

BusinessPhone Voice Messaging and Unified Messaging

Access to your messages anywhere, anytime and any media



The mobile enterprise demands access to different applications whenever you are using any device at any time. With unified messaging, BusinessPhone enables you to visualize and listen to your voice messages when accessing with your PC from abroad or while in the office. And even more, the integrated Voice Messaging Unit (VMU) and the Unified Messaging

solution have a strong interoperability with other applications such as BackStage, helping you to organize your messages more efficient and to increase your productivity. With full Integration into Microsoft® Outlook™ or Lotus Notes® you will have a familiar tool to access all your messages in an intuitive way. And when on the move, SMS notification will make sure you won't miss urgent new messages.

Ericsson provides you with the most efficient and cost effective unified messaging solution that perfectly migrates into existing BusinessPhone installations.

Overview

The Voice Messaging Unit (VMU)

The BusinessPhone VMU is a scalable, versatile solution for voice and text messaging integrated in the BusinessPhone system, which provides the basis for the BusinessPhone Unified Messaging solution.

A powerful voice mail system to serve up to 300 mail boxes is surrounded with a variety of functions such as conversation recording, automated attendant, voice response and external system access. The BusinessPhone VMU is ideal for demanding voice messaging applications such as outcall notification, personalized voice mail box greetings, intelligent messaging for contact center applications. Wake-up calls and guest messaging in a variety of languages are provided for hotels. Users can access their messages from another extension or from outside the phone system. Voice messages can be stored in individual or in common mailboxes.

The Unified Messaging Solution

The Unified Messaging solution for BusinessPhone is designed to simplify the users day-to-day handling of messages in an intelligent, flexible and intuitive way. It comes down to one single point of access to the voicemail and e-mail systems increasing the users efficiency and productivity. This solution has been implemented into BusinessPhone as e-mail communication has become commodity.

Users can now forward voicemail messages as an attachment to an e-mail message to numerous addresses within their company or throughout the world. They can access voicemails remotely via the internet and access voicemails when on the move.

SMS notification to mobile phones will inform the user about new voice, text or call-me messages. That allows fast response to the message originator.

The solution combines the strengths of the BusinessPhone Voice Messaging Unit (VMU) and the BusinessPhone IP-Unit (IPU) together with a new SW called the Slim Unified Messaging Server (SUMS). Using this solution, all your voice messages can follow you, wherever you and your PC are.

By providing your workforce with this fully integrated Unified Messaging solution, you are not just improving their ability to handle their messages more effectively. You are giving them the power to be more productive, both individually and as part of team.

System Set-Up

The Voice Messaging Unit (VMU)

The BusinessPhone VMU may be implemented on two different hardware boards in the BusinessPhone systems: On the core system Multi Function Unit (MFU), or on a separate board, called the VMU-HD.

The MFU version offers four simultaneous voice channels with 2h 13 minutes or 4h 27 minutes storage capacity and the VMU-HD offers 16 simultaneous voice channels with 4h 27 minutes or 17h 48 minutes storage capacity.

The Unified Messaging Solution

Two main BusinessPhone core components, the VMU (VMU-HD or MFU) and the IPU, build the Unified Messaging solution, together with the new Slim Unified Messaging Server - SW (SUMS). Up to 200 BusinessPhone users will be able to receive HTML-mails with voicemail or text messages attached.

Companies who have not an own e-mail server (e.g. use the service of an Internet Service Provider (ISP)) do not have to buy a new e-mail server in order to use our UM solution. A license free SMTP/POP3 server is already integrated in the SUMS, which can be chosen during set-up. Our SMTP/POP3 server must not be used as e-mail server for corporate e-mail communication and is solely intended to forward the voice messages.

System functions

The Voice Messaging Unit (VMU)

The BusinessPhone VMU supports the following voice messaging functions.

Voice mail for 300 users with personal greeting

Up to three personal greetings can be saved for each mailbox, according to the status of the called extension (direct forwarding, on busy, or on no reply). Greetings can be changed using either “soft” (programmable) keys on a telephone set, or using voice menus from outside or within the office. The system differentiates new messages from those that have been heard, and those intentionally stored by the user.

Any of these messages can be forwarded from the user’s mailbox to another internal mailbox. Each user can store up to 20 messages. Users are informed about the number of messages stored in their mailbox. A flashing LED on the phone indicates new messages; a continuously illuminated LED indicates there are heard messages. Where phones have no LED, a special dial tone indicates that there are messages waiting. The user can retrieve voice messages from an external phone with DTMF dialling.

Outcall Notification

It is possible to be notified at any external number – immediately or at a predefined time – of new messages received in the mailbox. With password access they can be retrieved right away.

Messages can also be recorded and sent directly from the user’s mailbox to one or more mailboxes in the same system, either from internal or external.

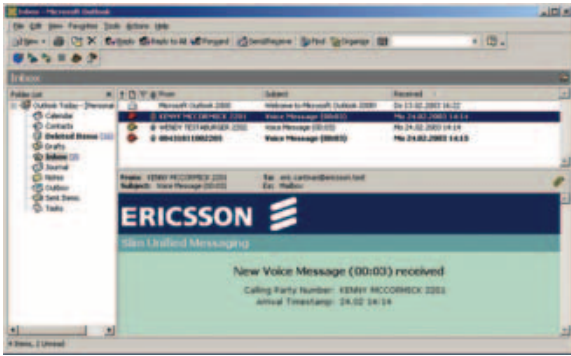
Up to 16 common mailboxes can be configured to store messages for a group of people working together, such as in a contact center.

Messages received in a common mailbox can be forwarded to any other common mailbox or individual mailbox for appropriate distribution.

Date and time stamps for individual and common mailboxes can be retrieved by pressing a key during or after the message is played, or it can be configured to play automatically with every message.

The voice mail system can also be used to record telephone conversations, if a function key on the telephone has been suitably programmed. Recorded conversations are stored and retrieved in the same way as messages. The facility can be accessed by digital system phones only.

The VMU delivers a Dictaphone function to any digital, analog or cordless telephone. Users can easily store messages in their own mailbox for later retrieval. This is particularly useful for cordless phone users on the move.



The automated attendant facility allows friendly, standardized greetings to be played to callers, who are guided through a menu-based voice prompting system to the right extension, service or mail box, without the aid of an operator. The caller can press a key to quit and be connected to an operator at any time.

The automated attendant facility provides automated primary call handling using pre-recorded voice prompt menus. The VMU allows up to 32 selection prompts to be configured.

The caller is greeted with consistent, friendly announcements and prompted to enter the appropriate extension or service number on his telephone keypad. Callers without DTMF dialing, or who make an invalid selection for a second time, are automatically transferred to the operator or other pre-defined extension.

It is possible to bypass voice prompts and gain fast access to the extension or service by directly dialing the function numbers. In computer telephony (CT) applications, automated attendant can be used to prompt callers to enter special ID numbers, so that their calls are transferred to the most appropriate extension and their computer records retrieved automatically.

The VMU delivers full call data to the external BusinessPhone Automated Attendant Optimizer (AAO) Application. The AAO can be used to analyze the effectiveness of the system. For instance, it is possible to determine how many calls were received, how many times announcements were replayed, how many callers made invalid entries, how many callers hung up, and so on. This enables fine tuning of the Automated Attendant system.

Voice answering information Service

The voice information service allows internal and external callers to obtain pre-recorded information 24 hours a day. The VMU provides information in a polite, friendly voice – no matter how many times the same information is requested.

Standard information such as opening hours, company address, special offers, and so on, can be provided to callers without the need to occupy your staff, who are free to concentrate on providing personal service to those who need it.

Direct Inward System Access

Using the system's Direct Inward System Access (DISA) facility, staff working away from the office can access the office phone system and use it as if they were at their own extensions – outgoing calls are automatically billed to the office using dedicated account codes. The voice messaging system guides the user through the password control procedure to access the public network.

The VMU system is also used to remotely activate, deactivate or reactivate call diversion from any specific extension to any external number.

These functions are particularly useful for those who work from home or teleworkers making external business calls.

Intelligent messaging

Intelligent messaging is particularly useful in contact centres where calls are placed in a queue. While in the queue, callers are kept informed of their position in the queue and the expected waiting time. During the hold time, the system can play music or recorded promotional or customer service information. Furthermore the callers can break out of the queue if wanted, in order to leave a message in a mailbox or to get routed to a general answering position.

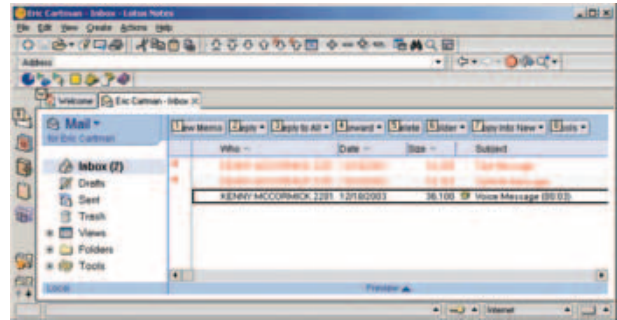
Integrated music on hold

The VMU is delivered with one standard music on hold title, and has the storage capacity for up to 16 titles.

BusinessPhone offers in addition up to 13 external music on hold sources to be broadcasted simultaneously serving the needs of a multi-tenant system.

Hotel Messaging

The VMU can also be used as a high end messaging solution for guestrooms. It offers the service of a mailbox including wake-up call handling in 3 languages.



The Unified Messaging Solution

Any voicemail message, conversation recording message, dictaphone message or text message stored in the BusinessPhone VMU will be forwarded to the users e-mail client, either from an individual or from a common mailbox.

The users e-mail client receives a user-friendly HTML page as notification including the identity of the message originator, time and date stamp and the length of the message. The voice message is attached as a standard wave-file.

In addition a Microsoft® Outlook™ plug-in as well as a Lotus Notes® plug-in is offered to increase the users comfort as described in the next chapter. However, playback without our plug-in is only possible via PC Media-Player.

SMS notifications of voice, text or call-me messages are sent to the mobile phone users if desired. Thus, the SUM server forward e-mails to an SMS-Gateway, which are then forwarded to the mobile phone. The SMS contains the same information about the message originator as the message in the e-mail client. This allows the mobile phone user with one "click" to callback either the originator of the message or to call the voice mail system to check the message.

Free text messages composed by BusinessPhone users via UM plug-in, BackStage or simply a Dialog 3000 or Dialog 4000 system telephone, can be read immediately in the mobile phone's SMS.

If the customer chooses to use our license free SMTP/POP3 server that is already integrated in the SUM server, still one and the same e-mail client can be used for both, e-mails and voice mails, although the mails are retrieved from dif-

ferent servers. Our SMTP/POP3 server must not be used as e-mail server for corporate e-mail communication and is solely intended to forward the voice messages.

SUMS will serve up to 200 BusinessPhone users with 200 PCs and e-mail clients (more technical information and system capacity can be found in the chapter Technical data).

The UM Plug-in for Microsoft® Outlook™ and Lotus Notes®

With your Outlook™ or Lotus Notes® plug-in you will get full message synchronization between your Outlook-inbox or Lotus Notes®-inbox and the VMU. It will make handling of messages easy and comfortable with a client you are already used to.

If the Notebook is disconnected from the corporate network, e.g. during a trip and later reconnected – all changes of the voice messages will be updated immediately.

Higher comfort is given through name and number identity and callback possibility.

New messages are indicated in Microsoft® Outlook™ as usual in bold with a red phone icon and can be distinguished from heard messages that are indicated with a yellow phone icon in non-bold type, respectively green when stored via the phone. In Lotus Notes®, new messages are indicated as usual with red lines while read or heard ones are indicated with black lines. A phone icon appears only in case of a voice message, which is permanently yellow.

Additionally to playback via PC loud-speaker and media player the plug-in can also control your phone to playback the message. The plug-in can also be used to send other BusinessPhone

users a callback request or a short text message to their telephones.

Group members using a common voice mailbox in BusinessPhone will be notified simultaneously when a new message arrives. Once a member listens to the new message, it's status in all e-mail clients of the group will be updated.

Benefits:

The possibility to combine the VMU with the SUM server offers today's BusinessPhone customer a cost effective migration path to Unified Messaging. No new telephone user interfaces (TUI) and no loss of messages when upgrading to the SUM server. One common interface (e.g. Microsoft® Outlook™) for all messages whether they are e-mail or voicemail will relieve the user from additional training.

Important messages can be stored forever in the folder of your preference, making BusinessPhone conversation recording feature even more powerful. Contact Centers can now record calls then make use of these for training purposes.

When working offline no matter where you are, having all voice messages (voicemail, dictaphone and conversation recordings) stored in Microsoft® Outlook™ or Lotus Notes®, will help in preparing answers to questions when away from the office or going into an important meeting. And even more a follow-up flag can be set for particular voice messages to remind you.

Messages can be forwarded to groups, e.g. common mailbox users, or to external persons to broadcast important messages.

Already the combination of BackStage and the Voice Messaging Unit (VMU)

leads to high comfort, when it comes to getting an overview of all your messages and accessing messages or recording personal greetings. Using BackStage call profiles includes voice messaging to your availability preferences in a professional way. Get the benefit of name identification from Microsoft® Outlook™ contacts or any other database. However in combination with the Unified Messaging solution there is even more business value like:

- Callback to voice message originator in Microsoft® Outlook™ will offer business callback support (e.g. transfer, conference calls etc.) via BackStage
- A unified view of missed calls, left voice messages or also instant text messages
- And the combination of BackStage on a PDA, Mobile Extension and BusinessPhone messaging capabilities will let you control your messages anywhere with the highest comfort.

While sitting in an Internet Café – 10.000 miles away from the office, user can still playback messages left in their BusinessPhone Voice Mailbox through listening to the wavefile.

Messaging Features at a glance (MFU and VMU-HD)

- Absence information
- ACD announcements (queue info)
- Agent greetings
- Audiotex (Voice information)
- Automated Attendant (AA)
- Conversation Recording
- Dictaphone Function
- Direct Inward System Access (DISA)
- Guest mailboxes (choice of 3 languages)
- Integrated Music on Hold (MoH)
- Text before Answer (TbA)
- Text messaging
- Voice Mail
 - Call-back messages to internal extension
 - Common mailboxes
 - Date/Time stamp
 - Forward a message
 - Full external voice mail access
 - Message counter
 - Message waiting indication
 - Messages (new, heard, stored)
 - Outcall Notification
 - Password change
 - Send a message
 - Softkey support on digital system phones
 - Three personal greetings
 - Wake-up calls

Unified Messaging Features at a glance

- Full integration into VMU and Microsoft® Outlook™ or Lotus Notes®
- Full backwards compatibility to existing VMU installations
- Any e-mail client can be used
- Any e-mail server can be used
- Own SMTP/POP3 server integrated in SUMS software (selectable)
- UM supports all VMU individual mailboxes
- UM supports all common mailboxes
- Full integration into Microsoft® Outlook™ or Lotus Notes® via plug-in
- SMS notification of new messages
- Playback of voice messages via PC
- Playback of voice messages via Phone
- Fast forward and rewind through PC Media Player
- Send text messages to other VMU users
- Send call-back messages to other VMU users
- Call internal or external message originator
- Forward messages to any e-mail address
- Instant mailbox synchronisation between VMU and Microsoft® Outlook™ client or Lotus Notes® client (with plug-in only)
- Storage of conversation recordings and "Dictaphone messages" on PC

Technical data

Common features (MFU and VMU-HD)

- up to 300 mailboxes
- up to 1,000 messages (including voice, text and call-me messages)
- 16 common mailboxes
- up to 32 selection prompts and 10 error prompts for automated attendant
- up to 32 voice announcements (generally available)
- one TUI-language for the whole voice system (choice of several languages)
- three TUI-languages for the guest-mailboxes

MFU hardware specific

- four simultaneous voice channels with four DTMF register channels
- compact flash card recording capacity:
 - 32MB provides 2h 13mins at 32kbit/s (1h 7mins at 64kbit/s)
 - 64MB provides 4h 27mins at 32kbit/s (2h 13mins at 64kbit/s)

VMU-HD hardware specific

- 16 simultaneous voice channels or eight simultaneous voice channels with four DTMF register channels
- flash disk recording capacity:
 - 64MB provides 4h 27mins at 32kbit/s (2h 13mins at 64kbit/s)
 - 256MB provides 17h 48mins at 32kbit/s (8h 52mins at 64kbit/s)

UM configuration requirements

System set-up

Communication platform	BP 6.0 (minimum) MFU or VMU-HD IPU UM license
Communication Link	BusinessLink 3.0 (minimum)
System Capacity	200 UM users
Telephones	All types of CTI-controlled telephones can be used to playback messages via Microsoft® Outlook™ or Lotus Notes® Plug-in control

Server requirements (minimum UM requirements)

Processor	350 MHz
Free hard-disk space	2 GByte
Operating systems	Windows NT 4.0 Server, Windows 2000 Server, or Windows Server 2003

Client requirements

Plug-in for Microsoft® Outlook™	Microsoft® Outlook™ 2000 or XP
Plug-in for Lotus Notes®	Lotus Notes® 6.0 or 6.5
Without plug-in	Non specific – any e-mail client usable

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