



The Jalasoft Smart Management Packs for Cisco Routers deliver enterprise ready monitoring of your network environment. You can monitor your network proactively and be aware of any potential problems that might occur, verify the status of your interfaces and ports, CPU load, traffic and much more.

All information is forwarded efficiently to Microsoft System Center Operations Manager which creates a one stop interface to see the status of your servers and network infrastructure.

Alerts and performance data are **visible in Ops Mgr** and will help you take action and prevent any downtime.

A large number of **predefined rules** are provided with the Jalasoft Smart Management Pack for Cisco Routers. Installation is quick and simple and starting to monitor your network is just a matter of dragging and dropping the rules on the specific devices.

This is made possible through the use of Xian Network Manager, the platform that runs the Smart Management Pack; no complicated programming or scripting is needed. You can also configure **syslog filters** to forward syslog alerts to Ops Mgr and monitor single interfaces as an object, simplifying the monitoring of devices with **distributed applications**.

To analyze the behavior of the network device for a longer period of time, the Cisco Routers Smart Management Pack has a set of **reports** that can be executed from the Ops Mgr Reporting Console.

Rule Parameters

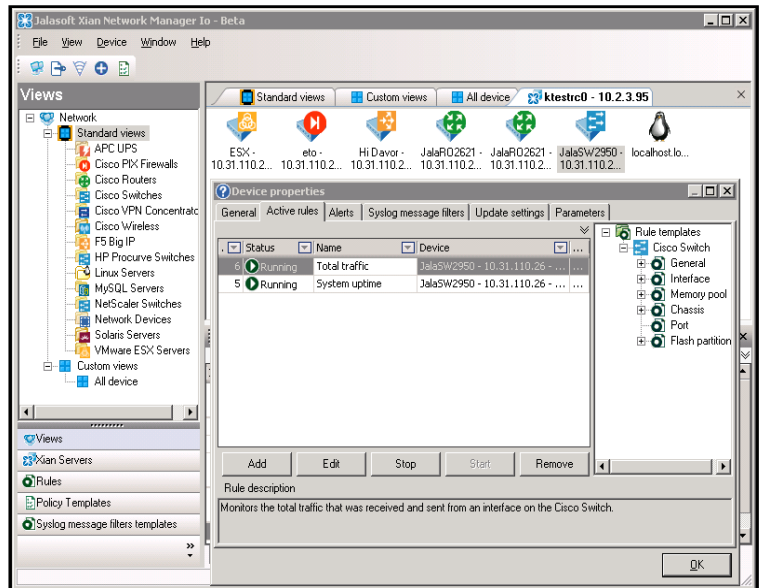
An easy wizard lets you configure the rule parameters. All rules have by default three steps: rule parameters, active rule options and schedule.

Parameters

You can configure when an alert will be sent to Ops Mgr. In many cases, this will

be when the value is over or under a certain threshold.

However, for status based rules you can choose to generate an alert when the status changes or when it becomes a certain value (e.g. interface operational status: up, down, testing, unknown, or dormant).



For those rules related to interfaces, it is possible to select the interfaces where you want to apply the rule and define their individual thresholds. This way you can fine-tune the Xian environment.

Active rule options

The severity level is sent to Ops Mgr when a rule meets the selected criteria. Ops Mgr organizes the alerts by severity. With this option you can predefine each alert with a different level of severity (debug, informational, warning, error or critical), define the collection of performance counters to be used in performance data views or Xian Reports, rename the rule, and enable debug mode for the active rule.

Schedule

You can set the interval between each execution of the rule. This can vary within a range of seconds, minutes or days.



When setting this step take into account that a short interval will consume more system resources.

Rules

Cisco Routers performance and status rules*

General

- Attempt failed TCP connections
- CPU load
- Device availability
- Established TCP connections
- Incoming IP datagrams
- Open active TCP connections
- Open TCP connections
- Outgoing IP datagrams
- System uptime
- Total IP datagrams
- UDP open ports

Interface

- DS1 current bursty errored seconds
- DS1 current controlled slip seconds
- DS1 current degraded minutes
- DS1 current errored seconds
- DS1 current line code violations
- DS1 current line errored seconds
- DS1 current path coding violations
- DS1 current severely errored framing seconds
- DS1 current severely errored seconds
- DS1 current unavailable seconds
- DS1 total bursty errored seconds
- DS1 total controlled slip seconds
- DS1 total degraded minutes
- DS1 total errored seconds
- DS1 total line code violations
- DS1 total line errored seconds
- DS1 total path coding violations
- DS1 total severely errored seconds
- DS1 total severely errored framing seconds
- DS1 total unavailable seconds
- Ethernet alignment errors
- Ethernet carrier sense errors
- Ethernet deferred transmissions
- Ethernet excessive collisions
- Ethernet FCS errors
- Ethernet frame too long

- Ethernet late collisions
- Ethernet MAC receive errors
- Ethernet MAC transmission errors
- Ethernet multiple collisions
- Ethernet single collisions
- Ethernet SQE test errors
- Failed reassembly requests
- Fragmentation failed
- Fragments created
- Incoming discarded packets
- Incoming error packets
- Incoming IP packets
- Incoming IP traffic
- Incoming segments
- Incoming traffic
- Interface operational status
- Outgoing discarded packets
- Outgoing error packets
- Outgoing IP packets
- Outgoing IP traffic
- Outgoing segments
- Outgoing traffic
- Output packet queue length
- Reassembly requests
- Total discarded packets
- Total error packets
- Total IP packets
- Total IP traffic
- Total segments
- Total traffic

Memory pool

- Big buffer hits
- Buffer element hits
- Buffer elements created
- Created big buffers
- Created huge buffers
- Created middle buffers
- Created small buffers
- Free big buffers
- Free buffer elements
- Free huge buffers
- Free large buffers
- Free memory on pool
- Free middle buffers
- Free small buffers
- Huge buffer hits
- Large buffers created
- Large buffer hits
- Middle buffer hits
- Missed big buffers
- Missed buffer elements
- Missed huge buffers



- Missed large buffers
- Missed middle buffers
- Missed small buffers
- Small buffer hits
- Total free memory
- Total used memory
- Trimmed big buffers
- Trimmed huge buffers
- Trimmed large buffers
- Trimmed middle buffers
- Trimmed small buffers

Flash partition

- Flash file status
- Flash partition free memory
- Flash partition status

*Some rules may not be applicable to specific device models.

Supported Models

The Xian NM Smart Management Pack for Cisco Routers supports almost all types of the Cisco Routers Series. If you want to obtain the updated list of supported devices or if you are interested in adding support for new models, please contact us.

System Requirements

Minimum requirements to install Xian NM Smart Management Pack for Cisco Routers for Microsoft System Center Operations Manager are:

- Windows server 2008 SP1 or higher
- SQL Server 2005 SP1 or higher
- .NET Frameworks 4.0 or higher
- Message queuing 2.0 or higher
- System Center Operations Manager 2007 R2 or 2012
- SNMP connectivity to the devices that need to be monitored

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