

## Communication Between a Device and NSM

---

The M-series and MX-series devices and the NSM application communicate through the Device Management Interface (DMI). DMI is a collection of schema-driven protocols that run on a common transport (TCP). DMI is designed to work with routers running the JUNOS software to make device management consistent across all administrative realms. The DMI protocols that are supported include NetConf (for inventory management, XML-based configuration, text-based configuration, alarm monitoring, and device-specific commands), structured syslog, and threat flow for network profiling. DMI supports third-party network management systems that incorporate the DMI standard; however, only one DMI-based agent per device is supported.

The configuration of the M-series and MX-series device is represented as a hierarchical tree of configuration items. This structure is expressed in XML that can be manipulated with NetConf. NetConf is a network management protocol that uses XML. DMI uses NetConf's generic configuration management capability and applies it to allow remote configuration of the device.

The schema repository enables access to XSD and XML files defined for each device, model, and software version.

- Related Topics**
- NSM and Device Management Overview
  - Understanding the CLI and NSM
  - Comparing the CLI To the NSM UI
  - NSM Services Supported for M-series and MX-series Devices
  - How NSM Works with the CLI and Distributed Data Collection
  - Device Schemas

---

Published: 2009-08-23