



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Imagine Soft Meteor SE with Avaya IP Office – Issue 1.0**

### **Abstract**

These Application Notes describe the compliance testing of Imagine Soft Meteor SE with Avaya IP Office. Meteor SE is used in hospitality industries to assist with check in/check out and telephone usage authorization.

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.

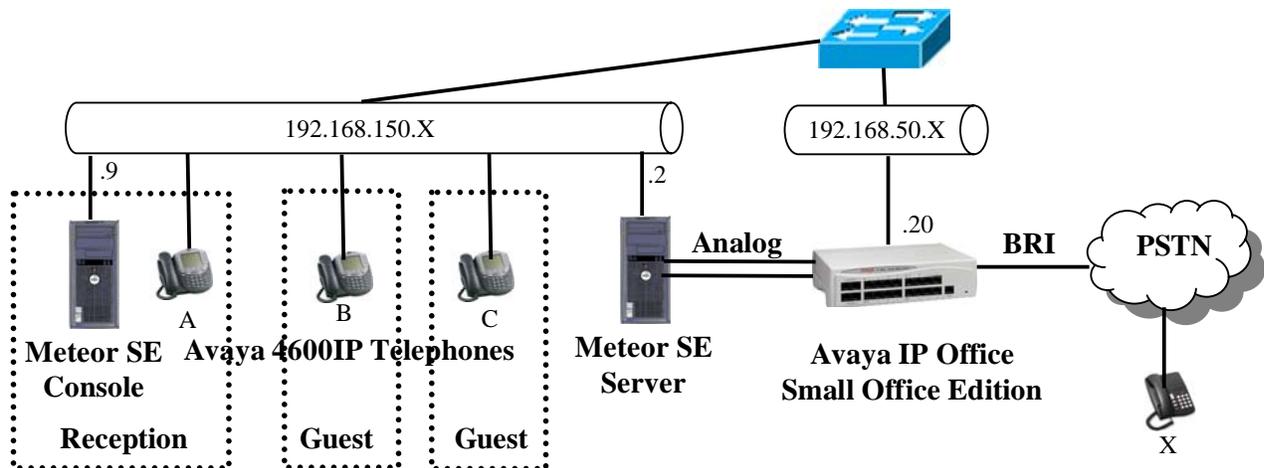
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# 1. Introduction

The Imagine Soft Meteor SE Server provides various telephony capabilities which help meet the needs of the hospitality industry. Meteor SE has the following capabilities which interact with Avaya IP Office:

- Meteor SE provides a check-in/check-out facility which changes telephone access privileges, providing telephone access to guests immediately upon check-in, and preventing unauthorized use after check-out.
- Meteor SE can assign a name to the telephone upon check-in, so that hotel or hospital staff can immediately recognize guests or patients from whom they receive telephone calls.
- Meteor SE allows hotel personnel to update room status via telephone to indicate the state of the room (i.e. it has been serviced by housekeeping, etc.).
- Meteor SE allows hotel guests to retrieve voicemail messages via external telephones attached to the PSTN.
- Meteor SE allows each hotel guest to program WAKEUP in his own language (6 languages) and hotel staff to verify wakeup status.
- Meteor SE can assign Direct Inward Dial (DID) extensions to hotel guests to enable them to have a telephone number independent of their room number which can be called from PSTN telephones, allowing guests to be reached by the same number, even though they may change hotel rooms.



**Figure 1: Imagine Soft Meteor SE Configuration**

The following table contains additional information about each of the telephones contained in the above diagram. Note that for this configuration, the guest room and extension are the same.

Endpoint	Ext	DID	Description	Endpoint
A (Guest)	5113	6113	Figure 8, Figure 15	Avaya 4610
B (Guest)	5114	6114	Figure 8, Figure 15	Avaya 4610
C (Reception)	5126		Figure 8, Figure 15	Avaya 4620
Meteor SE IVR HG	5900		Figure 26	
Meteor SE DID HG	5999		Figure 27	
Meteor SE IVR 1	5901		Figure 13, Figure 14	
Meteor SE IVR 2	5902		Figure 13, Figure 14	
Meteor DID	5998		Figure 15	
X (PSTN Telephone)				ISDN

**Table 1: Extensions Used for Testing**

## 2. Equipment and Software Validated

Software Component	Version
Avaya IP Office	4.1(12)
Avaya 4600 IP Telephones	2.884
MS C++ Runtime	2005
MS .net	3.0
Meteor SE	2.1.2
Dialogic Interface SW	SR 5.1.1
Dialogic D4PCI Analog Telephone Interface	NA
MS XP Professional	SP2

**Table 2: Version Numbers of Equipment and Software**

## 3. Configuration

### 3.1. Configure IP Office

The configuration and verification operations illustrated in this section were performed using the Avaya IP Office Manager program. When this program is started, a tree structure consisting of icons representing the configurable components of the system is displayed. When one of these icons is selected, the corresponding system component can be configured.

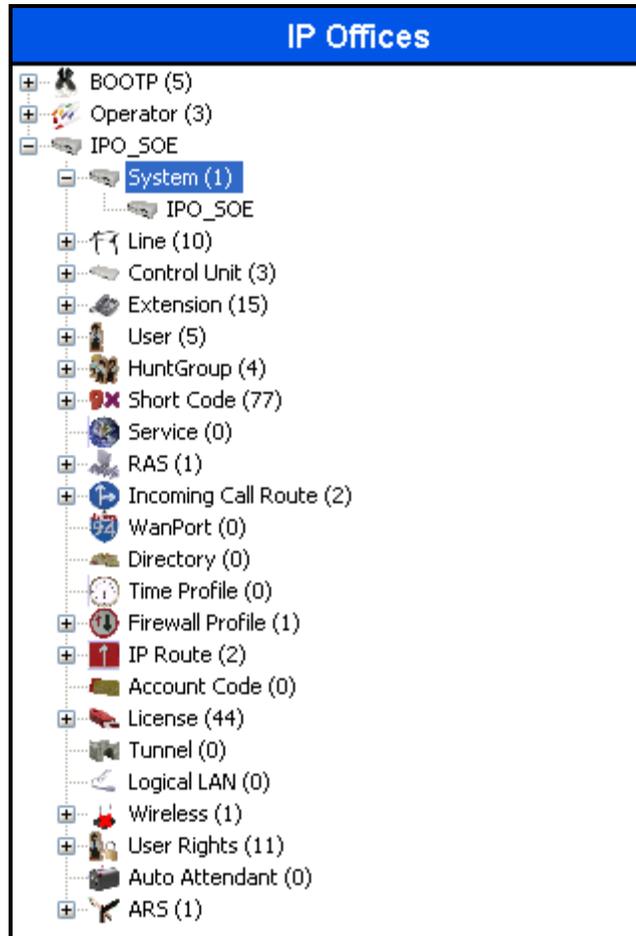


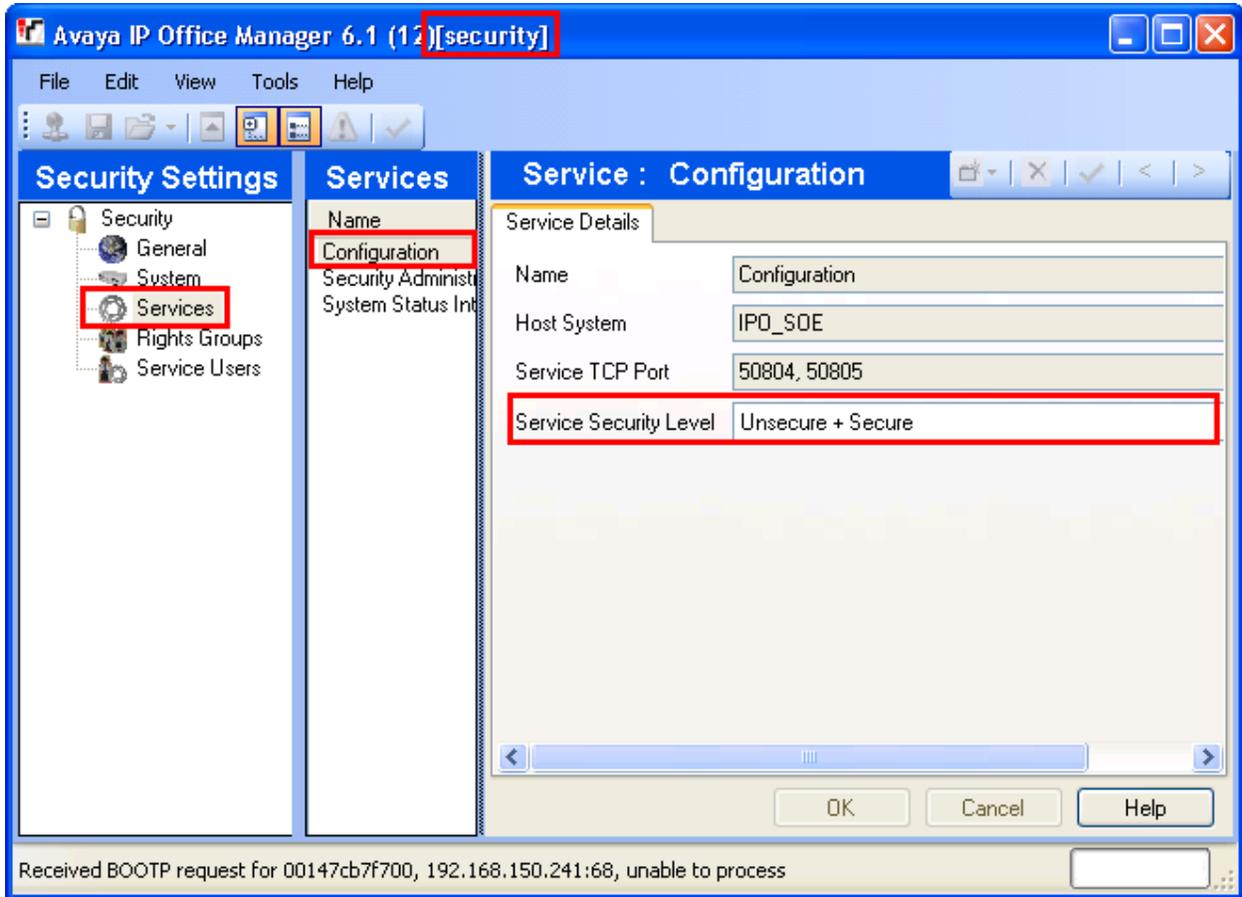
Figure 2: IPO Manager Component Tree

#### 3.1.1. Licensing

No extra Avaya IP Office licenses are required to use Meteor SE.

### 3.1.2. Security Level

Log in to the IPO “Security” configuration view of the IPO Manager, and select “Services”, “Configuration”, as shown below. Set the “Service Security Level” to “Unsecure + Secure”.



**Figure 3: Security Parameters**

### 3.1.3. System

Select the “System” icon shown in **Figure 2**, and set the parameters in the “System” tab as shown in the following table.

Item	Parameter	Usage
System	Time Offset	Enter the time offset to GMT in hours/minutes.
	Time Server IP Address	Enter the IP address of a time server.
	Locale	Enter the name of the locale for the region in which the IPO is to be used.
	Local Number Length	Enter the number of digits in the dial plan for local extensions.
Voicemail	Voicemail Type	Specify “none”.
LAN1	IP Address	Specify the IP address to be assigned to IP Office. Note that this must match the value specified in <b>Figure 41</b> .
	IP Mask	Enter the IP mask to be used by the LAN.
CDR	Enable CDRs	Check this box.
	Enable intra-switch CDRs	Check this box to generate CDRs for intra-switch calls. This option should be selected depending on site requirements.
	Record Format	Select “59 Character” from the drop-down menu.
	Record Options	Select “Normal” from the drop-down menu.
	Date Format	Select “Month\Day”.
	CDR IP Address	Enter the IP address of the Meteor SE server.
	CDR IP Port	Enter the port from Meteor SE reads CDR records. This should match the parameter which is set in <b>Figure 44</b> .

**Table 3: System Configuration Parameters**

**IPO\_SOE**

System | LAN1 | LAN2 | DNS | Voicemail | Telephony | LDAP | System Events | CDR | Twinning | VCM

Name: IPO\_SOE      Locale: France (French)

**Contact Information**  
Set contact information to place System under special control

Time Offset (hours:minutes): 02:00

TFTP Server IP Address: 0 . 0 . 0 . 0      Branch Prefix:

Time Server IP Address: 132 . 163 . 4 . 103      Local Number Length: 4

File Writer IP Address: 0 . 0 . 0 . 0

License Server IP Address: 255 . 255 . 255 . 255

Dongle Serial Number: None

AVPP IP Address: 0 . 0 . 0 . 0

Conferencing Center URL:

DSS Status       Hide auto recording

Beep on listen       Favour RIP Routes, over static routes

**Figure 4: System Parameters**

**IPO\_SOE**

System | LAN1 | LAN2 | DNS | Voicemail | Telephony | LDAP | System Events | CDR | Twinning | VCM

LAN Settings | Gatekeeper | Network Topology

IP Address: 192 . 168 . 50 . 20

IP Mask: 255 . 255 . 255 . 0

Primary Trans. IP Address: 0 . 0 . 0 . 0

RIP Mode: None

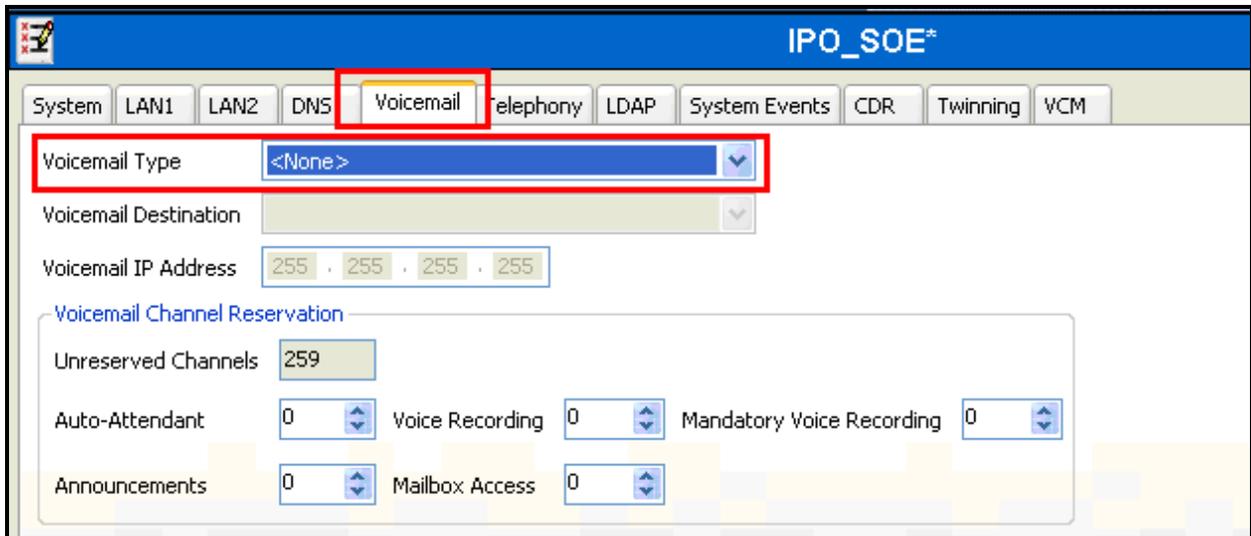
Enable NAT

Number Of DHCP IP Addresses: 200

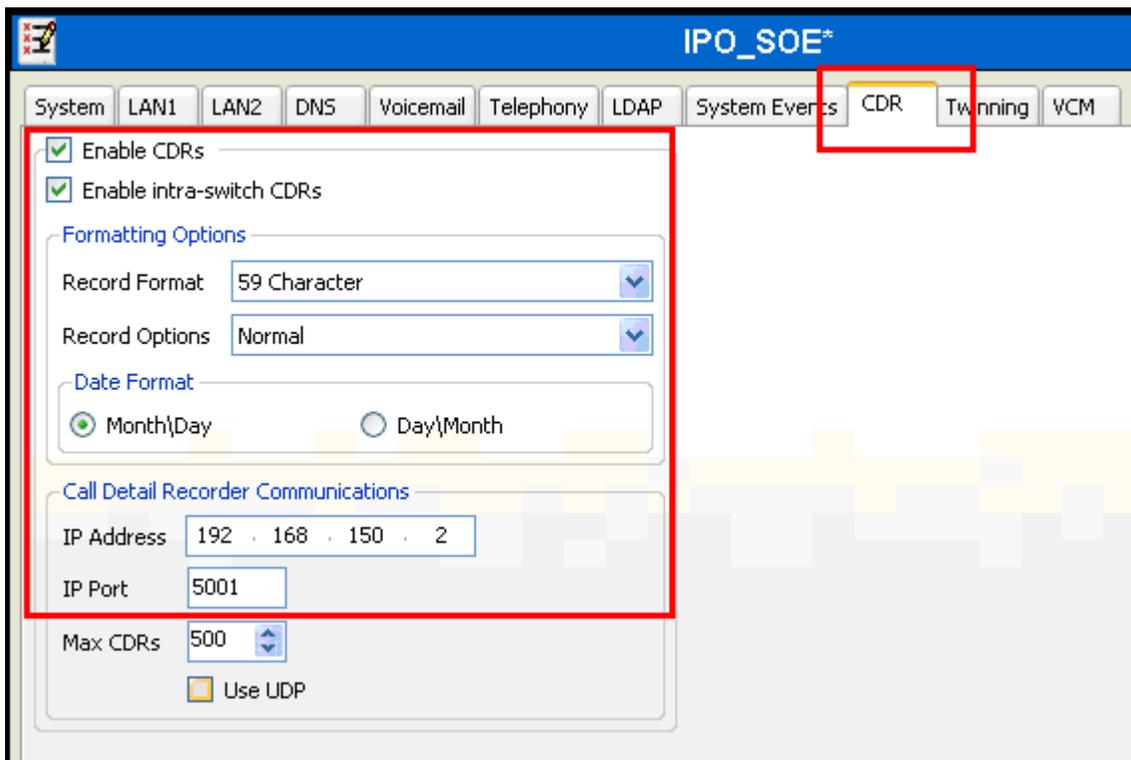
**DHCP Mode**

Server     Client     Dialin     Disabled

**Figure 5: System Parameters: LAN1**



**Figure 6: System Parameters: Voicemail**



**Figure 7: System Parameters: CDR**

### 3.1.4. Extensions

#### 3.1.4.1 Create Guest and Administrator Extensions

Create extension for each of the Guests and Administrators shown in **Table 1**. Set the “Base Extension” parameter to extension to be assigned, and accept the defaults values for the remaining parameters.

The screenshot shows a web-based configuration interface for a VoIP extension. The title bar at the top reads "VoIP Extension: 8002 5113". Below the title bar, there are two tabs: "Extn" and "VoIP". The "VoIP" tab is selected. The configuration form contains the following fields:

Extension Id	8002
Base Extension	5113
Caller Display Type	On
Reset Volume After Calls	<input type="checkbox"/>
Device type	Avaya 4610
Module	0
Port	0
Disable Speakerphone	<input type="checkbox"/>

**Figure 8: Guest or Administrator Extension**

### 3.1.4.2 Create Virtual Extensions for DID

Allocate DID extensions for each of the guests listed in **Table 1**, as described in the following table. Calls to this number will forward immediately to the guest's extension.

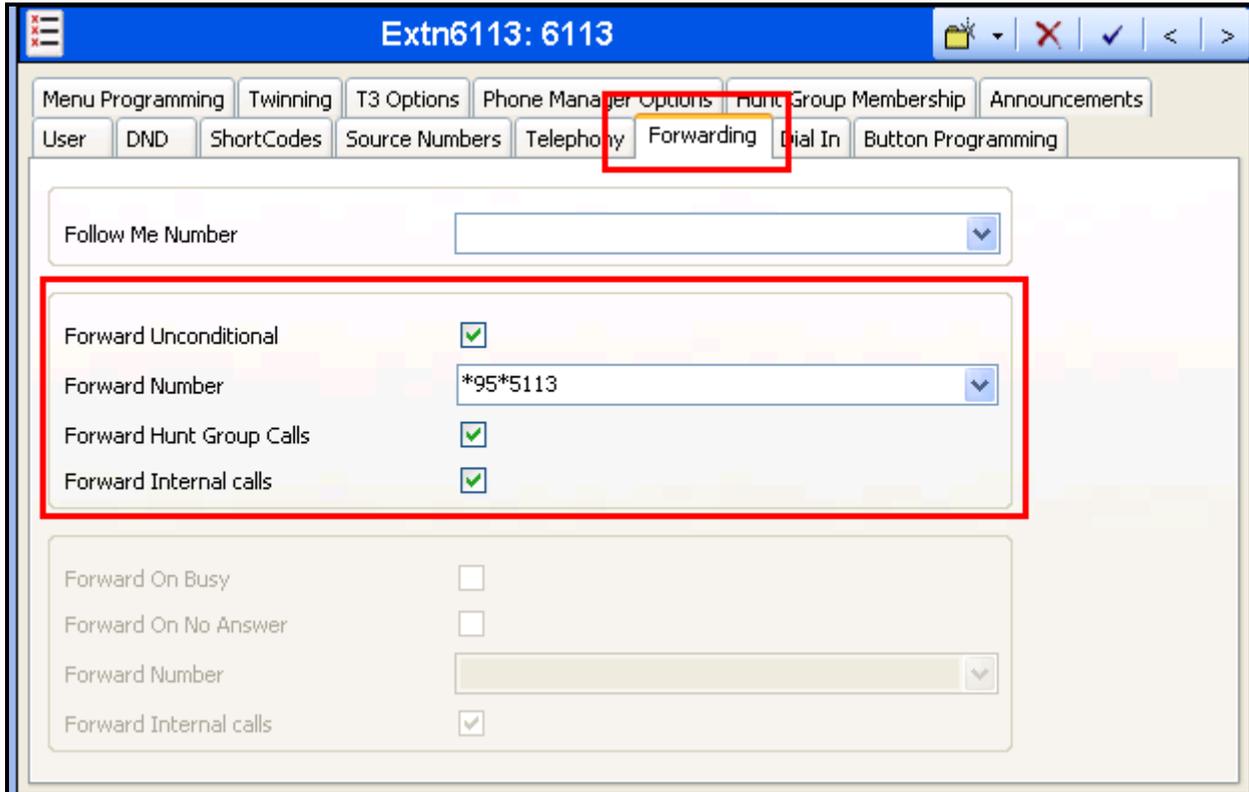
Tab	Parameter	Usage
User	Name	Enter an appropriate name to be used for identification purposes.
	Extension	Enter the DID extension for this guest, as shown in <b>Table 1</b> .
Forwarding	Forward Unconditional	Check this tab.
	Forward Number	Enter specify the short code which was used to record messages, as configured in <b>Figure 21</b> , along with the guest's room extension.
	Forward Hunt Group Calls	Check this box.
	Forward Internal Calls	Check this box.

**Table 4: Virtual DID Configuration Parameters**

The screenshot shows the configuration page for a virtual extension. The title bar at the top reads "Extn6113: 6113". Below the title bar is a navigation menu with tabs: Menu Programming, Twinning, T3 Options, Phone Manager Options, Hunt Group Membership, Announcements, User, DND, ShortCodes, Source Numbers, Telephony, Forwarding, Dial In, and Button Programming. The "User" tab is currently selected. The main form contains several input fields: "Name" (containing "Extn6113"), "Password", "Confirm Password", "Full Name", "Extension" (containing "6113"), "Locale" (a dropdown menu), "Priority" (a dropdown menu set to "5"), an unchecked "Ex Directory" checkbox, "Device Type" (containing "Device Type Unknown"), and "User Rights view" (a dropdown menu set to "User data"). Red boxes highlight the "Name" and "Extension" fields. A yellow warning icon is visible next to the "Extension" field.

**Figure 9: Virtual Extension for DID: User**

The forward number contains the room number.



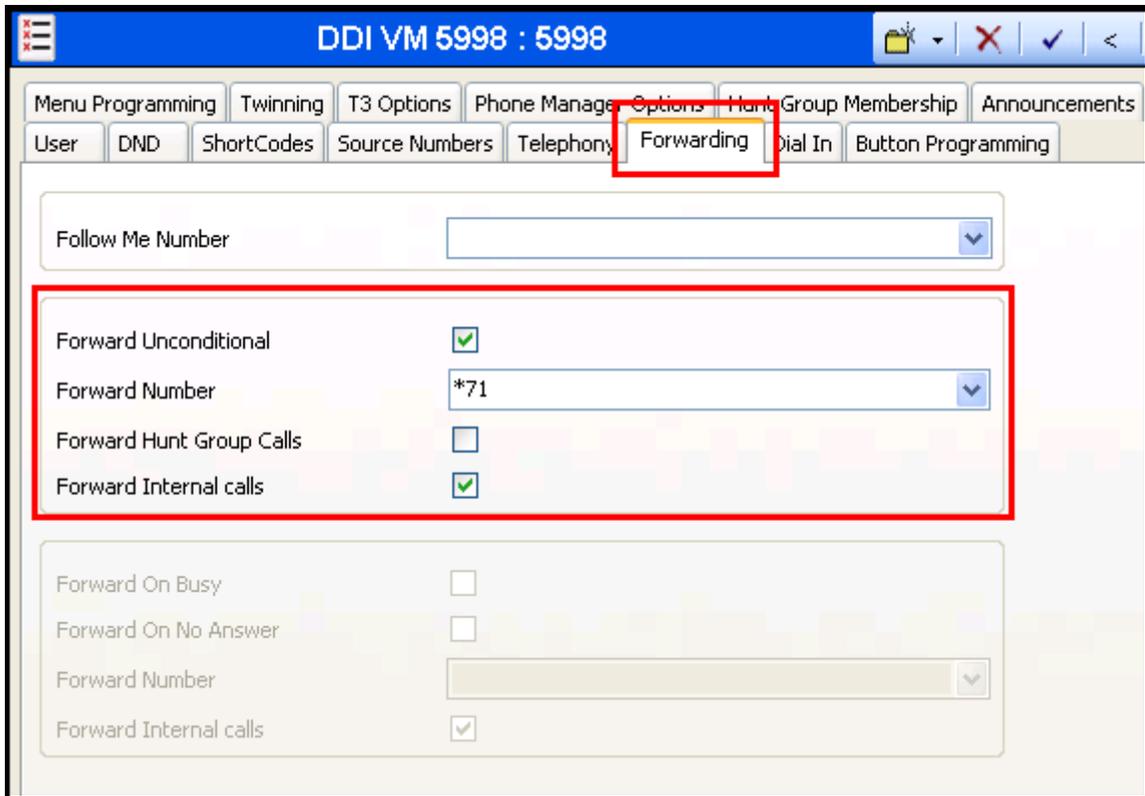
**Figure 10: Virtual Extension for DID: Forwarding**

### 3.1.4.3 Create a Virtual Extension for External Calls to IVR

Create a virtual extension which can be called externally via the PSTN. This extension is configured to forward unconditionally to the IVR hunt group so that external callers will be immediately connected to the voicemail system.

The screenshot shows the configuration page for a user named 'DDI VM 5998'. The 'User' tab is active. The 'Name' field is filled with 'DDI VM 5998'. The 'Extension' field is filled with '5998'. The 'Priority' is set to '5'. The 'Device Type' is 'Device Type Unknown'. The 'User Rights' section shows 'User data' selected for the view, and '<None>' for the working hours time profile. There are also fields for 'Working hours User Rights' and 'Out of hours User Rights'.

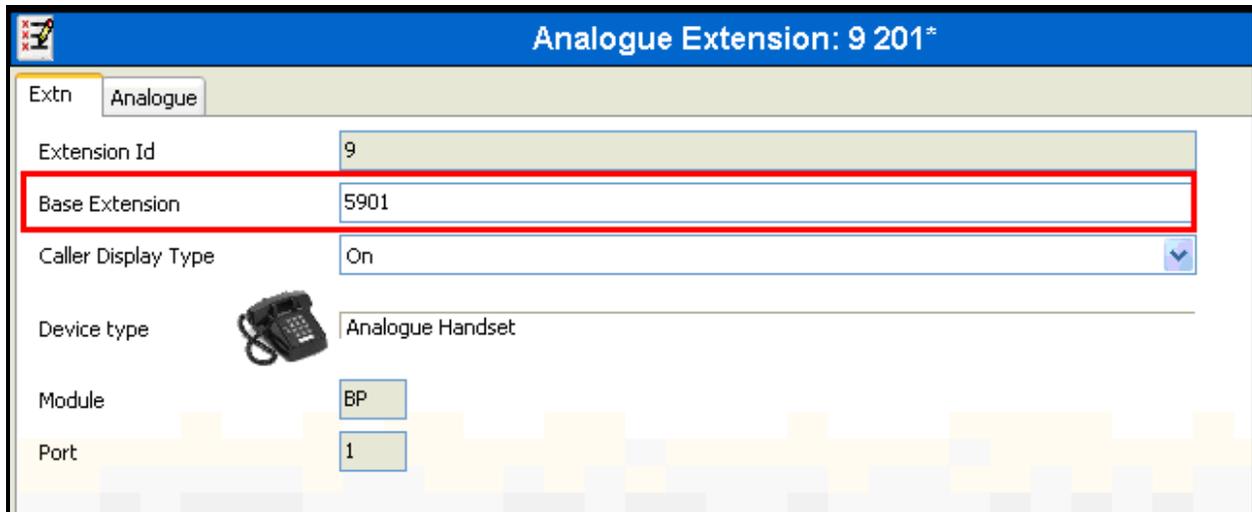
**Figure 11: DID Incoming Call Extension: User**



**Figure 12: DID Incoming Call Extension: Forwarding**

### 3.1.4.4 Analog Extensions for Meteor SE IVR Interface

Create an extension for the analog interface to Meteor SE which is used for IVR. Repeat this for the other “IVR” extensions show in **Table 1**.



Analogue Extension: 9 201*	
Extn	Analogue
Extension Id	9
Base Extension	5901
Caller Display Type	On
Device type	Analogue Handset
Module	BP
Port	1

**Figure 13: Analog Extension for IVR Interface**

### 3.1.5. Create Users

#### 3.1.5.1 Create Users for Meteor SE IVR Interface

Create a user for each analog IVR interface to Meteor SE shown in **Table 1**. Specify a descriptive name in the “Name” field and the extension (which was allocated in **Figure 13**) in the “Extension” field.

The screenshot shows the configuration page for a user named 'Extn5901' with extension '5901'. The interface includes a navigation bar with tabs for 'T3 Options', 'Phone Manager Options', 'Hunt Group Membership', and 'Announcements'. Below this is a sub-navigation bar with tabs for 'User', 'DND', 'ShortCodes', 'Source Numbers', 'Telephony', 'Forwarding', 'Dial In', 'Button Programming', 'Menu Programming', and 'Twinning'. The 'User' tab is active. The main form contains the following fields:

Name	Extn5901
Password	
Confirm Password	
Full Name	
Extension	5901
Locale	
Priority	5
Ex Directory	<input type="checkbox"/>
Device Type	Analogue Handset
<b>User Rights</b>	
User Rights view	User data
Working hours time profile	<None>
Working hours User Rights	
Out of hours User Rights	

**Figure 14: IVR User**

### 3.1.5.2 Create Users for Guests and Administrators

Create a user for each guest and administrator shown in **Table 1**. Specify a descriptive name in the “Name” field and the extension (which was allocated in **Figure 8**) in the “Extension” field.

The screenshot shows the 'User' configuration page for extension 5901. The 'User' tab is highlighted with a red box. The 'Name' field is set to 'Extn5901' and the 'Extension' field is set to '5901', both highlighted with red boxes. The 'Password' and 'Confirm Password' fields are empty. The 'Full Name' field is also empty. The 'Locale' is set to a default value, and the 'Priority' is set to 5. The 'Ex Directory' checkbox is unchecked. The 'Device Type' is set to 'Analogue Handset'. The 'User Rights' section includes dropdown menus for 'User Rights view' (set to 'User data'), 'Working hours time profile' (set to '<None>'), 'Working hours User Rights', and 'Out of hours User Rights'.

**Figure 15: Guest or Administrator User**

### 3.1.6. User Rights

Specify the user rights for checkin, checkout, and dnd as shown in the following table.

Item	Parameter	Usage
checkin	Name	Enter "checkin".
	Outgoing call bar	Uncheck the box "Enable outgoing call bar" and select "Apply User Rights value" from the drop-down menu.
checkout	Name	Enter "checkout".
	Outgoing call bar	Check the box "Enable outgoing call bar" and select "Apply User Rights value" from the drop-down menu.
dnd	Name	Enter "dnd".
	Do not disturb	Check the box "Enable do not disturb" and select "Apply User Rights value" from the drop-down menu.
	Outgoing call bar	Uncheck the box "Enable outgoing call bar" and select "Apply User Rights value" from the drop-down menu.

**Table 5: User Rights Configuration Parameters**

The screenshot displays a web-based configuration interface for a user named 'checkin'. The interface includes a navigation bar with tabs for 'User', 'ShortCodes', 'Telephony', 'Button Programming', 'Phone Manager', and 'User Rights Membership'. The 'User' tab is active, showing 'User options' for the user 'checkin'. The 'Name' field is highlighted with a red box and contains the text 'checkin'. Below this, there are sections for 'Locale', 'Priority', 'Voicemail on', 'Voicemail ring back', and 'Do not disturb', each with a checkbox and a dropdown menu. The 'Outgoing call bar' section is also highlighted with a red box and contains a checkbox labeled 'Enable outgoing call bar' which is unchecked, and a dropdown menu set to 'Apply User Rights value'.

**Figure 16: User Rights: checkin**

The screenshot shows a web-based configuration interface for a user named 'checkout'. The interface has a blue header with the user name and navigation icons. Below the header is a tabbed menu with 'User' selected. The main area is titled 'User options' and contains several sections:

- Name:** A text input field containing 'checkout'.
- Locale:** A dropdown menu (empty) and a dropdown menu set to 'Not part of User Rights'.
- Priority:** A dropdown menu set to '5' and a dropdown menu set to 'Not part of User Rights'.
- Voicemail on:** A checkbox 'Enable voicemail' (unchecked) and a dropdown menu set to 'Not part of User Rights'.
- Voicemail ring back:** A checkbox 'Enable voicemail ringback' (unchecked) and a dropdown menu set to 'Not part of User Rights'.
- Do not disturb:** A checkbox 'Enable do not disturb' (unchecked) and a dropdown menu set to 'Not part of User Rights'.
- Outgoing call bar:** A checkbox 'Enable outgoing call bar' (checked) and a dropdown menu set to 'Apply User Rights value'.

**Figure 17: User Rights: checkout**

The screenshot displays the 'User Rights' configuration page for a user named 'dnd'. The page is organized into several sections:

- User options:** The 'Name' field is set to 'dnd' and is highlighted with a red box.
- Locale:** A dropdown menu is currently empty, and the 'Not part of User Rights' checkbox is checked.
- Priority:** The priority is set to '5', and the 'Not part of User Rights' checkbox is checked.
- Voicemail on:** The 'Enable voicemail' checkbox is unchecked, and the 'Not part of User Rights' checkbox is checked.
- Voicemail ring back:** The 'Enable voicemail ringback' checkbox is unchecked, and the 'Not part of User Rights' checkbox is checked.
- Do not disturb:** This section is highlighted with a red box. The 'Enable do not disturb' checkbox is checked, and the 'Apply User Rights value' checkbox is checked.
- Outgoing call bar:** The 'Enable outgoing call bar' checkbox is unchecked, and the 'Apply User Rights value' checkbox is checked.

**Figure 18: User Rights: dnd**

### 3.1.7. Shortcodes

Allocate the shortcodes shown in the following table.

Shortcode	Parameter	Usage
Guest IVR	Code	Enter <b>*93</b>
	Feature	Select <b>Dial Extn</b> from the drop-down menu.
	Telephone Number	Enter <b>5900D,,3*E#</b> . 5900 is the extension assigned to the IVR Hunt Group in <b>Figure 26</b> .
Set room status	Code	Enter <b>*94</b>
	Feature	Select <b>Dial Extn</b> from the drop-down menu.
	Telephone Number	Enter <b>5900D,,5*E#</b> . 5900 is the extension assigned to the IVR Hunt Group in <b>Figure 26</b> .
Recode message	Code	Enter <b>*95</b>
	Feature	Select <b>Dial Extn</b> from the drop-down menu.
	Telephone Number	Enter <b>5900D,,2*N#</b> . 5900 is the extension assigned to the IVR Hunt Group in <b>Figure 26</b> .
Turn ON MWI	Code	Enter <b>*97*N#</b>
	Feature	Select <b>Display Msg</b> from the drop-down menu.
	Telephone Number	Enter <b>N”;MWL Msgs=1 Old=0 Sav=0”</b> .
Turn OFF MWI	Code	Enter <b>*98*N#</b>
	Feature	Select <b>Display Msg</b> from the drop-down menu.
	Telephone Number	Enter <b>N”;MWL Msgs=0 Old=0 Sav=0”</b> .
PSTN Incoming Call	Code	Enter <b>0N</b>
	Feature	Select <b>Dial</b> from the drop-down menu.
	Telephone Number	Enter <b>NSi</b> followed by the telephone number of the PSTN connection (this is the same number which is assigned to the Incoming Call Route in <b>Figure 30</b> ).
	Line Group ID	Enter the group number which was assigned to the PSTN interface in <b>Figure 29</b> .
Forward DID Call to IVR Hunt Group	Code	Enter <b>*71</b>
	Feature	Select <b>Dial Extn</b> from the drop-down menu.
	Telephone Number	Enter <b>5900D,,6*E#</b> . 5900 is the extension assigned to the IVR Hunt Group in <b>Figure 26</b> .

**Table 6: Shortcode Configuration Parameters**

\*93: Dial Extn

Short Code

Code	*93
Feature	Dial Extn
Telephone Number	5900D,,3*E#
Line Group Id	0
Locale	
Force Account Code	<input type="checkbox"/>

**Figure 19: Guest IVR Shortcode**

\*94: Dial Extn

Short Code

Code	*94
Feature	Dial Extn
Telephone Number	5900D,,5*E#
Line Group Id	0
Locale	
Force Account Code	<input type="checkbox"/>

**Figure 20: Room Status Shortcode**

Short Code	
Code	*95*N
Feature	Dial Extn
Telephone Number	5900D,,2*N#
Line Group Id	0
Locale	
Force Account Code	<input type="checkbox"/>

**Figure 21: Record Message Shortcode**

Short Code	
Code	*97*N#
Feature	Display Msg
Telephone Number	N";MWL Msgs=1 Old=0 Sav=0"
Line Group Id	0
Locale	
Force Account Code	<input type="checkbox"/>

**Figure 22: MWI ON Shortcode**

Short Code	
Code	*98*N#
Feature	Display Msg
Telephone Number	N";MWL Msgs=0 Old=0 Sav=0"
Line Group Id	0
Locale	
Force Account Code	<input type="checkbox"/>

**Figure 23: MWI OFF Shortcode**

Short Code	
Code	0N
Feature	Dial
Telephone Number	NSi6990739886E
Line Group Id	5
Locale	
Force Account Code	<input type="checkbox"/>

**Figure 24: PSTN Access Short Code**

The image shows a web form titled '\*71: Dial Extn'. The form has a blue header bar with the title. Below the header, there is a tab labeled 'Short Code'. The form contains several fields: 'Code' with the value '\*71', 'Feature' with a dropdown menu showing 'Dial Extn', 'Telephone Number' with the value '5900D,,6\*E#', 'Line Group Id' with a dropdown menu showing '0', 'Locale' with a dropdown menu, and 'Force Account Code' with an unchecked checkbox. A red rectangular box highlights the 'Code', 'Feature', and 'Telephone Number' fields.

*71: Dial Extn	
Short Code	
Code	*71
Feature	Dial Extn
Telephone Number	5900D,,6*E#
Line Group Id	0
Locale	
Force Account Code	<input type="checkbox"/>

**Figure 25: Forward DID Call to IVR Hunt Group**

### 3.1.8. Create Hunt Groups

#### 3.1.8.1 Create Hunt Group Meteor SE IVR Ports

Create a hunt group which contains the analog extensions which are allocated to the Meteor SE IVR ports.

Sequential Group Meteor VM: 5900

Hunt Group Fallback Queuing Announcements

Name: Meteor VM  
Extension: 5900

Overflow Time (secs):  
No Answer Time (secs):  
Voicemail Answer Time (secs): Off

Ring Mode:  
 Collective  Sequential  Rotary  Longest Waiting

Agent's Status on No-Answer Applies To: Any Call  
Central System: IPO\_SOE

Call Waiting On:   
Advertise Group:

Extension	Name	System
<input checked="" type="checkbox"/>	5901 Extn5901	IPO_SOE
<input checked="" type="checkbox"/>	5902 Extn5902	IPO_SOE

Overflow Group List

Group Name
------------

Add... Remove Add... Remove

Figure 26: IVR Hunt Group

### 3.1.8.2 Create Hunt Group for DID Calls

Create a hunt group for each DID number which has been allocated by the PSTN. This may be less than the total number of guests extensions. A DID hunt group may be assigned to a guest on an optional basis, and usually involves extra charges for the guest.

When a DID number is allocated to a guest, that guest's room extension and DID extension are added to this hunt group (in that order), by Meteor SE via the IPO Web Services interface. Thus, the contents of this hunt group need not be administered manually. Since this hunt group is sequential, an incoming call will first attempt to call the room's extension. If there is no answer, the virtual extension will be called subsequently. The virtual extension is configured to forward all calls immediately to a hunt group which contains the Meteor SE IVR ports. Thus, unanswered calls to DID destinations will be forwarded correctly to voicemail coverage.

Sequential Group Meteor DDI 5999: 5999

Hunt Group Fallback Queuing Announcements

Name: Meteor DDI 5999  
Extension: 5999

Overflow Time (secs):  
No Answer Time (secs): 10  
Voicemail Answer Time (secs): Off

Ring Mode:  
 Collective  Sequential  Rotary  Longest Waiting

Agent's Status on No-Answer Applies To: None  
Central System: IPO\_SOE

Call Waiting On:   
Advertise Group:

Extension List

Extension	Name	System
<input checked="" type="checkbox"/> 5113	Extn5113	IPO_SOE
<input checked="" type="checkbox"/> 6113	Extn6113	IPO_SOE

Overflow Group List

Group Name

Add... Remove Add... Remove

Figure 27: DID Hunt Group



**Figure 28: DID Hunt Group Queuing**

### 3.1.9. Create BRI Line

The following is an illustration of the configuration of the IP Office for use with a BRI interface to the PSTN, which was used for conformance testing. Other types of PSTN trunks can be used as well.

Parameter	Usage
Incoming Group ID	Assign the number of an otherwise unused Incoming Group ID.
Prefix	Enter the prefix which is used to initiate a local external call via the PSTN.
National Prefix	Enter the prefix which is used to initiate a national external call via the PSTN.
International Prefix	Enter the prefix which is used to initiate an international external call via the PSTN.
Line SubType	Select "ETSI" from the drop-down list, as required for access to the PSTN in Europe.
Outgoing Group ID	Assign the number of an otherwise unused Outgoing Group ID.

**Table 7: Basic Rate Line Configuration Parameters**

**BRI - Line 5**

BRI Line | Short Codes | Channels

Line Number: 05 | Line SubType: ETSI

Card: 2

Port: 1

Telephone Number: [Empty]

TEI: 0

Incoming Group ID: 5 | Outgoing Group ID: 5

Prefix: 0 | Number of Channels: 2

National Prefix: 00 | Outgoing Channels: 2

International Prefix: 000 | Voice Channels: 2

Data Channels: 2

Clock Quality: Network

Supports Partial Rerouting:

Support Call Tracing:

Active CCBS Support:

Passive CCBS Support:

Cost Per Charging Unit: 618

**Figure 29: Basic Rate Line Configuration Screen**

### 3.1.10. Incoming Call Route

Create an Incoming Call Route to route incoming calls from the PSTN to local extensions. Assign parameters to this call route as shown in the following table:

Tab	Parameter	Usage
Standard	Line Group Id	Enter the Group Id of the BRI line, as shown in <b>Figure 29</b> .
	Incoming Number	Enter “0” followed by the PSTN number assigned to the BRI interface (the same number that is assigned to the PSTN Access Short Code in <b>Figure 24</b> ), followed by the string “xxxx”.
Destinations	Destination	Configure the destination to use the last four digits of the called party number to route to the local extension.

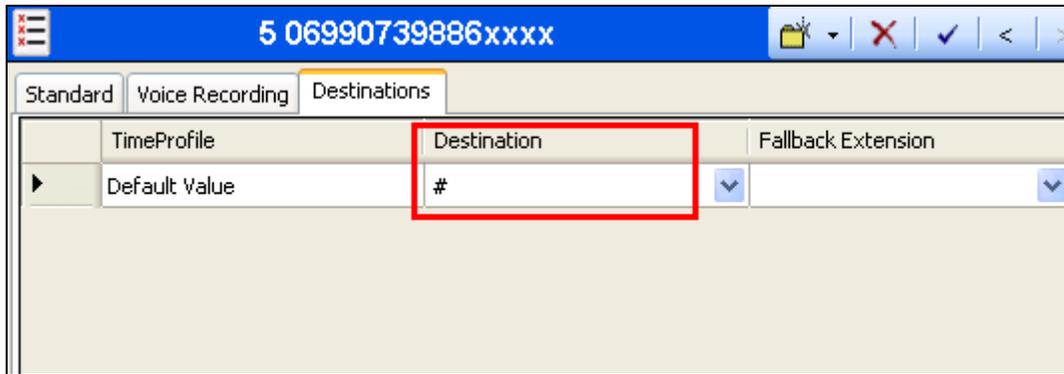
**Table 8: Parameters for Incoming Call Routes**

The screenshot shows a configuration window for an Incoming Call Route. The title bar displays the number '5 06990739886xxxx'. The 'Standard' tab is selected, showing the following parameters:

- Bearer Capability: Any Voice
- Line Group Id: 5
- Incoming Number: 06990739886xxxx
- Incoming Sub Address: (empty)
- Incoming CLI: (empty)
- Locale: (empty)
- Priority: 1
- Tag: (empty)

A red rectangular box highlights the 'Line Group Id' and 'Incoming Number' fields.

**Figure 30: Incoming Call Route - Standard Parameters**



**Figure 31: Incoming Call Route - Destinations Screen**

### 3.2. Install Dialogic D/4PCI

Insert the Dialogic D/4PCI interface in the Meteoror SE server PC. Set the SW1 rotary switch on the D/4PCI interface card to 0, as described in [4].

Before proceeding uninstall any Dialogic driver which may have been present on the system.

Execute setup.exe on Dialogic installation CD. Click “Next” on the welcome screen.

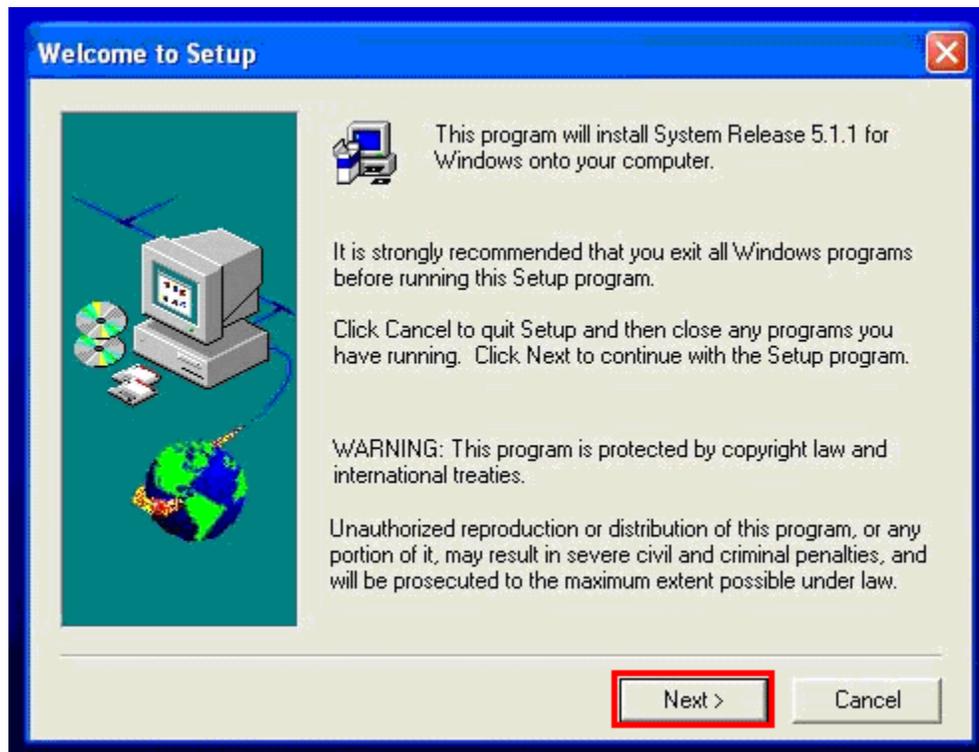
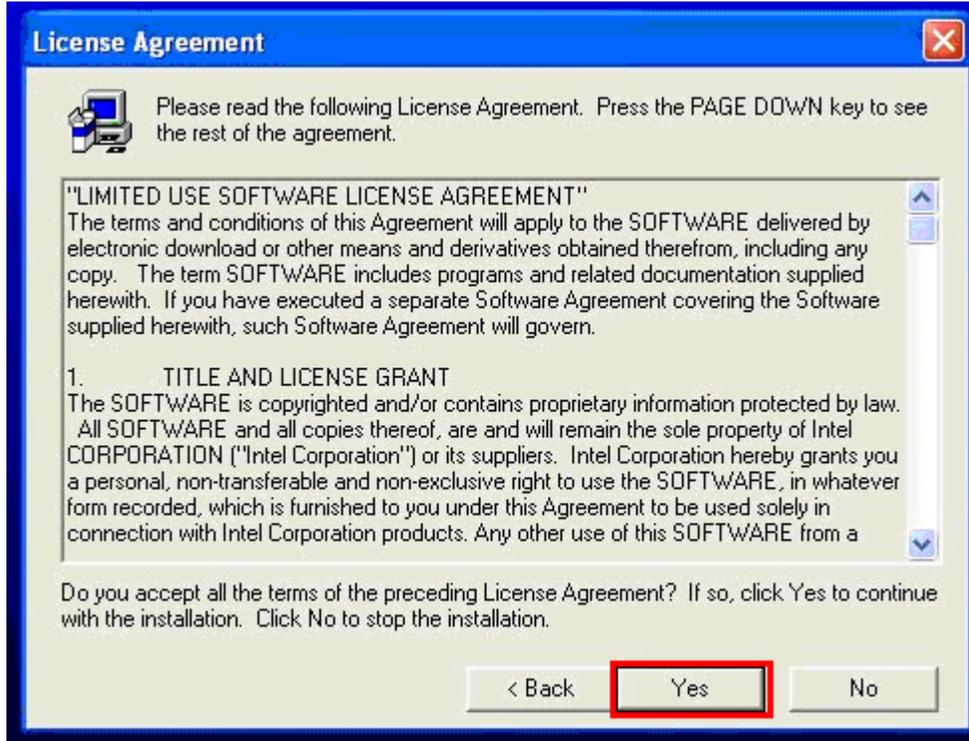


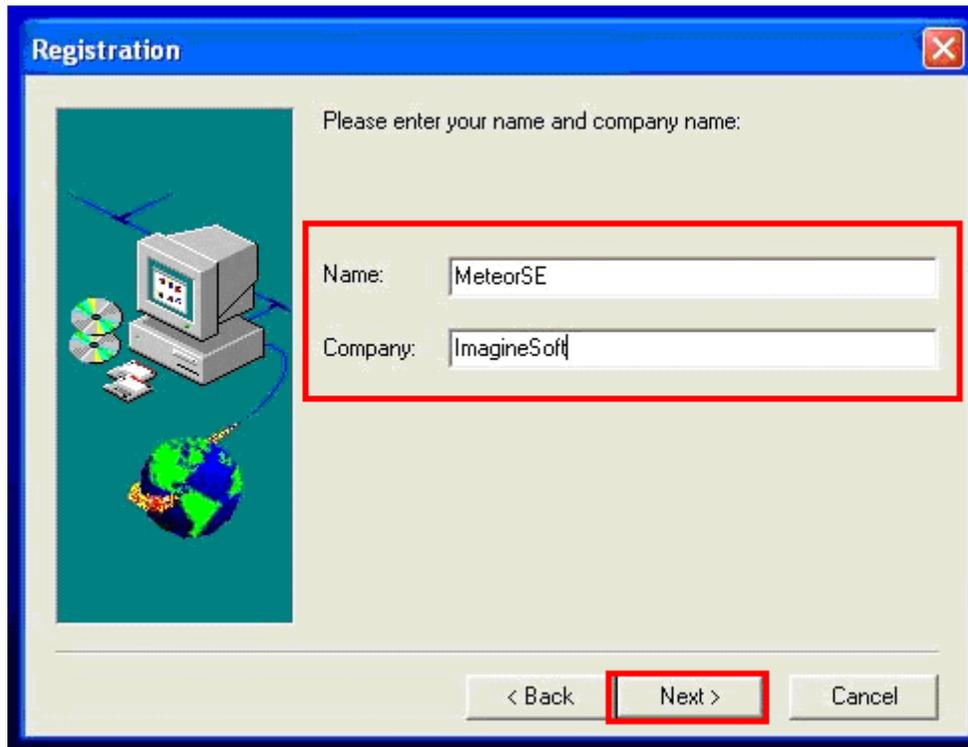
Figure 32: D/4PCI Welcome Screen

Click “Yes” if the license terms are acceptable.



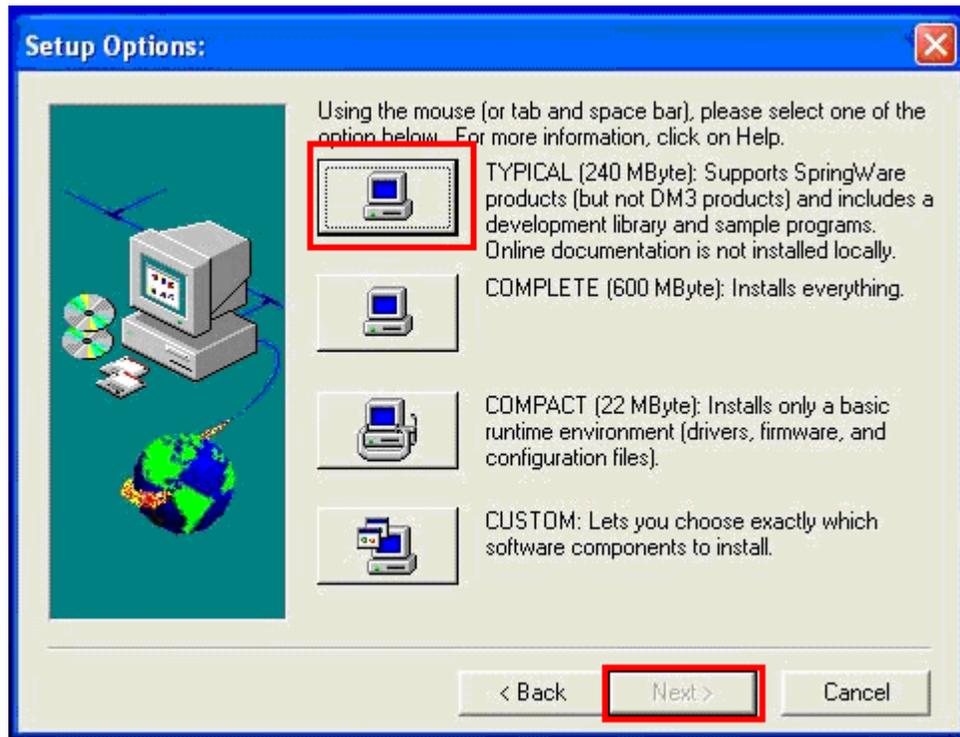
**Figure 33: D/4PCI License Screen**

Enter your name and company name and click “Next”.



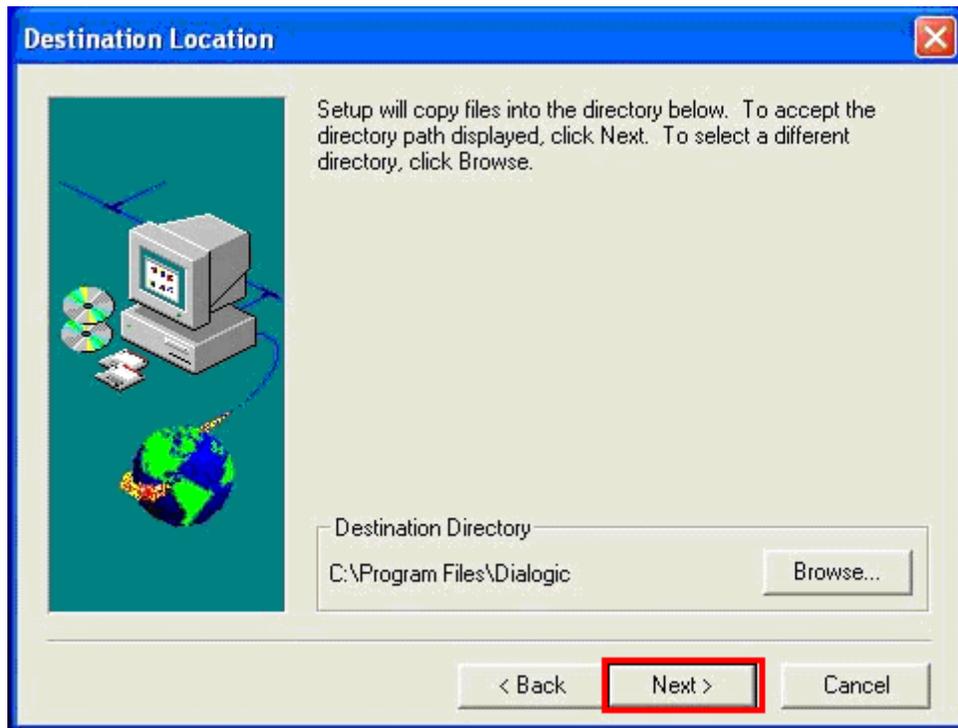
**Figure 34: D/4PCI Registration Screen**

Select "Typical" and click "Next".



**Figure 35: D/4PCI Options Screen**

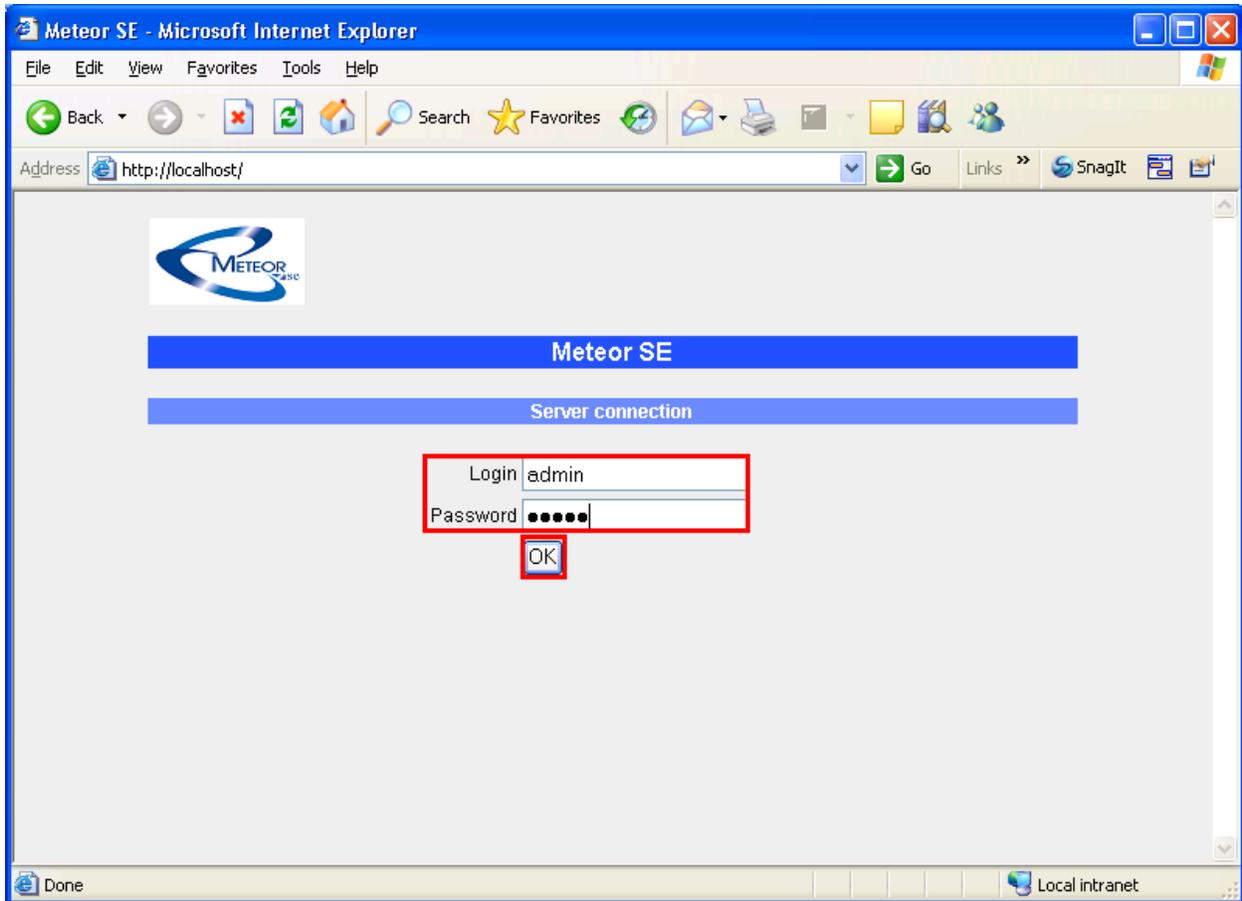
Accept the default destination directory by clicking “Next”. Reboot the system after the installation has completed.



**Figure 36: D/4PCI Destination Screen**

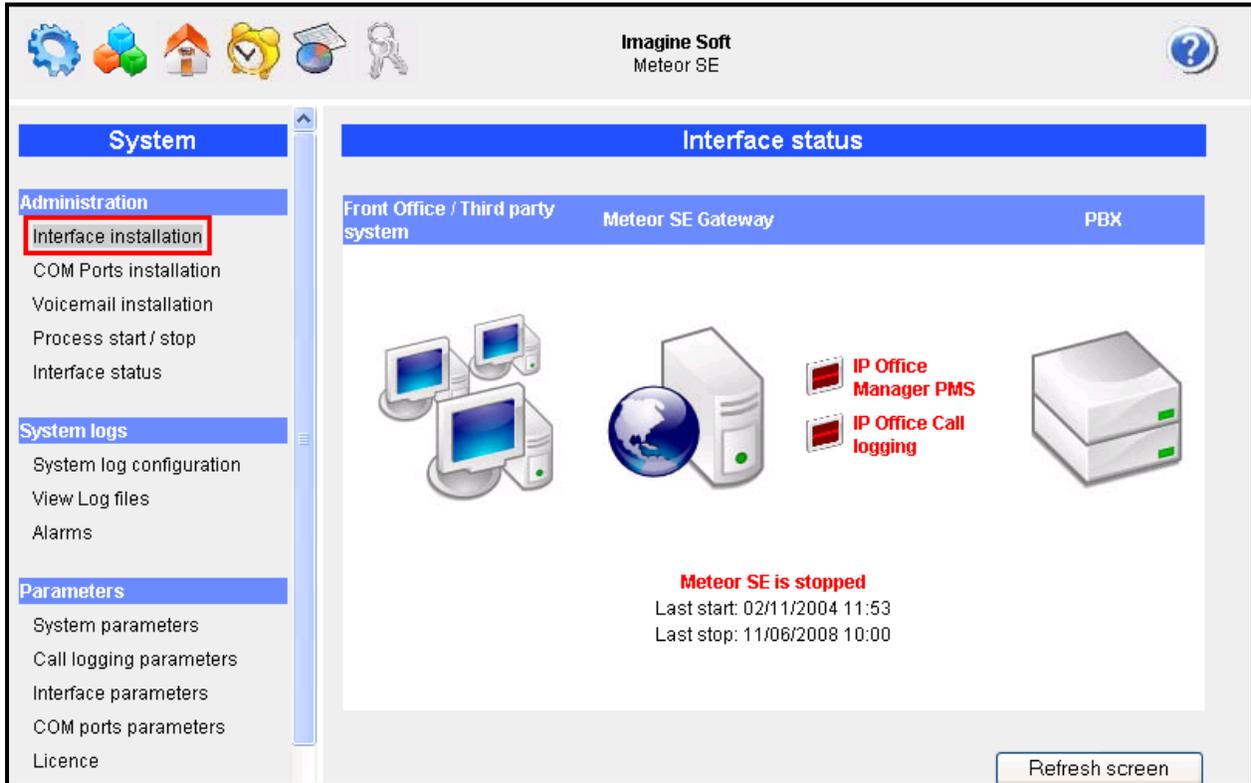
### 3.3. Configure Meteor SE

Enter the IP address of the Meteor SE server in a web browser, enter the appropriate user name and password, and click “OK”.



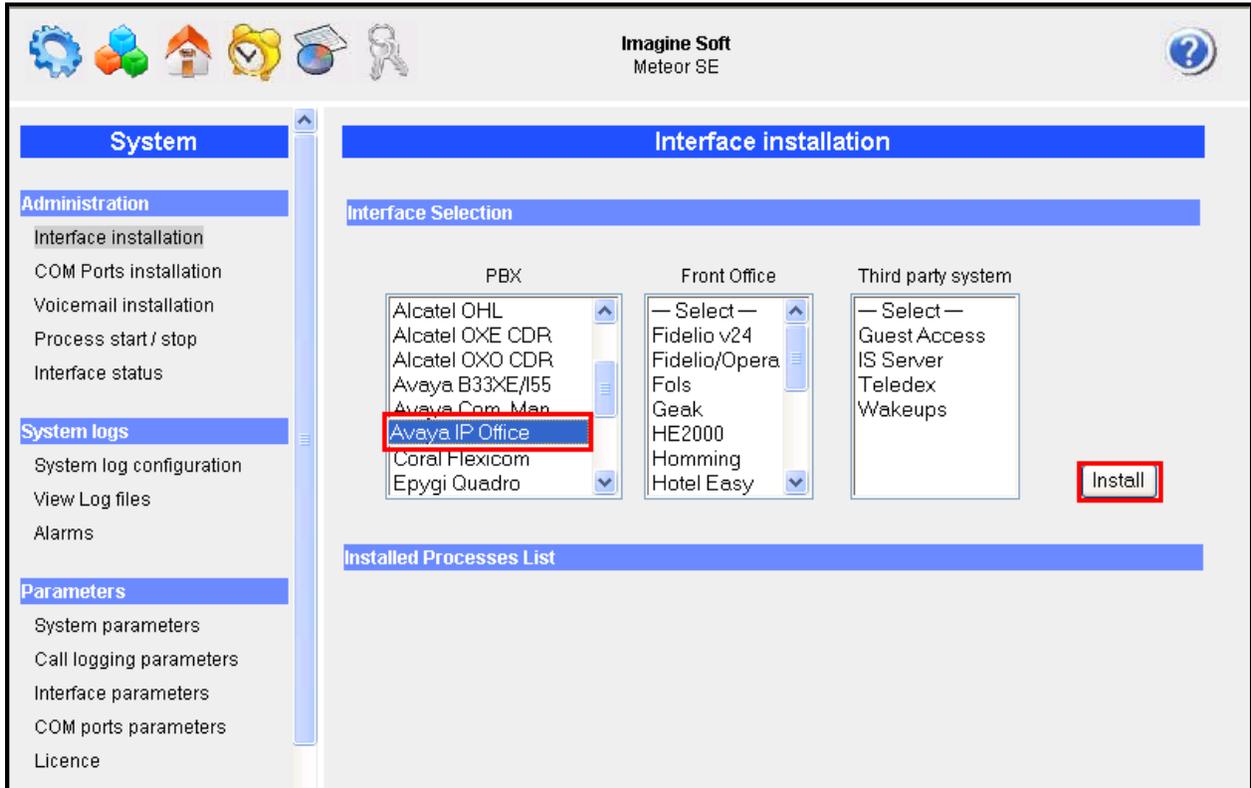
**Figure 37: Meteor SE Login Screen**

Click “Interface Installation”.



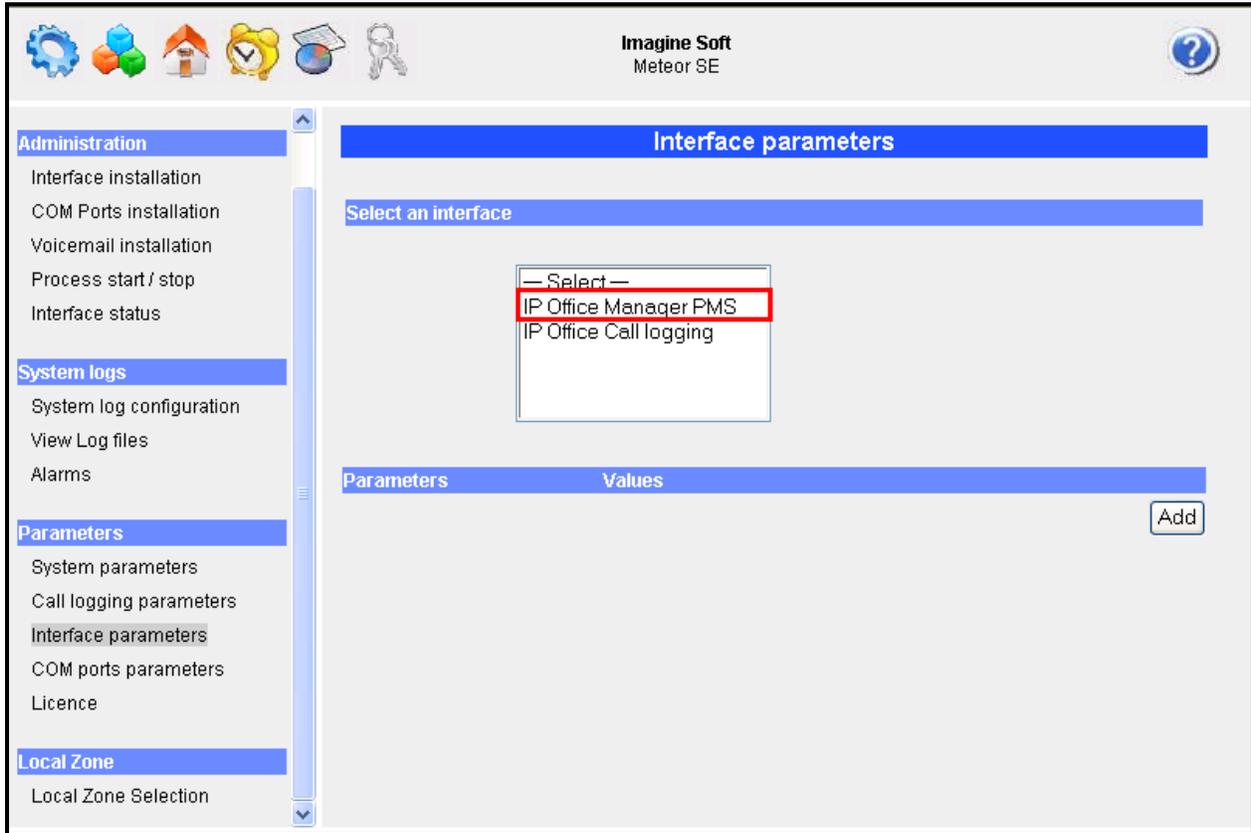
**Figure 38: Meteor SE Interface Installation Initiation**

Select “Avaya IP Office” from the “PBX” list and click “Install”.



**Figure 39: Meteor SE Interface Installation**

Select “Interface Parameters” from the left frame, and then “IP Office Manager PMS” from the list of interfaces..

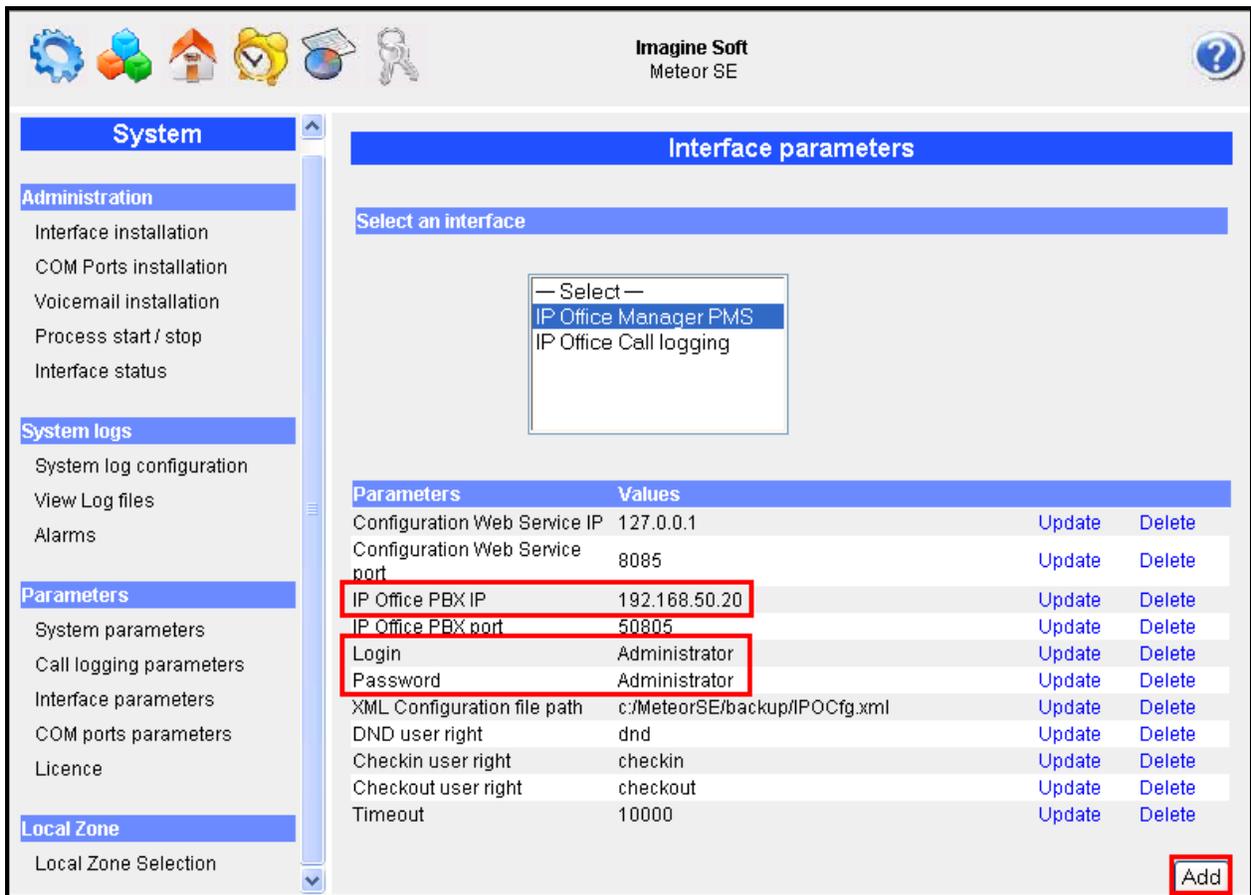


**Figure 40: Meteor SE Interface Parameters**

Select “IP Office Manager PMS”. Set the parameters shown in the following table by selecting each, one at a time, and entering the values indicated in the table. Click “Add” when the parameters have been set.

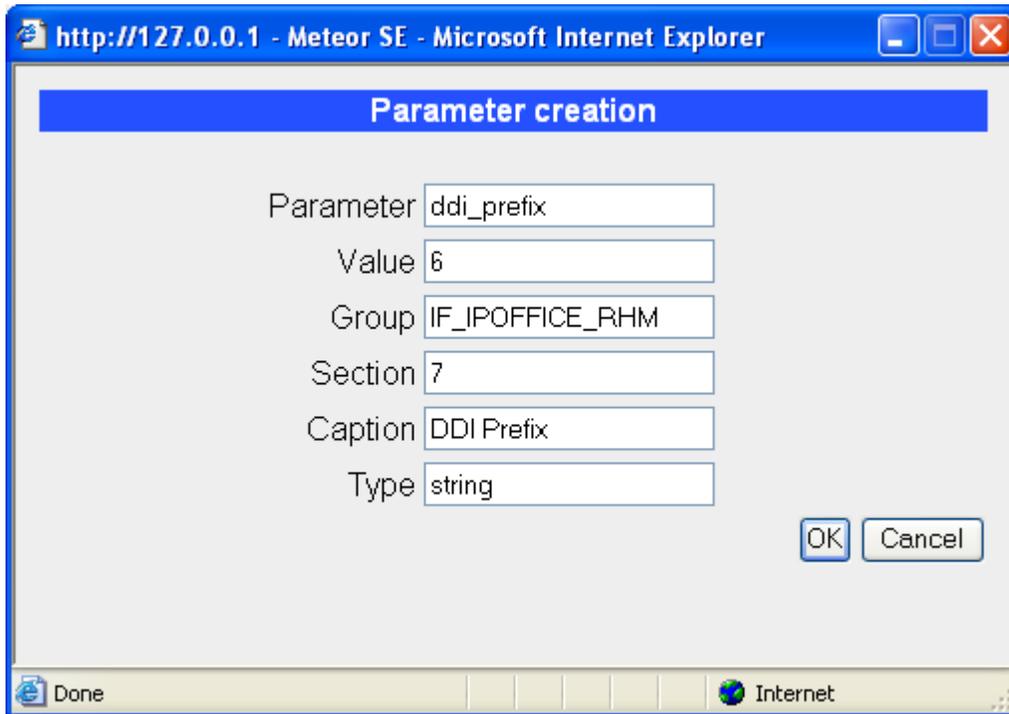
Parameter	Usage
IP Office PBX IP	Enter the IP address of Avaya IP Office LAN interface, as shown in <b>Figure 5</b> .
Login	Enter the Avaya IP Office administrator user ID.
Password	Enter the Avaya IP Office administrator user password.

**Table 9: Interface Parameters**



**Figure 41: Interface Parameter Screen**

Enter the values shown in the screen below to define the DID Prefix parameter. The “Value” field should be set to the leading digit which is used for DID extensions, as shown in **Table 1**.



The screenshot shows a Microsoft Internet Explorer window with the address bar displaying 'http://127.0.0.1 - Meteor SE - Microsoft Internet Explorer'. The main content area is titled 'Parameter creation' and contains a form with the following fields:

Parameter	ddi_prefix
Value	6
Group	IF_IPOFFICE_RHM
Section	7
Caption	DDI Prefix
Type	string

At the bottom right of the form are 'OK' and 'Cancel' buttons. The browser's status bar at the bottom shows 'Done' and 'Internet'.

**Figure 42: Add DID Prefix Parameter**

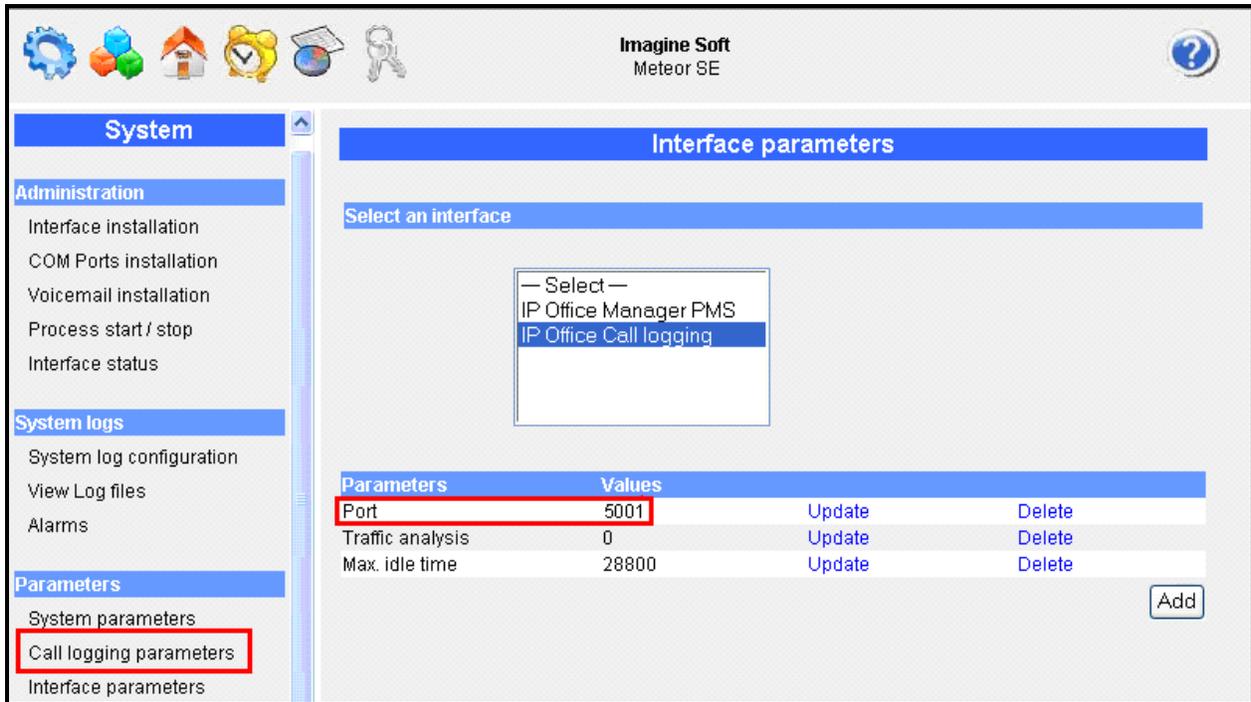
Here is the list after the values have been configured:

The screenshot shows the 'Interface parameters' section of the Imagine Soft Meteor SE web interface. A dropdown menu is open, showing 'IP Office Manager PMS' selected. Below the menu is a table of parameters with 'Update' and 'Delete' links for each row. An 'Add' button is located at the bottom right of the table.

Parameters	Values		
DDI Prefix	6	<a href="#">Update</a>	<a href="#">Delete</a>
Configuration Web Service IP	127.0.0.1	<a href="#">Update</a>	<a href="#">Delete</a>
Configuration Web Service port	8085	<a href="#">Update</a>	<a href="#">Delete</a>
IP Office PBX IP	192.168.50.20	<a href="#">Update</a>	<a href="#">Delete</a>
IP Office PBX port	50805	<a href="#">Update</a>	<a href="#">Delete</a>
Login	Administrator	<a href="#">Update</a>	<a href="#">Delete</a>
Password	Administrator	<a href="#">Update</a>	<a href="#">Delete</a>
XML Configuration file path	c:/MeteorSE/backup/IPOCfg.xml	<a href="#">Update</a>	<a href="#">Delete</a>
DND user right	dnd	<a href="#">Update</a>	<a href="#">Delete</a>
Checkin user right	checkin	<a href="#">Update</a>	<a href="#">Delete</a>
Checkout user right	checkout	<a href="#">Update</a>	<a href="#">Delete</a>
Timeout	10000	<a href="#">Update</a>	<a href="#">Delete</a>

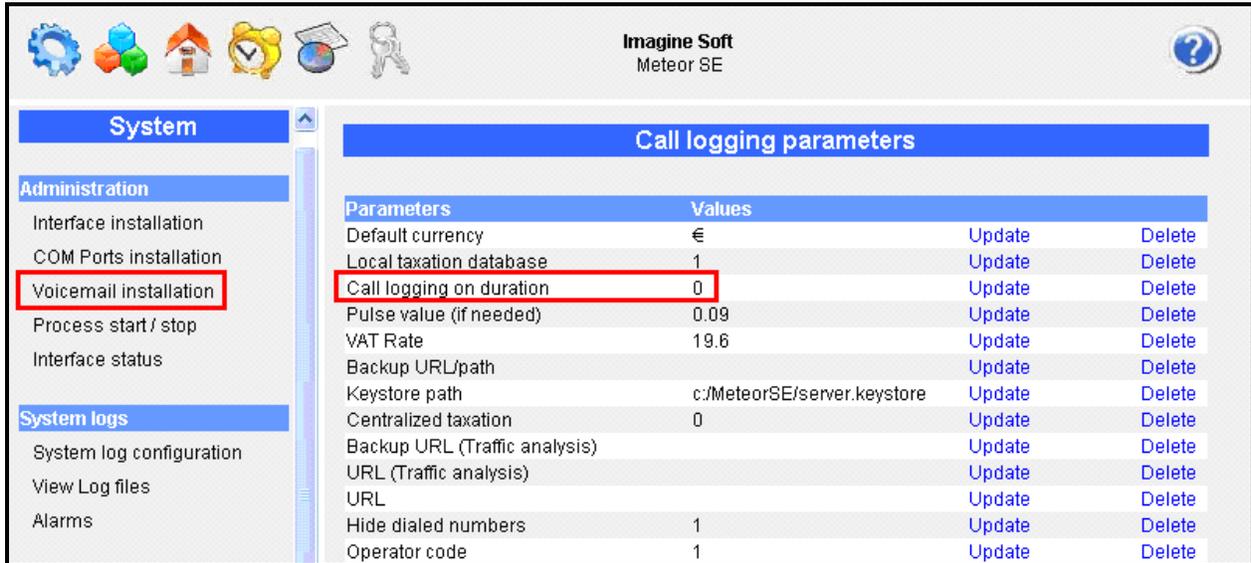
**Figure 43: IP Office Manager PMS Parameter**

Select the “IP Office Call logging” interface and verify that the “Port” parameter is set to the same value as the IPO CDR interface in **Figure 7**. Upon completion, click “Call logging parameters”.



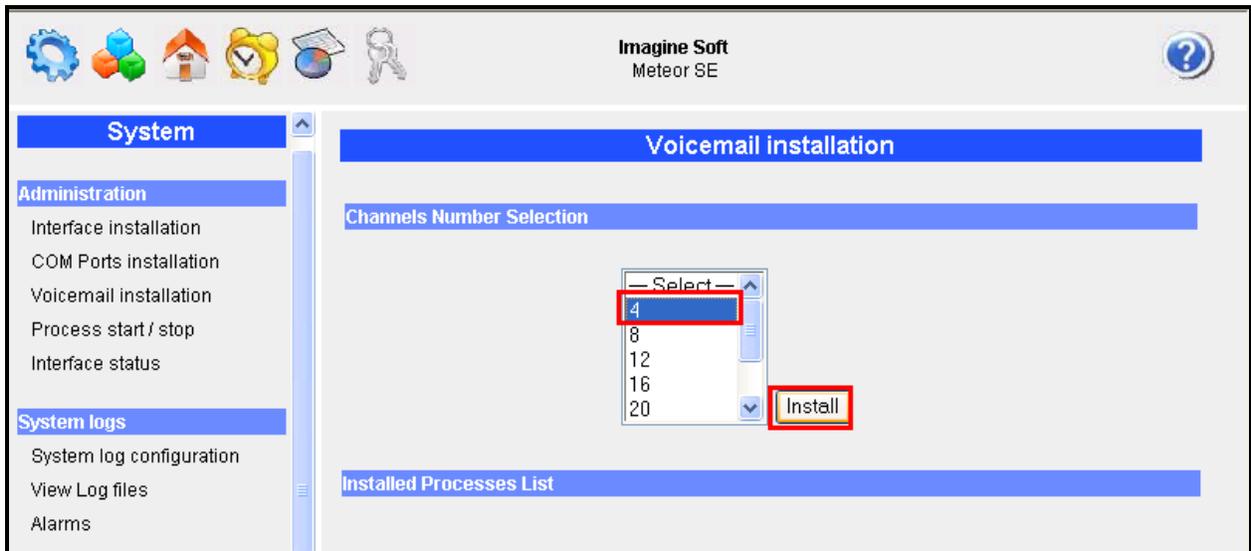
**Figure 44: IP Office Call Logging Interface Parameters**

Set the “Call logging on duration” parameter to “0” to use the charging pulse from the PSTN. Upon completion, click “Voicemail installation”.



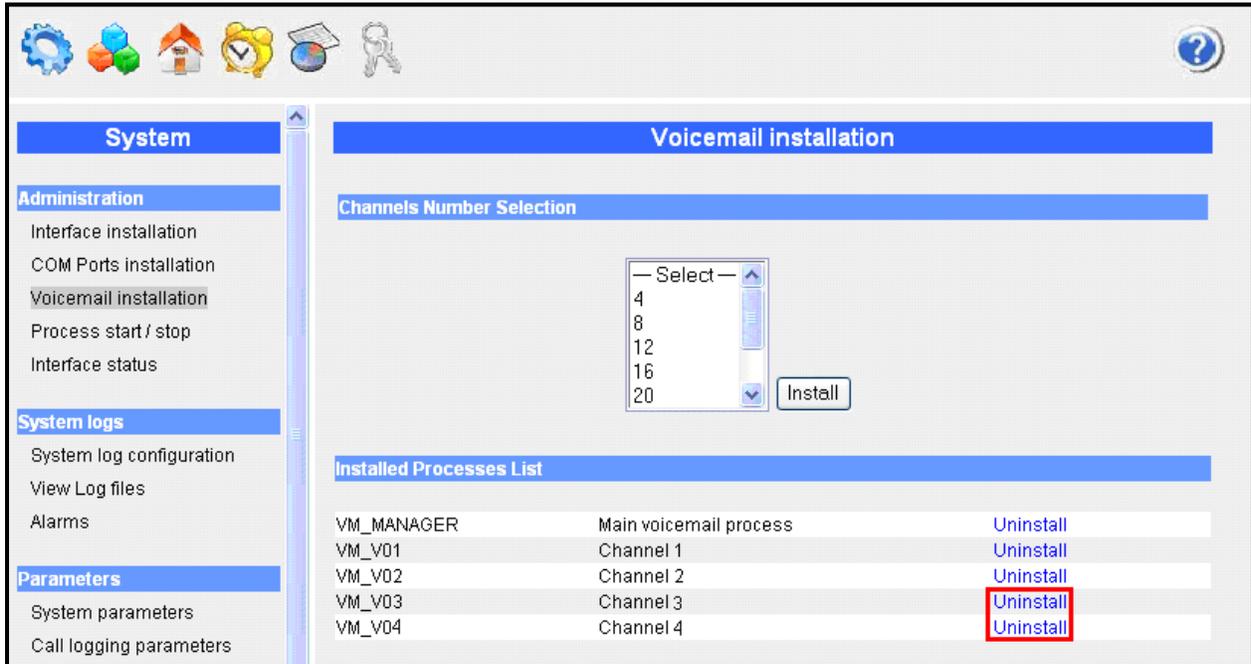
**Figure 45: Call Logging Parameters**

In the Voicemail installation screen, select “4” Channels and click “Install”.



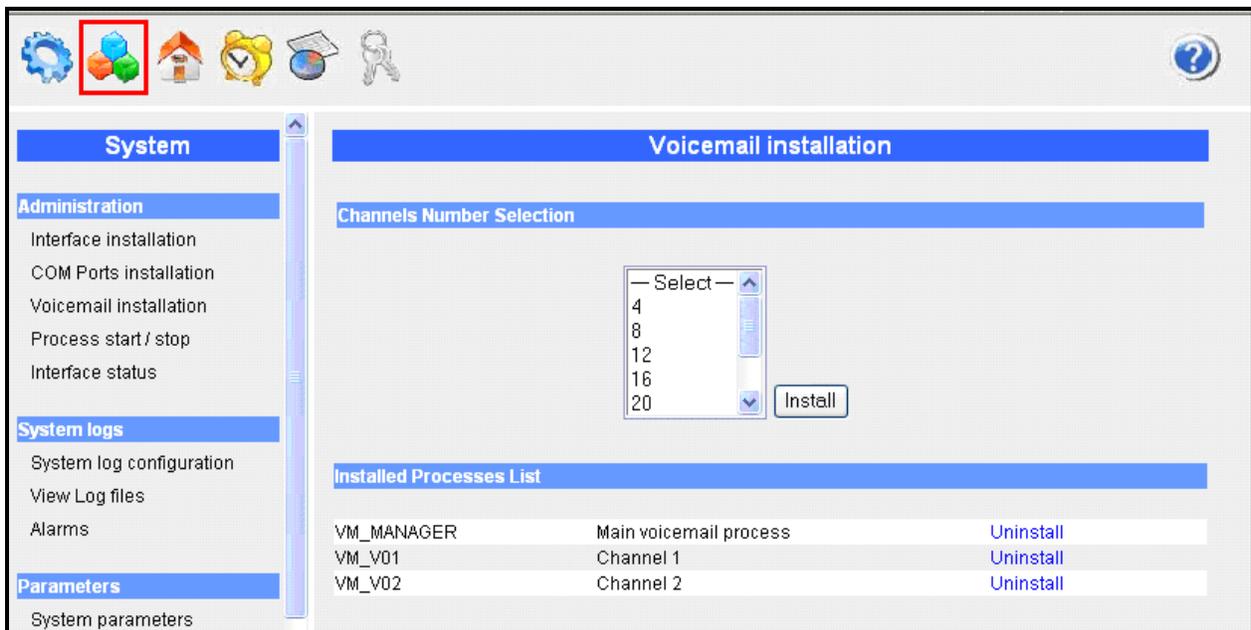
**Figure 46: Voicemail Channel Installation Screen**

Uninstall channels 3 and 4, as they are not used in the test configuration.



**Figure 47: Uninstall Unused Voicemail Channels**

Select the “Hotel Configuration” icon from the top menu bar.

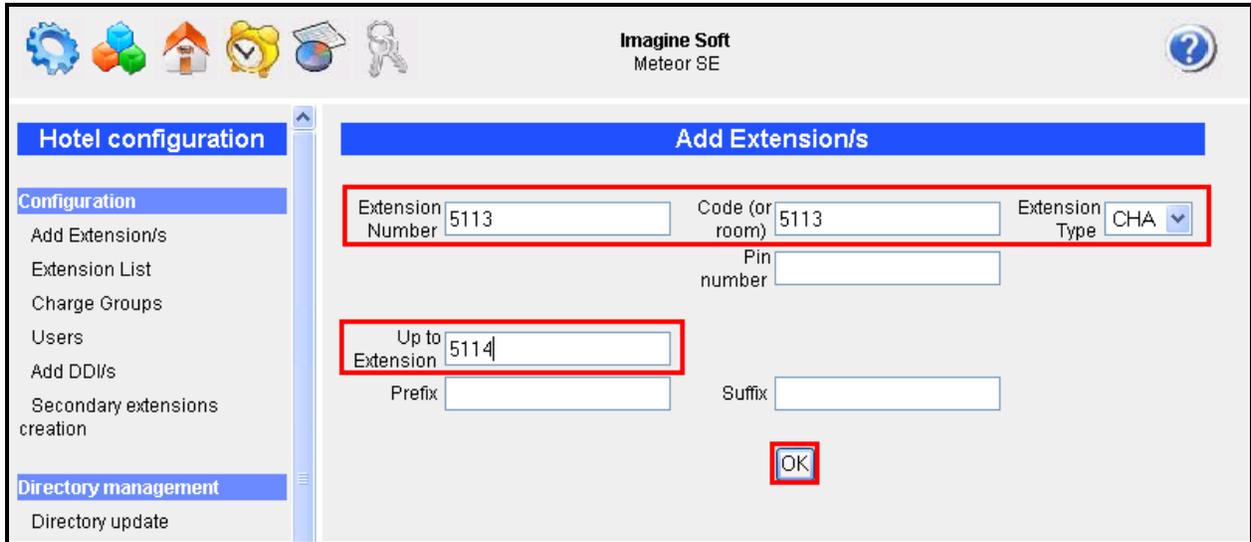


**Figure 48: Select Hotel Configuration**

Set the hotel room extensions as shown in the following table and click “OK”.

Parameter	Usage
Extension Number	Select the first room extension in sequence, as shown in <b>Table 1</b> .
Up to Extension	Select the last room extension in sequence, as shown in <b>Table 1</b> .
Code (or room)	Select the first room number in sequence, as shown in <b>Table 1</b> .
Extension Type	Select “CHA” from the drop-down list (Chamber).

**Table 10: Hotel Room Extensions**

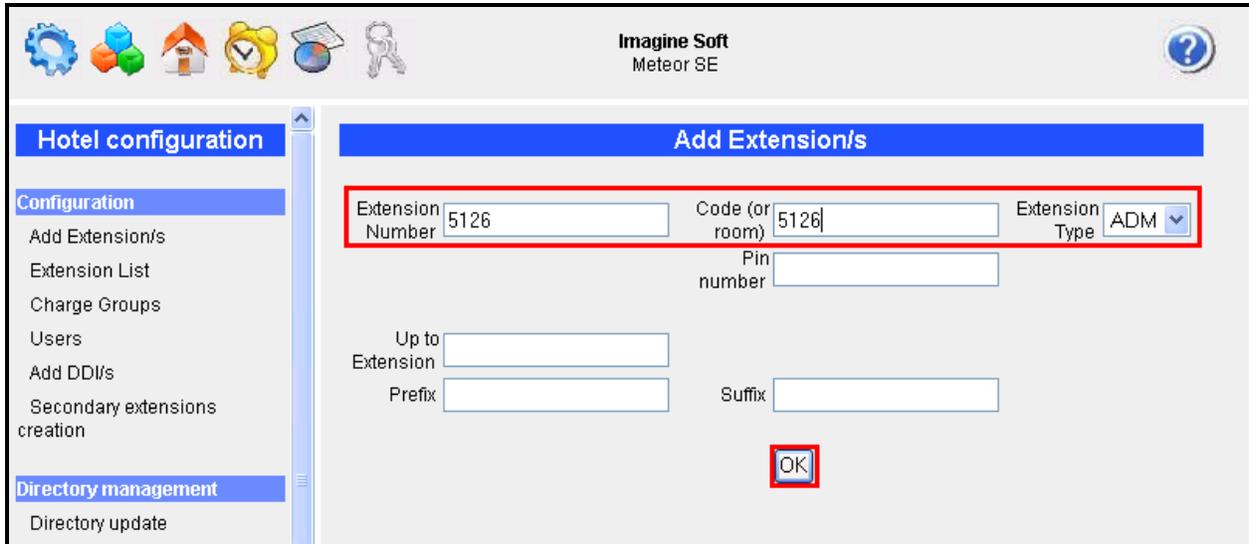


**Figure 49: Hotel Room Extensions Screen**

Set the hotel administrator extensions as shown in the following table and click “OK”.

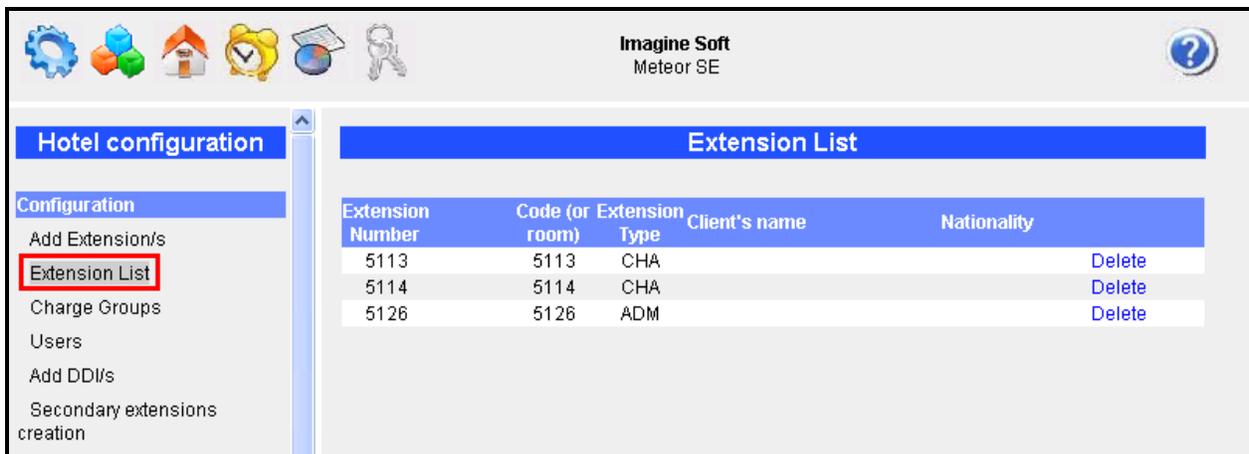
Parameter	Usage
Extension Number	Select the Reception extension, as shown in <b>Table 1</b> .
Code (or room)	Select the Reception extension, as shown in <b>Table 1</b>
Extension Type	Select “ADM” from the drop-down list (Administrator).

**Table 11: Hotel Administrator Extensions**



**Figure 50: Hotel Administrator Extensions Screen**

After the extensions have been allocated, click “Extension List” to verify the list



**Figure 51: Extension List Screen**

## 4. Interoperability Compliance Testing

### 4.1. General Test Approach

The following tests steps were performed during compliance testing:

- Perform a guest check in and verify that the guest's name is assigned to the telephone assigned to the guest's room, and that the guest is able to make calls via the PSTN.
- Perform a guest checkout and verify that the guest's name no longer assigned to the telephone, that the telephone can no longer make external calls, that the MWI light goes out if it was on prior to checkout, and any wakeup calls pending for that guest are removed.
- Verify that a room change causes the guest's messages, MWI status, calling privileges, station name, and wakeup calls to be assigned to the new extension.
- Verify that the system administrator can manually turn on or off a guest telephone's MWI lamp.
- Verify that local and external calls can leave messages for guests, and the guest can retrieve these messages, and that the state of the MWI lamp changes correctly.
- Verify that wakeup calls can be created or erased by either guests or administrators, and the wakeup calls are signaled correctly to guests.
- Verify that guests are billed correctly for local and external calls.
- Verify that DND can be activated or deactivated correctly by the administrator, and the incoming calls are blocked correctly.
- Verify that DIDs can be assigned to guests, and can be called correctly from external telephones.
- Verify that guest telephones can be used to update room status (i.e., room clean).
- Verify the ability of the Meteor SE server to recover from interface and power interruptions.

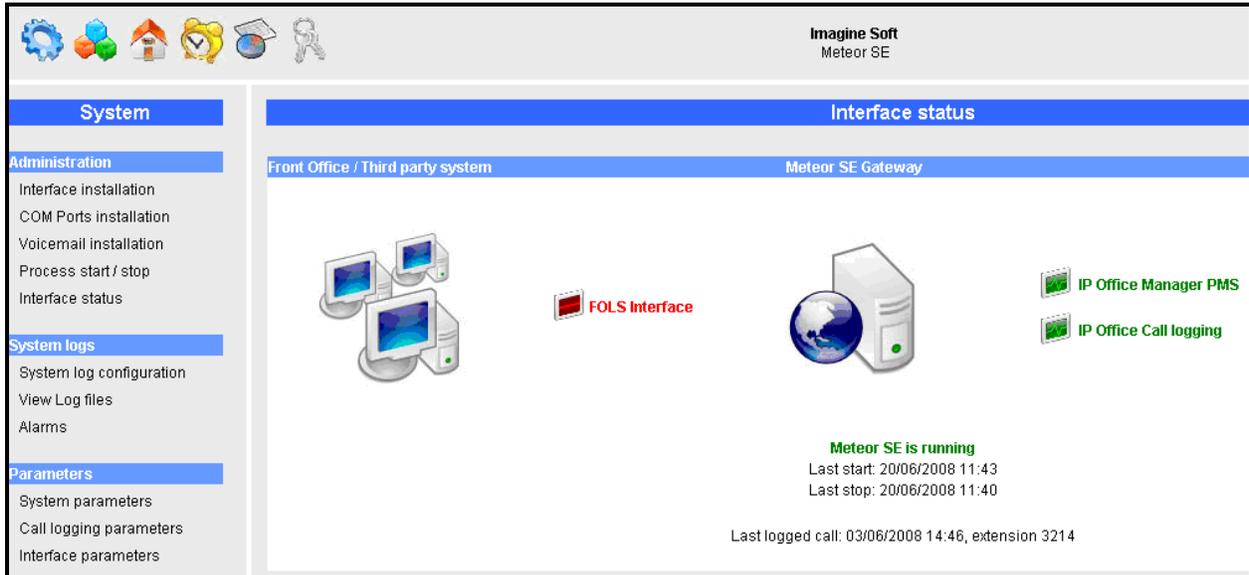
### 4.2. Test Results

All tests were performed without error.

## 5. Verification Steps

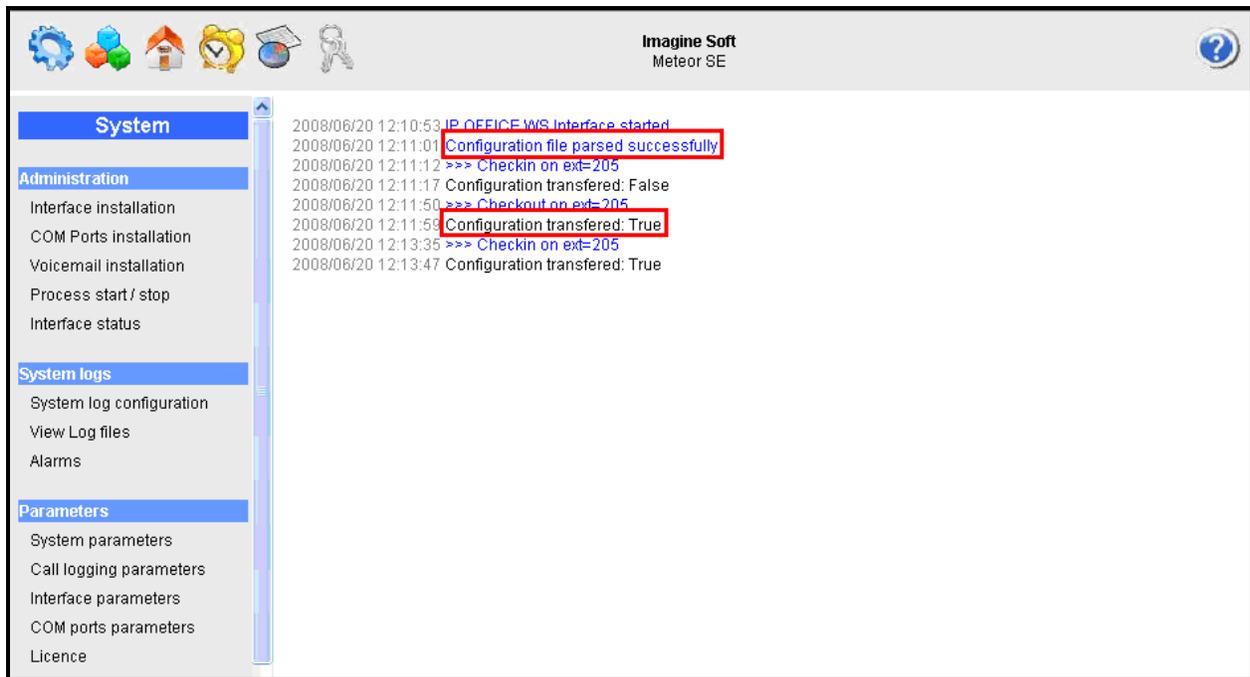
Use the following steps to verify that Meteor SE and Avaya IP Office are each configured correctly.

- Verify that the “PMS” and “Call Logging” controls are both green:



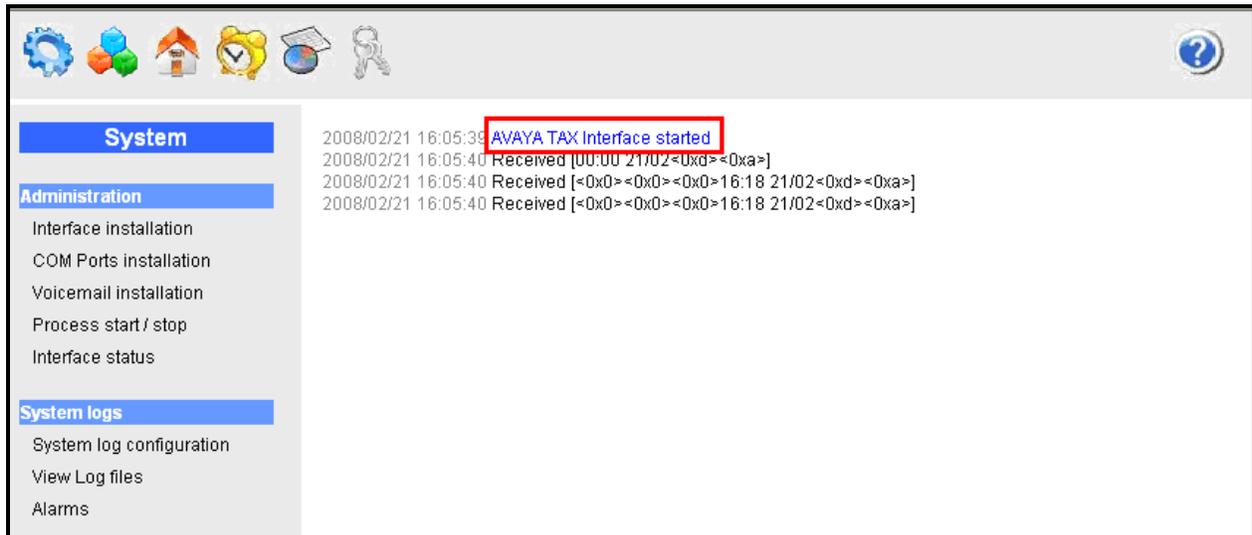
**Figure 52: Meteor SE Interface Status**

- Click on the “IP Office Manager PMS” icon shown in **Figure 52** and verify that the messages “Configuration file parsed successfully” and “Configuration transferred: True” are displayed, as shown in the following screen.



**Figure 53: Meteor Configuration Messages**

- Click on the “Call Logging” icon of the **Figure 52** and verify that the Avaya IP Office has logged on:



**Figure 54: Meteor SE Confirmation of IP Office Logon**

- Verify the ability of PSTN telephones and local stations to call each other.
- Verify the ability to perform a guest checkin/checkout.
- Verify the ability to leave voicemail messages for unanswered guest calls.
- Verify the ability for guests to playback and erase voicemail messages.
- Verify that external calls billed to guests upon checkout.
- Verify the ability to change a room status from the room’s telephone.

## 6. Conclusion

These Application Notes describe the compliance testing of the Imagine Soft Meteor Server with Avaya IP Office. The various features of the Meteor Server which involve interaction with telephony were tested. A detailed description of the configuration required for both the Avaya and the Imagine Soft equipment is documented within these Application Notes.

## 7. Additional References

The Meteor SE documentation is contained in the following directory after the product has been installed: C:\Meteor SE\tomcat\webapps\ROOT\docs. This documentation is also available on the installation medium prior to installation or via the following icon from the Meteor SE console:



- [1] *Administrator Guide for Avaya IP Office*, February 2007, Issue 3, Document Number 03-300509
- [2] *Feature Description and Implementation for Avaya IP Office*, February 2007, Issue 5, Document Number 555-245-205
- [3] *Technical Service Description Meteor SE 2.0*
- [4] *D/4PCI Installation Guide*, 05-1341-002, 1999
- [5] *Manuel de Pre-Installation Meteor SE*, Man 0038-4 (French)
- [6] *Manuel de Configuration et d'Utilisation de Meteor SE*, Man 0036-6 (French)

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