



INSTALLATION MANUAL

Flexi installation for MX-one and Aastra CMG

[Summary](#)

This manual describes settings for Flexi CTStack, MX-one and Aastra CMG

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System Requirements

Hardware Requirements

The telecommunication interface between the Flexi system and the Aastra MX-One PBX is SIP (Session Initiation Protocol)

To get full functionality of your Flexi system requires that there are a number of free SIP-extensions in your PBX and free SIP licenses (resources). How many extensions and SIP licenses required depends on the size of the system (how many users etc.).

Software Requirements

To connect your Flexi system to the Aastra MX-One PBX requires at least version 5 SP3 of the MX-One Telephony Server.

CTI communication between the Flexi system and the Aastra system is via the Application Link and the GICI interface which means that both systems have to be on the same network.

When Flexi ContactCenter is installed, callback-strategy MUST be Callconfirm for user that uses MEX extension. Otherwise function will not work properly.

License Requirements

FAL 104 6789 MX TS User, SW key 1 User, 1 user per voice channel

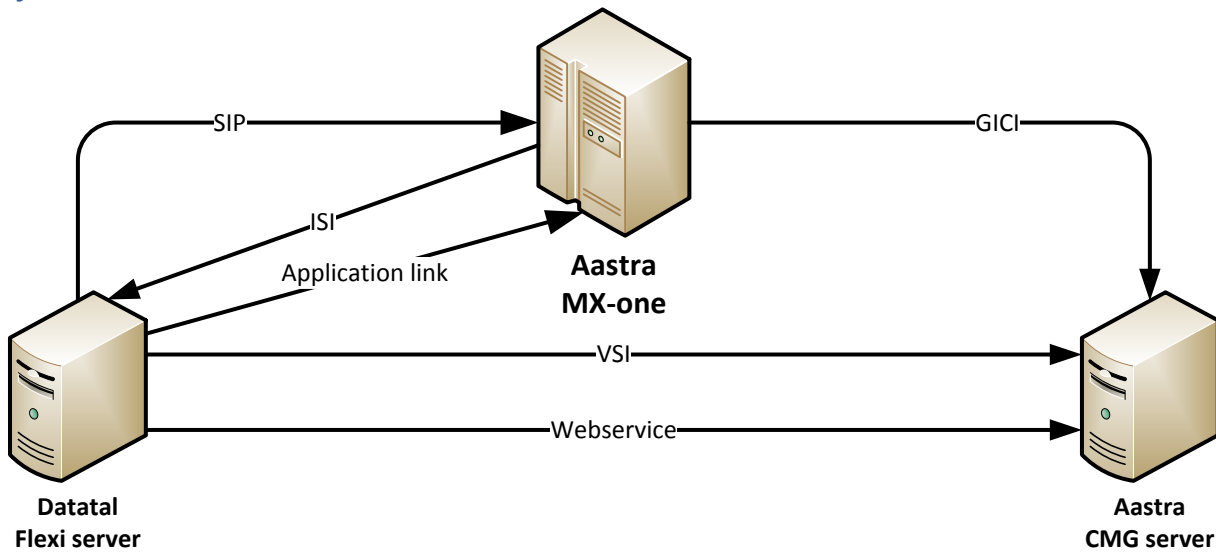
FAF 901 519/A3 MX TS Telephony User, SW Assurance 3 years

FAL 104 9054/10 ApplicationLink 7.0 SW key, 10 Users (10 pack) one user per Presentity user

FAL 104 9054/100 ApplicationLink 7.0 SW key, 100 Users (100 pack) one user per Presentity user

CSTA 3 license, one user per Presentity user/FlexiTID agent/Contact Center agent

System overview



SIP: Communication for VoIP, check chapter 2.1.1 and 3 for more information

ISI: Message waiting indication port, need to be configuring for MWI, check chapter 6 for more info

Application Link: Uses for makecall command and monitor device status in MX-one, check chapter 4 for more info

VSI: Communication regarding users activity state, if a user's activity is update Flexi will be notify via VSI and synchronize user via webservice

Web service: Synchronize user all activities, also add/remove user activities

Configuration

CSTA 3 settings in PBX

Flexi release 5.9 have support for CSTA3 over web service, in that meaning application link setup isn't necessary. How to setup CSTA3 and webservice in PBX, please check 14_1531-ANF90114.pdf and 137_19082-ANF90114.pdf in MX-one documentation CPI.

The screenshot displays the MX-ONE Manager web interface for configuring a CSTA Server. The browser address bar shows the URL `192.168.50.233/wbm/cstaserver.do`. The page title is "MX-ONE™ Manager Telephony System" with the Aastra logo. The user is logged in as "mpadmin". The navigation menu includes "Initial Setup", "Number Analysis", "Telephony", "Services" (selected), "System", "Tools", and "Logs". The sub-menu includes "Connections", "Messages", "Voice Announcements", "Branch Office", "Routing Server", and "CSTA Server" (selected).

The main content area is titled "CSTA Server - Change - 1" and includes a "Help" link. It features a "Monitored Devices" sidebar and "Apply" and "Cancel" buttons at the top and bottom. The configuration fields are as follows:

- Server Number:** 1 (dropdown menu)
- Protocol:**
 - ASN1
 - XML
- Port:** 8882 (text input)
- Call Deflect Options:**
 - Heartbeat Option:**
 - No Heartbeat
 - Heartbeat support by external application
 - By-pass Option:**
 - No by-pass
 - By-pass of personal number
 - Diversion Option:**
 - No diversion
 - Allow diversion after deflection
 - Dialed Number Presentation Option:**
 - Do not replace dialed number
 - Replace dialed number with deflect-to number
 - Connection View Option:**
 - Local view
 - Fixed view
 - Encryption keys:**
 - Do not send Encryption keys
 - Send Encryption keys

CSTA 3 settings in Flexi

As MX-one documentation describe, each lim in the pbx solution need to have there on CSTA3 server configure, Flexi has to connect to them individual and open monitors in correct lim. There for is necessary to create nodes and mappings to those nodes. First create node and then an extension mapping range. Described below:

Nodes

After installation is preformed of Flexi, log in to Flexi Admital as sysop user, go down to system->admin->nodes, add node

Name: <name of PBX-lim>

IP address: <IP-address to lim>

PBX type: MXONE CSTA3

Activate: Yes

Username: <a user account that is valid in PBX, check MX-one documentation>

Password: <password associated with username>

Click save...

Mappings

Goto System->Admin->Monitors

Add new mapping

From mapping: <enter starting extension in mapping range>

To mapping: <last stopping extension in mapping range>

Activate: Yes

Nod: <Choose the correct node for this extension mapping>

www.datatal.se Innehåll / System / Admin / Monitorering

Monitorering

Från anknytning: 8300

Till anknytning: 8399

Aktivera: Ja

Nod: MXone labb

Spara Avbryt Radera Verkställ

Innehåll

Meddelanden

Användare

Call Center

Fax

Företag

Hänvisning

Kö/koppla

Ljud

Meny

Röstbrevlåda

Schema

Startpunkt

Statistik

Sök

Tidbokning

System

Admin

Monitorering

Noder

Belastning

Troubleshoot

\Flexi\Log\DtCSTA3

Check Error.log for errors

Check Warnigs.log for warnings

Check CSTA3WebService.log for see complete CSTA 3 web service communication

PBX

Configure IP-extensions for the Flexi system

Configure numberplan

Example:

```
number_initiate -numbertype EX -number XXXX
```

Configure common service profile for generic extensions

Example:

```
extension_profile -i --csp 0 --ext-traf 0100151515 --ext-serv 30000301000030000000 --ext-cdiv
11122200111131 --ext-roc 003001 --ext-npres 1001001 --csp-name "CSP 0" --offered-time 0 --forced-
disconnect 0
```

Initiate generic extensions

Example:

```
extension -i -d XXXX --lim 1 --csp 0 --customer 0 --language F --secretary No --max-terminals 1
```

Initiate IP-extensions

Example:

```
ip_extension -i -d XXXX
```

Initiate GICI connection to diversion manager and support for message waiting

Example:

```
ICFUI:IFCIND=1,ISTYPE=1,INTTYP=1,LIM=1,RPORT=XXXX,IP=XXX.XXX.XXX.XXX,D
```

```
FMT=4,UPDFCN=YES,FILLER=64;
```

```
ISFUI:IFCIND=1,TEFMT=2,TIFMT=2,DTERM=00;
```

```
ICFUI:IFCIND=2,ISTYPE=2,INTTYP=1,USER=GENERIC;
```

```
ICFUC:UPDTIM=01-30;
```

```
ICFUC:MWF=ALL;
```


Initiate Application Link connection

Example:

```
CSTLI:LGRP=APPLINK1,LIM=1,IP=XXX.XXX.XXX.XXX,LPORT=2599,SERV=0000;
```

(ETH0 IP-address of server 1 and TCP port used in Application Link)

CSTLP; (Print result and see status connected/ not connected)

Initiate message waiting data for voice/IVR

Example:

```
ICMWC:SID=01,DTXT=500,KFCN=MWA;
```

ICMWP:SID=01; (print result)

Define SID, DTXT and group number which shall be used when users dial message indication key MWC on the phone.

Configure voicemail function for IVR ports and voicemail group number

Example:

```
VMGEI:IFCIND=2,DIR=XXX&&XXX; (IVR ports)
```

```
VMGEI:IFCIND=2,GRP=XXX; (Voicemail group number used in DTXT)
```

VMGEP; (print result)

Configure common diversion position for the system/cust

Example:

```
CDCOI:INTDIV=XXX,PRIDIV=XXX,PUBDIV=XXX,OPEDIV=XXX
```

CDCDP; (Print result)

Configure individual diversion lists for extensions to handle for example no answer and busy

Example:

```
call_list -i -d XXXX --list 1 --position 1 --dest-number XXXX --ringing-time 15 --busy-position 2 --
one-call Yes --origin 111 --sms-support No --ird-bypass No
```

```
call_list -i -d XXXX --list 1 --position 2 --dest-number XXXX --ringing-time 15 --one-call Yes --
origin 111 --sms-support No --ird-bypass No
```

Configure ICS codes to match settings in Flexi

Example:

```
kstsc:strno=ics0,string="Lunch",timfmt=time;
kstsc:strno=ics1,string="G.F.D",timfmt=date;
kstsc:strno=ics2,string="Tj.ärende",timfmt=time;
kstsc:strno=ics3,string="Möte",timfmt=time;
kstsc:strno=ics4,string="Tj.resa",timfmt=date;
kstsc:strno=ics5,string="Sjuk",timfmt=date;
kstsc:strno=ics6,string="Tj.ledig",timfmt=date;
kstsc:strno=ics7,string="Kurs",timfmt=date;
kstsc:strno=ics8,string="Upptagen",timfmt=time;
kstsp:strno=ics; (Print result)
```

(Read more about how to configure ICS codes in Flexi in your Flexi AdmiTal Web manual)

Configure SWE format for message diversion (MMDD + YYMM)

```
ASPAC:PARNUM=231,PARVAL=0;
```

Settings in Datatal CTStack settings

Require: Internet explorer 10 or higher, Chrome or Firefox, websockets support

If upgrade for < Flexi 5.9, Dialogic Diva will be replaced with Datatal CTstack and configuration is imported from Dialogic diva softIP

1. Open browser on Flexi server, browse to <http://localhost:1339>

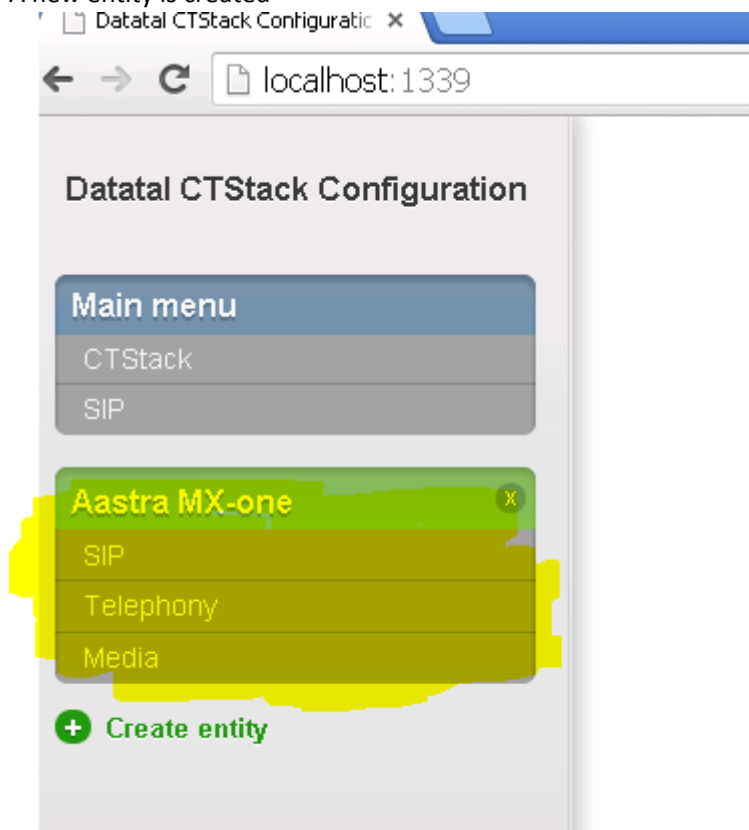
The screenshot shows the Datatal CTStack Configuration web interface. The browser address bar displays 'localhost:1339/#'. The left sidebar contains a 'Main menu' with 'CTStack' selected and a '+ Create entity' button. The main content area is titled 'CTStack' and contains the following configuration sections:

- Service**
 - Current
 - Date and time: 2013-12-17 10:07:23
 - Version: 0.1.4.11 (x86)
- Configuration**
 - Advanced
 - Advanced mode:
 - Server
 - Loopback only:
 - IP Port: 1339
- API**
 - Server
 - Loopback only:
 - IP Port: 1337

2. Click on "Create entity" and enter a name for the entity

The screenshot shows a dialog box titled "Sidän på localhost:1339 säger:". It contains a text input field with the text "Aastra MX-one" and two buttons: "OK" and "Avbryt".

3. A new entity is created



- Click on "SIP"

Transport -> TCP

The screenshot shows the Datatal CTStack Configuration web interface. The browser address bar displays 'localhost:1339'. The left sidebar contains a 'Main menu' with 'CTStack' and 'SIP' options, and a section for 'Aastra MX-one' with sub-options for 'SIP', 'Telephony', and 'Media'. A '+ Create entity' button is visible below the sidebar. The main content area is titled 'Aastra MX-one - SIP' and displays the following configuration sections:

- SIP Transport:** The 'Transport' dropdown is highlighted in yellow and set to 'TCP'.
- RFC 3325:**
 - 'P-Identity mode:' is set to 'Both'.
 - 'Use P-Asserted-Identity:' is checked.
- Dialogs:**
 - 'Use 'From' header:' is unchecked.
- Dialogs Transfer:**
 - 'Use 'Remote-Target' in 'Refer-To':' is checked.
 - 'Park other calls on MakeCall:' is checked.
 - 'Wait for park complete on MakeCall:' is checked.
 - 'Terminate local call transfer on INVITE:' is unchecked.
 - 'Treat BYE as transfer success:' is unchecked.
- Outbound:**
 - 'Always use proxy:' is unchecked.
 - 'Outbound proxy:' is set to 'string'.
- Dialogs:** (Section header, no specific settings visible)

At the bottom left of the configuration area, it indicates '1 change(s) pending' and provides 'Commit' and 'Revert' buttons.

5. Scroll down to "Registrations" and click "ADD"

The screenshot displays the Datatal CTStack Configuration web interface. The browser address bar shows 'localhost:1339'. The left sidebar contains a navigation menu with 'Main menu', 'CTStack', 'SIP', 'Aastra MX-one', 'SIP', 'Telephony', 'Media', and a '+ Create entity' button. The main content area is divided into several sections: 'Park other calls on MakeCall:' with a checked checkbox, 'Wait for park complete on MakeCall:' with a checked checkbox, 'Terminate local call transfer on INVITE:' with an unchecked checkbox, and 'Treat BYE as transfer success:' with an unchecked checkbox. Below these are sections for 'Outbound' (Always use proxy: unchecked, Outbound proxy: string) and 'Dialogs' (Always create early dialogs: unchecked, Use OPTIONS for keep-alive: unchecked, Retry-After 4xx: 25). The 'Registrations' section is highlighted in yellow and contains a 'Users' sub-section with a 'Registrations:' label and a large empty text area. To the right of this area are three buttons: 'ADD' (green), 'EDIT' (blue), and 'REMOVE' (red). At the bottom left, there is a '1 change(s) pending' notification and 'Commit' and 'Revert' buttons. The 'datatal ab' logo is at the bottom center.

6. Enter

Address: <XXXX >

Name: <Name of channel>

Enable: Checked

Expires: <Default in MX-one is 600 sec>

Registrar: <PBX-IP>

Username: <XXXX>

Password: <Password if it exists>

Click close and

192.168.50.233 - 8301

Address:	<input type="text" value="8301"/>
Name:	<input type="text" value="channel 1"/>
Enabled:	<input checked="" type="checkbox"/>
Expires:	<input type="text" value="600"/>
Registrar:	<input type="text" value="192.168.50.233"/>
Username:	<input type="text" value="8301"/>
Password:	<input type="text" value="password"/>

Close

7. Click "commit" and commit changes

7 change(s) pending

Commit
Revert

8. Create more registrations, one for each channel, repeat step 5 to 7, remember to commit after each created registration.

Registrations

Users

Registrations:	<div style="border: 1px solid #ccc; padding: 5px;"> 192.168.50.233 - 8301 192.168.50.233 - 8302 </div>	<div style="display: flex; flex-direction: column; gap: 5px;"> ADD EDIT REMOVE </div>
-----------------------	---	--

9. When done with the registrations, click on "Telephony"

Default domain: < MX-one server IP>

Address: <leave empty>

Name: Flexi

Port: Leave unchange, default 5060

Default SIP URI host: <MX-one server IP>

Trunk mode: Check

Lines: Numbers of channels that, license will be checked when line are used, a.k.a if you enter 20 and only have 14 in licensen CTstack will load 20 license but only 14 can be used.

Click commit and commit changes

The screenshot shows the 'Aastra MX-one - Telephony' configuration page in the Datatal CTStack Configuration web interface. The page is divided into two main sections: 'SIP' and 'Line configuration'.

SIP Configuration:

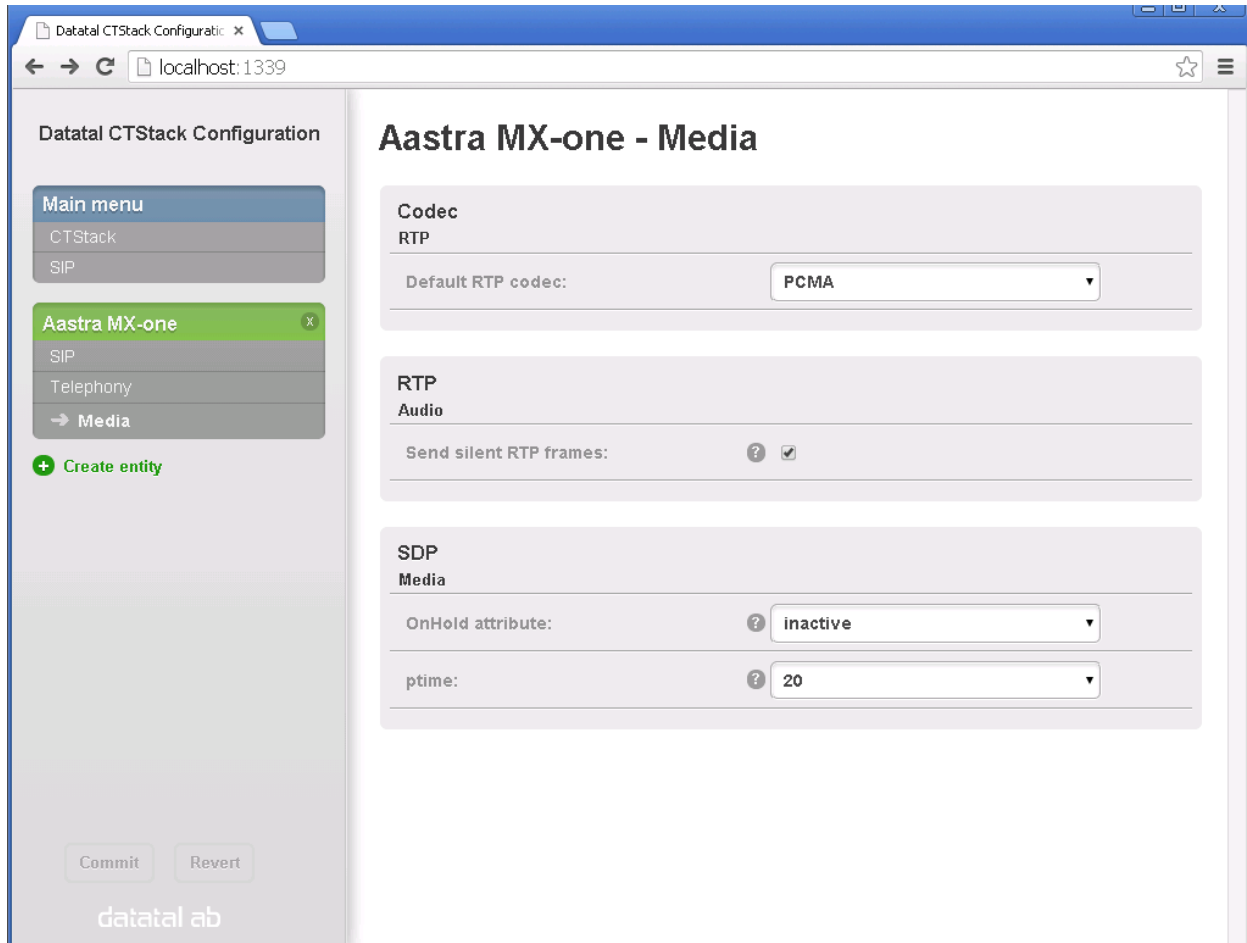
- Address:** Default domain: 192.168.50.233
- Address:** string
- Name:** Flexi
- Port:** 5060
- Default SIP URI host:** 192.168.50.233
- Trunk mode:**

Line configuration (Standard):

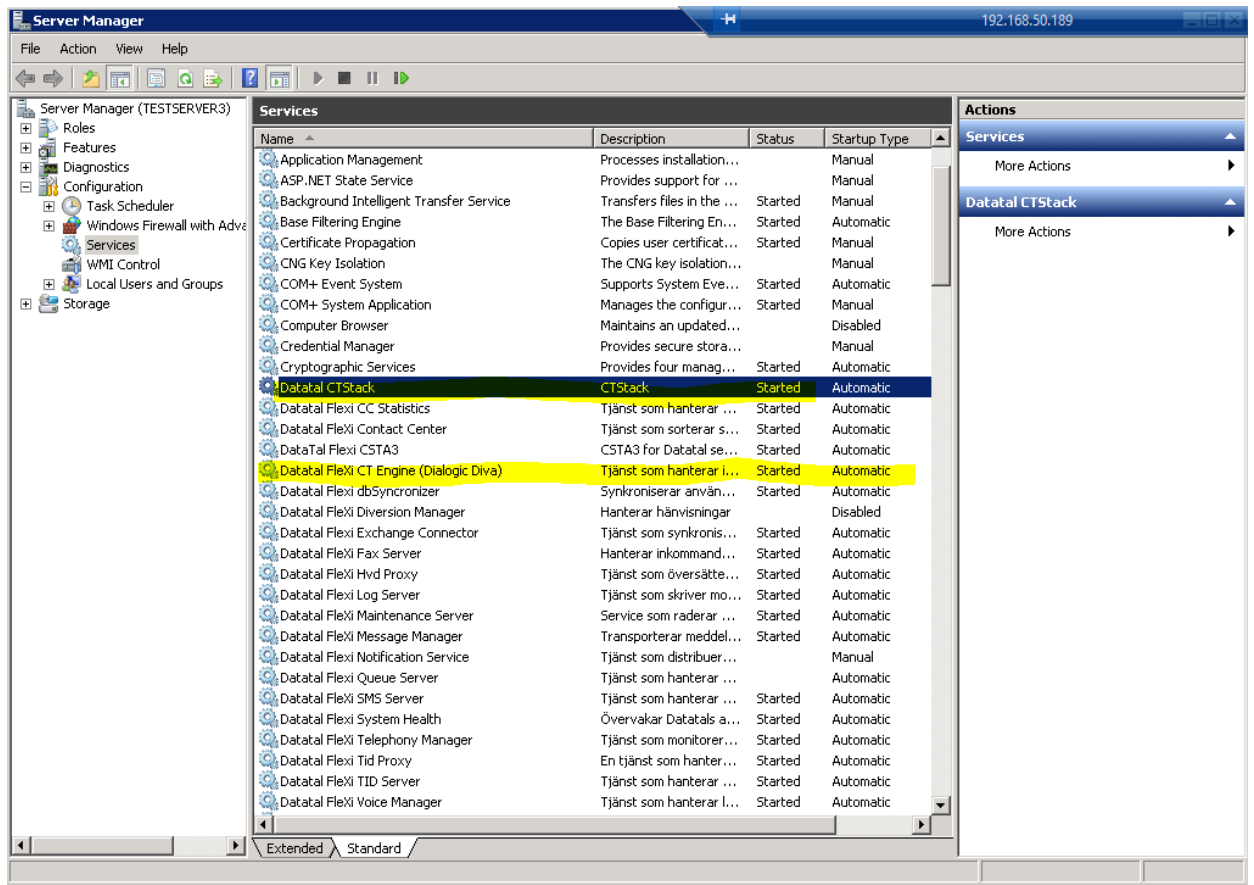
- BlindCall source mode:** All
- Lines:** 20
- INVITE expires:** 25

The left sidebar shows the navigation menu with 'Aastra MX-one' selected and 'Telephony' highlighted. At the bottom of the sidebar are 'Commit' and 'Revert' buttons.

10. Media, leave unchanged



11. STOP and START CTStack and CTENGINE services, when number of lines are change these two service has to be restarted



Application link settings

MD110 ApplicationLink Configuration Utility

Communications | Market Dependent Feature Codes | Tracing

Connection to Switch

Link Group: **DATATAL**

Host Name/IP Address: Add >>

Port Number: << Remove

Switch Connections

192.168.50.230	2599
----------------	------

Client Handling

IBM CallPath Server Mode

Client Connection Protocol

TCP/IP Port Number:

Named Pipe Pipe Name:

ADN/ODN Monitoring CLIR Override for CTI Group.

OK Cancel Apply Help

```

192.168.50.230 - PuTTY
login as: eri_sn_admin
Using keyboard-interactive authentication.
Password:
Last login: Tue Feb  7 15:30:31 2012 from 192.168.50.1
eri_sn_admin@mxone:~> msdh
-bash: msdh: command not found
eri_sn_admin@mxone:~> mdsh
MDSH> CSTLP;
COMPUTER SUPPORTED TELECOMMUNICATIONS APPLICATIONS LINK GROUP DATA

LGRP      ACTIVE JOBS  IP ADDRESS      :LPORT  LIM  SERV  STATUS
DATATAL      1           192.168.50.230 :2599   1   0000  CONNECTED

END

MDSH>

```

Activate VSI in CMG

Log in to CMGs Configuration Manager

Goto "System Parameters"

SecondaryPbxField	TELNO
SecondaryPbxId	90

SecondaryPbxField	TELNO - Telnr
SecondaryPbxId	90

Goto "PBX:s & Flash clients" -> New...

Choose: PBX

PBX ID: 90

Type: ONEBOX

Name: Datatal

IPC: 01pbxcom090

Forward ICP: 1000

IVR: 1000

Voicemail mail: 1000

Extension length: <your extension length>

ICP length: 2

Delay: 10

Individual ICP: <true>

PBX:s			
Type	ONEBOX	PBX ID	90
Name	Datatal		
IPC	01pbxcom090		
Forward ICP	1000		
IVR	1000		
Voice mail	1000		
Extension length	4	ICP length	2
Log level		Delay	10
Message wait	<input type="checkbox"/>	Call setup	<input type="checkbox"/>
Display support	<input type="checkbox"/>	Individual ICP	<input checked="" type="checkbox"/>
Click and dial	<input type="checkbox"/>		

New and Extension

Company: Customers name

Low number:1000

High number: 9999

Extensions	
Company	COMPANY01 ▼
Low number	1000
High number	9999
Flash ICP	



Log on CMG server and start Spman

Goto OneBoxVSI – edit

Enable: true, checkbox checked

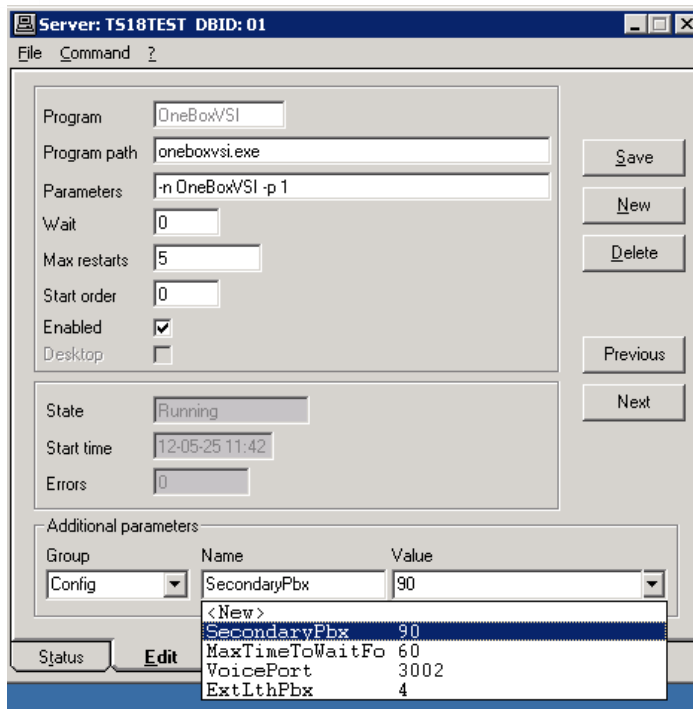
Additional parameters

SecondaryPbx: 90

MaxTimeToWaitFo: 60

VoicePort: 3002

ExtLthPbx: 4



Windows services

Restart Nice server (01)

Activate Information System Identity in MX-One

1. Login to **MX-One Manger – Telephony System**
2. Goto **Service** tab and **Messages**
3. Under “**Message Waiting Setup**” add a **new setup**

Information Computer Type: **Port**

Information Computer Name: **Presentity**

Server Number: **1**

Remote Server IP Address: **<Server IP to Flexi Server>**

Remote Server Port: **13407**

Directory Number Length: **<Extension length>**

Use Update Function: **no**

Filler Character Value [Decimal ASCII]: **64**

Update Start Time [hh:mm]: **00:45**

Message Waiting Function: **all**

MX-ONE™ Manager
Telephony System

Logged in as: **mpadmin** About Site Map

Initial Setup Number Analysis Telephony **Services** System Tools Logs

Electronic Mail **Messages** Voice Announcements Branch Office Routing Server CSTA Server

Message Diversion

Message Waiting Setup Shortcuts: <Manage Shortcuts>

Message Waiting

Add

<input type="checkbox"/>	Information Computer Name	Server Number	Remote Server IP Address	Remote Server Port
<input type="checkbox"/>	2			
<input checked="" type="checkbox"/>	Presentity	1	192.168.50.183	13407

Remove Print... Compare

4. Under “**Message Waiting**” -> “**Information System Identity**” add/edit

Information System Identity: **3** (if 3 are occupied please choose another, but remember it, needed in Setup guide for Flexi)

Display Text: **Presentity**

Key Function: **Msg waiting acknowledgement**

Digit:

Initial Setup Number Analysis Telephony **Services** System Tools Logs
 Electronic Mail **Messages** Voice Announcements Branch Office Routing Server CSTA Server

Message Diversion
 Message Waiting Setup
Message Waiting

Shortcuts: <Manag

Message Waiting

<input type="checkbox"/>	Information System Identity	Display Text	Key Function	Digit
<input type="checkbox"/>	0	B5B B00B	Short display text	
<input type="checkbox"/>	1	B5BB09B	Short display text	
<input type="checkbox"/>	10	B5B B10B	Short display text	
<input type="checkbox"/>	11	B5B B11B	Short display text	
<input type="checkbox"/>	12	B5B B12B	Short display text	
<input type="checkbox"/>	13	B5B B13B	Short display text	
<input type="checkbox"/>	14	B5B B14B	Short display text	
<input type="checkbox"/>	15	B5B B15B	Short display text	
<input type="checkbox"/>	16	B5B B16B	Short display text	
<input type="checkbox"/>	17	B5B B17B	Short display text	
<input type="checkbox"/>	18	B5B B18B	Short display text	
<input type="checkbox"/>	19	B5B B19B	Short display text	
<input type="checkbox"/>	2	B5B B02B	Short display text	
<input type="checkbox"/>	20	B5B B20B	Short display text	
<input type="checkbox"/>	21	B5B B21B	Short display text	
<input type="checkbox"/>	22	B5B B22B	Short display text	
<input type="checkbox"/>	23	B5B B23B	Short display text	
<input type="checkbox"/>	24	B5B B24B	Short display text	
<input type="checkbox"/>	25	B5B B25B	Short display text	
<input type="checkbox"/>	26	B5B B26B	Short display text	
<input type="checkbox"/>	27	B5B B27B	Short display text	
<input type="checkbox"/>	28	B5B B28B	Short display text	
<input type="checkbox"/>	29	B5B B29B	Short display text	
<input type="checkbox"/>	3	FLEXI	Msg waiting acknowledgement	
<input type="checkbox"/>	30	B5B B30B	Short display text	