

Test Report of Certification

VIERLING Communications GmbH

ECOTEL ISDN2-1

ECOTEL ISDN2-2

ECOTEL VoIP

V4.7.20

with

SIEMENS

HiPath 4000 V4.0

GSM Least Cost Router

Test Status: Certified
Release Date: July 8, 2008

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History of Change

<u>Date</u>	<u>Description</u>	<u>Name</u>
March 31, 2008	Initial Creation	Josef Glasl iSEC 41
April 1, 2008	Updating Test Results	Josef Glasl iSEC 41
April 2, 2008	Updating Test Results	Josef Glasl iSEC 41
April 3, 2008	Signing of test results	Josef Glasl iSEC 41
May 20, 2008	Review	Burkhard Speitkamp SEN LC D 1
July 8, 2008	Release	Diana Hack iSEC 41

1 Overview

1.1 Test Object

1.1.1 Basis Equipment

Testsystem: HiPath 4000

Software Version: HiPath 4000 V4.0 R0.11.0

1.1.2 Digital Compact Recorder ECOTEL

Certification: Test of interface functionality

- against failures and
- of the features

of the

Test Equipment: ECOTEL ISDN2-1
ECOTEL ISDN2-2
ECOTEL VoIP

Software Release: V4.7.20 (+ change for HiPath soft restart - Active calls will not be released by ECOTEL)

HW / FW Release: ---

Manufacturer: Address:
VIERLING Communications GmbH
Pretzfelder Straße 21
D-91320 Ebermannstadt

Description: ECOTEL is a GSM Least Cost router connected to HiPath 4000 via S0-ports (EDSS1NET). ECOTEL can be used in NT- and TE-mode in PtP- or PtMP-set up.

Documentation:

Test Network:

Test Configuration: See chapter 2

1.2 Test Strategy

The main goal of this testing is to test

- the external interfaces
- the system failure/recovery behavior
- the main functionality

of this component within the system as a whole.

The external interfaces are:

- S0 subscriber
- S0 trunk ports

1.2.1 Test Intensity

Scopes of the test are:

- Verification of the correct inter working of ECOTEL with HiPath 4000.
- Restart behaviour
- Reaction in critical situations

Note:

The testing of the product with regard to compliance to requirements for Product Safety, EMV, Network Access Interfaces and Radiation Protection were not performed.

Siemens Enterprise Communications GmbH & Co. KG therefore assumes no responsibility for the compliance to these requirements.

1.3 Realisation Data

Test Preparation: March 31, 2008

Test Duration: April 1 - 2, 2008

Test Location: iSEC – IT Services and Enterprise Communications
HiPath Ready Lab Vienna
Rampengasse 3
A-1190 Vienna

Test Personnel: iSEC:
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1.4 Test Results Summary

VIERLING COMMUNICATIONS GmbH
ECOTEL ISDN2-1
ECOTEL ISDN2-2
ECOTEL VoIP V4.7.20
are ready for link to HiPath 4000 V4.0.

1.4.1 Problems

none

1.4.2 Restrictions

none

2 Configuration

2.1 ECOTEL V4.7

2.1.1 Configuration Advices

Configuration of ECOTEL was done by VIERLING Communications GmbH staff.
VIERLING Communications GmbH staff attended the certification test.

2.2 HiPath4000

HW-Version: HiPath 4000 - 80 DSCX

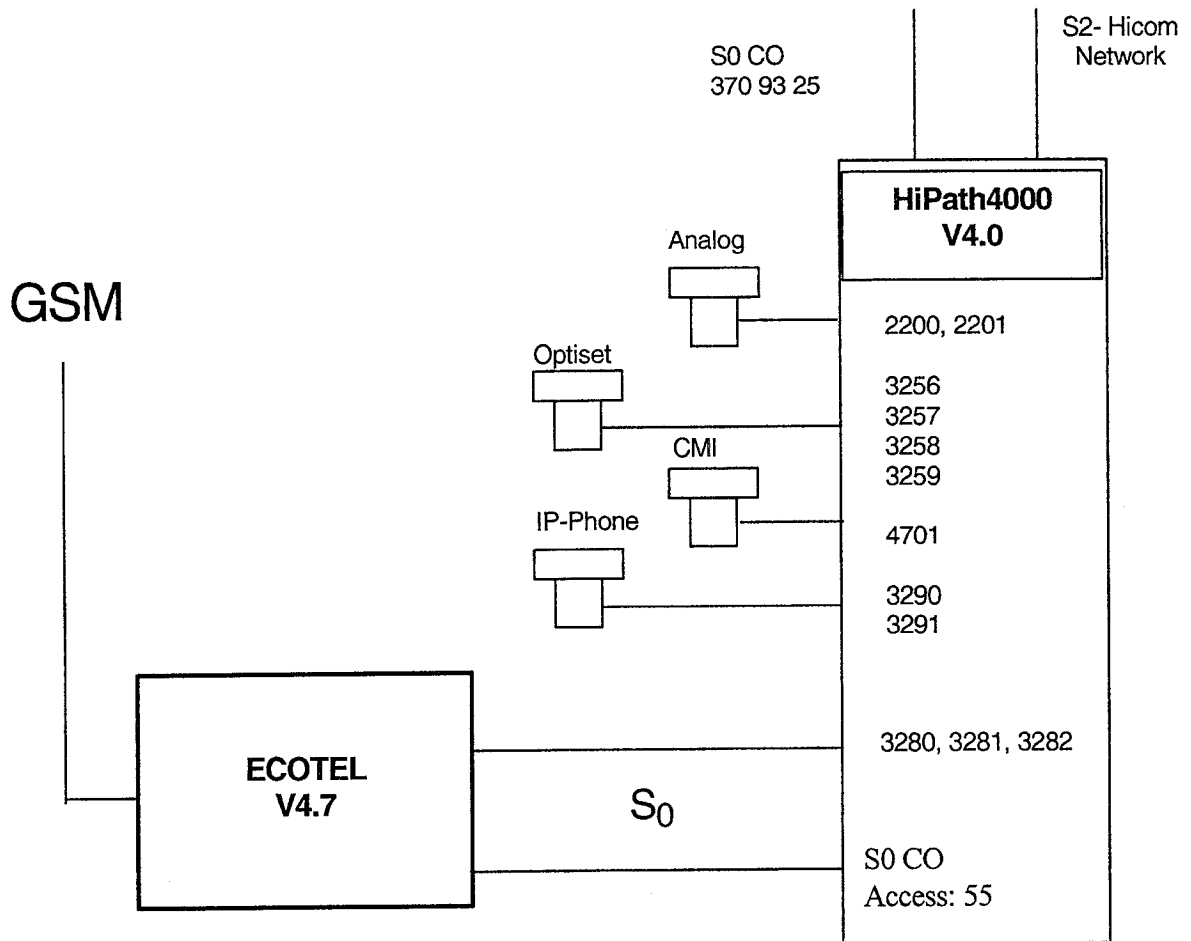
SW-Version: HiPath 4000 V4.0 R0.11.0

S0 trunk on STMD3
S0 subscriber line on STMD3

Phones

Up0e-phones:	Optiset E advance plus
Analogue phones	Euroset 805S
IP phone	OptiPoint 420 advanced
CMI phones	Gigaset S2 professional

2.3 Configuration Block Diagram



3 Test Results in Detail

3.1 Test within Call Processing

This test part checks the correct operation of ECOTEL connected to the HiPath 4000 System. For that different call scenarios are executed.

3.2 Reliability

After regaining normal processing state the functionality of ECOTEL was checked. Disturbance has to be detected by ECOTEL and the whole system has to come to normal processing state without manual interference.

3.2.1 HiPath 4000

3.2.1.1 HiPath Modules

No	Test Procedure	Expected Result	S0-Trunk / -Subscriber
1.	Pull the connection cable between ECOTEL and the HiPath port and put it back again	The whole system returns to normal operating mode without manual interferences.	OK , OK
2.	Pull HiPath modules and put it back again	The whole system returns to normal operating mode without manual interferences	OK , OK

3.2.1.2 Restarts

No	Test Procedure	Expected Result	S0-Trunk / -Subscriber
3.	Soft Restart of HiPath4000	The whole system comes back to work without manual interferences.	OK , OK
4.	Hard Restart of HiPath4000	The whole system comes back to work without manual interferences.	OK , OK
5.	Reload of HiPath4000	The whole system comes back to work without manual interferences.	OK , OK
6.	Power off/on of HiPath4000	The whole system comes back to work without manual interferences.	OK , OK

3.2.2 ECOTEL

No	Test Procedure	Expected Result	S0-Trunk / -Subscriber
7.	Power off / on ECOTEL	ECOTEL comes back to work without manual interferences.	OK , OK
8.	Restart of ECOTEL	ECOTEL comes back to work without manual interferences.	OK , OK

3.3 Call Scenarios

3.3.1 Connection to internal S0-Bus on STMD3 board

Ecotel is set up in PtMP-TE mode

No	Test Procedure	Expected Result	Result
9.	Up0E phone 3256 dials 3280-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
10.	Up0E phone 3256 dials 3280-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
11.	Analog phone 2200 dials 3280-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
12.	Analog phone 2200 dials 3280-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
13.	IP-Phone phone 3290 dials 3280-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
14.	IP-Phone phone 3290 dials 3280-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
15.	CMI phone 4701 dials 3280-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
16.	CMI phone 4701 dials 3280-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
17.	Up0E phone 3256 is in conversation with 3257, goes to consultation and dials 3280-3258. 3256 toggles between internal and external call.	The external call is set up. Toggling is possible. External line on hold hears MoH	OK
18.	Up0E phone 3256 is in conversation with 3257, goes to consultation and dials 3280-3258. 3256 sets up a conference between internal and external call.	Conference is possible.	OK
19.	Analog phone 2200 dials 3280-3257. After accepted call keys 0 – 9, * and # are pressed.	The external call is set up. DTMF tones are sent.	OK
20.	External dials 0049 160 7033852.	ECOTEL is reached. External hears welcome.	OK
21.	After welcome external dials extension number 3256.	3256 starts ringing. The call is set up.	OK

3.3.2 Connection to external S0 trunk in PtP mode on STMD3 board

Ecotel is set up in PtP-NT mode

No	Test Procedure	Expected Result	Result
22.	Up0E phone 3256 dials 55-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
23.	Up0E phone 3256 dials 55-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
24.	Analog phone 2200 dials 55-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
25.	Analog phone 2200 dials 55-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
26.	IP-Phone phone 3290 dials 55-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
27.	IP-Phone phone 3290 dials 55-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
28.	CMI phone 4701 dials 55-3257. Calling party goes on hook.	The external call is set up. The call is released.	OK
29.	CMI phone 4701 dials 55-3257. Called party goes on hook.	The external call is set up. The call is released.	OK
30.	Up0E phone 3256 is in conversation with 3257, goes to consultation and dials 55-3258. 3256 toggles between internal and external call.	The external call is set up. Toggling is possible. External line on hold hears MoH	OK
31.	Up0E phone 3256 is in conversation with 3257, goes to consultation and dials 55-3258. 3256 sets up a conference between internal and external call.	Conference is possible.	OK
32.	Analog phone 2200 dials 3256 – 1. After accepted call keys 0 – 9, * and # are pressed.	The external call is set up. DTMF tones are sent.	OK
33.	External dials 0049 160 7033852.	ECOTEL is reached. External hears welcome.	OK
34.	After welcome external dials extension number 3256.	3256 starts ringing. The call is set up.	OK

3.4 *Remarks*

Meanings of Abbreviations:

OK	Test passed
NOK	Test failed
NA	Test not applicable
NP	Test not processed
NS	Situation not supplied
NOK *X	Error / restriction with description
* X	Remark to Functionality
PtP	Point to Point
PtMP	Point to Multipoint
TE	Terminal Equipment
NT	Network Termination

4 Configuration Data

4.1 HiPath4000

4.1.1 S0-Trunk

AB-TDCSU:1-2-121-3;
H500: AMO TDCSU GESTARTET

DIGITALER SATZ (FORMAT=L)	
GER = SOVERB	LAGE = 1-02-121-3 BUNR = 55
PROTVAR = EDSS1NET	INBETR = J SUCHART = ZYK
COTNR = 20	COPNR = 0 WABE = 0
VBZ = 0	COS = 1 LCOSS = 1
LCOSD = 1	SATZNR = S0-ZU-KUNDE ZLNR = 0
SEGMENT = 1	DEDSVC = KEINE
FACILITY =	SRTIDX =
TRTBL = GDTR	SIDANI = N TREFTYP = QUER
CBMATTR = KEINE	NWMUXTIM = 10 TCHARG = N
ANZUNT = 0	ZIVO =
ISDNIP = 00	ISDNMP = 0 CHIMAP = N
PNPL2P =	PNPL1P =
TRACOUNT = 31	SATCOUNT = VIELE PNPAC =
ALARMNR = 0	FIDX = 1 KNNR = 1 -1 -100
ZONE = ANK01	COTX = 20 CARRIER = 1
DOMTYP =	DOMAINNR =
ENACHT =	TPROFNR =
UUSCCX = 16	CCHDL =
CLASSMRK = EC & G711 & G729AOPT	FNIDX = 0
TCCID =	SRCGRP =
	SECLEVEL = TRADITIO
MASTER = N	SMD = N
BKVER = N	CNTRNR = 0

ANZAHL DER B-KANAELE IN DIESER AUSGABE: 2

AMO-TDCSU-111 DIGITALE LEITUNGSSAETZE
ABFRAGEN DURCHGEFUEHRT;

4.1.2 S0-Subscriber

AB-SBCSU:3280;
H500: AMO SBCSU GESTARTET

```

----- ENDGERAETE-DATEN -----
TLNNU      =3280          ART      =FBUS          COS1      =24          WABE      =0
HAUPTNU    =3280          ANSCHL  =DIR          COS2      =5           VBZ       =0
LAGE       =1- 2-121- 2  LCOSS1   =1           BUM       =0
INBETR     =JA           ASYNCT   =           LCOSS2   =1
GETLNNU    =NEIN         PERMAKT  =JA          LCOSD1   =1           RRBMAX   =5
AMTFANG    =NEIN         EXTBUS   =JA          LCOSD2   =1           RRSB     =NEIN
ALARMNR    =0           STDSTANA =           RNGI      =0           RRSF     =NEIN
WMUSIK     =0           FLASH    =           RNGZ1    =           RRFBK    =
PMIDX      =0           BASICSV  =           RNGZ2    =
MFGVSTRT  =JA           TSI      =1           SPROT    =SBDSS1    SOPT     =10
GERKON     =SET600       DEE      =2           DPROT    =SBDSS1    DOPT     =10
           FAX           =3           FPROT    =SBDSS1    FOPT     =10
----- AKTIVIERUNGSKENNZEICHEN FUER LM -----
FRSAS      :NEIN         ANRS     :NEIN
FRSAD      :NEIN         ANSS     :NEIN         TWLOGIN  :
FRSAF      :NEIN         FRZA     :NEIN
----- LM UND GRUPPENZUGEHORIGKEITEN -----
AUN        :           CHESE    :
KEYSYS     :           NAVARNU  :
SRCGRP     :(1 )       TCLASS   : 0
SA RNR     :NEIN
----- TEILNEHMER MERKMALE (AMO SDAT) -----
KEINE

```

AMO-SBCSU-111 ENDGERAETE- UND S0-BUS-KONFIGURATION IN SWU
ABFRAGEN DURCHGEFUEHRT;

5 **Confirmation**

Testing personnel confirms that the test cases in chapter 3 were performed and that the results were as described in this document.

Josef Glasl

iSEC

Bernhard Emmert

VIERLING Communications GmbH