

Advanced vs. RMON Probes usage with Observer Products

Summary

This document describes two approaches to using Observer products in a distributed environment.

Keywords

RMON, Advanced Probe, Distributed

Overview

Network Instruments' Probes provide support for two types of data collection; RMON and Advanced. Using RMON offers support for the IEEE specifications for remote data collection and is recommended for third party applications. The Advanced Probe offers a superset of RMON functionality and is recommended when using the Observer family of products.

Network Instruments is unique in offering both types of probes, letting *you* choose which is best for your environment.

As follows is a list of the major advantages of each type of probe, and a table comparing general functionalities.

Advanced Probe Advantages

Greater depth of network statistics collected and analyzed. An Advanced Probe can report on the following metrics which are unavailable from an RMON Probe:

- Efficiency History
- Network Errors-by-Station
- Size Distribution Statistics by Station
- Network Trending
- Traffic Generator
- MAC-IP Pairs

A number of other statistical Modes are present, but limited (see below).

Advanced Probe's encrypt packet captures before sending. **Greater security.** RMON sends all captures in the clear.

More efficient use of net bandwidth. Advanced Probes offer considerably lowered network impact for probe-console communication, thus considerably less network impact for monitoring.

WAN Support. The RMON standard offers no support for WAN topologies. Advanced Probes are available for all common WAN topologies.



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Advanced Probe Advantages

Advanced Probes displays more protocols. H.323 (VoIP) is just one of the protocols you can track in the Advanced Probe which are unavailable via an RMON probe.

RMON's protocol recognition is very basic and has no facility to recognize dynamic and port-hopping protocols. This does not effect the actual decode (the decode engine is part of the analyzer not the probe).

Advanced Probes Pair Statistics report latency (response time). RMON has no facility for calculating response time for the matrix pair mode.

Advanced Probes can report MAC to IP pairs. RMON has no facility for this.

Advanced Probe offer auto-update of Probe software remotely.

Advanced Probes offer switch support. Advanced Probes offer either internal static port redirection or statistical switch modeling through port looping.

Greater Triggers and Alarms functionality.

RMON Probe Advantages

3rd Party supported collection mechanism. Other manufacturer's software or hardware can query and process statistics from a RMON probe.

Support for 10 concurrent interfaces. Advanced Probes (at this time) support only one.

Feature Comparison Matrix	Advanced Probe	RMON Probe
General Features		
Ethernet	10 / 100 Gigabit (1000 Mb)	10 / 100
Token Ring	Yes	Yes
FDDI	Yes	No
802.11a Wireless	Yes	No
802.11b Wireless	Yes	No
Full-Duplex Gigabit	Yes (2000 MB)	No
WAN	Yes	No
Switch Support	Yes	No
Auto-Probe Update	Yes	No
Traffic Generator	Yes	No
Statistics		
Bandwidth Utilization	Yes	Yes
Protocol Distribution	Yes	Yes*
Top Talkers	Yes	Yes
Triggers & Alarms	Yes	Yes*

Feature Comparison Matrix	Advanced Probe	RMON Probe
Internet Usage Tracking	Yes	Yes*
Network Activity (Broadcast / Multicast Display)	Yes	Yes
Web Server Tracking	Yes	Yes
Network Vital Signs (Aggregate Error Display)	Yes	Yes
Pair Matrix	Yes	Yes*
Router Tracking	Yes	Yes
Utilization History	Yes	Yes
Utilization Thermometer	Yes	Yes
Errors By Station	Yes	No
Efficiency History	Yes	No
Size Distribution	Yes	No
Wireless Statistics		
Wireless Types	Yes	No
Wireless Speeds	Yes	No
Wireless Latest	Yes	No
Wireless Errors-by-station	Yes	No
Wireless Vital Signs	Yes	No
Access Point Statistics	Yes	No
Channel Traffic	Yes	No
Trending		
Network Flow	Yes	No
Internet Usage	Yes	No

* Limited Functionality

Conclusion

While there are advantages and disadvantages on both sides, we believe that unless you have a compelling reason to use an RMON probe, the Advanced Probe's functionality far outweighs that of the RMON probe in an Observer environment.

Version number 1.3
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