

The 53rd IETF Meeting - IPPM Working Group

IPPM MIB

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Stéphan Emile

France Telecom R&D

Agenda

- Current Draft: <draft-stephan-ippm-mib-02.txt>
- Initial Draft-ietf-ippm-metrics-registry-00.txt
- Initial Draft-ietf-ippm-reporting-mib-00.txt
- Reporting capabilities
- Coupling IPPM-REPORTING-MIB and OWAMP

draft-stephan-ippm-mib-02.txt - Overview

- Current structure
 - Registry
 - tables
 - Notifications
- Tables
 - ippmOwnersControlTable
 - ippmResultSharingTable
 - ippmMetricTable
 - ippmMeasureTable
 - ippmHistoryTable
 - ippmNetworkMeasureTable
 - ippmAggregatedMeasureTable
 - ippmReportSetupTable
 - ippmReportTable
- Notifications
 - ippmSingletonAlarm
 - ippmEventsDurationExceededAlarm
 - ippmCycleOfMeasureReport
 - ippmCompletedMeasureReport

Different Management architectures

- probe
 - IPPM MIB in the measurement point.
- Proxy
 - IPPM MIB is in a middleware.
- stateless
 - IPPM MIB of the probe pushes the results to the IPPM MIB of the proxy.
- Others ?

IPPM node and metric registry

- Get an node for the IPPM WG:
 - Registry;
 - IPPM reporting MIB;
- Proposed Ippm node structure:
 - `ippm`
 - `ippm-registry(1)`
 - + `RfcMetrics(1)`
 - `instantaneousUnidirectionalConnectivity(1)`
 - ...
 - `roundtripDelayInversePercentile(20)`
 - `ippm-reporting-mib(2)`
- ??? Need for metrics identifier for Draft metrics, ID metrics ? Other ?

IPPM-REPORTING-MIB – Reporting features

- polling result
 - Result polled using SNMP;
- pushing result
 - Result pushed by the probe on event and/or on test completion.
- Softstate implementation
 - Results saved in the HistoryTable;
- Stateless implementation
 - Reporting result on the fly;
 - Virtual history table;

IPPM-REPORTING-MIB – Reporting setup

on:

Perform the action when a Singleton, a MeasureCycle or a MeasureCompletion is done.

reportOnlyUptoDownMetricResults:

Report the contiguous results which are on opposite sides of the metric threshold.

reportOnlyExceededEventsDuration:

Report the current result of a serie of contiguous results which exceed the metric threshold when the duration of the serie is over the events duration threshold seconds.

in:

Report the results in ReportTable, Trap, Email....

Clear:

Remove the corresponding results from the ippmHistoryTable or ippmReportTable;

Coupling IPPM-REPORTING-MIB and OWAP

Conceptual programming interface

- **ReportMeasureSetup()**

Measure setup are reported in the MeasureTable using the logical call ReportMeasureSetup().

- **CreateResult()**

Results of a measure are added in the HistoryTable using the logical call CreateResult().

- **GetResult()**

Individual results are readed using the logical call GetResult(). It corresponds to a SNMP get-request on a result;

- **GetMeasureMetricResults()**

The results of a metric are readed using the logical call GetMeasureMetricResults(). It corresponds to a SNMP walk on the results of a metric measure subtree;

- **GetMeasureResults()**

The results of a measure are readed using the logical call GetMeasureResults(). It corresponds to a SNMP walk on the results of a measure subtree.

IPPM-REPORTING-MIB evolution

- Couples IPPM-REPORTING-MIB and OWAMP
- Redefine the Timefilter format
- Reporting setup for Poisson law, pattern metric
- Spatial metrics for interdomain measures ?