



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

---

# **Application Notes for Stratus ftServer 4500 with Windows Server 2008 R2 Enterprise and Avaya Aura® Contact Center Release 6.2 – Issue 1.0**

### **Abstract**

These Application Notes describes the integration, functionality and stability of Stratus ftServer 4500 running Windows Server 2008 R2 Enterprise with exercising to install Avaya Aura® Contact Center Communication Manager/ Communication Administrator co-residence, Communication Manager/Communication Administrator/ Communication Control Toolkit co-residence, and Communication Server/ Communication Administrator/ Communication Control Toolkit/ Communication Multimedia co-residence on the sever.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions with Stratus. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

The purpose of this document is to ensure that Avaya Aura® Contact Center (AACC) applications are compatible with Stratus ftServer 4500 (Stratus 4500) running on Windows Server 2008 R2 Enterprise. AACC consists of Contact Center Manager Server, Contact Center Manager Administrator, Communication Control Toolkit and Contact Center Manager Multimedia are installed on the Stratus 4500 and tested for basic functionalities.

The Stratus ftServer 4500 is a fault-tolerant system that uses replicated hardware that operates in lockstep and thereby supporting applications that are business critical. During integration, ftServer 4500 is tested to make sure that above mentioned AACC applications are installed successfully and that ftServer 4500 truly behaves as high availability server.

## 2. General Test Approach and Test Results

The AACC applications were installed on Stratus 4500 running Windows Server 2008 R2 Enterprise. The basic functionality of the Contact Center applications were tested and assessed if there were any negative impact when the Stratus 4500 server was put under defensive testing.

### 2.1. Interoperability Compliance Testing

The interoperability compliance testing focused on verifying Stratus 4500 server for the following:

- Co-resident installation of Contact Center Manager Server and Contact Center Manager Administration.
- Co-resident installation of Contact Center Manager Server, Contact Center Manager Administration and Communication Control Toolkit.
- Co-resident installation of Contact Center Manager Server, Contact Center Manager Administration, Communication Control Toolkit and Contact Center Multimedia.
- Basic functionalities of Contact Center Manager Server, Manager, Multimedia and Communication Control Toolkit.
- Defence and Recovery of Status 4500 server's CPU/Memory, IO enclosures, Network ELAN/CLAN, Storage disk and Power.

### 2.2. Test Results

The objectives outlined in **Section 2.1** were verified and met. Basic tests were executed and passed with an observation.

Observation:

- In order to assure ftServer 4500 works properly with BringUp and BringDown for IO enclosure module, the DVD drive on ftServer4500 needs to be disabled as recommended in the Stratus Release Notes (R004W).
- LAA Setting needs to be applied on CLAN Teaming Ethernet to avoid possible CLAN's MAC address change if team reconfigured. This assures permanent AACC license which is based on MAC address.

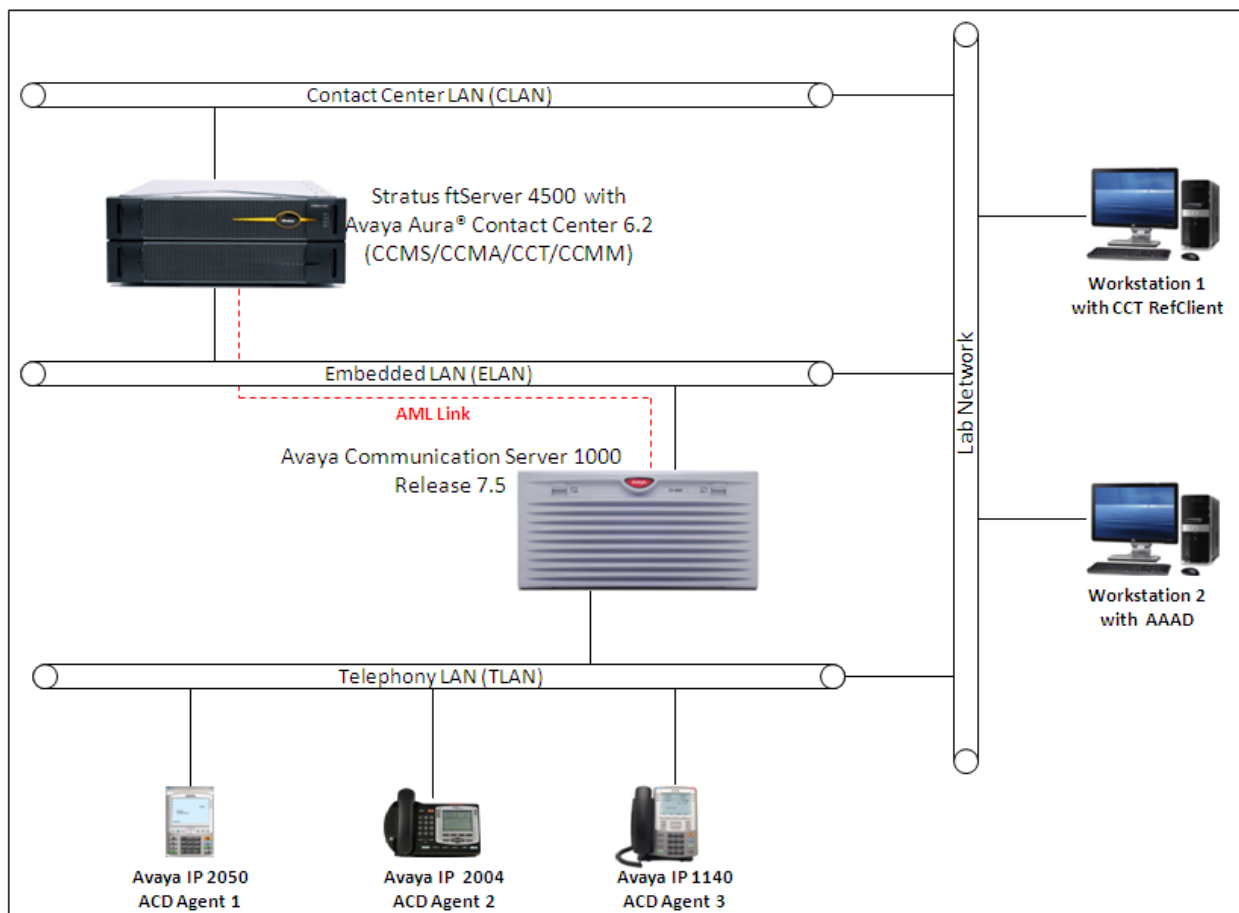
## 2.3. Support

For technical support on Stratus 4500 server, please contact Stratus Technologies support team:

- **Telephone:** 1-800-221-6588 or 1-800-828-8513.
- **Email:** [dispatcher@stratus.com](mailto:dispatcher@stratus.com)
- **Web Site:** [www.stratus.com](http://www.stratus.com)

## 3. Reference Configuration

**Figure 1** illustrates the reference configuration diagram used during the compliance testing between Communication Server 1000, AACC and Stratus 4500 server.



**Figure 1: Reference Configuration Diagram**

## 4. Equipment and Software Validated

Equipment	Software Version
Avaya Communication Server 1000 CPPM	SW Version 7.5Q With DepList 1
Avaya Aura® Contact Center Software	SW Version 6.2.204
Avaya Aura® Contact Center Operating System	Windows Server 2008 R2 Enterprise
Avaya IP Softphone 2050	3.4
Avaya IP Phone 2004P1	0692D93
Avaya IP Phone 1140E	0625C8A
Stratus ftServer 4500 <ul style="list-style-type: none"><li>○ Processor</li><li>○ Memory</li><li>○ Hard Drives</li><li>○ Operating System</li><li>○ Ethernet</li></ul>	<ul style="list-style-type: none"><li>○ Intel Xeon CPU E5504@2.0 GHz (2 Pro)</li><li>○ 8.00 GB</li><li>○ 8x 146 GB with Raid 1</li><li>○ Windows Server 2008 R2 Enterprise</li><li>○ 1GB Duplex (CLAN) and 1GB Duplex (ELAN)</li></ul>
Workstation 1 Operating System	Windows XP SP3
Workstation 2 Operating System	Window Vista SP1

## 5. Configuring Avaya Communication Server 1000

The document assumes that all required configurations on Communication Server 1000 to work with Contact Center are successfully configured as followed by Communication Server 1000 documents. For additional and detailed information on how to install, configure, and administer Communication Server 1000 refer to **Section 10[1]**.

## 6. Configuring Avaya Aura® Contact Center Applications

The main purpose of this testing was to exercise to install, configure and administer Avaya Aura® Contact Center software on Stratus ftServer 4500. It is recommended to follow NTP document when preparing the server, installing, deploying and configuring for AACC system, the following NTP documents are used for this testing: For more additional and detailed information on how to install configure, and administer Contact Center refer to **Section 10[2]**.

## 7. Configuring Stratus ftServer 4500

Installation and configuration of the Stratus 4500 server are beyond the scope of this document. Assumption is made that all required Stratus ftServer hardware and software are successfully

installed and configured. For complete information on Stratus 4500 server installation and configuration refer to **Section 10[3]**.

## 8. Verification Steps

The following steps were performed to verify the integration between Contact Center and Stratus 4500 server:

- Co-resident installation of Contact Center Manager Server and Contact Center Manager Administration including basic functionality and stability testing.
- Co-resident installation of Contact Center Manager Server, Contact Center Manager Administration and Communication Control Toolkit including basic functionality and stability testing.
- Co-resident installation of Contact Center Manager Server, Contact Center Manager Administration, Communication Control Toolkit and Contact Center Multimedia including basic functionality and stability testing.
- Defense and Recovery testing of CPU/Memory and IO enclosure by using the BringDown and BringUp commands.
- Defense and Recovery testing of Network ELAN and CLAN by manually disconnecting the Ethernet cable.
- Defense and Recovery testing of Storage disk by manually pulling the storage disk out of the server.
- Defense and Recovery testing of Power by manually disconnecting the power cable.

*Notes: During compliance testing, Communication Control Toolkit was tested using the RefClient and Contact Center Manager Multimedia was tested using Avaya Aura® Agent Desktop in voice mode only.*

## 9. Conclusion

The basic test cases with respect to installation and stability of Avaya Aura® Contact Center applications on Stratus ftServer 4500 server has passed and met the objectives outlined in **Section 2** with an observation mentioned in **Section 2.2**.

## 10. Additional References

Product documentation for Avaya Communication Server 1000 products may be found at:  
<https://support.avaya.com/css/Products/>

Product documentation for Avaya Aura® Contact Center may be found at:  
<https://support.avaya.com/css/Products/P0793>

Product documentation for Stratus ftServer 4500 server may be found at:  
<http://www.stratus.com/en/Products/ftServerSystems/4500.aspx>

[1] Avaya Communication Server 1000 Documents:

Avaya Communication Server 1000E Installation and Commissioning, Doc# NN43041-310, Issue 05.06, Date Nov 2011.

Avaya CS 1000 Co-resident Call Server and Signaling Server Fundamentals, Doc# NN43001-509, Issue 03.03, Date Aug 2011.

Avaya CS 1000 Element Manager System Reference – Administration, Doc# NN43001-632, Issue 05.13, Date Nov 2011.

Avaya Communication Server 1000 Automatic Call Distribution Fundamentals Release 7.5, Doc# NN43001-551, Issue 05.03, Date Aug 2011.

[2] Avaya Aura® Contact Center 6.2 Documents:

For preparing the server and installing required third-party software before AACC software installed.

- Avaya Aura® Contact Center Planning and Engineering, Doc# NN44400-210, Issue 02.01, Date July 02, 2010.
- Avaya Aura® Contact Center Installation Checklist, Doc# NN44400-310

For installing AACC applications:

- Avaya Aura® Contact Center Installation, Doc# NN44400-311, Issue 03.04, Date Dec 09, 2011.
- Avaya Aura® Contact Center Commissioning, Doc# NN44400-312, Issue 03.04, Date Dec 09, 2011.

For configuring and administering AACC application:

- Avaya Aura® Contact Center Server Administration, Doc# NN44400-610, Issue 03.03, Date Dec 09, 2011
- Avaya Aura® Contact Center Administration–Client Administration, Doc# NN44400-611, Issue 03.03, Date Dec 09, 2011.

For troubleshooting AACC applications:

- Avaya Aura® Contact Center Troubleshooting, Doc# NN44400-712, Issue 03.02, Date Aug 24, 2011.

[3] Stratus ftServer 4500 Documents and Release Notes:

Release Note (R004W) - <http://stratadoc.stratus.com/ftserver/7.0.1.0/r004w-37/wwhelp/wwhimpl/js/html/wwhelp.htm?context=r004w-37&file=ch1r004w-37.html>

Status Installation, Operation, Maintenance, and Troubleshooting Documents - <http://stratadoc.stratus.com/ftserver/7.0.1.0/desc/drasyst.html>

---

**©2012 Avaya Inc. All Rights Reserved.**

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at [devconnect@avaya.com](mailto:devconnect@avaya.com).