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Avaya Solution & Interoperability Test Lab

Application Notes for Avaya IP Office Release 11.0 with TCC Atradis Balance to Collect Call Detailed Records - Issue 1.0

Abstract

These Application Notes contain configuration steps required for TCC Atradis Balance to interoperate with Avaya IP Office Release 11.0.

Readers should pay attention to Section 2, in particular the scope of testing as outlined in Section 2.1 as well as any observations noted in Section 2.2, to ensure that their own use cases are adequately covered by this scope and results.

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 of 23
TCCAtradisIPO11

1. Introduction

TCC Atradis Balance is a Call Detail Recording (CDR) tool which provides call classification and billing information gathered from Avaya IP Office Release 11.0.

2. General Test Approach and Test Results

Interoperability testing contained functional tests mentioned in **Section 2.1**. DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

2.1. Interoperability Compliance Testing

During Interoperability Compliance testing, several call routing scenarios were testing to ensure that Atradis Balance could capture SMDR data.

SMDR data collected included:

- Local internal call handling
- Local calls between Primary and Expansion over SCN trunk
- Handling of Incoming Network calls over PRI and SIP trunks
- Handling of External Calls
- Call Forwarding on busy or No Answer
- Transfers –Blind and Supervised
- Conference Calls
- Call Park and Call Pick Up
- Mobile Twining
- Account Codes
- Serviceability

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2 of 23
TCCAtradisIPO11

2.2. Test Results

The testing was successful except for the following observations which were noted:

1. Mobile Twining – This is an issue with SMDR not display record with U MT cause for mobile twinning scenario. SMDR show incorrectly External call when Twin user answers at Original. This issue is being investigated by Avaya.
2. Conference Calls – This is an issue with SMDR display no duration (00:00:00) for 1 Party in Conference. This issue is being investigated by Avaya.
3. Conference Calls – This is an issue when creating Conference Calls with primary users and expansion users. This is internal call but SMDR show incorrectly External call for 1 Party. This issue is being investigated by Avaya.

2.3. Support

Support for TCC Atradis Balance can be obtained through the following:
E-mail: service@atradis.net
Phone: +49 2202 9542 200

3. Reference Configuration

Figure 1 illustrates a sample configuration that consists of Avaya IP Office 11 and Atradis Balance server.TCC Atradis Balance was installed on a VMware virtual appliance for Windows Server 2012.
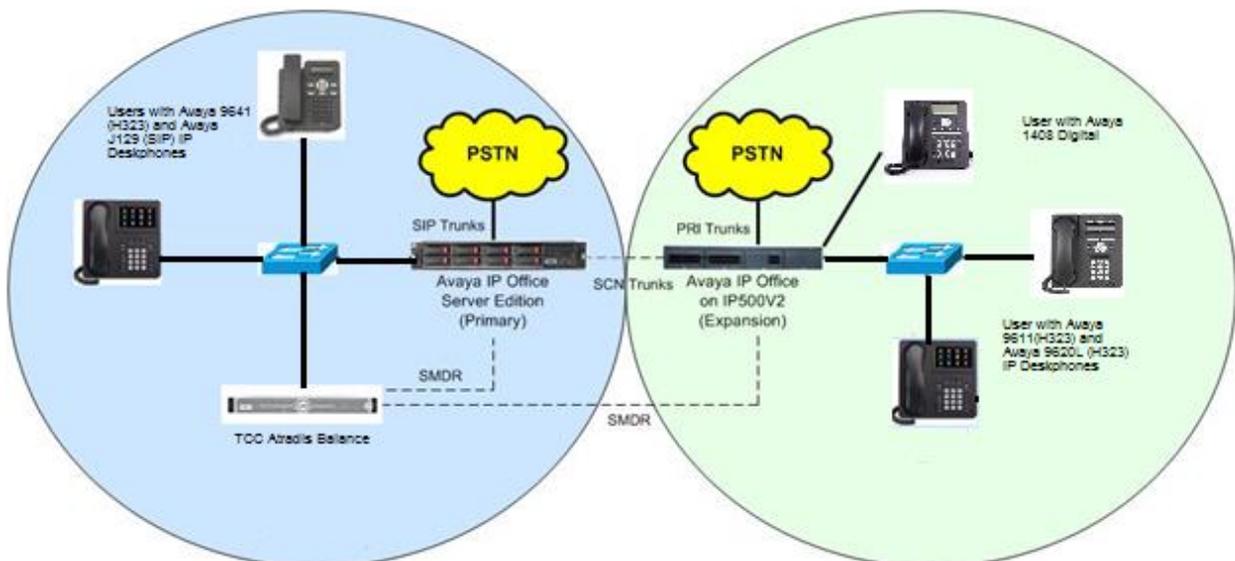

Figure 1: Test Configuration for TCC Atradis Balance

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office 500v2 Expansion System	11.0.0.0 Build 849
Avaya IP Office Manager running on a Windows 7 PC	11.0.0.0 Build 849
Avaya IP Office Server Edition on VMware	11.0.0.0 Build 849
Avaya Digital 1408	Application R48
Avaya 9641 H323	6.5.0.06 V474
Avaya 9621 H323	6.5.0.06 V474
Avaya 9611 H323	6.5.0.06 V474
Avaya 9620 H323	3.2.2
Avaya J129	R2_0_0_0_45
Avaya Communicator for Windows	2.1.4.0
TCC Atradis Balance running on Window Server2012	8.2

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4 of 23
TCCAtradisIPO11

5. Configure of Avaya IP Office

Configuration and verification operations on the Avaya IP Office illustrated in this section were all performed using Avaya IP Office Manager. The information provided in this section describes the configuration of the IP Office for this solution. It is implied a working system is already in place with the necessary licensing. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

- Launch Avaya IP Office Manager (Administration)
- Configure SMDR
- Save Configuration

5.1. Launch Avaya IP Office Manager (Administration)

From the Avaya IP Office Manager PC, go to **Start** > **Program** > **IP Office** > **Manager** to launch the Manager application. Log into **Avaya IP Office** using the appropriate credentials to receive its configuration.

5.2. SMDR configuration on IPO Server Edition Primary

Select **IPO Server Edition (Primary) > System** followed by the **SMDR** tab and enters the following:
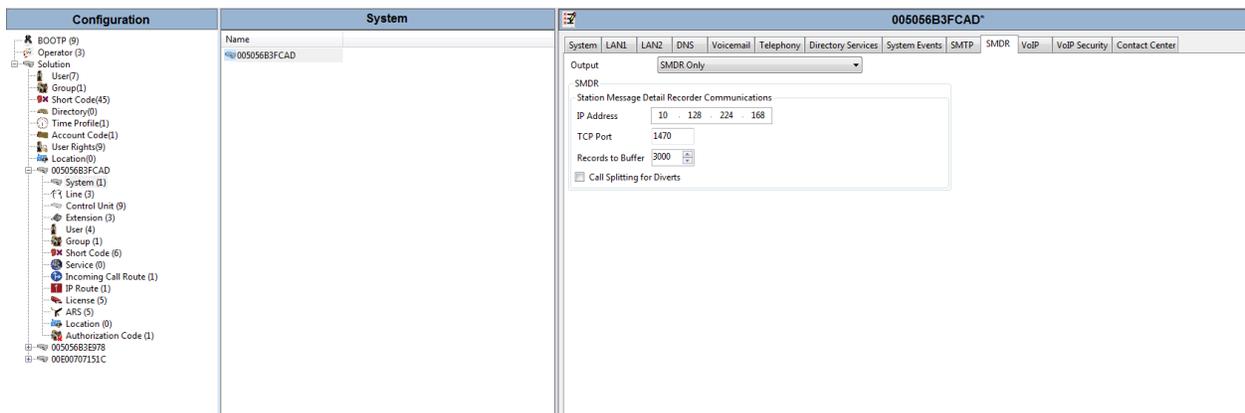
- Output Select SMDR Only from the drop box.
- IP Address Enter the IP Address of the Atradis Balance Server.
- TCP Port Enter 1470.
- Records to buffer Enter 3000. This is maximum available.
- Click the OK button to save.

AAA; Reviewed:
SPOC 7/30/2018

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5 of 23
TCCAtradisIPO11

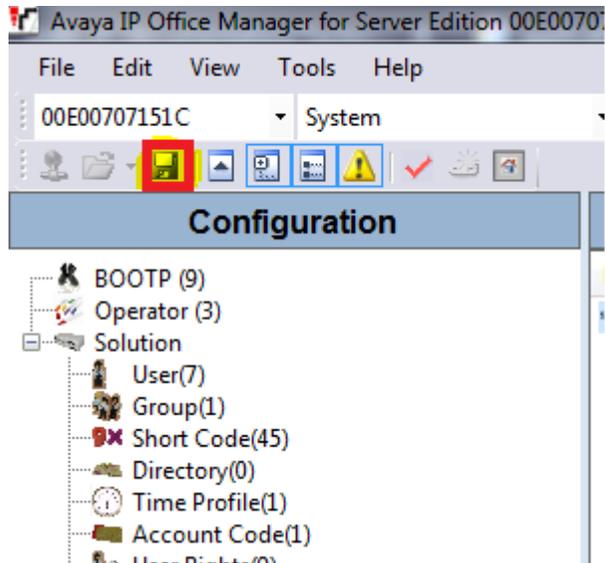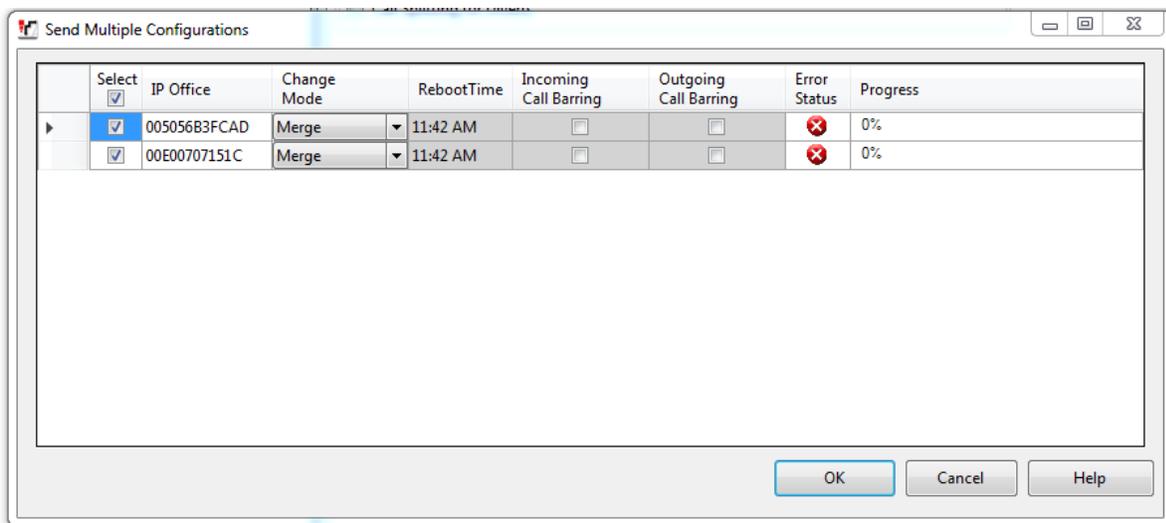## 5.3. SMDR Configuration on Avaya IP Office 500V2 (Expansion)

Select **IPO 500V2** (**Expansion**) > System followed by the **SMDR** tab and enters the following:
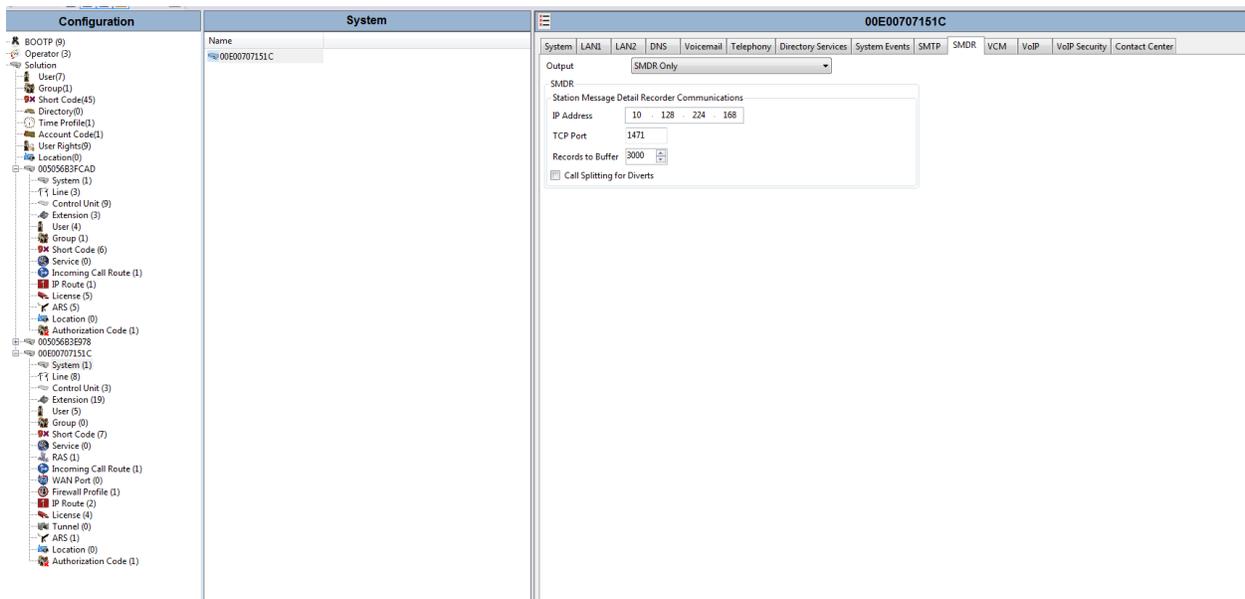
- Output Select SMDR Only from the drop box.
- IP Address Enter the IP Address of the Atradis Balance Server.
- TCP Port Enter 1471.
- Records to buffer Enter 3000. This is maximum available.
- Click the OK button to save.

5.4. Save Configuration

Once all the configurations have been made it must be sent to IP Office. Click on the Save icon as shown below:

Once the Send Multiple Configurations Window opens, click the OK button:

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7 of 23
TCCAtradisIPO11

6. Configure TCC Atradis Balance

This section describes the configuration steps required for Atradis Balance and Atradis Receiver to interoperate with IP Office. It is presumed that Atradis Balance and Atradis Receiver has been installed correctly and is ready for the initial configuration to be completed.

6.1. Atradis Receiver Configurations.

Start the Atradis Receiver Configuration.

The Atradis Receiver Configuration dialog will be shown. Press "+" ("Neu hinzufügen") Button to add receiver for IPO Server Edition Primary

- Insert a Receiver name for IPO Server Edition Primary (free description of the interface).
- Select the folder and insert the output file name which should be created when the SMDR's from the IPO Server Edition Primary will be received.
- Insert the port 1470.
- Use the check box 'Enable' to active the settings of this entry.
- Store the setting by using 'Save'.
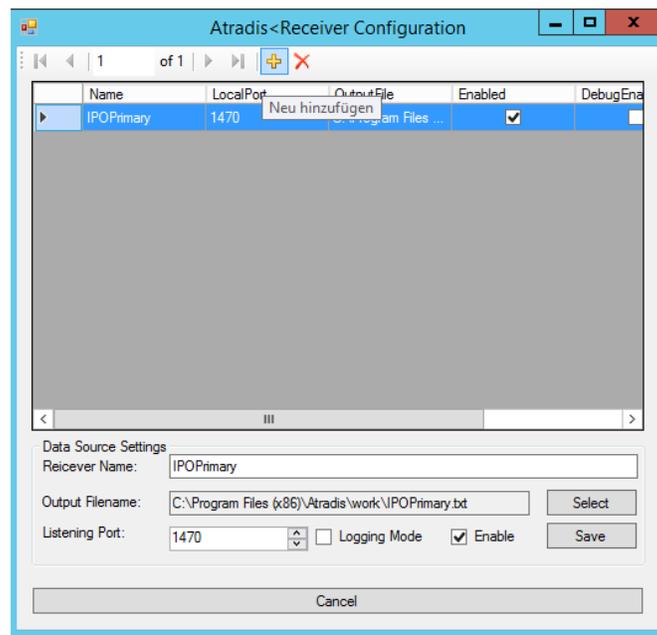
Press "+" ("Neu hinzufügen") button to add receiver for IPO 500V2 Expansion.

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SPOC 7/30/2018

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8 of 23
TCCAtradisIPO11

- Insert a Receiver name for IPO 500V2 Expansion (free description of the interface).
- Select the folder and insert the output file name which should be created when the SMDR's from the IPO Expansion will be received.
- Insert the port 1471.
- Use the check box 'Enable' to active the settings of this entry.
- Store the setting by using 'Save'.
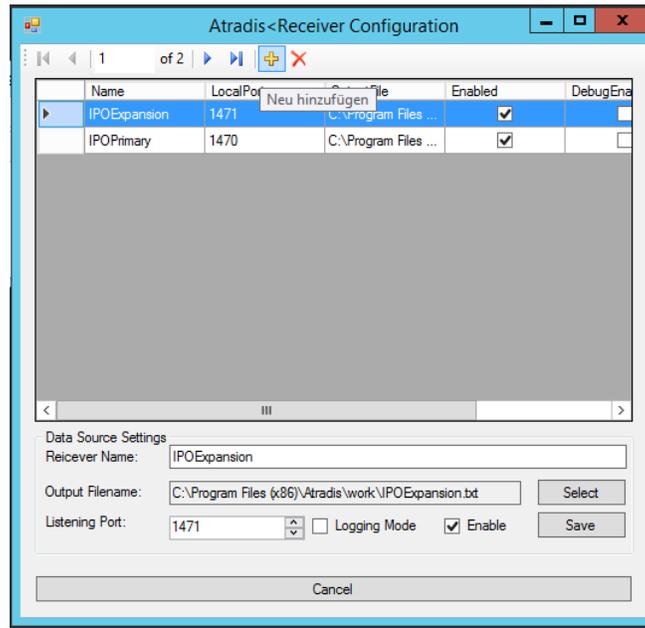
Restart Window Server to start Atradis Receiver with port 1470 and 1471.

From now on, all data of the IPO sent to the configured port will be stored in the output file and can be used for import into Atradis Balance.

6.2. Installing the License

First copy the License file to your Atradis installation folder (C:\..\Atradis\image).

Select the Function **'Atradis<license import'.**
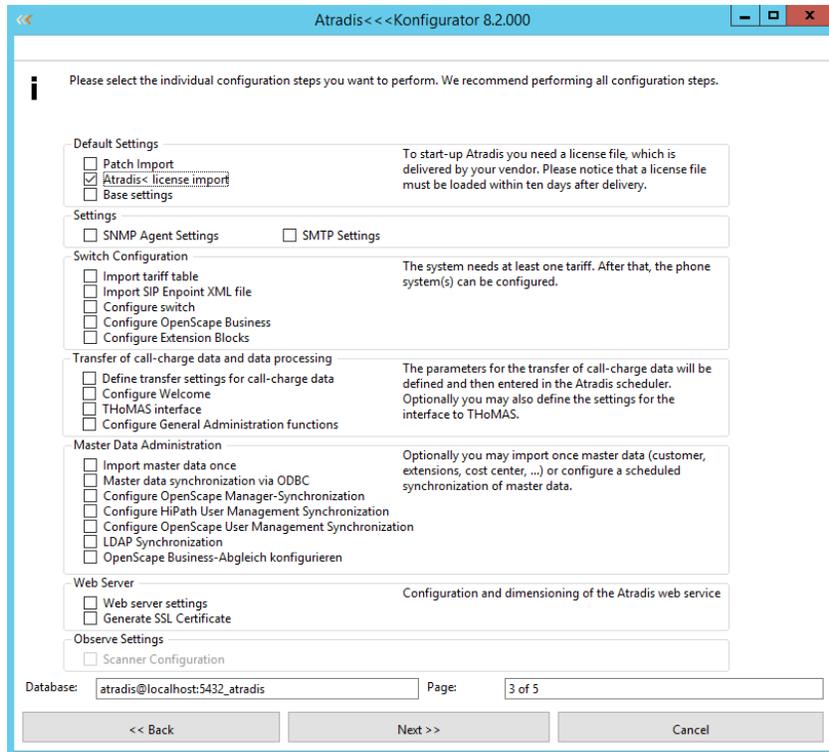
Click on **'Next>>'**.
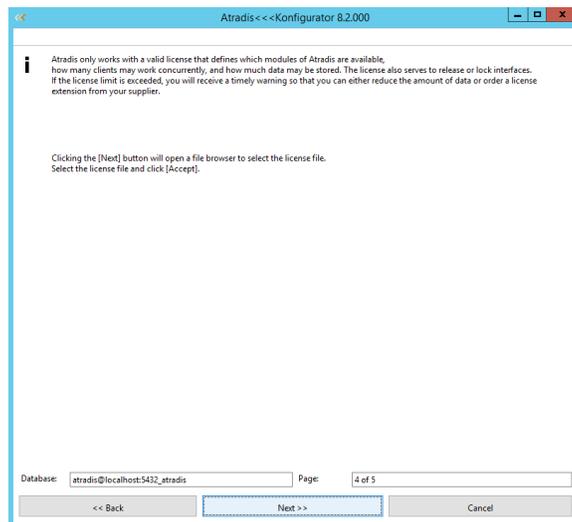
Click on **'Next>>'**. Now you are able to select your License file. Select the .lic file (in this example nsm100.lic) from menu and click on 'OK'.

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SPOC 7/30/2018

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10 of 23
TCCAtradisIPO11
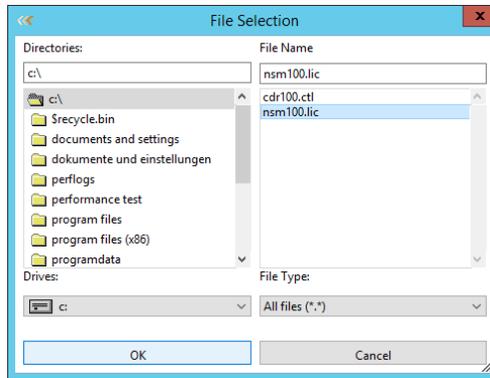
The License is now activated.
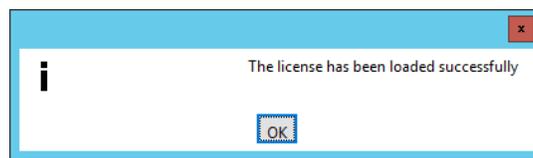
Click on 'OK' and then 'Next>>'. The Configuraton Wizard will be closed.

6.3. Patch import

Start the Configuration Wizard.
To import the patches (if available), copy the patch files to the folder
C:\..\Atradis\image\patches.
Select "Patch import" and click on 'Next>>'.

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SPOC 7/30/2018

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11 of 23
TCCAtradisIPO11
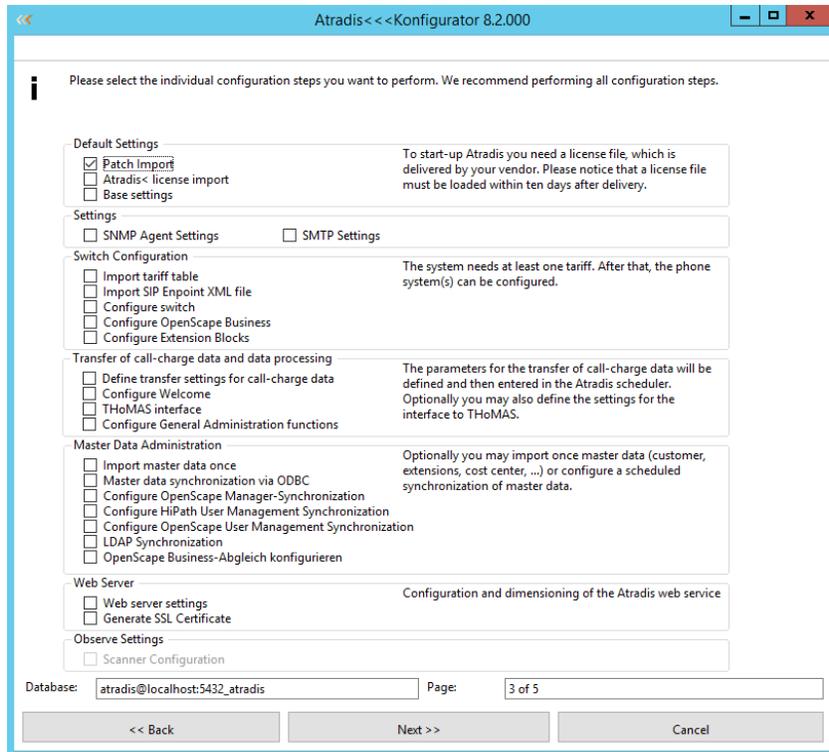
In the next Window, all available patches were shown and can be imported using the "**Load all Patches**" button.

Click on '**Next>>**' and restart the server after importing the patches.
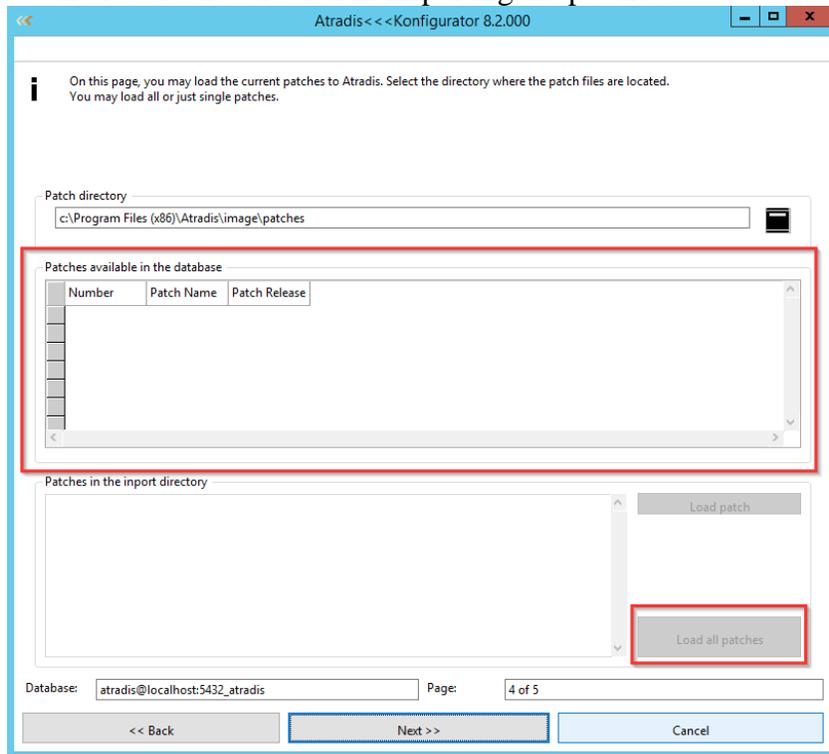
6.4. Importing Vlist (Costplan)

The Vlist is used for calculating the cost of a call and showing the location name of the dialed number.
For this testing, only a default Vlist based on German locations was used. Change to the folder where the standard Vlist is located
(C:\..\Atradis\finance\vlist\Deutsch\Dauerberechnung\Deutschland\Nicht-E164). Select the file called "import.ini" with the notepad and change two entries in the file.

Cityname= --- insert an City name (you can choose whatever you want)
AreaCode= --- the area code fitting to the city name

You also can change the CountryFullName and the CountryShortName if wanted.

Example:
   [Options]
   Use=True
   AskUser=True
   AutomaticShow=True
   [VList1]
   PricesFor=Duration
   CountryFullName=DEUTSCHLAND
   CountryShortName=BRD
   CityName=Bergisch Gladbach
   InternationalAccessCode=00
   NationalAccessCode=0
   CountryCode=49
   AreaCode=2202

Save the file.

Open the Configuration Wizard and select the option "**Import tariff table**".
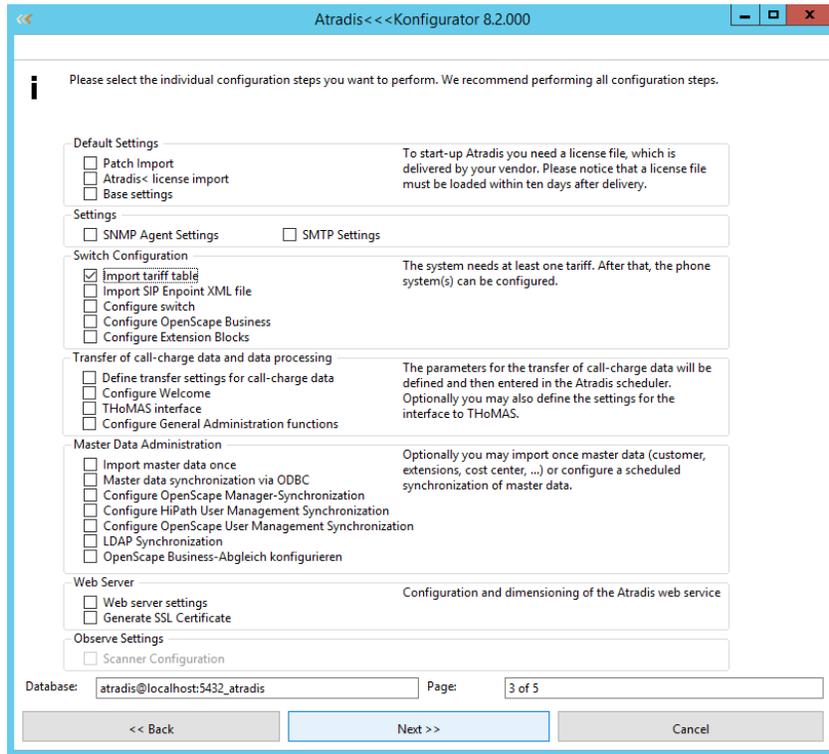
Click on "**Next**>>".
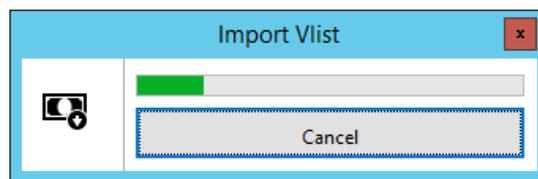Leave the settings on the next page as it will be shown in the standard.
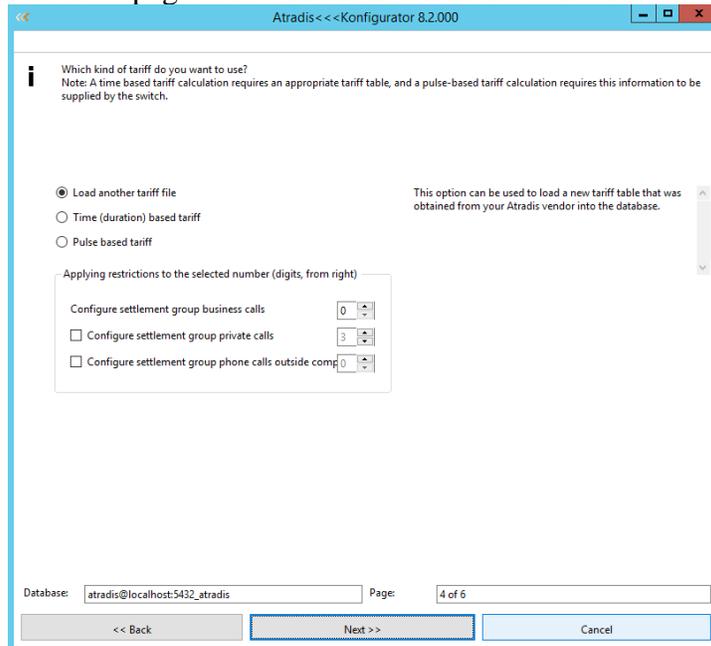
Press "**Next**>>".

On the next page, select from pull down menu while using "**Select File**" the modified import.ini file.

The settings from import.ini file will be shown in the UI after selecting.
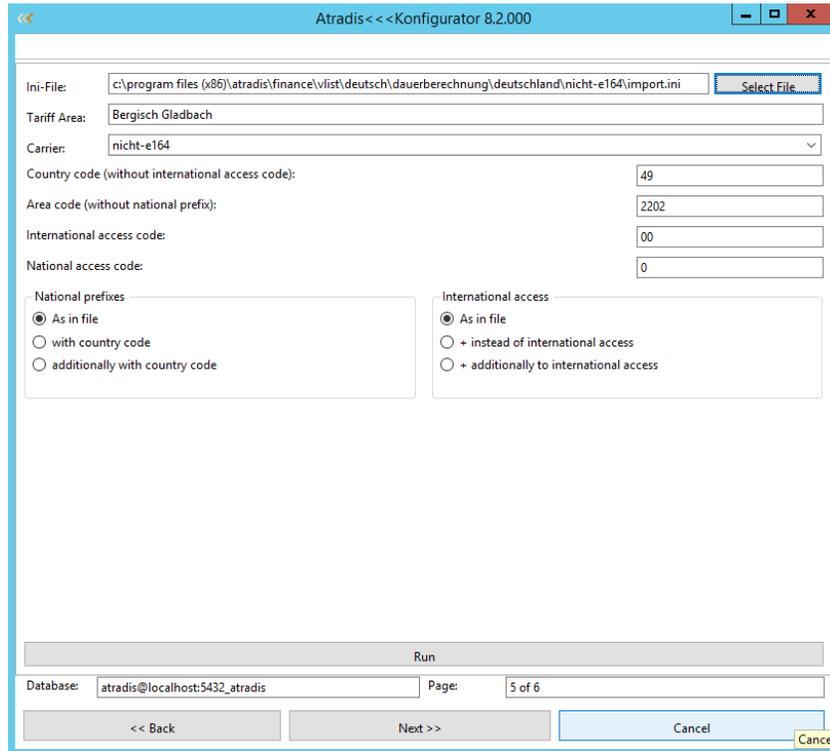
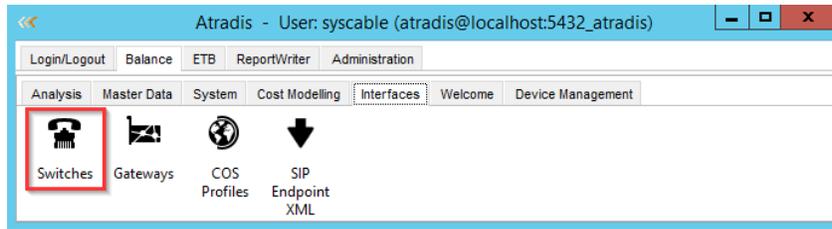Click on "**RUN**". The Vlist will be imported now.

When the import is finished, press "**Next**>>"

6.5.   Creating the IPO Switch in Atradis

Now you will be able to start and log into Atradis Balance.

Start Atradis Balance and insert the standard user/password.

Click on '**Login'**.

Select the tab '**Balance'**— 'Interfaces' and select "**Switches**".

The table switches will be opened (at the first time there will be only the entry DEF).
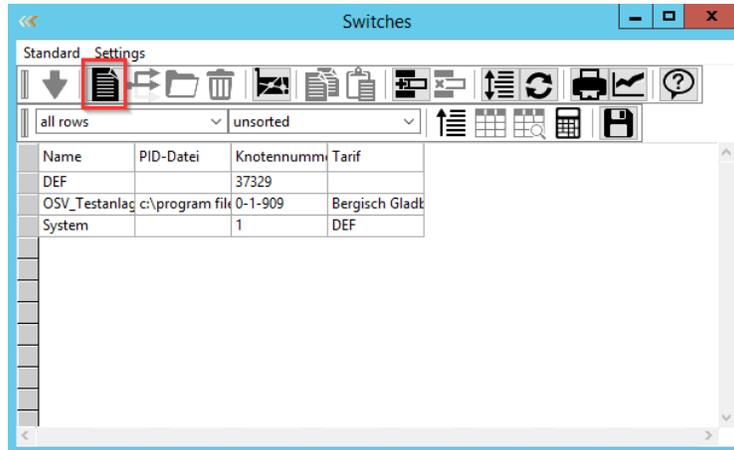
Click on the icon '**New'** and the dialog '**Switch'** will be opened.

Insert "1" in "**Switch ID**" and in "**Name**" use for example "IPO". Any other name may be used. Next, select your IPO PID file from list box while using the button "PID File". On the tariff list box select the tariff based on the Vlist you inserted before (Bergisch Gladbach).
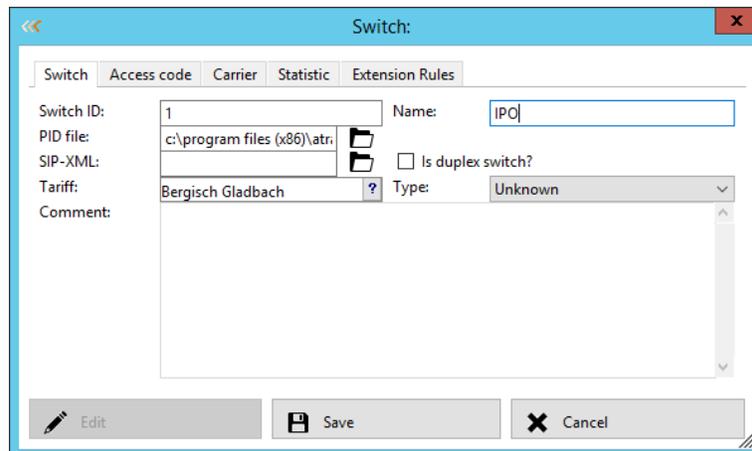
Select tab "**Carrier**" and click on the icon '**New'**.

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SPOC 7/30/2018

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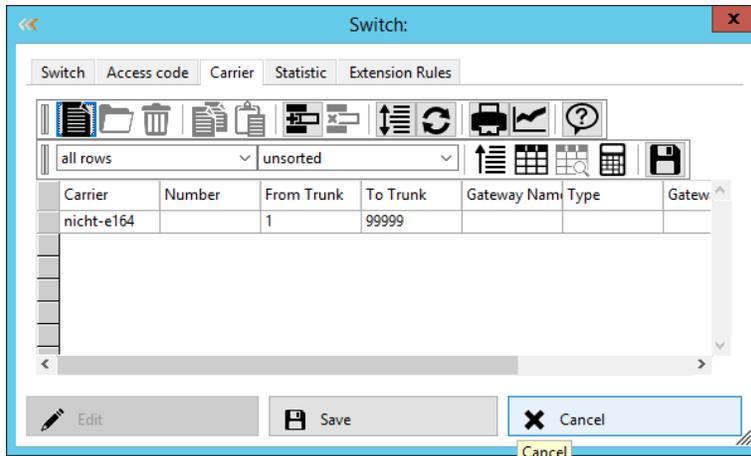
16 of 23
TCCAtradisIPO11
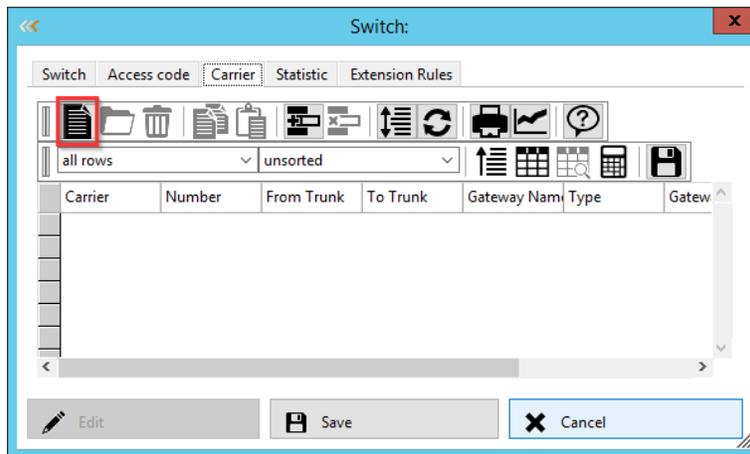
In the dialog "**Carrier**" select the carrier name from the list box based on the Vlist (nicht-e-164) which you imported before. Activate in the section '**Assignment** by' the check box '**Trunks from**' and insert for this test 1 to 9999.
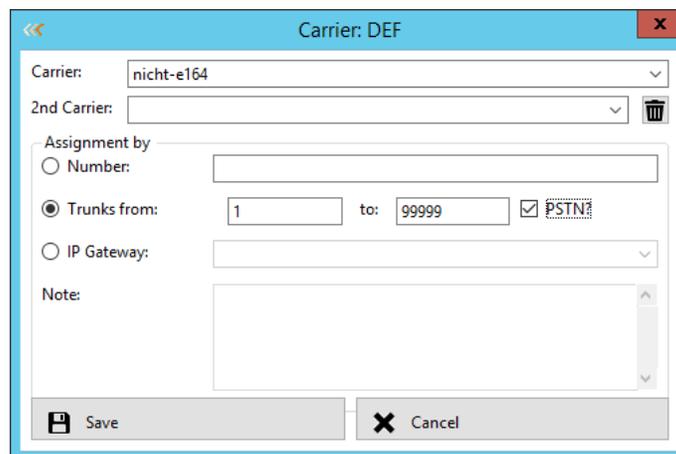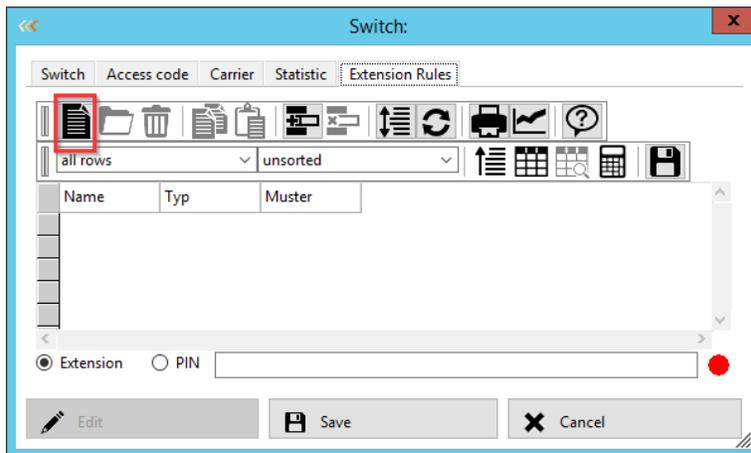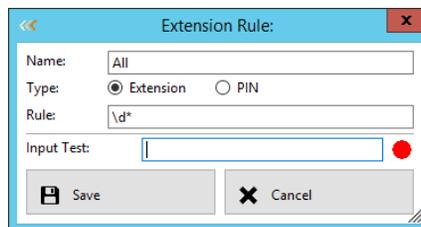

Save the settings.
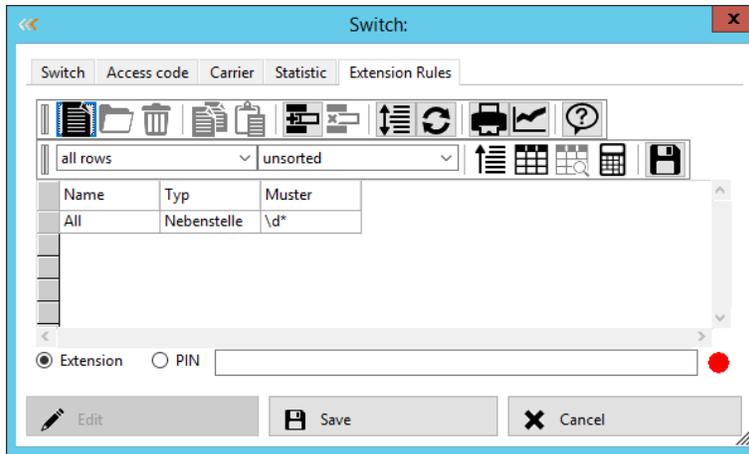
The created trunks will be shown in the table.

Select the tab '**Extension Rules**'. Extension Rules will be needed for creating automatically the extensions by importing the SMDR.

Click on the icon '**New**'.
Insert a Value as "**Name**" and insert \d* as Rule. \d* means, accept all Extensions coming up with the Call Data Records. Save the settings.
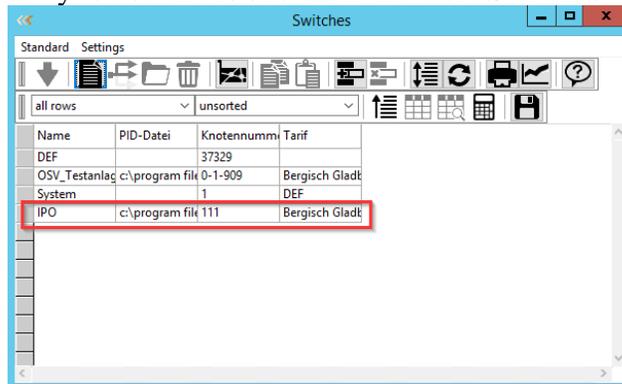

The new Rule is shown in the table Switch.

Click on the icon 'New' again and do the same settings by activating the option PIN. Save the settings.

The new switch is now ready to use and is shown in the table Switches.
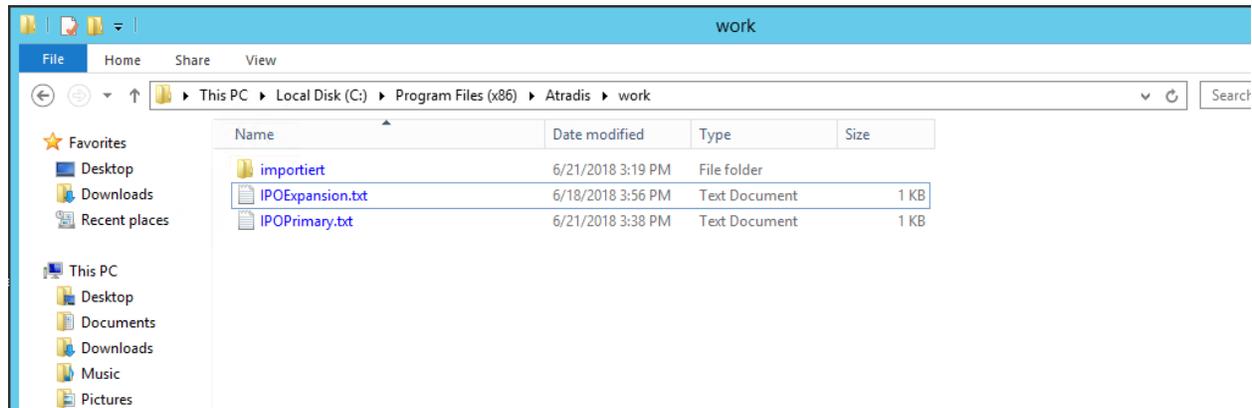
7. Verification Steps

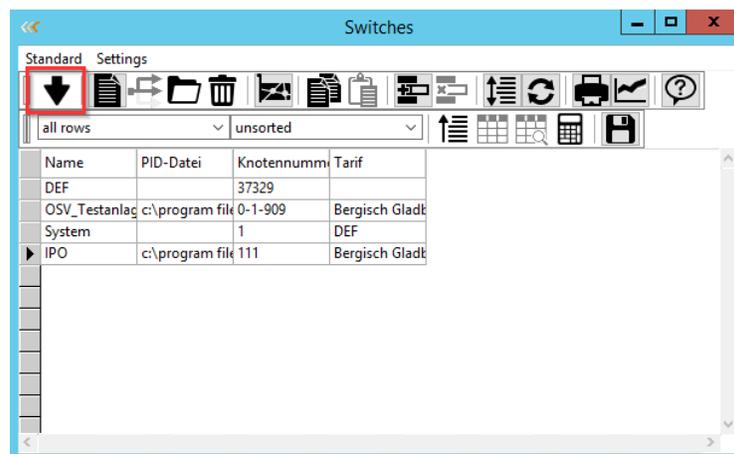## 7.1. Verify SMDR data is being received by the Atradis Balance

Make incoming and outgoing calls and on completion of the calls SMDR file is created in the folder you selected in **Section 6.1**
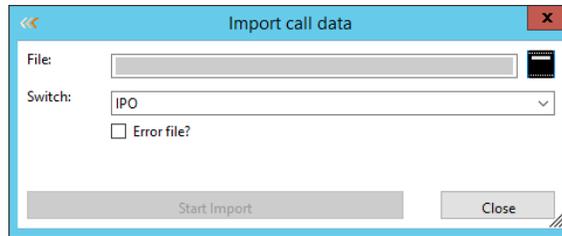(**Ex:** C:\...\Atradis\work)

7.2. Importing Call Data Records into Atradis Balance

To import the SMDR's manually you only need to mark your Switch and click on the "import" icon.
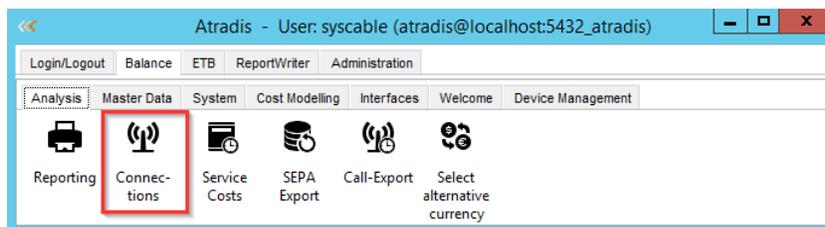

In the dialog box, select the file which contains the SMDR's by using the list box.

Click on 'Start Import' and the import will be started.

7.3. Checking the imported SMDRs

After you have imported the SMDR's the easiest way to check/analyse the calls is by using the 'Connection' table. This is located at tab *Balance – Analysis - Connections*.

Click on 'Connections' to view all important information of your calls/SMDR's. In this table, search and filter are available.

Gesprächsricht	Anlage	Trunk	Datum	Start time	End time	Duration	extension	Vermittel	Gewa	Anrufe	Zweite Neben:	Teilnehmer	Ort	Tarif	Kosten	Gesprächsart	Keine	PIN	Teilnehmer1N	Teilnehmer2Nam	Grund ext. Ziel	F
INTERNAL	IPO	56002	18.06.2018	16:19:15	16:19:54	0:00:39	56002				56001	DEF			0,00000	Dienst	false		Ext56001	Ext56002		4
INTERNAL	IPO		18.06.2018	16:19:15	16:19:40	0:00:25	56002				56002	DEF			0,00000	Dienst	false		Ext56001	Ext56001		0
INTERNAL	IPO		14.06.2018	14:48:23	14:48:33	0:00:10	56001				56021	DEF			0,00000	Dienst	false		Ext56021	Ext56021		2
INTERNAL	IPO		14.06.2018	14:48:13	14:48:32	0:00:19	56001				56002	DEF			0,00000	Dienst	false		Ext56001	Ext56002		2
INTERNAL	IPO		14.06.2018	14:47:54	14:48:13	0:00:19	56001				56002	DEF			0,00000	Dienst	true		Ext56001	CO Channel 10.3		0
INTERNAL	IPO		14.06.2018	14:50:39	14:50:49	0:00:10	56001				56021	DEF			0,00000	Dienst	false		Ext56001	CO Channel 10.1		0
INTERNAL	IPO		14.06.2018	14:48:37	14:51:03	0:02:26	56001				56021	DEF			0,00000	Dienst	false		Ext56001	CO Channel 10.2		0

You can configure automatically import of SMDR's follow document in location "C:\...\Atradis\Documentation".

8. Conclusion

These Application Notes describe the procedures for configuring TCC Atradis Balance with Avaya IP Office Server Edition. Testing was successful with observations outlined in **Section 2.2**.

9. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from *http://support.avaya.com* or from your Avaya representative.

AAA; Reviewed:
SPOC 7/30/2018
Solution & Interoperability Test Lab Application Notes
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21 of 23
TCCAtradisIPO11

i.   *Deploying IP Office Essential Edition (IP500 V2) IP Office™ Platform 11.0, Issue 33g, May 22, 2018*

ii.   *Deploying Avaya IP Office™ Server Edition Solution (English), Release 11, May 2018.*

iii.   *Administering Avaya IP Office with Manager (English), Release 11, May 2018.*

iv.   *Administering Avaya IP Office with Web Manager (English), Release 11, May 2018.*

Product documentation for Atradis be obtained in the installed software or at https://www.tcc.de/