e-AS2 Mixer Edition

User manual of version 8.1

Esker EDI Services

e-AS2 Mixer Edition

Document history

| Vers.	Date	Auth.	Comment
1.0	26.09.2018	JK	German Version of manual.
2.0	01.02.2021	JK	English translation of manual.

Table of Contents

1 Introduction

What is e-AS2 Mixer Edition?

e-AS2 Mixer Edition is a special variant of e-AS2, that can be used to send and receive X.400 messages.[1] For this purpose, e-AS2 is connected to the product Isode M-Switch MIXER.[2] SMTP[3] is used as the connection protocol between e-AS2 and M-Switch MIXER. MIXER converts between SMTP and the X.400 protocol P1, with a corresponding conversion of the addresses.

From the point of view of e-AS2 it is therefore a matter of sending and receiving e-mails via SMTP, whereby the e-mail addresses used have a specific structure. Without the additional use of M-Switch MIXER, no message exchange via X.400 is possible. The following figure illustrates the underlying architecture.
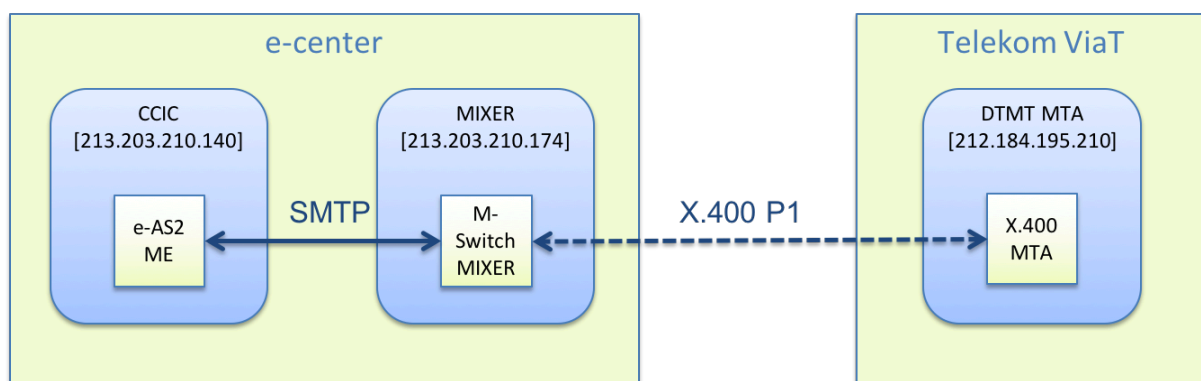
Figure 1.1. Application architecture

We assume at this point that the contents of the user manual for e-AS2 Enterprise are known. Most of the information about the architecture and operation of e-AS2 Enterprise is valid unchanged for e-AS2 Mixer Edition as well. In particular, this applies to chapter 3 and chapters 8 to 10.

Chapter 2 (*Configuring e-AS2 ME*) describes how to install and configure e-AS2 Mixer Edition for operation with M-Switch MIXER.

Chapter 3 (*Configuring M-Switch MIXER*) describes how to configure Isode M-Switch MIXER for operation with e-AS2 Mixer Edition.

In the further course of the manual we will mostly refer to e-AS2 Mixer Edition only briefly as e-AS2 ME.

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[1] s. https://de.wikipedia.org/wiki/X.400
[2] s. https://www.isode.com/products/m-switch-mixer.html
[3] s. https://de.wikipedia.org/wiki/Simple_Mail_Transfer_Protocol

2 Configuring e-AS2 ME

Installation, basic configuration and partner management in e-AS2 ME

2.1 Installation

To install e-AS2 Mixer Edition, start the software installation as described in the setup manual. Select "e-AS2 Mixer Edition" as license type.
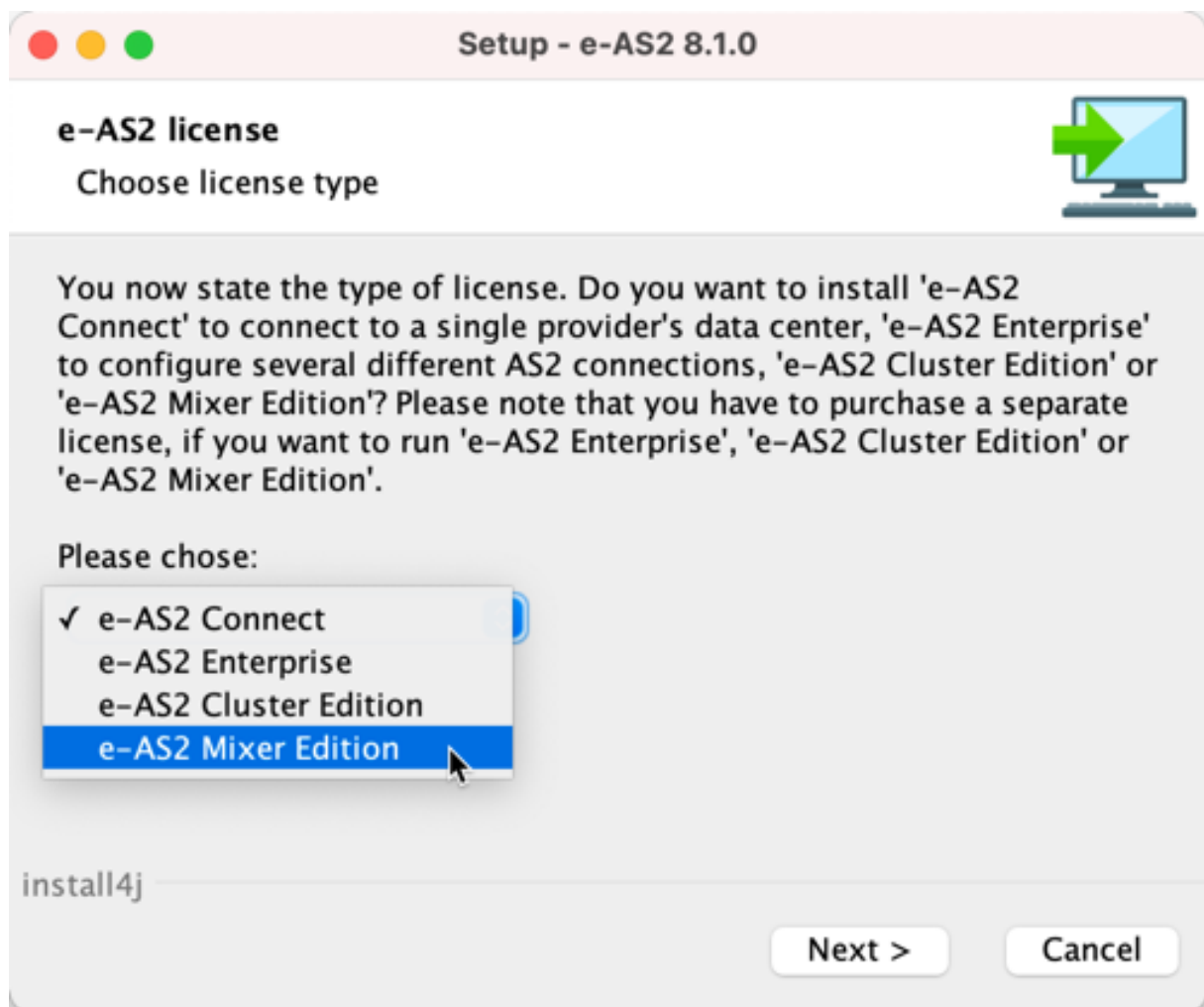

Figure 2.1. Installing e-AS2 ME

In the course of the installation you will then be asked for some configuration parameters specific to e-AS2 ME.
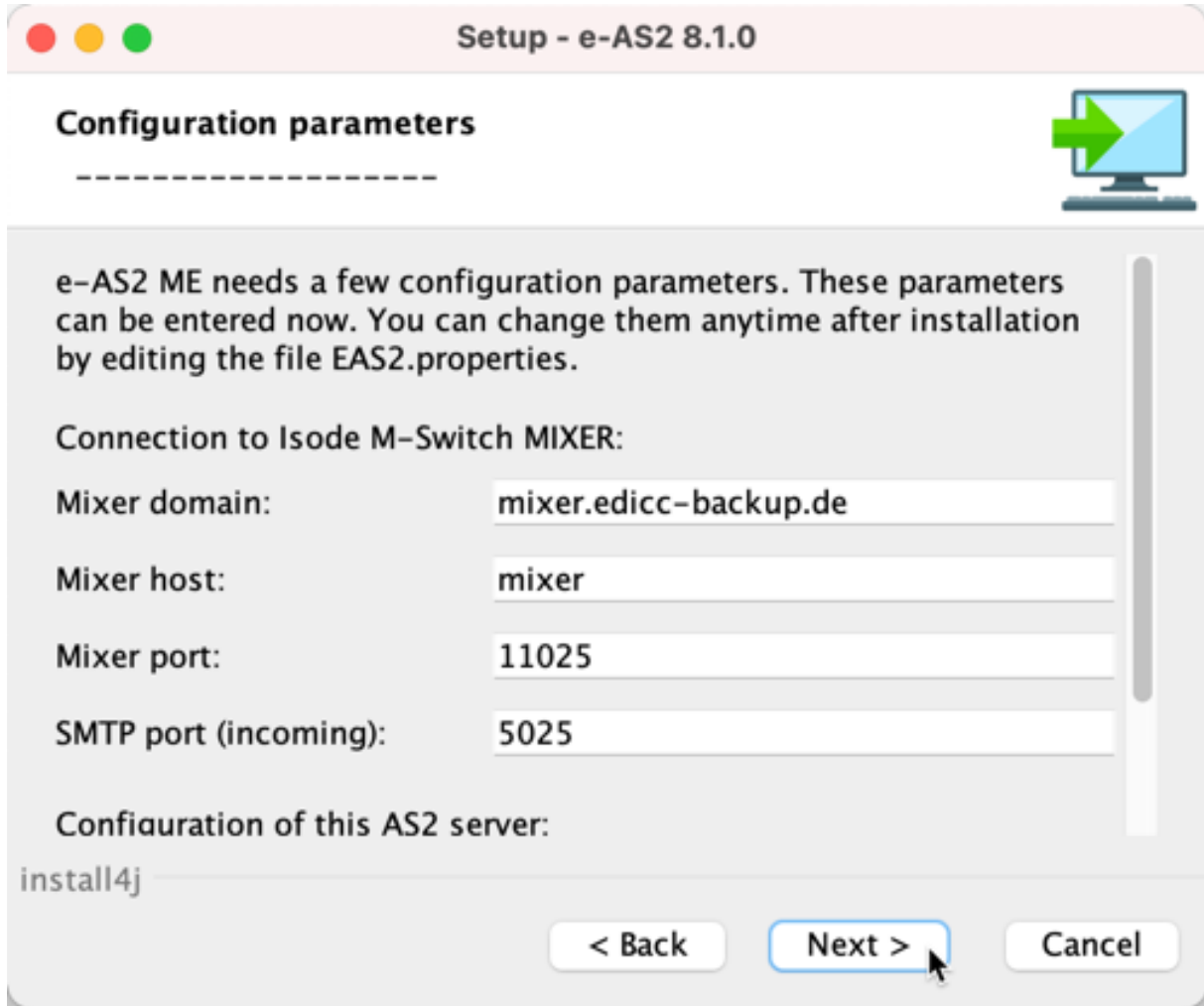

Figure 2.2. Enter parameters specific to ME

The various parameters that are queried in this dialog are discussed in detail in Section 2.2 (*Base configuration*).

Start the software after copying your license file to the installation directory. You will get the following messages in the log file confirming that e-AS2 is now working in X.400 mode.

```
jvm 1    | e-integration AS2 Server startet ...
10:56:18,054  INFO [main] [-] - starting eas2s, version 8.1.0, revision f16...
10:56:18,242  INFO [main] [-] - license file has been read:
10:56:18,242  INFO [main] [-] -    IP   : *.*.*.*
10:56:18,242  INFO [main] [-] -    PORT : 0
10:56:18,242  INFO [main] [-] -    HTTP : 0
10:56:18,243  INFO [main] [-] -    SMTP : 1
10:56:18,243  INFO [main] [-] -    LIC  : ME
10:56:18,243  INFO [main] [-] -    COM  : e-integration license (Mixer Edition)
10:56:18,243  INFO [main] [-] -    LIMIT: 99999999
10:56:18,244  INFO [main] [-] -    PAR  : 0
10:56:18,244  INFO [main] [-] -     license is OK
10:56:18,409  INFO [main] [-] - e-AS2 Mixer Edition: switching to X.400 mode
```

2.2   Base configuration

For the operation of e-AS2 ME only a handful of configuration parameters is required, which are explained below. All parameters are already requested during the installation of the software, but can also be changed directly in the file EAS2.properties at a later time.

Since with the configuration of the two products a mutual connection between e-AS2 ME and M-Switch MIXER is established, there is to each configuration on e-AS2 side a counterpart on MIXER side. Details on the corresponding configuration steps in M-Switch MIXER can be found in Chapter 3 (*Configuring M-Switch MIXER*).

2.2.1   Mixer domain

When configuring M-Switch MIXER, an e-mail domain is specified for which MIXER should feel responsible.

This mail domain must be known in e-AS2 ME. During the installation it is entered in the "Mixer domain" field. If the configuration is to be changed at a later time, this is done by editing `EAS2.properties`:

```
me.domain = mixer.edicc-backup.de
```

2.2.2   Mixer host

The DNS name or IP address of the host on which M-Switch MIXER is running is entered here. This specification is only relevant for outgoing messages.

```
me.mail.host = mixer
```

The DNS name of the mixer host will normally be identical to the mixer domain. However, this is not necessarily the case. It may be that the mixer domain is different from the domain of the host running the mixer software.

2.2.3   Mixer port

Here the port is entered under which M-Switch MIXER can be reached on the configured mixer host. This entry is only relevant for outgoing messages.

```
me.mail.port = 11025
```

2.2.4   SMTP port (incoming)

For the data input e-AS2 ME must open a port for SMTP connections. This must then be configured in M-Switch MIXER so that incoming messages can be forwarded to e-AS2 ME.

```
connection.smtp.port = 5025
```

2.3   Partner management

The identification of partner profiles in e-AS2 ME is based on e-mail addresses, which can be mapped to X.400 addresses in a certain way. Details can be found in Section 3.3 (*Address conversion*).

However, in partner management via the e-AS2 GUI, these implementation details are hidden. The configuration dialogs for partner profiles have been reworked compared to the standard version of e-AS2 so that the user works with real X.400 addresses throughout.

The software allows for entering any number of partner profiles, each containing two X.400 addresses (the own and the other party's).
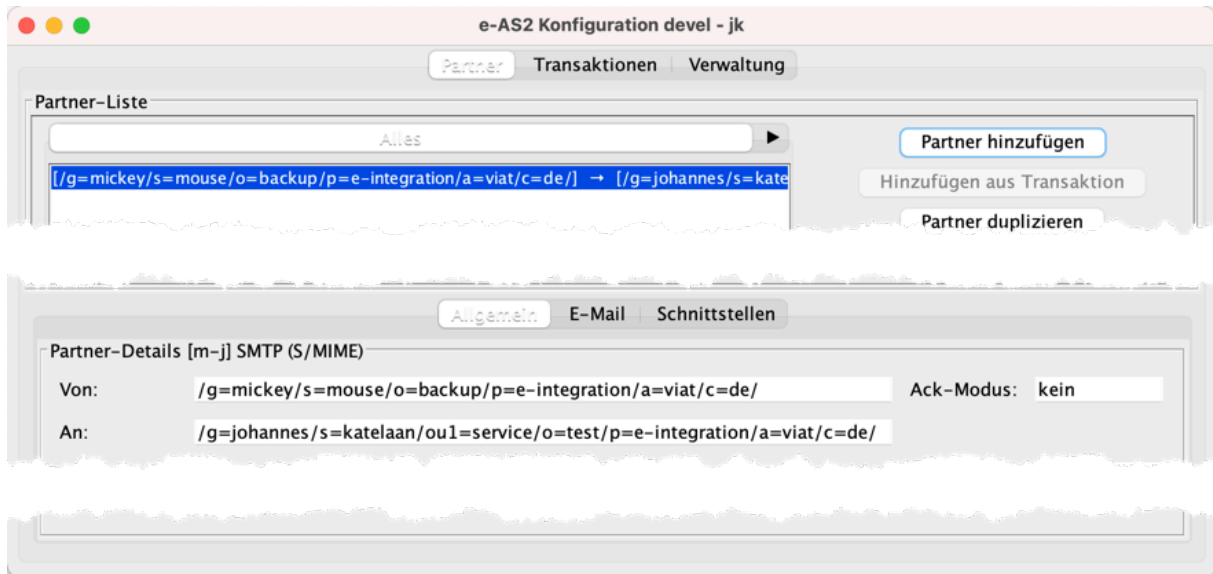
Figure 2.3. Partner configuration

In change mode, clicking on the corresponding address field opens a dialog in which the various components of the X.400 address can be entered individually.
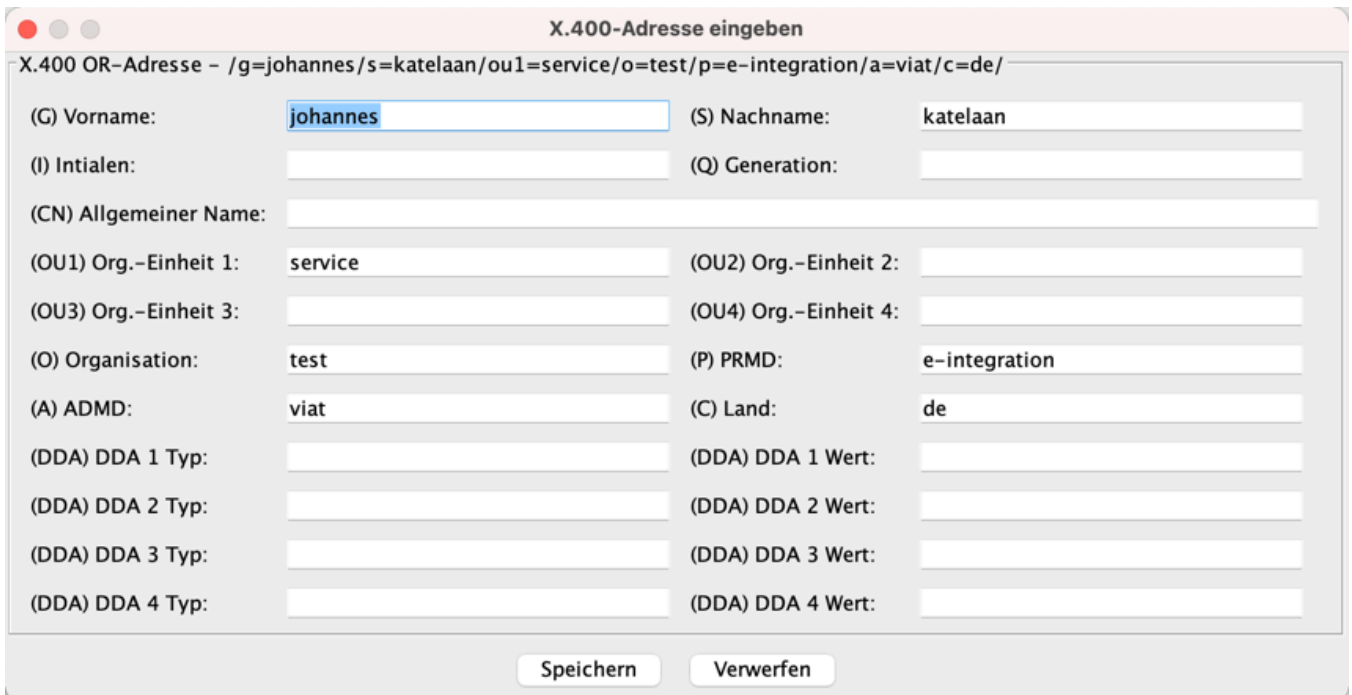

Figure 2.4. Partner configuration - address details

Addresses are normalized to a lowercase-only notation when saved.

3 Configuring M-Switch MIXER

Configuration of M-Switch MIXER for operation with e-AS2 Mixer Edition

In this chapter the essential configuration elements are explained, which are necessary to couple M-Switch MIXER with e-AS2 ME. The focus here is on configuration of the SMTP connection between the products. It is not the goal here to cover the complete MIXER configuration.

3.1 SMTP configuration for coupling with e-AS2 ME

3.1.1 Default domain

The default domain is of central importance for the integration with e-AS2 ME. It is defined during the initial setup of a new M-Switch MIXER instance. In the configuration, it is subsequently visible both as a node name in the configuration tree and as a value in the associated parameter form.
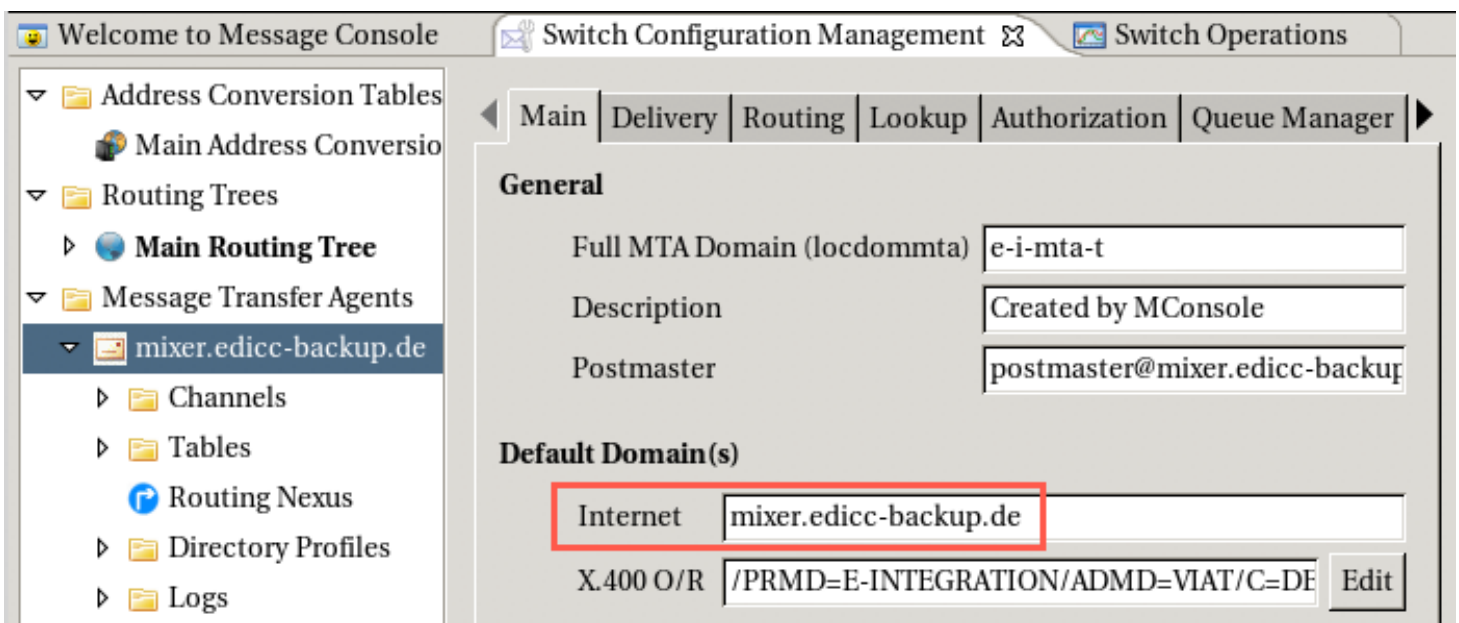

Figure 3.1. Default domain in M-Switch MIXER

3.1.2 Parameters for incoming SMTP connections

The configuration for incoming SMTP connections depends on the "smtp-external" channel of the default MTA, to be found there in the "Program/In" tab. There the own IP address and the port are specified, on which incoming connections are expected.
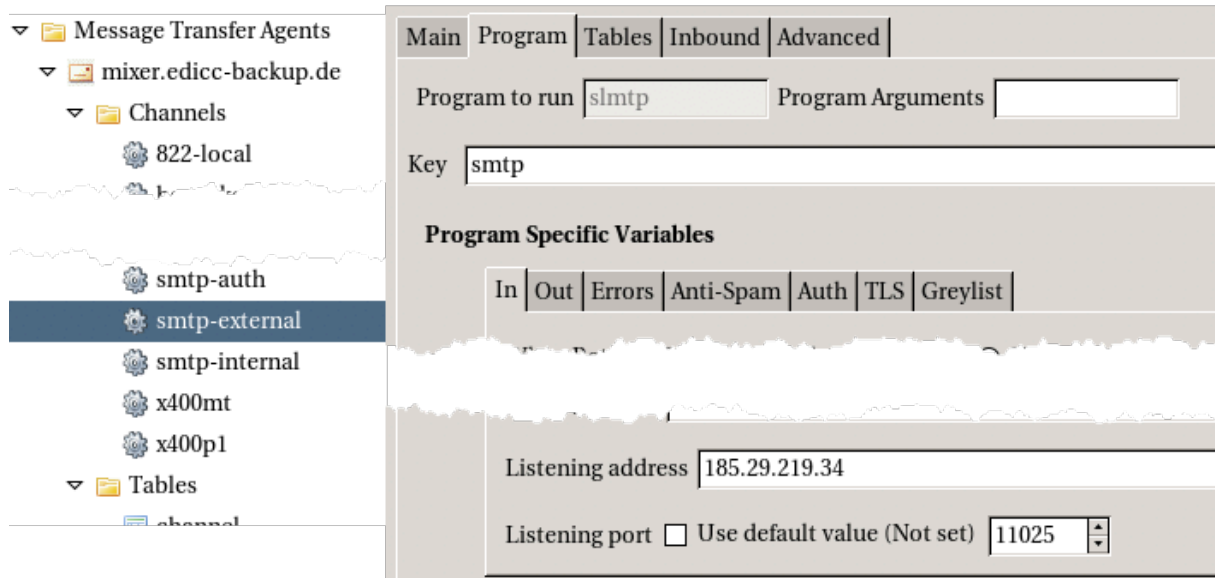
Figure 3.2. Configuration STMP incoming

3.1.3 Parameters for outgoing SMTP connections

The e-AS2 instance to which M-Switch MIXER connects is configured as an external MTA for Internet connections. Such an MTA has an stmp channel, where the host name for that MTA is stored.
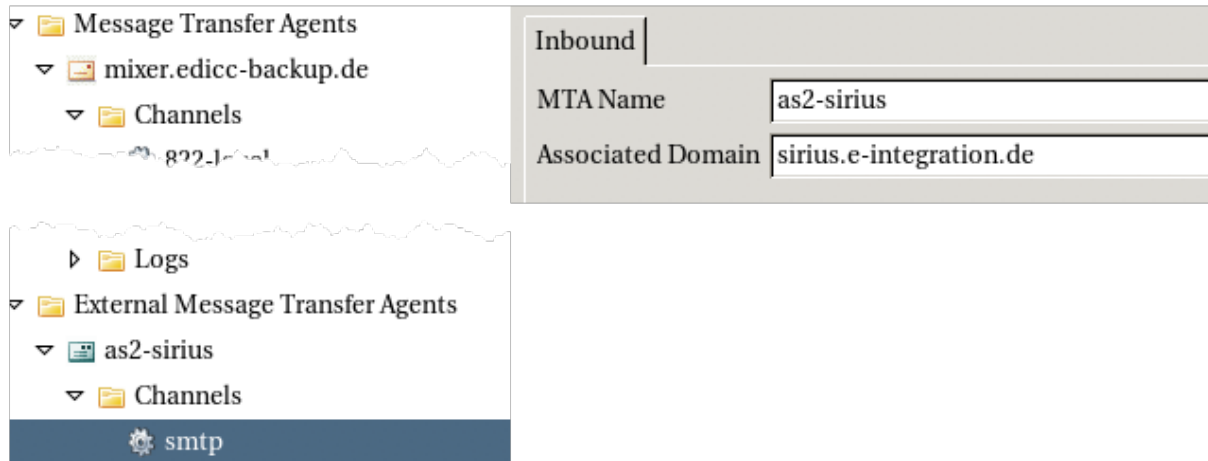

Figure 3.3. Host configuration SMTP outgoing

Note! The title of the tab for this host configuration is confusingly "Inbound". The DNS name, however, is used to establish outbound connections from the point of view of M-Switch MIXER. However, from the point of view of the overall system, this is used to pass on Inbound messages, which were received by X.400, to the internal e-AS2 instance. In this respect, the title of the index card then again has its justification.

The configuration of the port for outgoing SMTP connections again depends on the channel "smtp-external" of the default MTA, there to be found in tab "Program/Out".
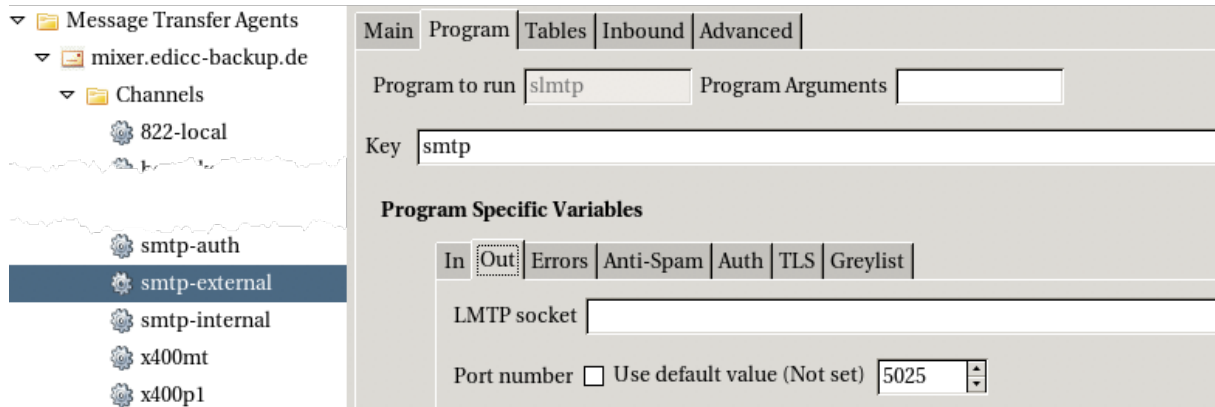
Figure 3.4. Port configuration SMTP outgoing

3.2 Routing configuration

The configuration for routing is quite simple in operation with e-AS2 ME. For outgoing messages (from e-AS2) that are to be sent to X.400 receivers, a route to the Telekom MTA (or another ADMD) must be set. Incoming messages from the X.400 world, on the other hand, must all be routed to e-AS2. With suitably configured routing rules, M-Switch MIXER automatically takes care of the necessary protocol and address conversion.

3.2.1 Routing outgoing messages

For outgoing messages, the neighboring MTA of the provider, e.g. Telekom ADMD, is entered in the root node of the main routing tree. All outgoing messages are forwarded to this MTA.
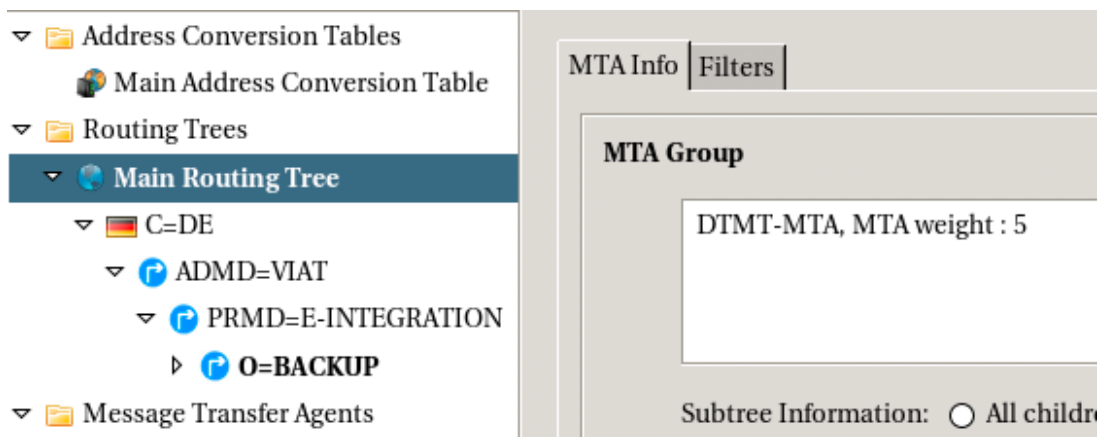

Figure 3.5. Routing configuration outgoing

3.2.2 Routing incoming messages

For incoming messages, the neighboring e-AS2 instance is entered at the node in the main routing tree that belongs to its own X.400 address. All incoming messages are – using the SMTP protocol – forwarded to e-AS2.
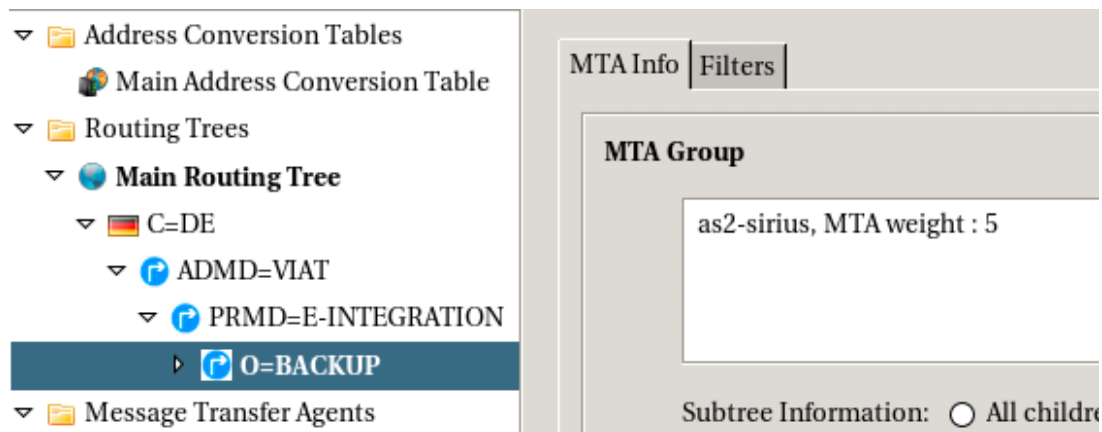

Figure 3.6. Routing configuration incoming

3.3   Address conversion

The use of M-Switch MIXER as a link between e-AS2 ME and the MTA of the ADMD provider is based on the fact that systematic conversion is performed between the X.400 P1 and SMTP protocols. The actual protocol conversion takes place automatically and does not require any further parameterization. However, the protocol change also involves the use of protocol-specific addressing of the parties involved. This differs fundamentally between X.400 and SMTP.

According to the documentation, three types of address conversion are available in M-Switch MIXER:

- algorithmic mappings
- per-user mappings
- encapsulation

When using e-AS2 ME the third variant (encapsulation) is applied. This variant has the advantage that no special configuration is required for its use, since it is the default procedure. The conversion between the addresses is done in a generic and very easy to understand way.

We will explain the address conversion using an example. The X.400 address

```
/g=mickey/s=mouse/o=backup/p=e-integration/a=viat/c=de/
```

is converted to the SMTP e-mail address

```
/g=mickey/s=mouse/o=backup/p=e-integration/a=viat/c=de/
@mixer.edicc-backup.de
```

and vice versa. Here `mixer.edicc-backup.com` is the own domain of the M-Switch MIXER instance as configured in the M-Switch MIXER settings.

So the address conversion is limited to simply appending or removing the mail domain, depending on the conversion direction. e-AS2 ME is set up for this form of addressing and does not support other types of address mapping.