



## MailBox X.400 (IPM service)

### Introduction

MailBox X.400 is an electronic message handling system based on the X.400 international standard. It offers an X.400 message store in which you can lease one or more mailboxes.

All X.400 message transfers pass through this mailbox – i.e., from the sender's mailbox to the recipient's mailbox. Open, global communication has become possible with the introduction of the X.400 international standard for electronic message handling systems. The impact of the standard means that not only is each mailbox in the MailBox X.400 system accessible from anywhere in the world, but X.400 mailbox users both inside and outside Germany can be reached too.

BusinessMail offers the products MailBox X.400 and MailGate X.400, both based on the X.400 standard.

- **MailBox X.400 (IPM service → Message Store)**  
MailBox X.400 enables communication between individual users or application processes (for example, between mailbox user A with mailbox user B, or mailbox user A with external partner C).
- **MailGate X.400 MT service → Message Transfer)**  
MailGate X.400 provides a platform for the non-application-specific exchange of messages between different public and private message handling systems or management domains. Public message handling systems and management domains are referred to as ADMDs (Administration Management Domains), while the private systems and management domains are known as PRMDs (Private Management Domains).

This product description looks in detail at MailBox X.400. A separate product description is available for MailGate X.400.

MailBox X.400 allows users to transfer text, data, graphics, audio, video, and images quickly and simply. X.400 messages can be sent, received, saved, and edited. Today, MailBox X.400 is mainly used by customers for the automated, electronic exchange of business data (EDI).

MailBox X.400 users do not communicate directly with partners, but with their mailboxes instead. This means that MailBox X.400 allows you to use its services regardless of time and place, in that you can send and receive information at any time, even after business hours. You can also access your mailbox from anywhere: your home, the office, or when traveling nationally or internationally.

MailBox X.400 supports both the standard features and additional optional features that are described in the X.400 recommendations in the versions from 1988/92. Further security features have also been implemented, such as Strong Authentication; these are described in the 1996 version.

The X.400 protocol agreements also include rules governing the exchange of messages, the creation of standardized reports, and the specification and design of the address structure (X.400 address) required for standardized addressing. This standardized addressing facilitates global message transfer between users.

## MailBox X.400 features

- Messages can be transferred at the "touch of a button".
- "Busy" responses or "recipient cannot be reached" cases no longer occur because there is no direct communication with the recipients, but with their mailboxes instead – and the mailboxes can always be reached. Different time zones are no longer a problem in international data transfers.
- Users can access the mailbox using a standard IP connection, for example secured with TLS via Internet.
- Message exchange is not limited to text only; computer programs and business documents of all kinds (graphics, order forms, audio, and video files, etc.) can also be securely transferred.
- The system's independent access mode allows communication between different kinds of applications – from a simple terminal or PC through to large data processing (host) systems. The scope of communication partners can be easily expanded as a result.
- The PC software FileWork automates the selection of the MailBox X.400 system and the exchange of messages. It is accessed using the P7 protocol.
- High level of protection against unauthorized access based on user /IDs and passwords or using secure tokens (certificates) in conjunction with the P7 protocol.
- Thanks to its gateways to other services and technologies (e.g., fax, Internet-Email, AS2, PEPPOL), MailBox X.400 users can reach other communication partners throughout the world who do not belong to an X.400-based messaging system. Filters can be set to define closed user groups when communicating with Internet-Email partners. See also the section on the WEB configuration interface for more details.
- The discontinuity of transfer media, which is a common cause of errors, is avoided by electronic data transfer over MailBox X.400. You can process received data directly and efficiently using your own data processing system.

## X.400 addresses

The address of an X.400 mailbox must be unique and generally understandable. However, you should use no more than the address components you require to make it easier for your partners to address the mailbox.

X.400 addresses comprise the following components:

<b>C</b>	Country	"DE" is internationally defined as the code for Germany
<b>A</b>	(ADMD) Administration Management Domain	This address component is "viaT" for the MailBox X.400 system
<b>P</b>	(PRMD) Private Management Domain	This address component contains the registered name for connection to the ADMD
<b>S</b>	Surname	The user's surname
<b>G</b>	Given name	The user's first name
<b>O</b>	Organization	Name of the company, if applicable
<b>OU1</b>	Organizational unit 1	Used in large companies for specification of a department or business area, for example
<b>OU2-OU4</b>	Organizational units 2-4	Used for further organizational sub-units, if necessary
<b>CN</b>	Common name	This address component may be used for addressing in place of "G" and "S"

A globally unique MailBox X.400 address could look as follows:

**C = DE; A = viat; S = Sample; G = Karl; O = Telekom**

## Accessing MailBox X.400

The MailBox X.400 Message Store is normally accessed over an existing Internet connection. Here maybe additional charges for the Internet provider apply.

The MailBox X.400 system can be always reached from anywhere in the world – 24 hours a day, 7 days a week. You can find information about maintenance windows on the Service website at:

<https://geschaeftskunden.telekom.de/startseite/cloud-it/sicherheit-effizienz/fuer-daten-mails/businessmail-x-400/serviceseite-businessmail-x-400/434818/technische-infos.html>

### Access using an existing Internet connection

A TLS (1.2/1.3)-encrypted connection is set up to the MailBox X.400 Message Store over the Internet while using a corresponding P7 client software (FileWork or Secure UAFI).

### Access using a MPLS customer network

An TLS (1.2/1.3)-encrypted connection is set up to the Message Store via MPLS customer network (VRF) and the Multiplex solution (DRC) of MailBox X.400 system while using a corresponding P7 client software (FileWork or Secure UAFI). It is also possible to use an unsecured connection but with 3<sup>rd</sup> party products only.

### File Interface for host computers

Host computers that cannot use the P7 protocol for communication have the option of using a file interface to send or receive data/X.400 messages. Two options are offered for this. The older interface, the Batch User Agent (BUA), uses a normal mailbox. The BUA logs into this mailbox on an order-driven basis to send or collect messages. The more recent interface, MessageGate File Interface, delivers messages directly to the file interface without this having to be requested. The BUA File Interface is accessed via TCP-IP and the FTP protocol. With MessageGate File Interface, access is available via https/WebDAV or https/Web Service or SFTP. You can find details about MessageGate in the relevant information sheet or user manual.

## MailBox X.400 Message Store access types

Access	Notes	Access telephone numbers
Internet (P7)	<p><b>Encrypted connections (TLS 1.2/1.3 with 128 bit or 256 bit AES)</b></p> <p>IP address: securep7.telebox400.de Port: 5432</p>	Existing Internet connection
MPLS (P7)	<p><b>Access via MPLS/DCM (MPLS Multiplex solution), Encrypted connection (TLS 1.2/1.3 with 128 Bit or 256 Bit AES) recommended:</b></p> <p>IP-Address: 164.31.4.139 (not encrypted), Port 102 IP-Address: 164.31.4.172/173 (encrypted), Port 5432</p>	VRF ID of MPLS customer network

The access types indicated by (P7) can be used with FileWork, the UA-FI communication module, or the ElreTrans software. The UA-FI communication module (still 32 bit architecture) is available for Microsoft Windows (32 and 64 Bit) and Linux operating systems; FileWork is only available for Microsoft Windows (32 and 64 Bit). ElreTrans is no longer marketed for Windows, we recommend using FileWork in conjunction with Script Interface.

## Structure of an X.400 message

All messages contain a message header and a message text.

### Message header

The message header contains the items "Address" and "Subject":

- Address  
Every destination address will be identified by standardized address components. Recipients' addresses are written as destination addresses in the message header. For each message, a maximum of 1,500 recipients can be specified (mailbox default setting).
- Subject  
The subject component will give a brief description of the message contents. The maximum length is 128 characters.

### Message content

The actual payload is the message content. Message text refers to the two types: "text" and "attachment."

- Text  
The text of a message can be written, saved, edited any number of times, and sent using the text editor included with the communication software; no additional text processing application is required. The default character sets will be IA5 or ISO-Latin-1 (ISO 8859-1).
- Attachment  
You can use FileWork and UA-FI for theoretically unlimited numbers of attachments (or other programs of 3<sup>rd</sup> party supplier with a corresponding attachment handling capacity); we tested up to 100 attachments per message. The processing of messages with even more attachments depends on various factors (performance of the client computer, timer setting, size of the attachments, etc.).  
Attachments can contain any kind of coded data (e.g., graphics, programs, Excel, or Word documents).  
Transmitted or read messages can also be attached to other messages for sending.  
The overall size of a message that is transferred using the MailBox X.400 service must not exceed 100 MB (mailbox default setting). With X.400 messages to external partners (using the MailGate X.400 service), the limit is significantly lower. Please agree on the value with your partners or contact the BusinessMail X.400 help desk.

FileWork and UA-FI also support the signing and encrypting of message contents.

## Status of a message in the message store

The system distinguishes between different message statuses indicating the current processing situation as follows:

- Unread  
The message has been received but not yet read.
- Listed  
The message has been changed from the status "unread" to "listed" after listing of the mailbox contents.
- Read  
The message has been opened and read.
- Sent  
The message has already been sent.

## Reports

The X.400 standard provides two types of reports.

- The delivery notification or its negative counterpart (non-delivery notification) is created by the X.400 MTA as soon as the message has been stored in the recipient's mailbox, or if it cannot be delivered. The MTA must always send a report if this was requested. This report is free of charge.
- The receipt notification and its negative counterpart (non-receipt notification) is created by the client. The client can send this report, but it does not have to. Please agree this with your partner, since costs are involved when sending this report.

## MessageGate File Interface

In contrast to the other access variants, the MessageGate process does not use the message store to temporarily store X.400 messages; instead, it delivers them directly to the file interface. It uses a MIME-compatible data structure within the message files it will deliver, or he request to send a X.400 message. EDIFACT interchanges can directly be transferred or delivered using the central EDI function. The necessary partnerships must be stored in the database using WebConfig (web-based configuration tool, see next page). You may use SFTP or https/WebDAV for the access to the MessageGate File Interface or a https/webservice (at the moment with 3 profiles). You can find more details in the functional description and the manual for MessageGate.

## AS2 Gateway

If you already have an AS2 solution and you still want to communicate with X.400 partners, you can use the AS2 gateway from MailBox X.400. This enables your X.400 partners to be configured in your solution just like normal AS2 partners, whereas your X.400 partners contact an X.400 address as usual. The access enables mapping between X.400 reports (DN, NDN, RN, and NRN) in the AS2-specified report (Message Disposition Notification, MDN) and vice versa. Similarly, to MessageGate, the central EDI function is integrated into the AS2 gateway (can be enabled on request), which could reduce the number of AS2 partners to be configured in your AS2 solution to one entry if you address all X.400 partners using the central EDI function (license costs!). You can find more details in the functional description for AS2 gateway and the MessageGate manual.

## Other gateway solutions

The following gateways to additional services are provided to expand the circle of potential recipients from MailBox X.400 and X.400 users to include other users:

- MailBox X.400 to fax (sending only, restricted conversion options, supports PDF documents)
- MailBox X.400 from/to Internet-Email (implementation of messages only, not reports).
- MailBox X.400 to OpenPEPPOL (Pan-European Public Procurement OnLine), message transfer PEPPOL to MailBox X.400 should be available in 2023. PEPPOL status information will be send via X.400 message.

The gateway solutions are explained in detail in separate documents.

## WEB configuration interface (WebConfig)

After you have installed a client certificate, which is available at <https://www.service-viat.de/>, you can access the web configuration interface (WebConfig). The first time you use it, you can either use the access data (username and password) for your mailbox, or you can have the BusinessMail X.400 helpdesk set up your access with the access data you require.

Once you have successfully logged in, you receive up-to-date information about WebConfig, and you can query the status of the mailbox (last login and logout, number of saved messages). Here you

can also change your X.400 mailbox password and determine the number of incorrect login attempts until your X.400 mailbox is locked.

In the relevant menu item, you can approve the receipt of e-mails from the Internet, or prevent this, or use filter settings to restrict this (using all or only part of the address).

If you use special functions (EDIBOX, MessageGate, AS2), you can configure the relevant partnerships or settings.

As a group administrator, you can also manage the X.400 mailboxes (user IDs) that are assigned to you (e.g., change part of the X.400 mailbox addresses).

## **User-friendly addressing system**

The MailBox X.400 addressing system allows you to send messages to different recipients at the same time. Using service gateways (e.g., fax), messages can be sent simultaneously by mixed addressing to box owners and non-MailBox X.400 recipients.

In addition to the name, the address may also include organizational details regarding the company. Added to this, each user also has a unique MailBox X.400 ID – the UNIQUE-UA ID, (a 7-digit numeric code) which can also be used as a unique addressing option.

An X.400 address should only have as many attributes as are needed for clear identification. Several attributes are prescribed (e.g., country, ADMD, PRMD (if applicable), while others are optional.

## **Availability**

The georedundant configuration of the central system ensures a very low risk of downtime in the event of faults occurring. The operability of all systems involved in public message transfer is maintained throughout.

## **Data protection**

The organizational regulations for operating the MailBox X.400 system comply with the stipulations laid down in data protection law.

Transfer of personal messages and business data demands a high level of security, a demand that is fully met by the X.400 standard and the MailBox X.400 system concept.

Access to owners' mailboxes in the MailBox X.400 system is protected by a password. A password is always needed for access and is defined when configuring a box in the MailBox X.400 system. Box owners can change their password at any time, and they should reset their password the first time they use it. If the combination of X.400 address and password (for the P7 protocol) is entered incorrectly several times (the default number of times is 3), the mailbox will be locked because of security reasons.





You can enable access again in WebConfig and change the maximum value for unsuccessful attempts. For access using the P7 protocol, you can also activate "Strong Authentication", whereby the client logs in to the host using a secure token (a time stamp signed with a certificate). This removes the issue of the mailbox being locked because of unsuccessful login attempts.

## Service

Do you need any further information, assistance with configuration, or troubleshooting?

Please contact our BusinessMail X.400 hotline:

Phone: +4962154547900

Email: [helpdesk.businessMailX400@telekom.de](mailto:helpdesk.businessMailX400@telekom.de)

Internet: <https://geschaeftskunden.telekom.de> (search term: X.400)