![DVSAnalytics logo]

NEC UNIVERGE with OAI
Integration Guide

Encore Workforce Optimization Solution
Version 7.2 or later

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encore

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Introduction

The Encore system integrates with various NEC UNIVERGE PBXs using the Open Application Interface (OAI). The integration may also use the NEC Infolink or UC for Business (UCB) software.

- SV9500
- SV9300
- SV8500
- SV8300

This integration allows the Encore system to successfully perform the following functions:

- Audio Collection – Capture the audio that needs to be recorded. If using NEC Active Call Recording or Station-side RTP Packet Capture, the audio recording can be generated as either a stereo or mono recording file.
- Recording Control – Receive the necessary events that signal when Encore must start and stop recording.
- Data Capture – Receive data associated with the call.

The Encore system can record calls on an NEC system without the OAI integration, but the recording controls and data capture are limited; configuration for this integration is not covered in this document.

> **NOTE** If the customer is using UCB, the UCB Logger (Generic) Plug-in is required to be installed on the UCB.

Supported Data Capture

The following is a list of the supported data elements that can be collected with each recording. Not every element is applicable for each call. For a description of each data element, refer to "Appendix 1: Glossary" on page 22.

- ACD Name [1, 2]
- ACD Number [1, 2]
- Agent Login ID [1, 2]
- ANI
- Call Direction
- Call Type
- Consultation Call
-
- Dialed Number
- DNIS
- Extension
- Other Party Name [2]
- Other Party Number
- Other Sub Line
- Recorded Party Name [2]
- Recorded Party Number
- Split Name [2]
- Split Number [2]
- Sub Line
- Trunk

1. These fields are only available on ACD calls using UCB.
2. These fields are only available when using Infolink.

Supported Recording Features

The following matrix should be used to determine which audio collection is best for your business needs. For example, if you need to record encrypted calls, you must use the Trunk-side TDM method or the NEC Active

Call Recording method. If more than one collection method will work for your contact center, talk to your Encore representative about which method is more cost-effective. For a description of each feature, refer to "Appendix 1: Glossary" on page 22.

RECORDING FEATURE	AUDIO COLLECTION METHOD				
	STATION-SIDE TDM	TRUNK-SIDE TDM	STATION-SIDE RTP PACKET CAPTURE	ACTIVE CALL RECORDING [4]	TRUNK-SIDE SIP PACKET CAPTURE
Max. Recording Ports per Server [1]	192	288	500	500	500
Record External Calls	YES	YES	YES	YES	YES
Record Internal Calls	YES		YES	YES	
Record Encrypted Calls		YES		YES	YES [3]
Related Call Lookup	YES	YES	YES	YES	
Stereo Recording			YES	YES	
Suspend/Resume on Hold	YES	YES	YES	YES	
Dynamic IP Capture [2]			YES		
Recording Playback from GNAV Reports	YES	YES	YES	YES	YES

1 Small Business Servers are limited to 72 ports.
2 Only supported on SV8500/9500 when using Station-side RTP Packet Capture.
3. If the encryption occurs at the station, Encore can record the encrypted calls. If the encryption occurs at the trunk, Encore cannot record encrypted calls.
4. NEC Active Call Recording is only available on SV9500. NEC Active Call Recording was previously referred to as NEC DT800 Streaming.

Software and Hardware Requirements

SYSTEM	SOFTWARE REQUIREMENTS

NEC UNIVERGE SV9500 SV9300 SV8500 SV8300	• NEC Active Call Recording – **Only supported on SV9500**
	  o NEC-provided software OAI key:
	    – 0221044 OAI/INFOLINK SV9500/8500 SITE LIC LMS
	  o NEC Active Call Recording Service license for the communication server (SV9500)
	  o SV9500 version 5.0 or later PBX software
	  o DT820 – Firmware 3.2.0.0 or later (Multiline SIP Firmware only)
	  o DT830/830G – Firmware 5.2.0.0 or later (Multiline SIP Firmware only)
	  o DT920/930 – Firmware 2.1.x.0 or later (Multiline SIP Firmware only)
	  o SP350 – Maintenance Release 6.16 or later UNIVERGE SP350 software

SYSTEM	SOFTWARE REQUIREMENTS

	• Station-side RTP Packet Capture, Trunk-side SIP Packet Capture, Trunk-side TDM, and Station-side TDM:
	  o NEC-provided software OAI key:
	    − 0221044 OAI/INFOLINK SV9500/8500 SITE LIC LMS
	    − 0221045 OAI/INFOLINK SV9300/8300 SITE LIC LMS
	  o SV9500 any version
	  o SV9300 any version
	  o SV8500 uses S1–FID70 to S4–FID100 PBX software
	  o SV8300 uses R1–A1 to R5–F2 PBX software
	• If using recording playback from a GNAV report, GNAV release 9.0 or later

NEC UCB	• Version 4.0 or later is needed if the customer is using UCB • VoiceLoggerPluginEx (available in UCB 5.1 or later) or UCB Voice Logger (Generic) Plug-in is required if a customer is using the UCB and needs to capture the agent ID, queue ID or the ACD number

Encore system	• NEC Active Call Recording
	  o Encore 6.0.6 or later
	• Station-side RTP Packet Capture, Trunk-side SIP Packet Capture, Trunk-side TDM, and Station-side TDM:
	  o Encore 6.0.1 or later

SYSTEM	HARDWARE REQUIREMENTS

NEC UNIVERGE SV9500 SV9300 SV8500 SV8300	• NEC Active Call Recording
	  o If using physical phones, see list of supported phones in the "NEC UNIVERGE SOFTWARE REQUIREMENTS" section on page 4.
	• Station-side RTP Packet Capture (for each station to be recorded)
	  o Span port on network to route all RTP traffic to Encore server
	  o To use the Dynamic IP Capture feature, the following is required:
	    − NEC UNIVERGE SV9500/8500
	    − Phones must be ITL/DT700, DT800, DT900 Series phones or SP350 softphone.
	    − Span port must collect station's SIP packets
	  o If **not** using the Dynamic IP Capture feature, the following is required:
	    − DHCP IP address reservation or static IP assignment for station's IP address
	• Trunk-side SIP Packet Capture
	  o This depends on the customer's environment; see the Note in the "Trunk-side SIP Packet Capture" on page 9.
	• Trunk-side TDM
	  o Must allow Encore to tap at the trunk
	• Station-side TDM
	  o Must allow Encore to tap the phone at the punchdown block

SYSTEM	HARDWARE REQUIREMENTS
Encore system	- NEC Active Call Recording, Station-side RTP Packet Capture, and Trunk-side SIP Packet Capture: - None - Trunk-side TDM - AudioCodes DP PCIe card - Station-side TDM - AudioCodes NGX PCIe card

Documentation Overview

This document provides integration information for a specific phone system. It helps a user to understand the features and benefits of the integration as well as what needs to be configured on the phone system. Conventions used in this guide include:

1. Computer commands needed to complete a task appear like this: **Sample** (in black)

2. Keyboard strokes that need to be entered appear like this: `[Sample]`

Any references to other documentation imply the latest version of the document unless a specific version is designated.

Overview

This section provides an overview of each audio collection method. For simplicity sake, the diagrams only display a single Encore server but there can be multiple Encore servers depending on the number of stations to be recorded.

For each recorded device, Encore's CT Gateway Service requests an **OAI status monitor** to receive call progress events for that device. If a recorded device is on a call with a non-recorded device, CT Gateway Service also sets an **OAI status monitor** for the non-recorded device. These monitors for non-recorded devices remain active after the call ends. This does not affect the performance of the Encore system or the PBX.

NEC Active Call Recording

The NEC Active Call Recording method uses the Active IP Voice Recording feature of the physical phone's firmware or the SP350 Softphone's software to receive audio directly from the monitored device via the network. Based on events received from OAI, the Encore server starts collecting the RTP stream for that monitored device once a SIP Invite is received and converts it to an audio recording file. Encore collects data associated with the call from the OAI messages.

If the NEC ACD feature is used, events received from Infolink or UCB control recording and provide data associated with the call.
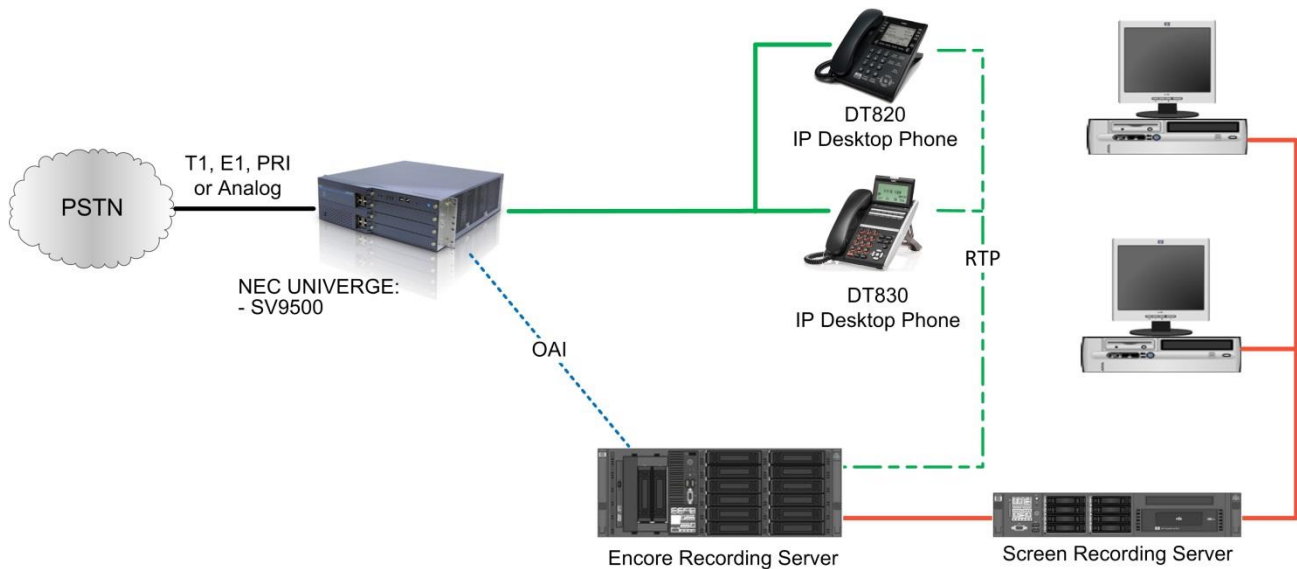
Station-side RTP Packet Capture

The Station-side RTP Packet Capture method uses a span port to collect the RTP audio packets directly from the network segment that includes the VoIP traffic. Based on events received from OAI, the Encore server collects the RTP packets for a specific IP address and converts the RTP data to an audio recording file. Encore collects data associated with the call from the OAI messages. If the Dynamic IP Capture feature will be used with the SV9500/8500, the span port must also collect the station's SIP packets.

If the NEC ACD feature is used, events received from Infolink or UCB control recording and provide data associated with the call.
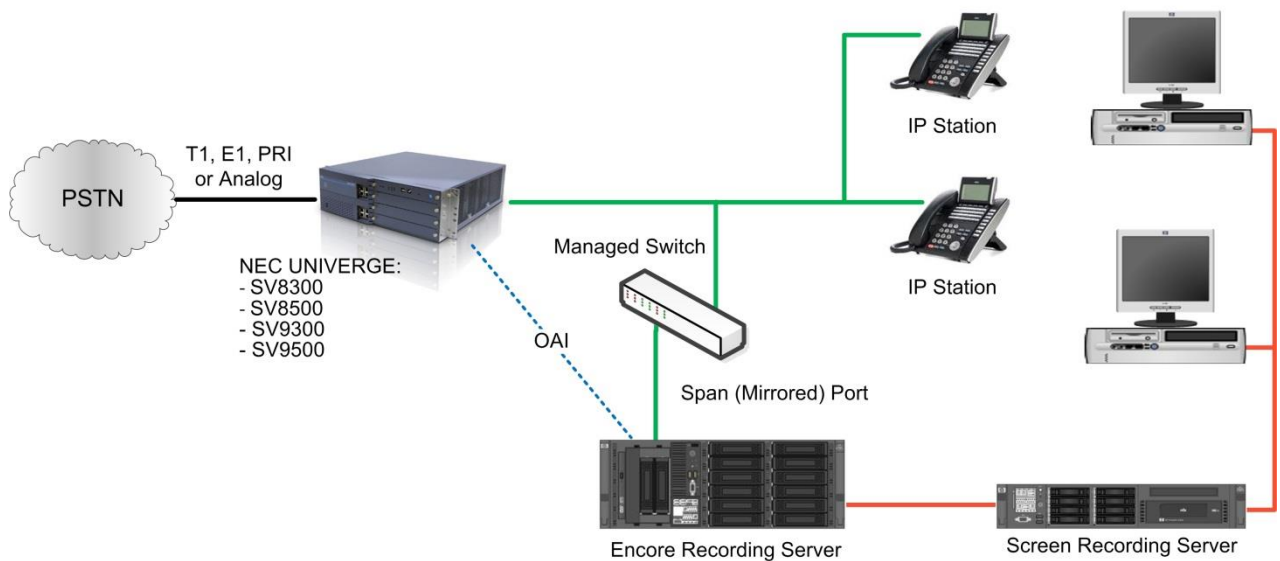
Trunk-side SIP Packet Capture

The Trunk-side SIP Packet Capture method uses a span port to collect the SIP and RTP audio packets directly from the network segment that includes SIP trunk traffic. Based on events received from SIP signaling, the Encore server collects the RTP packets for a specific SIP trunk call and converts the RTP data to an audio recording file. Encore collects data associated with the call from the OAI messages when the call is terminated to a station of interest, or from the SIP signaling when the call is terminated elsewhere on the PBX.

NOTE	When recording SIP trunks, DVSAnalytics prefers that all SIP trunk traffic goes through a Session Border Controller (SBC), such as a Cisco CUBE, Ingate SIParator, etc. The SBC's LAN-side port must terminate to a network switch that can provide a SPAN/mirror port to the Encore server.
	If an SBC cannot be provided, then the SIP trunk provider must be able to guarantee that a single IP Address will be used for all SIP and RTP media packets for both inbound and outbound calls. The LAN-side port of the device used for SIP trunk traffic must terminate to a network switch that can provide a SPAN/mirror port to the Encore server.
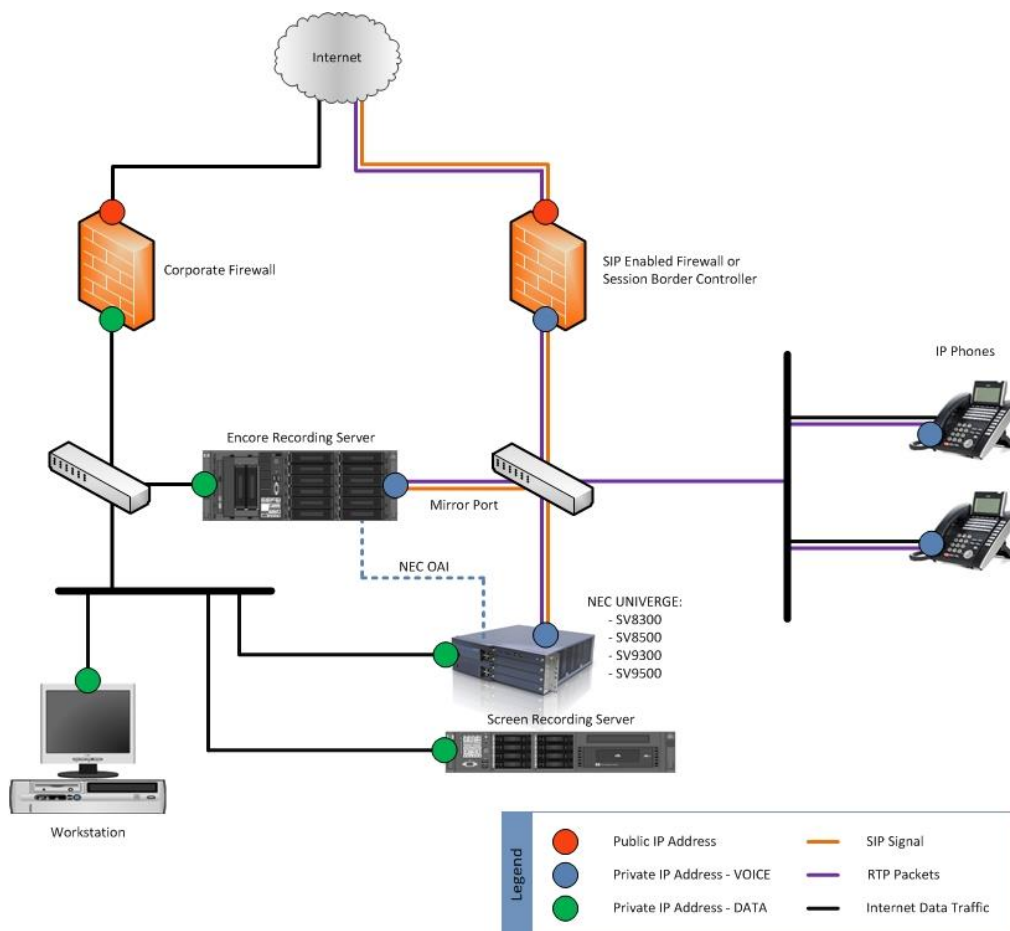
Trunk-side TDM

The Trunk-side TDM method uses a passive tap on the telephony trunks that connect the NEC UNIVERGE PBX to the PSTN. The trunks can be T1, E1, or Analog. This passive tap is connected to the recording boards in the Encore server. The audio is collected via the passive tap. Based on events received from the recording boards or from events received from OAI, call recordings can be started or stopped, and the data associated with the call record.

If the NEC ACD feature is used, events received from Infolink or UCB control recording and provide data associated with the call.
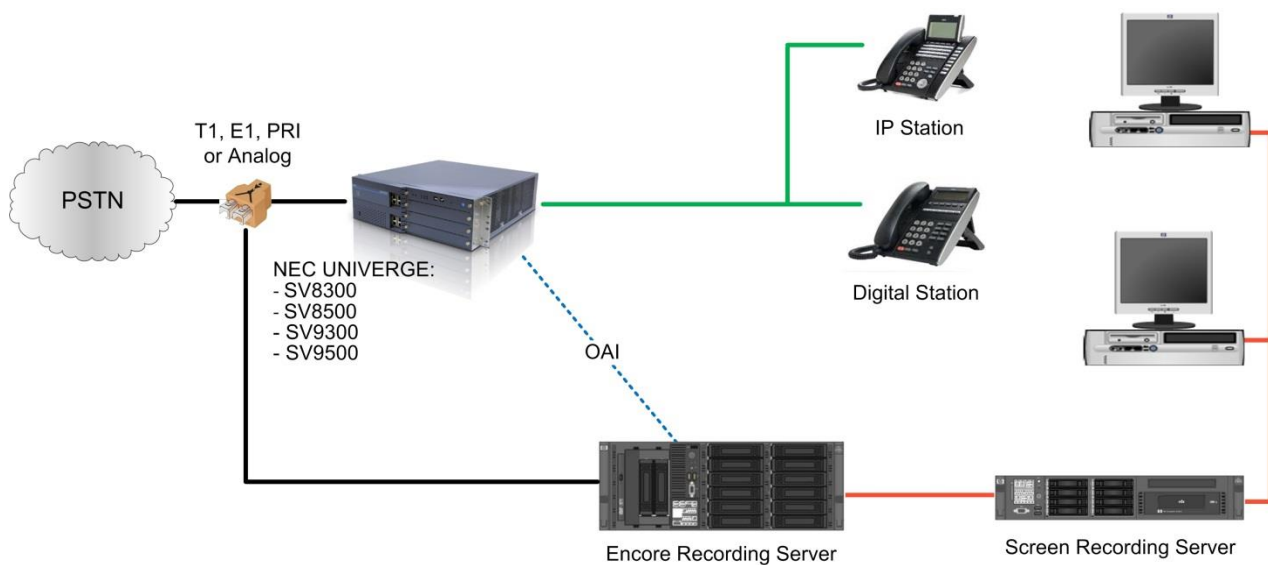
Station-side TDM

The Station-side TDM method uses a passive tap on the phones connected to the NEC UNIVERGE PBX to collect audio. These may be analog or digital phone sets. This passive tap is connected to the recording boards in the Encore server. Based on events received from the OAI, the Encore server collects the audio on the recording boards and the data associated with the call from the OAI messages.

If the NEC ACD feature is used, events received from Infolink or UCB control recording and provide data associated with the call.
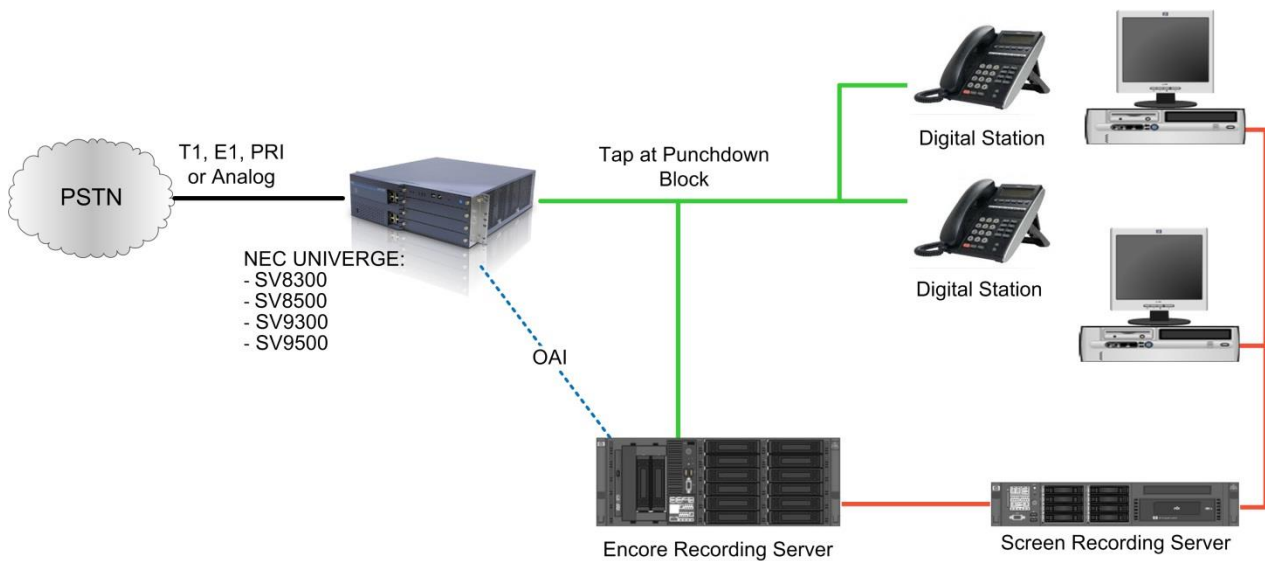
# Recording Playback from GNAV Reports

Contact center administrators and supervisors can listen to Encore recorded calls directly from reports available in the NEC GNAV system. To listen to a call, the user clicks the Encore icon 🌀 in the **Contact Info** column. This directs the browser to open the recording in the Encore URL Player.

This feature requires GNAV release 9.0; it does not require special configuration in the NEC UNIVERGE system.

Configure NEC UNIVERGE PBX

NEC OAI

There are several settings that are required to ensure the NEC OAI interface provides the necessary information for call recording. It is assumed that the reader has a working knowledge of the NEC software and only needs specific configuration assistance.

Required switch settings for NEC SV9300/8300:
* CM08 461 Send OAI OStatusNotify when answering held call, 0-Sent, 1-Not Sent (Set to 0)
* CM08 465 Error Detail Information sent to Application, 0-Sent, 1-Not Sent (Set to 0)
* CM08 804 Terminal Type for PSII phones, 0-ST_SINGLE_LINE, 1-ST_PS (Set to 0)
* CM08 805 Call Forward No Answer notification, 0-Sent, 1-Not Sent (Set to 0)

Required switch settings for NEC SV9500/8500:
* ASYD SYS1, Index 241, Bit 3, Error Detail for OSwitchNotify 0=No, 1=Yes (Set to 1)
* ASYD SYS1, Index 370, Bit 0, Expanded SMFN Service 0=No, 1=Yes (Set to 1)
* ASYDL SYS1, Index 864, Bit 4, 0=2 port SMFNs, 1=8 port SMFNs (Set to 1)
* ASYD SYS1, Index 32, Bit 7, SMDR InService=1 and Receive Answer notifications on outbound trunks. (Set to 1). Note that just turning this bit on will not cause SMDR service to be activated because

there are other configuration settings that must be activated before SMDR is enabled. But to get Answer notifications on outbound trunks, this must be activated.

- ASYD SYS1, Index 63, Bit 6, Call Forward Detail in OStatusNotify, 0=No, 1=Yes (Set to 1)
- ASYDL SYS1, Index 867, Bit 0, OStatusNotify RELEASE_FORWARD_NO_ANSWER, 0-Not Sent, 1-Sent (Set to 1)

NEC Active Call Recording – Physical Phone

Each physical phone to be recorded must be configured to send the audio streams to Encore. It is assumed that the reader has a working knowledge of the NEC software and only needs specific configuration assistance. See the "Software and Hardware Requirements" section on page 4 for the list of physical phones that support NEC Active Call Recording.

The supported NEC Active Call Recording features supported are:

- **Full Time Recording** – The Encore system automatically starts and stops the recordings based on OAI events for recording agents. The phone is configured to automatically start streaming the audio at the start of every call. This ensures every call is recorded.

  When recording full time and the 'Record' key is enabled on the phone, the recorded agent can use this key to pause the audio stream. Pressing the key again resumes the audio stream. This provides a manual pause and resume for the audio recording. If using screen recording, this does not pause the screen recording.

- **On Demand Recording** – The Encore system automatically starts and stops the recordings based on OAI events for recorded agents. The phone is configured to only start streaming the audio when the user presses the 'Record' key. With this configuration, an audio recording is only created if the recorded agent presses the 'Record' key.

  Because the Encore system is in record mode every time the agent is on a call, it uses a recording license even if the agent never presses the 'Record' key. For more information, see the "On Demand Call Recording Considerations" on page 15.

Required settings for each physical phone:

- Application Settings | Voice Rec Settings
  - o Voice Recording: Automatic
  - o Recording Mode: Server (Dynamic)
  - o Rec Segments: Talk Segment
  - o Auto Rec Start:
    - If recording full time, set to **Enable**.
    - If using the phone 'Record' button, set to **Disable.**
  - o Rec Tone:
    - To hear a recording tone on every recorded call, set to **Enable**.
    - If the recording tone is not needed, set to **Disable**.
  - o Rec Tone Level: 15
  - o Rec Icon:

- If recording full time, you can choose to display a recording icon on the phone. To make the icon visible, set to **Enable**. To not show the icon, set to **Disable**. If using manual pause / resume, set to **Enable**.
- If using On Demand recording, set to **Enable**.
- Application Settings | Voice Rec Settings | Rec Server Settings | 1st Server Setting
  - IP Address: IP Address of the Encore Server
- Application Settings | Voice Rec Settings | Rec Server Settings | 1st Server Setting | Port Settings
  - SIP: 5060
- Application Settings | Voice Rec Settings | Rec Server Settings | 1st Server Setting | Type of Service
  - RTP: A0
  - SIP: C0
- Application Settings | Voice Rec Settings | Rec Server Settings | 1st Server Setting | TTL Settings
  - RTP: 64
  - SIP: 64
- Application Settings | Voice Rec Settings | Rec Server Settings
  - Codec: G.711u
- Application Settings | Voice Rec Settings | Rec Server Settings | Self Port Settings
  - RTP Self Port: 21050
  - SIP Self Port: 5080
- Application Settings | Voice Rec Settings | Rec Server Settings
  - SIP Transport Mode: UDP
- Application Settings | Voice Rec Settings | Rec Server Settings
  - SIP Session Timer: 180

NEC Active Call Recording – SP350 Softphone

Each SP350 softphone to be recorded must be configured to send the audio streams to Encore. It is assumed that the reader has a working knowledge of the NEC software and only needs specific configuration assistance. Information in the section was taken from the "*NEC UNIVERGE Soft Client SP350 Operations and Maintenance Manual*" (085052-001-10-0--SP350-Ops-Maintenance.pdf). This document will be referred to as the **SP350 Manual**.

The supported SP350 Streaming features are:
- **Auto Recording** – The Encore system automatically starts and stops the recordings based on OAI events for recording agents. The softphone is configured to automatically start streaming the audio at the start of every call. This ensures every call is recorded.

  When auto recording and the 'Record' button is enabled on the softphone, the recorded agent can use this key to pause the audio stream. Pressing the button again resumes the audio stream. This provides a manual pause and resume for the audio recording. If using screen recording, this does not pause the screen recording.

- **Manual Recording** – The Encore system automatically starts and stops the recordings based on OAI events for recorded agents. The phone is configured to only start streaming the audio when the user presses the 'Record' button. With this configuration, an audio recording is only created if the recorded agent presses the 'Record' button.

Because the Encore system is in record mode every time the agent is on a call, it uses an Encore recording license even if the agent never presses the 'Record' button. For more information, see the "On Demand Call Recording Considerations" on page 15.

To configure the softphone, open the **Maintenance** application under the **UNIVERGE Soft Client SP350** program folder. Refer to section "2.2 Starting or Ending SP350 Maintenance Setting function" in the **SP350 Manual**, regarding login and password. The various settings for call recording are defined in section "6.3 Configuration" in the **SP350 Manual**. If a setting is not mentioned, use the default values for those settings.

Required settings for the SP350 softphone:

- Navigate to **Network Setting | Call Recording Server**
- Modify the following settings:
  - o **Server 1 Server Name**: Host name or IP address of the Encore Server
  - o **Server 1 Port Number**: 5060
  - o **Call Recording Segments**: All Segments
- Navigate to **Call Recording Setting**
- Modify the following Settings:
  - o **Call Recording Method**: Active Call Recording

Optional settings for the SP350 softphone:

- Navigate to **Call Recording Setting**
- Modify the following Settings as needed:
  - o **Use Beep Tone(s) when Recording a Call**: the default is unchecked. Check or uncheck depending on your preference. If checked, select the addition beep tone settings based on your preferences.
  - o **Allow users to change the recording method setting**: The default is checked. If checked, users can disable call recording.
  - o **Call Recording Mode**: We recommend "Auto Recording". If set to "Manual Recording", the user would need to press the "Record" button for the Encore system to record the call.
  - o **Allow users to change the recording mode setting**: The default is checked. If checked, user can disable call recording.

Since changing some of the settings requires a restart of the SP350, it is a good practice to always restart the SP350 when making call recording changes.

On Demand Call Recording Considerations

When using the On Demand or Manual Active Call Recording, the following sequence of events occurs:

- When a call is established, the Encore system receives an OAI event that triggers a start recording command to be sent.

- If a recording license is available, the component responsible for collecting audio sets a timer and waits for audio to be streamed from the phone. If screen recording is enabled, the screen recording will start.

- If the timer expires or the call ends before the agent presses the 'Record' key/button on the phone/softphone, the recording is cancelled. Also, no recording record is generated and if screen recording is enabled, the screen recording is cancelled and deleted.

- If the agent presses the 'Record' key/button on the phone/softphone before the timer expires, the phone/softphone starts streaming the audio. The call will continue to be recorded until one of the following events occur:
    - The call ends.
    - The call is placed on hold by the recorded agent.
    - The recorded agent leaves the conference.

  The recorded agent will need to monitor the record icon and press the 'Record' key/button again to continue to record a call.

- Because the Encore system calculated the start of the recording at the start of the call and not when the audio is streamed, on demand/manual recording causes the following to be out of sync with the audio recording:
    - Screen recording
    - Call event markers such as hold, conference, and transfer
    - Call duration

Call Handling Scenarios

This section explains how different calls are displayed in Encore. The descriptions in this section are from a station-side recording system and it is assumed that all stations involved in the calls are configured to be recorded.

Certain situations affect how recordings are created and how they can be located using the Related Calls feature. In the following examples, a SID refers to a Segment ID and a RID refers to a Related ID.

External Inbound Call

Recordings: 1 | SID: 1 | RID: 1

Extension 9051 receives an external inbound call with SID A and hangs up when the call is complete. This call creates one recording and one RID even though no other calls are associated with it.

External Inbound Call with Supervised Transfer

Recordings: 3 | SID: 3 | RID: 1

1. Extension 9051 receives an external inbound call. Recording 1 begins with SID 1.
2. The agent presses the transfer button which puts the caller on hold and suspends Recording 1. The agent then makes a consultation call to extension 9052. Recording 2 for extension 9051 begins with SID 2 and Recording 3 begins for extension 9052 with SID 3. When extension 9051 hangs up, Recordings 1 and 2 end.
3. Now the caller is transferred to the agent at extension 9052. Recording 3 continues.
4. When the agent at extension 9052 hangs up, Recording 3 ends.

The same RID is associated with all recordings to show they are related.

External Inbound Call to ACD

Recordings: 1 | SID: 1 | RID: 1

1. ACD Pilot 9070 routes calls to agents in ACD split 1.
2. Agent with login ID 8052 is logged into the ACD at extension 9052 with ACD sub line 1952 and is available to take ACD calls.
3. An external call is routed to the ACD with pilot 9070 and answered by the agent using the ACD line 1952 at extension 9052.
4. A recording with SID 1 begins and, when the call ends, the recording stops. The ACD Pilot Number, ACD Pilot Name, Split Number, Split Name, and Agent Login ID are associated with the recording.

External Outbound Call

Recordings: 1 | SID: 1 | RID: 1

Extension 9051 makes an external outbound call with SID 1 and hangs up when the call is complete. This call creates one recording and one RID even though no other calls are associated with it. The Call Direction for the recording shows as Outgoing. The dialed number (with the dialed prefix) is stored in the ANI and Other Party Number fields.

Internal Call

Recordings: 2 | SID: 2 | RID: 1

Extension 9051 makes an internal call to extension 9053 (both extensions are monitored by Encore). A recording is created for each monitored extension and each recording is assigned a different SID. Both recordings are assigned the same RID to show they are related to each other.

Hold and Retrieve

Recordings: 1 | SID: 1 | RID: 1

Extension 9051 makes or receives a call. 9051 places the call on hold and then retrieves the call. When the call is retrieved, the audio is appended to the recording to create one audio recording.

External Inbound Call with Blind or Unannounced Transfer

Recordings: 2 | SID: 2 | RID: 1

1. Extension 9051 receives an external inbound call which starts Recording 1 with SID 1.
2. The agent transfers the caller to extension 9053 without consulting the agent at extension 9053. Recording 1 ends when 9051 hangs up his phone.
3. Recording 2 with SID 2 begins when 9053 answers the call. It ends when the agent hangs up her phone.

The same RID is associated with each recording to show they are related.

Consultation Call

Recordings: 3 | SID: 3 | RID: 1

1. Extension 9051 receives an external inbound call which starts Recording 1 with SID 1.
2. The agent puts the caller on hold, suspending Recording 1, and makes a consultation call to extension 9054 which starts Recording 2 with SID 2 to record extension 9051. This also starts Recording 3 with SID 3 to record extension 9054 in the consultation call.
3. When either agent hangs up the consultation call, Recordings 2 and 3 end. Recording 2 for 9051 has the Consultation Call flag set to True.
4. The agent at extension 9051 then retrieves the original call and Recording 1 with SID 1 resumes.
5. When extension 9051 hangs up with the caller, Recording 1 ends.

The same RID is associated with all recordings to show they are related.

Conference Call

Recordings: 3 | SID: 3 | RID: 1

1. Extension 9051 receives an external inbound call which starts Recording 1 with SID 1.
2. The agent at extension 9051 puts the caller on hold and makes a consultation call to bring a supervisor at extension 9053 into the call. This suspends Recording 1. Recording 2 with SID 2 begins to record extension 9051 on the consultation call and starts Recording 3 with SID 3 to record the supervisor at extension 9053.
3. The agent at 9051 completes the conference and brings the supervisor at extension 9053 into a three-party conference call with the external party. Recording 2 ends. Recording 1 with SID 1 resumes and appends the conference call audio to the first portion of the recording. Recording 3 with SID 3 continues.
4. When the supervisor at extension 9053 hangs up the call, Recording 3 ends. Recording 1 with SID 1 continues.
5. When the external party or the agent at extension 9051 hangs up the call, Recording 1 ends.

The same RID is associated with all recordings to show they are related.

Sub Line Data Capture

Sub Lines are basically secondary line appearances for the phone, which is called a DTerm in the NEC infrastructure. The primary line appearance for the phone is called the My Line. Businesses may choose to use these primary and secondary line appearances in various ways. For instance, all personal calls may be placed on a phone's Sub Line and all business calls placed on the My Line.

Encore, by default, only records calls for My Lines and Sub Lines that are defined in Encore's integration configuration. Infolink Sub Lines, which do not need to be explicitly defined, are recorded if the phone's My Line is included in the Encore integration configuration. Due to the nature in which OAI requires Encore to monitor messages, under some circumstances, Sub Lines that are not specified in the Encore integration configuration are temporarily added to the list of monitored extensions and therefore may be recorded. In these cases, the business would typically not wish to record personal calls. Since Encore cannot filter these calls prior to recording them, it instead captures the line appearance in which the call was originated or received and provides a method for the business to process the calls after the recording has occurred. In this case, personal calls recorded on the Sub Lines should be purged from the database and calls recorded on the My Line should be retained. Your DVSAnalytics installation or support technician can aid in setting up a purge job that meets your business needs.

Capturing Sub Line data may be helpful in other scenarios too, such as if the business needs to know which line appearance answered a call. The reason for capturing the Sub Line data fully depends on how the customer is using its NEC system; Encore helps businesses to better understand the recordings that have been created by capturing the Sub Line data for a phone. Two fields store Sub Line data in the Encore database: fldSubLine and fldOtherSubLine. fldSubLine captures Sub Line data for the calling phone if a Sub Line was used to originate the call, and fldOtherSubLine captures the Sub Line data for the answering phone, if that phone answered on one of its Sub Lines. Let's look at the most common examples and how the Sub Line data is captured for each.

My Line to Sub Line

In this example, the originating phone initiates a call from its My Line of 2222 and the receiving phone answers the call on its Sub Line of 7777.
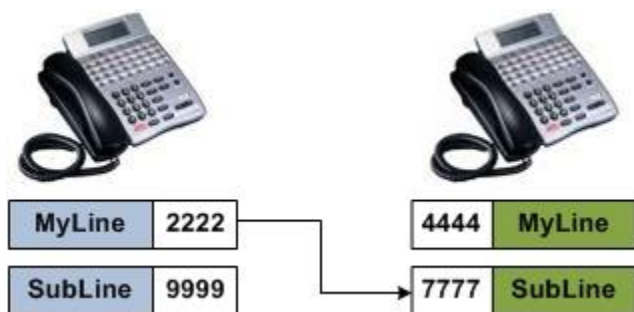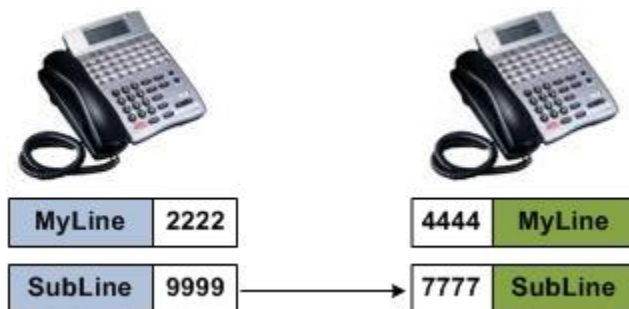
For this phone call, the recording for the originating phone (My Line 2222) shows nothing in the **fldSubLine** column because it placed the call on its My Line 2222. The **fldOtherSubLine** column shows 7777 because this is the line appearance on the receiving phone that answered the call.

The recording for the receiving phone (My Line 4444) shows the Sub Line of 7777 in the **fldSubLine** column because this is the line appearance on the receiving phone that answered the call. The **fldOtherSubLine** column is blank because the originating phone placed the call on its My Line 2222 and did not use its Sub Line.

FLDEXTENSION	FLDSUBLINE	FLDOTHERSUBLINE
2222		7777
4444	7777	

Sub Line to Sub Line

In this example, the originating phone initiates a call from its Sub Line of 9999 and the receiving phone answers the call on its Sub Line of 7777.

For this phone call, the recording for the originating phone (My Line 2222) shows 9999 in the **fldSubLine** column because this is the line appearance that placed the call. The **fldOtherSubLine** column shows 7777 because the Sub Line on the receiving phone answered the call.

The recording for the receiving phone (My Line 4444), shows its Sub Line of 7777 in the **fldSubLine** column because this is the line appearance that received the call. The **fldOtherSubLine** column shows 9999 because this is the line appearance on the originating phone that placed the call.

FLDEXTENSION	FLDSUBLINE	FLDOTHERSUBLINE
2222	9999	7777
4444	7777	9999

Sub Line to My Line

In this example, the originating phone initiates a call from its Sub Line of 9999 and the receiving phone answers the call on its My Line of 4444.
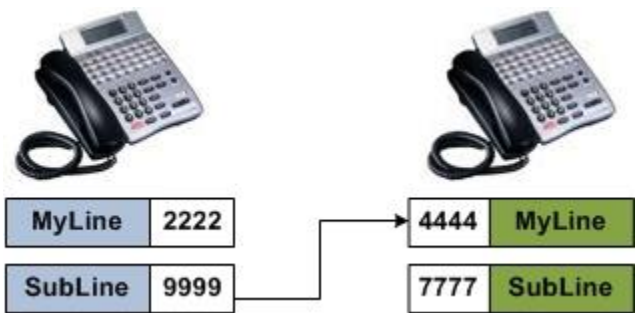

For this phone call, the recording for the originating phone (My Line 2222) shows 9999 in the **fldSubLine** column because this is the line appearance that placed the call. The **fldOtherSubLine** column is blank because the receiving phone answered the call on its My Line of 4444.

The recording for the receiving phone (My Line 4444), shows nothing in the **fldSubLine** column because it answered the call on its My Line of 4444. The **fldOtherSubLine** column shows 9999 because this is the line appearance on the originating phone that placed the call.

FLDEXTENSION	FLDSUBLINE	FLDOTHERSUBLINE
2222	9999	
4444		9999

Outside Calls and Transfers

Calls that originate from outside the business are handled the same as the examples above. If the receiving phone answers the call on one of its Sub Lines, the Sub Line number is stored in **fldSubLine**.

If the line that picks up a transferred call is also monitored for recording, Sub Line data is captured as noted above in the examples. For instance, if a transferred call is picked up on one of the receiving phone's Sub Lines (such as 5555), then 5555 is stored in **fldSubLine**.

Appendix 1: Glossary

abandoned call

An incoming call which is answered by the ACD but terminated by the caller before it is answered by an agent.

ACD

Automatic Call Distributor. An application that answers calls and directs them to a predetermined queue, or line, of waiting calls. In most cases, the ACD ensures that the first call in is the first call answered. It also determines which agent receives a call based on predetermined criteria such as idle time or availability and generates reports on call volume and distribution.

ACD line

This is a **Sub Line** on an ACD phone that is configured as the **Prime Line** to receive ACD calls only.

ACD name

Only captured when the ACD option is enabled. If using Infolink, this field stores the ACD pilot number. If using UCB, this field stores the queue name. This field updates once per day.

ACD number

Only captured when the ACD option is enabled. If using Infolink, this field stores the ACD pilot number. If using UCB, this field stores the queue ID.

Active Call Recording

The NEC Active Call Recording method uses the Active IP Voice Recording feature of the physical phone's firmware or the SP350 Softphone's software to receive audio directly from the monitored device via the network.

agent

A person who handles phone calls. Other variations include operator, attendant, representative, customer service representative (CSR), telemarketer, phone sales representative (TSR) and so on.

agent login ID

The number assigned to an agent that is used to log into a system or to identify the agent in the system.

ANI

Automatic Number Identification. For inbound calls, this is the phone number from which the customer is calling (may not be supported by the trunk). For outbound calls, this is the dialed number.

automated attendant

A voice processing system that answers calls with a recording and then enables callers to press touch-tone buttons to navigate through a menu system to a person, department or voice mail.

call direction

The direction is either incoming (inbound) or outgoing (outbound).

call record

An entry in a database that holds the data associated with a call.

call type

The call type is either internal or external.

consultation call

A call that is made while the customer (original call) is on hold. In the database, the **Consultation Call** field shows **Yes** when the recording is a consultation call.

dialed number

Captured for outbound calls and is stored in the ANI field.

digital recording

A method of recording that converts analog sound into a series of pulses that are translated into binary code, which is read by computers.

DNIS

Dialed Number Identification Service. For inbound calls, this is the number the customer dialed or the agent's extension number (may not be supported by the trunk).

DTerm

An NEC phone that derives its intelligence from its own microprocessor, which detects events and accepts direction from the PBX. A **DTerm** can have two or more lines.

dynamic IP capture

Encore can capture a phone's IP address from the SIP packets making the initial setup and ongoing maintenance easier and also allowing an agent to hot desk to any phone while still retaining the ability to record the agent using the Station-side RTP Packet Capture method. This feature is only available with the SV9500/8500 PBX.

encrypted calls

Calls that have the audio RTP packets encrypted. This prevents 3rd party applications, such as the Encore system, from using the RTP packets for recording.

extension

The number associated with a person's station. Extension and station are sometimes used interchangeably.

external calls

In these calls, the calling or called parties are outside the PBX.

full-time recording

This method uses the Recording Engine to record all conversations for the defined endpoints.

hold duration capture

The sum of all hold durations that occurred during the recording.

inbound

Calls which are received/answered by a recorded party.

Infolink

Infolink data messages provide a two-way communication link between the ACD system and external computer equipment, such as mini and mainframe host computers, desktop workstations, personal computers, and IVR. Three message sets have been designed for Infolink, providing a variety of applications using those messages. See the *CallCenterWorX ACD Features and Specifications Manual* for more detailed information.

internal calls

Calls made between extensions on the same PBX.

myline

Refers to the actual line that is directly associated with the extension number of a specific station (**DTerm**). This line is connected to the station's physically-accommodated port of ELC (at the system side), and the station can make/answer a call only via this line, even though such events are available by using other **Sub Lines**.

other party name

Name of the other party on the line with the person being recorded. This field is only captured when the other party agent logs into the Infolink ACD. For internal calls, it is only available if the other party is also a recorded extension. This field is not available for external calls.

other party number

Number of the other party on the line with the person being recorded; if external and incoming call, this is an ANI.

other sub line

In the Encore database, the fldOtherSubLine captures the number of the answering phone, if that phone answered on one of its **Sub Lines**.

outbound

Calls which are initialed/placed by a recorded party.

pause/resume on hold

A method that pauses the recording of audio and screen when a call is placed on hold, and resumes recording when the hold is taken off.

PBX (PABX)

Private (Automated) Branch Exchange. The phone system to which the office phones are connected.

prime line

Refers to the line that is seized automatically only by lifting the handset or pressing the speaker key. Normally, the same number as **My Line** is assigned for **Prime Line**. For an ACD phone, the ACD line is assigned as the **Prime Line** (with no dial tone provided; can only receive calls).

queue ID

This is the identifier of the queue in which the call was received.

recorded party name

Name associated with the monitored extension. This field is only captured when the agent logs into the Infolink ACD.

recorded party number

Number of person being recorded.

recording

The audio recording, screen recording, and database record associated with a single phone call or conversation.

related call lookup

A customer's experience in a call center may include multiple recordings even though the customer was on one, continuous call. This feature shows recordings that are related to the selected recording.

scheduled recording

This method uses the ESO Engine 2 to only record the defined endpoints according to the recording schedule. For instance, Encore may only record 50% of the calls on the defined endpoints instead of 100% as is automatically done for full-time recording.

software line

Refers to the line that is logically registered on the memory, by using the physically non-existent group numbers 24 - 31. While the group numbers 00 - 23 are assigned physically to the universal slots of a PIR, the group numbers 24 - 31 for the **Software Line** are programmed/managed on the memory. Thus, the theoretically assigned number for a **Software Line** can be used as a virtual **Station Number** (having no actual phone set to its end), and a call to that number can be answered by any **DTerm** that is registering the line.

split name

If using Infolink, this field stores the Infolink ACD split name. This field updates once per day. NEC defines a split as a collection of agents who perform a common function. A tenant usually consists of several splits performing different functions within the call center.

split number

If using Infolink, this field stores the Infolink ACD split number. NEC defines a split as a collection of agents who perform a common function. A tenant usually consists of several splits performing different functions within the call center. A split number is from one to two numeric characters. The range is dependent on the PBX configuration.

station

A phone connected to the PBX.

subline

Refers generically to the lines, other than **My Line**, that are accommodated on programmable line/feature keys. The **Sub Line** can consist of other **DTerm**'s **My Line**, the station number of a single line phone, and also software (virtual) line that may be assigned on a physically non-existent port of group number 24 - 31. Usually, every **Sub Line** uses a software line, and the line can be assigned on a group of **DTerms** as a common **Sub Line**.

In the Encore database, the **fldSubLine** captures the number for the calling phone if a **Sub Line** was used to originate the call.

trunk

The trunk number on which a call was received. If the call is an internal call, then this field is blank. Captured for all inbound/outbound calls.