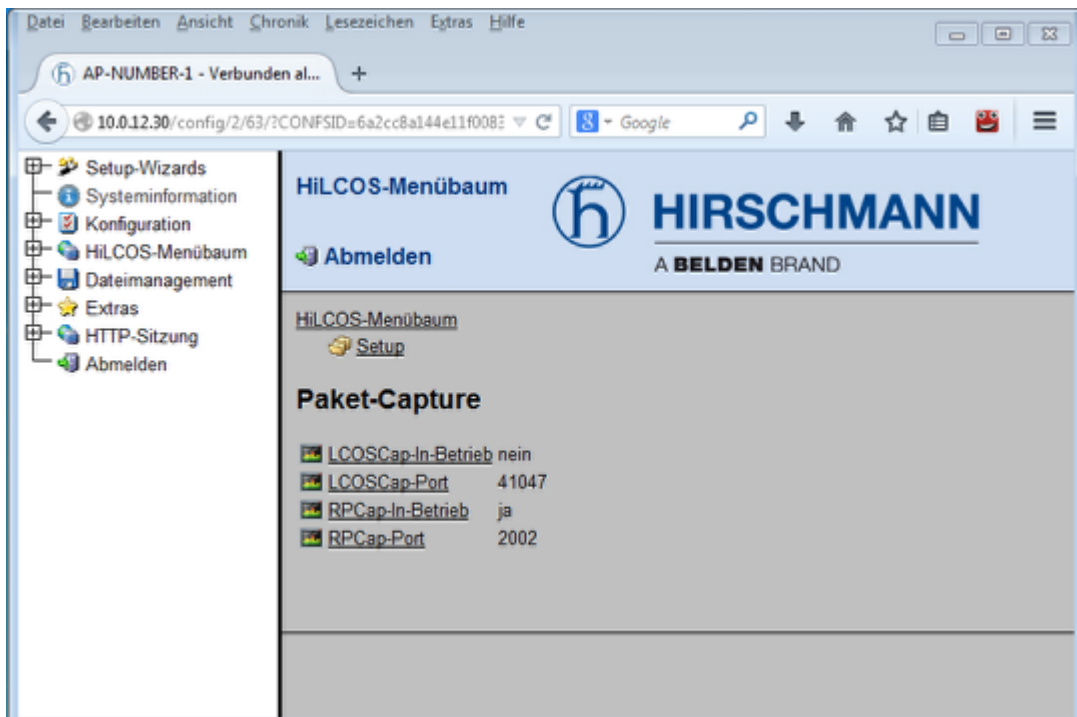


## How to remotely capture the traffic of an Open BAT interface with RPCap function and Wireshark

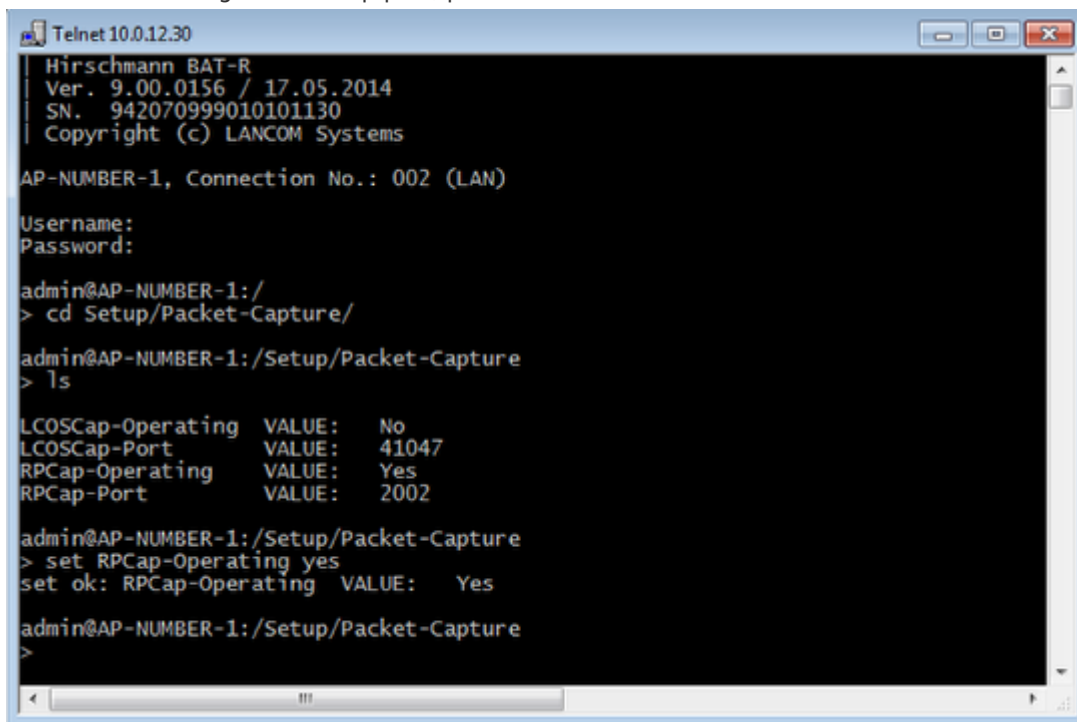
- 2018-02-21 - BAT, WLC (HiLCOS)

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)

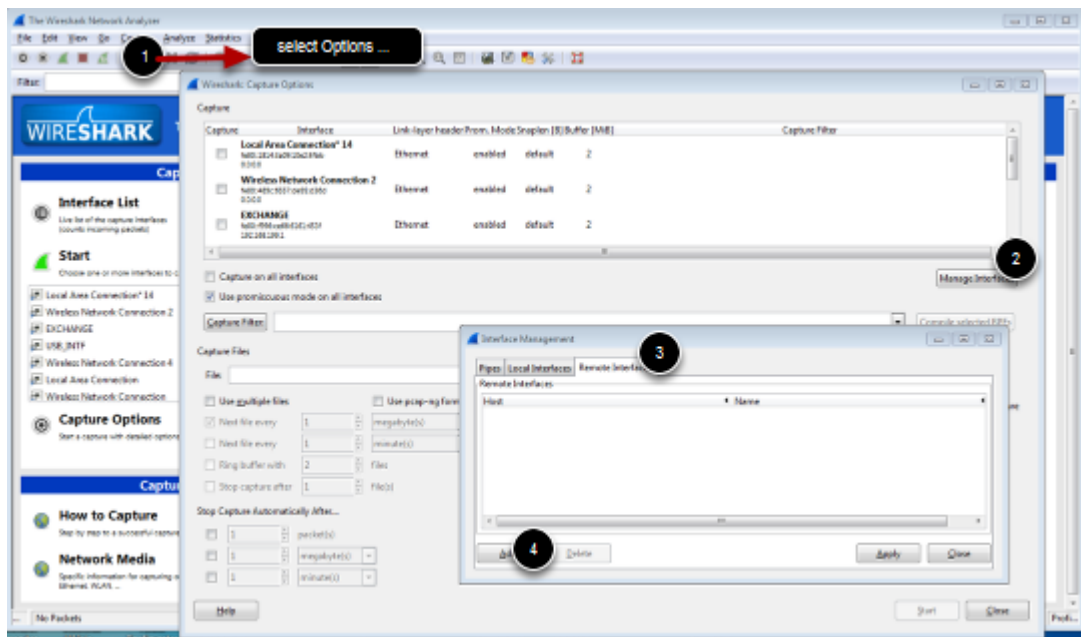
**Enable RPCap on the BAT using the web interface or per CLI**



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

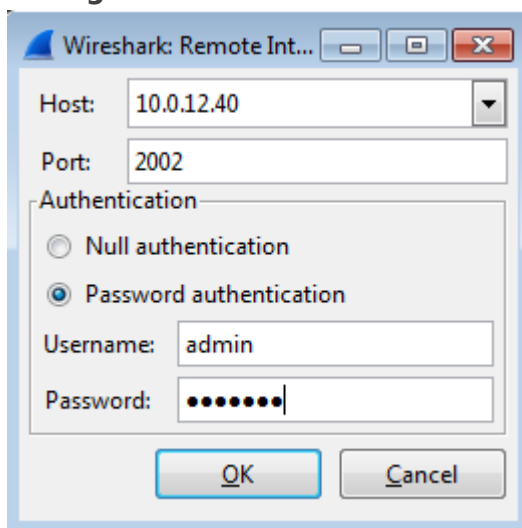


Add remote interfaces in wireshark options



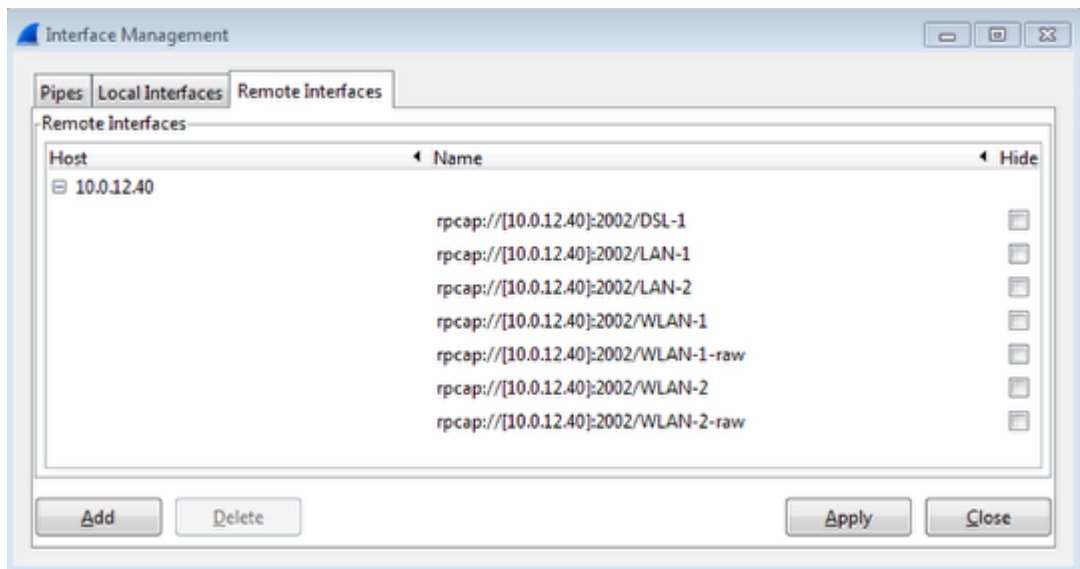
From Wireshark main Windows, open the Capture Options window (Capture/Options...). Click on manage Interface and select the tab Remote Interfaces and click on Add

### Configure the BAT as remote device



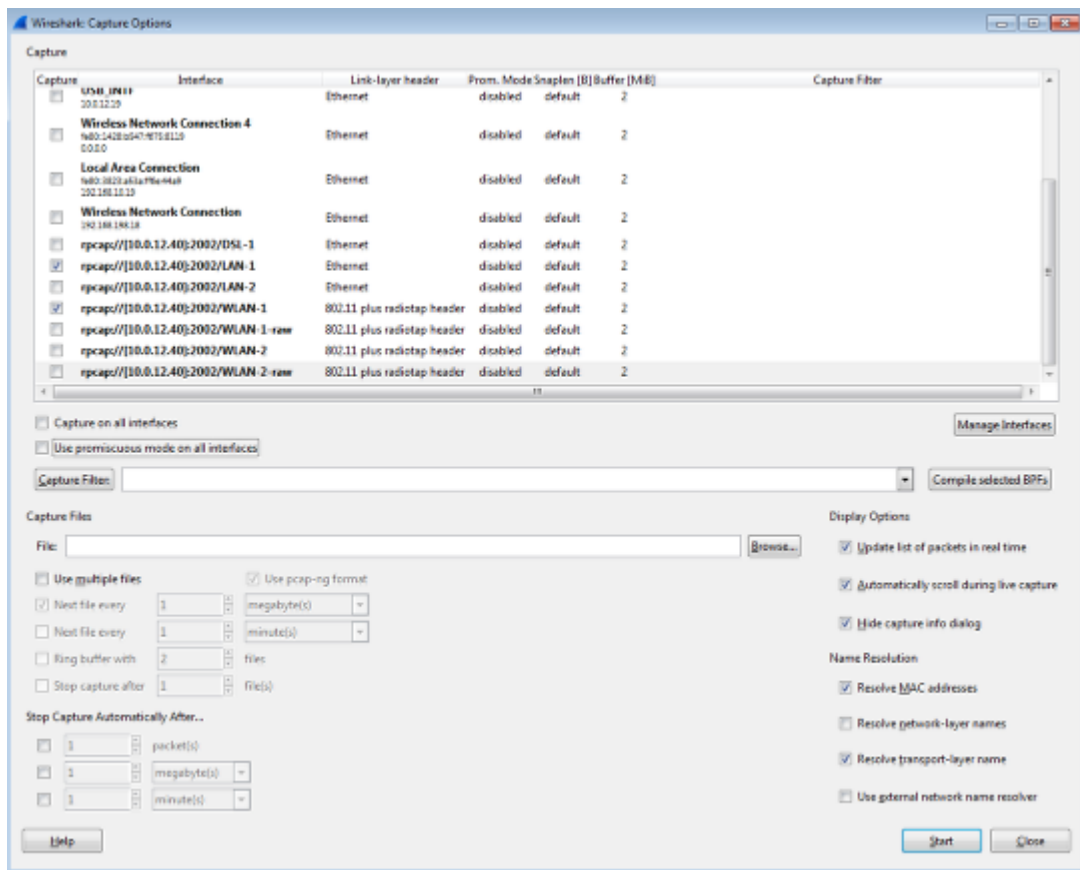
Give the IP address of the BAT, the RCap port relevant username and password to access the device then click ok

### 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 > tdsos190 [ACK] Seq=1 Ack=1
2	0.000477000	2016-02-07 07:34:42.125120000	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, Ss=618, Fn=0, Flags=..
6	0.040730000	2016-02-07 07:34:42.165383000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, Ss=620, Fn=0, Flags=..
7	0.047590000	2016-02-07 07:34:42.172243000	Sensoint_87:26:8a	Broadcast	802.11	Beacon frame, Ss=1027, Fn=0, Flags=..
8	0.052454000	2016-02-07 07:34:42.177107000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, Ss=1067, Fn=0, Flags=..
9	0.053866000	2016-02-07 07:34:42.178529000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, Ss=1068, Fn=0, Flags=..
10	0.063072000	2016-02-07 07:34:42.177721000	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	RRCAP	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	RRCAP	Packet
14	0.055322000	2016-02-07 07:34:42.179975000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, Ss=2069, Fn=0, Flags=..
15	0.055614000	2016-02-07 07:34:42.180267000	10.0.12.40	10.0.12.19	RRCAP	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	RRCAP	Packet
18	0.059263000	2016-02-07 07:34:42.183916000	Hirschma_ff:d2:f3	Broadcast	802.11	Beacon frame, Ss=1092, Fn=0, Flags=..
19	0.089998000	2016-02-07 07:34:42.214451000	Hirschma_ff:d2:f3	Broadcast	802.11	Beacon frame, Ss=1404, Fn=0, Flags=..
20	0.112718000	2016-02-07 07:34:42.237371000	Hirschma_ff:d5:64	Broadcast	802.11	Beacon frame, Ss=2869, Fn=0, Flags=..
21	0.141242000	2016-02-07 07:34:42.265795000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, Ss=824, Fn=0, Flags=..
22	0.141524000	2016-02-07 07:34:42.267117000	Juniper_N_72:9b:00	Broadcast	802.11	Beacon frame, Ss=825, Fn=0, Flags=..

The details pane for the selected packet (Frame 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)
- Present flags
- MAC timestamp: 383351312
- Header length: 36
- Header pad: 0
- Header revision: 0
- RadioTap Header v0, Length 36

The packet bytes pane shows the raw data of the frame, with a hex and ASCII view. 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.