



Avaya IP Office

OAISYS Integration

6/26/2013

Americas Headquarters

OAISYS

7965 South Priest Drive, Suite 105

Tempe, AZ 85284

USA

www.oaisys.com

(480) 496-9040



OVERVIEW

OAISYS products integrate with Avaya IP Office systems to provide a robust call logging and call recording solution. This Guide describes the configuration requirements when using OAISYS integration with Avaya IP Office.

This Guide is sectioned into four (4) configuration options; it is possible and highly likely to have multiple configurations on one OAISYS system:

1. Configuration 1: CTI (general)
2. Configuration 2: CTI with Trunks
3. Configuration 3: CTI with Stations
4. Configuration 4: SMDR for SIP

For example, for a trunk installation, you would use configuration 1 and 2, or for station side, you would use configuration 1 and 3.

REQUIREMENTS

- ✓ TAPI Link Software
- ✓ TAPI license

Refer to [Avaya](#) for license information

- ✓ This applies to Station Side configurations only:

OAISYS supports G.711 or G.729; however, calls using G.711 and G.729 streams simultaneously cannot be recorded (this is a rare configuration)

NOTE: Silence Suppression is not supported

CONFIGURATION 1

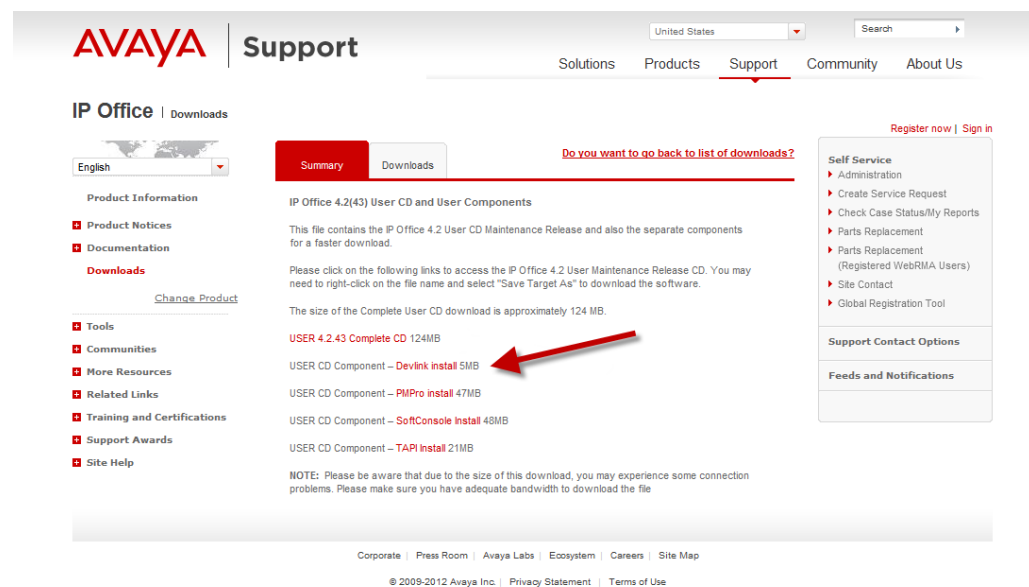
This section relates to Station Side and TDM Trunk Side

1. To configure Avaya IP Office
 - a. Use this link to get the setup file:

http://support.avaya.com/downloads/download-details.action?contentId=C20119120429680_9&productId=P0160

NOTE: Requires an authorized Avaya login

Verify the AVAYA TAPI/devlink software is installed on the OAISYS server



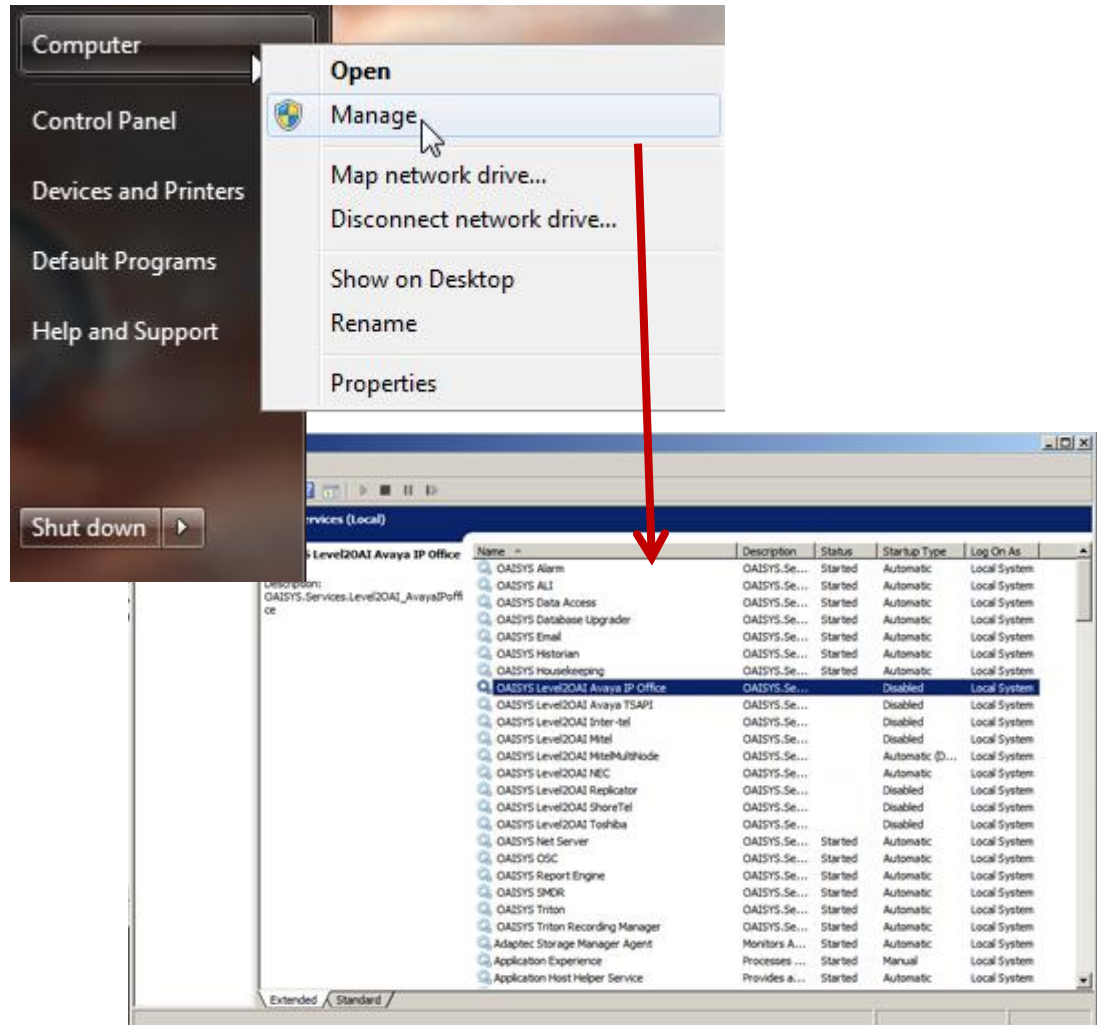
The screenshot shows the Avaya Support website interface. The main content area is titled "IP Office | Downloads" and contains a list of download links. A red arrow points to the link "USER CD Component - Devlink install 5MB". The page also includes a navigation menu at the top, a search bar, and a sidebar with various service options.

NOTE: The above image may not reflect the most specific or current version, please verify it is appropriate for your system configuration.

Important: Copy the devlink.dll file into the OAISYS CTS.net folder

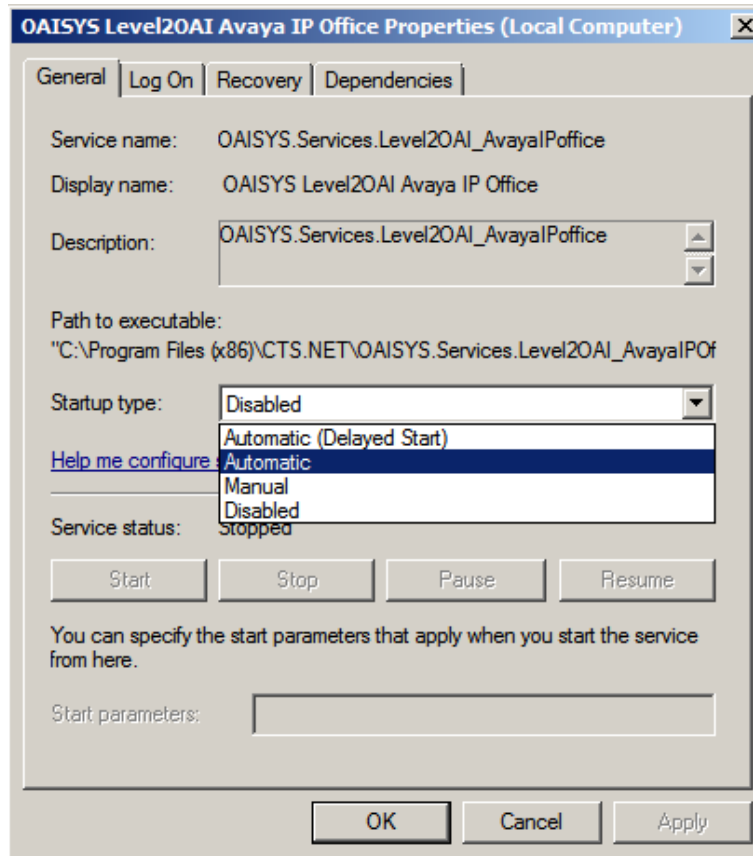


2. Navigate to Services Manager → find the Level2 OAI Avaya IP Office service → right-click; select Properties



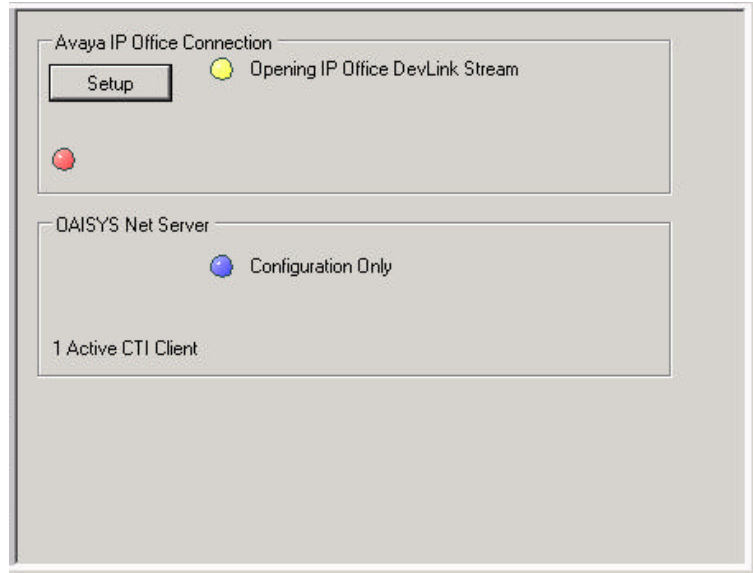
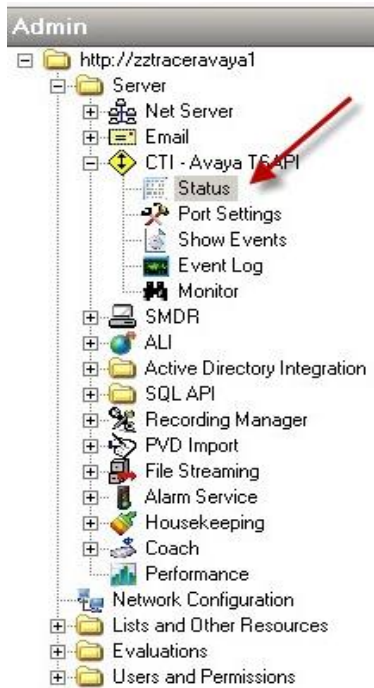


3. Change Startup type to "Automatic" Startup → press Start to begin running



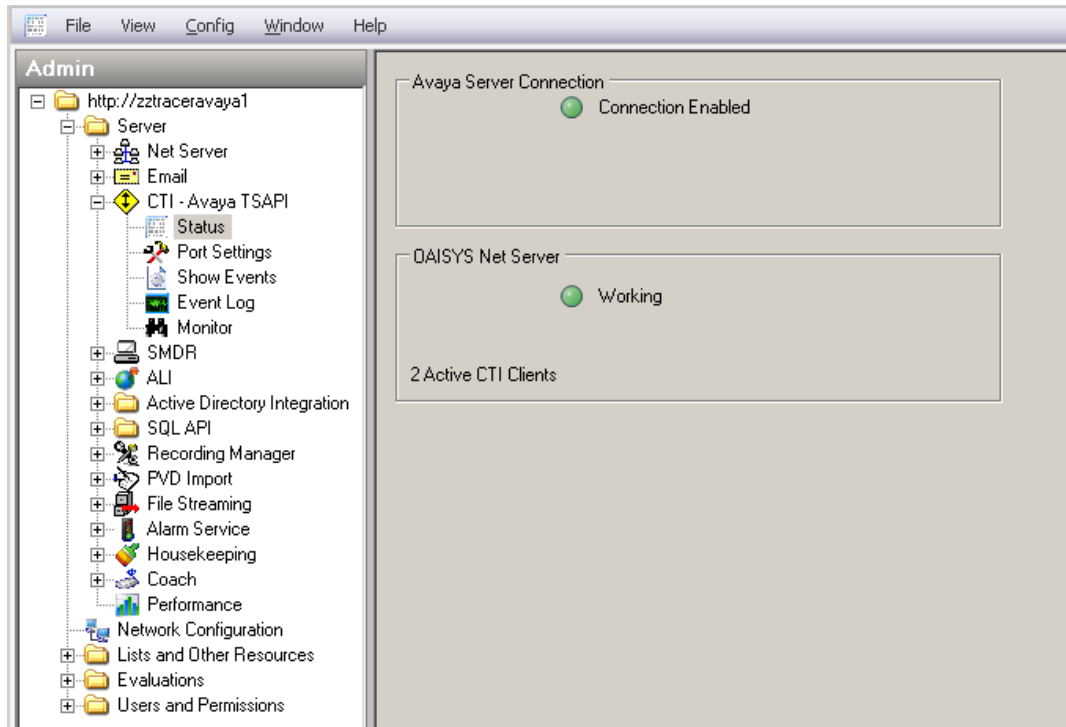


4. Launch the OAISYS Management Studio → expand the CTI section →
 - a. This will open a screen showing the server connection status
 - b. Click on the Setup button to configure



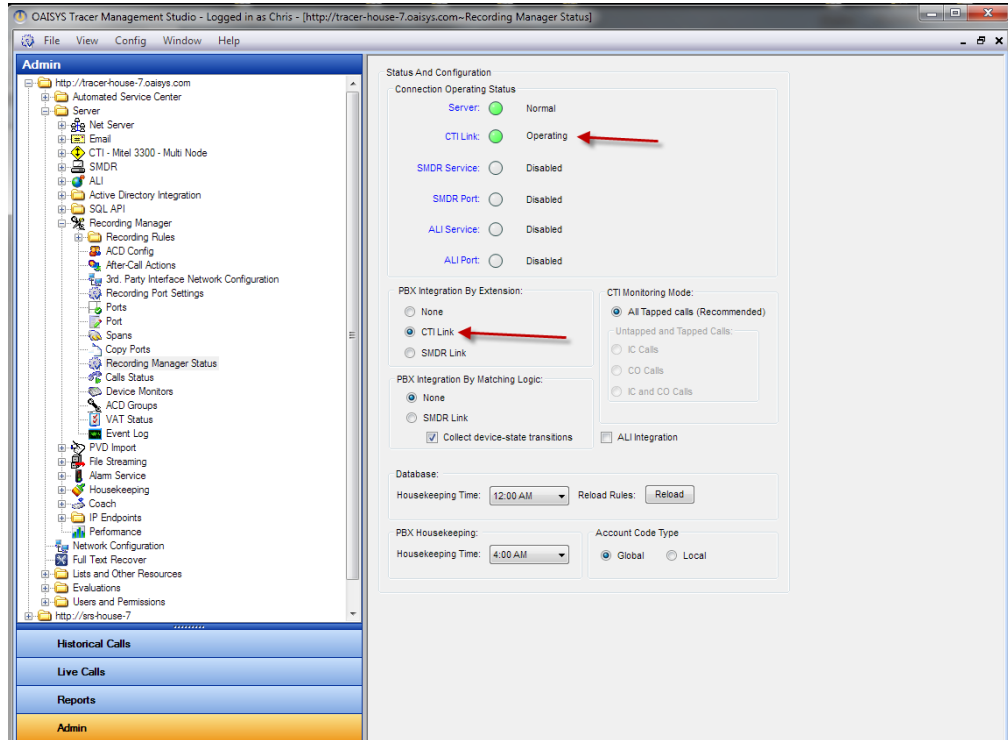


5. Enter the Switch name or IP number and the IP Office “monitor” password
→ click apply when done and the status page should return and show green lights





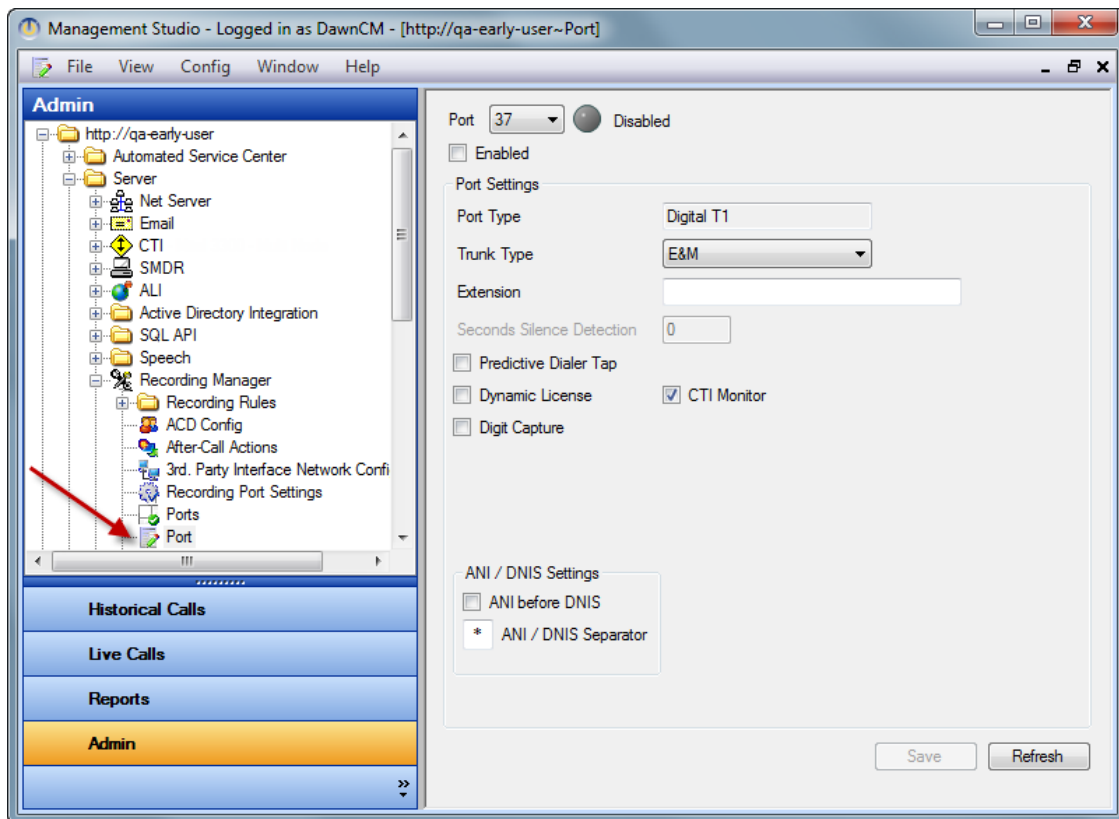
6. Navigate to Recording Manager → Recording Manager Status
 - a. Program CTI mode



CONFIGURATION 2

TRUNK ID PROGRAMMING WITH AVAYA IP OFFICE

1. The letters in the trunk IDs must be capitalized
2. The trunk number must be programmed using the following convention:
 - a. Txxxy where xx represents the line number and yy represents the voice channel number (remember to include the T before the numbers)
 - b. The line number can be found in the IP Office PBX Manager programming software.
 - c. The PRI Trunk configuration is found under Ports in the Admin section of the OAISYS Management Studio





CTI EVENT EXAMPLES

The most reliable way to know what needs to be programmed in the VAT is to make test calls on the trunk and look at the events that show up in the Level 2 Service. Below are examples of both inbound and outbound calls. The Trunk ID as it should appear in VAT is indicated in bold print.

For an **Inbound call** look for AExt=

```
[01492 16:38:35.3]Call Event, CallID=35, AState=Ringing, BState=Connected,
AConnected=1,
```

```
BConnected=0, AName=Line 5.0.2, AExt=T502, BName=Extn203, BExt=203, BList=,
ASlot=0.2, BSlot=2.3, OriginallyCalled=200, ANI=18005552101, DNIS=18885552101
```

```
[01494 16:38:35.3]New state Ringing
```

```
[01495 16:38:35.3]Cli Tx:
```

```
AE,LVL2OAI,RAWCMD,18,001,ES,,012,@10R,203,,I,T502,18005552101,18885552101
,,203,203,C,35
```

For an **Outbound call** look for BExt=

```
[01883 18:08:20.2]Call Event, CallID=39, AState=Ringing, BState=Connected,
AConnected=1,
```

```
BConnected=1, AName=Extn204, AExt=204, BName=Line 2.1.2, BExt=T202, BList=,
ASlot=2.7, BSlot=1.2, OriginallyCalled=5551212, ANI=204, DNIS=95551212
```

```
[01885 18:08:20.2]New state Ringing
```

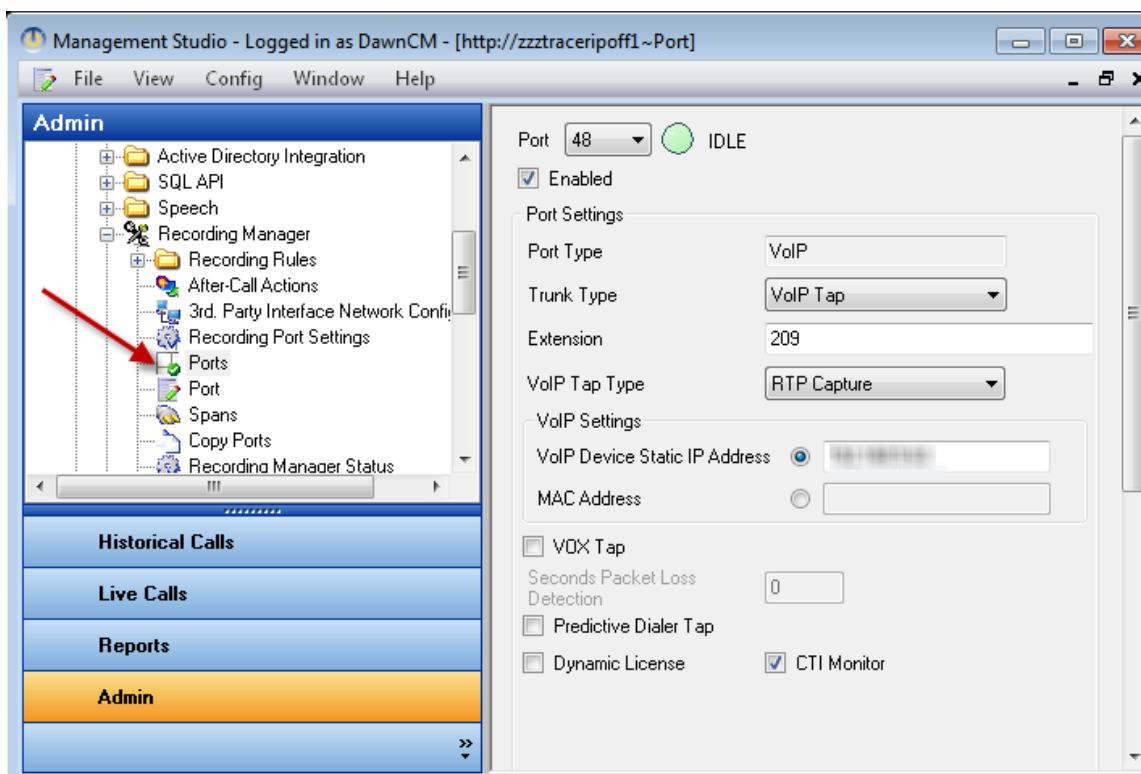
```
[01886 18:08:20.2]Cli Tx:
```

```
AE,LVL2OAI,RAWCMD,17,001,ES,,010,@10V,T202,,E,204,204,95551212,,T202,T202,
C,35
```

CONFIGURATION 3

STATION SIDE PROGRAMMING WITH AVAYA IP OFFICE

1. From OAISYS Management Studio Admin, navigate to Recording Manager → Ports
 - a. Select and Enter the Port and VoIP Settings for your configuration
 - b. Save changes

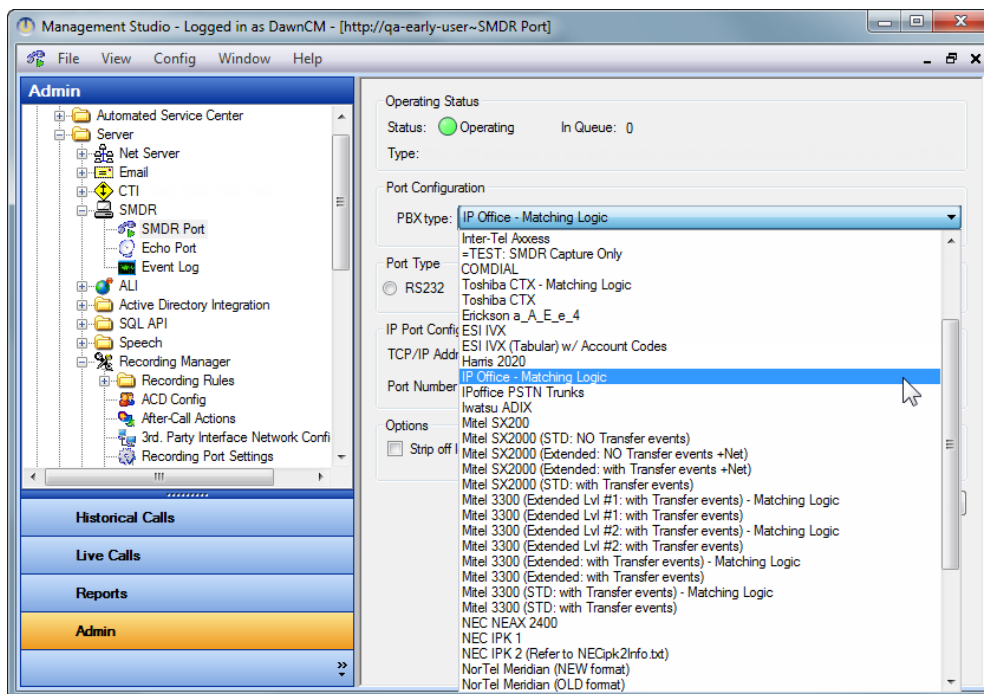


For additional information on RTP configuration, see the [OAISYS RTP Configuration Guide](http://www.oaisys.com/downloads/RTP_Configuration_Guide.pdf) also found at this address: http://www.oaisys.com/downloads/RTP_Configuration_Guide.pdf

CONFIGURATION 4

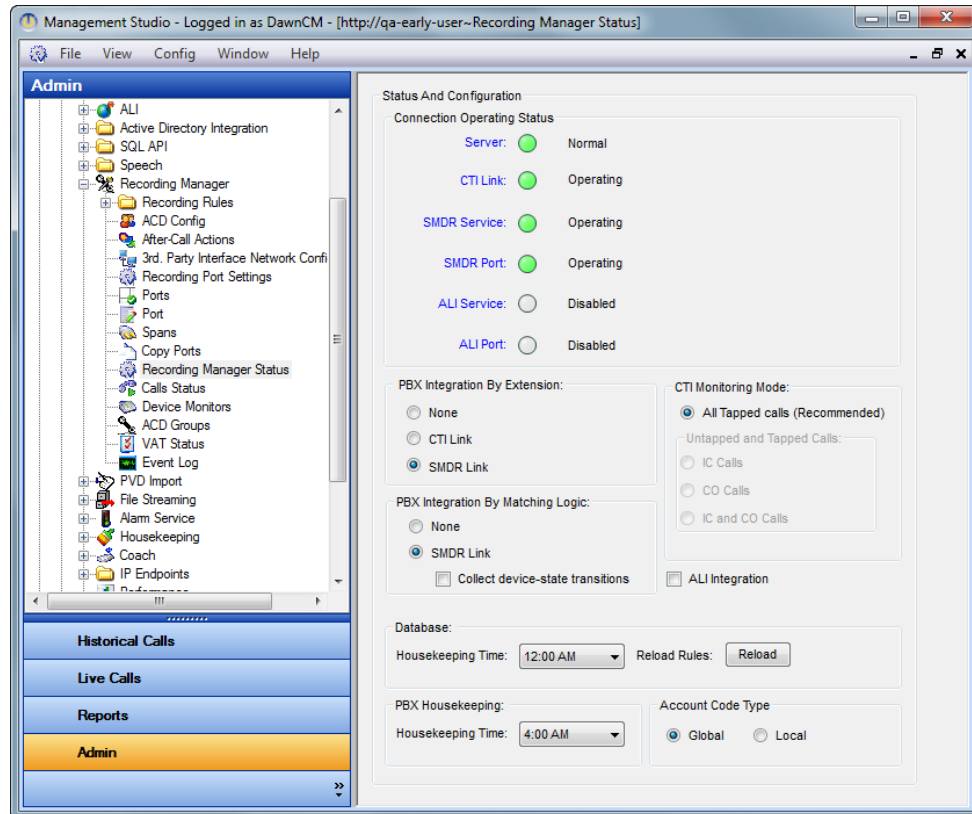
SMDR CONFIGURATION WITH AVAYA IP OFFICE

1. From OAISYS Management Studio Admin, navigate to SMDR → SMDR Port
 - a. Select the PBX type from the drop list
 - b. Save Changes





2. Navigate to Recording Manager → Recording Manager Status
 - a. Verify the SMDR link is selected (PBX Integration by Extension is for non-SIP integrations and PBX Integration by Matching Logic is for SIP trunk integrations)



NOTE: The *Collect Device-State Transitions* checkbox is an advanced feature ensuring there is only one SMDR event per call (the last known extension on the call). Mitel 3300 and CTX systems typically support Device State Transitions (multiple SMDR per call).

3. Matching Logic Configuration (for SIP Trunks):
 - a. Make a few test calls to ensure the extension is bound to the call recording. Once a call is complete, we see SMDR from the PBX and place it into an event queue. Approximately 5 minutes later, the system will run a database query to determine if any calls match the criteria based on the SMDR event to match the call.



If a match is found, another query is run to add the information to the call.

If a match is not found initially, you will see:

```
"[88204 07:34:49.7] [INFO]Fuzzy match failed for SMDR call data  
2527 in FuzzyMatchCallQueue 2; reason = No matches found" in  
the TRM events
```

The system will run another attempt after 30 minutes; this is additional time allotted for the call to complete and be entered into the database.

The query is run three (3) times: 5 minutes, 30 minutes, and 4 hours.

In some cases, the default hard-coded values in the timer settings need to be changed. As the timing with every system is unique, some settings can be refined to improve match quality.

Below are some example settings we have found are a good match:

These parameters are to set windows for the duration and start time of the call and helps adjust for any latency or for system times that may not be quite in sync.

```
HKLM\Software\Computer Telephony Solutions\Recording  
Manager
```

```
DWORD: Voice4NetDurationWindow(20)seconds
```

```
DWORD: Voice4NetStartTimeWindow(120)seconds
```

In the example above, it allows for matches within plus or minus 20 seconds of the known duration and plus or minus 120 seconds of the known start time. So if a call was recorded and the known duration of the recording is 5 minutes 25 seconds, then potentially a match could occur with an SMDR event that noted duration between 5 minutes 5 seconds and 5 minutes 45 seconds.

The same is true for the start time window. If the known recording start time was 2:00pm, then potentially a match could occur with an SMDR event that notes a start time between 1:58pm and 2:02pm.

These are the fuzzymatchqueue lookup timers (in seconds post call



completion):

In this example, the first match attempt would be 75 seconds after call completion. If no match, then a second attempt is run 15 seconds later.

If there still isn't a match, then a final attempt is run 69 seconds later. The initial queue (Queue0) should not be set to less than 60 seconds.

HKLM\Software\Computer Telephony Solutions\Recording
Manager\FuzzyMatching

DWORD: Queue0DurationSeconds (75)

DWORD: Queue1DurationSeconds (15)

DWORD: Queue2DurationSeconds (69)

AVAYA IP OFFICE

Standard Format – Position based

Field	Date Time	Duration	Originating Device	Dialed Digits	DNIS	Trunk	Name	Acct Code
Position/length	1/10	2/8	Below	9-1	19-1	Below	8/7	8/1
Req?	Y	Y	Y	N	N		N	N

Position 7 Ext # on In Call, Dialed # on Out Call

Position 12 – Extension field (Party1Device)

Position 15 – Trunk field (Party2Name)

For additional information, see also:

http://www.oaisys.com/downloads/OAISYS_SIP_Integration.pdf

and

http://www.oaisys.com/downloads/OAISYS_SMDR_Compatibility_Guide.pdf

Please contact Technical Support at 888-496-9040, Option 4 for Support.