Software Manual

XX-32G

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XX-series

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About Us

PROFITAP is a leading manufacturer of professional LAN & WAN Monitoring Equipment.

Our products are of highest quality, better featured and build with the latest technology.

The confidence placed in our products is the reward for many years listening to our customer's needs and expectations, improving technology and service, and offering an ever-expanding product line.

Founded in 1984, PROFITAP is headquartered in Strasbourg, FRANCE and present in the worldwide market through leading partners and reseller networks

PROFITAP offers a complete range of:

- **XX-Series**
  - XX-32Glite   Network Consolidation Tools
  - XX-32G   Network Consolidation Tools
  - XX-32Gportable   Network Consolidation Tools

- **Passive Optical Fiber Taps**
  - Single Port   Rack Mount/Portable
  - Dual Port   Rack Mount
  - Quad Port   Rack Mount

- **Passive Copper Taps**
  - Single Port   Rack Mount/Portable
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  - T1/E1   Rack Mount/Portable
  - E3/DS3   Rack Mount/Portable
  - RS422/X21   Rack Mount/Portable
  - HSSI/T3   Rack Mount/Portable

PROFITAP's objective is to become your premier solution provider, offering the best product support and manufacturing products with the latest network technology.

Table of Contents

1. Basic Network Settings

 Brief Overview

The main part of XX-32G is **XX-Manager** - a GUI-driven Configuration-controlling the SetUp for Aggregation, Filtering & Routing and allow control over 1GbE & 10GbE Network Traffic for Monitoring.

Multiple Filter rules per Port in any combination for various Routing and Filtering, Duplication or Replication and more options can be configured to adopt to all kind of analysis.

An integrated archive gives quick access to establish filters scenarios on the fly or to storage of previously used filtersets to meet new or standard requirements coming up.

To connect with the XX-Manager locate the Management Ports on the backside of the Main Unit - there are 2 connectors available:

RS422 Management Port ——————   RJ45 Management Port

1.   **Ethernet (up to 1Gbps)** http, https, SSH

        Default Network SetUp : **IP 192.168.0.2 / 255.0.0.0**
        Security : https (256bit) : SSL 1024bit certificate is pre-installed

2.   **Serial RS232** console

        This is the fall-back mode in case any restore of factory defaults is required.
        (see last chapter for Retrieving Factory Defaults)

        Connection setup : 115200 baud, 8bit, No parity, 1 bit stop

1.Basic Network Settings (cont')

Brief Overview (cont')

Secure Access - SSL/HTTPS:

A SSL certificate is pre-installed on the XX-32G, a new certificate can be generated or imported. Refer to Software Manual for generating/importing a certificate.

DHCP:

If DHCP is **enabled**, XX-32G can be accessed by its hostname :

            http://XX-32G

(The Hostname can be changed, see correspondend chapter)

If DHCP is **disabled**, the XX-32G can be accessed by its IP address :

            http://192.168.0.2

Note :
For security, the Login and Passwords are being send in **https mode**, even if XX-Manager is still or remains in http state.

Continue with connecting XX-32G to your Network or use a straight Network cable to connect your Computer to XX-32G or to same physical Network.

Type in at any browser the default **IP-adress 192.168.0.2** of XX-32G.

Overide any browser dependent alert to continue.
(By default forcing the browser to bypass is possible at any time)

XX-32G will prompt with its initital Status (see next page).

1. Basic Network Settings (cont')

Initial System Status

XX-Manager™

PROFITAP

STATUS   LOGIN

System

Model name	
Hardware revision	1.4
Software revision	2.0.

Contact

Contact name	0000
Contact phone	0000
Contact E-mail	

Date & time

Date (mm/dd/yyyy)	09/12/2011
Time (hh:mm:ss)	09:09:34
Uptime	2d – 15h – 45m – 51s

Sensors

System status	Functional
System temperature	44.50 ℃ / 112.10 ℉
Air temperature	41.50 ℃ / 106.70 ℉
FAN 1 speed	6338 rpm
FAN 2 speed	6521 rpm

■ System temperature ■ Air temperature ■ Fan 1 speed ■ Fan 2 speed

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This is a short overview about the system and the operational status.

See next page for detailed description of displayed values

Note: In addition to the LED's on the frontpanel (see Hardware Manual), this overview provide more information in case a critical event has been identified by the operating system

Note: At this page all informations are display only.

1. Basic Network Settings (cont')

Initial System Status (cont')

Status Informations

-System-

Model Name :   *by name as purchased*
Hardware Revision: *current Version*
Software Revision :   *current Version*

-Contact-

Contact name :   *(default = master)*
Contact phone: *(default = blank)*
Contact E-mail: *(default = blank)*

-System Date & Time-

Date: *(default : set by manufacturer)*
Time: *(default : set by manufacturer)*
Uptime: *(incrementing from last boot process)*

-Sensors-

System Status: *(default = Functional)**
System Temperature: *(internal sensor value)*
Air Temperature: *(internal sensor value)*
Fan 1 speed: *(value rpm)* **
Fan 2 speed: *(value rpm)* **
Graphical view :   *temperature in °C + rpm by timeline (up to one week)*

Note:

* = indicating critical conditions, i.e. exceeding Temperature levels

** = in case of malfunction of one fan the correspondent Line is hi-lighted red

2. Configuration & Management

Log In

Enter by click on **LOGIN** tab to Log on to XX-Manager for SetUp and Configuration.

Per default the administrational Log In is set to:

Login: **master**
Password: **master**

Note: Click submit to continue

Any other Log In as presently predefined or set later is valid as well.

For further operations verify to have set the access rights according to requirements for the use.

The initial Log In as <master> is at Administrator level predefined.

You may change password and add more users at different levels on demand later on.

2. Configuration & Management (cont')

System Basic Settings

After successfull Log In the system prompts by its **extended** Status page, offering editing the parameters. The tab bar extends for configuring and displaying Ports, Filters, Users and more:

About XX-32G manuals

This manual and the software manual are provided for download within the XX Main Unit. You can click on the provided links (see above) in order to download and open them using Adobe Reader or your PDF reader of choice.
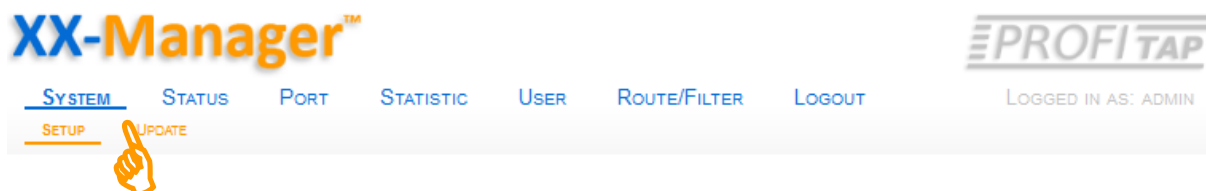
2. Configuration & Management (cont')

System Basic Settings (cont')

Contact, Date & Time, Network Informations:

You may update/modify System settings as required.

Click on **SYSTEM** tap to modify details:

The screen switches to the Edit Mode:

Modify carefully and confirm changes by clicking [Apply]

Warning: Changing network parameters will result in disconnecting the current session with XX-32G and requires a new network connection and LogIn to selected network adress.

We strongly recommend to write down any changes prior of editing.

Note: In case the default parameters are changed and/or the new network configuration is lost and can't be retrieved by any documentation refer to chapter 4 for retrieving/restoring factory settings and default configuration.

2. Configuration & Management (cont')

Adding or Modifying existing users

Click on the **USER** tab to enter the User SetUp:

Delete any user by pressing correspondent [delete] button.
(the -master- user can't be deleted)

Click [New user] to
add a new user:

Or Click on existing user
to modify :

A dialog pops up

Enter or modify and confirm changes by clicking [Create] or [Update]
Press [Close] to exit without changes or ⊗ to cancel.

Description of Access level (Role):

Admin: full control, entire administration, system updating, etc.
User: create & set filters, aggregating, routing, etc.
Viewer: view settings only

2. Configuration & Management (cont')

TACACS - Outsourced Access Control

Remain on **USER** tab and select **TACACS** by one more click:

XX32G is capable to support up to 4 TACACS Server concurrently, the above sample shows only one configured server.

Press the -Delete- button if any server may be out-of-date.

Click on -Add a server- button for a new server, a new dialog pops up:

Priority number of Server: lowest priority number will be first server used for authentification.

Enter or modify and confirm changes by clicking Create
Press Close to exit without changes or ⊗ to cancel.

Tacacs Servers allow to set privilege number from 0 to 15.
XX-series defines only 3 privilege levels : **admin, user, viewer**.
Tacacs Servers must map a range of TACACS privilege levels
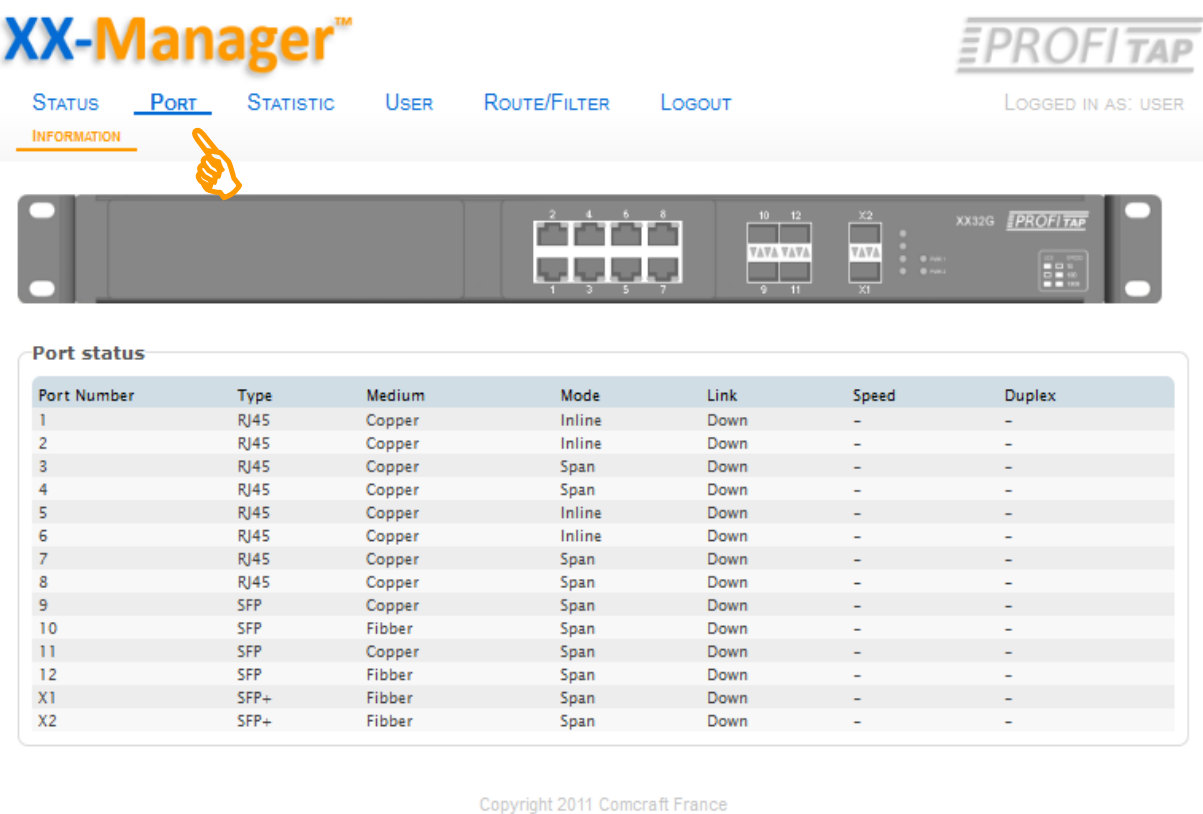to each XX's privileges.

Note: A TACACS server configuration needs to enable the service '*exec*' with „*priv-lvl*" for the users of XX systems to connect through TACACS.
At least one of login, pap, or chap password must provided.

2. Configuration & Management (cont')

Display Port Information

Click on the **PORT** tab to enter the Port Information Overview:

The display extends to details about any available Ports being present:

Port Number: *from 1 to 12 (1GbE) + X1 & X2 (10GbE)*
Type: *SFP or RJ45*
Medium: *Copper or Fiber*
Mode: *SPAN or In-Line*
Link: *Up or Down*
Speed: *10,100Mbit, 1GbE, 10GbE*
Duplex: *Half or Full*
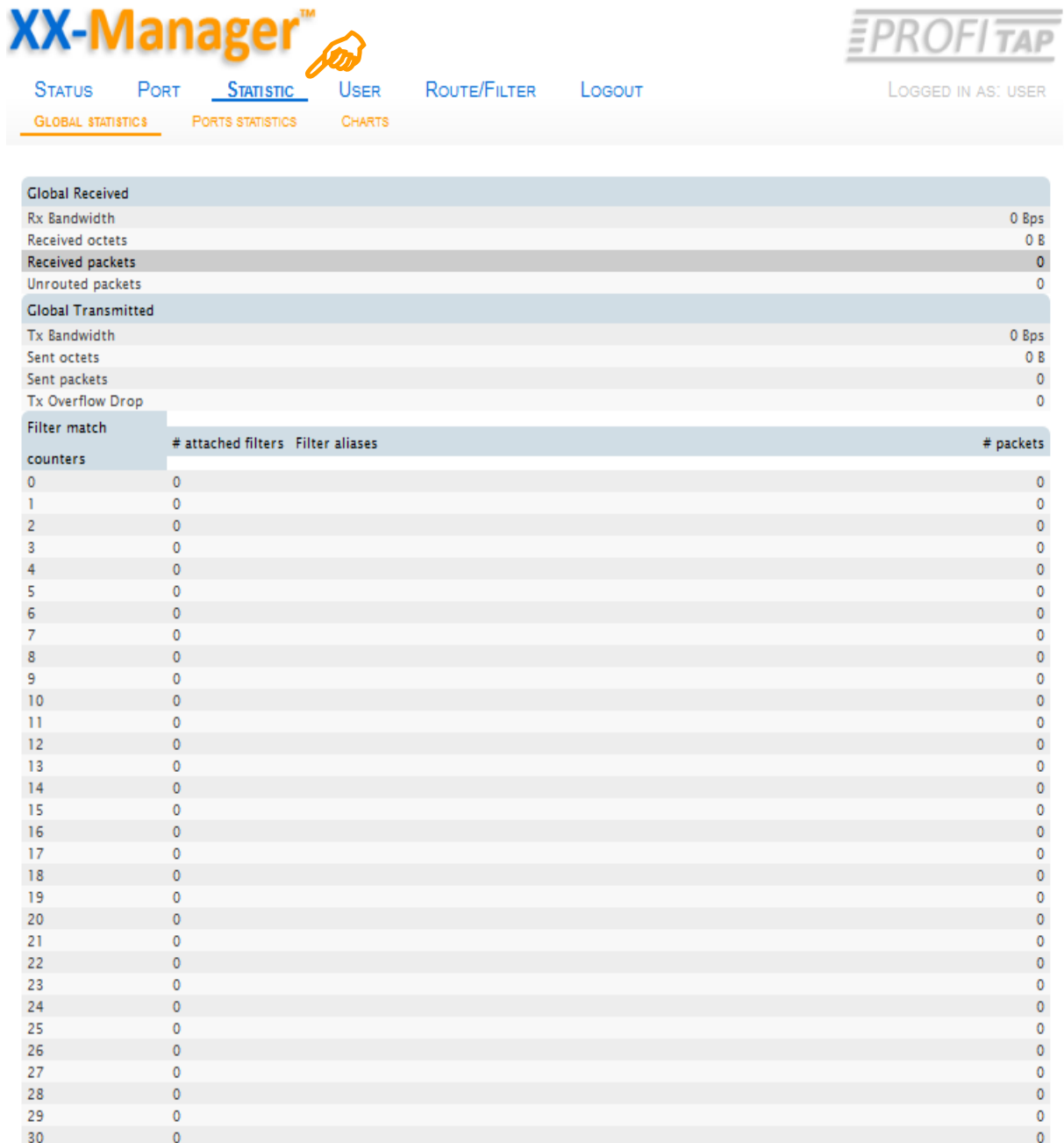**Master/Slave:** *Master or Slave*

Note:
This display is informational only, no entry fields and no edit functions available.

All values may update as any change detected by newly physical connections made or new configurations and settings by XX-Manager are effective.

2. Configuration & Management (cont')

Display Global Statistics

Click on the **STATISTIC** tab to enter the **Global Statistics**:

XX-Manager™						PROFI TAP
STATUS	PORT	STATISTIC	USER	ROUTE/FILTER	LOGOUT	LOGGED IN AS: USER
GLOBAL STATISTICS	PORTS STATISTICS	CHARTS				

Global Received	
Rx Bandwidth	0 Bps
Received octets	0 B
Received packets	0
Unrouted packets	0

Global Transmitted	
Tx Bandwidth	0 Bps
Sent octets	0 B
Sent packets	0
Tx Overflow Drop	0

Filter match counters	# attached filters	Filter aliases	# packets
0	0		0
1	0		0
2	0		0
3	0		0
4	0		0
5	0		0
6	0		0
7	0		0
8	0		0
9	0		0
10	0		0
11	0		0
12	0		0
13	0		0
14	0		0
15	0		0
16	0		0
17	0		0
18	0		0
19	0		0
20	0		0
21	0		0
22	0		0
23	0		0
24	0		0
25	0		0
26	0		0
27	0		0
28	0		0
29	0		0
30	0		0

Note:

This display is informational only, no entry fields and no edit functions available.

All details may update as any change is detected by newly physical connections or new configurations and settings by XX-Manager.

2. Configuration & Management (cont')

Captions for Global statistics

Global received:

Rx Bandwidth: The current bandwidth utilization (Byte / second) of all RXs.
Received octets: Sum of lengths of all good Ethernet frames received.
Received packets: Number of Ethernet frames received that are not bad Ethernet frames or MAC Control packets.
Unrouted packets: Number of packets which does not match any user rule.

Global transmitted:

Tx Bandwidth: The current bandwidth utilization (Byte / second) of all TXs.
Sent octets: Number of sent octets, since the last reboot or rule application.
Sent packets: Number of sent packets, since the last reboot or rule application.
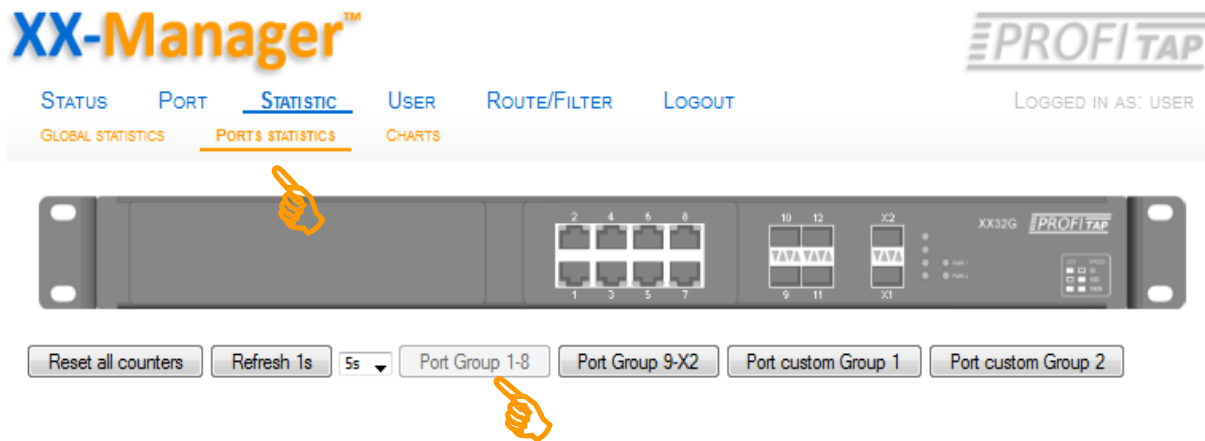**Tx Overflow Drop:** Number of dropped packets in TX Queue.

Filter match counters: 31 user configurable counters can be attached to routing rules.

2. Configuration & Management (cont')

Display Port Statistics

Remain at the **STATISTIC** tab and select **PORT STATISTICS** by one more click:

Continue with displaying detailed statistics by Port Groups by a click on the correspondend button of desired port group to aquire the related statistics. The display extends to a Group: (sample below default Port Group 1-8):

Received	1	2	3	4	5	6	7	8
Bandwidth	21.9 MBps (18%)	23.5 MBps (19%)	23.8 MBps (19%)	24.1 MBps (20%)	24.9 MBps (20%)	25.3 MBps (20%)	25.6 MBps (21%)	26.2 MBps (21%)
Good octets	3.164.107.056	3.165.658.452	3.166.000.002	3.166.321.818	3.166.847.046	3.167.200.740	3.167.534.700	3.167.848.926
Good pkts	2.084.392	2.085.414	2.085.639	2.085.851	2.086.197	2.086.430	2.086.650	2.086.857
Broadcast	2.084.392	2.085.414	2.085.639	2.085.851	2.086.197	2.086.430	2.086.650	2.086.857
Multicast	0	0	0	0	0	0	0	0
Unicast	0	0	0	0	0	0	0	0
Flow control	0	0	0	0	0	0	0	0
Bad octets	0	0	4.566	0	3.044	1.522	3.044	1.522

Transmitted	1	2	3	4	5	6	7	8
Bandwidth	21.9 MBps (18%)	23.5 MBps (19%)	23.8 MBps (19%)	24.1 MBps (20%)	25 MBps (20%)	25.3 MBps (20%)	25.6 MBps (21%)	26.2 MBps (21%)
Good octets	3.164.105.538	3.165.655.416	3.165.959.016	3.166.323.336	3.166.884.996	3.167.196.186	3.167.508.894	3.167.864.106
Good pkts	2.084.391	2.085.412	2.085.612	2.085.852	2.086.222	2.086.427	2.086.633	2.086.867
Broadcast	2.084.391	2.085.412	2.085.612	2.085.852	2.086.222	2.086.427	2.086.633	2.086.867
Multicast	0	0	0	0	0	0	0	0
Unicast	0	0	0	0	0	0	0	0
Flow control	0	0	0	0	0	0	0	0
Multiple pkts	0	0	0	0	0	0	0	0
Deferred pkts	0	0	0	0	0	0	0	0

Size (Bytes)	1	2	3	4	5	6	7	8
0 to 64	0	0	0	0	0	0	0	0
65 to 127	0	0	0	0	0	0	0	0
128 to 255	0	0	0	0	0	0	0	0
256 to 511	0	0	0	0	0	0	0	0
512 to 1023	0	0	0	0	0	0	0	0
1024 to Max	4.168.783	4.170.826	4.171.254	4.171.703	4.172.421	4.172.858	4.173.285	4.173.725

Errors	1	2	3	4	5	6	7	8
Mac tx errors	0	0	0	0	0	0	0	0
Undersized	0	0	0	0	0	0	0	0
Fragments	0	0	0	0	0	0	0	0
Oversized	0	0	0	0	0	0	0	0
Jabber	0	0	0	0	0	0	0	0
Mac rx errors	0	0	3	0	2	1	2	1
Bad CRC	0	0	0	0	0	0	0	0
Collisions	0	0	0	0	0	0	0	0
Late collisions	0	0	0	0	0	0	0	0
Excess collisions	0	0	0	0	0	0	0	0

Tip: Define a invidual set of ports for individual display by using Port Custom Group

2. Configuration & Management (cont')

Captions for Ports statistics

Received:

Bandwidth: The current received bandwidth utilization (Byte / second).
Good octets: Sum of lengths of all good Ethernet frames received, i.e., frames that are not bad frames.
Good packets: Number of Ethernet frames received that are not bad Ethernet frames.
Broadcast: Number of good frames received that had a Broadcast destination MAC Address.
Multicast: Number of good frames received that had a Multicast destination MAC Address.
Unicast: Number of good frames received that had a Unicast destination MAC Address.
Flow control: Number of 802.3x Flow Control packets received
Bad octets: Sum of lenghts of all bad Ethernet frames received.

Transmitted:

Bandwidth: The current transmitted bandwidth utilization (Byte / second).
Good octets: Sum of lengths of all good Ethernet frames send from this port.
Good packets: Number of Ethernet frames sent.
Broadcast: Number of good frames sent that had a Broadcast destination MAC Address.
Multicast: Number of good frames sent that had a Multicast destination MAC Address.
Unicast: Number of good frames sent that had a Unicast destination MAC Address.
Flow control: Number of 802.3x Flow Control packets sent.
Multiple pkts: Number of frames transmitted on half-duplex link that encountered more than one collision.
Deferred pkts: Number of frames transmitted on half-duplex link with no collision, but where the frame transmission was delayed due to media being busy.

2. Configuration & Management (cont')

Captions for **Ports statistics** (cont.)

Size (Bytes):

0 to 64: The number of received and transmitted good and bad frames that are less or equal 64 bytes in size.
65 to 127: The number of received and transmitted good and bad frames whose size is between 65-127 bytes.
128 to 255: The number of received and transmitted good and bad frames whose size is between 128-255 bytes.
256 to 511: The number of received and transmitted good and bad frames whose size is between 256-511 bytes.
512 to 1023: The number of received and transmitted good and bad frames whose size is between 512-1023 bytes.
1024 to Max: The number of received and transmitted good and bad frames that are more than 1023 bytes in size.

Errors:

Mac tx errors: Number of Tx error events.
Undersized: Number of undersized received.
Fragments: Number of fragments received.
Oversized: Number of Oversized packets received, i.e., packets that are more than 10KB in size, with good CRC.
Jabber: Number of Jabber packets received, i.e., packets that are more than 10KB in size, with bad CRC.
Mac rx errors: Number of Rx error events seen by the receive side of the MAC.
Bad CRC: Number of CRC error events.
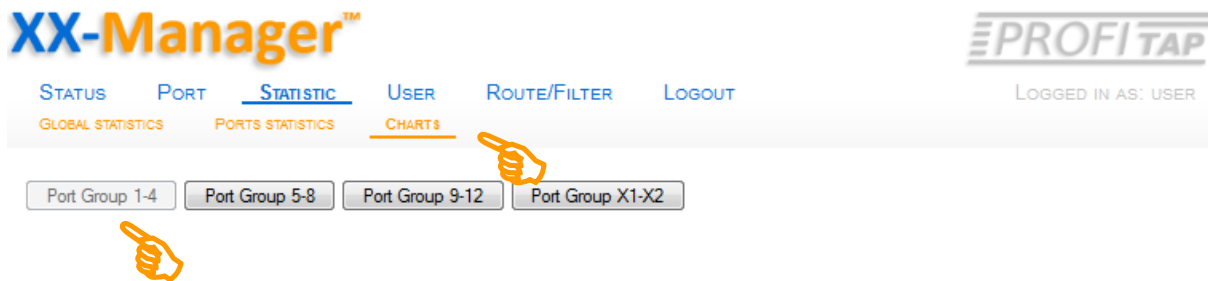**Collisions:** Number of collision seen by the MAC.
Late collisions: Number of late collision seen by the MAC.
Excess collisions: Number of frame dropped in the transmit MAC due to excessive collision conditions.
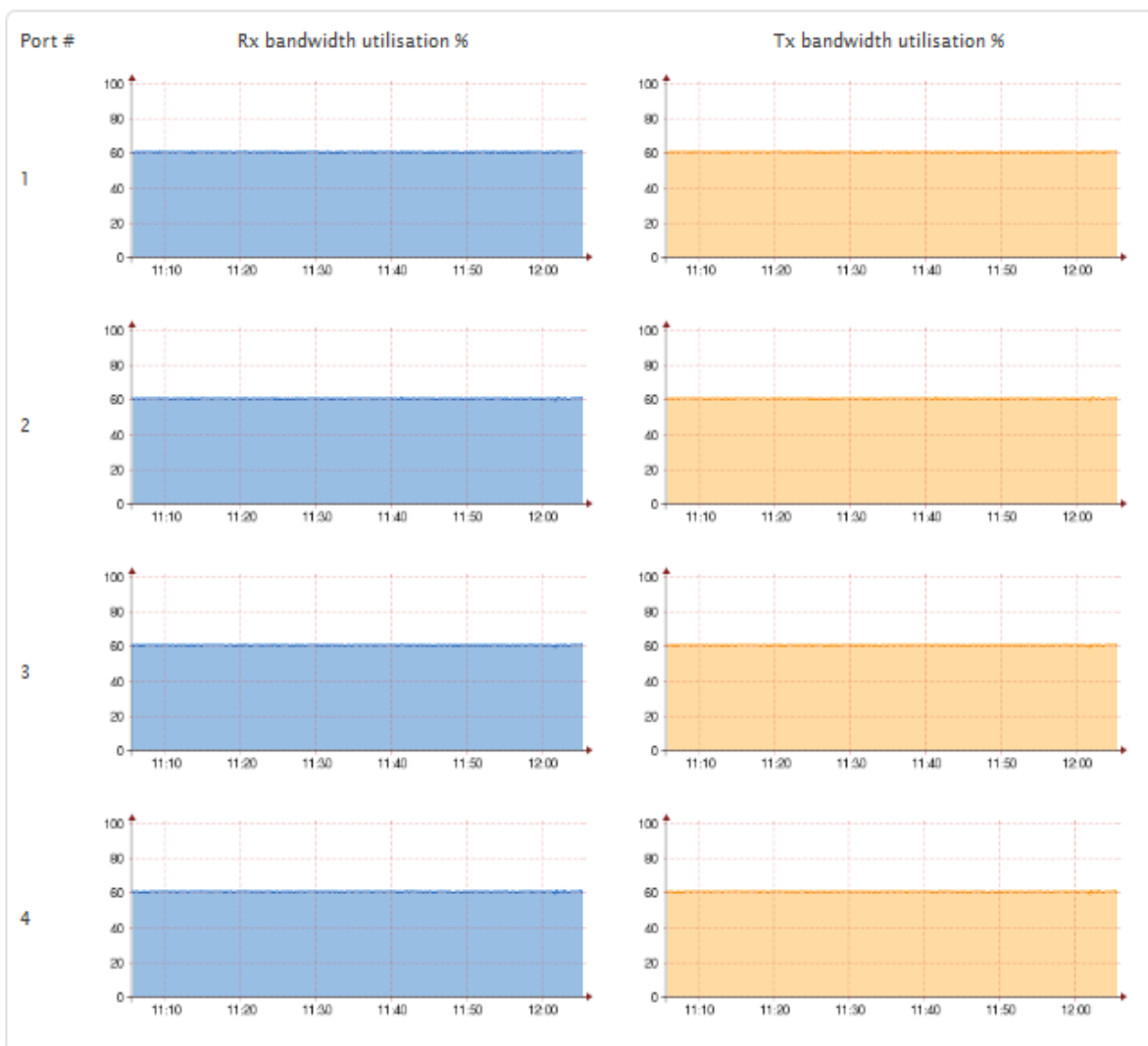
2. Configuration & Management (cont')

Display Charts

Remain at **STATISTIC** tab and select **CHARTS** by one more click:

On click on Port Group n-n the display extends: (**sample Port Group 1-4**) :

Note:
The Charts are informational only, no entry fields and no edit functions available.

2. Configuration & Management (cont')

View Active Filter

Click on the **ROUTE/FILTER** tab to view the **active Filter Set**:

This is a list of a **active Filter Set (sample)** with summary of Filters included.

This overview allows a quick check about priority (Rank), the main filter aspects and the routing from/to at ports used at XX-32G.

The above sample Filter Set contains 2 unique filters, occupying a certain amount of the capacitiy of maintained library .

See next page for more informations about filtering technique used.

Note:
This overview is informational only, no entry fields and no edit functions are available.

On default, XX-32G is set to no filter present.

2. Configuration & Management (cont')

About Filter List & Filtering & Routing

By default, XX-32G is set to no filtering, no aggregation, no packet forwarding and no routing.

This results in dropping all packages from any port and/or no output to/at any port. This is the status as no filter from library is selected.

One Filter Set can be used at a time, any Filter Set from the stored Filterlist can be applied and automatically replaces the current active Filter Set, if any.

A Filter Set may contain one single filter only.

A filter can be used either to process Port <u>and</u> Link Aggregation.

A filter may contain only Port or Link Aggregation without further filtering of content for monitoring to a defined Output.

Multiple Port or Link Aggregation can be set in one filter.

A filter may contain only a single Port or Link Aggregation <u>and/or</u> routing without further specific filtering of content for monitoring at a defined Output.

Multiple filters, with a single filter aspect only, can be used concurrently in one Filter Set.

Within the Filters Set, multiple and independend Filters can be ranked and processed by several priority levels.

A filter can combine one or more Input ports to be aggregated to one or more Output port(s) with or without having further aspects of filtering (straight Aggregation, Replication).

Several filter aspects can be used to include or exclude certain parts of traffic of being forwarded to any Output(s) concurrently.

Note: The device accepts 510 rules. Filters are converted to rules, and 1 filter is not always equal to 1 rule.

Rule formula : #rule = #filter_input_port x N.
If "any packet" is selected N = 2.
For all other packet type N = 1.

Example :
in :   1,2,3,4,5,6
out :   11,12,X1
packet type : any packet
amount of rules =   6 x 2 = 12
% of rules   = 2.3%

2. Configuration & Management (cont')

Stored Filter List

Remain on **ROUTE/FILTER** tab, click on **STORED** to show and/or apply existing Filter Set or define new or modify existing Filter Sets:

The list show all pre-defined Filter Sets with a short description of included Filters.

From this view there are 3 options to select:

a) delete a Filter Set

Click on [delete] at selected Filter Set to be deleted.

A check box pops up: Are you sure you want to delete the filter set 'temp' ? Yes No　　⟹　Confirm by Yes or No or for exit without deleting

b) apply a Filter Set to be the active Filter

Click on [apply] at selected Filter Set to be activated

A check box pops up: Are you sure you want to apply the filter set 'temp' ? Yes No　　⟹　Confirm by Yes or No or for exit without deleting

Note: This is a shortcut to activate a Filter set without having details about containing filters visible.

2. Configuration & Management (cont')

Stored Filter List (cont')

About Stored Filter List

This section is the center location for creating, configuring of Filter Sets, the included, single Filters, editing existing Filter Sets and single Filters and to enable a Filter Set or partial single Filters to be the active Filtering.

On default, XX-32G is set to no filter.

Single Filters and Filter Sets can be collected, archived and applied to the active Filter Set or to existing or created Filter Sets.
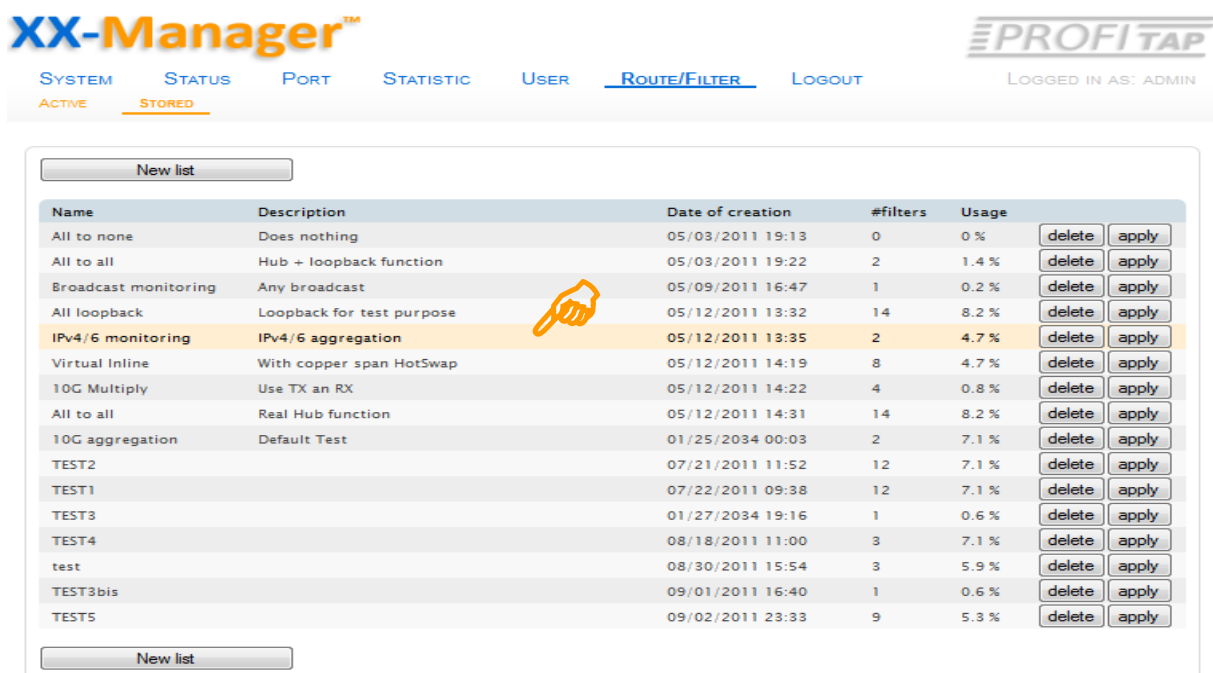
A Filter Set can carry multiple Filters, any filter within the filtergroup can be ranked and processed at a priority level.

On average, up to 510 filters within one Filter Set can be set, depending on complexity of Filter aspects.

The listing carries per Filter Set a short description and the usage of internal storage capacity available for storing the particular Filter Set.

Select a Filter Set for view or edit included Filter

From the Stored Filter list view or edit a Filter Set and/or its filters included by highlighting the row of the Filter Set. To continue click on **left mouse button**:

Tip: The Filter Set can be identified easily by a given name or description.

2. Configuration & Management (cont')

Stored Filter List (cont')

From this view of a Filter Set there are several options:

a) back to Filter List (go back to previous Stored Filter List summary)

b) Apply a Filter Set to be the active

Click on apply at correspondend Filter Set to set active

A check box pops up: *Are you sure you want to apply the filter set 'temp' ?* Yes No   Confirm by Yes or No or ⊗
for exit without deleting

This is to activate a Filter set with having details about containing filters displayed.

c) Delete a Filter within displayed Filter Set

Click on delete at specific **Filter** to be deleted

A check box pops up: *Are you sure you want to delete this filter at rank 1 ?* Yes No   Confirm by Yes or No or ⊗
for exit without deleting

This delete function will take off the selected Filter at the rank previously defined.
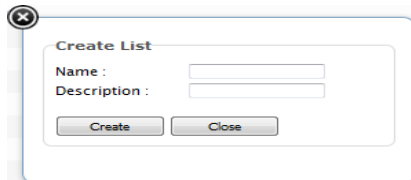
Note: Other filters are not affected, the ranking of other filters will kept in order as set as defined prior.

2. Configuration & Management (cont')
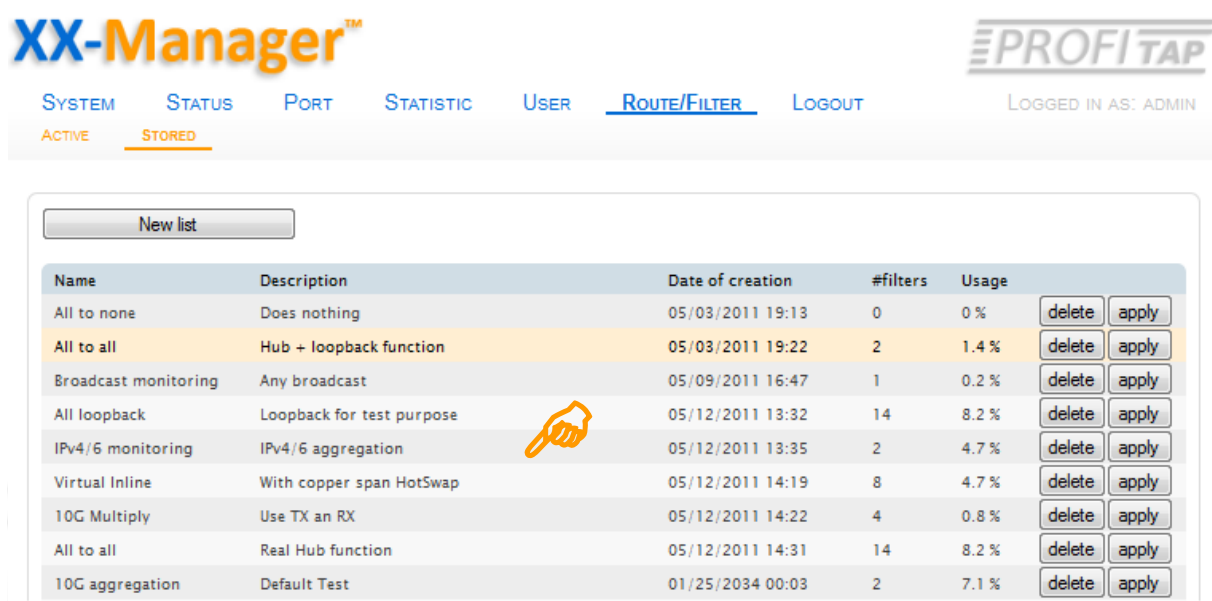
Stored Filter List (cont')

Create Filter Set

Click on [New list] to create a new **Filter Set,** a check box pops up:

Enter a individual name and short description, confirm by clicking [Create] or press [Close] to exit without changes or ⊗ to cancel.
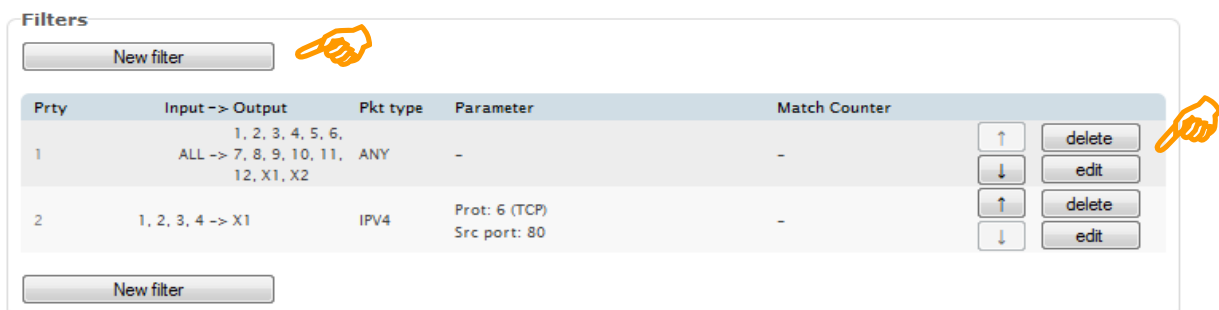
XX-Manager returns to the Stored Filter list:

Name	Description	Date of creation	#filters	Usage		
All to none	Does nothing	05/03/2011 19:13	0	0 %	delete	apply
All to all	Hub + loopback function	05/03/2011 19:22	2	1.4 %	delete	apply
Broadcast monitoring	Any broadcast	05/09/2011 16:47	1	0.2 %	delete	apply
All loopback	Loopback for test purpose	05/12/2011 13:32	14	8.2 %	delete	apply
IPv4/6 monitoring	IPv4/6 aggregation	05/12/2011 13:35	2	4.7 %	delete	apply
Virtual Inline	With copper span HotSwap	05/12/2011 14:19	8	4.7 %	delete	apply
10G Multiply	Use TX an RX	05/12/2011 14:22	4	0.8 %	delete	apply
All to all	Real Hub function	05/12/2011 14:31	14	8.2 %	delete	apply
10G aggregation	Default Test	01/25/2034 00:03	2	7.1 %	delete	apply

Select a FilterSet to be edited, click on to highlite the line and click further at line to go back to the specific Filter list. All included Filter for this FilterSet will be displayed decide to either add modify or delete a Filter as listed:

Prty	Input -> Output	Pkt type	Parameter	Match Counter		
1	1, 2, 3, 4, 5, 6, ALL -> 7, 8, 9, 10, 11, 12, X1, X2	ANY	–	–	↑ ↓	delete edit
2	1, 2, 3, 4 -> X1	IPV4	Prot: 6 (TCP) Src port: 80	–	↑ ↓	delete edit

Note: It is identical procedure for either creating new filters for a new Filter Set or modifying existing Filter Sets by adding new Filters or modifying existing Filters in a existing FilterSet.

2. Configuration & Management (cont')
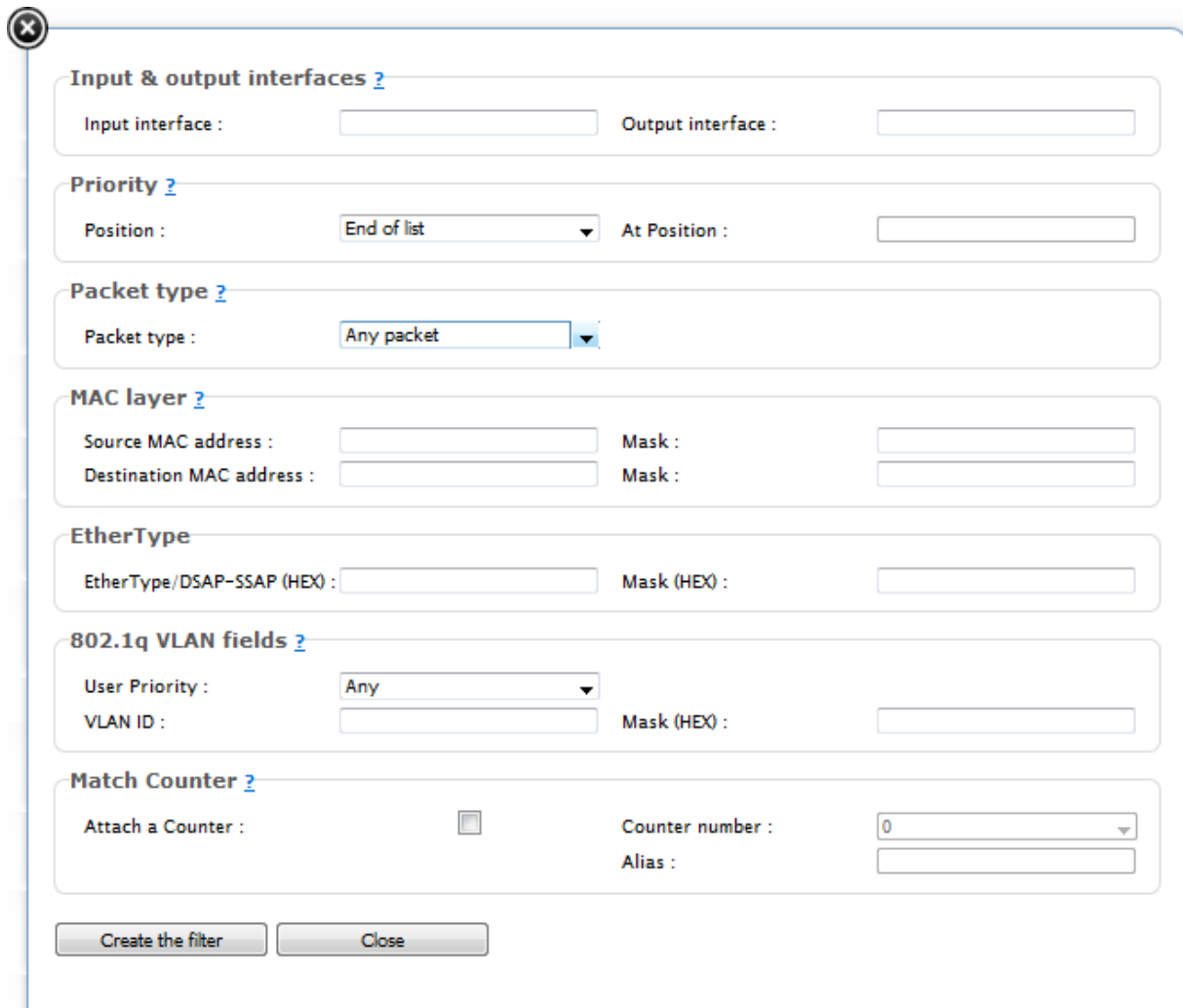
Create new or Modify existing Filter

Within a new defined or existing Filter Set a new Filter can be set or an existing filter can be modified

Create new filter

Click [New filter] to create a new Filter (within a existing or new Filter Set)

A configuration box pops up:
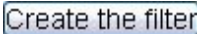
Enter filter aspects and confirm by clicking [Create the filter] or press [Close] to exit without changes or ⊗ to cancel.

Note:
Depending on the aspect -Packet Type- the further listed options will adjust in accordance.

2. Configuration & Management (cont')

Create new or Modify existing Filter (cont')

Creating a new filter like shown on previous page 24 the modification of existing Filters within a already existing Filter Set is identical:

Modifiy existing filter

Click [edit] to edit/modify a Filter (...within a existing or new Filter Set)

A configuration box pops up:

Modify filter aspects and confirm by clicking [Update the filter] or press [Close] to exit without changes or ⊗ to cancel.

2. Configuration & Management (cont')

Filter Details

Input & Output Interfaces:

Defining the combination of Input or Output Interface(s)

Incoming Packets on selected Input(s) will be processed by further defined filter rule(s) if any present. Matching packets will be send to Output(s)

A blank field at input interface enables all packets on all interfaces will be processed by further assigned Filter Rule(s) if any present.

A blank field at output interface results in all matching packets by according Filter Rule(s) (if any present) and at selected input interface(s) will be dropped.

Filter Priority:

Select the priority of the filter compared to other filters in same listing

–End of List- places the filter to the end of list, thus it will have the highest rank (= lowest priority).

-**Insert**- inserts filter to a rank as requested by a number entered at position field

Note: the Ranking can also be modified on a center place - see page 28
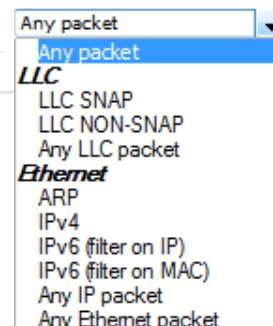
Packet Type:

Select the packet type you want to filter:

I) Select the etherType of the packet you want to process
II) If you select a LLC packet, the etherType field
    is combination of DSAP-SSAP
III) Select the etherType IP to process both IPv4 and IPv6 packets

Note: Fields left blank are not processed on packets.

2. Configuration & Management (cont')

Filter Details (cont')

MAC Layer:

MAC layer ?

Source MAC address :   [   ]   Mask :   [   ]
Destination MAC address :   [   ]   Mask :   [   ]

Select a source and destination MAC address and optional a mask to apply to.
If mask is left blank, it is considered as FF:FF:FF:FF:FF:FF

IPv4 or IPv6 Layer:

IPv4 layer ?

Source IPv4 address :   [   ]   Mask :   [   ]
Destination IPv4 address :   [   ]   Mask :   [   ]

IPv6 layer ?

Source IPv6 address :   [   ]   Mask :   [   ]
Destination IPv6 address :   [   ]   Mask :   [   ]

Select a source and destination IP address and optional a mask to apply to.
If mask is left blank it is considered as FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF

Transport Layer:

Transport layer ?

Protocol/Next header :   [Any   ▼]   By number :

Source port :   [   ]   Mask (HEX) :   [   ]

Destination port :   [   ]   Mask (HEX) :   [   ]

Dropdown:
Any
Any
ICMP
IGMP
TCP
UDP
ICMP for IPv6

For IPv4 and IPv6 packets only: Filter on protocol/next header is possible.

If selected protocol is TCP or UDP filtering on a specific source/destination
port(s) or range of ports by entering a port(0-65535) and a mask is possible.

Note: If mask is left blank it is considered as 0xFFFF

802.1q VLAN fields:

802.1q VLAN fields ?

User Priority :   [Any   ▼]

VLAN ID :   [   ]   Mask (HEX) :   [   ]

Dropdown:
Any
Any
0 (Best effort)
1 (Background)
2 (Undefined)
3 (Excellent effort)
4 (Controlled load)
5 (Video)
6 (Voice)
7 (Network control)

Each packet can be filtered upon
its User Priority and VLAN ID (0-4095).

Note: If mask is left blank it is considered as 0xFFF

2. Configuration & Management (cont')

Ranking a filter in a Filter Set:

Assuming a Filter Set contains more than one Filter, the ranking of each filter can be set to give lower or higher priorities.

If Filter has been set to a specific rank during creation or modification this rank can be adjusted within the Filter Set overview for convenience.

A Filter Set, with more than one Filter included, may look this way (sample):

If a FilterSet contains more than one Filter, there is the option within this overview to move ranks of a single Filter:

The prior pale row of navigation arrows aside the single Filter is now in service and allow each Filter to be shifted up or downwards in order as required.

Click on up or down arrow to position the selected Filter to its new rank.

Exit this overview by **<<< Back to Filter List**

2. Configuration & Management (cont')

Log Out

After finishing customisation you may log out from XX-Manager.

Click on the **LOGOUT** tab to exit.

By click the system return to the initial Statuspage:
You are logged out now. Click on **LOGIN** to return.

System	
Model name	
Hardware revision	1.4
Software revision	2.0.

Contact	
Contact name	0000
Contact phone	0000
Contact E-mail	

Date & time	
Date (mm/dd/yyyy)	09/12/2011
Time (hh:mm:ss)	09:09:34
Uptime	2d – 15h – 45m – 51s

Sensors	
System status	Functional
System temperature	44.50 ℃ / 112.10 ℉
Air temperature	41.50 ℃ / 106.70 ℉
FAN 1 speed	6338 rpm
FAN 2 speed	6521 rpm

■ System temperature   ■ Air temperature   ■ Fan 1 speed   ■ Fan 2 speed

3. Administrative Functions

Click on the **SYSTEM** tab to enter this section:

For basic settings refer to chapter 2. Configuration & Management, System Basic Settings, otherwise continue for this section by clicking **UPDATE**

Check at manufacturer database if any newer version of Management or Firmware for the system is available.

For maximum convenience these functions are semi-automated but remain to be under your control.

Note: At no time XX-32G will broadcast any information nor will contact without permission any external host.

General Information:

If XX-32G is within a grace period or supported by a Maintenance contract the download and update process installing a newer version is automated

An update could be either a main release or a version with minor changes within a current release.

Contact your local dealer in case you request an update while no maintenance agreement or warranty period has exceeded.

3. Administrative Functions (cont')

Automatic firmware update

-**Check for a new firmware**- button

Automatic firmware download
Current firmware version   2.0
Remote firmware version

Check for a new firmware

After some seconds a short message will show **no update available or an update is available,** indicating the remote server's version provided.

In case a version newer than the installed is present, the pale -**Update & Reboot**- button is lit to indicate XX-Manager is ready to download the file and process the update. (see next Page for initialising the process)
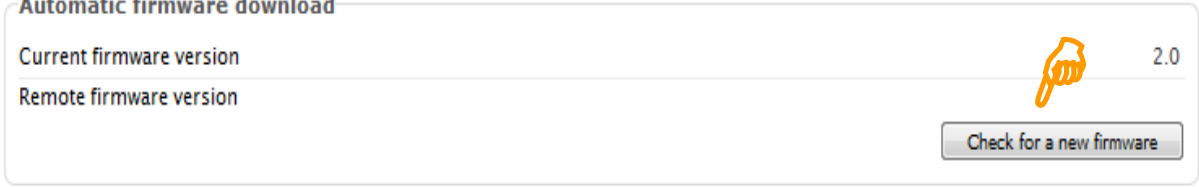
Note: The automatic firmware check requires a constant network link with access to your local gateway for the time of inquiry and downloading the file. The download may not work because of security regulations within your network security.
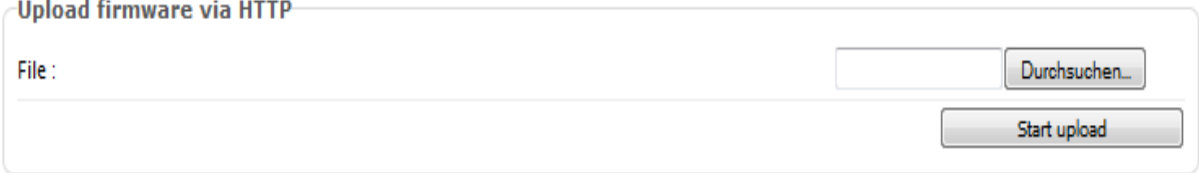
Contact your Network Administrator for access via your network in case you encounter malfunctions.

Important: All Network Settings, Filterrules and Filtersets will remain und being ported to the new firmware version.

Please remember: If XX-32G is within a grace period or supported by a Maintenance contract the download and update process installing a newer version is automated.

Contact your local dealer in case you request an update as no maintenance agreement or warranty period is active.

Upload firmware via http

Upload firmware via HTTP
File :   Durchsuchen...

Start upload

This is the local update procedure, assuming the archived file is on your local or remote file system within your network. Select the file from stored location and click -**Start upload**- to initialize the process. You may continue by -**Update & Reboot-** once the file is reported to be downloaded.

3. Administrative Functions (cont')

Upload firmware using FTP

XX-Manager includes a ftp client enabling access to the manufacturers ftp server *(or any other ftp server providing the requested file)* for manual upload.

```
┌─ Upload firmware via FTP ──────────────────────────────────────┐
│                                                                  │
│  Server IP:                          [                        ]  │
│  Username:                           [anonymous               ]  │
│  Password:                           [                        ]  │
│  File name:                          [                        ]  │
│                                                                  │
│                                              [  Start upload  ]  │
│                                                                  │
└──────────────────────────────────────────────────────────────────┘
```

Enter matching adresses to access server and specify the proper file to be downloaded. **Make sure the aimed file is acurate and fit to XX-32G System.**

Click -**Start upload**- button to initialize.

Note: Any ftp location can be used . This function is designed to be universal as owner of XX-32G may run a center archive for own purposes.
The manufacturer is not responsible for a update version available on third party locations.

Note: Always use the automatic firmware update to access the manufacturer's services for updating if your system is at grace period or contracted by a subscription service.

Use all functions in this section carefully and submit any commands by clicking the appropriated button only if you are sure to do.
Follow additional instructions or refer to support pages if needed.

In case the update may corrupt the XX-32G refer to Chapter 4 for **retrieving factory defaults** and to restore default system core.

Uploading a new version of Firmware requires a reboot of XX-32G

After successfull upload to XX-32G, the -**Upgrade and Reboot-** button is lit to indicate XX-32G is awaiting confirmation to process and enable the update.

```
┌─ Update / reboot ──────────────────────────────────────┐
│                                                          │
│   [ Update and Reboot ]    [ Reboot Only ]               │
│                                                          │
└──────────────────────────────────────────────────────────┘
```

Note: In alternate use the -Reboot only- button for a normal reboot operation.

4. Retrieving Factory Defaults

In case the System Configuration has been corrupted or main parameters have been changed without notice due any reason XX-32G can be reset by connecting via TTY (Linux) or any other terminal software (e.g TeraTerm on Windows) to the RS232 Management Port.

Refer to Chapter 1, -Brief Overview- for connecting by RS232 to XX-32G.

Once connected, a commandline-based Menu will allow to select the functions for restoring partial or complete factory defaults parameters of the system.

Warning: All stored Filter Sets are deleted and the factory default library is restored. The password and network configuration is reset to default.

5. Specifications

Technical and electrical features

Rigid 1U metal enclosure, black oven painted

International, Redundant, AC power (100-240V/50-60Hz), 60W
Optional: Redundant –48V Telco powering
Cooling: Two temperature controlled fans
Operating: 0°C to 50°C / Storage: -20°C to 90°C
Humidity: 10% to 90%, none condensing

Weight & Size:

XX32G: 19" Main unit 434 x 253 x 44 mm (WxDxH), Weight: 3300 g
XX32Gportable: Main unit 193 x 253 x 40 mm (WxDxH), Weight: 783 g

Approvals: CE   RoHS COMPLIANT

Made in EU

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