

IDP Series Release Notes

IDP OS 5.1r2

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Revision 02

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Overview

Juniper Networks Intrusion Detection and Prevention Series devices enable you to enforce a security policy that leverages continuous security research by the Juniper Networks [Security Intelligence Center](#) to protect your network from attacks. The IDP Series also includes features that enable you to gather information about applications and servers in your network.

These release notes contain information about what is included in this product release: supported features, unsupported features, changed features, known problems, and resolved problems. If the information in the release notes differs from the information found in the documentation set, follow the release notes.

Supported Hardware

IDP 5.1r2 is supported on the following platforms:

- IDP8200, IDP800, IDP250, IDP75
- IDP1100, IDP600, IDP200

New and Changed Features

There are no new features introduced IDP OS Release 5.1r2. If you are not familiar with IDP OS 5.1 features, see the [IDP OS Release 5.1r1 release notes](#).

Unsupported Features

The following features are not supported in IDP OS Release 5.1r2:

- SSL decryption using IDEA-based algorithms or ciphers. Also not supported in IDP OS Release 5.0.x.
- On IDP8200, 10 gigabyte fiber interfaces do not support interface signaling or peer port modulation. Also not supported in IDP OS Release 5.0.x.
- Authentication to the ACM via RADIUS with RSA SecurID (authentication via RADIUS server is supported). Same as IDP OS Release 5.0.x.

Note that IDP75 does not have an HA interface. We do not support an HA deployment with IDP75 devices. Also, IDP75 has only one pair of traffic interfaces. We do not support a mixed mode deployment with IDP75 devices.

Known Limitations

For single core platforms (IDP75, IDP200, IDP600), we recommend you disable application volume tracking (AVT). The AVT feature is fully functional, but the AVT process is CPU intensive. During stress testing, high CPU usage by the AVT feature resulted in link flapping.

Note that if you disable AVT, IDP Reporter application volume reports are empty.

To disable AVT:

1. From NSM Device Manager, double-click a device and then click **Profiler Settings**.
2. Click the **General** tab.
3. Deselect **Enable AVT**.
4. Click **Apply**.
5. From NSM Device Manager, right-click the device and select **Update Device** to push your configuration change to the device.

Supported Upgrade Paths

You can upgrade directly from any of the following versions:

- 5.1r1
- 5.0r2
- 5.0r1
- 4.1r4

Beginning with IDP OS Release 5.0, IDP Series does not support bridge, proxy-arp, or router mode. Before upgrading to IDP OS 5.1, you must redeploy the IDP Series device in transparent or sniffer mode.



NOTE: The upgrade paths assume your current IDP Series device has been in use and the device had been added to NSM. You might encounter unexpected behavior during the upgrade if you are upgrading from a newly reimaged, undeployed IDP OS 4.2 or 4.1 device (such as a 2009 factory image of the IDP OS). In these cases, we recommend you add the IDP device to NSM and import the device configuration into NSM prior to performing the upgrade. Doing so will avoid the file permissions issue described in [KB 15071](#).

[Table 1 on page 3](#) describes the changes to files and directories you will notice when you upgrade.

Table 1: Changes to Files and Directories

Upgrade Path	Files and Directories
From 5.1r1	No changes to attend to before upgrade.
From 5.0r2	No changes to attend to before upgrade.

Table 1: Changes to Files and Directories (*continued*)

Upgrade Path	Files and Directories
From 5.0r1	<p>Before you upgrade, take note of the following changes and recommended actions:</p> <ul style="list-style-type: none"> IDP OS 5.1r2 stores packet logs in numbered subdirectories of <code>/usr/idp/device/var/pktlogs/</code>. To implement this change, your existing <code>/usr/idp/device/var/pktlogs/</code> directory will be overwritten. If you have been using the option to maintain packet data locally and send to NSM on demand, copy any packet logs you want saved from <code>/usr/idp/device/var/pktlogs/</code> to a remote location before you upgrade. Previously collected packet capture logs will not be available to NSM. This action is not required if you have been using the option to always include packet data when NSM sends the event log. Your custom settings in the <code>/usr/idp/device/bin/user_funcs</code> file are preserved when you upgrade. No action is required.
From 4.1r4	<p>When you upgrade from IDP OS 4.1r4 to IDP OS 5.1r2, you are reimaging the disk with a new operating system. All partitions except <code>/var/idp</code> are rewritten.</p> <p>In addition, IDP OS 5.1r2 stores packet logs in numbered subdirectories of <code>/usr/idp/device/var/pktlogs/</code>. This is the same directory structure introduced in IDP OS 4.1r4. Note, however, that the upgrade process preserves only packet log files in <code>/usr/idp/device/var/pktlogs/0/</code>. Packet log files in other directories will be lost upon upgrade. If you have been using the option to maintain packet data locally and send to NSM on demand, copy logs from <code>/usr/idp/device/var/pktlogs/1/</code> and higher numbered log directories to a remote location before you upgrade. This action is not required if you have been using the option to always include packet data when NSM sends the event log.</p> <p>The upgrade process restores your license and most of your previous settings. The following settings are not preserved:</p> <ul style="list-style-type: none"> The upgrade does not retain settings no longer supported in IDP OS 5.1. The upgrade process saves a backup of your previous <code>/usr/idp/device/bin/user_funcs</code> file, but installs a new <code>user_funcs</code> file in order to provide appropriate content for IDP OS 5.1 (releases 5.1r1 or 5.1r2).

Downgrading or Reverting

You cannot downgrade or revert to a previous version. You can reimage the operating system, if necessary. For details on reimaging, see the [installation guide](#) for your IDP Series device.

Licensing

The upgrade procedure preserves your earlier license configuration. The reimaging procedure does not. If you reimage the appliance, see the [installation guide](#) for information on licensing.

Compatibility with Network and Security Manager

At the time of the IDP OS Release 5.1r2, we verified compatibility with the following release of Network and Security Manager (NSM):

- NSM 2010.4 build LGB14z2q24

NSM 2010.4 build LGB14z2q24 is required to support new IDP OS Release 5.1 features.

Table 2: Download Locations for NSM 2010.4 (Requires Log In)

NSM Software	URL
NSM Client	https://download.juniper.net/software/nsm/2010.4q24/nsm2010.4q24_ui_win_x86.zip (Windows)
	https://download.juniper.net/software/nsm/2010.4q24/nsm2010.4q24_ui_linux_x86.zip (Linux)
NSM Server	https://download.juniper.net/software/nsm/2010.4q24/nsm2010.4q24_servers_sol_sparc.zip (Solaris)
	https://download.juniper.net/software/nsm/2010.4q24/nsm2010.4q24_servers_linux_x86.zip (Linux)
MD5 checksum	https://download.juniper.net/software/nsm/2010.4q24/md5sum.txt



NOTE: NSMXpress users should consult [KB 13946](#) for information on how to upgrade NSMXpress to a patch version of NSM.

Compatibility with Juniper Networks Infranet Controller

The user-role-based policy feature depends on deployment with IC Series Unified Access Control (UAC) 4.1r1 or later.

Browser Requirements

The ACM, QuickStart utility, and IDP Reporter have been tested on the following browsers:

- Internet Explorer 7.x, 6.x
- Firefox 3.x, 2.x

Upgrading Software on an HA Cluster

Upgrading an HA deployment involves special considerations. For information on upgrading an HA deployment, see “[Workflow: Upgrading an IDP OS 4.1r4 Cluster to IDP OS 5.1](#)” in *IDP Series Deployment Scenarios*.

Upgrading Software on a Standalone Device

During upgrade, the IDP Series device is gracefully shut down. If you have configured bypass for traffic interfaces, you do not need to be concerned about traffic disruption. If you have not configured bypass, you should plan to complete your upgrade at an appropriate time.

You can use NSM or the CLI to upgrade the IDP OS software. You must use NSM to complete the IDP detector engine and attack object updates.

This section provides the following alternative workflows:

- [Upgrading with NSM on page 6](#)
- [Upgrading with the CLI on page 8](#)



TIP: If possible, use a laptop to connect to the console port of the IDP Series device when you upgrade. This will enable you to view any console messages that can assist in identifying any issues during upgrade. We understand this is not possible or desirable in all deployments, so connecting via console is not required to upgrade.

Upgrading with NSM

This section describes a workflow for upgrading the IDP OS software using only NSM.

To update the IDP OS software:

1. Add the IDP OS software to the NSM GUI server.
2. Push the IDP OS software from the NSM GUI server to one or more IDP Series devices.

To add an IDP OS software image to the NSM GUI server:

1. Download the software image:
 - a. Go to <https://www.juniper.net/customers/csc/software/> and log in with your customer username and password.
 - b. Enter the IDP Series device serial number to display a view of applicable software releases available for download.
 - c. Click the applicable link to display the software download page.
 - d. Download the software to a location you can access from your NSM client.
2. From the NSM main menu, select **Tools > Software Manager** to display the Software Manager dialog box.
3. Click the + button to display the Open dialog box.

4. Select the IDP OS software image you just downloaded and click **Open** to add the software image to the NSM GUI server.
5. Click **OK**.

To push the software image from the NSM GUI server to IDP Series devices:

1. From the NSM main menu, select **Devices > Software > Install Device Software** to display the Install Device Software dialog box.
2. From the Select OS Name list, select **ScreenOS/IDP**.
3. From the Select Software Image list, select the image file you just added to the NSM GUI server.
4. In the Select Devices list, select the IDP Series devices on which to install the software update.
5. Click **Next** and complete the wizard steps.
6. Select **Automate ADM Transformation** to automatically update the Abstract Data Model (ADM) for the device after NSM installs the update.



NOTE: If you clear this setting, the update is installed onto the device, but you cannot manage the device from NSM until the device ADM is updated.

7. Click **Finish** to display upgrade status in the Job Information dialog box.
8. When the upgrade finishes, click **Close** to exit the Job Information dialog box.

The software upgrade is complete.



NOTE: You might encounter unexpected behavior if you have changed the factory BIOS settings for the IDP Series device. We advise that you do not change the factory BIOS settings.

The console will hang at GRUB after reboot if you have changed the BIOS setting **Console redirection > Continue Console redirection after POST** to **ON**.

To resolve this issue, press the Delete key to enter BIOS and set this option to **OFF**.

- Next Steps:**
1. If you are upgrading from an IDP OS 5.0 or 5.1 release, skip this step. You completed it when you upgraded to 5.0 or 5.1. If you are upgrading from IDP OS 4.1r4:
 - a. Run through the ACM wizard to [reconfigure your virtual routers](#). In IDP OS Release 5.0 and later, you use ACM to configure deployment mode per virtual router.
 - b. If necessary, copy any custom settings from the backup copy of user_funcs to the new user_funcs file.
 2. Check to see if the Juniper Networks Security Intelligence Center has released an update for the detector engine or attack database:

From the NSM main menu, select **Tools > View/Update NSM attack database** and complete the wizard steps.
 3. Push the updated IDP detector engine to IDP Series devices:

From the NSM main menu, select **Devices > IDP Detector Engine > Load IDP Detector Engine for ScreenOS** and complete the wizard steps.



NOTE: Updating the IDP detector engine on a device does not require a reboot of the device.

4. Push a security policy update job to update attack objects in use in your security policy:
 - a. In NSM, select **Devices > Configuration > Update Device Config**.
 - b. Select devices to which to push the updates and set update job options.
 - c. Click **OK**.

Upgrading with the CLI

This section describes a workflow where you use the CLI to upgrade the software image on the IDP Series device. You still use NSM to update the detector engine and attack objects.

To upgrade IDP OS from the CLI:

1. Download the software image to a host that runs an FTP server. Follow these steps:
 - a. Go to <https://www.juniper.net/customers/csc/software/> and log in with your customer username and password.
 - b. Enter the IDP Series device serial number to display a view of applicable software releases available for download.
 - c. Click the applicable link to display the software download page.
 - d. Save the **sensor_version.sh** file (where version is the number that identifies the software release version).
2. Connect to the IDP command-line interface in one of the following ways:
 - Use SSH to connect to the IP address or hostname for the management interface. Log in as **admin** and enter **su -** to switch to root.
 - If you prefer, make a connection through the serial port and log in as root.



NOTE: To make an SSH connection, you must have enabled SSH for the management port (eth0). For details, see the ACM online Help.

3. Use SCP or FTP to copy the software image file to the IDP appliance. The IDP appliance does not run an FTP server, so you have to initiate the FTP session from the IDP appliance.
4. Run the upgrade script by entering **sh sensor_version.sh**, where *version* is the number that identifies the OS release version. When the script has finished, enter **reboot**.



NOTE: You might encounter unexpected behavior if you have changed the factory BIOS settings for the IDP Series device. We advise that you do not change the factory BIOS settings.

The console will hang at GRUB after reboot if you have changed the BIOS setting **Console redirection > Continue Console redirection after POST** to **ON**.

To resolve this issue, press the Delete key to enter BIOS and set this option to **OFF**.

5. In the NSM Device Manager, right-click the device, select **Adjust OS Version**, and complete the wizard steps.

The software upgrade is complete.

- Next Steps:**
1. If you are upgrading from an IDP OS 5.0 or 5.1 release, skip this step. You completed it when you upgraded to 5.0 or 5.1. If you are upgrading from IDP OS 4.1r4:
 - a. Run through the ACM wizard to [reconfigure your virtual routers](#). In IDP 5.0 and later, you use ACM to configure deployment mode per virtual router.
 - b. If necessary, copy any custom settings from the backup copy of user_funcs to the new user_funcs file.
 2. Check to see if the Juniper Networks Security Intelligence Center has released an update for the detector engine or attack database:

From the NSM main menu, select **Tools > View/Update NSM attack database** and complete the wizard steps.
 3. Push the updated IDP detector engine to IDP Series devices:

From the NSM main menu, select **Devices > IDP Detector Engine > Load IDP Detector Engine for ScreenOS** and complete the wizard steps.



NOTE: Updating the IDP detector engine on a device does not require a reboot of the device.

4. Push a security policy update job to update attack objects in use in your security policy:
 - a. In NSM, select **Devices > Configuration > Update Device Config**.
 - b. Select devices to which to push the updates and set update job options.
 - c. Click **OK**.

Changes to IDP OS Modules

The following table lists changes to IDP OS modules.

Table 3: Changes to IDP OS Modules

Module / Tracking PR	Description
Apache / 588449, 588805	Upgraded to 2.2.17 and removed the FTP module, which is not used.
libxml / 588811	Removed the libxml module, which is not used.
Linux kernel / 588801	Upgraded to 2.6.37.2.
OpenSSL / 580468, 588442	Upgraded to 1.0.0d and removed the Kerberos module, which is not used.

Resolved Issues

The following table describes issues that are resolved when you upgrade to from IDP OS Release 5.1r1 to IDP OS Release 5.1r2. If you are upgrading from an earlier version, read the release notes for the subsequent releases to learn about the issues that were resolved in them.

Table 4: Resolved Issues

PR	Description
573995	<p>Changed the implementation for measuring CPU utilization for multicore platforms (IDP250, IDP800, IDP1100, IDP8200) to resolve an issue that had caused incorrect CPU utilization reporting for IDP8200 idpengine_0. This issue and this change are not applicable for single core platforms (IDP75, IDP200, IDP600).</p> <p>Accurate measurement of CPU utilization for an operating system must be calibrated. IDP Series devices have model-specific default CPU utilization calibration values that are set when the lkmstart.sh utility is run. The lkmstart.sh utility is run automatically when the system is restarted. In IDP OS 5.1r2, the implementation for multicore CPU platforms includes a self-correction mechanism that recalibrates the CPU utilization measurement from time-to-time. Recalibration is initialized after traffic load falls to zero and then starts processing new traffic (the new load must be nontrivial).</p> <p>For multicore platforms, we recommend you use SNMP to monitor CPU utilization and use the scio idp-cpu-utilization utility to investigate unexpected high or low CPU utilization. If the CPU utilization reported does not make sense given the traffic load, the CPU utilization measurement might need to be recalibrated. Wait until traffic load subsides to zero and rises again to see if the self-correction mechanism handles the problem. If this does not work, you can use the scio calibration command to change the calibration values manually. For details on the scio calibration command, see "Troubleshooting Erroneous CPU Utilization Reports."</p>
594836	Resolved an issue that had resulted in periodic loss of connectivity between the IDP Series device and NSM. We have turned off periodic SSL renegotiation in the IDP agent implementation.
604499, 742196	Resolved a possible race condition that could occur during policy push between the policy push operation and the packet forwarding operation. The condition could result in an IDP engine hanging and the system entering NIC bypass.

Known Issues

The following table describes issues that are present in IDP 5.1r2.

Table 5: Known Issues

PR	Description
Upgrade	
428341	During upgrade with NSM, the NSM Job Information window displays status information that is not consistent with the operations occurring on the IDP Series device.

Table 5: Known Issues (*continued*)

PR	Description
591151	<p>When upgrading to IDP OS 5.1r2, userspace device management failure messages like those shown below are printed to the serial port console screen. You can ignore these messages.</p> <pre> GRUB Loading stage2... Press any key to continue. Press any key to continue. Press any key to continue. Press any key to continue. Press any key to continue.Red Hat nash version 5.1.19.6 starting Welcome to Juniper Networks IDP OS Press 'I' to enter interactive startup. Setting clock (utc): Wed Mar 9 02:51:43 PST 2011 [OK] Starting udev: udevd-event[2198]: wait_for_sysfs: waiting for '/sys/devices/pci0000:00/0000:00:1f.2/host1/ioerr_cnt' failed udev-event[2199]: wait_for_sysfs: waiting for '/sys/devices/pci0000:00/0000:00:1f.2/host2/ioerr_cnt' failed udev-event[2201]: wait_for_sysfs: waiting for '/sys/devices/pci0000:00/0000:00:1f.1/host4/ioerr_cnt' failed udev-event[2202]: wait_for_sysfs: waiting for '/sys/devices/pci0000:00/0000:00:1f.1/host5/ioerr_cnt' failed udev-event[2197]: wait_for_sysfs: waiting for '/sys/devices/pci0000:00/0000:00:1f.2/host0/ioerr_cnt' failed udev-event[2200]: wait_for_sysfs: waiting for '/sys/devices/pci0000:00/0000:00:1f.2/host3/ioerr_cnt' failed udev-event[2807]: wait_for_sysfs: waiting for '/sys/devices/pci0000:00/0000:00:1f.2/host0/target0:0:0/ioerr_cnt' failed [OK] Loading default keymap (us): [OK] </pre>
591163	<p>When you upgrade the IDP OS, the sshd service is restarted. When upgrading from IDP 5.0r1, the following erroneous messages appear and can be ignored:</p> <pre> Stopping sshd:[OK] Starting sshd:WARNING: initlog is deprecated and will be removed in a future release /etc/ssh/sshd_config line 74: Unsupported option GSSAPIAuthentication /etc/ssh/sshd_config line 76: Unsupported option GSSAPICleanupCredentials </pre> <p>This issue is not observed in upgrades from IDP OS 4.1r4 or IDP OS 5.1r1.</p>
Unsupported Functionality	
497226	<p>A manually set IDP Series device system clock setting is not preserved after upgrading to IDP OS 5.1 (release 5.1r1 or 5.1r2).</p> <p>Workaround: Use NTP to set the IDP Series device system clock. If you do not want to use NTP, you can use ACM to reset the system clock after you have completed the upgrade.</p>
572045	<p>When you encounter a hung system, you might want to force a core dump. To do this, you type a SysRq key combination. You can use the SysRq key combination on IDP8200, IDP800, IDP250, and IDP75; but not IDP1100, IDP600, or IDP200.</p>
ACM	

Table 5: Known Issues (*continued*)

PR	Description
286327	Cosmetic issue: when no installed I/O module supports bypass, the ACM Configure Virtual Routers page should not display the user interface group for NIC State. When no installed I/O module supports bypass, NIC state is non-configurable.
298918	<p>ACM does not reject poorly formed alias names. In particular, ACM does not reject constructions with incomplete double-quote strings. For example, "hello (missing end-quote). As a result, the alias name does not appear in NSM.</p> <p>To avoid this issue, be careful to use complete double-quote constructions for alias names. For example, "hello".</p>
591857	After you use ACM to apply a configuration change that requires a reboot, ACM displays a page that confirms the configuration changes. The page is labeled "Configuration Saved & Applied". In previous releases, this page was labeled "Confirm Configuration".
591152	After you use ACM to apply a configuration change, ACM displays a page with status on the update. Within these logs, there is an erroneous message that you can ignore: "/bin/echo: write error: Invalid argument".
Detection Accuracy	
279408	<p>UDP port scanning works if there is no response from the Victim PC. However, if the response comes in the form of "UDP Port not reachable," the detection ignores the flow because the response packet is more than 20 bytes (default value).</p> <p>To work around this issue:</p> <ol style="list-style-type: none"> 1. In the NSM Device Manager, double-click the name of the device to display the configuration editor. 2. Click Sensor Settings. 3. Click the Run-time parameters tab. 4. Under Traffic Signatures, increase the value for Byte threshold for suspicious flows.
508363	False positive where SSL:Audit:Non-SSL is wrongly detected in HTTPS traffic. The issue only occurs when SSL:Audit:Non-SSL is included in a compound signature with another member having stream256 context.
Configuration	
303672	In custom attack objects, in attack signatures, negation inside case-insensitive block is not supported. To work around this issue, rewrite the signature to avoid negation inside a case-insensitive block.
415301	Policy validation through NSM does not return a warning if the APE rulebase rate limit you specify exceeds the ingress and egress capacity of device. You must be careful to consider the capacity of your links when you specify APE rulebase rate limiting actions.

Table 5: Known Issues (*continued*)

PR	Description															
426720	<p>In the following scenario, NSM policy validation should report a rule shadowing condition because the second rule could never be applied.</p> <table><thead><tr><th>Rule</th><th>Source</th><th>Destination</th><th>Service</th><th>Attacks</th></tr></thead><tbody><tr><td>1</td><td>any</td><td>any</td><td>HTTP</td><td>All SMTP attacks</td></tr><tr><td>2</td><td>any</td><td>any</td><td>HTTP</td><td>All HTTP attacks</td></tr></tbody></table> <p>Traffic to port 80 would be inspected for only SMTP attacks and not HTTP attacks.</p>	Rule	Source	Destination	Service	Attacks	1	any	any	HTTP	All SMTP attacks	2	any	any	HTTP	All HTTP attacks
Rule	Source	Destination	Service	Attacks												
1	any	any	HTTP	All SMTP attacks												
2	any	any	HTTP	All HTTP attacks												
431702	<p>You must be careful configuring speed and duplex for IDP75 and IDP800 onboard interfaces and IDP8200 I/O module copper interfaces. The speed and duplex setting for the IDP Series interfaces and the peer switch or firewall interfaces must match. The best practice is to set both to AUTO. If you do not use auto-negotiation on both sides, you must ensure the explicitly specified speed and duplex settings match.</p> <p>We have observed traffic dropping if the IDP Series interfaces are configured as 100/10/1000 half/full duplex (AUTO-OFF) and the peer switch or firewall is configured as AUTO-ON.</p>															
536881	<p>The NSM object editor does not enforce correct use of the within bytes constraint for custom signature attack objects.</p> <p>When you set a byte range constraint, you set a start point that is Context, Packet, or Stream. Your selection must be consistent with the pattern context setting for the attack object. For example, if you configured one of the service contexts, select Context. If you configured one of the packet contexts, select Packet. If you configured one of the stream contexts, select Stream.</p> <p>In NSM, it is possible to select a start point that is inconsistent with the pattern context setting. For example, the NSM object editor allows you to configure a pattern context http-variable and then set a within bytes start point that is start-of-packet. However, the within bytes match logic will be resolved to the start point you should have selected: context.</p>															
536967	<p>When you configure a custom signature attack object, you can optionally set multiple within bytes constraints. Multiple entries are evaluated as a Boolean OR. This PR is to track a request for support for cases where you would want multiple entries processed as a Boolean AND.</p>															
537217	<p>If you change the third-party HA setting (enable to disable, and vice versa), ACM reboots the device.</p>															
537481	<p>IDP OS 5.1 (release 5.1r1 or 5.1r2) does not support the within bytes constraint for custom compound attack objects.</p>															
538247	<p>When you configure a custom compound attack object, you can optionally set within packets constraints. If you set a packet constraint for one member, the program logic counts packets beginning implicitly with the start-of-stream. Request is to include a UI option to specify the starting point.</p>															
539399	<p>In ACM, you have the option to use a RADIUS server as an authentication source for access to ACM. However, the username format allowed by the ACM configuration page does not support all formats deemed valid by RFC 2486. In IDP OS Release 5.1 (release 5.1r1 or 5.1r2), you can specify a usernames that include periods (such as john.doe), but not special characters such as @ or + that are conventions in the username formats used by some enterprises (such as john.doe@company.com).</p>															

Table 5: Known Issues (*continued*)

PR	Description
552167	HA deployment has an IDP system requirement that a virtual router named vr0 contain eth1 (the HA state sync interface). If you upgrade an IDP OS 4.1r4 device that has HA enabled, eth1 is added to vr0 automatically. Otherwise, you must check the ACM Configure Virtual Routers page to ensure this HA system requirement is met. This requirement only applies if the device belongs to an HA deployment.
Monitoring / Console	
288824	<p>Under high traffic conditions, the following exception messages are displayed in the console:</p> <pre>ata1.00: exception Emask 0x2 SAct 0xfe SErr 0x400000 action 0x2 frozen ata1.00: (spurious completions during NCQ issue=0x0 SAct=0xfe FIS=005040a1:00000001) ata1.00: cmd 61/30:08:8d:6e:16/00:00:00:00:00/40 tag 1 cdb 0x0 data 24576 out res 50/00:38:a5:70:16/00:00:00:00:00/40 Emask 0x2 (HSM violation)</pre> <p>You can safely ignore these messages.</p>
438582	The NSM software version inventory fails to identify a patch version number when you add the IDP Series device or import a IDP Series device configuration. To work around this issue, you can use the NSM Device Manager to run an Adjust OS operation or use the IDP OS CLI to run idp.sh restart . However, the problem will recur following add device or import configuration procedures.
416086	The NSM Process Status lists idpLogPurger status, which is not a active process in IDP Series devices.
Logging / Packet Capture	
227241, 416708	Profiler is unable to capture the OS fingerprint for some destination servers. Reports show "Unknown OS".
287179	After system unavailability, the IDP Series device does not send a log that the device has returned to normal operations.
407900	In NSM log viewer, the strings for log severities for IDP Series devices are inconsistent with other network devices. For IDP Series devices, strings for severity include Device_critical_log and Device_warning_log instead of the strings Critical and Warning that appear for other network devices.
415164	In NSM, packet data cannot be displayed correct for certain malformed IP packets.
418220	Logs to IC Series: When log suppression is enabled, logs sent to the IC Series should indicate the repeat count when applicable.
419544	In NSM Profiler logs, alert logs when Profiler detects a new, non-IP protocol always show the protocol as HOPOPT instead of the specific protocol.
423852	In NSM log viewer, the value in the Subcategory column for flow bypass and autorecovery logs is Other. We expect the value to identify the flow bypass or autorecovery event more specifically.
427100	Syslog issue: autorecovery events reported in syslog messages do not indicate which IDP engine restarted.
429086	Database limit exceeded alert log are not displayed in Profiler logs.

Table 5: Known Issues (*continued*)

PR	Description
437768	We have observed a minor loss of application volume tracking (AVT) data if the AVT .stat file is larger than 1 GB.
446451	Logs generated when a Radius user accesses ACM are not sent to the syslog server. Such logs are sent to NSM.
462005	IDP Reporter Application reports show incorrect statistics for bytes transferred. The report shows only client-to-server bytes, not total bytes.
462680	Request to change content of some syslog messages so they are more useful when viewed through syslog readers, such as STRM.
575772	<p>SNMP: For IDP8200 only, the values reported for the following MIB objects are incorrect:</p> <ul style="list-style-type: none"> • jnxIdpSensorFreePktBuffersFiveSec.0 • jnxIdpSensorFreePktBuffersOneMin.0 • jnxIdpSensorPktsRxdPerIntfcTable • jnxIdpSensorPktsTxRatePerIntfcTable • jnxIdpSensorPktsDropOnAllIntfc.0 • jnxIdpSensorSignatureStatsTable • jnxIdpSensorTopTenSignatureStatsTable <p>As a workaround, you can use NSM and IDP Reporter top attack reports to see the data for signature matches. You can log into the CLI and use the jnetStats command to retrieve packet buffer and packet transmission statistics. For example:</p> <pre>[root@defaulthost ~]# jnetStats ../jnetLib.c built on Dec 20 2010 at 23:05:51 with PRODUCTION build of SALEEN -43e. -- Worker Id 0 Stats: freePackets: 444032 dropCount: 0 -- Thread Id 0 Stats: rxPackets: 20846535763 rxBytes: 14757418499789 rxOverflow: 0 rxQueued: 0 txComplete: 18487802326 txCompleteBytes: 14691015670286 allocQueueSize: 1023 txPackets: 18487802326 txBytes: 14692307273740 -- Device Id 0 (eth2) Stats: Link Status: Down rxPackets: 0 rxBytes: 0 rxOverflow: 0 txPackets: 0 txBytes: 0 [...]</pre>

Table 5: Known Issues (*continued*)

PR	Description
590812	<p>The following log messages appear periodically in lkmStart log entries:</p> <pre>[WARN]:STARTING /usr/idp/device/bin/lkmStart.sh recover [WARN]:STARTING /usr/idp/device/bin/lkmStart.sh recover</pre> <p>The following unexpected log messages appear in idpHMD log entries:</p> <pre>[Error] DVRdriveStatus failed [Error] DVRdriveStatus failed</pre> <p>Please ignore these log messages. They are not expected and not cause for action or concern.</p>
High Availability	
550567	Synchronization from primary device to backup device includes updates to the application identification matches for predefined signatures (the appsig cache). Updates do not include cached entries for custom applications or extended applications (the extappsig cache).
558837	Due to a hardware limitation, interface signaling is not supported for IDP8200 10 gigabyte fiber interfaces.
559087	We do not support attack detection (flow-based or packet-based) in synced sessions processed by the standby device after retransmission on the redundant path. Packets for these sessions are passed through, uninspected. New sessions traversing the redundant path are inspected.
CPU Utilization	
434539	In the NSM Device Monitor > View Device Details > Process Status tab, the CPU utilization for the IDP engine is reported as 0%. You cannot use NSM to monitor device CPU utilization. We recommend you use SNMP to monitor CPU utilization and CLI utilities when investigating high or low CPU utilization. For single core platforms, the CPU utilization reported to SNMP is based on the results of the top command. For multicore platforms, the CPU utilization reported to SNMP is based on the results of the scio idp-cpu-utilization command.
603547	Counterintuitive behavior—In an HA deployment, the IDP Series device in the inactive path shows occasional spikes in CPU utilization even though it is not processing packets. This is expected. The CPU usage is related to state synch operations between the active device and the passive device.
Stability	
430363	IDP8200 stops processing traffic at high load with SYN protection enabled.
499447	<p>For single core platforms (IDP75, IDP200, IDP600), we recommend you disable application volume tracking (AVT). AVT processes are CPU intensive, resulting in link flapping under stress.</p> <p>Note that if you disable AVT, IDP Reporter application volume reports are empty.</p>
573031	Low memory triggered JNET bypass on IDP800.
593999	PKID crash related to SSL inspection (forward proxy) in a stress-test environment.
594004	In a stress-test environment, we observed a condition where SSL forward-proxy processing results in a crash with coredump.

Table 5: Known Issues (*continued*)

PR	Description
601870	In an IDP8200 stress test, we observed an IDP engine hang related to TSIG processing and subsequent spike in CPU utilization.
604848	In an IDP8200 stress test, we observed a crash with core at sc_icache_instance.
Expected Behavior	
547354	Packet drops are possible in simulation mode if the JNET free packet buffer is 0.
Shutdown Operation	
432893	The shutdown -h now command might not behave as expected if you deploy IDP8200 with any of the following fiber I/O modules: IDP-10GE-4SX-BYP, IDP-10GE-2XFP, or IDP-10GE-2SR-BYP. Instead of shutting down, the OS unexpectedly restarts. This issue has been reported only in the initial shipments of this hardware. For details and a solution, contact JTAC.
Documentation	
424045	In NSM Device Manager, a new configuration section for Report Settings does not include online help. For information about the report settings you can configure with NSM, see the “IDP Logs and Reports in NSM Task Summary” section in the <i>IDP Series Administration Guide</i> .

Documentation

You can download user documentation from the Juniper Networks Web site: <http://www.juniper.net/techpubs/>. The user documentation on the IDP OS 5.1 site applies to IDP OS 5.1r2. [Table 6 on page 18](#) lists the user documentation related to the IDP Series appliance.

Table 6: Related IDP Series Documentation

Document	Description
Juniper Networks Security Intelligence Center Attack Signatures	Lists predefined attack signatures developed by the Juniper Networks Security Intelligence Center.
Juniper Networks Security Intelligence Center Application Signatures	Lists predefined application signatures developed by the Juniper Networks Security Intelligence Center.
IDP Detector Engine release notes	Provides information about IDP Detector Engine releases, including new features, changed features, fixed problems, and known issues.
IDP Series installation guides	Describes IDP Series hardware and provides instructions for installing, configuring, updating, and servicing the device.
IDP Series Feature Documentation	A collection of topics from the <i>IDP Series Administration Guide</i> and <i>IDP Series Concepts and Examples Guide</i> , in HTML.

Table 6: Related IDP Series Documentation (*continued*)

Document	Description
<i>IDP Series Administration Guide</i>	Provides procedures for completing IDP Series administration tasks with the Network and Security Manager (NSM) central management program; with the IDP Series device Appliance Configuration Manager (ACM); and with the IDP Series device command-line interface (CLI).
<i>IDP Series Concepts and Examples Guide</i>	Explains IDP Series features and provides examples of how to use the system.
<i>IDP Series Custom Attack Objects Reference and Examples Guide</i>	Provides examples and reference information for creating custom attack objects.
<i>IDP Reporter User's Guide</i>	Describes how to use IDP Reporter, an on-box reporting platform that includes predefined reports on attack detection and application usage. You can also use IDP Reporter to schedule regular publication of reports that are of interest to you or your stakeholders.

Table 6 on page 18 lists related NSM documentation.

Table 7: Related NSM Documentation

Document	Description
<i>Network and Security Manager release notes</i>	Provides information about new features, changed features, fixed problems, and known issues with the NSM release.
<i>Network and Security Manager Installation Guide</i>	Describes how to install the NSM management system on a single server or on separate servers. It also includes information on how to install and run the NSM user interface. This guide is intended for IT administrators responsible for the installation and/or upgrade to NSM.
<i>Network and Security Manager Configuring Intrusion Detection and Prevention Devices Guide</i>	Describes how to configure and manage IDP Series devices using NSM. This guide also helps in understanding of how to configure basic and advanced NSM functionality, including adding new devices, deploying new device configurations, updating device firmware, viewing log information, and monitoring the status of IDP Series devices.
<i>Network and Security Manager Administration Guide</i>	<p>Describes how to use and configure key management features in the NSM. It provides conceptual information, suggested workflows, and examples where applicable. This guide is best used in conjunction with the NSM Online Help, which provides step-by-step instructions for performing management tasks in the NSM UI.</p> <p>This guide is intended for application administrators or those individuals responsible for owning the server and security infrastructure and configuring the product for multi-user systems. It is also intended for device configuration administrators, firewall and VPN administrators, and network security operation center administrators.</p>
Network and Security Manager Online Help	Provides task-oriented procedures describing how to perform basic tasks in the NSM user interface. It also includes a brief overview of the NSM system and a description of the GUI elements.

Getting Help

If you need additional information or assistance, contact Juniper Networks Technical Assistance Center (JTAC) by E-mail (support@juniper.net) or telephone (1-888-314-JTAC within the United States or 1-408-745-9500 from outside the United States).

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