

vNMS

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1 Introduction

With help of this new and unique software tool everybody who creates an account will be able to monitor and manage all his iDirect modems. Each modem comes with a number of different statistics, graphs and data. Additionally every user can create his own customer and provider databases with the needful contact and address data. These customers and providers can be assigned to your modems which you add to this interface. It's also possible to make connections (customer or provider) to other users of the system. Within these connections, the users are able to pass their modems to each other. Furthermore a Google map, a dashboard and many other features are implemented to have an overall control over your iDirect modems.

2 Functionality

To monitor one of your iDirect sites you need to install a small client on your iDirect modem. This client is sending all the necessary data to a server. After the installation you will get a token from the installer which identifies your modem on the server. With this token you can add this modem to your account and afterwards you can monitor it. Everybody who has the installer and access to the modem can readout the token. If the modem changes its owner, a new token can be generated and the old owner will not be able to monitor the modem anymore. Every modem which doesn't send data during a specific period will automatically be deleted from the server.

3 Registration

First of all you need to create your own account on <https://vnms.nynex.de>. After the registration an email with your user ID and password will be send automatically to your registered email address. When you are logged in to the system, you are able to download the installer for your iDirect modem.

Register:

Customer	Address	Contact
Title:	Mr. ▾	
First name:	<input type="text"/>	*
Last name:	<input type="text"/>	*
Company:	<input type="text"/>	*
Email:	<input type="text"/>	*
	<input type="text"/>	<input type="button" value="new"/> *
* these fields are required		
<input type="button" value="Save"/>		

4 Login

You access the system by a login via username and password. After a successful login, the logged-in user is able to see a menu on top which navigates through all menu items. Under the menu you can see which user is just logged-in. Right beside this information, you are able to see your current “Key” which is needful to allow other users to add you as a customer or a provider. Also see chapter 4.

Login of vnms.nynex.de:

User:	<input type="text" value="admin"/>
Password:	<input type="password" value="*****"/>
<input type="button" value="Login"/>	
You don't have an account yet ? Click here	

5 Settings

The purpose of menu item “Settings” is to set up and work your account.

5.1 Login

Via "Login" you can change the current login password. All you need is the current password to set a new one.

Login:

Change password:

Current password:	<input type="text"/>
New password:	<input type="text"/>
Re-type new password:	<input type="text"/>

6 User

The menu item "User" provides additional logins for members and colleagues of your company. Every user is able to have access to the modems and customers/providers from your main account.

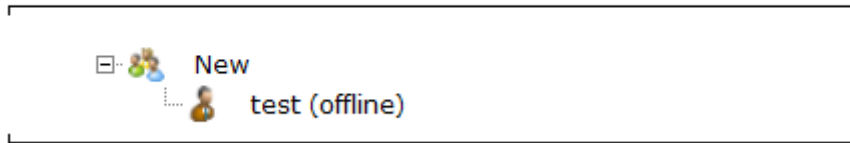
When you click on "New" you can create a new user account by entering a username and a password. Each username must be new in the whole system. If the username you choose already exists, you need to choose another one.

Add user:

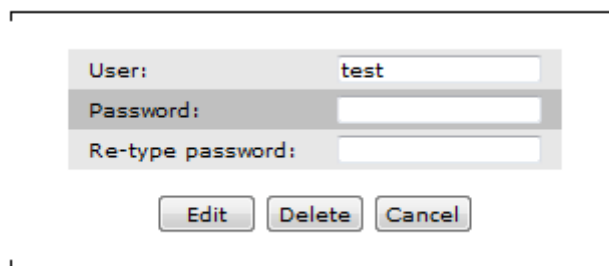
User:	<input type="text"/>
Password:	<input type="text"/>
Re-type password:	<input type="text"/>

All users already created are shown in alphabetical order. Behind the username you can see if the user is currently online or not.

Current user:



When you click on a user, you are able to edit the username and the password or delete the user.



7 Customer / Provider

The menu item "Customer"/"Provider" manages all your customers/providers and saves their contact and accounting data. When you click on "New" you can add a new customer/provider to the database. You will find four tabs where you can insert address and contact data to each customer/provider. The data fields which are marked with a (*) are required to create a new customer/provider account. Any other information can be completed later. Press the save button to add a new customer/provider to your database.

Add:

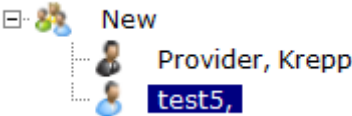
A screenshot of an 'Add' form. At the top, there are four tabs: 'Provider' (highlighted), 'Address', 'Contact', and 'Import'. Below the tabs, there are four input fields: 'Title:' with a dropdown menu showing 'Mr.', 'First name:', 'Last name:', and 'Company:*'. Below the fields are two buttons: 'Save' and 'Cancel'.

* these fields are required

On the 4th tab named "Import" you are able to import a customer/provider who also has an account on this system. Therefore you don't need to enter any data, you only need the "Key" of his account and enter it in the field "user key". Additionally you need to enter the checksum on the image. When the user key and the checksum are verified, the customer/provider will be added to your database. The contact and address details are filled with original data which was entered by the user on his registration.

* these fields are required

The icon for each customer/provider you have added with your own data is shown in blue. Every imported customer/provider is shown with a black icon.



When you click on one of your created customers/providers, you are able to edit the data. Afterwards you also have the possibility to import a customer/provider with an already existing account. Therefore click on the customer/provider to edit it and enter the key on the "Import" tab. All modems you have already assigned to your own created customer/provider will be swapped to the imported account.

8 Modems

The menu item "Modems" manages your modems. You can query a lot of parameters of all of your modems. The result of a search can be limited by specific parameters. These parameters are divided in different tabs named "Basic" and "Advanced". Additionally you are able to save queries and graphs as well as assigning customers/providers to your modems.

8.1 Tabs and search parameters

The 1st tab “Basic” has a parameter “general” which searches all columns with a String as value, for example remark, customer, provider, country etc. But you are also able to search for modems with a specific “serial number” or “IP address”. You can search for multiple serial numbers by using a comma “,” as separator. When you search for an IP address, the result will be every modem whose subnet mask contains the requested IP address. With the parameter “Country” and “Type” you can search for modems from a specific country or a specific modem type for example 3100 or X3.

Basic		Advanced		Settings	
General:	<input type="text"/>	S/N:	<input type="text"/>		
IP:	<input type="text"/>	Status:	all	▼	
Customer:	all	Provider:	all	▼	
Type:	all	Country:	all	▼	
Profile:	Default	Query:	choose	▼	

The parameter “Status” contains the choice of the following parameters:

 ONLINE

- The ONLINE status contains all modems which are sending data to the server.

 OFFLINE

- The OFFLINE status contains all modems which are currently not sending any data.

With help of the 2nd tab called “Advanced” you are able to search for the top users doing the most traffic. With the parameter “Top” you can choose between the Top 10, 20 or 50. The parameter “Period” calculates the traffic a user has in an hour, day, week or month. With the parameter “Transfer” you decide if you like to see the download, upload or the total traffic.

Basic		Advanced		Settings	
Top :	all	Period :	all	▼	
Transfer :	all				
SNR down:	<input type="text"/>	<input type="text"/>	Tx power:	<input type="text"/>	<input type="text"/>

8.2 Graphs and Queries

“Settings” helps you to create graphs or save, update and delete your queries.

The screenshot shows a web interface with three tabs: 'Basic', 'Advanced', and 'Settings'. The 'Settings' tab is selected and highlighted in orange. Below the tabs, there are two main sections: 'Graph:' and 'Query:'.
The 'Graph:' section contains a 'Name:' input field, a dropdown menu currently set to 'Traffic', and an 'Add' button.
The 'Query:' section contains a 'Name:' input field, an 'Add' button, a dropdown menu currently set to 'choose', and 'Update' and 'Delete' buttons.
Below these sections are two buttons: 'Search' and 'Reset'.

You can create two different kind of graphs, a static or a dynamic graph. The static graph will create a graph with only the modems you check on the first left column of the result table. The dynamic one is a graph where you do not check any modem on the first left column. The graph will then be created according to the result of your search query. Additionally every modem you add in the future and which does also fall into the limitations of the query will be added to the graph automatically. Before you create the graph you need to enter a name and decide if you like to create a traffic, count or pie graph. A traffic graph accumulates the download traffic of all modems and the count graph counts the amount of all modems. The pie graph shows a pie according the status of your modems.

The graphs you have created are available in the menu item “Graphs” described in chapter 6.

To save your query you just need to enter a name for the query and then you can select the query next time under the tab “Basic” without choosing the whole parameters again. All queries you have saved can be updated or deleted again. All parameters will be set automatically when you select one of your saved queries.

8.3 Search Result

After you have made your selection and pressed the search button, the result will be shown in a table with different columns. The “Remark” column sets remarks for each modem. When you have saved a remark to a modem, you are able to pre-read the message by moving the mouse over the column without clicking into it. The columns “SNR down”, “SNR up”, “TX power”, “Temperature”, “Uptime and every “Traffic” column shows a graph when you move your cursor over it.

The column “Customer” and “Provider” is a special one because here you are able to assign each modem to a specific customer. Every modem you assign to a customer/provider maintaining an account will be available and visible for him when he logs into his account. When you reassign such a modem again, the connection will be cancel again and the customer/provider is not able to see the modem anymore.

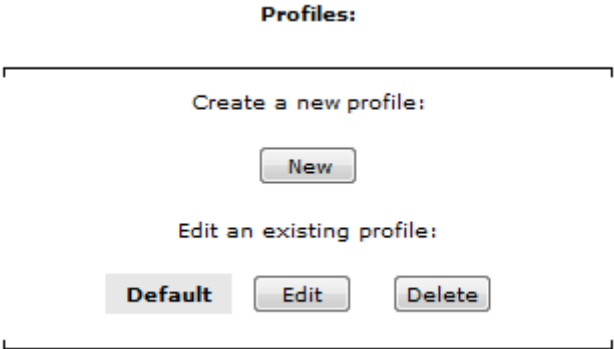
The column "SN" has a link to the site overview of this specific modem. See also chapter 8.

Nearly each column can be sorted by clicking on one of the two narrow icons on top the column header.

8.4 Settings

The columns of the result table and their order are editable. You have the choice between plenty of different data columns for each modem. To search for the whole data takes a long time and also needs a very large monitor to display the whole result in one screen. Therefore you are able to create your own search profiles with only the columns you like to see. You can create, edit and delete a profile in the sub item "Settings".

Additionally you are able to rename and delete all search queries you have created.



Edit profile:

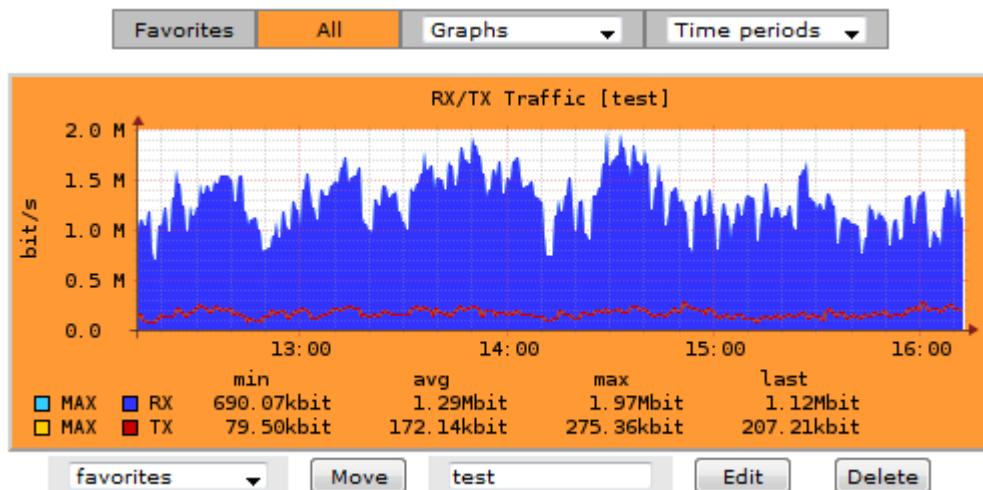
Name:	Default
Field 1:	Status
Field 2:	SN
Field 3:	not defined
Field 4:	Customer
Field 5:	Provider
Field 6:	Type
Field 7:	Management
Field 8:	LAN
Field 9:	SNR_down
Field 10:	Power
Field 11:	GPS
Field 12:	Remark
Field 13:	Picture
Field 14:	not defined
Field 15:	not defined
Field 16:	not defined
Field 17:	not defined
Field 18:	not defined
Field 19:	not defined
Field 20:	not defined
Field 21:	not defined
Field 22:	not defined
Field 23:	not defined
Field 24:	not defined
Field 25:	not defined
Field 26:	not defined
Field 27:	not defined
Field 28:	not defined

Save

9 Graphs

The menu item “Graphs” containing two sub items lets you manage the graphs you have created in your queries. It contains all graphs you have added to the modem search. Every new graph is put into the tab “All”. From there you can move, rename or delete your graphs. These functions are available on the bottom of each graph. Every user has a default tab named “Favorites” which is displayed at first when you click on this sub item. You can move each graph to this tab. You can also create new tabs and put your graphs into any tab you have created. When you remove a graph from any other

tab than “All”, the graph is still not deleted, only removed from this tab. To delete a graph you need to delete it from the tab “All”. The two selections give you the ability to jump directly to one graph and to determine the period of the output of a graph.



9.1 Settings

The sub item “Settings” lets you add, edit and delete your own tabs. Each tab you create will be added to the tabs at “Graphs->Show”.

Current graph tabs:

Create a new tab:

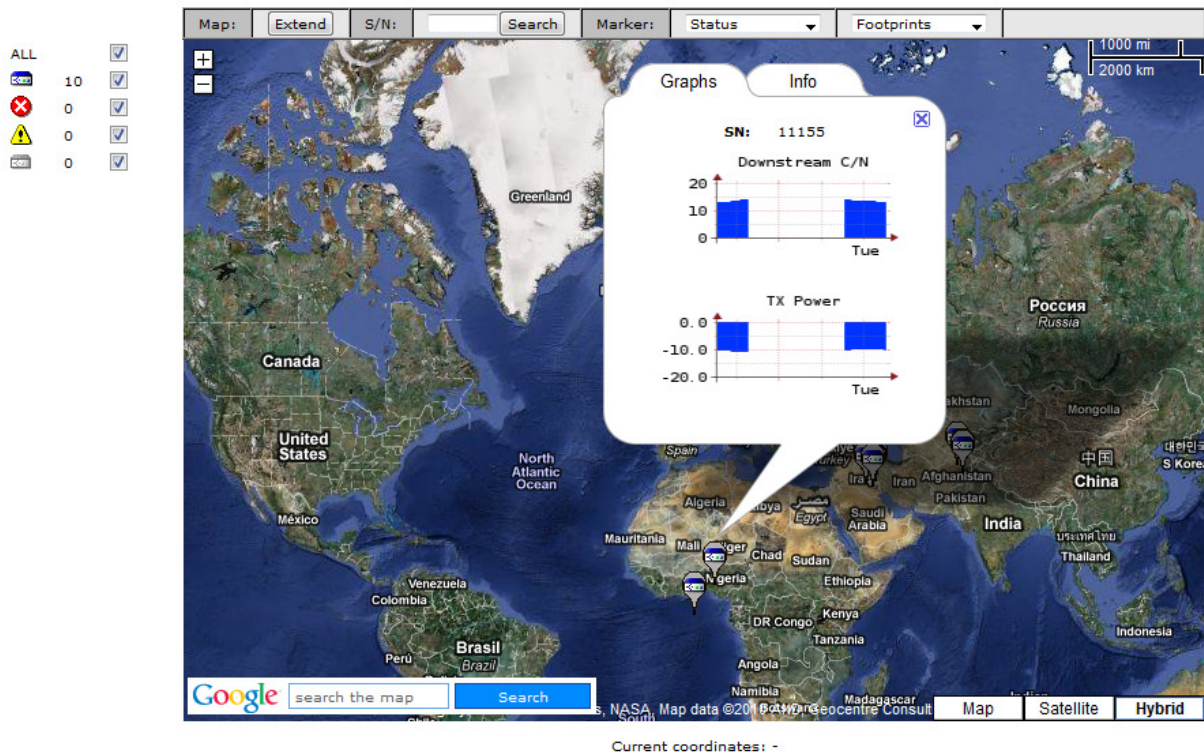
Name:

Edit an existing tab:

Name:

10 Map

The menu item “Map” has implemented google maps. It is also a search tool similar to modem search, but the output is displayed on google maps. The search bar is the same like menu item “Modem->Search” only without parameter “profile”. The detailed information to each parameter is explained in chapter 5.1.1.

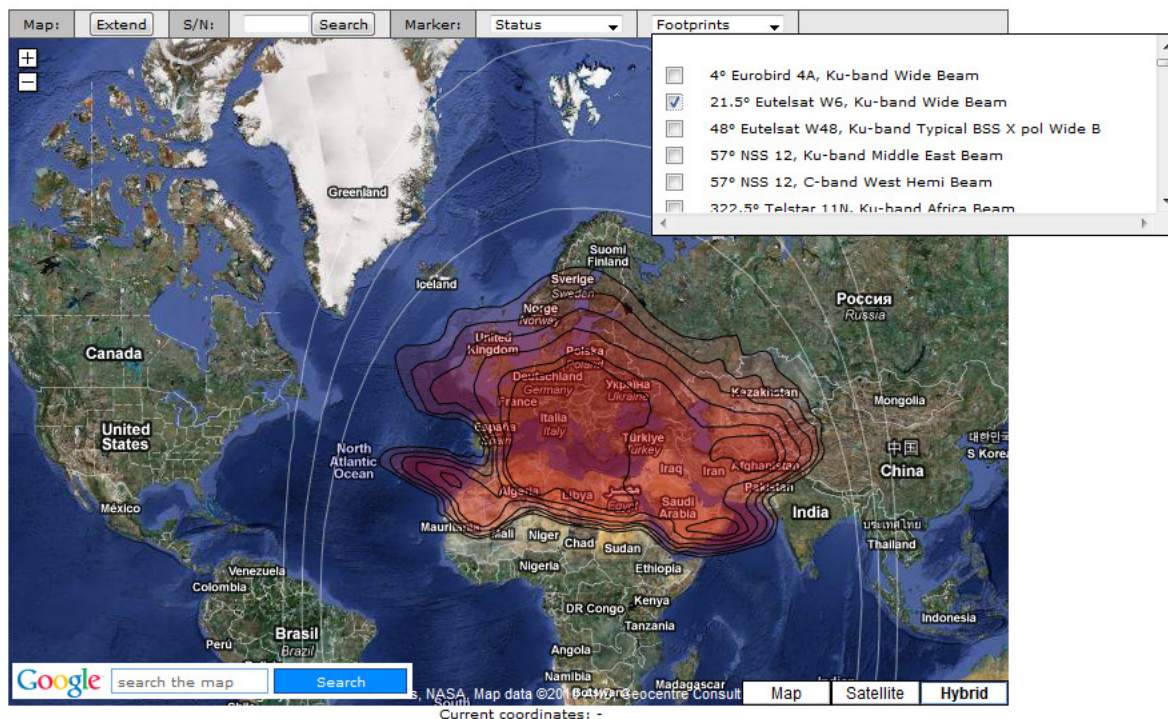


Hitting the search button you will see an icon on the map for each modem. When you click on any icon of the map a small window will pop up with data and graphs of the selected modem. When you click on the link of the serial number you get to the modem overview which is described in chapter 8.

On top of the map is a small menu. You can search for a specific serial number within the result of all icons on the map. When a modem was found, the map will zoom directly to the site and opens the pop up window. Next to it you will find the menu “Marker”. With this you can change the icons of each modem according to the subject you choose. Status is default and shows the current status of each modem as mentioned in chapter 5.1.1. “Activity” shows the difference between activated and deactivated modems. With “Type” you will display the modem type of each modem and “SNR down” differentiates the modems in colors regarding their RX SNR value.

For every of these marker subjects a small history is shown on the right side of the map. With the check option you can hide specific modems or make them visible again.

With the footprint selection of the menu you are able to overlay every satellite beam on the map. It will show you the coverage and also EIRP level. You can overlay as many footprints as you want.



Additionally it is possible to extend the map to full size into a new window by pressing the “Extend” button. The advantage of this feature is that it automatically refreshes the current modem values after a specific duration. You can set the refresh value in minutes on the left top menu. A countdown timer shows you the time when the next refresh will be executed.

11 Modem overview

The modem overview is displayed in a separate window and can be accessed via the search result of the map or the modem search. The modem overview provides information of a single modem in one overview and has additional data such as IP, Management IP, DNS servers, DHCP ranges and many other parameters from the original option file which is also available to download.

You can see all graphs of the modem, the current location and you are also able to upload installation pictures.

12 Dashboard

With the dashboard which is accessible through the menu item “home” you can create your own layouts with your own created custom graphs like pie, traffic and count. Additionally you can monitor some of your modems with all necessary values as graphs. You can create your own layouts and save

each of them as a profile. These profiles can be updated and also deleted later on. When you load one of your profiles you can decide in which interval it will be refreshed.

First of all you need to add a layer which needs a custom name. You can create as many layers as you want and fill them with different graphs.

Layer: new ▼ new Add Edit

After you have added a layer, you can add one of your custom graphs or reference modems.

Graphs: choose ▼ choose ▼ Add Delete

You can delete each graph again or you can also hide specific graphs of reference modems on the menu item "on/off".

Modems: choose ▼ choose ▼ Add Delete on/off

When you have setup your layout you can save it as a profile. You just need to enter a name press the "save" button. Now you are able to load it each time you open the dashboard or you can switch between different layouts. When you have chosen a profile and you do some changes you are able to update it through the "update" button and the new settings will be saved to the current profile. With timer you can refresh your graphs every 1 to 60 minutes.

Profile: Save choose ▼ Update Delete Refresh: 1 ▼