Oracle® Communications Interactive Session Recorder

User Guide

Release 5.1

Formerly Net-Net Interactive Session Recorder

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Contents

About this Guide

Overview

The *Interactive Session Recorder User Guide* provides information about accessing and using the Net-Net ISR (NN-ISR) Web dashboard to:

- View/play/delete recordings
- Save recording searches
- Create recording categories
- Download recordings to CSV file
- Generate reports
- Edit user profiles (available to Super User, Account Administrator, Tenant Administrator only)

This guide is intended for all users (Super User, Account Administrator, Tenant Administrator, and Tenant User). Available features/functions in the User Dashboard are dependant on the user's privilege level of access. For more information about the user level privileges in the NN-ISR, see the section User Access Levels in this guide.

Related Documentation

The following table lists related documents.

Document Name	Document Description
Interactive Session Recorder Release Notes	Contains information about new ISR features and fixed issues in each release of the ISR.
Interactive Session Recorder 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.
Interactive Session Recorder Administrator Guide	Contains information about using the ISR dashboard for the Administrator level user (Super User, Account Administrator, and Tenant Administrator). Provides information about creating and managing accounts, routes, and users. Also provides information about configuring the ISR, running reports, and viewing active calls.
Interactive Session Recorder API Reference Guide	Contains information about Methods for Recording, VoiceXML Commands, representational state transfer (REST) application programming interface (API), Recording File Types/Formats Supported, Return Codes, sendIPCRCommand.jsp Subdialog, Advanced Options, Troubleshooting.
Interactive Session Recorder Monitoring Guide	Contains information about installing and configuring the ISR Monitor. It also includes the Monitor database schema as well as the Monitor MIB.
Interactive Session Recorder Remote Archival Web Services Reference Guide	Contains information about the Remote Archival Web Service, its Control methods, WSDL definitions, DataType Definitions, sample responses to requests, and importing the Remote Archival Web Service's certificate into the client keystore.

Revision History

This section contains the revision history for this document.

Date	Revision Number	Description
July 31, 2012	Revision 1.00	Initial release of the NN-ISR 5.1 software.
December 24, 2015	Revision 1.01	Adds the Interactive Session Recorder Remote Archival Web Services Reference Guide to the list of Related Documentation.

1 Overview

Introduction

This section provides an overview of the NN-ISR. It also provides information about using the NN-ISR Web user interface (UI) dashboard.

About the NN-ISR

The NN-ISR is an Internet Protocol (IP) session/call recorder that can record every call, a percentage of calls, specific dialogs, including agent transfers. It programmatically controls recording for any call, at any point and for any duration. It allows the network administrator to efficiently monitor and improve every customer phone interaction. The NN-ISR can scale from one call to thousands of concurrent calls and is a simple add-on to any SIP telephony network.

The NN-ISR is a simple software-based solution for an existing Interactive Voice Response (IVR) application, carrier, enterprise, or contact center. It deploys on standard Intel-based Windows servers in both legacy Public Switched Telephone Network (PSTN), Session Initiation Protocol (SIP), and Voice over IP (VoIP) telephony environments. It has built-in auto-archival that allows all recordings to be stored on an existing network-attached storage (NAS) or storage area network (SAN).

Supporting enterprise & multi-tenant architectures, the NN-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 NN-ISR, VoiceXML developers now have the ability to record every call, a percentage of calls, specific VoiceXML dialogs as well as transfers to agent conversations. With simple VoiceXML code, the VoiceXML application controls recording for any call, at any point and for any duration. In addition, every recording may be indexed by key VoiceXML values or identifiers (account number, unique call identifier, SIP URI, time of call, etc.).

> **Note:** For more information and general specifications about the NN-ISR, see the *Interactive Session Recorder Installation Guide* and the *Interactive Session Recorder API Reference Guide.*

About the NN-ISR Dashboard

The NN-ISR Dashboard allows you to perform specific user tasks such as:

- View/play/delete recordings
- Save recording searches
- Create recording categories
- Download recordings to CSV file
- Generate reports
- Edit User Profiles (Super User, Account Administrator, Tenant Administrator only)

Note: Available features/functions in the User Dashboard are dependant on the user's privilege level of access. For more information about the user level privileges in the NN-ISR, see the section User Access Levels in this guide.

Requirements and Recommendations

To use the NN-ISR Dashboard, the following must be met.

Browser Requirements

Any of the following Internet browsers can be used:

- Microsoft® Internet Explorer 8 or greater
- Mozilla Firefox® 2.0.0.13 or greater
- Google Chrome™ 1.0

Recording Playback Recommendations

To listen to recordings, the following is recommended:

- Microsoft® Windows Media Player 11
- Quicktime®

Note: In some cases, developers may not include the audio file extension (.wav) on the file name when programmatically naming the file through the VoiceXML API. Windows Media Player 11 plays the file regardless of whether or not the file extension is present.

SIPREC Support

In addition to session call recording via Session Replication for Recording (SRR), the NN-ISR also supports SIPREC.

The SIPREC protocol is used to interact between a Session Recording Client (SRC) and a Session Recording Server (SRS) (a 3rd party call recorder, in this case the NN-ISR's Record and Store Server (RSS)). It controls the recording of media transmitted in the context of a communications session (CS) between multiple user agents.

SIPREC provides a selective-based call recording solution that increases media and signaling performance on 3rd party call recording servers, more robust failovers, and the ability to selectively record.

The SIPREC feature supports active recording, where the SRC purposefully streams media to the NN-ISR's RSS acting as the SRS. The SRC and SRS act as SIP User Agents

(UAs). The SRC provides additional information to the SRS to describe the communication sessions, participants and media streams for the recording session to facilitate archival and retrieval of the recorded information.

The recording session metadata describes the current state of the recording session and its communication session(s). It is updated when a change of state in the communication session(s) is observed by the SRC. The NN-ISR is responsible for maintaining call history and presenting the history and associated metadata. NN-ISR presents this session metadata, while allowing maintenance and editing of the data along with searching for particular metadata values, through the User Dashboard.

For information on configuring SIPREC on an SBC acting as an SRC, see the *Oracle Communications Session Director Server Edition User Guide*.

2 Getting Started

Introduction

This section provides information you need to know before using the NN-ISR Dashboard.

Logging In/Out of the NN-ISR Dashboard

Before you can access the NN-ISR Dashboard, you must have an email address (username) and password provided by your network administrator at the time the ISR was installed in your network. Contact your network administrator for more information.

If your email and password are not available, you can use the following default email and password, then change the password after logging in:

Email: **isradmin@acmepacket.com**

Password: **Admin123**

To login to the NN-ISR Dashboard:

1. Open your Internet Web browser (see compatible browser requirements the Requirements/Recommendations section).
2. Enter the following URL in the URL field:

   `http://<host name or IP>0`

   The Login page displays.

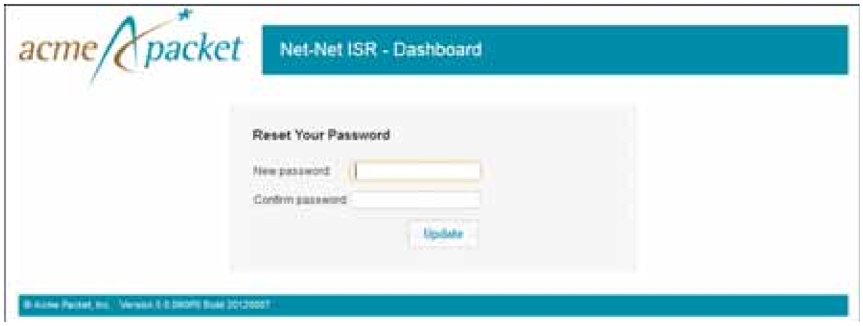
3. **Email**—Enter your email (username).
4. **Password**—Enter the password provided by your Administrator at the time of the NN-ISR installation. If this email/password is unavailable enter the following and press **Enter**.

   ```
   Email: isradmin@acmepacket.com
   Password: admin123
   ```

   On first-time login, the system prompts you to reset your password.
5. **New Password**—Enter a new password.

   Note: Your password must contain at least one of the following characters in addition to lowercase letters: Capital letter and/or special character (e.g. @, #, $, etc.)

6. **Confirm Password—**Enter the same password again and click <**Update**>.



Note: More than 3 failed attempts to log into the NN-ISR locks out a User. A message displays with the length of time the User has to wait before attempting to log in again. Contact your Administrator if you forgot your password.

Upon successful login the first time, the system prompts you to change your password. For security purposes, you should change your password every 45 days.

After changing your password, the NN-ISR Dashboard Home page (default).

This page allows you to perform the following:

Icon	Description
	**Find Recordings (or Recordings in top menu bar)** — Allows you to view, play, delete and search recordings currently in the NN-ISR database. Also allows you to download the recording metadata to a comma-separated value (CSV) file. For added convenience, after completing a recording search, you can save the search by assigning it a name. You can also create categories and add recordings to the category as applicable. **Note**: Displayed recordings are dependant on the level of logged in user. For more information, see User Access Levels.
	**Build a Report (or Reports in top menu bar)** — Allows you to generate Usage and Billing reports for routes configured on the NN-ISR. These reports display the information in a Bar Graph as well as in a Data Graph. **Note**: Displayed routes are dependant on the level of logged in user. For more information, see User Access Levels.

Icon	Description
	**Edit My Settings (or Settings in top menu bar) —** Allows you to view and edit the NN-ISR GUI settings such as: • Page refresh rate (seconds) • Displayed number of recording entries per page • Specify the fields (columns) to display in a Recording search • Change your user login password
- 	**Edit System Configuration (or Admin in top menu bar -- displays for a Super User, Account Administrator, and Tenant Administrator only) —** Allows you to edit user profile information such as: • Third-Party Authorization Services • User Name • Email Address • Description associated with user • User Password (NN-ISR GUI login password) • Whether or not the user is active • User Type (user level) **Note**: Display of this feature is dependant on the level of logged in user. For more information, see User Access Levels.

To logout of the NN-ISR Dashboard:

- Click the Logout icon in the upper-right corner of the page. The NN-ISR Dashboard immediately logs you out.

Help Link

Online support is available for the NN-ISR Dashboard. The **Help** link on the Main page displays information about contacting Oracle Technical Support if required.

Clicking the **Help** link displays the following window.

If you cannot find answers to your questions using the *Interactive Session Recorder User Guide*, please open a ticket with your question(s) using the Oracle Support Portal at *https://support.acmepacket.com*. Specify the appropriate information in the ticket pertaining to your question(s) as described in the help window.

User Access Levels

All users can access the NN-ISR Dashboard. However, the functions available to the logged in user are dependant on the level of access assigned. The following table identifies the functions available at each user level.

Note: The Edit System Configuration (Admin) menu7 in the NN-ISR Dashboard displays ONLY for users logged in as administrator

User Type	Find Recordings (Recordings)	Build Reports (Reports)	Edit My Settings (Settings)	Edit System Configurations (Admin)
Super User	Yes	Yes	Yes	Yes (Can manage all)
Account Administrator	View only. (Permissions to edit/delete must be assigned.)	Yes	Yes	Yes (Can manage all EXCEPT Super User)
Tenant Administrator	View own recordings only. (Permissions to edit/delete must be assigned.)	Yes (Reports include info from own accounts only)	Yes	Yes (Can manage own Accounts, Routes, Tenant Admin, Tenant User only)
Tenant User	View own recordings only. (Permissions to edit/delete must be assigned.)	Yes (Reports include info from own accounts only)	Yes	No
Remote Archiver User	N/A	N/A	N/A	N/A

Note: A Remote Archival user is specific to the Remote Archival Webservice only and cannot log into the NN-ISR Dashboard.

Functional Icons

The NN-ISR Dashboard has various icons that perform specific functions. The following table describes each functional icon.

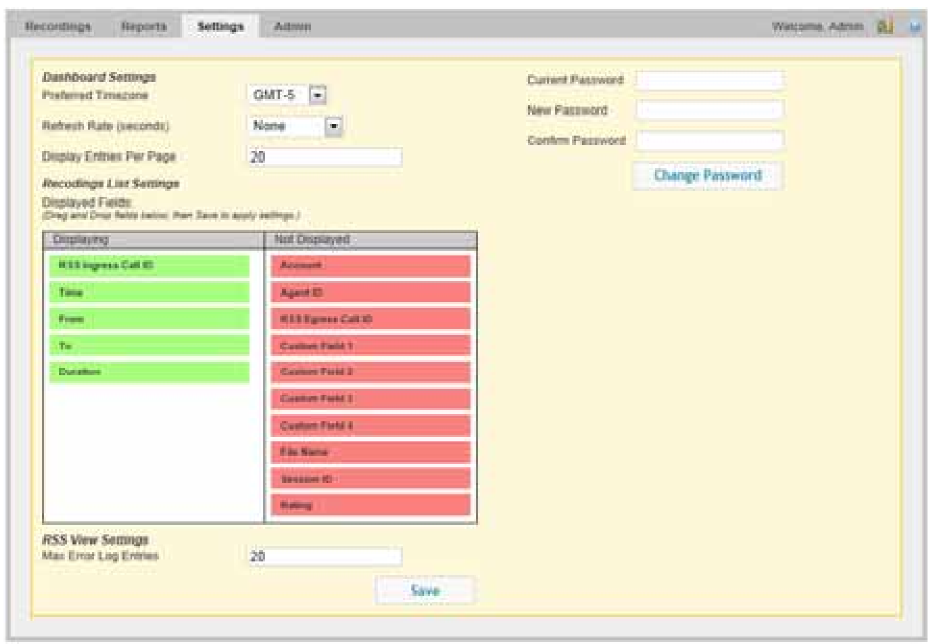
Functional Icon	Description
	**Logoff** - Allows you to logout of the NN-ISR Administrator Dashboard.
	**Help** - Displays information about contacting Oracle Technical Support for help with the NN-ISR Dashboard.
	**Add** - Adds a new item to a list
	**Delete** - Removes an item from the list.
	**Play** - Immediately opens and plays a ".*wav*" file recording stored in the NN-ISR database. **Note**: When you click the "Play" icon, the Dashboard offers the file to the applicable browser you currently have open. The browser determines the file type of the file and opens the media player according to the "player plugin" settings in the browser. The Dashboard ensures the play element is recognizable by all supported browsers (Chrome, Internet Explorer, Firefox).
	**Download** - Downloads a recording from the recording list, to your PC. You can choose to immediately play the recording or save the recording file to your PC.
	**Details** - Displays additional details about the item in the list. Some items allow for additional editing after clicking this tool.
	**View User Audit Trail** (managing User feature) - Displays details about the actions of the User in the NN-ISR Dashboard. Information includes: • Time - Time of the action. • Action - Description of the action. • Object - User email ID of the User that was logged in when the action was performed. • IP Address - IP address that was accessed during the action.
	**Events** (managing Session Agent feature) - Displays specific events that occurred on a Session Agent within a Site.

Editing My Settings

The Edit My Settings page (Settings in the Main Menu) in the NN-ISR allow you to customize specific elements of the Dashboard for your environment. These settings apply to the current logged in user only. You can configure:

- Dashboard Settings
- Recordings List Settings
- RSS View Settings

- After logging into the Net-Net ISR User Dashboard, click **Edit My Settings** (**Settings** in the Main Menu). The following page displays.



Configuring Dashboard Settings

Using the Dashboard Settings, you can:

- Set your preferred time zone
- Set the number of seconds or minutes that the pages in the dashboard are refreshed
- Set the number of entries you want displayed per page

- Change your current NN-ISR login password
- Select the recording detail fields to appear when you view a recording

To configure the dashboard settings:

1. **Preferred Timezone—**Select the timezone associated with your location or location of the user. This value is an offset of Greenwich Mean Time (GMT). The following table provides the valid values and default for this field.

Time Zone Table

Time Zone	Location
GMT-11	**NT - Nome**
GMT-10	**AHST - Alaska-Hawaii Standard** **CAT - Central Alaska** **HST - Hawaii Standard**
GMT-9	**YST - Yukon Standard**
GMT-8	**PST - Pacific Standard** Los Angeles, CA, USA
GMT-7	**MST - Mountain Standard**
GMT-6	**CST - Central Standard** Mexico City, Mexico Saskatchewan, Canada
GMT-5 (default)	**EST - Eastern Standard** Bogota Lima, Peru New York, NY, USA
GMT-4	**AST - Atlantic Standard** Caracas La Paz
GMT-3	Brasilia, Brazil Buenos Aires, Argentina Georgetown, Guyana
GMT-2	**AT - Azores**
GMT-1	**WAT - West Africa** Azores, Cape Verde Islands
GMT	London, England Dublin, Ireland Edinburgh, Scotland Lisbon, Portugal Reykjavik, Iceland Casablanca, Morocco
GMT+1	**CET - Central European** Paris, France Berlin, Germany Amsterdam, The Netherlands Brussels, Belgium Vienna, Austria Madrid, Spain Rome, Italy Bern, Switzerland Stockholm, Sweden Oslo, Norway

Time Zone	Location
GMT+2	**EET - Eastern European** Athens, Greece Helsinki, Finland Istanbul, Turkey Jerusalem, Israel Harare, Zimbabwe
GMT+3	**BT - Baghdad** Kuwait Nairobi, Kenya Riyadh, Saudi Arabia Moscow, Russia
GMT+4	Abu Dhabi, UAE
GMT+5	Kazakhstan (western-Aqtau) Maldives (Male) Pakistan (Islamabad, Karachi) Russia Tajikistan (Dushanbe) Turkmenistan (Ashkhabat) Uzbekistan (Tashkent) India (New Delhi, Calcutta) Sri Lanka (Colombo) Nepal (Katmandu)
GMT+6	Bangladesh Bhutan Kazakhstan Kyrgyzstan Sri Lanka (formerly Ceylon)
GMT+7	Cambodia Christmas Island Indonesia Lao Thailand Vietnam
GMT+8	**CCT - China Coast**
GMT+9	**JST - Japan Standard**
GMT+10	**GST - Guam Standard**
GMT+11	Solomon Islands
GMT+12	**IDLE - International Date Line East** **NZST - New Zealand Standard** Wellington, New Zealand Fiji Marshall Islands

2. **Refresh Rate (seconds)—**Select the number of seconds that the dashboard waits before refreshing the data that displays for recordings. Valid values are:
   - None
   - 30 seconds (default)
   - 1 minute
   - 2 minutes
   - 5 minutes
3. **Display Entries Per Page—**Enter the number of entries per page to display on the Recordings page. For example, entering a value of “7” in this field displays 7 recording entries per page in the Recordings List. Valid values are 1 to 255. Default is 10.

4. **Current Password—**Enter the current password you use to log into the Dashboard. Valid values are up to 256 alpha-numeric characters.
5. **New Password—**Enter your new password for logging into the Dashboard. Valid values are up to 256 alpha-numeric characters.
6. **Confirm Password—**Enter the same password you entered in Step 6 to confirm the new Dashboard password. Valid values are up to 256 alpha-numeric characters.
7. Click **Change Password** to save the changes. A message, "*Successfully changed*" displays when the change is successful.

   Note: If you attempt to enter a new password that was previously used for logging into the Dashboard, the following message displays: "*You must pick a password that you haven't recently used before.*"

8. Drag and drop recording detail fields you want to view from the Not Displayed column to the Displaying column.
9. **Max Error Log Entries**—Specify the maximum number of entries to include in the RSS error logs.
10. Click **Save** to save the dashboard settings.

3 Recordings

Introduction

This section provides information about searching and playing account recordings through the NN-ISR Dashboard. It also includes procedures for editing recording details, deleting recordings, and downloading the recordings to a comma-separated value (CSV) file.

All users can also download metadata for up to 10,000 recordings at a time to a “*.csv*” file.

Recordings

All user levels can search and play recordings using the NN-ISR Dashboard. Recordings that display are dependant on the level of user currently logged into the User Dashboard. For user level functions, see User Access Levels.

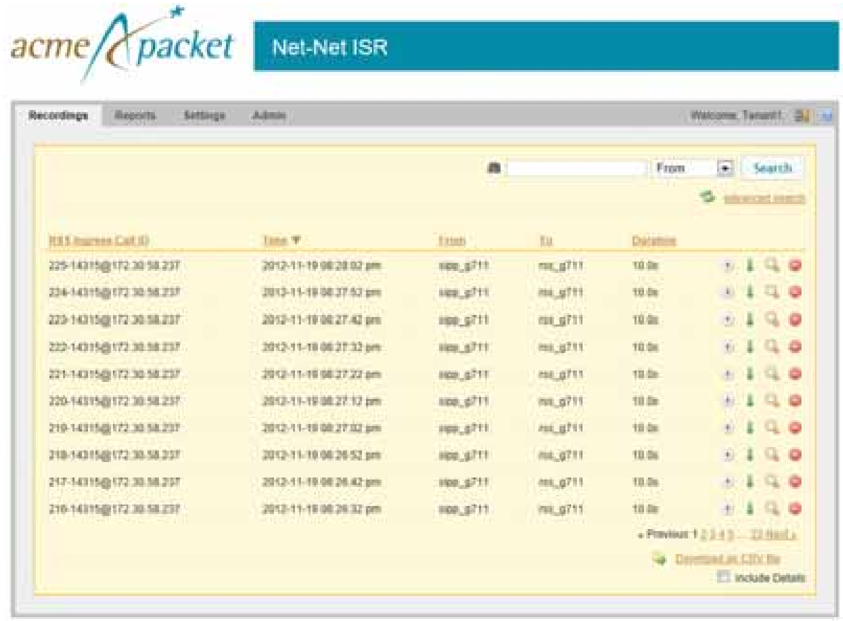
Searching for Recordings

You can use the **Recordings** page to search for a recording(s).

To search for a recording(s):

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.

The following page displays.



This page displays all recordings associated with the user currently logged into the User Dashboard.

2. To filter a specific type of recording, enter a specific Session ID, From, To, File Name, or Agent ID in the text box.

3. In the drop-down box field at the top of the window, select the metadata field for which you want to search. Valid values are:

   - Session ID
   - From
   - To
   - File Name
   - Agent ID

   For example, to search for only ANI s with phone numbers of 5085551234, enter **5085551234** in the text box and select **ANI** from the drop-down list.

4. Click **Search**. The recordings with the criteria you specified display in the Recordings List. This page displays the total number of pages in the list at the bottom right corner.

   The number of recordings that display per page and the refresh of the recordings page are determined by the Display Entries Per Page and Refresh Rate fields, respectively, on the Settings page. For more information, see Settings.

   Click **refresh** to manually refresh the Recordings List.

   Click the **Next** and **Previous** links to navigate between pages of the recording list.

5. (optional) Click on each column heading to toggle the data in the column in numerical and/or alphabetical order from least to greatest or greatest to least. The columns that display in the Recordings List are dependant on the column items selected on the **Settings** page. For more information, see Settings.

   Note: A maximum of only 5 columns can display at one time. The columns that display are determined by the fields you select in View/Edit Settings.

Advanced Search

If required, you can perform a more advanced search that allows you to define filters for a more detailed search for recordings.

To perform an advanced search:

1. Click **advanced search** on the top right of the page. The following window displays. The main Advanced Search criteria which appear are Search Mode, Session ID, From, To, and Search Date.

2. **Search Mode**—Select **AND** if you want each result of the search to include all of the information you specify**.** Select **OR** if you want each result of the search to include at least one of the items you specify in this dialog box.

3. **Partial Match**—When enabled, the NN-ISR finds recordings that partially match the values entered in the search fields.

4. **Session ID—**Specify the unique X-ISR-UCID of the recording for which you want to search. This is an optional parameter.

5. **From—**Enter the From URI of the calling phone that displays at the receiver's end of a telephone call, for which you want to search. This is an optional parameter.

6. **To**—(optional) Enter the To SIP URI used within a phone system and software typically corresponding to the number the caller dialed, for which you want to search.

7. **Label**—**Label**—Enter the route label to perform a search on.

8. **Search Date—**Select whether you want to search for recordings **By Relative** or **By Range** in addition to the other criteria on which you are searching:

   By Relative - Performs a search, based on the information you specified in the previous fields AND by recordings that happened **Today** (default), the **Last 7 Days**, or the **Last 30 Days**.

   By Range - Performs a search, based on the date range you specify. Enter the **From Date** and **To Date** in the format MM/DD/YYYY, or click on the calendar icon next to the text box to select the dates for which you want to search for recordings.

   In the **From Time** and **To time** boxes, select the time in the format HH:MM for which you want to search for recordings. Valid values for hours are 00 to 23. Valid values for minutes are 00 to 59.

You can expand the advanced search options by clicking **More Recording Search Options**.

1. **File Name**—Enter the name of the recording file. Valid values are alpha-numeric characters.
2. **Duration/Min** and/or **Duration/Max**—Enter the minimum and/or maximum seconds that the NN-ISR Dashboard filters on when it searches for a recording(s). The search results display all recordings beginning with the minimum value and/or ending with the maximum value you specify. Valid values are numerical digits.
3. **Agent ID**—Enter the ID of the Agent that was associated with the recording. Valid values are alpha-numeric characters.
4. **RSS Ingress Call ID**—Specify the call-id received in the header of the SIP INVITE.
5. **RSS Egress Call ID**—Specify the call-id used in the egress call leg for this recording.
6. **Custom Field 1-4**—Enter the unique set of meta-data associated with the recordings for which you are searching. The search results display all recordings associated with the values you enter in this field(s). Valid values are alpha-numeric characters.
7. **Categories**—Enter the name of the category for which you want to search for recordings. The category you enter in this field must already exist in the database. Valid values are alpha-numeric characters. For more information about creating and searching categories, see Creating Categories.

You can expand the advanced search options one step further by clicking **By Session Search Options**.

1. **SIPREC Session ID**—Enter the Session ID specific to the SIPREC metadata.
2. **Participant AOR—**Enter the participant's AOR whose recording you want to find.
3. **apkt:ucid**—Enter the apkt:ucid field specific to the SIPREC session extension data.
4. **extTrackingID**—Enter the external tracking ID that was used when an incoming call was transferred to another recipient. Valid values are alpha-numeric characters.
5. **serviceProviderID**—Enter the Service Provider ID that was used on the incoming call. Valid values are alpha-numeric characters.
6. **userID**—Enter the user ID on the incoming call. Valid values are alpha-numeric characters.
7. **groupID**—Enter the group ID on the incoming call. Valid values are alpha-numeric characters.
8. **callID**—Enter the call ID of the incoming call. Valid values are alpha-numeric characters.
9. **callingPartyNumber—**Enter the source number of the incoming call. Valid values are alpha-numeric characters.
10. **calledPartyNumber**—Enter the destination number of the incoming call. Valid values are alpha-numeric characters.
11. **newExtTrackingID**—Enter the new external tracking ID that was used when an incoming call was transferred a second time to another recipient. Valid values are alpha-numeric characters.
12. **apkt:in-realm**—Enter the name of the NN-ISR realm that received the SIPREC session (in-realm). Valid values are alpha-numeric characters.
13. **apkt:P-Asserted-Identity—**Enter the remote party's ID in the SIPREC session. The NN-ISR uses the P-Asserted-Identity header field to convey the proven identity of the originator of a request within a trusted network. Valid values are alpha-numeric characters.
14. **apkt:Diversion**—Enter the call forwarding phone number from the SIPREC session, to which the incoming call was diverted. Diversion is a call forwarding feature that lets an incoming call to a called party be redirected to a third party. Valid values are alpha-numeric characters.

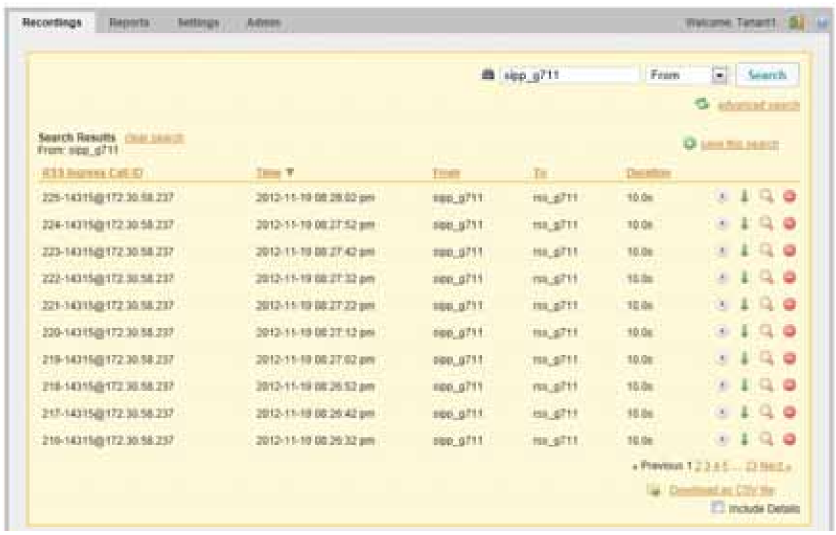
15. **apkt:request-uri**—Enter the URI in the header of the request message of the SIPREC session. The URI in the request message contains sufficient information to initiated and maintain the SIPREC communication session. Valid values are alpha-numeric characters.
16. Click **Search**. The NN-ISR searches for the recordings you specified and displays results on the Recordings page.

Saving a Search

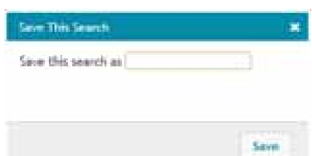
After performing a recording search, you can save the parameters to allow you to repeat the search whenever required.

To save a search:

1. Perform a recording search using the procedures in Searching for Recordings or Advanced Search.
2. On the recording results page, click **save this search**.



The following window displays.



3. Enter a name in the text box to assign to these search parameters and click **Save**. Valid values are alpha-numeric characters.

The saved search you created displays in the Saved Searches section on the results pages.

When you need to rerun the search, click the applicable Saved Search link to display all matching recordings.

Deleting a Saved Search

You can delete a saved recording query, deleting the search name and criteria only.

To delete a saved search:

1. From the Recordings list page, click on the applicable link under the **Saved Searches** section. The results associated with the Saved Search display.

Click **delete this saved search**. The NN-ISR deletes the saved search name and criteria.

Note: Deleting a saved search in the NN-ISR User Dashboard does not delete the recordings from the database.

Playing a Recording

After a recording occurs on the ISR, it is saved as an audio file to disk so you can listen to the audio. The Recordings page displays all completed recordings.

Before playing recordings, make sure you have a media application that plays audio files with a “*.wav*” format. For more information about the software requirements and recommendations for playing recordings, see Requirements/Recommendations.

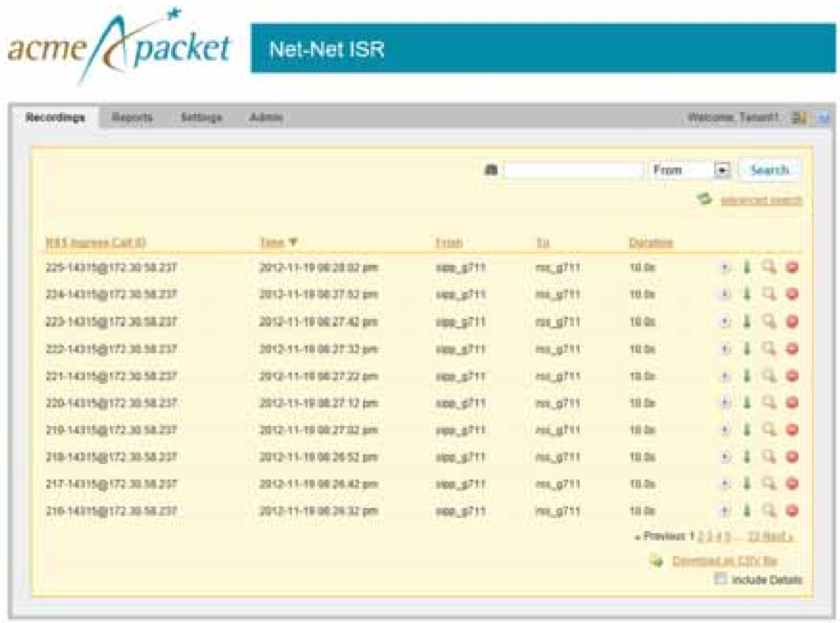
There are two ways to play a recording in the NN-ISR User Dashboard:

- from the Recordings list page
- from a specific recording’s detail page

To play a recording from the Recordings list page:

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.

The following page displays.



Choose a recording from the list, and click the Play icon.

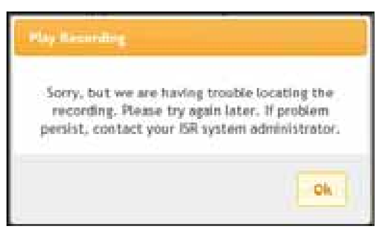
To find a specific recording, perform a search using the procedures in Searching for Recordings and click the Play icon for that recording.

After clicking the Play icon, the following message displays:

"*Retrieving Recording*".

The audio file opens and plays using the applicable media application installed on your computer.

If the recording file cannot be found, the following message displays:



Playing a Recording from the Detail Page

You can play a recording from the recording's detail page.

To play a recording from the detail page:

2. From the Recordings list page, choose a recording from the list, and click the Details icon.

   To find a specific recording, perform a search using the procedures in Searching for Recordings. Then click the Details icon for that recording.

3. The Recording’s detail page displays.

4. Click the name of the recording. Your default media application opens the recording file and plays the recording.

Viewing and Editing Recording Metadata

You can use the Recordings detail page to view and edit certain information about the recording. You can also create categories and assign recordings to those categories.

When the NN-ISR is functioning as an SRS in a SIPREC environment, it receives metadata for each recording generated by its associated SRC.

The recording metadata contains a set of related elements which define the recording session. The information within the metadata is determined by the SRC. Not all element types are required to describe a recording session initiated from the SRC.

The recording session XML schema defines the following element types:

- **dataMode** - A partial or complete metadata description (required).
- **group** - A collection of related communication sessions.
- **session** - A single communication session of two or more participants (required).
- **participant** - A SIP endpoint representation (required).
- **stream** - A media stream.
- **extensiondata** - Any application-specific data outside of the SIPREC scope.

The recording agent generates dataMode, group, session, participant, and stream elements. Extension data is attached to other elements within the metadata through the use of the parent attribute.

The XML schema for the recording metadata is defined in the IETF draft RFC “*draft-ram-siprec-metadata-format-02 [7]*”.

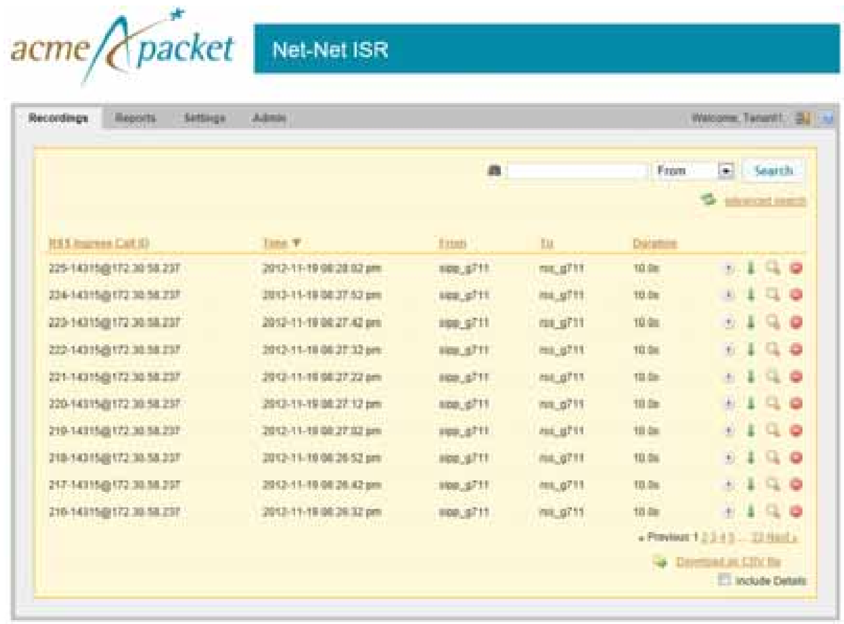
You can view the metadata via the recording details.

> **Note:** NN-ISRs functioning within RSS environments do not contain metadata.These fields do not appear when metadata is not available.

To view/edit the recording page:

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.

The following page displays.



2. Choose a recording from the list, and either click on the recording or click the Details icon.

   To find a specific recording, perform a search using the procedures in Searching for Recordings. Then click the Details icon for that recording.

The Recording's detail page displays with certain information displayed by default as well as Details, Session Metadata, and Session Participation Metadata options you can click on to expand the call information.

The NN-ISR Dashboard populates specific fields on this screen from the data specified by the NN-ISR at the time of the recording. Some of the fields on this page are read-only.

The following table describes parameters displayed by default in the recording details window.

Parameter	Read/Write Status	Description
Recording File Name	Read/Play	Specifies the ".wav" filename of this recording. You can click this filename to play the recording.
Account Name	Read-only	Specifies the account name for which the recording is associated.
Session ID	Read-only	Specifies the unique X-ISR-UCID of the recording.
From	Read-only	The From SIP URI of the calling phone that displays at the receiver's end of a telephone call (i.e., Caller ID). The number that the caller called from.
To	Read-only	Specifies the To SIP URI used within a phone system and software typically corresponding to the number the caller dialed.
Duration	Read-only	Specifies the length of the recording (in milliseconds).
Start Time	Read-only	Specifies the date and time the recording began.

By clicking the **Details** link, you can see and edit several more parameters.

The following table describes each Details parameter

Parameter	Read/Write Status	Description
RSS	Read-only	Specifies the recording host that took the call.
RSS Ingress Call ID	Read-only	Specifies the call-id received in the header of the SIP INVITE.
RSS Egress Call ID	Read-only	Specifies the call-id used in the egress call leg for this recording. Note: This field is shown only when the NN-ISR is configured for pass-through recording and does not appear in SIPREC configurations.
Never Expires	Read-only	When enabled, this recording remains in the archiver permanently.
Custom Data Field 1-4	Read/Write	The set of meta-data associated with the recordings for which you are searching.
Complete Transaction	Read/Write	Specifies whether or not the call resulted in a completed transaction/resolved incident. For example, if a caller calls into a Technical Support Center for problems with his PC, and the problem was not resolved in the recorded call, you can select "**No**" for the "Complete Transaction" field, indicating that the problem was not resolved on this call. Valid values are: • Yes • No (default)
Hours	Read/Write	Specifies the length of time, in hours/minutes that the reviewer spent reviewing/transcribing the recording. Valid values are in decimal format using numeric characters. For example, 6.15, where 6 indicates the hours and 15 indicates 1/4 hour.
Rating	Write	Specifies the score for the recording. Scoring is based on 1 to 5 stars. Default is no star selected.
Category	Read/Write	Creates a category for which to assign the recording in focus. Default is blank for this field. For more information about creating categories, see Creating Categories.
Notes	Read/Write	Specifies notes pertaining to the call session for the current recording. Adding more than 135 characters in this box displays scroll bars in the window that allow you to scroll through multiple screens of the note. Valid values are alpha-numeric characters.
Transcription	Read/Write	Specifies the conversation that took place on the call session that pertains to the current recording. Adding more than 135 characters in this box displays scroll bars in the window that allow you to scroll through multiple screens of the transcription. Valid values are alpha-numeric characters

Archiving Recordings Permanently

You can view whether or not a recording is archived by clicking **File Location** on the Recordings Details page.

You can also flag a recording to remain archived permanently.

To flag a recording to never expire:

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.
2. Choose the recording you want to flag and click the Details icon.

   The Recording's detail page displays.
3. Click the **File Location** link.

The following table describes each File Location parameter:

Parameter	Read/Write Status	Description
Store Indefinitely	Read/Write	Check the box to ensure this recording is never deleted due to expiration.
Recording is	Read-only	Specifies the archive status of this recording.
Remote Archive has	Read-only	Specifies whether or not a remote archive has been attempted for this recording.

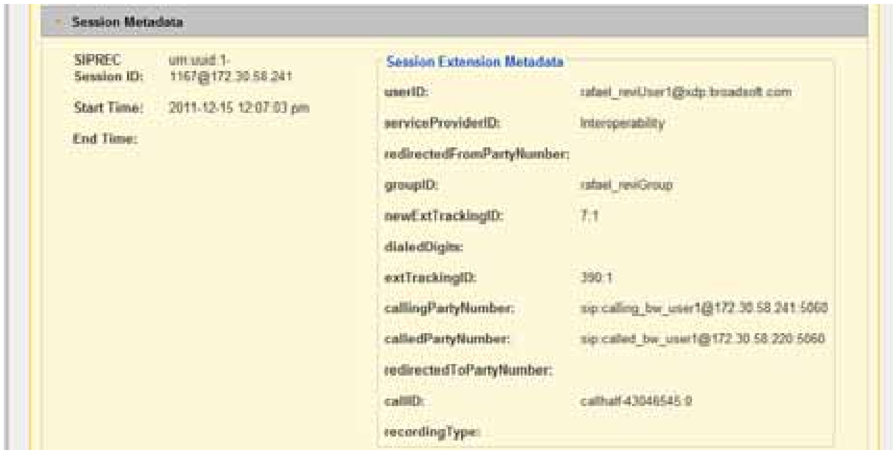
4. Click **Save Changes**.

If the NN-ISR is functioning within a SIPREC environment, you can click the **Session Metadata** link to view the SRC generated metadata.

> **Note:** If the NN-ISR is functioning in a non-SIPREC environment, no metadata is generated for recordings and the **Session Metadata** link does not appear.

The metadata you see is generated by the SRC and is not controlled by the NN-ISR. Therefore, metadata generated from different types of SRCs contain different information. The following example shows the metadata from an SBC.

The following example shows the metadata from a Broadsoft Broadworks platform.

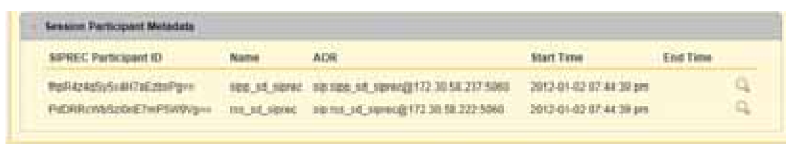


The following table describes each Session Metadata parameter

Parameter	Read/Write Status	Description
SIPREC Session ID	Read-only	Specifies the unique SIPREC identifier of the session within the SIPREC metadata.
Start Time	Read-only	Specifies the date and time the session began in the form YYYY-MM-DD HH:MM:SS.
End Time	Read-only	Specifies the date and time the session ended in the form YYYY-MM-DD HH:MM:SS.

To view metadata information about recording participants, you can click the **Session Participant Metadata** link.

> **Note:** If the NN-ISR is functioning in a non-SIPREC environment, no metadata is generated for recordings and the **Session Participant Metadata** link does not appear.



The following table describes each Session Participant Metadata parameter

Parameter	Read/Write Status	Description
SIPREC Participant ID	Read-only	The unique SIPREC identifier of the participant within the SIPREC session.
Name	Read-only	The name of the SIPREC participant.
AOR	Read-only	The SIP URI of the SIPREC participant.
Start Time	Read-only	The time this participant’s session began.
End Time	Read-only	The time this participant’s session ended.

5. Click **Save Changes** to save any changes you make. The message "*Successfully Saved*" displays.

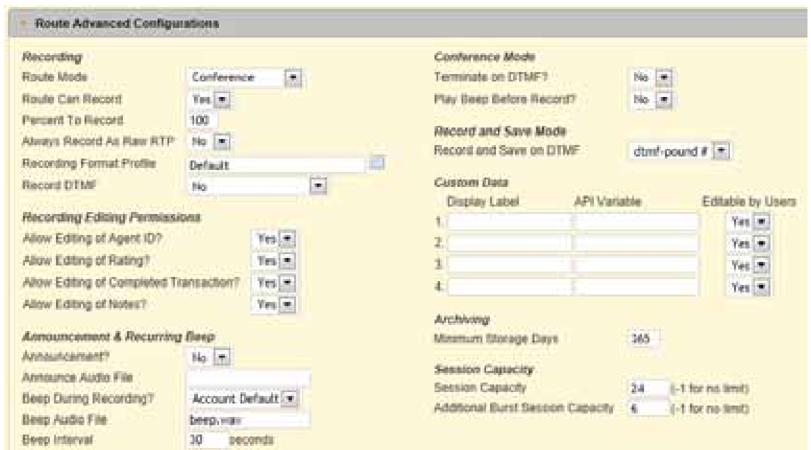
Displaying DTMF Data in Recording Details

You can configure the NN-ISR to display DTMF details within a call's recording details for digits transmitted via RFC 2833 and SIP INFO. The **DTMF Logging** parameter has been created which allows you to specify whether or not to display DTMF details on either a per-route or per-account basis.

To enable the NN-ISR to display DTMF details for a particular route:

1. After logging into the NN-ISR Dashboard, click **Edit System Configurations** or click **Admin** in the top menu bar.
2. Click **Manage Routes**.

   A list of all routes configured on the NN-ISR displays.
3. Click the route on which you are enabling DTMF details.
4. Click **Route Advanced Configuration**.



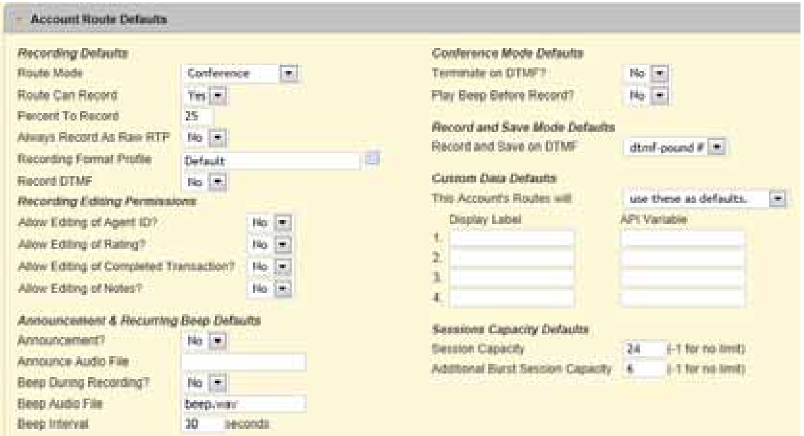
5. **Record DTMF**—Select whether or not to display DTMF details. Valid values are:
   - Use account or system default—This route defaults to its account's behavior. This is the default value.
   - No—No DTMF details appear in the recording details.
   - Yes—DTMF details appear in the recording details.
6. Click **Update**.

To enable the NN-ISR to display DTMF details for a particular account:

1. After logging into the NN-ISR Dashboard, click **Edit System Configurations** or click **Admin** in the top menu bar.
2. Click **Manage Accounts**.

   A list of all accounts configured on the NN-ISR displays.
3. Click the account on which you are enabling DTMF details.

4. Click **Account Route Defaults**.



5. **Record DTMF**—Select whether or not to display DTMF details. Valid values are:
   - No—No DTMF details appear in the recording details. This is the default value.
   - Yes—DTMF details appear in the recording details.
6. Click **Update**.

To view DTMF data in recording details:

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.
2. Choose the recording you want to view and click the Details icon.

   The Recording's detail page displays.
3. Click **DTMF Events**. The DTMF data appears.

   You can zoom in on a particular area of the DTMF Events graph by highlighting the section you want to view. To get back to the original graphical view, click **Reset zoom**.

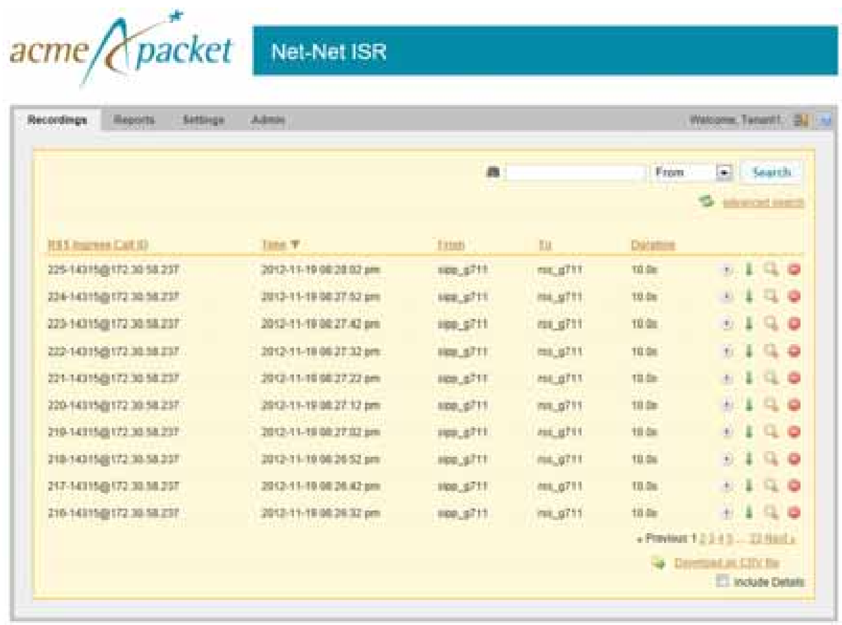
Creating Categories

The NN-ISR Dashboard allows you to create categories and assign a recording(s) to that category. This feature provides easy recording searches based on category rather than individual recordings.

To create a category for recordings:

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.

   The following page displays.



2. Choose a recording from the list, and click the Details icon.

   To find a specific recording, perform a search using the procedures in Searching for Recordings. Then click the Details icon for that recording.

The Recording's detail page displays. Click **Details**.

3. In the **Category** text box, enter a category name to associate with the recording in focus, and press **Tab**. Valid values are alpha-numeric characters.

   A category bubble displays in the Category field.

   To create additional categories to associate with the current recording, repeat Step 3.

4. Click **Save Changes**. The message "*Successfully Saved*" displays.

   Note: You MUST save your changes after creating categories on the Recordings Detail page.

5. Click **Recordings** in the top menu to display the Recordings list page.

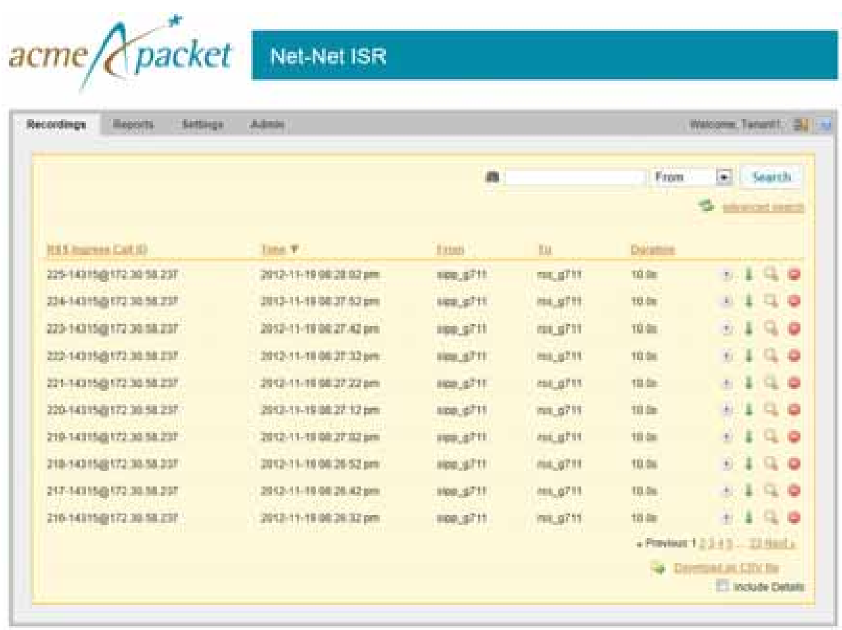
6. Repeat Steps 1 through 4 for each recording you want to add to a category. Once the category is assigned to all applicable recordings, you can perform a category search and display all of the recordings in that category.

Performing a Category Search

You can perform a category search using the **Advanced Search** feature only.

To perform a category search:

1. On the Recordings list page, click **advanced search**.

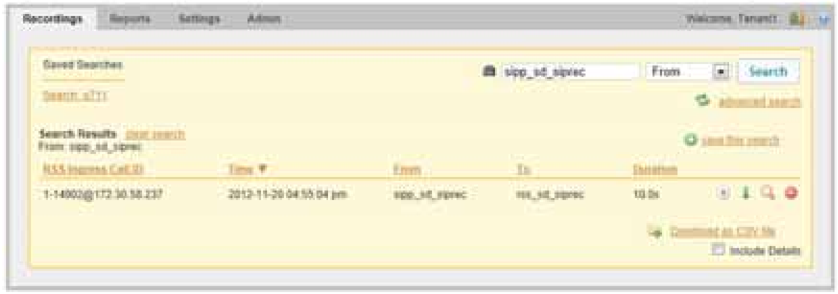


2. The following window displays.

3. Using the procedure in Advanced Search, enter the appropriate values for each field.

4. In the **Categories** field, enter the category for which you want to search and press <**Tab**>. Enter multiple categories if required.

5. Click **Search**. The Recording list displays with the applicable recordings in the category(s) you specified.



6. Click **save this search** to save the category search. Refer to the procedures in Saving a Search.

Deleting a Recording

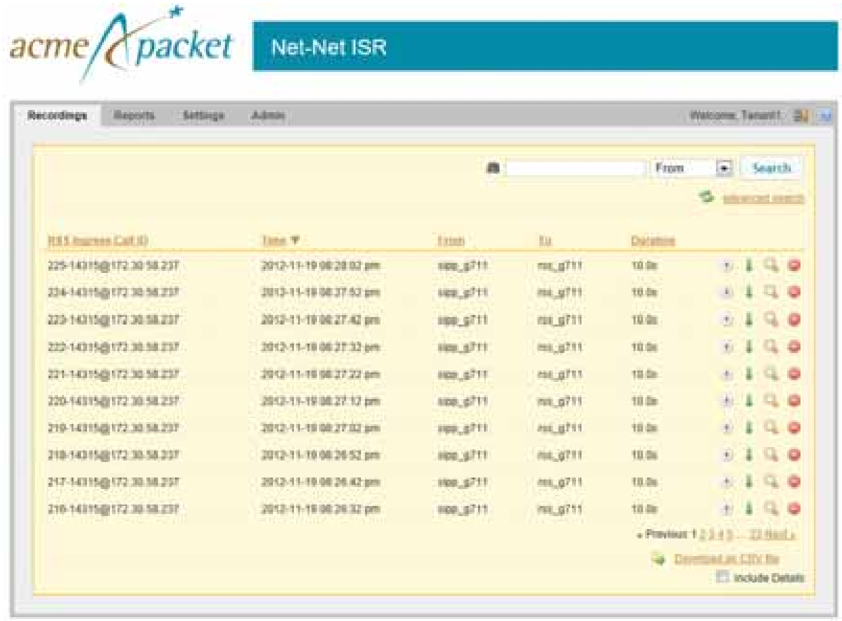
You can delete a recording in the NN-ISR Dashboard as required. An administrator can grant delete privileges to specific users. Contact your System Administrator for more information.

Warning: Once a recording is deleted, it cannot be recovered. The file is deleted from disk and the metadata is removed from the database.

To delete a recording:

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.

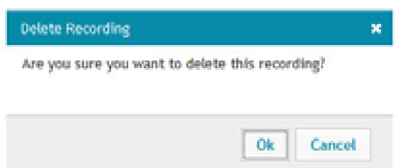
The following page displays.



2. Choose a recording from the list that you want to delete, and click the Delete icon.

   To find a specific recording, perform a search using the procedures in Searching for Recordings. Then click the Delete icon for that recording.

   The following prompt displays.



3. Click **OK** to delete the recording from the database or click **Cancel** to cancel the delete function. The recording deletes from the NN-ISR Dashboard as well as the database.

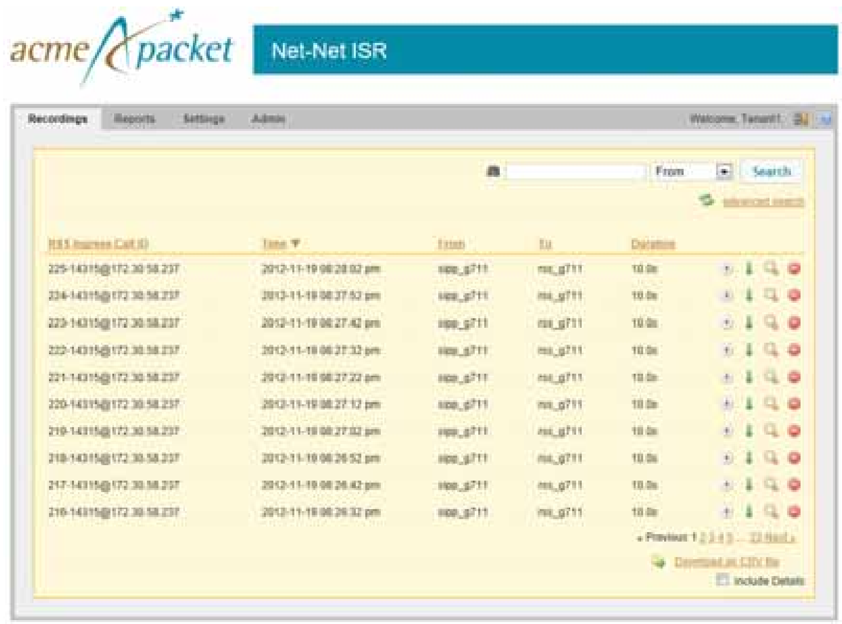
Downloading Recordings to a CSV File

You can download the metadata for up to 10,000 recordings from the local database, to a comma separated value (CSV) file (<*filename*>.*csv*), and then open the file for viewing using an application that recognizes the CSV format (i.e., Notepad®, Microsoft® Excel, etc.). The resulting file contains the details of each recording (not the actual audio recording).

> **Note:** This feature limits the download to 10,000 recordings. Therefore, if the Recordings List exceeds 10,000 recordings, you must perform a search to create a list of results containing less then 10,000 recordings before downloading to a CSV file.

1. After logging into the NN-ISR Dashboard, click **Find Recordings** or click **Recordings** in the top menu bar.

The following page displays.



2. Click **Download as CSV file** to download the current list of recordings to a CSV file.

> **Note:** If you click **Download as CSV fil**e without checking the **Include Details** box, the NN-ISR Dashboard downloads the information in the columns that display in the Recordings list. If you place a checkmark in the **Include Details** box, the NN-ISR Dashboard includes all other column attribute information not listed in the current Recording list.

The following dialog box displays.

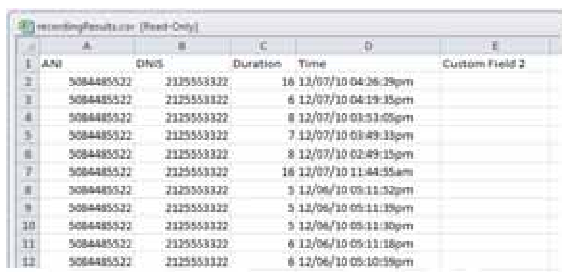
The NN-ISR automatically provides a filename of "*recordingResults.csv*" and stores the file in a temporary folder on your computer.

3. Click **Open with** and select the application for which to open the resulting CSV file or click **Save File** to save the CSV file to your PC.

   Note: If you choose **Save File**, and you click Download as CSV file more than once, each time the NN-ISR generates a CSV file, it appends a numerical digit to the file name. For example, "recordingResults-1.csv", "recordingResults-2.csv", "recordingResults-3.csv", etc.

4. Click **OK**. The CSV file opens with the application you specified.

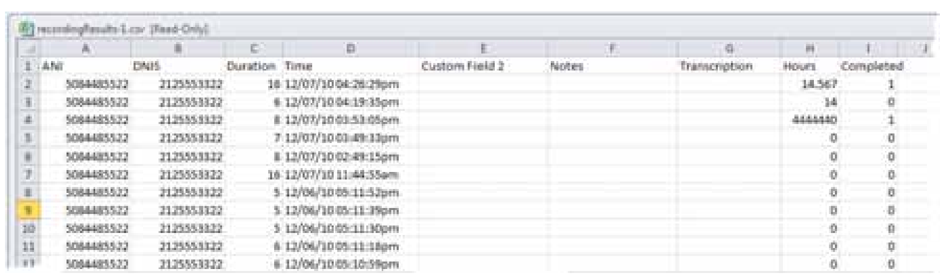
Example CSV file with recordings and no detail specified



recordingResults.csv [Read-Only]

	A	B	C	D	E
1	ANI	DNIS	Duration	Time	Custom Field 2
2	5084485522	2125553322	16	12/07/10 04:26:29pm	
3	5084485522	2125553322	6	12/07/10 04:19:35pm	
4	5084485522	2125553322	8	12/07/10 03:53:05pm	
5	5084485522	2125553322	7	12/07/10 03:49:33pm	
6	5084485522	2125553322	8	12/07/10 02:49:15pm	
7	5084485522	2125553322	16	12/07/10 11:44:55am	
8	5084485522	2125553322	5	12/06/10 05:11:52pm	
9	5084485522	2125553322	5	12/06/10 05:11:39pm	
10	5084485522	2125553322	5	12/06/10 05:11:30pm	
11	5084485522	2125553322	6	12/06/10 05:11:18pm	
12	5084485522	2125553322	6	12/06/10 05:10:59pm	

Example CSV file with recordings and detail specified



recordingResults-1.csv [Read-Only]

	A	B	C	D	E	F	G	H	I
1	ANI	DNIS	Duration	Time	Custom Field 2	Notes	Transcription	Hours	Completed
2	5084485522	2125553322	18	12/07/10 04:26:29pm				14.567	1
3	5084485522	2125553322	6	12/07/10 04:19:35pm				14	0
4	5084485522	2125553322	8	12/07/10 03:53:05pm				4444440	1
5	5084485522	2125553322	7	12/07/10 03:49:33pm				0	0
6	5084485522	2125553322	8	12/07/10 02:49:15pm				0	0
7	5084485522	2125553322	16	12/07/10 11:44:55am				0	0
8	5084485522	2125553322	5	12/06/10 05:11:52pm				0	0
9	5084485522	2125553322	5	12/06/10 05:11:39pm				0	0
10	5084485522	2125553322	5	12/06/10 05:11:30pm				0	0
11	5084485522	2125553322	6	12/06/10 05:11:18pm				0	0
12	5084485522	2125553322	6	12/06/10 05:10:59pm				0	0

Note: The column headings that display in the .CSV file are the same column headings that are defined on the Recordings page from which you generated the CSV file. To change or add column headings, see Settings. Up to 5 column headings can display in the CSV file.

The following table identifies the columns that can display in the CSV file.

Column Heading	Description
Time	Specifies the starting GMT time, and date of the recording in the format HH:MM:SS and MM/DD/YY, respectively. AM or PM is also specified with the time. **Note**: In the time format, H = hours, M = minutes, and S = seconds. In the date format, M = month, D = day, and Y = year.
From	Specifies the From SIP URI. The number of the calling phone that displays at the receiver's end of a telephone call (i.e., Caller ID). The number that the caller dialed from.
To	Specifies the To SIP URI used within a phone system and software typically corresponding to the number the caller dialed.
Duration	Specifies the length of the recording (in milliseconds).
Agent ID	Specifies the ID of the Agent answering the call.
RSS Ingress Session ID	Specifies the call-id received in the header of the initial SIP INVITE.
RSS Egress Session ID	Specifies the call-id used in the egress call leg for this recording.
Custom Fields 1 - 4	Specifies a unique set of meta-data associated with the recording (i.e., Transaction ID, Account Number, Unique Call ID).
Session ID	Specifies the unique X-ISR-UCID for this recording.
Rating	Specifies the score assigned to a recording by a reviewer and can be assigned as needed by your organization. Scoring is based on 1 to 5 stars.

4 Reports

Introduction

The NN-ISR Dashboard allows you to generate call recorder statistical reports from the information stored in the NN-ISR database. This section describes the type of reports you can generate, filters you can use to generate specific reports, types of report presentation, and provides procedures for generating each report.

Reports

All user levels can run reports using the NN-ISR Dashboard. Data showing the reports is dependant on the level of user currently logged into the NN-ISR Dashboard. For user level functions, see User Access Levels.

The NN-ISR provides the following types of reports you can generate:

- **Usage Reports**- Generates a report that includes call recorder usage information by date and by route.
- **Billing Reports -** Generates a report that includes billing information by date and by route.

A route is a set of rules for call recording that contains route patterns that specify destination information. Routes handle calls based on dialed number identification service (DNIS) and/or automatic number identifier (ANI).

For both types of reports, the information displays in both bar graph format and data format.

This section describes how to generate Billing and Usage reports using the NN-ISR Dashboard.

Usage Reports

Usage Reports show information about calls that use routes configured on your NN-ISR as well as recording information, in a more detailed report by day. Usage Reports include:

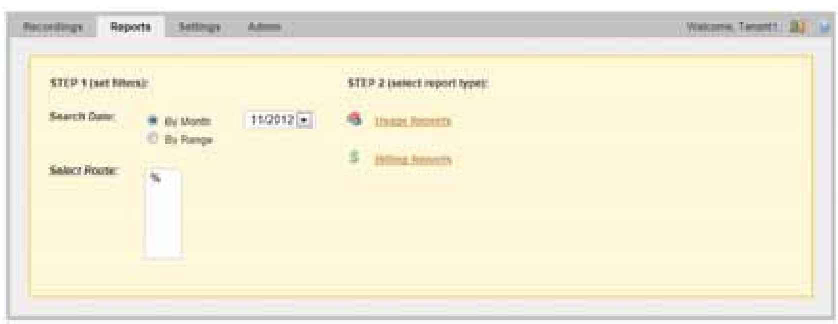
- Configured routes
- Route type
- Number of provisioned ports
- Number of provisioned burst ports that handle burst calls
- Total number of calls
- Number of simultaneous calls
- Number of calls that used burst ports
- Number of calls rejected

You can filter the call data by date or route. The information displays in both bar graph format and data format.

To generate a Usage Report:

1. After logging into the NN-ISR Dashboard, click **Build a Report** or click **Reports** in the top menu bar.

The following page displays.



2. Set the filters for the report you want to generate.

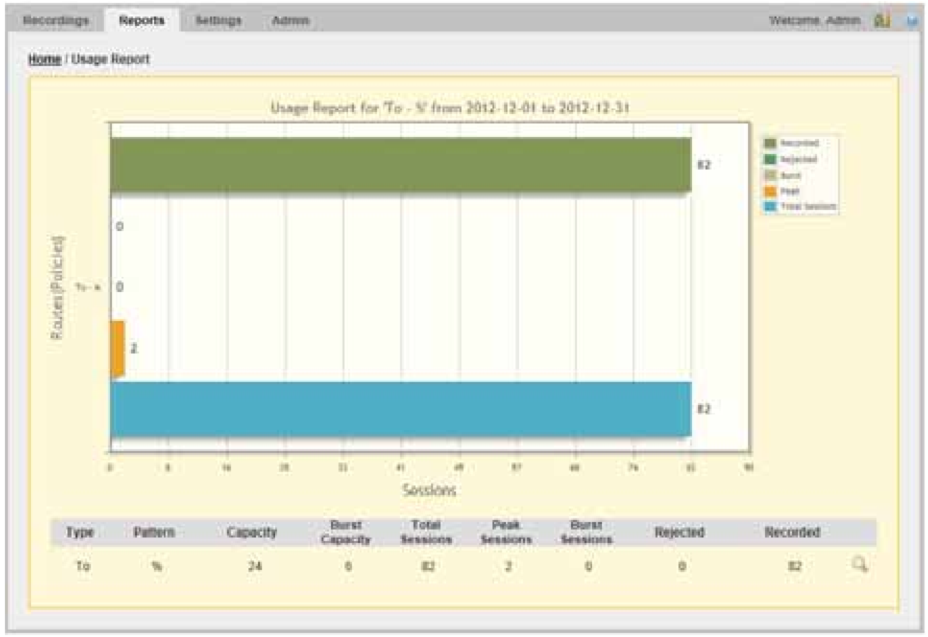
   - Specify a Search Date for which you want to create a report. You can either select **By Month** or **By Range**. If you select **By month**, select the month for which you want to run a report against. The dates that appear in this field are dependent on the date of the calls stored in the NN-ISR database.

     If you specify B**y Range**, select a **From Date** and **To Date**.

   - Then specify a route from the **Select Route** list.

The routes that appear in this field are dependant on the routes stored in the NN-ISR database. You can select multiple routes, if required, for which to run a report by holding down the <Ctrl> key and then clicking on each route you want to select.

3. Select **Usage Reports**.
4. Click **Generate Report**. The following page displays.



The Usage Report displays the information in bar graph format at the top of the page, and in data format at the bottom of the page.

The following table identifies the information in the bar graph section of the report.

Usage Report Bar Graph Descriptions

Graph Information	Description
Routes (Policies)	Indicates the route selected for this report.
Calls	Indicates the number of calls on this route.
Recorded	Indicates total number of recorded calls during the reported period.
Rejected	indicates total number of rejected calls during the reporting period.
Burst	Indicates total number of burst calls during the reporting period. Burst calls are calls handled by the Burst Ports.
Peak	Indicates maximum number of simultaneous calls during the reporting period.
Total Calls	Indicates total number of calls during the reporting period.

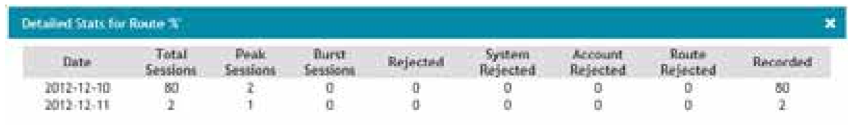
The following table describes each column in the data format section of the report.

Usage Report Data Format Descriptions

Column	Description
Route	Route(s) included in this Usage Report.
Capacity	Total concurrent sessions allocated to the route.
Burst Capacity	Number of concurrent sessions available for call recording when the provisioned capacity has been depleted.
Total Sessions	The total number of sessions for this reporting period.
Peak Sessions	The maximum number of concurrent sessions that occurred during this reporting period.

Column	Description
Burst Sessions	The total number of sessions that occurred after the provisioned capacity had been depleted.
Rejected	Total number of rejected sessions on this route during this reporting period.
System Rejected	The total number of rejected sessions by the NN-ISR during this reporting period.
Account Rejected	The total number of rejected sessions by this account during this reporting period.
Route Rejected	The total number of rejected sessions by this route during this reporting period.
Recorded	Total number of recorded sessions on this route during this reporting period.

After you have generated a usage report, you can click on a specific route within the report to view a day by day breakdown of the statistics.


Detailed Stats for Route '%'

Date	Total Sessions	Peak Sessions	Burst Sessions	Rejected	System Rejected	Account Rejected	Route Rejected	Recorded
2012-12-10	80	2	0	0	0	0	0	80
2012-12-11	2	1	0	0	0	0	0	2

Billing Reports

Billing Reports show information about calls that use the routes configured on your NN-ISR. Billing Report information includes:

- Configured routes
- Route type
- Number of provisioned ports
- Number of provisioned burst ports that handle burst calls
- Total number of calls
- Number of simultaneous calls
- Number of calls that used burst ports
- Number of calls rejected

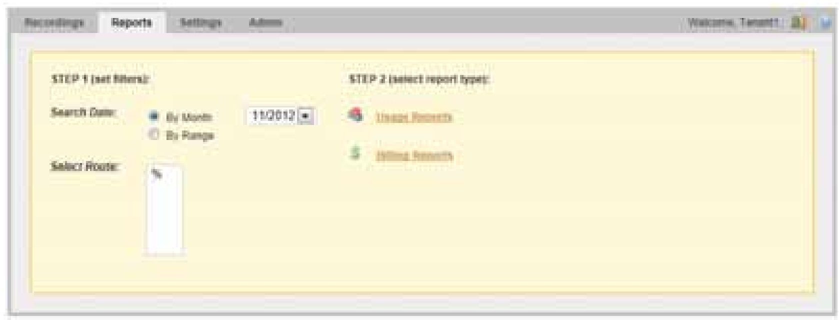
You can filter the call data by date or route. The information displays in both bar graph format and data format.

You can use this information for billing purposes as required.

To generate a Billing Report:

1. After logging into the NN-ISR Dashboard, click **Build a Report or** click **Reports** in the top menu bar.

The following page displays.



2. Set the filters for the report you want to generate.

   - Specify a Search Date for which you want to create a report. You can either select **By Month** or **By Range**. If you select **By month**, select the month for which you want to run a report against. The dates that appear in this field are dependent on the date of the calls stored in the NN-ISR database.

     If you specify B**y Range**, select a **From Date** and **To Date**.

   - Then specify a route from the **Select Route** list.

     The routes that appear in this field are dependant on the routes stored in the NN-ISR database. You can select multiple routes, if required, for which to run a report by holding down the <Ctrl> key and then clicking on each route you want to select.

3. Select **Billing Reports**.

4. Click **Generate Report**. The following page displays.

The Billing Report displays the information in bar graph format at the top of the page, and in data format at the bottom of the page. Routes that have no calls for the specified time period are not shown.

The following table identifies the information in the bar graph section of the report.

Billing Report Bar Graph Descriptions

Graph Information	Description
Routes (Policies)	Indicates the route selected for this report.
Calls	Indicates the number of calls on this route.
Recorded	Indicates total number of recorded calls during the reported period.
Rejected	indicates total number of rejected calls during the reporting period.
Burst	Indicates total number of burst calls during the reporting period. Burst calls are calls handled by the Burst Ports.
Peak	Indicates maximum number of simultaneous calls during the reporting period.
Total Calls	Indicates total number of calls during the reporting period.

The following table describes each column in the data format section of the report.

Billing Report Data Format Descriptions

Column	Description
Type	The type of route policy (i.e., To, From, or To/From).
Pattern	The route pattern that the RSS looks for when searching for a route policy.
Capacity	Total concurrent sessions allocated to the route.
Burst Capacity	Number of concurrent sessions available for call recording when the provisioned capacity has been depleted.
Total Sessions	The total number of sessions for this reporting period.
Peak Sessions	The maximum number of concurrent sessions that occurred during this reporting period.
Burst Sessions	The total number of sessions that occurred after the provisioned capacity had been depleted.
Rejected	Total number of rejected sessions on this route during this reporting period.

Column	Description
System Rejected	The total number of rejected sessions by the NN-ISR during this reporting period.
Account Rejected	The total number of rejected sessions by this account during this reporting period.
Route Rejected	The total number of rejected sessions by this route during this reporting period.
Recorded	Total number of recorded sessions on this route during this reporting period.