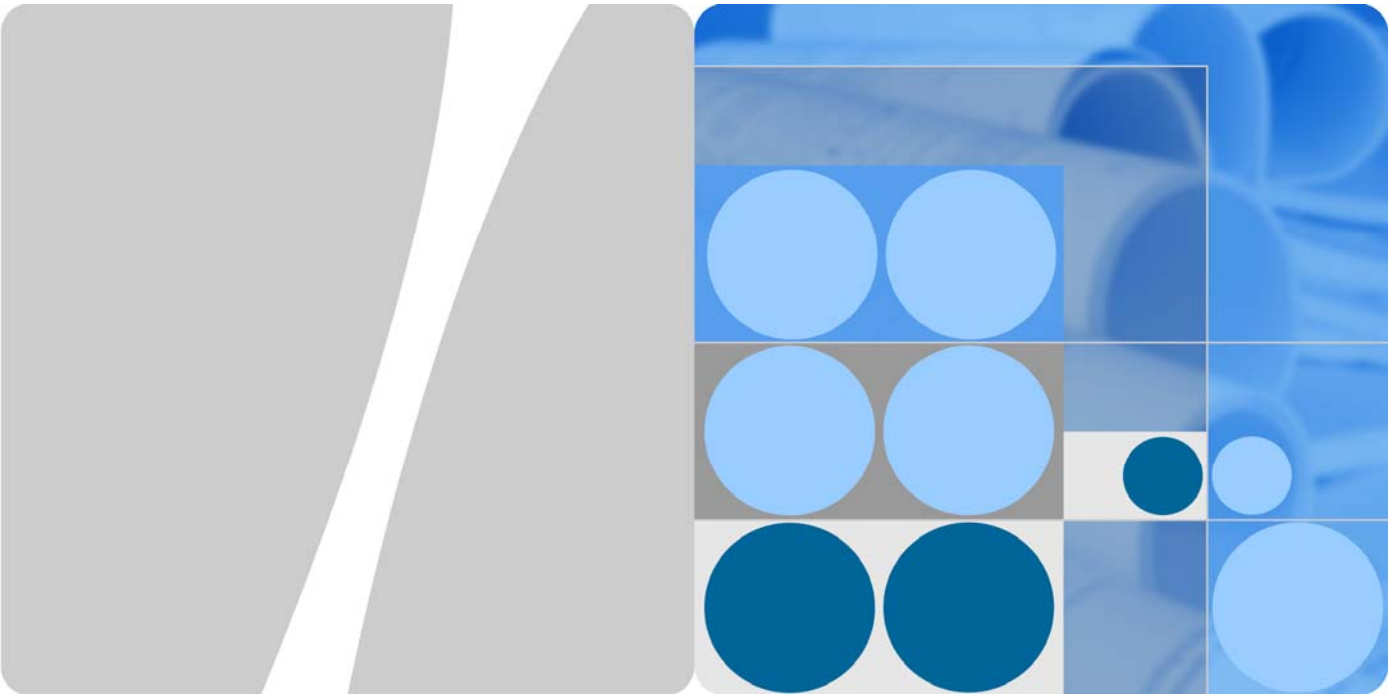

eSpace Audio Recorder V100R001C02

Product Description

Issue 01

Date 2012-07-30

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About This Document

Purpose

This document describes how to use Huawei eSpace audio recorder.

Intended Audience

This document is intended for:

- Technical support engineers
- Maintenance engineers

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
DANGER	Alerts you to a high risk hazard that could, if not avoided, result in serious injury or death.
WARNING	Alerts you to a medium or low risk hazard that could, if not avoided, result in moderate or minor injury.
CAUTION	Alerts you to a potentially hazardous situation that could, if not avoided, result in equipment damage, data loss, performance deterioration, or unanticipated results.
TIP	Provides a tip that may help you solve a problem or save time.
NOTE	Provides additional information to emphasize or supplement important points in the main text.

Change History

Updates between document issues are cumulative. The latest document issue contains all the updates made in earlier issues.

Issue 01 (2012-07-30)

This issue is the trial release.

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1 Product Overview

1.1 Positioning

This document serves as an introduction to the eSpace Audio Recorder V100R001E02.

To assist in the transition from traditional call centers to IP-based call centers that integrate voice and data networks, Huawei offers the eSpace Audio Recorder.

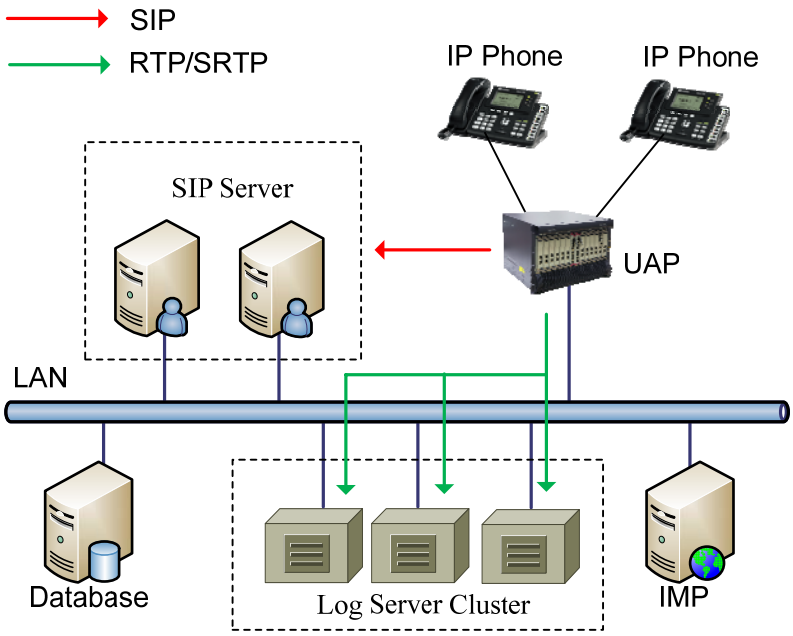
The eSpace Audio Recorder is a recording system that uses the advanced streaming media technology. The eSpace Audio Recorder system is widely used in the following fields:

- Financial transaction
- Governments and enterprises
- Air traffic control
- Transportation
- Postal industry
- Electric power industry

1.2 Architecture

Figure 1-1 shows the architecture of the eSpace Audio Recorder.

Figure 1-1 eSpace Audio Recorder architecture



The components in the eSpace Audio Recorder architecture are:

- UAP

  Interacts with the SIP Server through signaling, sends call information and requests for starting and stopping the recording process to the SIP Server, and sends RTP /SRPT streams to the Log Server cluster.
- SIP Server

  Two SIP Servers working in active and standby mode interact with U2990/U2980, send requests to the Log Server cluster for starting or stopping the recording process based on the Log Server load to implement load balancing in the Log Server cluster.
- Log Server Cluster

  Receives RTP/SRPT streams from U2990/U2980 using multiple Log Servers, starts recording and stops recording the message recording information based on the SIP Server, and generates and stores recording files and recording data. A single Log Server failure does not affect the recording of the entire cluster.
- Database

  Stores Log Server parameters and recording data.
- HWLog Integrated Management Platform (IMP)

  Manages Log Servers in a unified manner and configures Log Server parameters.

NOTE

The database, Log Server, and HWLog IMP can be installed on the same server.

1.3 Advantages

Centralized Server Configuration and Management

The eSpace Audio Recorder can manage and configure Log Servers in a centralized way, Single server can support 256 concurrent recording, meeting requirements of large-capacity call centers.

Modular Design

The eSpace Audio Recorder modules include the IMP, recycle, backup, and alarm modules. Customers can customize these modules to meet a variety of requirements.

Multi-Level Control

The eSpace Audio Recorder allows the administrator to create multiple roles with different management rights and service rights. A user can be bound to multiple roles, which separates the users' management rights from the service rights.

Data Encryption

The eSpace Audio Recorder uses the 128-bit Microsoft CryptoAPI algorithm to encrypt recording files to ensure data security during transmission. Users can decrypt and play the recording files only on the eSpace Audio Recorder IMP.

Multi-Level Storage

The eSpace Audio Recorder saves a recording file to a local disk of a Log Server and backs up to another network storage device at the same time, which ensures the data security.

Standby redundancy, load balancing

eSpace Audio Recorder core components are hot standby redundancy mechanism. The main SIP Server running during the outage, the system automatically switches to prepare the SIP Server. Ensure recording data integrity to improve system security.

Log Server cluster load balancing mechanism, Single Log Server failure does not affect the overall cluster recording work.

2 Hardware Structure

The eSpace Audio Recorder is deployed on a server that is installed in a 19-inch cabinet 2 U (1U = 4.45 cm). It is recommended that a Huawei PC Server be used as a Log Server. Table 2-1 lists the minimum and recommended configurations for a Log Server.

Table 2-1 Minimum and recommended hardware configurations for a Log Server

Hardware	Minimum Configuration	Recommended Configuration
CPU	Xeon quad core	2 x E5606 or higher
Memory	4 GB	DDR3 8 GB or more
Hard disk	160 GB	600 GB or more
Operating system	Windows Server 2008 R2 (standard edition)	Windows Server 2008 R2 (standard edition)
Network adapter	Quantity: 2	Quantity: 2

3 Application Scenarios

3.1 Overview

The eSpace Audio Recorder product form to meet different scenarios of network deployment, to provide users with the perfect solution for recording.

The eSpace Audio Recorder is working by conference mode in medium and large scale users to support the recording line for more than 500 concurrent or above-scale.

3.2 Scenarios

The eSpace Audio Recorder is a highly integrated, easy to install, low power consumption and easy maintenance advantages.

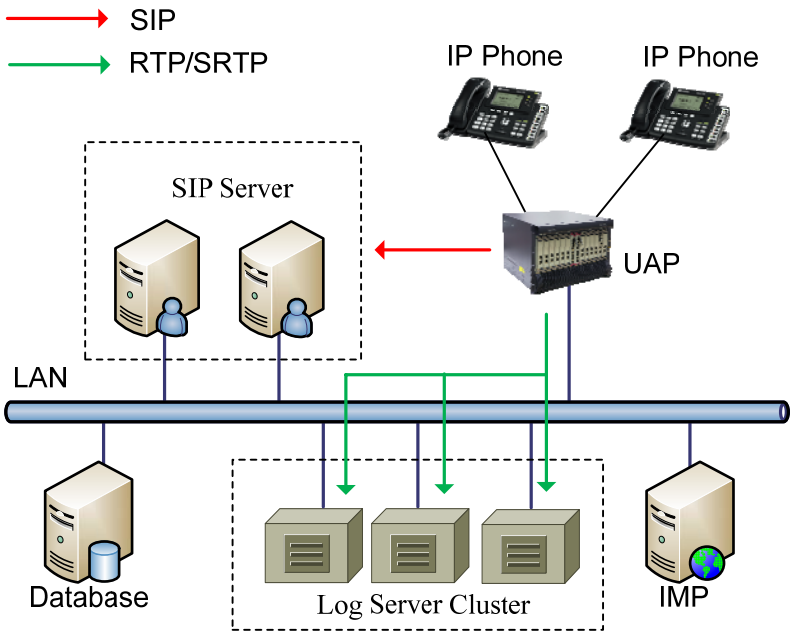
The eSpace Audio Recorder is based on the pure software approach to process data. The eSpace Audio Recorder capacity can be expanded seamlessly by adding Log Servers and licenses, ensure that the system smooth expansion and upgrading, maximize the protection of customer resources.

3.2.1 Conference Mode

Two SIP Servers are prepared for signaling interaction in conferences. SIP Servers send RTP/SRTP streams to the Log Server cluster, and the Log Servers receive RTP/SRTP streams to complete the recording process.

Figure 3-1 shows the network diagram of the eSpace Audio Recorder working in conference mode.

Figure 3-1 Network diagram of the eSpace Audio Recorder working in conference mode



NOTE

Log Servers function as the recording server and RTP/SRTP streams are transmitted in the conference to complete the recording process, by recording the calling number, calling destination, date, hours,etc.

4 Typical Configuration

Table 4-1 lists the configurations in conference mode.

Table 4-1 Configurations in conference mode

Component	Function	Quantity	Remarks
SIP Server	Signaling interaction with UAP, to receive the recording start and stop requests	2	The SIP Server can be installed on the Log Server
Log Server	Receive RTP/SRTP data from the UAP and generates recording files.	2	This server supports recording backup and deletion functions.
IMP	Maintains and manages Log Server parameters.	2	The IMP can be installed on the Log Server.
Database	Stores Log Server parameters and recording data.	1	The database can be installed on the Log Server.
File Server	Storage and backup recording files	1	/

5 Operation and Maintenance

5.1 Introduction

The IMP provides a graphical user interface (GUI) for users to manage the entire eSpace Audio Recorder by integrated with PBX management system.

5.2 Advantages

The IMP provides flexible ways to set HWLogVoice, HWLogDB, recording channels, and user management parameters.

The eSpace Audio Recorder allows users to back up recording files from Log Servers to network storage devices in real time or during off-peak hours. If the storage capacity achieves the maximum capacity, the system will discard history recording files by FIFO rule.

6 Technical Specifications

Table 6-1 lists the eSpace Audio Recorder technical specifications.

Table 6-1 Technical specifications

Item	Parameter	Remarks
Maximum number of recording channels supported by a single Log Server	Encrypted: 256	You are advised to encrypt the recording files.
IP	IPv4 and IPv6	Supported by server

7 Acronyms and Abbreviations

A - E

F - J

IP	Internet Protocol
IMP	Integrated Management Platform
IAD	Integrated Access Device

K - O

P - T

RTP	Real-Time Transport Protocol
SRTP	Secure Real-Time Transport Protocol
SBC	Session Border Controller
SIP	Session Initiation Protocol

U – Z

UAP	Universal Access Platform