

Wireless – Canopy (SM)

Version 1.1

This probe monitors a Canopy Subscribe Module. It retrieves and displays a variety of information both from the subscribe unit and its access point (if the access point is available in the same map).

Thresholds:

The alarms/warnings in the probe are listed below. The threshold values listed are the default values that can be adjusted by changing the probe parameters.

Alarms:

RSSI too low alarm (< 500)
Jitter too high alarm (> 10)
Jitter (2x) too high alarm (> 15)
Round Trip too long alarm (>2000)
Power Level too low alarm (<-90)
Re-reg count too high alarm (>10)

Warnings:

RSSI low warning (< 600)
Jitter high warning (> 5)
Jitter (2x) high warning (> 10)
Round Trip long warning (>1500)
Power Level low warning (<-85)
Re-reg count too high warning (>5)

Version/License:

Included with the wireless probe bundle 1.1. Requires InterMapper 4.3a1 or later.

Supported Equipment:

Canopy SM

Status page

Device Status

Name: Anywhere Inc.
Contact: John Doe / 360-225-8978
Location: 999 This A Way Dr. NW
Woodland, WA 98674
Status: UP (since Nov 01, 23:43:21)
Protocol: Wireless - Canopy (SM) (port 161)
Up Time: 28 days, 11 hours, 39 minutes
Availability: 98.0 % (of 18 days, 2 hours, 18 minutes)
Packet Loss: 3.03 % (of 105218 total attempts) [\[Reset\]](#)
Recent Loss: 21 packets Oct 22, 05:35:48
Roundtrip time: 87 ms

Canopy SM Details [\(manage\)](#)

SW ver/boot/FPGA: 7.0.7/3.0/021605
Session Count: [3](#)
Reg Count: [7](#)
Re-Reg Count: [7](#)
MAC Address: 00:0a:00:3e:08:fe
Color Code: 10
Session Status: Registered
Current RSSI: [1250](#)
Current Power: [-75](#) dBm
Current Jitter: [3](#)
Ethernet Intf: link/no link
RoundTrip Delay: [4](#) x 100ns(0.037mi/196ft)
Box Temperature: [120](#) F
AP IP Addr: xxx.xxx.xxx.xxx
VLAN: Enabled (1, 128)

Canopy AP Details [\(manage\)](#)

SW ver/boot/FPGA: 7.0.7/3.0/021605
LUID: [3](#)
Reg. SM Count: [65](#)
MAC Address: 00:0c:00:5d:09:ea
RF Frequency: 5275
GPS Sync Pulse: Self
GPS Status: Generating Sync
RSSI Last/Avg: [1250](#) / [1250](#)
Power Last/Avg: [-75](#) / [-72](#) dBm
Jittter Last/Avg: [4](#) / [4](#)
Mode: 2x/2x
Dn Rate/Limit: 3500/20000 kbit
Up Rate/Limit: 3500/20000 kbit

Recent Outages:

10/22 05:35:54: **DOWN** for 3 minutes, 21 seconds
Last updated Nov 05, 12:15:06; interval: 30 seconds

Data source:

Re-Reg Count	is 1.3.6.1.4.1.161.19.3.1.4.1.26.x from the AP's link table
Reg count	is 1.3.6.1.4.1.161.19.3.1.4.1.25 from AP's link table
Session count	is 1.3.6.1.4.1.161.19.3.1.4.1.29 from AP's link table
Avg. RSSI	is 1.3.6.1.4.1.161.19.3.1.4.1.21.x from the AP's link table
Last RSSI	is 1.3.6.1.4.1.161.19.3.1.4.1.28.x from the AP's link table
Avg. Pwr level	is 1.3.6.1.4.1.161.19.3.1.4.1.34.x from the AP's link table
Last Pwr level	is 1.3.6.1.4.1.161.19.3.1.4.1.35.x from the AP's link table
Avg. Jitter	is 1.3.6.1.4.1.161.19.3.1.4.1.22.x from the AP's link table
Last Jitter	is 1.3.6.1.4.1.161.19.3.1.4.1.23.x from the AP's link table
MAC Address	is 1.3.6.1.4.1.161.19.3.1.4.1.3.x from the AP's link table
DnRate	is 1.3.6.1.4.1.161.19.3.1.4.1.36.x from the AP's link table*
DnLimit	is 1.3.6.1.4.1.161.19.3.1.4.1.37.x from the AP's link table*
UpRate	is 1.3.6.1.4.1.161.19.3.1.4.1.38.x from the AP's link table*
UpLimit	is 1.3.6.1.4.1.161.19.3.1.4.1.39.x from the AP's link table*
Mode/adaptRate	is 1.3.6.1.4.1.161.19.3.1.4.1.40.x from the AP's link table*

Color Code is 1.3.6.1.4.1.161.19.3.3.2.2.0 from the SM
Session Status is 1.3.6.1.4.1.161.19.3.2.2.1.0 from the SM
Ethernet Intf is 1.3.6.1.4.1.161.19.3.3.1.9.0 from the SM

Reg. SM Count is 1.3.6.1.4.1.161.19.3.1.7.1.0 from the AP
SM Current RSSI is 1.3.6.1.4.1.161.19.3.2.2.2.0 from the SM
SM Current Power is 1.3.6.1.4.1.161.19.3.2.2.8.0 from the SM
SM Current Jitter is 1.3.6.1.4.1.161.19.3.2.2.3.0 from the SM
RF Frequency is 1.3.6.1.4.1.161.19.3.1.1.2.0 from the AP
GPS Sync Pulse is 1.3.6.1.4.1.161.19.3.1.3.1.0 from the AP
GPS Status is 1.3.6.1.4.1.161.19.3.1.7.2.0 from the AP

Temperature is 1.3.6.1.4.1.161.19.3.3.1.5.0 (from SM)
VLAN enabled info is 1.3.6.1.4.1.161.19.3.1.1.39 (from AP)
VLAN info (table) is 1.3.6.1.4.1.161.19.3.3.8.1.1 (from SM)

airDelay is 1.3.6.1.4.1.161.19.3.2.2.4.0 (from SM)
The conversion from airDelay to distance is done by multiplying it by the speed of light and dividing the round-trip distance by 2.
The speed of light used is 186,000 mi/sec (1 mile is 5,280 ft).

SW Ver is 1.3.6.1.4.1.161.19.3.3.1.1.0 (from SM and AP)
Boot Ver is 1.3.6.1.4.1.161.19.3.3.1.4.0 (from SM and AP)
FPGA Ver is 1.3.6.1.4.1.161.19.3.3.1.2.0 (from SM and AP)

Note:

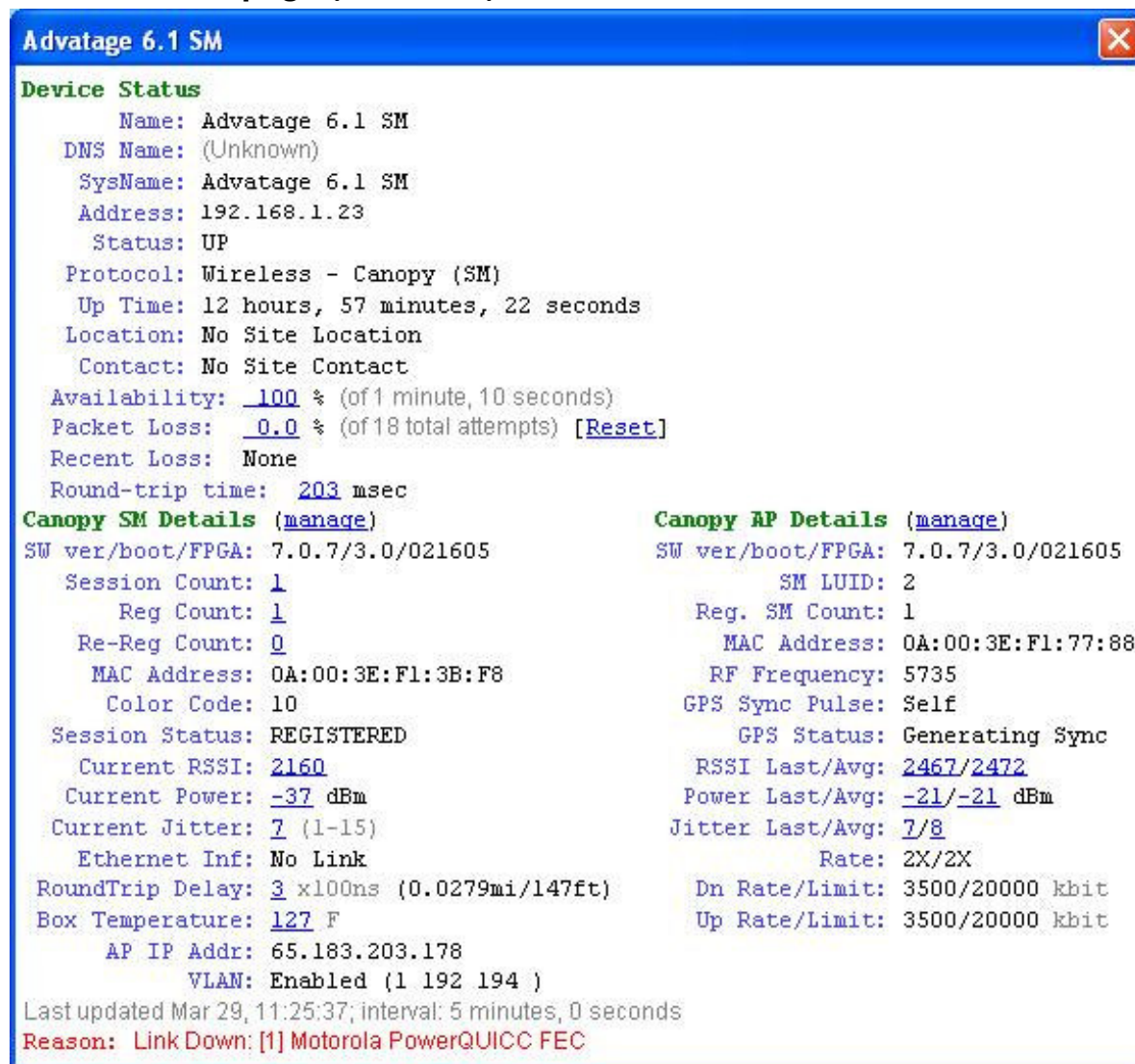
*) These will only be displayed if the device is running Canopy software system 7 or later.

Implementation notes:

- Parent AP has to be in the same map as the SM in order to get the link status info to show in the SM's status page
- Ctrl-K on the SM will also cause the parent AP to retrieve the particular row for the SM. If parent AP doesn't know about the SM when Ctrl-K happens, it will pull all the MAC addresses from the link status table first before pulling the link status info for the particular SM.
- The same pull behavior similar to Ctrl-K above will also be done when SM needs to display its status page.

Sample Screen Shots:

Normal status page (no errors):



Advatage 6.1 SM

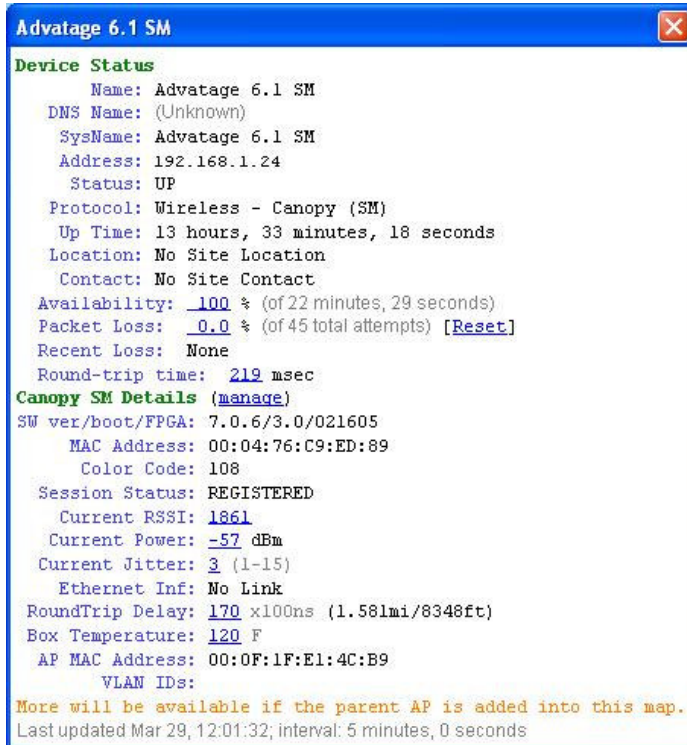
Device Status

Name: Advatage 6.1 SM
DNS Name: (Unknown)
SysName: Advatage 6.1 SM
Address: 192.168.1.23
Status: UP
Protocol: Wireless - Canopy (SM)
Up Time: 12 hours, 57 minutes, 22 seconds
Location: No Site Location
Contact: No Site Contact
Availability: 100 % (of 1 minute, 10 seconds)
Packet Loss: 0.0 % (of 18 total attempts) [[Reset](#)]
Recent Loss: None
Round-trip time: 203 msec

Canopy SM Details (manage)	Canopy MP Details (manage)
SW ver/boot/FPGA: 7.0.7/3.0/021605	SW ver/boot/FPGA: 7.0.7/3.0/021605
Session Count: <u>1</u>	SM LUID: 2
Reg Count: <u>1</u>	Reg. SM Count: 1
Re-Reg Count: <u>0</u>	MAC Address: 0A:00:3E:F1:77:88
MAC Address: 0A:00:3E:F1:3B:F8	RF Frequency: 5735
Color Code: 10	GPS Sync Pulse: Self
Session Status: REGISTERED	GPS Status: Generating Sync
Current RSSI: <u>2160</u>	RSSI Last/Avg: <u>2467/2472</u>
Current Power: <u>-37</u> dBm	Power Last/Avg: <u>-21/-21</u> dBm
Current Jitter: <u>7</u> (1-15)	Jitter Last/Avg: <u>7/8</u>
Ethernet Inf: No Link	Rate: 2X/2X
RoundTrip Delay: <u>3</u> x100ns (0.0279mi/147ft)	Dn Rate/Limit: 3500/20000 kbit
Box Temperature: <u>127</u> F	Up Rate/Limit: 3500/20000 kbit
AP IP Addr: 65.183.203.178	
VLAN: Enabled (1 192 194)	

Last updated Mar 29, 11:25:37; interval: 5 minutes, 0 seconds
Reason: Link Down: [1] Motorola PowerQUICC FEC

When the parent AP is not found in the same map:



Advatage 6.1 SM

Device Status

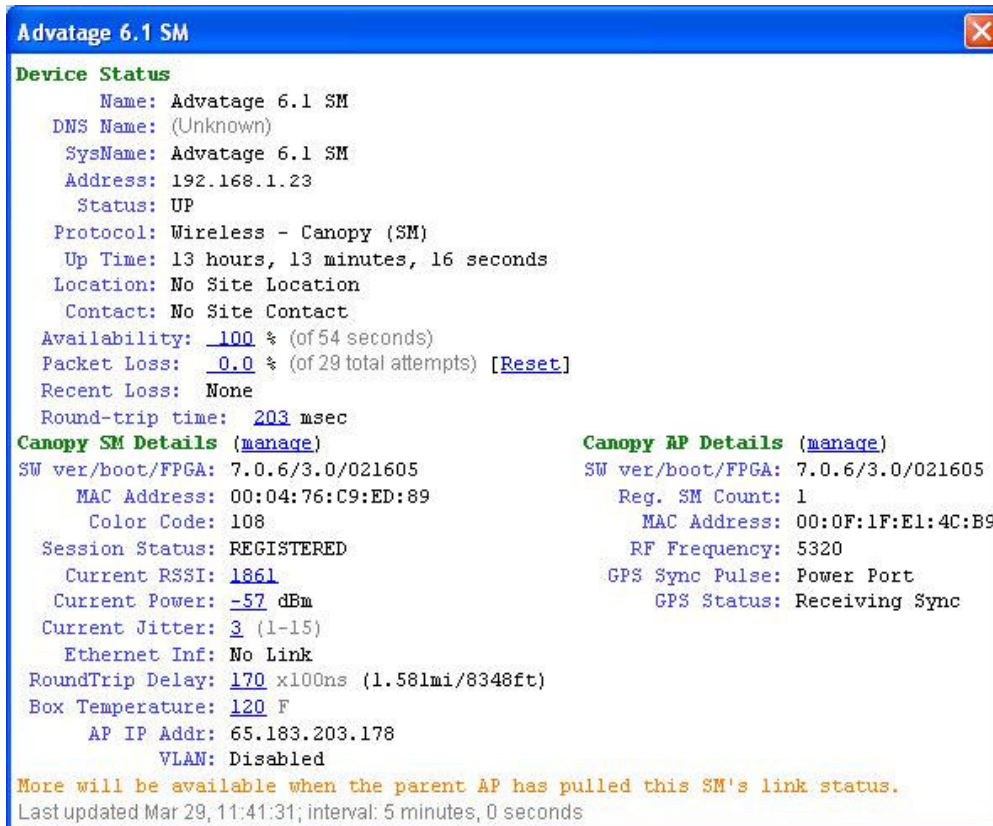
Name: Advatage 6.1 SM
DNS Name: (Unknown)
SysName: Advatage 6.1 SM
Address: 192.168.1.24
Status: UP
Protocol: Wireless - Canopy (SM)
Up Time: 13 hours, 33 minutes, 18 seconds
Location: No Site Location
Contact: No Site Contact
Availability: 100 % (of 22 minutes, 29 seconds)
Packet Loss: 0.0 % (of 45 total attempts) [[Reset](#)]
Recent Loss: None
Round-trip time: 219 msec

Canopy SM Details ([manage](#))

SW ver/boot/FPGA: 7.0.6/3.0/021605
MAC Address: 00:04:76:C9:ED:89
Color Code: 108
Session Status: REGISTERED
Current RSSI: 1861
Current Power: -57 dBm
Current Jitter: 3 (1-15)
Ethernet Inf: No Link
RoundTrip Delay: 170 x100ns (1.581mi/8348ft)
Box Temperature: 120 F
AP MAC Address: 00:0F:1F:E1:4C:B9
VLAN IDs:

More will be available if the parent AP is added into this map.
Last updated Mar 29, 12:01:32; interval: 5 minutes, 0 seconds

When the parent AP has not retrieved info for the SM:



Advatage 6.1 SM

Device Status

Name: Advatage 6.1 SM
DNS Name: (Unknown)
SysName: Advatage 6.1 SM
Address: 192.168.1.23
Status: UP
Protocol: Wireless - Canopy (SM)
Up Time: 13 hours, 13 minutes, 16 seconds
Location: No Site Location
Contact: No Site Contact
Availability: 100 % (of 54 seconds)
Packet Loss: 0.0 % (of 29 total attempts) [[Reset](#)]
Recent Loss: None
Round-trip time: 203 msec

Canopy SM Details ([manage](#))

SW ver/boot/FPGA: 7.0.6/3.0/021605
MAC Address: 00:04:76:C9:ED:89
Color Code: 108
Session Status: REGISTERED
Current RSSI: 1861
Current Power: -57 dBm
Current Jitter: 3 (1-15)
Ethernet Inf: No Link
RoundTrip Delay: 170 x100ns (1.581mi/8348ft)
Box Temperature: 120 F
AP IP Addr: 65.183.203.178
VLAN: Disabled

Canopy AP Details ([manage](#))

SW ver/boot/FPGA: 7.0.6/3.0/021605
Reg. SM Count: 1
MAC Address: 00:0F:1F:E1:4C:B9
RF Frequency: 5320
GPS Sync Pulse: Power Port
GPS Status: Receiving Sync

More will be available when the parent AP has pulled this SM's link status.
Last updated Mar 29, 11:41:31; interval: 5 minutes, 0 seconds