

Avaya Solution & Interoperability Test Lab

Application Notes for configuring Avaya Aura® Communication Manager R6.2 with Pridis Connecsy – Issue 1.0

Abstract

These Application Notes describe the compliance testing performed between Pridis and Avaya Aura® Communication Manager. Pridis Connecsy is a PC-based attendant console software application which allows an operator to receive and redirect calls using an easy-to-use graphical interface, as well as monitor the status of attached telephones.

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.

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1. Introduction

Pridis Connecsy is a software application that serves as an attendant console. Pridis Connecsy can be used with an Avaya IP telephone or alternatively in road-warrior mode. Pridis Connecsy allows an operator to receive and redirect incoming calls. Pridis Connecsy allows the operator to monitor the state of telephones controlled by Avaya Aura® Communication Manager, providing the ability to determine which telephones are engaged in a call. Pridis Connecsy also provides the ability to see which telephones have been forwarded to voicemail, thus allowing the operator to intelligently redirect calls to telephones that are not busy and have not been forwarded.

In telecommuter mode, Pridis Connecsy has its own telephone extension, but uses a second Avaya IP telephone that serves as a conduit for bidirectional speech. Since this second telephone is dedicated to this purpose, it is unavailable for other uses while Connecsy is in use.

In road-warrior mode, Pridis Connecsy registers to Avaya Aura® Communication manager directly in the manner of an IP Softphone and no dedicated deskphone is required. Speech and call control all travels through the attendant PC and USB headset.

2. General Test Approach and Test Results

The general test approach was to validate the ability of Connecsy to correctly and successfully hand calls in a variety of call handling scenarios

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.

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2.1. Interoperability Compliance Testing

Interoperability compliance testing consisted of successful handling of a variety of call scenarios as follows:

- Answer Inbound Internal/External Call
- Place Internal/External Call
- Attended Transfer
- Blind Transfer
- Hold/Retrieve
- Calls Queued Display
- Dial From Telephone Book
- Go Busy
- Go Into Night-Service
- Send DTMF
- Call Split
- Redial
- BLF Verification
- Conference
- Priority Calls

2.2. Test Results

All test cases were executed successfully.

2.3. Support

Support for Pridis Connecsy is available as follows:

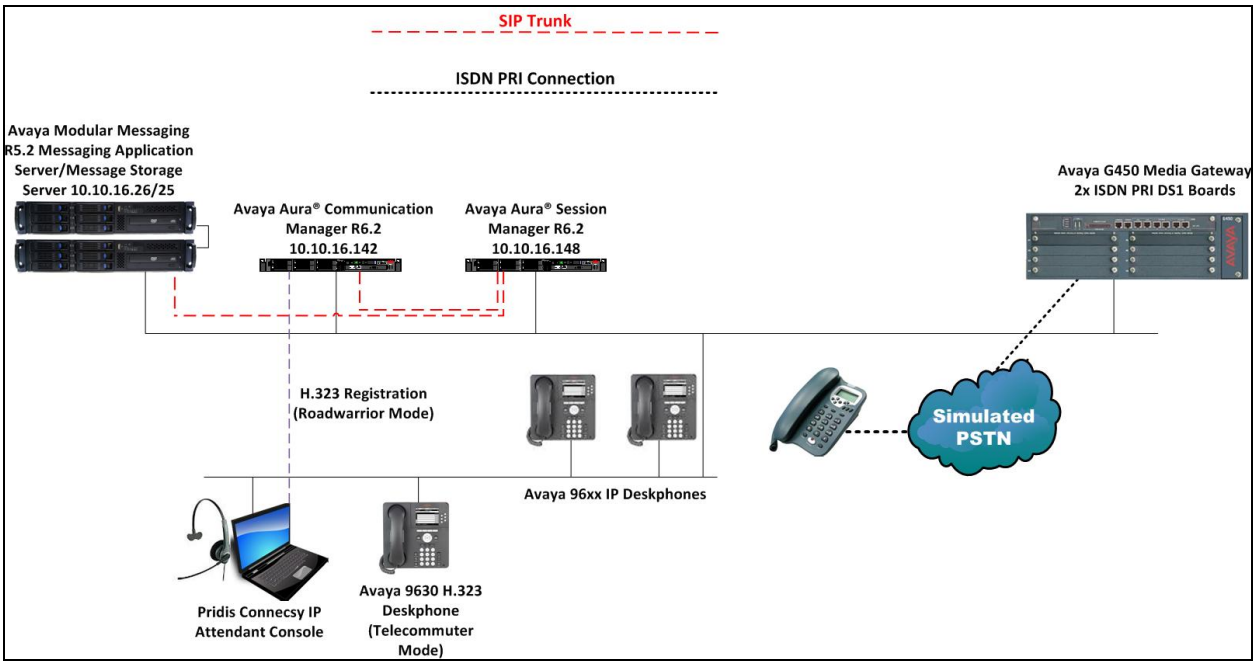
Pridis B.V.
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3. Reference Configuration

An Avaya S8800 Server running Avaya Aura® Communication Manager R6.2 serving H.323 endpoints with an Avaya G450 Media Gateway was configured along with Avaya Aura® Session Manager R6.2 hosted on an Avaya S8800 Server providing SIP endpoints. Pridis Connecsy was hosted on a Windows workstation and testing was executed in both telecommuter and road-warrior modes. Avaya Modular Messaging provided voicemail access.



Avaya Aura® Communication Manager, Avaya Aura® Session Manager and Avaya Modular Messaging with Pridis Connecsy Solution

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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 running on Avaya S8800 Server	R6.2 SP5 build R016x.02.0.823.0-20199
Avaya Aura® Session Manager running on Avaya S8800 Server	R6.2 SP3
Avaya Aura® System Manager running on Avaya S8800 Server	R6.2 SP4
Avaya Modular Messaging running on S3500 Server pair	5.2 Patch 8 MAS - 9.2.150.13
Avaya G450 Media Gateway • MM710	32.24.0 • HW5 FW22
Avaya 9630 IP Deskphone	• H323 3.105S • SIP 2.6.8.4
Avaya 2420 Digital Deskphone	2420 Rel 6.00 HWT=51H HWV=1 FWV=6
Pridis Connecsy running on a Microsoft Windows desktop PC	• Pridis IP-Connecsy 6.0.0.4 • Pridis H.323 IP-Console Media Connector Build 5.00.0022 • Microsoft Windows 7

5. Configure Avaya Aura® Communication Manager

The configuration and verification operations illustrated in this section were all performed using the Communication Manager System Administration Terminal (SAT). It is assumed that the relevant dialplan, hunt groups, stations, trunks and call routing have been configured. The connection from Communication Manager to Session Manager is not specific to the test environment and is therefore not detailed below.

The information provided in this section describes the configuration of Communication Manager for this solution. For all other provisioning information such as installation and configuration, please refer to the product documentation in **Section 9**.

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5.1. Configure Dial Plan

Enter the command **change dialplan analysis** and configure the **Call Type** to **attd** with an appropriate **Dialed String** and **Length** accordingly. In this case **0** is used to call the attendant group.

```
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
   0           1   attd
   1           3   fac
   2           10  udp
   4           4   udp
   5           4   ext
   6           4   ext
```


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5.2. Configure Main Incoming Number

The number dialed to which calls will route to Connecsy must be configured. This would usually reflect the main published company number. Enter the command **change inc-call-handling-trmt trunk-group 2** where trunk 2 is the trunk on which the main number is delivered. In the example below **Service/Feature** is configured as **public-ntwrk** the **Number Len** of **11** consisting of **Number Digits 01415556050** is all deleted and the **attd** number **0** is inserted. Set the **Night Serv** accordingly, in this case **6002** is used when the attendant pushed night-service, where 6002 is a preconfigured station configured on Communication Manager.

```
change inc-call-handling-trmt trunk-group 2                    Page   1 of  30
                        INCOMING CALL HANDLING TREATMENT
 Service/      Number   Number      Del Insert            Per Call Night
 Feature        Len      Digits                          CPN/BN   Serv
 public-ntwrk    11 01415556050      11  0                        6002
```

5.3. Configure Attendant

An attendant console must be added for use by Connecsy. Enter the command **add attendant x** where **x** is an available attendant number and configure as follows:

- **Type** – enter **302**
- **Name** – enter an identifying name
- **Extension** – enter an extension number appropriate to the dialplan
- **Console Type** – configure as principal
- **Port** – enter **IP**
- **Security Code** – enter an appropriate code.

```
add attendant 1                                                Page   1 of   4
                            ATTENDANT CONSOLE 1

         Type: 302               Name: Pridis Attendant
    Extension: 6050             Group: 1                Auto Answer: none
 Console Type: principal           TN: 1                Data Module? n
         Port: IP              COR: 1           Disp Client Redir? n
Security Code: 1234                COS: 15           Display Language: english
                                                     H.320 Conversion? n

DIRECT TRUNK GROUP SELECT BUTTON ASSIGNMENTS (Trunk Access Codes)
    Local Remote            Local Remote              Local Remote
 1:                      5:                        9:
 2:                      6:                       10:
 3:                      7:                       11:
 4:                      8:                       12:

HUNDREDS SELECT BUTTON ASSIGNMENTS
 1: 60           5:              9:              13:              17:
 2:              6:             10:              14:              18:
 3:              7:             11:              15:              19:
 4:              8:             12:              16:              20:
```


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On **Page 2** configure **Direct IP-IP Audio Connections** to **y**. This is required when using Connecsy in roadwarrior mode.

```
add attendant 1                                               Page   2 of   4
                               ATTENDANT CONSOLE

VIS FEATURE OPTIONS

              Auto Start? y
      Echo Digits Dialed? y

IP FEATURE OPTIONS

Remote Softphone Emergency Calls:as-on-local Direct IP-IP Audio Connections?y
 Emergency Location Ext: 6050            Always Use? n   IP Audio
Hairpinning? n
                                                      Service Link Mode:
permanent
```

Configure **Page 3** with the following **Feature Button Assignments**; these will be mapped to buttons on Connecsy in **Section 6**.

```
add attendant 1                                               Page   3 of   4
                               ATTENDANT CONSOLE

FEATURE BUTTON ASSIGNMENTS

 1: split                                13: class-rstr
 2: dont-split                           14: intrusion
 3: goto-cover                           15:
 4: override                             16:
 5: priority                             17: serial-cal
 6: hold                                 18: em-acc-att
 7: atd-qcalls                           19: forced-rel
 8: trk-id                               20: cw-ringoff
 9: cdr1-alrm                            21: in-ringoff
10: last-numb                            22: re-ringoff
11: split-swap                           23: night-serv
12:                                      24: pos-busy
```


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5.4. Configure Console Parameters

Enter the command **change console-parameters** and on **Page 2** set **SAC Notification** to **y** in order that the BLF displays the appropriate notification when an extension has SAC activated.

```
change console-parameters                                    Page   2 of   4
                              CONSOLE PARAMETERS

TIMING
  Time Reminder on Hold (sec): 30              Return Call Timeout (sec): 30
  Time in Queue Warning (sec):        Overflow Timer to Group Queue (sec):

  INCOMING CALL REMINDERS
      No Answer Timeout (sec):                          Alerting (sec):
                               Secondary Alert on Held Reminder Calls? y

ABBREVIATED DIALING
     List1:                   List2:                   List3:
             SAC Notification? y

                           COMMON SHARED EXTENSIONS
            Starting Extension:                  Count:
   Busy Indicator for Call Parked on Analog Station Without Hardware? n
```

5.5. Configure System-Parameters

Enter the command **change system-parameters features** and on **Page 7** configure **Transfer Upon Hang-Up** to **y**.

```
display system-parameters features                           Page   7 of  19
                        FEATURE-RELATED SYSTEM PARAMETERS

CONFERENCE/TRANSFER
               Abort Transfer? n                 No Dial Tone Conferencing? n
       Transfer Upon Hang-Up? y       Select Line Appearance Conferencing? n
Abort Conference Upon Hang-Up? n                                   Unhold? n
   No Hold Conference Timeout: 60  Maximum Ports per Expanded Meet-me Conf: 7

                  External Ringing for Calls with Trunks? remote-only
ANALOG BUSY AUTO CALLBACK
               Without Flash? n

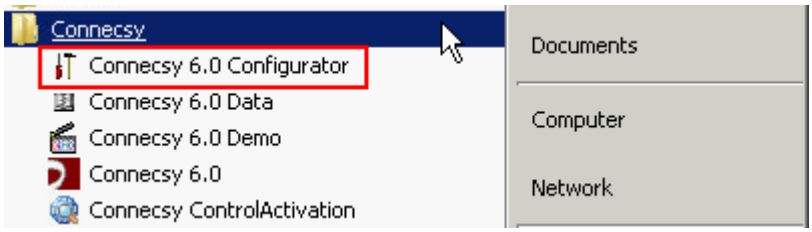


AUDIX ONE-STEP RECORDING
                            Recording Delay Timer (msec): 500
Apply Ready Indication Tone To Which Parties In The Call? all
  Interval For Applying Periodic Alerting Tone (seconds): 15
                                 Audix Recording Display? n
POSTED MESSAGE
        Require Security Code? n
```

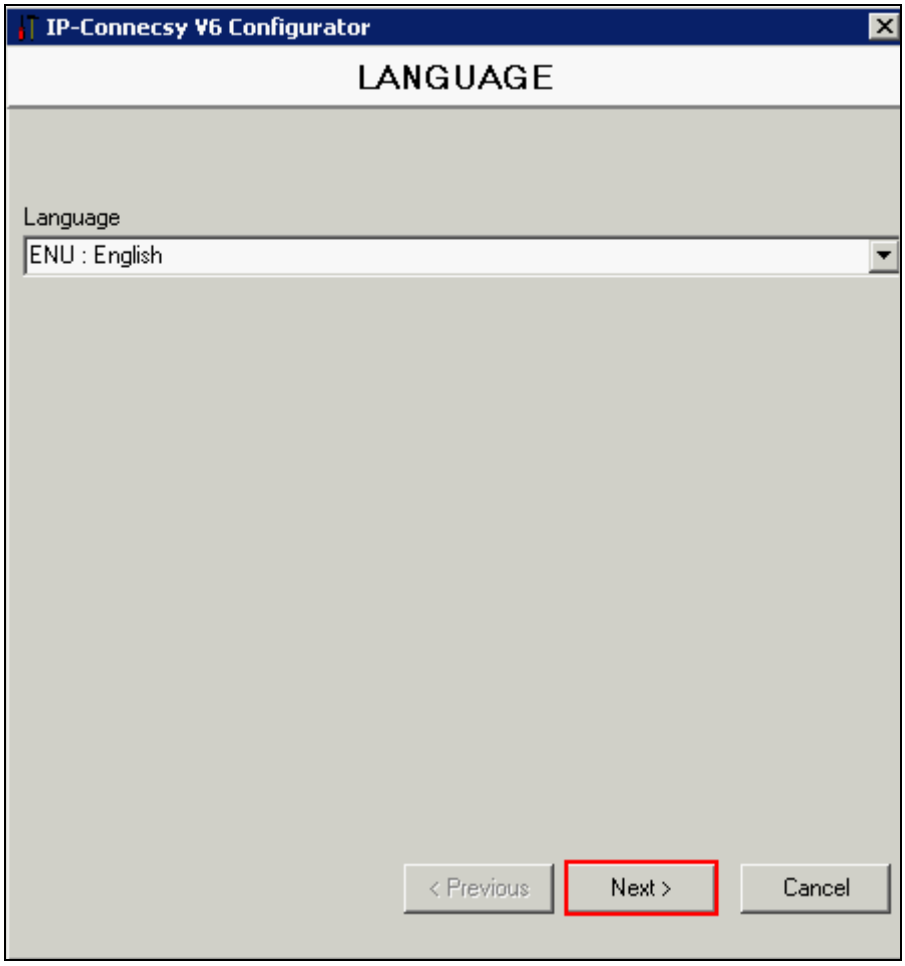

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6. Configure Pridis Connecsy

Install the Connecsy application software from the distribution media, accepting the defaults. Start the Connecsy Configuration program from the Windows Start menu.



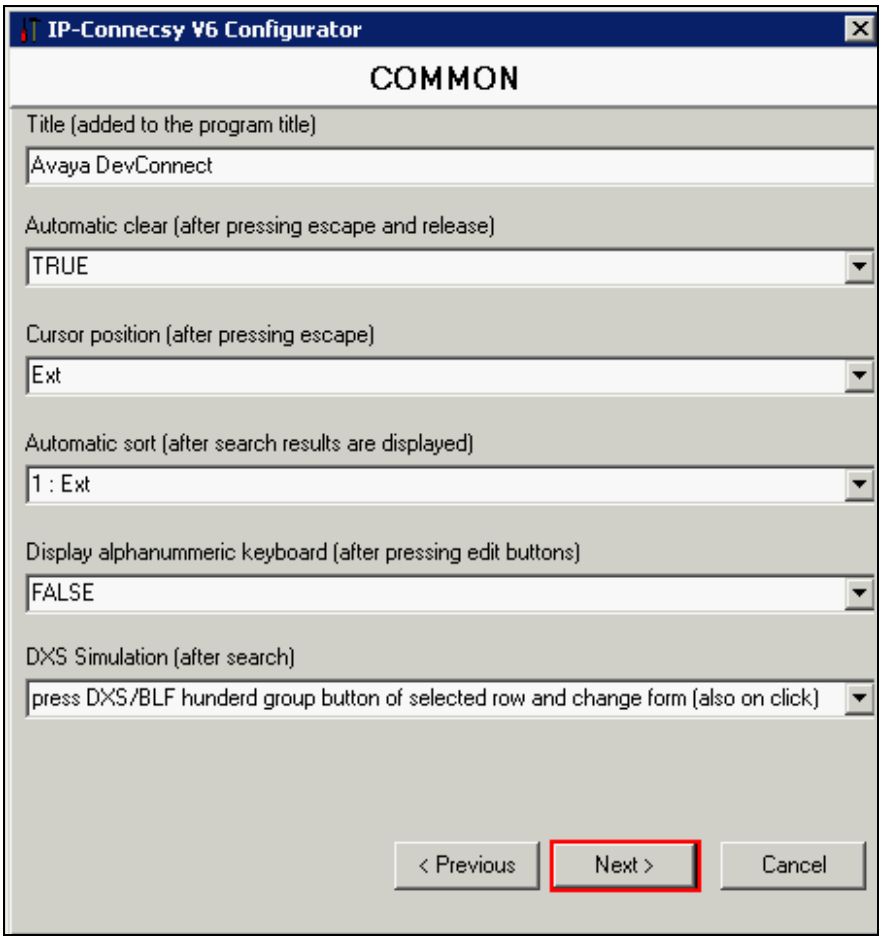
Select the desired **Language** and click **Next**.



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The fields of the **COMMON** configuration dialog should be set as follows. After setting the parameters, click **Next**.

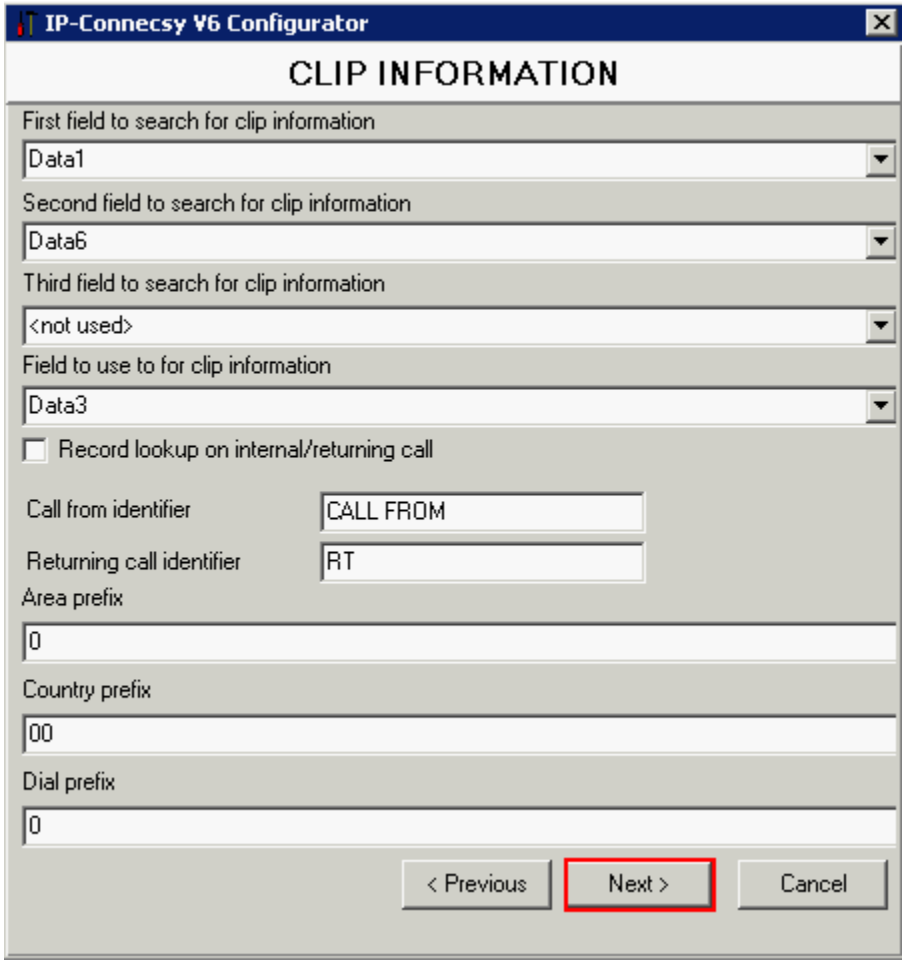
- **Title -** Enter the title to be used by the Connecsy application.
- **Automatic clear** – set to **TRUE,** this option provides an automatic clear of the search fields. After CANCEL and RELEASE the escape button will be automatically pressed. The search fields and the datasheet will be cleared. The cursor jumps into its start position set at the cursor position.
- **Cursor position** – Set to **Ext** when the escape button is pressed, the edit fields are automatically cleared and the cursor position is located in the field selected with this option.
- **Automatic sort** – set to **1:Ext** this parameter enables automatic sorting after searching the database; the number is indicating the column that should be sorted.
- **Display alphanumeric keyboard** - set to **FALSE**. In case a touch-screen monitor is installed it could be useful to enable the following parameter (value TRUE or FALSE). When indicating TRUE the buttons next to the edit fields on the Connecsy main screen will cause the alphanumeric display to appear, otherwise the buttons will start a search action on the search-string present in the particular edit field.
- **DXS Simulation** - set to **press DSX/BLF hundred group button of selected row and change from (also on click)**



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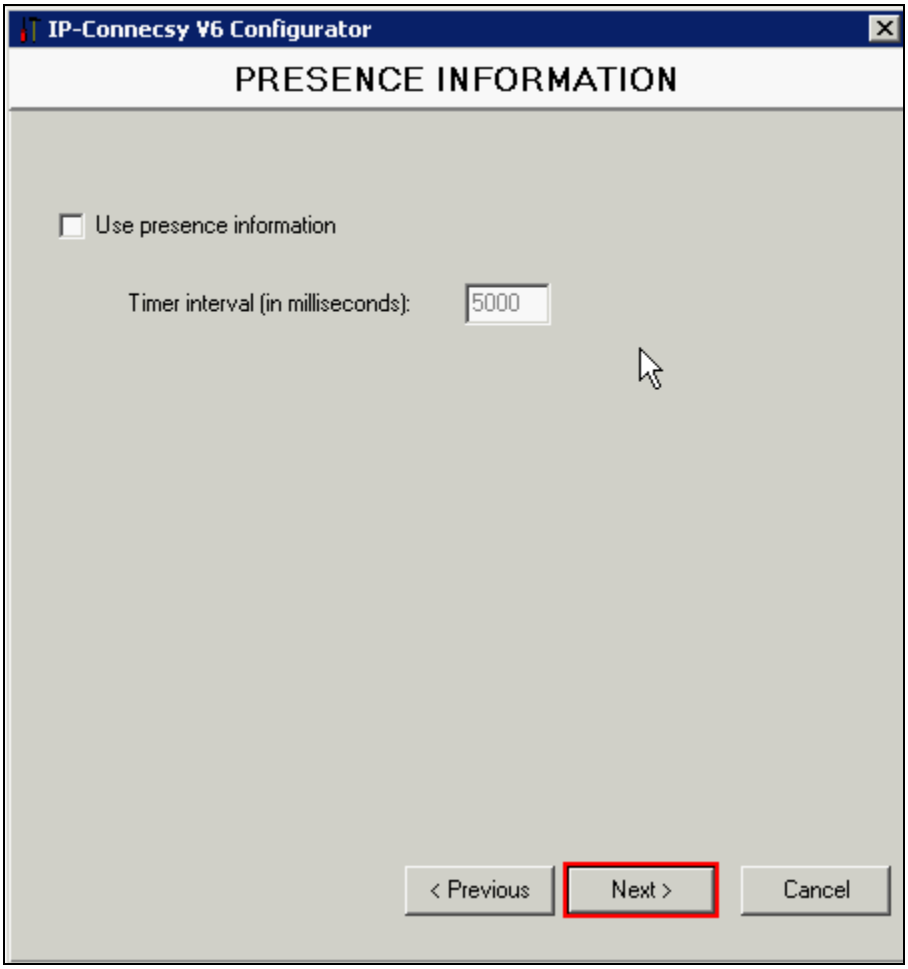
The fields of the **CLIP INFORMATION** configuration dialog should be set as follows. After setting the parameters, click **Next**.

- **First field to search for clip information** – set to **Data1**. In case clip information is found, the datafield is copied into the clipinfo (line button); the datafield that should be used can be specified here (value between 0-11).
- **Second field to search for clip information**– set to **Data6**
- **Third to search for clip information -** Not used.
- **Field to use to for clip information** – set to **Data3**
- **Record lookup on internal/returning call** – leave unchecked
- **Area prefix** – set as appropriate to the installation, in this case **0**. The clip info received from Communication Manager does not always contain the prefix strings. These three strings can be specified to assist in resolving the target of clip info, thereby increasing the chance of resolving a fully qualified telephone number.
- **Country prefix** – set as appropriate, in this case **00**
- **Dial prefix** – set as appropriate, in this case **0**



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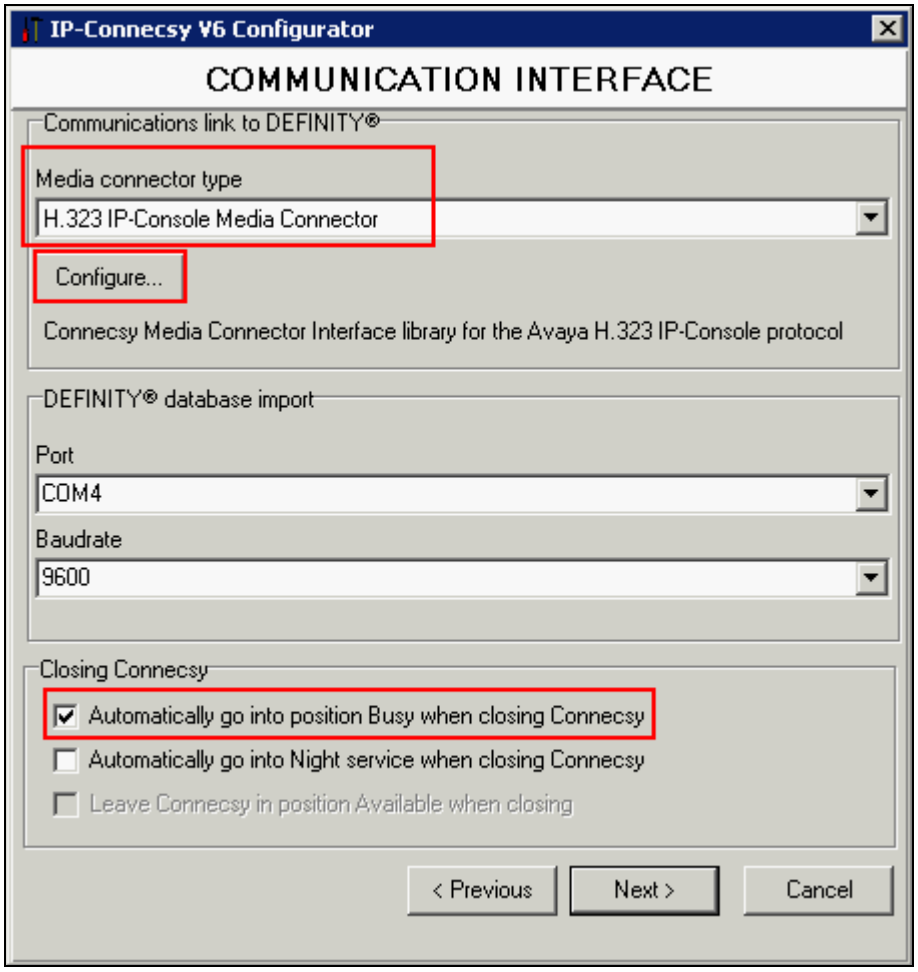
The **PRESENCE CONFIGURATION** dialog box will appear. When SNMP is available from Communication Manager and the Connecsy Dataservice is configured, SNMP presence can be added by extension. In this case **Use presence information** is left unchecked. Click **Next**.



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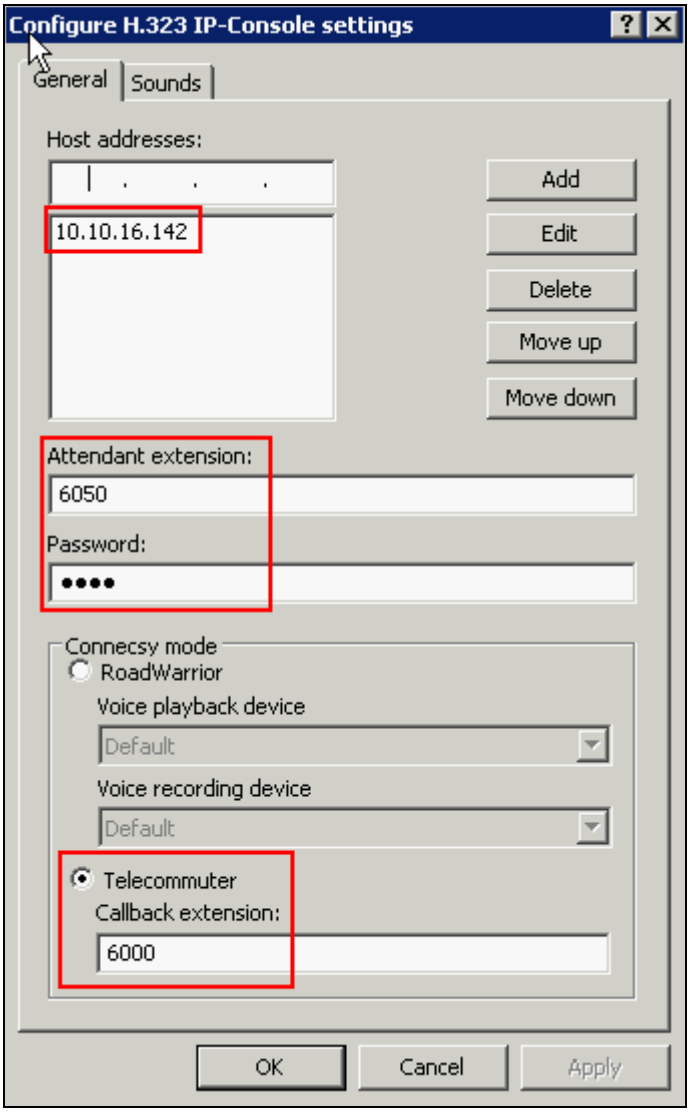
The fields of the **COMMUNICATION INTERFACE** configuration dialog should be set as follows. Note that the serial interface referred to by the "Port" and "Baudrate" parameters was not used for compliance testing.
Media connector type - set to **H.323 IP-Console Media Connector**
Automatically go into position Busy when closing Connecsy – place a check in the box
Automatically go into Night service when closing Connecsy– leave unchecked

Click **Configure** when done.



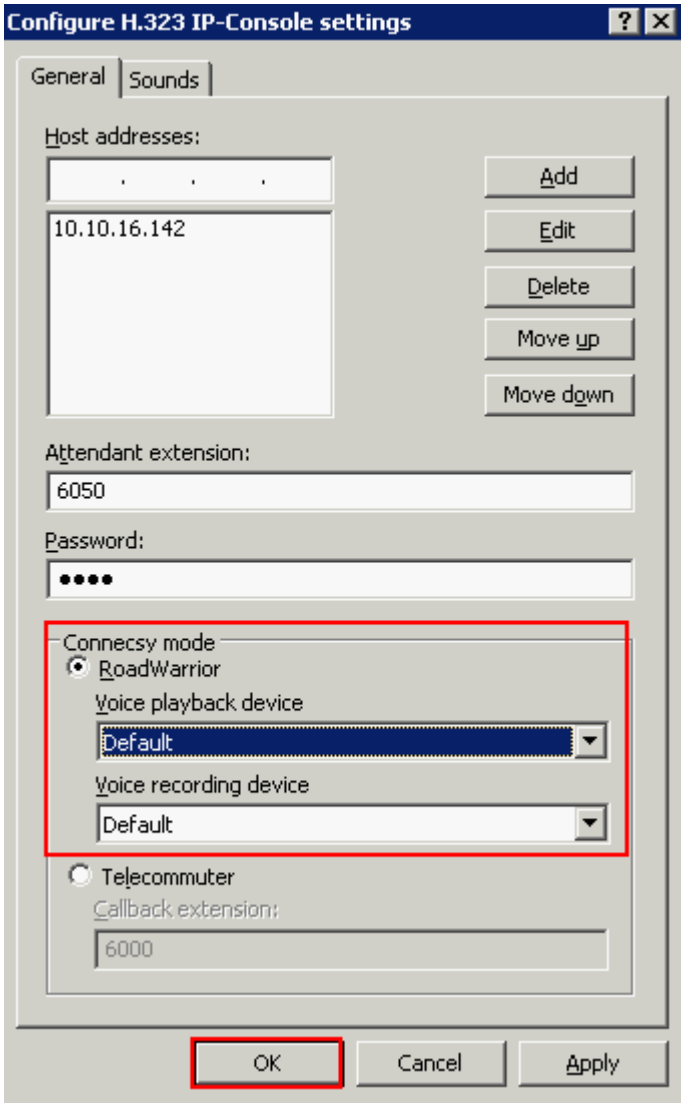
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Enter the IP Address of Communication Manager, in this case the procr IP address, and click **Add.** In the **Attendant extension** and **Password** fields enter the extension number and password assigned to the attendant in **Section 5.3**. Where the console is used in telecommuter mode, select the **Telecommuter** radio button, enter the extension number used for the attendant speechpath in the **Telecommuter Callback extension** field. In this case the preconfigured extension 6000 is used.



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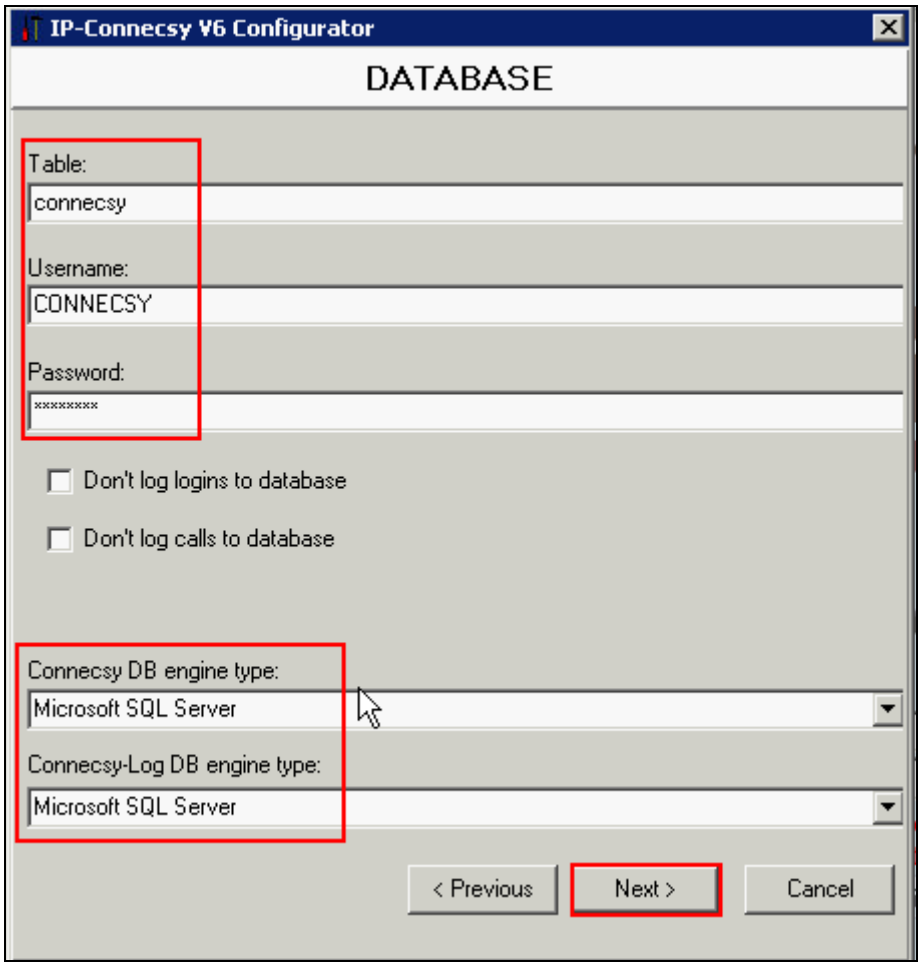
When RoadWarrior mode is required, select the **RoadWarrior** radio button and choose the appropriate **Voice playback device** and **Voice recording device**. This differs dependent upon the audio device in the attendant console PC. Click **OK** when done and **Next** (not shown).



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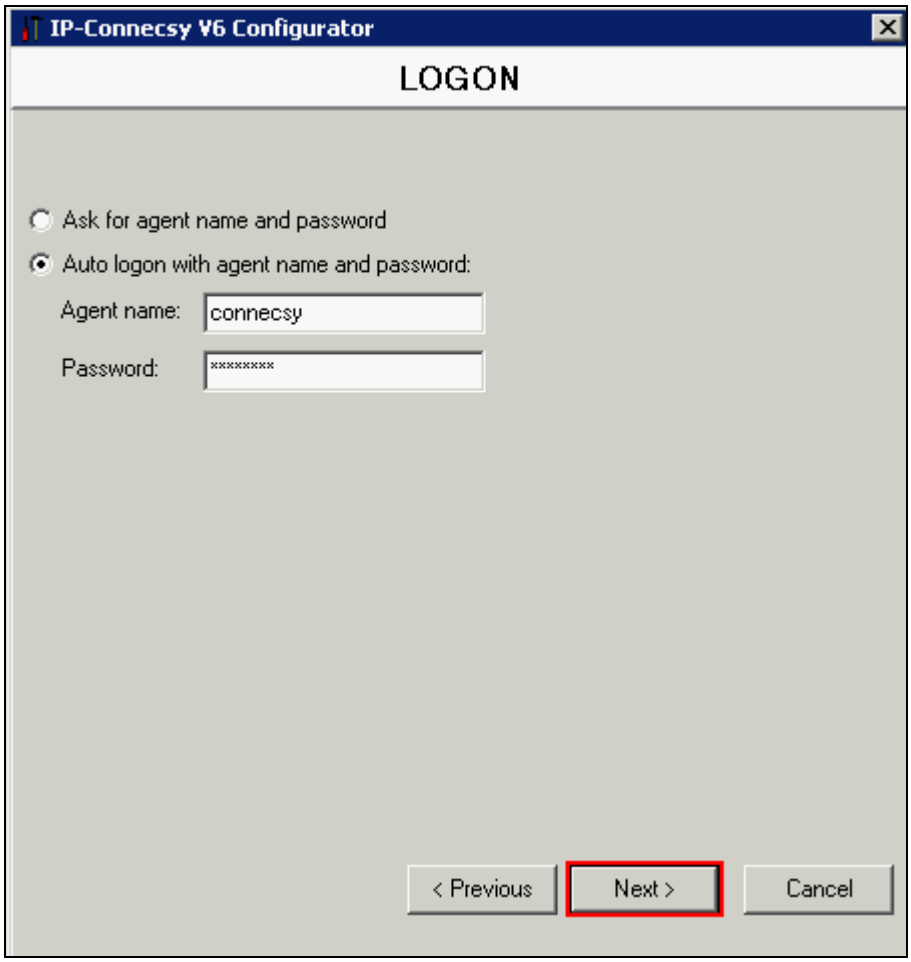
For the purposes of the compliance testing a preconfigured Microsoft SQL 2008 instance was used to provide database services. The fields of the **DATABASE** configuration dialog should be set as described as follows. After setting the parameters, click **Next**.

Table – enter the table name configured in SQL 2008
Username and **Password** – enter a username and password used to access the SQL database
Connecsy DB engine type and **Connecsy-Log DB engine type** – in this example set to **SQL**



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The **LOGON** dialog allows an agent to be optionally logged in when Connecsy is started. This agent refers only to an agent configured on the Connecsy application and does not relate to any agent configured on Communication Manager. Enter the appropriate agent details and click **Next**.

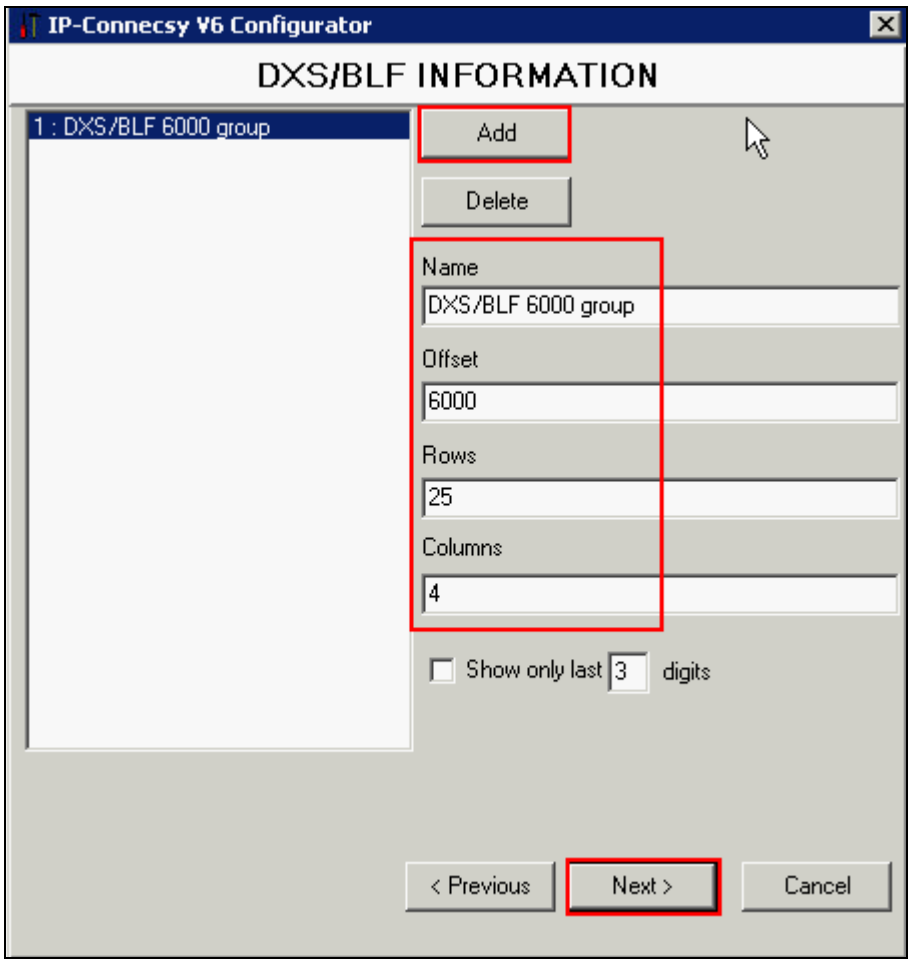


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The **DXS/BLF INFORMATION** screen is used to configure which busy lamp fields should be displayed to the agent. In this case extensions in the 6000 range are configured as follows:

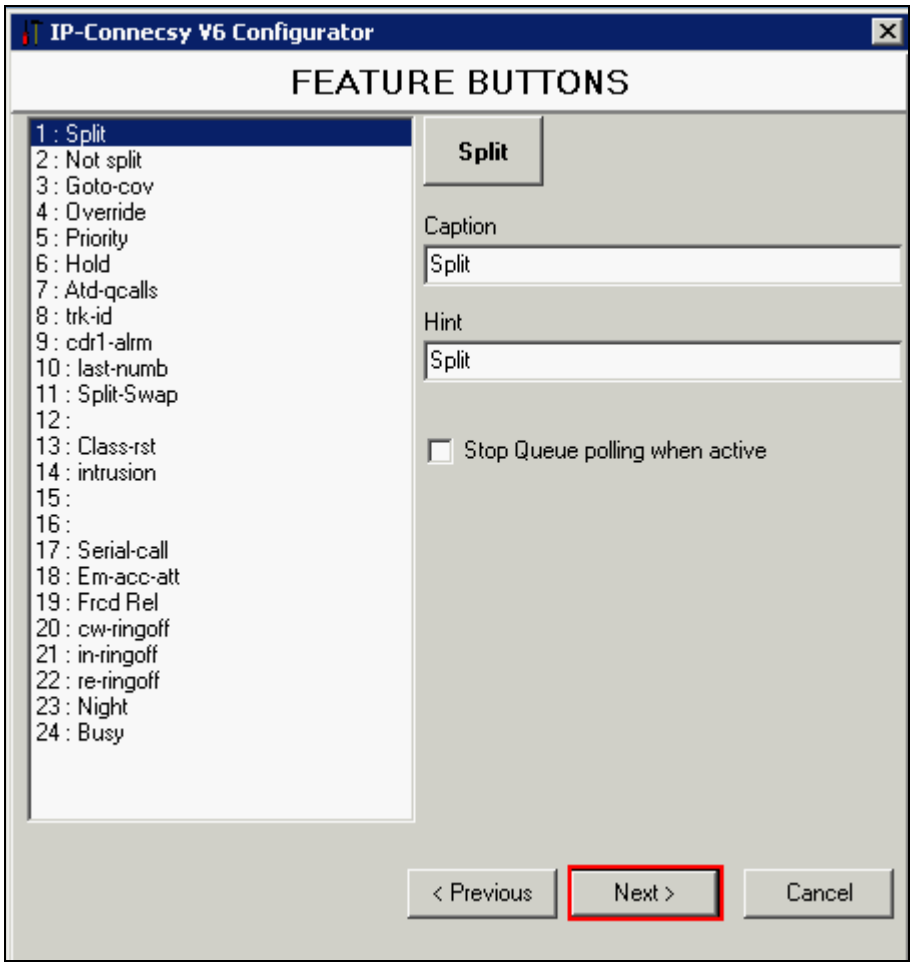
- **Name** – enter an identifying name
- **Offset** – enter the starting number of the number range to be displayed
- **Rows** and **Columns** – enter the format in which the BLF will be displayed

Click **Add** and **Next** when done.



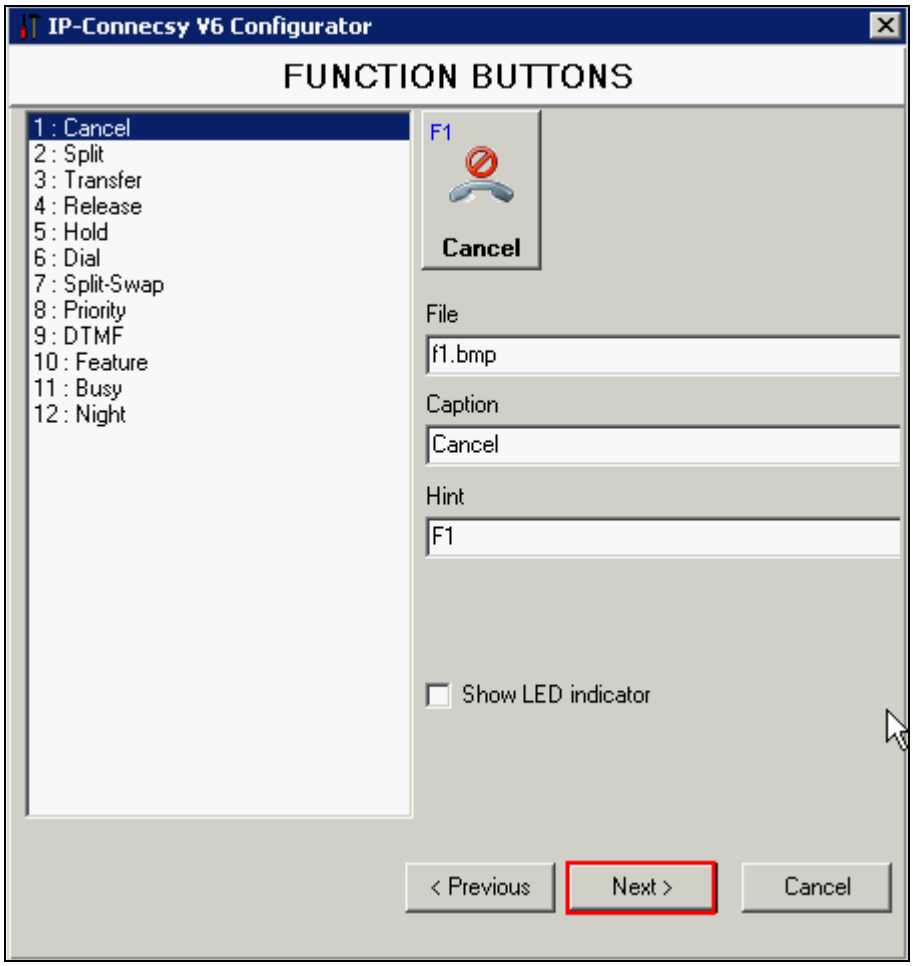
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Configure the **FEATURE BUTTONS** as shown and click **Next**. These settings correspond to the feature button assignments configured in **Section 5.3**.



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The **FUNCTION BUTTONS** screen is configured according to the default attendant settings, as shown below. Click **Next** when done.

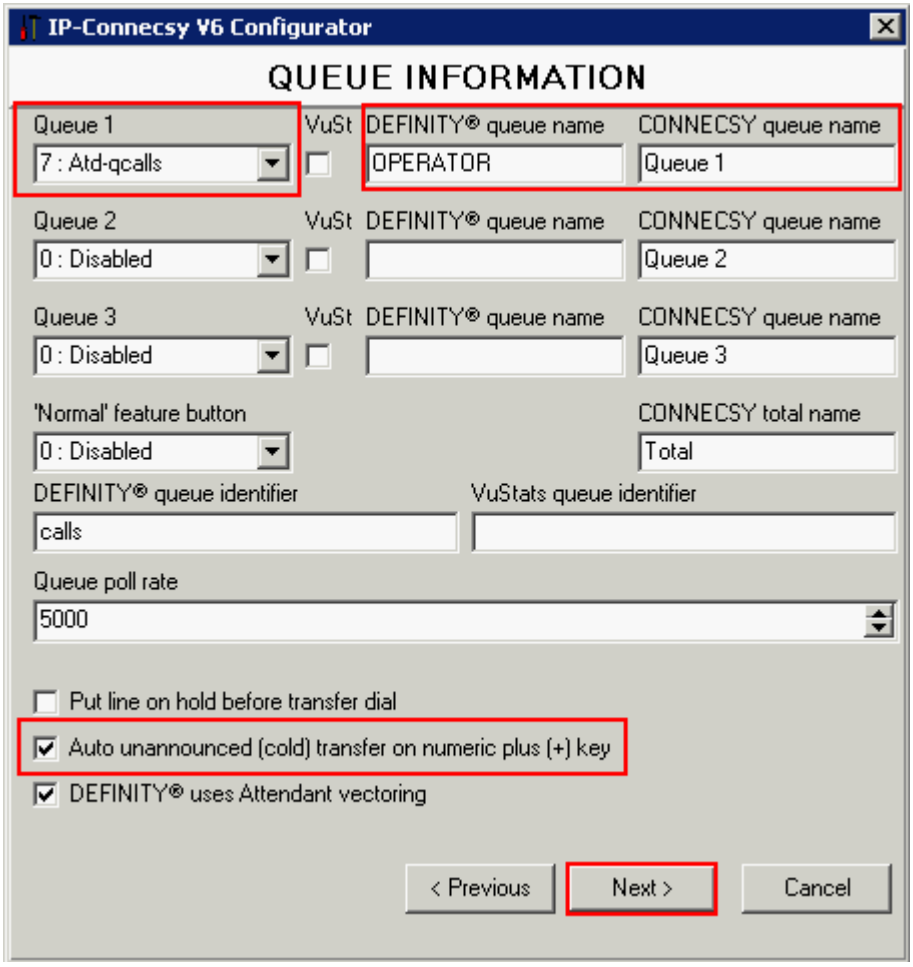


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The **QUEUE INFORMATION** screen is shown, configure as follows:

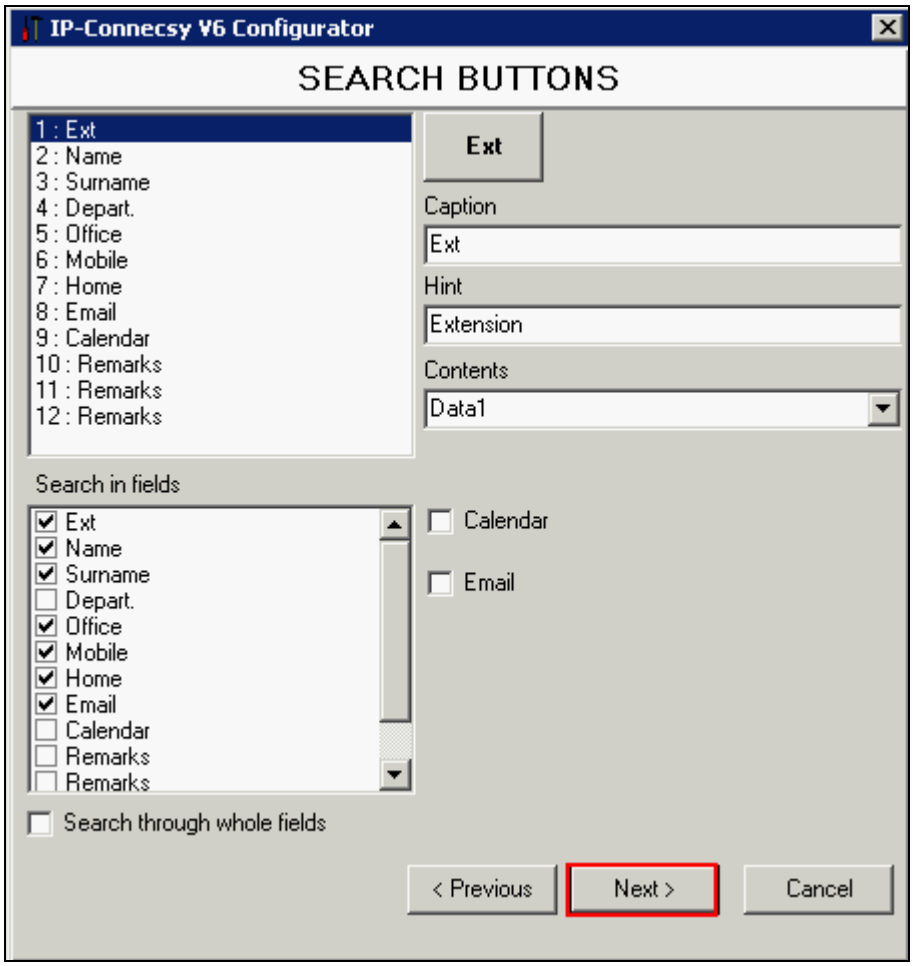
- **Queue 1** – choose the **7: Atd-qcalls** option from the drop down list
- **Definity® queue name** – enter **OPERATOR**
- **CONNECSY queue name** – enter **Queue 1**
- **Auto unannounced (cold) transfer on numeric plus (+) key** – place a check in the box

Click **Next** when done.



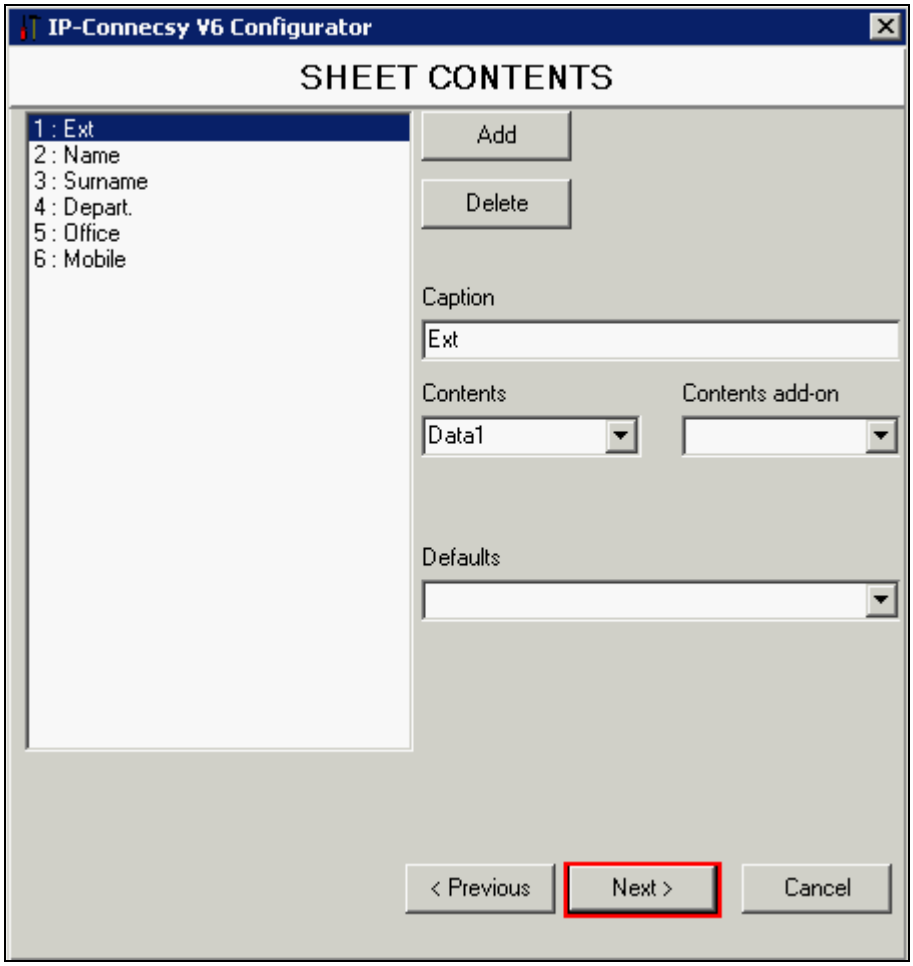
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In the **SEARCH BUTTONS** configure as shown below to configure the search options and click **Next**.



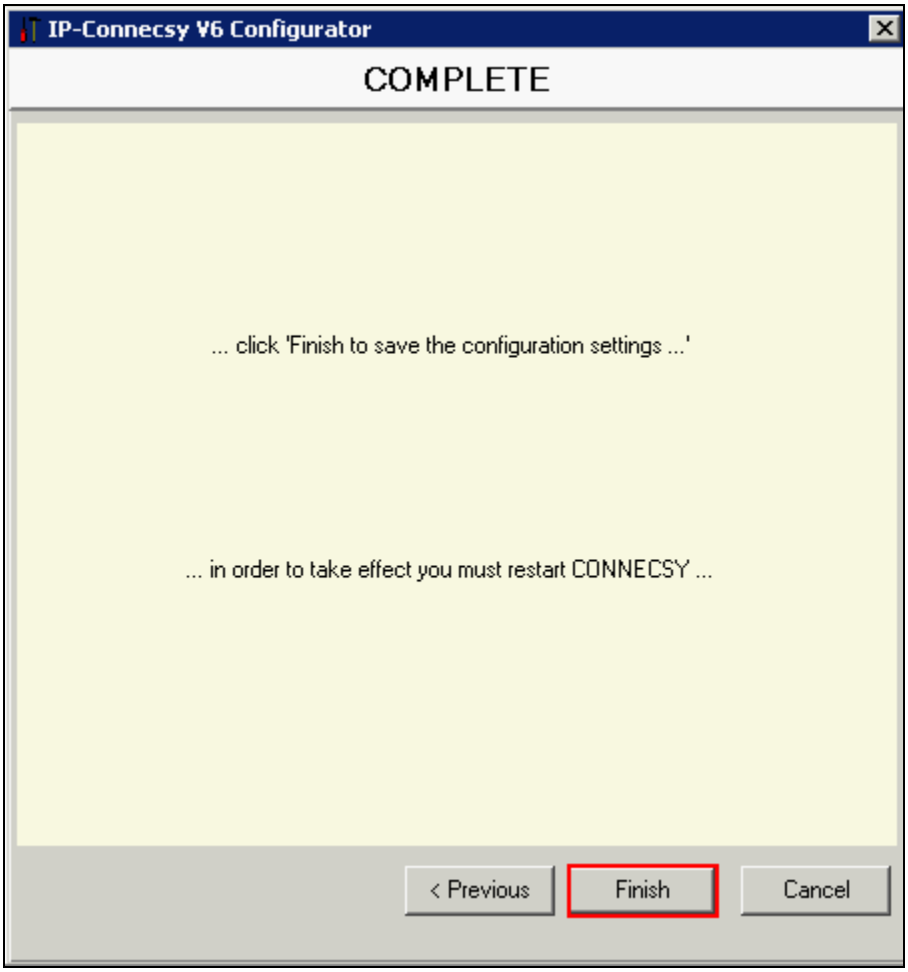
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Configure the **SHEET CONTENTS** as shown below and click **Next**.



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The **FINISH** screen will appear, click **Finish** to commit the configuration settings.



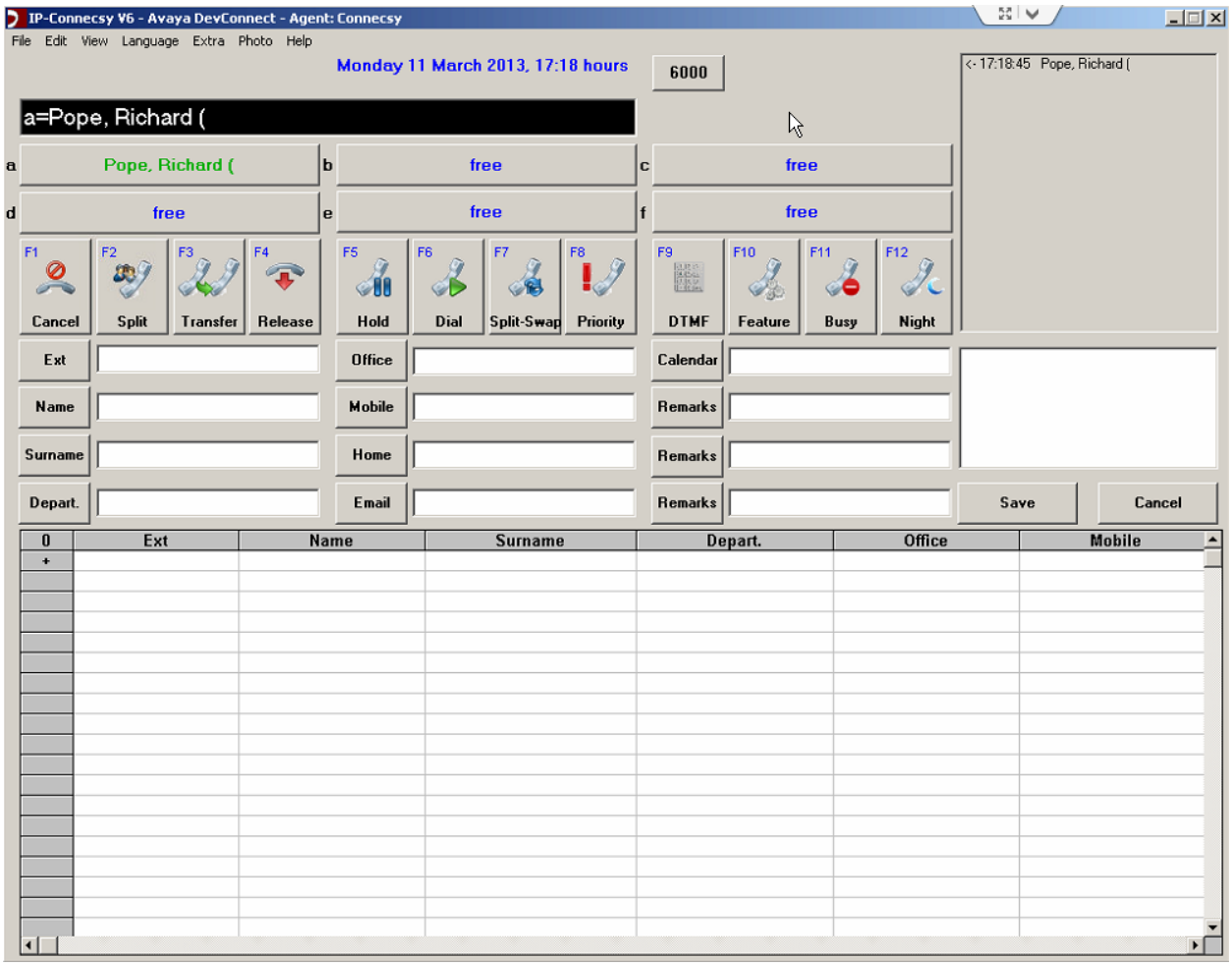
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7. Verification Steps

The following steps may be used to verify the configuration.

7.1. Verify Pridis Connecsy

Start Connecsy configured in either roadwarrior or telecommuter mode, verify that the console is displayed, can be taken out of busy and is able to handle incoming and place outgoing calls.



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7.2. Verify Avaya Aura® Communication Manager

Answer a call using the Connecsy console and using SAT enter the command **status attendant 1** and verify the service state of the attendant is **in-service/active**.

```
status attendant 1
                              ATTENDANT STATUS

 Console Number: 1                        Service State: in-service/active
           Port: S00031                Download Status: pending



Connected Ports: 001V505
```

8. Conclusion

These Application Notes describe the required configuration steps for configuring Avaya Aura® Communication Manager to interoperate with Pridis Connecsy and provide attendant console functionality. All test cases completed successfully with any observations and exceptions noted in **Section 2.2**.

9. Additional References

This section references the product documentations that are relevant to these Application Notes.

Avaya product documentation can be found at http://support.avaya.com.

- *Administering Avaya Aura® Communication Manager, Release 6.2, 03-300509, Issue 7.0 December 2012*

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