Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Aura® Communication Manager R6.3 with NovaLink NovaMail on NovaBox – Issue 1.0

Abstract

These Application Notes describe the configuration for connecting the NovaLink NovaMail on NovaBox voicemail system via an H.323 interface to Avaya Aura® Communication Manager.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

The purpose of this document is to describe the configuration for connecting the NovaLink NovaMail on NovaBox voicemail system via an H.323 interface to Avaya Aura® Communication Manager, as well as the compliance tests which were performed, and a summary of the results of those tests.

2. General Test Approach and Test Results

NovaMail on NovaBox was manually configured using the web interface to receive, store, alert and playback voicemail messages.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The interoperability compliance testing evaluated the ability of NovaMail on NovaBox to carry out a variety voicemail functions in various conditions to multiple types of endpoint according to the configuration made via the web interface. These included:

- Forwarding to voicemail
- Leaving and retrieving voicemail to/from PSTN/SIP/H.323/Digital endpoints
- Message Waiting Indication (MWI)
- Use of DTMF for retrieval and menu navigation
- NovaMail on NovaBox outcalling to local and PSTN endpoints

Serviceability testing consisted of verifying the ability of NovaMail on NovaBox to recover from power on network interruption to both Communication Manager and NovaMail on NovaBox.

2.2. Test Results

All test cases were executed successfully.

2.3. Support

Technical support from NovaLink can be obtained through the following:

NovaLink GmbH
Businesstower
Zuercherstrasse 310
8500 Frauenfeld
Switzerland
helpdesk@novalink.ch
Phone: +41 52 762 66 77
Fax: +41 52 762 66 99

3. Reference Configuration

Figure 1 below shows the compliance tested configuration comprising of Communication Manager connected to NovaMail on NovaBox over an H.323 trunk and an assortment IP endpoints with a simulated PSTN connection.

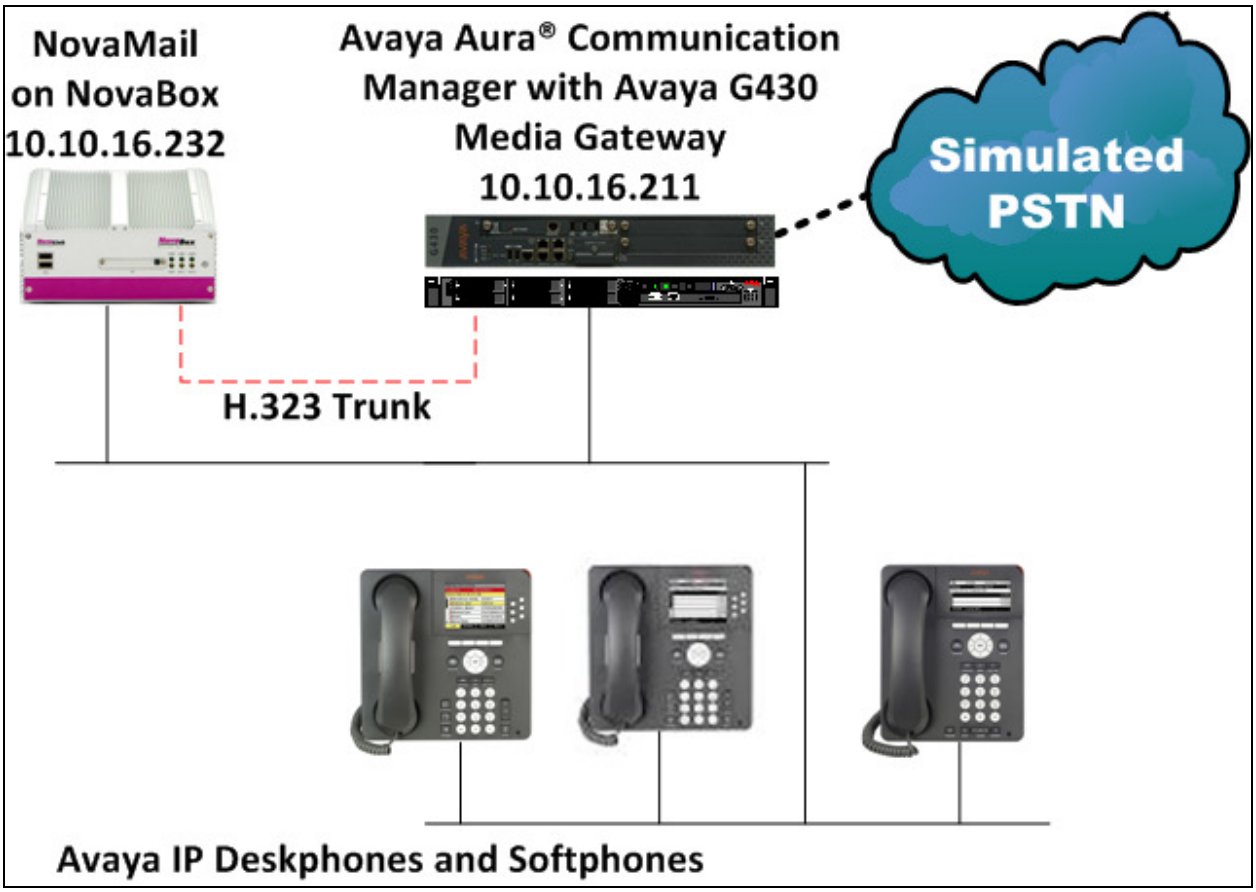


Figure 1: Avaya Aura® Communication Manager with NovaMail on NovaBox Solution

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® Communication Manager vAppliance	R6.3 SP0.1
Avaya G430 Media Gateway	33.13.0
Avaya 9630 IP Deskphone	• H.323 3.2 • SIP 2.6.10.1
NovaMail on NovaBox	9.8

5. Configure Avaya Aura® Communication Manager

The configuration of Communication Manager is from the System Access Terminal (SAT) and can be summarized as follows:

- Configure Node Names
- Configure H.323 Trunk
- Configure Signaling Group
- Configure Call Routing
- Configure Public-Unknown-Numbering Table
- Configure Coverage Paths
- Configure System Features

It is assumed that endpoints have been pre-configured as required, for more information see **Section 9**.

5.1. Configure Node Names

Node names must be configured with the IP address of NovaMail on NovaBox in order to configure the H.323 signaling group in **Section 5.5**. Enter the command **change node-names ip** enter an appropriate node name for NovaMail on NovaBox in the **Name** column and its corresponding **IP Address**. Note the **procr** IP address to be used when configuring the signaling group and NovaMail on NovaBox.

```
change node-names ip                                          Page   1 of   2
                                  IP NODE NAMES
    Name                 IP Address
AES63RP               10.10.16.210
CM62                  10.10.16.142
IPO                   10.10.16.105
NovaBox               10.10.16.232
SM63RPSIG             10.10.16.214
default               0.0.0.0
procr                 10.10.16.211
procr6                ::
```

5.2. Configure H.323 Trunk

An H.323 trunk must be administered between Communication Manager and NovaMail on NovaBox.

Enter the command **add trunk-group next** and configure as follows:

- **Group Number** – take a note of this to be used when configuring the signaling group and routing
- **Group Type** – set to **isdn**
- **Group Name** – enter an appropriate name
- **TAC** – enter a TAC appropriate to the dialplan
- **Carrier Medium** – set to **H.323**
- **Service Type** – set to **tie**
- **Member Assignment Method** – set to **auto**
- **Signaling Group** – enter the signaling group number configured later in this Section
- **Number of Members** – enter the number of channels required as appropriate

```
add trunk-group next                                          Page   1 of  21
                              TRUNK GROUP

Group Number: 7                     Group Type: isdn          CDR Reports: y
  Group Name: To NovaLink                 COR: 1        TN: 1        TAC: 707
   Direction: two-way         Outgoing Display? n        Carrier Medium: H.323
 Dial Access? n               Busy Threshold: 255  Night Service:
Queue Length: 0
Service Type: tie                    Auth Code? n
                                                 Member Assignment Method: auto
                                                           Signaling Group: 7
                                                         Number of Members: 4
```

On **Page 2** configure as follows:

- **Supplementary Service Protocol** – set to **b**
- **Disconnect Supervision Out?** –set to **y**

```
add trunk-group next                                          Page   2 of  21
      Group Type: isdn

TRUNK PARAMETERS
         Codeset to Send Display: 6     Codeset to Send National IEs: 6
                                        Charge Advice: none
  Supplementary Service Protocol: b   Digit Handling (in/out): enbloc/enbloc

                                                 Digital Loss Group: 18
Incoming Calling Number - Delete:     Insert:                 Format:

 Disconnect Supervision - In? y  Out? y
 Answer Supervision Timeout: 0
                                  CONNECT Reliable When Call Leaves ISDN? n
           XOIP Treatment: auto    Delay Call Setup When Accessed Via IGAR? n
```

On **Page 3** configure as follows:

- **Send Name** – set to **y**
- **Send Calling Number** – set to **y**
- **Format** – set to **pub-unk**

```
add trunk-group next                                          Page   3 of  21
TRUNK FEATURES
          ACA Assignment? n            Measured: none
                                Internal Alert? n        Maintenance Tests? y
                               Data Restriction? n     NCA-TSC Trunk Member:
                                     Send Name: y      Send Calling Number: y
            Used for DCS? n            Hop Dgt? n     Send EMU Visitor CPN? n
   Suppress # Outpulsing? n    Format: pub-unk
                                        UUI IE Treatment: service-provider

                                             Replace Restricted Numbers? n
                                            Replace Unavailable Numbers? n
                                      Send Called/Busy/Connected Number: n
                                              Hold/Unhold Notifications? y
              Send UUI IE? y     Modify Tandem Calling Number: no
                Send UCID? n
 Send Codeset 6/7 LAI IE? y

 Show ANSWERED BY on Display? y
```

On **Page 4** configure **QSIG Value-Added?** to **y**.

```
add trunk-group next                                          Page   4 of  21
                        QSIG TRUNK GROUP OPTIONS

   TSC Method for Auto Callback: drop-if-possible
            Diversion by Reroute? y
                Path Replacement? y
Path Replacement with Retention? n
        Path Replacement Method: better-route
                            SBS? n

    Character Set for QSIG Name: eurofont
                QSIG Value-Added? y
   QSIG-Value Coverage Encoding: proprietary
      SIP Reference Trunk Group:
```

5.3. Configure Signaling Group

A signaling group must be used to define the signaling parameters of the H.323 trunk. Enter the command **add sig next** and configure as follows:

- **Group Number** – take a note of this number to be used in the trunk configuration above
- **Group Type** – set to **h.323**
- **Max number of NCA TSC** – set to **4**
- **Max number of CA TSC** – set to **4**
- **Trunk Group for NCA TSC** – set to the trunk group number configured above, in this case **7**
- **Trunk Group for Channel Selection -** set to the trunk group number configured above, in this case **7**
- **TSC Supplementary Service Protocol** – set to **b**
- **Near-end Node Name** – enter the processor node-name usually **procr**
- **Far-end Node Name** – enter the node-name assigned to NovaMail on NovaBox, in this case **NovaBox**
- **Far-end Listen Port** – set to **1720**
- **Direct IP-IP Audio Connections?** – ensure this is set to **n**
- **IP Audio Hairpinning?** – this must be set to **y**

```
add signaling-group next                                        Page   1 of   2
                                SIGNALING GROUP

 Group Number: 7                Group Type: h.323
          SBS? n            Remote Office? n          Max number of NCA TSC: 4
        Q-SIP? n                                      Max number of CA TSC: 4
     IP Video? n                                   Trunk Group for NCA TSC: 7
       Trunk Group for Channel Selection: 7    X-Mobility/Wireless Type: NONE
      TSC Supplementary Service Protocol: b          Network Call Transfer? n
                                                   T303 Timer(sec): 10
   H.245 DTMF Signal Tone Duration(msec):
   Near-end Node Name: procr                    Far-end Node Name: NovaBox
 Near-end Listen Port: 1720                   Far-end Listen Port: 1720
                                         Far-end Network Region: 1
         LRQ Required? n                Calls Share IP Signaling Connection? n
         RRQ Required? n
                                           Bypass If IP Threshold Exceeded? n
                                                    H.235 Annex H Required? n
         DTMF over IP: out-of-band          Direct IP-IP Audio Connections? n
  Link Loss Delay Timer(sec): 90                      IP Audio Hairpinning? y
         Enable Layer 3 Test? n                 Interworking Message: PROGress
                                         DCP/Analog Bearer Capability: 3.1kHz
```

5.4. Configure Call Routing

Enter the command **change route-pattern x** where **x** is an appropriate route pattern, in this case **7**. Enter an appropriate **Pattern Name** and configure the **Group Number** with the H.323 trunk group number configured in **Section 5.2**, set the FRL as appropriate.

```
change route-pattern 7                                          Page   1 of   3
                   Pattern Number: 7      Pattern Name: To NovaLink
                                 SCCAN? n     Secure SIP? n
    Grp FRL NPA Pfx Hop Toll No.  Inserted                          DCS/ IXC
    No          Mrk Lmt List Del  Digits                              QSIG
                                 Dgts                                 Intw
 1: 7    0                                                          n   user
 2:                                                                 n   user
 3:                                                                 n   user
 4:                                                                 n   user
 5:                                                                 n   user
 6:                                                                 n   user

    BCC VALUE  TSC CA-TSC    ITC BCIE Service/Feature PARM  No. Numbering LAR
    0 1 2 M 4 W     Request                                 Dgts Format
                                                         Subaddress
 1: y y y y y n  n            rest                                     none
 2: y y y y y n  n            rest                                     none
 3: y y y y y n  n            rest                                     none
 4: y y y y y n  n            rest                                     none
 5: y y y y y n  n            rest                                     none
 6: y y y y y n  n            rest                                     none
```

During the compliance test 999 was dialed to reach NovaMail on NovaBox where the initial 9 is the feature access code used to access the auto routing selection table. Enter the command **change ars analysis 9** and configure a **Dialed String** of **99 Total Min** and **Total Max** values of **2**, enter the **Route Pattern** configured above and set the **Call Type** to **pubu**. This will result in calls placed to 999 reaching NovaMail on NovaBox over the administered H.323 trunk.

```
change ars analysis 9                                           Page   1 of   2
                           ARS DIGIT ANALYSIS TABLE
                                 Location: all            Percent Full: 0

         Dialed            Total     Route    Call    Node  ANI
         String          Min  Max  Pattern   Type    Num   Reqd
    99                   2    2     7        pubu          n
```

In addition to this coverage of calls to NovaMail on NovaBox was performed whereby extension 1xxx covered to mailbox 2xxx. Enter the command **change dialplan analysis** and configure so that a **Dialed String** beginning with **2** with a **Total Length** of **4** was assigned a **Call Type** of **udp**. This will result in calls to 2xxx being routed to the uniform dialplan table.

```
change dialplan analysis                                    Page   1 of  12
                            DIAL PLAN ANALYSIS TABLE
                                  Location: all            Percent Full: 1

    Dialed   Total  Call      Dialed   Total  Call      Dialed   Total  Call
    String   Length Type      String   Length Type      String   Length Type
   1           4   ext
   2           4   udp
   7           3   dac
   9           1   fac
   *           3   fac
   #           3   fac
```

Enter the command **change uniform-dialplan 2** and configure a **Matching Pattern** of **2** with a **Length** of **4** is given a **Net** value of **aar**. This will result in calls to 2xxx being routed to the auto alternate routing table

```
change uniform-dialplan 0                                    Page   1 of   2
                        UNIFORM DIAL PLAN TABLE
                                                             Percent Full: 0

  Matching                    Insert              Node
  Pattern        Len Del      Digits     Net Conv Num
 2                4   0                  aar  n
```

Enter the command **change aar analysis 2** and configure a **Dialed String** of **2** with a **Total Min** and **Max** value of **4** to use **Route Pattern 7** with a **Call Type** of **aar**. This will result in calls to 2xxx being routed over the trunk configured in route pattern 7 configured above.

```
change aar analysis 2                                        Page   1 of   2
                            AAR DIGIT ANALYSIS TABLE
                                  Location: all            Percent Full: 0

          Dialed           Total     Route    Call   Node  ANI
          String         Min  Max  Pattern   Type   Num   Reqd
    2                    4    4     7        aar           n
```

5.5. Configure Public-Unknown-Numbering Table

In **Section 5.2** on **Page 3** of the trunk group the **Format** is configured as **pub-unk**; as such, the public-unknown numbering table must be configured so that the appropriate calling party number is presented for calls placed over this trunk. Enter the command **change public-unknown-numbering 0** and administer accordingly. In the example below, a number with an **Extension Length** of **4**, starting with an **Extension Code** of **1** present a **Total CPN Length** of **4** digits when calling over **Trunk Group 7**.

```
change public-unknown-numbering 0                              Page   1 of   2
                     NUMBERING - PUBLIC/UNKNOWN FORMAT
                                          Total
Ext  Ext             Trk       CPN        CPN
Len  Code            Grp(s)    Prefix     Len
                                                Total Administered: 4
 4   1               1                    4       Maximum Entries: 9999
 4   1               2         0207555    11
 4   1               7                    4     Note: If an entry applies to
 4   1               9                    4     a SIP connection to Avaya
                                                 Aura(R) Session Manager,
                                                 the resulting number must
                                                 be a complete E.164 number.

                                                 Communication Manager
                                                 automatically inserts
                                                 a '+' digit in this case.
```

5.6. Configure Coverage Paths

A coverage path must be configured so that the desired voicemail box is reached when the called station is not answered. Enter the command **change coverage remote 1** and administer an appropriate mailbox number. For the purposes of the compliance test extensions 1000 – 1003 were used and given a NovaMail on NovaBox destination of 2000-2003 respectively. Note the respective entry number **01 – 04**.

```
change coverage remote 1                                       Page   1 of  23

                       REMOTE CALL COVERAGE TABLE
                       ENTRIES FROM 1    TO 1000

01: 2000                  16:                       31:
02: 2001                  17:                       32:
03: 2002                  18:                       33:
04: 2003                  19:                       34:
05:                       20:                       35:
```

Enter the command **add coverage path x** where **x** is the required coverage path number. Enter the required remove coverage path in **Point 1**. In the example below, **coverage path 1000** is configured with **Point1** with a value of **r01**, where **r01** routes to **2000** configured above.

```
add coverage path 1000                                        Page   1 of   1
                              COVERAGE PATH

                  Coverage Path Number: 1000
     Cvg Enabled for VDN Route-To Party? n        Hunt after Coverage? n
                       Next Path Number:          Linkage

COVERAGE CRITERIA
    Station/Group Status    Inside Call     Outside Call
              Active?             n              n
                Busy?             y              y
       Don't Answer?              y              y         Number of Rings: 2
                 All?             n              n
 DND/SAC/Goto Cover?              y              y
   Holiday Coverage?              n              n

COVERAGE POINTS
    Terminate to Coverage Pts. with Bridged Appearances? n
  Point1: r01                     Point2:
  Point3:                         Point4:
  Point5:                         Point6:
```

Enter the command **change station x** where **x** is the station to be configured with a coverage patch and configure **Coverage Path 1** with the appropriate coverage path number, in this case **1000**. Repeat as necessary.

```
change station 1000                                           Page   1 of   5
                                    STATION

Extension: 1000                       Lock Messages? n               BCC: 0
     Type: 9630                       Security Code: 1234             TN: 1
     Port: S00000                    Coverage Path 1: 1000            COR: 1
     Name: Extn,1000                 Coverage Path 2:                 COS: 1
                                     Hunt-to Station:               Tests? y
STATION OPTIONS
                                          Time of Day Lock Table:
             Loss Group: 19          Personalized Ringing Pattern: 1
                                               Message Lamp Ext: 1000
           Speakerphone: 2-way              Mute Button Enabled? y
        Display Language: english                Button Modules: 0
 Survivable GK Node Name:
          Survivable COR: internal             Media Complex Ext:
   Survivable Trunk Dest? y                         IP SoftPhone? n

                                                    IP Video? n
                            Short/Prefixed Registration Allowed: default

                                              Customizable Labels? y
```

5.7. Configure System Features

Communication Manager must be configured with the correct message waiting indicator digit length value. Enter the command **change system-parameters features** and on **Page 8** configure the **QSIG/ETSI TSC Extension** with available number in accordance with the dialplan and set the **MWI – Number of Digits Per Voice Mail Subscriber** to match with the extension length used, in this case **4**.

```
change system-parameters features                              Page   8 of  20
                        FEATURE-RELATED SYSTEM PARAMETERS

ISDN PARAMETERS
                                                          PARAMETERS FOR
CREATING
 Send Non-ISDN Trunk Group Name as Connected Name? n     QSIG SELECTION
NUMBERS
 Display Connected Name/Number for ISDN DCS Calls? n       Network Level:
       Send ISDN Trunk Group Name on Tandem Calls? n        Level 2 Code:
                Send Custom Messages Through QSIG? n        Level 1 Code:
                           QSIG/ETSI TSC Extension: 1994
 MWI - Number of Digits Per Voice Mail Subscriber: 4

                              National CPN Prefix:
                          International CPN Prefix:
                                Pass Prefixed CPN: ASAI? n   VDN/Vector? n
      Delay for USNI Calling Name for Analog Caller ID Phones (seconds): 0
    Unknown Numbers Considered Internal for AUDIX? n
             USNI Calling Name for Outgoing Calls? n
               Path Replacement with Measurements? y
                  QSIG Path Replacement Extension:
   Send QSIG Path Replacement Conf. Event to ASAI? y
            Path Replace While in Queue/Vectoring? n
```

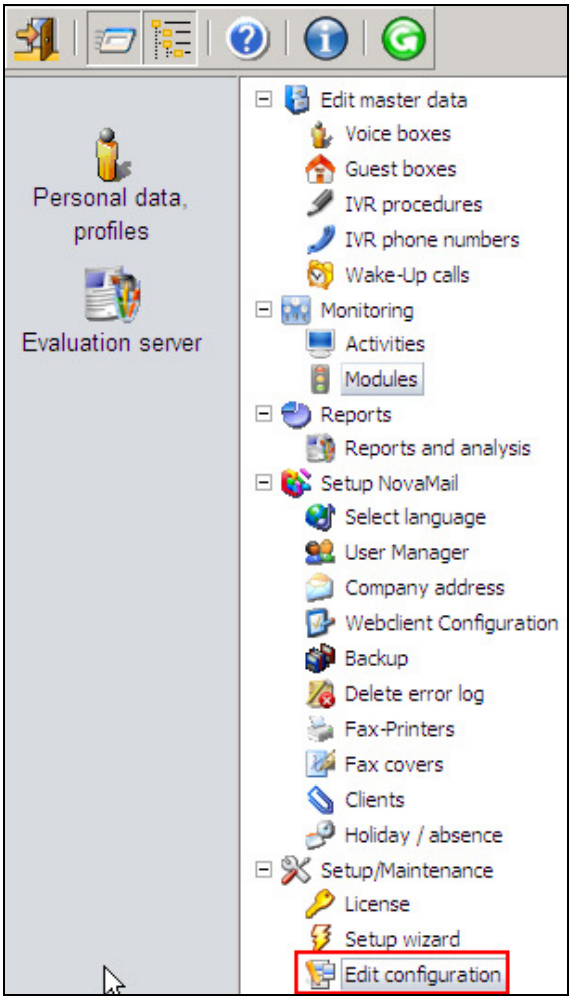
6. Configure Novalink NovaMail on Novabox

The configuration of NovaMail on NovaBox is performed using its web interface and can be summarized as follows:

- Configure Avaya Aura® Communication Manager Integration Parameters
- Configure H.323 Trunk
- Configure Mailboxes

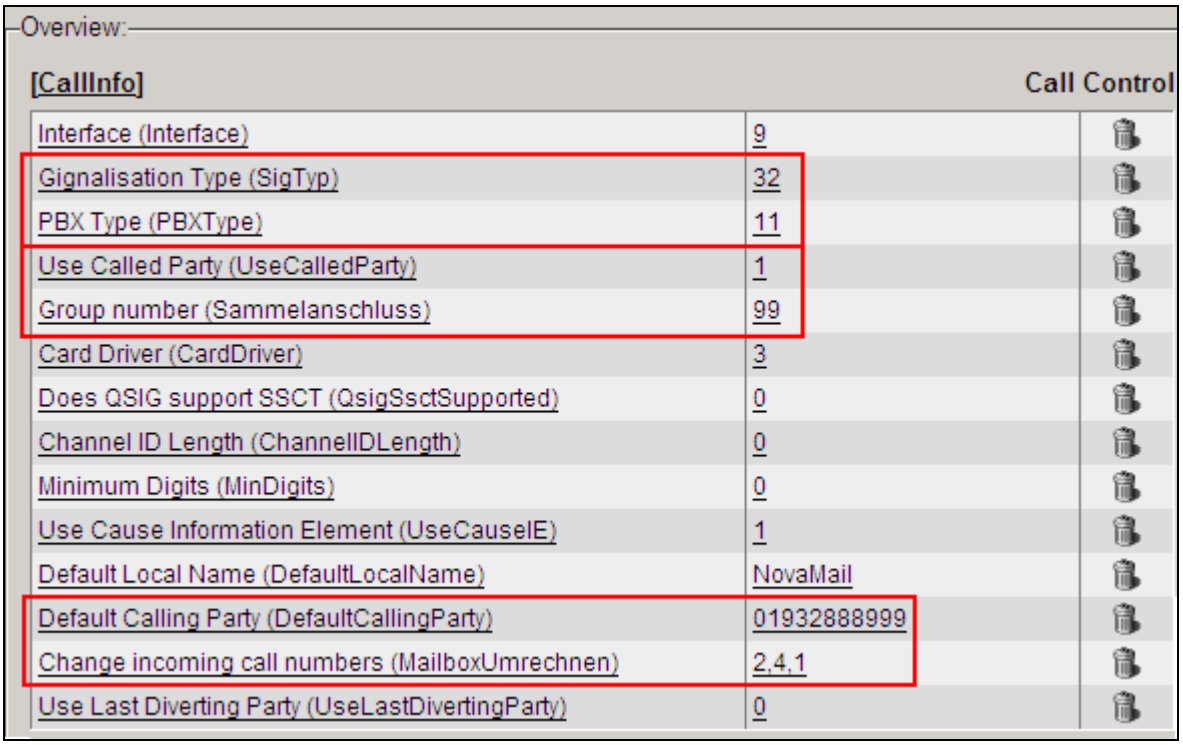
6.1. Configure Communication Manager Integration Parameters

Click **System → Setup/Maintenance → Edit Configuration**



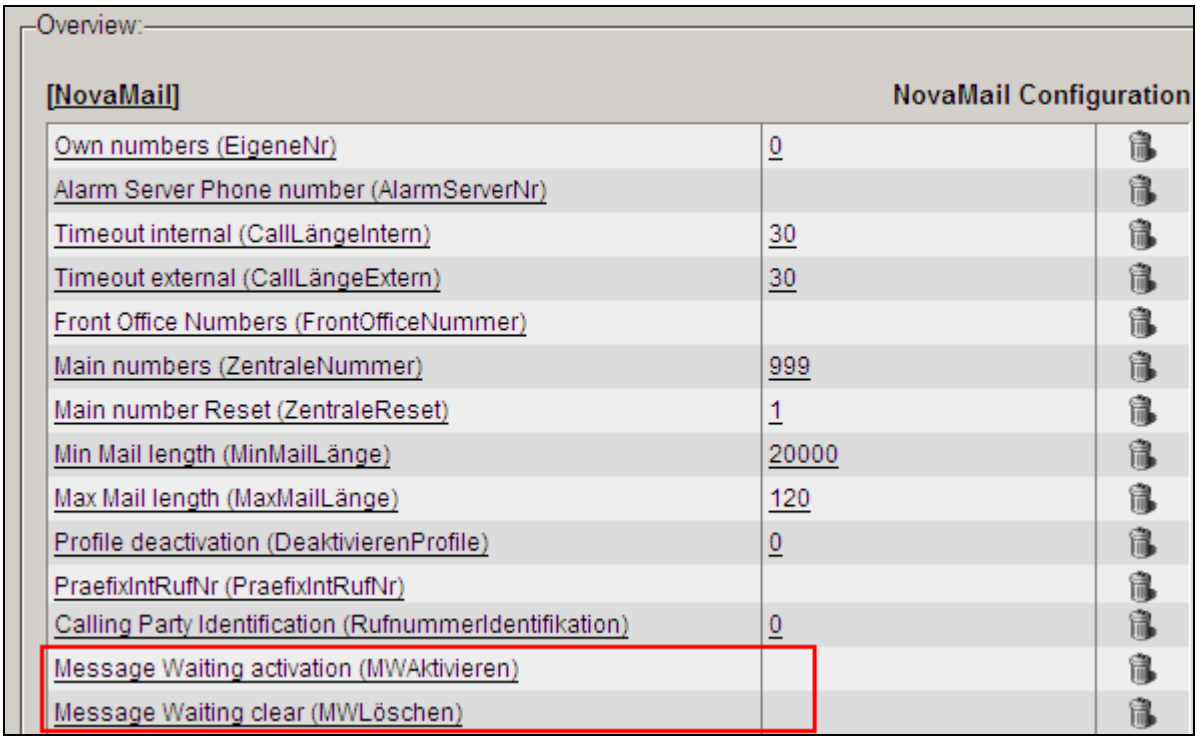
In the right hand pane, configure as shown below where:

- **Gignalisation Type** – set to **32** to define QSIG VoIP trunk parameters
- **PBX Type** – set to **11** to define Communication Manager parameters
- **Use Called Party** – set to 1 to detect the called party number and not waiting for any diverting party information
- **Group number** – set to the number used to retrieve messages from internal extensions
- **Default Calling Party** – set to the number required as calling party number for outcalls
- **Change incoming calling numbers** – set according to the number length of the extension on Communication Manager. e.g. where a number starting with **2** which is **4** digits in length has the first digit replaced with **1**. This is necessary as the diverting party information is missing on the setup information of incoming calls to NovaMail. As configured in **Section 5.6** all extensions have a different number for diversion to NovaMail. In this example, all extensions with numbers 1xxx divert to 2xxx and NovaMail detects the last 3 digits and changes the first digit back to "1" for accessing the right mailbox-number.


Overview:

[CallInfo]		Call Control
Interface (Interface)	9	
Gignalisation Type (SigTyp)	32	
PBX Type (PBXType)	11	
Use Called Party (UseCalledParty)	1	
Group number (Sammelanschluss)	99	
Card Driver (CardDriver)	3	
Does QSIG support SSCT (QsigSsctSupported)	0	
Channel ID Length (ChannelIDLength)	0	
Minimum Digits (MinDigits)	0	
Use Cause Information Element (UseCauseIE)	1	
Default Local Name (DefaultLocalName)	NovaMail	
Default Calling Party (DefaultCallingParty)	01932888999	
Change incoming call numbers (MailboxUmrechnen)	2,4,1	
Use Last Diverting Party (UseLastDivertingParty)	0	

Continue to scroll down to the **NovaMail** section and ensure the **Message Waiting activation** and **Message Waiting clear** fields are empty.

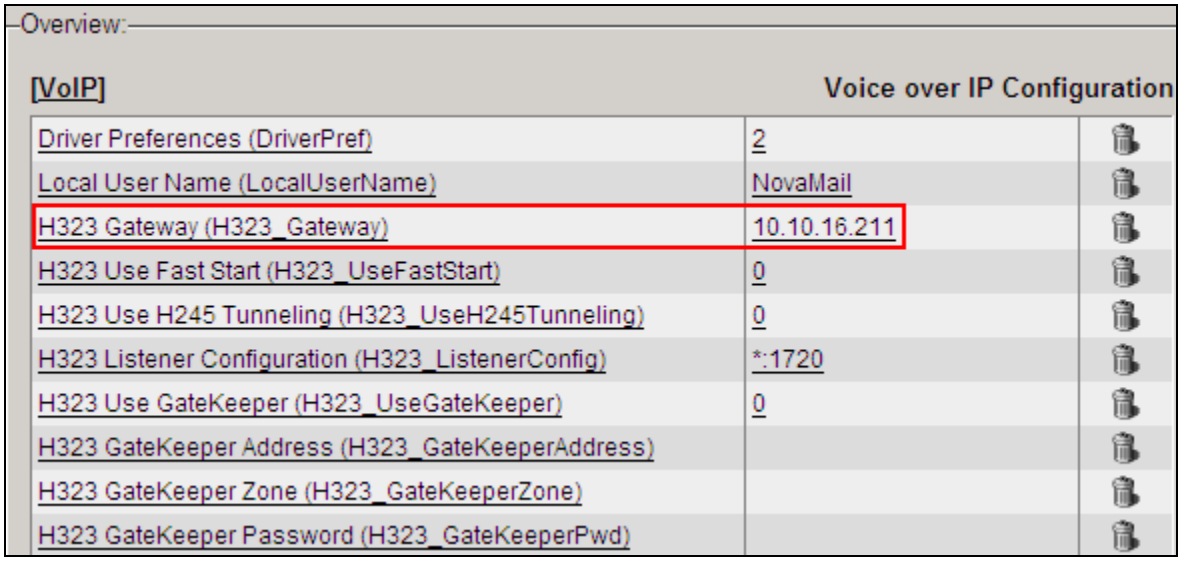


Overview:

[NovaMail]	NovaMail Configuration	
Own numbers (EigeneNr)	0	
Alarm Server Phone number (AlarmServerNr)		
Timeout internal (CallLängeIntern)	30	
Timeout external (CallLängeExtern)	30	
Front Office Numbers (FrontOfficeNummer)		
Main numbers (ZentraleNummer)	999	
Main number Reset (ZentraleReset)	1	
Min Mail length (MinMailLänge)	20000	
Max Mail length (MaxMailLänge)	120	
Profile deactivation (DeaktivierenProfile)	0	
PraefixIntRufNr (PraefixIntRufNr)		
Calling Party Identification (RufnummerIdentifikation)	0	
Message Waiting activation (MWAktivieren)		
Message Waiting clear (MWLöschen)		

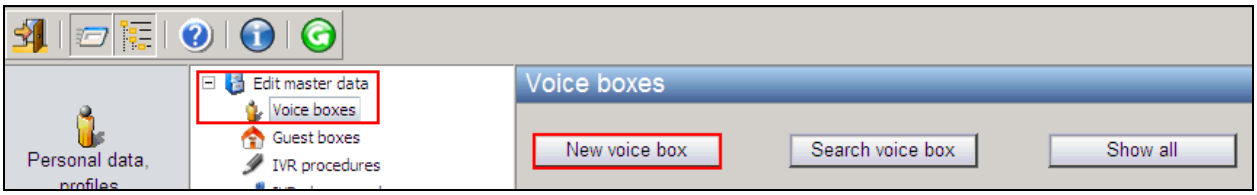
6.2. Configure H.323 Trunk

Continuing from the previous section, scroll down the page displayed and configure the **VoIP** section as shown below where **H323 Gateway** is the IP address assigned to the Communication Manager procr interface.



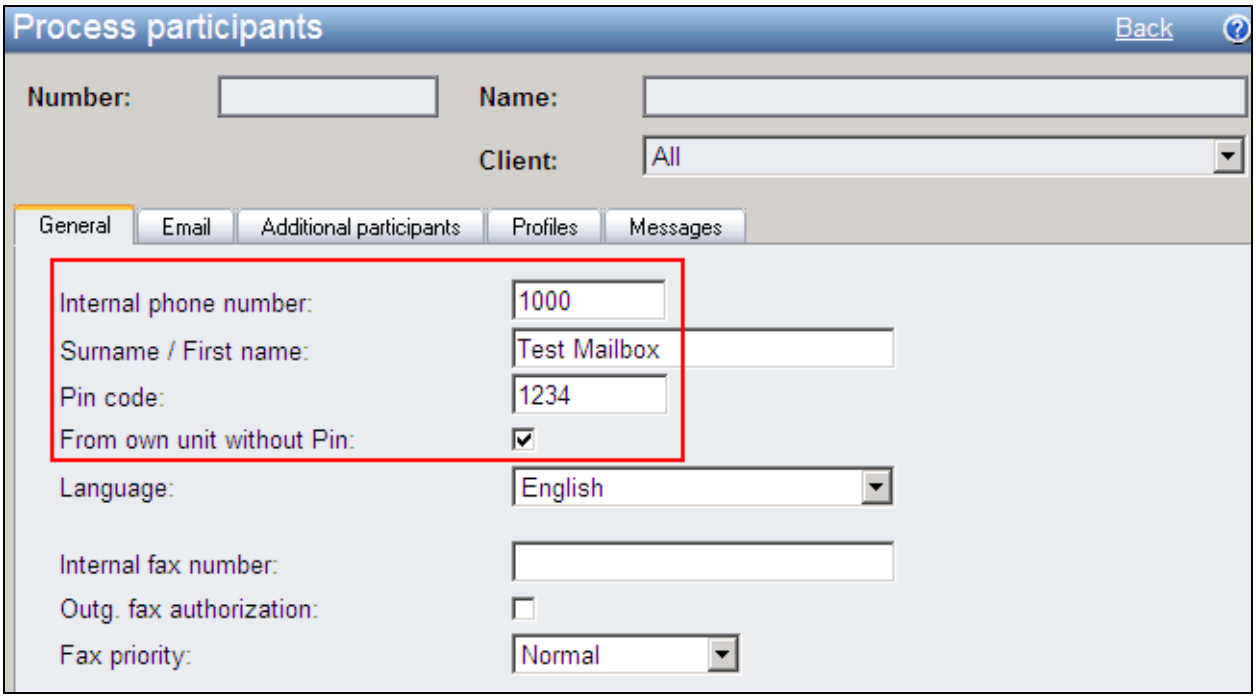
6.3. Configure Mailboxes

Voicemail boxes must be configured on NovaMail on NovaBox, click **Edit master Data → Voice Boxes → New voice box**.

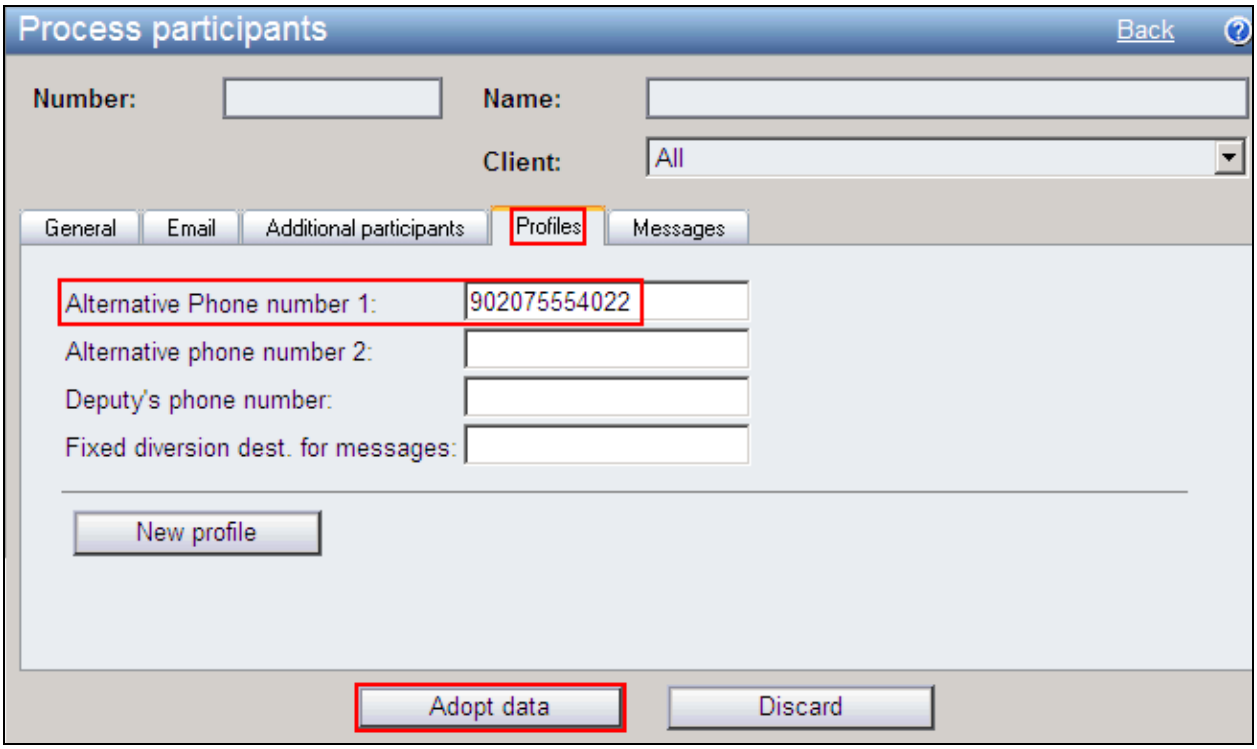


Configure the new voice box as follows:

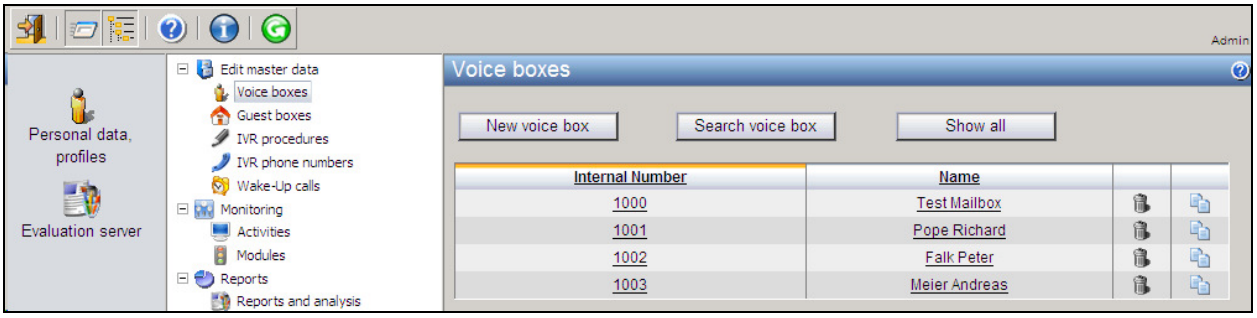
- **Internal phone number** – enter the extension number for the Communication Manager extension
- **Surname / First name** – enter a descriptive name
- **Pin code** – enter the PIN number used to access the voice box
- **From own unit without Pin** – place a check in this box



Click on the **Profiles** tab and enter the PSTN number to be used for outcalling in the **Alternative Phone number 1** field. Click **Adopt data** when done.



Click on **Voice boxes** to view the newly administered voice box. Repeat as necessary.



7. Verification Steps

This section provides the tests that can be performed to verify the proper configuration of NovaMail on NovaBox with Communication Manager.

7.1. Verify Avaya Aura® Communication Manager H.323 Trunk Status

Enter the command **status trunk x** where **x** is the H.323 trunk configured in **Section 5.2** and verify that the **Service State** is **in-service**.

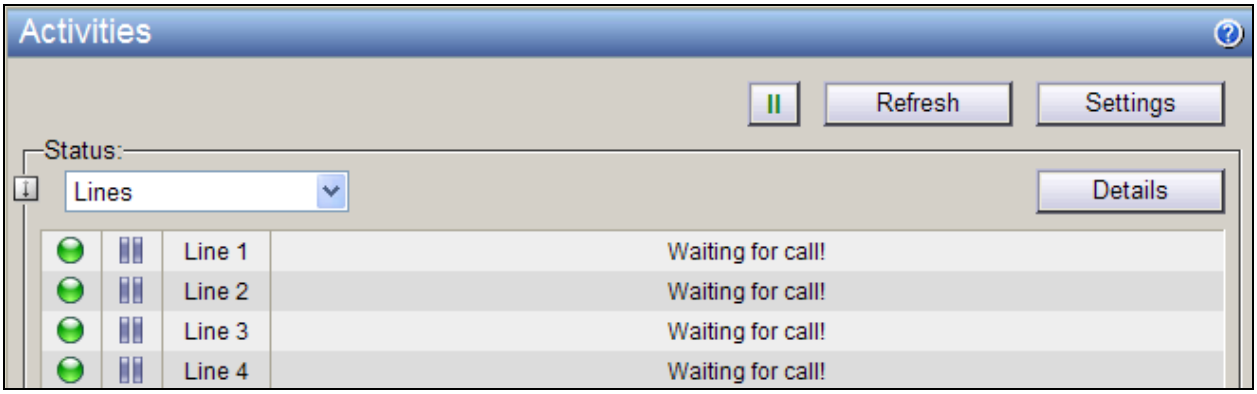
```
status trunk 7
                              TRUNK GROUP STATUS

Member    Port      Service State       Mtce Connected Ports
                                        Busy

0007/001  T00086    in-service/idle     no
0007/002  T00087    in-service/idle     no
0007/003  T00088    in-service/idle     no
0007/004  T00089    in-service/idle     no
```

7.2. Verify NovaLink NovaMail on NovaBox Status

From the NovaMail on NovaBox web interface navigate to **Monitoring → Activities** and verify that the icon in the left column is green indicating that the H.323 trunks are in service and the procr interface can be reached.



7.3. Verify Successful Delivery of Voicemail

Place a call to a Communication Manager extension with a coverage path to voicemail configured. Ensure that NovaMail on NovaBox answers the call with the appropriate mailbox greeting is heard and a message can be left. Verify that the message waiting indicator on the endpoint is illuminated.

7.4. Verify Successful Retrieval of Voicemail

Dial the voicemail retrieval access number from the Communication Manager extension. Ensure that NovaMail on NovaBox automatically recognizes the user and is not prompted for a PIN. Verify that the audio prompts advise a message has been left and use the buttons on the telephone keypad to navigate the menu, listen to, and delete the message. Verify that the message waiting indicator is extinguished once all messages have been played back.

8. Conclusion

These Application Notes describe the configuration steps required for NovaLink NovaMail on NovaBox to successfully interoperate with Avaya Aura® Communication Manager. All feature test cases were completed successfully with any observations noted in **Section 2.2**.

9. Additional References

This section references the product documentation relevant to these Application Notes.

1. *Administering Avaya Aura® Communication Manager*, Release 6.3, 03-300509, Issue 8, May 2013
2. ftp://support.novalink.ch/Technikerhandbuch/English/Technikerhandbuch NovaLink GmbH EN.chm
   (please request Login and Password from NovaLink)

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.