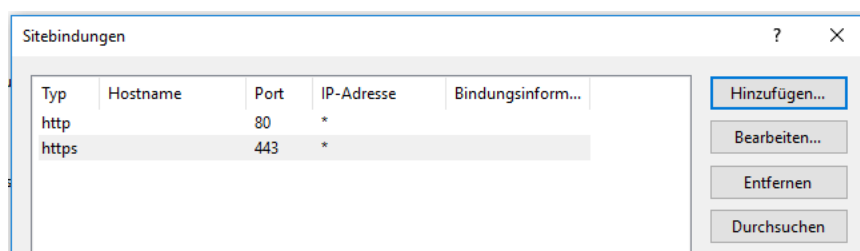
3. Restart the IIS service
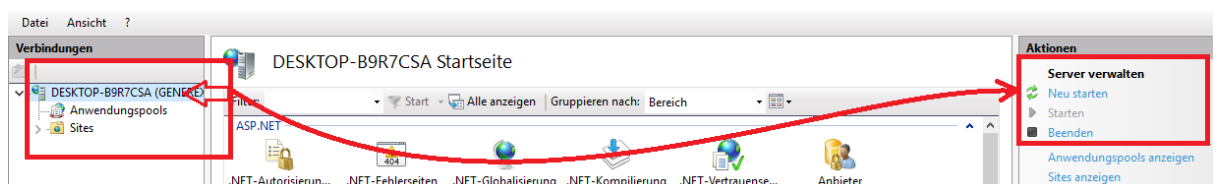
After each change in the IIS itself, you should restart the IIS service so that all your changes are read in and initialised correctly. Make sure to check again if point 1 has been fulfilled in case of a restart, otherwise you will run into the same error again.

Search and import devices

For this configuration step you need the following menu:
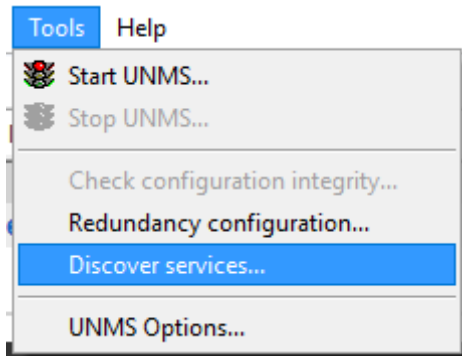
When you start the UNMS II for the first time, the Discovery Service starts first. With this service, you can scan your entire network on an IP basis for any available devices. If you have already pressed Cancel to orientate yourself first and check if the IIS is working properly, open Tools > Discovery services.
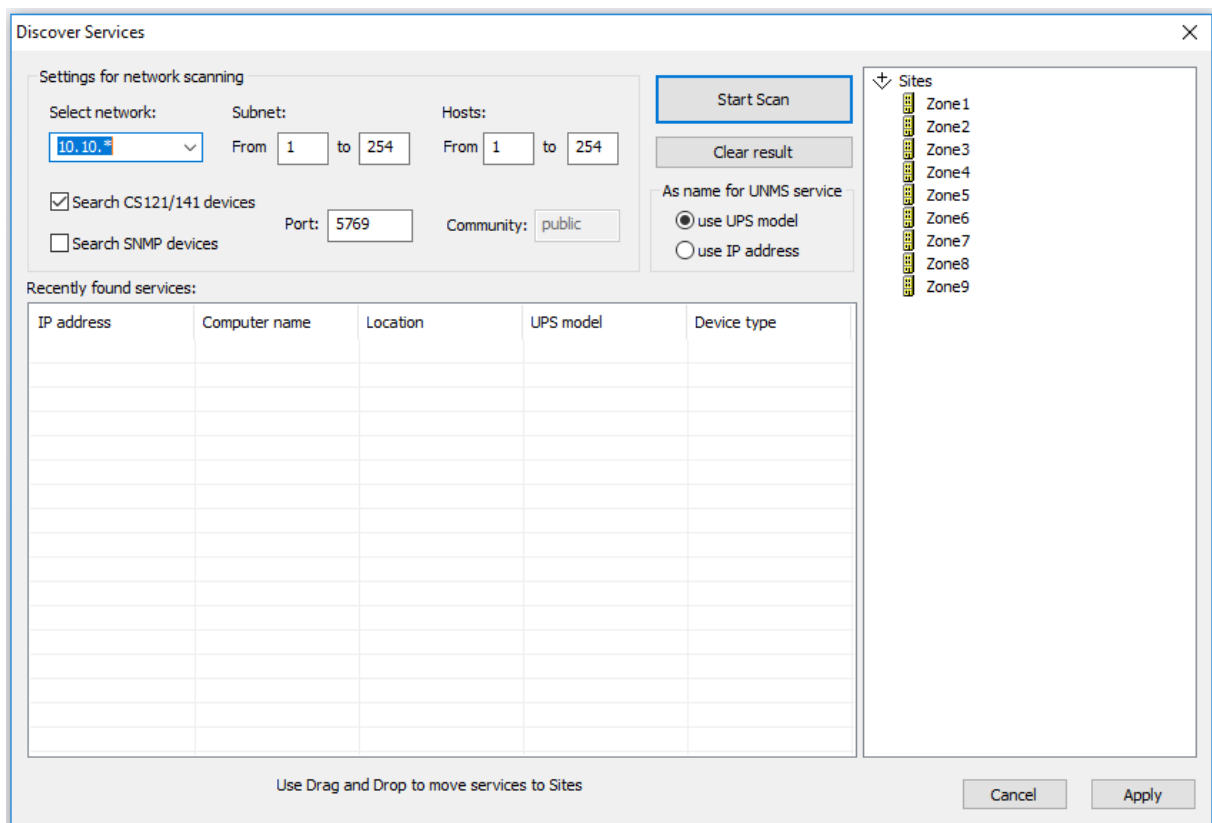
The Discovery Service automatically finds all devices that can be displayed via SNMP and offers them to you for further configuration of the UNMS II.

To find devices, the Discovery Service needs to know where to search for devices within your network.

Enter the network segment that shall be scanned for devices. This is the third number within your IP address. if you enter 15 - 27, the UNMS II will scan:

192.168.15.1 - 192.168.15.254
192.168.16.1 - 192.168.16.254
[...]

Narrow the IP address range. If you enter 100 - 150, at 15-27 in the subnet, UNMS would scan as follows:

192.168.15.100 - 192.168.15.150
192.168.16.100 - 192.168.16.150
[...]

Enter the first 2 numbers of your current IP network. In this case: 192.168.

Settings for network scanning

Select network: Subnet: Hosts: Start Scan

192.168.*   From 1 to 254   From 1 to 254   Clear result

☑ Search CS121/141 devices   As name for UNMS service
                    Port: 5769   Community: public   ◉ use UPS model
☐ Search SNMP devices   ○ use IP address

Define if you want to see the UPS model name or the direct IP address. you may rename the search result entries later.

Specify whether you want to search only for CS121/CS141 devices or also for any SNMP-capable devices.

Enter the port your devices are configured to.

If SNMP devices are in use, it can be necessary to enter the SNMP community the UNMS II shall use for queries. If the wrong community is used, SNMP devices will not answer to a request.

Step 1: Setting up the network scan

Select network

With the first two octets, define the basic network that is to be scanned. As the number of existing IP addresses can become very large, the input option is limited. Please enter the first two numbers of your network:

192.168.
17.15.
158.75.

Subnet

Enter the range to be scanned here. This value defines the third octet within the IP address. Unlike Select network, you enter an address range here. For example, if you want to scan from network segment 100 - 103, enter these two values. The UNMS will then check the following network segments:

192.168.100.xxx
192.168.101.xxx
192.168.102.xxx
192.168.103.xxx

If you just want to scan the 102, you may enter 102 - 102.

Hosts

In large networks, IP address ranges are traditionally divided to avoid uncontrolled proliferation. The type of division varies greatly. For example, the host range 1-30 is often used for routers and switches, 31-50 for servers, 51-60 for printers, ...

If you do not know the exact IP address, but you know that it can only be within a certain range, enter the start address and the corresponding end address here. For example, if you define from IP 100- 150, the UNMS will scan the network afterwards as follows:

192.168.100.100
192.168.100.101
192.168.100.102
[…]
192.168.100.150
192.168.101.100
192.168.101.101
192.168.101.102

[…]

The last scanned IP address will be 192.168.103.150.

> **Note:**
>
> When specifying the address ranges, be sure to use the correct default settings, otherwise UNMS may take a very long time, as each IP address specified is checked exclusively.

As name for UNMS service

As name for UNMS service
◯ use UPS model
◉ use IP address

With this setting, you define whether the UNMS will use the UPS or the IP address for displaying scan results. This setting has a subordinate role for the scanning process itself, but it may help you to identify the devices you are looking for.

In this manual we use the setting "use IP address" - however, the name displayed within the UNMS is freely configurable and can be changed at any time.

<u>Monitor scan progress</u>

As soon as you press Start, UNMS starts the network scan. In the scan progress will show

- The network segment the scan is currently in progress

- Which IP address range is specifically scanned.

This screenshot, eg, shows the following information:

- The network from 192.168.220.XXX to 192.168.222.XXX is scanned.

- The IP addresses 100 - 254 are checked.

- With (curr.220) the network scan is in the network 192.168.220.XXX
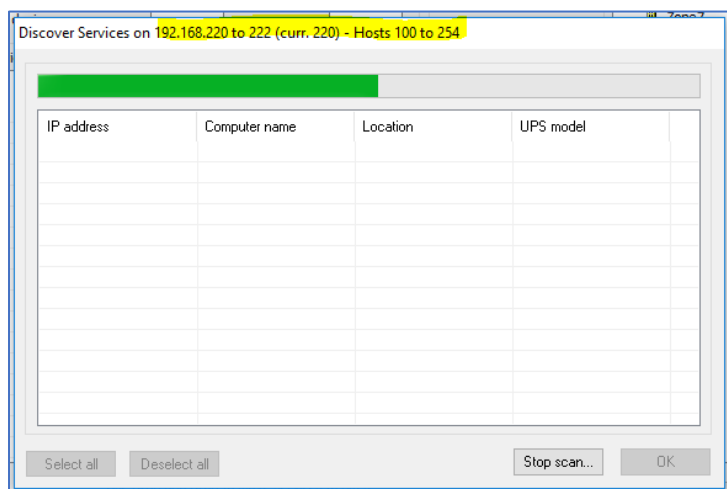
The green indicator bar shows the scanning progress of the current network segment (curr. 220). The green indicator bar shows the progress over already scanned IP addresses.

The results of the scan are displayed in the list below:

IP address	Computer name	Location	UPS model	
☐ 192.168.222.107		Generex Hamburg	AR COMFORT	
☐ 192.168.222.110			Centiel UPS	
☐ 192.168.222.111			TP110-1000	
☐ 192.168.222.112		Generex HH	SNMP UPS-RFC 1628...	
☐ 192.168.222.113			BACS	
☐ 192.168.222.103			BCMU-A	

Importing scan results to the UNMS

With the next step, the devices found must be transferred to UNMS. To do this, simply select the desired units by ticking the corresponding checkbox.

When you have selected all the devices, press OK.

	IP address	Computer name	Location	UPS model	
☑	192.168.222.107		Generex Hamburg	AR COMFORT	
☐	192.168.222.110			Centiel UPS	
☑	192.168.222.111			TP110-1000	
☑	192.168.222.112		Generex HH	SNMP UPS-RFC 1628...	
☐	192.168.222.113			BACS	
☑	192.168.222.103			BCMU-A	
☐	192.168.222.105			No UPS model defined	
☐	192.168.222.115			SNMP UPS-RFC 1628...	
☐	192.168.222.118		Testfeld Holzfeld	Powerpack Plus 1 kV...	
☑	192.168.222.119			CE+T TSI Media	
☐	192.168.222.121			NEXTYS DCW20	
☐	192.168.222.126		XANTO-RT-1000 / ID ...	XANTO RT 1000	
☐	192.168.222.131		Hamburg	SNMP UPS-RFC 1628...	
☐	192.168.222.132		Multi ATC Switch Tes	Multi Switch ATC	

| Select all | Deselect all | | | Cancel | OK |

The selected devices are then displayed in the main window of the Discovery Service under Recently found services:

Recently found services:

IP address	Computer name	Location	UPS model	Device type
192.168.222.103			BCMU-A	CS121 compatible
192.168.222.107		Generex Hamburg	AR COMFORT	CS121 compatible
192.168.222.111			TP110-1000	CS121 compatible
192.168.222.112		Generex HH	SNMP UPS-RFC 16...	CS121 compatible
192.168.222.119			CE+T TSI Media	CS121 compatible

From now, it is possible to perform a new scan with a different IP address range to search for other devices.

Note:

You do not have to rescan every time you close the Discovery Service. All devices that you have placed in Recently found services will remain there in the list until you either remove them with Clear Result or distribute them to the appropriate UNMS services.

Adding found devices to the UNMS monitoring

During installation, UNMS offers 9 so-called "zones " as basic settings. Found devices, the "services" can be mobef there via drag'n'drop.

Simply hold down the desired device with the left mouse button and drag it to the corresponding zone.

This action removes the device from the Recently found Services list and adds it to the corresponding zone.

When all devices have been distributed, press Apply to confirm your setup.

Customizing „the Zone"

```
⊹ Sites
 ⊟ 🗄 Zone1
      📡 192.168.222.103
      📡 192.168.222.107
 ⊟ 🗄 Zone2
      📡 192.168.222.111
      📡 192.168.222.112
 ⊟ 🗄 Zone3
      📡 192.168.222.119
      📡 192.168.222.132
      📡 192.168.222.133
      📡 192.168.222.143
    🗄 Zone4
```

```
⊹ Sites and Services
        New Site...
        New Service...
        New Event...
   ✕ Delete
   🖉 Properties
```
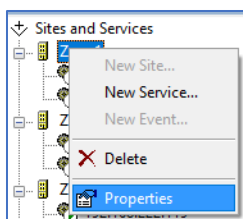
The word "Zone 1" sounds like some kind of black high tech vodoo, but is, unfortunately only meaningful to a limited extent. Due to this fact, the UNMS offers the option of adapting the name accordingly for the context and usage.

To do this, right-click on the zone and then select the option "Properties" in the context menu.
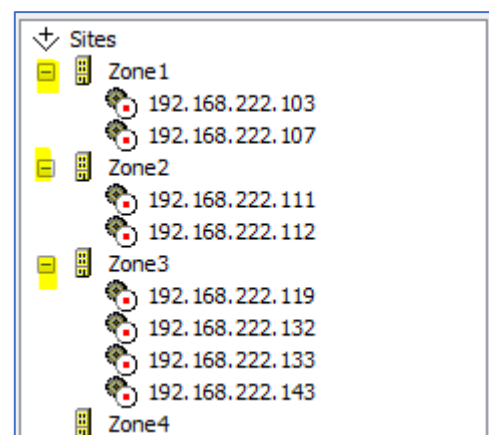
A new tab opens which displays the properties of this zone. Change the name of Zone 1 to an appropriately adapted term:

When you have completed your adjustments, tap the heels of your feet together twice , say OZ or click OK - although clicking OK is more likely to have the desired effect within the UNMS II, Dorothy…

Saving and first UNMS II start

  As soon as you have unnamed all zones, press the disk symbol at the top left to save and then the red light to end the current state - UNMS is stopped. UNMS will then permanently import the new data and restart the necessary services.

UNMS II – changing the UNMS II Screens

Anyway, Dorothy, ... the UNMS II provides many options for sorting the monitored devices and organize them in well-structured groups and subgroups. In addition, in addition, it is also possible to use any background image for the monitored services, and position all icons freely.

This will not only help to organize your services, this function can also be used to to clarify the function of a monitored system accordingly.
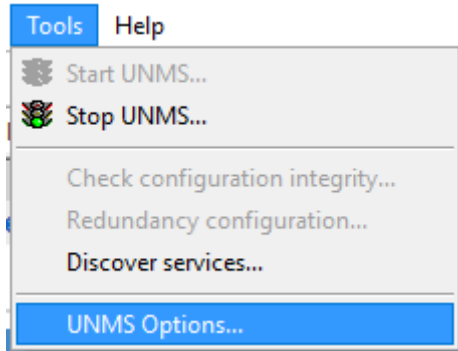
First open the UNMS Options under Tools. In this collection of tabs, numerous basic settings can be carried out, including adjusting the image. Click on the Editor tab to adapt the general basic layout to your ideas:
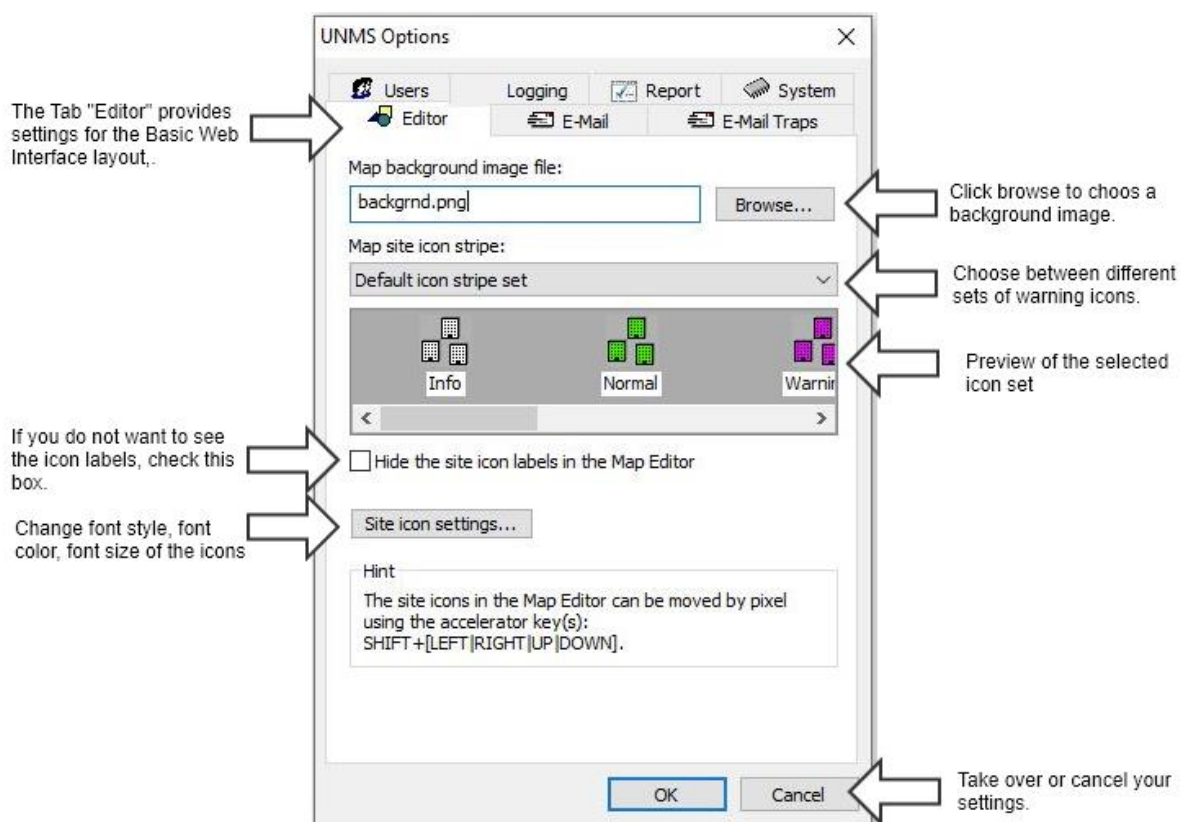
Changing the Start Screen

Select one of the images already included or create your own image that fits the application scenario.

Please note that the image must be stored in the corresponding image directory of the UNMS II in terms of system rights, otherwise the image can be selected but ultimately cannot be used..

The UNMS II does not create copies of image files from other directories,
pictures must be copied manually in PNG format into the UNMS directory.The default directory is:
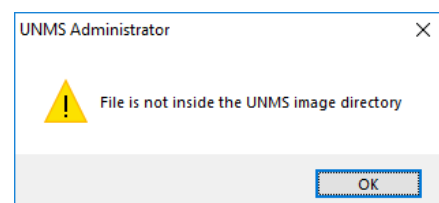
C:\UPS\unmsII\www\image

Changing the icon set

In the same directory (C:\UPS\unmsII\www\image) you will also find all pre-defined sets of icons the UNMS II comes with:

zone_green.gif   zone_orange.gif   zone_red.gif   zone_yellow.gif
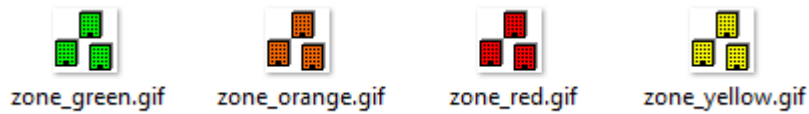
It is possible to customise the icons as you wish by creating new icons and renaming the file names accordingly. Since these are standard gif files, administrators may also use any animated icons to meet internal corporate design guide lines.

Customizing the icon labels

Neben dem Ikon-Set an sich können Sie zahlreiche Anpassungen an der Beschriftung der Ikons und dem Hintergrund des Schriftbildes durchführen, um die Lesbarkeit der Beschriftung anzupassen:
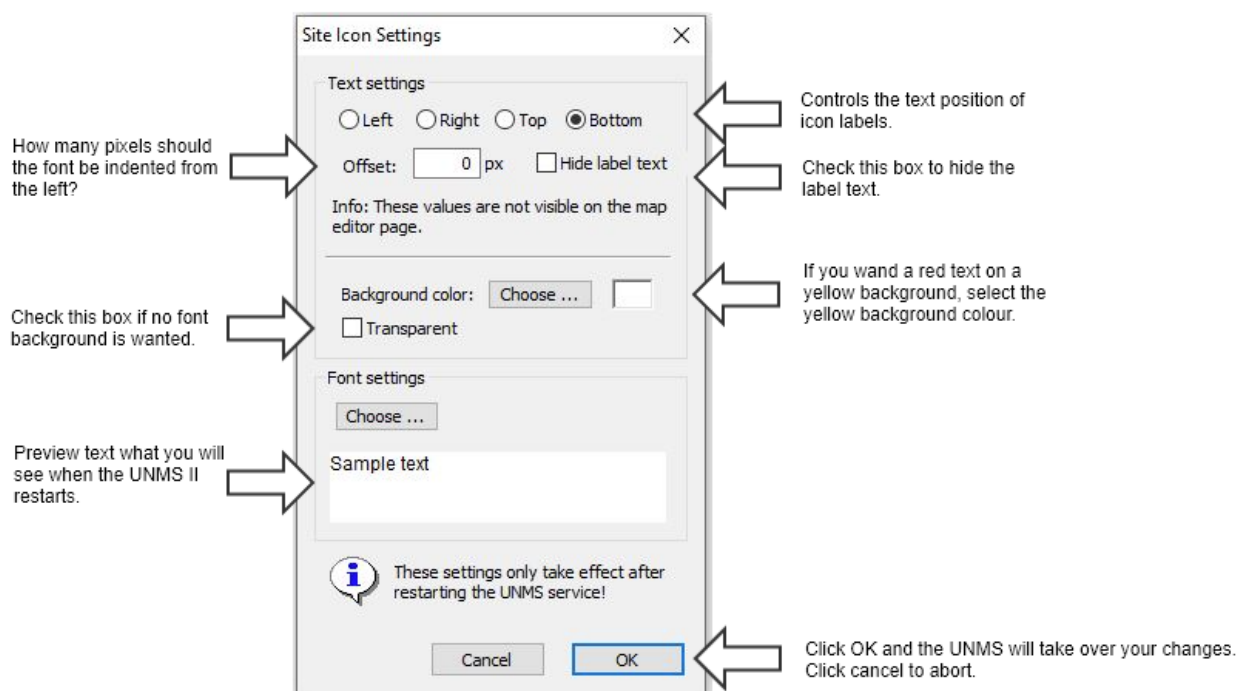
Moving and Replacing the icons on the main screens
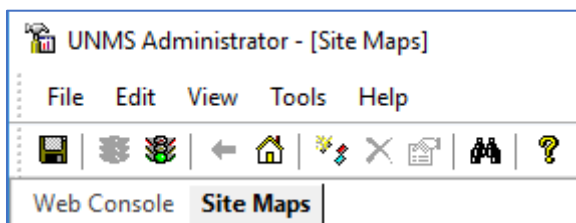
Below the command line you will find the tabs "Web Console" and "Site Maps".

The Web Console is the preview of the UNMS' web-based interface for testing functions. All configured changes will be carried out after saving / restarting the UNMS.

16

By default, the web console is active. Switch to the Site Maps and move the icons, rename labels, etc:

Note:

In the site maps you can move the icons as you wish, the UNMS will only apply the settings when you restart the UNMS service after saving. You can therefore configure the UNMS accordingly while it is working regularly from outside via the Web Console.

Save, exit and restart will permanently apply your settings to the system accordingly and restart the UNMS service.

You can view the success in the administration area of the UNMS II via the Web Console or via a web browser by calling up the UNMS II web view:
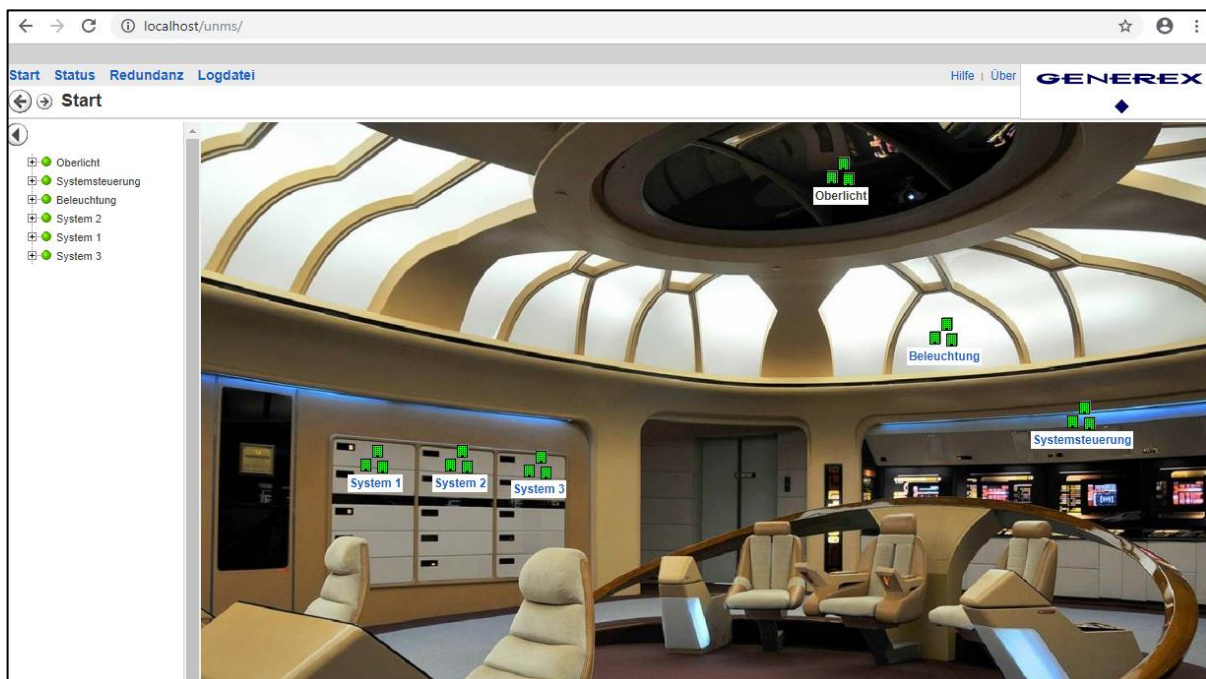
Advanced graphics adjustments: Setting up sub-screens

For technical reasons, it is not possible to display a zone and services - i.e. monitored devices - together.

Either you have set up further subordinate zones in a major zone, in which the services are then located, or you have set up a zone at the top level, in which the monitored devices are located directly.

In order to add a sub-screen to the control panel in this case (services are allready moved to the site you want to add a sub screen), you have to do a little preparatory work:

1. Temporarily move all services to another zone

   To avoid accidentally losing a device, create your own zone and give it a unique name, e.g. "Transfer" or "Temporary".

   Since the zone is deleted afterwards before safing and restarting the UNMS, this site will neverappear in the current web view of the UNMS II.
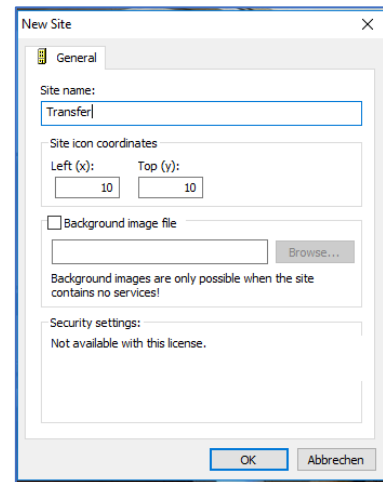
2. After cleaning up the major site, click on Porperties in the Site Explorer control panel on the right side of the sreen to open the object properties. Since this zone no longer contains any services, you can now assign your own background image and thus change the character of this zone:

   As soon as you have assigned an image accordingly, you can create subordinate zones, but not move services into this site.
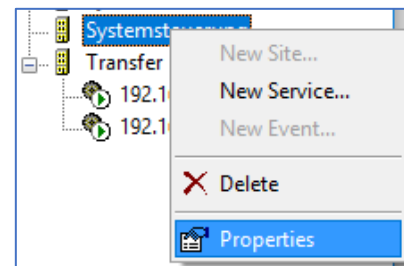
3. Create subordinated zones

   Now create a new zone in the control panel, but do not assign a background image! This way, you can later drag the temporarily parked services into this new subzone and display them accordingly.
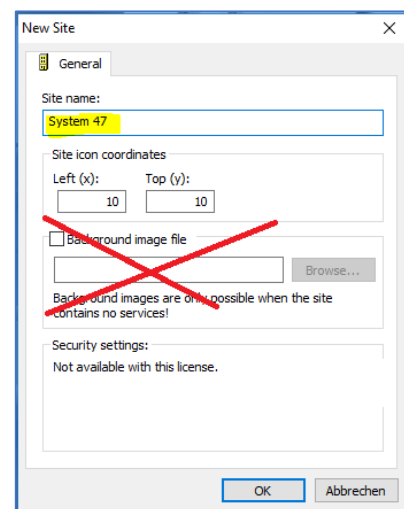
4. Use drag and drop to pull the services into the new sub-zones

Move the temporarily parked services to the subordinate zone. You can then delete the transfer zone that is no longer needed, as it no longer fulfils any function.

Note:

**Please note that this option is only available,
if you did not define a background image in step 3.**
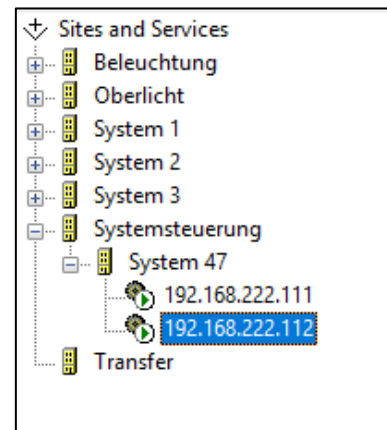
If you do not want to have the two devices in one mask...

Well, In this case, you simply create two separate subordinated zones and move the services into their own zones accordingly:
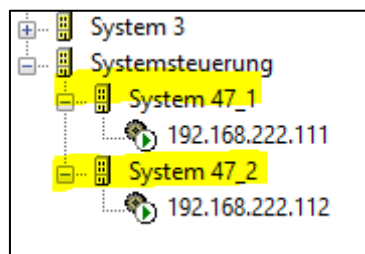
Adjusting the Icon position within the Sub-Screen
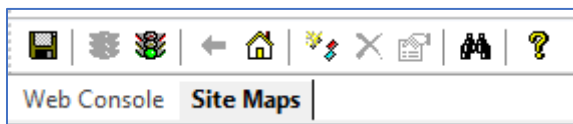
To do this, click on Site Maps tab in the top left-hand corner to be able to move icons. You will first see the start screen:
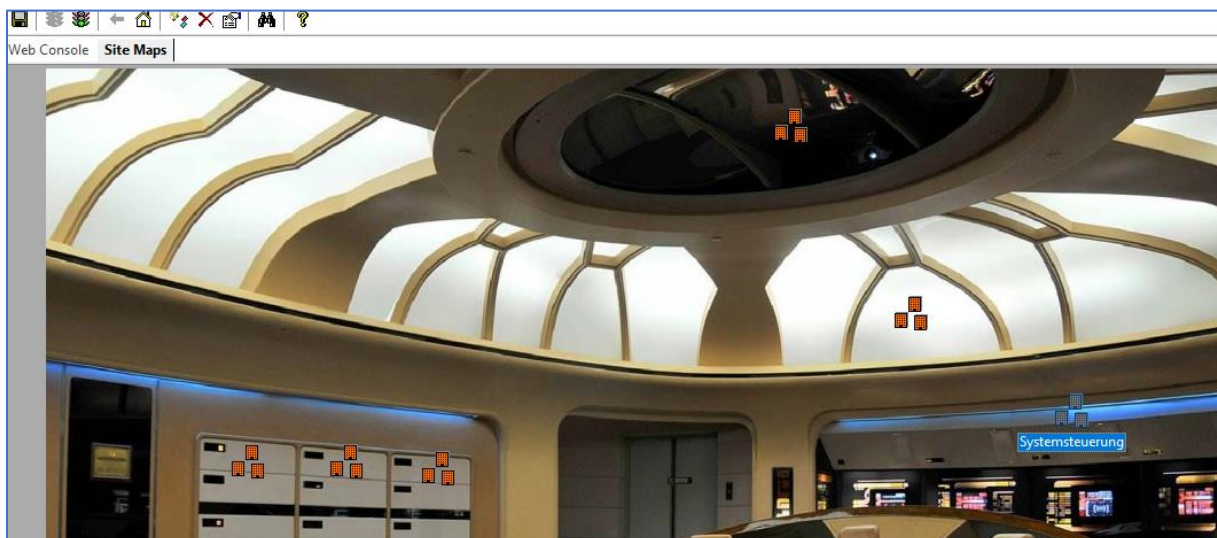
Now double-click on the "Control Panel" icon - in the screenshot called "Systemsteuerung" - to open the corresponding subordinate screen. You will notice the two icons - in this case System 47_1 and System 47_2:
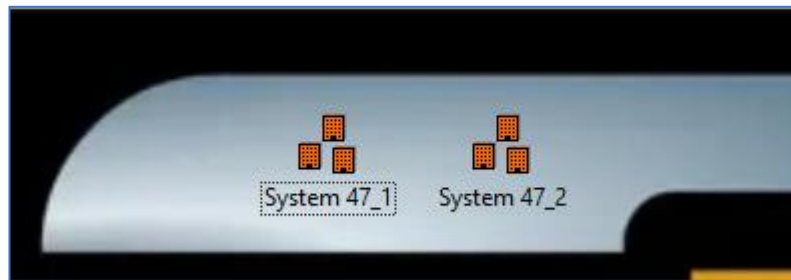
Grab them with the left mous button to move them to where you want. After this, click on Save, Exit and Restart.

Access SubScreen via the web console by opening the control panel. The positions of the icons have been adjusted to the position you want.
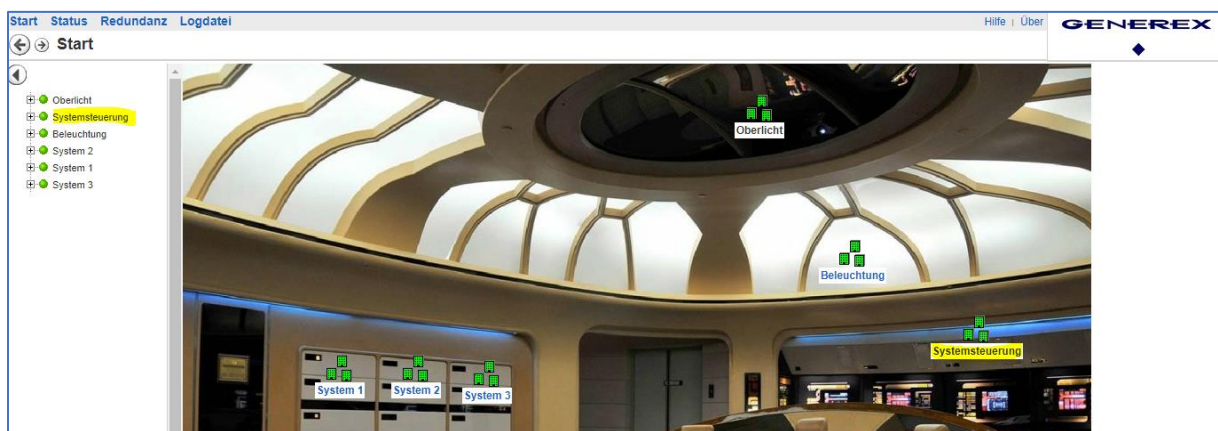
Adapt fonts in the subscreen

This function becomes interesting if, for example, you have a building plan where different UPS systems are distributed and you want a division between emergency systems and less important systems. On a cruise ship, for example, this would be different systems or hierarchically structured sub-distributors.

- The overview holds all available UPS systems and devices to be monitored
- In the system-related page, there are only the systems assigned to a special purpose.

Within a complex power distribution network, it is possible to maintain an overview in this way, as the font size and font background can be freely defined for the respective subscreen.

How to adapt the sub screen fonts

It is important to understand the schematicals behind this function: Any font change within a zone always affects exclusively the sub-ordinated sites *below* this zone.

This results in the following display logic:

At Tools >Options, you can globally set the typeface, colour, size, etc.. Logically, this is hung up in the Site Explorer under SITES AND SERVICES. This means, that everything that can be seen underneath takes over the corresponding settings as a kind of global font setup..

Now, the UNMS offers to overwrite fonts locally for individual zones, but the changes always take effect for the subordinate zones.
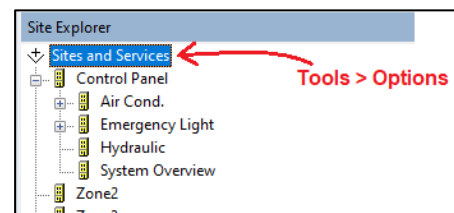
So, if you click on "Properties" in the Site Explorer for the Control Panel site, and adjust the font, size, etc., this will affect all subordinated zones, but not the "Control Panel" site - the superordinate setting coming from "Sites and Services" will stay valid.

You can now nest this as much as you like and change it "downstairs", as long as you bear in mind that the respective sub-zone that is to accommodate the icons has a background image stored and thus cannot hold any services.
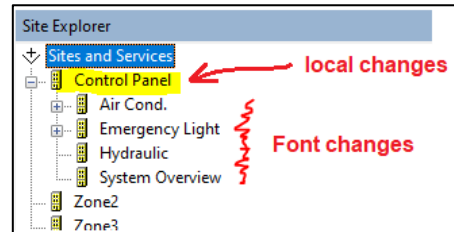
Adding additional information

If you now take a look at the UPS screen within UNMS, an Info button is offered just below "Log". Each device integrated via the Discovery Service first provides the UPS model (if used) and its own IP address as basic data. The UNMS II provides an option to add as many information as wanted or needed

Finding a device in the Site Explorer
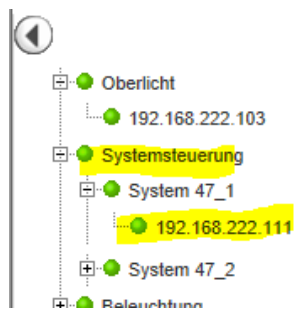
The directory tree of the web interface provides you with the information where you can find the device in Site Explorer.

In this example, the device you are looking for would be found in the control panel, exactly under System 47_1.

Now open the Site Explorer in the Admin Console on the right-hand side and navigate to the corresponding Ip address.

Then select the IP address with the right mouse button and select Properties in the context menu to open the object properties:
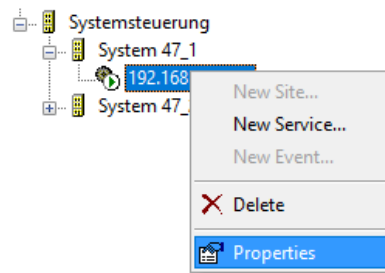
At Service Properties, select the „INFO" – tab:

Select Info to add new or complete existing sytem information

Currently available system information

Add: Add new system information
Remove: Delete existing information
Edit: Edit existing information

OK: Save changes
Abort: Withdraw changes
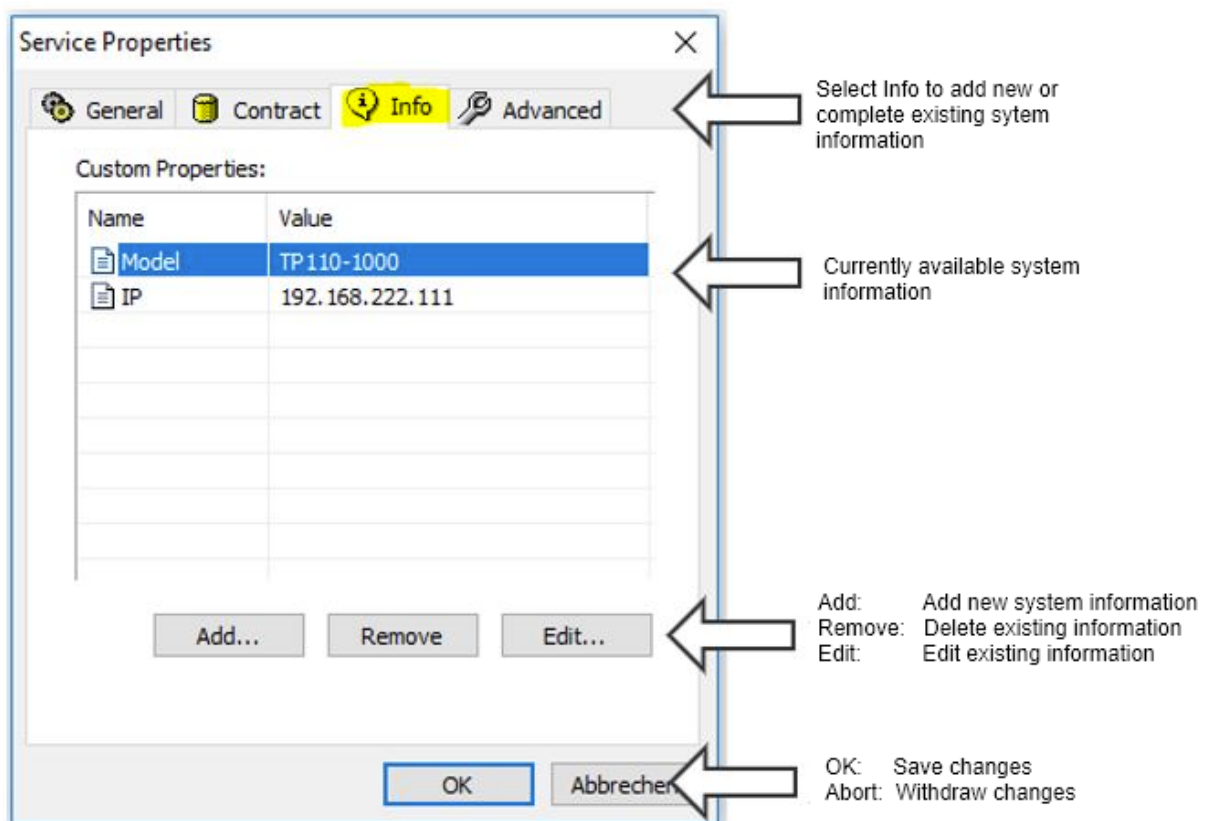
Add / Edit information

Click Add to insert new information:

Property type:

The UNMS II supports two different
options for storing information.

Plain Text

The information is displayed as text.
You can store any information:

- Service telephone numbers
- Mail addresses
- Responsible departments
- Invoice numbers

Hyperlink

An http-link is displayed, which is clickable. For example

- links to sellers' pages
- service forms
- online manuals
- download sources
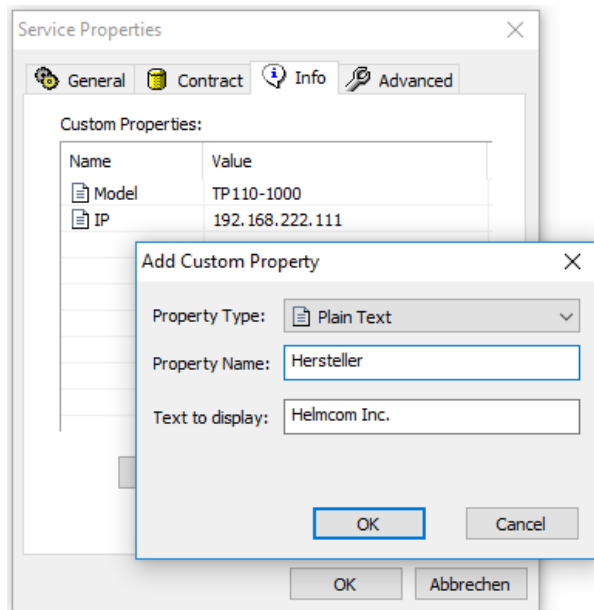
When you have made the settings, press OK to add the new entry to the list.

Note:
Wenn Sie Bestandsdaten ändern möchten wählen Sie einfach den entsprechnend Listeneintrag und aus und klicken auf „Edit…".

Entfernen von Einträgen

Wählen Sie den Eintrag aus und drücken Sie auf „Remove". Der Eintrag wird aus der Liste entfernt.

Write changes to the active configuration

UNMS has saved all changes, but not yet transferred it to the active configuration. The changes are displayed as soon as you have clicked Save, Stop and Start in the administration area at the top left icon row.

The configured list at service properties…

Name	Value
📄 Model	TP110-1000
📄 IP	192.168.222.111
📄 Hersteller	Helmcom Inc.
🔗 Link	www.generex.de

Info

Model	TP110-1000
IP	192.168.222.111
Hersteller	Helmcom Inc.
Link	**Generex**

…. As seen when clicking Info button

Note

Entered information are not transferred to the corresponding web manager, they are exclusively stored in the UNMS.

Deposit contract data and service level

The UNMS can be used for many tasks. One of the more interesting functions is the automatic validity check of service levels as contracts in case of the emergency power supply maintenance and repair work. In case of a detected system failure, the UNMS provides information about a customer's service contracts, which contractual partner has to be called, the current response time to solve the problem at latest, etc.

Service Properties window showing Contract tab with Contract ID/State, UPS Model "Ultramax 17 Baytech 4", Serial No. "829347394skdfh832479", Customer Company "Helmcom Inc", Address "Helms Klamm 3 / RO_MI / ROHAN / MIDDLE EARTH", and More customer data button	To add additional contract and service level data, select Click "edit" to define service number, service level and set the Enter UPS model, a contract registration number or serial Click "Address" to define customer data or address data of the device. Add som additional information, Notes, internal information about

After saving and restarting the UNMS, entered informations are accessible via web console for this UPS:

Status	Connected Devices	Log	
Normal	Device Link	Logdatei	Messdaten
		Info	
		Update: 10.10.2019 15:32:22	

Contract

Contract ID	Contract: 12947
Contract Status	Active
UPS Model	Ultramax 17 Baytech 4
UPS Serial No.	829347394skdfh832479
Customer Company	Helmcom Inc
Customer Address	Helms Klamm 3 RO_MI ROHAN MIDDLE EARTH
Contact Person	John Doe
Contact Phone	123 / 456789
Contact Fax	123 / 456798
Contact E-Mail	john.doe@helmsklamm.com
Notes	This customer is a little nervous and tends to interprete a small problem as a giant male function like exploded walls...
Contract Level	4
Contract Start	19.10.2022
Contract End	15.12.2023

Ändern der Grundeinstellungen

Es kommt immer wieder vor, dass sich grundlegende Einstellungen ändern. In machen Fällen ist es lediglich die IP-Adresse, in anderen Fällen ändert sich mit der verwendeten SNMP- Karte die komplette Abfragemethodik selber.

In dem Reiter General können Sie diese grundsätzlichen Daten an die jeweiligen Umstände anpassen.

Select "General" to change basic settings for this device.

Enable / Disable monitoring for this device.

Customize the display name and define the redundancy group.

Customzie the Request method to fit to the according device /

Change the IP address or hostname of the device. Also define

Note: Diffferent tabs have different funcions

Basically, each tab can be seen separated (although the entered data are shown together). You should therefore keep an eye on what shall be shown after all within the web interface ...

Site Name

This item is non-negotiable - it changes when you use the Site Explorer to drag and drop a device into another zone.

Service (On/Off)

If temporarily monitoring is unwanted for a single device, simply remove the tick. The device will then be listed in the UNMS but displayed as "Disabled" and excluded from the real-time monitoring. Remember, as long as monitoring is disabled, there, no alarm job will be triggered: It may also harm the character of redundancy based alarm jobs…

Name / Group

"Name" defines the display name that will be shown when using the UNMS II Web interface. The name can be freely customized to allow a quick location overview, function of this device, etc.

"Group" allows to define special redundancy groups within the UNMS, which can then be equipped with a separate configuration if necessary. Find out more in the chapter "Setting redundancy groups".

Connection type

This setting only needs to be changed if you change the target card completely, e.g. if you replace the UPS and use a card that is not compatible with the CS141: Although there are general standards a communication should take place, there are no standards that may force manufacturers to really stick to use them.

Furthermore, many manufacturers also provide their own products and monitoring solutions on the market, and are naturally keen to sell their own solution the best possible.UNMS II is designed to deal as openly as possible with other systems, devices and SNMP card solutions, but it may be necessary to carry out manufacturer-specific configurations on the target card itself so that communication can be established.

If in doubt, contact the GENEREX support team:

support@generex.de

Connection type:

CS121/141 compatible (UPSTCP)

CS121/141 compatible (UPSTCP)
SNMP: APC ATS
SNMP: APC smart network
SNMP: EATON ATS
SNMP: EATON/Powerware/HP
SNMP: GE GEDE CP4/IMV Card
SNMP: HUAWEI HTTPS Card
SNMP: Liebert OC Webcard
SNMP: Masterguard/Oneac
SNMP: MGE Mini
SNMP: ReliOn Inc.
SNMP: Riello/Aros NETMAN
SNMP: SOCOMEC Netvison
SNMP: Tripplite
SNMP: UPS-RFC 1628 compliant

DNS name or IP-Adresse / UPSTCP Port (Community)

IP address and DNS

The UNMS II supports both DNS resolution of host names and direct entry of IP addresses. The difference between these two options has far-reaching consequences for the configuration of your network:

- When using a host name, the network must provide a DNS server that can resolve a DNS name to an IP address. If this DNS server is offline, you will no longer be able to reach the target device via host name. The advantage is that a DHCP server may update IP address changes automatically.

- When specifying a direct IP address, on the other hand, you must assume that the IP address at the target device has been statically assigned - if it is dynamically assigned by a DHCP server, it can also change sporadically and, as a consequence, you need to search for the new one.

For the best setup, please refer to your local system administrator.

Note - Where to store infomration in case of a lost IP address

Open the tab Info and store any information locally within the UNMS II. In case of a "communication loss issue", the Info-Button is still available and alive because these button will be feeded by the UNMS locally and not by the target device.

UPSTCP Port (Community)

The default port to query a CS141 device, is 5769 unless you have changed this manually to suit up the device for your network policies. Customizing this port must therefore be carried out on both sites: the UNMS 2 and the destined CS141.

The default port to query a CS141 device, is 5769 unless you have changed this manually to suit up the device for your network policies. Customizing this port must therefore be carried out on both sites: the UNMS 2 and the destined CS141. Some settings will also change the "TCP Port" by the SNMP community option. According to your CS141 setup, ensure that you will use the same community on both sites to prevend communication loss on startup.
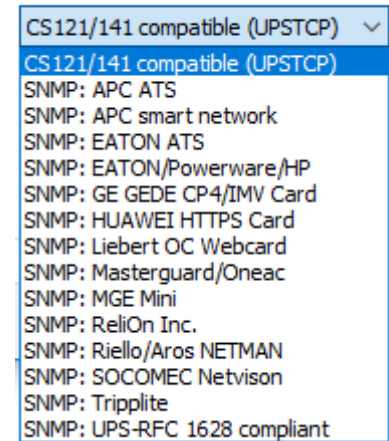
Delete obsolete devices

At the tab Site Explorer, look to the right-handed site of the screen: Simply open with the secondary mouse button the context menu and click "Delete". The UNMS will remove the device and asks you to decide whether all log files shall be kept or not.

Since this is an adminstrative process, the changes will take effect after pressing Save, Stop and Restart the UNMS.

Add UNMS functions

In general, the download server provides a UNMS Free license for use with a maximum number of 9 devices featuring 2 external devices. There are some other lim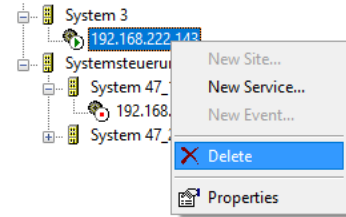itations like "Email traps", but for up to 4 or 5 UPS systems within a local network the UNMS is perfectly suited for monitoring and automated network monitoring and management. Additional modules and functions are also available, but you need the according registration key to unlock them:

1. *Make a backup.*

    If, contrary to expectations, there are problems with the key file (typing errors, format errors, etc.), you can revert to the last status at any time and, if necessary, reinstall the UNMS system manually and restore the original system state within some minor mouse clicks.

2. *Vorbereiten der Key-Datei*

    Now, it is time to generate a key file that can easily imported by the UNMS::

    Create a simple txt file and name it *unms2key.txt*

    Within the text file, just write

    [Install]

    KeyCode=12H1234DE…
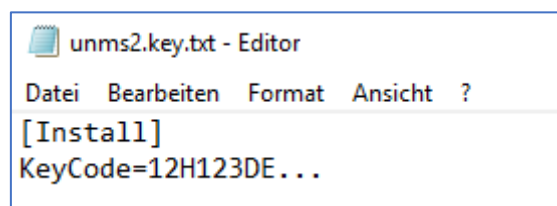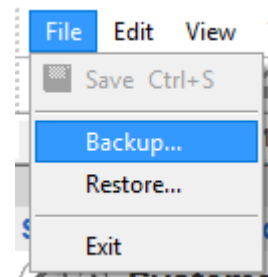
    Keep in mind to use the exact text format and layout, or the key fill will not work after upload. When finished with typing, select File and click on "save as":

    By default, the text editor saves everything as a text file with the Text editor's extension choice [filename].txt. One can not simply rename the file name into unms2.key, the text editor would add ".txt" to your file name:

    unms2.key.txt

    If you want to change the file character itself, you need to choose "save as..." and select "all data *.*"

File name:	New Text Document (2)	∨
Save as type:	Text Documents (*.txt)	∨
	Text Documents (*.txt)	
	All Files	
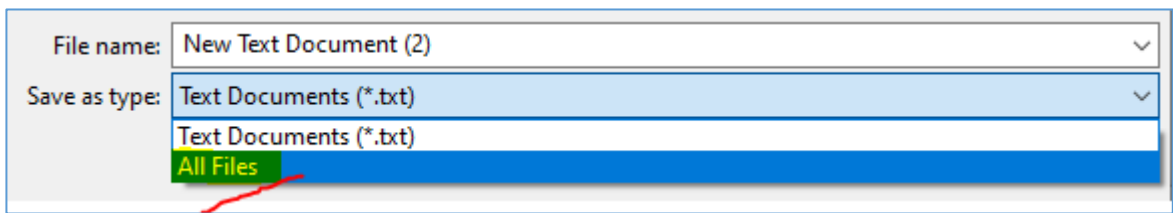
And THAN type the file name: unms2.key

Due to the fact, the text editor does not know what a *.key file is, the text editor symbol should not appear as long as you choos „open with" and tell windows, that the text editor is the editor of your choice. Anyway, your key file is now ready to use with the UNMS.

3. *Call up the About Screen:*

    At the UNMS adminstration tool, select „Help" and click on „About UNMS".

UNMS Administrator - [Web Console]

File   Edit   View   Tools   Help

Web Console | Site Maps

? User Manual...

About UNMS...

You should see a main window that provides all important information about your copy of the UNMS 2 – software:

About UNMS   ✕

UPS Network Management System - Version 2.4
© 2005-2022 GENEREX SYSTEMS Computervertriebsgesellschaft mbH. All rights reserved.

Product License:

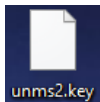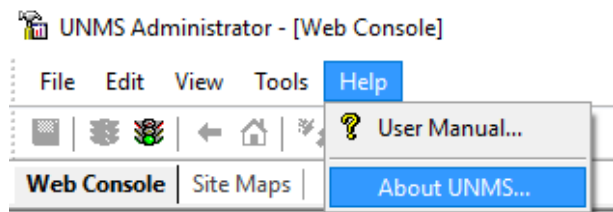Currently used program version →

FREE EDITION: Max. 9 Services (9 used)
Serial Number: **[your current UNMS key]**

Change...   → Change license key

Installed Components:

For this license, available modules →

UNMS Administrator - Version 2.4 Build(2.4.03)
UNMS Server Service - Version 2.3 Build(2.3.05)
UNMS UPS Net Agent - Version 2.1 Build(2.1.06)
UNMS SNMP Agent - Version 2.1 Build(2.1.11)
UNMS Web Console - Version 2.2 Build(2.2.02)

Copy Info   → This button will copy the list of installed mdules to the clipboard for

System Info → Shows the operating system info display

Warning: This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.

Acknowledgements → Acknowledgements, third-party licences for individual parts of the programme,

OK → Close this dialogue

29

Click change and upload your new key. The new key should appar at serial number.
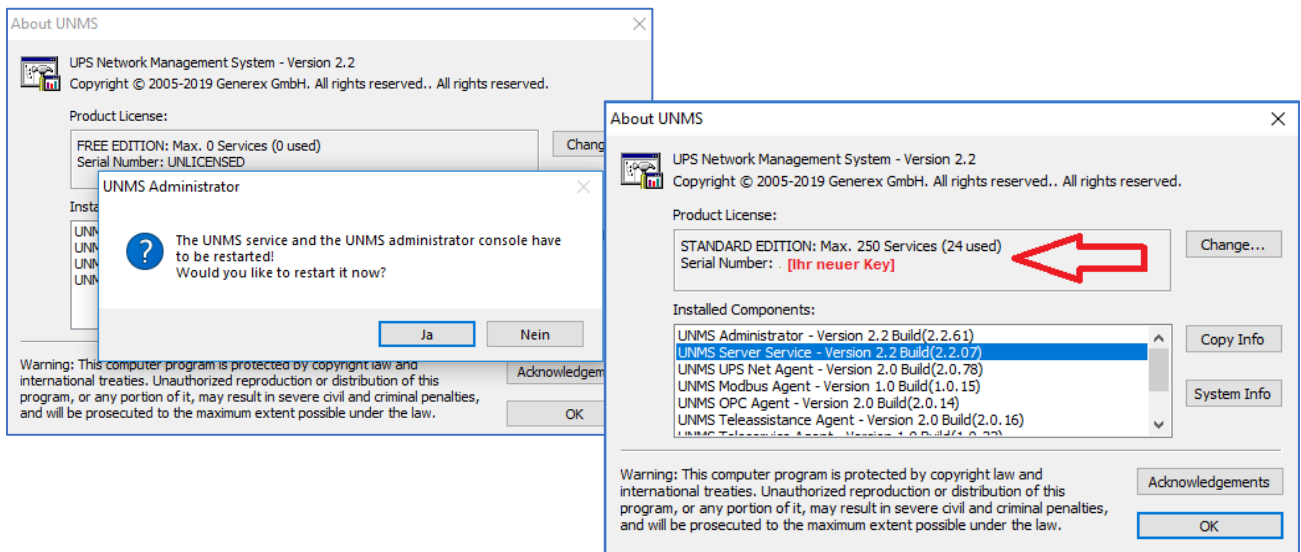
Restart the UNMS to enable the new functions provided by the UNMS About screen.

Tutorial: Add a job with different mail receivers to an event

For this function, there are some preparations necessary to unlock the corresponding configuration menu

A various number of UNMS 2 menus depend on basic settings like a mail server and aan will only appear if the configuration allows a usage. This special e-mail job therefore can only be configured if the UNMS 2 has previously been allowed to use a mail server to run mail jobs. If the UNMS mail option is not configured accordingly, the configuration menu for this job is not accessible.

Due to this fact, first check whether the mail server is configured:

Note:

The UNMS 2 generally uses a persistent configuration to allow making changes to the UNMS without disturbing productive operation.
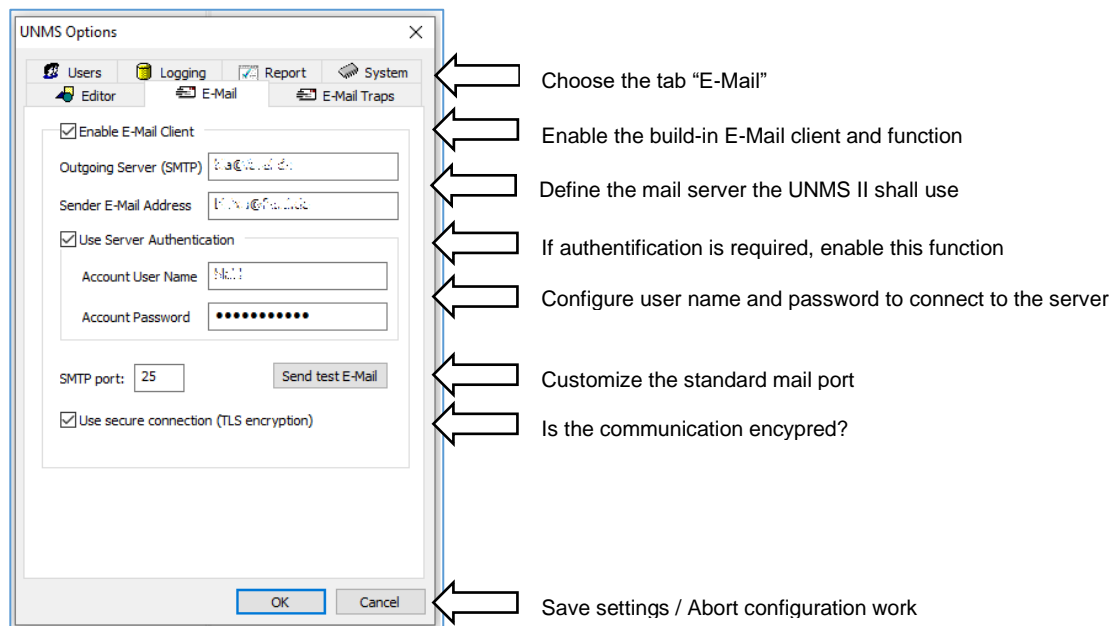
However, in order to activate changes, the UNMS must be deliberately stopped and restarted after saving. If your UNMS version does not support a special function by configuration or version design, you will not find the corresponding menu.

Check / Configure the general mail setup
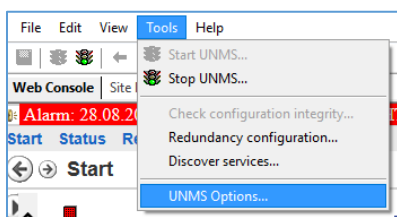
First open UNMS Options menu to access the basic configuration dialogue.

To set up a valid mail server, select the "E-mail" tab in the configuration dialogue:

Choose the tab "E-Mail"

Enable the build-in E-Mail client and function

Define the mail server the UNMS II shall use

If authentification is required, enable this function

Configure user name and password to connect to the server

Customize the standard mail port

Is the communication encypred?

Save settings / Abort configuration work

After the mail test passed successful, click OK to apply the settings and unlock the corresponding configuration menus and configure the mail job ....

Note:

If the access data change and are incorrect, the e-mail server will simply refuse a mail send request. The UNMS, on the other hand, needs at least even wrong server setup data to display the according configuration menus for this tutorial job. In short, if the UNMS does not send as desired after configuration work, youneed to check both settings, the mail server setup at "Options" and the mail job itself.

Remember: These jobs are only executed if you have clicked Save, Exit and Start to write the active configuration!

*Setting up different mail receiver in case of a power fail*

After the mail server has been configured, it is possible to start configuring the mail job itself.

For this configuration, you need to access the "Event Explorer" that can be found on the right-hand side of the administrator console - Either at the bottom right, where you can choose between Site Explorer (lists all integrated devices) and the Event Explorer, where the possible executable jobs are located:

When the taskbar is anchored bottom-right:
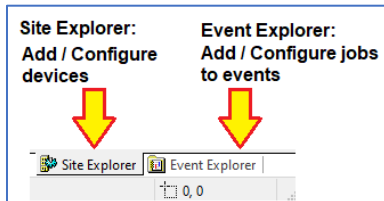
The dynamic site bar at the upper-right:
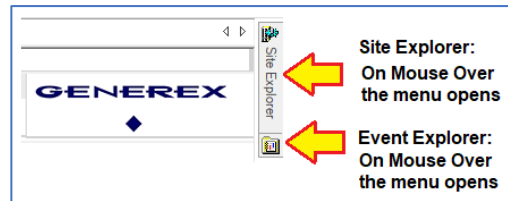
The Event-Explorer

The Event Explorer provides an overview of all available events as well as pre-configured standard jobs that are executed accordingly when one of these events occurs.

If there are jobs in subfolders, these can be directly expanded and viewed or edited by clicking on the +.

What this tutorial is talking about:

At the UPS Events, there is a list of Events a UPS offers – it is possible to add a custom job that will allow to do various tasks. In this case, a customized mail group shall be informed in case of a power fail.
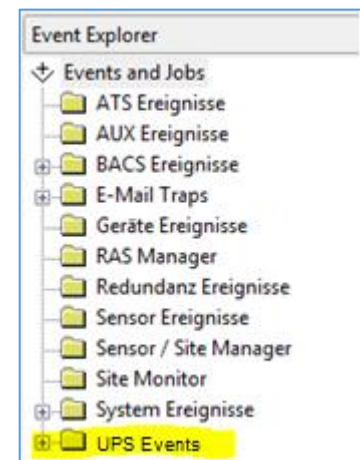
This task was transferred to the technical department:

There have simply been too many power cuts lately that have caused problems. The company's board of directors, in its boundless wisdom, has therefore unanimously decided to immediately gather information when this happens again.

The quickest way to do this is to use UNMS 2, as it offers functions such as automatic mail dispatch.
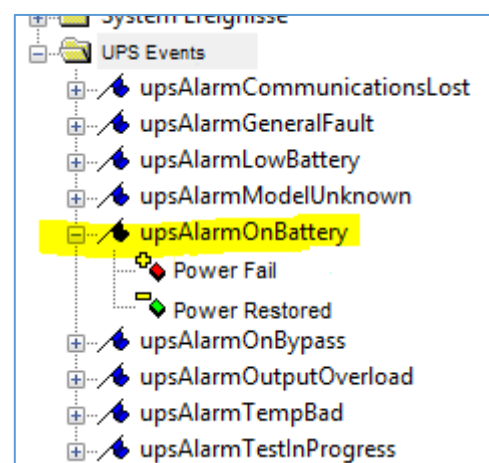

Identify the correct UPS event

The predefined names are mostly self-explaining: UPS Alarm On Battery (The UPS reports a Problem and is currently running on battery).

Click + to unfold the and take a look at the alarm events stored right there:

- Power Fail

- Power Restored.

These two events are the alarm events you are looking for.

The next step is to create your own email addresses and set up an according job that will send an E-Mail to these reciepients – Keep in mind that email jobs are only available if the email server has been defined in advance.

How to add a customized mail job

First, use the right mouse button to open the context menu to this event, and select "Properties".
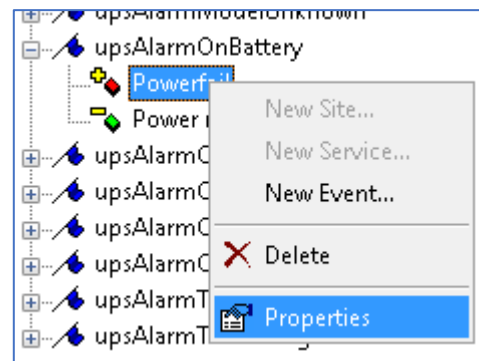
In the Event Properties, configure what exactly shall be done in case of this event is pending. Currently, the "DEFAULT" job is executed. This must be changed…:

➔ ... describes the event and the current event status

➔ … Display Name and Priority of this event.

➔ … What shall be written to the log file if this event arise?

➔ … The job that shall be executed, and is there a time delay for it?

➔ … Filters: Are there other job execute conditions, too?

➔ … Confirm your settings / Withdraw your entries.

UNMS distinguishes between a list of existing jobs and the assignment of any system events. In short, the job does not have to be created each time, but can be dynamically assigned to any number of events afterwards. Since this job with the mail addresses does not yet exist, select the <Edit...> input dialogue for "Run a job":
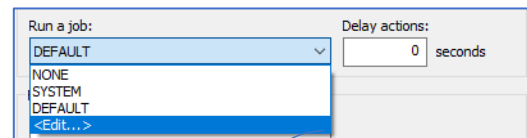
The Job Editor

This will start the job editor module that helps to define jobs.

At jobs, there is a list of all the jobs that have been created so far, whereby DEFAULT and SYSTEM represent the preset jobs. Click edit to run the job editor.
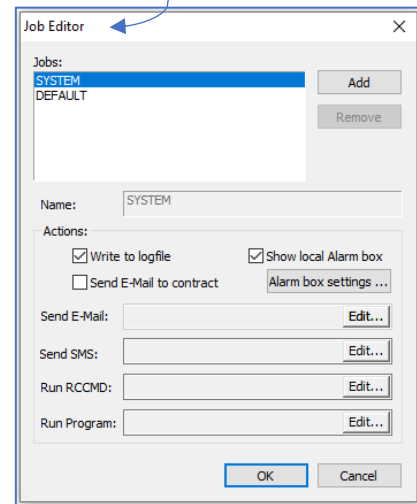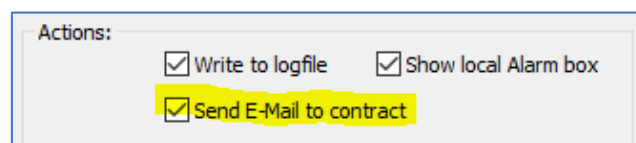
Creating the email job

First, click "Add", to add a new job. Remember to choose a clear and unequivocal name for this job – if a various number of jobs are available, it will become a little difficult and uncomfortable to find the correct job.
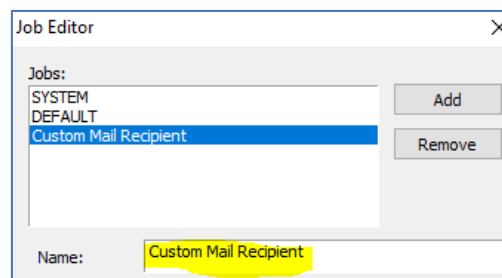
The function "Send E-Mail to contract" enables the mail send function for to a pre-defined mail recipient.

Now it is time to add some recipients that shall get an email. To do this, click „Edit…" at "Send E-Mail"
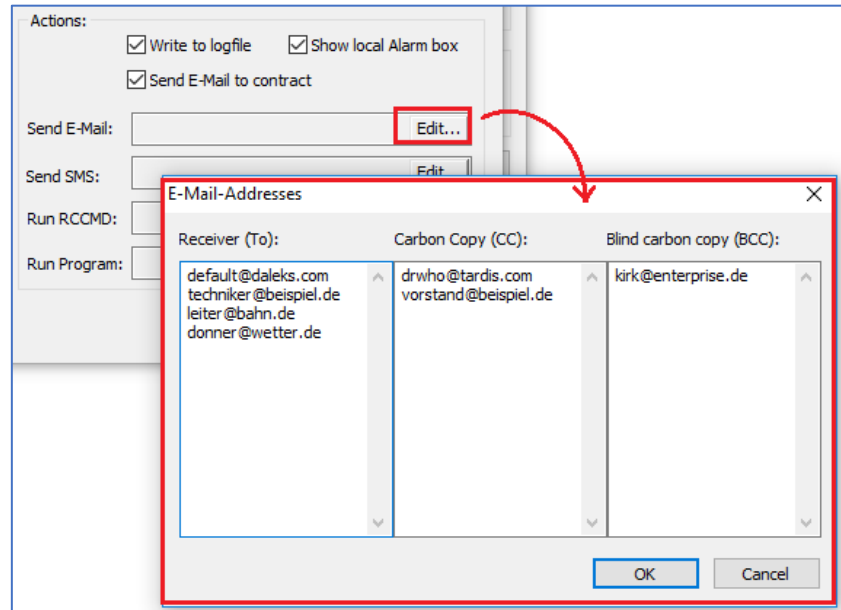
The UNMS will offer three different methods to send an email:

1. Receiver – The classic Mail recipient – Each recipient in this list will get an email.
2. Carbon Copy (CC) – The UNMS will also send a Copy, but the Receiver will see that this email is written
3. Blind Carbon Copy (BCC) – In general, the same function like CC, but the copy information is hidden to the Receiver.

Add as many mail receiver as wanted and click OK when finished. The Send E-Mail should now look like this:
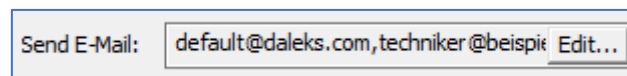
Assign the the mail job to an event

Finally, you only have to ensure that the job has been selected accordingly - otherwise you would have created the job correctly, but UNMS would not know that it shall be executed in this context. As already described, UNMS differs between the job and the events so that you do not have to create each job individually all the time. It longs out that this event should run a specific job.

By default, the "Default" job is selected at "Run a Job". The job you created is configured and saved, but you must now select it so that it is activated for the Powerfail event.

To do this, simply select the job from the drop-down menu and click OK to save the setting.

To complete your configuration …

Currently, all registered mail recipients are designed to be informed in the event of a power failure.

Conversely, there is also an event that indicates the end of the power failure - Power Restored.

To avoid having to re-enter all the mails, simply select the mail job you created again in Power Restored:
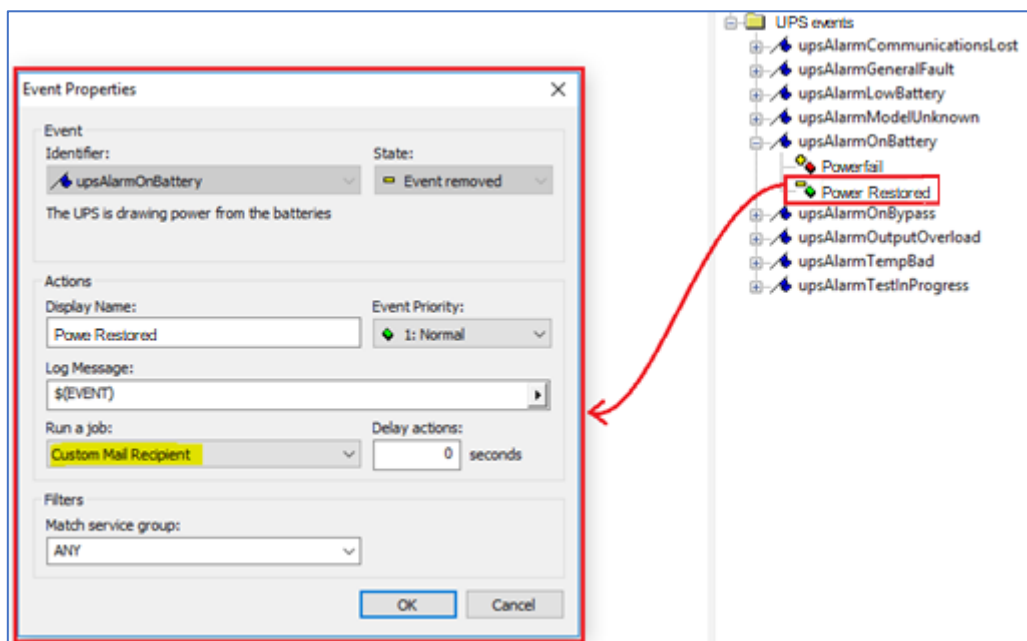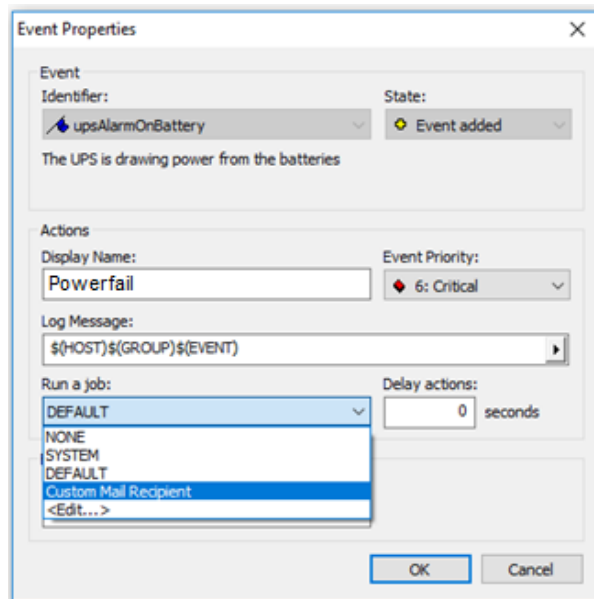
Never forget to save, stop and start:

The UNMS must read in the new configuration data to make it active. This is done by pressing Save, Stop and Start again. The UNMS then loads the changes into the active configuration.

2. Architecture Overview

UNMS II is an UPS network monitor designed to inform you of emergency power supply systems problems in your network or the customers network. The UNMS uses network (LAN) connections as default, but allows also connections through MODEM and GSM Routers (RASMANAGER Analogue and RASMANAGER GSM, requires a Teleservice/Datacenter license) or "Push Email". The UNMS server service runs intermittent and checks on UPS devices you specify in a list. When problems are encountered, the UNMS server service can send notifications out to administrative contacts in a various ways (Email, RCCMD network message, etc.). Actual status information, historical logs, and reports can all be accessed via a web-browser (**Web Console**).
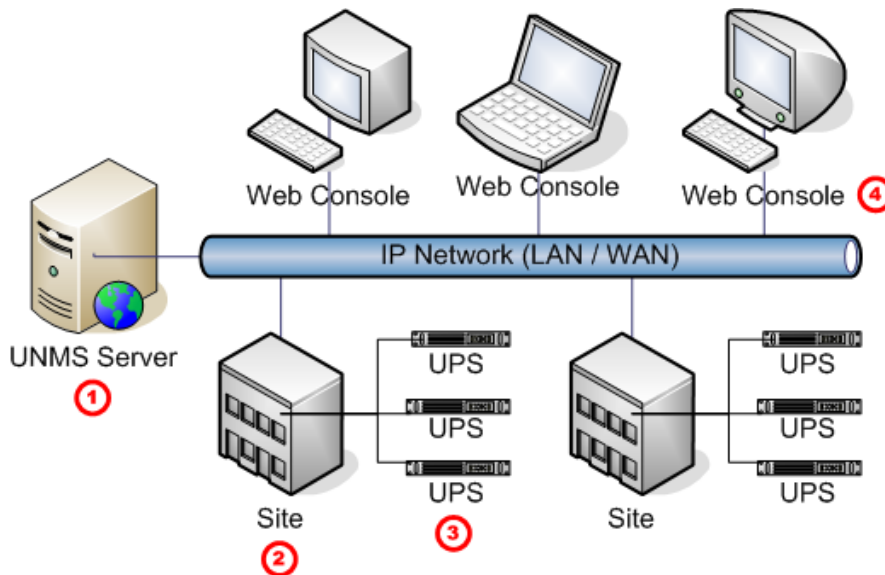

Figure 1 UNMS II into a network environment

No.	Name	Description
①	UNMS Server	The UNMS server service running on this computer with MS web server installation.
②	Site	A user defined group of services (e. g. UPS devices). Define a name for this group and configure individually group rules for those devices belonging to this group.
③	Service	A single service (e. g. UPS device with CS121/CS141 SNMP card or UPSMAN or BACS) that is monitored by the UNMS server.
④	Web Console	Web consoles provide sharing of management information by many people.

3. System Requirements

The UNMS II server runs under Windows Server (2003, 2008, 2008 R2, 2012, 2012 R2), Windows VISTA Business or higher, Windows 7 Professional or higher and Windows 8 Professional/Enterprise

The UNMS II service runs ideally onto a high performance PC. We recommend to use at least a DualCore CPU with 2 GHz and 8 GB RAM. Further we recommend to use a Windows Server OS than a Windows workstation when monitoring more than 9 devices.

Important: The installation requires administrator privileges and an installed « Microsoft "Internet Information Server (IIS) » Version 5.0 or higher (IIS is included into every Windows distribution, but may not be installed by default. The UNMS II requires the WorldWideWeb-Service component and the IIS Manager Snap-In only).

Web-browser configurations: If you are using the **Web Console** with any web-browser, then it is required, that your web-browser is supporting XML, Cookies and JavaScript. Additionally you should allow « PopUps » from the IP address of the PC, where the UNMS II is running.

4. Microsoft IIS Installation

Any UNMS requires the installation of Microsoft Internet Information Server IIS. The Teleservice, Datacenter and OPC Versions require additional services to install, these additional services will described later. Since every UNMS requires at least a Microsoft IIS Server, the following chapters describe the installations for the supported Windows OS and will continue after this with the description of the UNMS itself.

4.1 Microsoft IIS Installation on Windows XP

The support for Windows XP is discontinued after UNMS II version 2.0.12

If the IIS is not installed on your OS, you will get the following message during the UNMS II installation.
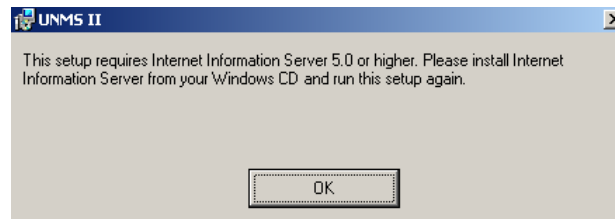
Figure 2 UNMS II error message

Click the "Add or Remove Programs" button into the "Control Panel". Click the "Add/Remove Windows Components" button. Enable the "Internet Information Services (IIS),
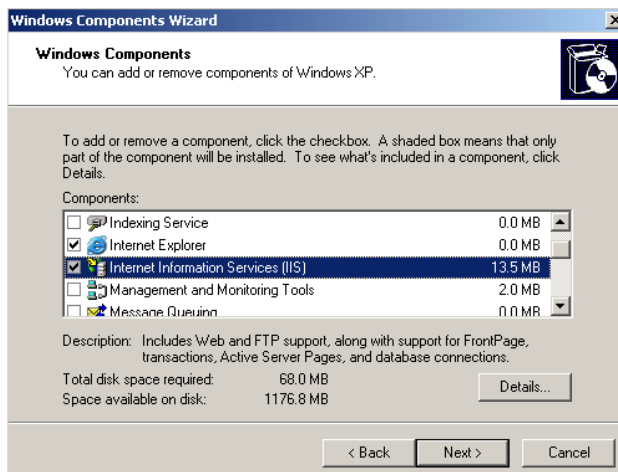
Figure 3 Windows Components Wizard

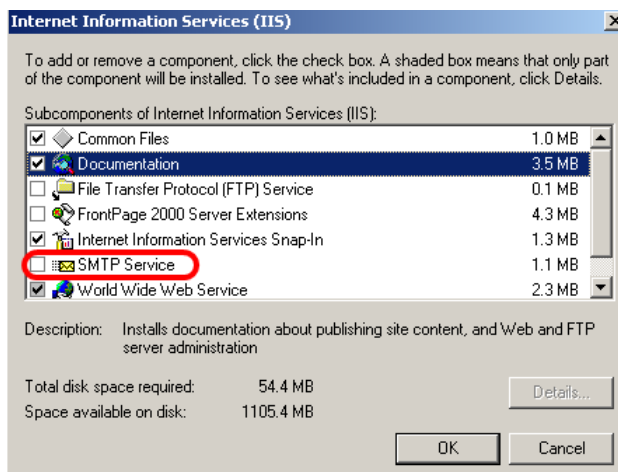but disable the SMTP Service and click the « Next » button.

Figure 4 Disable SMTP Service

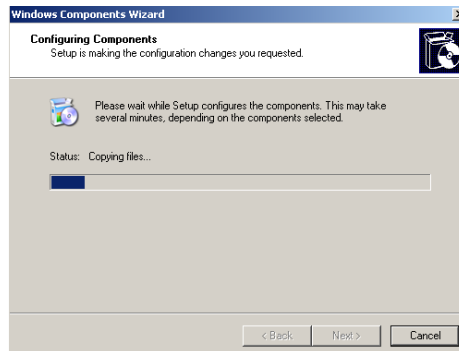Insert your Windows XP CD and click the "Next" button.

Figure 5 Configuring components

Figure 6 Completion

4.2 Microsoft IIS Installation on Windows 7/8/10

If the IIS is not installed on your OS, you will get the following message during the UNMS II installation.
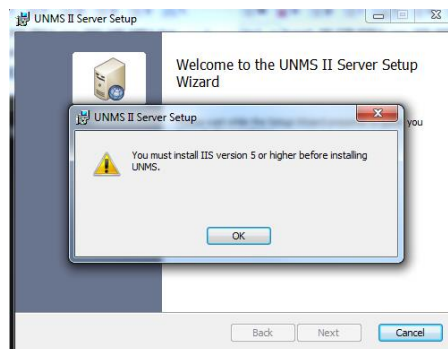

Figure 7 UNMS II error message

Click the "Programs" button into the "Control Panel" and click the « Enable/Disable Windows Features » button. Enable the following features:
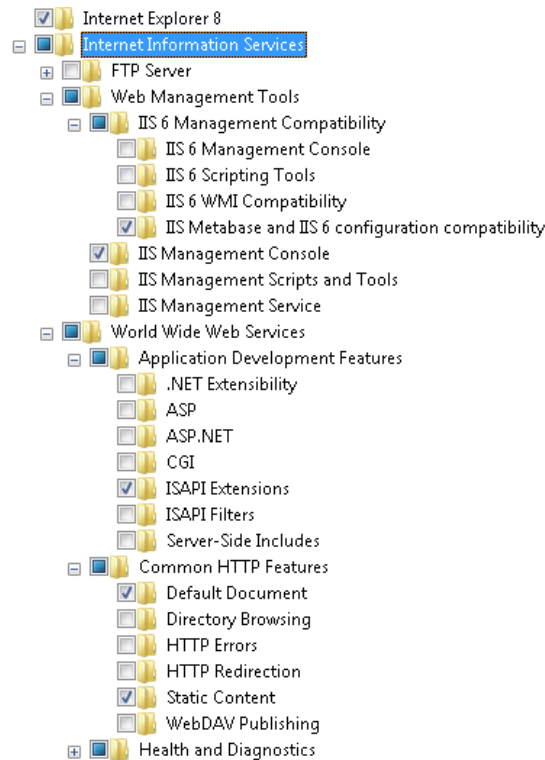
Figure 8 Windows Features

Click the « Ok » button to complete the installation and start UNMS Setup again.

4.3 IIS Installation on Windows 2008 Server R2

NOTE : If you want to use the Internet Explorer on this Server for UNMS, then you have to disable the IE Enhanced Security for Windows Server 2003 and 2008 OS.

Here an example of the configuration Internet Explorer IE Enhanced Security (IE ESC) on Windows Server 2008 R2:
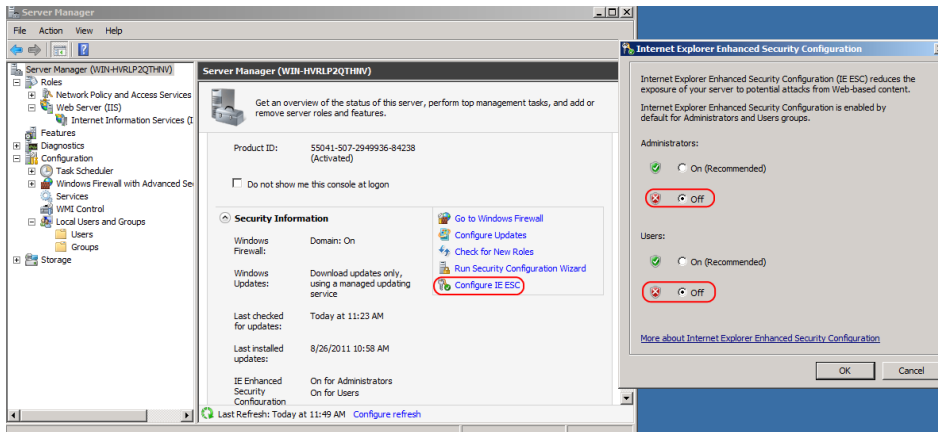

Figure 9 Configure IE ESC

Open the "Control Panel" and click the "Turn Windows features on or off" link (below the "Programs" label) to open the "Server Manager".
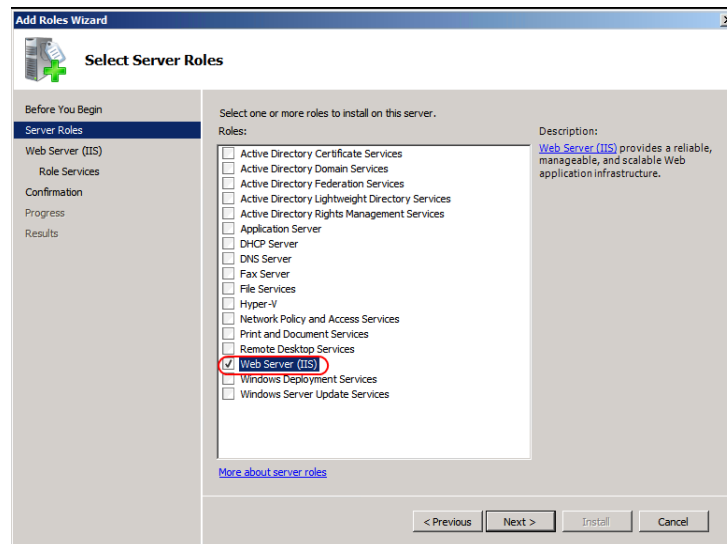
Figure 10 Add Roles Wizard

Open the dialog box "Web Server IIS" and select "Role Services".
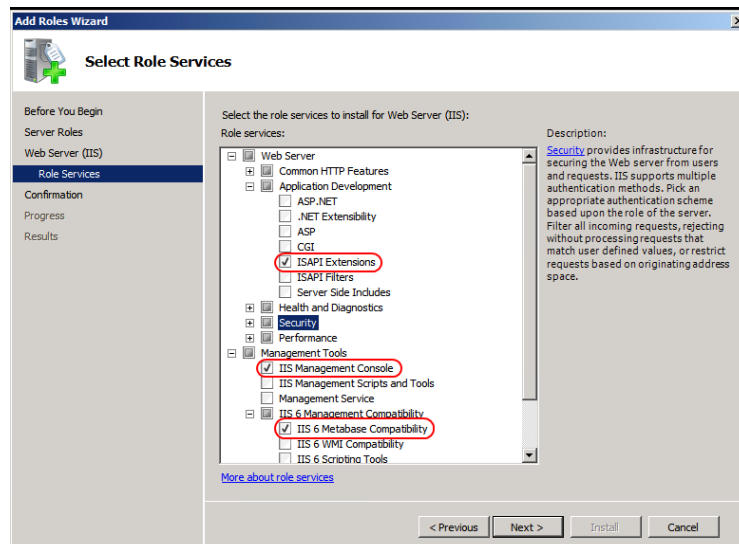
Figure 11 Role Services

Click the « Ok » button to complete the installation and start the UNMS Setup again.

Start the UNMS setup.exe again, if IIS problems are solved, the Setup starts now for the installation of the UNMS software.

4.4 IIS Installation on Windows 2012 Server R2 and Windows 2016 Server

Open the Server Manager and click on "Add Roles and Features". Click the "Web Server (IIS)" button into the Server Roles menu and then on "Add Features" or rather "Next".

Figure 12 Add Roles and Features

Click on "WinRM IIS Extension" into the menu Features and then on "Add Features" or rather "Next".

Figure 13 Add Roles and Features – WinRM IIS Extension

Click on "Application Development" into the menu Role Services/Web Server and enable the "ISAPI Extensions" under Management Tools, the "IIS 6 Management Compatibility" and then on "Install".
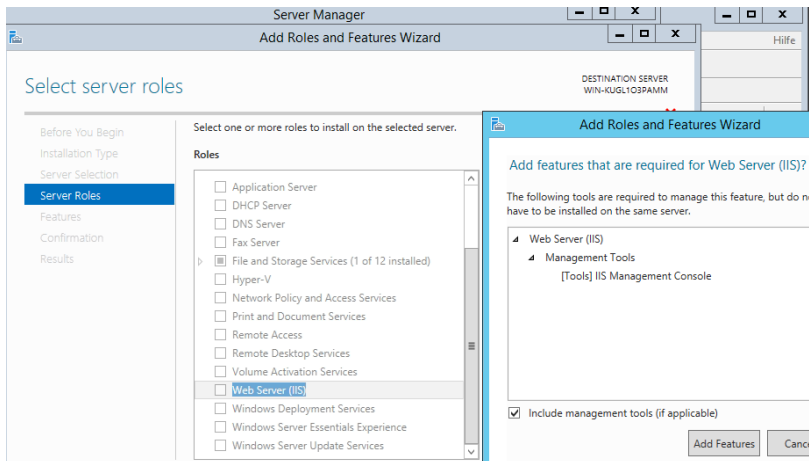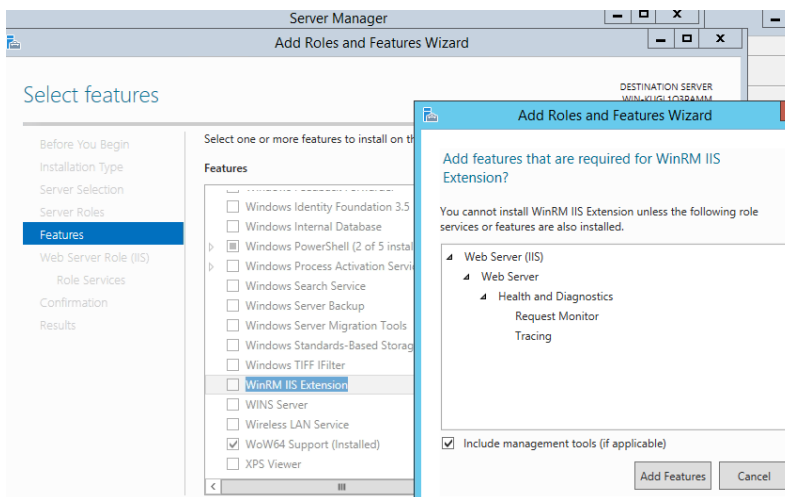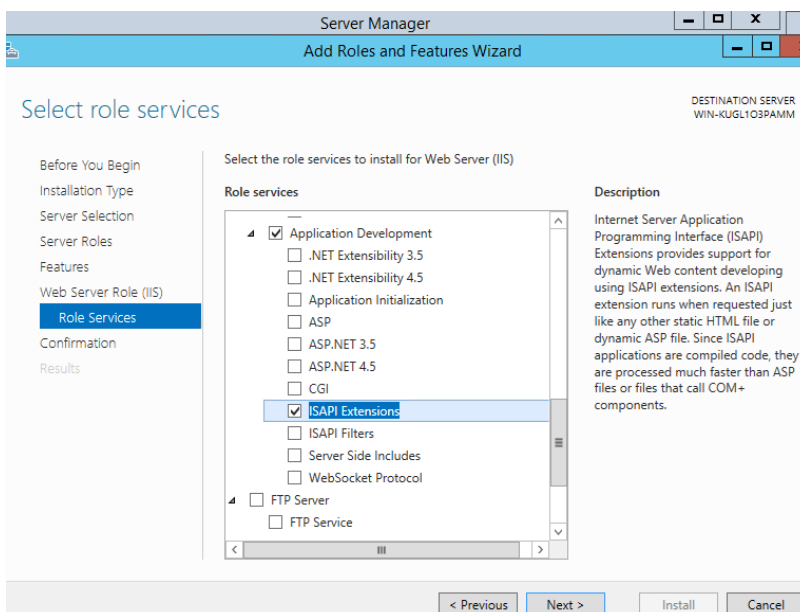

Figure 14 Role Services

42

5. License Regulation

UNMS II licenses are sold as individual license. A valid UNMS license defines the number of **Services** (IP addresses) of devices to manage through this UNMS. Eg. If you have purchased a UNMS 50 licenses, than max. 50 **Services** may be managed at a time through this UNMS. Do not install the UNMS II several times using the same license ! UNMS is available also as bundled version, coming with UPSMAN or RCCMD software. This bundled version is limited to 9-nodes and has restricted SNMP functionality. See Chapter 5.1 below.

You can update any UNMS II Software within 2 years free from the GENEREX website www.generex.de. Free update period ends 2 years after installation. After 2 years free updates are no longer possible and you have to purchase a new version.

5.1 UNMS II 9-User Bundling License

If you have purchased any RCCMD or UPSMAN software, than this licensekey entitles you to use the UNMS II 9-user bundling license, fully functional system, but limited for the monitoring up to 9 devices (CS121/CS141, BACS, UPSMAN and up to 3 non GENEREX SNMP devices). The commercial version adds features like upgrade, updates, configurable and customizable screens, up to 5000 **Services**, teleservice for MODEMs, datacenter functions for large UNMS installations with reporting and VPN remote access.

5.2 UNMS II Full Version License

The UNMS II full version is available from 5 up to 5000 objects or **Services** (IP addresses) and offers several modules to upgrade your product until the highest "Datacenter" version.

Following we describe all features of a fully licensed UNMS II commercial version. If you miss features in your version than this may be due to a lower licensed version.

If you click into the UNMS II **AdminConsole** the menu "Help" and "About", you will get the information which modules are installed and how many objects/services you can use with your license.
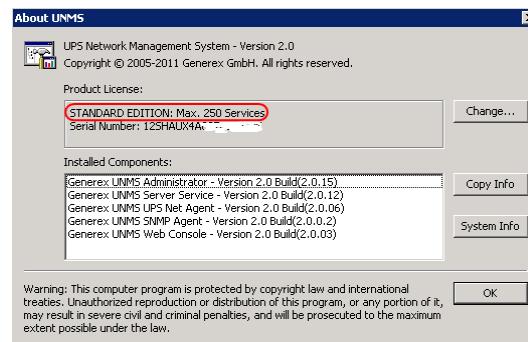

Figure 15 About UNMS Infobox– showing that this Version is for up to 250 Nodes

5.3 UNMS II Full Version with Teleservice Module

The Teleservice Module is an extension for the UNMS which provides telephone line support for analogue modems (RASMANAGER analog) and GSM Routers, (RASMANAGER GSM). This Module is displayed in the About UNMS infobox as "UNMS RAS Agent"
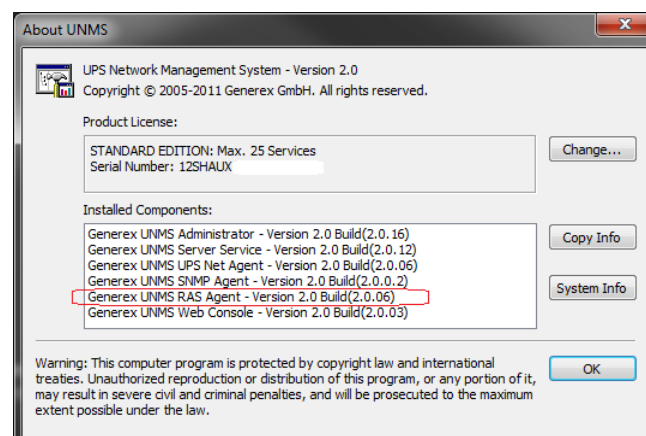

43

Figure 16 About UNMS Infobox– Version is for up to 25 Nodes and Teleservice

5.4 UNMS II Full Version License with OPC Module

The OPC Module is a extension for the UNMS to work as OPC client. This Module is displayed in the About UNMS infobox as "UNMS OPC Agent". Please note that OPC is an industrial general purpose protocol – any linkage of OPC informations into UNMS requires custom development steps.
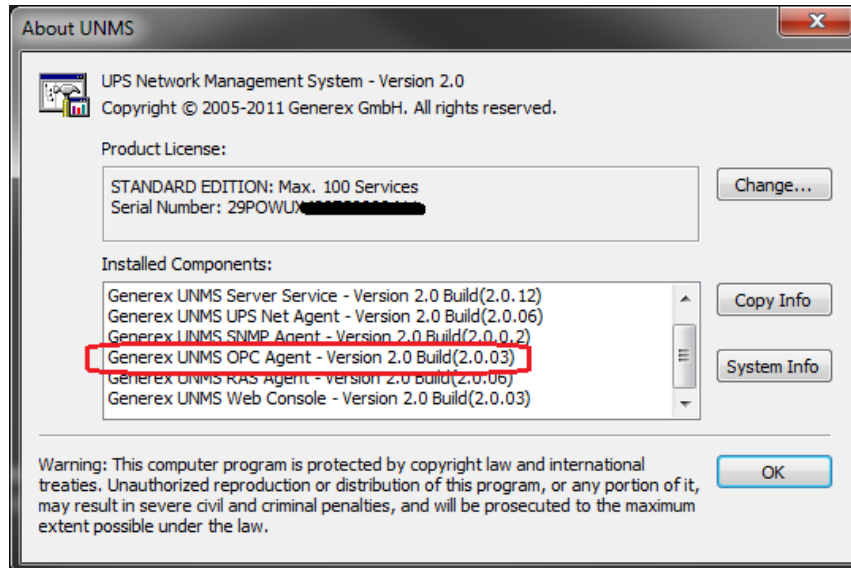

Figure 17 About UNMS Infobox– Version is for up to 100 Nodes and OPC

5.5 UNMS II Full Version License with Teleservice/Datacenter Module

The Datacenter Module is a extension for the UNMS to work as Datacenter manager. This module allows to manage offline installations through "pushmail" (Email) and through the other connections (Teleservice MODEM, Ethernet, SNMP, OPC server). Additionally this Datacenter module includes reporting functions and scheduling options to allow an automated monitoring and alarm forwarding of large installations. This Module is displayed in the About UNMS infobox as "UNMS Datacenter".

6. Getting Started with UNMS II

Although the UNMS II comes in some cases pre-configured, there are some settings you have to go through before you can start monitoring.

Primarily you have to define, which IP addresses and devices you want to monitor and which events have to be regarded as alarms. The UNMS II **Admin Console** simplifies this and other UNMS II related administrative tasks. It is described in the next sections.

The UNMS **Admin Console** is launched automatically after installation has completed. To start it again later, go to the Windows Start menu and use the **Programs/UNMS/Admin Console** menu.

7. UNMS Admin Console

Attention: You need Administrator privileges for using the **Admin Console** !

The UNMS II is split in 2 parts, the UNMS **Admin Console**, for administrative purposes, and the UNMS web-interface, for remote Web access. The **Admin Console** runs a Microsoft Internet Explorer embedded in a Window, called **Web Console**. The **Web Console view** is designed through the **Site Maps** and its related tools **Site Explorer** and **Event Explorer**.

Generally a webbrowser is the graphical interface for all users, who are not working on the UNMS **Admin Console** and are working and watching the system as it operates.

The UNMS **Admin Console** is for configuration of the UNMS II screens and the embedded MS Internet Explorer shows in the **Web Console page** how the changes would look, if viewed with a web-browser from remote.

The UNMS **Admin Console** is the toolkit for the UNMS II Administrator, when doing changes on the configuration, while the normal monitoring process is usually run through any web-browser.

7.1 Discover Services

After the UNMS II is started the first time, the **Discover Services** will be started automatically to help you finding **Service**s (UPS, BACS, SNMP cards ..) in your local network environment.
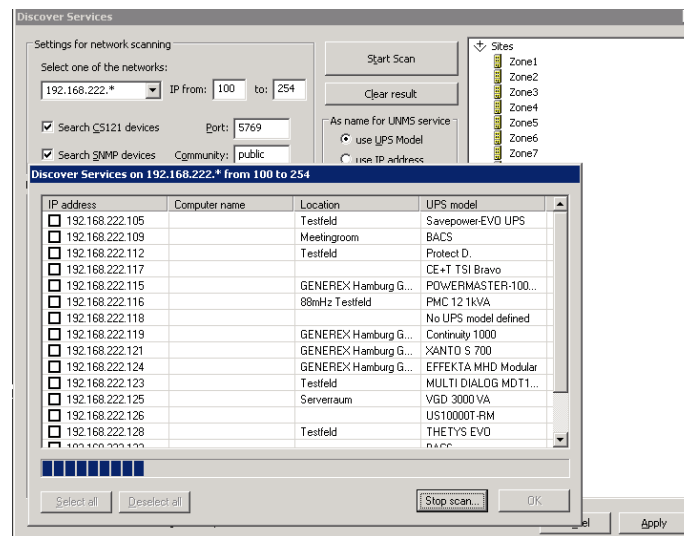

Figure 18 Discover Services

Enter the subnet address, which you want to scan, and enter the IP range (default 1 to 254). If you got additional SNMP devices into your network environment, enable the box "Search SNMP devices" too and click the "Start Scan" button. If you already know your IP address and do not want to use Discovery Service, cancel this service.

After the scan is finished, you can allocate the UPS or other objects found in a list and move them to their Zones/Sites with Drag-and-drop. Use the "SHIFT" and "ARROW" keys to Drag-and-drop several objects at once.

You can choose to use the UPS modelname or the IP address as UNMS site/device name.
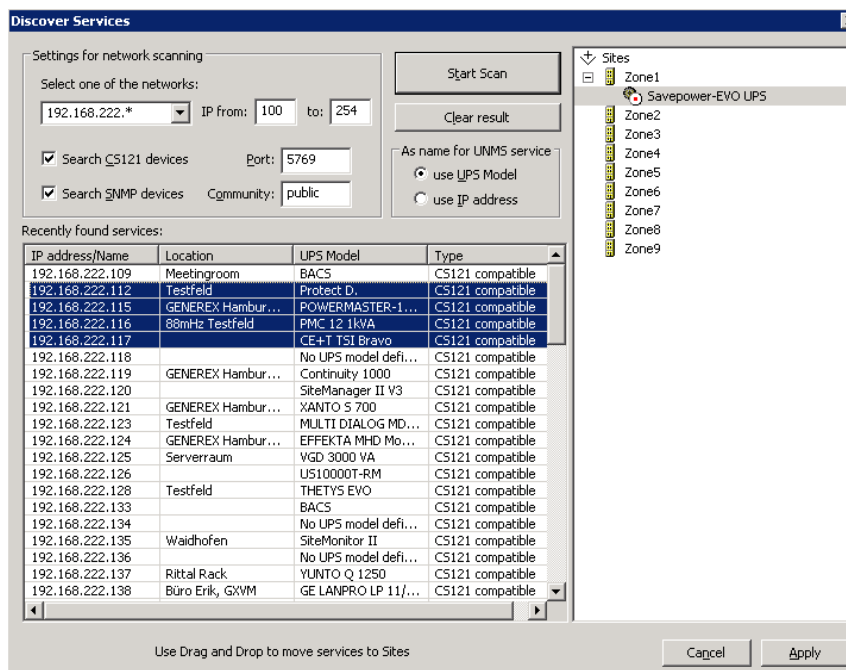

Figure 19 UPS allocation and moving to Zones/Sites by drag&drop

Click the „Apply" button to confirm your settings and restart the UNMS II to use your configuration changes.

After having the UNMS II successfully started, you may continue working with the UNMS II **Admin Console** to complete your settings or to add **Sites** and **Services**manually.

45

7.2 Main Screen

The following diagram and table show the main elements of the **Admin Console**, when starting it the first time. (Here with user login screen)
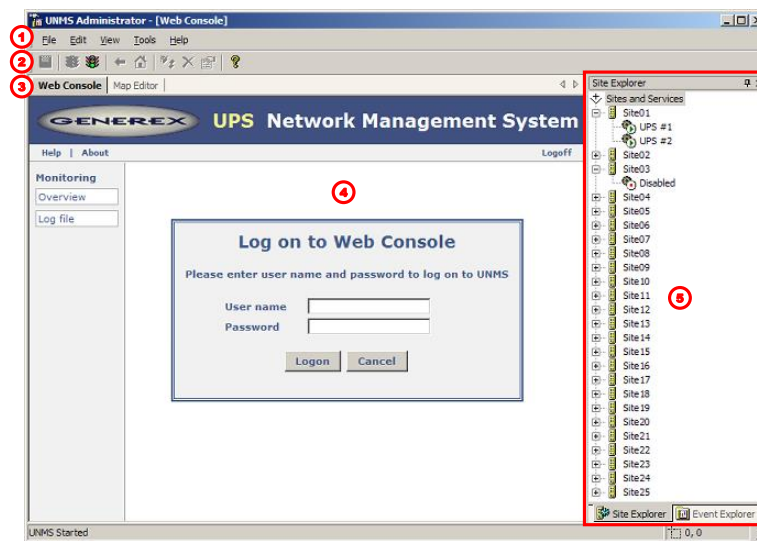

Figure 20 Admin Console – Main Screen

No.	Name	Description	Page
①	Menu	Standard application menu.	
②	Button Bar	Provides shortcut buttons for common tasks and features.	
③	View Selection	You can switch between **Web Console**, in which the integrated Web Browser is displayed, and **Site Maps**, which allows you to customize the Web Console.	
④	Web Console	Display area of the integrated Web Browser, if in **Web Console** mode.	Error! Bookmark not defined.
	Map Editor	Display area of the **Site Maps Editor** (not in all Editions), if in editor mode.	Error! Bookmark not defined.
⑤	Site Explorer	Hierarchical view of all defined sites and their related services (devices).	Error! Bookmark not defined.
	Event Explorer	Hierarchical view of all defined events and their related command handlers.	Error! Bookmark not defined.

In the following part we explain the configuration options inside the UNMS **Admin Console**.

7.3 Sites and Services

Sites and Services are managed through the **Site Explorer**

Site Explorer: The **Site Explorer** panel is your tool to add, change **Sites**, add **Services**, and form several **Sites** into **Groups**.
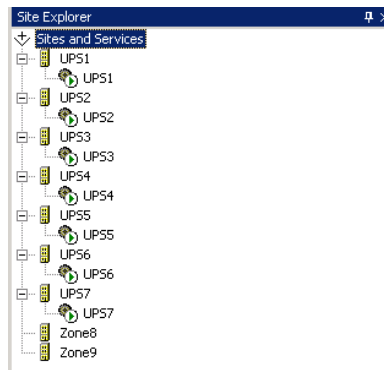
Figure 21 Admin Console – Site Explorer

Definitons:

Service: A **Service** is any kind of IP address or hostname, which is typical an UPS or battery system controlled by a CS121/CS141 or BACS Webmanger or any other GENEREX or UNMS compatible device like third party SNMP cards. So a **Service** is the managing device itself and is always member of a previously defined **Site**.

Example for a **Service**: A Service is a managed device like an UPS SNMP card. For example, a CS121/CS141**,** a BACS Webmanager, a SiteMonitor**,** the UPSMAN Software or any RFC 1628 compliant SNMP device are defined as **Services**.

Site : A **Site** is a set of well-known **Services**, like UPS or IP adresses in a certain location. These locations are called **"Sites"** and represent the organisational or physial location of such **Services**. Any alarm on any Service in this Site will change the Site status itself. So if any of the Services in this Site has an alarm, the Site itself will display this alarm in the Site Icon.

Example for a **Site**: You may define the Site "UPS Customer A". In this Site you have now e. g. 5 Services running with 5 UPS. This Site may get its individual background and alarm reactions, if formed into a Group.

7.3.1 UNMS II Group

Group : A **Group** is a set of **Services** belonging together, like a several UPS installation in the same network or at the same customers organisation.. A **Group** is defining a set of **Services,** which in case of alarms will be treated identically. So all devices (UPS, batteries, etc.) will have the same reactions in case of alarms, if they belong to the same **Group.** Through **Groups** you can define different alarm reactions, e. g. if members of the Group belong to different organisations.

Example for a **Group**: If in a Group defined as "UPS Group" and added to this **Group** all **Services,** which have UPS, than you can define actions, which will apply for all devices in the **Group**. So an UPS alarm on any of the devices in this group will send an email to the UPS service center in your organisation, while an alarm in the **Group** "Batteries" will send an email to the battery service department in your company.

Through the **Site Explorer** you configure relationsships of your **Services** and **Sites**.

Get into the **Site Explorer**, click the desired **Service** button and change the **Service Properties**. Open the **Group** dropdown menu, click on "Edit…" and add the desired group name.
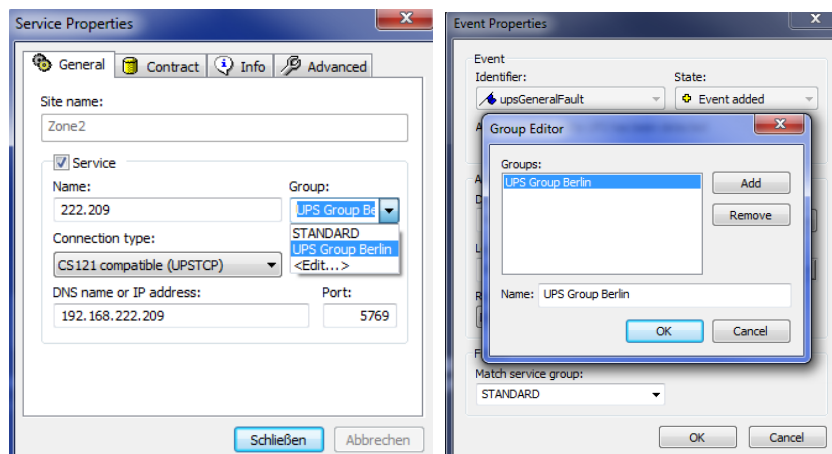

Figure 22 Service/Event Properties – Edit Group

Repeat this procedure for all *Services*, that you want to add to a *Group*. Get into the *Event Explorer* and add the desired *Event* to this new *Group*. Open the accordant *Event Properties* of the *Event*, that you want to add to the new *Group*. Open the dropdown menu under "Match service group", "Edit…" and add the desired *Group*. This *Event* is valid only for this *Group* exclusively.

7.4 Events and Priorities

Jobs and Event reactions in the UNMS are managed through the *Event Explorer.*

The UNMS shows the *Sites* and *Services* on a graphical screen as icons. Such icons display their status according to the configured priorities. For example, if one service of the *Site* runs into as critical defined status while another service of this *Site* is still in normal status, then the whole site will be in a critical state and displays this through this higher priorized icon.

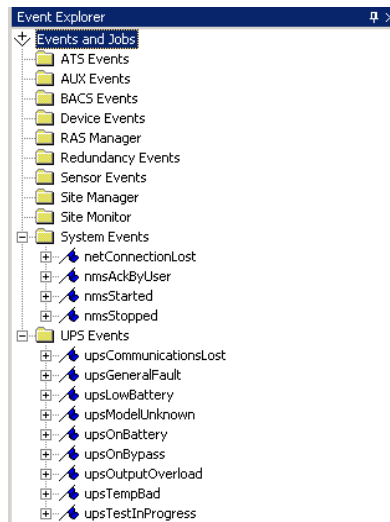To define which events are critical or not, you use the UNMS *Admin Console* tool *Event Explorer*.

Figure 23 Admin Console – Event Explorer

The *Event Explorer* panel is your tool to add, remove or change *Events.*

An event may be an already predefined alarm of a *Service* like at the alarm "ups on battery". There are many predefined events found in the *Event Explorer* for UPS (Uninteruptible Power Supplies), ATS (Automatic Transfer Switches), BACS (Battery Analyse and Care System), network, alarm contacts, etc., additionally you have also the option to add more events.

7.4 Starting and Stopping the UNMS II

You have to save and restart the UNMS before any of your configurations becomes effective. You can restart the UNMS II using the start/stop commands in the UNMS II *Admin Console* button bar:

Figure 24 Admin Console – starting/stopping the UNMS II

Restarting or stopping the UNMS or rebooting your UNMS server computer, is a longer process and may take several minutes, depending on the size/amount of Sites, Serives you have configured. When you restart the UNMS service, all remote sessions connected to your monitored devices are logged out, any status and measurement data is interrupted, all *Web Console* connections are unavailable until the UNMS II is restarted.

7.5 Working with the Site Explorer

Locate the *Explorer Panel* on the right side of the console. If you can't see the *Explorer Panel*, use the *View/View Site Explorer* menu to show it. Select the first tab marked *Site Explorer*. The displayed *Sites and Services* tree shows all sites and their related services as defined within your UNMS.
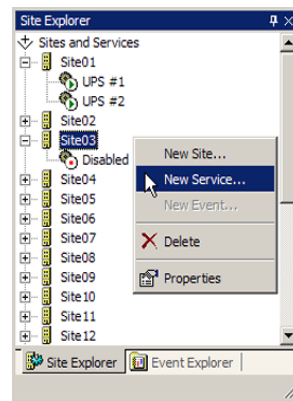
Figure 25 Site Explorer

Single-click on the small box to the left of a site icon (building icon) to expand or collapse that site in the tree.

Left-click on any object name to select that object.

Use the « Delete key » to remove the selected object.

Right-click on a site (building icon) or service icon (gear icon) or name to see the available context menus.

Open a site tree and use the *Edit/Insert Service* menus or *Button Bar* buttons to add service objects to the site tree.

7.6 Changing Service Properties

Using the *Site Explorer* tree, expand the site icon (building icon) that contains the service of interest. Then Right-Click on the desired service icon (gear icon) and use the "Properties" context menu.

Service Properties General: Enter the service name in the "Name" edit box. This is a name to identify your device in the UNMS II listbox and graphical screen.

Service: Click the *Service* box to disable the monitoring of this service, if currently unavailable.

Choose a *Group* for this service. „STANDARD" is default. Define an individual name for a group to configure group rules for those devices belonging to this group (see *Group configuration* later in this manual).

Enter the *Service* IP address in the "DNS name or IP address" edit box. This can be an IP address or as DNS name.

Choose the *"Connection type"*: For UPSMAN Software, CS121/CS141, BACS or any other GENEREX device choose "CS121/CS141 compatible (UPSTCP)" and use the default IP port 5769. Other non-GENEREX devices are found as SNMP compatibles in the drop-downlist box to choose.
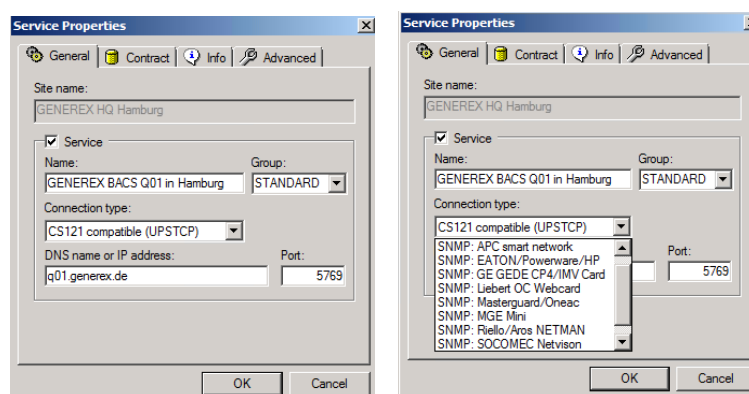

Figure 26 Site Explorer – Service Properties – Connection type

For SNMP devices: Choose the appropriate vendor and enter the service community string in the community edit box (community string is configured on the remote device, as default select "public"). The default community is "public"!

DNS name or IP address: Enter a hostname or IP address of your *Service*, eg. The IP address of your CS121/CS141 or SNMP card. At CS121/CS141 the default TCP port is 5769, at SNMP the community string has to be entered in this menu.

Service Properties Info: For each Service you can provide information as plain text or hyperlink which will be visible on the UNMS graphical screen as INFO button. You can add, remove or edit text informations for this specific **Service,** such information is then displayed on the UNMS II graphical screen and may help other UNMS II operators to find additional informations or instructions for this specific site.
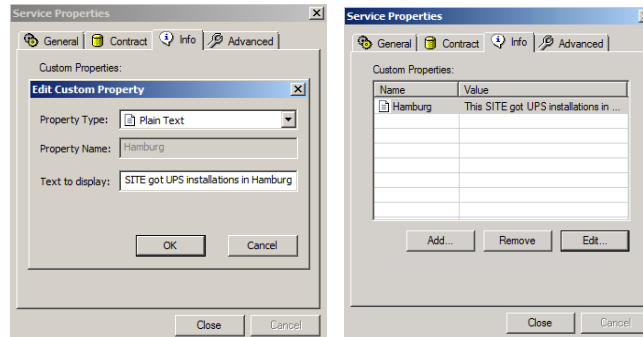
These entries are displayed under the corresponding service behind an INFO button.

Figure 27 Site Explorer – Service Properties – Info

You can add further information for every service. If you click the "More customer data…" button, you can add an email address, which will receive an email, if you enable the function "Send mail to contract" into the **Job Editor.**
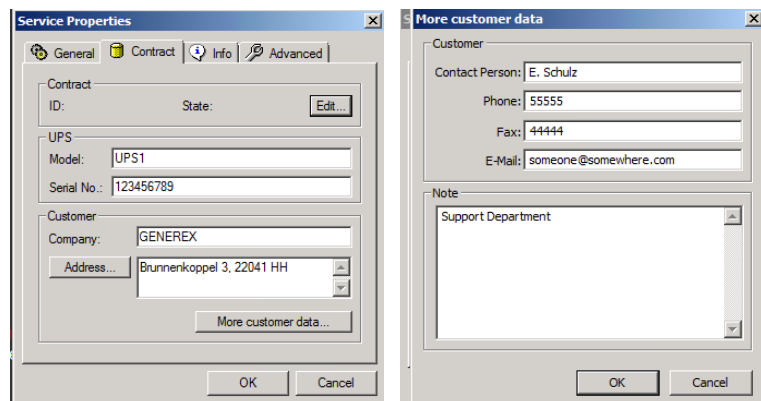
Figure 28 Site Explorer – Service Properties – Contract

You can add additional information for every service as text or rather hyperlink. These entries will be displayed below the accordant service.

Service Properties Report: In this menu you can generate automatic and manual reports of the logged UPS data. Enter a start date and a start time and select the desired interval. In addition you can enter email recipients into the box "Send report to:". If you click the "Generate report now" button, you can generate a report at anytime.
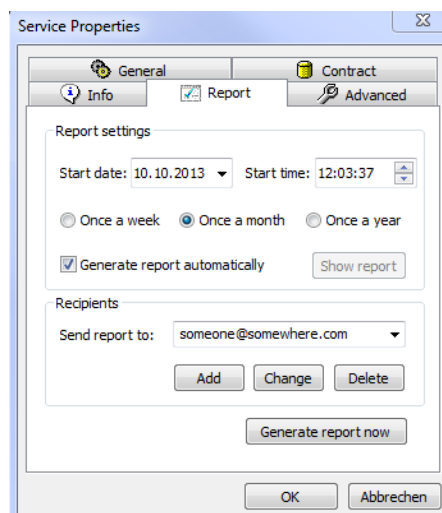
Figure 29 Site Explorer – Service Properties – Report

Service Properties Advanced - Remote Monitor: This is an option if you do not want to use the HTTP default web-link of this ***Service.*** At GENEREX devices, the like the CS121/CS141, the "landing" HTTP page is predefined. At non-GENEREX devices the Webserver can not show the standard UPS layout. To change this you may enter here a different web-page to connect directly to the Webserver page of this Service.
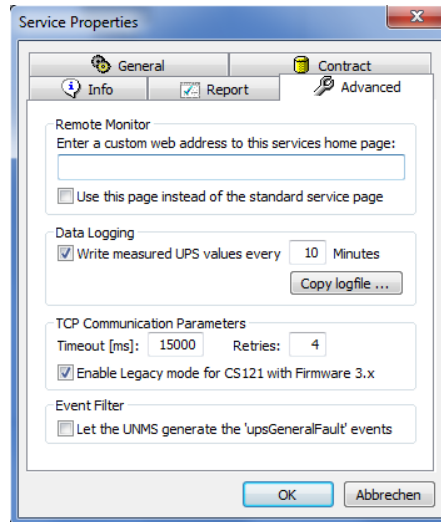
Figure 30 Site Explorer – Advanced – Remote Monitor – configured URL to Webserver-page of an APC Smartnetwork SNMP Card

The moment a URL is configured in the Remote Monitor, a doubleclick on this ***Service*** in the UNMS will open the Webpage of this device directly, skipping the default display of a UPSVIEW or other UNMS standard graphical screens.

Service Properties - Advanced - ***Data Logging*** : Enable this option to activate a local log file in the UNMS server for this ***Service*** and define the interval for updating values (in minutes). It creates a local logfile for this ***Service in the UNMS***. *Through this option you* may built up large databases for your Services monitored by the UNMS, without the restriction of local flashrom limitations of SNMP cards.

Please note that you have to restart the UNMS to start logging functions.

If this option is enabled you will see in the UNMS interface a new button "Data charts". Click on this button to see the logfile of this ***Service*** graphically in the UNMS.

For old devices there is an option to enable the Legacy Mode. Open the properties of a device, go to Advanced and enable the Legacy Mode for supporting devices with older firmware (3.x).
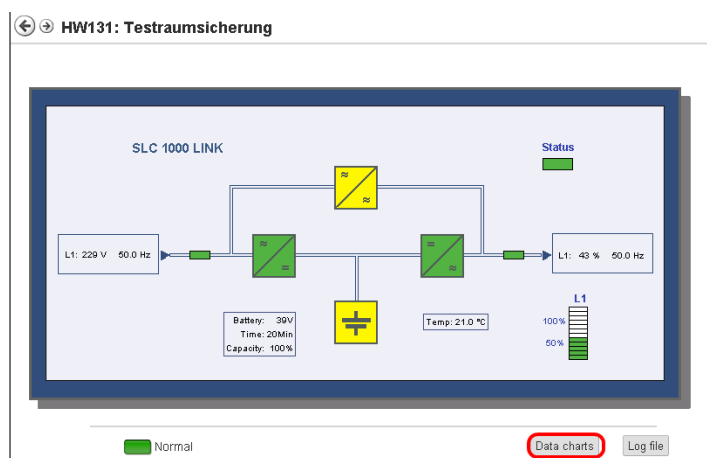
Figure 31 Data charts button

When Data Logging is enabled, you can use the charts for inspecting the data and get a long term history of this ***Service***.
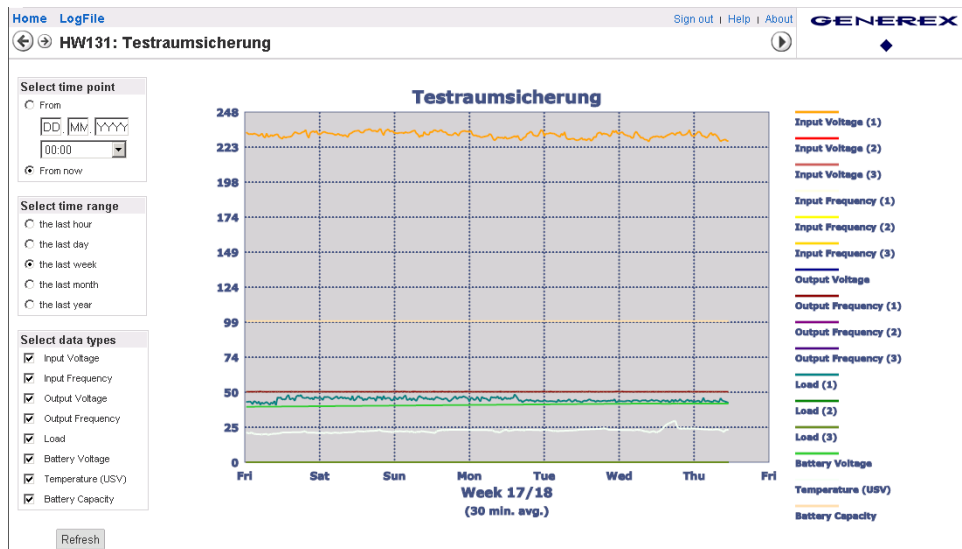
Figure 32 Data chart

Service Properties - Advanced - Copy logfile: From the UNMS II you may also export the data into a CSV file. Goto copy the data of the local logfile of this ***Service*** via „Copy logfile..." to any other directory.

Figure 30 DataLog as CSV File – Time Reference Variable

The first variable into the CSV file "tref" (time reference) serves as basis point of time (01.01.1970) for the determination of the current time.
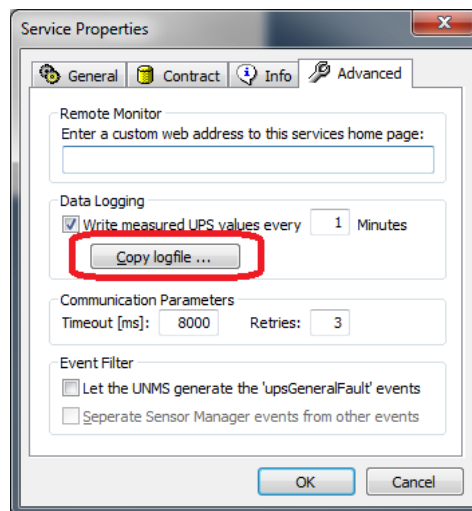

Figure 33 Advanced

Service Properties - Advanced Communication Parameters: To change the timeout default for SNMP network communication. If you have a slow network connection or SNMP device with longer timeouts, this may causes constantly alarms because of slow responses to SNMP requests. You may change these parameters to make the UNMS II more tolerant at this Service (IP address) to avoid such false communication error messages. NOTE: This is only function in Services using SNMP as Connection type.

Check "Let the UNMS generate the 'upsGeneralFault' events" if it is not required to distinguish between different alarm triggers – Then UNMS will generate an 'upsGeneralFault' for each alarm.

"Separate Sensor Manager events from other events" is a feature only for customized UNMS software with SENSORMANAGER, not active in most standard UNMS.

7.7 Working with the Event Explorer

The *Event Explorer* is your tool for the configuration of events and reactions of the UNMS II monitored *Sites* and *Services*.

Locate the *Explorer panel* on the right side of the console. If you can't see the *Explorer panel*, use the *View/View Event Explorer* menu to show it. Select the second tab marked *Event Explorer*. The displayed *Events and Commands* tree shows all events and their related alarms and priorities as defined within your UNMS.
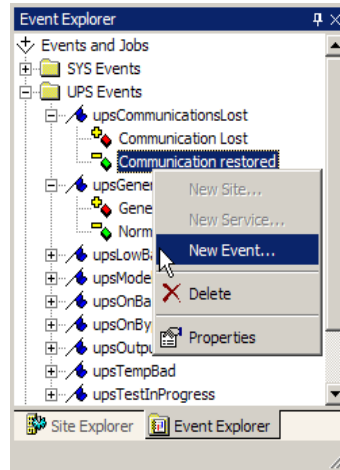

Figure 34 Event Explorer

Single-click on the small box to the left of a group icon (file icon) to expand or collapse this event group in the tree.

Left-click on any object name to select that object.

Use the « Delete key » to remove the selected object.

Right-click on a group (file icon) or event icon (colored box icon) or name to see the available context menus.

Open an events tree and use the *Edit/Insert Event* menus or *Button Bar* buttons to add event objects to the tree.

7.8 Changing Event Properties

Using the *Event Explorer* tree, expand the events icon (file icon) that contains the desired alarm. Then Right-Click on the alarm icon (colored box icon) and use the « Properties » context menu to add/change jobs as reaction on this event.
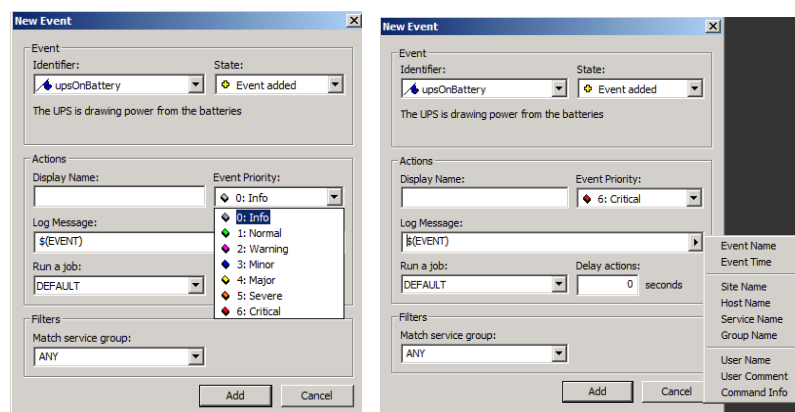

Figure 35 Event Properties – New Event – Event Priorities

Event Properties Event Identifier: Choose the *Event Identifier* you want to customize or to add to your event managed items. Open the Identifier drop-down list box and e. g. select the event *"upsOnBattery"*. Default *Event Priority* is „0: Info".

The UNMS II provides the following events, where most of these Events are not activated by default :

Event
ATS Events (Automatic Transferswitch)

atsSourceBFailure
atsGeneralFault
atsRedundancyLost
atsOutputOverload
atsSourcesAsynchronous
atsStaticSwitchAFailure
atsStaticSwitchBFailure
atsOnStaticSwitchA
atsOnStaticSwitchB
atsOnManualBypassA
atsOnManualBypassB
atSourceAFailure
AUX Events (Auxiliary Contacts at AUX port)
auxPort1
auxPort2
auxPort3
auxPort4
comPin01
comPin06
comPin08
BACS Events (Battery Events when using BACS)
bacsCommunicationLost
bacsVoltageLow
bacsTemperatureHigh
bacsTemperatureLow
bacsResistorHigh
bacsResistorLow
bacsEqualizingError
bacsVoltageWarnHigh
bacsVoltageWarnLow
bacsTemperatureWarnHigh
bacsTemperatureWarnLow
bacsSystemFailure
bacsResistorWarnHigh
bacsResistorWarnLow
bacsStateCharging
bacsStateDischarging
bacs StateDischargingStopped
bacsStateFloatCharging
bacsVoltageFailure
bacsTemperatureFailure

bacsResistorFailure
bacsGeneralAlarm
bacsVoltageDiffHigh
bacsBatteryBreakerOpen
bacsVoltageHigh
Device Events (Common Device Events)
devCommon
devWarning
devCritical
RAS Manager (Teleservice RASMANAGER Events)
rasOutConnecting
rasOutConnected
rasOutFailure
rasInConnected
rasOutAutoConnected
Redundanz Ereignisse
grpOnBattery
grpAutonomy20Min
grpAutonomy15Min
grpAutonomy10Min
grpAutonomy5Min
grpRedundancyLost
grpRedundancy05Pc
Sensor Events
sensorHigh1
sensorHigh2
sensorHigh3
sensorHigh4
sensorHigh5
sensorHigh6
sensorHigh7
sensorHigh8
sensorLow1
sensorLow2
sensorLow3
sensorLow4
sensorLow5
sensorLow6
sensorLow7
sensorLow8
SiteManager Events (Sitemanager multiple Alarms)

sman2AnalogInput01
sman2AnalogInput02
sman2AnalogInput03
sman2AnalogInput04
sman2AnalogInput05
sman2AnalogInput06
sman2AnalogInput07
sman2AnalogInput08
sman2DigitalOuput01
sman2DigitalOuput02
sman2DigitalOuput03
sman2DigitalOuput04
sman2DigitalOuput05
sman2DigitalOuput06
sman2DigitalOuput07
sman2DigitalOuput08
sman2IoMarker01
sman2IoMarker02
sman2IoMarker03
sman2IoMarker04
sman2IoMarker05
sman2IoMarker06
sman2IoMarker07
sman2IoMarker08
SiteMonitor Events (Sitemonitor Digital Alarms)
smon2DigitalInput01
smon2DigitalInput64
smon2IoMarker01
smon2IoMarker16
System Events (UNMS system alarms and notifications)
nmsStarted
nmsStopped
nmsAckByUser
nmsCmdByUser
nmsErrStates
netConnectionLost
netParseError
UPS Events (UPS alarms and events)
upsModelUnknown
upsBatteryBad
upsBypassBad

upsOutputOffAsRequested
upsOffAsRequested
upsChargerFailed
upsOutputOff
upsSystemOff
upsFanFailure
upsFuseFailure
upsGeneralFault
upsDiagnosticTestFailed
upsOnBattery
upsCommunicationLost
upsAwaitingPower
upsShutdownPending
upsShutdownImminent
upsTestInProgress
upsBatteryCharged
upsDieselOnLoad
upsDieselAvailable
upsEssentialBusBad
upsGenEssentialBusBreakerClosed
upsLowBattery
upsInputBreakerClosed
upsBypassBreakerClosed
upsEssentialBusBreakerClosed
upsDCDCConverterOn
upsManualBypassClosed
upsEssentialBusOverload
upsOutputBreakerClosed
upsSecondsOnBattery
upsEstimatedMinutesRemaining
upsDepletedBattery
upsTempBad
upsInputBad
upsOutputBad
upsOutputOverload
upsOnBypass

Event Properties Actions Display Name. Enter the name for this event in the *Display Name* edit box. This Name will be displayed to identify your configured job in the UNMS II logfiles*Event Properties Event Priority*: Choose the event priority from the *Event Priority* drop-down list for this new name and the corresponding event. This defines the colour of the icon in the UNMS II graphical screen.

Event Properties Log Message: You can customize the message that is printed in the event log. Default is "$(EVENT)", which is writing only the standard event name into the logfile. You may add now more log entries by choosing these from the drop-down list (see fig. 24).

Event Properties Run a job: Choose the job to execute from the **Run a job dropdown** list and add a desired delay (if the event is still present after this time the job will be initiated) in seconds into **Delay actions**:. To create a new kind of job or change an existing one, select <New…> or <Edit…> from the Run command dropdown list (see chapter 7.9 Changing Job Properties).

Event Properties Filters/Match service group: Select a specific service group to match this event. Select "ANY" to match all target services.

Some events like „upsEstimatedMinutesRemaining" provide the functionality to define a threshold (***Evaluate condition***). The actions will be executed if this threshold is reached.
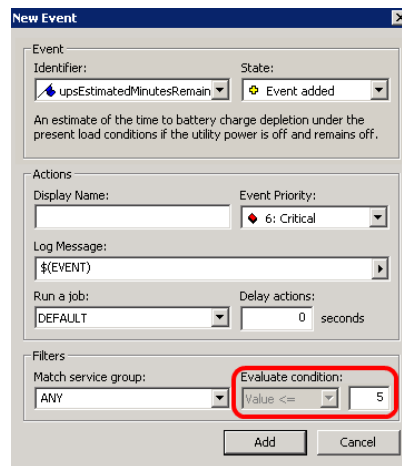
Figure 36 Event Properties – New Event – Evaluate condition

In Figure 31 the ***Event Identifier*** is „upsEstimatedMinutesRemaining". ***Actions*** described below (set color to "Critical", log Message $(Event), run a job "Default") and "ANY" Group member will use these settings if the value „upsEstimatedMinutesRemaining" is less than 5 (Minutes).

7.9 Changing Job Properties

You can change Job Properties within the ***Event Properties*** dialog. Choose the job name you want to change from the ***Jobs*** list or click the ***Add*** button to add a new customized job.
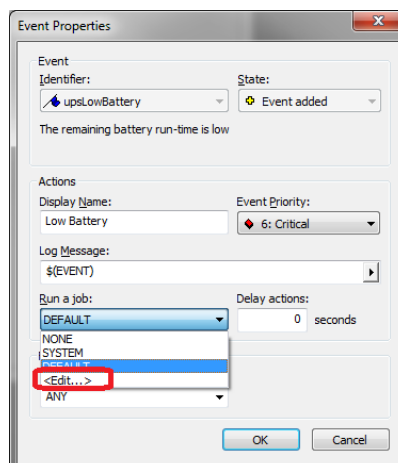
Figure 37 Event Properties – New Event – Run a Job – create or edit a new Job

Check the ***Write to log file*** box, if this event should be written to the UNMS Event Log file (default is on).

Check the ***Show local Alarm box*** if this event should be displayed in the local Alarm Box of the UNMS server.

To send an email when this Event occurs, click the "…" button behind the "Send Email" row and enter the accordant email recipients.
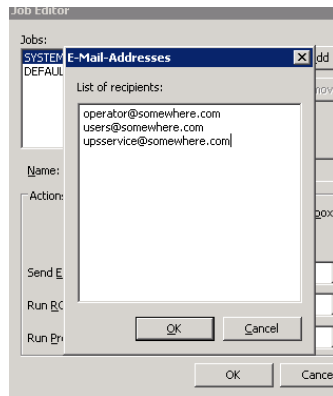
Figure 38 Email-Addresses – List of Recipients

Note: To enable **Send Email**, you must first configure the outgoing mail server in the **Email** page under the **Tools/UNMS Options** menu.

Run RCCMD: This is a shutdown and messaging tool to remotely shutdown computers or send messages. To run RCCMD, when an event occurs, click the '**…**' button on the left of the **Run RCCMD** edit box. In the following dialog you can enter the RCCMD arguments for 1 IP address or RCCMD hostname.
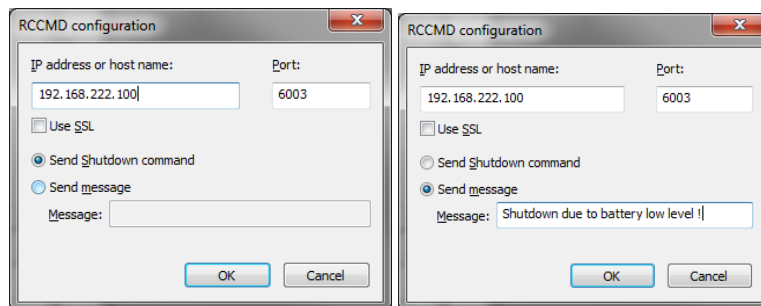

Figure 39 RCCMD Configuration

If you want to send several RCCMD signals to several RCCMD clients, it is required, that you edit an accordant amount of identical events and jobs.
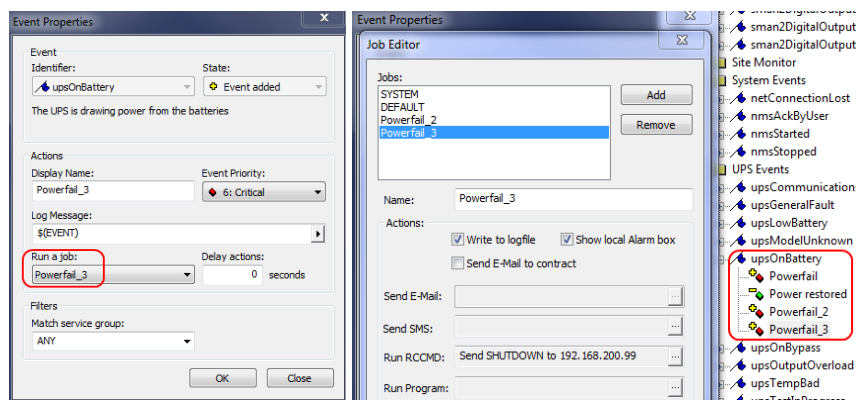
Figure 40 RCCMD Configuration for several RCCMD Clients

As a result on your RCCMD clients a messagebox will appear (see below) or a shutdown will be executed. For more details about RCCMD functionality, please use the RCCMD user manual.
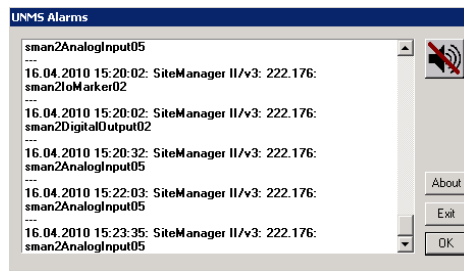
Figure 41 UNMS Alarms Message Box

To run multiple RCCMD shutdowns or messages or to use broadcast, use the listbox or reopen the RCCMD configuration to add more RCCMD clients.

To run an external program when an event occurs, click the '*…*' button on the left of the **Run Program** edit box. In the following dialog you can enter the program name and zero or more program arguments.
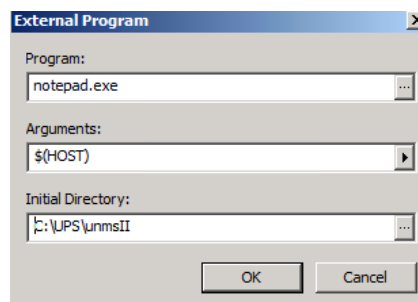
Figure 42 External Program

Tutorial: How to add a different email address to an event

Before you start- UNMS 2 preparations to unlock the options for creating mail jobs.

This job can only be configured if the UNMS has been informed in advance of a mail server over which the mail traffic is allowed to run. If the UNMS 2 mail option is not configured accordingly, the configuration menu for this job is not accessible - they depend on each other. Therefore, it is recommended to first have a look at the UNMS 2 mail setting.

Note:
The UNMS 2 works with a temporary configuration and can simultaneously hold the data changed from inside - therefore the system can run in the background with the current configuration, however, to save your changes you must first save and then restart the UNMS 2.
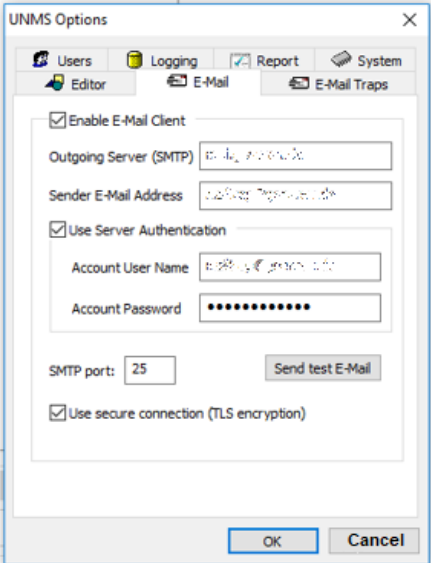
Due to this fact, the changes do not take effect until you save, exit, and restart. "Just saving" will not activate the changes you make.

Configure / Check mail settings
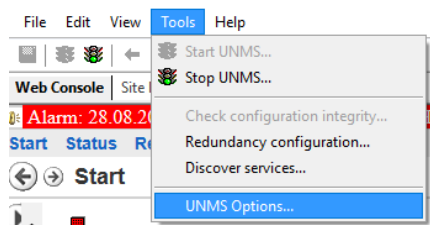
First, open the options menu for the mail settings: To find this menu in the upper tab, click on tools and open the UNMS Options ...

The configuration dialog will provide the main tab for mail settings:

➔	Choose the main tab "E-mail"
➔	Enable / Disable basic mail functions
➔	Enter the mail server
➔	Enter the sending mail address
➔	Toggle user authentication on/off
➔	Enter a valid user name
➔	Enter a valid account password
➔	Choose the SMTP port and test mail settings
➔	Encryption method
➔	Save settings / abort

After validating the mail server access data, click OK to apply the settings and close the configuration dialog.

Note:

As a consequence of wrong credentials, the mail server will reject mails initiated by the UNMS 2 - The UNMS 2, on the other hand, only requires the valid input of mail data in order to unlock the job configuration menus. If it is not possible to send an email after configuration work, you need to check both: The job configuration as well as the mail configuration.

If everything is configurated correctly: Have you pressed save, stop and restart?

Setting up a deviating mail address

The e-mail address will be configured as a job inside the so-called Event Explorer. Depending on the setting, this Explorer can be found either as a side-scrolling menu in the upper right area or as a fixed main tab in the lower right area of the Administrator Console:

The Event-Explorer

The Event Explorer provides a general overview about all available events as well as preconfigured standard jobs that are executed accordingly.

In case of sub folders, they can be unfolded by clicking on the small +.

What this tutorial describes:

If a UPS event is active, an e-mail should be sent to a different e-mail address than the standard mail notifications.

The UPS events can be found in the appropriate folder and subfolders, labeled as "UPS Events".
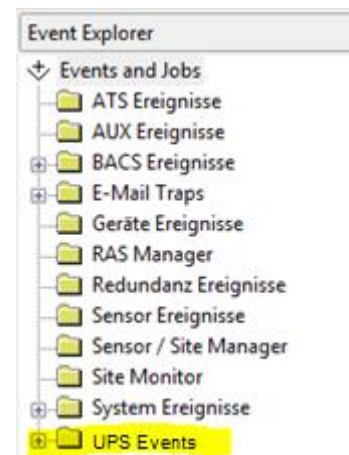
The task that was transferred to the technique department:

There have just been too many power outages lately that were causing problems. The Board of the company, in its boundless wisdom, has therefore unanimously decided to seek immediate information when this happens again.

The fastest way to do this is to use UNMS 2. The UNMS 2 provides functions to send such an e-mail automatically.

How to find the correct UPS Alarm

Press + to expand the UPS Event folder and take a look at the list of the existing UPS alarms:

Search for upsAlarmOnBattery and click on +. You will find two events:

- Power Fail

- Power restored.

These two events are similar to the corresponding operating states of the UPS.
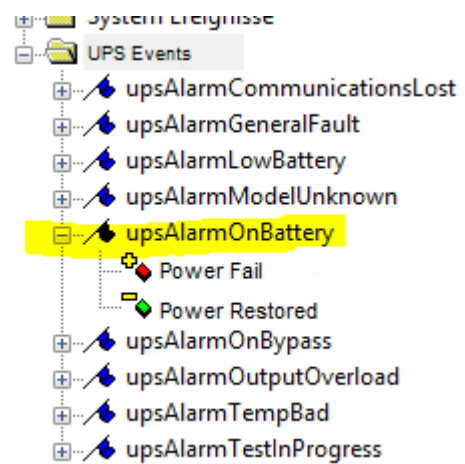
How to add a customized mail job

First open the context menu

of the Powerfail event by clicking with the right   mouse button. Select the menu item Properties.

The Event Properties provide the configuration dialog to configure what will be done if this event is active:
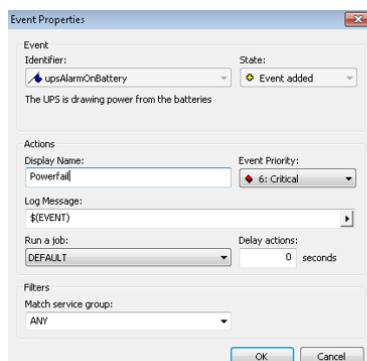
➔ ... describes the event and the current event status

➔ ... name of the even and priority indicator

➔ ... what can be seen as log entry

➔ ... which job shall be executed?

➔ Filter settings

➔ Save configuration / withdraw settings

To customize the e-mail address, open the drop-down menu at Run a Job and select <edit ...>.
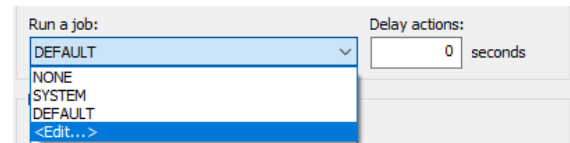
With edit, a new configuration dialog for the according job will be opened:
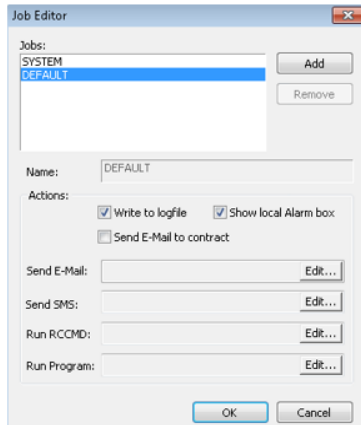
→ Available Jobs
   → Add a job
   → Remove a job

→ Name of the job

→ Additional Actions according to the jobs.

→ Add email recipients
→ Add Cell Phone /smart phone /handy contacts
→ Run an RCCMD job
→ Start a local computer program or script

→ Save configuration / withdraw settings

First add a new job. Do not forget to rename it – if you have many jobs and need to change them, it may be difficult to find them.

64
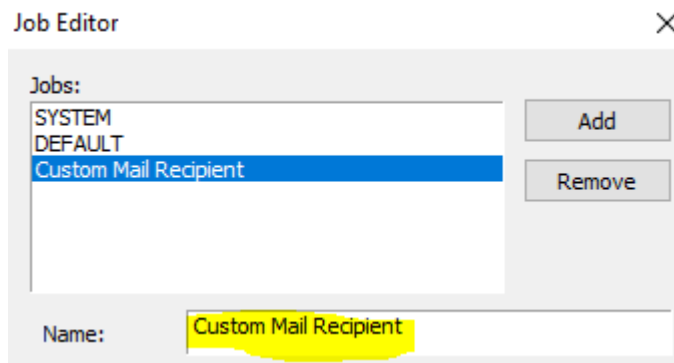
Enable Send E-Mail to contract to activate the mail function for this job:
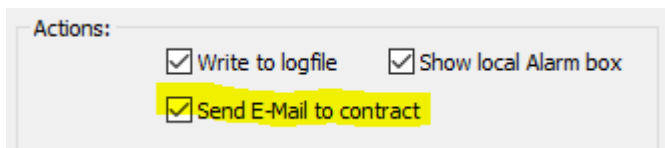
With the next configuration step, UNMS 2 wants to know the mail addresses of the recipients.

At Send E-Mail, click on edit to open the mail configuration dialog:
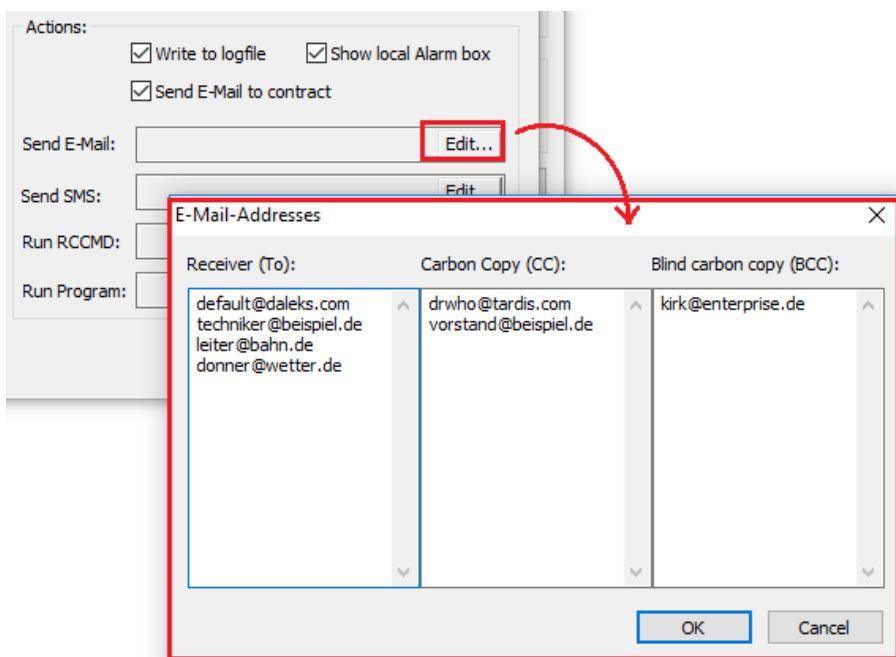
The UNMS 2 provides up to three different methods for sending e-mails:

4. Receiver – The classic mail receiver
5. Carbon Copy (CC) – The Receiver (to) will see that the UNMS send a copy to another recipient.
6. Blind Carbon Copy (BCC) – This is a blind copy, which means, neither the Receiver nor the Carbon Copy Receiver will see that the UNMS 2 will send a copy to this mail recipient.

Feel free to enter as many email addresses as you need. Click OK to save your mail addresses. The UNMS 2 will add these mail addresses to the job configuration:

Finally, make sure that your newly created job has been selected correctly - otherwise this job has been created successfully, but the UNMS 2 will not handle the new job as expected.

The UNMS 2 differs between jobs and different events. This will allow an number jobs by selecting them at Run

As a default setting, „Run a new custom mail job is configured the event Powerfail.

To select the job, open the according your new custom mail job.

With clicking OK, the UNMS 2 will
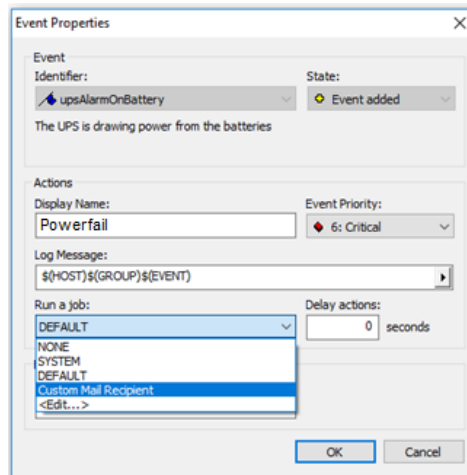
events to provide re-using jobs for administrator to optimize the a job…

Job"shows the default job – the and saved, but not yet selected for

drop-down menu and navigate to

save your settings.

Event Properties

Event
Identifier: upsAlarmOnBattery
State: Event added

The UPS is drawing power from the batteries

Actions
Display Name: Powerfail
Event Priority: 6: Critical

Log Message: $(HOST)$(GROUP)$(EVENT)

Run a job: DEFAULT
Delay actions: 0 seconds

NONE
SYSTEM
DEFAULT
Custom Mail Recipient
<Edit...>

OK   Cancel

For the sake of completeness…

Currently, all registered mail recipients would receive a warning, but no main power restored message. therefore it is advisable to place the same mail job at the so-called counter event.

Due to the fact the UNMS 2 separates all jobs and events, the job is selectable for the according counter event.:
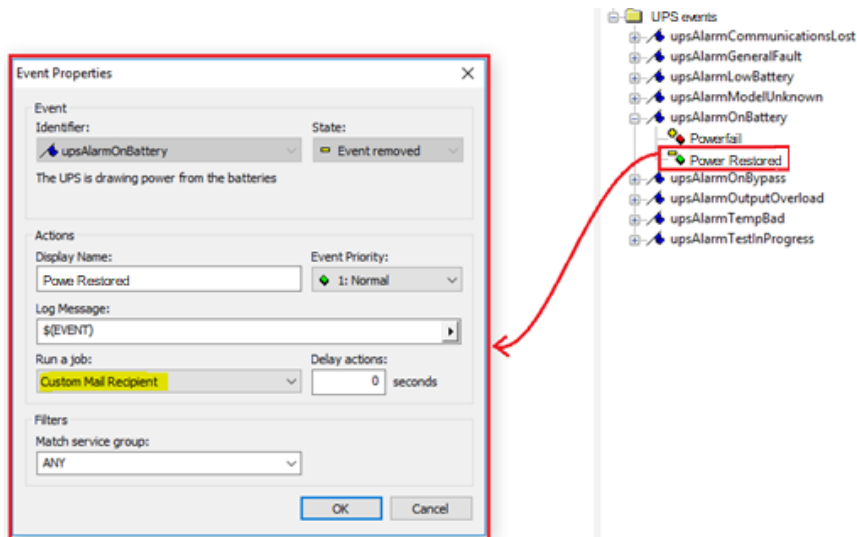
Do not forget to activate the configuration:

 to make your changes active the UNMS needs to take over the new configuration files. To do this, just press save, stop and start

7.9.1 Configure RCCMD Server Jobs

Using the **Event Explorer** tree, expand an events icon (file icon), that contains the alarm of interest. Then **Right-Click** on any of the alarm icons (colored box icon) and use the **Properties** context menu to open the **Event Properties** dialog.
Select "<Edit…>" under **Run job** to open the "Job Editor" dialog (see below)…

Now select a Job or create a „[New job]" in the **Event Properties** for the desired Events that should trigger the RCCMD command.
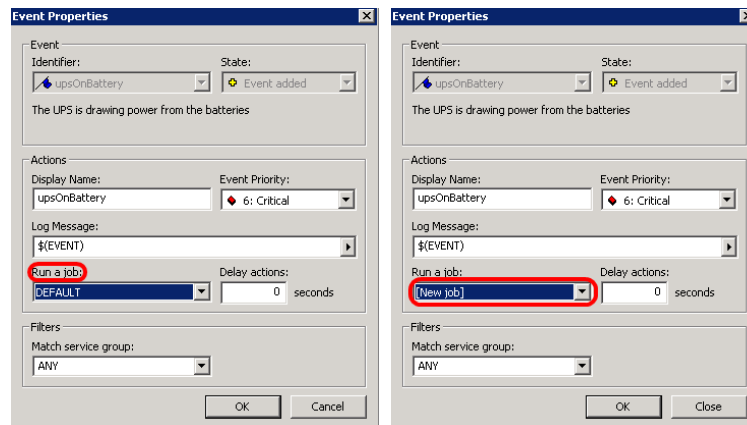
Figure 43 Event Properties – Run a job

To configure a RCCMD command directly, click the „..." button behind **Run RCCMD**.

You can enter the accordant IP addresses/host names and the port. Furthermore, you can enable SSL. The functions „Send Shutdown command" and „Send message" are at hand.
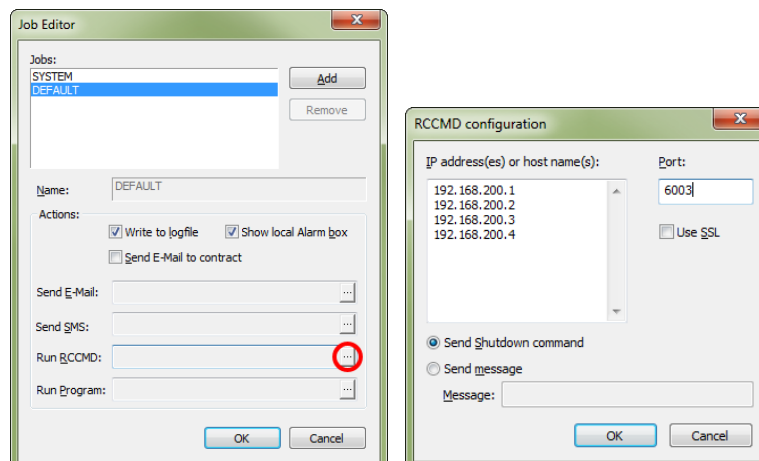
Figure 44 Job Editor – Run RCCMD – RCCMD configuration

8. Customizing UNMS

Note: The **Site Maps** function is not available in all editions. In addition **Site Maps** views are not live views ! You have to save and restart the UNMS to see the changes in the UNMS webserver !

8.1 Working with Site Maps

Locate the **View Selection** on the top of the console. Select the second tab marked **Site Maps**. The displayed editor screen shows the background and the layout of all site icons as they will be displayed later in a **Web Console**.
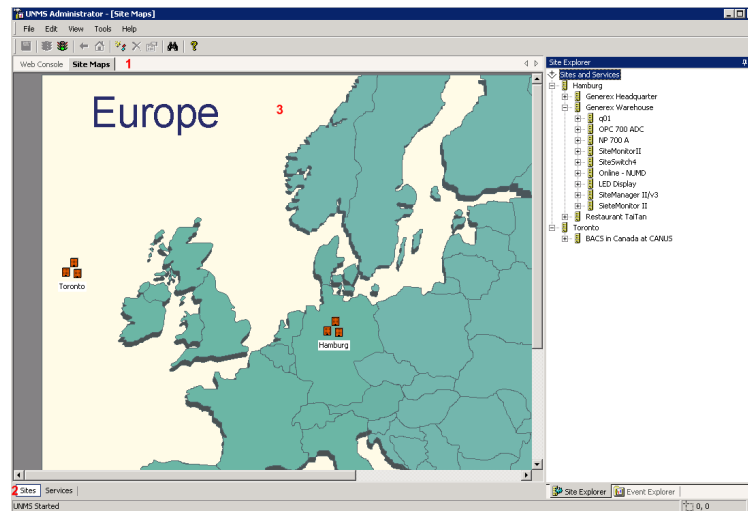
Figure 45 Site Maps – Europe Card

No.	Name	Description
①1	Editor Tab	Click on the **Site Maps** tab to switch to the editor mode.
②2	View Selection	Click the **Sites** button to switch to the main screen. Click the **Services** button to switch to the services list.
③3	Screen Designer	Here you can layout the site icons by drag-and drop operations, add new sites and change existing site properties. • **Left-click** on any object icon to select that object. • Use the **Delete** key to remove the selected object. • **Right-click** on a site icon to see the available context menus. • **Double-click** on a site icon to switch to the service list view mode. For how to set **Site Maps** properties, see Setting Editor Options.

8.2 Sub-Screen Editing

The UNMS II provides to create several sub-menus, e. g. a screen as main page and several other screens as sub-screens. Please do the following to edit such sub-screens.To build a sub-screen use the **"Edit menu"** and click **"New Site…".**

Enter the name into the **"Site name"** box.

Check the box **Background image file.** In this example the **"Europe.png"** file was selected with the **"Browse…"** button, which is integrated in the UNMS II.
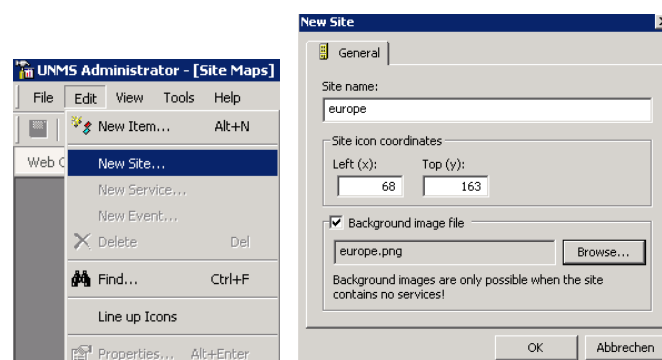
Figure 46 Site Maps – New Site – Background image file

Build a new site on the sub-screen eg. "europe" with the function **"New Site…"**. In this example the sub-screen "Hamburg" is following. A graphic file type PNG with the desired background has to be copied into the directory **C:\UPS\unmsII\www\image**. The size of the PNG file depends on the resolution of your display. To have a perfect screen you may resize you pictures.

On the sub-screen "Generex Headquarter" the sub-screens "HW121, HW131, BACS" were built.

Behind this sub-screens determine **services**. In this section you can build the objects (e. g. UPS) via the **Site Explorer** with the **"New Service"** function.
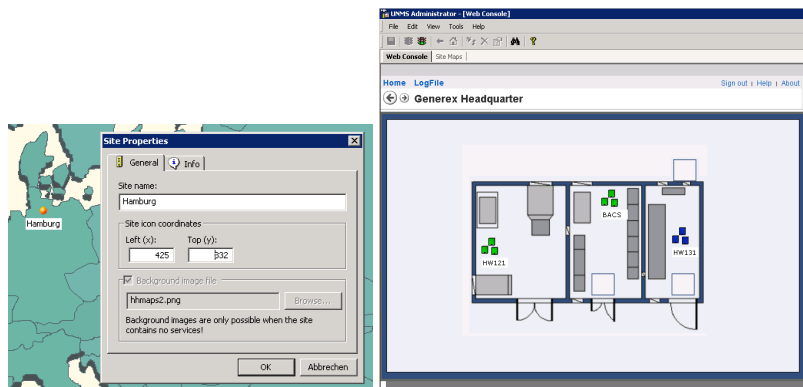
Figure 47 Site Properties – New Site – Web Console View

The status of the services will be displayed via the icons on every sub-screen. The colours of the status will be combined displayed on the overlaying sections, so that an ANY alarm in the screen of "HW131" will be displayed on the section "europe" with a red LED.

Save your settings and restart the UNMS II.
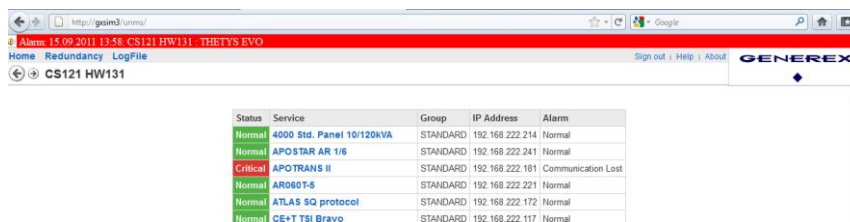
Figure 48 Web-Browser – LogFile

 Advice: It is required to create all **Sites** at first and to select the desired background pictures. As far as a **Service** is defined, it is not possible to change the background anymore!

9. UNMS Options

Note that the **Site** and following page are not available in all Editions.
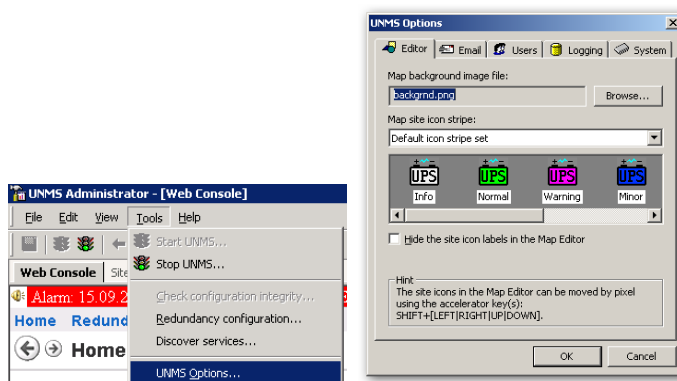
Figure 49 UNMS Options

9.1 UNMS Options - Editor

In the UNMS Options you may change backgrounds, configure Email, setup login and passwords, configure Logging options and setup UNMS System settings

Use the **Browse…** button to locate a background image for the **Web Console** main screen. Note that the image must be in the UNMS image directory. Not in all Editions: Choose the stripe set for the site icons in the **Web Console** from the **Map site icon stripe** drop-down list.

70

Select the **Hide the site icon labels** box to hide the icon text labels in the **Map Editor** view.

Press the OK button to save your changes.

9.2 UNMS Options - Email

To send out Emails from the UNMS you have to setup an email account and configure it in the Email menue:

Click the **Enable Email Client** box to activate the Email Client for the UNMS.

Set the **Outgoing Server (SMTP)** to the IP address of your Email server.

Set the **Sender Email Address** to an Email address that is valid at the server above.

Click the **Use Authentication** box if the server from above requires user authentication.

Enter the authentication user name and related password in the appropriated edit boxes.

Enable the feature **Use secure connection (TLS encryption)**, if you want to use email encryption and adjust the **SMTP port** accordingly, if necessary.
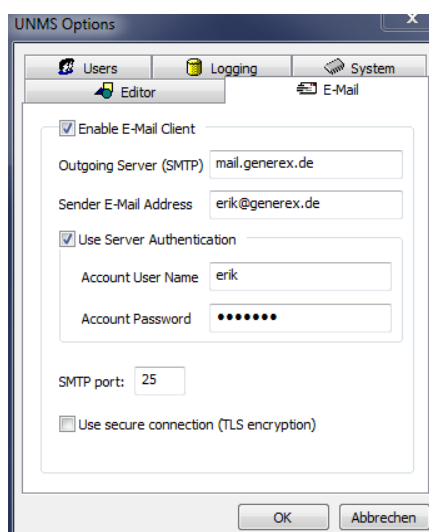
Figure 50 UNMS Options - Email

9.3 UNMS Options – Email Traps

The **Email Trap** feature provides the transfer of the device data via POP protocol to the UNMS II service. You can configure the connection type, like the other ones (UPSTCP, SNMP, RAS), into the **AdminConsole**. This function is available into the Data Center/TeleService Edition (optional software extension for the UNMS II) only.

This agent can assimilate incoming data (incoming email traffic) only in contrast to the other agents, but might be the optimal fitting for relevant o security customers and remote monitoring.

For the usage of the **Email Traps** are the following conditions required:

- **Email box/user** is an email account for all devices, which will be monitored via **Email Trap**

- **Email transfer protocol**: POP

- **Email data type**: JSON data as attachment must be accredited

- **Configuration mail server**: Global email configuration must be equipped (see chapter 9.2)

- **Configuration email client**: As connection type per device into the UNMS II. The settings will be described as follows:

71
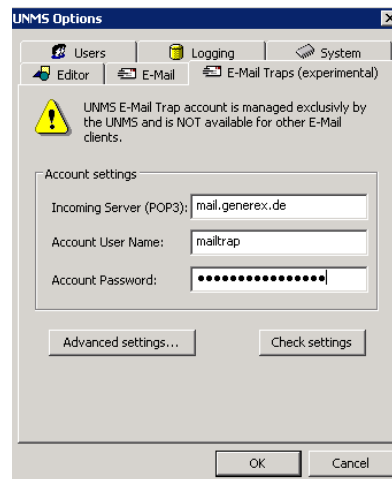
Figure 52 UNMS Options – Email Traps – Account settings

Enter the accordant incoming server (POP3), the user name and the password. Click the "Advanced settings…" button for further settings, which are required for your mail server.
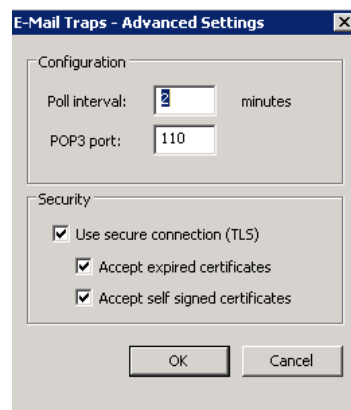
Figure 53 UNMS Options – Email Traps – Advanced Settings

Click the "Check settings" button to check the connection to your mail server. You should get the message "Connection to POP3 server successful" after a couple of seconds.

Now add some devices, which should be monitored via **Email Trap**:
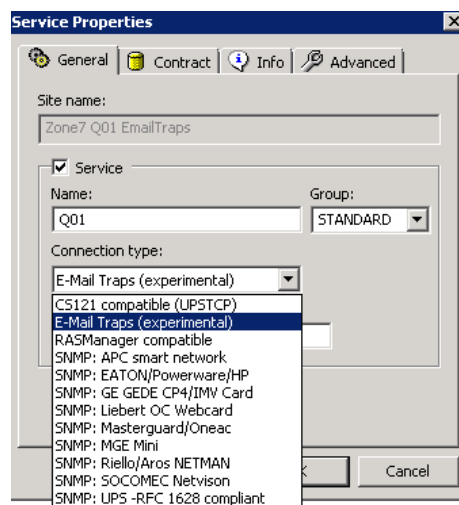
Figure 54 UNMS Options – Email Traps – Service Properties

Select the connection type **"E-Mail Traps"** and enter the accordant MAC address of the CS121/CS141.

Caution: If you choose SNMP, be sure your device utilizes SNMPv2. SNMPv3 is NOT supported.
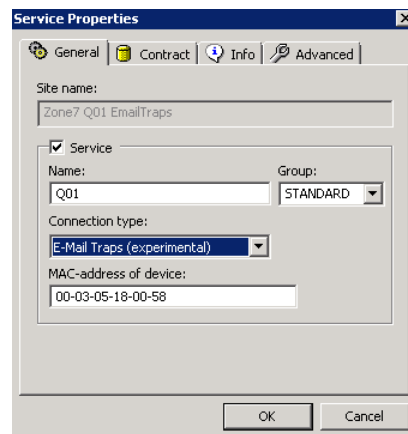
Figure 55 UNMS Options – Email Traps – Service Properties – MAC address

The interval of the *"UNMS II Heartbeat"* will be defined at the CS121/CS141. The *"UNMS II Heartbeat"* is a regularly sent email, which transfers the status of the device. If the email will not be received, the UNMS II will trigger a warning. If no alarms will occur, the **UNMS II heartbeat email** will send the latest measuring values regularly.

Every grafical UPS/device screen contains a timestamp, which displays the last incoming **Email Trap** or **UNMS II Heartbeat**.
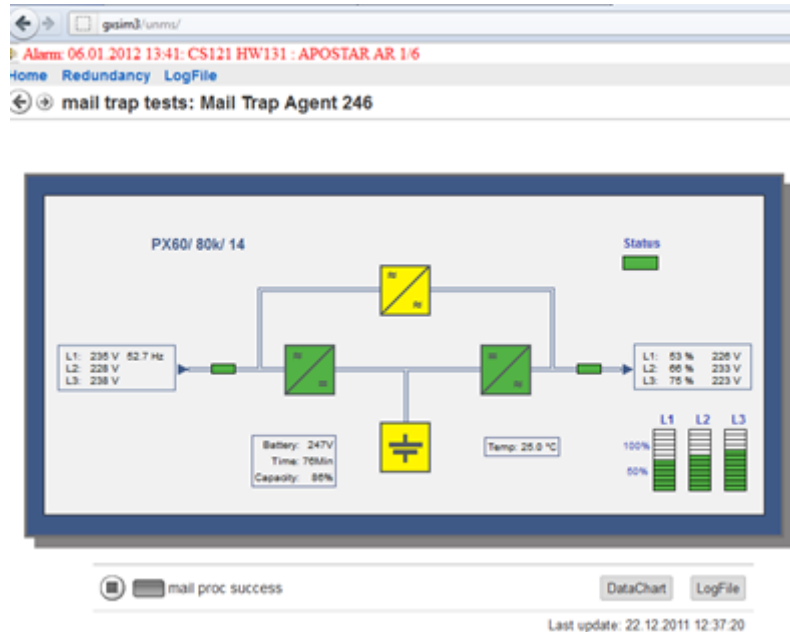
Figure 56 UNMS Options – Email Traps – Screen with timestamp

Every alarm triggers beside the regular **UNMS II Heartbeat** a further one, which will be sent immediately. This means, that the display is always up to date at alarm states, but will be updated in normal operation just in higher intervals (see timestamp).

Advice: A direct connection via web-browser, like at networks, is not possible, this button ⊙ is not at present into this display. If you want to log the measuring values, it is required to enable the datalog function into the UNMS II (see chapter 7.6).

9.4 UNMS Options – Users

With user management you can restrict and audit user capabilities and actions. There are three predefined users: admin, operator and guest. The predefined passwords are equal to the user name, for example 'admin' for the admin user.

To disable access control, click the **Anonymous Access** box (not recommended). Click the **New** button to add a new user account. Click the **Properties** button to change an existing user account. Click the **Delete** button to delete an existing user account (Note that the predefined user admin can not be deleted).
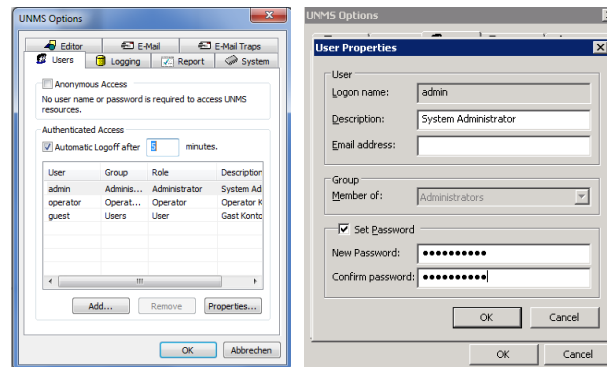
Figure 57 UNMS Options – Users – User Properties

Note on groups: The users group defines the access level as follows:

- **Administrators**: Full access to all UNMS capabilities.

- **Operators**: Full access from Web-Console, but no access to Administrator Console.

- **Users**: Read-only access from Web Console

In UNMS Options -> Users you may set an automatic Logout. After that time the user has to reenter the password. Please be aware that the operation will only work correctly with a web browser. In the administration console you may configure still devices and events after logout.

9.4.1 UNMS Options – Secure Settings

Advice: The ***Secure settings*** function and the following menu are available with the ***TeleService Modul*** only.

The Administrator can control or rather allocate the access authorization of the ***Sites*** to groups via ***Secure settings***. The sub sites inherit the authorization of the ***Site*** automatically. You can see in the following example, that a group „Hamburg" was created, which should be authorized for the group members Hamburg and Administrators.
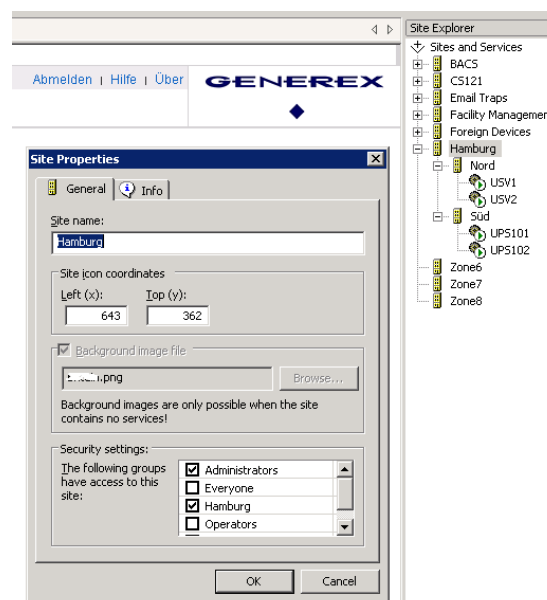
Figure 58 UNMS Options – Users – Secure Settings

Thereby it is secured, that the group Hamburg (and Administrators) get access to the ***Site*** Hamburg and its sub-sites "Nord" and "Süd" only. The other ***Sites*** BACS, CS121/CS141, Email Traps, Facility Management and Foreign Devices, as you can see in the above example, are not apparent for the group Hamburg.

UNMS Web Console

Figure 59 UNMS Web Console – Login Group Hamburg – Start Screen

9.5 UNMS Options – Logging

Under **Event log file schedule** you can save log files for different periods of time. They can contain Event logs for a day, a week, a month or a specific amount of memory. If you want to save several days, weeks etc. you have to change the **Number of old logs to keep** accordingly.
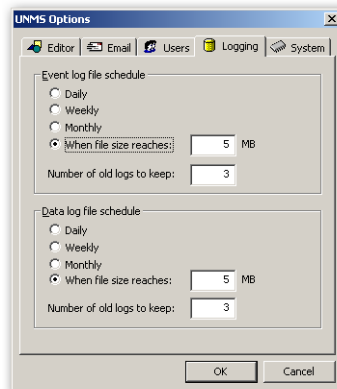
Figure 60 UNMS Options – Logging

Under **Data log file schedule** you can save log files for different periods of time. They can contain Data logs for a day, a week, a month or a specific amount of memory. If you want to save several days, weeks etc. you have to change the **Number of old logs to keep** accordingly.

9.6 UNMS Options – System

On the System page it is possible to modify the TCP port, the refresh rate, check interval and the service lost delay by clicking the box.

75
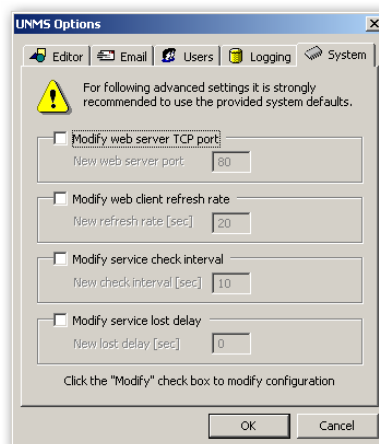
Figure 61 UNMS Options – System

10. Configuration Backup and Restore/Software Update

To allow UNMS updates and for not to loose your configurations we strongly recommend to save a UNMS backup file whenever you make changes. With this backup file you may at anytime remove and reinstall or update your UNMS software and load the configuration later afterwards again.

In the "**UNMS Administrator**" Program open the "**File**" menu and choose the "**Backup…**" item to open the "Backup files" Dialog.
In the field for "**Backup to**" enter a Name for your Backup (In this example we used "newBackup").
Click the <**Backup**> button to save a backup of the configuration under this name.
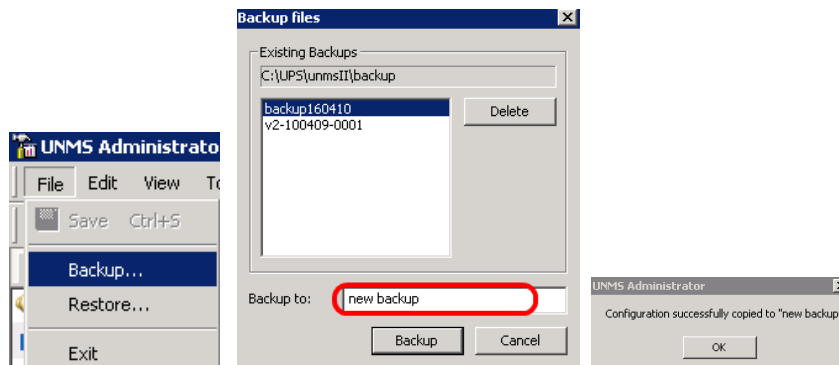
Figure 62 UNMS Backup – Backup files

In the "**UNMS Administrator**" Program open the "**File**" menu and choose the "**Restore…**" item to open the "Restore files" Dialog.

Select the name of the Backup that you to restore from the list of available Backups (In this example we used "new Backup"). Click the <**Restore**> button to restore the selected backup of the configuration.
The following message request your confirmation to use the backup as the current configuration. Click the <**Yes**> button to restore the configuration from above.
Please note that you must restart the UNMS before this configuration changes (the backup) take place.
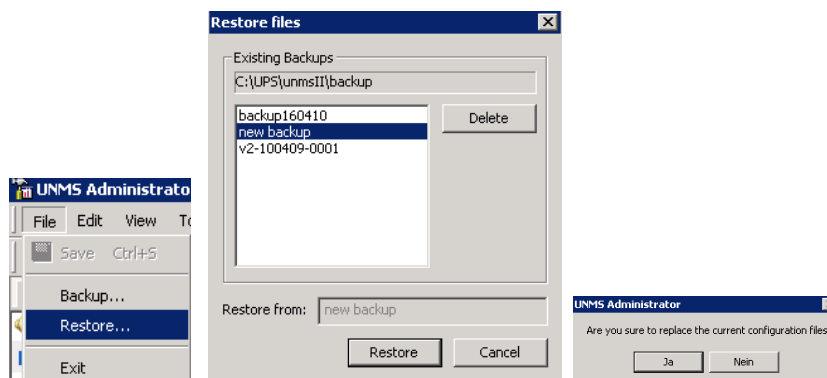
Figure 63 UNMS Restore – Restore files

If you want to **update the UNMS II version**, it is required to deinstall the old version, install the current UNMS II version and to use the "**Restore**" function for the usage of the desired configuration.

11. UNMS Redundancy Configuration

The UNMS redundancy configuration is an optional feature of the UNMS and requires and additional license upgrade. If you do not use the Redundancy UNMS Version, you may skip this chapter and continue with the following Chapter 12. UNMS redundany is useful if you should have devices/sites which are working in a redundant mode, eg. a 2 UPS which are having their own SNMP or CS121/CS141/BACS manager, but working in parallel and redundant. If one of these 2 UPS would stop working, running on battery, etc. (any EVENT is possible) you may not want to execute shutdowns or major alarms. In such a situation it may be useful to define that only minor alarms / jobs are started if the other UPS is still running fine. For such a configuration you may use the *Redundancy configuration* described in the following chapter.

Open the *Redundancy configuration* via "Tools" into the Administrator Console. The configured services/devices in your UNMS will appear in a list box.
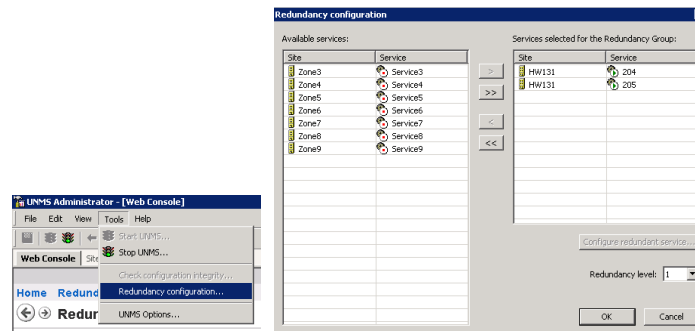
Figure 64 UNMS Redundancy Configuration

Mark a service and click the „Configure service..." button to get into the **Service redundancy configuration**.

Choose now the **Services** in your configuration where you have a parallel redundancy situation and move these to the windows **"Services selected for the Redundancy Group"** and choose the **redundancy level.**

Click on **"Configure redundant service"** to configure the Events on these devices that may have an effect on the system they are backing up. Typical risks are overload situations on a single **Service** which would not be seen as long as the system runs in parallel and the load is distributed between the other UPS in the group. But if one or more Redundancy Group members should fail, than it could be possible than ALL the load has to be burdened by the remaining UPS – which could be too much. To avoid this situation you may want to configure an "redundancy lost alarm" in case the load in the group would exceed that amount a single device could supply.

For this setup you have to define the **redundancy level** of this **Redundancy Group**.

In the following we describe as an example the configuration for a setup of 2 UPS which are in parallel and redundant. In case one of the 2 UPS load increases more than 50% and overload condition could make also the second UPS fail. To avoid this situation is may be important to watch the load on both UPS and trigger an alarm if the load should increase on one of the 2 of more then 50%.

Since there are just 2 UPS in the **Redundancy Group**, the **redundancy level** can be only "1". One of the 2 UPS may fail and the remaining one is capable to supply the load. ("0" would mean "no redundancy" – this would be identical as if you configure a single **Service,** no redundancy at all).

By choosing 2 UPS as the **Redundancy Group** the redundancy lost alarm threshold is automatically set to 50% on each. If you choose 3, the UNMS automatically lowers the level to 33.33% of the **redundancy level** is 1. At a higher **redundancy level** the load level would automatically increase. So, the automatic alarm threshold load parameter is set be the UNMS through the number of Services in the **Redundancy Group** and the **redundancy level.**

All events will appear into the left section as **Available events**, which have been previously configured into the Event Explorer or are default. Alike the example with individual **Service** LOAD you may configure other **Events.** Enter the true power of the UPS into **„Nominal Ouput Power (in kVA) "**. Therefore, the UNMS II is able to calculate by itself, if a shutdown is really required, in case the load is increasing. The more parallel redundant systems you define, the more the load value for a single device will decrease. E.g. if you have 3 UPS in parallel redundancy, than the load per single UPS would be 33.33%, etc.
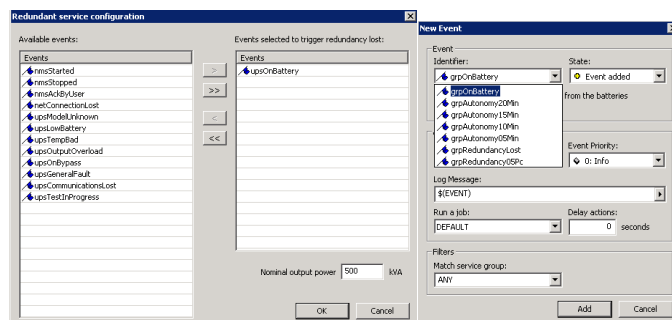

Figure 65 UNMS Redundancy Configuration – Redundant Service Configuration

In the EVENTs you will find now new events, the **Redundancy Events**. The following special **Redundancy Events** events are available:

- **grpOnBattery** – The redundancy is lost, both UPSs are actually running on battery.

- **grpAutonomy20Min** – The redundancy is lost. The UPS in the redundancy Group with the lowest autonomy time is the one that determines if this event is TRUE. If during a battery operation any of redundancy Group members are reading an autonomy time of less than 20 minutes, the defined job will be executed.

- **grpRedundancyLost** – The redundancy is lost. This is a warning and should tell you that actually the load of the redundant system is too high for the configured *redundancy level*. If in this situation one of the group members would fail, the remaining *Services* could be in an overload situation. This event is designed to warn the user of such a situation.

- **grpRedundancy05Pc** – The redundancy is lost. This job will be executed, if the overall load is more than 95% on every single phase. Only 5% load reserve is avaiblabe now. This is an option for a a « Pre-Warning » of the above described « grpRedundancyLost » event.
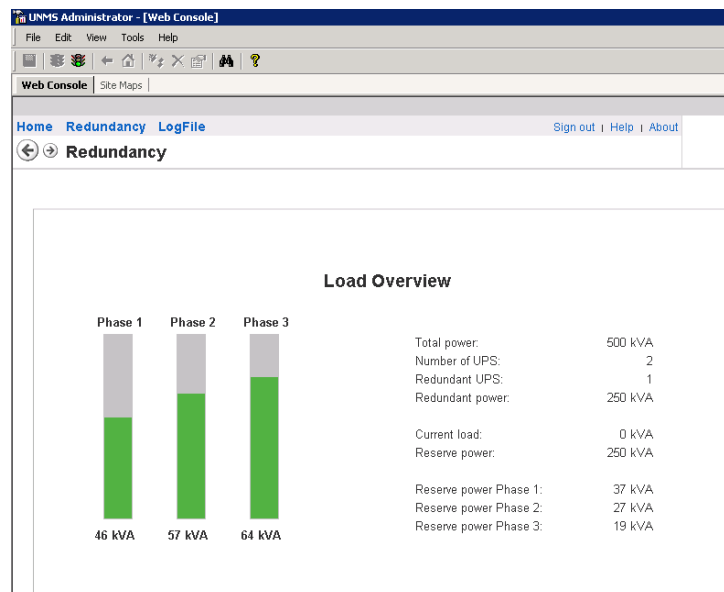
Figure 66 UNMS Redundancy Screen of 2 UPS, showing the reserve power on each phase.

11.1 Example Shutdown of a computer with redundancy

A powerfail, which will trigger a RCCMD shutdown signal to a remote client in a redundant group consisting of two UPS, will be desribed in the following example. This shutdown will only be sent, when both UPS are in battery mode. After both device are registered and configured in the redundancy configuration (see chapter 11), a new event has to be made in the folder ,Redundancy Events. Choose ,grpAlarmOnBattery', a display-name, a high event priority and if required a delay for the event. Now create a RCCMD job, by choosing <Edit…> in the drop-down menu ,Run a job', here choose a name for the job and set the the IP address of the receiver for the RCCMD shutdown.
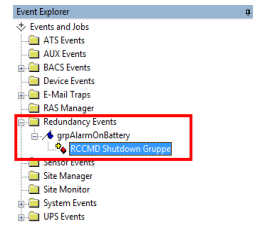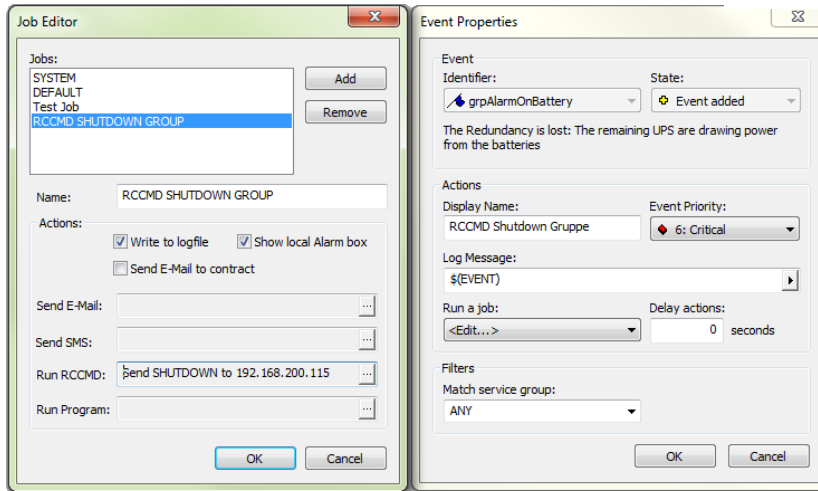
Figure 67 UNMS Redundanz- Job für RCCMD Shutdown in der Gruppe

12. UNMS SMS Configuration with GSM Modem

The UNMS version 2.1.13 provides the option to configure a SMS job.

Open the Event Properties of a desired Event. Click the "Edit" (1.) button.
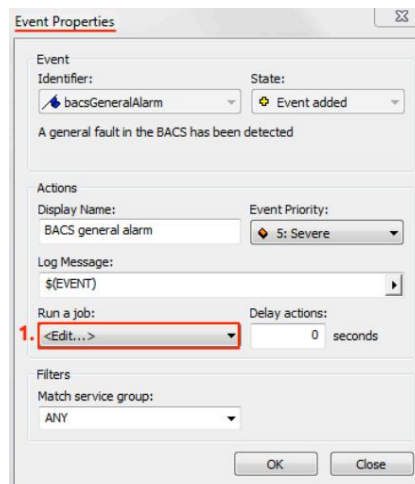
Figure 68 UNMS Event Properties – Send SMS

Click the "Add" button, enter a desired name for this job, e.g. "Send SMS" and click the 2. button.
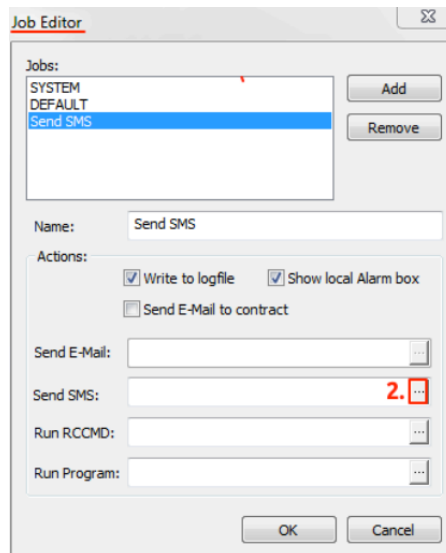
Figure 69 UNMS Event Properties – Send SMS Job

Enter the accordant COM port, where the GSM modem is connected and enter the baud rate. Enter the receiver telephone number (up to 7) into the "Phone numbers:" field.
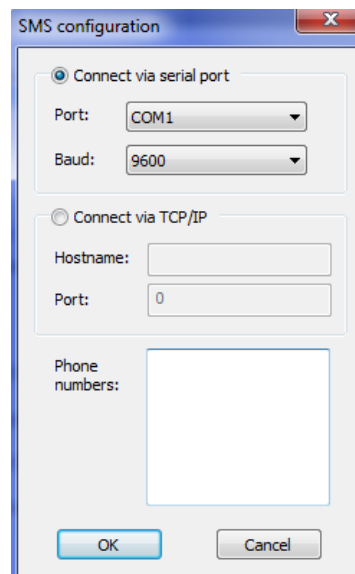
Figure 70 UNMS Event Properties – SMS Configuration

13. UNMS Configuration of RASMANAGER

Development and support of the RASMANAGER were completely discontinued. Due to this fact this chapter describes functions that affect older versions of the program. Please note, the RASMANAGER is not compatible to Windows VISTA and subsequent operating systems.

The UNMS RASMANAGER configuration is for the use of RASMAN_A – analogue Modem Dial-in/Dial-Out and requires a « Teleservice » license. If you do not use the RASMAN_A , you may skip this chapter and continue with the following Chapter 13.

To work with RASMANAGER you have to purchase the « UNMS TELESERVICE MODULE » as license upgrade for your existing UNMS license. Please note, that any UNMS optional module is only working with commercial versions of the UNMS, not with any free UNMS license.

To integrate RASMANAGER devices in the UNMS monitoring, you have to setup the RASMANAGER first. How to setup a RASMANAGER is described in the CS121/CS141 user manual, following an abstract of this manual.

You may skip this chapter, if your RASMANGER has been already installed.

The configuration of RASMANAGER / UNMS is found in the menu under « Configuration ».

80
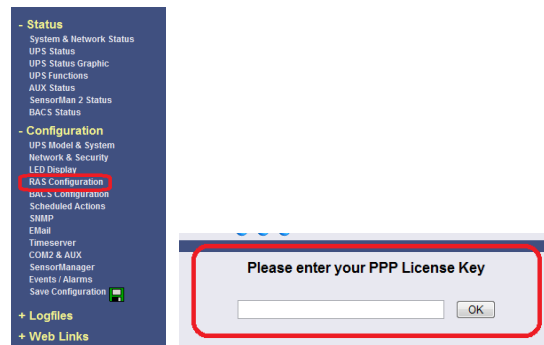
Figure 71 UNMS RAS Configuration

Please note, that this function requires a RASMANAGER license key which is optional for CS121/CS141 and BACS systems (only included per default in a RASMANAGER).

Configure/Select the accordant UPS model in your RASMANGER and define the parameter of the LAN interface for the connection at the customers network.

The usage of the LAN interface is optional and is not required for the modem connection. If no customers network is present, you can accomplish the following settings from a notebook via cross-cable. Assign the IP address 10.10.10.11 for your notebook.

For setting up a CS121/CS141 or BACS system, please refer to the user manual of these devices. We describe here only the RASMANAGER related parts.

For the configuration of the connection settings of the modem operation, please get into the „RAS Configuration" menu.

13.1 RAS Client Settings
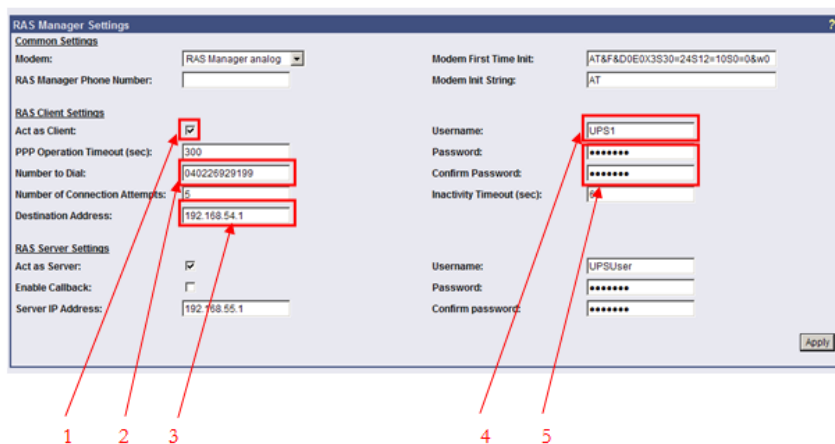
Figure 72 RAS Manager Settings 1

At first enable the „RAS Client" (1). The client is the module, which will establish the connection to the UNMS II workstation.

Enter the number of the modem (2) of the UNMS II with Teleservice Module. Please note, that in some telephone system a prefix number (e.g. 0) is may be required to get an outside line.

Enter the IP address of the RAS server for incoming calls from the UNMS. This IP adress will be active the moment a UNMS dials into the RASMANGER. It will be a different IP adress than the one this device would have if running in your LAN. This IP adress has to accessible from the UNMS via MODEM and therefore has to be configured also on the UNMS side as „Destination Address" (3). This address will be defined later into the UNMS Teleservice Module and should be set to ALL RASManagers monitored by this UNMS.

It is required to set a „Username" (4), which has to be different for every single RASManger (e.g. UPS1, UPS2 etc.). The Password (5) may be identical, but the username MUST be different and later configured in the UNMS Teleservice Module.
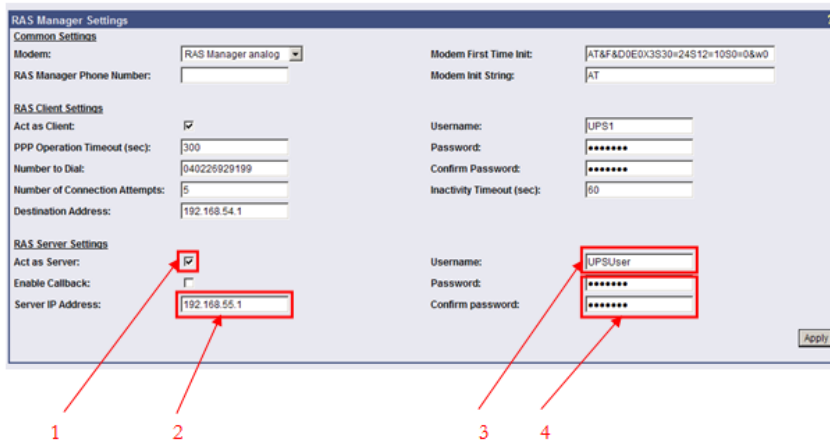
Figure 73 RAS Manager Settings 2

Enable the „RAS Server" (1). The server receives incoming calls from the UNMS II workstation. If you do not want to allow that UNMS dials in (only dial out for alarms), you may deactivate the server. In this case the RAS server will trigger alarms to the UNMS II workstation only, but UNMS can not dial back to check the actual situation.

It is required to enter a „Server IP Address" (2) at the different RASManagers to be able to differentiate the connections (e.g. UPS1 = 192.168.10.11, UPS2 = 192.168.10.12 etc.).

You can use the same „Password" (4) for all RASManagers.

To finish the RAS configuration successful, it is required to set the „COM2 Mode" to „RAS" into the „COM2 & AUX" menu. You can use the default values for the baud rate and the parity.

Figure 74 COM2 Settings – RAS

13.2 Configuration of the Events for Modem "Dial-Out"

The operator can define via „Event Configuration", for which alarm a message should be triggered to the UNMS II workstation.

To trigger a UNMS dialout message at an overload, it is required to select the function „Send RAS Notification" (1) into the event „Overload".

Figure 75 Job Editor

You can enter any text into the window „Message" (2). In this example this text will be transferred to the UNMS only if the event « Overload » is active for more than 60 seconds.

To finish the configuration of the RASManager, it is required to save your settings via the menu „Save Configuration", „Save, Exit & Reboot". After the RASManager has rebooted (status LED is flashing green), put the DIP-Switch into the position „On" to integrate it now into your network and to leave the configuration mode and reboot it again. (Unplug the power supply for about 3

seconds.) After the RASMANAGER has rebooted you see a green flashing LED and you can continue now to configure your UNMS TELESERVICE settings.

13.3 Configuration of the UNMS II Workstation for incoming Dial Connections (Windows XP, SP2)

<p style="text-align:center"><strong style="color:red">!!! The support for Windows XP was dropped since UNMS II version 2.0.12 !!!</p>

If your UNMS runs on a Windows XP, some settings have to be made on the XP system to make RAS service available.

The Windows internal RAS server is used for the receiving of incoming connections of UPS. Get into the network connection via the control panel and click the „Create New Connection" button.

Figure 76 Connection Wizard

Click the „Next" button and select the „Set up an advanced connection" option.
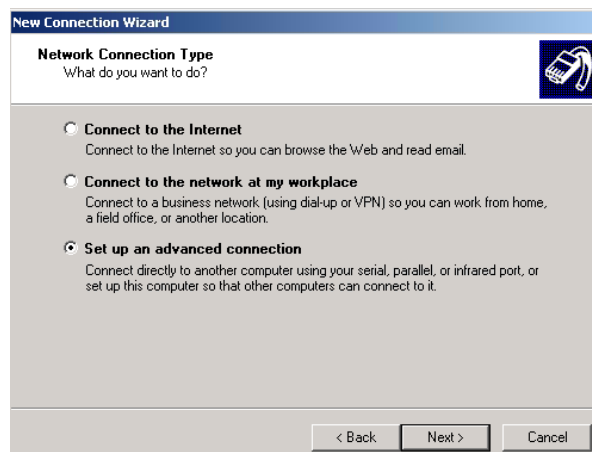
Figure 77 Connection Wizard – New Connection Type

Select the „Accept incoming connections".
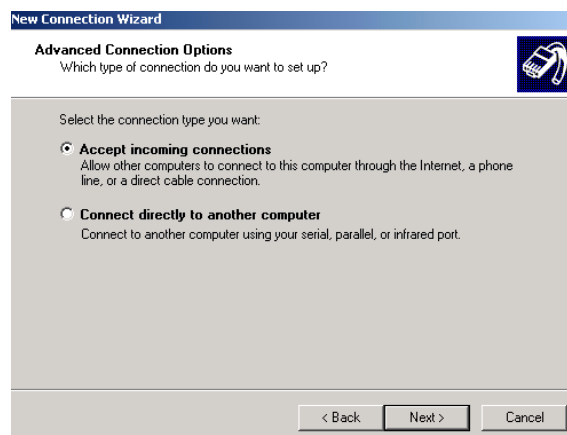
Figure 78 Connection Wizard – Advanced Connection Options

Select the desired modem out of the device list.
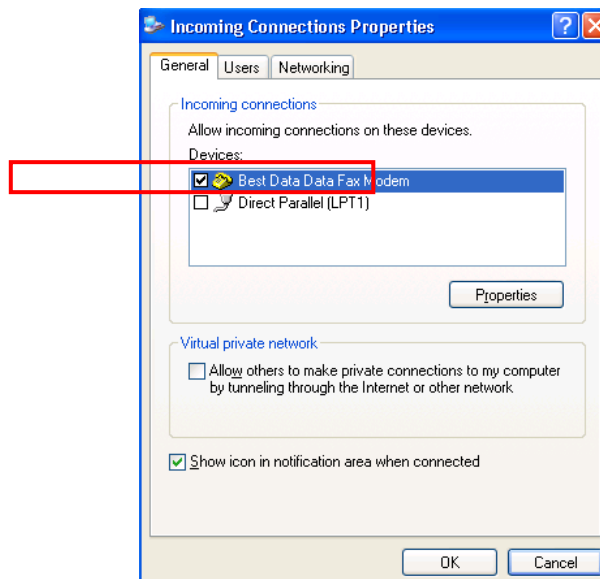
Figure 79 Incoming Connection Properties

Enable the option „Do not allow VPN connections".
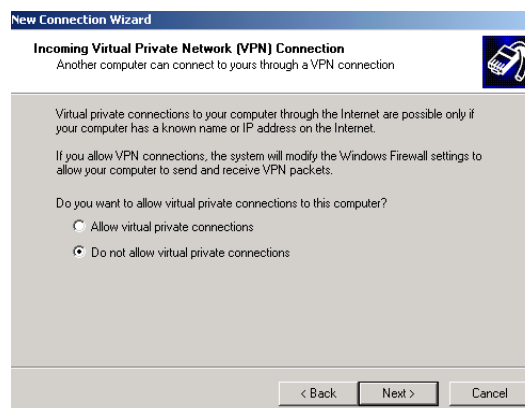
Figure 80 Incoming Virtual Private Network (VPN) Connection

For the determination of the incoming calls, it is required to create an own user for every UPS. Click the „Add" button.
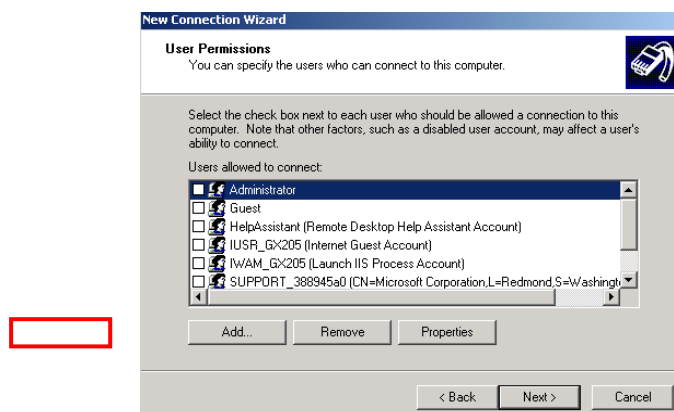
Figure 81 User Permissions

The „Username" and „Password" have to be the same ones as for the RAS client of the RASManager.
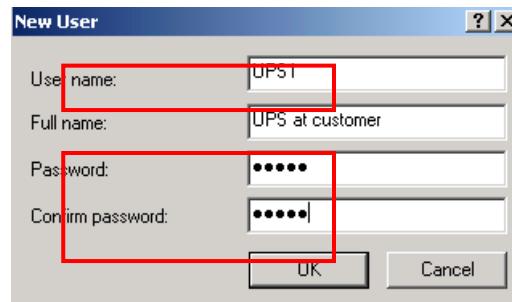
Figure 82 New User

Now it is required to enter the IP addresses, which will be assigned from the server during the dial-in. Enter the „Destination Address" as starting address, e.g. 192.168.199.1 (1).

If you have set only one modem for dial-ins, it is enough to set an address range till 192.168.199.2 (2), but it is possible to set a wider range (192.168.199.30). In this case, it would be possible, if you are using several modems, to receive 30 connections at the same time.
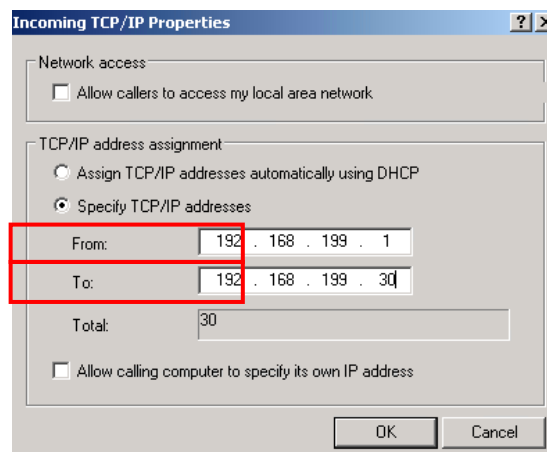
Figure 83 Incoming TCP/IP Properties

13.4 Configuration of the UNMS II Workstation for incoming Dial Connections (Windows Server 2003)

If your UNMS runs on a Windows Server 2003, some settings have to be made on the W2003 system to make RAS service available.

The Windows internal RAS server is used for the receiving of incoming connections of UPS. Get into the Routing and Remote Access menu via the Administrative Tools. Enable the Routing via the context menu.
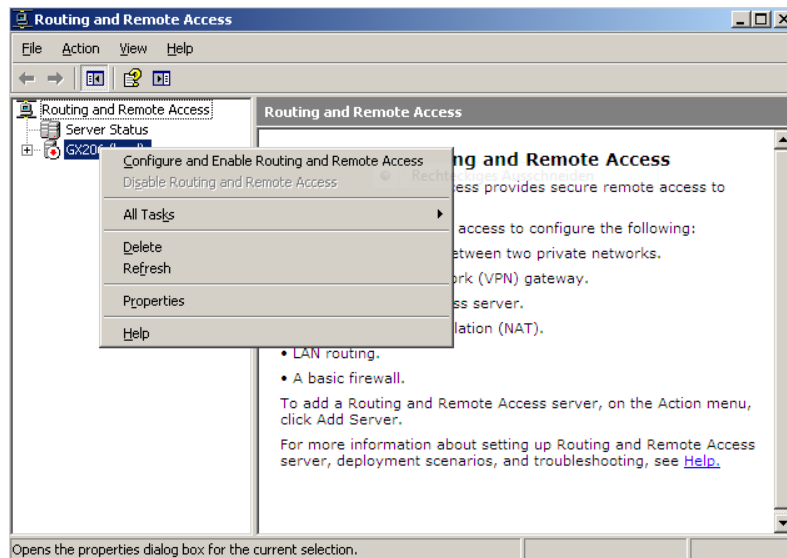
Figure 84 Routing and Remote Access
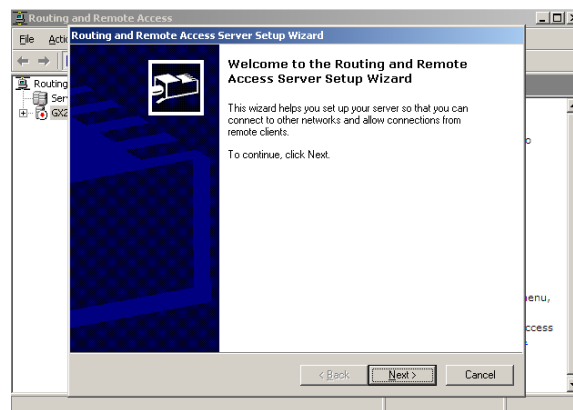
Figure 85 Routing and Remote Access Server Setup Wizard

Select the « Remote access (dial-up or VPN) « option.
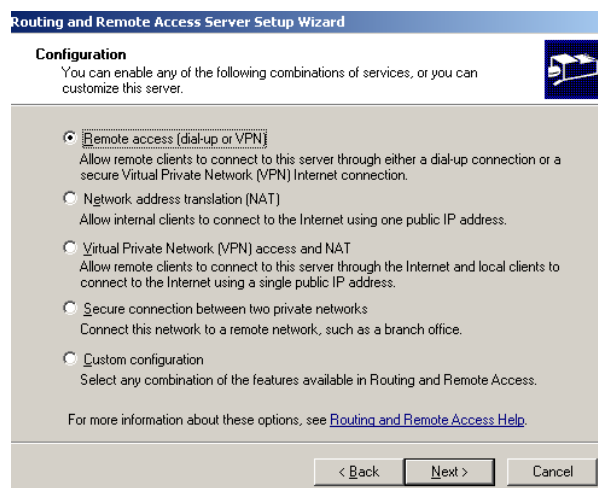
Figure 86 Routing and Remote Access Server Setup Wizard Configuration

Select «   VPN ».
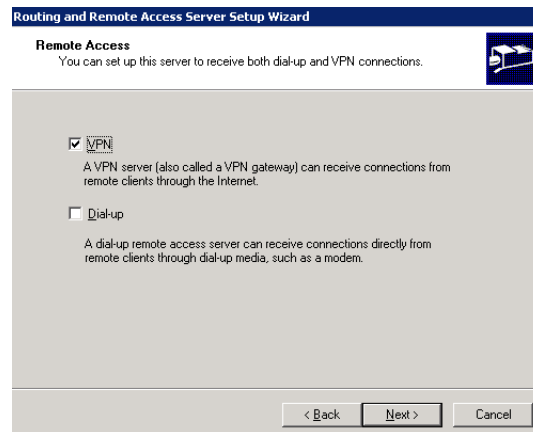
Figure 87 Routing and Remote Access Server Setup Wizard Configuration, VPN

Select the network interface.
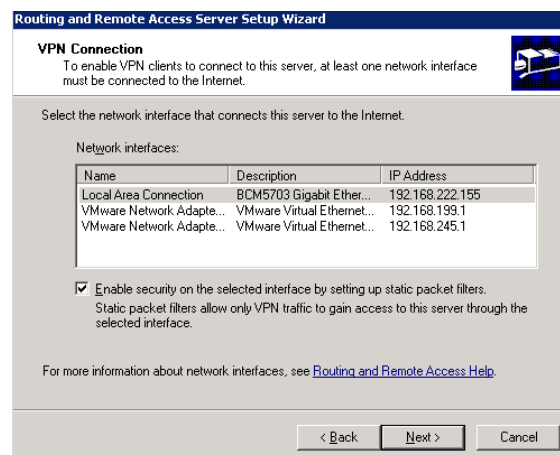
Figure 88 Routing and Remote Access Server Setup Wizard Configuration, VPN Connection
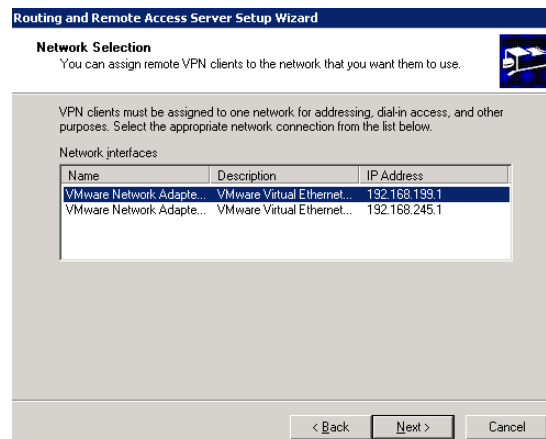
Figure 89 Routing and Remote Access Server Setup Wizard Configuration, Network Selection

Select « From a specified range of addresses ».
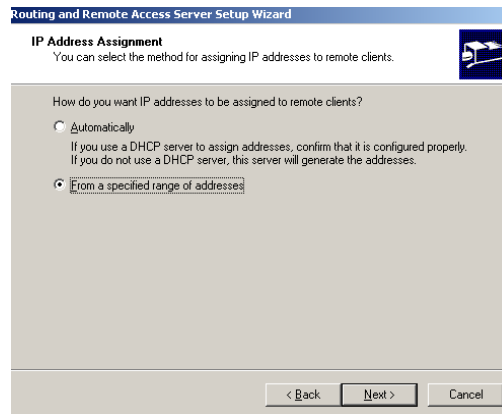
Figure 90 Routing and Remote Access Server Setup Wizard IP Address Assignment

Enter the desired IP range.
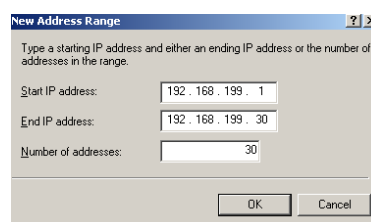
Figure 91 New Address Range

Select "No", if you do not use a RADIUS server.
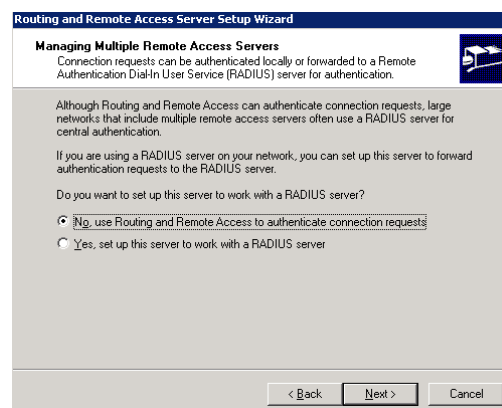
Figure 92 Routing and Remote Access Server Setup Wizard IP – Multiple RAS
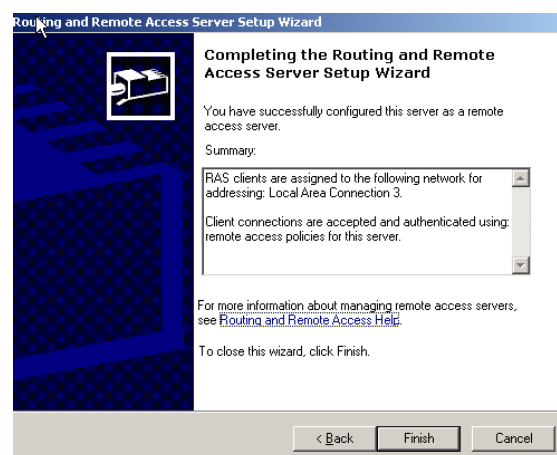
Figure 93 Routing and Remote Access Server Setup Wizard Completion

Now you server is enabled as remote access server.

It is required to configure the authentification method « Unencrypted password (PAP) ». Click with your right mouse button (context menu) on your server into the « Routing and RAS » menu. Select « Properties » and click the « Authentication Methods… » button.
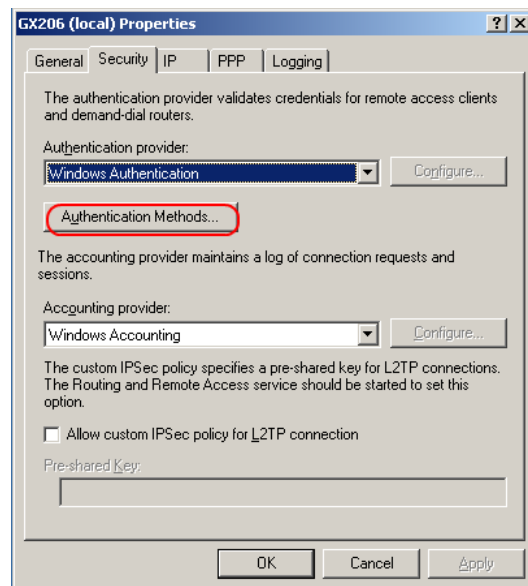
Figure 94 Local Properties
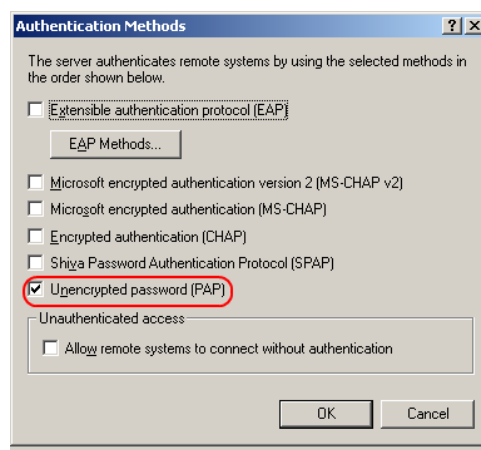
Figure 95 Authentication Methods

Please note, that all other authentification methods have to be disabled!
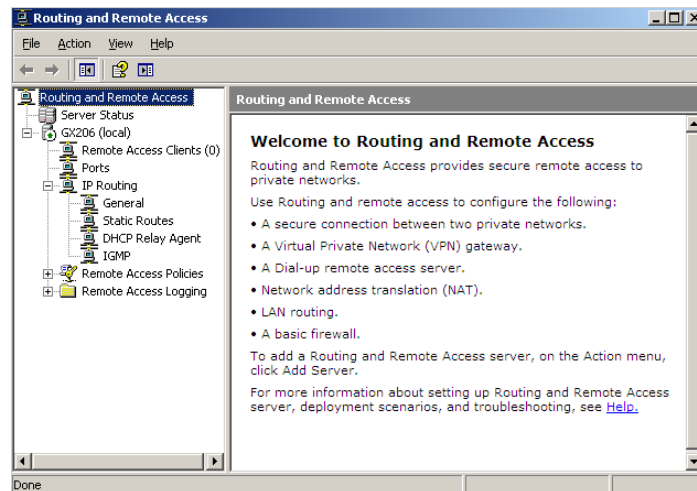
Figure 96 Routing and Remote Access GX206 (local)

It is required to create a new remote access policy. Right-click on Remote Access Policy and select « New Remote Access Policy ».
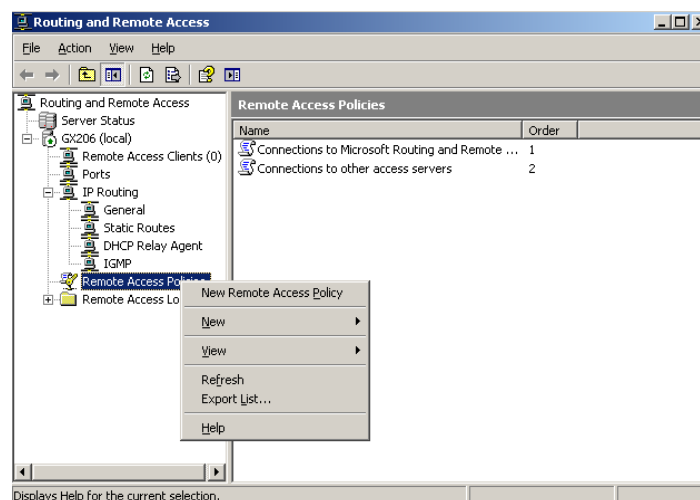
Figure 97 Routing and Remote New Remote Access Policy

Select « Set up a custom policy » and enter the desired name.
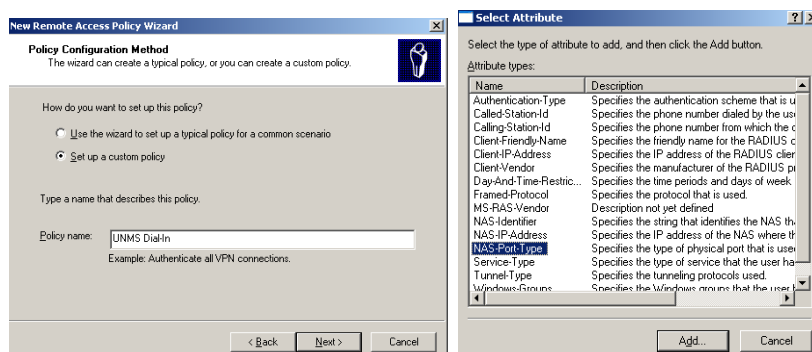
Figure 98 New Remote Access Policy Wizard – Select Attribute

Select the attribute « NAS Port-Type, Async (Modem) ».
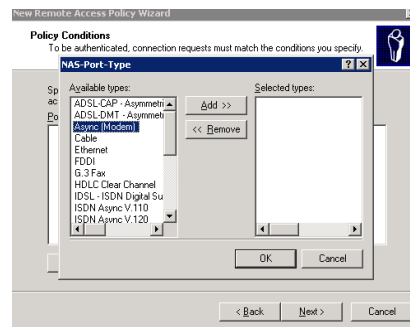
Figure 99 New Remote Access Policy Wizard – NAS Port-Type
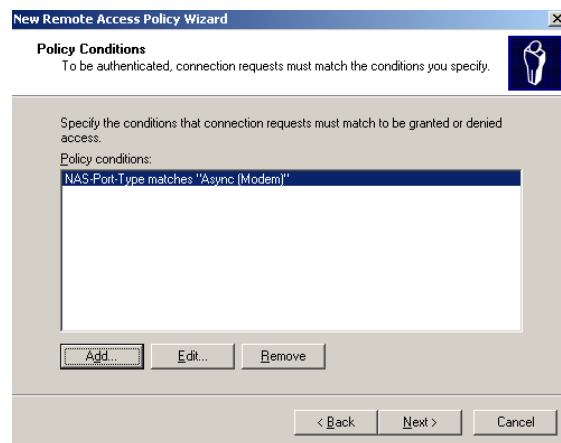
Figure 100 New Remote Access Policy Wizard – Policy Conditions

Specify the conditions via the « Add » button and select « Grant remote access permission ».
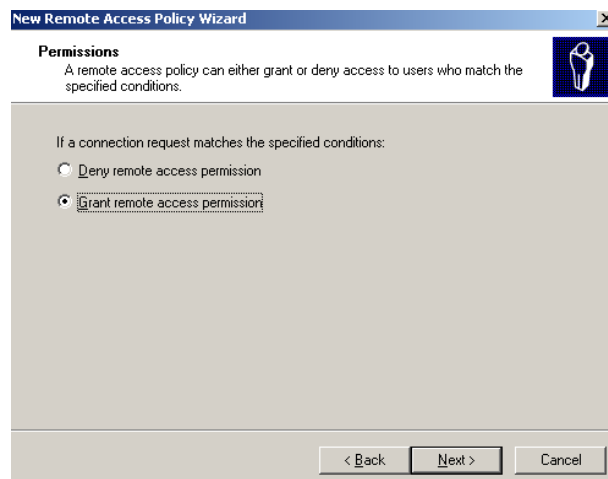
Figure 101 New Remote Access Policy Wizard – Permissions

Click the « Finish » button to complete your configuration.
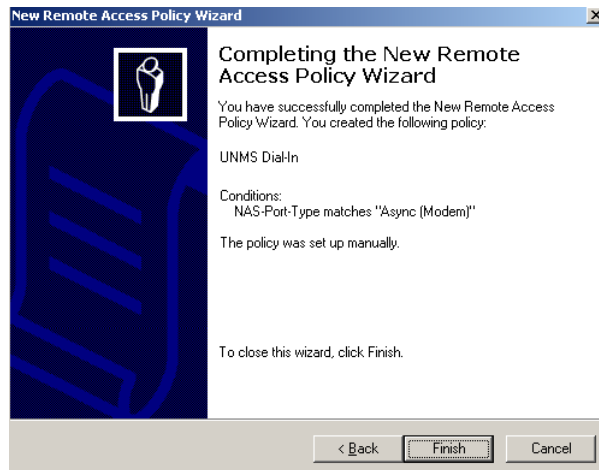
Figure 102 New Remote Access Policy Wizard – Completion

After the set up of the custom policy « UNMS Dial-In », it is required to configure the « Unencrypted authentication (PAP, SPAP) ». Click the « RAS policy » button into the « Routing and RAS » menu and click with your right mouse button (context menu) on « UNMS Dial-In ». Select « Properties », click the « Edit Profile » button and open the tap « Authentification ».
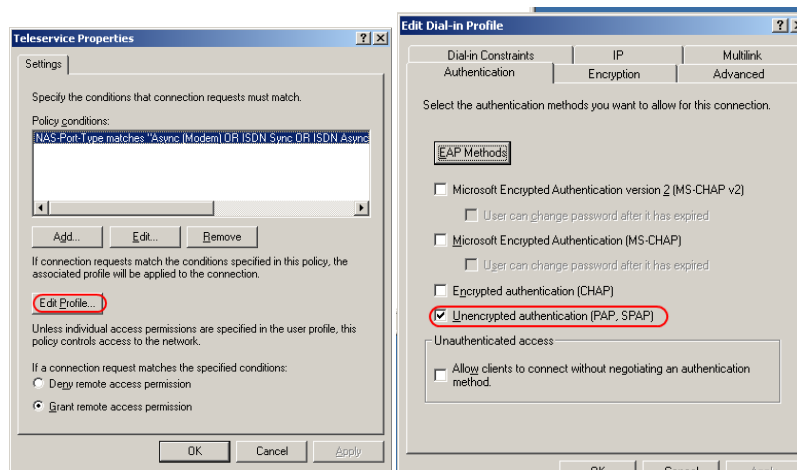

Figure 103 Teleservice Properties – Edit Dial-in Profile

Please note, that all other authentification methods have to be disabled !

12.5 UNMS Teleservice - Create a Modem Connection

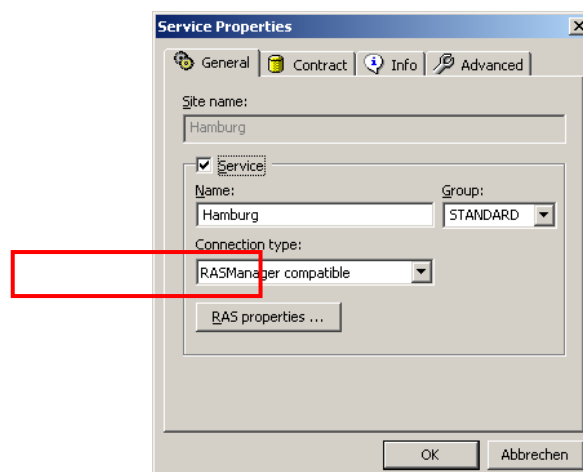Create a new service and select as connection type „RASManager compatible".

Figure 104 Service Properties

Click the „RAS properties..." button for the configuration of the parameters. At first, it is required to create a modem connection via the „Configure RAS..." button.
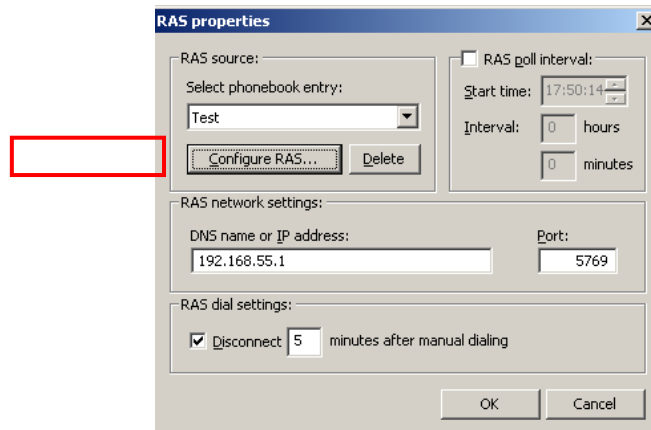

Figure 105 RAS Properties

The Windows PPP configuration will start now. For the usage of the Windows Configuration we refer to Microsoft user manual or help. We describe in the following only the most important configuration issues which you have to configure to a Modem connection..

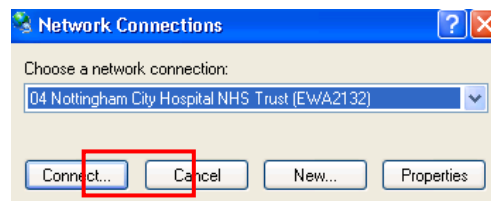Create a new „Local Area Connection" via the button „New".

Figure 106 Network Connections

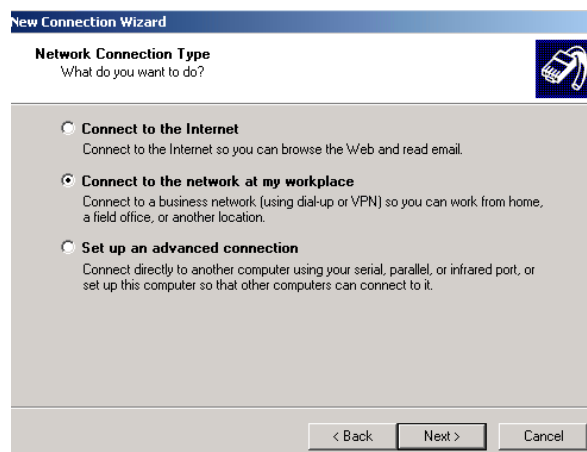Select the option „Connect to the network at my workplace".

Figure 107 New Connection Wizard – Network Connection Type

Select the desired modem out of the device list. The MODEM on your UNMS has to installed already. The supported Modem by UNMS is the type DEVELO/Microlink or compatibles.
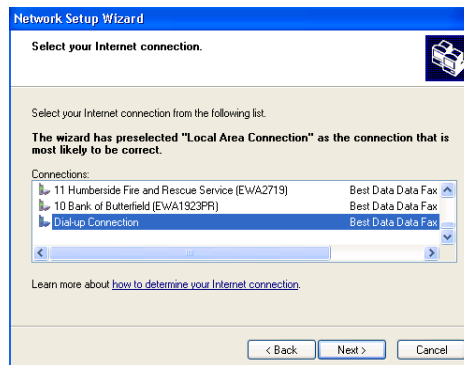
Figure 108 Network Setup Wizard

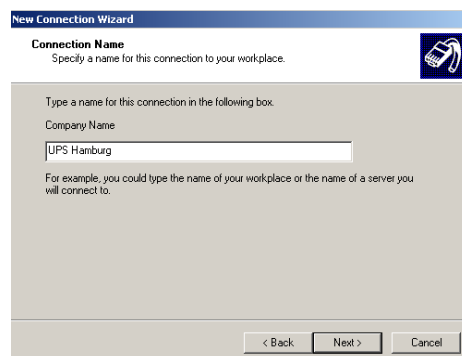Enter an unique name, no other RASMANAGER device in your UNMS should have the same name.

Figure 109 New Connection Wizard – Connection Name

Enter the accordant telephone number of the RASManager. This is the telefonnumber the UNMS has to dial to reach this RASMANAGERs Modem. If any prefix is necessary for your Telefonesystem, please add this or configure this in your MODEM configuration.
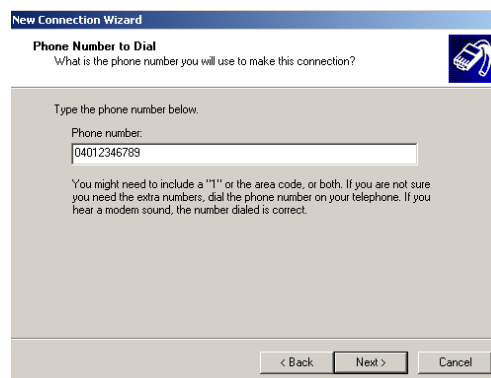

Figure 110 New Connection Wizard – Phone Number to Dial

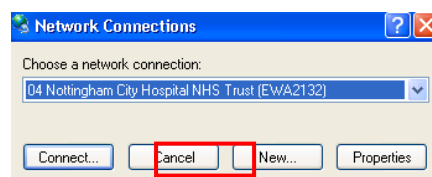Click the „Properties" button to configure the network settings.

Figure 111 Network Connections – Choose a network connection

Click on the „Networking" button to configure the network settings for this MODEM PPP connection.
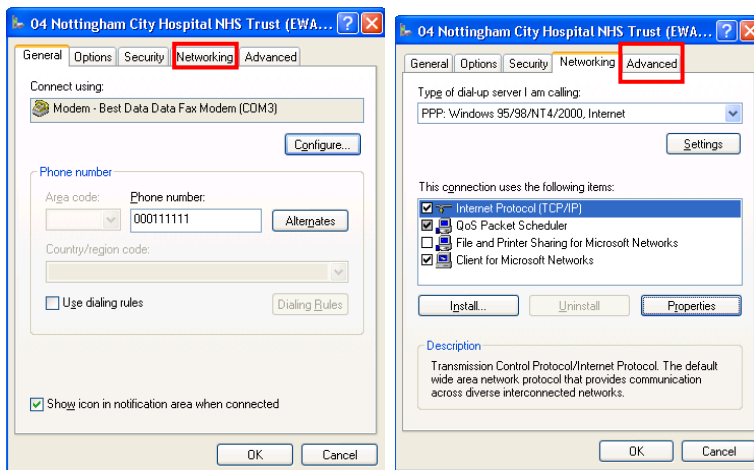
Figure 112 Network Connections – Networking - Advanced

And on the Networking page on the „Properties" button.

Click on „Advanced ....".

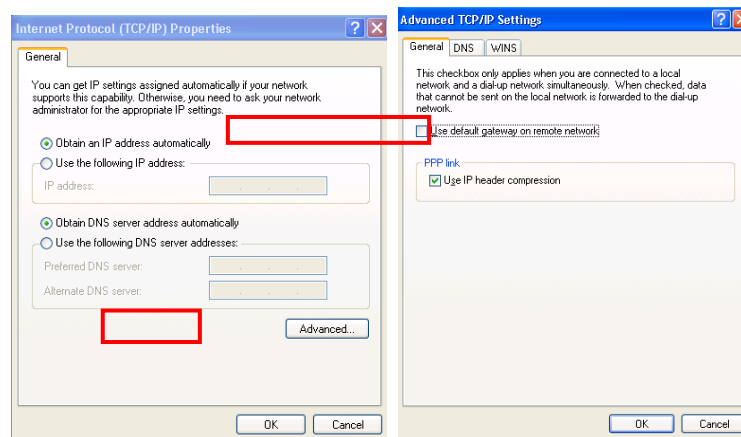Disable „Use default gateway on remote network".

Figure 113 Internet Protocol Properties – Advanced TCP/IP Settings
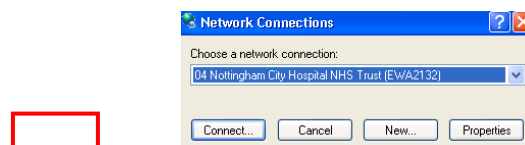
Click the „Connect" button to.

Figure 114 Network Connections - Connect

Test your connection by dialling it manually. Enter the username (1) and the password (2), which you defined into the RAS Configuration of your RASMANAGER for the „RAS Server". Windows offers to save and remember these settings and use it for the following users, please activate this function (3) Select the option „Anyone who uses this computer (4). Finally click the „Connection" (5) button to dial out to your RASMANGER and establish a connection.
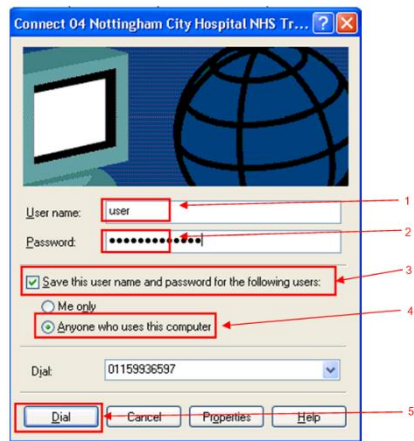
95

Figure 115 Network Connections - Dial

If all settings were defined properly, the following icon will appear into the task bar in the lower right side.

Click the right mouse button onto this icon, select „disconnect", to disconnect manually created connection (Click the „Cancel" button) and check this later with your UNMS Teleservice.
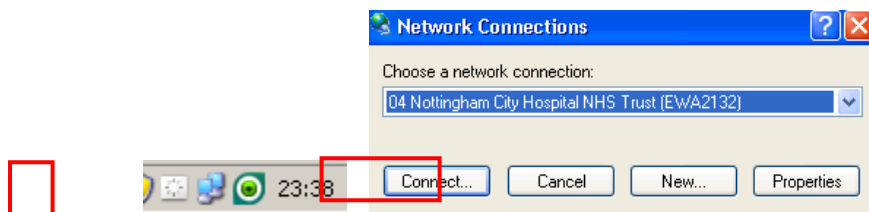

Figure 116 Connection Icon - Network Connections – Cancel manually created   on

Now enter and the „RAS dial settings". Enter the accordant IP address of the F   er server.

To avoid manually executed modem connections for a longer time, you sho   e „Disconnect" function and set a time between 5 and 10 minutes.
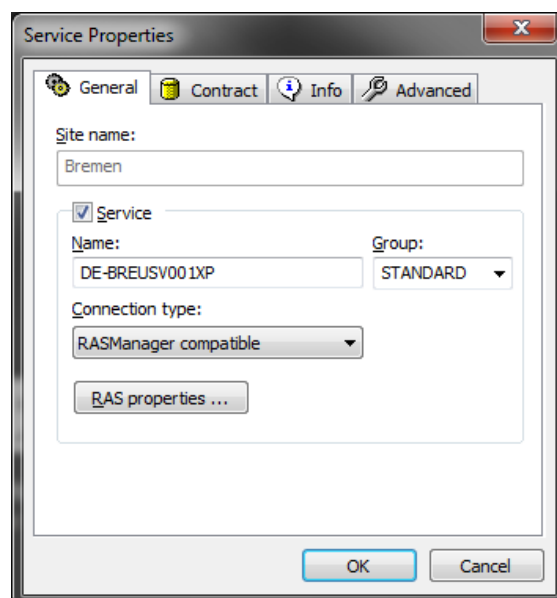

Figure 117 RAS Properties - Settings

You have successfully setup your RASMANAGER and UNMS Teleservice. Restart the UNMS now and connect via MODEM to your RASMANAGER.
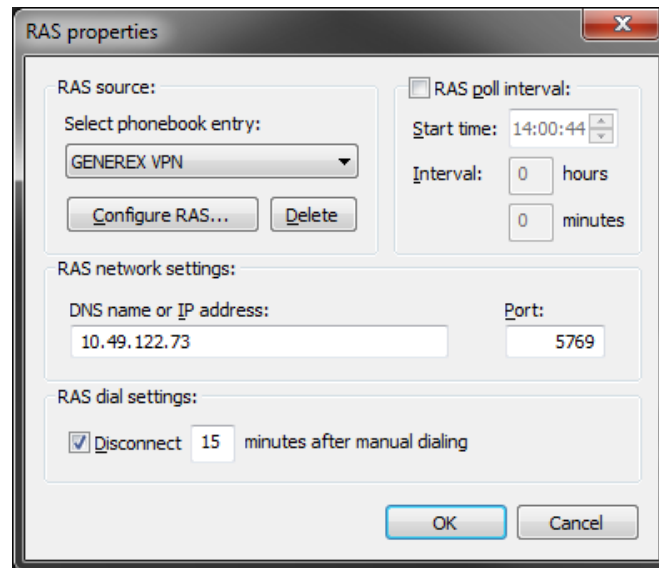
Figure 118 RAS Properties - Settings

To test incoming alarm calls we recommend to create an alarm on the RASMANAGER side and watch if the connection gets established and if the UNMS picks up the call and displays the alarm.

 If this works, your installation of RASMANAGER and configuration of UNMS TELESERVICE is finished and you may add in the same way more RASMANAGERs to your UNMS Teleservice, until the number of licenses reached. To extend your UNMS to more RASMANAGERs, please purchase and upgrade of your exisiting TELESERVICE license.

14. UNMS – Web Console

A UNMS is mainly monitored from remote by using a Webbrowser. A Webbrowser is described in this manual as a *Web Console.* The Webconsole shows the actual status information, historical logs and all reports can be accessed and inspected. This allows you to access your management information from different computers of different customers or facilities in your network. By using multiple *Web Consoles*, you can encourages sharing of management information by many people.

You can login from any workstation that is running TCP/IP and is connected to your network (e.g. over the Internet, DSL, leased line, LAN, VPN, etc.).

The *Web Console* has the following requirements:

- You must enable JavaScript in your browser.

- Your browser must support the XML standard.

- You should allow Cookies from the UNMS server system.

- You should allow Popup Windows from the UNMS server.

- The *Web Console* will operate best with recent versions of the *Microsoft Internet Explorer* and the *Mozilla Firefox* browsers.

Using your Web browser from any system, enter the address for the UNMS start page as follows: "*http://a.b.c.d/unms*" where *a.b.c.d* is the IP address or DNS name of your UNMS server system. The *Web Console* will be executed inside your Web browser.

Web Console – Notification Area: Whenever a critical event occurs then the UNMS will bring up a notification box with an audible alarm on every connected *Web Console*. You can click the *Speaker* icon to mute the sound for this notification.
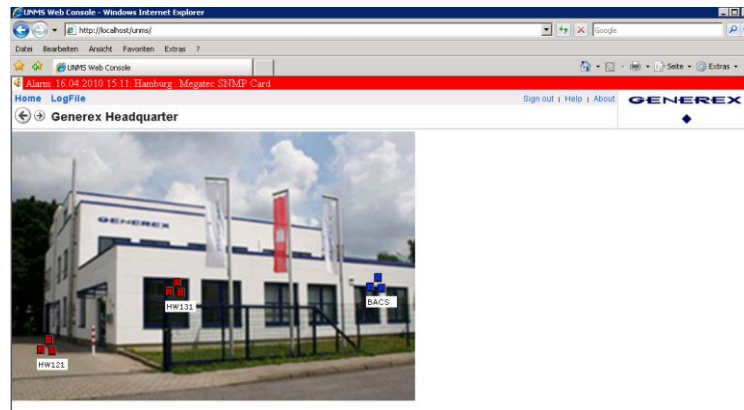
Figure 119 Web Console – Notification Area

Web Console – Main Screen: You can view the Main Screen by using the **Home** button.The following diagram and table shows the main elements of a Web Console

Web Console – Viewing a Site: You can view a particular site from the **Main Screen**. The following diagram and table shows the site elements of a Web Console.
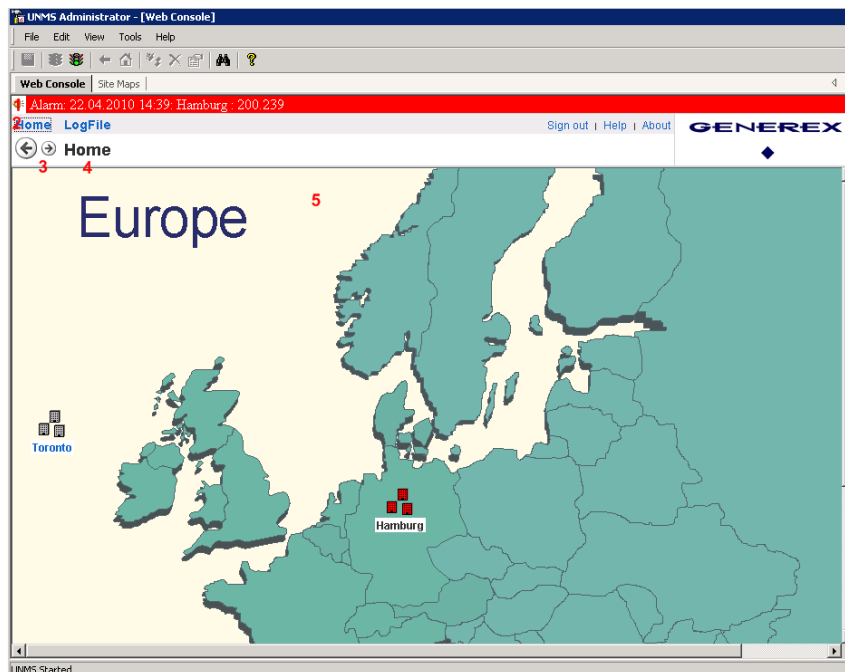

Figure 120 Web Console – Main Screen

No.	Name	Description
①	Alarm Bar	Displays new alarms graphically (red blinking) and acoustically (beep). To mute click on the loudspeaker symbol. Any incoming new alarm will remove the previous displayed alarm.
②	Menu Bar	Navigation to the main/home page of your UNMS. Also for viewing LogFile, Sign Out, Help and About box with UNMS version and module information
③	Navigation Bar	navigate backward/forward between the UNMS last screens
④	Site	The name of the current site
⑤	Main Frame	Graphical view of sites and services. The contents depends on the current UNMS location. Click on an icon to view it's details (see also: Viewing a Service). .

Web Console – Viewing a Service : You can view the status of a particular service from the **Site View** or the **Logfile View**. The following diagram and table shows the typical service elements of a UPS in a **Web Console**. Services (UPS, BACS, SITEMANAGERs, SENSORMANAGERs, CS121/CS141, ATS Automatic Transfer Switches etc.) may have individual screens. The UNMS will display the graphic for this device – depending on the manufacturer of the device – in different styles. For details about such individual device screens please refer to the user manual of this UPS or other product.
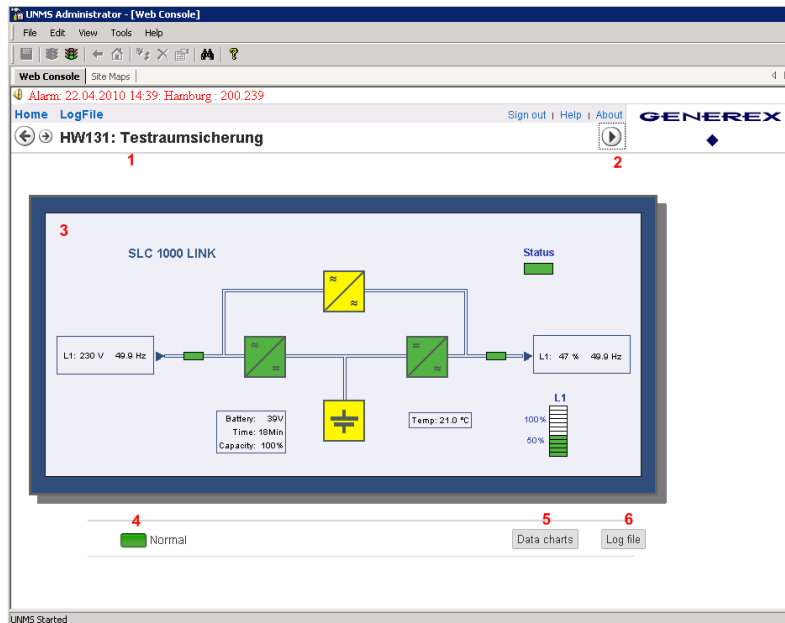

Figure 121 Web Console – Site View

No.	Name	Description
①	Location Bar	The location/name of this service within the UNMS.
②	Link Button	Direct link to the web-interface of the CS121/CS141 of this UPS. With this button you leave the UNMS and open a separate browser windows to reach the device internal webserver directly.
③	Service Panel	Schematic view of the service status and values. Here the display of a standard UPS single phase.
④	Service Status	Displays the service status. The LED shows the event priority color and the event messages text that you have defined for the actual service status. Green is signaling that the device is OK, yellow is showing a warning, red is showing that there is an alarm present. Related to the service type you have defined, you are able to click the LED or the text to navigate to the web-page of this service (e.g. CS121/CS141 Web Adapter).
⑤	Data charts	Click on this button for the display of the UPS values into a chart. To activate this function you have to enable the UNMS logging for this device – see page 26.
⑥	Log file	Click on this button to show all text log files of this device since it became a member of the UNMS system.

When UNMS is running you may connect to every Service by a doubleclick on the Icon (marked as « 2 » in figure 99) to see the UPSVIEW screen for this device. If you want to leave the UNMS an get directly redirected to the inbuilt Webserver of this Service, than click the > Button – this will open a webbrowser directly to your Service where a new login may be requested.

Generally the colors signify the alarm levels. Green means « in use and OK », Yellow means « not in use, standby and OK », Red means « Alarm, not ready »

Web Console – Viewing the LogFile: You can view the Logfile by using the *Logfile* button. The following diagram and table shows the logfile elements of a *Web Console*.

Figure 122 Web Console – LogFile View

No.	Name	Description
①	Filter Bar	Here you can choose between various filter options to spare you from having to read through the complete history.
		Click on the *Show* button to apply your filter options to the current logfile view.
②	Historical Log	A table that contains all historical event information's. You can browse the table by clicking on the *Previous*, *Next* or *New* button above of this table.
		Click on a service name to view the service data (see Viewing a Service).

15. Monitoring Extension

If you want to extend your UNMS II for further UPS, it is required to upgrade your license. Click into the UNMS II Administrator Console the „Help/About UNMS" button and click the „Change" button in the new window.

Advice: The upgrade is valid for the extension of objects/devices. The upgrade is *not* valid, if you want to add UNMS Modules (e. g. TeleService).
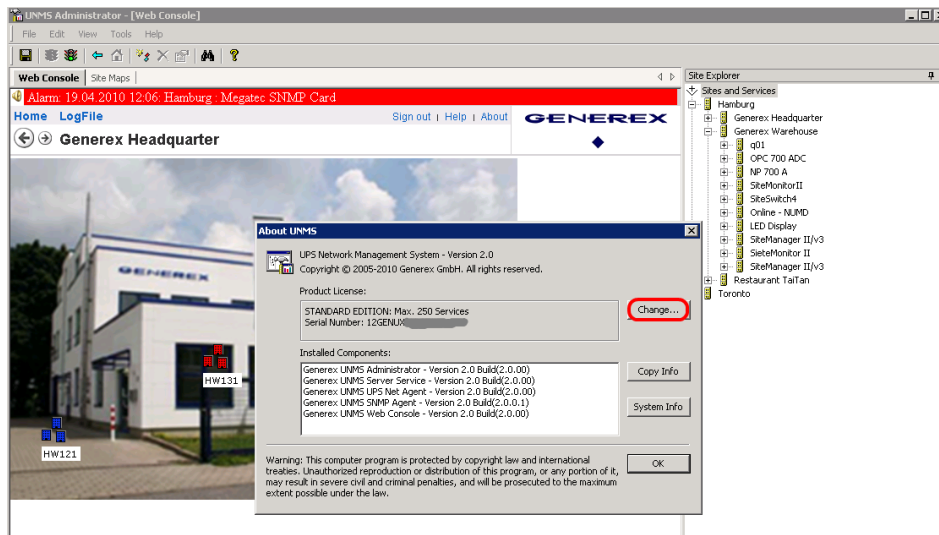
Figure 123 About UNMS – Monitoring Extension

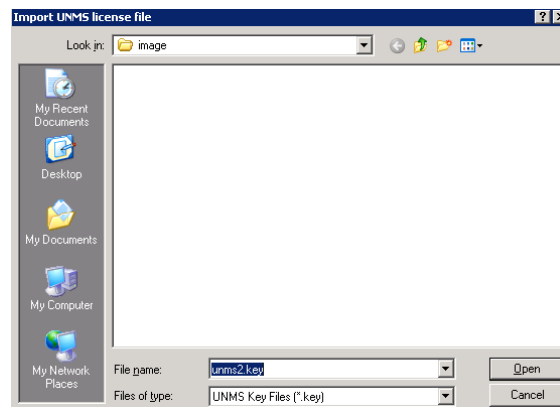Select the accordant path to the UNMS II Key File, import it and restart the UNMS II.

Figure 124 Monitoring Extension – Import UNMS license file

16. Getting Technical Support

You can view the Support Page by using the **Help** menu from the status bar. The following diagram and table shows the help elements of a **Web Console**.
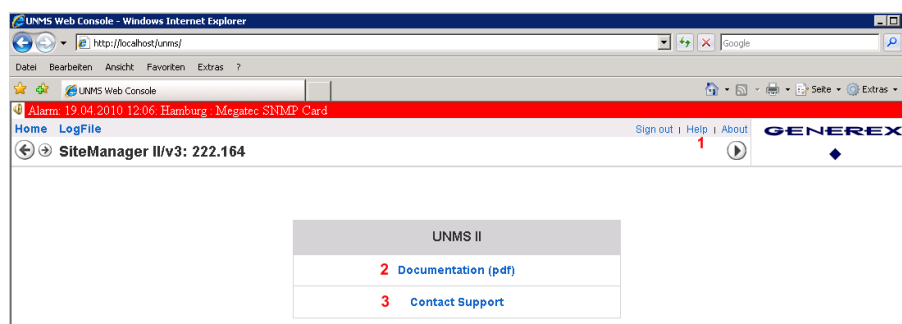

Figure 125 Help Menu

No.	Name	Description
①	Menu	Click on the *Help* button to view the help page.
②	User Manual	Click on the *View documentation* button to open this User Manual. Note that this manual is delivered in the common Adobe PDF format. If you do not have the Adobe's Acrobat Reader installed yet, you can download a free version from the Adobe website at "http://www.adobe.com".
③	Support Email	Click on the *Contact support* to send an email to the technical support.

17. Troubleshooting

17.1 Problems at Execution of the Setup

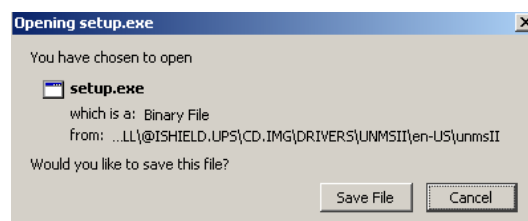If the setup does not start or you receive the following message,

Figure 126 Opening setup.exe

it is required that you open the "start.htm" via the context menu, click the "Open with" button and select the Internet Explorer.

17.2 Problems during Installation

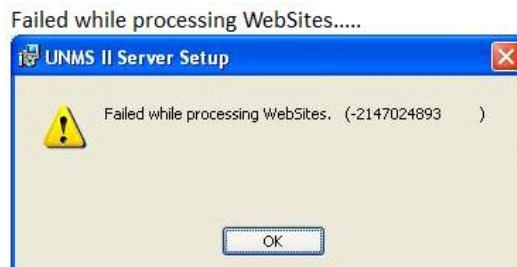If you get the following error message during the installation, it is required to reinstall the IIS.

Figure 127 UNMS II Server Setup Error

17.3 The Service "Network Lost" Event is notified too fast

If the network connection to one or more monitored devices/services is lost periodically due problems with this devices or your network, then you may want to define a grace period for the notification of this event.:

- Open the Administrator Console and choose 'UNMS Options' from the 'Tools' menu. Then choose the 'System' page tab in this dialog.

- Select the 'Modify service lost delay' box and enter your delay for the notification of the 'Network lost' event in seconds in the edit field (The default value for this delay is '0' seconds).

- Hit the 'OK' button and restart the UNMS server.

17.4 A running Skype Program claims the UNMS Web Port

The UNMS Web Server may not start correctly if Skype is installed on this computer and has started before the UNMS Web Server (e.g. after the installation of the UNMS). This problem may occur when you allow Skype to claim the standard HTTP-Port (TCP-Port 80) for communication.

If you encounter such problem, use the following steps for a solution:

- Open Skype and configure it so that it not uses the standard HTTP-Port (TCP-Port 80) for its communication. Please refer to the Skype manual for how to configure Skype.

- Restart Skype to force that it releases this resource.

- In the 'Control Panel' open the 'Administrative Tools'.

- Select the Internet-Information-Server (IIS) and restart it.

17.5 Disable IIS Website Logging for UNMS II

You can disable the UNMS II website logging into the IIS (Internet Information Service) configuration. Open the IIS configuration via the "Control Panel/Administrative Tools". Open the context menu onto "Default Web Site" and select the "Properties".
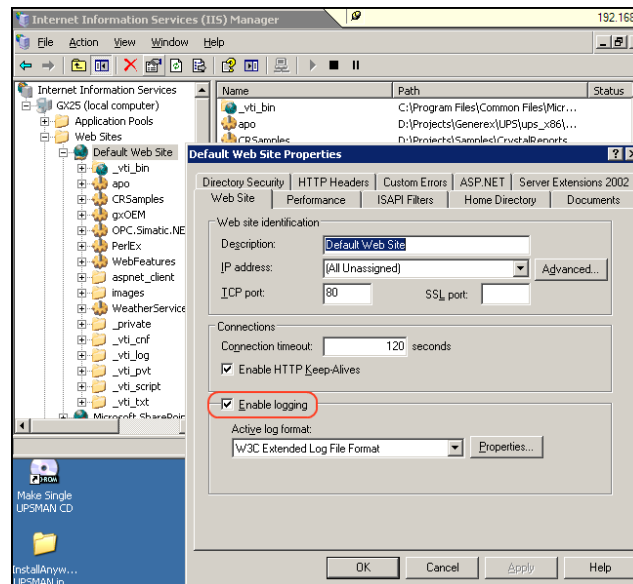

Figure 128 IIS Manager – Default Web Site Properties

17.6 Problems with Web-Interface on 64-bit WIN Server 2003

To enable IIS 6.0 to run 32-bit applications on 64-bit Windows OS:

1. Open a command prompt and navigate to the %systemdrive%\Inetpub\AdminScripts directory

2. Type the following command: "cscript.exe adsutil.vbs set W3SVC/AppPools/Enable32BitAppOnWin64 true "

3. Press ENTER

17.7 Problems with the Display of http://localhost (IIS Welcome Page does not appear)

On some OS, it might be required to create a "Default Web Site" into the IIS Manager and to set the "DefaultAppPool" as application pool. The UNMS II might not be able to create an own site without this object.
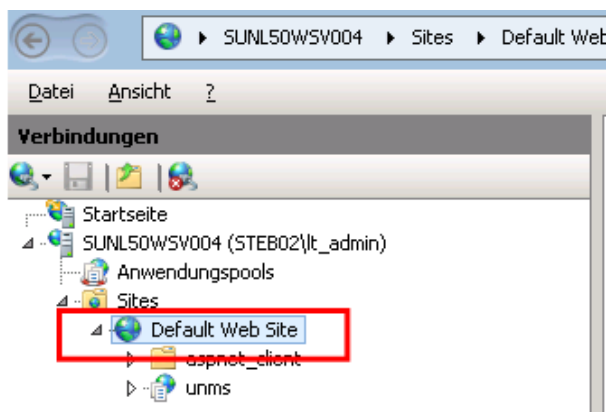

Figure 129 IIS Manager – Default Web Site

103

17.8 RAS Manager Dial-In Problems

After the reboot, the RAS Manager can be dialed once only. Every further try will fail, because the modem of the RAS Manager does not respond. The problem might be a faulty IP address configuration at the RAS Manager. Please enter the IP address with full octets like this: 010.011.012.001.

17.9 Problems with Unicode Programs

If you are not using a Windows OS with the languages German, English or Turkish, it is required, that you define the language of your OS for one of these languages.

17.10 Problems with the installation of an interactive service

The UNMS is an interactive service. Therefore its required, that you disable the no interactive service feature in the registry of the OS:

HKLM\SYSTEM\CurrentControlSet\Control\Windows
NoInteractiveServices
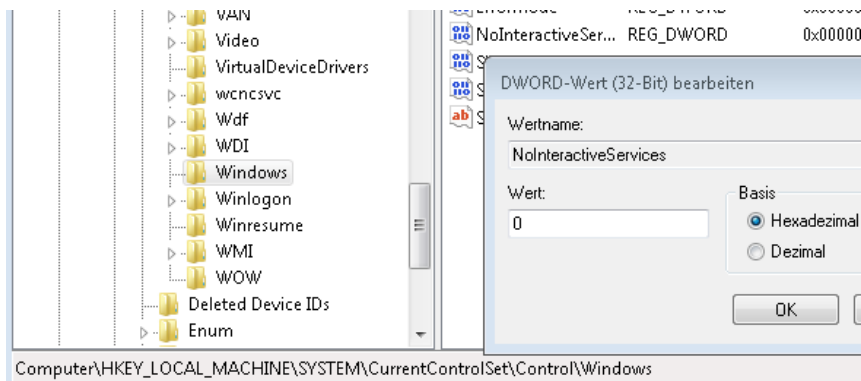
Change the value from "1" to "0" and reboot your OS.

Figure 130 IIS NoInteractiveService Feature