HaulPass V60s™
Gigabit Ethernet Wireless Link

HaulPass V60s VeriPHY Cable Test Logic

The HaulPass V60s comes equipped with VeriPHY logic that will inform you of the health of your cable connections between the V60s terminal and the POE+ device. Cable connections are a major factor in reliability and throughput performance in wireless systems. The VeriPHY service runs in the background as well as on demand.

VeriPHY is the Vubiq Networks HaulPass V60s built-in cable test logic. It tests the cable every 15 minutes when you have the web page open to the main page of the V60s:

VeriPHY tests each pair of the Ethernet cables from the HaulPass V60s to the far end of the cable. When the test is executed, a good connection will return results of "OK" on each pair. Below is an example where the cables are in perfect condition by indicating "OK" on all pairs and returning the length of the cable in meters:

VeriPHY Cable Diagnostics

Cable Status

Port	Pair A	Length A	Pair B	Length B	Pair C	Length C	Pair D	Length D
1	OK	72	OK	72	OK	72	OK	72
2	Open	0	Open	0	Open	0	Open	0

Run VeriPHY

The following is an example of a bad cable. This example shows that the cable problem is approximately 69 meters away from the HaulPass V60s. VeriPHY is accurate to 3 meters.

VeriPHY Cable Diagnostics

Cable Status

Port	Pair A	Length A	Pair B	Length B	Pair C	Length C	Pair D	Length D
1	OK	69	OK	69	Abnormal	69	OK	69
2	Open	0	Open	0	Open	0	Open	0

Run VeriPHY

Once the test has completed, the page will refresh automatically and you can view the cable diagnostics results in the cable status table. Note that VeriPHY is only accurate for cables of length of 7 to 140 meters.

In the event that you execute a test on 10 and 100 Mbps ports, the link will be down while running VeriPHY. Therefore, running VeriPHY on a 10 or 100 Mbps management port will cause the switch to stop responding until VeriPHY is complete.

Below is a list of possible cable pair status:

- OK – Correctly terminated pair
- Open – Open pair
- Short – Shorted pair
- Short A – Cross-pair short to pair A
- Short B – Cross-pair short to pair B
- Short C – Cross-pair short to pair C
- Short D – Cross-pair short to pair D
- Short – Undetermined short
- Cross A – Abnormal cross-pair coupling with pair A
- Cross B – Abnormal cross-pair coupling with pair B
- Cross C – Abnormal cross-pair coupling with pair C
- Cross D – Abnormal cross-pair coupling with pair D
- Cross – Undetermined crosstalk
- Length – The length (in meters) of the cable pair (the resolution is 3 meters)

If you see an issue with a length of 0 to 6 meters, look for a bad cable or connection close to the HaulPass V60s or the lighting arrestor. If you see an error at a distance that matches the length of the cable, the anomaly is likely located at the end of the cable where the POE+ injector is located.

If your cable has issues, it is possible that you will not obtain 1 gigabit reliably. Even if the systems negotiate 1 gigabit, you may be limited to 100 megabits.

Note the HaulPass V60s is a POE+ device, so power comes from the same Ethernet cables. Therefore, if you have cable issue, you may also have power issues.

Vubiq recommends that you maintain your cables for good connectivity.

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