AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for EnGenius Technologies DuraFon PRO with Avaya PARTNER ACS - Issue 1.0

Abstract

These Application Notes describe the configuration required for EnGenius Technologies DuraFon PRO to successfully interoperate with Avaya PARTNER ACS. DuraFon PRO is a 4-port long-range industrial cordless phone system that connects to Avaya PARTNER ACS analog station ports to provide cordless telephone capability for users.

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

These Application Notes describe the configuration required for EnGenius Technologies DuraFon PRO to successfully interoperate with Avaya PARTNER ACS. DuraFon PRO is a 4-port long-range industrial cordless phone system that connects to Avaya PARTNER ACS analog station ports to provide cordless telephone capability for users. DuraFon PRO provides the following capabilities and features:

- Cordless capabilities up to:
  - 12 floors in a building
  - 250,000 square feet in a warehouse
  - 3,000 acres on a farm or ranch
- Multiple handsets supported (up to 90 on a base)
- Multiple lines (4-ports/lines per base unit)
- Expandable to 8 base units

Figure 1 illustrates the network configuration used to verify EnGenius Technologies DuraFon PRO with Avaya PARTNER ACS. The test configuration consisted of Avaya PARTNER ACS with the following equipment connected to it: Avaya PARTNER 18D Telephones, EnGenius Technologies DuraFon PRO Industrial Cordless Telephones, and an analog telephone. The test configuration also included two analog trunk (line) connections to the Public Switched Telephone Network (PSTN).
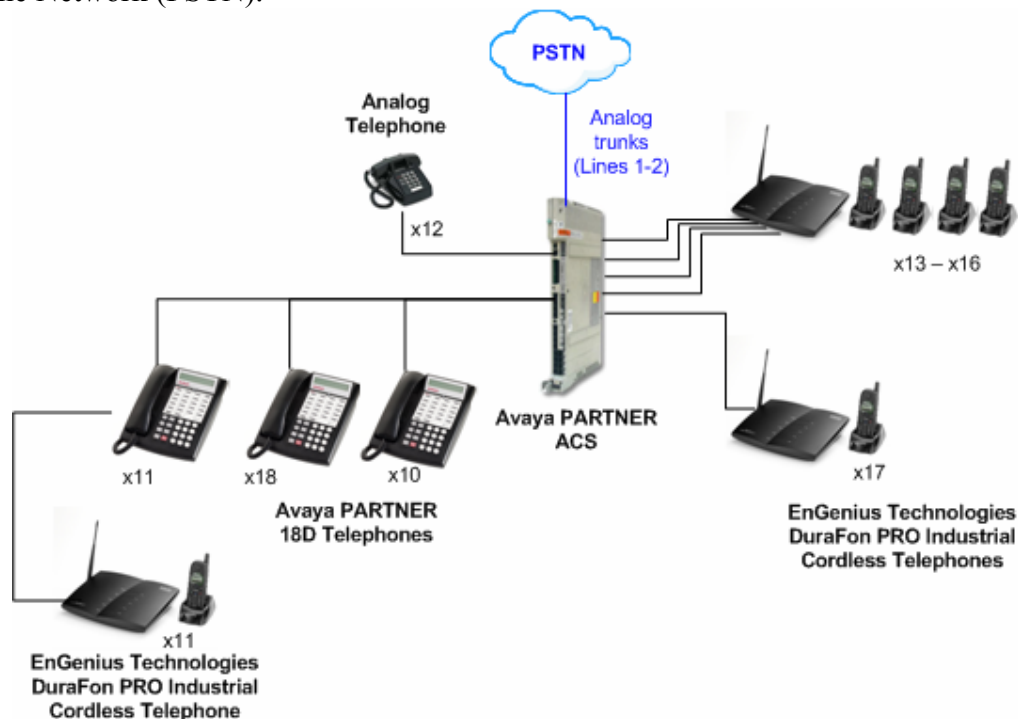

Figure 1: Network Configuration

Avaya DevConnect compliance testing focused on EnGenius Technologies DuraFon PRO interoperability with Avaya PARTNER ACS. Hardware and radio testing of DuraFon PRO was beyond the scope of the compliance test.

2. Equipment and Software Validated

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

Equipment	Software
Avaya PARTNER ACS	R7 (91K)
Avaya PARTNER Voice Messaging	3.0
Avaya PARTNER 18D Telephones	-
Analog Telephone	-
EnGenius Technologies DuraFon PRO	-

3. Configure Avaya PARTNER ACS

The configuration information provided in this section describes the steps required to configure Avaya PARTNER ACS to interoperate with EnGenius Technologies DuraFon PRO. For all other configuration information, please refer to the Avaya PARTNER ACS product documentation in **Section 9**.

1. Physically connect an available analog station port on Avaya PARTNER ACS to an available line port on the DuraFon PRO base station. Make a note of the extension number connected to the line port.
2. Configure the extension set up in **Step 1** as a single-line telephone and set up **Automatic Line Selection** for the extension as follows:
   - From PARTNER ACS extension 10 or 11, press **(Feature) (0) (0)** → **(System Program) (System Program)** → **(Central Tel Program)**.
   - Enter the number of the extension set up in **Step 1**.
   - Press **(*) (*)**.
   - Press **(Right Intercom) (Left Intercom)**.
     For each button pressed, a display similar to the following appears:
     Automatic Line Selection
   - To exit Automatic Line Selection, press **(*) (*)**.
   - Press **(Central Tel Program)**.
   - Press **(Feature) (0) (0)** to exit System Program mode.
3. Repeat **Steps 1 and 2** for each analog station port connected to a DuraFon PRO base station port. In the test configuration, extensions 13 through 16 were connected to one DuraFon PRO base station and extension 17 was connected to another DuraFon PRO base station.

4. Configure EnGenius Technologies DuraFon PRO

The configuration information provided in this section describes the steps required to configure EnGenius Technologies DuraFon PRO to interoperate with Avaya PARTNER ACS. The steps that follow assume the steps described in **Section 3** have already taken place, for all other configuration information, please refer to the EnGenius Technologies product documentation in **Section 9**.

1. Power up DuraFon PRO base station. **Note**: The 1st handset is already registered by default.
2. Register additional handsets to DuraFon PRO base station as described in reference [3].
3. Dedicate line ports to specific handsets via the DuraFon PRO Admin handset as described in reference [3]. In the test configuration, line port 1 was dedicated to handset 10, line port 2 was dedicated to handset 11, line port 3 was dedicated to handset 12, and line port 4 was dedicated to handset 13.
4. Modify the Welcome screen on each handset to reflect the Avaya PARTNER ACS telephone extension associated with it as described in reference [4].

5. Interoperability Compliance Testing

Interoperability compliance testing included feature/functionality and serviceability testing. Feature and functionality testing examined DuraFon PRO's ability to properly handle inbound, outbound and internal extension calls. Serviceability testing introduced failure scenarios to verify that DuraFon PRO could resume placing / receiving calls after failure recovery.

5.1. General Test Approach

Feature and functionality testing was performed manually on Avaya PARTNER ACS configured in Key mode. Two analog loop start trunks from the central office were connected to available trunk ports on Avaya PARTNER ACS. The general test approach was to manually place calls to/from DuraFon PRO handsets for inbound, outbound and internal extension calls. Calling features such as hold, transfer, and conference were exercised using DuraFon PRO handsets. Testing also included verifying that voicemail messages could be recorded and retrieved successfully using DuraFon PRO handsets. For serviceability testing, failures such as power failures affecting PARTNER ACS and DuraFon PRO were applied.

5.2. Test Results

All feature and serviceability tests passed. All observations noted during testing are presented below. For serviceability testing, DuraFon PRO handsets successfully resumed operations when both Avaya PARTNER ACS and DuraFon PRO base stations were subjected to power failure and restored to power.

Test Observations:
- DuraFon PRO does not support message-waiting lamp indication.
- No Caller ID information appears on DuraFon PRO handsets. This functionality will be made available to single line telephones (analog station ports) in an upcoming Avaya PARTNER ACS release.
- There was occasional interference detected on calls involving DuraFon PRO handsets. According to EnGenius Technologies, there is a three-foot separation recommended between Avaya PARTNER ACS and DuraFon PRO base stations.
- DuraFon PRO handsets appeared to delay ringing about 1 to 1.5 ring cycles compared to wired telephones. According to EnGenius Technologies, this is standard for cordless telephones.

6. Verification Steps

The following steps may be used to verify the configuration.

- Place a call from an Avaya PARTNER ACS telephone or analog telephone extension to an extension connected to a DuraFon PRO base station. Verify the call rings at a DuraFon PRO handset and the call connects when answered.
- Place a call from a DuraFon PRO handset to an Avaya PARTNER ACS telephone extension or analog extension. Verify the call rings at the called extension and the call connects when answered.

7. Support

Technical support for EnGenius Technologies DuraFon PRO can be obtained by calling 888-735-7888 or sending email to support@engeniustech.com or online via http://www.engeniustech.com/telecom/support/.

8. Conclusion

These Application Notes describe the configuration required for EnGenius Technologies DuraFon PRO to successfully interoperate with Avaya PARTNER ACS. EnGenius Technologies DuraFon PRO successfully passed compliance testing. Observations noted during testing are documented in **Section 5.2**.

9. Additional References

Product documentation for Avaya products may be found at http://support.avaya.com.

[1] *Avaya PARTNER Advanced Communications System Installation, Programming, and Use*, 518-456-803, Issue 6, July 2004

Product documentation for EnGenius Technologies products may be found at http://www.EnGeniustech.com.

[2] *EnGenius DuraFon PRO & DuraWalkie User's Manual*, P/N: 6709A0273030.

[3] *DuraFon PRO & Walkie Quick Reference Sheet* may be found by browsing to http://www.engeniustech.com/telecom/support then clicking the DuraFon PRO link.

[4] *Avaya PARTNER ACS – DuraFon Integration Instructions* may be found by browsing to http://www.engeniustech.com/telecom/support/datasheets.aspx, selecting DuraFon PRO, then clicking the Avaya PARTNER ACS – DuraFon Integration link.