

## SpeechBill Call Accounting Solution

Web based call accounting solution which provides intelligent tracking of all voice communications. SpeechBill can generate detailed reports on telecom usage automatically or on demand and helps organization to calculate and disperse the cost to individuals, departments, cost-Centre's and customers. SpeechBill helps you to measure the performance of your telephone infrastructure and services using present and historical data.

### General Prerequisites

#### **Recommended Hardware Specification:**

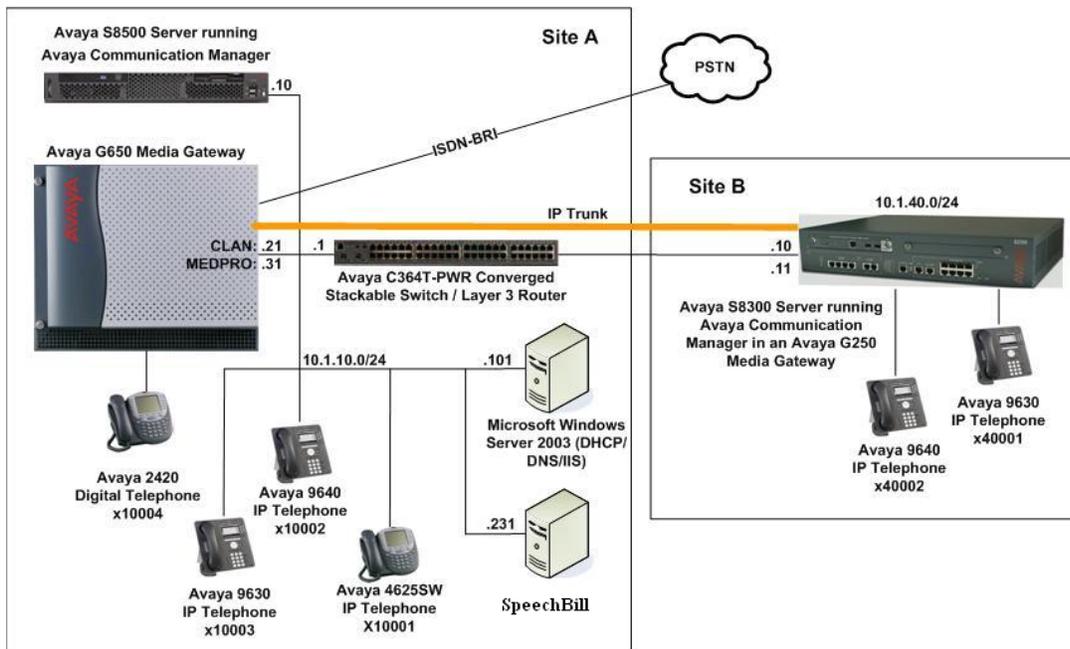
- Server/ PC specification and its availability.
  - Ensure it's having minimum Dual core processor/4 GB RAM/ 150 GB HDD
  - Windows OS 32 or 64 bit- Win 7 Pro, Win 8.1 Pro, Server 2008, Server 2012.
- Enable IIS on the server.
- Assign one Static IP to PC / Server.
- Provide the technical contact from your side to liaise with.
- Refer the below document for the configuration in Avaya System.

#### **Following information to be collected from the Customer for the configuration of SpeechBill**

- Extension Numbers.
- Name of User / Employee ,
- Company, Division,Department, Section to which each extension belongs to.
- Details of any specific Tariff plans available for them
- Trunk IDs as configured in Avaya system, and mention if the service providers are different (Du , Etisalat ) for each trunk .

## Avaya Communication Manager

This section provides the procedures for configuring CDR in Avaya Communication Manager. All configuration changes in Avaya Communication Manager are performed through the System Access Terminal (SAT). These steps describe the procedure used for the Avaya S8500 Server. All steps are the same for the other Avaya S8XXX servers unless otherwise noted. An Avaya Communication Manager is configured to generate and send the CDR records to the IP address of the SpeechBill server over a TCP socket connection. For this configuration, the CDR link is configured to originate from the Avaya S8500 Server (i.e., with node-name – “procr”) and terminates at the SpeechBill server.



Step	Description
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1.	Use the <b>change node-names ip</b> command to add a new node name for SpeechBill
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change node-names ip Page 1 of 1
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IP NODE NAMES	
Name	IP Address
default	0.0.0.0
procr	10.1.10.10
<b>SpeechBill</b>	<b>10.1.10.231</b>

2.	<p>Use the <b>change ip-services</b> command to define the CDR link. To define a primary CDR link, the following information should be provided:</p> <ul style="list-style-type: none"> <li>• <b>Service Type: CDR1</b> [If needed, a secondary link can be defined by settingService Type to CDR2.]</li> <li>• <b>Local Node: procr</b></li> <li>• <b>Local Port: 0</b> [The Local Port is fixed to 0 because Avaya CommunicationManager initiates the CDR link.]</li> <li>• <b>Remote Node: SpeechBill</b>[The Remote Node is set to the node name previouslydefined in <b>Step 1.</b>]</li> <li>• <b>Remote Port: 5025</b> [The Remote Port may be set to a value between 5000 and64500 inclusive, and must match the port configured inSpeechBill settings]</li> </ul>
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change ip-services Page 1 of 4
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IP SERVICES					
Service Type	Enabled	Local Node	Local Port	Remote Node	Remote Port
<b>CDR1</b>		<b>procr</b>	<b>0</b>	<b>SpeechBill</b>	<b>5025</b>

On Page 3 of the IP SERVICES form, disable the Reliable Session Protocol (RSP) for the CDR link by setting the **Reliable Protocol** field to **n**.

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change ip-services Page 3 of 4
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SESSION LAYER TIMERS					
Service Type	Reliable Protocol	Packet Resp Timer	Session Connect Message Cntr	SPDU Cntr	Connectivity Timer
CDR1	<b>n</b>	30	3	3	60

Step	Description
3.	<p>Enter the <b>change system-parameters cdr</b> command to set the parameters for the type of calls to track and the format of the CDR data. The following settings are used during the compliance test.</p> <ul style="list-style-type: none"> <li>• <b>CDR Date Format: month/day</b></li> <li>• <b>Primary Output Format: customized</b></li> <li>• <b>Primary Output Endpoint: CDR1</b></li> </ul> <p>The remaining parameters define the type of calls that will be recorded and what data will be included in the record. See Reference [2] for a full explanation of each field. The test configuration used some of the more common fields described below.</p> <ul style="list-style-type: none"> <li>• <b>Use Legacy CDR Formats? n</b>[Specify the use of the new Avaya CommunicationManager 4.0.1 and later formats in the CDR records produced by the system.]</li> <li>• <b>Intra-switch CDR: y</b> [Allows call records for internal calls involving specific stations. Those stations must be specified in the INTRA-SWITCH-CDR form in <b>Step 4.</b>]</li> <li>• <b>Record Outgoing Calls Only? n</b>[Allows incoming trunk calls to appear in the CDR records along with the outgoing trunk calls.]</li> <li>• <b>OutgTrk Call Splitting? y</b>[Allows a separate call record for any portion of an outgoing call that is transferred or conferenced.]</li> <li>• <b>IncTrk Call Splitting? y</b>[Allows a separate call record for any portion of an incoming call that is transferred or conferenced.]</li> </ul>

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change system-parameters cdr                               Page      1 of 2
                                     CDR SYSTEM PARAMETERS
Node Number (Local PBX ID): 1                               CDR Date Format: month/day
Primary Output Format: customized                           Primary Output Endpoint: CDR1
Secondary Output Format:
Use ISDN Layouts? n                                       Enable CDR Storage on Disk? n
Use Enhanced Formats? n Condition Code 'T' For Redirected Calls? n
Use Legacy CDR Formats? n                                 Remove # From Called Number? n
Modified Circuit ID Display? y                             Intra-switch CDR? y
Record Outgoing Calls Only? n                             OutgTrk Call Splitting? y
Suppress CDR for Ineffective Call Attempts? y            OutgAttd Call Record? y
Disconnect Information in Place of FRL? n                Interworking Feat-flag? n
Force Entry of Acct Code for Calls Marked on Toll Analysis Form? n
Calls to Hunt Group - Record: group-ext
Record Called Vector Directory Number Instead of Group or Member? n
Record Agent ID on Incoming? n Record Agent ID on Outgoing? y
IncTrk Call Splitting? y                                  IncAttd Call Record? n
Record Non-Call-Assoc TSC? n                             Call Record Handling Option: warning

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Record Call-Assoc TSC? n Digits to Record for Outgoing Calls: dialed  
 Privacy - Digits to Hide: 0 CDR Account Code Length: 5

Step	Description
	<p>On Page 2 of the CDR SYSTEM PARAMETERS form, define the customized CDR format as shown.</p> <pre>change system-parameters cdr</pre> <p style="text-align: right;">Page 2 of 2</p> <pre> CDR SYSTEM PARAMETERS   Data Item - Length      Data Item - Length      Data Item - Length 1:  date - 6              17: in-trk-code - 4     33: vdn - 5 2:  space - 1             18: space - 1          34: return - 1 3:  time - 4              19: auth-code - 7     35: line-feed - 1 4:  space - 1             20: space - 1          36: 5:  sec-dur - 5           21: in-crt-id - 3     37: 6:  space - 1             22: space - 1          38: 7:  cond-code - 1        23: out-crt-id - 3    39: 8:  space - 1             24: space - 1          40: 9:  code-dial - 4        25: isdn-cc - 11      41: 10: space - 1            26: space - 1          42: 11: code-used - 4        27: ppm - 5           43: 12: space - 1            28: space - 1          44: 13: dialed-num - 18      29: acct-code - 15    45: 14: space - 1            30: space - 1          46: 15: calling-num - 15     31: attd-console - 2  47: 16: space - 1            32: space - 1          48:  Record length = 130 </pre>
4.	<p>If the <b>Intra-switch CDR</b> field is set to <b>y</b> on Page 1 of the CDR SYSTEM PARAMETERS form, then use the <b>change intra-switch-cdr</b> command to define the extensions for which intra-switch call detail records will be generated. In the <b>Extension</b> field, enter the specific extensions whose usage will be tracked with the CDR records.</p> <pre>change intra-switch-cdr</pre> <p style="text-align: right;">Page 1 of 3</p> <pre> INTRA-SWITCH CDR Assigned Members: 4 of 5000 administered Extension      Extension      Extension      Extension 10001 10002 10003 10004 </pre>

5. For each trunk group for which CDR records are desired, verify that CDR reporting is enabled. Use the **change trunk-group***n* command, where *n* is the trunk group number, to verify that the **CDR Reports** field is set to **y**. This applies to all types of trunk groups.

```
change trunk-group 2                                     Page 1 of 21
                                     TRUNK GROUP
Group Number: 2                                         Group Type: isdn      CDR Reports: y
Group Name: Singtel BRI Line 2                          COR: 95              TN: 1              TAC: 702
Direction: two-way                                     Outgoing Display? n   Carrier Medium: PRI/BRI
Dial Access? y                                         Busy Threshold: 255   Night Service: 10004
Queue Length: 0
Service Type: public-ntwrk                             Auth Code? n         TestCall ITC: rest
                                     Far End Test Line No:
TestCall BCC: 4
```