

Interactive Session Recorder

Release Notes

Release 5.2

February 2017

Notices

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About This Guide

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

- About the ISR
- New Features
- Inherited Features
- Known Issues

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, fixes, 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, VoiceXML Commands, legacy application programming interfaces (APIs), Recording File Types/Formats Supported, Return Codes, sendIPCRCommand.jsp Subdialog, Advanced Options, and Troubleshooting.
ISR Monitoring Guide	Contains information about installing and configuring the ISR Monitor, the Monitor database schema, and the Monitor MIB.
ISR Remote Archival Web Services Reference Guide	Contains information about the Remote Archival Web Service, its methods, WSDL definitions, DataType definitions, sample responses, and importing its certificates into the client keystore.
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
September 2016	<ul style="list-style-type: none">• Initial release of ISR 5.2 software.
December 2016	<ul style="list-style-type: none">• Updates the "Installation Prerequisites" section for technical accuracy.• Fixes various typographical errors.

About This Guide

Date	Description
	<ul style="list-style-type: none">• Adds four new known issues.• Includes information regarding upgrade support.• Updates the listed hardware requirements.
February 2017	<ul style="list-style-type: none">• Adds the g.722 and g.722.2 transmission codecs to the list of supported codecs.

Introduction

The Oracle Communications Interactive Session Recorder 5.2 Release Notes provide the following information:

- About the ISR
- Supported Hardware/Software
- New Features
- Issues Fixed
- Known Issues

About the ISR

The ISR allows any telephony or Interactive Voice Response (IVR) environment to handle full-duplex call recording (both pre- and post-transfer). This product reliably records any phone call in carrier, enterprise, or contact center. Supporting enterprise & multi-tenant architectures, the ISR provides ad-hoc (partial call) recording allowing any call to be recorded at any point and for any duration. Call recording can be initiated automatically by SIP URI or conditionally by any authorized VoiceXML or web application. In addition, call data such as time of call, SIP URI, account number, etc. are stored in a recording database for clients to search and review. Once recording starts, recordings can continue after being transferred to an agent or employee thereby providing continuity for recordings & call data across IVR, office, and call center telephony deployments.

Using the ISR, VoiceXML and representational state transfer (REST) application programming interface (API) developers have the ability to record every call, a percentage of calls, specific VoiceXML dialogs as well as transfers to agent conversations. With simple VoiceXML and REST API code, a client application controls recording for any call, at any point and for a specific period of time. In addition, every recording may be indexed by custom key values or session identifiers (account#, unique call identifier, SIP URI, time of call, etc.).

The ISR can scale from one call to thousands of concurrent calls and is a simple add-on to any SIP telephony network. An affordable software-based solution, the IP Call Recorder runs on standard Intel-based servers in virtual machine or bare-metal environments.


Hardware/Software Requirements

This section provides the hardware and software pre-requisites for installing the ISR. It provides the recommended certified hardware you can use in your network, as well as a list of the supported codecs.


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Hardware

The following table describes the hardware Oracle recommends for installing and running the ISR on Oracle Linux.

 **Note:** Other hardware platforms may be compatible, but have not been tested.

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	4
RAID 10 configuring using 12 Gb SAS RAID HBA, 2 PSUs	N/A

 **Note:** You must install RAID before performing the ISR installation.

Software

This section provides a list of the software that installs during the ISR installation process.

Installation Prerequisites


To install the ISR components, you must:

- Have installed Oracle Linux version 7.2 or higher
- Access to the ISR rpms:
 - `isr-Dashboard-5.2-0.x86_64.rpm`
 - `isr-Face-5.2-0.x86_64.rpm`
 - `isr-Index-5.2-0.x86_64.rpm`
 - `isr-Monitor-5.2-0.x86_64.rpm`
 - `isr-RemoteArchival-5.2-0.x86_64.rpm`
 - `isr-rss-5.2-0.x86_64.rpm`
- Access to the Ruby 2.3 rpm
 - `ruby-2.3.0-1.el7.centos.x86_64.rpm`
- Configure a Linux user named **isradm** 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.
- Verify you are connected to the Internet.
- 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 Appendix X which contains the specific repository entries.
- 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>.

- 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

- Web browser recommendations for ISR Dashboard:
 - Chrome Version 53.0.2785.113 m (recommended)
 - Firefox ESR 45.2.0
 - Internet Explorer 11.0.9600.x
-  **Note:** Browser playback support for recording codecs changes frequently. Refer to the *Oracle Communications Interactive Session Recorder Release Notes* and *Oracle Communications Interactive Session Recorder Maintenance Release Guide* for current details.
- SIP softphone recommendations for testing:
 - X-lite and Bria 4 by CounterPath Corporation - (<http://www.counterpath.net/x-lite.html>)
 - PhonerLite by Heiko Sommerfeldt - (http://www.phonerlite.de/index_en.htm)

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)

These transmission codecs can be mapped to the following recording formats:

- RAW ulaw
- RAW alaw
- RAW PCM
- WAVE PCM (8-bit 8k Hz) mono
- WAVE PCM (8-bit 8k Hz) stereo
- WAVE PCM (8-bit 8k Hz)
- WAVE PCM (16-bit 8k Hz) mono
- WAVE PCM (16-bit 8k Hz) stereo
- WAVE PCM (16-bit 8k Hz)
- WAVE PCM (16-bit 1k Hz) mono
- WAVE PCM (16-bit 16k Hz) stereo
- WAVE PCM (16-bit 16k Hz)
- WAVE ulaw (8-bit 8k Hz) mono
- WAVE ulaw (8-bit 8k Hz) stereo
- WAVE ulaw (8-bit 8k Hz)
- WAVE alaw (8-bit 8k Hz) mono
- WAVE alaw (8-bit 8k Hz) stereo
- WAVE alaw (8-bit 8k Hz)
- WAVE ADPCM (4-bit 8k Hz) mono
- WAVE ADPCM (4-bit 8k Hz) stereo
- WAVE ADPCM (4-bit 8k Hz)

Upgrading the ISR to 5.2Mx

The ISR 5.2M1 release includes a "yum-style" approach to upgrading all ISR applications on each ISR component host.

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Note: The upgrade feature is limited to upgrades within the 5.2Mx release set (5.2M1 and higher as upgrading is not supported in 5.2M0), and an upgrade process from release 5.1 or earlier is not currently available. Contact your Oracle account representative with any questions.

For the full set of upgrading instructions, see the Oracle Communications Interactive Session Recorder Installation Guide.


New Features

This section lists and describes the new features added to the ISR in the 5.2 release.

- Oracle Linux 7 Support
- Volume Encryption
- Secure Default Configurations with HTTPS and Oracle Linux 7 firewall
- Updated Application Server
- Expanded Integration with BroadSoft Broadworks R21 Call Recording
- Feature for the Aggregation and Control of Events (FACE)
- Custom Data Expansion
- Log File Changes

Oracle Linux 7 Support

Beginning with release 5.2, all components are supported only on Oracle Linux 7 and can be deployed on physical hardware or as virtual machines. Even if you are familiar with ISR, consult the Oracle Communications Interactive Session Recorder Installation Guide for updated instructions on procuring your Operating System, getting access to the yum repository where the ISR packages are available, as well as accessing and configuring a repository for required third-party dependencies.

 **Note:** ISR 5.2 has been tested on Oracle Linux 7.2 with the Unbreakable Enterprise Kernel version 3.8.

Systemd with Oracle Linux 7

Systemd is an "init" system that manages processes and the user space. Where most ISR component instructions explain to restart a service, such as ISR's application container Tomcat, with the command `service tomcat restart`, you should note that the "init" system is being deprecated and learn to use Systemd's commands, such as `systemctl restart tomcat`.

Volume Encryption

As part of the Oracle Linux installation, customers can elect to configure volume encryption for their ISR component drives.

Secure Default Configurations with HTTPS and Oracle Linux 7 Firewall

The ISR 5.2 default configuration takes advantage of several security options available with Oracle Linux 7, such as SELinux and firewalld, along with proper security conventions automatically applied during install, provisioning, configuration, and sustaining. For more information, refer to the *Oracle Communications Interactive Session Recorder Security Guide*.

Updated Application Server

ISR has replaced all embedded JBOSS Application Server instances with Tomcat Web Server Version 7.0.54.

Expanded Integration with BroadSoft Broadworks R21 Call Recording

ISR 5.2 upgrades its compatibility with BroadSoft Broadworks SIPREC implementation to the required components of the R21 specification, which includes on-demand and user controlled recording. Video recording is explicitly not supported in ISR 5.2, but may be included in a subsequent ISR release.

Feature for the Aggregation and Control of Events (FACE)

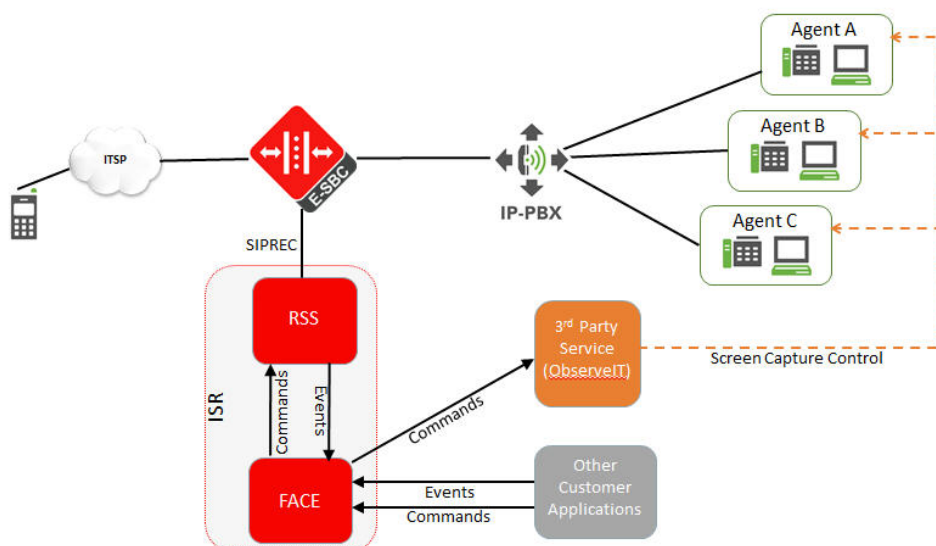
ISR introduced the Feature for the Aggregation and Control of Events (FACE) in limited capacity in 5.1 M6, and further expands its functionality in 5.2 (See Custom Data Expansion for details).

FACE is a centralized component used to control both ISR and integrated third-party services. In the 5.1M6 version, the focus is on key activities necessary for desktop screen capture via the ObserveIT Visual Session Recording solution and for associating the captured screens to related audio recordings.

The controls currently available include pausing and resuming an audio recording, allowing for the omission of sensitive information, and starting and stopping screen capture on an ObserveIT agent host. FACE also supports a policy system, allowing incoming events to trigger actions, with the current set of actions dedicated to screen capture control.

When communicating with third-party applications, FACE propagates session and recording events to a separate server that interoperates with the ObserveIT Visual Session Recording solution. The data provided in these notifications allows the service to coordinate ISR recordings with ObserveIT screen capture recordings in order to provide simultaneous audio and video playback on applications such as the ISR Dashboard.

The following image is an architectural diagram of how FACE works in conjunction with the ISR and a third-party service.



For more information, see the *Oracle Communications Interactive Session Recorder Installation Guide* and *Oracle Communications Interactive Session Recorder API Reference Guide*.

Custom Data Expansion

Prior to 5.2, ISR limited the users to a maximum of 4 custom data fields per recording. As of 5.2, that limit has been removed. Custom data field names can now be defined on a system-wide basis and applied to any account/route in any combination.

To support the insertion of and expansion of search capabilities on this data, the FACE API now supports a number of new REST-like methods for adding custom data as well as for searching using custom data. This includes expanded option for control of audio recording, such as starting, stopping, pause, and resume. Authentication and authorization of users, as well as auditing of their actions through the FACE API, is included in this release.

Users of the legacy REST API are invited to migrate to the FACE API at their convenience. While not being deprecated, the legacy REST API will not be updated to include these custom data updates, or any future API enhancements. For more information, contact your Oracle account representative.

For more information, refer to the *Oracle Communications Interactive Session Recorder API Reference Guide*.

Log File Changes

The ISR component application and application container log file paths have changed significantly. While links have been provided where possible for backwards-compatibility, see "Appendix A: ISR Linux Users and File Permissions" in the *Oracle Communications Interactive Session Recorder Installation Guide*.

Inherited Features

Feature descriptions found in this chapter are inherited (forward merged) from the following ISR releases:

- ISR 5.1M1
- ISR 5.1M2
- ISR 5.1M3
- ISR 5.1M4
- ISR 5.1M5
- ISR 5.1M6

These features were not included in the ISR 5.1 GA docset.

ISR 5.1M1 Maintenance Release Features

The following features appear in this major release documentation set for the first time.

Archiving Recordings Permanently Via the API

An optional parameter called `setNeverExpire` has been added to the `updateFileInfo` command in the REST API.

Percent to Record Enhancements

As of release 5.1M1, when a session is not recorded based on the Percent To Record value, the ISR executes the following in response:

- Replies to unrecorded INVITEs with a 412 response code
 - Logs the rejected session
 - Adds the rejected session count to the call statistics table
- When a Route's Percent To Record value is set to 0, the ISR remains connected and available for ad-hoc API recording for all sessions. When you set this value to 0 and click **Update**, the ISR Dashboard provides the following message:

```
"Percent to Record has been set to 0%. Each session is accepted and remains active for ad-hoc recording. To reject sessions due to percentage-based recording the value must be greater than 0%."
```

Adding a Third Network Interface to the Dashboard Host

In addition to the `eth0` interface for the management public network, the `configCis.sh` script now includes a menu option to configure an `eth2` interface for the Dashboard host's "voice" network. For more information on adding a

Inherited Features

third network interface to the Dashboard host, see the *Oracle Communications Interactive Session Controller Installation Guide*.

ISR 5.1M2 Maintenance Release Notes

No features from the ISR 5.1M2 release appear in this major release documentation set.

ISR 5.1M3 Maintenance Release Notes

No features from the ISR 5.1M3 release appear in this major release documentation set.

ISR 5.1M4 Maintenance Release Notes

The following features appear in this major release documentation set for the first time.

ISR Dashboard Database Failover

To support a high availability (HA) Index environment, the ISR Dashboard supports both primary and secondary production databases.

The Dashboard always attempts to connect to the primary Index first and the secondary database is only used when the Dashboard fails to connect to the primary database. If the Dashboard cannot connect to the secondary Index database, the ISR displays an error.

Remote Archival Webservice Multiple IP Address Support

The ISR supports more than one IP address per account on the Remote Archival Webservice. As a way to scale and stabilize the Remote Archival Client platforms, the Remote Archival Webservice now supports more than one IP address per account. To allow multiple clients for accounts while maintaining the same access control, accounts may be mapped to multiple clients, each with a specific IP address.

To allow for multiple clients for one account, the first client to issue a getFile request receives a temporary 'lock' for operations on that file. This prevents another client from retrieving or updating the file while the lock is in effect. A configurable setting, `account_raws_configuration.exclusive_lock_seconds` (in the `IPCR_DB` schema), manages how long a client has exclusive access for retrieving and updating the status of a file. If the client does not update the entry within the allotted time, the lock is lifted and the recording is made available for the next getFile (or statusUpdate) request associated with the given account.

The Dashboard configuration has changed to allow you to configure multiple client IPs for a single account.

ISR 5.1M5 Maintenance Release Notes

The following features appear in this major release documentation set for the first time.

Codec Negotiation Support For All Packet Times

The ISR supports codec negotiation for all additional packet times (ptimes) within codecs supported by the RSS, specifically including but not limited to 30ms, G.711, and ulaw/alaw.

Updated Packet Alignment Mechanism

The RSS now utilizes a new packet alignment mechanism that uses the RTP packet sequence number.

RSS Performance Improvements

Several updates were made to the RSS to improve performance, including:

- A simplified SIP process and updated SIP stack to handle more load and throughput.
- A more graceful SIP processor to better handle session availability.

While the above improvements are reflected in the limit of calls per second over maximum load, the maximum load in terms of concurrent sessions has also been improved.

Remote Archival Monitor Tests

If Remote Archival is configured, the Monitor Dashboard now automatically adds the following Remote Archival tests:

- Alarm if stale recordings are present in the queue
- Alarm if Remote Archival attempts for retrieving a recording have exceeded the maximum threshold



Note: By default, stale recordings are considered any that are an hour overdue. If you require a different interval at which recordings are considered stale, see the *Oracle Communications Interactive Session Recorder Monitoring Guide* for instructions on updating test queries.

Recording Location Application Server Test

The ISR Monitor Dashboard now automatically generates a second test for each Location to verify that Tomcat is responsive.

Log Collection Scripts

Log collection scripts have been added to each ISR component deployment. To collect logs for a service request, run the 'collectLogs.sh' script and attach the resulting TGZ file to the request.



Note: By default, the TGZ file can be found in the directory from where the script was executed.

ISR 5.1M6 Maintenance Release Notes

The following features appear in this major release documentation set for the first time.

ISR FACE

The ISR supports FACE. FACE is a feature for the aggregation and control of events. It is a centralized component used to control both ISR and integrated third-party services. In the 5.1M6 version, the focus is on key activities necessary for desktop screen capture via the ObserveIT Visual Session Recording solution and for associating the captured screens to related audio recordings.

The controls currently available include pausing and resuming an audio recording, allowing for the omission of sensitive information, and starting and stopping screen capture on an ObserveIT agent host. FACE also supports a policy system, allowing incoming events to trigger actions, with the current set of actions dedicated to screen capture control.

The following table shows and describes the specific API commands you can implement to control audio and screen recording using the ISR FACE REST API.

API Command	Description
audioRecording/pause	Pause recording of Real-time Transport Protocol (RTP) audio streams indefinitely
audioRecording/resume	Resume recording of both RTP audio streams
eventNotify	Notify the FACE of the specified event, possibly causing Policy Actions to fire

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API Command	Description
StartScreenCapture	Begin ObserveIT Screen Recording
StopScreenCapture	End ObserveIT Screen Recording
version	Return the version number of the FACE software

FACE uses external event notifications, which provide a way to notify RESTful services of events occurring in the ISR. It can be used in two ways: to notify third-party applications of new recordings, new sessions, and updates to existing sessions and recordings, or to notify new ISR components, acting as integrations to third-party platforms, of critical ISR events.

When communicating with third-party applications, the external events notification system propagates session and recording events to a separate server that interoperates with the ObserveIT Visual Session Recording solution (the ISR FACE feature). The data provided in these notifications allows the service to coordinate ISR recordings with ObserveIT screen capture recordings in order to provide simultaneous audio and video playback on applications such as the ISR Dashboard.

External event notifications may be configured with a series of default settings for interoperation with ISR FACE and the ObserveIT Visual Session Recording solution. For more information on the FACE feature, see the ISR FACE section of this guide. If you require more extensive external event notification configuration, contact your Oracle representative.

Recording File Permissions

In ISR releases prior to 5.1M6, download and delete recording file permissions were the only supported User-level configuration permissions. To be consistent with Account and Route-level configuration recording file permissions, the following enhancements have been made:

- A User-level **playback** recording file permission has been added.
- All User-level recording file permissions have been expanded to also be configurable at the user's Account level.
- Account-level configurable recording file permissions override the User-level configuration.
- You now have the ability to push a recording file permission change from the Account level down to each user of the Account at the User level.



Note: New Accounts, Routes, and Users have all recording file permissions enabled by default.

Caching HTTP Recording Files

You can configure the ISR to either include or not include the following HTTP header and values (on playback of recordings and third-party media) in the response to a recording playback request:

```
Cache-Control: max-age=0, no-cache, no-store
```

Bookmark API REST Support

The ISR now supports the bookmark API command in the REST format.

X-ISR-UCID Enhancements

There has been a lot of interest (both internal and field-wide) focused on populating SIPREC metadata with an X-ISR-UCID header or a SIPREC extension data field, mainly for purpose of API recording access and control. Currently, there are two SPL implementations to address populating the X-ISR-UCID field, one that properly sets the field with a provided UCID/GUID, and another that adds the value as a field in the SIPREC extension data. Prior to 5.1M6, the latter implementation yielded a situation where the API could not access the recording with the X-ISRUCID value because it is expected as a primary recording field.

The current ISR release has been enhanced to now populate the primary recording X-ISR-UCID field regardless of SPL implementation.

Silence Padding Support

The ISR API command, recordPause, has been enhanced to offer the ability to include the silent media of a paused audio recording to preserve the accuracy of the duration of the call.

Remote Archival Web Service

The ISR supports a Remote Archival Web Service (RAWS).

The Remote Archival (RA) allows you to pull your recordings, in bulk, to a premise location. The RA Client (not provided) connects to the RAWS and retrieves all recordings for a single account configured on the host platform.

To support RAWS, the *Oracle Communications Interactive Session Recorder Remote Archival Web Service Reference Guide* has been added to the ISR doc set. This document provides the following information:

- What is the RAWS
- The Web Service Control methods, their request parameters, return results, and return code
- WSDL definitions
- Data Type Definitions
- Sample getAdministrativeData Response
- Sample siprecDataSets Response Exerpt
- Importing the RAWS' certificate into the client keystore

Known Problems and Restrictions in 5.2

MySQL User Passwords

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

Required Recording Format Conversion For FACE

All g.729 and g.722 recordings in RPDD format cannot be downloaded in FACE without off-line Remote Archival conversion.

Deprecated 4.x Passwords

If an account has not been updated the security of its password from ISR version 4.x, the Administrator must reset the password.

5.2 ISR Application Monitor

The ISR Application Monitor is unavailable for the initial 5.2 release and has been scheduled for a subsequent release.

ISR Recording Playback Errors For Some 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—No reported issues.



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.

Known Problems and Restrictions in 5.2

ISR Universal Call Identifier Order of Precedence Change

X-ISR-UCID enhancements added in the 5.1M6 ISR release may impact expected behaviors when the SRC/SBC is configured to use both the "AvayaCiscoUCID64" and the "SipHeaderExtensionMetadata.1.2" SPL.

If the expectation exists, either for searching or API control, that a third-party Universal Call Identifier (UCID) value populates the ISR UCID using the above two SPL configurations to pull Communication Session (CS) UCID and Call ID into the Recording Session (RS) extension data, then the below change in precedence should be noted.

When the SRC/SBC is configured for both the "AvayaCiscoUCID64" and the "SipHeaderExtensionMetadata.1.2.spl" SPL the ISR's UCID is now populated in the following order of precedence:

- X-ISR-UCID (or any other field name configured in the "<Sip><IsrUcidHeaderField>" tag of the RSS configuration file /cxc/vmgConfig.xml). For example:

```
<participant id="hq18GJs3TtJdhjPsfPNV8A=="
session="BYiC7uSZQGN3VQdzWI1HWw==">
<nameID aor="sip:sipp@192.168.10.1">
...
<extensiondata xmlns:apkt="http://acmepacket.com/siprec/
extensiondata">
...
<apkt:header label="X-ISR-UCID">
<value>X-ISR-UCID-1-150323161627-1979582260@0a0af9f9</value>
</apkt:header>
...
</extensiondata>
```


- Call ID populated in the RS extension data. For example:

```
<participant id="hq18GJs3TtJdhjPsfPNV8A=="
session="BYiC7uSZQGN3VQdzWI1HWw==">
<nameID aor="sip:sipp@192.168.10.1">
...
<extensiondata xmlns:apkt="http://acmepacket.com/siprec/
extensiondata">
...
<apkt:header label="Call-ID">
<value>1-150323161627-1979582260@0a0af9f9</value>
</apkt:header>
</extensiondata>
```

- Third-party UCID. For example:

```
<session id="/Bo3JD1jRnZluCz1VhPHeg==">
<associate-time>2016-03-15T01:33:46</associate-time>
<extensiondata xmlns:apkt="http://acmepacket.com/siprec/extensiondata">
<apkt:ucid>00FA080200000F56E7667A;encoding=hex</apkt:ucid>
<apkt:callerOrig>>true</apkt:callerOrig>
```

To revert to the behavior prior to 5.1M6 in this specific instance, change the "AvayaCiscoUCID64" SPL to no longer pull the "Call-ID" and "X-ISR-UCID" into the RS or change the header names if still required.

 **Note:** To pursue other options not described here, contact your Oracle representative for more information.

Account Email Addresses

Changing a user's email address disables the account, not allowing the user to log in.

Account Details Page

The Account details page may misbehave when deleting multiple accounts in their details.

Disabling a User

The functionality to disable a user is not working properly, and the user must instead be deleted.

Dashboard Build Number

The Dashboard build number is not properly displayed in the About page.

Stabilizing Display Recordings in Different Time Zones

To stabilize recording displays in different time zones, the ISR Dashboard expects the Index host to be configured for UTC.

To verify that the Index host is set to UTC, execute the following command on the Index shell:

```
timedatectl
```

If necessary, use the `timedatectl set-timezone UTC` command to change the time zone to UTC on an Oracle Linux 7 host.

Dashboard "configIsr.sh" Script Cannot Run Without Java 8 Installed


In order to run the Dashboard's `configIsr.sh` script, you need the Java keytool during configuration. To install Java 8 execute the following command:

```
# sudo yum install java
```

As long as the Dashboard host can connect to the Oracle public repository, the Java package installation is straightforward.

If you encounter this problem after executing the `yum install isr-Dashboard` command, you must remove the Dashboard package, install Java, and install the Dashboard once more. To do this, execute the following commands:

```
# sudo yum remove isr-Dashboard
# sudo yum install java
# sudo yum install isr-Dashboard
```

 **Note:** These commands assume your hardware is connected to an ISR and the Oracle public repositories. If not, you may use the `yum localinstall` command.

CDR Remote Not Updated After File Conversion

When including sessions originally recorded in the RPDD file format, the Remote Archival `getList` responses, are listed with the errant ".rpdd" extension despite successful conversion. Once the ".rpdd" file name and recording ID are included in the `getFile` request, the proper ".wav" file and file name are returned in the `getFile` response.

Dashboard Routes and Accounts Set the Codec Profile to an Invalid ID

When the Dashboard creates new Routes and Accounts, the Codec Profile of the account or route is set to an invalid ID. The invalid Codec Profile yields g.729 session recordings written with .wav file extensions, but indexed with .RPDD extensions in the file name, and causes Dashboard playback and download and Remote Archival failures.

To avoid this issue execute the following SQL statement in the MySQL command-line client of the Index host:

```
ALTER TABLE `ipcr_db`.`accounts` CHANGE COLUMN `codec_profile_id`
`codec_profile_id` INT DEFAULT 1;
ALTER TABLE `ipcr_db`.`route_config` CHANGE COLUMN `codec_profile_id`
`codec_profile_id` INT DEFAULT 1;
```

If existing accounts or routes have been impacted by the invalid Codec Profile setting and g.729 recordings cannot be properly converted for playback, download or Remote Archival, the following query fixes existing accounts and routes when executed in the MySQL command-line client of the Index host:

```
UPDATE route_config SET codec_profile_id=1;
```

Known Problems and Restrictions in 5.2

Default Codec Profile g.711/ADPCM Not Playable in Chrome

For g.729 sessions, the ISR's "**Default**" **Codec Profile** records in the lower-bandwidth 4-bit ADPCM format, which currently is not playable with the latest version of the Chrome browser. The media player pops up with the Play icon becoming disabled quickly.

Firewalld Performance Disclaimers

The Oracle Linux 7.2 firewalld services, enabled by default in release 5.2M0P0, have demonstrated a performance impact of over 50% using Oracle hardware. When considering the balance of security vs. performance, refer to the Oracle Communications Interactive Session Recorder Security Guide for more information on the configuration options of firewalld services and benefits.