



Avaya Solution & Interoperability Test Lab

Application Notes for Konftel 300 Conference Unit with Avaya Communication Server Integral 55 LX - Issue 1.0

Abstract

These Application Notes document the configuration steps necessary to enable the Konftel 300 conference unit to interoperate with Avaya IP, digital, and analogue telephones controlled by an Avaya Communication Server Integral 55 LX. The Konftel 300 attaches to an analogue port of the Avaya Communication Server Integral 55 LX and enables meeting or conference participants to participate simultaneously in a telephone conversation.

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

The purpose of these Application Notes is to illustrate how the Konftel 300 conference unit can be used within a telephone system consisting of Avaya IP, digital, and analogue telephones controlled by an Avaya Communication Server Integral 55 LX. The Konftel conference unit attaches to an analogue port of the Avaya Communication Server Integral 55 LX, and contains a microphone and loudspeaker which effectively extend the range from which the telephone can be used to include an area of 30 square meters. Placed within a conference room, the Konftel unit enables all of the participants in the room to take part in a telephone conversation. The unit also performs echo cancellation to avoid feedback problems which might otherwise occur.

This document details the compliance testing with the Konftel 300, including the test configuration, test procedure, and the test results. The diagram below depicts the configuration used for compliance testing.

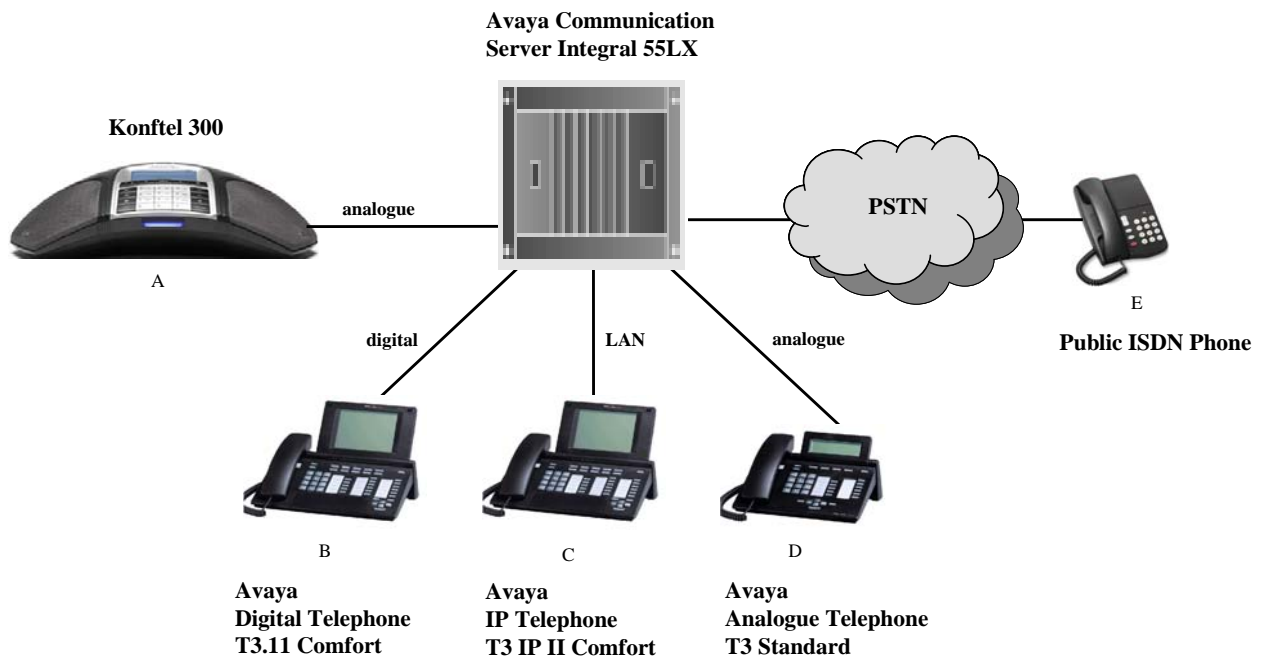


Figure 1: Test Configuration

The configuration that was used for testing consists of an Avaya Communication Server Integral 55 LX. The Avaya telephones and the Konftel 300 were located at physically separate locations to ensure that sound from the test location could not be heard other than via the telephone connection.

The following table contains additional information about each of the telephone endpoints contained in the above diagram:

Phone	Ext	PSTN Number	Endpoint	Interface
A	219	069 9732801004 ...	Konftel 300	analogue
B	203		Avaya digital T3.11 Comfort	ISDN/Up0
C	412		Avaya analogue T3 Standard	analogue
D	294		Avaya IP T3 IP II Comfort	H.323
E		069 7505 6898	ISDN telephone	ISDN/S0

Table 1: Extensions Used for Testing

2. Equipment and Software Validated

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

Equipment	Software Version
Avaya Communication Server Integral 55 LX	L04 (IEE4): L040V00_0_6.0
Avaya Integral System Management (ISM)	V 14.004
Avaya Digital (ISDN) Telephone T3.11 Comfort	T314_0DE.h4i
Avaya Analogue Telephone T3 Standard	-
Avaya IP Telephone T3 IP II Comfort	T102_0DE.a3i
Konftel 300	1.8.469 EU

Table 2: Version Numbers of Equipment and Software

3. Configure Avaya Communication Server Integral 55 LX

The configuration and verification operations illustrated in this section were performed using the Avaya Integral System Management (ISM) tool on a service PC. Access to the system was via the LAN.

The configuration of the interface to the PSTN and the interfaces to the Avaya telephones are outside the scope of this document.

3.1. Configure Dial Plan

Launch ISM by selecting **Start -> Programs -> Integral 33 -> ISM** and enter default username n1 and password p1. To open a connection to the Avaya Communication Server Integral 55LX (I55LX) click on Customer and enter the necessary parameters to connect:

Customer name,
 PABX: Integral 55 LX,
 Software version: IEE4,
 User name: EXPERT,
 Password: ACCESS,
 MML password: stepputtis,
 IP Address of the Ethernet interface of the system,
 Select Ethernet under TUX.

Use the Transparent Console (TCO) of the ISM and the task WABE to configure the dial plan. Use the command **akze:21,intern,2,v;** followed by **zids:<,1;** to add a new entry, e.g. for a 3-digit extension number beginning with 21, covering the extension (219) used for the Konftel 300. The commands **anzg;** (show) and **dwgr:2,v;** (display dial group 2) are used to display the current assignments for dial group 2 as shown in **Figure 2**.

```

PROL<1:wabe;
Kommando in Bearbeitung !
WABE<akze:21,intern,2,v;
zids:<,1;
WABE<anzg;
WABE<dwgr:2,v;
13.02.08 16:55:25
Anzeigen der Wahlbewertungsdaten zu einer Wahlgruppe
=====
Wahlgruppe : 2
Wahlverfahren: Vorwahl
AKZ      Wahl   Bndl  AKZ  SA   Co.  LCR  Vorwahlzu.      ext.  LCR-  RI-  Num.
      selek. num.  Info Grup. Nr.  Daten Ziff.  Sel- Belg Rout SA  Plan
      satz folge  ekt. art  Flg  Flg
-----
0          EXTERN 4    -    -    -    -    0    INIT ROFF -    -
      Amt ueber Erdtaste
20         INTERN -    1    -    -    -    0    -    -    -    -
21         INTERN -    1    -    -    -    0    -    -    -    -
22         INTERN -    2    -    -    -    0    -    -    -    -
23         INTERN -    1    -    -    -    0    -    -    -    -
24         INTERN -    1    -    -    -    0    -    -    -    -
25         INTERN -    1    -    -    -    0    -    -    -    -
26         INTERN -    1    -    -    -    0    -    -    -    -
27         INTERN -    1    -    -    -    0    -    -    -    -
28         INTERN -    1    -    -    -    0    -    -    -    -
29         INTERN -    1    -    -    -    0    -    -    -    -
40         INTERN -    2    -    -    -    0    -    -    -    -
41         INTERN -    1    -    -    -    0    -    -    -    -
...
  
```

Figure 2: Dial Plan Display Form

3.2. Configure Interface to Konftel

Use the TCO of the ISM and the task AOGD to configure the interface. Use the command `aoei:219,...;` (create extension 219) followed by the necessary parameters for an analogue telephone (**Table 3**). Use the command `dnei;` to create the service telephony (TLP).. **Figure 3** shows an example command sequence for the configuration of an analogue subscriber. The command `anzg:` followed by the appropriate extension number (e.g. `anzg:219;`) is used to display the current settings as shown in **Figure 4**

Parameter	Usage
Extension number	Enter the extension number to be assigned to the subscriber, e.g. 219.
Hardware address (HWA)	Enter the designation for the port to which the unit is attached, e.g. 01-01-04-00.
Type (AO-Type)	Enter the station type for an analogue telephone, i.e. MFTN.
Name	Enter the name of the user which is to be associated with the telephone, e.g. Ext_219_Konftel.
Protocol	Enter the protocol and version to be used by an analogue telephone, i.e. 8030, 0.

Table 3: Configuration - Konftel Subscriber

```

PROL<praw:aogd;
AOGD<aoei:219,01-01-04-00;
AOGD<aoty:MFTN;
AOGD<alae;
AOGD<nako:Ext_219_Konftel;
AOGD<prve:8030,0;
AOGD<agrp:1,,,;
AOGD<uela:1,;
AOGD<exit;
AOGD<aoae;
AOGD<dnei:TLP;
AOGD<grda:2,1,0,0,1;
AOGD<dnzu:f;
AOGD<exit;
AOGD<aozu:f;
AOGD<exit;

```

Figure 3: Command Sequence for the Configuration of Konftel Subscriber

```

PROL<1:aogd;
Kommando in Bearbeitung !
AOGD<anzg:219;
=====
13.02.08 17:02:32
Anschlussorgan
-----
Rufnummer      : 219
Steckplatz/HWA : 01-01-04-00
AO-Typ         : MFTN
=====

Allgemeine ADS-Daten
-----
Name           : Ext_219_Konftel
Kostenstelle   : 00000
Protokolle     :
                Protokoll | Version | faulty | busy 2 | error
                -----+-----+-----+-----+-----
                8030      | 0       | AUS    | AUS    | AUS

Ueberlastprioritaet : 1
SPWKGR. Amtszugriff : 1
SPWKGR. COLISEE     : 0
DISA-Gruppe         : 0
Haendlergruppe      : 0
Rufnr.zuord. HKZ u.QUE :
Kategorie           : -1
Wartefeld Maximum   : 10
Reservierte         :
Verbindungsspeicher : 0
Dienstspeicher      : 1
AO-Zustand          : IN BETRIEB
Service-Sperre      : sv-frei
Rufnummern-Sperre   : Aus
=====

Dienstdaten
-----
                TLP
-----+-----+-----+-----+-----
Zustand        | FREI
Wahlgruppe     | 2
Verkehrsgruppe | 1
Umschaltegruppe | 0
Codewahlgruppe | 0
LCR-Gruppe     | 0
Wahlabruf      | DEAKTIV
Rueckausloesen | DEAKTIV
=====

B-Kanal-Daten
-----
Vergabekennung : -
Verhandlungskennung : -

```

Figure 4: Konftel Subscriber Display Form - General and Service Data

3.3. Configure Access to Supplementary Services and Extended Features

To be able to use supplementary services they must be enabled at a system level (ISM-TCO, task AALM) as well as for the extension (ISM-TCO, task AOLM). Select the extension (command **aoau:**, e.g. **aoau:219;**) and use the command **falm:** followed by the acronym for the supplementary service to be enabled (e.g. **falm:AMT;**). **Figure 5** shows a command sequence to enable the necessary supplementary services for the Konftel 300. To display the set of supplementary services assigned to an extension use the command **aalm;** as shown in **Figure 6**.

```
PROL<praw:aolm;
AOLM<aoau:219;
AOLM<falm:amt,rults,rwlts,kon;
AOLM<falm:rzc,ank,rnu,mak;
AOLM:exit;
```

Figure 5: Supplementary Services assignment to an Extension

```
PROL<l:aolm;
Kommando in Bearbeitung !
AOLM<aoau:219;
AOLM<aalm;

13.02.08 17:04:04
AO-Nummer AO - Leistungsmerkmale ( Dienst : TLP )
-----
219      AMT  RUL  RULTS ARSTS ARR  AUF  CICL1 ANK  CIPL0 CWA
        EMU  API  RWLTS KON  RZN  RZC  ACO  ACOAT RNU  MAK
```

Figure 6: Supplementary Services assigned to an Extension

From an analogue telephone supplementary services can be invoked by means of Facility Access Codes (FAC). FACs can be assigned to the supplementary service to be invoked by means of the ISM-TCO and the task WABE to configure the dial plan accordingly. Use the command **akze:** followed by the FAC (AKZ) and the acronym of the supplementary service to create a new entry. The commands **anzg;** followed by **dwgr:2,v;** and **dwgr:2,n;** are used to display the current assignments for dial group 2 as shown in **Figure 5**.

```

PROL<1:wabe;
Kommando in Bearbeitung !
WABE<anzg;
WABE<dwgr:2,v;
13.02.08 16:55:25
Anzeigen der Wahlbewertungsdaten zu einer Wahlgruppe
=====
Wahlgruppe : 2
Wahlverfahren: Vorwahl
AKZ      Wahl  Bndl AKZ  SA   Co. LCR  Vorwahlzu.      ext. LCR- RI- Num.
      selek. num. Info Grup. Nr. Daten Ziff.      Sel- Belg Rout SA Plan
      satz folge      ekt. art Flg Flg
-----
0        EXTERN 4   -   -   -   -   -   -   0   INIT ROFF -   -
21       INTERN -   1   -   -   -   -   -   0   -   -   -   -
41       INTERN -   1   -   -   -   -   -   0   -   -   -   -
E4       RUVA  -   -   -   -   -   -   -   -   -   -   -
F4       RUDA  -   -   -   -   -   -   -   -   -   -   -
WABE<dwgr:2,n;
13.02.08 16:56:32
Anzeigen der Wahlbewertungsdaten zu einer Wahlgruppe
=====
Wahlgruppe : 2
Wahlverfahren: Nachwahl
AKZ      Wahl  Bndl AKZ  SA   Co. LCR  Vorwahlzu.      ext. LCR- RI- Num.
      selek. num. Info Grup. Nr. Daten Ziff.      Sel- Belg Rout SA Plan
      satz folge      ekt. art Flg Flg
-----
1        ANK   -   -   -   -   -   -   -   -   -   -   -
4        KON   -   -   -   -   -   -   -   -   -   -   -

```

Figure 7: Feature Access Codes

4. Configuration of Konftel 300

No special configuration is required.

5. Verification Steps

To verify that the Avaya Communication Server Integral 55 LX was properly configured, the following steps can be taken:

- After establishing the physical connection of the Konftel 300 to the Avaya Communication Server Integral 55 LX via an analogue port, check whether the Konftel 300 is able to support basic calls to and from the various other telephones and the PSTN.
- Continue to check the more complex supplementary services such as Call Hold, Call Transfer, Call Forwarding and Conference.

6. Interoperability Compliance Testing

6.1. General Test Approach

Interoperability compliance tests were carried out manually and covered incoming and outgoing Basic Calls and with the public network (ISDN) as well as the following supplementary services: Calling / Connected Line Identification Presentation as part of Basic Call, Call Hold, Call Transfer, Call Forwarding (unconditional, on busy, and on no reply), and Conference.

6.2. Test Results

In general the tests regarding compatibility between the Avaya Communication Server Integral 55 LX (I55) and the Konftel 300 were successful. Only in the following cases some minor issues were observed:

- For incoming external calls, the “normal” ring associated with an internal call is used.
- When putting a call on hold using the "Hold" key of the Konftel 300, no “hold” tone is heard by the held party. The "R" key should be used instead.
- When a call is active between the Konftel 300 and another telephone, if the Konftel 300 puts the call on hold, and the other party hangs up while the call is on hold, the Konftel 300 remains in the “busy” state and the hold lamp continues to blink. The user can clear this by pressing the "hang up" key.
- Automatic Call Waiting is not supported by the I55 when calling an analogue telephone. An internal caller may use the explicit Call Waiting feature.

7. Conclusion

The Konftel 300 conference unit can be attached to the analogue port of an Avaya Communication Server Integral 55 LX to enable all those present in a room to participate in a telephone conversation. The configuration described in these Application Notes has been successfully compliance tested.

8. Support

Support for Konftel products is available at:

- Web-based support: <http://www.konftel.com/>
- Email: info@konftel.com
- International help desk: +46 90706489
- North American help: +1 866-606-4728

9. Additional References

Avaya product documentation is available at <http://support.avaya.com>.
Konftel 300 documentation is available at <http://www.konftel.com>.

[1] *Supplementary Service Description for Avaya Communication Server Integral 55 LX*

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