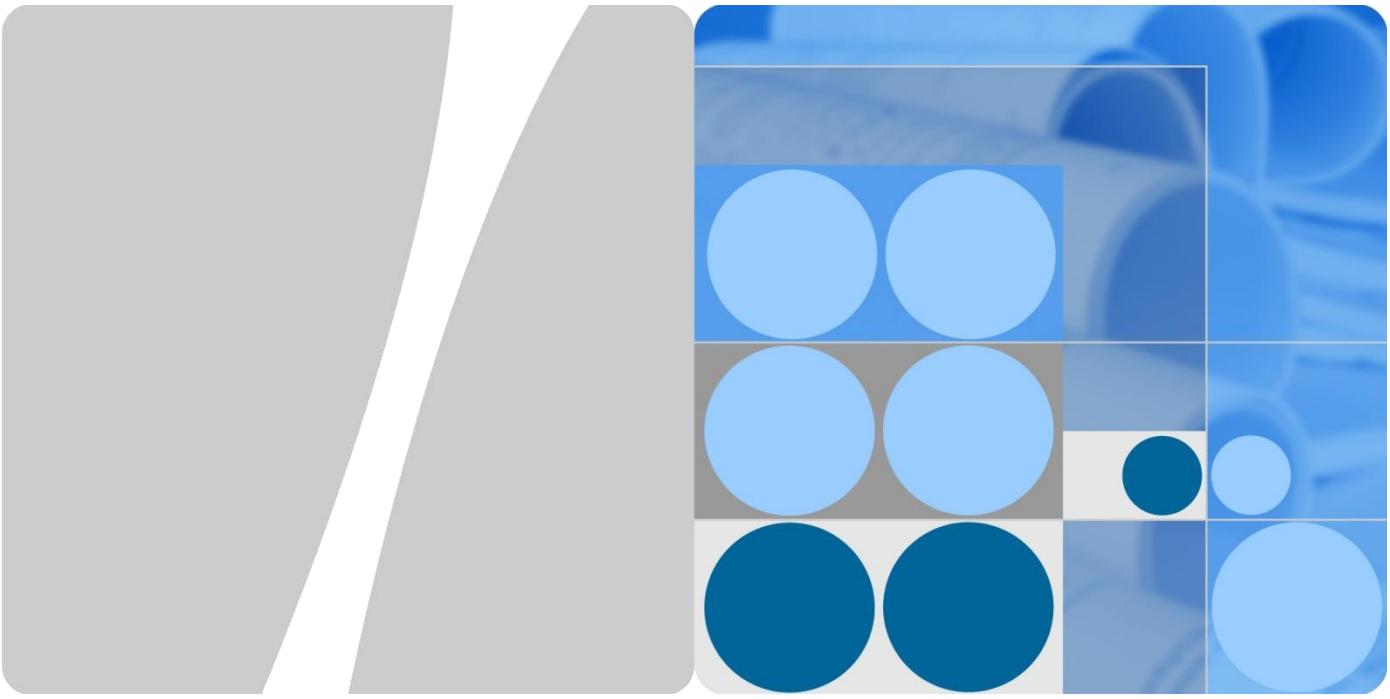

eSpace UMS
V100R001C01SPC100
Product Description

Issue 03

Date 2012-07-10

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About This Document

About This Document

This document describes the service functions and technical parameters of eSpace UMS.

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 accumulated. Therefore, the latest document issue contains all updates made in previous issues.

Issue 03 (2012-07-10)

This issue is the third commercial release, which incorporates the following change:

Adjusted format, and changed the product name SoftCo to Unified Gateway.

Issue 02 (2012-04-10)

This issue is the second commercial release, which incorporates the following change:

Updated several figures.

Issue 01 (2010-04-10)

This issue is the first commercial release.

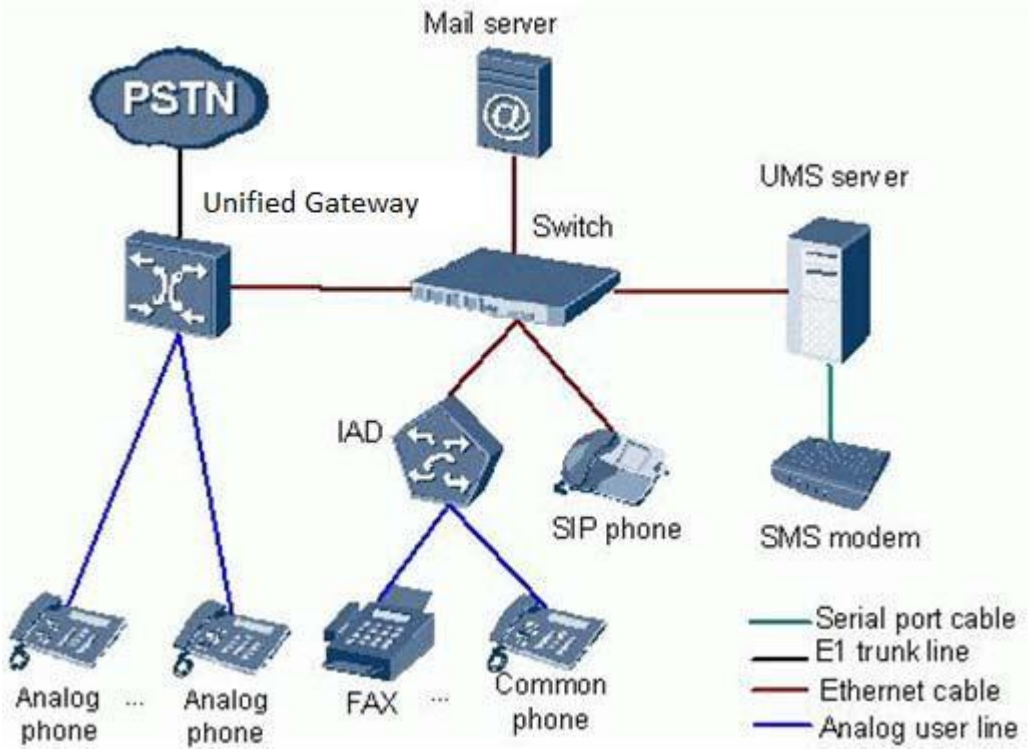
Contents

1 UMS Overview

The Huawei eSpace unified messaging system (UMS) is a voice and fax mailbox system. The UMS communicates with the SoftSwitch through the session initiation protocol (SIP) to implement voice and fax mailbox functions. All voice messages and fax message are stored on the UMS server.

The core devices of the UMS are the Unified Gateway and the UMS server. The Unified Gateway and the UMS are connected through the SIP trunk. The SMS modem connects to the UMS server through the serial port. Figure 1-1 shows the UMS network diagram.

Figure 1-1 UMS network diagram



Unified Gateway

Huawei offers two models of the Unified Gateway: SoftCo9500 and Unified Gateway 5816. As a small- scaled next generation network (NGN) system and IP private branch exchange (PBX), the Unified Gateway integrates the functions of NGN components and delivers high-efficiency and high-quality voice services for intranets.

UMS Server

The UMS server functions as the voice and fax mailbox, which sends messages about the message waiting indicator (MWI) status, and SMS messages to mobile phones. Users can listen to or view the messages by phone, fax, web, or email.

Mail Server

The mail server provides email services and complies with Simple Mail Transfer Protocol (SMTP), Internet Mail Access Protocol (IMAP), and Post Office Protocol (POP).

SMS Modem

The UMS server sends a notification to a user through the SMS modem, indicating that a new message or fax is available.

IAD

As a VoIP-enabled media access gateway, the Integrated Access Device (IAD) provides the edge access function based on the IP network. The IAD interacts with the Unified Gateway through SIP to convert SIP signaling to or from time division multiplexing (TDM) signaling, so that analog phone users can take advantage of VoIP services.

Terminal

Terminals include SIP terminals (mainly IP phones) and analog phones.

CAUTION

Currently, multiple sub -PBXs cannot share a UMS server. If multiple sub-PBXs of the same Unified Gateway need to use the UMS service, deploy a UMS server for each sub-PBX. In addition, sub-PBXs whose prefixes for leaving and retrieving messages are different must be configured differently.

2 Product Introduction

eSpace UMS uses the Unified Gateway, UMS server, and SMS modem.

2.1 Unified Gateway

For details about the Unified Gateway, see the *Unified Gateway Product Description*.

2.2 UMS Server

- Hardware

  HP DL360 Server
  - Intel Xeon E5504 processor (2.00 GHz, 80 W, 4 MB level-3 high-speed cache)
  - Intel 5520 chipset
  - 4 GB (2 x 2 GB) DDR3 Unbuffered (UDIMM)
  - Dual-port multifunctional gigabit network adapter integrated with HP NC382i
  - Two pre-installed 146 GB 10K SAS 3G 2.5-in. dual-port hot-swappable hard disks
- Operating system

  Customized Linux operating system for improved system performance and simplified installation
- Database

  PostgreSQL

2.3 SMS Modem

- Hardware

  General packet radio service (GPRS) modem

  Based on the GPRS 2.5G mobile network platform, a GPRS modem is a wireless modem embedded with the Siemens MC35i/MC39i modem. Huawei GPRS modems:
  - Comply with industrial specifications.
  - Support planned power-off.

- Provide DB9 RS232 data and standard voice interfaces to directly connect to host computers.
- Support dial-up GPRS network access, voice communications, and SMS sending and receiving.

- Software

  Short Message Service Daemon (SMSD)

  The SMSD allows users to send SMS messages.

3 Service Functions

3.1 Leaving Messages

3.1.1 Leaving Messages on a Phone

The function allows a caller to leave voice messages on a phone when the phone is busy, the call is not answered, or even unconditionally.

Users can customize greetings for callers, who can then leave a message.

3.1.2 Leaving Messages on a Fax Machine

The function allows users to leave voice messages on a fax machine.

- One-terminal-one-number

  If you register the one-terminal-one-number fax mailbox service, when another user dials your fax extension number, the call is forwarded to the UMS. Then the calling party sends fax message according to the prompt of the UMS.
- Unified access code

  If you dial the unified access code on a fax machine, the call is forwarded to the UMS. Then you send fax message to the called party according to the prompt.

3.1.3 Leaving Messages by Email

Users can send voice messages to one or more UMS accounts by email, and must separate multiple recipients by semicolons. Voice files in .wav format are supported.

3.2 Forwarding Messages

Users can forward messages to other users' phones in the eSpace UMS system.

Users can also forward messages on the UMS web portal

3.3 Notifying Users of Messages

The eSpace UMS system notifies users of leave messages in any of the following ways.

3.3.1 MWI

When a user who has enabled MWI notification receives a message, the MWI of a user's phone turns on under the following conditions:

- The user's phone is connected to the MWI-enabled Unified Gateway.
- The user's phone supports the MWI function.

3.3.2 Phone

When a user who has enabled voice notification receives a message, the eSpace UMS system automatically dials the user's phone number and notifies the user of the message's arrival.

3.3.3 Email

When a user who has enabled email notification receives a message, the eSpace UMS system automatically sends the message to the user's mailbox.

3.3.4 SMS Message

This function applies to the eSpace UMS system equipped with the SMS gateway or modem.

When a user who has enabled SMS notification receives a message, the eSpace UMS system automatically sends an SMS message to the user's mobile phone and notifies the user of the message's arrival.

3.4 Retrieving Messages

Users can retrieve messages:

- By dialing the eSpace UMS system access code and listening to leave messages as prompted.
- On the eSpace UMS web portal.
- In mailboxes.

3.5 Sending Faxes

Users can send faxes to the eSpace UMS system by:

- Fax machine
- eSpace UMS web portal
- Email

Users can also forward faxes retrieved on a phone, fax machine, or the eSpace UMS web portal to the eSpace UMS system.

3.6 Retrieving Faxes

Users can retrieve faxes by:

- Phone
- Fax machine
- eSpace UMS web portal
- Email

4 Technical Specifications

The following table lists eSpace UMS technical specifications.

Parameter	Specifications
Maximum number of mailboxes	8000
Maximum number of concurrent users	400
Maximum minutes of each message	15 minutes
Minimum minutes of each massage	2 minutes
Maximum numbers of messages for each user	1000(20 by default, can be set from 1 to 1000)
Mailbox size	Depends on the disk space. If a 300 GB disk is provided, for example, the size of each mailbox can range from 20 to 100 MB.
Fax file	G3/G4 Tagged Image File Format (TIFF) 50 KB/page (A4)
Voice file	wav format, supporting A-law and u-law algorithms
Fax protocols	G.711 and T.38
Interface type	SIP(RF3261)
Operating system	Linux CentOS 5.3
Database	PostgreSQL
GUI languages	English and Chinese
Voice prompt languages	English, Chinese, Brazilian Portuguese
IP	IPv4 and IPv6 can be supported by UMS server

A Glossary

3G terminal	A terminal used in the third-generation mobile communications network, for example, a Wideband Code Division Multiple Access (WCDMA) mobile phone.

B

business code	A number that identifies a business provided by content or application provider. A business code consists of up to 10 letters or digits.

E

enterprise code	A number that identifies an enterprise address and identity. Address translation, charging, and settlement are based on enterprise codes.

K

keyword	A word used to describe a service or product feature. Users can quickly locate a service or product by keyword. Multiple keywords are separated by |.

S

service code	A number that identifies a service provided by content or application provider.

B Acronyms and Abbreviations

B	
BHCC	Busy Hour Call Completion
I	
IAD	Integrated Access Device
IP	Internet Protocol
L	
LAN	Local Area Network
M	
MAP	
MTBF	Mean Time Between Failures
N	
NGN	Next Generation Network
P	
PBX	Private Branch Exchange
PC	Personal Computer
POP3	Post Office Protocol 3
R	
RH	Relative Humidity

S	
SIP	Session Initiation Protocol
SMTP	Simple Mail Transfer Protocol
T	
TDM	Time Division Multiplex
TFTP	Trivial File Transfer Protocol
U	
UMS	United Message System
V	
VoIP	Voice over IP