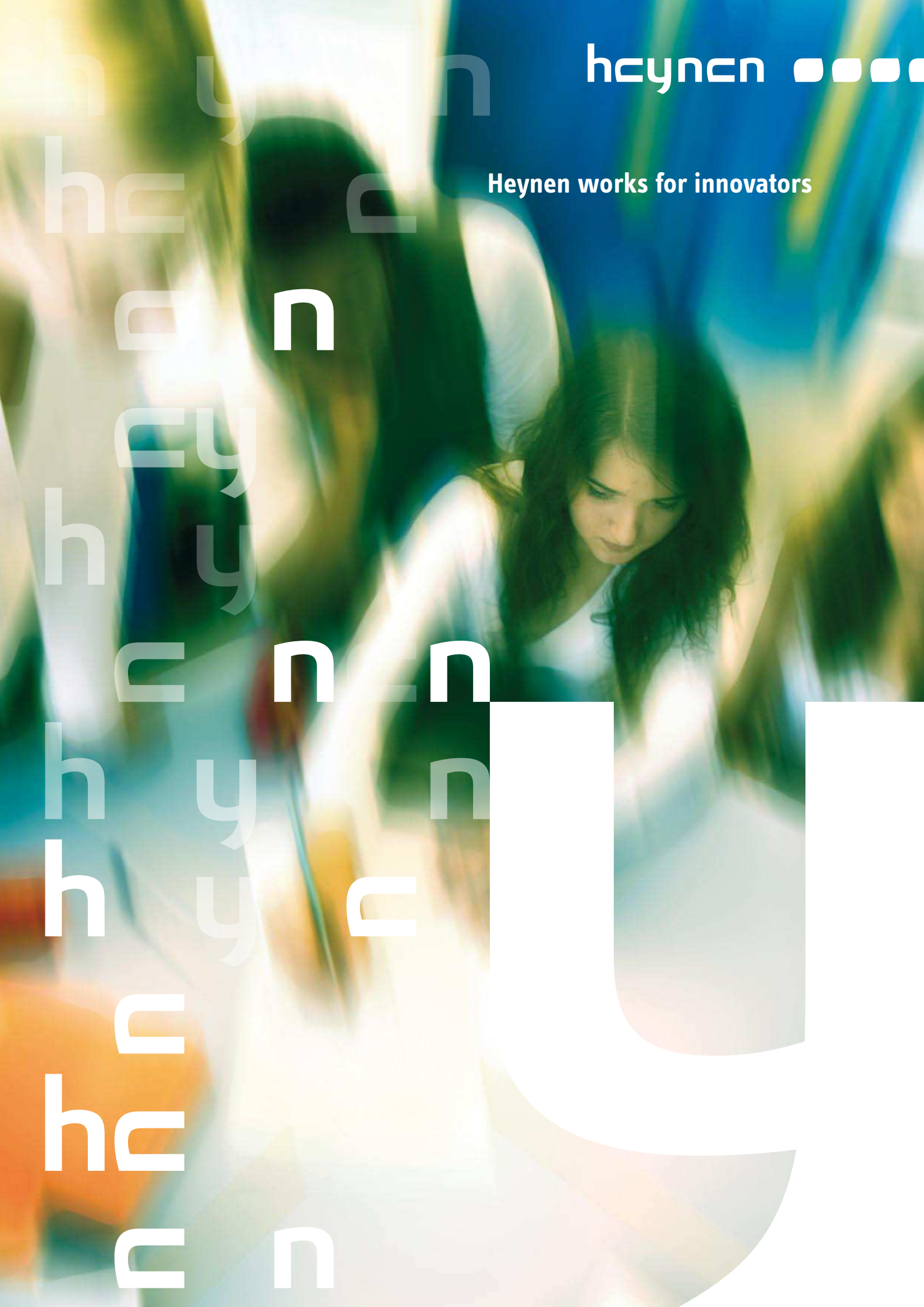


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Allegro Network Multimeter Release 2.4.0

The new firmware Release 2.4.0 is available for the Allegro Network Multimeter. This firmware contains many new features compared with Release 2.3.0 and can be installed on all devices covered under our support contracts.

Installation und Release Notes

If your Allegro has Internet access, install and activate 'Check for new firmware' via: 'Settings' -> 'Firmware Upload' -> 'Check for new firmware'. For installations without Internet connection, download the firmware via the download button here or via the link

COPY13@support.allegro-packets.com/multimeter/firmwares/2.4.0/

with Firefox or Chrome.

[Link to 2.4.0 Firmware and Release Notes](#)

Release Webcast 3rd July 2019 2 pm CEST

Allegro Packets will explain the new features in a webcast for all customers. This will take place on 3rd of July 2019 at 2pm CEST (1PM UK time) and will be hosted by Klaus Degner.

At this time you can connect to the webcast via <https://www.gotomeet.me/AllegroPackets>. We are also happy to provide the recording afterwards by request.

The most important new features and bug fixes at a glance:

- Transparent compression of the In-Memory DB for 50% more storage duration 'Trim' feature for graphs
- CSV export of the IP table
- ERSPAN support as transmitter
- ERSPAN and GRE support on the monitoring ports
- Global connection view
- Graphical dashboard
- IPFIX export
- Advanced SIP statistics

- Advanced DNS statistics
- Generic representation of RTP loss
- NIC filter for IP pairs
- L7 protocol filter for the ring buffer
- Partial recording of L7 in the ring buffer
- Remote URL can be regenerated
- Pcap file names can be created with a local time zone
- Bandwidth events can now have a duration
- Second MGT interface via USB (Allegro 500 and higher)
- IP ToS is now also correctly displayed for non DSCP classes
- Filters in the search bars are persistent
- Path measurement supports automatic reconnect
- Pcap upload can now also load pkt files
- Timeout for login



Additionally, several bug fixes and minor improvements are included.

Further Information on Release 2.4.0

Compressing the In-Memory DB

With Release 2.4.0, the Allegro compresses the internal In-Memory database without measurable performance loss. This increases the storage duration of the metadata by approximately 50%.

‘Trim’ feature for graphs

The graphs in the web interface have a new button on the side. When you press this button, the exact time interval in which the graph had data will be selected. For example: You will see the following graphs in the connection view:



By clicking on the ‘up/down’ arrows, the time interval is automatically zoomed. In our example you get the following:



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CSV export of the IP table

The Allegro can now export the IP table as csv. The selected time interval and the filter will be applied.

There is a button 'CSV Download' below the IP table.



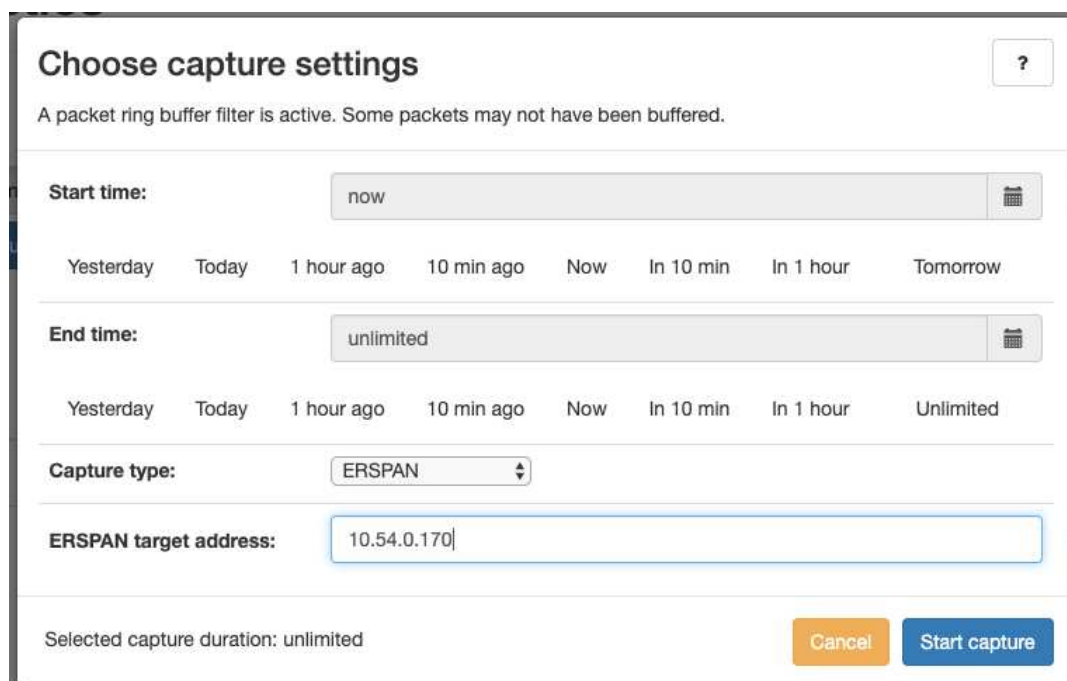
This exports the complete IP table as CSV with all columns as a browser download.

ERSPAN Support as Sender

Instead of the pcap download, the Allegro can now send the data directly via ERSPAN to a terminal device via the management port. As an example, it is possible to stream a packet export live to Wireshark. This allows you to monitor end devices in real-time and see a DHCP request immediately in Wireshark, even if the Allegro is only accessible remotely. ERSPAN is a protocol based on IP and GRE and can therefore be routed over a WAN.

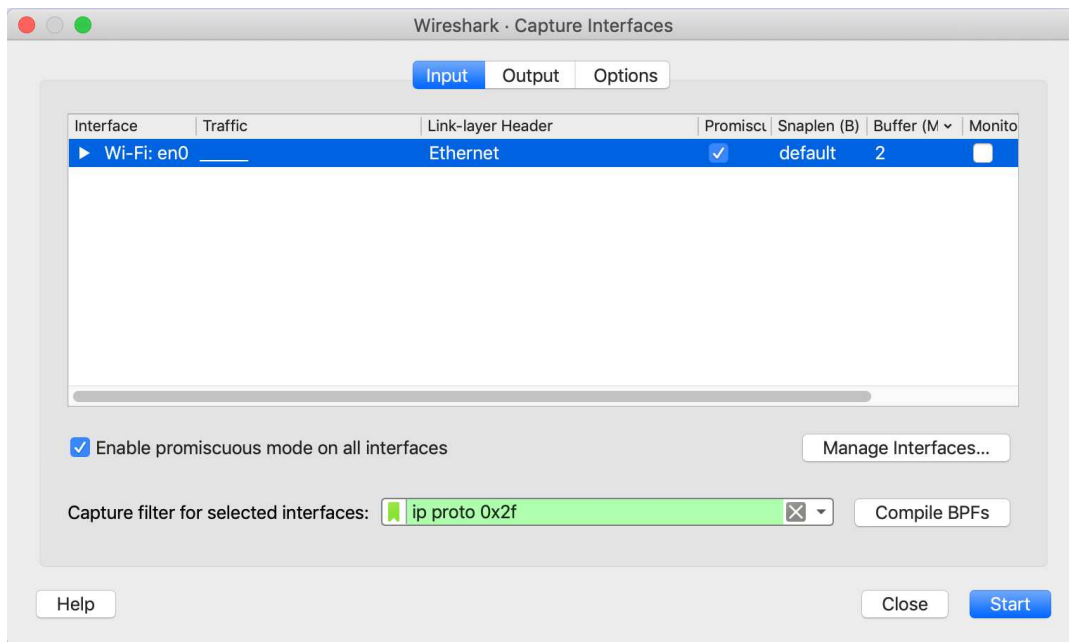
The ERSPAN standard does not allow fragmented ERSPAN packets. If necessary, set the MTU of the management interface to more than 1500 bytes so that packets can still be sent with ERSPAN.

For the ERSPAN export, select the target ERSPAN in the pcap dialogue. Use the IP or DNS name of the computer on which a Wireshark is recording.

The image shows a 'Choose capture settings' dialog box. At the top, it says 'A packet ring buffer filter is active. Some packets may not have been buffered.' Below this, there are sections for 'Start time' and 'End time'. The 'Start time' is set to 'now' and the 'End time' is set to 'unlimited'. Below these are dropdown menus for 'Capture type' (set to 'ERSPAN') and 'ERSPAN target address' (set to '10.54.0.170'). At the bottom, there is a 'Selected capture duration: unlimited' label and two buttons: 'Cancel' and 'Start capture'.

In Wireshark, a filter must now be applied to GRE when recording. The best way to do this is to start the recording with the filter ip proto 0x2f in order to receive only the ERSPAN traffic.

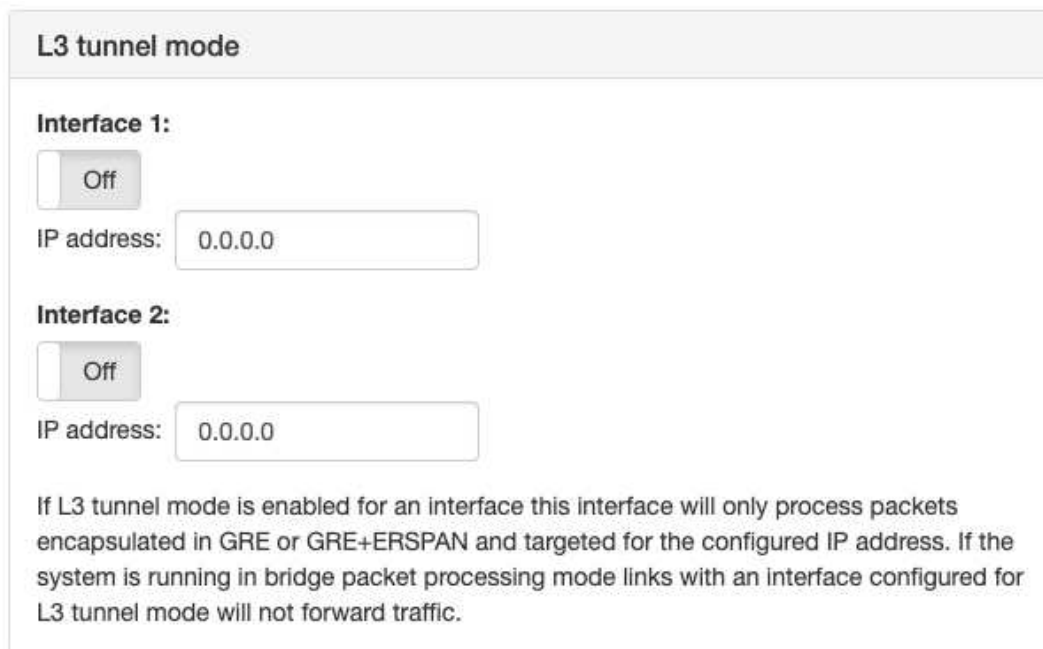
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ERSPAN and GRE Support on the Monitoring Ports

The Allegro can actively receive and analyse ERSPAN traffic from other terminals. This works with switches from Cisco,... and VMware vSphere. You can configure one or more monitoring ports to receive an IP address and respond to ARP or ICMP. In this mode, only GRE packets are received, decapsulated, and analysed on the interface. Non-GRE packets are discarded. The forwarding of packets in bridge mode is then deactivated for this port.

You can activate and configure this for each interface under 'Settings' -> 'Global Settings' -> 'Expert Settings.'



Global Connection View

The Allegro receives an overview of all connections. This is useful if you want to see the largest
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connection in a subnet, all connections to a TCP port or all connections with a specific L7 protocol and a QoS tag. The connection overview is available under 'Transport' -> 'Connections'. This is also directly linked in many tables via the 'Port connection list' as shown in this example.



IP ↕ **Go to**

IP, subnet (ex. 10/8 or ff02::/32) or name :

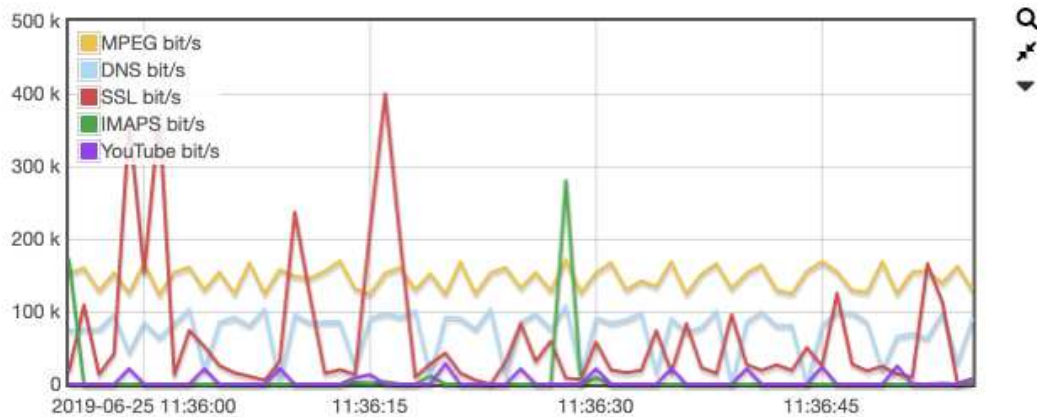
10.54.0.14 [IP details](#)
local address [Port connection list](#)

The overview there is not updated automatically, since this sometimes takes several seconds if you are dealing with very large In-Memory databases. Please use the 'Update' button.

Graphical Dashboard

The Allegro dashboard now graphically displays TOP statistics in real-time. Here is an example of the TCP protocols:

Top protocols during the last minute ☰



IPFIX Export

The Allegro can now generate and send flow data via IPFIX. IPFIX collectors like Plixer, Riverbed, etc. This means that the Allegro can be used flexibly at any location for measurement via IPFIX, freeing routers from this task. In addition, this enables long-term statistics for IP addresses and connections. You can configure this under 'Settings' -> 'Global settings' -> 'IPFIX settings.'

Advanced SIP Statistics

Release 2.4.0 adds several functions to the SIP statistics menu. The Allegro can calculate the maximum audio level for some codecs and display the data graphically in the SIP statistics. This makes it easy to

○ find out if the audio level is functioning on both sides of a conversation.

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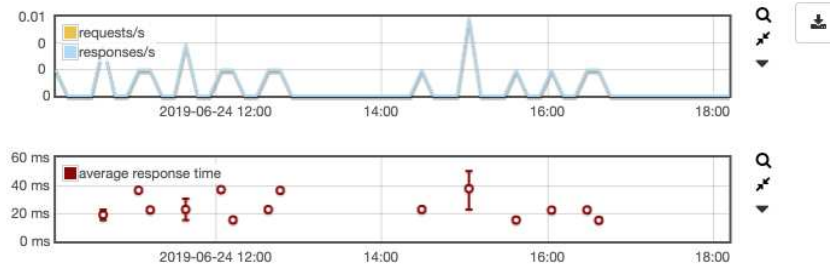


Additionally, there is now a global and pro-IP overview for SIP requests, SIP responses and SIP request/response combinations. This makes it easy to see when and which SIP client or SIP server has sent and received certain commands. The Allegro now also supports audio extraction for the G711 codec.

Advanced DNS Statistics

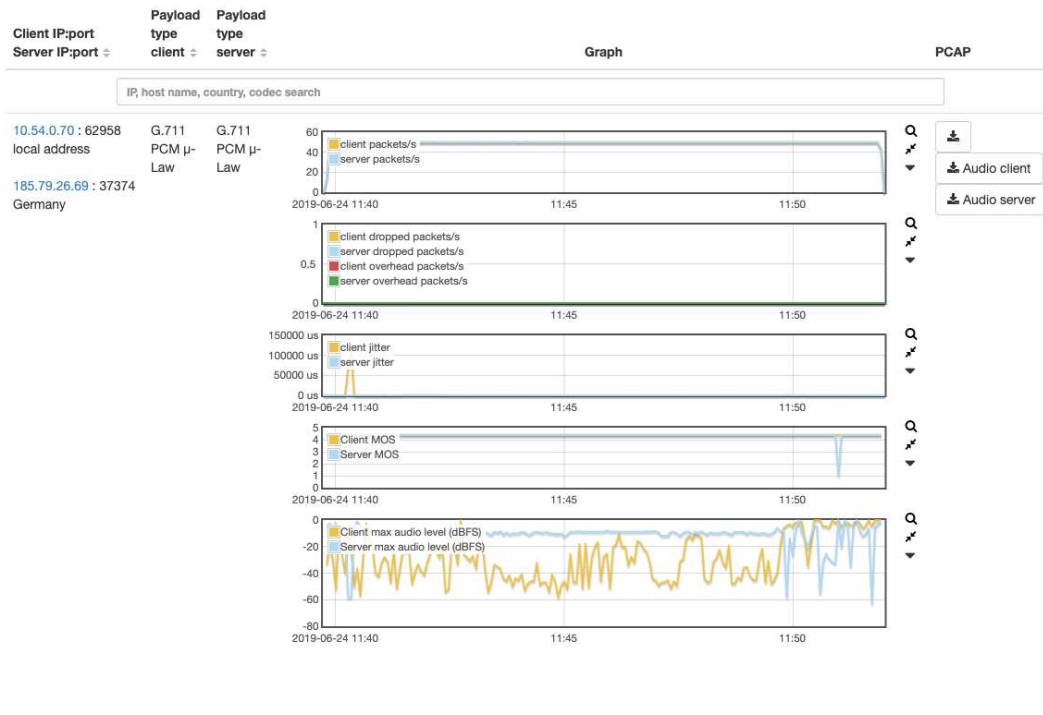
The DNS statistics now graphically displays the response time per DNS server. This makes it easy to find slow and incorrectly configured DNS servers. Here is an example of a DNS server in a test network that was quickly detected with a response time of 150 ms.

8.8.8.8



Generic Representation of RTP Loss

For all RTP connections of an IP, the Allegro now provides the determined data such as drops, jitter, etc. This allows an analysis of RTP with encrypted SIP or RTP without SIP like e.g. IPTV-RTP streams. You can find these statistics for each IP address under the RTP statistics' tab. Here is an example of an RTP connection.



NIC Filter for IP Pairs

A filter for IP pairs was implemented with Release 2.4.0. This helps you in situations where you only want to examine the traffic of 2 IPs or 2 subnets. You can find this filter under 'Settings' -> 'NIC-Filter.'

IP filter
IP pair filter
MAC filter
VLAN filter
TCP/UDP port filter
Interface filter

IP pair filter mode: Deny all listed (blacklist)

IP or IP with prefix (e.g. 192.18.0.0/16)

↔

IP or IP with prefix (e.g. 192.18.0.0/16)

Add

IP pair filter entry ▲

L7 Protocol Filter for Ring Buffer

The packet ring buffer can now also apply protocol filters and recording lengths to Layer 7. A good example is RTP traffic, where only the first 12 bytes should be written. This corresponds exactly to the RTP header without user data. You can now configure these rules under 'General' -> 'Packet ring buffer' as in the example below.

Create a snapshot length filter rule

Rule condition: Layer 7 protocol

Layer 7 protocol: RTP

Negate: Off

Action: Header + data

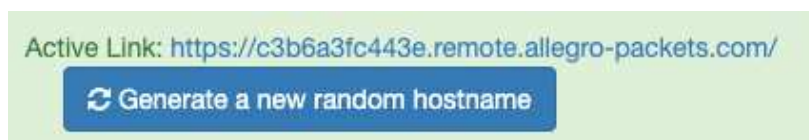
Capture up to (including): L3 + L4 + L7 data

Capture additional L7 data (bytes): 12

Cancel Create rule

Remote-URL

The remote URL of the Allegro Remote Service ('Settings' -> 'Remote Access and Statistics Export' -> 'Allegro Remote Service') can be regenerated. This is helpful if the Allegro becomes inaccessible for the customer after a deployment. This will invalidate the old URL and create a new one. This URL is constant beyond the restart of the Allegro.



Pcap File Names with Local Time Zone

If you configure the Allegro with a time zone ('Settings' -> 'Global settings' -> 'Time settings'), the file names will be generated with the correct time zone when downloading or saving to the memory of the Allegro. This has no effect on the web interface, since the times are converted from the browser to the local time.

Time zone

Selected time zone

Europe/Berlin

Bandwidth Events with Duration

The Allegro can now report bandwidth events when a bandwidth is exceeded for a defined time. You can
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configure this under 'Settings' -> 'Event settings.'

Interface and MAC throughput

Report "throughput threshold exceeded" with severity:	High
Throughput threshold (Mbit/s):	900
How long throughput must be above threshold to generate incident (in milliseconds):	0
Throughput cool-down period between two incidents in milliseconds:	1000

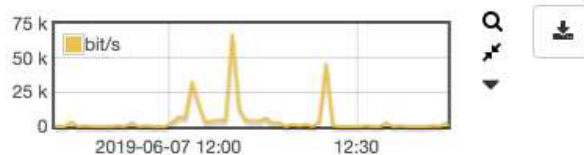
Second Management Interface via USB

Some network configurations require 2 separate management accesses to the Allegro. This is now possible with Release 2.4.0 from the Allegro 500 and higher via an additional USB Ethernet adapter. It is then available as a second management port and can be provided with a static IP in the settings.

IP ToS in DSCP Statistics

The Allegro now displays the ToS classes within all DSCP statistics with the correct name.

IP ToS Routine, maximize throughput (8)



Persistent Search Bars

The Allegro now remembers the filters set in the search bars for each user. This makes working with the Allegro much easier, since the filter is available after closing and reopening a page.

Path Measurement Reconnect

The path measurement of the Allegro reconnects automatically. Thus, the measurement is automatically resumed if the connection between the management ports fails.

Pcap Upload for pkt Files

The pcap upload can now also load the pkt file format. These no longer need to be converted to pcap in advance.

Timeout for Login

With Release 2.4.0 you can set the timeout for the login. This allows the logins to be used on public PCs with the shortest possible timeout.

You can configure this under 'Settings' -> 'User administration.'



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Op alle leveringen zijn de Algemene Leveringsvoorwaarden van FHI, gedeponeerd bij de Kamer van Koophandel en Fabrieken voor Eemland te Amersfoort, van toepassing.
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