



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

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# **Application notes for Inova LightLink v5.7.658 with Avaya Contact Center Manager Server Release 6.1 – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for Inova LightLink v5.7.658 to interoperate with Avaya Contact Center Manager Server (CCMS) 6.1, using Real Time Data (RTD). LightLink collects Realtime statistics from Contact Center Manager Server 6.1 and publishes this data to clients.

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

## 1. Introduction

The purpose of this document is to explain the configuration steps required for Inova LightLink v5.7.658 to interoperate with Avaya Contact Center Manager Server 6.1. LightLink interfaces with the CCMS and its internal database, collects and sorts the data, and prepares it for display on a variety of media.

## 2. General Test Approach and Test Results

Voice skillset based routing calls were sent to the Contact Center test bed. As calls were progressing, the Real-time Displays on Contact Center Manager Administrator were observed to confirm data seen on the LightLink display were accurate.

### 2.1. Interoperability Compliance Testing

The interoperability compliance testing focused on verifying LightLink for the following:

- Connection to the CCMS is established and stays connected.
- Publishing all the available real-time statistics based on the CCMS script.
- Making test calls to invoke changes in the values of the published statistics.
- Comparing the values with the CCMS statistics and making sure they match with the LightLink published output.

*Notes: During compliance testing it was noticed that the LightLink application would not connect to the CCMS. This issue will be corrected in Service Pack (SP) 4 of CCMS.*

The objectives outlined in **Section 2.1** were verified and met. All tests were executed and passed.

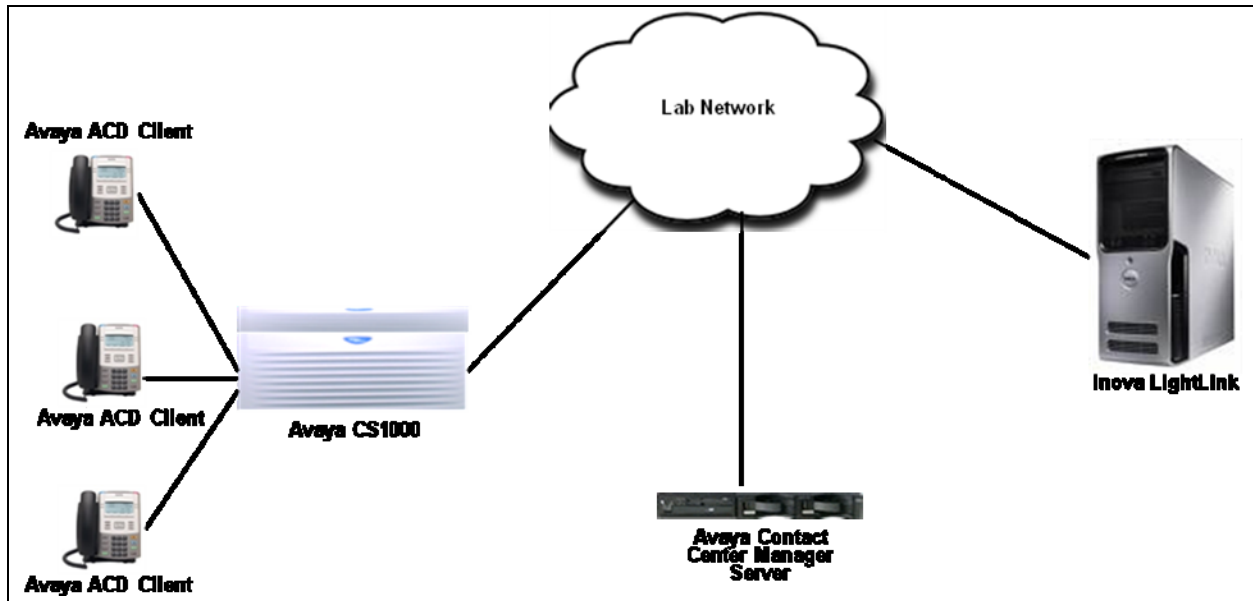
### 2.2. Support

For technical support on LightLink, please contact Inova technical support team:

- **Telephone:** 1.866.686.8774
- **Email:** [support@inovasolutions.com](mailto:support@inovasolutions.com)
- **Web Site:** <http://www.inovasolutions.com/call-center-reporting/products/call-center-software.html>

### 3. Reference Configuration

**Figure 1** illustrates the test configuration used during the compliance testing between Avaya Contact Center Manager Server and Inova LightLink.



**Figure 1: Test Solution Configuration.**

### 4. Equipment and Software Validated

Equipment	Software/Firmware
Avaya CS1000	SW Version : 7.5
Avaya Contact Center Manager Server OS	Win2008 Server R2
Avaya Contact Center Manager Server	SW Version : 6.1 SP3
Avaya ACD Clients: <ul style="list-style-type: none"><li>o 1140 (IP)</li></ul>	<ul style="list-style-type: none"><li>o 0625C8A</li></ul>
Inova LightLink system OS	
Inova LightLink Application	SW Version : 5.7.658

## 5. Configuring the Avaya Contact Center Manager Server

This section describes the steps to configure the CCMS so that the LightLink is able to connect to it. Assumption is made that the CCMS is installed successfully and all the required scripts are running. Assumption is also made that the CCMS is interfaced and working successfully with the Avaya CS1000. For additional information on CCMS and CS1000 installation and configuration refer to **Section 9[1]**.

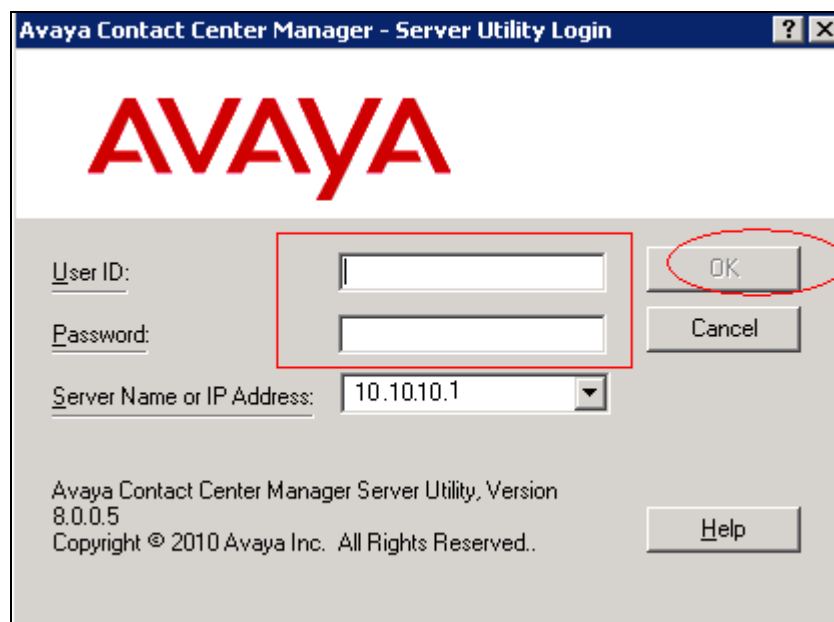
Here is a summary of CCMS Configuration:

- Creating new user to interface with LightLink.

### 5.1. Configuring a New User

This section explains the steps to add a new user that is required to interface and connect to the LightLink system. To add a new user, navigate through **Start > All Programs > Avaya > Server Utility** on the server the CCMS is installed on (not shown).

**Figure 2** below shows the Server Utility Login screen. Enter the administrator **User ID** and **Password**. Click on **OK** to continue.



The image shows a Windows-style dialog box titled "Avaya Contact Center Manager - Server Utility Login". At the top center is the large red "AVAYA" logo. Below the logo are three input fields: "User ID:", "Password:", and "Server Name or IP Address:". The "User ID" and "Password" fields are grouped together and enclosed in a red rectangular box. To the right of these fields are two buttons: "OK" and "Cancel". The "OK" button is circled in red. The "Server Name or IP Address" field has a dropdown arrow and currently displays "10.10.10.1". At the bottom left, there is text: "Avaya Contact Center Manager Server Utility, Version 8.0.0.5" and "Copyright © 2010 Avaya Inc. All Rights Reserved..". At the bottom right is a "Help" button.

**Figure 2: Server Utility Login**

Figure 3 below shows the Server Utility main screen.

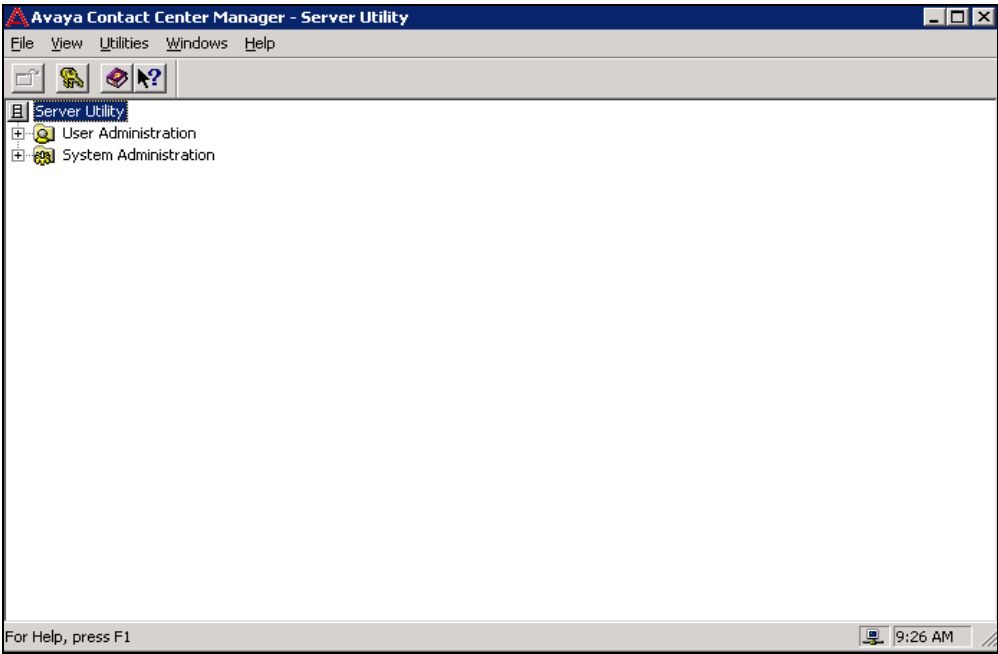


Figure 3: Server Utility Main Screen

To add a new user, expand the **User Administration** tree and select **Users** as shown in Figure 4 below.

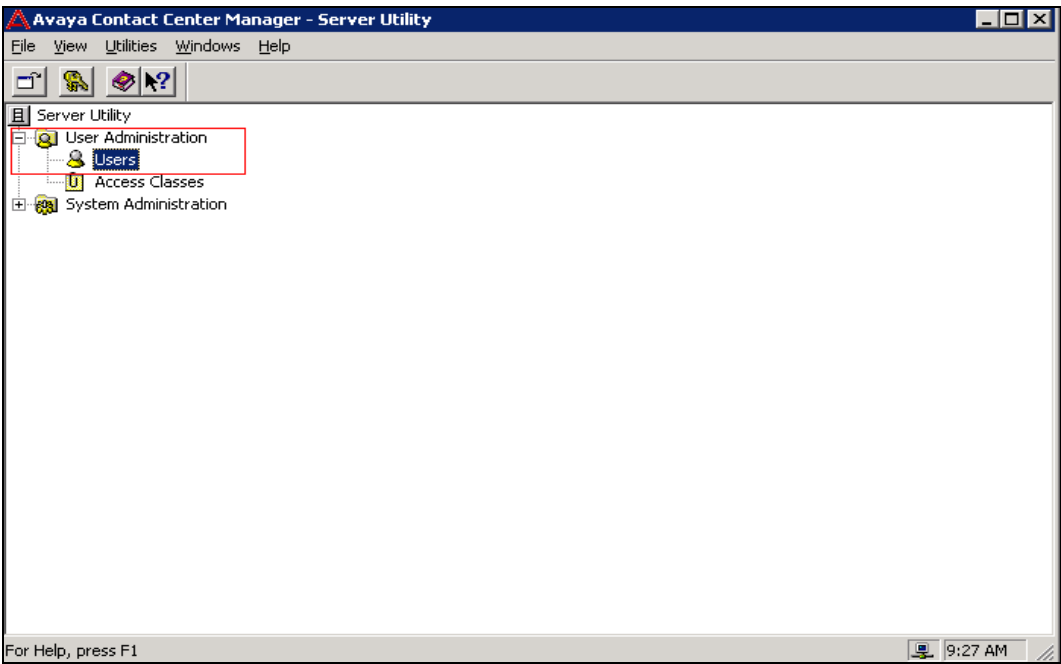


Figure 4: User Administration Tree View

Figure 5 shows the Users screen. Click on File and select New.

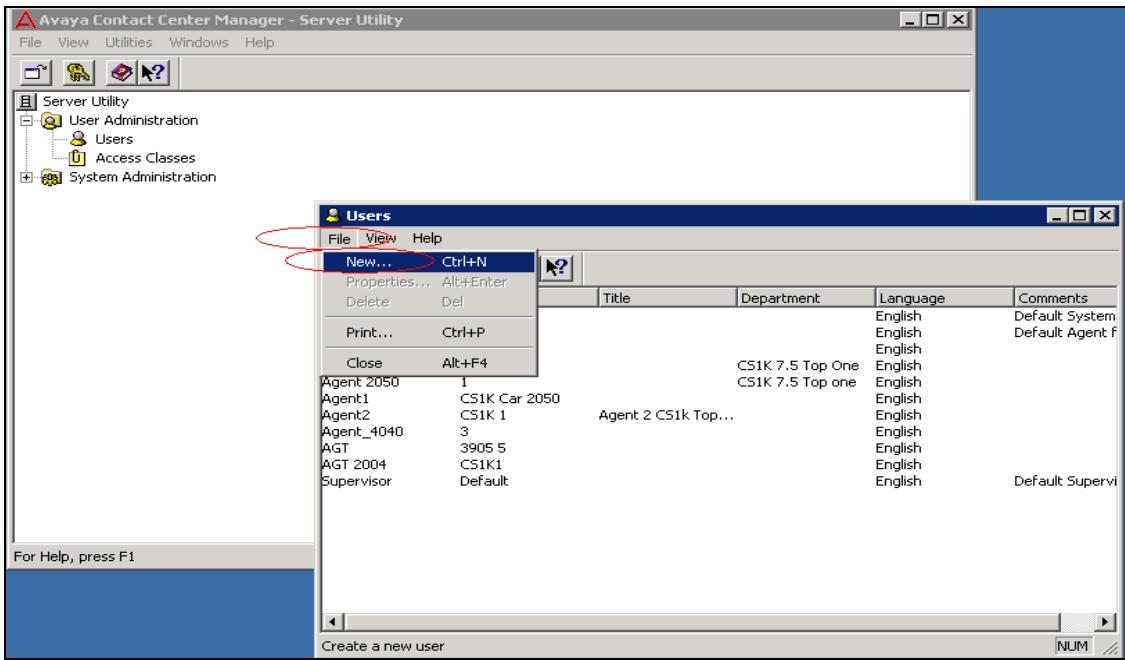


Figure 5: Users Screen

Figure 6 shows the New User being configured. Populate the First name and Last name fields that is seen under the General tab.

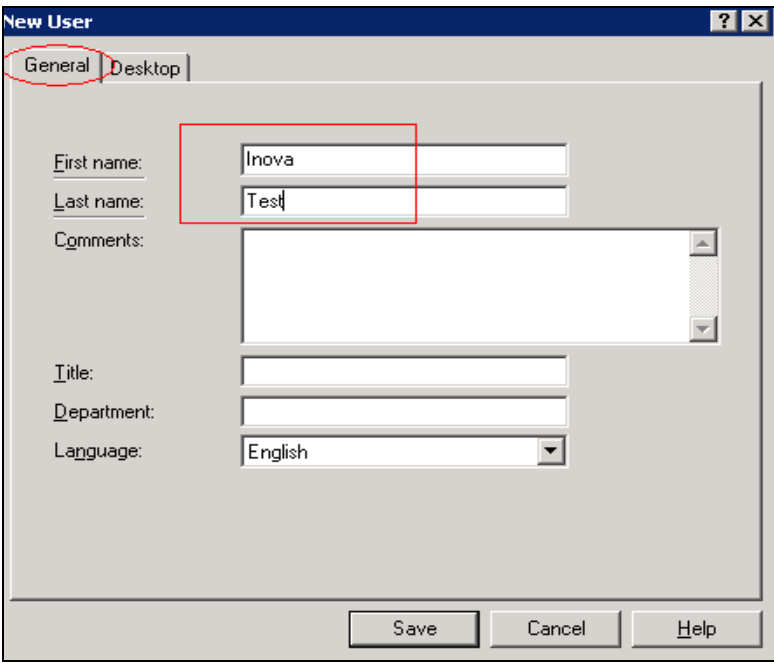


Figure 6: New User Screen

From the **Desktop** tab populate the **User ID** field and select **Call Centre Admin** under **Access Class** field as shown in **Figure 7** below. Click on **Set Password** to continue.

The 'New User' dialog box has a 'General' tab and a 'Desktop' tab. The 'Desktop' tab is active. The 'User ID' field contains the text 'lightlink'. To the right of this field is a 'Set Password' button. Below the 'User ID' field is a 'Password retry count' field with the value '0' and a checked 'Password Expires' checkbox. Below that is a 'User desktop status' field with the value 'OK.' and a 'Lock Out' button. At the bottom is an 'Access Class' dropdown menu. The dropdown menu is open, showing a list of options: '<none = no access rights>', '<none = no access rights>', 'adminGroup', 'Call Centre Admin' (which is highlighted), and 'Supervisor'. At the bottom of the dialog box are 'Save', 'Cancel', and 'Help' buttons.

**Figure 7: Configuring New User**

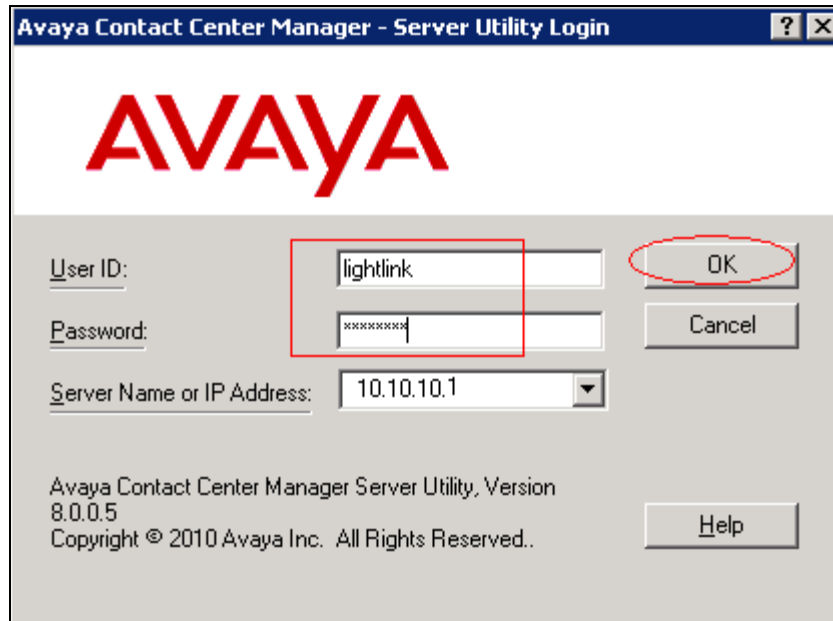
Configure the password and click on **OK** to continue as shown in **Figure 8** below. Click on **Save** that is seen in **Figure 7** to complete the configuration of the New User.

The 'Reset Password' dialog box has a title bar with a close button. The main text says 'Change the password for the current user'. Below this are two text input fields: 'New Password:' and 'Confirm New Password:'. Both fields are highlighted with a red rectangular box. To the right of these fields are two buttons: 'OK' and 'Cancel'. The 'OK' button is highlighted with a red circle.

**Figure 8: Entering Password**

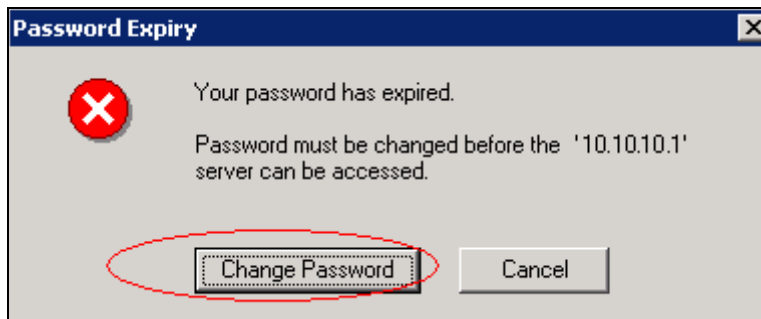
To confirm the configuration of the New User created, exit from the Server Utility application and navigate back to it as explained in **Section 5.1**.

**Figure 9** shows the Server Utility Login screen. Populate the **User ID** and **Password** fields with the values that were configured above. Click on **OK** to continue.

The image shows a Windows-style dialog box titled "Avaya Contact Center Manager - Server Utility Login". At the top is the Avaya logo in red. Below the logo are three input fields: "User ID:" containing "lightlink", "Password:" containing "xxxxxxx", and "Server Name or IP Address:" containing "10.10.10.1". To the right of the User ID field is an "OK" button, and below it is a "Cancel" button. At the bottom left, there is text: "Avaya Contact Center Manager Server Utility, Version 8.0.0.5" and "Copyright © 2010 Avaya Inc. All Rights Reserved..". At the bottom right is a "Help" button. Red circles highlight the "lightlink" text, the "xxxxxxx" text, and the "OK" button.

**Figure 9: Logging using newly created User**

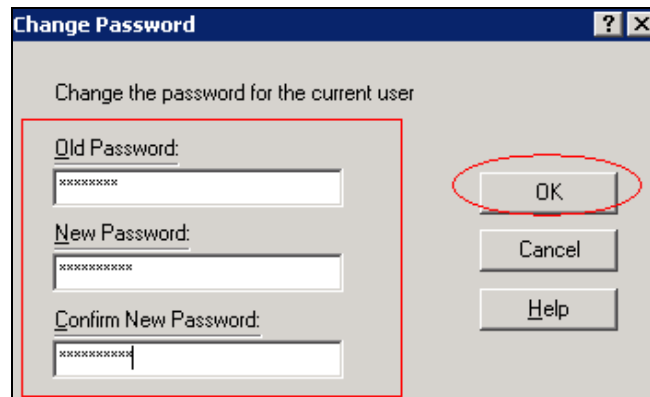
While logging in for the first time using the new user, the system forces the password to be changed. Click on **Change Password** as shown in **Figure 10** below.

The image shows a Windows-style dialog box titled "Password Expiry". On the left is a red circle with a white "X". To the right of the icon, the text reads: "Your password has expired." and "Password must be changed before the '10.10.10.1' server can be accessed." At the bottom are two buttons: "Change Password" and "Cancel". A red circle highlights the "Change Password" button.

**Figure 10: Change Password**



Configure the required fields and click on **OK** to complete the changing of the password as shown in **Figure 11** below.



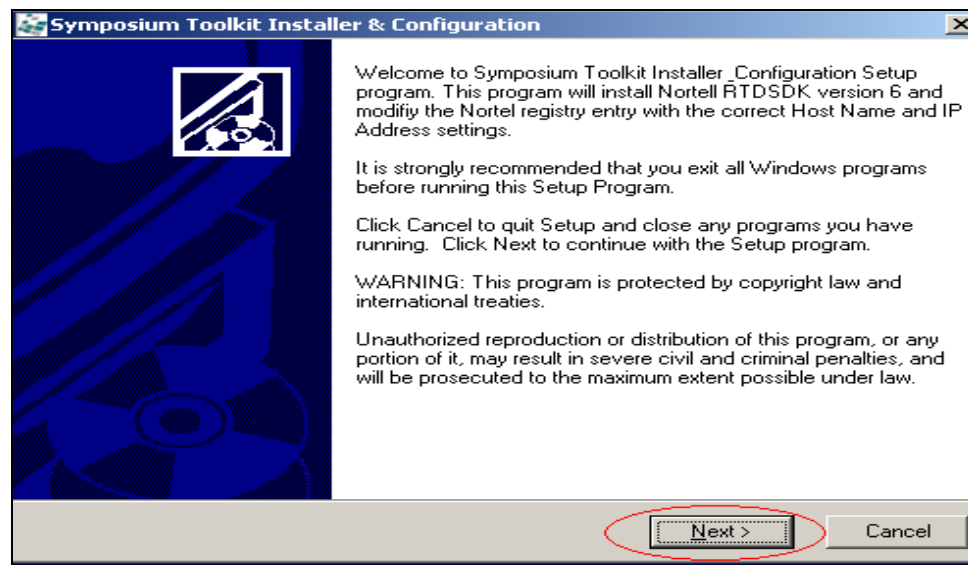
**Figure 11: New Password Configuration**

## **6. Configuring the Toolkit for LightLink**

This section explains the steps required to install and configure the Symposium-CCMS v6 RTD Toolkit that is used by the LightLink middleware to interface with CCMS. Assumption is made that LightLink middleware has been successfully installed and configured. The section also explains the LightLink configuration using the LightLink Administrator. For complete information on LightLink installation and configuration refer to **Section 9[2]**.

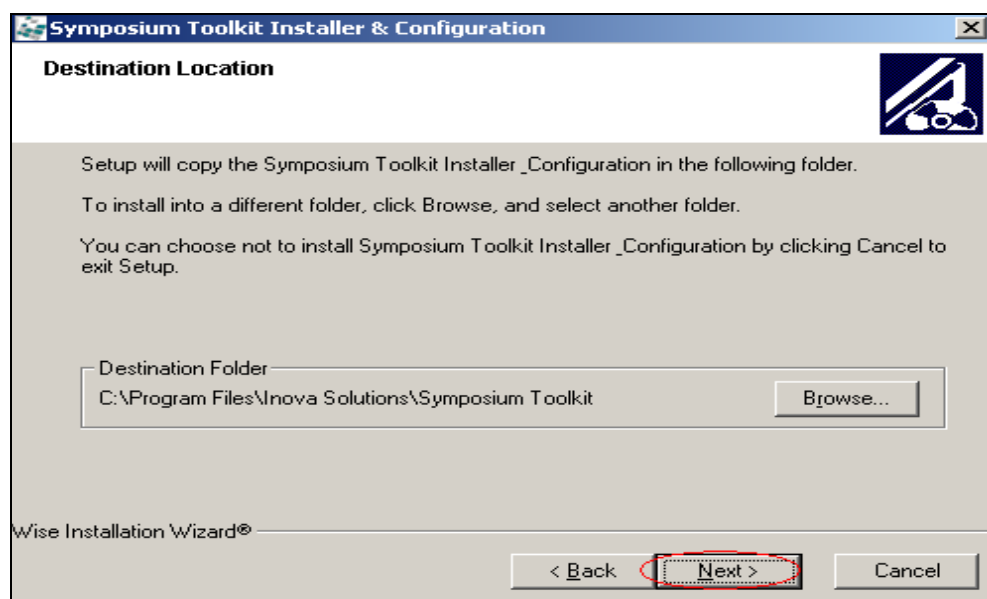
### **6.1. Installing and Configuring the Symposium-CCMS RTD Toolkit**

Start the installation of the Toolkit by running the .exe file. **Figure 12** below shows the first stage of the installation screen. Click on **Next** to proceed.



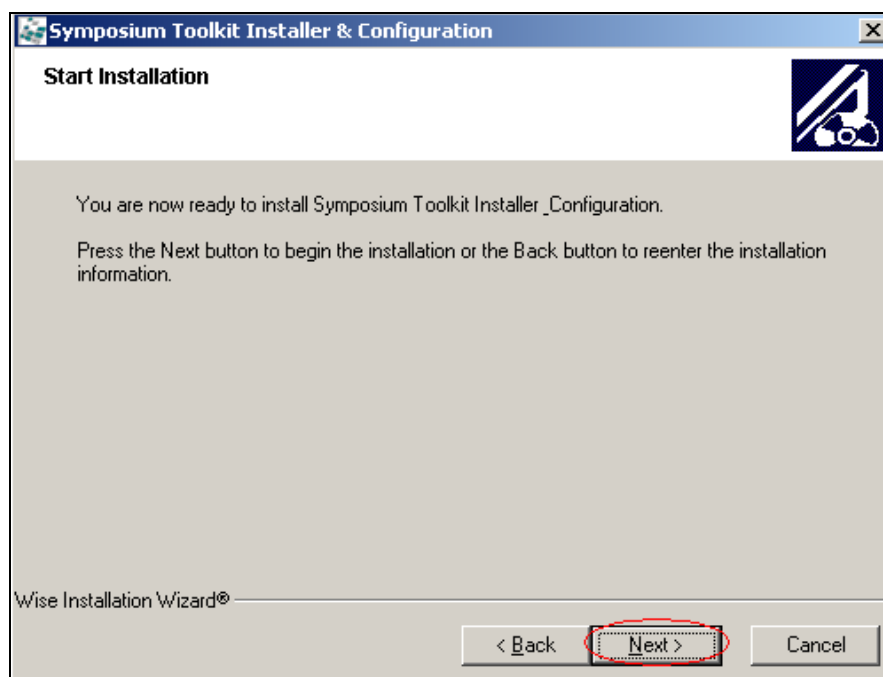
**Figure 12: Toolkit Installation**

**Figure 13** shows the screen where the user can select the destination folder where the toolkit will be installed. During compliance testing the default path was chosen. Click on **Next** to proceed.



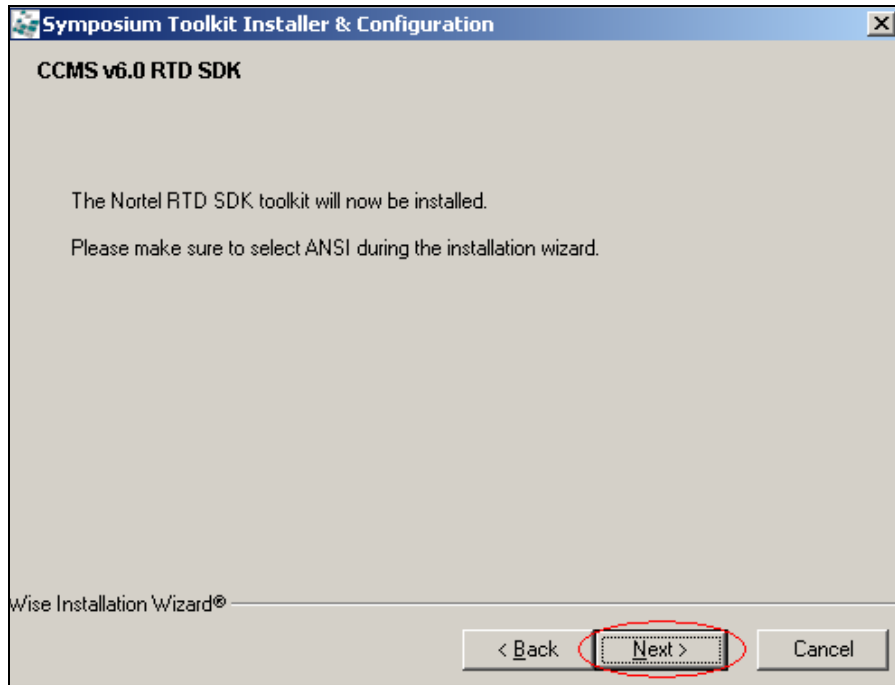
**Figure 13: Installation path**

**Figure 14** below shows the start of the installation screen. Click on **Next** to proceed.



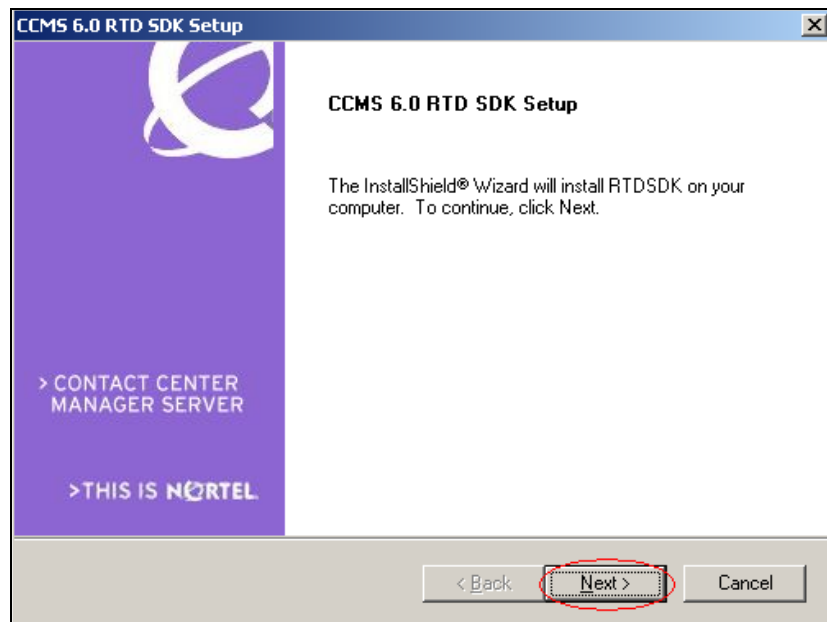
**Figure 14: Start of Installation**

Click on **Next** on screen shown in **Figure 15** below to proceed.



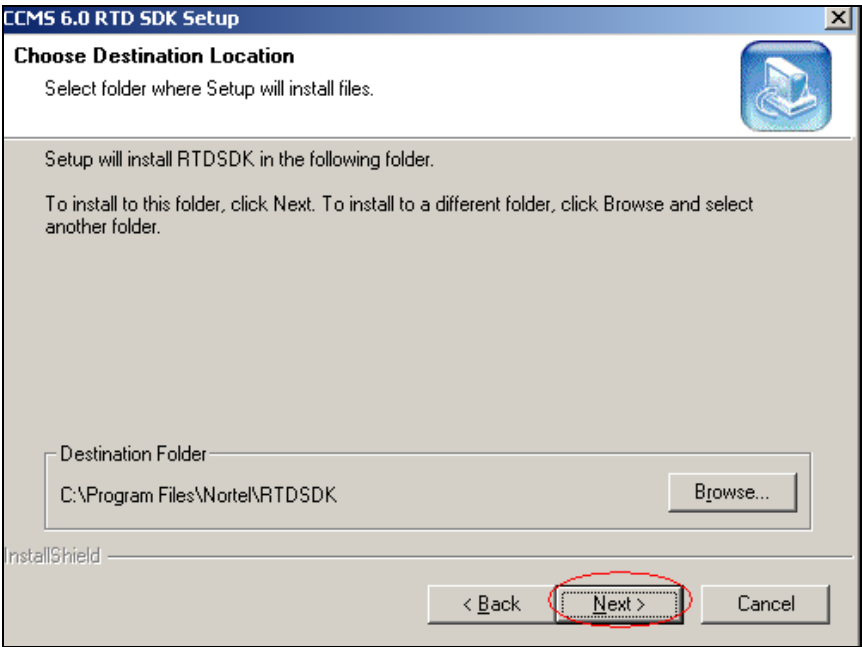
**Figure 15: Installation Continued**

Click on **Next** on screen shown in **Figure 16** below to proceed.



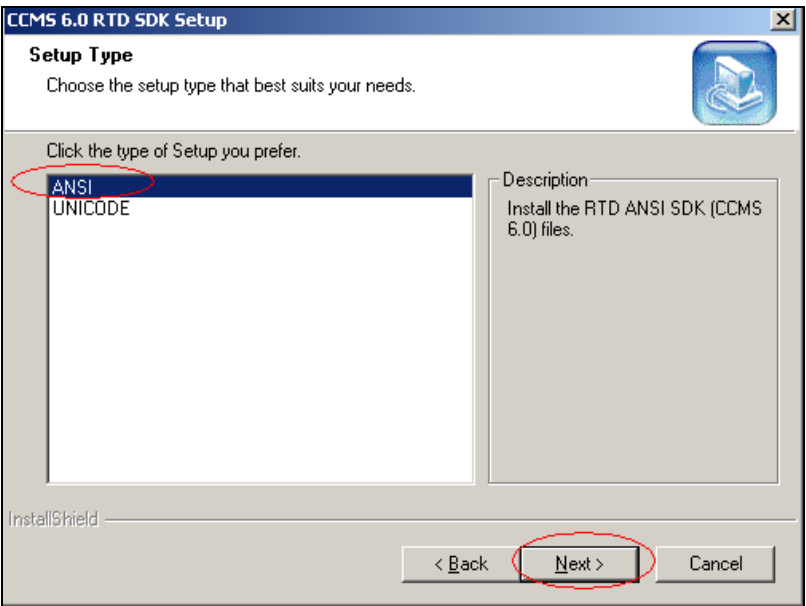
**Figure 16: Installation Continued**

**Figure 17** shows the screen where the user can select the destination folder where the RTDSDK will be installed. During compliance testing the default path was chosen. Click on **Next** to proceed.



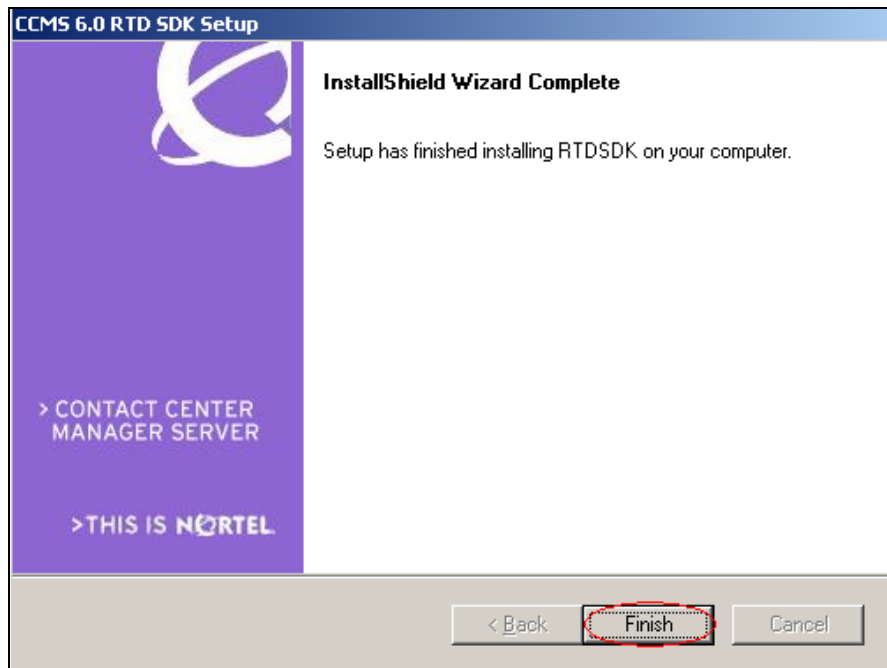
**Figure 17: Path for RTDSDK**

From **Figure 18** select ANSI type of Setup and click on **Next** to continue.



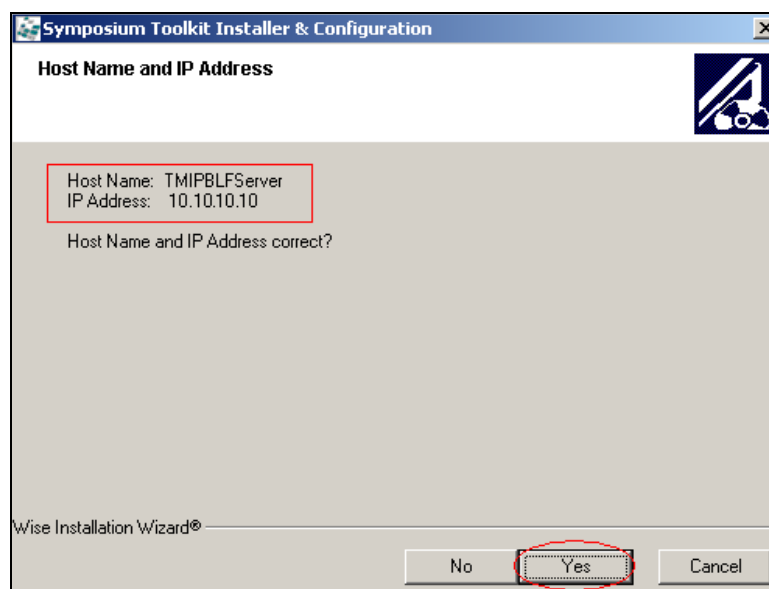
**Figure 18: Selecting ANSI**

After the installation completes the screen as shown in **Figure 19** below is seen. Click on **Finish** to complete the installation of the RTDSDK.



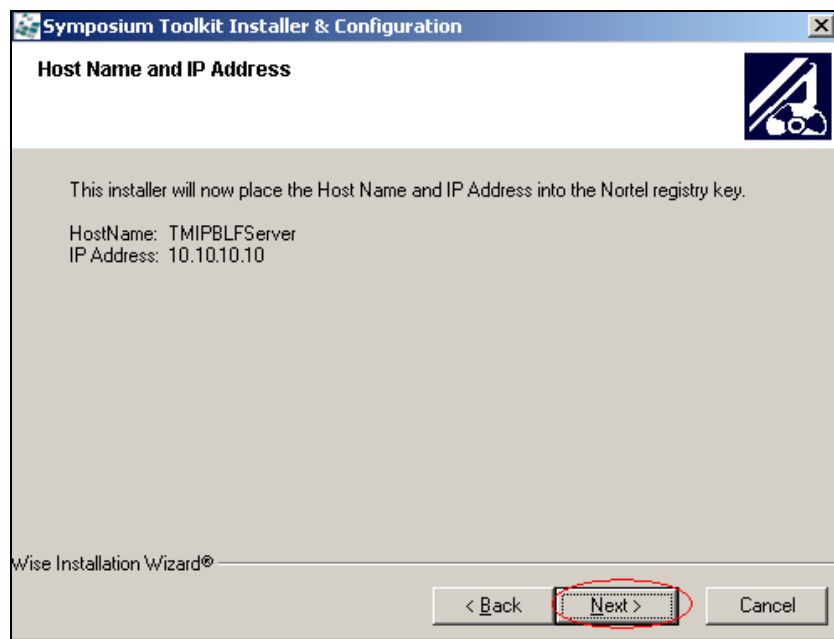
**Figure 19: Installation Completed**

**Figure 20** below provides the user to confirm if the **Host Name** and **IP Address** of the system on which the Toolkit is installed are correct. User needs to click on **Yes** if the information is correct.



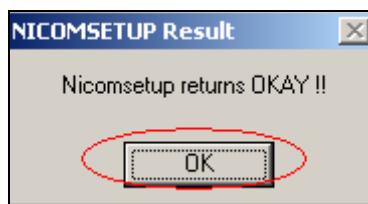
**Figure 20: Toolkit Configuration**

Click on **Next** on screen shown in **Figure 21** below to proceed.



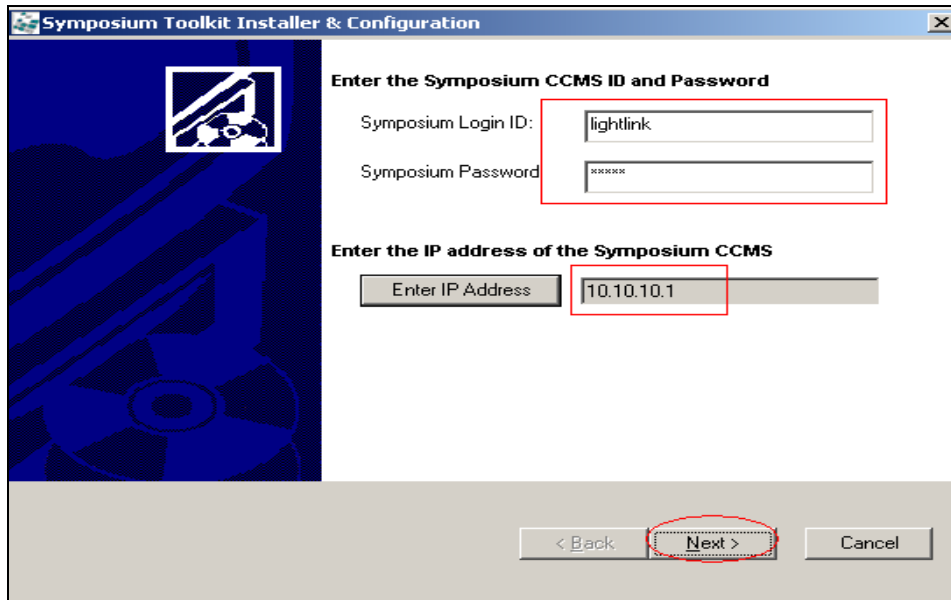
**Figure 21: Configuring Continued**

Click on **OK** on screen shown in **Figure 22** below to proceed.



**Figure 22: Configuration Complete**

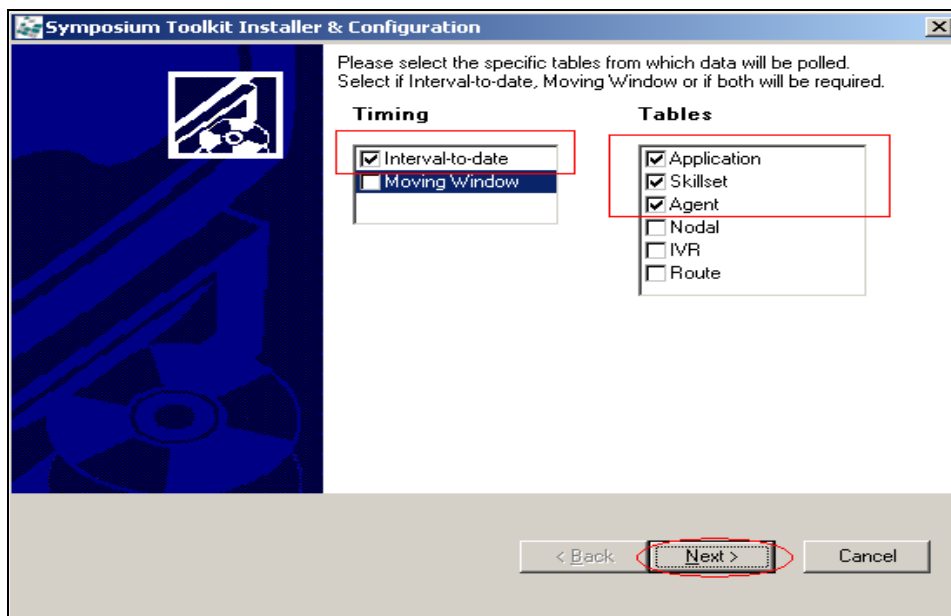
**Figure 23** below shows the **Symposium Login ID**, **Password** and **IP Address** that needs to be populated by the user. Click on **Next** to continue once the required information is entered. This information is configured in **Section 5.1**.



The image shows a window titled "Symposium Toolkit Installer & Configuration". On the left is a blue sidebar with a CD-ROM icon. The main area has a white background. At the top, it says "Enter the Symposium CCMS ID and Password". Below this are two text boxes: "Symposium Login ID:" containing "lightlink" and "Symposium Password:" containing "xxxxxx". Below these is another section titled "Enter the IP address of the Symposium CCMS". It has a button labeled "Enter IP Address" and a text box containing "10.10.10.1". At the bottom right are three buttons: "< Back", "Next >" (which is highlighted with a red dashed border), and "Cancel".

**Figure 23: Connecting to CCMS**

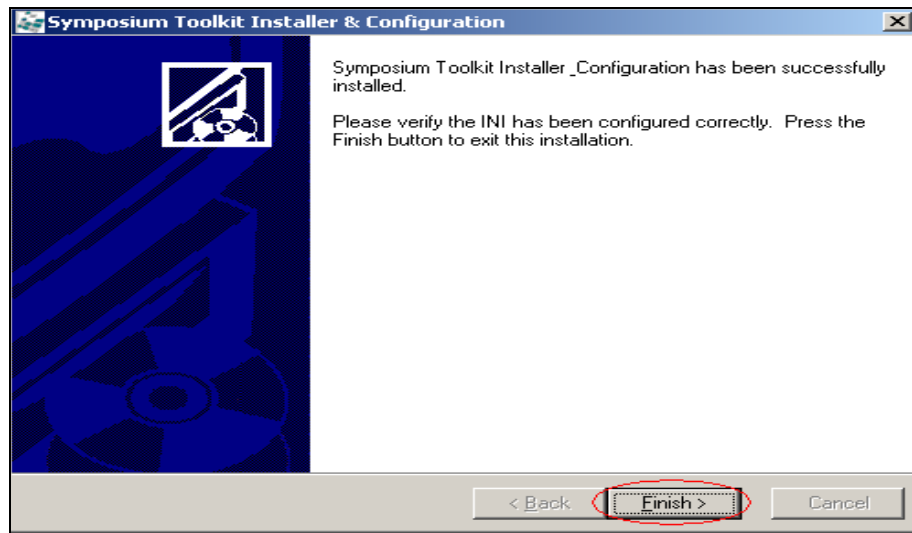
Select the required tables from which the data will be polled. During compliance testing, **Application**, **Skillset** and **Agent** tables were selected as shown in **Figure 24** below. Click on **Next** to continue.



The image shows the same window as Figure 23, but at a different step. It says "Please select the specific tables from which data will be polled. Select if Interval-to-date, Moving Window or if both will be required." There are two sections: "Timing" and "Tables". In the "Timing" section, there are two checkboxes: "Interval-to-date" (checked) and "Moving Window" (unchecked). In the "Tables" section, there is a list of checkboxes: "Application" (checked), "Skillset" (checked), "Agent" (checked), "Nodal" (unchecked), "IVR" (unchecked), and "Route" (unchecked). At the bottom right are three buttons: "< Back", "Next >" (highlighted with a red dashed border), and "Cancel".

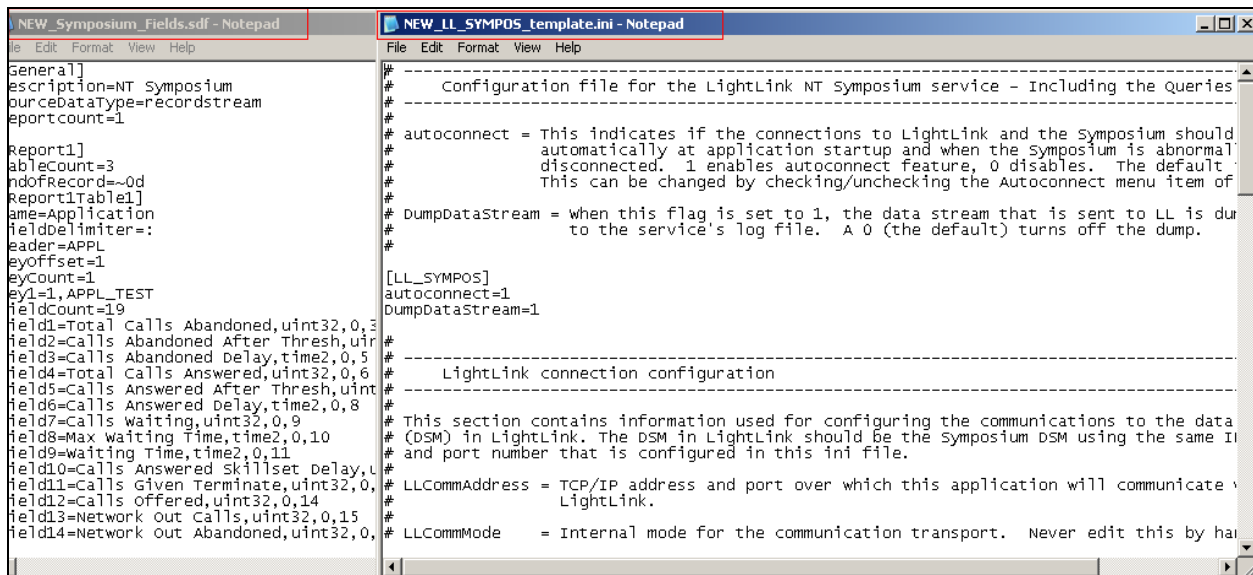
**Figure 24: Selecting Tables**

Click on **Finish** to complete the Toolkit installation and configuration as shown in **Figure 25** below.



**Figure 25: Connection Complete**

**Figure 26** below shows the **NEW\_Symposium\_Fields.sdf** and **NEW\_LL\_SYMPOS\_template.ini** files that were successfully created after the installation and configuration of the Toolkit.

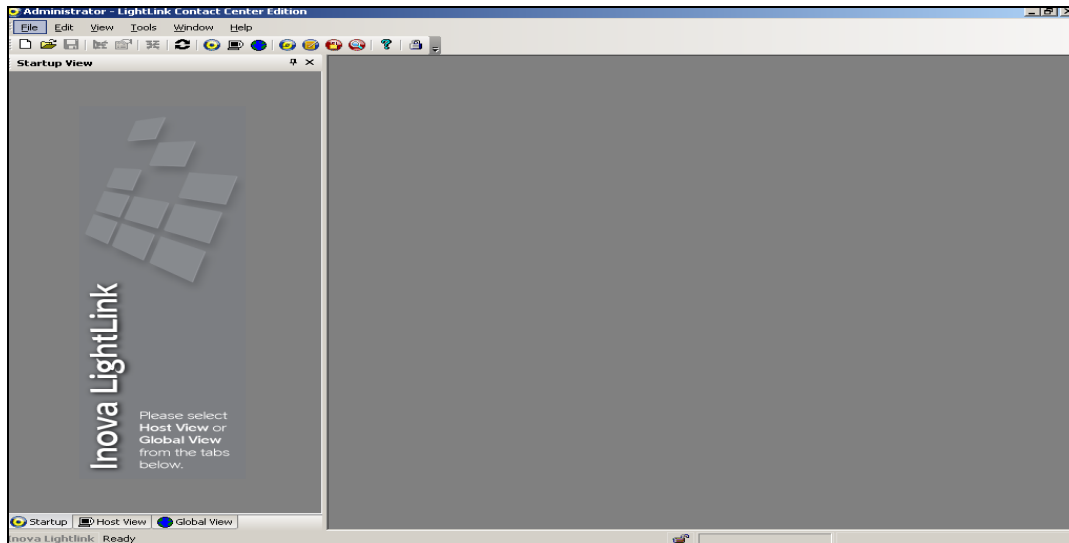


**Figure 26: INI and SDF files**



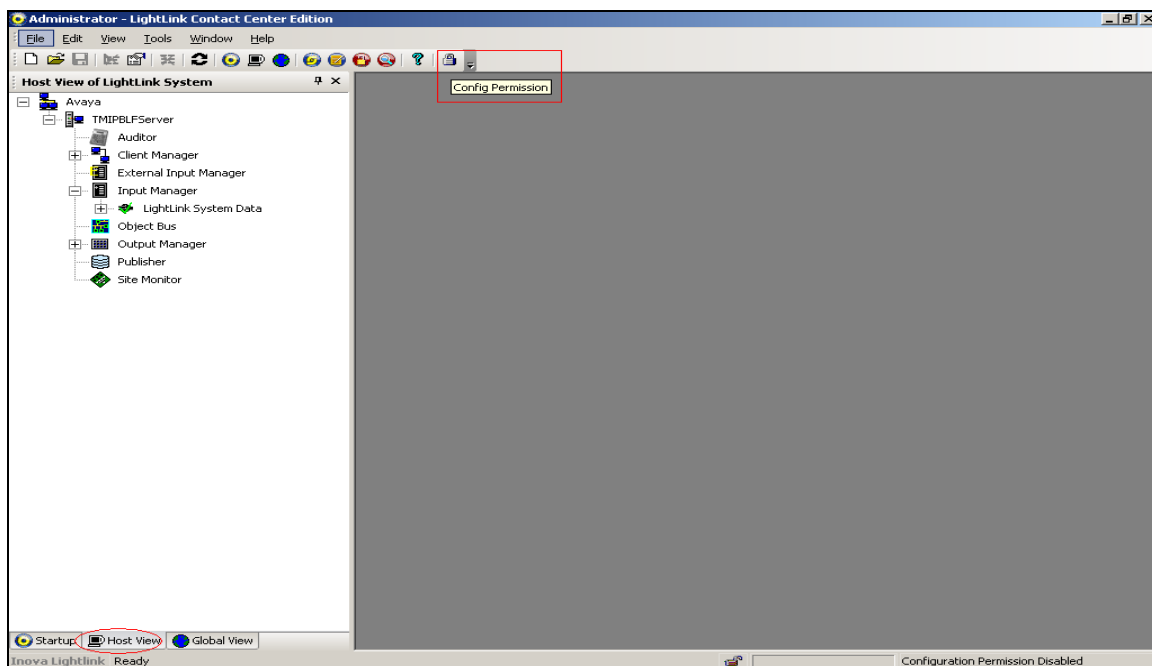
## 6.2. Configuring the LightLink using the Administrator

To access the LightLink Administrator on the system it is installed, navigate through **All Programs > Inova Solutions > Supervisor Applications > Administrator**. The Administrator screen is seen as shown in **Figure 27** below.



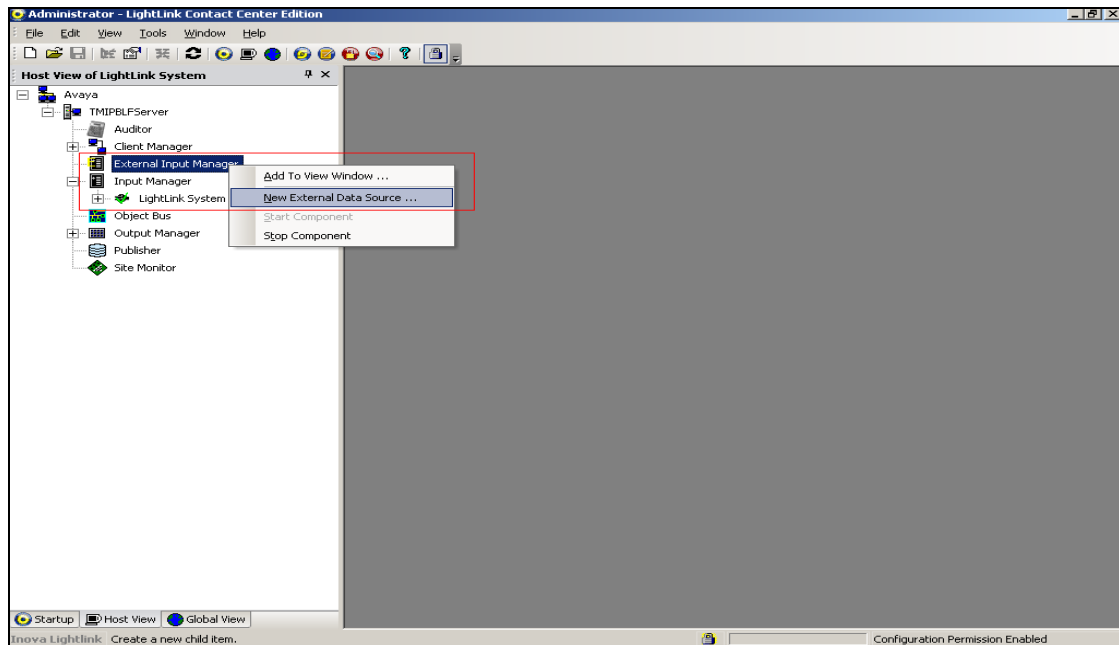
**Figure 27: LightLink Administrator**

Select **Host View** to view the Host View of the LightLink System as shown in **Figure 28** below. To start configuration obtain Config Permission and then proceed to configure.



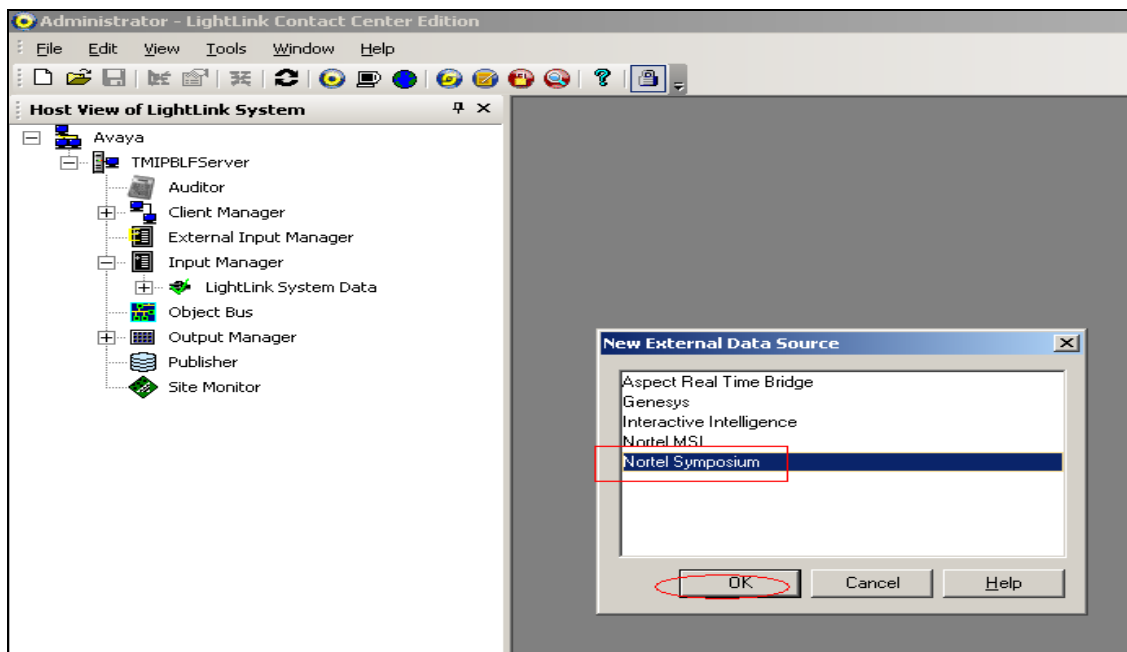
**Figure 28: Obtaining Config Permission**

After obtaining permission to config, to add a Data Source right click on the **External Input Manager** and select **New External Data Source** as shown in **Figure 29** below.



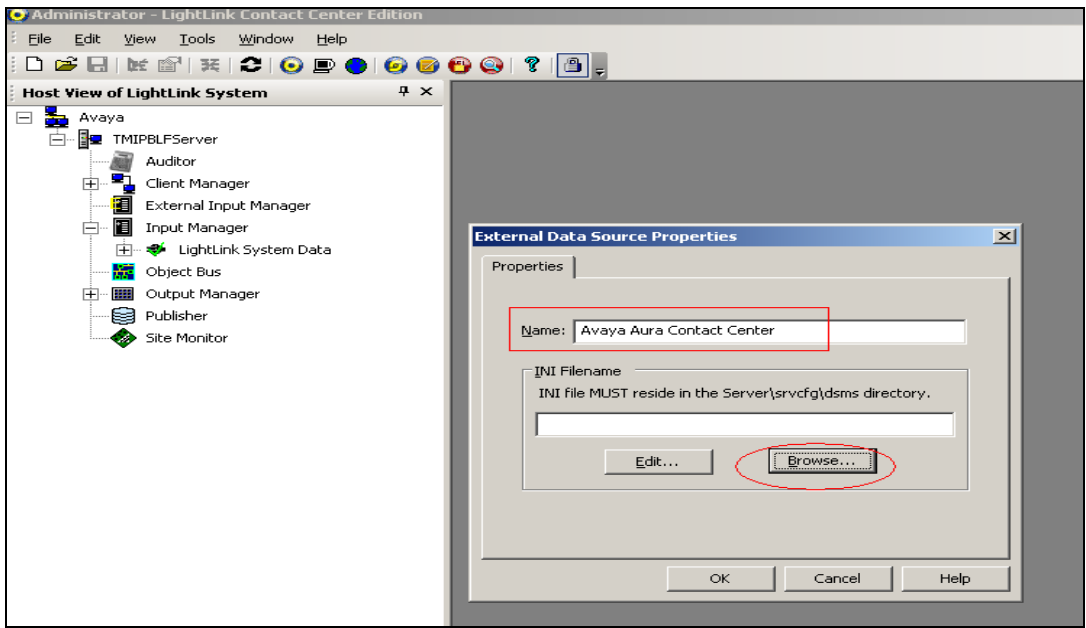
**Figure 29: Adding New External Data Source**

Select **Nortel Symposium** for external Data Source and click on **OK** to continue as shown in **Figure 30** below.



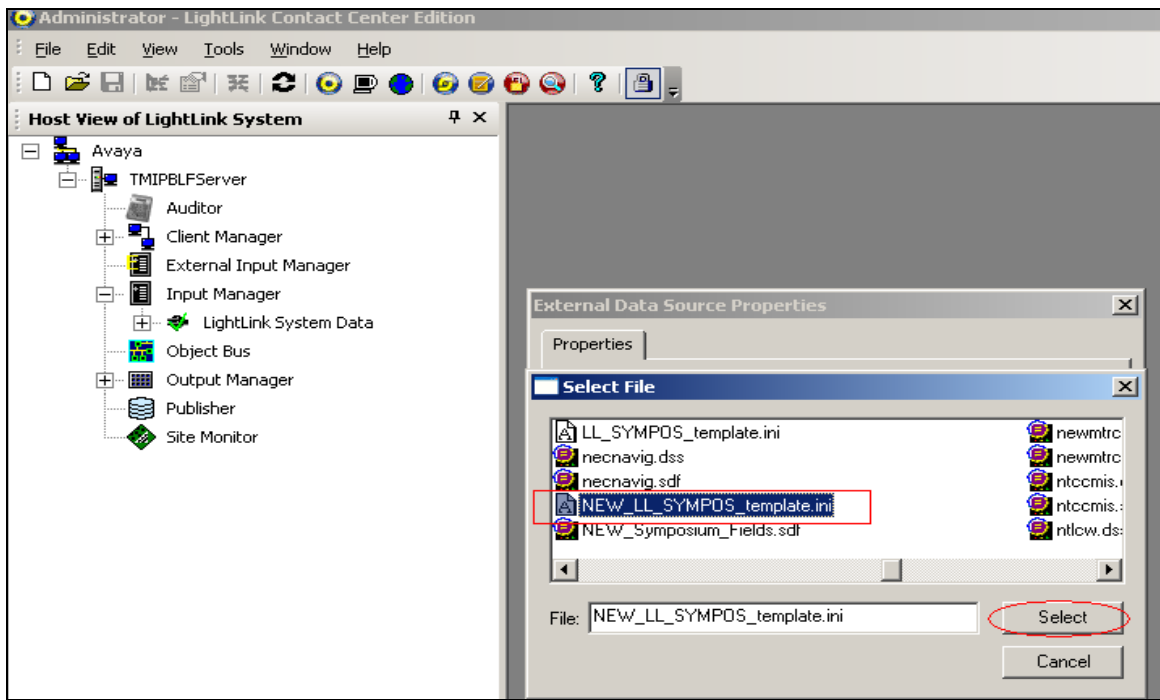
**Figure 30: Selecting the Data Source**

**Figure 31** below shows the Data Source properties section where user needs to populate the Name field and select the INI file.



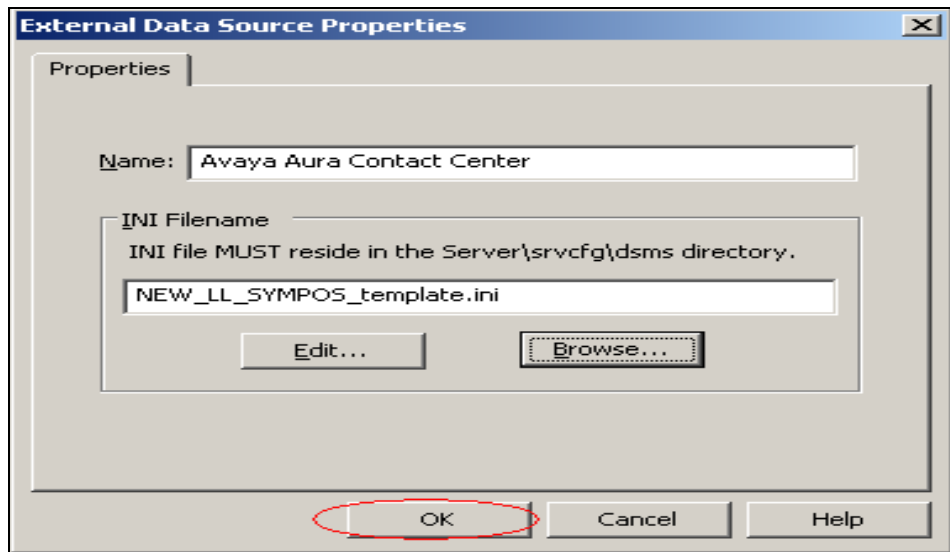
**Figure 31: Selecting the INI file**

**Figure 32** below shows the NEW\_LL\_SYMPOS\_template.ini file selected



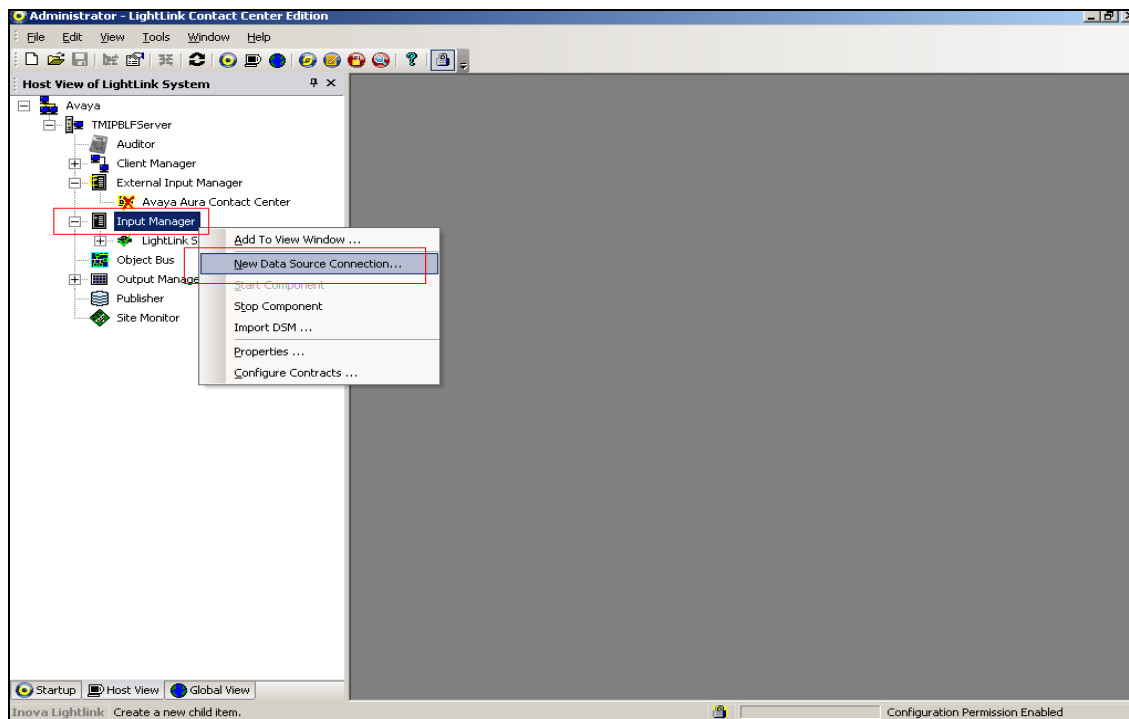
**Figure 32: INI file selected**

Click on **OK** as shown in **Figure 33** below once the External Data Source Properties are completed.



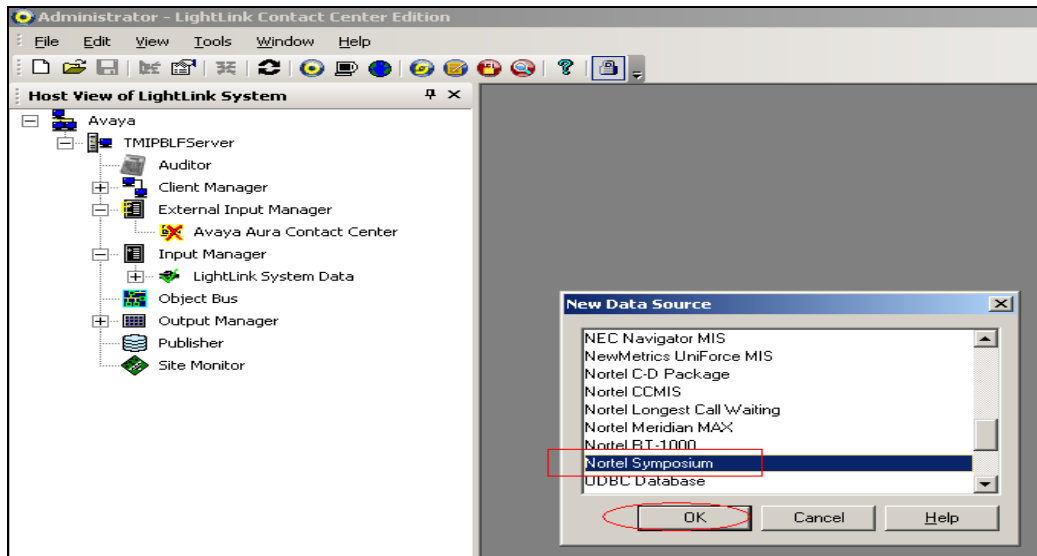
**Figure 33: Properties configuration completed**

To add a Data source Connection, right click on the **Input Manager** and select **New Data Source Connection** as shown in **Figure 34** below.



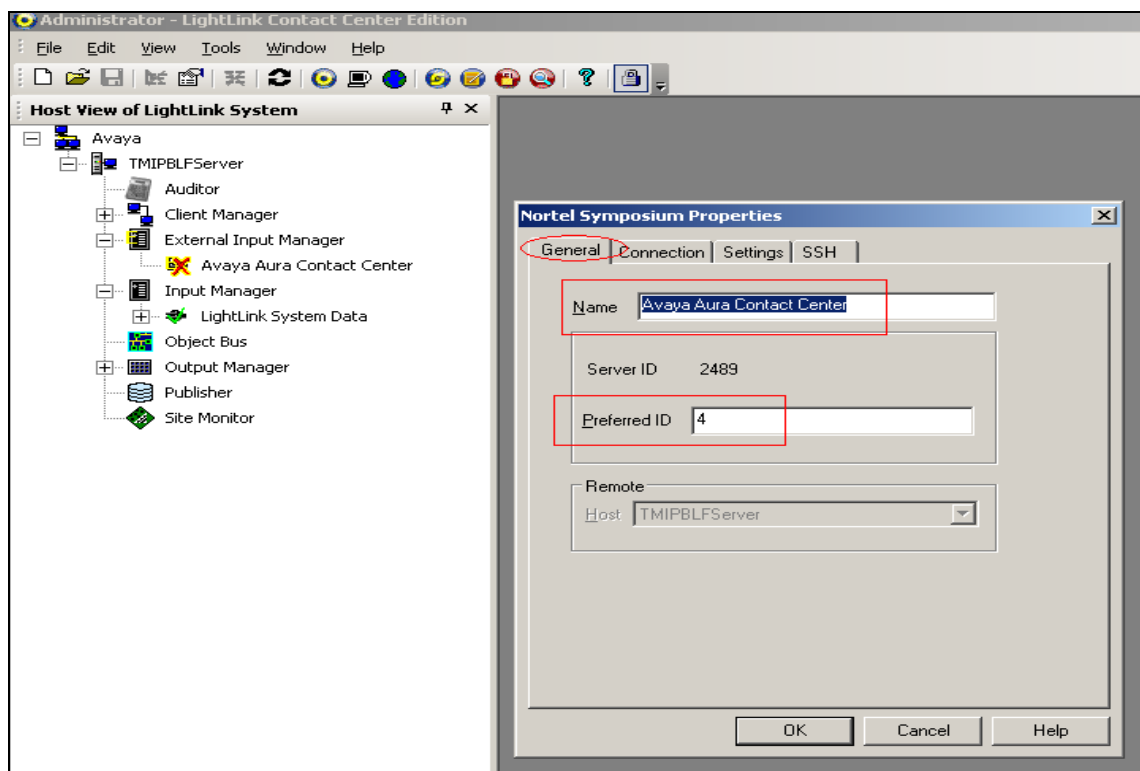
**Figure 34: New Data Source Connection**

Select **Nortel Symposium** as shown in **Figure 35** below and click on **OK** to continue.



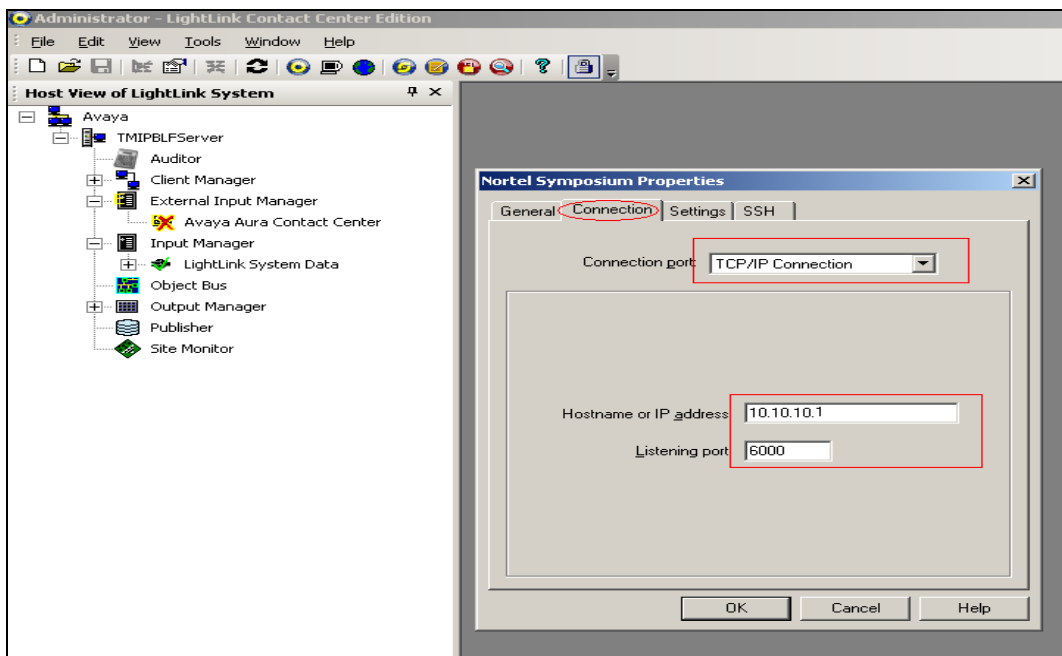
**Figure 35: Selecting the Data Source**

**Figure 36** below shows the values populated for the **Nortel Symposium Properties** under the **General** tab during compliance testing.



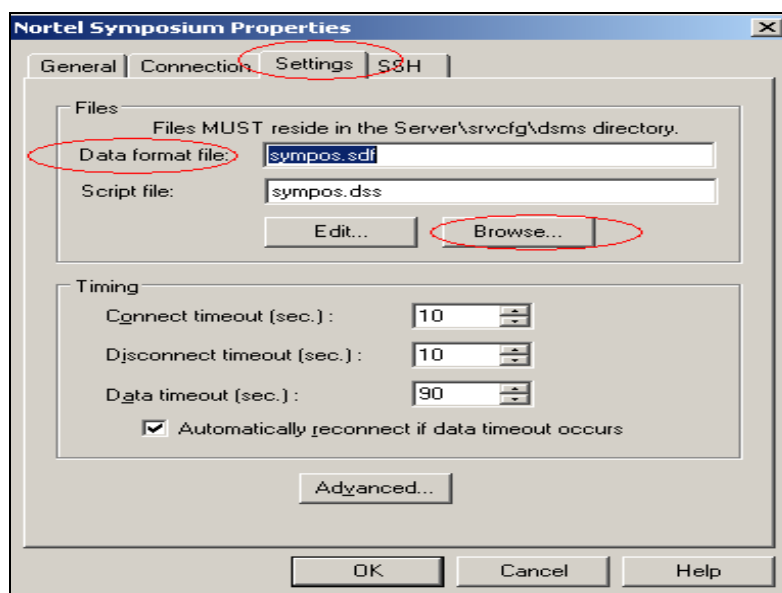
**Figure 36: Configuring General Tab**

**Figure 37** below shows the values populated for the **Nortel Symposium Properties** under the **Connection** tab during compliance testing. The **Hostname or IP address** is the IP address of the CCMS.

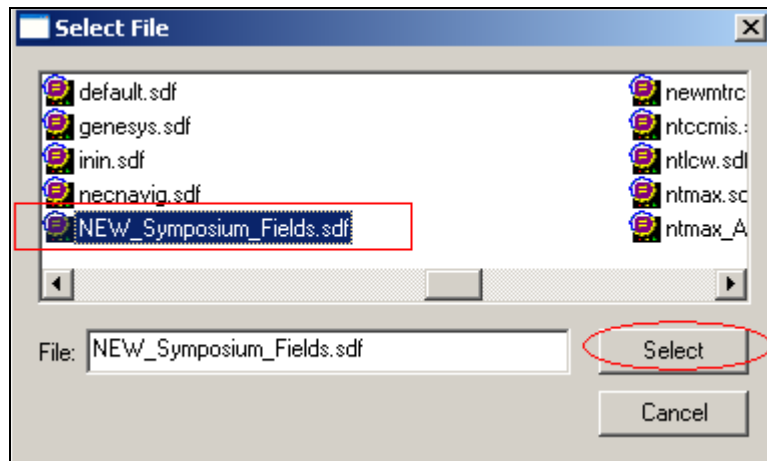


**Figure 37: Configuring Connection Tab**

Select the **Data format file** from the **Settings** tab by browsing to the correct path as shown in **Figures 38** and **39** below. Click on **Select** to continue.

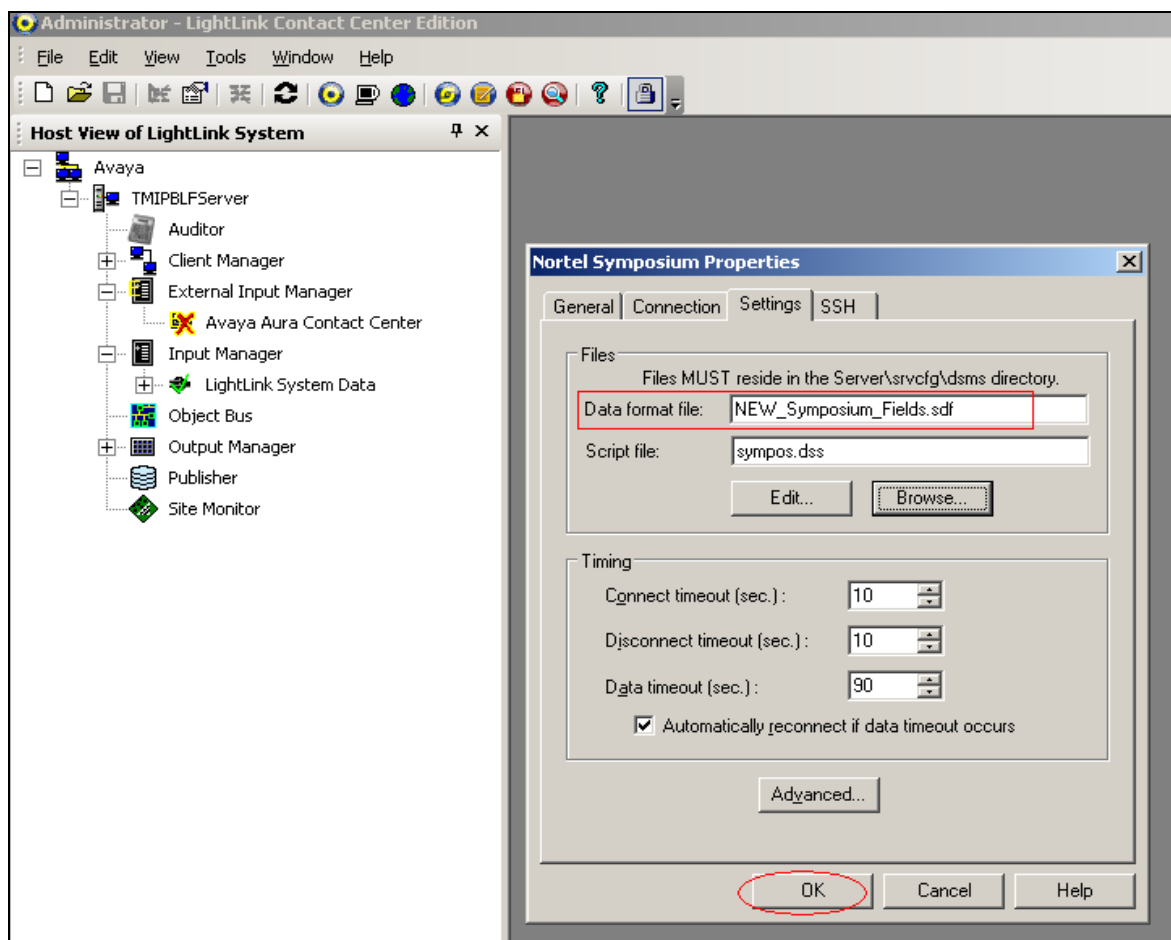


**Figure 38: Configuring Settings Tab**



**Figure 39: Selecting SDF file**

Click on **OK** to complete the information of the Nortel Symposium properties as shown in **Figure 40** below.



**Figure 40: Configuration Complete**

Figure 41 below shows the screen after the completion of the configuration.

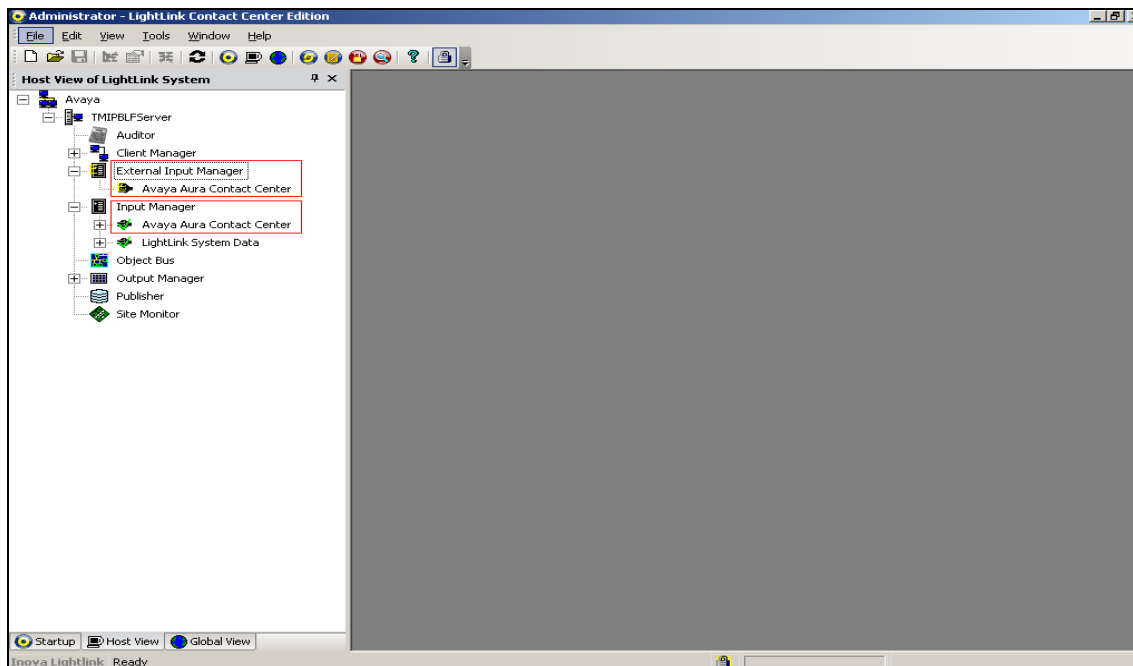


Figure 41: Connection Established

Figure 42 below shows the attributes that can be monitored under the APPL\_TEST

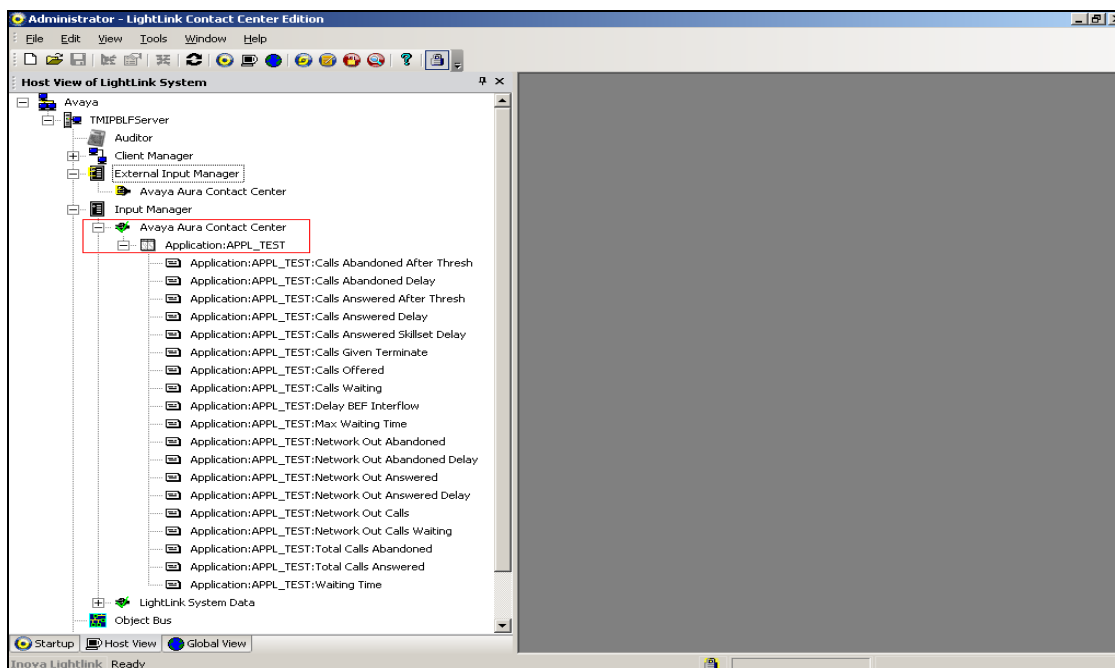
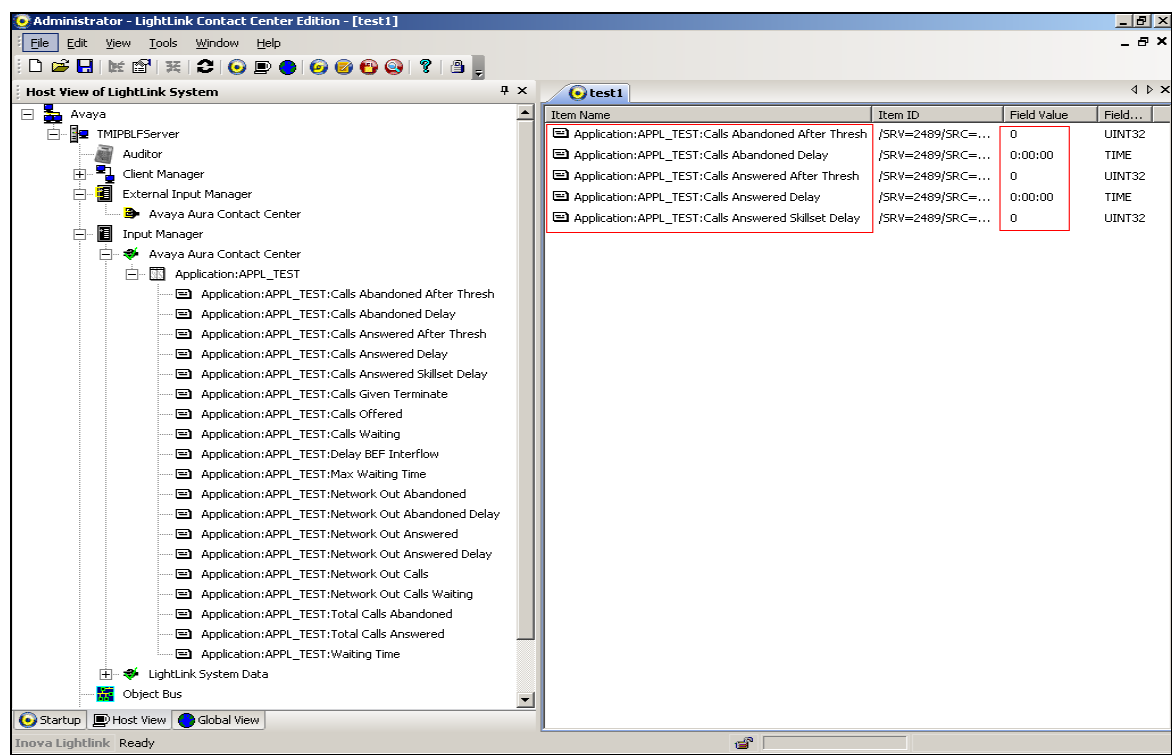


Figure 42: Attributes that can be monitored



**Figure 43** below shows the attributes that can be selected to be monitored by the user. The values under the **Field Value** column will change based on RTD available from the CCMS.



**Figure 43: Attributes selected by user to be monitored**

## 7. Verification Steps

Real-time Displays were launched on Contact Center Manager Administrator to monitor real-time activity of calls being placed into the system. This was used to verify the data observed on the Lightlink Administrator screen display.

## 8. Conclusion

All of the executed test cases have passed and met the objectives outlined in **Section 2**. The Inova LightLink v5.7.658 is considered compliant with Avaya Contact Center Manager Server Release 6.1.

## 9. Additional References

[1] Product documentation for Avaya products may be found at:  
<https://support.avaya.com/css/Products/>

[2] Product documentation for Inova LightLink may be found at:  
<http://www.inovasolutions.com/call-center-reporting/>

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