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Application Note

Generating reports with MetroScope™ Service Provider Assistant

Providing documentation of Ethernet service performance is an essential part of testing the link. A well-documented performance test provides multiple benefits. First, it provides assurance that the link will meet the required service levels. Second, it gives the customer confidence they are truly getting the service they pay for. Third, it provides a priceless baseline for future troubleshooting. If technicians trying to solve complex problems do not understand how the link looked when it was working properly, they'll have a hard time figuring out what's wrong.

The MetroScope Service Provider Assistant from Fluke Networks provides comprehensive documentation for performance tests, as well as network monitoring and discovering capabilities. This application note shows how to collect reports from the MetroScope unit and manage them on a PC.

Viewing performance test results on screen

The MetroScope tester displays the Performance Test results in a wide variety of formats, including:

- A summary of each test to each device with a pass/fail indication
- An overall results screen with a pass/fail indication
- Individual test results
- Individual device results which may be displayed in a tabular or graphical format, in frames per second or bits per second
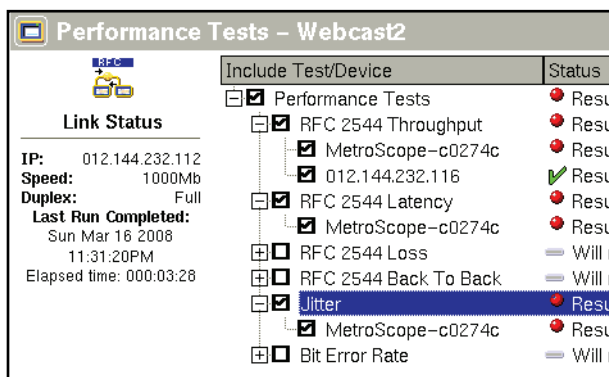

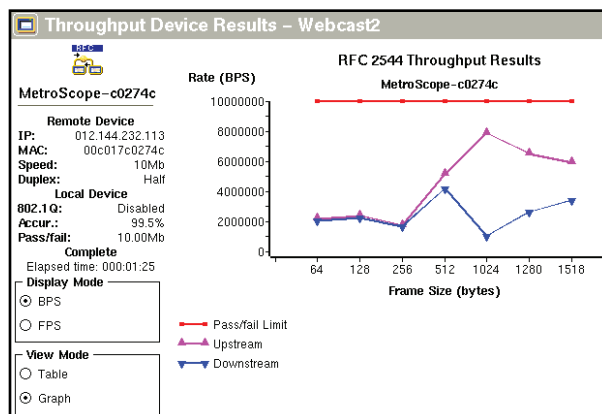**Figure 1:** *Overall Performance Test results*

Figure 2: *Detailed Throughput Result for an individual device*

Storing performance test reports

Once results are available, a comprehensive test report can be generated by pressing Report. The scope of the report is determined by the test or target device selected at this point.

If Performance Tests is selected, all underlying test results are included. Likewise, selecting a test type such as RFC 2544 Throughput will create a report which includes only the throughput results of the target devices. Lastly, selecting a target device will ensure only that test for that specific target device is included in the report. Reports are stored to the CompactFlash (CF) memory card.

Generating reports with MetroScope™ Service Provider Assistant

Adding logos to reports

It's easy to customize MetroScope's reports with a company's logo. If a file named "YourCompanyLogo.gif" is loaded on the CF card when the report is generated, the logo will automatically appear in the upper left corner (**see Figure 3**). You can convert a standard logo file to a .gif using an illustration, photo editing or paint program.
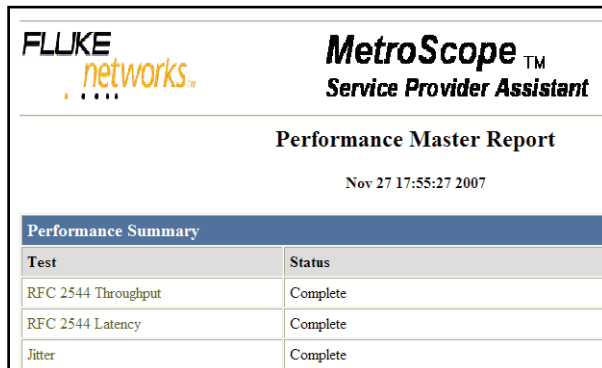

Figure 3: *A logo may be added to the upper left corner of the report*

Comments

MetroScope users can add two types of text comments to a report.

The "instrument comment" is used to communicate statistical information, such as the instrument asset number or the operator contact information. Save the information to the CF card in a file named "InstrumentComment.txt," and the report generator will automatically add it when the report is created.

The "report comment" is entered by the operator as the report is saved by using either the on-screen keyboard or a separate USB keyboard. This comment field can be used to augment the report with additional information specific to the test or environment. It might also include the operator's name or customer's name.

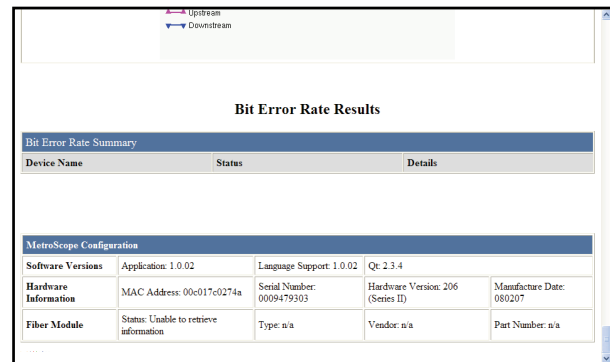Both of these comments are optional. They'll appear in the MetroScope configuration table when used.

Figure 4: *Comments are added to the end of a report*

Other reports

In addition to performance reports, the MetroScope Service Provider Assistant can generate a variety of reports documenting active networks. These reports include:

- **Device Discovery:** a list of all devices present in a broadcast domain (whether they are currently generating traffic or not) and how they are connected to the nearest switch
- **Device Details:** specific details on an individual device, including MAC and IP address
- **Connection Log:** details of the MetroScope's connection to the network including auto-negotiation and DHCP processes
- **Protocol Stats:** a list of the protocols seen on the link and the amount of traffic represented by each
- **Top Talkers:** a list of devices generating traffic on the link and the amount of traffic generated by each; MAC and IP address or name included
- **VLAN Stats:** a list of VLANs discovered and attached devices
- **Network Discovery:** a list of all the active IP, NetBIOS, and WINS networks discovered
- **Switch Scan:** the detailed per-port performance of a switch

Name	MAC Address	Actual Packets Sent (%)	Actual Octets Sent (%)
≠WebNetSwitch	0050f044e1c0	4875101 (74.1%)	2338904321 (93.3%)
OPV-PE-DEMO	00b0d0a15dac	341882 (5.2%)	33116112 (1.3%)
012.144.232. 065	0002b32939d	206232 (3.1%)	14851288 (.6%)
WebNetRouter	0030802d3362	188008 (2.9%)	15369160 (.6%)
VUPTIMESERVER	001372fd80a2	121297 (1.8%)	17047403 (.7%)
NV-DEMO-118	001143d20c50	106628 (1.6%)	11082732 (.4%)
OptiView INA S3	00c017a306e9	104853 (1.6%)	9927551 (.4%)
FNET-NVDEMO	000bdb953749	98513 (1.5%)	9232285 (.4%)

Figure 5: Top Talkers report

Saving reports from the MetroScope unit

The MetroScope unit automatically saves reports in XML format to the CF card. The complete report may be viewed in a number of ways. Saved reports may be viewed on the MetroScope using the built-in report viewer, accessed from the toolbar.
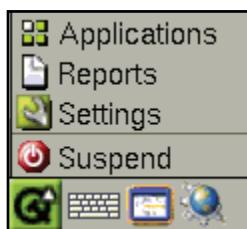

Figure 6: Selecting the icon in the lower left provides access to reports

Saved and live reports can be viewed by selecting Reports from the MetroScope unit's web splash screen. The MetroScope test set can be accessed by entering its IP address on the URL line of your browser.

Additionally, the report files may be read directly from the CF card using a card reader or they can be transferred to an ftp server for archive. Once the report files are transferred, the named XML file may be viewed with a web browser or as a spreadsheet.

Figure 7: MetroScope's web interface home page provides access to reports, remote control and online help.

Converting reports to PDF

Adobe Acrobat PDF files are the de-facto standard for sharing between users and across platforms. While MetroScope units cannot produce reports in PDF format, they can be quickly and easily converted to PDF using a PC and the CutePDF™ conversion utility available at **www.cutepdf.com**.

After installing the CutePDF software, you can convert your reports to PDF using the print dialog box. Simply open a report in your browser (either directly on the MetroScope or after saving the file to your PC), select Print and then choose the CutePDF Writer from the print dialog box. At this point, you can also choose a file name and the location to save your PDF report file.
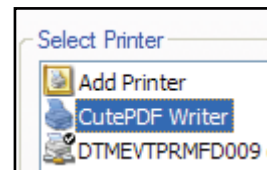

Figure 8: Use the CutePDF Writer to convert reports to PDF format

For more information about our Network SuperVision Solutions, call 800-283-5853 (US/Canada) or 425-446-4519 (other locations) or email **info@flukenetworks.com**.