**Avaya Solution & Interoperability Test Lab**

# 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.


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# 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.


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## 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


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# 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.

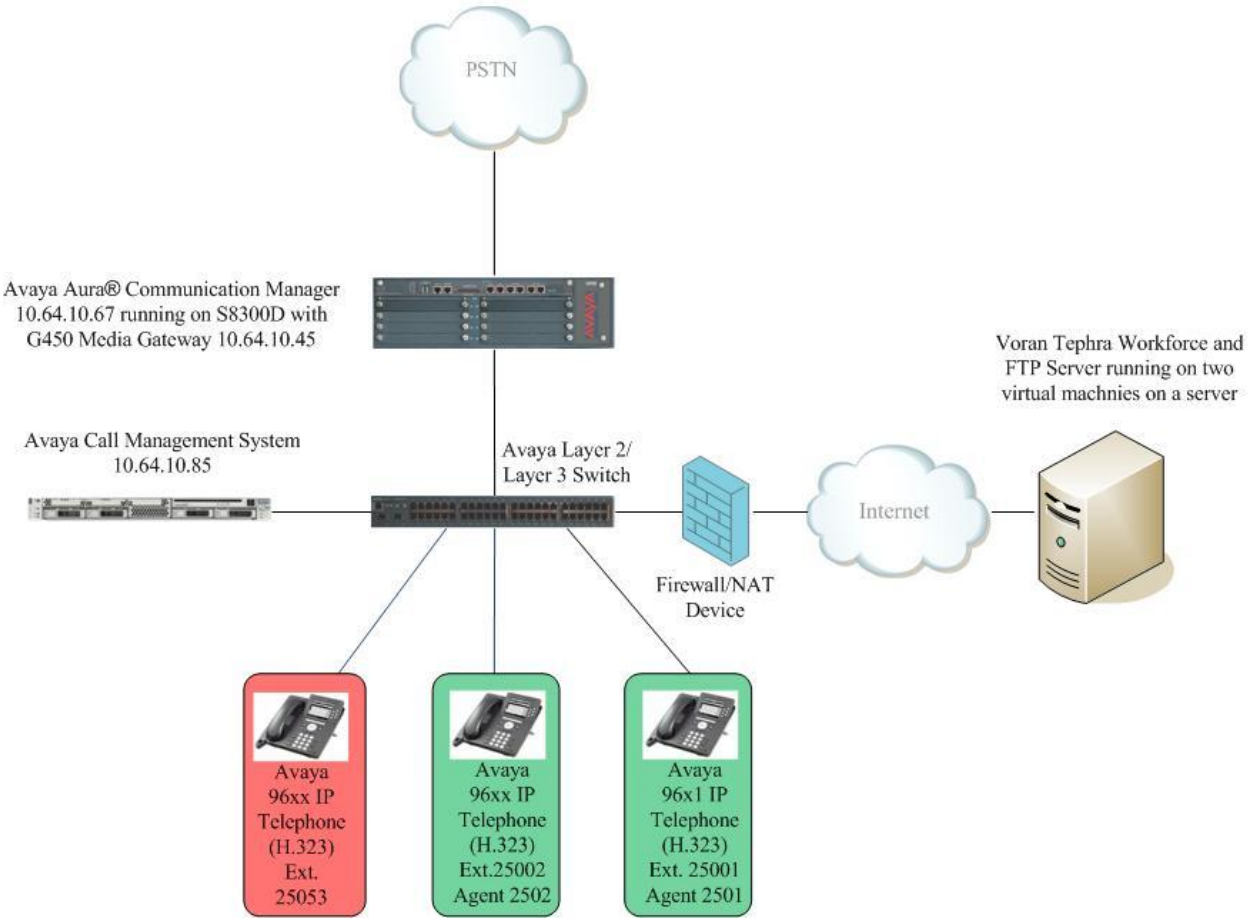


**Figure 1: Voran Tephra Workforce with Avaya Call Management System**


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# 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<br>MGP<br>MM710 T1 Module | <br>HW 1 FW 31.20.0<br>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 |


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# 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.

| | |
|---|---|
| **VDN** | 25900, 25901, 25902, 25903, 25909 |
| **Split/Skill** | 1, 5 |
| **Agent** | 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]=ftpserver                       # FTP/SFTP server name or IP address
USER[1]=                                # FTP/SFTP username
PASS[1]=                                # FTP password (not used for sftp)
```

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


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# 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.HHmm</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**.


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- **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.
- **CMSTimeDiference**: 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.


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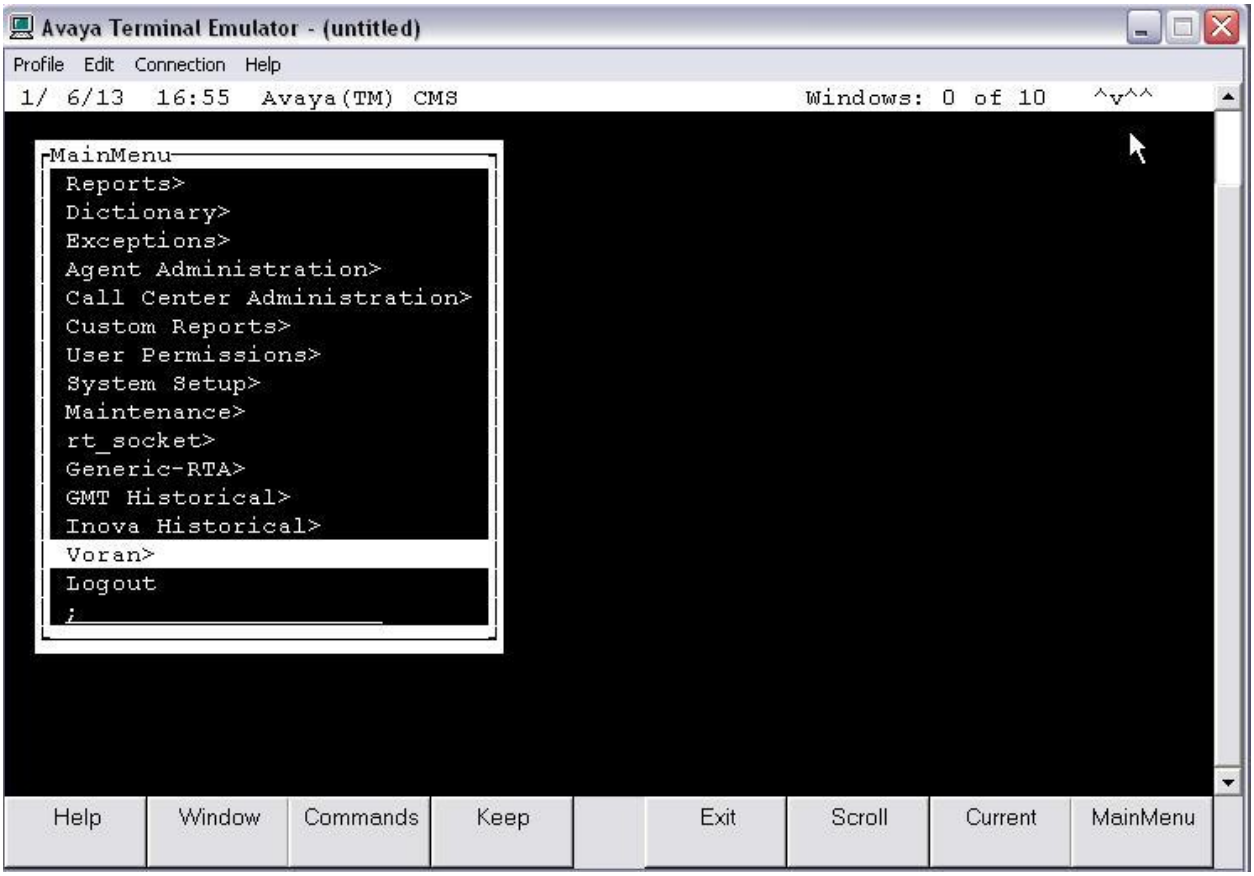
# 8. Verification Steps

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.





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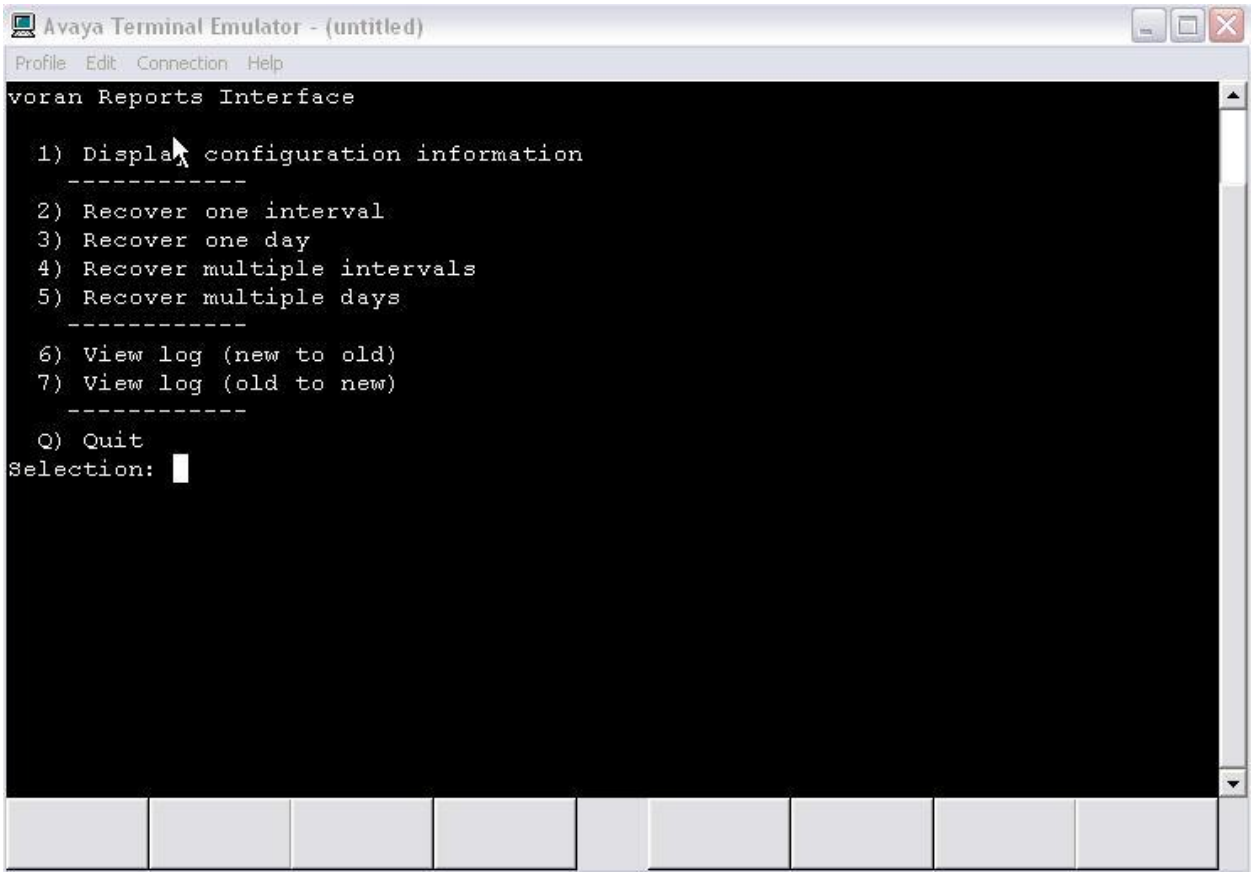
Select the **Voran** option and press **Enter**. The Voran Reports Interface sub-menu is displayed.





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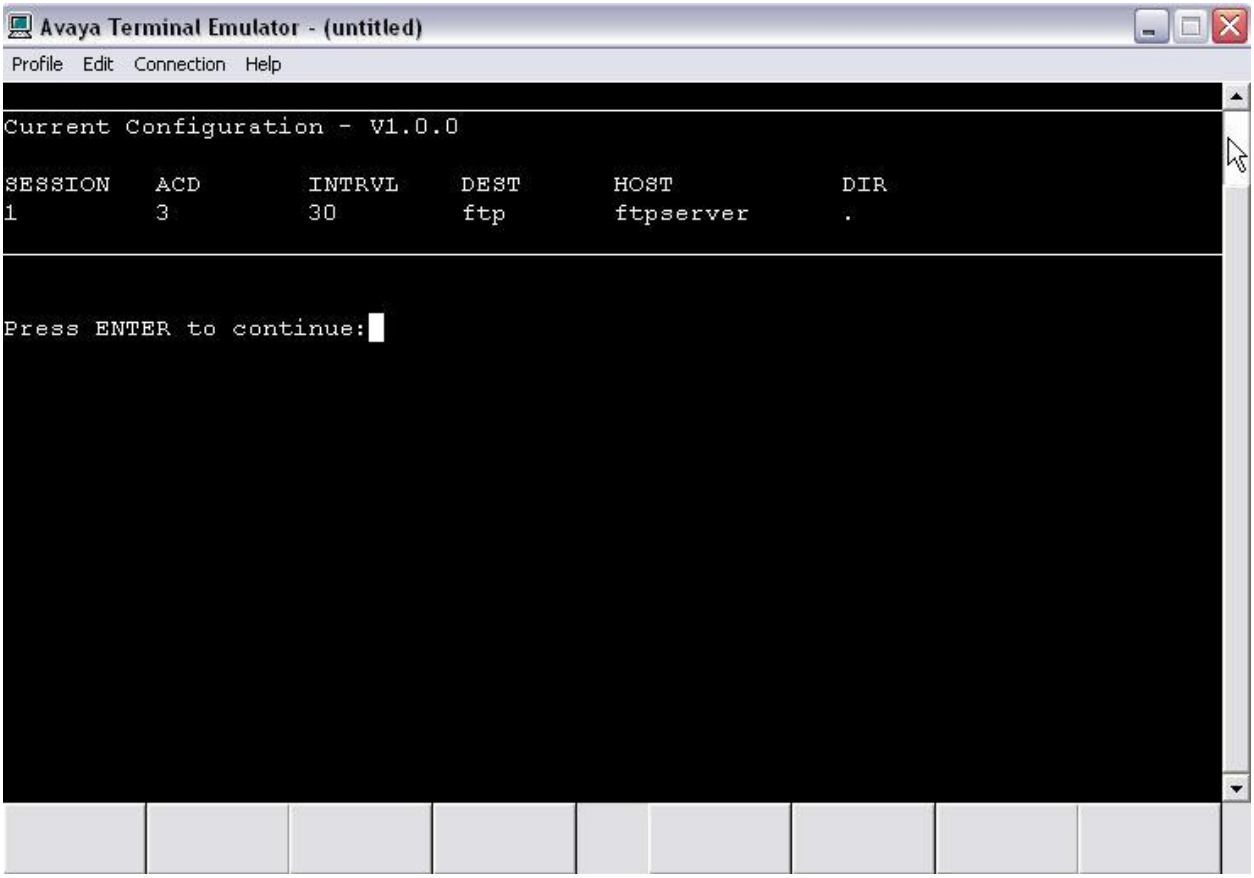
Enter **1** followed by the **Enter** key, to display the configuration of the Voran Historical Adapters. Verify that the configuration matches what was configured in **Section 6**.





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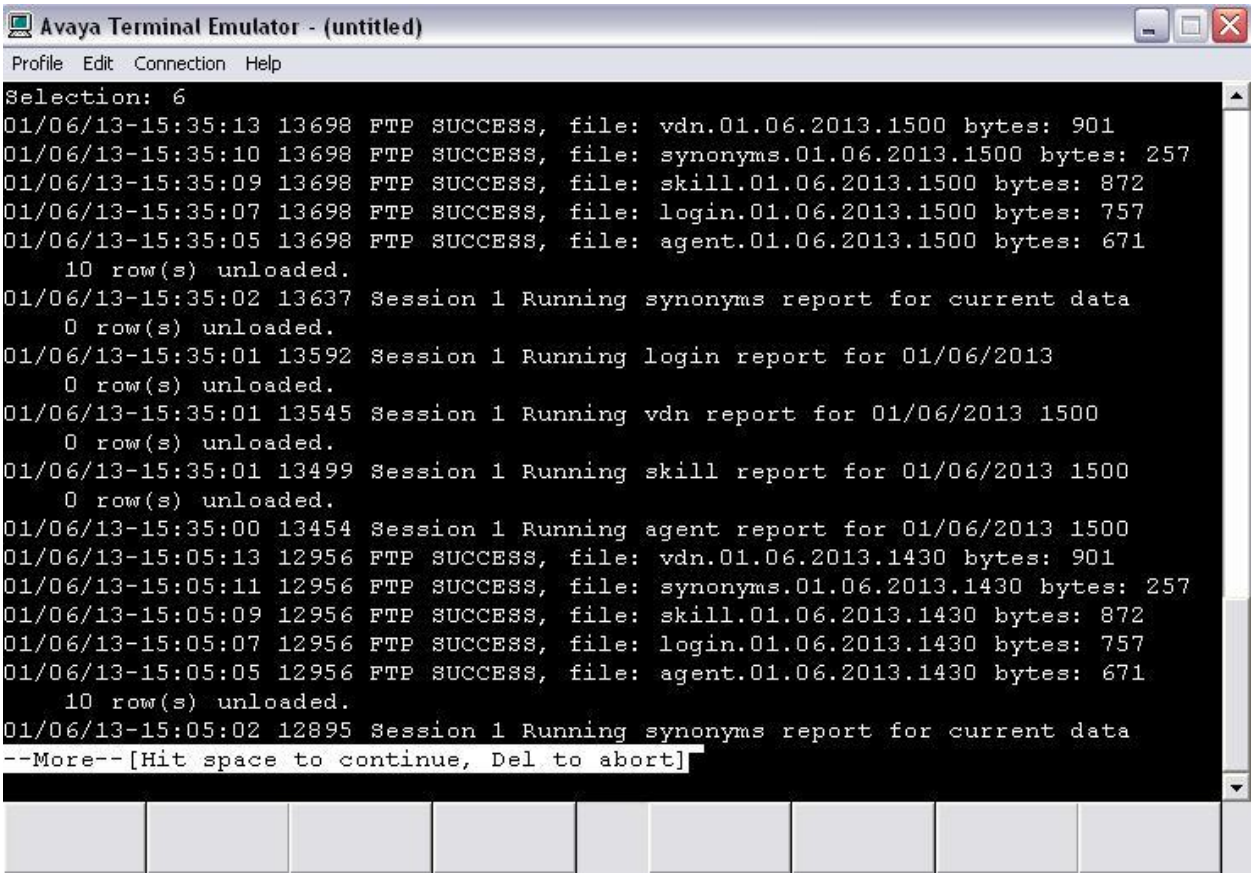
Press **Enter** to return to the Voran Reports Interface Sub-menu. Enter **6** followed by the **Enter** key, to display the log. Verify that the Voran Historical Adapters have successfully created and transferred five historical reports every 30 minutes.





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## 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.

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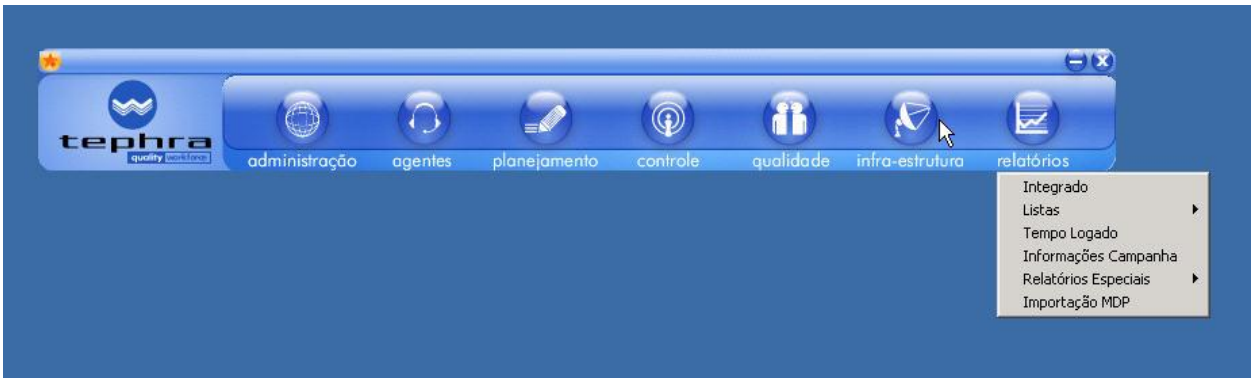
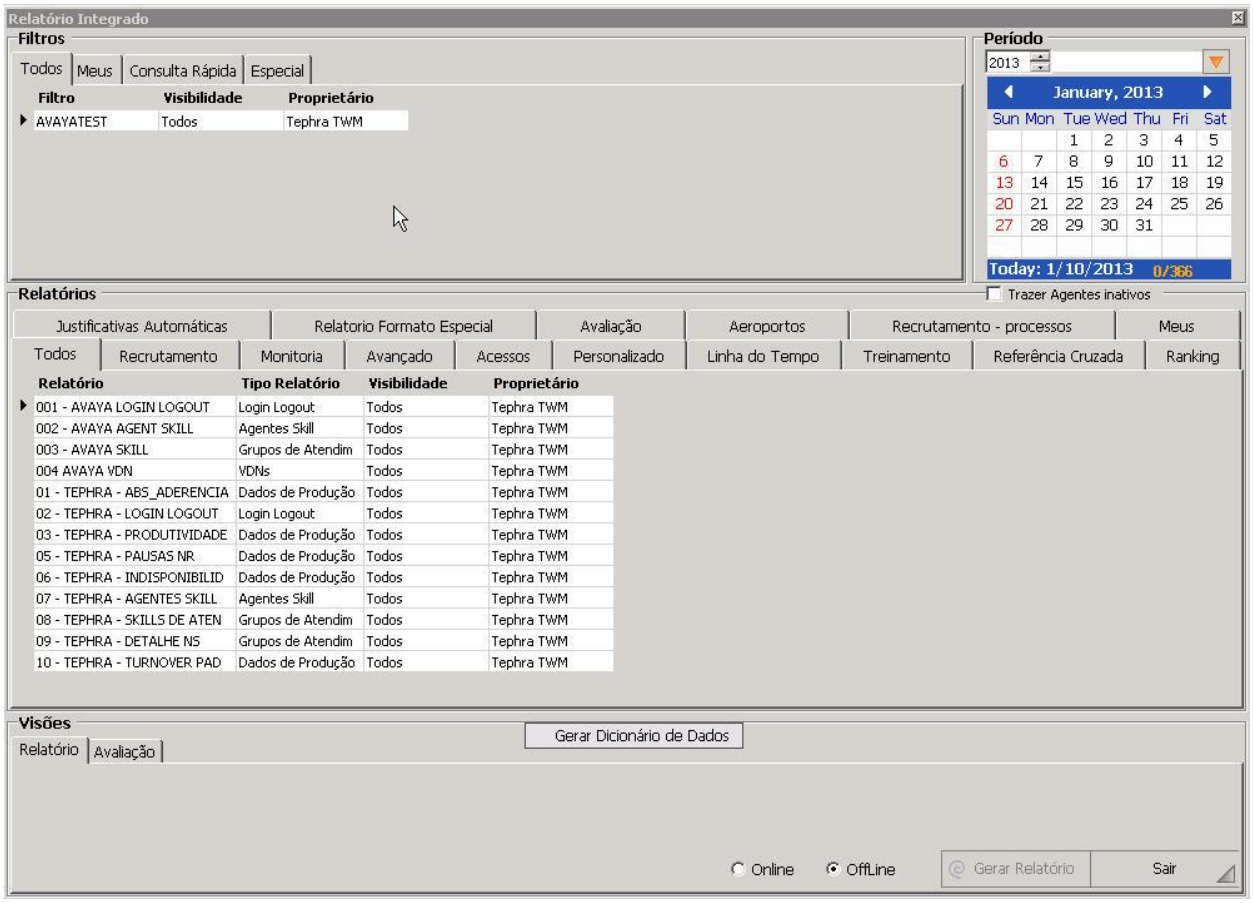
## 8.2.2. Verify Tephra Workforce Reports

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




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





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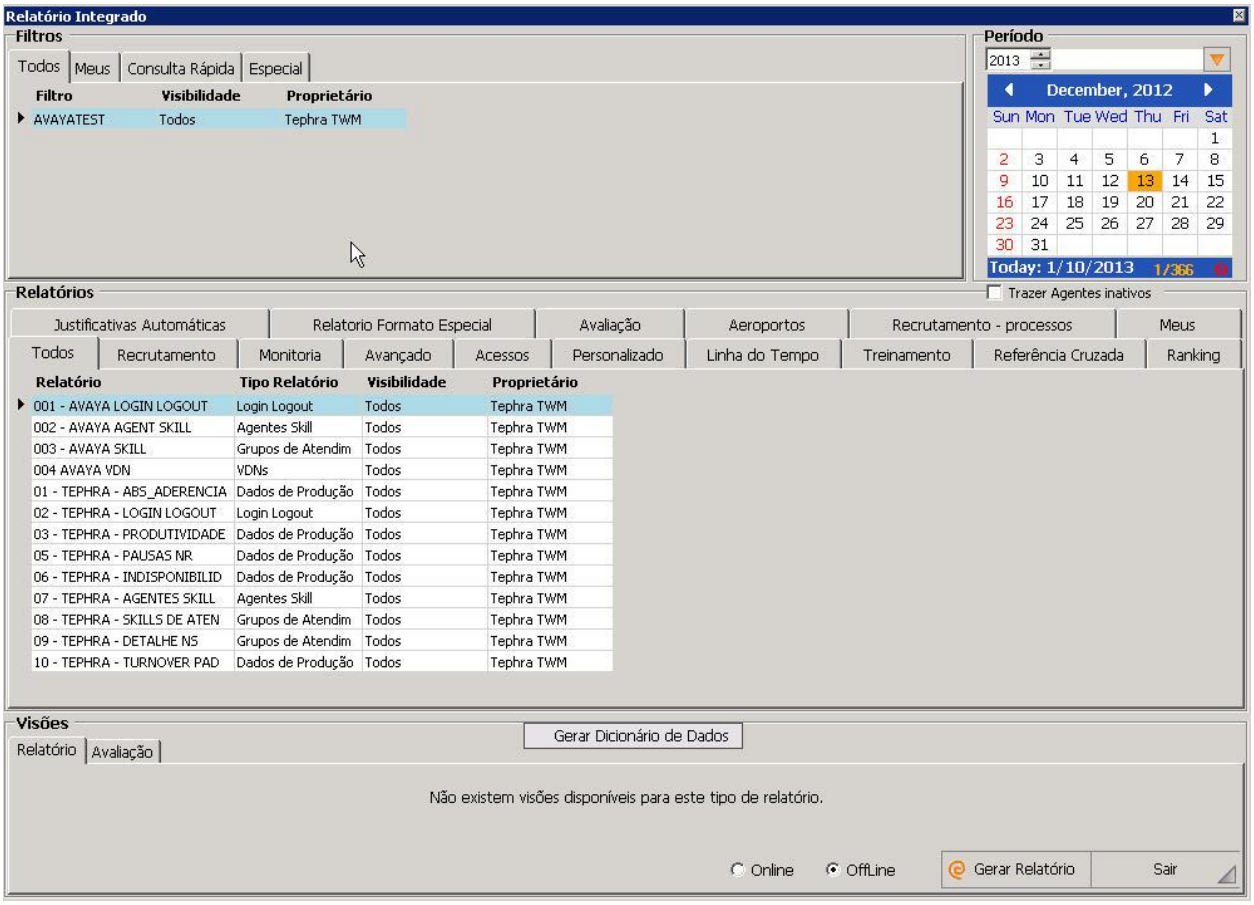
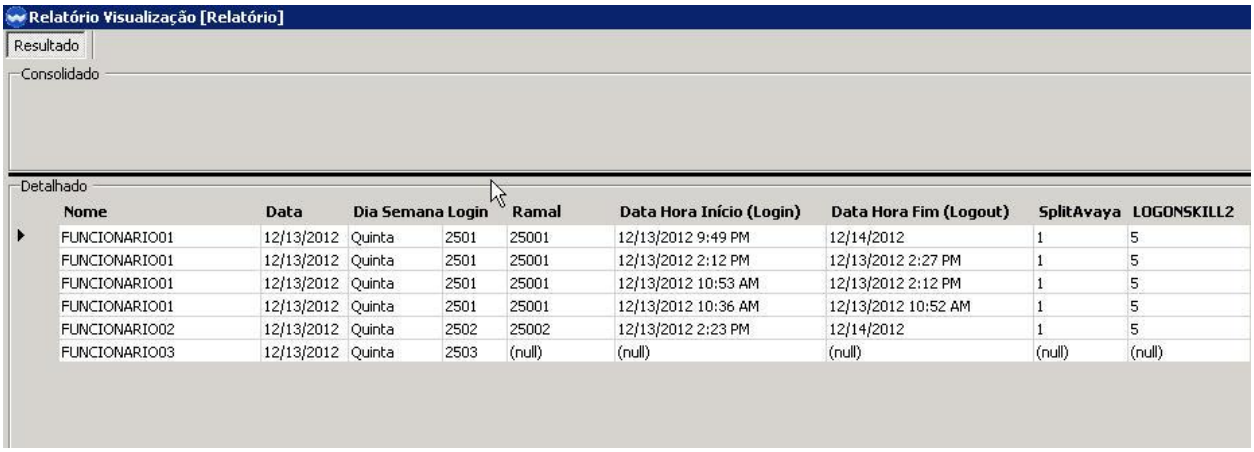
### 8.2.2.1 Verify Avaya Login Logout Report

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.




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





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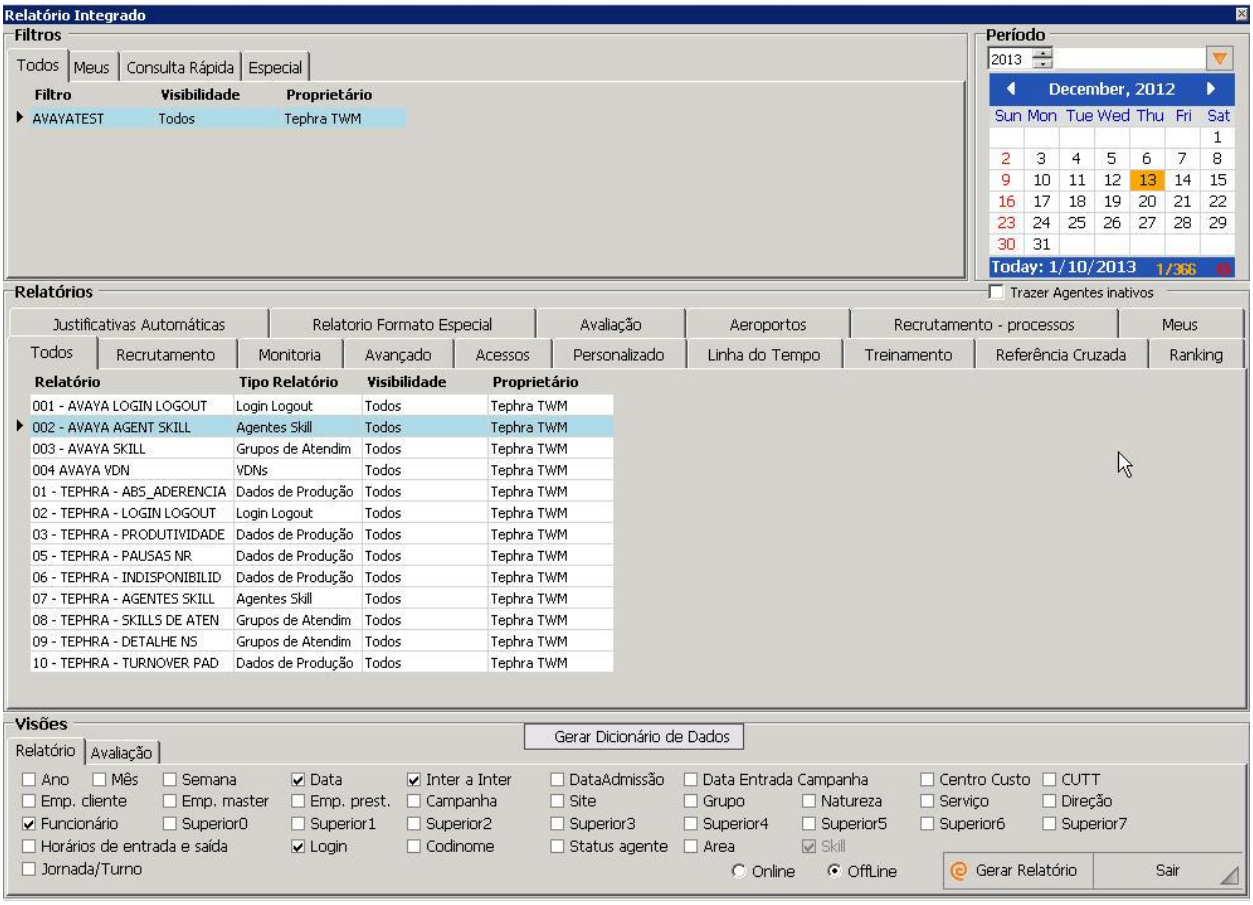
### 8.2.2.2 Verify Avaya Agent Skill Report

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





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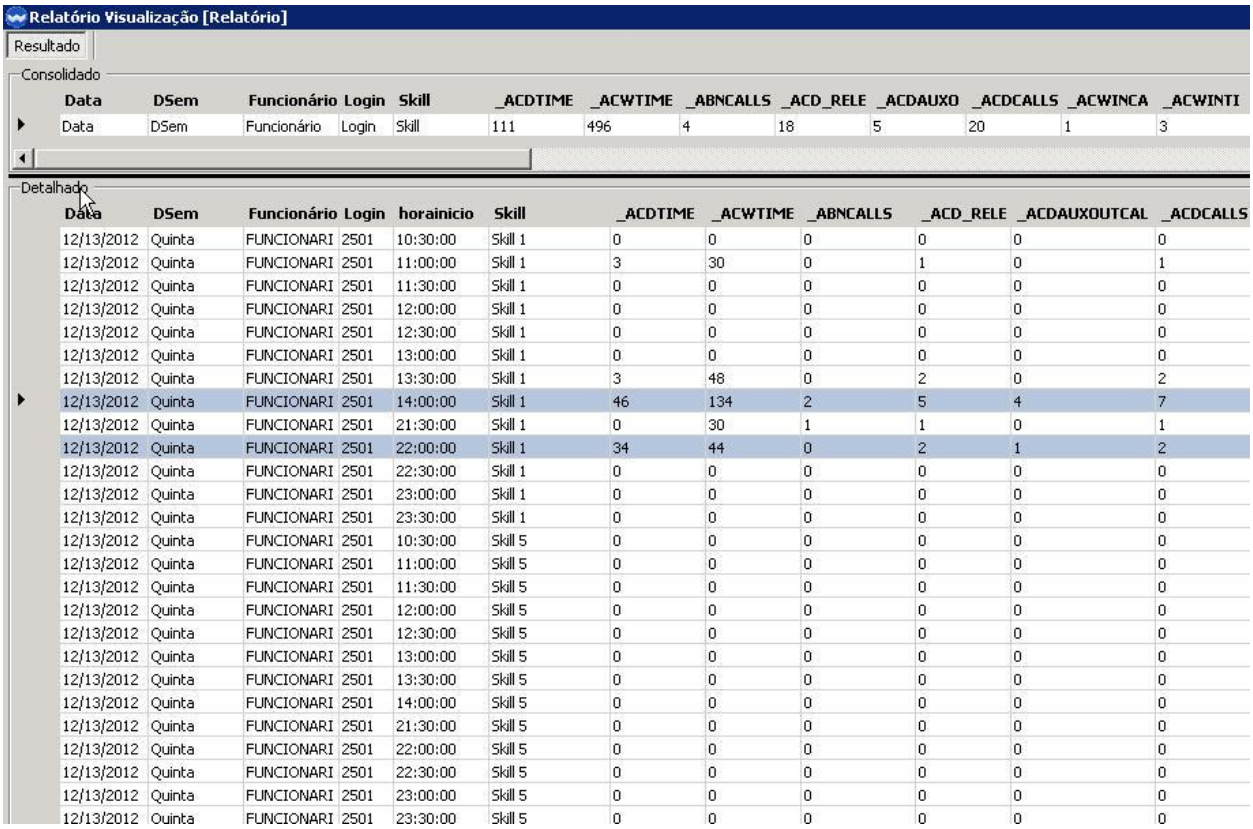
Click **Gerar Relatório (generate report)** to generate the Avaya Agent Skill Report.



Relatório Visualização [Relatório]

Resultado

Consolidado

| Data | DSem | Funcionário | Login | Skill | _ACDTIME | _ACWTIME | _ABNCALLS | _ACD_RELE | _ACDAUXO | _ACDCALLS | _ACWINCA | _ACWINTI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Data | DSem | Funcionário | Login | Skill | 111 | 496 | 4 | 18 | 5 | 20 | 1 | 3 |

Detalhado

| Data | DSem | 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 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 11:00:00 | Skill 1 | 3 | 30 | 0 | 1 | 0 | 1 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 11:30:00 | Skill 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 12:00:00 | Skill 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 12:30:00 | Skill 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 13:00:00 | Skill 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 13:30:00 | Skill 1 | 3 | 48 | 0 | 2 | 0 | 2 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 14:00:00 | Skill 1 | 46 | 134 | 2 | 5 | 4 | 7 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 21:30:00 | Skill 1 | 0 | 30 | 1 | 1 | 0 | 1 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 22:00:00 | Skill 1 | 34 | 44 | 0 | 2 | 1 | 2 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 22:30:00 | Skill 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 23:00:00 | Skill 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 23:30:00 | Skill 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 10:30:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 11:00:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 11:30:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 12:00:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 12:30:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 13:00:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 13:30:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 14:00:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 21:30:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 22:00:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 22:30:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 23:00:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Quinta | FUNCIONARI | 2501 | 23:30:00 | Skill 5 | 0 | 0 | 0 | 0 | 0 | 0 |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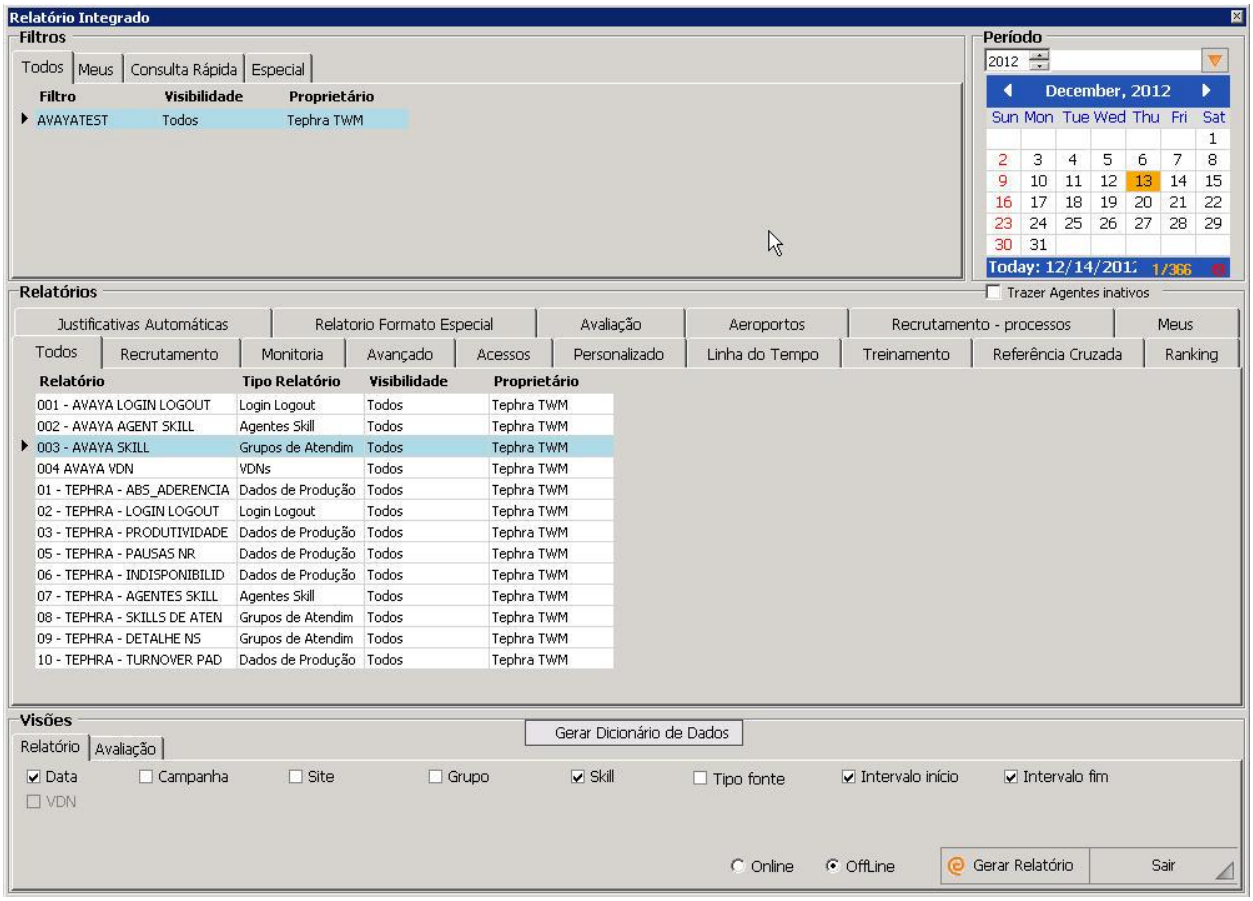
### 8.2.2.3 Verify Avaya Skill Report

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 incio (interval begin)**: provide start time of an interval
- **Intervalo fim (interval end)**: provide end time of an interval





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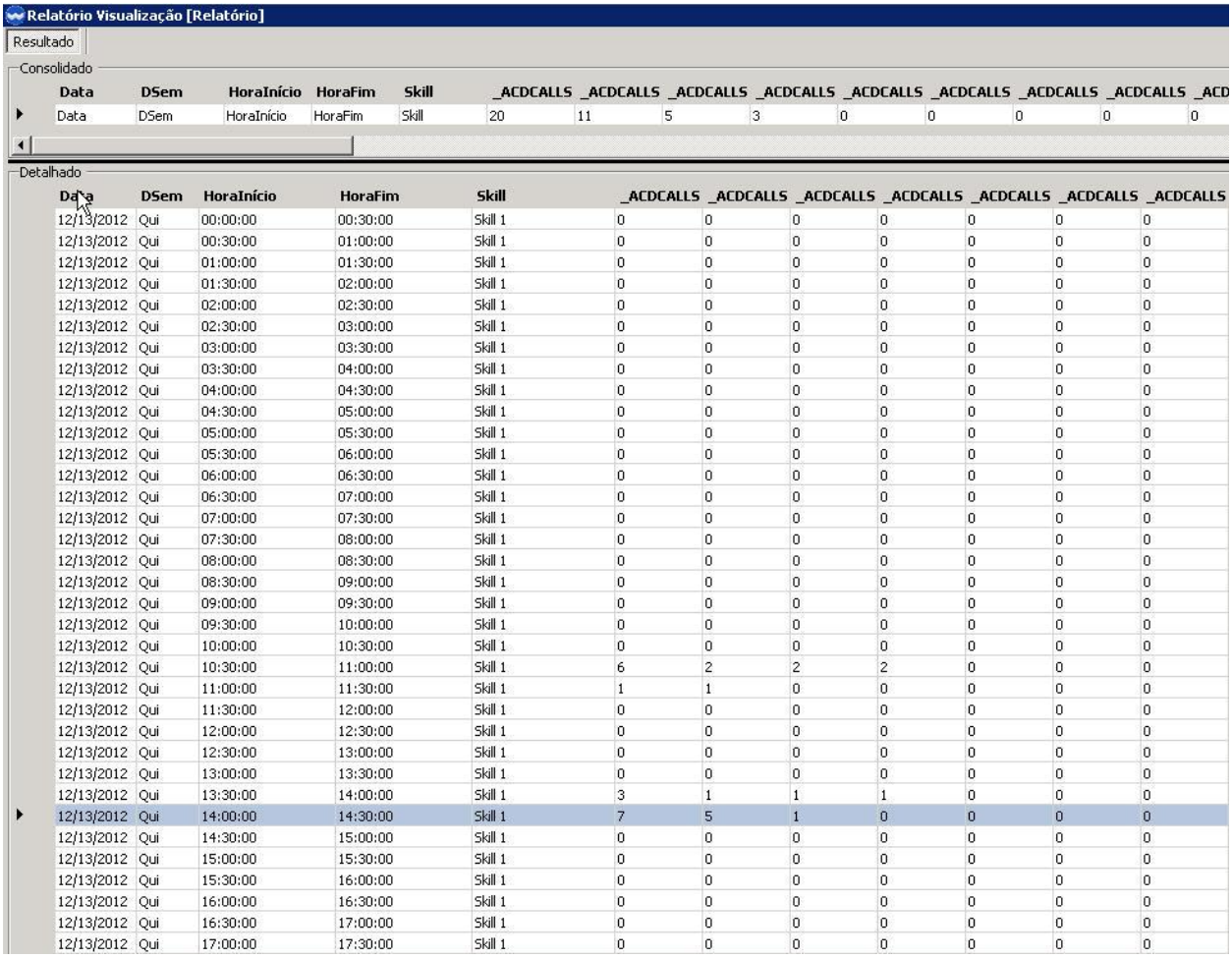
Click **Gerar Relatório (generate report)** to generate the Avaya Skill Report.



Relatório Visualização [Relatório]

Resultado

Consolidado

| Data | DSem | HoraInício | HoraFim | Skill | _ACDCALLS | _ACDCALLS | _ACDCALLS | _ACDCALLS | _ACDCALLS | _ACDCALLS | _ACDCALLS | _ACDCALLS | _ACD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/13/2012 | Qui | 00:00:00 | 00:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 01:00:00 | 01:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 02:00:00 | 02:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 03:00:00 | 03:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 04:00:00 | 04:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 05:00:00 | 05:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 06:00:00 | 06:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 07:00:00 | 07:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 08:00:00 | 08:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 09:00:00 | 09:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 10:00:00 | 10:30:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 11:00:00 | 11:30:00 | Skill 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Qui | 11:30:00 | 12:00:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 12:30:00 | 13:00:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 13:30:00 | 14:00:00 | Skill 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 |
| 12/13/2012 | Qui | 14:00:00 | 14:30:00 | Skill 1 | 7 | 5 | 1 | 0 | 0 | 0 | 0 |
| 12/13/2012 | Qui | 14:30:00 | 15:00:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 15:30:00 | 16:00:00 | Skill 1 | 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 |
| 12/13/2012 | Qui | 16:30:00 | 17:00:00 | Skill 1 | 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 |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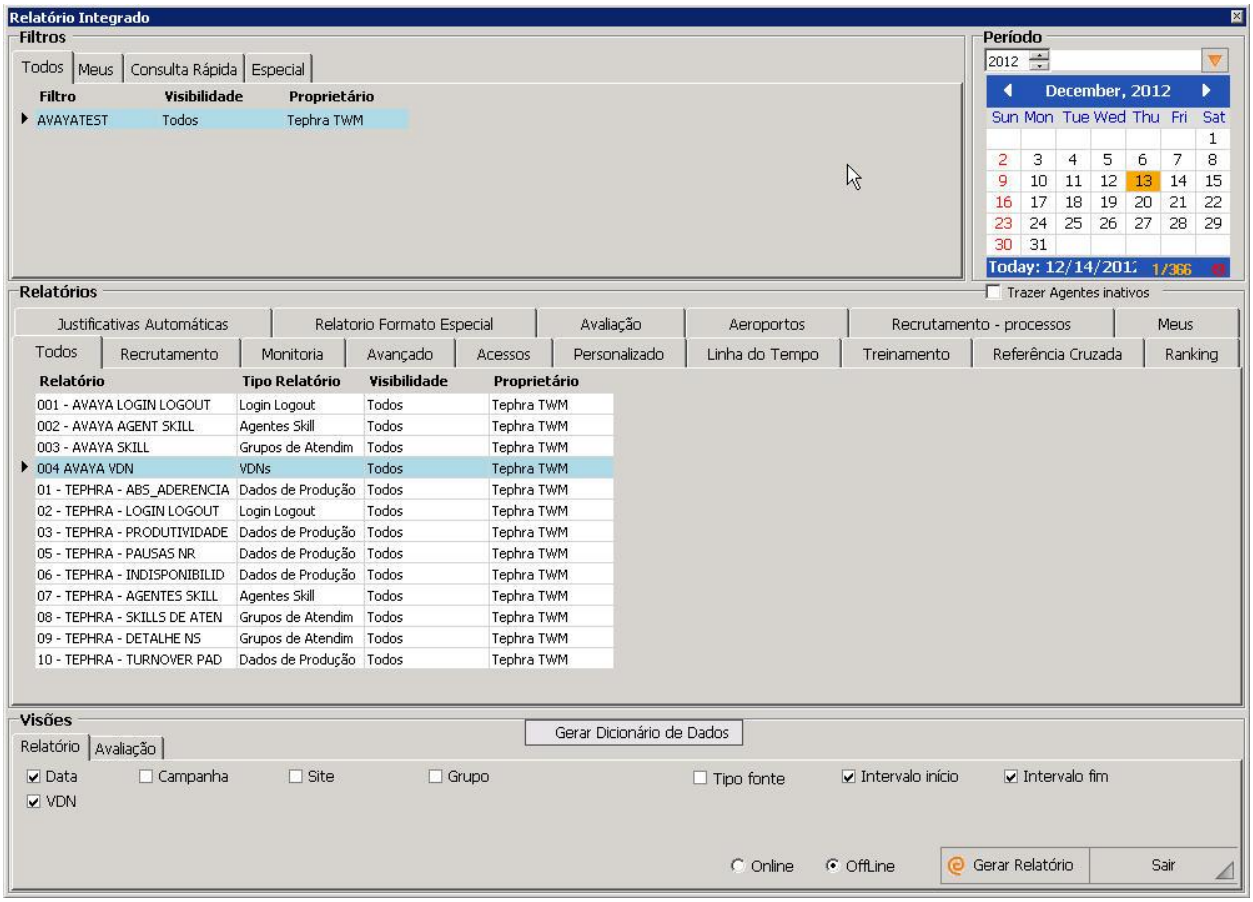
### 8.2.2.4 Verify Avaya VDN Report

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 incio (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





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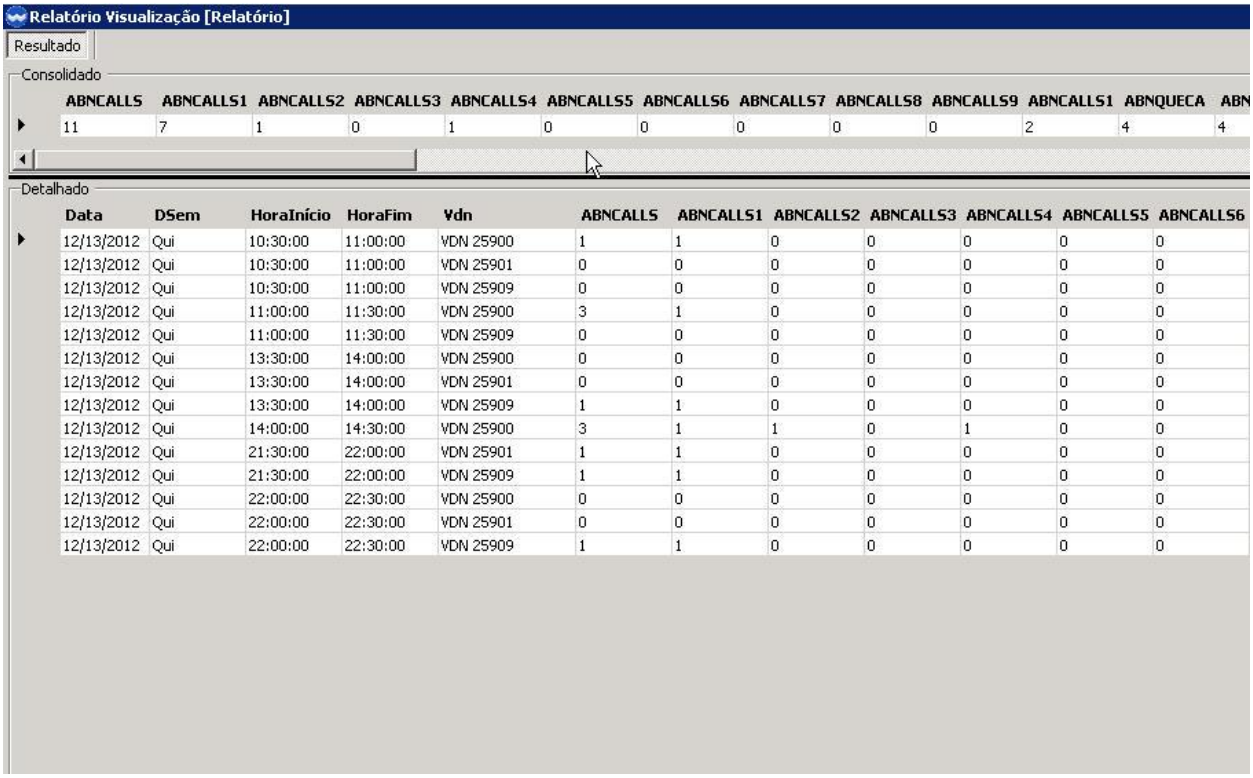
Click **Gerar Relatório (generate report)** to generate the Avaya VDN Report.




# 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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