



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

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# **Application Notes for Voran Tephra Workforce with Avaya Call Management System Using Historical Adapters – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for Voran Tephra Workforce to interoperate with Avaya Call Management System using historical adapters developed by Avaya Professional Services. Tephra Workforce is a work force management solution that provides forecasting, scheduling, and monitoring of work for contact center agents.

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.

# 1. Introduction

Tephra Workforce is a work force management solution that provides forecasting, scheduling, and monitoring of work for contact center agents. These application notes focus on integrating Tephra Workforce with Avaya Call Management System using historical adapters developed by Avaya Professional Services.

The historical adapters are installed on Avaya Call Management System. They generate custom formatted ASCII-text historical reports which are distributed to the Tephra Workforce server using FTP protocol. The Tephra Workforce server has a FTP server component and a connector to Avaya Call Management System called Voran Avaya Historical Package. The connector imports data from received historical reports and populates the data into Tephra Workforce's database. Contact center users such as supervisors and/or agents can access Tephra Workforce to review any collected data and/or produced forecasts and schedules.

Five customized historical reports from Avaya Call Management System were used for the Voran/Avaya integration. The five reports contain data from four intra-hour interval database tables as well as the Synonyms table in Avaya Call Management System. The five reports are as follows:

- Agent Login and Logout report
- Agent report
- Skill report
- VDN report
- Synonyms report

# 2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing.

The feature test cases were performed manually. The historical adapters were configured to generate Voran custom reports at the end of each 30 minutes intra-hour interval. The Voran Avaya Historical Package connector was also configured to import data every 30 minutes (with a slight delay from the report generation time). After a measured interval in which call center scenarios were exercised, Tephra Workforce reports were brought up to check proper display and correctness of each field against the data in the Call Management System custom reports.

The serviceability test cases were performed manually by forcing solution components to go out of service and verify Voran server's ability to recover.

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.

## 2.1. Interoperability Compliance Testing

The feature testing focused on verifying Tephra Workforce correctly parsing and displaying of VDN, Split/Skill, and Agent data from Call Management System. A number of call center scenarios including agent login, agent mode change, agent logout, incoming call to VDN, abandon call, call waiting in queue, call waiting at agent, hold/resume, transfer, conference, direct agent call, extension call from agent, incoming call to agent extension, supervisor assist, and redirect on no answer were exercised and a number of vector commands such as queue-to, busy, disconnect, route-to, and stop were executed to generate data for specific fields in the historical reports.

The serviceability testing focused on verifying the ability of the Voran server to recover from adverse conditions, such as stopping the Voran Avaya Historical Package connector on the Tephra Workforce server and disconnecting the Tephra Workforce server from the network.

## 2.2. Test Results

All test cases were executed successfully. Two observations were made as follows.

The Voran Agent Login Logout Report showed logout time for an agent who was still logged in. The logout time was set to the end of the interval for which the last import was done. The corresponding Call Management System report showed blank for the logout time.

The Voran Agent Report did not show the value of the extension field although the value existed in the corresponding Call Management System report.

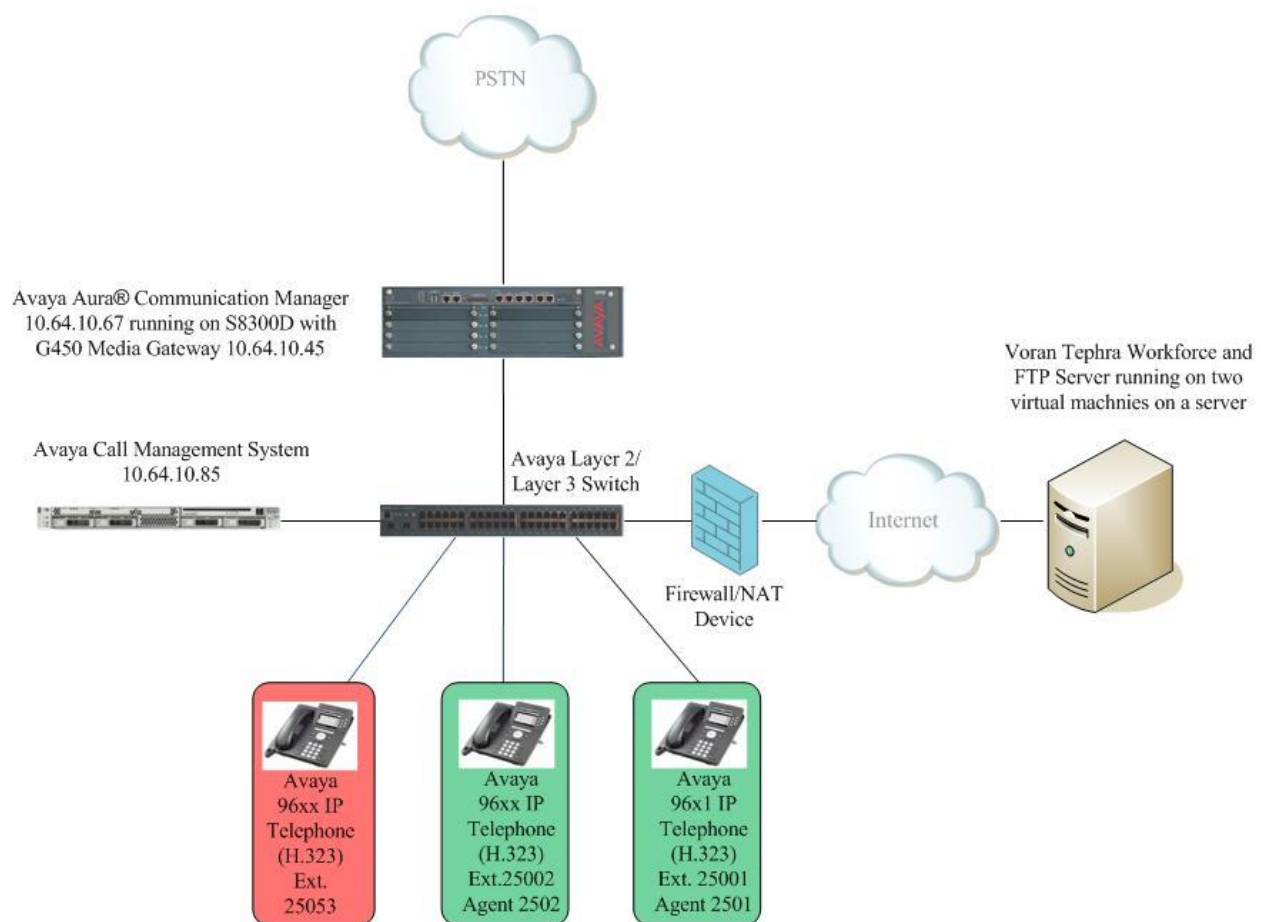
## 2.3. Support

Technical support for Tephra can be obtained through the following:

- **Phone:** +55 11 5506-3202
- **Web:** [www.tephra.com.br](http://www.tephra.com.br)

### 3. Reference Configuration

The compliance test was done with Avaya equipment in an Avaya Lab and Voran equipment in a Voran Lab. The Avaya Lab had Communication Manager, Call Management System, and several SIP and H.323 endpoints. A Tephra Workforce server was located remotely in a Voran Lab which connected to Avaya equipment through the Internet. The GUI interface of Tephra Workforce was accessible through a web-browser-initiated Remote Desktop Web Connection interface (only Internet Explorer browser is supported). All calls to and from the public network were routed through T1 PRI trunks.



**Figure 1: Voran Tephra Workforce with Avaya Call Management System**

## 4. Equipment and Software Validated

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

Equipment	Version
Avaya Aura® Communication Manager On Avaya S8300D Server	Release 6.2 SP3 (02.0.823.0-20001)
Avaya Call Management System on Sun T5120 Server	R16.3
Avaya G450 Media Gateway MGP MM710 T1 Module	HW 1 FW 31.20.0 HW 04 FW 015
Avaya 96xx H.323 IP Telephones	Avaya one-X® Deskphone Release 3.1.2/3.1.5
Avaya 96x1 H.323 IP Telephones	Avaya one-X® Deskphone Release 6.0.20/6.2.2
Voran Tephra Workforce running under Windows Server 2008 R2 SP1 with a FTP server running under Linux	1.1.3
Voran Avaya Historical Package connector	1.0.8

## 5. Configure Avaya Aura® Communication Manager

The detailed administration of contact center resources and connectivity between Communication Manager and Call Management System are not the focus of these Application Notes and will not be described. For administration of contact center resources and connectivity to Call Management System, refer to the appropriate documentation listed in **Section 10**.

In order for the data of a skill or a VDN to be collected and forwarded to Call Management System, the “measured” field on the corresponding skill and VDN forms must be set to “external” or “both”. For administration of the “measured” field for a skill and a VDN, refer to the appropriate documentation listed in **Section 10**.

For the compliance testing, the following contact center resources were used.

<b>VDN</b>	25900, 25901, 25902, 25903, 25909
<b>Split/Skill</b>	1, 5
<b>Agent</b>	2501, 2502

## 6. Configure Avaya Call Management System Adapters

The connectivity between Call Management System and Communication Manager is assumed to be in place and will not be described. It is also assumed that the intra-hour interval in Call Management System is set to 30 minutes. This section provides the procedures for configuring the historical adapters.

### 6.1. Configure Historical Adapters

The historical adapters are configured through a configuration file named **voran.conf**. The configuration file locates in the directory where the adapter software is installed. In the compliance test configuration, the path to the directory was **/export/home/pserv/voran**. The following screenshot shows how the adapters were configured in the test configuration.

ACD[1]=3	# ACD number
OFFSET[1]=0	# Offset hours from ACD
INTERVAL[1]=30	# Interval 15, 30, 60
SEND[1]=ftp	# ftp, sftp or ldc
DIR[1]=	# Destination directory
APPN[1]=put	# put or append (only put for sftp)
DEST[1]=ftpsrvr	# FTP/SFTP server name or IP address
USER[1]=	# FTP/SFTP username
PASS[1]=	# FTP password (not used for sftp)

The FTP server name **ftpsrvr** has been defined in the **/etc/hosts** file.

## 7. Configure Voran Tephra Workforce

Voran Avaya Historical Package is a connector that resides on the Tephra Workforce server. It is deployed as a service running on Windows 2008 Server and is responsible for collecting data from received historical reports and importing to Tephra Workforce's database.

### 7.1. Configure Voran Avaya Historical Package

The Voran Avaya Historical Package connector is configured using an xml based configuration file named **AvayaHistoricalInterfacePackage.exe.config**. The configuration file used in the compliance test is shown below:

```
<applicationSettings>
  <AvayaHistoricalInterfacePackage.My.MySettings>
    <setting name="coddac" serializeAs="String">
      <value>8</value>
    </setting>
    <setting name="codsite" serializeAs="String">
      <value>38</value>
    </setting>
    <setting name="interval" serializeAs="String">
      <value>30</value>
    </setting>
    <setting name="SftpHost" serializeAs="String">
      <value>192.168.252.13</value>
    </setting>
    <setting name="SftpPort" serializeAs="String">
      <value>21</value>
    </setting>
    <setting name="SftpUsername" serializeAs="String">
      <value>avaya</value>
    </setting>
    <setting name="LocalFolder" serializeAs="String">
      <value>c:\ avaya\files\</value>
    </setting>
    <setting name="RemoteFolder" serializeAs="String">
      <value>/</value>
    </setting>
    <setting name="DebugLevel" serializeAs="String">
      <value>3</value>
    </setting>
    <setting name="DateFormat" serializeAs="String">
      <value>MM.dd.yyyy.HH:mm</value>
    </setting>
    <setting name="dac" serializeAs="String">
      <value>0</value>
    </setting>
    <setting name="delayinterval" serializeAs="String">
      <value>5</value>
    </setting>
    <setting name="SftpPass" serializeAs="String">
      <value>avaya@sftp</value>
    </setting>
    <setting name="CMSTimeDiference" serializeAs="String">
      <value>-360</value>
    </setting>
  </AvayaHistoricalInterfacePackage.My.MySettings>
</applicationSettings>
</configuration>
```

The fields that are relevant to the compliance test are described in the following:

- **interval**: historical reports import interval in minutes. The allowed values are 15, 30, and 60. The value has to be the same as the **INTERVAL** value configured in **Section 6.1**.

- **SftpHost:** IP address or hostname of the FTP server. Please note that although the name is **SftpHost**, FTP server was actually used during the test.
- **SftpPort:** port number used by the FTP server
- **SftpUsername:** FTP user name
- **LocalFolder:** The folder in the Tephra Workforce server used to store imported historical reports.
- **dac:** ACD number
- **delayinterval:** The delay between historical adapter file transfer time and the Voran connector import time. The delay is used to ensure that when the connector imports historical reports, the reports are available. The value was set to 5 (minutes) for the compliance test.
- **SftpPass:** The password that goes with the FTP user name.
- **CMSTimeDifference:** Time difference between the Call Management System and the Tephra Workforce server.

Every time after the configuration file is changed, restart the **Voran Avaya Historical Package** service to effect the change.

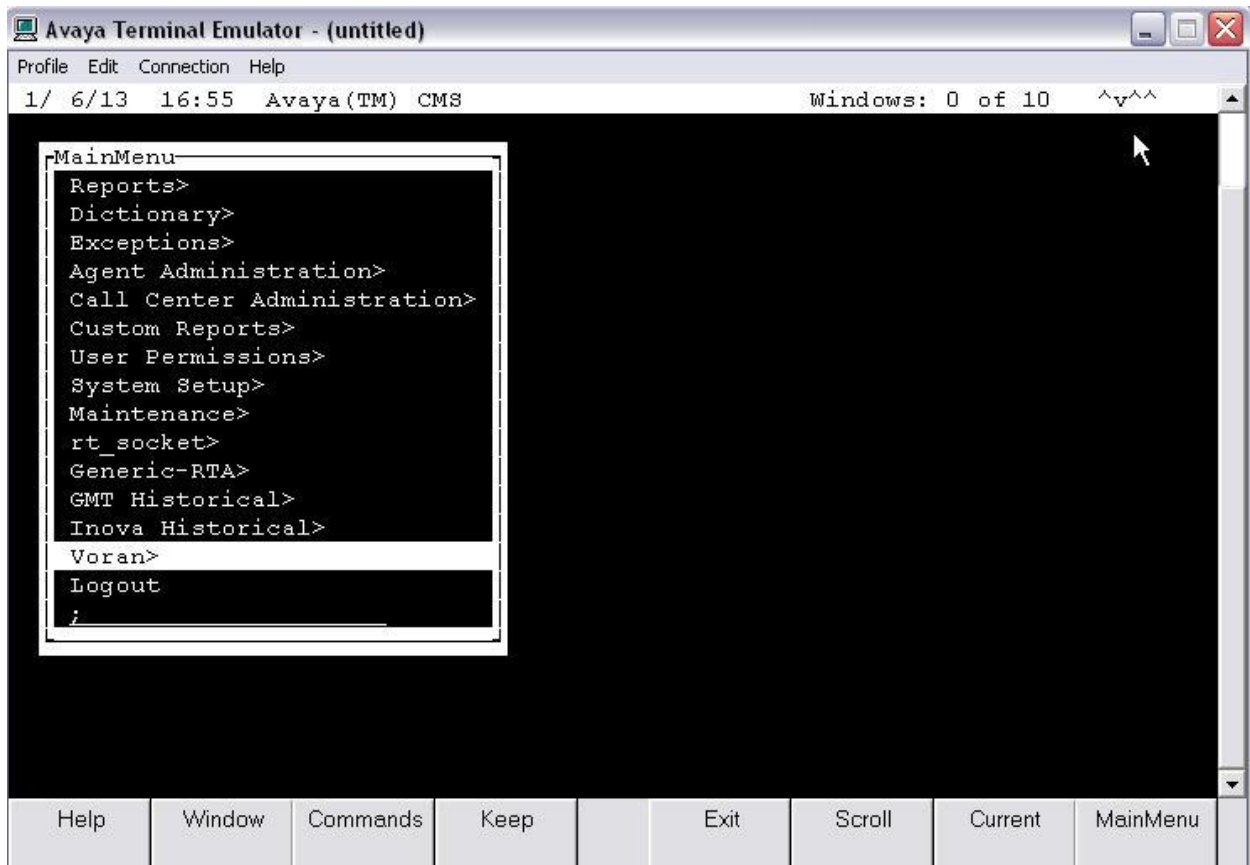


## 8. Verification Steps

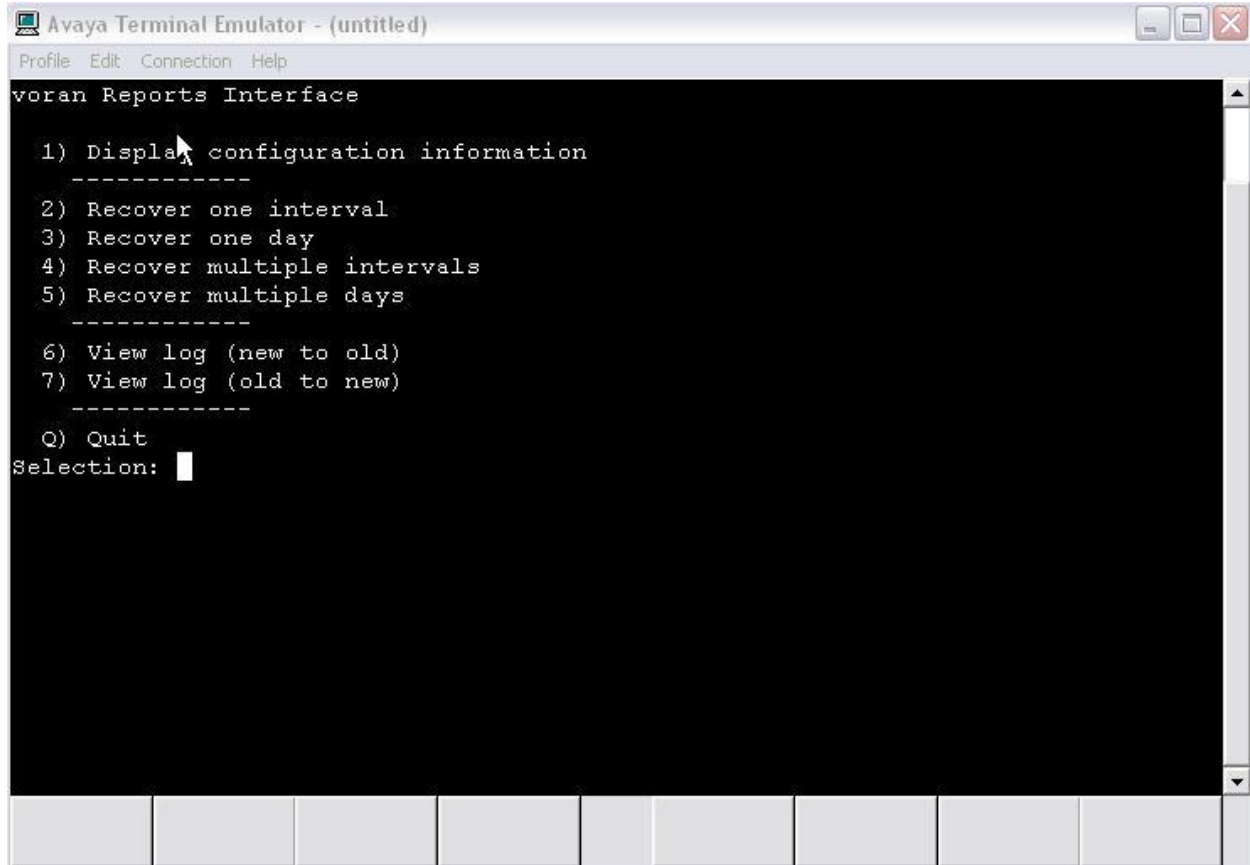
This section provides the tests that can be performed to verify proper configuration of Call Management System and the Voran connector. It is assumed that the connection between Communication Manager and Call Management System is active.

### 8.1. Verify Avaya Call Management System

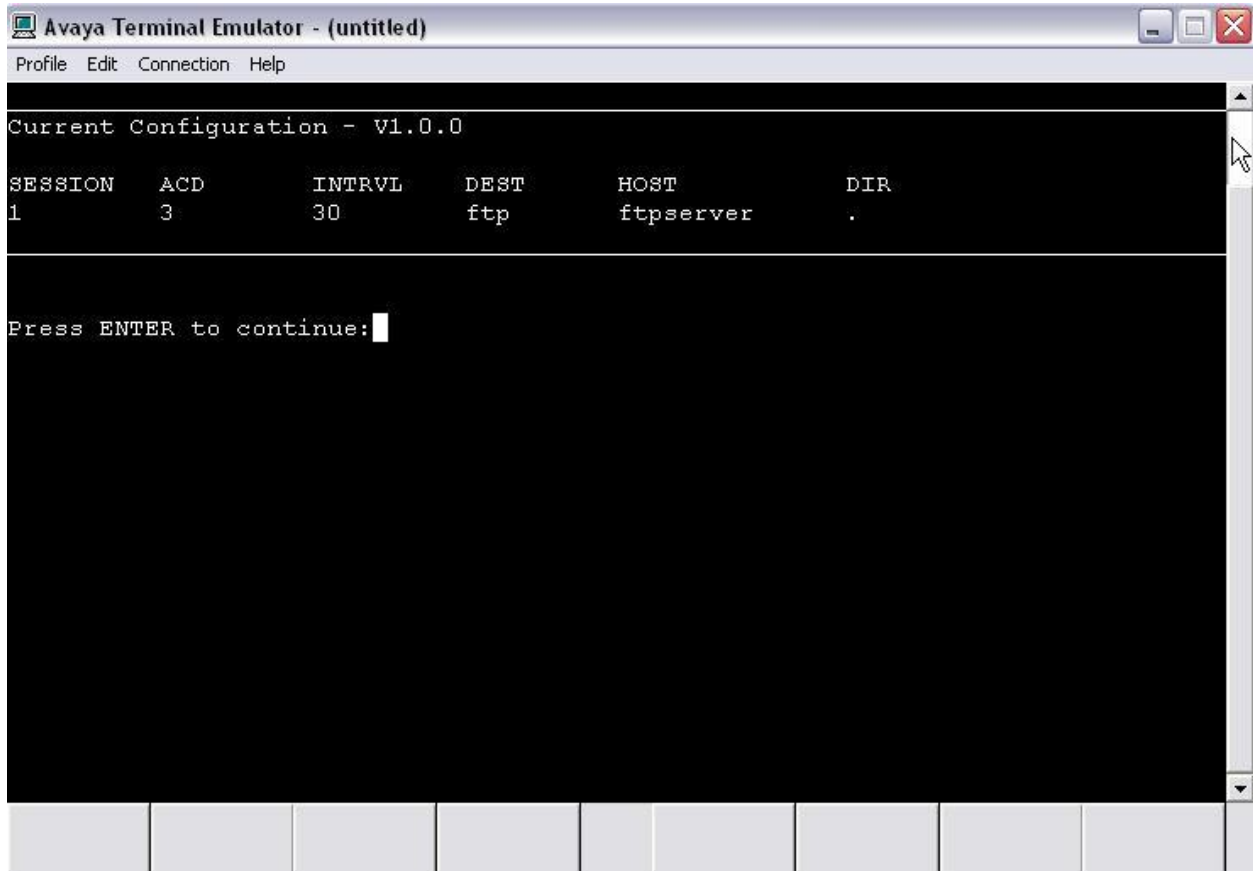
From a PC that has Avaya CMS Terminal Emulator installed, select **Start → Programs → Avaya → Terminal Emulator R16 → Terminal Emulator R16** to launch the terminal emulator. Connect to the Call Management System server, and log in with proper credentials. Enter “**cms**” at the command prompt to display the **MainMenu** screen.



Select the **Voran** option and press **Enter**. The Voran Reports Interface sub-menu is displayed.



Enter **1** followed by the **Enter** key, to display the configuration of the Voran Historical Adapters. Verify that the configuration matches what was configured in **Section 6**.



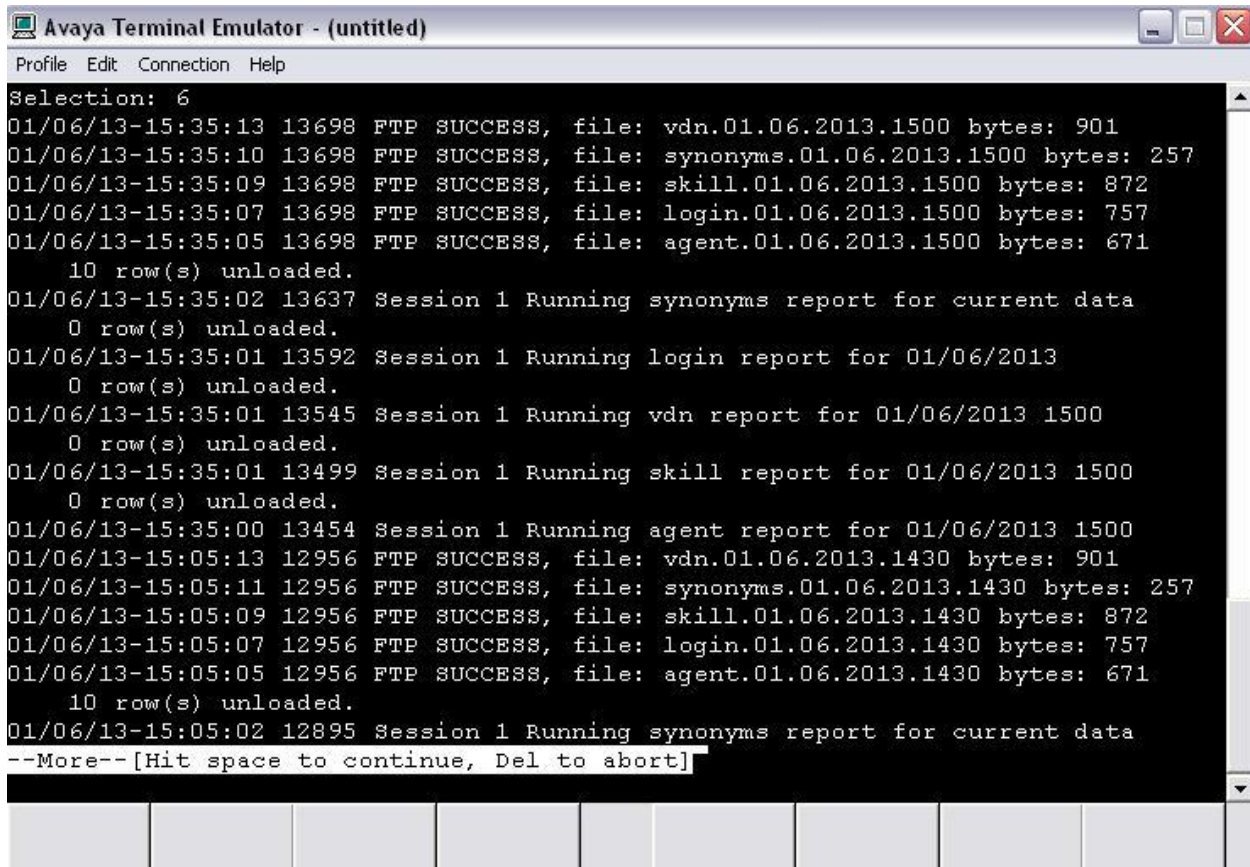
```
Avaya Terminal Emulator - (untitled)
Profile Edit Connection Help

Current Configuration - V1.0.0

SESSION   ACD      INTRVL   DEST    HOST      DIR
1          3        30       ftp     ftpserver .

Press ENTER to continue:
```

Press **Enter** to return to the Voran Reports Interface Sub-menu. Enter **6** followed by the **Enter** key, to display the log. Verify that the Voran Historical Adapters have successfully created and transferred five historical reports every 30 minutes.



```
Avaya Terminal Emulator - (untitled)
Profile Edit Connection Help

Selection: 6
01/06/13-15:35:13 13698 FTP SUCCESS, file: vdn.01.06.2013.1500 bytes: 901
01/06/13-15:35:10 13698 FTP SUCCESS, file: synonyms.01.06.2013.1500 bytes: 257
01/06/13-15:35:09 13698 FTP SUCCESS, file: skill.01.06.2013.1500 bytes: 872
01/06/13-15:35:07 13698 FTP SUCCESS, file: login.01.06.2013.1500 bytes: 757
01/06/13-15:35:05 13698 FTP SUCCESS, file: agent.01.06.2013.1500 bytes: 671
    10 row(s) unloaded.
01/06/13-15:35:02 13637 Session 1 Running synonyms report for current data
    0 row(s) unloaded.
01/06/13-15:35:01 13592 Session 1 Running login report for 01/06/2013
    0 row(s) unloaded.
01/06/13-15:35:01 13545 Session 1 Running vdn report for 01/06/2013 1500
    0 row(s) unloaded.
01/06/13-15:35:01 13499 Session 1 Running skill report for 01/06/2013 1500
    0 row(s) unloaded.
01/06/13-15:35:00 13454 Session 1 Running agent report for 01/06/2013 1500
01/06/13-15:05:13 12956 FTP SUCCESS, file: vdn.01.06.2013.1430 bytes: 901
01/06/13-15:05:11 12956 FTP SUCCESS, file: synonyms.01.06.2013.1430 bytes: 257
01/06/13-15:05:09 12956 FTP SUCCESS, file: skill.01.06.2013.1430 bytes: 872
01/06/13-15:05:07 12956 FTP SUCCESS, file: login.01.06.2013.1430 bytes: 757
01/06/13-15:05:05 12956 FTP SUCCESS, file: agent.01.06.2013.1430 bytes: 671
    10 row(s) unloaded.
01/06/13-15:05:02 12895 Session 1 Running synonyms report for current data
--More--[Hit space to continue, Del to abort]
```

## 8.2. Verify Voran Tephra Workforce

### 8.2.1. Launch Voran Tephra Workforce

To launch Tephra Workforce, select **Start → All Programs → Tephra → TephraWorkForce**. The following window is displayed.

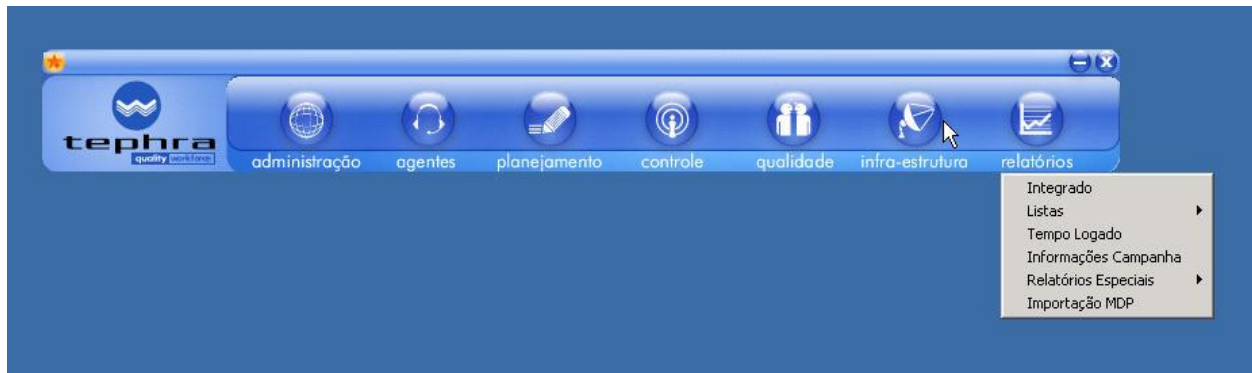


Enter proper credentials to log in. The following window is displayed.



## 8.2.2. Verify Tephra Workforce Reports

Click **relatórios** (reports) → **Integrado** (integrated).



The **Relatório Integrado** (integrated Report) screen is displayed.

**Relatório Integrado**

**Filtros**

Todos | Meus | Consulta Rápida | Especial

Filtro	Visibilidade	Proprietário
▶ AVAYATEST	Todos	Tephra TWM

**Período**

2013

January, 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Today: 1/10/2013 0/366

☐ Trazer Agentes inativos

**Relatórios**

Justificativas Automáticas	Relatorio Formato Especial	Avaliação	Aeropostos	Recrutamento - processos	Meus
Todos	Recrutamento	Monitoria	Avançado	Acessos	Personalizado
Relatório	Tipo Relatório	Visibilidade	Proprietário	Linha do Tempo	Treinamento
▶ 001 - AVAYA LOGIN LOGOUT	Login Logout	Todos	Tephra TWM	Referência Cruzada	Ranking
002 - AVAYA AGENT SKILL	Agentes Skill	Todos	Tephra TWM		
003 - AVAYA SKILL	Grupos de Atendim	Todos	Tephra TWM		
004 AVAYA VDN	VDNs	Todos	Tephra TWM		
01 - TEPHRA - ABS_ADERENCIA	Dados de Produção	Todos	Tephra TWM		
02 - TEPHRA - LOGIN LOGOUT	Login Logout	Todos	Tephra TWM		
03 - TEPHRA - PRODUTIVIDADE	Dados de Produção	Todos	Tephra TWM		
05 - TEPHRA - PAUSAS NR	Dados de Produção	Todos	Tephra TWM		
06 - TEPHRA - INDISPONIBILID	Dados de Produção	Todos	Tephra TWM		
07 - TEPHRA - AGENTES SKILL	Agentes Skill	Todos	Tephra TWM		
08 - TEPHRA - SKILLS DE ATEN	Grupos de Atendim	Todos	Tephra TWM		
09 - TEPHRA - DETALHE N5	Grupos de Atendim	Todos	Tephra TWM		
10 - TEPHRA - TURNOVER PAD	Dados de Produção	Todos	Tephra TWM		

**Visões**

Relatório | Avaliação

Gerar Dicionário de Dados

Online Offline

Gerar Relatório Sair

## 8.2.2.1 Verify Avaya Login Logout Report

In the **Relatório Integrado (integrated report)** window, navigate to the **Todos (all)** tab under the **Filtros (filters)** section, click the **AVAYATEST** filter. Navigate to the **Todos (all)** tab under the **Relatórios (reports)** section, click the **AVAYA LOGIN LOGOUT** report. Under the **Período (period)** section, click the dates of the report.

**Relatório Integrado**

**Filtros**

Todos Meus Consulta Rápida Especial

Filtro: AVAYATEST Visibilidade: Todos Proprietário: Tephra TWM

**Período**

2013

December, 2012

Sun Mon Tue Wed Thu Fri Sat

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Today: 1/10/2013 1/366

**Relatórios**

Justificativas Automáticas Relatório Formato Especial Avaliação Aeroportos Recrutamento - processos Meus

Todos Recrutamento Monitoria Avançado Acessos Personalizado Linha do Tempo Treinamento Referência Cruzada Ranking

**Relatório**

001 - AVAYA LOGIN LOGOUT Login Logout Todos Tephra TWM

002 - AVAYA AGENT SKILL Agentes Skill Todos Tephra TWM

003 - AVAYA SKILL Grupos de Atendim Todos Tephra TWM

004 - AVAYA VDN VDNs Todos Tephra TWM

01 - TEPHRA - ABS\_ADERENCIA Dados de Produção Todos Tephra TWM

02 - TEPHRA - LOGIN LOGOUT Login Logout Todos Tephra TWM

03 - TEPHRA - PRODUTIVIDADE Dados de Produção Todos Tephra TWM

05 - TEPHRA - PAUSAS NR Dados de Produção Todos Tephra TWM

06 - TEPHRA - INDISPONIBILID Dados de Produção Todos Tephra TWM

07 - TEPHRA - AGENTES SKILL Agentes Skill Todos Tephra TWM

08 - TEPHRA - SKILLS DE ATEN Grupos de Atendim Todos Tephra TWM

09 - TEPHRA - DETALHE NS Grupos de Atendim Todos Tephra TWM

10 - TEPHRA - TURNOVER PAD Dados de Produção Todos Tephra TWM

**Visões**

Relatório Avaliação

Gerar Dicionário de Dados

Não existem visões disponíveis para este tipo de relatório.

Online Offline Gerar Relatório Sair

Click **Gerar Relatório (generate report)** to generate the Avaya Login Logout Report.

**Relatório Visualização [Relatório]**

Resultado

Consolidado

**Detalhado**

Nome	Data	Dia Semana	Login	Ramal	Data Hora Início (Login)	Data Hora Fim (Logout)	SplitAvaya	LOGONSKILL2
FUNCIONARIO01	12/13/2012	Quinta	2501	25001	12/13/2012 9:49 PM	12/14/2012	1	5
FUNCIONARIO01	12/13/2012	Quinta	2501	25001	12/13/2012 2:12 PM	12/13/2012 2:27 PM	1	5
FUNCIONARIO01	12/13/2012	Quinta	2501	25001	12/13/2012 10:53 AM	12/13/2012 2:12 PM	1	5
FUNCIONARIO01	12/13/2012	Quinta	2501	25001	12/13/2012 10:36 AM	12/13/2012 10:52 AM	1	5
FUNCIONARIO02	12/13/2012	Quinta	2502	25002	12/13/2012 2:23 PM	12/14/2012	1	5
FUNCIONARIO03	12/13/2012	Quinta	2503	(null)	(null)	(null)	(null)	(null)



### 8.2.2.2 Verify Avaya Agent Skill Report

In the **Relatório Integrado (integrated report)** window, navigate to the **Todos (all)** tab under the **Filtros (filters)** section, click the **AVAYATEST** filter. Navigate to the **Todos (all)** tab under the **Relatórios (reports)** section, click the **AVAYA Agent Skill** report. Under the **Período (period)** section, click the dates of the report. Navigate to the **Relatório (report)** tab under the **Visões (views)** section, check the following checkboxes:

- **Data (date)**: do not combine data of different dates
- **Inter a Inter (interval)**: report at interval level
- **Funcionário (employee)**: provide employee name
- **Login**: do not combine data of different logins

**Relatório Integrado**

**Filtros**

Todos Meus Consulta Rápida Especial

Filtro: AVAYATEST Visibilidade: Todos Proprietário: Tephra TWM

**Período**

2013

December, 2012

Sun Mon Tue Wed Thu Fri Sat

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Today: 1/10/2013 1/366

**Relatórios**

Justificativas Automáticas Relatório Formato Especial Avaliação Aeroportos Recrutamento - processos Meus

Todos Recrutamento Monitoria Avançado Acessos Personalizado Linha do Tempo Treinamento Referência Cruzada Ranking

Relatório	Tipo Relatório	Visibilidade	Proprietário
001 - AVAYA LOGIN LOGOUT	Login Logout	Todos	Tephra TWM
002 - AVAYA AGENT SKILL	Agentes Skill	Todos	Tephra TWM
003 - AVAYA SKILL	Grupos de Atendim	Todos	Tephra TWM
004 - AVAYA VDN	VDNs	Todos	Tephra TWM
01 - TEPHRA - ABS_ADERENCIA	Dados de Produção	Todos	Tephra TWM
02 - TEPHRA - LOGIN LOGOUT	Login Logout	Todos	Tephra TWM
03 - TEPHRA - PRODUTIVIDADE	Dados de Produção	Todos	Tephra TWM
05 - TEPHRA - PAUSAS NR	Dados de Produção	Todos	Tephra TWM
06 - TEPHRA - INDISPONIBILID	Dados de Produção	Todos	Tephra TWM
07 - TEPHRA - AGENTES SKILL	Agentes Skill	Todos	Tephra TWM
08 - TEPHRA - SKILLS DE ATEN	Grupos de Atendim	Todos	Tephra TWM
09 - TEPHRA - DETALHE NS	Grupos de Atendim	Todos	Tephra TWM
10 - TEPHRA - TURNOVER PAD	Dados de Produção	Todos	Tephra TWM

**Visões**

Relatório Avaliação

Gerar Dicionário de Dados

☐ Ano ☐ Mês ☐ Semana ☒ Data ☒ Inter a Inter ☐ DataAdmissão ☐ Data Entrada Campanha ☐ Centro Custo ☐ CUTT

☐ Emp. cliente ☐ Emp. master ☐ Emp. prest. ☐ Campanha ☐ Site ☐ Grupo ☐ Natureza ☐ Serviço ☐ Direção

☒ Funcionário ☐ Superior0 ☐ Superior1 ☐ Superior2 ☐ Superior3 ☐ Superior4 ☐ Superior5 ☐ Superior6 ☐ Superior7

☐ Horários de entrada e saída ☒ Login ☐ Codinome ☐ Status agente ☐ Area ☒ Skill

☐ Jornada/Turno

Online OffLine

Gerar Relatório Sair



Click **Gerar Relatório (generate report)** to generate the Avaya Agent Skill Report.

Relatório Visualização [Relatório]												
Resultado												
Consolidado												
Data	D5em	Funcionário	Login	Skill	_ACDTIME	_ACWTIME	_ABNCALLS	_ACD_RELE	_ACDAUXO	_ACDCALLS	_ACWINCA	_ACWINTI
► Data	D5em	Funcionário	Login	Skill	111	496	4	18	5	20	1	3
Detalhado												
Data	D5em	Funcionário	Login	horainicio	Skill	_ACDTIME	_ACWTIME	_ABNCALLS	_ACD_RELE	_ACDAUXOUTCAL	_ACDCALLS	
12/13/2012	Quinta	FUNCIONARI	2501	10:30:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	11:00:00	Skill 1	3	30	0	1	0	0	1
12/13/2012	Quinta	FUNCIONARI	2501	11:30:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	12:00:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	12:30:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	13:00:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	13:30:00	Skill 1	3	48	0	2	0	0	2
► 12/13/2012	Quinta	FUNCIONARI	2501	14:00:00	Skill 1	46	134	2	5	4	0	7
12/13/2012	Quinta	FUNCIONARI	2501	21:30:00	Skill 1	0	30	1	1	0	0	1
12/13/2012	Quinta	FUNCIONARI	2501	22:00:00	Skill 1	34	44	0	2	1	0	2
12/13/2012	Quinta	FUNCIONARI	2501	22:30:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	23:00:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	23:30:00	Skill 1	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	10:30:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	11:00:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	11:30:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	12:00:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	12:30:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	13:00:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	13:30:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	14:00:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	21:30:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	22:00:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	22:30:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	23:00:00	Skill 5	0	0	0	0	0	0	0
12/13/2012	Quinta	FUNCIONARI	2501	23:30:00	Skill 5	0	0	0	0	0	0	0

### 8.2.2.3 Verify Avaya Skill Report

In the **Relatório Integrado (integrated report)** window, navigate to the **Todos (all)** tab under the **Filtros (filters)** section, click the **AVAYATEST** filter. Navigate to the **Todos (all)** tab under the **Relatórios (reports)** section, click the **AVAYA Skill** report. Under the **Período (period)** section, click the dates of the report. Navigate to the **Relatório (report)** tab under the **Visões (views)** section, check the following checkboxes:

- **Data (date):** do not combine data of different dates
- **Skill:** do not combine data of different skills
- **Intervalo início (interval begin):** provide start time of an interval
- **Intervalo fim (interval end):** provide end time of an interval

**Relatório Integrado**

**Filtros**

Todos | Meus | Consulta Rápida | Especial

Filtro	Visibilidade	Proprietário
▶ AVAYATEST	Todos	Tephra TWM

**Período**

2012

◀ December, 2012 ▶

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Today: 12/14/2012 1/366

**Relatórios**

Justificativas Automáticas | Relatório Formato Especial | Avaliação | Aeroportos | Recrutamento - processos | Meus

Todos | Recrutamento | Monitoria | Avançado | Acessos | Personalizado | Linha do Tempo | Treinamento | Referência Cruzada | Ranking

Relatório	Tipo Relatório	Visibilidade	Proprietário
001 - AVAYA LOGIN LOGOUT	Login Logout	Todos	Tephra TWM
002 - AVAYA AGENT SKILL	Agentes Skill	Todos	Tephra TWM
▶ 003 - AVAYA SKILL	Grupos de Atendim	Todos	Tephra TWM
004 AVAYA VDN	VDNs	Todos	Tephra TWM
01 - TEPHRA - ABS_ADERENCIA	Dados de Produção	Todos	Tephra TWM
02 - TEPHRA - LOGIN LOGOUT	Login Logout	Todos	Tephra TWM
03 - TEPHRA - PRODUTIVIDADE	Dados de Produção	Todos	Tephra TWM
05 - TEPHRA - PAUSAS NR	Dados de Produção	Todos	Tephra TWM
06 - TEPHRA - INDISPONIBILID	Dados de Produção	Todos	Tephra TWM
07 - TEPHRA - AGENTES SKILL	Agentes Skill	Todos	Tephra TWM
08 - TEPHRA - SKILLS DE ATEN	Grupos de Atendim	Todos	Tephra TWM
09 - TEPHRA - DETALHE N5	Grupos de Atendim	Todos	Tephra TWM
10 - TEPHRA - TURNOVER PAD	Dados de Produção	Todos	Tephra TWM

**Visões**

Relatório | Avaliação

Gerar Dicionário de Dados

☒ Data ☐ Campanha ☐ Site ☐ Grupo ☒ Skill ☐ Tipo fonte ☒ Intervalo início ☒ Intervalo fim

☐ VDN

Online OffLine

Gerar Relatório Sair

Click **Gerar Relatório (generate report)** to generate the Avaya Skill Report.

Relatório Visualização [Relatório]													
Resultado													
Consolidado													
Data	DSem	HoraInício	HoraFim	Skill	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS
▶ Data	DSem	HoraInício	HoraFim	Skill	20	11	5	3	0	0	0	0	0
Detalhado													
Data	DSem	HoraInício	HoraFim	Skill	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS	_ACDCALLS
12/13/2012	Qui	00:00:00	00:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	00:30:00	01:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	01:00:00	01:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	01:30:00	02:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	02:00:00	02:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	02:30:00	03:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	03:00:00	03:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	03:30:00	04:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	04:00:00	04:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	04:30:00	05:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	05:00:00	05:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	05:30:00	06:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	06:00:00	06:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	06:30:00	07:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	07:00:00	07:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	07:30:00	08:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	08:00:00	08:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	08:30:00	09:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	09:00:00	09:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	09:30:00	10:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	10:00:00	10:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	10:30:00	11:00:00	Skill 1	6	2	2	2	0	0	0	0	0
12/13/2012	Qui	11:00:00	11:30:00	Skill 1	1	1	0	0	0	0	0	0	0
12/13/2012	Qui	11:30:00	12:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	12:00:00	12:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	12:30:00	13:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	13:00:00	13:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	13:30:00	14:00:00	Skill 1	3	1	1	1	0	0	0	0	0
▶ 12/13/2012	Qui	14:00:00	14:30:00	Skill 1	7	5	1	0	0	0	0	0	0
12/13/2012	Qui	14:30:00	15:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	15:00:00	15:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	15:30:00	16:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	16:00:00	16:30:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	16:30:00	17:00:00	Skill 1	0	0	0	0	0	0	0	0	0
12/13/2012	Qui	17:00:00	17:30:00	Skill 1	0	0	0	0	0	0	0	0	0

### 8.2.2.4 Verify Avaya VDN Report

In the **Relatório Integrado (integrated report)** window, navigate to the **Todos (all)** tab under the **Filtros (filters)** section, click the **AVAYATEST** filter. Navigate to the **Todos (all)** tab under the **Relatórios (reports)** section, click the **AVAYA VDN** report. Under the **Período (period)** section, click the dates of the report. Navigate to the **Relatório (report)** tab under the **Visões (views)** section, check the following checkboxes:

- **Data (date)**: do not combine data of different dates
- **Intervalo inicio (interval begin)**: provide start time of an interval
- **Intervalo fim (interval end)**: provide end time of an interval
- **VDN**: do not combine data of different VDNs

The screenshot displays the 'Relatório Integrado' (Integrated Report) window. It is divided into three main sections: Filtros (Filters), Relatórios (Reports), and Visões (Views).

**Filtros (Filters):** This section includes tabs for 'Todos' (All), 'Meus' (My), 'Consulta Rápida' (Quick Search), and 'Especial' (Special). The 'Filtro' (Filter) dropdown is set to 'AVAYATEST', 'Visibilidade' (Visibility) is 'Todos' (All), and 'Proprietário' (Owner) is 'Tephra TWM'.

**Relatórios (Reports):** This section contains a grid of report categories: Justificativas Automáticas, Relatório Formato Especial, Avaliação, Aeroportos, Recrutamento - processos, and Meus. Below these, a list of reports is shown with columns for 'Relatório', 'Tipo Relatório', 'Visibilidade', and 'Proprietário'. The report '004 AVAYA VDN' is selected, showing details for 'VDNs' with 'Todos' visibility and 'Tephra TWM' as the owner. Other reports listed include '001 - AVAYA LOGIN LOGOUT', '002 - AVAYA AGENT SKILL', '003 - AVAYA SKILL', and various Tephra TWM reports.

**Visões (Views):** This section has tabs for 'Relatório' and 'Avaliação'. The 'Relatório' tab is active, showing a 'Gerar Dicionário de Dados' (Generate Data Dictionary) button. Below this, there are checkboxes for 'Data', 'VDN', 'Campanha', 'Site', 'Grupo', 'Tipo fonte', 'Intervalo início', and 'Intervalo fim'. The 'Data' and 'VDN' checkboxes are checked. At the bottom, there are radio buttons for 'Online' and 'OffLine', and buttons for 'Gerar Relatório' (Generate Report) and 'Sair' (Exit).

**Período (Period):** A calendar widget shows the month of December 2012. The date '13' is highlighted. The status bar at the bottom right indicates 'Today: 12/14/2012 1:36'.

Click **Gerar Relatório (generate report)** to generate the Avaya VDN Report.

Relatório Visualização [Relatório]												
Resultado												
Consolidado												
ABNCALLS	ABNCALLS1	ABNCALLS2	ABNCALLS3	ABNCALLS4	ABNCALLS5	ABNCALLS6	ABNCALLS7	ABNCALLS8	ABNCALLS9	ABNCALLS1	ABNQUECA	ABN
11	7	1	0	1	0	0	0	0	0	2	4	4
Detalhado												
Data	DSem	HoraInício	HoraFim	Vdn	ABNCALLS	ABNCALLS1	ABNCALLS2	ABNCALLS3	ABNCALLS4	ABNCALLS5	ABNCALLS6	
12/13/2012	Qui	10:30:00	11:00:00	VDN 25900	1	1	0	0	0	0	0	
12/13/2012	Qui	10:30:00	11:00:00	VDN 25901	0	0	0	0	0	0	0	
12/13/2012	Qui	10:30:00	11:00:00	VDN 25909	0	0	0	0	0	0	0	
12/13/2012	Qui	11:00:00	11:30:00	VDN 25900	3	1	0	0	0	0	0	
12/13/2012	Qui	11:00:00	11:30:00	VDN 25909	0	0	0	0	0	0	0	
12/13/2012	Qui	13:30:00	14:00:00	VDN 25900	0	0	0	0	0	0	0	
12/13/2012	Qui	13:30:00	14:00:00	VDN 25901	0	0	0	0	0	0	0	
12/13/2012	Qui	13:30:00	14:00:00	VDN 25909	1	1	0	0	0	0	0	
12/13/2012	Qui	14:00:00	14:30:00	VDN 25900	3	1	1	0	1	0	0	
12/13/2012	Qui	21:30:00	22:00:00	VDN 25901	1	1	0	0	0	0	0	
12/13/2012	Qui	21:30:00	22:00:00	VDN 25909	1	1	0	0	0	0	0	
12/13/2012	Qui	22:00:00	22:30:00	VDN 25900	0	0	0	0	0	0	0	
12/13/2012	Qui	22:00:00	22:30:00	VDN 25901	0	0	0	0	0	0	0	
12/13/2012	Qui	22:00:00	22:30:00	VDN 25909	1	1	0	0	0	0	0	

## 9. Conclusion

These Application Notes describe the configuration steps required for Voran Tephra Workforce to interoperate with Avaya Call Management System, via customized historical adapters provided by Avaya Professional Services. All feature and serviceability test cases were completed with observations listed in **Section 2.2**.

## 10. Additional References

This section references the product documentation relevant to these Application Notes.

### Avaya Documentation:

- *Administering Avaya Aura® Communication Manager*, Release 6.2, Issue 7.0, July 2012, Document Number 03-300509.
- *Avaya Call Management System Switch Connections, Administration, and Troubleshooting*, December 2011

### Voran Documentation:

- Voran Manual do Usuário, Tephra Quality Workforce, Módulo de Relatórios, October 2010

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