SRC PE Software Release Notes

Release 4.1.0
August 2011
Revision 2

These release notes cover Release 4.1.0 of the Juniper Networks Session and Resource Control (SRC) portfolio. The SRC software runs on C Series Controllers. If the information in these release notes differs from the information found in the published documentation set, follow these release notes.

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Release Overview

If the information in your current release notes differs from the information found in the other documentation sources, follow the *SRC PE Release Notes*.

Before You Start

Before you use your new software, read these *Release Notes* in their entirety, especially the section *Known Problems and Limitations*. You need the following documentation to fully understand all the features available in Release 4.1.0:

- These *SRC 4.1.0 Release Notes*, which describe the changes between Releases 4.0.0 and 4.1.0.
- The 4.1.0 SRC Policy Engine (SRC PE) software documentation set, which provides detailed information about features available in Release 4.1.x.

If the information in your current release notes differs from the information found in the other documentation sources, follow the *Release Notes*.

Documentation

The 4.1.x SRC PE core documentation set consists of several manuals and is available only in electronic format. Refer to the following table to help you decide which document to use.

Task	Related Documentation
Install the C Series Controller.	*C Series Controllers C3000 and C5000 Hardware Guide* *C Series Controllers C2000 and C4000 Hardware Guide*
Get up and running quickly.	*C3000 and C5000 Quick Start Guide* *C2000 and C4000 Quick Start Guide*
Learn about the general operation of the SRC software.	*SRC PE Getting Started Guide*
Perform basic configuration of a C Series Controller.	*SRC PE Getting Started Guide*
Use the SRC CLI.	*SRC PE CLI User Guide*
Use the License Manager and directory events.	*SRC PE Getting Started Guide*
Use the SAE, Juniper Networks routers, NIC, ACP, SSR, and SIC.	*SRC PE Network Guide*
Use the SNMP agent and logging utilities.	*SRC PE Monitoring and Troubleshooting Guide*
Integrate external network devices into the SRC network.	*SRC PE Network Guide*
Work with SRC services and policies.	*SRC PE Services and Policies Guide*

Task	Related Documentation
Work with SRC subscribers and subscriptions.	*SRC PE Subscribers and Subscriptions Guide*
Use the enterprise portals.	*SRC Sample Applications Guide*
Use the residential portal.	*SRC Sample Applications Guide*
Use the C-Web interface to configure the SRC software.	*SRC PE C-Web Interface Configuration Guide*
Get specific information about commands and statements for: • CLI and system • Juniper Networks database • SAE • Network Information Collector (NIC) • Session State Registrar (SSR) • Subscriber Information Collector (SIC) • SNMP agent • SRC Admission Control Plug-In (SRC ACP)	*SRC PE CLI Command Reference, Volume 1*
Get specific information about commands and statements for: • Services • Policies • Subscribers • Redirect server • External Subscriber Monitor • Dynamic Service Activator • IP Multimedia Subsystem (IMS) • Diameter application	*SRC PE CLI Command Reference, Volume 2*

The entire documentation set, including the release notes, in PDF format is available on the Juniper Networks Web site:

http://www.juniper.net/techpubs/software/management/src/

SRC Software

The SRC software for C Series Controllers is preinstalled on the device and available on the USB storage device supplied with the platform.

You can also download the SRC software and the product release notes from the Juniper Networks Web site at:

https://www.juniper.net/support/csc/swdist-erx/src.html

Release Highlights

Highlights include the following product enhancements:

NOTE: The SRC software runs on the C Series Controllers—a range of hardware platforms. The SRC 4.1.0 software contains the features found in the SRC 4.0.0 release plus the features listed in this section. The SRC 4.1.0 software may contain references to Release 7.6.0, which refers to the SAE version.

Admission Control Plug-in (ACP) Congestion Point Monitoring

- SNMP MIB Enhancements

  SNMP statistics support and trap facilities allow operators to retrieve current ACP performance statistics including active VoD sessions, successful VoD requests, and rejected VoD requests. A new service table (juniAcpCongestionPointTable) is added to provide statistics information aggregated by service. Each entry of the table corresponds to one service managed by ACP. This MIB table is not available for SNMP GET or GET-NEXT requests.

  The ACP congestion point usage trap (acpCPUsage) provides four congestion point usage traps: critical, major, minor, and clear. Critical, major, and minor traps are sent when the corresponding thresholds are exceeded. The clear trap is sent when the previous event is cleared. When the sampled value falls below a higher threshold but is still above a lower threshold, a clear trap is sent followed by a trap corresponding to the lower threshold. Objects sent with the traps include the congestion point ID (congestion point DN plus instance ID, which is optional), the CP's upstream bandwidth, downstream bandwidth, upstream bandwidth in use, and downstream bandwidth in use.

- ACP Logging Enhancements

  ACP logging enhancements provide an audit trail of ACP processing of VoD requests including successful and rejected requests. Logging can be pushed to multiple syslog servers.

- New ACP Congestions Point Commands

  New commands are available for simultaneously displaying both edge and backbone congestion points accessed by a given service session of a subscriber. The **show acp congestion-point by-subscriber (ip *ip* | login *login* | session-id *session-id*) service-name *service-name*** command supports looking up congestion points accessed by a subscriber if the service name is omitted or by a service of a subscriber. The subscriber can be identified by IP address, login name, or user session ID. If the service name is not provided, the command displays only edge congestion points accessed by the subscriber. If the service name is provided and the service session is active, the command also displays backbone congestion points accessed by the service session. You can also display these new statistics using the C-Web interface.

CLI

- Saving and Loading the SRC Configuration

  Saving and loading the configuration allows you to fully restore a C Series Controller to the configuration and operational state based on which configuration you save and load. For example, you can restore a system to the factory default, reinstall a system, or deploy a new system configuration from the saved configuration.

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Log Rotation

- Log Rotation and File Upload

  Log rotation allows you to automatically export and delete files on the C Series Controller local disk so that you can save all information without any risk of it being overwritten. To control resources on the local C Series Controller, you can optionally configure the SRC to automatically upload files normally stored on the local disk to a remote FTP server. After the file upload is successfully completed, the files are automatically deleted from the local disk. This feature is especially useful for uploading and storing accounting flat files; however, you can also use it with log files and saved configuration files. If you do not configure a remote FTP server, the file upload client compresses the most recently updated files and stores them in a backup directory.

Managing LAC Interfaces via COPS

- Support for L2TP Access Concentrator (LAC) Interfaces on E Series Routers

  The SRC can manage L2TP access concentrator (LAC) interfaces on E Series routers. The E Series router functions as the Common Open Policy Service (COPS) client to support policy and QoS configuration for LAC interfaces. This functionality is supported only in environments in which the E Series router is configured as an LAC in an L2TP tunnel. In addition, the SRC software can now use the NAS-Port and NAS-IP of the user from the E Series router for managing services. This feature requires the E Series router to be running an updated software release. Consult your Juniper Networks representative for more details.

Nested Applications

- Nested Applications

  The SRC can control application identification on the MX Series router with the granularity of nested applications. Nested applications are applications that are embedded within another application. For example, a gaming application within HTTP. Prior to this release 4.1, SRC could control application identification only on a per-application or per-group of applications basis. This feature requires the MX Series router to be running Packet Triggered Subscriber Policies (PTSP) and an updated Junos Software release. Consult your Juniper Networks representative for more details.

Secure File Transfer

- SFTP Support

  Secure file transfer (SFTP) is now supported, allowing file transfers between a remote client and the C Series Controller. The SFTP service is enabled by configuring:

```
system {
   services {
      sftp;
   }
}
```

Service Chaining

- Chained Services on MX Series Routers

  The SRC can now attach and update subscriber profiles on MX Series routers running Packet Triggered Subscriber Policies (PTSP). Subscriber profile is a new configuration option in Junos service-set, enabling you to chain additional services to regular PTSP policies. Chained services offered by the MS-DPC include stateful firewall, IDP, and HTTP Content Management (HCM). Each subscriber can have a specific subscriber profile attached (the subscriber profile must be preconfigured on the router). This feature requires the MX Series router to be running an updated Junos Software release. Consult your Juniper Networks representative for more details.

Session State Registrar (SSR)

- Two-Node Cluster

  For small-scale deployments, you can run the **two-shared-data-node** geometry solution. This option enables you to run an SSR cluster with only two C Series Controllers. In the two-shared-data-node geometry, each C Series Controller runs a client node with a management server and a data node, providing full redundancy on all node types. Each C Series Controller acts as a backup for the other. If you are running the service node feature, you can run the SAE, SSR, and SIC components on the same C Series Controller. This solution requires you to configure the data node memory size because memory is shared with other components. To maintain complete redundancy, make sure each C Series Controller includes the same components.

TACACS+ Accounting and Authentication Enhancements

- TACACS+ accounting can now be used to track SRC CLI and NETCONF sessions.

  Both the TACACS+ and RADIUS authentication and authorization modules support attributes returned by the authorization server. In the case of TACACS+, the attributes are encoded as strings. In the case of RADIUS, Juniper Networks RADIUS vendor-specific attributes (VSAs) are used. These VSAs are encapsulated in a RADIUS vendor-specific attribute with the vendor ID set to the Juniper Networks ID number, 2636.

VTA

- JBoss 6.0

  You can now run the VTA on JBoss 6.0.

Features Not Fully Qualified

The SRC Release 4.1.x documentation set describes some features that are present in the code but that have not yet been fully qualified by Juniper Networks. These features will be fully tested and supported in a future release. We expect these features to operate as documented; however, if you use any of these features before they have been fully qualified, it is your responsibility to ensure that the feature operates correctly in your targeted configuration.

The following features are present but not fully qualified in this release.

JPS

- Juniper Policy Server (JPS)

  JPS acts as a policy decision point (PDP) and policy enforcement point (PEP) that manages the relationships between application managers and CMTS devices in a PCMM environment.

  Contact the Juniper Networks Technical Assistance Center (JTAC) for information about qualification of this feature.

  Reference: TIC 13313

Upgrading the System Software

To upgrade the system software to Release 4.1.0 from a release earlier than Release 3.2.0, you must resize the disk to support additional components and the Juniper Networks database before upgrading the software.

To upgrade the software:

1. Enter the **request system install package IPMupgrade url *url*** command, where ***url*** is the path to the image file.

   This command resizes the disk of the C Series Controller and requires the C Series Controller to reboot twice.

2. Enter the **request system upgrade url *url*** command to upgrade the system software.

Recovering Passwords for the Juniper Networks Database

The documentation does not disclose the default passwords that the Juniper Networks database uses. If you need access to these passwords or need to recover a password, contact Juniper Networks Technical Assistance Center (JTAC) for assistance.

Migrating SDX Data to a Juniper Networks Database

If you have an existing SDX installation and want to migrate your data from the directory storing the SDX data to the Juniper Networks database on an SRC platform, contact Juniper Networks Professional Services.

Known Behavior

This section describes certain SRC software behaviors and related issues to emphasize how the system works.

ACP

- ANCP update information from two routers might conflict.

  ACP uses the NasPortId as a unique identifier for ANCP update information stored in the remote update database. However, the NasPortId is only unique within a router so ANCP update information from two routers can conflict with each other and cause one update to overwrite the other.

  Reference: TIC 16592

Aggregate Services

- If you use aggregate services and specify a primary username for a subscriber reference expression, note that the configuration scenarios provided with the NIC do not provide a mapping from a primary username to the managing SAE. Consider using the login name instead. If you want to use the primary username as the subscriber reference expression for a fragment service, contact Juniper Networks Professional Services for assistance with setting up the NIC configuration to resolve the primary username to locate the managing SAE.

  Reference: None

Configuration Backups

- Save configurations in XML format for proper loading.

  You must save configurations in XML format using the **save** command. Other formats, such as configurations saved in text format or the output of the **display set** command, may not load properly.

  Reference: TIC 16244

Configuration Updates

- When you use the **load merge**, **load override**, or **load replace** command at any hierarchy level, the command loads all the configuration in the specified file.

  If you want to load the configuration for a specified hierarchy level:

  - Ensure that the file contains the **sdx:current=true** text to identify the level at which the configuration is to be loaded.
  - Run a **load** command with the **relative** option at the level at which you want to update the configuration.

  If a file contains configuration statements other than those at and below the level identified by **sdx:current=true**, the command disregards the other statements.

  If you enter a **load** command with the **relative** option and the file does not contain the text **sdx:current=true**, you receive a message indicating that the configuration cannot be loaded.

Reference: None

Console Authentication

- Logging in after entering the wrong password the first time.

  If you enter the wrong username/password combination when you log into the console, you are prompted for the LDAP password. This request is for the same password that you should have entered on your first try.

  Reference: TIC 14193

Juniper Networks Database

- Recommendations for use of multiple primary Juniper Networks databases.

  We recommend that you configure two to four Juniper Networks databases as primary databases in a community. If you plan to use more than two Juniper Networks databases in a primary role and expect to have frequent updates to the Juniper Networks database, we recommend that you test your application scenario with a projected traffic load. For assistance testing your application scenario, contact Juniper Networks Professional Services or JTAC.

  Reference: None

- Juniper Networks databases in community mode require hostname configuration.

  If you run Juniper Networks databases in community mode, all C Series Controllers that have a Juniper Networks database configured to be part of a community require hostname configuration.

  You can either configure Domain Name System (DNS) and enter the controller names into DNS or configure the controller names as static hostnames in all C Series Controllers.

  To configure each C Series Controller to use DNS:

  1. Navigate to the **[edit system]** hierarchy level.

     ```
     [edit]
     user@host# edit system
     ```

  2. Specify the name of a name server.

     ```
     [edit system]
     user@host# set name-server name-server
     ```

     where ***name-server*** is the IP address of a DNS name server.

  To configure static hostnames for each C Series Controller:

  1. Navigate to the **[edit system]** hierarchy level.

     ```
     [edit]
     user@host# edit system
     ```

  2. Specify the name of a C Series Controller as the static hostname.

```
[edit system]
user@host# set static-host-mapping host-name
```

where ***host-name*** is the fully qualified name.

Reference: TIC 13364

- Changing the role of a Juniper Networks database.

  If you change the role of a Juniper Networks database from primary to secondary, restart the Juniper Networks database after you set the role to secondary. If you do not restart the database, you receive a message similar to the following one at the CLI:

  ```
  javax.naming.NamingException: [LDAP: error code 1 - Mapping tree node for
  o=umc is set to return a referral, but no referral is configured for it];
  remaining name 'retailerName=default,o=users,o=UMC' commit completed
  with the above exception(s).
  ```

  Reference: TIC 13372

- Deleting statements on platforms running a secondary Juniper Networks database.

  When you delete statements from the CLI for a Juniper Networks database assigned a secondary role, you can receive a message for **ContextNotEmptyException** such as:

  ```
  [edit]
  root@golem# commit
  javax.naming.ContextNotEmptyException:
  ou=local,retailerName=ldapcommret1,o=users,o=UMC cannot be deleted
  commit completed with the above exception(s).
  commit complete.
  ```

  Workaround: Enter the commands to delete the same statements from a Juniper Networks database assigned a primary role. Whenever you delete statements for a Juniper Networks database, do so from a Juniper Networks database assigned a primary role.

  Reference: TIC 13376

- CLI command resets the JDB to factory defaults and erases all data.

  SRC Release 4.1.0 includes a new CLI command for resetting the JDB to factory defaults. Be careful when using this command because it erases all existing data in the JDB. Execute **request system ldap factory-default** to reset the JDB to factory defaults and erase all existing data in the directory.

  Reference: TIC 17229

JPS

- During shutdown, the JPS sometimes logs the following stack trace to stderr. This message is harmless and can safely be ignored.

  ```
  2006-04-24 15:38:48| java.io.InterruptedIOException
  2006-04-24 15:38:48| at java.io.FileOutputStream.writeBytes
  (Native Method)
  2006-04-24 15:38:48| at java.io.FileOutputStream.write
  (FileOutputStream.java:260)
  2006-04-24 15:38:48| at org.mortbay.util.RolloverFileOutputStream.write
  ```

(RolloverFileOutputStream.java:220)
2006-04-24 15:38:48| at org.mortbay.util.ByteArrayISO8859Writer.writeTo
(ByteArrayISO8859Writer.java:95)
2006-04-24 15:38:48| at org.mortbay.util.OutputStreamLogSink.log
(OutputStreamLogSink.java:459)
2006-04-24 15:38:48| at org.mortbay.util.OutputStreamLogSink.log
(OutputStreamLogSink.java:437)
2006-04-24 15:38:48| at org.mortbay.util.Log.message(Log.java:304)
2006-04-24 15:38:48| at org.mortbay.util.Log.message(Log.java:234)
2006-04-24 15:38:48| at org.mortbay.util.Log.event(Log.java:250)
2006-04-24 15:38:48| at org.mortbay.util.ThreadedServer$Acceptor.run
(ThreadedServer.java:612)

Reference: TIC 11909

Policies

- Do not disable the Juniper Networks database (jdb component) while configuring policies with the Policies, Services, and Subscribers Editor.

  Workaround: Enable the Juniper Networks database and restart the CLI.

  Reference: TIC 15573

- Deleting policies that are being used can cause problems.

  Do not delete policies, especially default policies, that are in use.

  Reference: TIC 15153

Policy Management

- Use care when modifying configurations with other policy management tools for interfaces on JUNOSe routers that are managed by the SRC software.

  When applying policies to interfaces on JUNOSe routers that are managed by the SRC software, carefully consider using other policy management tools, such as CLI, RADIUS, CoA, or Service Manager. Policies that are applied to the interface before SRC management begins, such as at access-accept time, are properly replaced. However, if other policy managers change existing policies while SRC management is active, problems can occur.

  - If you have a preconfigured policy through CLI or RADIUS as part of subscriber PVC/VLAN provisioning, the existing policy becomes inactive and the SAE manages the subscriber interface. When the SAE stops managing the interface, the preconfigured policy becomes active. However, if you change the policy on the interface using CLI or CoA, problems can occur.

- If you have a policy in Access-Accept, the existing policy becomes inactive and the SAE manages the interface.

SAE

- When using VPN ID to identify subscriber sessions for MX Series routers that support the packet-triggered subscribers and policy control (PTSP) feature, the NIC and Dynamic Service Activator are not supported.

  Reference: TIC 16565

- When specifying the name of a device at the **[edit shared network device]** hierarchy level, you must use lowercase characters.

  Reference: TIC 14568

- SAE shared properties cannot be created until local SAE properties are edited for the configuration group.

  If you want to use the configuration group for the SAE, edit the SAE shared properties at the [edit slot 0 sae] hierarchy level, then the group properties.

  Workaround: Configure a group within the SAE. To do so:

  1. At the **[edit slot 0 sae]** hierarchy level, specify a group name.

     ```
     [edit slot 0 sae]
     user@host# set shared /SAE/<group name>
     user@host# commit
     commit complete.
     ```

  2. Review the local properties.

     ```
     user@host# show
     real-portal-address 10.10.4.24;
     shared /SAE/<group name>
     initial {
       directory-connection {
         url ldap://127.0.0.1:389/;
         principal cn=ssp,ou=Components,o=Operators,<base>;
         credentials ********;
         blacklist;
       }
       directory-eventing {
         eventing;
         polling-interval 30;
       }
     }
     radius {
       local-address 10.10.4.24;
       local-nas-id SAE.myCseries;
     }
     ```

  3. Change properties as needed (you must change at least one value to create the group) and commit the configuration.

  4. Configure the group within a shared SAE configuration.

```
[edit]
user@host# edit shared sae group <group name>
```

Reference: TIC 12487

- Output for **show sae slot 0 statistics process** command.

  If you run the **show sae slot 0 statistics process** command shortly after you start the SAE, the CLI may become inoperative.

  Workaround: Wait for several minutes after you start the SAE before you run the **show sae slot 0 statistics process** command. If the CLI becomes inoperative, press Ctrl+c, wait a few seconds, and enter the command again.

  Reference: TIC 13387

- During synchronization in COPS-PR mode, the JUNOSe router can send delete request state (DRQ) messages for interfaces for which a request (REQ) message has not been received. In this case, the SAE logs an error message similar to the following:

  ```
  11:30:33.140 EDT 26.08.2005 [CopsHandler-15/0xAC001FCE]
  [UnsolicitedMessage] [50] Unable to handle message for
  unknown context: {Message type: 3,
  ClientType: 24754, Handle: Handle(C-Num=1,C-Type=1,handle=0xAC001FCE)
  ```

  You can ignore messages similar to the one above.

  Reference: TIC 10927

- The SAE sometimes prints a stack trace when a Blocks Extensible Exchange Protocol (BEEP) session is being taken down during an administrative change of address of the interface that the JUNOS routing platform uses to connect to the SAE. No data is lost in this procedure. You can safely ignore this exception.

  Reference: TIC 9612

- During shutdown, the SAE sometimes logs the following stack trace to stderr. This message is harmless and can safely be ignored.

  ```
  2004-12-24 11:35:25| java.io.InterruptedIOException
  2004-12-24 11:35:29| at java.io.FileOutputStream.write(Native Method)
  2004-12-24 11:35:29| at java.io.FilterOutputStream.write
  (FilterOutputStream.java:60)
  2004-12-24 11:35:29| at java.io.FilterOutputStream.write
  (FilterOutputStream.java:108)
  2004-12-24 11:35:29| at org.mortbay.util.ByteArrayISO8859Writer.writeTo
  (ByteArrayISO8859Writer.java:95)
  2004-12-24 11:35:29| at org.mortbay.util.OutputStreamLogSink.log
  (OutputStreamLogSink.java:467)
  2004-12-24 11:35:29| at org.mortbay.util.OutputStreamLogSink.log
    (OutputStreamLogSink.java:445)
  2004-12-24 11:35:29| at org.mortbay.util.Log.message(Log.java:297)
  2004-12-24 11:35:29| at org.mortbay.util.Log.message(Log.java:232)
  2004-12-24 11:35:29| at org.mortbay.util.Log.event(Log.java:248)
  2004-12-24 11:35:29| at org.mortbay.util.ThreadedServer$Acceptor.run
  (ThreadedServer.java:543)
  ```

  Reference: TIC 9506

Services

- Service names are case-preserving.

  Do not mix cases in service names. Make sure you use the same names when specifying the service and subscription.

  Reference: TIC 14932

- Runtime parameters are not resolved when activating sample AAA policies.

  Do not use the user_ipMask and user_ipAddress runtime parameters for activate-on-login services.

  Reference: TIC 15181

SIC

- When you enable the SIC after initial configuration, snmpd is running.

  When you enable the SIC after initial configuration, the SIC indicates that snmpd is running and the stderr file can contain messages as a result.

  Reference: TIC 16584

Upgrade

- If the Java Web server is not enabled during upgrade from Release 2.1.0 to Release 3.0.0, an exception message might appear.

  During the upgrade procedure, the following message sometimes appears when the Java Web server (www component) is not enabled. This message can safely be ignored.

  ```
  Stopping WWW: done
  Jul 15, 2008 11:32:53 AM org.apache.catalina.startup.Catalina stopServer
  SEVERE: Catalina.stop:
  java.net.ConnectException: Connection refused
      at java.net.PlainSocketImpl.socketConnect(Native Method)
      at java.net.PlainSocketImpl.doConnect(PlainSocketImpl.java:333)
      at java.net.PlainSocketImpl.connectToAddress(PlainSocketImpl.java:195)
      at java.net.PlainSocketImpl.connect(PlainSocketImpl.java:182)
      at java.net.SocksSocketImpl.connect(SocksSocketImpl.java:366)
      at java.net.Socket.connect(Socket.java:519)
      at java.net.Socket.connect(Socket.java:469)
      at java.net.Socket.<init>(Socket.java:366)
      at java.net.Socket.<init>(Socket.java:180)
      at org.apache.catalina.startup.Catalina.stopServer(Catalina.java:394)
      at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
      at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39)
      at
        sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25)
      at java.lang.reflect.Method.invoke(Method.java:597)
      at org.apache.catalina.startup.Bootstrap.stopServer(Bootstrap.java:320)
      at org.apache.catalina.startup.Bootstrap.main(Bootstrap.java:411)
  ```

  Reference: TIC 15179

Known Problems and Limitations

This section identifies known problems and limitations in this release.

CLI

- The **load override** command encounters syntax errors.

  The **load override** command encounters syntax errors if the saved file is in text (not XML) format and contains a **shared sic** configuration.

  Reference: TIC 17277

- The **load override** command encounters an exception error.

  The **load override** command encounters an exception error if the saved file contains a **shared application-server** user configuration.

  Reference: TIC 17275

- The SRC CLI hangs intermittently when configuring JDB.

  In rare cases, the SRC CLI hangs when configuring the JDB settings using the **[edit system ldap server]** statement. To resolve the issue when JDB is running standalone, restart the local JDB from a different CLI session. When a JDB community is configured, it is not necessarily the local JDB that must be restarted. In this case, try to resolve the problem by first restarting the local JDB from a different CLI session. If the problem is not resolved, you must try restarting neighbors until the CLI responds. The issue is that the underlying LDAP server does not respond to some requests. This issue was not seen with the UMCjfds-1.2.8 distribution from the SRC 4.1.0 release.

  Reference: TIC 17266

C-Web Interface

- Modifications to parts of the configuration tree do not appear automatically.

  When editing one part of the configuration tree automatically creates modifications in other parts of the configuration tree, you must click **Refresh** to see the modifications in the other parts of the configuration tree.

  Reference: TIC 13881

DMI

- Managing DMI network devices supported for demonstration only.

  Using the SRC Device Management Interface (DMI) driver and Junos Space, the SRC software can manage DMI devices connected to routers running Junos software. The SRC software communicates with Junos Space using the representational state transfer (REST) over HTTP(S), and Junos Space manages the router running Junos software over the DMI. The SRC software recognizes and receives notifications for changes to DMI devices connected to the router, allowing you to offer dynamic services on those devices. In addition, you can define and automatically provision policies for DMI devices, provide per-subscriber accounting for services on DMI devices, and develop script

services for service sessions residing on DMI-managed devices. This feature is supported only for demonstration purposes.

- The SAE fails to manage the DMI network device (router).

  If the management IP address is not configured under the shared DMI network device before the SAE initializes the device, the SAE is not able to pick up the deviceID from Junos Space, and fails to manage the router.

  Workaround: Configure the management IP address and then restart the SAE.

  Reference: TIC 17267

SAE

- Two identical interfaces are created for dual-stack interface on JUNOSe routers.

  When a dual-stack interface is defined for JUNOSe interfaces, the SAE creates two identical interfaces.

  Reference: TIC 13901

- Assertion error occurs with fast resynchronization and empty policy lists.

  With fast resynchronization, some inconsistencies may arise during cleanup that allow for a proper recovery during full synchronization. This assertion error indicates that there were empty policy lists.

  Reference: TIC 13950

SIC

- Command completion values cannot be used for mapping SAE property plug-in attributes.

  When you are mapping SAE plug-in attributes for the PA_PROPERTY plug-in attributes, you cannot use the command completion value to select the plug-in attribute. For example, you cannot use **PA_PROPERTY.access-type** to specify this plug-in attribute.

  Workaround: To specify the PA_PROPERTY plug-in attributes, type the plug-in attribute in the format **property.*x***. For example, to specify **PA_PROPERTY.access-type** as the name of the SAE plug-in attribute:

  ```
  [edit]
  user@host# edit shared sic group identifier accounting-method
    accounting-method-name database plug-in-attribute

  [edit shared sic group identifier accounting-method accounting-method-name database
    plug-in-attribute]
  user@host# set property.access-type
  ```

  Reference: TIC 16507

- SIC does not work after upgrade.

  SIC does not work properly when you upgrade from SRC Release 4.0.0 to SRC Release 4.1.0.

Workaround: To correct this problem, modify the sample SIC configuration as follows:

```
database {
  plug-in-attribute {
    login-name {
      request-attribute User-Name;
    }
    property.session-id {
      variable NASAcctSessionId;
    }
    property.session-state {
      variable UserStatusType;
    }
    user-inet-address {
      request-attribute Framed-IP-Address;
    }
    vpn-id {
      literal '';
    }
  }
}
```

Reference: TIC 17153

VTA

- Running VTA configuration load script when using JBoss.

  If you deploy the VTA application on a JBoss 6 application server, provided by the SRC_APLIB distribution 4.1 in conjunction with the SAE from the SRC Release 4.1.0 distribution, you must answer "no" to the last question of the VTA configuration process (load script)—"Do you want to copy the JBoss 6.0.0 client libraries?". For the plug-in configuration of the SAE, choose the JBoss-6.x option when you configure the CLASS_PATH.

  If you deploy the 4.1 VTA application with an SAE release prior to 4.1.0, you must answer "yes" to this question. This transfers the libraries to the SAE hosting system. For the plug-in configuration of the SAE (prior to 4.1), you must enter the following CLASS_PATH explicitly:

  ```
  [edit]
  user@host# edit shared sae group name configuration plug-ins name name ejb-adaptor
  user@host# set classpath
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/concurrent.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ha-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jbossall-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-integration.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-interceptor-core.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-common-core.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-interceptors-api_1.1_spec.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-async-impl.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-interceptor-spi.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-async-spi.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-j2se.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-common-client.jar,
  ```

```
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-logging.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-context-spi.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-remoting-3.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-core-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-remoting.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6
    /jboss-ejb3-embedded-standalone.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-security-spi.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-ext-api-impl.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-serialization.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-ext-api.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jbosssx-as-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6
    /jboss-ejb3-proxy-clustered-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jbosssx-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-proxy-impl-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-system-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-proxy-spi-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jnp-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-security-client.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/log4j.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb3-singleton-proxy-impl.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/pluginejbadaptor.jar,
    file:///opt/UMC/sae/lib/plugins/ejb/jboss6/jboss-ejb-api_3.1_spec.ja
user@host# commit
```

Reference: TIC 17269

Migration

This section provides information about migrating from earlier SRC software releases to SRC Release 4.1.0.

Migration of Active Sessions

- Migrating active service sessions when upgrading.

  Migration of active sessions is not supported when upgrading to SRC Release 4.1.0 from previous releases of the SRC software. This applies to BEEP-to-BEEP upgrades, as well as BEEP-to-DMI upgrades.

Policy Changes

Starting with SRC Release 4.1.0, an action configured for a policy rule no longer requires a name to identify the action. Old configurations with a name are accepted.

NOTE: **You cannot have multiple instances of the same action configured for one rule.**

Restrictions and Recommendations

CMTS Devices

SRC Release 4.1.0 should be suitable for use with any CMTS device that implements the PacketCable Multimedia Specification (PKT-SP-MM-I02-040930).

RADIUS Server

Juniper Networks SRC Release 4.1.0 was tested with the following RADIUS server products:

- Juniper Networks Steel-Belted Radius/Service Provider Edition (SPE) server

Any RADIUS product compliant with RFC 2865 and RFC 2866 should be suitable for use with SRC Release 4.1.0, including the following products:

- Merit RADIUS 4.1.2
- Interlink Networks RAD-Series RADIUS Server 6.0 and later
- FreeRADIUS Server Project freeRADIUS server
- Open System Consultants Radiator

Known issues exist with Steel-Belted Radius/SPE 4.0.3 and earlier.

Web Browsers

The C-Web interface in SRC Release 4.1.0 was tested with and supports use only with the following Web browsers:

- Firefox 2.0 or later
- Internet Explorer 6.0 or later

SRC Software Compatibility Matrix

Table 1 on page 21 shows which versions of the SRC software are compatible with specified versions of the JUNOS Software and JUNOSe Software.

For the most current information about supported software releases, contact JTAC.

Table 1: SRC Software Compatibility with JUNOSe Software and JUNOS Software

SRC Software Release	Tested with JUNOSe Release	Intended to Be Tested with JUNOSe Release	Tested with JUNOS Release	Intended to Be Tested with JUNOS Release
2.1.0	9.1.0p0-1		8.3	

[1]To use the DPI script service, SRC Release 3.2.0 was tested with JUNOS Release 9.5R4, Release 9.6R3, Release 10.0R3, and Release 10.1B3. It is intended to work with JUNOS Release 10.1R1.

[2]To support the PTSP feature, use JUNOS Release 10.2R1 and later.

Table 1: SRC Software Compatibility with JUNOSe Software and JUNOS Software *(continued)*

SRC Software Release	Tested with JUNOSe Release	Intended to Be Tested with JUNOSe Release	Tested with JUNOS Release	Intended to Be Tested with JUNOS Release
3.0.0	9.0, 9.0.1, 9.1.1		9.0, 9.1	
3.1.0	9.2, 9.3, 10.0		9.2R3, 9.3R2, 9.4R1	
3.2.0	10.1.1, 10.2.1	10.3.0	9.4R3.5, 9.5R2.7, 9.6R1.3[1]	10.0R1
4.0.0R3	10.3, 11.0, 11.1		10.1, 10.2[2]	
4.0.0R7	10.3.3, 11.3.1, 12.0.0, 12.1.1		10.3R2, 11.1R1.14[2]	
4.1.0	12.0.1, 12.1.1, 12.2.0		10.4R1.9, 11.1R1.14, 11.2 [2]	

[1]To use the DPI script service, SRC Release 3.2.0 was tested with JUNOS Release 9.5R4, Release 9.6R3, Release 10.0R3, and Release 10.1B3. It is intended to work with JUNOS Release 10.1R1.

[2]To support the PTSP feature, use JUNOS Release 10.2R1 and later.

Third-Party Software

This section lists the third-party software that is included with SRC Release 4.1.0. The third-party software is required to work with certain SRC components, and Juniper Networks supports issues associated with this software.

- Apache-Axis 1.4 (http://ws.apache.org/axis)
- Apache-Avalon 4.1.4 (http://avalon.apache.org)
- Beepcore-java 0.0.08 (http://www.beepcore.org)
- BouncyCastle CryptoAPI 1.33 (http://bouncycastle.org/java.html)
- Castor 0.9-AA (http://www.castor.org)
- Centos 4.9 (http://centos.org)
- GNUPROLOG for Java (http://gnuprologjava.sourceforge.net)
- ini4j 0.4 (http://ini4j.sourceforge.net)
- JacORB 2.3.1 (http://www.jacorb.org)
- Jakarta Commons Collections 3.1 (http://jakarta.apache.org/commons/collections)
- Jakarta Struts 1.1-Beta3 (http://jakarta.apache.org/struts/index.html)
- jax 0.0.15 (http://www.ibr.cs.tu-bs.de/projects/jasmin/jax.html)
- JBoss J2EE Server 4.2.1.GA (http://jboss.org)
- JDBM 0.12 (http://jdbm.sourceforge.net)

- Jersey 1.4 (http://jersey.java.net)
- JETTY 4.2.6 (http://jetty.mortbay.org)
- Jython 2.2 (http://www.jython.org)
- libart_lgpl 2.3.16-3 (http://www.linuxfromscratch.org/blfs/view/svn/general/libart_lgpl.html)
- libpng 1.2.7-3 (http://www.libpng.org/pub/png/libpng.html)
- mozilla rhino javascript engine 1.5 (http://www.mozilla.org/rhino)
- MySQL Cluster 7.1 (http://www.mysql.com/products/cluster)
- NetSNMP 5.4.1 (http://www.net-snmp.org)
- OmniORB 4.0.7 (http://omniorb.sf.net)
- omniORBpy-2.7 (http://omniorb.sf.net)
- OpenJDK 1.6.0 (http://openjdk.java.net)
- perl-Config-General 2.38-1 (http://search.cpan.org/dist/Config-General/General.pm)
- perl-RRD-Simple 1.44-1 (http://search.cpan.org/dist/RRD-Simple)
- perl-rrdtool 1.2.23-1 (http://rpmfind.net/linux/rpm2html/search.php?query=perl-rrdtool)
- PYSNMP (http://pysnmp.sourceforge.net)
- RRD Tool 1.2.23-3 (http://oss.oetiker.ch/rrdtool)
- RRD Bot 0.9 (http://memberwebs.com/stef/software/rrdbot)

SRC Documentation and Release Notes

For a list of related SRC documentation, see http://www.juniper.net/techpubs/en_US/release-independent/src/information-products/pathway-pages/c-series/product/index.html.

If the information in the latest release notes differs from the information in the documentation, follow the *SRC PE Release Notes*.

To obtain the most current version of all Juniper Networks® technical documentation, see the product documentation page on the Juniper Networks website at http://www.juniper.net/techpubs/.

Documentation Feedback

We encourage you to provide feedback, comments, and suggestions so that we can improve the documentation. You can send your comments to techpubs-comments@juniper.net, or fill out the documentation feedback form at https://www.juniper.net/cgi-bin/docbugreport/. If you are using e-mail, be sure to include the following information with your comments:

- Document or topic name
- URL or page number
- Software release version (if applicable)

Requesting Technical Support

Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or JNASC support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the JTAC User Guide located at http://www.juniper.net/customers/support/downloads/710059.pdf.
- Product warranties—For product warranty information, visit http://www.juniper.net/support/warranty/.
- JTAC hours of operation—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

Self-Help Online Tools and Resources

For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: http://www.juniper.net/customers/support/
- Search for known bugs: http://www2.juniper.net/kb/
- Find product documentation: http://www.juniper.net/techpubs/
- Find solutions and answer questions using our Knowledge Base: http://kb.juniper.net/
- Download the latest versions of software and review release notes: http://www.juniper.net/customers/csc/software/
- Search technical bulletins for relevant hardware and software notifications: https://www.juniper.net/alerts/
- Join and participate in the Juniper Networks Community Forum: http://www.juniper.net/company/communities/
- Open a case online in the CSC Case Management tool: http://www.juniper.net/cm/

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: https://tools.juniper.net/SerialNumberEntitlementSearch/

Opening a Case with JTAC

You can open a case with JTAC on the Web or by telephone.

- Use the Case Management tool in the CSC at http://www.juniper.net/cm/.
- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see http://www.juniper.net/support/requesting support.html.

Revision History

May 2011—Revision 1, SRC Release 4.1.0