



# **IP Office SMDR**

## **Installation & Reference Manual**

# Contents

<b>IP Office SMDR</b> .....	<b>3</b>
Introduction .....	3
System Requirements.....	3
Installation .....	4
Launching IP Office SMDR.....	5
Settings Tab .....	6
Comms .....	6
Log to File.....	7
Licences .....	7
Language .....	8
CSV File Format.....	8
IP Office SMDR Output Fields.....	9
Example Call Records.....	10

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# IP Office SMDR

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## Introduction

The IP Office Station Message Detail Recording (SMDR) application, captures detailed information about incoming and outgoing voice and data calls. The IP Office SMDR application receives this data via the LAN. The application creates a call log management file (SMDR.csv) which can be processed by a 3<sup>rd</sup> party call system.

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## System Requirements

The IP Office SMDR application can be installed on a PC to process data from the IP Office. The following operating systems are supported: Win 98 SE, Win 2000, Windows NT 4 and Windows XP.

It is recommended the IP Office SMDR and the Delta Server for CCC or CBC are not installed in the same PC as this may potentially cause database corruption.

**Note: You cannot setup more than one IP Office SMDR application to an IP Office system. For multi IP Office configurations one IP Office SMDR application per IP Office system will be required.**

The IP Office SMDR application is for call reporting on the IP Office system. The Delta Server application is an integral component of the IP Office Call Centre products, CCC and CBC. These products allow in depth reporting on Call Centre activity.

## Installation

The PC hosting the IP Office SMDR should be connected to the IP office via the Local Area Network.

To install the IP Office SMDR application please follow the steps below:

To install:

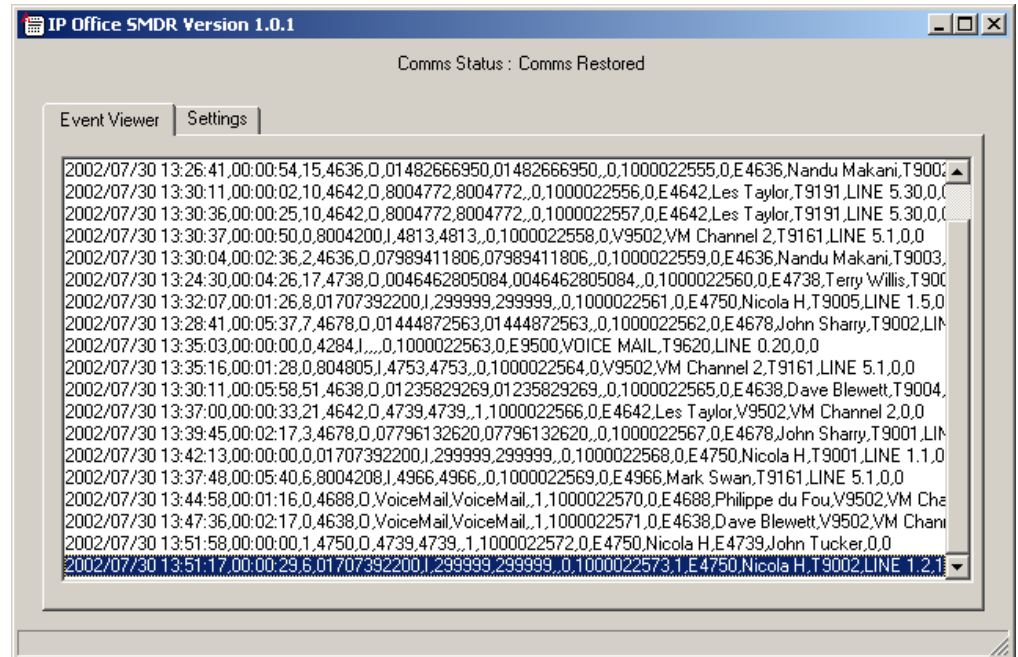
1. Insert the IP Office Administration CD into the CD Drive. If the CD auto-starts please press **Cancel**:
  - Select **My computer** or select **Windows Explorer**
  - Select the CD Drive the CD is in (usually D:)
  - Right click on the CD Drive and select **Browse**
  - Select & Enter the **SMDR** folder
  - Double click on **SETUP.exe**.
  - Click on the **OK** button to start the installation.
2. A screen will show letting you select the language that you want to use for the installation. Select the required language and then click on the **OK** button.
3. The InstallShield Wizard will start. At the Welcome screen click on the **Next** button to continue with the installation.
4. At the completed installation screen click on the **Finish** button to complete the installation.

The Application is now installed to the following path on the Start Menu. Start/Programs/IP Office/IP Office SMDR

## Launching IP Office SMDR

Ensure the IP Office SMDR has established connection with the telephone system. Every time the Server PC is switched on, the IP Office SMDR will automatically restart. However, you can start the IP Office SMDR, by performing the following sequence:

- Click the **Start** button on the Windows Taskbar.
- Point to **Programs**
- Point to **IP Office**
- Click on **IP Office SMDR**. The following screen appears:



The information on the screen is:

**Comms Status:** This indicates the status of the link between the IP Office SMDR, and the telephone system.

There are three statuses: Init Comms, Comms Restored, and Comms Failure.

- Init Comms – Indicates IP Office SMDR is initialising and has established communication with the telephone system (this happens every time you start the IP Office SMDR).
- Comms Restored – Indicates the connection between the IP Office SMDR and the telephone system is established.
- Comms Failure – Indicates communications link between the IP Office SMDR and the telephone system has been terminated.

## Settings Tab

The **Settings** tab enables you to configure the IP Office SMDR. The options available are as follows:

### Comms

This screen displays details of the telephone system to which the IP Office SMDR is connected. The details are:

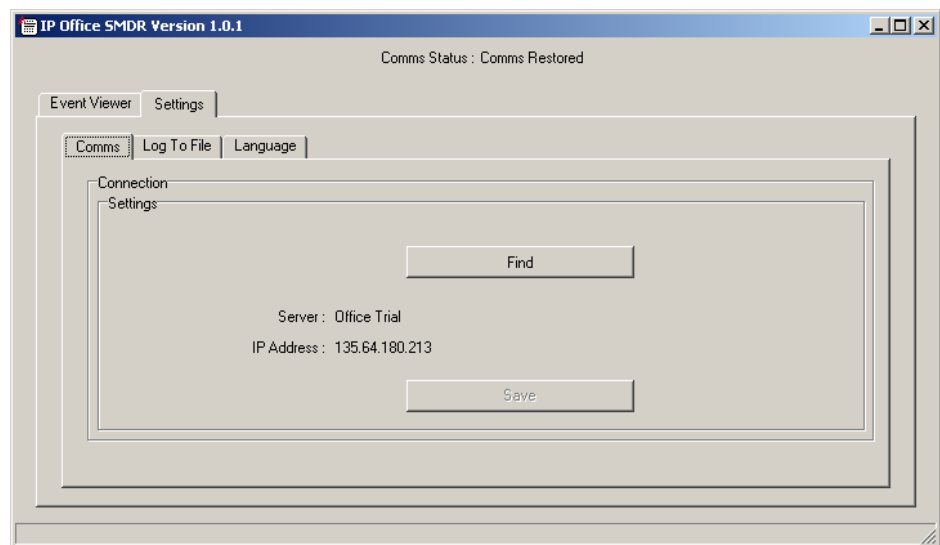
**Server:** The name of the IP Office control unit selected.

**IP Address:** The IP Address of the selected IP Office control unit.

If the Server and/or the name of the IP Address is changed, it is essential to reconnect to that IP Office SMDR.

1. Click *Find*, from the **Find Server** screen, select the required IP Office, then click *Connect*.
2. If the required IP Office is not listed, then click *Advanced*.
3. Select one of the options, then click *Search*.
4. From the available telephone systems, select the appropriate one, and then click *Connect*.
5. Once the IP Office SMDR is connected to the telephone system, click *Save*.

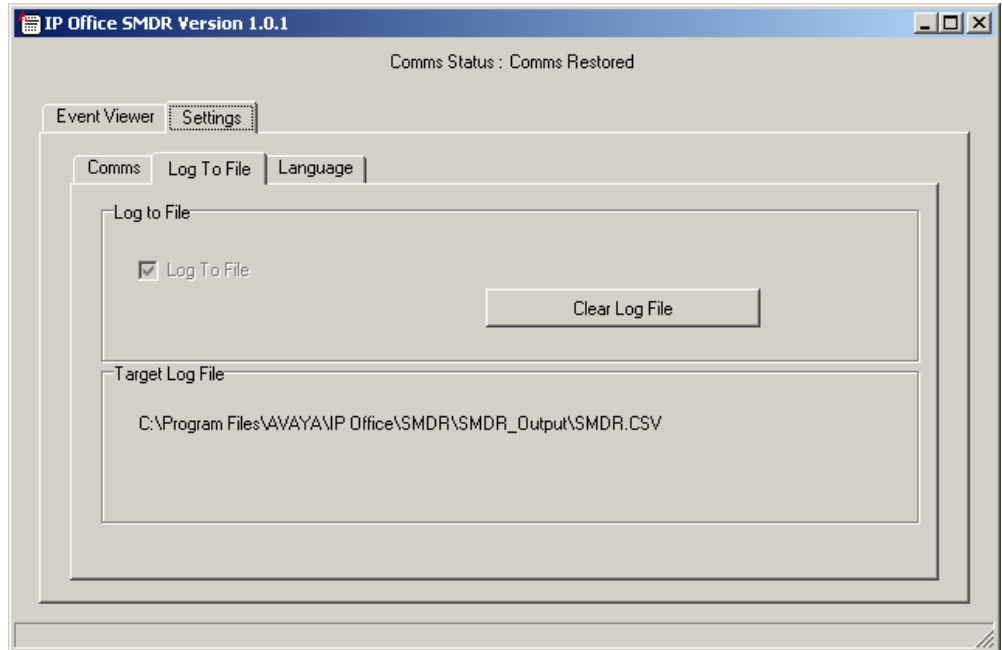
The IP Office SMDR can monitor any IP Office listed in the drop down box which appears in the **Find Server** screen. However the IP Office SMDR can only monitor one IP Office system.



## Log to File

The logging to file is automatically enforced and cannot be changed. Messages received by the IP Office SMDR application are saved to a file (SMDR.csv). The default path name is:

C:\Programs files\Avaya\IP Office\SMDR\SMDR\_Output\SMDR.csv



The SMDR log file for the present day is named SMDR.csv. At midnight the log file will automatically roll over. The name of the previous log file will be changed to represent the date of the log.

Present Day            SMDR.csv

Previous Day           SMDR(backupYYYY-MM-DD).csv

The SMDR.csv file can be accessed by 3<sup>rd</sup> Party applications whilst been used by the IP Office SMDR application. In order to do this the 3<sup>rd</sup> Party application must open the SMDR.csv file for **read only**, and should process as many records as are found. The application may either read the entire file periodically and determine what new records have been output since last accessed, or may periodically read from the current position until the end of the file.

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## Licences

No IP Office licences are required to use IP Office SMDR features.

## Language

You can change the language setting of the IP Office SMDR. The default language is English UK. Click on the required language button to change the language.



## CSV File Format

The product provides call information in a comma-separated format (CSV), into a file, with variable-width fields separated by commas.

The first line in the CSV file contains the field names represented.

Each record (ie. Line) in the file will represent a segment of the call. Each call will be identified by a single call-id, therefore multiple records can be output for each call.

The last record output for a single call will be marked as such, with the continuation field set to zero. This indicates no further records with that call-id will be output.



## IP Office SMDR Output Fields

The IP Office SMDR outputs the following information to the CSV files.

Field	Description
Call start	Date and time of the start of the call, format YYYY/MM/DD HH:MM:SS Note: For all transferred call segment this is the time of the call was initiated, so each segment of the call has the same call start time.
Call duration	Duration of this part of the call, in HH:MM:SS format. A lost or failed call will have a ring duration of 00:00:00.
Ring duration	Duration in seconds of the ring part of this call part. Format is SSSS. This represents the interval in seconds between the call arriving at the switch and it being answered, and is not related to the time an individual extension was ringing for. This number also contains any time the call was queuing. For outbound calls, this indicates the interval between the call being initiated and being answered at the remote end (where supported by the trunk type that the call is going over). Please note that Analog trunks are unable to detect remote answer, and therefore cannot provide a ring duration for outbound calls.
Caller	The callers' number. If the call was originated at an extension, this will be that extension number. If the call originated externally, this will be the CLI of the caller, if available (otherwise blank)
Direction	Direction of the call – I for Inbound, O for outbound. Internal calls are represented as O for outbound. A lost or failed call will have a call duration of 0. This field can be used in conjunction with Is_Internal below to determine if the call is internal, external outbound or external inbound.
Called_number	This is the number called. <ul style="list-style-type: none"> <li>Internal calls - this will be the extension or group called.</li> <li>Inbound calls - this will be the DDI dialled by the caller,</li> <li>Outbound calls - this will contain the dialled digits.</li> </ul> <p>This field can also contain 'Voice Mail' when an agent calls their own voicemail box. <b>Note: For a call that is transferred this field shows the original called number, not the number of the party who transferred the call.</b></p>
Dialled_number	For internal calls and outbound calls, this is identical to the called_number above. For inbound calls, this is the DDI dialled by the caller.
Account	The last account code attached to the call. <b>Note: IP Office account codes may contain alphanumeric characters.</b>
Is_Internal	0 or 1, denoting whether both parties on the call are internal or external. Traffic between IP Office systems and other switch's (including other IP Office sites) are represented as external calls.
Call ID	The call id. This is a eight digit number This is generated by the IP Office SMDR application upon termination of the call.
Continuation	1 if there is a further record for this call id, 0 otherwise
Party1Device	The device number – E1234 for an extension, T1234 for a trunk or V1234 for a voicemail channel for the first party on the call. <b>Note: If an extension is involved in the call it will have priority over a trunk, therefore the Party 1 device is not always the call maker.</b>
Party1Name	The name of the device – for an extension or agent, this is the user name. For a trunk, this is " Line XX.XX".
Party2Device	The device number – E1234 for an extension, T1234 for a trunk or V1234 for a voicemail channel for the first party on the call.
Party2Name	The name of the device – for an extension or agent, this is the user name. For a trunk, this is " Line XX.XX".
Hold_Time	The amount of time in seconds the call has been held during this call segment
Park_Time	The amount of time in seconds the call has been parked during this call segment.
	<b>Note: The total duration of a segment is calculated : Call Duration + Ring Duration + Hold Time + Park Time</b>

## Example Call Records

The following are examples of call records made with IP Office SMDR.

Please note that each record is output on a single line; these examples are split to fit on the page.

### Example 1 Lost incoming Call

2002/06/28 09:28:41,00:00:00,9,8004206,I,4324,4324,,0,  
1000014155,0,E4324,Joe Bloggs,T9161,LINE 5.1,0,0

### Example 2 Incoming transfer (To voice mail)

2002/06/28  
09:30:57,00:00:13,7,01707392200,I,299999,299999,,0,  
1000014160,1,E4750,John Smith,T9002,LINE 1.2,11,0

2002/06/28  
09:30:57,00:00:21,0,01707392200,I,299999,299999,,0,  
1000014160,0,V9502,VM Channel 2,T9002,LINE 1.2,0,0

### Example 3 Outgoing call

2002/06/28 08:55:02,00:08:51,9,4797,O,  
08000123456,08000 123456,,0,1000014129,0,E4797,  
Joe Bloggs,T9001,LINE 1.1,0,0

### Example 4 Voicemail call

2002/06/28 09:06:03,00:00:19,0,4966,O,VoiceMail,  
VoiceMail,,1,1000014131,0,E4966,John Smith,V9501,  
VM Channel 1,0,0

### Example 5 Internal call

2002/06/26 10:27:44,00:00:44,4,4688,O,4207,4207,,1,  
1000013898,0,E4688,Joe Bloggs,E4207,John Smith,0,0

### Example 6 Park call

2002/06/26 11:33:06,00:02:11,10,8004200,I,4688,4688,,0,  
1000013937,0,E4688,John Smith,T9162,LINE 5.2,0,94

### Example 7 Outgoing call with hold

2002/06/26 12:47:22,00:10:36,4,4636,O,07989123456,  
07989123456,,0,1000013978,0,E4636,Joe Bloggs,T9001,  
LINE 1.1,7,0

### Example 8 Incoming call with Account Code

2002/06/28 11:29:12,00:00:02,2,5002,I,1924,1924,  
Support Call,0,1000014169,0,E1924,Extn1924,T9620,  
LINE 8.20,0,0

**Example 9 Conference**

In this conference 1924 called 1918, 1918 held the call, rang 1919, 1918 made the conference call

```
2002/06/28 11:34:45,00:00:05,2,1924,O,1918,1918,,1,
1000014176,0,E1924,Extn1924,E1918,Extn1918,0,0
```

```
2002/06/28 11:34:39,00:00:07,1,1919,O,1924,1924,,1,
1000014177,0,E1919,Extn1919,E1924,Extn1924,0,0
```

**Example 10 Conference 2**

In this conference both calls were setup by the same party, this is the suggested method

**N.B. The calls must be dropped in conference order, i.e. the second call must be dropped first.**

```
2002/06/28 11:59:25,00:00:08,1,1924,O,1918,1918,,1,
1000014178,0,E1924,Extn1924,E1918,Extn1918,0,0
```

```
2002/06/28 11:59:18,00:00:11,1,1924,O,1919,1919,,1,
1000014179,0,E1924,Extn1924,E1919,Extn1919,0,0
```

The following table details the breakdown of the call record examples detailed above.

Field Description	Example 1	Example 2		Example 3	Example 4	Example 5
	Lost Incoming Call	Incoming transfer (To voicemail)		Outgoing Call	Voicemail call	Internal call
Call start	2002/06/28 09:28:41	2002/06/28 09:30:57	2002/06/28 09:30:57	2002/06/28 08:55:02	2002/06/28 09:06:03	2002/06/26 10:27:44
Call duration	00:00:00 The Call has been lost it has no call duration.	00:00:13	00:00:21	00:08:51	00:00:19	00:00:44
Ring duration	9	7	0	9	0	4
Caller	8004206	01707392200	01707392200	4797	4966	4688
Direction	I	I	I	O	O	O
Called_number	4324	299999	299999	08000123456	VoiceMail	4207
Dialled_number	4324	299999	299999	08000123456	VoiceMail	4207
Account						
Is_Internal	0 Incoming Call	0	0	0 Outgoing call	1	1 Internal Call
Call ID	1000014155	1000014160	1000014160	1000014129	1000014131	1000013898
Continuation	0	1	0	0	0	0
Party1Device	E4324 Extension	E4750	V9502	E4797	E4966	E4688 Extension made the call, see Caller field
Party1Name	Joe Bloggs	John Smith	VM Channel 2	Joe Bloggs	John Smith	Joe Bloggs
Party2Device	T9161 Trunk	T9002	T9002	T9001	V9501	E4207
Party2Name	LINE 5.1	LINE 1.2	LINE 1.2	LINE 1.1	VM Channel 1	John Smit
Hold_Time	0	11	0	0	0	0
Park_Time	0	0	0	0	0	0

Field Description	Example 6	Example 7	Example 8	Example 9		Example 10	
	Park call	Outgoing call with hold	Incoming call with Account Code	Conference		Conference 2	
Call start	2002/06/26 11:33:06	2002/06/26 12:47:22	2002/06/28 11:29:12	2002/06/28 11:34:45	2002/06/28 11:34:39	2002/06/28 11:59:25	2002/06/28 11:59:18
Call duration	00:02:11	00:10:36	00:00:02	00:00:05	00:00:07	00:00:08	00:00:11
Ring duration	10	4	2	2	1	1	1
Caller	8004200	4636	5002	1924	1919	1924	1924
Direction	I	O	I	O	O	O	O
Called_number	4688	07989123456	1924	1918	1924	1918	1919
Dialled_number	4688	07989123456	1924	1918	1924	1918	1919
Account			Support Call				
Is Internal	0	0	0	1	1	1	1
Call ID	1000013937	1000013978	1000014169	1000014176	1000014177	1000014178	1000014179
Continuation	0	0	0	0	0	0	0
Party1Device	E4688	E4636	E1924	E1924	E1919	E1924	E1924
Party1Name	John Smith	Joe Bloggs	Extn1924	Extn1924	Extn1919	Extn1924	Extn1924
Party2Device	T9162	T9001	T9620	E1918	E1924	E1918	E1919
Party2Name	LINE 5.2	LINE 1.1	LINE 8.20	Extn1918	Extn1924	Extn1918	Extn1919
Hold Time	0	7	0	0	0	0	0
Park Time	94	0	0	0	0	0	0

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