

Interactive Session Recorder

Release Notes



Release 6.1

F20200-01

January 2020

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

ORACLE®

Interactive Session Recorder Release Notes, Release 6.1

F20200-01

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About This Guide

The Interactive Session Recorder (ISR) Release Notes provides the following information:

- An introduction to the full release
- An overview of the new features available
- A summary of caveats, known issues, and fixes

If any of these sections does not appear in the document, then there were no changes to summarize in that category for that specific release.

Related Documentation

The following table describes the documentation set for this release.

Document Name	Document Description
ISR Release Notes	Contains information about new ISR features, caveats, and known issues.
ISR Installation Guide	Provides an overview of the ISR, hardware/software requirements and recommendations, storage considerations, pre-installation information, installation procedures, post-install verification procedures, making the first call, and additional advanced topics about the ISR.
ISR User Guide	Contains information about using the ISR Dashboard for all levels of users. Provides information about viewing, playing, deleting recordings, running reports, and managing user profiles.
ISR Administrator Guide	Contains information about using the ISR Dashboard for the Administrator level user (Super User, Account Administrator, Tenant Administrator). Provides information about creating and managing accounts, routes, and users. Also provides information about configuring the ISR, running reports, viewing active calls, and securing the ISR deployment.
ISR API Reference Guide	Contains information about ISR FACE, Recording File Types/Formats Supported, Return Codes, and Troubleshooting.
ISR Monitoring Guide	Provides provisioning, configuration and test instructions for the NET-SNMP implementation to monitor all ISR component hosts.
ISR Security Guide	Contains information about security considerations and best practices from a network and application security perspective for the ISR product.

Revision History

Date	Description
January 2018	<ul style="list-style-type: none"> • Initial release of ISR 6.1 software.

Date	Description
February 2018	<ul style="list-style-type: none"><li data-bbox="959 273 1455 352">• Adds "Restrictive Domain Handling Within Dashboard Browser Cookies" to the list of New Features.<li data-bbox="959 363 1455 499">• Renames "Known Issues and Fixes in ISR 6.1" chapter to "Caveats and Known Issues", adds a "Caveats" section, and merges "Known Issues in ISR 6.1" and "Fixes in ISR 6.1" content.
June 2018	<ul style="list-style-type: none"><li data-bbox="959 516 1295 543">• Updated for release 6.1M0P2.
October 2019	<ul style="list-style-type: none"><li data-bbox="959 554 1295 581">• Updated for release 6.1M0P5.<li data-bbox="959 592 1455 634">• Updates Oracle Linux support to Releases 7.2 - 7.6.
January 2020	<ul style="list-style-type: none"><li data-bbox="959 651 1295 678">• Updated for release 6.1M0P6.

1

Introduction to ISR 6.1

The Oracle Communications Interactive Session Recorder 6.1 Release Notes provide the following information about this product:

- Hardware and software requirements
- An overview of the new features available in this release
- A summary of fixes and known issues

Hardware

The ISR components are distributed as applications running on Oracle Linux Releases 7.2 - 7.6, which abstracts the ISR application from the physical hardware. As such, ISR can be deployed on any hardware platforms that support Oracle Linux Releases 7.2 - 7.6. For a comprehensive list of the hardware platforms currently certified, see the [Oracle Linux and Oracle VM Hardware Certification List \(HCL\)](#).

ISR testing is predominantly done on Oracle Server X5-2 and Oracle Server X6-2 systems with the following resource configurations:

Hardware Description	Quantity
Intel® Xeon® E5-2630 v3 8-core 2.4 GHz processor	2
One 16 GB DDR4-2133 DIMM	8
One 1.2 TB 10000 rpm 2.5-inch SAS-3 HDD with marlin bracket in RAID 10 configuration using 12Gb SAS RAID HBA	4

Note:

RAID must be configured BEFORE performing the ISR component installation.

Each of the ISR components must be installed on their own server/VM instance.

Installation Prerequisites

Before beginning your ISR installation, ensure you have completed the following prerequisites:

1. Have at least three servers (physical or virtual) with Oracle Linux Releases 7.2 - 7.6 installed.
2. Have access to the ISR rpms:
 - `isr-Index-<release#>.x86_64.rpm`
 - `isr-Dashboard-<release#>.x86_64.rpm`
 - `isr-rss-<release#>.x86_64.rpm`

- `isr-Face-<release#>.x86_64.rpm` (optional)

 **Note:**

You may access these files via <https://edelivery.oracle.com..>

3. Have access to the Ruby 2.4 rpm (`ruby-2.4.0-1.el7.centos.x86_64.rpm`). Ruby is the framework the ISR Dashboard uses and must be installed as part of the ISR Dashboard installation.

 **Note:**

As of Release 6.1M0P5, the ISR supports Ruby version 2.6.4.

4. Configure a Linux User named **isradm** on each of the Linux instances created in step 1 to allow you to automatically gain access to config and log files. Once you have configured the **isradm** Linux user, you must add the user to the "sudoers" group.
5. Verify that the hosts you are installing the ISR components on are connected to the internet.

 **Note:**

If your ISR hosts do not have internet connectivity, see "Installing ISR In an Isolated Lab".

6. Oracle Linux 7 has the yum package management utility configured by default with access to the "public-yum.oracle.com" repositories in the file located at `/etc/yum.repos.d/public-yum-ol7.repo`. If, for some reason, this file needs to be created, see the Appendix, "Oracle Public Yum Repository Configuration File" in the *Oracle Communications Interactive Session Recorder Installation Guide*, which contains the specific repository entries.
7. Configure interfaces; ISR expects network configuration to include 4 interfaces, connecting to separate Administration, Local, Data, and Voice networks. Refer to the Oracle Communications Interactive Session Recorder Security Guide for more information on networking and trusted boundaries.
For more information on configuring networking in Oracle Linux 7, see the *man nmtui* guide and <http://www.unixarena.com/2015/04/rhel-7-network-management-nmcli-or-nmtui.html>.
8. If access to the external yum repository is gated by a proxy, ensure the **proxy** parameter in the `/etc/yum.conf` file is set to:

```
proxy=http://<your_proxy_host>
```

 **Note:**

During the installation process, you will be asked to provide and/or verify the users, passwords and interfaces you created during the Oracle Linux installation. Ensure you have that information before you begin the installation process.

ISR Dashboard Requirements

The ISR Dashboard is a web portal that is used for recording configuration and playback. As web technologies advance, some functionality may not be available on older browser versions. The ISR has been tested with the following web browsers and versions:

- Google Chrome (Version 63.0.3239.84 64-bit)
- Mozilla Firefox (Version 52.5.2 32-bit)
- Microsoft Edge (Version 40.15063.674.0)

Note:

Browser playback support for recording codecs changes frequently. Refer to the *Oracle Communications Interactive Session Recorder Release Notes* for current details.

Supported Codecs

The ISR supports the following transmission codecs:

- g.711 mulaw
- g.711 alaw
- g.729
- g.722 and g.722.2 (excluding g.722.1)
- H.264

The audio transmission codecs can be mapped to the following recording formats:

Header Raw	Header WAVE	Format	Bit Rate	Sample Rate (KHz)	Channels Mono	Channels Stereo
YES	YES	ulaw	8	8	YES	YES
YES	YES	alaw	8	8	YES	YES
YES	YES	Linear PCM	8	8	YES	YES
NO	YES	Linear PCM	16	8	YES	YES
NO	YES	Linear PCM	16	1	YES	NO
NO	YES	Linear PCM	16	16	NO	YES
NO	YES	ADPCM	4	8	YES	YES

H.264 video content is stored and replayed in MP4 format.

2

New Features in ISR 6.1

This section lists and describes features developed and released new for ISR 6.1.

Note:

System session capacity and performance are subject to variations between various use cases and major software releases.

SIPREC with TLS/SRTP

For added security, the ISR has added support for Secure SIPREC recording, enabling SIP via TLS and SRTP media packets to be negotiated with the Oracle Enterprise Session Border Controller.

SIPREC via TCP

Because TLS is only supported via TCP, the ISR now has the ability to support SIPREC recording via both UDP and TCP.

AMR-WB Recording and Playback

To support VoLTE recording, the *ISR* can now record and play back AMR-WB (G.722.2) audio.

VM Capacity and Performance Improvements

Additional performance and capacity testing has been completed on the ISR components, resulting in several tested configurations for virtualized recording servers. Consult your Oracle representative for additional information.

Archival Configuration by Account

ISR 6.1 introduces the ability for each recording account to define its own archival strategy. In ISR 6.0 and earlier, all sessions recorded on a given recording server were required to utilize the same archival strategy. Now each account can define its long-term storage location separately.

Archival via SFTP

To support archival to the Oracle Storage Cloud and other remote storage locations, the ISR now supports SFTP to transfer files to long-term storage locations. Users implementing this

transport method must provide their own web server to enable playback of recordings from the remote site.

MD5 Hash for Recordings

The ISR can use MD5 Hashing to validate files are moved in their entirety.

Configurable Capacity Rejection Codes and Alerts

The ISR can reject a call for several reasons including system/licensed capacity, account or route capacity, percentage based recording, or no route/policy found. In the 6.1 release the ISR adds the ability to customize the SIP rejection code for the capacity based rejections and you may configure an SNMP alert for each rejection, enabling rapid notification that provisioning changes may be necessary.

For more information, see "Monitoring the ISR with Recording Capacity Exceeded" in the *Monitoring Guide*.

Accelerated Recording Playback with Screens

The ISR Dashboard now supports 1x-4x playback speeds to reduce the amount of time it takes to review recordings.

Forgotten Password Configuration

The ISR Dashboard now exposes a Simple Mail Transfer Protocol (SMTP) configuration that enables users to receive automated password reset emails.

Restrictive Domain Handling Within Dashboard Browser Cookies

You may set more restrictive cookie settings for the **domain** and **path** attributes.

For the domain to be set only for the server that must receive the cookie, edit a Dashboard properties file and restart the webserver using the following instructions:

1. Back up the properties file.

```
$ cp /var/www/dashboard/current/config/initializers/  
session_store.rb /opt/isr/session_store.rb.bak
```

2. In a text editor, change the `/var/www/dashboard/current/config/initializers/session_store.rb` file and save your changes. Change the file from:

```
Rails.application.config.session_store :cookie_store, {key:  
'_isr_dashboard_session', domain: 'all', path: '/'}
```

To:

```
Rails.application.config.session_store :cookie_store, {key:  
'_isr_dashboard_session', domain: '<application.yoursite.com>', path: '/'}
```

3. Restart the Dashboard webserver.

```
$ systemctl restart puma
```

By default, **path** is set restrictively to /, but **domain** is set to an empty string. Unless changed, the webserver defaults to the host of the URL of the request.

3

Caveats and Known Issues

This chapter lists the caveats, known issues, and limitations for this release. Oracle updates this Release Notes document to distribute issue status changes. Check the latest revisions of this document to stay informed about these issues.

Caveats

This section presents ISR issues that are inherent to this major version of the product.

Oracle Linux

- In Oracle Linux version 7.4, the default SELinux and FirewallD versions have stricter policies that impact application file handling and communications from the Linux host. The impact is very disruptive to ISR, with RSS internal API, FACE, and Archival unable to initialize with their configurations in the database and unable to write to their expected log files. Also, Recorder and converter processes cannot initialize as well, since the internal API cannot return their configurations. While the incompatibilities are expected to be addressed in a subsequent Oracle Linux release, Oracle recommends the following two workaround options:
 - Permissive access to the Tomcat process—Execute the **semanage permissive -a tomcat_t** command.

Note:

Permissive access to the Tomcat process requires that you have an additional package installed on the system (i.e., **yum install policycoreutils-python**).

- Downgrade certain SELinux components—Execute the following command:

```
$ sudo yum downgrade selinux-policy-3.13.1-102.0.3.el7_3.16 selinux-policytargeted-3.13.1-102.0.3.el7_3.16 firewalld-0.4.3.2-8.1.el7_3.2 pythonfirewall-0.4.3.2-8.1.el7_3.2 firewalld-filesystem-0.4.3.2-8.1.el7_3.2 firewallconfig-0.4.3.2-8.1.el7_3.2
```
- The Oracle Linux firewalld services, enabled by default on all ISR component hosts, have demonstrated a performance impact (of as much as 25%), using Oracle hardware. When considering the balance of security vs. performance, see the Oracle Communications Interactive Session Controller Security guide for more information on the configuration options of firewalld services and their benefits.

ISR Dashboard

- The Dashboard fails to load in certain scenarios with an error message that complains of too many redirects. The following is an example message in the Chrome browser:

```
This page isn't working
<Dashboard host name> redirected you too many times.
Try clearing your cookies.
ERR_TOO_MANY_REDIRECTS
```

An example message in the Firefox browser:

```
The page isn't redirecting properly
Firefox has detected that the server is redirecting the request for
this address in a way that will never complete.
This problem can sometimes be caused by disabling or refusing to
accept cookies.
```

To resolve the problem, clear the browser's cookies.

- In certain scenarios with the Chrome browser, when the **Allow HTTP Cache of Recording files?** Dashboard configuration property set to **True**, the scroll bar still does not function properly for scrolling forward or back during recording playback.
- A certificate handling conflict exists with the ISR Dashboard web server that occasionally leads to latency and perceived unresponsiveness when clicking links and submit buttons. The request is properly transmitted, and the response ultimately does arrive, but much later than the expected time frames of previous versions of the Dashboard.

ISR Archival

- When multiple Archival hops are configured for a single Archival instance (i.e., Account Archival plus RSS Primary to Secondary Locations), a thread conflict may occur that leads to unresponsiveness from the Archival process.
- The Source Location's Advanced Configuration settings control the Archival decisions during the "hop", (i.e. the move of the recording from the Source to Destination Location).
- If the Archival cron schedule has been set to any other value than the default two minutes ("0 0/2 * ? * *"), this setting will be lost and the schedule reverted to 2 minutes. For more information on changing the Archival schedule, contact your Oracle representative.
- Deletion and renaming of historical recordings that have been archived may fail due to changes in Archival Location directory paths, SFTP servers, or client user permissions.

ISR Index

- Oracle recommends you configure the ISR Index component time zone to be set to UTC. To do this, upon installation the configIsr.sh script prompts the user for permission to configure the system time zone to UTC. You can configure all other ISR components' time zone as needed.

ISR RSS

- You can only have one MySQL user password across all RSSs for each RSS user type. For example, if multiple RSSs are configured to use the same 'israpi' MySQL user name, the password must be the same for every RSS.

Web Browsers

ISR recording playback errors have been reported for the following web browsers:

- Firefox-Firefox is not supporting playback of the 8-bit/8 kHz audio format set in the "Default Recording Format Profile" for the g711 transmission codec (historically the most popular transmission codec). Most commonly, the Dashboard's playback controls appear only briefly before becoming unavailable. To work around this issue, for routes using the "Default Recording Format Profile", change the setting to the Firefox Supported Recording Format Profile, where the g711 transmission codec is converted to the PCM 16-bit/16 kHz recording format.

- Internet Explorer—You must use the Windows Media Player plugin to play recorded wave files via Internet Explorer. Without the plugin, an "Invalid Source" error appears in the player popup. This browser support issue impacts ObserveIT Screen Recording integrations with ISR, where the Chrome or Firefox browsers must be used for playback instead of Internet Explorer.
- Chrome—Displays some inconsistent behavior with playback of long recordings in internal tests, where the browser stops playback prematurely. Playback in another browser rectifies the problem.
- Video and screen capture slide playback may display recording length as NaN. Close the playback window and repeat playback.
- Subsequent video playback only plays audio. Close the playback window and repeat playback.
- Screen capture slide playback progress bar may not move or move accurately. Close the playback window and repeat playback.

 **Note:**

Playback failures may also occur with the Quicktime plug-in version 7.7.7. If you encounter these issues, downgrade to version Quicktime 7.7.4.

ISR Upgrade

- An upgrade from 5.2 to 6.x likely results in conversion failures until each Location has been updated to properly reflect connections to the Converter using the Data Network. Log into the Dashboard and update each Location in the "Recording Converter" section by setting the "Converter IP Address" field to the Converter's data network IP address. You may confirm the Converter data IP in the "Converter Server Configurations" accordion of the corresponding RSS.

General

- Sonus SIPREC metadata is not properly indexed.
- If an account has not updated the security of its password from ISR version 4.x, the Administrator must reset the password.
- Double-check network settings to ensure that interfaces are enabled at boot, (ONBOOT=yes). For example, `/etc/sysconfig/network-scripts/ifcfg-XXXX`.
- To use NFS shares to backup ISR configurations and data, you must meet the following prerequisites:
 - Configured ISR host (with networking access to NFS share on the remote host)
 - NFS share with `no_root_squash` option and writable by root user on the client

To store ISR configuration and data backups on a remote host via NFS:

1. Set up and export the remote share. For more information, see the Oracle Communications Interactive Session Recorder Installation Guide.
2. Configure and test the client on the ISR host.
3. Ensure that the "isradm" user (or other configured non-root user) can connect, read, and write files from the share.

4. Backup ISR configuration and data files using the `b` menu option in the `configIsr.sh` file and use the local path to the remote share to the location to store configuration and data backups.
5. Verify the contents of the data and configuration backups using the `tar tzf /backup/path/<isr_component>-data.tgz` or `tar tzf /backup/path/<isr_component>-configs.tgz` commands (replacing `<isr_component>` with the specific component data and backup filenames).

Known Issues in ISR 6.1

The following table lists the ISR System known issues:

ID	Description	Found In	Fixed In
27131008	ISR now accommodates multiple codec offerings in the SDP, assuming an .RPDD extension of the recorded file. The RPDD file then requires conversion to a playable format. Previously, ISR accepted and assumed the top codec in the list, and in certain configurations wrote directly to the playable WAV (*.wav) format. The functionality has now changed. When two codecs are offered, RPDD is written. This may impact ad-hoc recording with the FACE API, where the filename parameter could be incorrectly assuming the ".wav" extension (e.g. <code>https://<face_ip>:8443/Face/audioRecording/stop?token=<token>&filename=startstoptest.wav</code>).	6.0M0P1	6.1M0P2
27947568	ISR can now be configured to suppress metadata updates for extraneous reINVITEs to avoid unnecessary processing on the Index MySQL database and the RSS API. To enable suppression to ignore changing "apkt:ucid" tags, execute the following command on the RSS host: <pre>\$ curl -k https://localhost:9998/RestMethods/ConfigModify?metadataUpdateSupprEnabled=true&metadataUpdateSupprIgnoreTag=apkt:ucid</pre> Confirm the reINVITE suppresses the UPDATEMETADATA event with an <code>/opt/isr/logs/recorder/recorder.log</code> entry.	5.2M1P5	6.1M0P2
28228761	After a successful Dashboard upgrade from 5.2M1 to 6.x, you must run the "configIsr.sh" script to ensure RSS certificates are imported and provisioned successfully.	6.0M0P0	
28124467	MySQL server default configurations have been adjusted for better performance.	5.2M1P0	6.1M0P2

Note:

You must run the "configIsr.sh" script for the Index config changes to take effect.

ID	Description	Found In	Fixed In
28229026	<p>Upgrades to 6.1M0Px require an additional configuration for MySQL client application hosts.</p> <p>Add the following configuration to the RSS host:</p> <ol style="list-style-type: none"> Copy the original host configuration file: <pre>\$ cp /etc/sysctl.d/isr.conf /opt/isr/releases/</pre> Edit the file <code>/etc/sysctl.d/isr.conf</code>, and add the following line: <pre>net.ipv4.tcp_tw_reuse = 1</pre> <p>Add the following configuration to the FACE host:</p> <ol style="list-style-type: none"> Create a file <code>/etc/sysctl.d/isr.conf</code> and add the following line: <pre>net.ipv4.tcp_tw_reuse = 1</pre> 		
27772137	<p>After upgrade from 5.2M1Px to 6.1M0P2 and Dashboard configuration of the RSSs, the Recorder process now properly initializes with primary and secondary locations set</p>	6.0M0P0	6.1M0P2
26775702	<p>Required Recording Format Conversion - For FACE All g.729 and g.722 recordings in RPDD format cannot be downloaded in FACE without prior conversion to playable format (either through Archival batch conversions or Dashboard ondemand conversion). You can now enable or disable the conversion of files requested for download using the FACE API by setting the <code>enableConversion</code> flag using the 'F' option in <code>/configIsr.sh</code>. To enable this feature, answer 'yes' to the prompt.</p>	6.0M0P0	6.1M0P1
27598672	<p>FACE "configIsr.sh" script's F option is not properly setting the webserviceIP field. To ensure FACE conversion requests do not fail, you must edit the <code>/var/lib/tomcat/webapps/Face/WEB-INF/web.xml</code> file and change the following two fields:</p> <ul style="list-style-type: none"> From: <pre><param-name>webserviceIP</param-name> <param-value>1.2.3.4</param-value></pre> To: <pre><param-name>webserviceIP</param-name> <param-value><your FACE data IP></param-value></pre> From: <pre><param-name>conversionAllowed</param-name> <param-value>>false</param-value></pre> To: <pre><param-name>conversionAllowed</param-name> <param-value>>true</param-value></pre> <p>Then restart Tomcat:</p> <pre>\$ systemctl restart tomcat</pre>	6.1M0P1	6.1M0P2

ID	Description	Found In	Fixed In
27405564	The Recorder process fails under load due to ulimit and other environmental restrictions while no longer running with "root privileges".	6.1M0P0	6.1M0P1
27486270	An Archival conversion query causes Index latency due to large Result Sets, impacting FACE and other ISR applications.	5.2M1P3	5.2M1P4, 6.1M0P1
27406860	A converter process memory leak that may impact recording indexing and archival has been addressed.	6.1M0P0	6.1M0P1
27430649	Playback of AMR-WB encoded session recordings is distorted and even unintelligible in certain scenarios.	6.1 M0P0	N/A
30231747	"Session Metadata" and "Session Participant Metadata" missing.	6.1M0P0	6.1M0P5
30238577	ISR Certificates not updating date when regenerating.	6.2M0P0	6.1M0P5
N/A	Remove DTMF digits from ISR logs in Debug mode.	6.2M0P1	6.2M0P5
30257063	Error when importing new certificates.	6.0M0P0	6.1M0P6
30452611	The generated server.xml contains typo causing TLS1.2 not to work properly.	6.0M0P0	6.1M0P6

The following table lists the ISR Archival known issues:

ID	Description	Found In	Fixed In
28153275	The HTTP response code to a FACE download request that cannot successfully retrieve the recording from the webserver has changed from 200 OK (with an error message) to 404 (with the same error message).	6.1M0Px	6.1M0P2
27580390	MD5 checksums are not calculated for video recordings.	6.0M0P0	N/A
27580403	Renaming video or other "supplemental" files is not possible using Archival.	6.1 M0P0	N/A
24667791	Recordings Archival remarks explain renaming failure.	6.0M0P0	6.1M0P1
27524390	When multiple Archival instances are configured for the same RSS (for example, Account Archival and RSS primary to secondary Location Archival) the Archival process no longer stops logging and, at times functioning with "Exception in thread" ArchiverThread-X" java.lang.NullPointerException" message in /var/log/messages.	6.1M0P0	6.1M0P1
29931639	ISR converterd and archiver race condition.	6.1M0P0	6.1M0P5

The following table lists the ISR FACE known issues:

ID	Description	Found In	Fixed In
27709153	FACE now shares authorization tokens for seamless load balancing across multiple FACE servers.	5.2M1P7	6.1M0P2
28157636	A slow memory leak with FACE login has been resolved.	6.0M0P0	6.1M0P2
OCISR-3 793	Install and upgrade, do not explicitly set FACE recording retrieval timeouts for downloads. To edit the default setting, contact your Oracle account representative.	6.1M0P2	N/A
27580455	FACE "audioRecording/start" requests that fail to include the "filename" parameter result in a recorded file name of "-.wav". This means that subsequent requests omitting "filename" will overwrite previous "-.wav" files.	6.0M0P0	N/A
26377516	In certain scenarios where the Accept header of a FACE request is not set, the Content-Type header of the response may be incorrect.	6.1M0P0	6.1M0P1

ID	Description	Found In	Fixed In
26584827	Dashboard "configIsr.sh" script fails with error after selecting option 'd'.	6.1M0P0	N/A
27261514	The "isr-api" key now expires after a year (instead of 3 months).	6.0M0P0	6.1M0P0
26739197	ObserveIT screen capture request/response latency has been addressed.	6.0M0P0	6.1M0P0
25312719	"root" user ownership of certain files has been changed to ownership by the non-root user provisioned during installation (for example, "isradm").	6.0M0P0	6.1M0P0
26803568	A set of upgrade script fixes include proper management of the ISR certificates created during prior installations.	6.0M0P0	6.1M0P0
25028023	The "procmon.elf" process for monitoring and potentially restarting RSS Converter and Recorder processes has been replaced with registration, monitoring and management by the Linux standard "systemd" init system.	6.0M0P0	6.1M0P0

The following table lists the ISR Dashboard known issues:

ID	Description	Found In	Fixed In
27767052	Advanced search by categories, realm or request-URI now executes properly.	6.1M0P1	6.1M0P2
27938500	The Dashboard properly handles more than 15 route entries.	6.1M0P0	6.1M0P2
26759445	The slider on recording playback works properly with HTTP Caching enabled in Google Chrome.	6.0M0P0	6.1M0P1
27356500	ISR integration with ObserveIT retrieves slides from the upgraded, secure ObserveIT Application Server.	6.1M0P0	6.1M0P1
27608203	ISR Dashboard now offers the proper security token for second ObserveIT AS.	6.1M0P1	6.1M0P2
27396923	ISR Dashboard setting for concurrent AMR-WB sessions is not available.	6.1M0P0	6.1M0P1
27599703	ISR Dashboard login attempt no longer errors after browser sits idle on login page for a long time.	6.1M0P0	6.1M0P1
27409091	HTTPS Dashboard latency issues are addressed with webserver downgrade.	6.1M0P0	6.1M0P1
27432527	Dashboard now properly offers configuration settings for session capacity rejection codes.	6.1M0P0	6.1M0P1
27409510	An issue has been addressed where Dashboard playback of recordings requiring conversion may fail.	6.1M0P0	6.1M0P1
27507821	ISR Dashboard customized display of certain SIPREC metadata is now properly honored in certain scenarios (for example, customized display of extended Sonus SIPREC metadata).	6.1M0P0	6.1M0P1
27517060	ISR Dashboard now properly updates Archival destination Locations in certain scenarios.	6.1M0P0	6.1M0P1
27369699	ISR Dashboard properly views, edits, and deletes users on subsequent user listing pages.	6.1M0P0	6.1M0P1
27580607	Subsequent video playback attempts may not be successful and may force the user to close the player to play again. This issue is specific only to the Chrome browser.	6.1M0P0	N/A

The following table lists the ISR Index known issues:

ID	Description	Found In	Fixed In
27614712	MySQL Server logging has been set to a more limited level.	5.2M1P0	6.1M0P2

The following table lists the ISR API known issues:

ID	Description	Found In	Fixed In
30231758	API query for recordings receiving two records with same callID, wav and rpdd.	6.1M0P0	6.1M0P5