

iPECS

CCS IVR

User Manual

Please read this manual carefully before operating your set. Retain it for future reference.

iPECS is an Ericsson-LG Brand



Revision History

ISSUE	DATE	DESCRIPTION OF CHANGES
1.8	2014-02-28	Applied new BI

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1. iPECS CCS IVR

1.1 Pre-Installation Requirements

The requirements for CCS IVR are divided into two parts:

1.1 System Requirements and

1.2 Installation of CCS Desk and Dialogic HMP

1.1.1 System Requirements

The CCS IVR Server must meet the following minimum specifications.

CCS IVR Recommended Hardware				
Install Scope	Up to 100 Calls Per Day	Up to 300 Calls Per Day	Up to 600 Calls Per Day	More than 600 Calls Per Day
Dedicated Server Required	Yes	Yes	Yes	Yes
Dedicated SQL Server Required	No	No	No	No
Virtual Server Possible	Yes	Yes	Yes	Yes
Operating System	Windows 7 Professional or Windows Server 2008 R2	Windows Server 2008 R2	Windows Server 2008 R2	Windows Server 2008 R2
CPU	I3 2120 3.3GHz	I3 2120 3.3GHz	I3 2120 3.3GHz	I3 2120 3.3GHz
RAM	4 GB	4 GB	4 GB	8 GB
Disk Space	40 GB	40 GB	100 GB	200 GB

1.1.2 Installation of CCS Desk and Dialogic HMP

Before CCS IVR can be configured, the installation of CCS Desk must be completed (or included). Please consult *CCS Desk User Manual* Section 2 and Section 5 for more information.

1.2 Installation

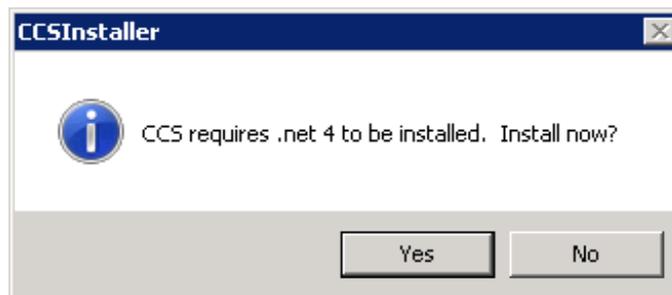
1.2.1 CCS IVR Server

This is for a new install of CCS IVR on a Single Server

Step 1 - Run the **CCSInstaller** application with Administrator privilege.



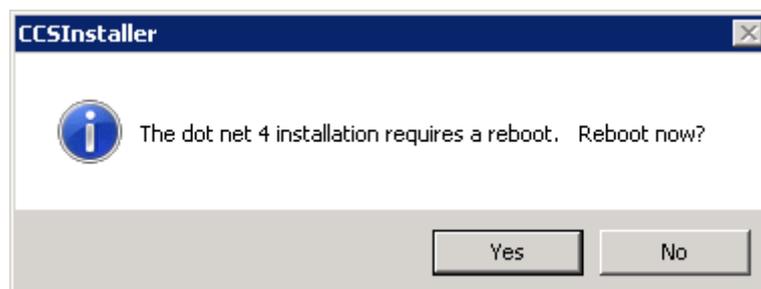
Step 2 - If **Microsoft .NET Framework 4.0** is not already installed, you will receive the message to install it → Select **Yes**.



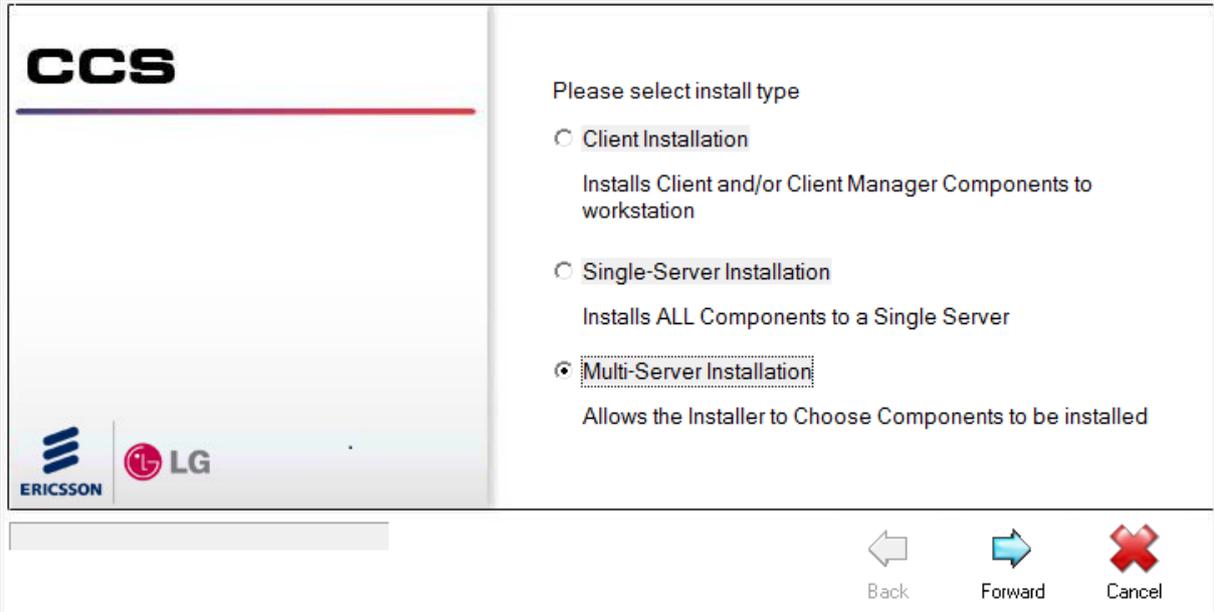
The installation may take a few minutes to complete.

NOTE

You will be prompted to **reboot** your system once the install completes. Please ensure you do the reboot before continuing with the install.



Step 3 - Once you log back in the CCS Installation will continue and you will receive the Option to Install the Client or Server → Select **Multi-Server Installation** → Click **Forward**.



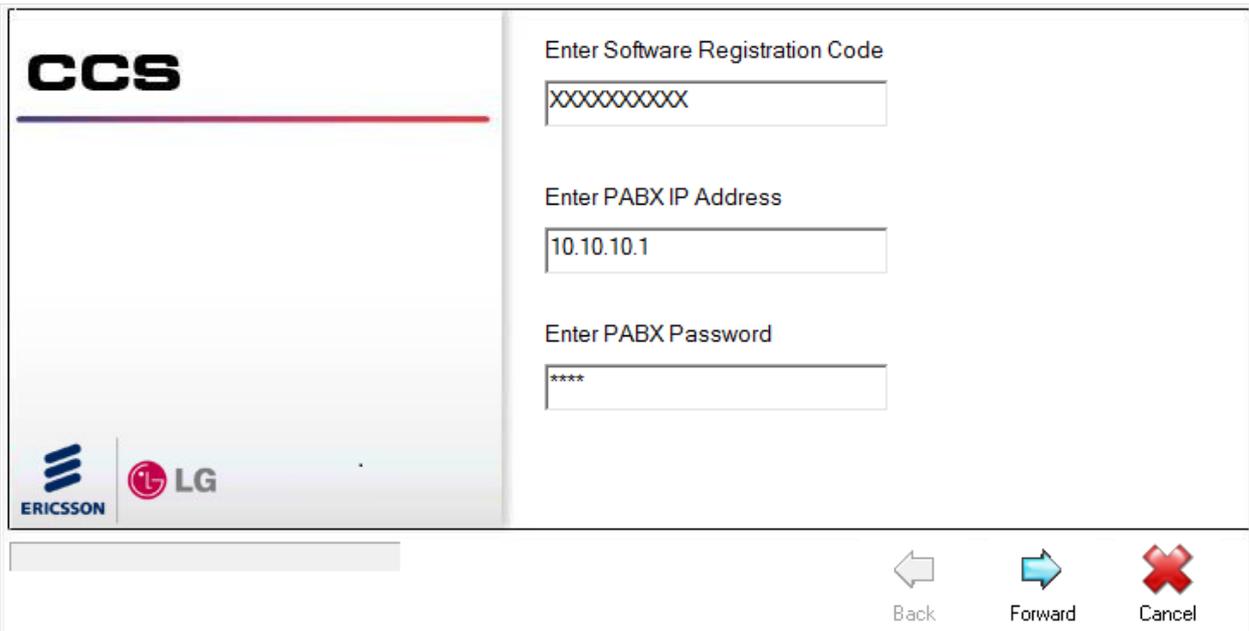
The screenshot shows the CCS installation interface. On the left, there is a header with the 'CCS' logo and the Ericsson and LG logos at the bottom. The main content area is titled 'Please select install type' and contains three radio button options: 'Client Installation' (described as 'Installs Client and/or Client Manager Components to workstation'), 'Single-Server Installation' (described as 'Installs ALL Components to a Single Server'), and 'Multi-Server Installation' (described as 'Allows the Installer to Choose Components to be installed'). The 'Multi-Server Installation' option is selected. At the bottom right, there are three navigation buttons: 'Back' (left arrow), 'Forward' (right arrow), and 'Cancel' (red X).

Step 4 - At the next screen you will need to enter your **CCS license code** and **PABX details**.

Software Registration Code – the CCS license package code.

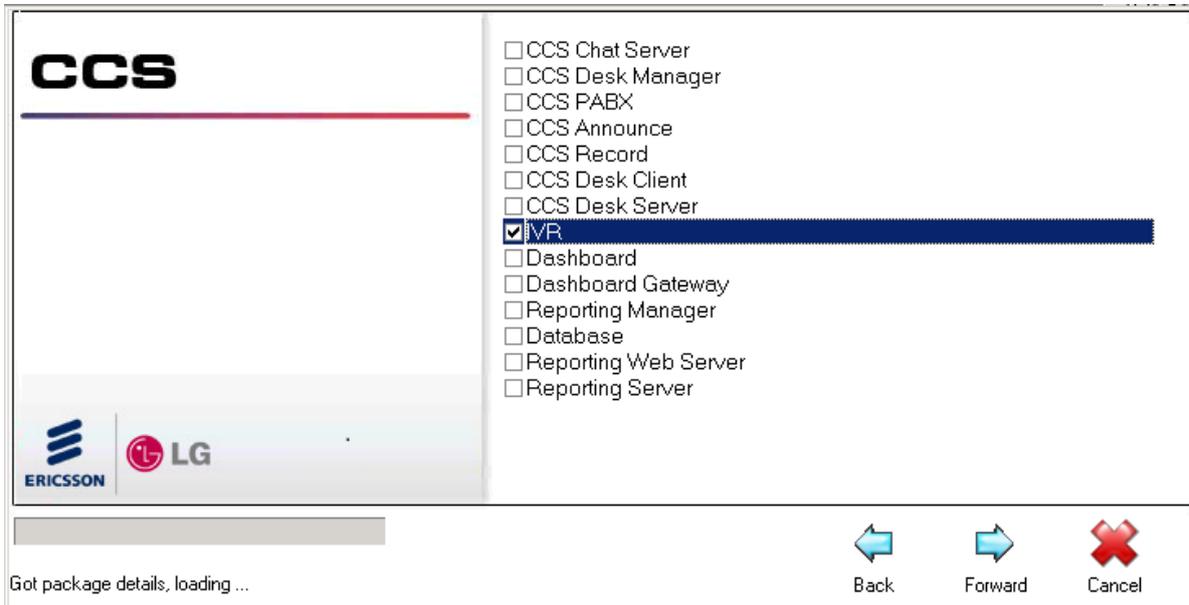
PABX IP Address – the IP address of the iPECS MFIM.

PABX Password – the administration password for iPECS.



The screenshot shows the CCS installation interface for entering details. On the left, there is a header with the 'CCS' logo and the Ericsson and LG logos at the bottom. The main content area contains three input fields: 'Enter Software Registration Code' (with a masked input 'XXXXXXXXXX'), 'Enter PABX IP Address' (with the input '10.10.10.1'), and 'Enter PABX Password' (with a masked input '****'). At the bottom right, there are three navigation buttons: 'Back' (left arrow), 'Forward' (right arrow), and 'Cancel' (red X).

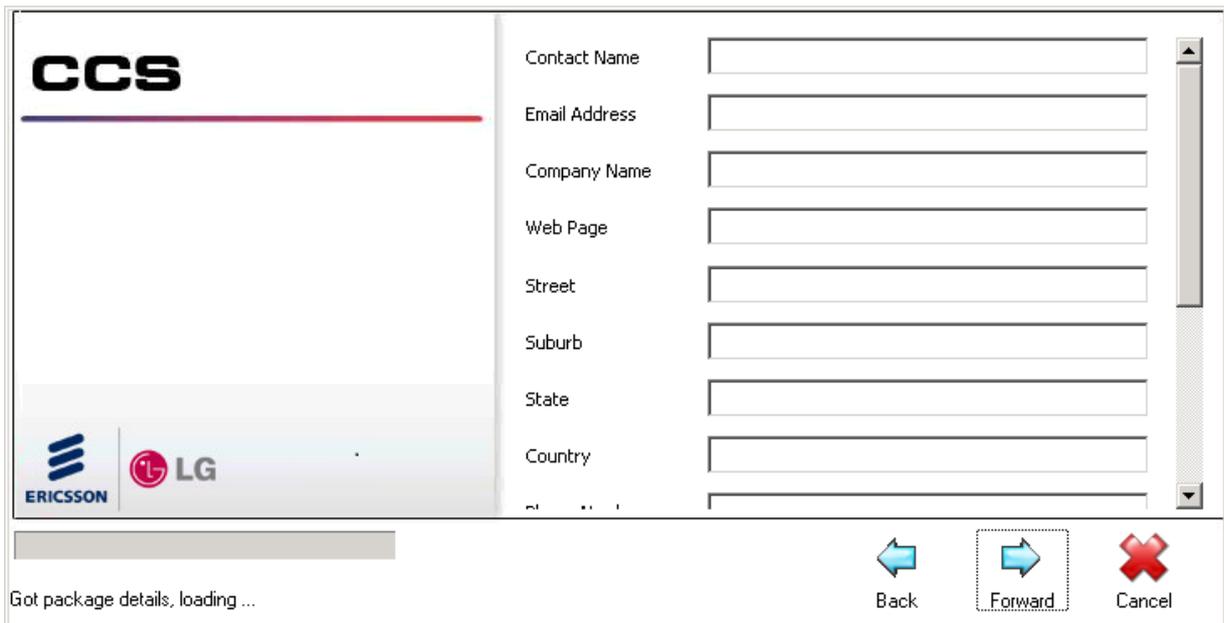
Step 5 - Choose the **CCS IVR components** to be installed → Click **Forward**.



Step 6 - Complete the **software registration form**.

The iPECS serial number that will be linked against the license is shown at the end of the form.

→ Click **Forward**.



CCS

State

Country

Phone Number

Region/City

PostCode

Reseller Name

Pabx Serial Number

ERICSSON LG

Got package details, loading ...

Back Forward Cancel

Step 8 - Read and agree to the **CCS Software Licence Agreement** → Click **Forward**.

CCS

Software Licence Agreement

IMPORTANT - YOU SHOULD READ THIS AGREEMENT CAREFULLY BEFORE USING THIS SOFTWARE. BY VERIFYING AND USING THE SOFTWARE, YOU INDICATE YOUR ACCEPTANCE OF THE FOLLOWING SOFTWARE LICENCE AGREEMENT.

This is a Software licence agreement between you ('you' or 'Licensee') and LG-Ericsson Co., Ltd. (LG-Ericsson) for use of the Software. This is not an agreement for sale of the Software. This is a Licence Agreement only. Please read the terms and conditions of this agreement before using the Software. By verifying and/or using the Software, you are agreeing to be legally

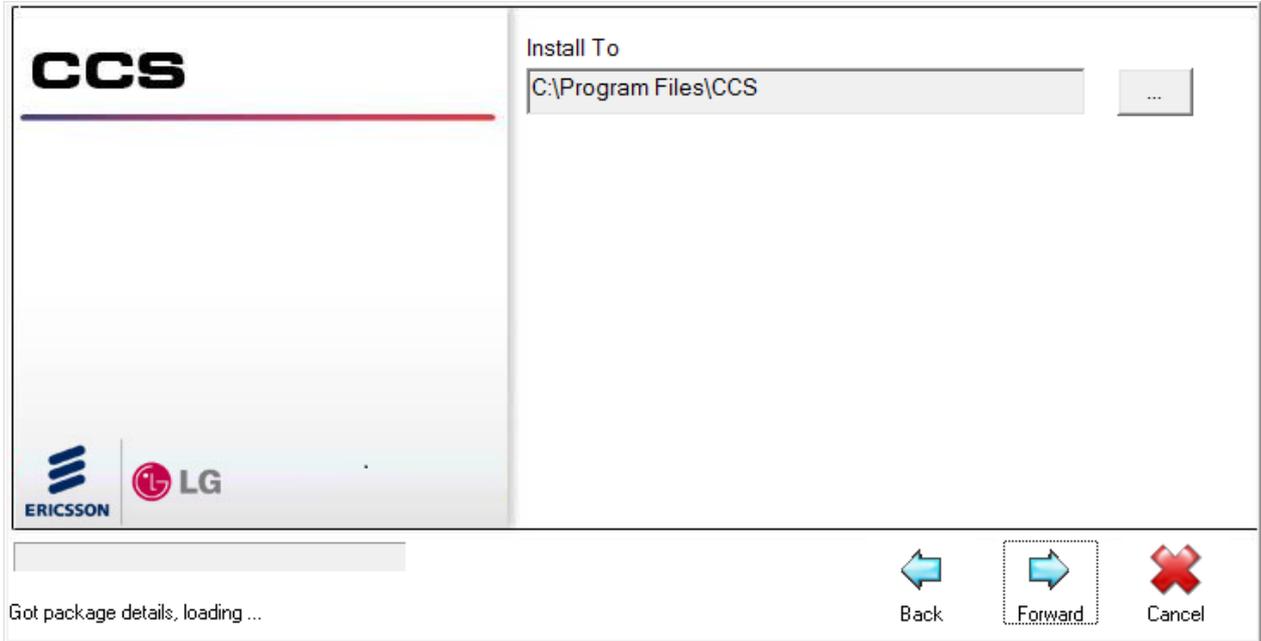
I have read and accept this licence

ERICSSON LG

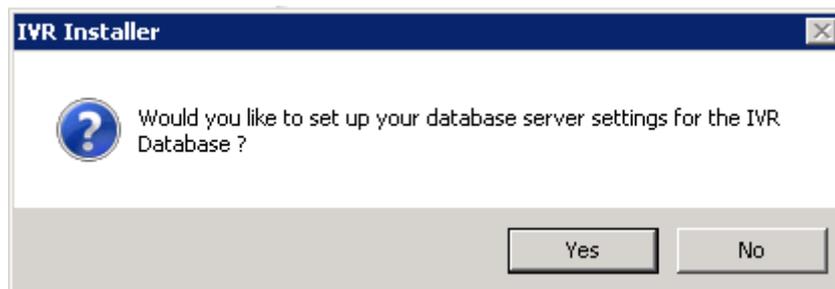
Got package details, loading ...

Back Forward Cancel

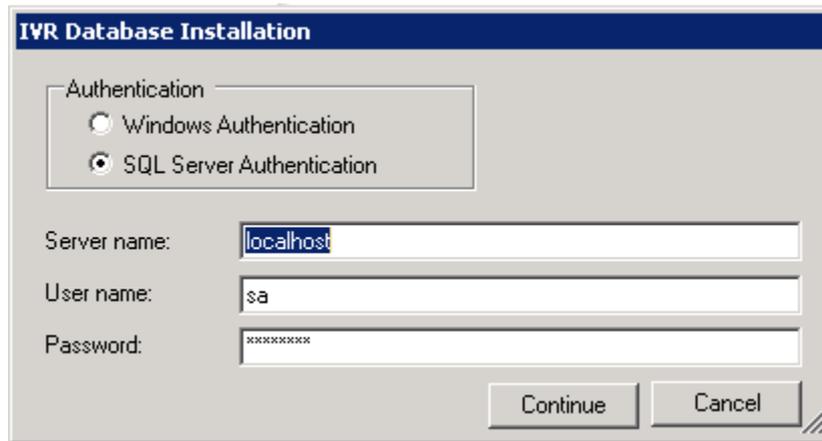
Step 9 - Confirm the **installation path** for the CCS program files → Click **Forward** to start the installation.



Step 10 - The IVR installation requires configuration to the **CCS MSSQL Server** → Select **Yes**.



→ Enter the correct settings to connect to the CCS MSSQL Server.



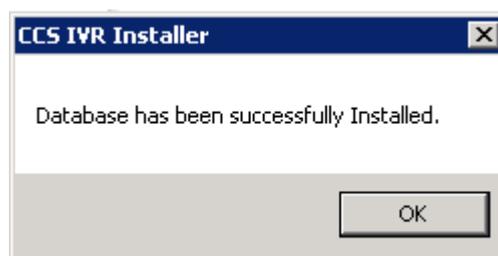
Authentication – the authentication mode for SQL Server. Always use SQL Server Authentication unless a trusted server connection has been configured on the SQL Server.

Server name – the machine name or IP address of the database server machine.

User name – the SQL username.

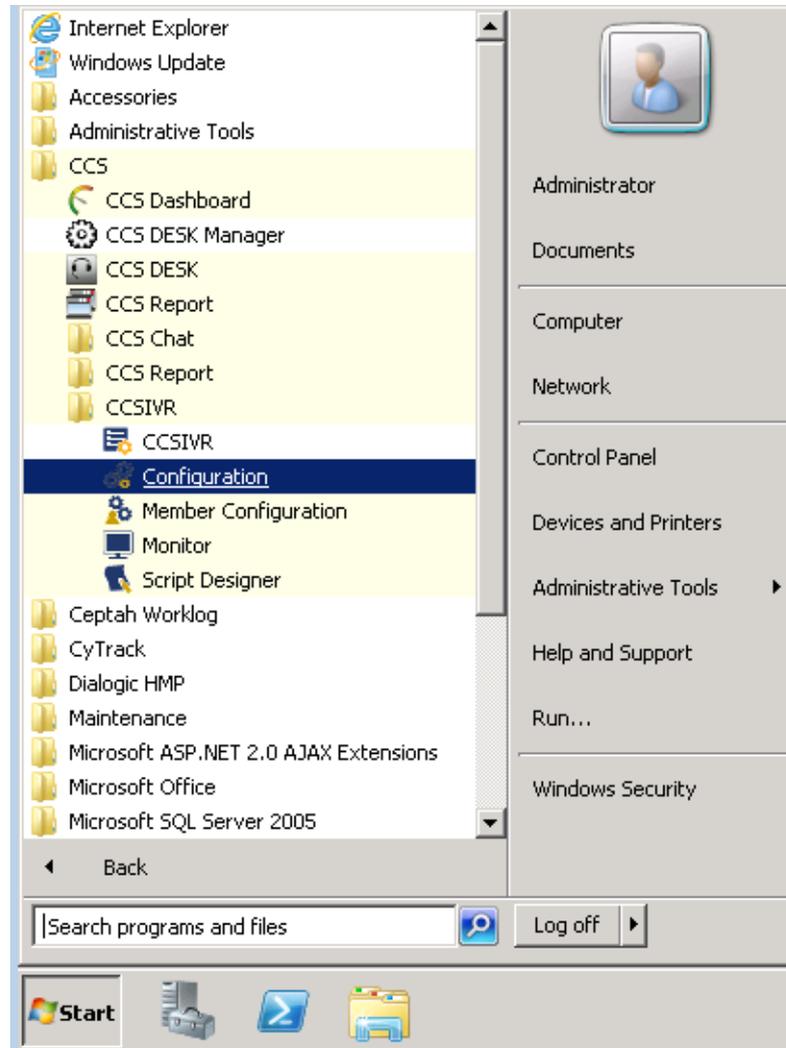
Password – the password to SQL account

→ Click **Continue** → You will receive confirmation that the database has been successfully created.



Step 11 - A **reboot** might be required when the installation has finished → Click **Yes**.

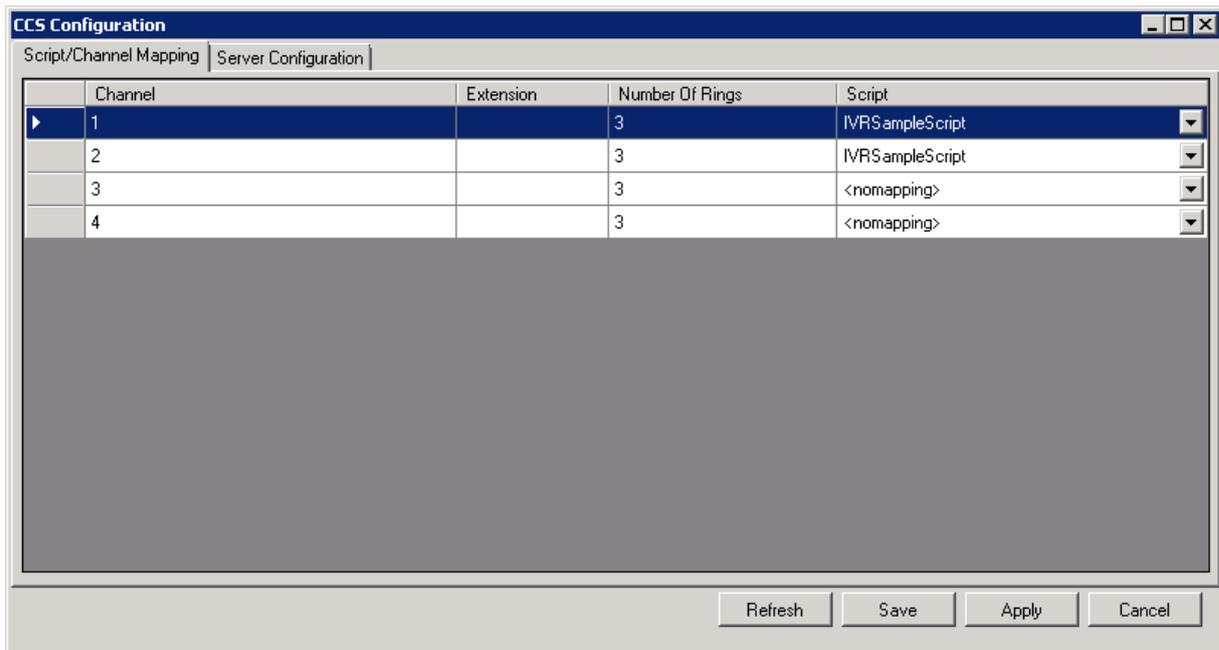
Step 12 - Run the IVR Configuration from **Start → All Programs → CCS → CCS IVR → Configuration.**



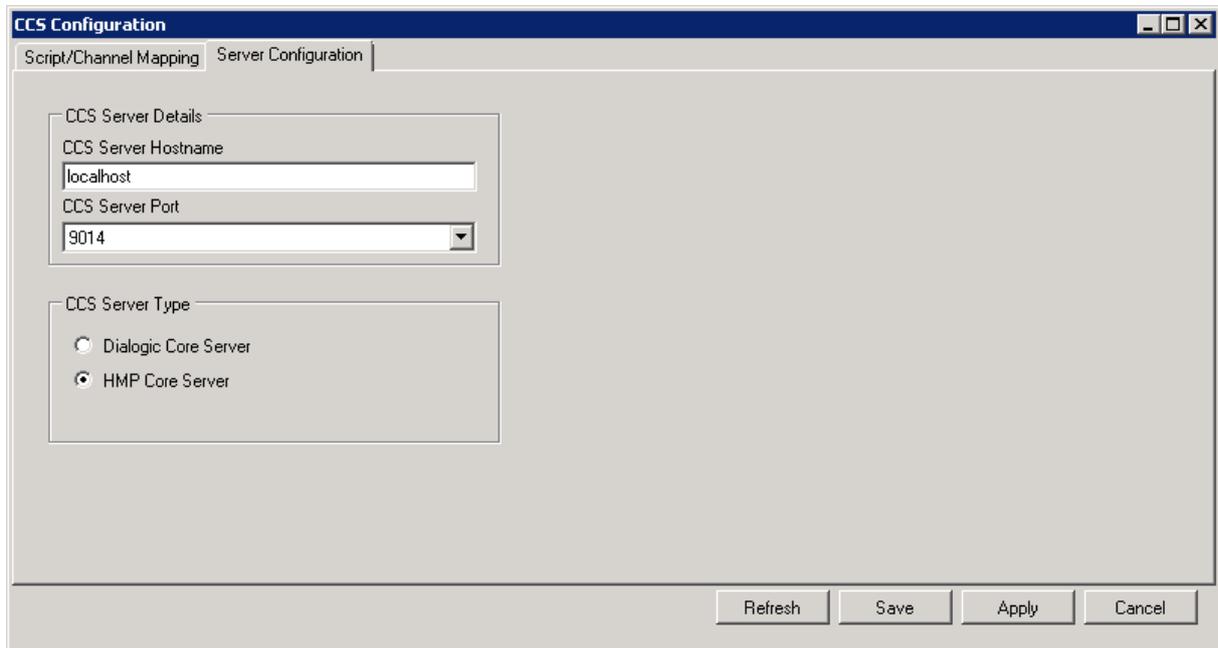
Step 13 - There are 2 tabs in CCS IVR Configuration that needs to be configured.

Script/Channel Mapping

Script to channel mapping defines which script will run on which Dialogic HMP channel installed on the CCS IVR Server. The correct analog / SIP extension number connected with the ports must also be configured here.



Server Configuration



The screenshot shows a window titled "CCS Configuration" with two tabs: "Script/Channel Mapping" and "Server Configuration". The "Server Configuration" tab is active. It contains two sections: "CCS Server Details" and "CCS Server Type".

CCS Server Details:

- CCS Server Hostname: A text input field containing "localhost".
- CCS Server Port: A dropdown menu with "9014" selected.

CCS Server Type:

- Dialogic Core Server
- HMP Core Server

At the bottom right of the dialog, there are four buttons: "Refresh", "Save", "Apply", and "Cancel".

CCS Server Hostname & Port – the setting for CCS IVR to connect with the CCS Desk Server. Port can be configured to either 9014 or 9011. It is recommended to set the port as **9014**.

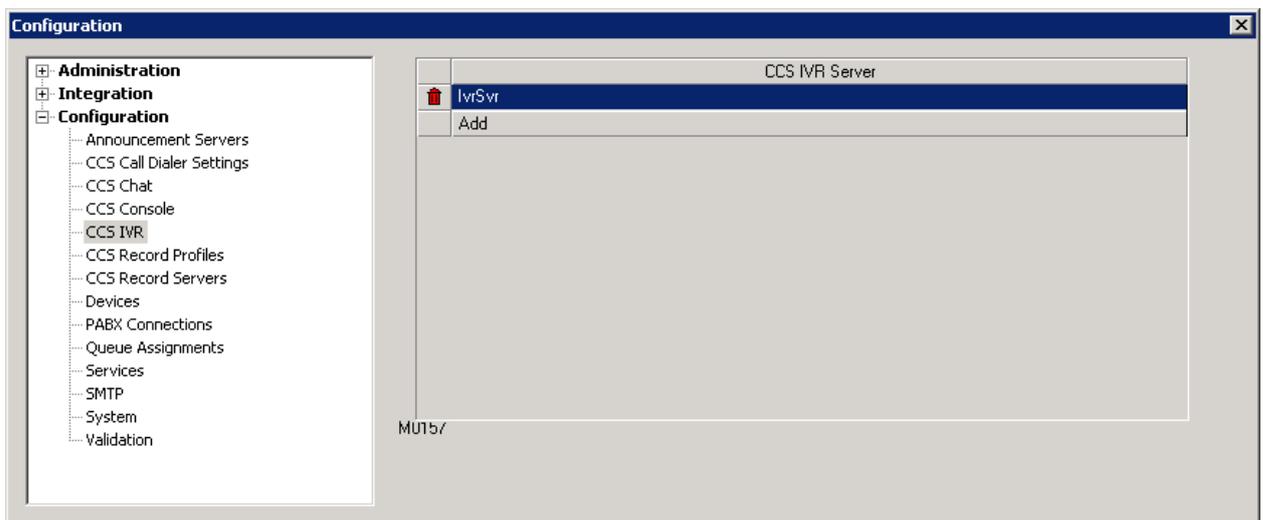
CCS Server Type – select **HMP Core Server** when using Dialogic HMP. Dialogic Core Server is used when CCS IVR is using the Dialogic Analogue board.

1.2.2 Configure CCS Desk

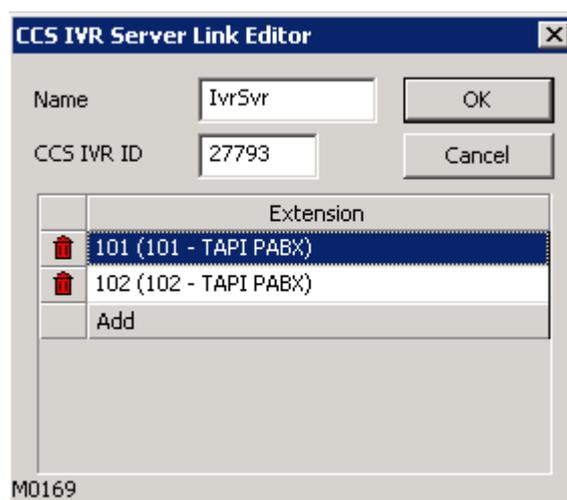
1.2.2.1 CCS IVR

Step 1 - Open **CCS Desk Manager** → Select **Options** → Select **Configure**.

Step 2 - Go to the **Configuration** tree → Go into the **CCS IVR** tab → Click **Add** button to create a new CCS IVR integration profile.



Step 3 - **Double click** on the created profile → **Complete** the configuration.



Name – The name of the profile.

CCS IVR ID – The license number of CCS IVR. This ensures that the correct messages go to the correct CCS IVR.

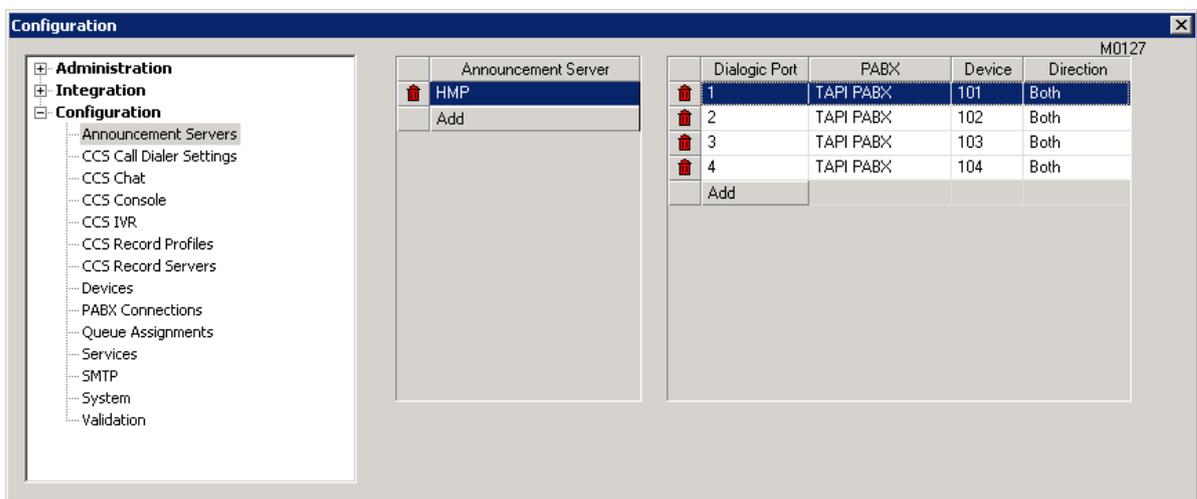
Extension – The list of SIP devices connected to CCS IVR.

1.2.2.2 Announcement Server

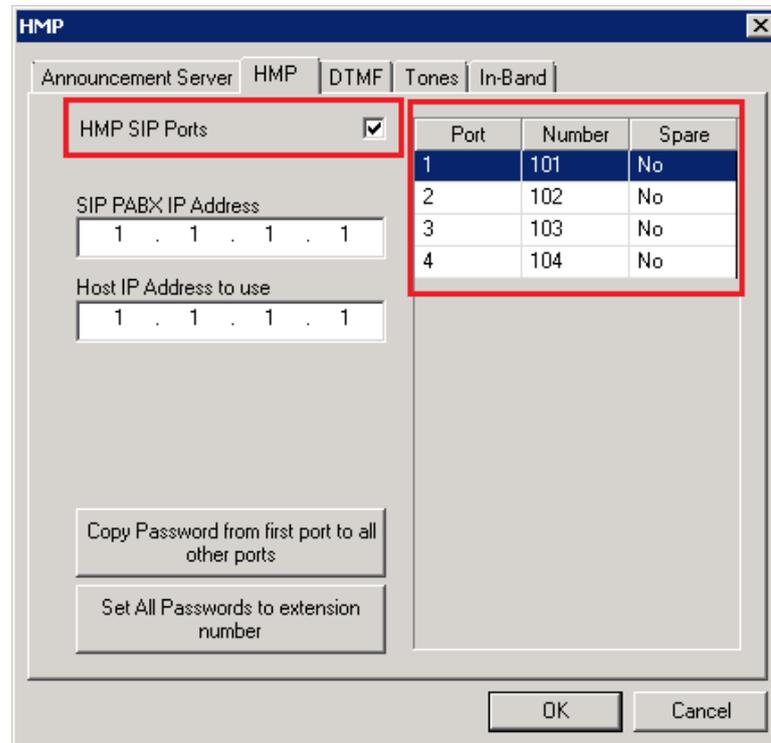
Step 1 - Open **CCS Desk Manager** → Select **Options** → Select **Configure**.

Step 2 - Go to the **Configuration** tree → Go into the **Announcement Servers** tab → Create an **Announcement Server profile** to integrate Dialogic HMP with the PBX.

Please consult *CCS Desk User Manual* Section 6.3.1.1 for detailed information on each setting.



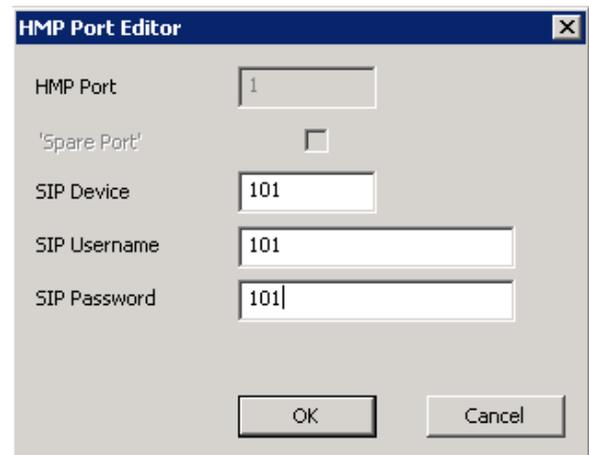
Step 3 - **Double click** the Announcement Server to view the **Announcement Server Configuration** window.



The important settings are highlighted:

a) **HMP**

- i. **HMP SIP Ports** must be **enabled**.
- ii. **Requires Spare Channel** must remain disabled.
- iii. Double click on each port and configure the SIP registration settings.

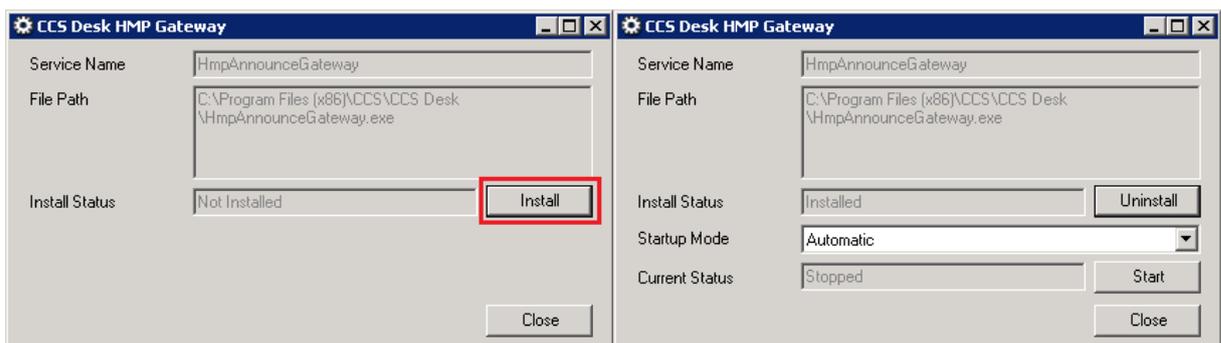
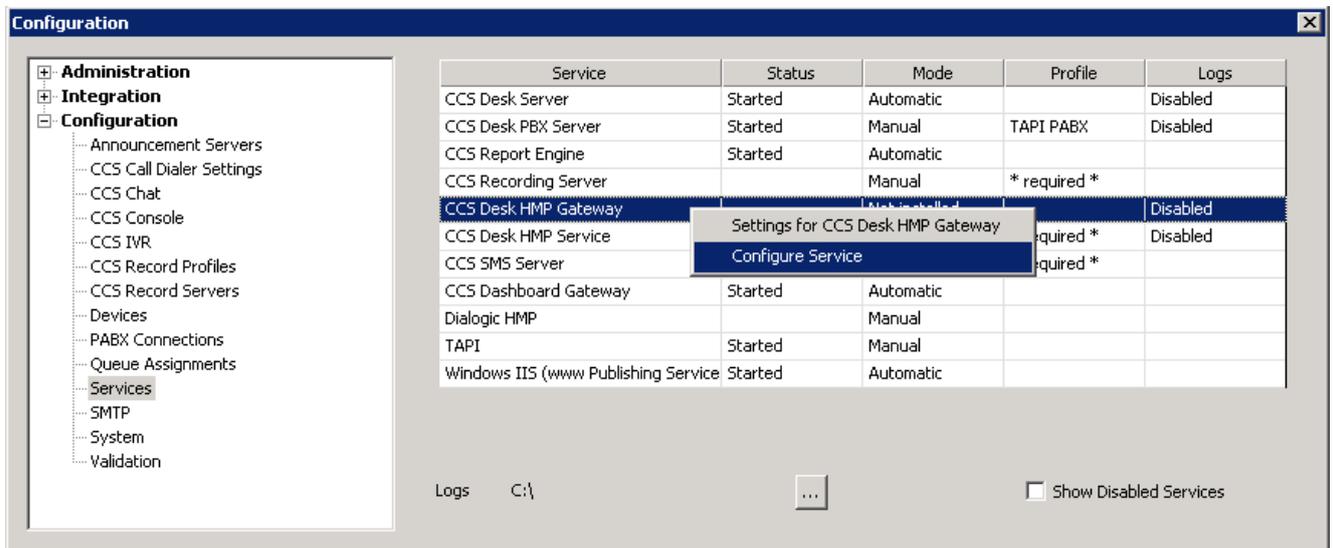


1.2.2.3 HMP Services

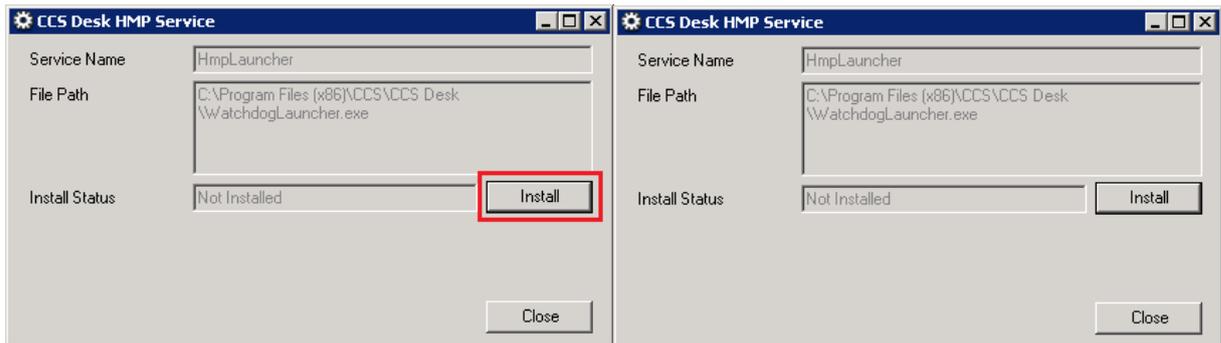
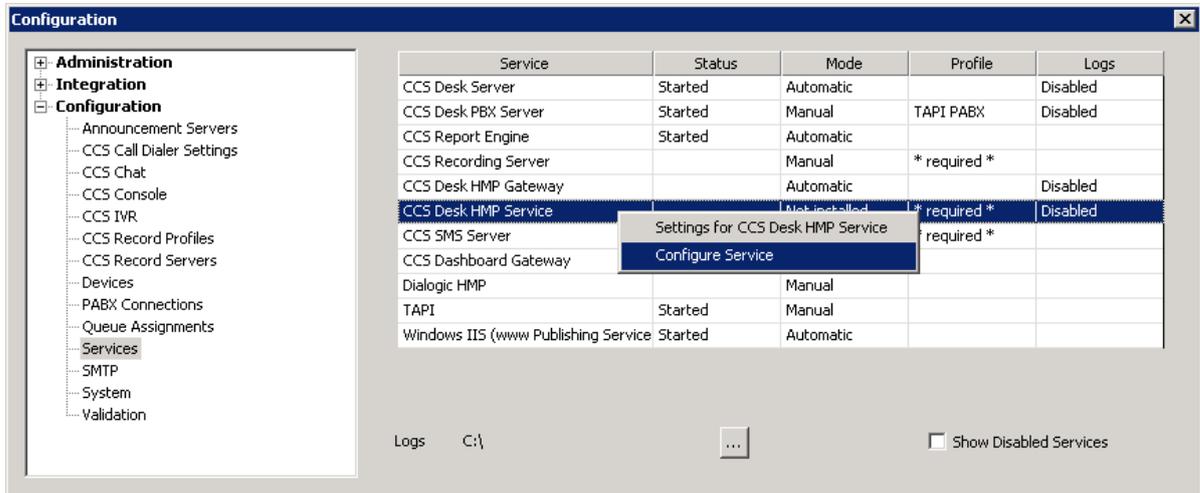
Dialogic HMP requires two additional services to be installed.

Step 1 - Open **CCS Desk Manager** → Select **Options** → Select **Configure**.

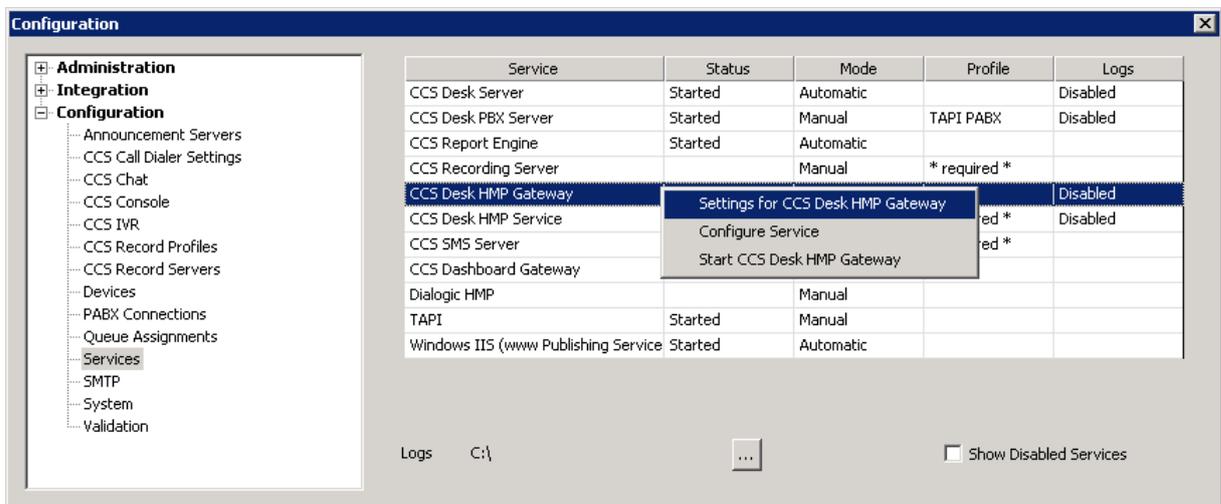
Step 2 - Go to the **Configuration** tree → Go into the **Services** tab → **Right click** on **CCS Desk HMP Gateway** → Select **Configure Service** → Select **Install** → Check the **Startup Mode** is set to **Automatic**. Do not start the service.

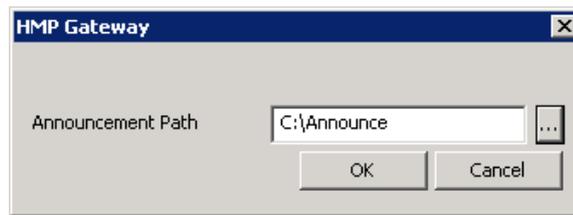


Step 3 - Right click on **CCS Desk HMP Service** → Select **Configure Service** → Select **Install** → Check the **Startup Mode** is set to **Automatic**. Do not start the service.

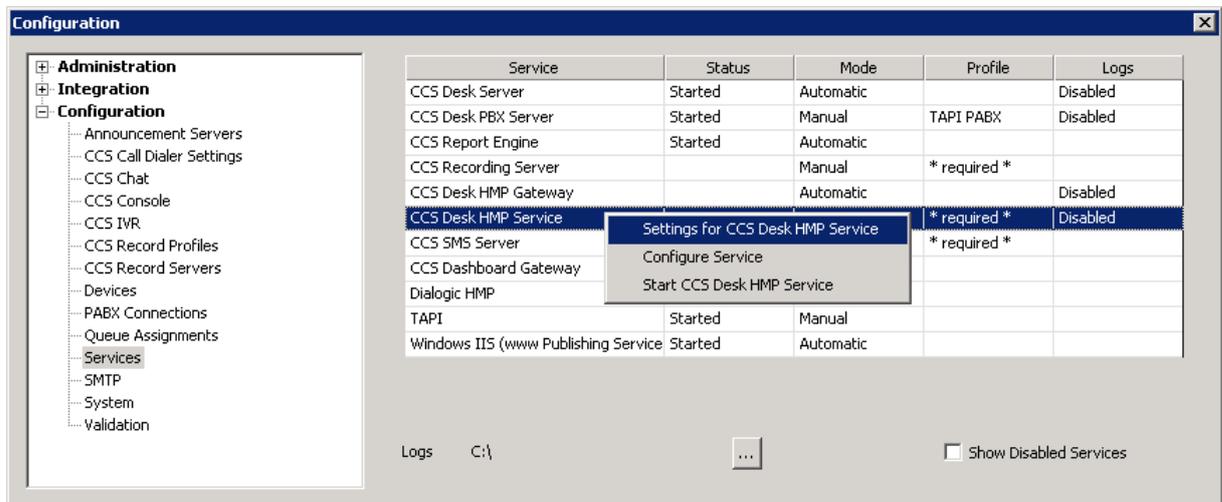


Step 4 - Go to the new **HMP Gateway** tab → Configure the correct path to the greeting files.

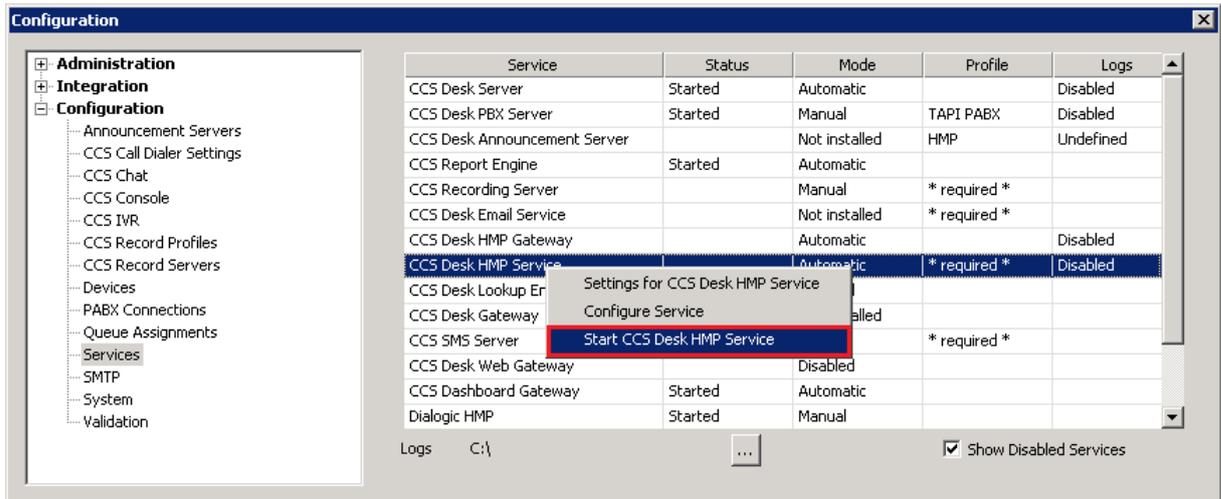
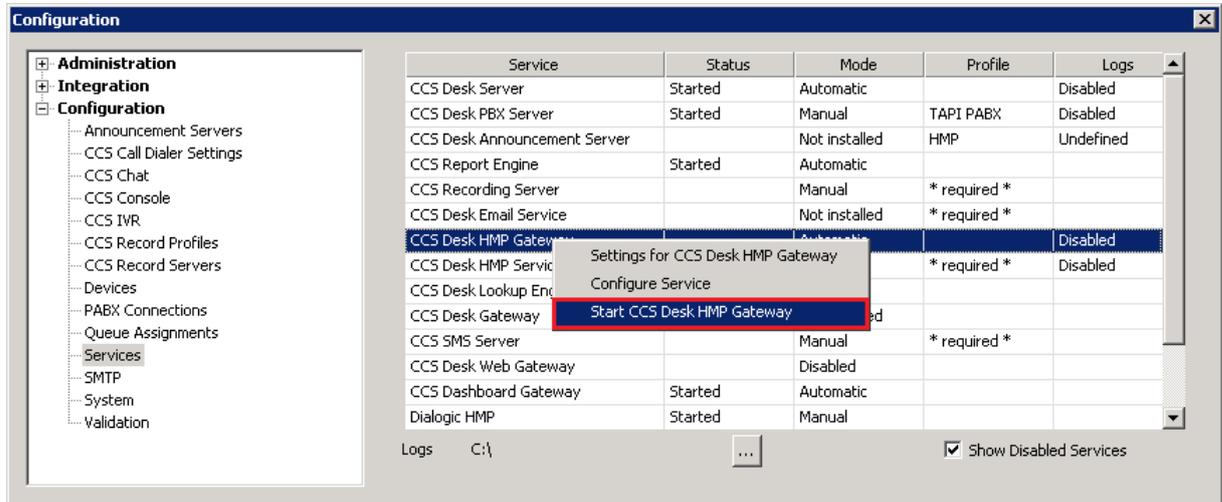




Step 5 - Go to the **HMP Service** tab → Ensure the correct **announcement server profile** is selected.



Step 6 - Go to the **Services** tab → **Start CCS Desk HMP Gateway** and **Start CCS Desk HMP Service**.



2. Configuring CCS IVR

2.1 Using CCS Script Designer

CCS IVR includes a designer tool so that those businesses that wish to can take on simple administration tasks and changes and even design their own complex IVR scripts and features.

Multiple scripts can be designed and opened simultaneously and saved to the SQL database for recall or modification. Each function dialog box contains powerful tabbed controls that can be configured to meet IVR requirements.

The system automatically draws connecting lines and arrows to show the systematic call flow of the design in the tool.

Simple to recognize icons with icon descriptions and/or step functions can be toggled on/off for audit and testing purposes.

The Script Designer can be accessed from the Start Menu shortcuts or from the CCS IVR Control Panel.



2.2 The Designer Tools

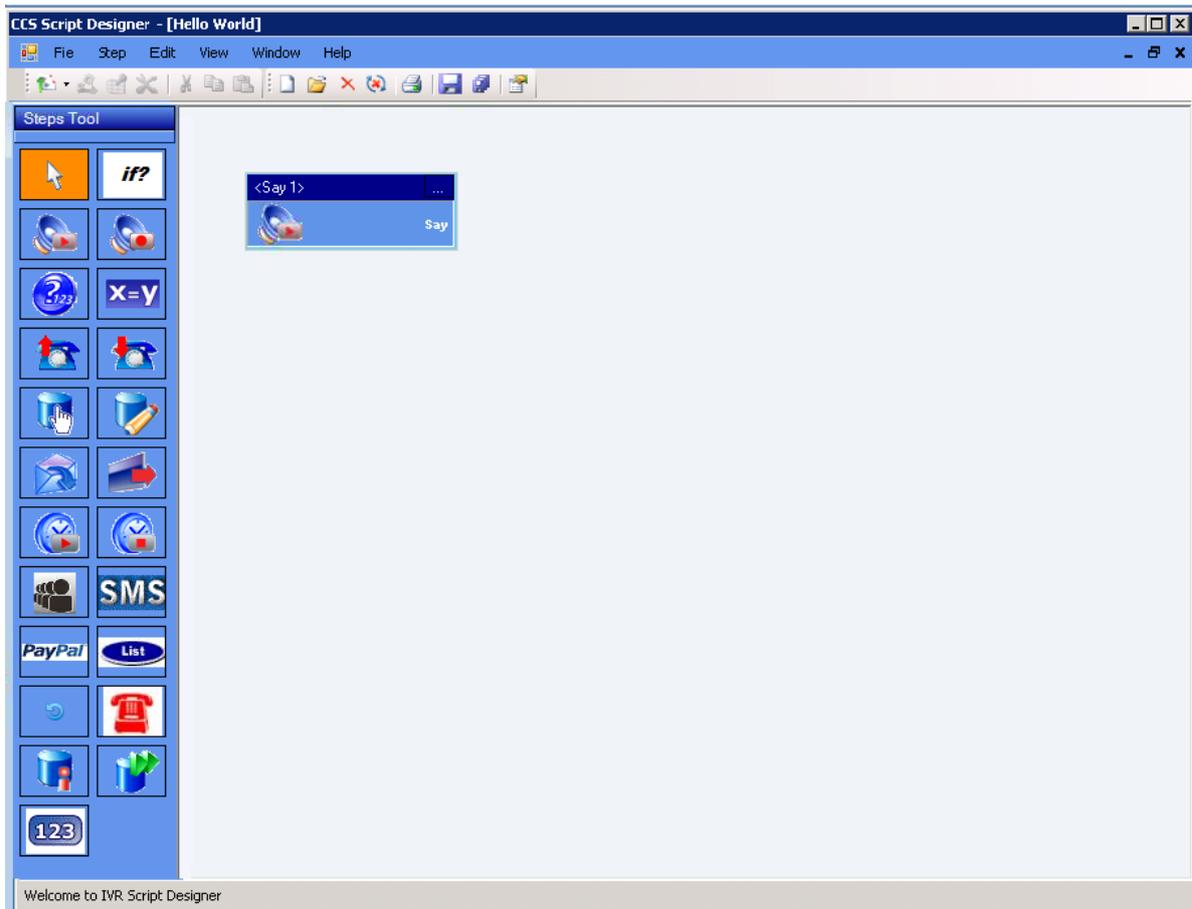
	Pointer	The tool to move steps around the designer.
	If Expression	This function enables a script to vary by evaluating two variables. Example if the caller has a balance due the system will take a different action. The evaluation can be any standard SQL Where clause.
	Say	<p>The Say function enables the CCS IVR user to</p> <ul style="list-style-type: none"> • Have the system speak the typed text (utilizes Text to Speech). • The Output may contain session variables. • Numbers - All types of number formats may be used by the user (digits, amounts in dollars, amounts in cents, numbers with decimal points, dates, dates and time, etc.) • Accepts DTMF (Dual-Tone Multi-Frequency) tones for routing. • Recorded sound files may be used instead of TTS when desired.
	Record	<p>The Record function enables the user to record audio and save it to the CCS IVR Server for integration into other applications.</p> <p>A recording finishes when:</p> <ul style="list-style-type: none"> • A user-settable timeout is reached. • A key that has a path defined for it is pressed. • The device detects silence for a specified period of time. • The caller hangs up. System detects a dial tone. <p>The record function is usually used to allow remote recording of a file which is used by other parts of a script or other scripts. Messages left by callers may also be recorded in a Voicemail box.</p>
	Ask Number	<p>The Ask Number function allows the user to play sound files and save the number sequence entered by the caller. It verifies the numbers length and passes a script-based verification check.</p> <ul style="list-style-type: none"> • Multiple sound files may be selected to play simultaneously. • Number entered can be of any length.
	Assign Variable	Copies a value to CCS Desk Server so it can be accessed by CCS Desk client.
	Make Call	This standard component enables the user to dial out to any telephone number to start a conversation. It also allows the user to play messages or send DTMF tones once the call has been answered.

	Hang Up Call	Ends the call.
	Database Select	<p>This database module enables the user-based access to the database and grants rights to modify the information in the database.</p> <p>The database select also features paging of a large dataset.</p> <p>Data can be retrieved or updated in the following data sources:</p> <ul style="list-style-type: none"> • Microsoft SQL Server • Oracle • MySQL • Other ODBC data sources
	Database Update	The Database Update function allows the script to update remote ODBC databases. Update statements may contain variable information stored from previous steps.
	Email	The Email function sends an email to a specific recipient. The TO, CC, BCC, SUBJECT and BODY may contain plain text or the values of any session variables.
	Jump Script	This function directs the flow of the script to another script, which will return back to the next step once the script jumped to is completed.
	Timer End	Notes the time the call ended.
	Timer Start	Notes the time the call started and puts it into a variable.
	Transfer to CCS Q	Transfers a call to a CCS Q.
	Send SMS	The Send SMS function sends an SMS to a specific recipient.
	Payflow Payment	Connects with Payflow (PayPal) payment gateway to make financial transactions.
	Alert Member List	<p>This database function allows for each of the results of a select statement to launch a new instance of the “success” transition.</p> <p>It also has a user interface to easily develop a list of members.</p>
	Alert Monitor	This function is a continuously running function that performs the “success” transitions at a user defined interval.
	Make New Call	This component allows for a new call to be initiated, it performs the call on a successful result of a user defined database select statement.

	Database Result	This Database module allows for user defined transitions based on the field results from a user defined database select statement.
	With Row	This component allows for user defined transitions base on the field results of the previous database select statement.
	Multi Step Launcher	This component allows for two or more steps to be launched simultaneously each step is run in an individual thread making it independent.

2.3 Scripting Example

To get started open the designer and choose **File → New**. This will automatically insert a “Step Box” of the type “Say” into the design panel. The **Say Step** is often the Step which works best at the beginning, but any step can be set as the start step.



The Configuration Screen

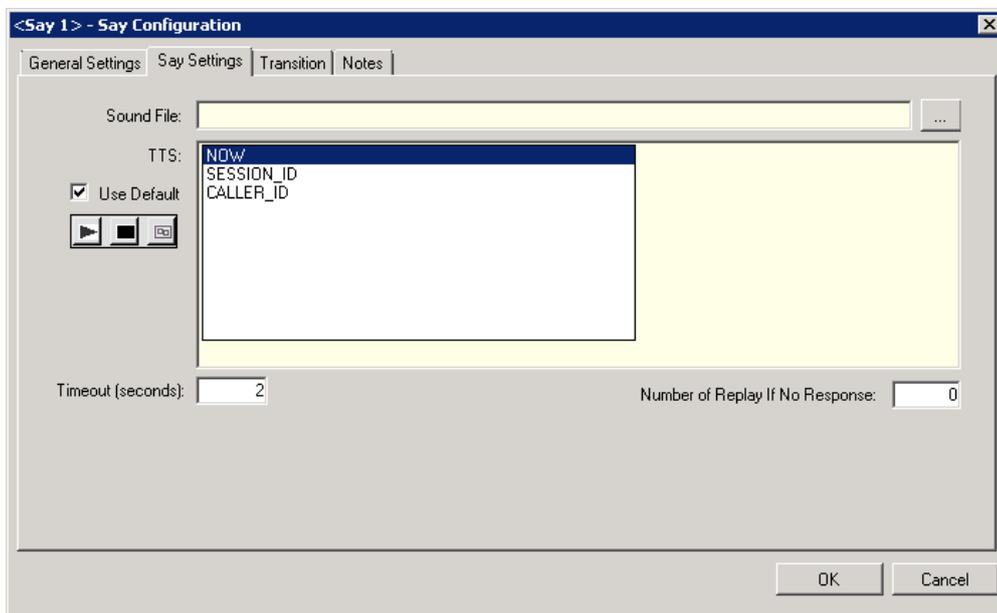
Each type of Step has a configuration screen with custom functionality specific to that Step. In the top right of each Step Box you will find an *ellipsis* [...] which can be used to open the configuration screen by clicking on it.



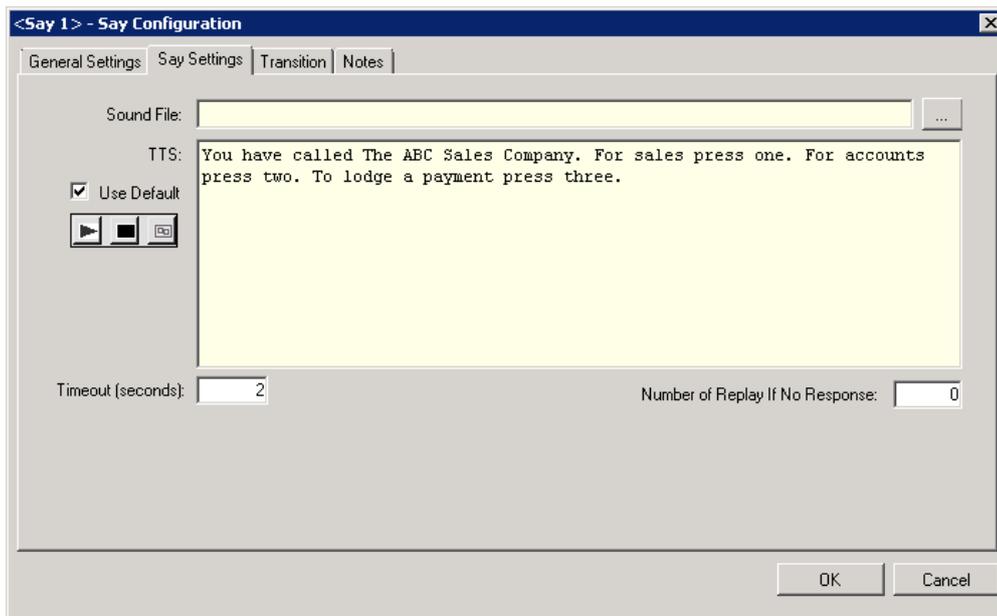
Standard to all configuration screens are the “General Settings” tab, “Transition” tab and the “Notes” tab.

Special Settings

Staying with the <Say 1> Step, open the configuration screen and go to the “Say Settings” tab and you will find a number of textboxes, any textbox that is coloured yellow has some special functionality. As an example of this, type $\${}$ (dollar sign + open curly bracket) and a drop down box will appear.



The values in this drop down box will dynamically grow with the results of Steps that are used within the Step Stream that you are developing. These values can be used in any text box that is coloured yellow with the following syntax: $\${VariableFromDropDownBox}$



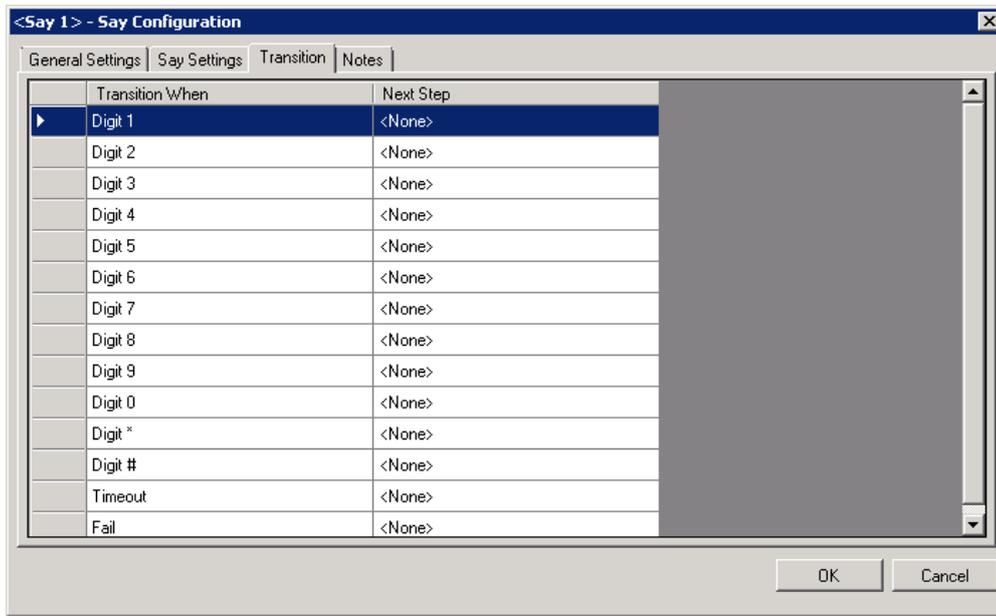
The **Say Step** has two yellow text boxes with the second box type in some text which will be spoken when an incoming call is first answered (as this is the first step) an example might be:

“You have called The ABC Sales Company. For sales press one. For accounts press two. To lodge a payment press three.”

With the **Say Step** you could record a sound file which could be used in place of the typed text, to reference a sound file enter an address to the file or use the ellipsis button to browse your directory system for the file.

Transitions

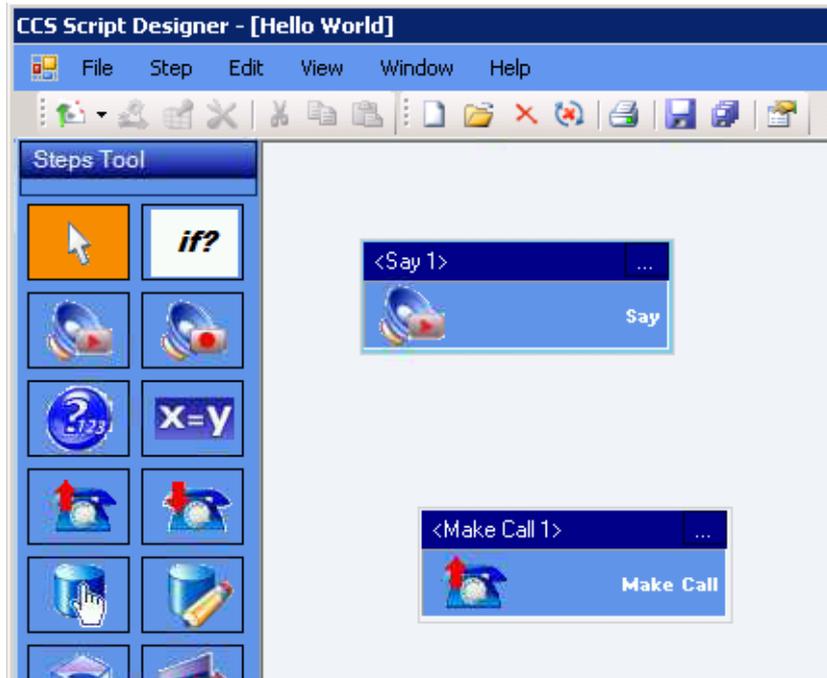
The Transition tab is where you will tell the script what to do when an input from a caller is detected, if the “Next Step” column of the transition list is left empty, the call will finish when that transition is detected, this is the same with all Step Transitions.



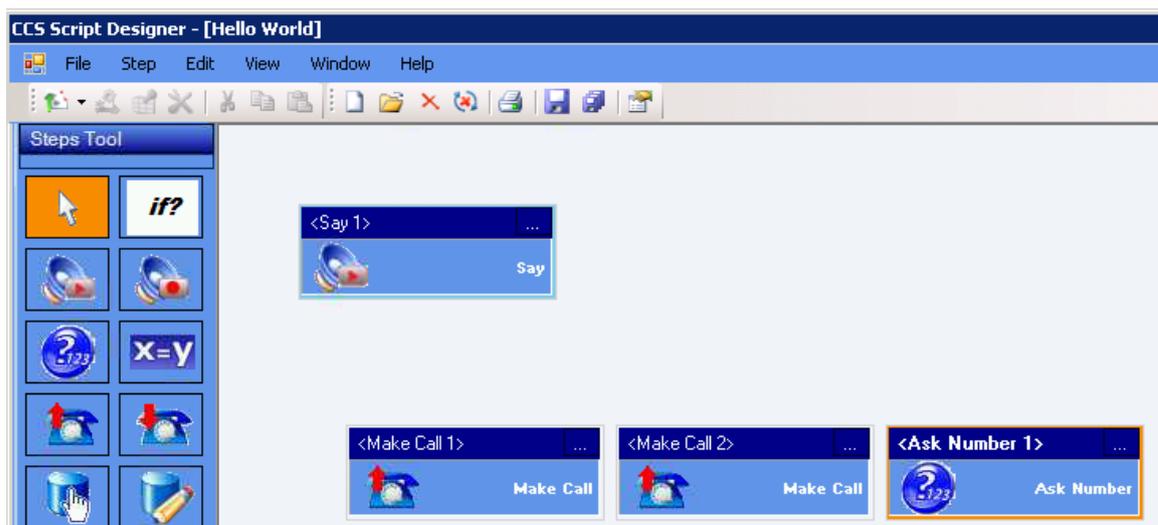
Before you can choose what Steps to transition to we must design some more steps.

Adding Further Steps

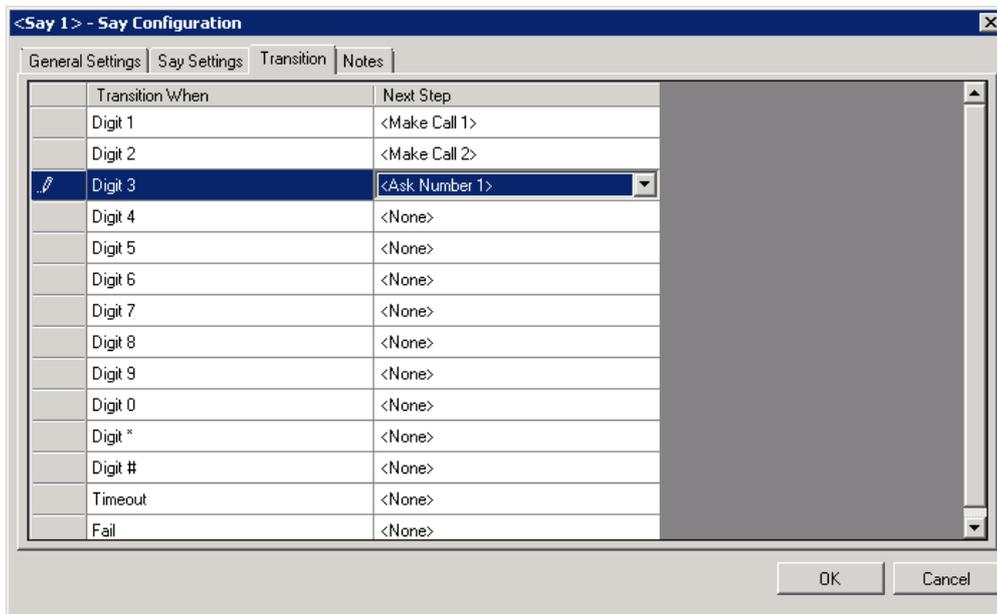
To create subsequent steps click on a step icon from the tool box docked to the left of the designer and then click onto the design panel where you want the step to appear. Do this now for the **Make Call** Step.



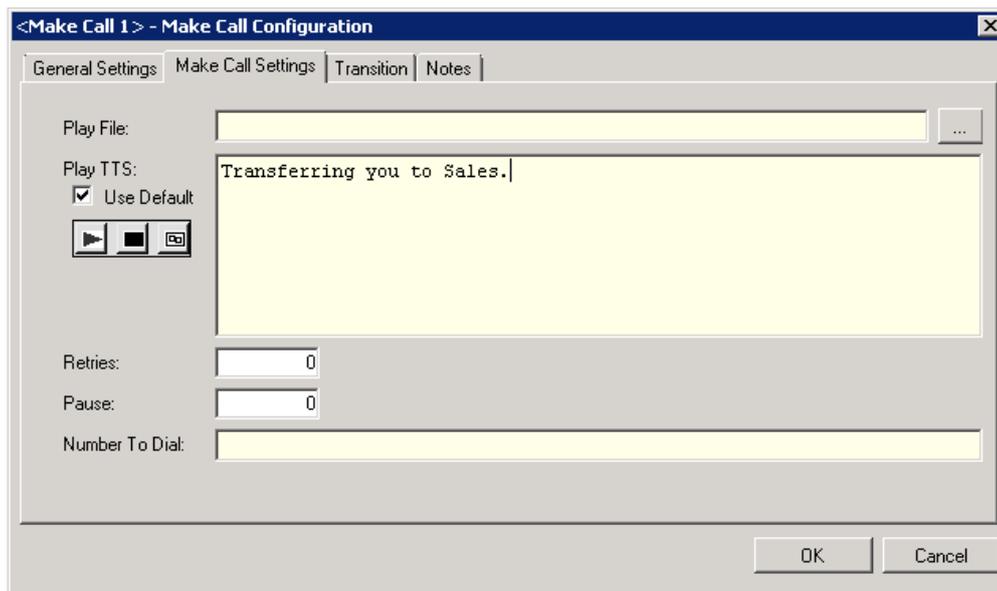
Repeat this for a second **Make Call** Step, and then the same again for the **Ask Number** Step.



Reopen the Configuration screen for the <Say 1> Step and go to the Transition tab, in the next Step column for “Digit 1” choose <Make Call 1> from the drop down list, for “Digit 2” choose <Make Call 2> and for “Digit 3” choose < Ask Number 1>.

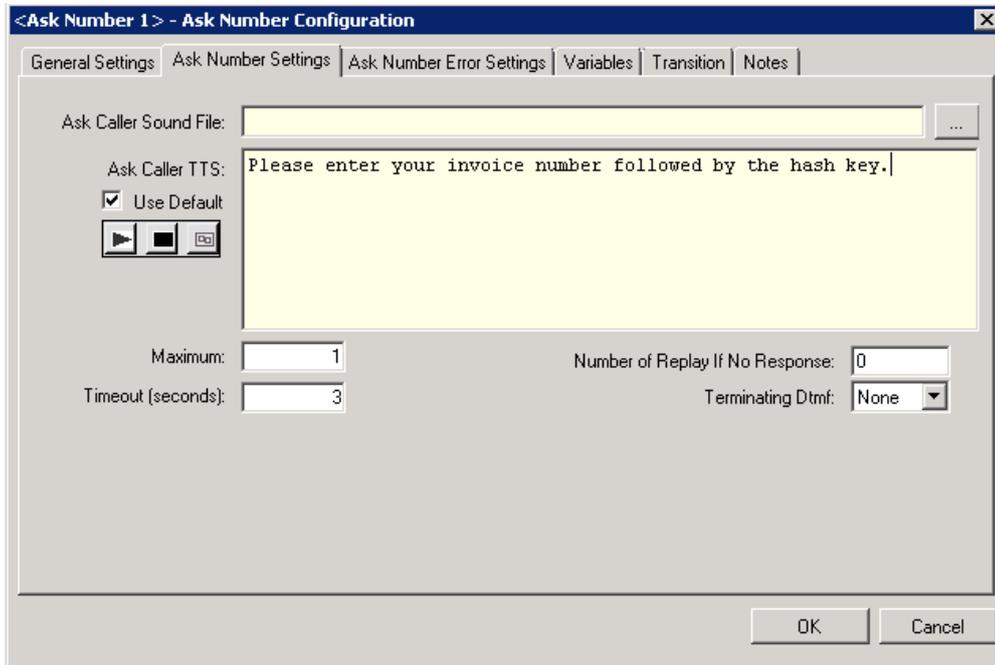


In the <Make Call 1> configuration screen, enter some text into the TTS text box e.g. “*Transferring you to Sales*”. Then in the “Number to Dial” text box enter the extension number of the Sales department.



Do the same for <Make Call 2> to transfer the caller to the Accounts Department.

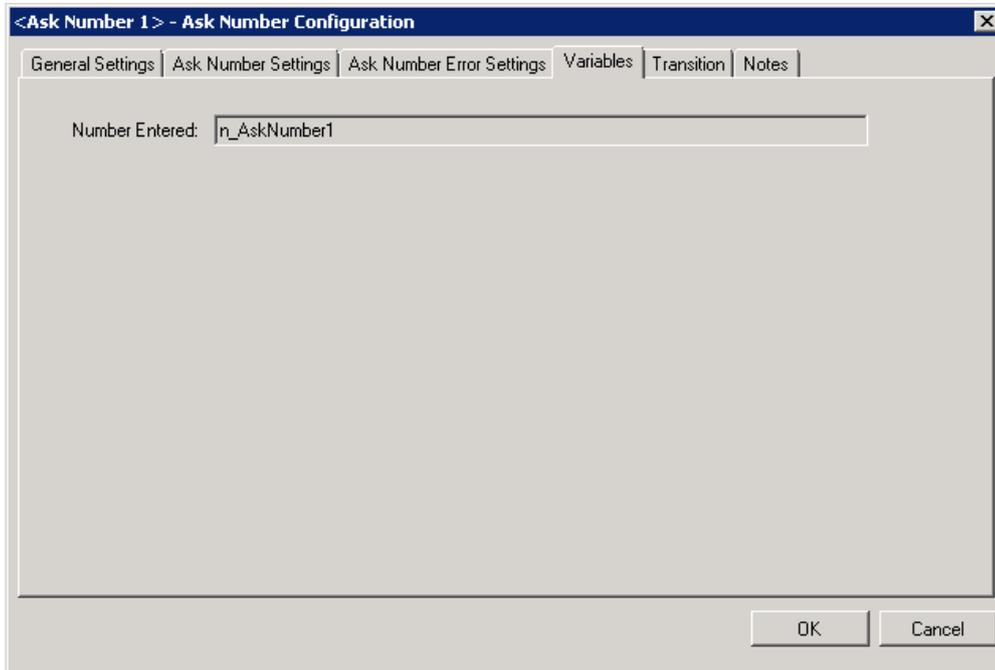
With the <Ask Number 1> Step on the “Ask Number Settings” tab of the configuration screen enter text to be spoken into the TTS text box e.g. *“Please enter your Invoice number followed by the hash key.”*



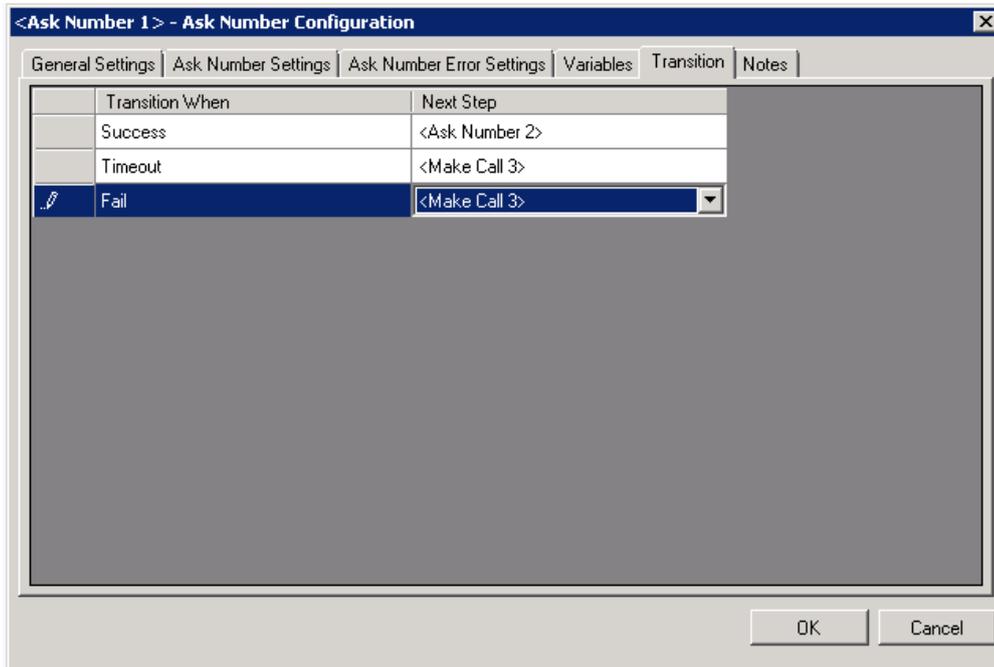
In the “Maximum” text box enter the number of digits in the invoice, let’s say 8. In the “Terminating DTMF” dropdown box select “Hash” and in the “Number of replay if no response” text box enter 3. This will validate that the caller inputs 8 digits followed by the hash key and give the caller three attempts to get it right.

On the “Ask Number Error Settings” tab enter some text to speak if the caller enters an incorrect number of digits.

You will notice that the configuration screen has a “Variables” tab with a text box called “Number Entered” and a variable name in the text box of “n_AskNumber1”.



Now create two more steps another **Make Call** Step and another **Ask Number** Step, in the transitions list of <Ask Number 1> assign <Make Call 3> to the “Fail” and “Timeout” transitions and <Ask Number 2> to the “Success” transition. Configure the <Make Call 3> Step with appropriate settings.



In the <Ask Number 2> Step we want to ask the caller for their 16 digit Credit Card Number. This is configured very similarly to the <Ask Number 1> Step.

Create another **Ask Number** Step which we will use to ask the caller for the 4 digit credit card expiry date.

Now one more **Ask Number** Step to ask the caller the amount of the payment they wish to make – be sure to instruct the caller to enter the amount as digits only e.g.: \$123 is simply entered as 123.

The “Fail” and “Timeout” transitions of <Ask Number 2>, <Ask Number 3> and <Ask Number 4> can all be assigned to the <Make Call 3> Step as in <Ask Number 1> Step.

Now create an **Email Step** and transition <Ask Number 4> “Success” to this. The following is an example of how <Send Email 1> could be configured and uses the information collected from the caller:

Sender: Sales@abcsales.com

Sender Name: Sales

Receiver: accounts@abcsales.com

Subject: payment received

Message:

The following payment has been received for Invoice Number \${n_AskNumber1} on credit card number \${n_AskNumber2} with expiry date \${n_AskNumber3} for the amount of \${n_AskNumber4}, please process immediately.

<Send Email 1> - Send Email Configuration

General Settings | Client Settings | Server Settings | Transition | Notes

Sender: sales@abcsales.com

Sender Name: Sales

Receiver: accounts@abcsales.com

CC:

BCC:

Subject: payment received

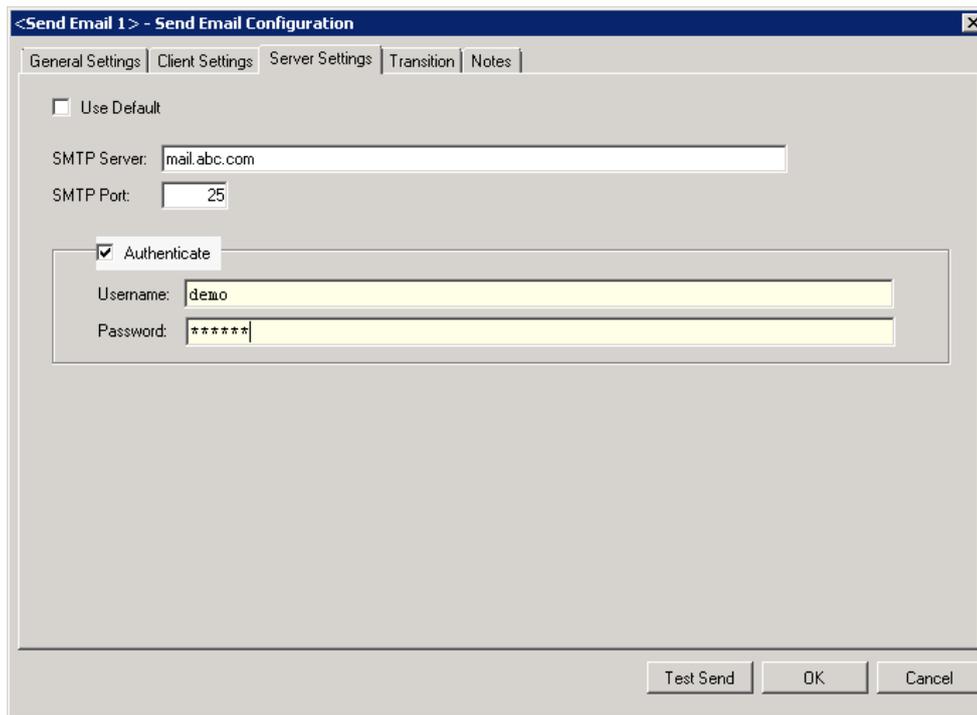
Attachment:

Delete Attachment After Sending

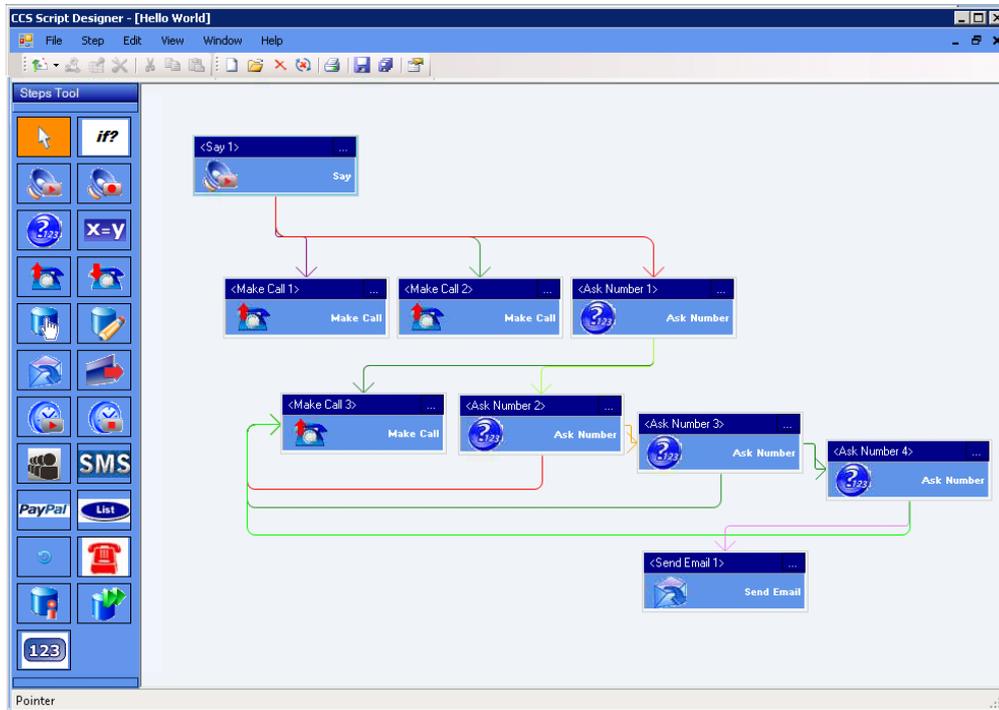
Message: The following payment has been received for Invoice Number \${n_AskNumber1} on credit card number \${n_AskNumber2} with expiry date \${n_AskNumber3} for the amount of \${n_AskNumber4}, please process immediately.

Test Send OK Cancel

Be sure to fill in the “Server Settings” tab correctly with the SMTP details.



This is roughly how your script designer should look right now.



The above example demonstrates some of the CCS IVR Designer scripting capabilities, there is of course many more, some of which may require training and/or database knowledge.

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