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IP Recording

This topic provides an overview of Enterprise IP Recording and installation details for [REDACTED] recording components.

[REDACTED] Recording uses the customer network as the backbone for recording through the [REDACTED]. [REDACTED] IP Recording lets you record from one or more sites that are connected to your network onto recorders that are located anywhere on your network.

Additionally, whereas SCSA and E1 recording are assigned to a particular station, [REDACTED] Recording is assigned to a TRID, so recording follows traders if they log into stations connected to a TIC2 card with Enterprise IP Recording enabled. This feature supports global free seating and redundancy for business continuity planning (BCP).

To let you manage your recordings and provide for long-term storage and easy retrieval, Enterprise IP Recording uses NICE™ Systems software and storage.



For a graphical representation of IP recording on a network, see section [1.3 IP Recording Network Configurations on page 9](#).

[REDACTED] Recording provides:

- Audio-to-recorder transmission over the customer network (no port monitoring required).
- Load balancing algorithm distributes line recording evenly across many recording servers.
- N+M redundancy options: All recording servers are active at all times. Failure of a recording server is compensated for by adjustment of the load balancing (unlike SCSA, where the single redundant logger sits idle until needed to make up for a failure).
- Network redundancy: Two Ethernet ports per card support two sets of Ethernet cables that can be linked through duplicate switches to the network.
- Microsoft .NET-based client applications to permit playback from any Windows PC.
- Audio compression between the TIC2 station card and the logging system using the g.729 specification.
- Programmable recording options per TRID:
 - Handsets (summed, individual, transmit only, receive only)
 - Speakers (summed, individual speakers, any mixing combination)
 - Microphone (can be recorded on a separate channel)
- Real-time call records available over the customer network.
- Up to 200 recording channels per recording server.
- 50,000 hours online storage per recording server.

[REDACTED] system tracks:

- Who the traders are.

- Their recording requirements.
- Which traders are logged onto each station.
- Whether there is redundancy (see section [1.5.1 Redundancy on page 13](#)).
- Each station's audio equipment (handset, speakers, and microphone).
- The list of recording servers.

The IP recording system tracks:

- How many recording servers there are.
- How many channels each recording server has allocated to it.
- Which channels on those recording servers are in use and by whom.
- Which channels in those recording servers are free.
- Licensing information, whether it is by number of channels or by number of traders that are available.



In multi-switch environments, remember that like TRIDs are not supported. Each One Management System, hereinafter referred to as OneMS, must have unique TRIDs. Example: TRID 100 cannot have IP Recording enabled on both sites. That is, if Site 1 has TRID = 100, Site 2 cannot contain a TRID = 100.

1.1 Supported Alliance MX Systems

[REDACTED] P Recording is supported on [REDACTED] release 12.0 and later.

1.1.1 Stations Supported by IP Recording

These stations support IP recording for these turrets:

- [REDACTED] Soft Turret
- [REDACTED]
- [REDACTED]

1.1.2 Switching Center Cards

[REDACTED] Recording is supported only by the TIC2 cards. TIC2 cards includes the following kinds of TIC2 cards:



[REDACTED] Recording TIC2 cards released with [REDACTED] do not support E1 recording. TIC2 station cards, released with [REDACTED] support E1 recording or IP recording.

[REDACTED] IP Recording TIC2 cards released with [REDACTED] – these cards support only IP recording.

- TIC2 Station cards, released with [REDACTED] – these cards support IP recording or E1 recording. However, a mixed environment of IP recording on TIC2 cards and E1 recording on TIC2 cards is unsupported.

MPIC and first-generation TIC cards do not support Enterprise IP Recording.

TIC2 cards do not support SCSA recording.

Table 1-1: TIC2 Cards Overview

Card Types	Card Purpose	Number of IP Addresses Used by Card
AICX	[REDACTED] station card	2 ¹
IICX	[REDACTED] station card	2 ¹
TICX	[REDACTED] station card	2 ¹
RAIX	[REDACTED] station card	1
REIX	[REDACTED] station card	1
RETX	[REDACTED] station card	1
FAIX	[REDACTED] station card ²	1
FEIX	Failover [REDACTED] card ([REDACTED])	1
FETX	Failover [REDACTED] card ([REDACTED])	1

1. One IP address is for the IPC voice network and the other is for the customer network where recording takes place.
2. Failover is unsupported for Alliance MX 14.1; An EASe update planned for Alliance MX 15.3 can manage spare cards that failover, see section 1.1.1.4 EASe Failover Support for IP Recording on page 13.

1.1.3 Mixed Recording

The [REDACTED] supports a mixed recording environment in which TIC2 cards perform all IP recording and TIC (first-generation TIC) cards perform either E1 or SCSA recording.

- You cannot mix SCSA and E1 recording together using one OneMS.
 - You cannot mix IP recording on TIC2 cards with E1 recording on TIC2 cards.
 - You can mix IP recording on TIC2 cards with E1 recording on TIC (first-generation TIC) cards.
 - You can mix IP recording on TIC2 cards with SCSA recording on TIC (first-generation TIC) cards.
- IP, SCSA, and E1 recording are enabled by a field in the *OneView System Feature* work area.
- To enable IP recording for TIC2 cards, see section [1.15.1 Enable IP Recording Feature on page 34](#).
 - To set up IP recording, see [Chapter 3: E1 Recording on page 79](#).
 - To enable E1 recording and disable SCSA recording, see section [*3.6.1.1 Enabling E1 Recording in System Feature on page 82](#).
 - To enable SCSA recording and disable E1 recording, see section [5.3.1 Set Max Recorder Channels on page 103](#).

1.1.4 [REDACTED] e Failover Support for IP Recording

[REDACTED] is the [REDACTED] continuity planning (disaster recovery) solution. See [REDACTED] documentation for more information. However, if your failover sites are set up correctly for IP recording, then recording can be supported by the failover scenario.

1.2 Typical Enterprise IP Recording System

A typical IP recording system has these components connected by a LAN:

- A Windows-based database and applications server (DB/APP)
A server where you configure and administer the recording system and store call records using NICE™ software.
- One or more Windows-based IP recording servers
Servers on the customer's network that use NICE software and store voice recordings.



The NICE hardware cannot be connected to the Alliance MX network, it must be connected to the customer network.

- A customer-supplied administration workstation you can use for playback or remote administration of the IP recording system.
- EMC®, Centera™, or other customer-supplied storage center servers for long-term storage or recordings.
- A customer-supplied NMS server for SNMP alarming.
- [REDACTED].

For more information, see section [1.2.1 About the \[REDACTED\] Common Platform Servers on page 7](#).

Figure 1-1: IP Recording TIC2 Cards/No [REDACTED] Stations

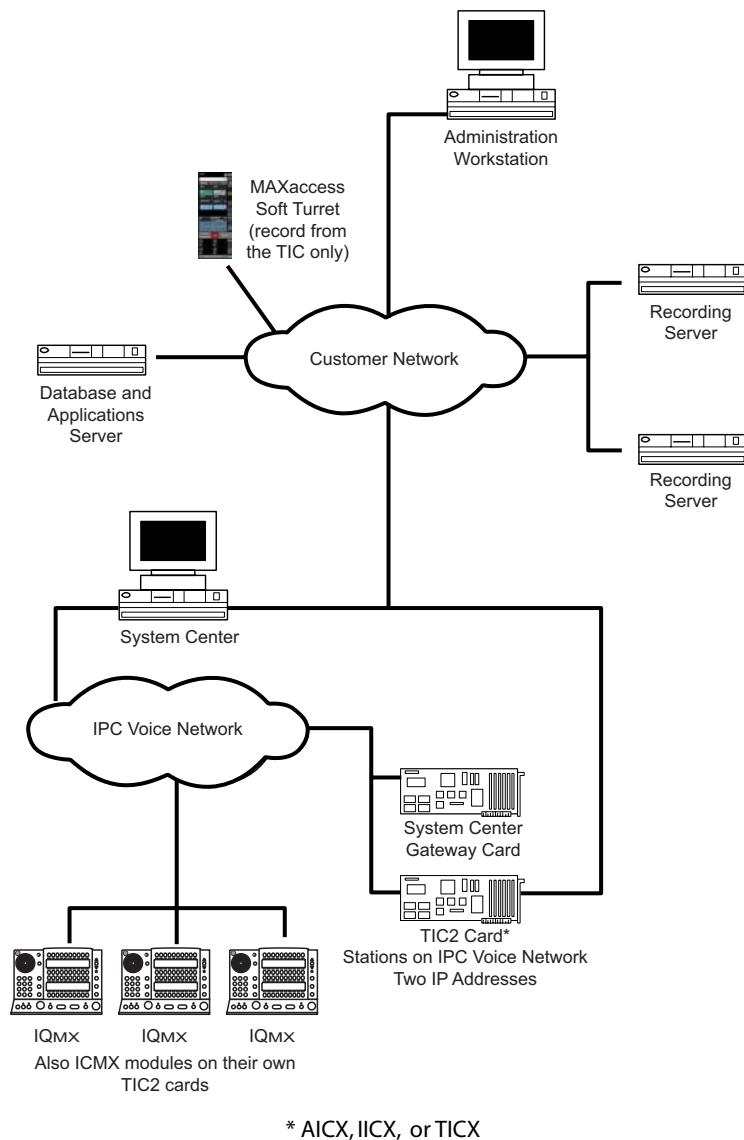
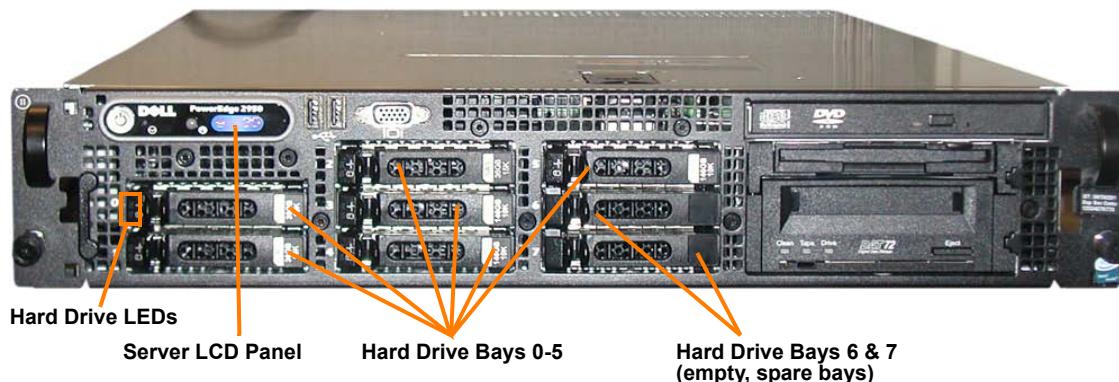


Table 1-2: Common Server Drive Bay Configurations

Server Type	Logical Drive 0	Logical Drive 1
Database and Applications	Three 36 GB or 146 GB hard drives ¹ in a RAID 5 configuration Stores O/S and application software Bays 0, 1 and 2	Three 146 GB hard drives in a RAID 5 configuration Stores database files (data) Bays 3, 4 and 5
Recording	Two 36 GB or 146 GB hard drives ¹ in a RAID 1 configuration Stores O/S and application software Bays 0 and 1	Three 146 GB hard drives in a RAID 5 configuration Stores voice recordings Bays 2, 3 and 4

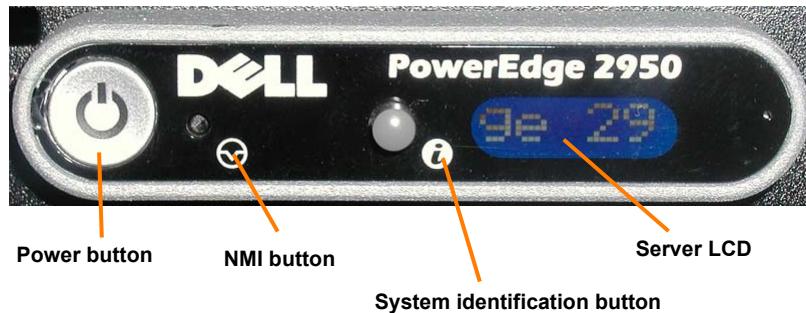
1. The 36 GB hard drives are in the Series II for NICE 9.09. The Series III for NPR3 has 146 GB hard drives.

Figure 1-4: Server Panel (front view)



The Server LCD Panel displays status, including reporting power supply and hard drive failures.

Figure 1-5: Server LCD Panel



There are four controls on the Server LCD Panel:

- Power button – Lights when power is on. Push this button to turn off power.
- NMI button – Used to troubleshoot software and driver errors. Use this only if directed by IPC or Dell.
- System identification button – Used to find a server in a cabinet. Push this button, or the system identification button on the back of the server, and the LCD panel and the blue system status indicator on the back flash until one of the system identification buttons is pushed again.

- Server LCD – Lights during normal operation. Flashes blue if the system identification button is pushed. Lights amber and displays an error code and descriptive text if an error is detected. See the Dell documentation for help with error codes (<http://support.dell.com/support/edocs/systems/pe2950/en/hom/html/about.htm#wp1096182>).

Field-serviceable parts consist of the hard drives and power supplies, both of which can be swapped from outside the server case. There are currently no field-replaceable parts inside the server case. Failure of items inside the server case require replacement of the entire server.

1.3 IP Recording Network Configurations

The following sections describe network configurations that are supported and unsupported by [REDACTED]

1.3.1 Network Configurations that Continue to Be Supported

The following networking configurations continue to be supported.

Figure 1-6: Everything in One Subnet – Supported Configuration

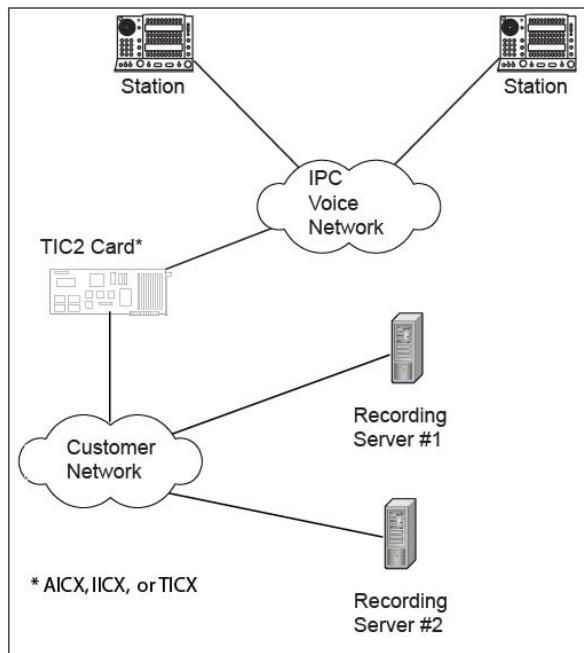


Figure 2-1: Typical E1 Cabling

