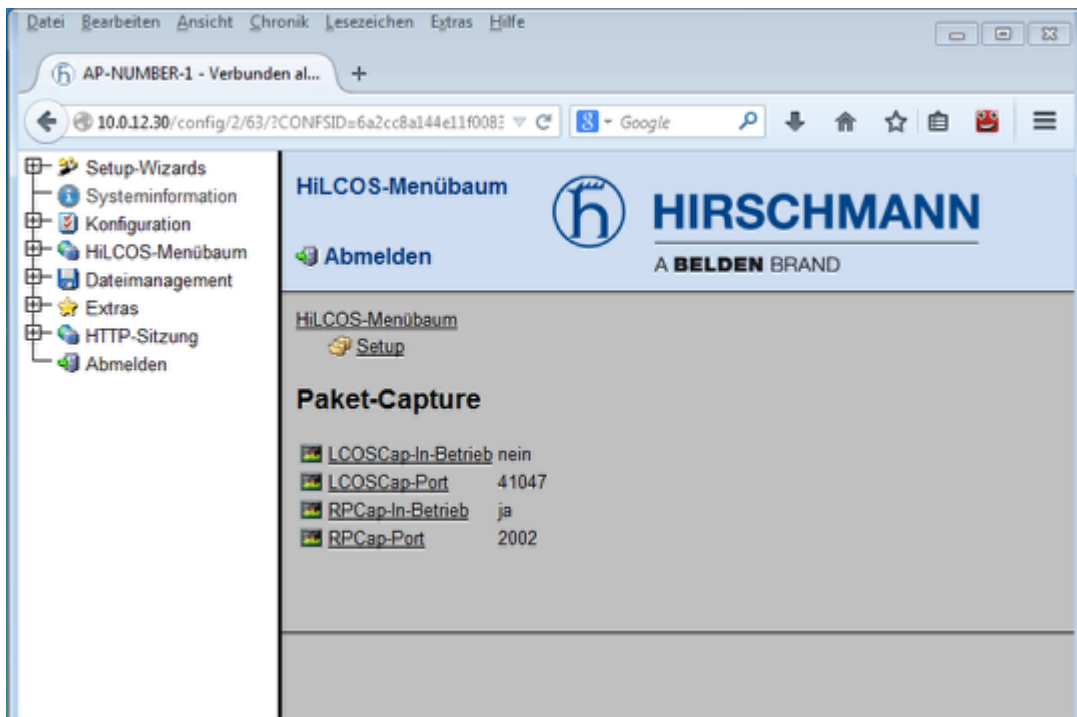


How to remotely capture the traffic of an Open BAT interface with RPCap function and Wireshark

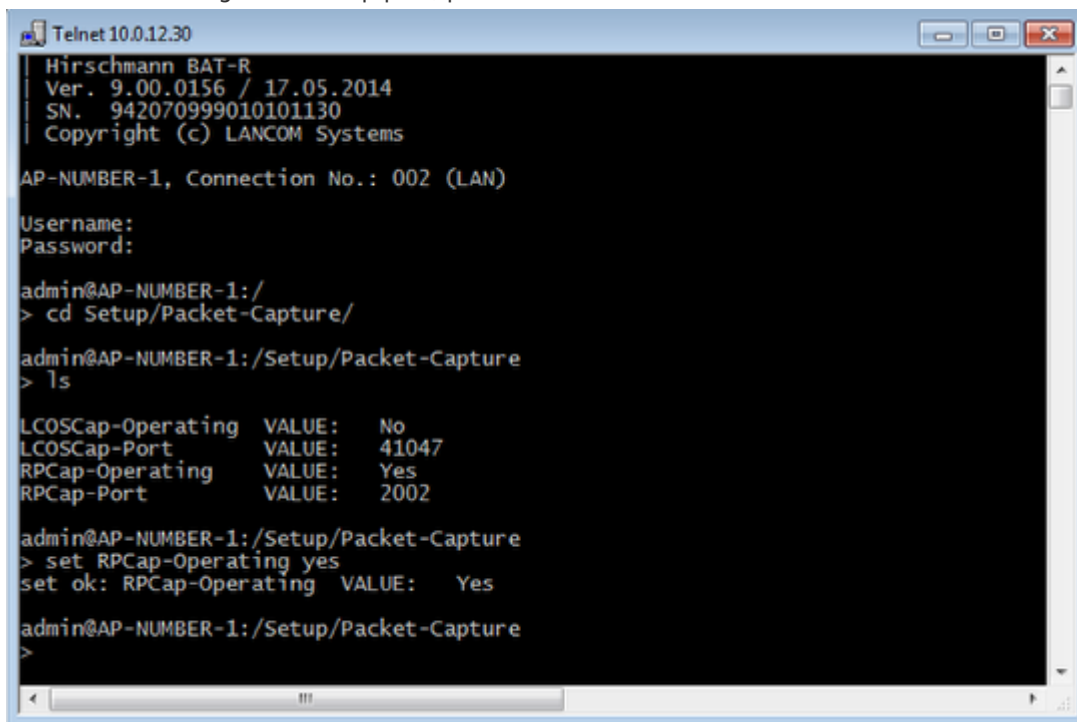
- 2018-02-21 - BAT, WLC (HiLCOS)

This lesson explains via a few steps how to use the RPCap function to capture traffic remotely on specific interface(s) of the BAT devices (rel 8.90)

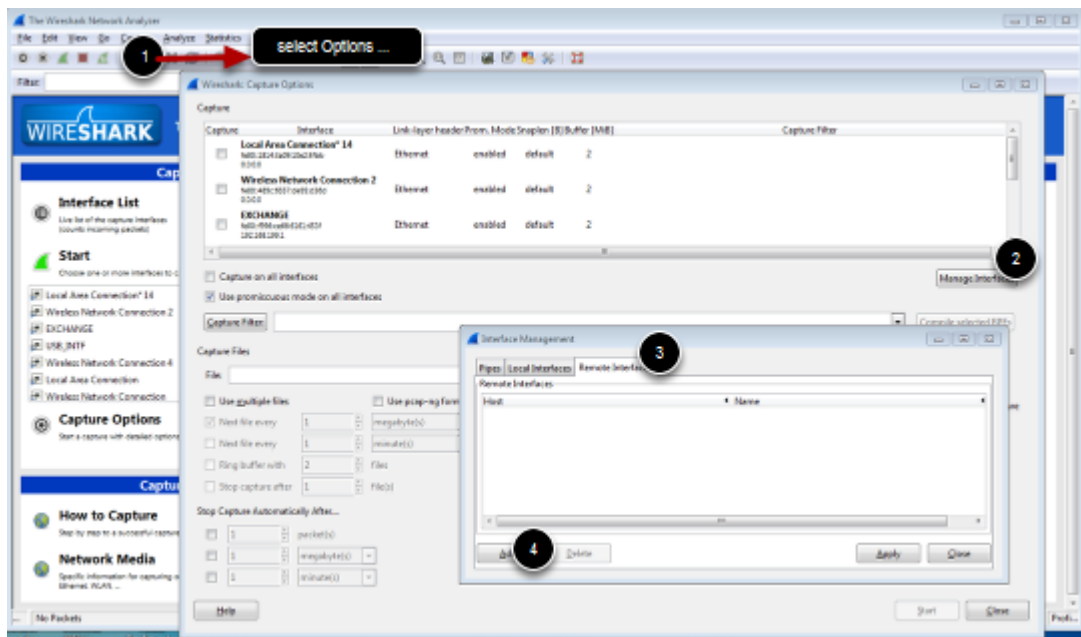
Enable RPCap on the BAT using the web interface or per CLI



You can also change the RPCap port, per default it's 2002

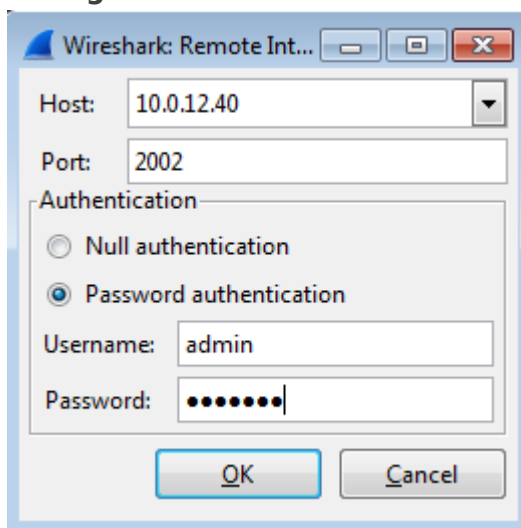


Add remote interfaces in wireshark options



From Wireshark main Windows, open the Capture Options window (Capture/Options...). Click on manage Interface and select the tab Remote Interfaces and click on Add

Configure the BAT as remote device



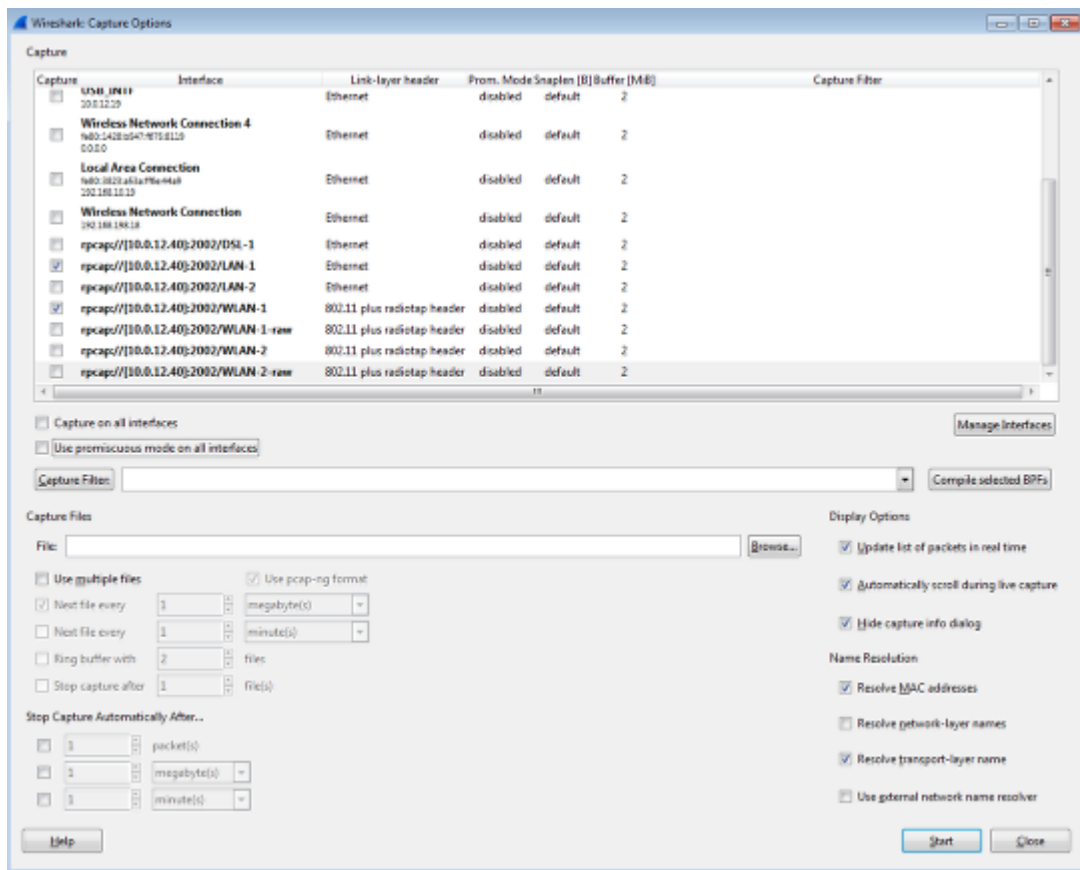
Give the IP address of the BAT, the RCap port relevant username and password to access the device then click ok

RCap gives all the available interfaces on the remote device



click on Apply and Close

From the Capture option Window, the remote interfaces are now available, select the one(s) you want to capture the traffic on.



In this example traffic going through LAN-1 and WLAN-1 will be captured. Then just clic on start

Result view

The screenshot displays the Wireshark network protocol analyzer interface. The main window is titled "Wireshark" and shows a list of captured packets. The packet list pane contains the following data:

No.	Time	Date	Source	Destination	Protocol	Info
1	0.000000000	2016-02-07 07:34:42.124453000	10.0.12.40	10.0.12.19	TCP	mailbox > tados190 [ACK] Seq=1 Ack=1
2	0.000477000	2016-02-07 07:34:42.125130000	10.0.12.19	10.0.12.40	TCP	mosaicysysvcl > globe [ACK] Seq=1 Ack=1
3	0.001054000	2016-02-07 07:34:42.125707000	10.0.12.40	10.0.12.19	TCP	globe > mosaicysysvcl [ACK] Seq=1 Ack=1
4	0.002523000	2016-02-07 07:34:42.127174000	10.0.12.19	10.0.12.40	TCP	[TCP Previous segment not captured]
5	0.037883000	2016-02-07 07:34:42.162536000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, S=618, F=0, Flags=..
6	0.040730000	2016-02-07 07:34:42.165383000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, S=620, F=0, Flags=..
7	0.047590000	2016-02-07 07:34:42.172430000	Senpoint_87:26:5a	Broadcast	802.11	Beacon frame, S=1027, F=0, Flags=..
8	0.052454000	2016-02-07 07:34:42.177107000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, S=1067, F=0, Flags=..
9	0.053866000	2016-02-07 07:34:42.178529000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, S=1068, F=0, Flags=..
10	0.063072000	2016-02-07 07:34:42.177221000	10.0.12.40	10.0.12.19	TCP	[TCP ACKed unseen segment] globe > m
11	0.003442000	2016-02-07 07:34:42.128095000	10.0.12.40	10.0.12.19	RPCAP	update filter reply
12	0.003595000	2016-02-07 07:34:42.128248000	10.0.12.40	10.0.12.19	TCP	[TCP window update] globe > mosaicys
13	0.038126000	2016-02-07 07:34:42.162779000	10.0.12.40	10.0.12.19	RPCAP	Packet
14	0.055322000	2016-02-07 07:34:42.179975000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, S=2069, F=0, Flags=..
15	0.055614000	2016-02-07 07:34:42.180267000	10.0.12.40	10.0.12.19	RPCAP	Packet
16	0.057542000	2016-02-07 07:34:42.182193000	10.0.12.19	10.0.12.40	TCP	brcontrol > brutus [ACK] Seq=1 Ack=1
17	0.057810000	2016-02-07 07:34:42.183463000	10.0.12.40	10.0.12.19	RPCAP	Packet
18	0.059263000	2016-02-07 07:34:42.183916000	Hirschma_ff:d2:f3	Broadcast	802.11	Beacon frame, S=1092, F=0, Flags=..
19	0.089998000	2016-02-07 07:34:42.214451000	Hirschma_ff:d2:f3	Broadcast	802.11	Beacon frame, S=1404, F=0, Flags=..
20	0.112718000	2016-02-07 07:34:42.237371000	Hirschma_ff:d5:64	Broadcast	802.11	Beacon frame, S=2869, F=0, Flags=..
21	0.141142000	2016-02-07 07:34:42.265795000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, S=824, F=0, Flags=..
22	0.141574000	2016-02-07 07:34:42.267117000	Broadcast	Broadcast	802.11	Beacon frame, S=824, F=0, Flags=..

The details pane for the selected packet (No. 6) shows the following structure:

- Frame 6: 338 bytes on wire (2704 bits), 338 bytes captured (2704 bits) on interface 1
- IEEE 802.11 Wireless LAN management frame
- IEEE 802.11 Beacon frame, Flags:
- Channel type: unknown (0x000400c0)
- Channel frequency: 2462
- Channel number: 11
- Antenna: 0
- SSI noise: -87 dbm
- SSI signal: -57 dbm
- Channel type: 802.11g (pure-g) (0x000c00)
- Channel frequency: 2462 (86.11)
- Data rate: 2.0 Mb/s
- Flags: 0x00
- MAC timestamp: 383351312
- Present flags
- Header length: 36
- Header pad: 0
- Header revision: 0
- Length: 36

The packet bytes pane shows the raw data of the beacon frame, with a hex dump and ASCII representation. The status bar at the bottom indicates "Packets 1229 - Displayed: 1229 (100.0%) - Dropped: 5 (0.4%)".

RPCap tunnels the traffic between the BAT and the capturing station. Packets from WLAN-1 with radio header and packets from LAN-1 are in the same capture but can be read separately filtering the interface id.