

## Test Report of Certification

### **VIERLING Communications GmbH**

**ECOTEL ISDN 2-1**

**ECOTEL ISDN 2-2**

**ECOTEL VoIP**

**V4.7.20**

with

**SIEMENS**

**HiPath 3000 V7.0**

**HiPath 2000 V2.0**

**HiPath Open Office ME V1**

**GSM Least Cost Router**

**Test Status: Certified**

**Release Date: July 8, 2008**

Copyright © 2008 Siemens Enterprise Communications GmbH & Co. KG

Copying of this document and giving it to others and the use or communication of the contents thereof, are forbidden without express authority. Offenders are liable to the payment of damages. All rights reserved in the event of the grant of a patent or the registration of a utility model or design.

Issued by: Siemens Enterprise Communications GmbH & Co. KG  
D-81359 Munich

## Contents:

<b>1</b>	<b>Overview</b> .....	<b>4</b>
<b>1.1</b>	<b>Test Object</b> .....	<b>4</b>
1.1.1	Basis Equipment .....	4
1.1.2	Vierling Communications ECOTEL GSM-GW .....	4
<b>1.2</b>	<b>Test Strategy</b> .....	<b>5</b>
1.2.1	Test INTensity .....	5
<b>1.3</b>	<b>Realisation Data</b> .....	<b>6</b>
<b>1.4</b>	<b>Test Results Summary</b> .....	<b>6</b>
1.4.1	Problems .....	6
1.4.2	Remarks .....	6
1.4.3	Restrictions .....	6
<b>2</b>	<b>Configuration</b> .....	<b>7</b>
<b>2.1</b>	<b>ECOTEL VoIP</b> .....	<b>7</b>
2.1.1	Configuration Advices .....	7
<b>2.2</b>	<b>HiPath3000</b> .....	<b>7</b>
<b>2.3</b>	<b>HiPath2000</b> .....	<b>10</b>
<b>2.4</b>	<b>Configuration Block Diagram</b> .....	<b>12</b>
<b>3</b>	<b>Test Results in Detail</b> .....	<b>12</b>
<b>3.1</b>	<b>Reliability</b> .....	<b>12</b>
3.1.1	HiPath 3000 .....	12
3.1.1.1	HiPath-modules .....	12
3.1.1.2	Restarts .....	13
3.1.2	HiPath 2000 .....	13
3.1.2.1	HiPath-modules .....	13
3.1.2.2	Restarts .....	13
3.1.3	VIERLING COMMUNICATIONS ECOTEL GSM-GW .....	13
<b>3.2</b>	<b>Test within Call Processing</b> .....	<b>14</b>
3.2.1	ECOTEL GSM-GW connected to internal S0-Bus .....	14
3.2.2	ECOTEL GSM-GW connected to external ISDN trunk in PtP mode .....	15
3.2.3	ECOTEL GSM-GW connected to external ISDN trunk in PtMP mode .....	17
<b>3.3</b>	<b>Remarks</b> .....	<b>19</b>
<b>4</b>	<b>Configuration Data</b> .....	<b>19</b>
<b>4.1</b>	<b>HiPath3000</b> .....	<b>19</b>
<b>5</b>	<b>Confirmation</b> .....	<b>21</b>

History of Change

<u>Date</u>	<u>Description</u>	<u>Name</u>
April 01, 2008	Initial Creation	Friedrich Weber SEN RPM
April 04, 2008	Updating Test Results	Friedrich Weber SEN RPM
July 08, 2008	Review	Dr. Georg Brune SEN ESY SME MP 51
July 08, 2008	Release	Diana Hack iSEC 41

## 1 Overview

### 1.1 Test Object

#### 1.1.1 Basis Equipment

**Testsystem:** HiPath 3500  
HiPath 3800  
HiPath 2030  
HiPath Open Office ME V1

**Software Version:** HiPath 3500 V7.0 HE640S.07.537  
HiPath 3800 V7.0 HE640P.07.537  
HiPath 2030 V2.0 HE640Y.06.475  
HOOME V1

#### 1.1.2 Vierling Communications ECOTEL GSM-GW

**Certification:** Test of interface functionality

- against failures and
- of the features

of the

**Test Equipment:** ECOTEL VoIP Version 4.7.20

**Software Release:** V 4.7.20

**HW / FW Release:** ---

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

**Description:** ECOTEL VoIP is a GSM Least Cost router connected to HiPath3000 via S0-ports (EDSS1). ECOTEL GSM gateways can be used in NT- and TE-mode in PtP- or PtMP-set up. ECOTEL VoIP

**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 and S0-trunk ports
- IP trunking using SIP native protocol variant.

### 1.2.1 Test Intensity

Scopes of the test are:

- Verification of the correct operation of ECOTEL GSM Gateway connected to HiPath 3000.
- 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 AG therefore assumes no responsibility for the compliance to these requirements.

### 1.3 Realisation Data

**Test Preparation:** April 01, 2008

**Test Duration:** April 01 – 04, 2008

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

**Test Personnel:** SEN RPM:  
Friedrich WEBER [friedrich.a.weber@siemens.com](mailto:friedrich.a.weber@siemens.com) +43 51707 36675

VIERLING COMMUNICATIONS GmbH:  
Bernhard EMMERT [bernhard.emmert@vierling.de](mailto:bernhard.emmert@vierling.de) +49 9194-97268

### 1.4 Test Results Summary

VIERLING COMMUNICATIONS GmbH

ECOTEL ISDN2-1  
ECOTEL ISDN2-2  
ECOTEL VoIP

are ready for link to HiPath 3000 V7.0, HiPath Open Office ME V1  
and HiPath 2000 V2.0.

#### 1.4.1 Problems

none

#### 1.4.2 Remarks

Ecotel connected to HiPath 3000 S0-ptp trunk causes audible ISDN clock synchronization clicks. See chapter 4.1 for configuration hints.

These synchronization clicks were not audible during this certification with the tested HiPath version. This remark still remains as configuration hint for older HiPath versions.

#### 1.4.3 Restrictions

none

## 2 Configuration

### 2.1 ECOTEL VoIP

#### 2.1.1 Configuration Advices

Configuration of ECOTEL VoIP was done by VIERLING COMMUNICATIONS staff.  
VIERLING COMMUNICATIONS staff attended the certification test.

### 2.2 HiPath3000

HW-Version: HiPath 3500  
HiPath 3800

SW-Version: HiPath 3500 V7.0 HE643S.0.033  
HiPath 3800 V7.0 HE643P.0.033

HiPath 3500 S0-ports on CBRC  
S0-ports on STLS4

HiPath 3800 S0-ports on STMD8

#### Phones

Up0e-phones:	optiset E advance plus optiset E memory optipoint 500
analogue phones	euroset 2010
ISDN phone	gigaset 3020 ISDN
HFA-phones	optipoint 420 advance optipoint 410 Standard
WLAN-phones	WL2 professional
DECT-phones	gigaset 4000 comfort

Baugruppen	Loadware	System	Flags	Weiterleitung	Leitungszustände
System-Texte	UCD Agenten	Zähler für Leistungsmerkmale		KWI Pool	

**Systemweite Flags**

AUL im Amt, sofort	Inaktiv
AUL im Amt, Unbeantwortet	Inaktiv
AUL im Amt, Besetzt	Inaktiv
Nachtschaltung	aus

**MSN bez. AUL Status**

	MSN	Leitung	AUL-Ziel	Art
1		keine		
2		keine		
3		keine		
4		keine		
5		keine		
6		keine		
7		keine		
8		keine		

**Software-Version**

System H3K\_V7\_R3.4.0\_033  
(HE643P.00.033)

Binder-Nr. 033.000  
Länderversion Deutschland

**HW-Daten**

Seriennr = MAC-Adresse:  
08:00:06:83:C1:81

**Amtsberechtigungen**

Anzahl berechtigter Tln. Tag 5  
Anzahl berechtigter Tln. Nacht 5

Zurücksetzen Übernehmen Hilfe

Baugruppen	Loadware	System	Flags	Weiterleitung	Leitungszustände
System-Texte	UCD Agenten	Zähler für Leistungsmerkmale		KWI Pool	

**Anlagentyp**  
HiPath 3800

**Länderversion**  
Deutschland

**Softwareversion**  
HiPath 3000/5000 V7.0

**Auswahl Baugruppen**

- SLMAB
- SLMA
- SLMB
- SLMC
- SLMD
- SLME
- SLMF
- SLMG

**Anlagenausbau Hardware**

Umschalten zu  
SW-Ausbau  
5000-Long

**Box 0**

1	2	3	4	5	6	7	8	9	10
S	S	S		S	C		D		
L	L	L		T	B		I		
M	M	C		M	S		U		
O	A	N		I	A		N		
8				2	P		2		

LUNA2 LUNA2

LUNA Info

**Baugruppendaten**

Slot 1 Bezeichnung und Sachnummer: 31107 5000000000000000

Zurücksetzen Übernehmen Hilfe

Frontansicht Assistent Explorer **Wartung** Hilfe Abmelden HG 1500 V7 SAPP

**Software-Build-Version**

**Aktuell aktives Gateway-Image**

Software-Release-Version: HXGs\_V7\_R4.1.5  
 Software-Build-Version: HI-G15.74.001-005.S  
 Aktueller Betriebszustand: V6.0 (3060)  
 Aktueller Sub-Betriebszustand: 3170

Ein neues Installations-Image kann mittels 'Wartung → Software-Image' auf das Gateway übertragen und aktiviert werden. Ein bereits geladenes Image kann mittels 'Wartung → Auftragsliste oder Aktionen' aktiviert werden.

**HiPath**

HiPath System-Version: H3K\_V7\_R3.4.0\_033  
 HiPath System-Modus: 61

Grundeinstellungen

- System
  - Hardware-Konfiguration
  - CPU
  - CPU-Monitor
  - Task-Monitor
  - Speicher
  - Flash
  - Net-Stack-Ressourcen
- Gateway
- Lizenzverwaltung
- DynDNS
  - AF/EF-Codepunkte
  - Quality of Service
  - SNTP-Einstellungen
- Port-Verwaltung
  - Ablage für Online-Hilfe

Baugruppen	Loadware	System	Flags	Weiterleitung	Leitungszustände																																				
System-Texte	UCD Agenten	Zähler für Leistungsmerkmale	KWI Pool																																						
<p><b>Systemweite Flags</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>AUL im Amt, sofort</td><td>Inaktiv</td></tr> <tr><td>AUL im Amt, Unbeantwortet</td><td>Inaktiv</td></tr> <tr><td>AUL im Amt, Besetzt</td><td>Inaktiv</td></tr> <tr><td>Nachtschaltung</td><td>aus</td></tr> </table>		AUL im Amt, sofort	Inaktiv	AUL im Amt, Unbeantwortet	Inaktiv	AUL im Amt, Besetzt	Inaktiv	Nachtschaltung	aus	<p><b>Optionsbaugruppen</b></p> <p>Options-Slot: Slot 1</p> <p>Options-Typ: -</p> <p>SW-Sachnummer: -</p> <p>HW-id: -</p>																															
AUL im Amt, sofort	Inaktiv																																								
AUL im Amt, Unbeantwortet	Inaktiv																																								
AUL im Amt, Besetzt	Inaktiv																																								
Nachtschaltung	aus																																								
<p><b>MSN bez. AUL Status</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>MSN</th> <th>Leitung</th> <th>AUL-Ziel</th> <th>Art</th> </tr> </thead> <tbody> <tr><td>1</td><td>keine</td><td></td><td></td></tr> <tr><td>2</td><td>keine</td><td></td><td></td></tr> <tr><td>3</td><td>keine</td><td></td><td></td></tr> <tr><td>4</td><td>keine</td><td></td><td></td></tr> <tr><td>5</td><td>keine</td><td></td><td></td></tr> <tr><td>6</td><td>keine</td><td></td><td></td></tr> <tr><td>7</td><td>keine</td><td></td><td></td></tr> <tr><td>8</td><td>keine</td><td></td><td></td></tr> </tbody> </table>		MSN	Leitung	AUL-Ziel	Art	1	keine			2	keine			3	keine			4	keine			5	keine			6	keine			7	keine			8	keine			<p><b>Software-Version</b></p> <p>System: H3K_V7_R3.4.0_033 (HE643S.00.033)</p> <p>Binder-Nr.: 033.000</p> <p>Länderversion: Deutschland</p> <p><b>HW-Daten</b></p> <p>Seriennr = MAC-Adresse: 08 : 00 : 06 : 84 : 2A : 72</p> <p><b>Amtsberechtigungen</b></p> <p>Anzahl berechtigter Tln. Tag: 6</p> <p>Anzahl berechtigter Tln. Nacht: 6</p>			
MSN	Leitung	AUL-Ziel	Art																																						
1	keine																																								
2	keine																																								
3	keine																																								
4	keine																																								
5	keine																																								
6	keine																																								
7	keine																																								
8	keine																																								
<p>Zurücksetzen    <input type="button" value="Übernehmen"/>    Hilfe</p>																																									



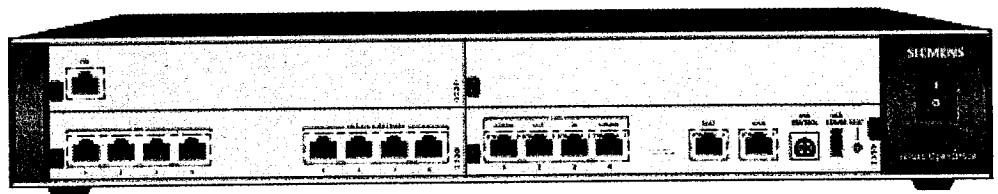
## 2.4 HiPath Open Office ME V1

HW-Version: HiPath Open Office ME V1

SW-Version: HOOME V1.0 OO\_V1\_R2.0.0\_038

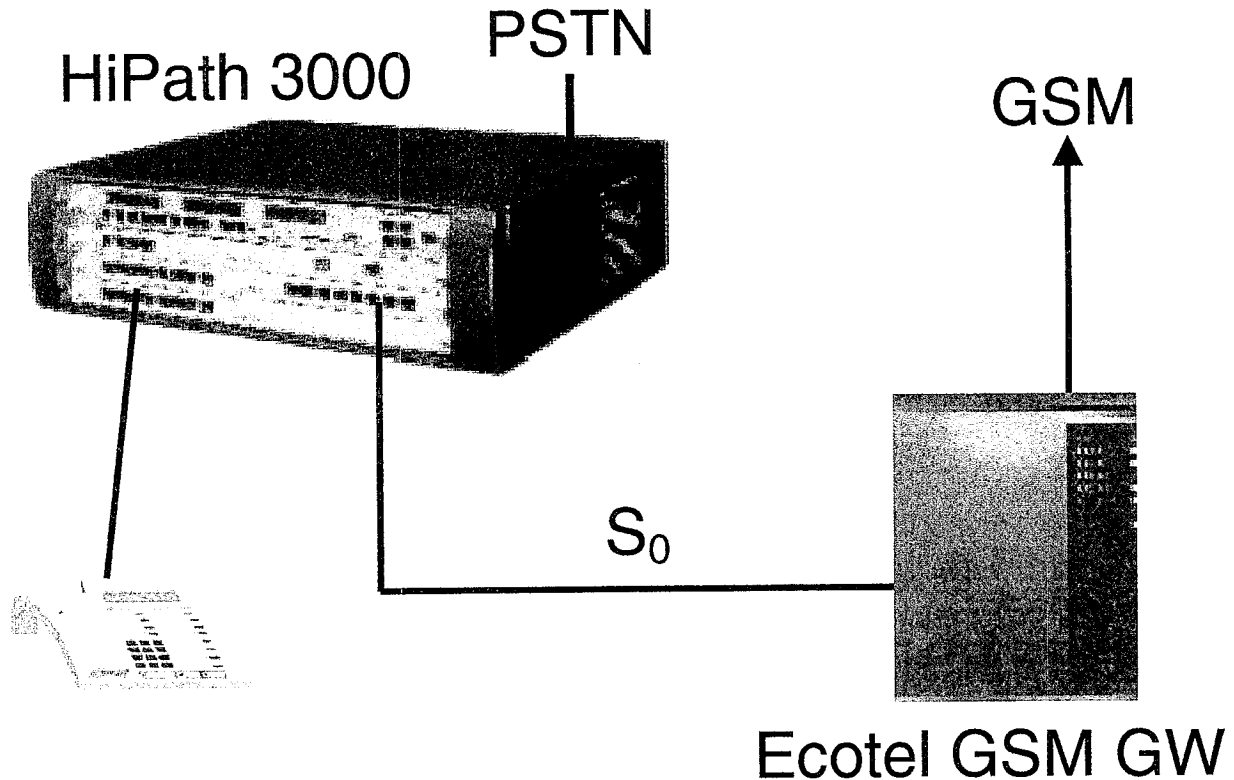
Phones

HFA-phones            openstage 60  
                              openstage 80



SW-Version: HOO\_V1\_R2.0.0\_038

## 2.5 Configuration Block Diagram



## 3 Test Results in Detail

### 3.1 Reliability

ECOTEL GSM-GW has to detect disturbances and has to regain normal operating state without manual interference. After regaining normal processing state the functionality of ECOTEL GSM-GW is checked.

#### 3.1.1 HiPath 3000

##### 3.1.1.1 HiPath-modules

No	Test Procedure	Expected Result	Result H3800	Result H3500
1.	Pull the connection cable between ECOTEL GSM-GW and the HiPath port and put it back again	The whole system returns to normal operating mode without manual interferences.	PASSED	NT
2.	Pull HiPath modules and put it back again	The whole system returns to normal operating mode without manual interferences	PASSED	NA

Remark: It is not allowed to hot plug in the boards of HiPath 3500.

### 3.1.1.2 Restarts

No	Test Procedure	Expected Result	Result H3800	Result H3500
3.	Soft Restart of HiPath 3000	The whole system comes back to work without manual interferences.	PASSED	PASSED
4.	Hard Restart of HiPath 3000	The whole system comes back to work without manual interferences.	PASSED	PASSED

### 3.1.2 HiPath 2000

#### 3.1.2.1 HiPath-modules

No	Test Procedure	Expected Result	Result H2000
5.	Pull the connection cable between ECOTEL GSM-GW and the HiPath port and put it back again	The whole system returns to normal operating mode without manual interferences.	PASSED

#### 3.1.2.2 Restarts

No	Test Procedure	Expected Result	Result H2000
6.	Soft Restart of HiPath 2000	The whole system comes back to work without manual interferences.	PASSED
7.	Hard Restart of HiPath 2000	The whole system comes back to work without manual interferences.	PASSED

### 3.1.3 VIERLING COMMUNICATIONS ECOTEL GSM-GW

No	Test Procedure	Expected Result	Result H3800	Result H3500
8.	Power off / on ECOTEL GSM-GW	ECOTEL GSM-GW comes back to work without manual interferences.	PASSED	NT
9.	Restart of ECOTEL GSM-GW	ECOTEL GSM-GW comes back to work without manual interferences..	PASSED	NT

No	Test Procedure	Expected Result	Result H2000
10.	Power off / on ECOTEL GSM-GW	ECOTEL GSM-GW comes back to work without manual interferences.	NT
11.	Restart of ECOTEL GSM-GW	ECOTEL GSM-GW comes back to work without manual interferences..	NT

### 3.2 Test within Call Processing

This test part checks the correct operation of ECOTEL GSM-GW connected to the HiPath system. Different call scenarios are executed to verify the interconnection of the devices.

#### 3.2.1 ECOTEL GSM-GW connected to internal S0-Bus

Ecotel is set up in PtMP-TE mode, HiPath S0 port is set to Euro-Bus

	Test Procedure	Result H3800	Result H3500
12.	Up0E phone outgoing call	PASSED	PASSED
13.	Analogue phone outgoing call	PASSED	PASSED
14.	ISDN phone outgoing call	PASSED	NT
15.	3 party conference (2 iNT, 1 ext.)	PASSED	PASSED
16.	DTMF detection	PASSED	PASSED
17.	Incoming call to all types of extension phones	PASSED	PASSED
18.	Internal subscriber toggles	PASSED	PASSED
19.	External subscriber makes an enquiry	PASSED	PASSED
20.	External subscriber toggles	PASSED	PASSED
21.	External subscriber transfers the call	PASSED	PASSED
22.	External line on hold, MOH	PASSED	PASSED
23.	Release timeout without DTMF-suffix dialling	PASSED	PASSED

No	Test Procedure	Result H2000
24.	HFA phone outgoing call	PASSED
25.	Analogue phone outgoing call	PASSED
26.	ISDN phone outgoing call	NT
27.	3 party conference (2 iNT, 1 ext.)	PASSED
28.	DTMF detection	PASSED
29.	Incoming call to all types of extension phones	PASSED
30.	Internal subscriber toggles	PASSED
31.	External subscriber makes an enquiry	PASSED
32.	External subscriber toggles	PASSED
33.	External subscriber transfers the call	PASSED
34.	External line on hold, MOH	PASSED
35.	Release timeout without DTMF-suffix dialling	PASSED

### 3.2.2 ECOTEL GSM-GW connected to external ISDN trunk in PtP mode

Ecotel is set up in PtP-NT mode, HiPath S0 port is set to Euro-Amt PtP

No	Test Procedure	Result H3800	Result H3500
36.	Up0E phone outgoing call	PASSED	PASSED
37.	DECT phone outgoing call	PASSED	NT
38.	WLAN phone outgoing call	PASSED	PASSED
39.	Analogue phone outgoing call	PASSED	PASSED
40.	ISDN phone outgoing call	PASSED	NT
41.	3 party conference (2 int, 1 ext.)	PASSED	PASSED
42.	DTMF detection	PASSED	PASSED
43.	Incoming call to all types of extension phones	PASSED	PASSED
44.	Toggle	PASSED	PASSED
45.	External line on hold, MOH	PASSED	PASSED
46.	External subscriber makes an enquiry	PASSED	PASSED
47.	External subscriber toggles	PASSED	PASSED
48.	External subscriber transfers the call	PASSED	PASSED
49.	2 GSM modules of Ecotel GSM GW used simultaneously.	PASSED	NT
50.	Incoming call without DDI	PASSED	PASSED
51.	Incoming call with wrong DDI	PASSED	PASSED
52.	Incoming call with incomplete DDI	PASSED	PASSED
53.	Incoming call to busy extension	PASSED	PASSED
54.	Incoming call camp on	PASSED	PASSED
55.	Incoming call to hunting group	PASSED	PASSED
56.	Release timeout without DTMF-suffix dialling	PASSED	PASSED

No	Test Procedure	Result H2000
57.	HFA phone outgoing call	PASSED
58.	Analogue phone outgoing call	PASSED
59.	ISDN phone outgoing call	NT
60.	3 party conference (2 int, 1 ext.)	PASSED
61.	DTMF detection	PASSED
62.	Incoming call to all types of extension phones	PASSED
63.	Toggle	PASSED
64.	External line on hold, MOH	PASSED
65.	External subscriber makes an enquiry	PASSED
66.	External subscriber toggles	PASSED
67.	Incoming call without DDI	PASSED
68.	Incoming call with wrong DDI	PASSED
69.	Incoming call with incomplete DDI	PASSED
70.	Incoming call to busy extension	PASSED
71.	Incoming call camp on	PASSED
72.	Incoming call to hunting group	PASSED
73.	External subscriber transfers the call	PASSED
74.	Release timeout without DTMF-suffix dialling	PASSED

**HiPath Open Office external trunk set to S0 PtP**

HFA phones were openstage 60 and openstage 80

No	Test Procedure	Result HOOME
75.	HFA phone outgoing call	PASSED
76.	Analogue phone outgoing call	PASSED
77.	ISDN phone outgoing call	NT
78.	3 party conference (2 int, 1 ext.)	PASSED
79.	DTMF detection	PASSED
80.	Incoming call to all types of extension phones	PASSED
81.	Toggle	PASSED
82.	External line on hold, MOH	PASSED
83.	External subscriber makes an enquiry	PASSED
84.	External subscriber toggles	PASSED
85.	Incoming call without DDI	PASSED
86.	Incoming call with wrong DDI	PASSED
87.	Incoming call with incomplete DDI	PASSED
88.	Incoming call to busy extension	PASSED
89.	Incoming call camp on	PASSED
90.	Incoming call to hunting group	PASSED
91.	External subscriber transfers the call	PASSED
92.	Incoming call without DDI	PASSED
93.	Incoming call with wrong DDI	PASSED
94.	Incoming call with incomplete DDI	PASSED
95.	Incoming call to busy extension	NT
96.	Incoming call camp on	NT
97.	Incoming call to hunting group	NT
98.	Release timeout without DTMF-suffix dialling	PASSED

### 3.2.3 ECOTEL GSM-GW connected to external ISDN trunk in PtMP mode

Ecotel is set up in PtMP-NT mode, HiPath S0 port is set to Euro-Amt PtMP

No	Test Procedure	Result H3800	Result H3500
99.	Up0E phone outgoing call	NT	PASSED
100.	Analogue phone outgoing call	NT	PASSED
101.	ISDN phone outgoing call	NT	NT
102.	3 party conference (2 int, 1 ext.)	NT	PASSED
103.	DTMF detection	NT	PASSED
104.	Incoming call	NT	PASSED
105.	Toggle	NT	PASSED
106.	External subscriber makes an enquiry	NT	PASSED
107.	External subscriber toggles	NT	PASSED
108.	External subscriber transfers the call	NT	PASSED
109.	External line on hold, MOH	NT	PASSED
110.	Incoming call without DDI	NT	PASSED
111.	Incoming call with wrong DDI	NT	PASSED
112.	Incoming call with incomplete DDI	NT	PASSED
113.	Incoming call to busy extension	NT	PASSED
114.	Incoming call camp on	NT	PASSED
115.	Incoming call to hunting group	NT	PASSED
116.	Release timeout without DTMF-suffix dialling	NT	PASSED

No	Test Procedure	Result H2000
117.	HFA phone outgoing call	PASSED
118.	Analogue phone outgoing call	PASSED
119.	ISDN phone outgoing call	NT
120.	3 party conference (2 int, 1 ext.)	PASSED
121.	DTMF detection	PASSED
122.	Incoming call	PASSED
123.	Toggle	PASSED
124.	External subscriber makes an enquiry	PASSED
125.	External subscriber toggles	PASSED
126.	External subscriber transfers the call	PASSED
127.	External line on hold, MOH	PASSED
128.	Incoming call without DDI	PASSED
129.	Incoming call with wrong DDI	PASSED
130.	Incoming call with incomplete DDI	PASSED
131.	Incoming call to busy extension	PASSED
132.	Incoming call camp on	PASSED
133.	Incoming call to hunting group	PASSED
134.	Release timeout without DTMF-suffix dialling	PASSED

### 3.2.4 ECOTEL GSM-GW connected to IP trunk of HiPath3800 using SIP native protocol

Ecotel and HiPath 3800 were connected using an IP-trunking network set up.  
Protocol variant: SIP native

No	Test Procedure	Result H3800	Result H3500
135.	Up0E phone outgoing call	PASSED	NT
136.	Analogue phone outgoing call	PASSED	NT
137.	ISDN phone outgoing call	PASSED	NT
138.	3 party conference (2 int, 1 ext.)	PASSED	NT
139.	DTMF detection	PASSED	NT
140.	Incoming call to all types of extensions	PASSED	NT
141.	Toggle	PASSED	NT
142.	External subscriber makes an enquiry	PASSED	NT
143.	External subscriber toggles	PASSED	NT
144.	External subscriber transfers the call	PASSED	NT
145.	External line on hold, MOH	PASSED	NT
146.	Incoming call without DDI	PASSED	NT
147.	Incoming call with wrong DDI	PASSED	NT
148.	Incoming call with incomplete DDI	PASSED	NT
149.	Incoming call to busy extension	PASSED	NT
150.	Incoming call camp on	PASSED	NT
151.	Incoming call to hunting group	PASSED	NT
152.	Toggle	PASSED	NT
153.	Release timeout without DTMF-suffix dialling	PASSED	NT

### 3.2.5 ECOTEL GSM-GW connected as SIP client to HiPath3800

No	Test Procedure	Result H3800	Result H3500
154.	Up0E phone outgoing call	PASSED	NT
155.	Analogue phone outgoing call	PASSED	NT
156.	ISDN phone outgoing call	NT	NT
157.	3 party conference (2 int, 1 ext.)	PASSED	NT
158.	DTMF detection	PASSED	NT
159.	Incoming call to all types of extensions	PASSED	NT
160.	Toggle	NT	NT
161.	External subscriber makes an enquiry	PASSED	NT
162.	External subscriber toggles	PASSED	NT
163.	External subscriber transfers the call	PASSED	NT
164.	External line on hold, MOH	PASSED	NT
165.	Incoming call without DDI	PASSED	NT
166.	Incoming call with wrong DDI	PASSED	NT
167.	Incoming call with incomplete DDI	PASSED	NT
168.	Incoming call to busy extension	PASSED	NT
169.	Incoming call camp on	PASSED	NT
170.	Incoming call to hunting group	PASSED	NT
171.	Toggle	PASSED	NT
172.	Release timeout without DTMF-suffix dialling	PASSED	NT

### 3.3 Remarks

#### Meanings of Abbreviations:

PASSED	Test passed
FAILED	Test failed
NA	Test not applicable
NT	not tested
*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 HiPath3000

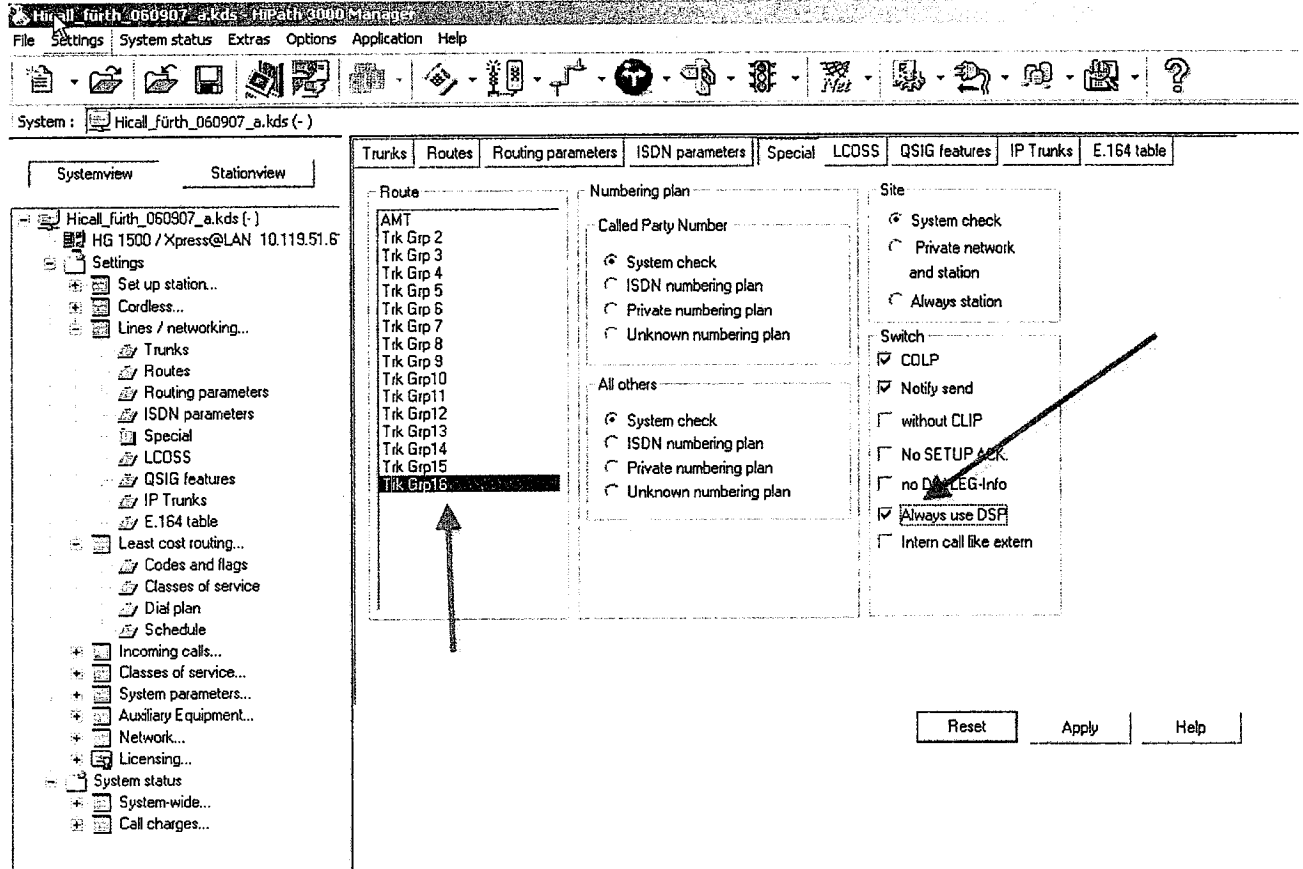
For all tests the German country code and German standard data were used.  
No LCR was programmed in the HiPath systems. The Ecotel used lines were accessed by using the relevant access codes.

To avoid the ISDN clock sync clicks the following settings of Layer 1 and Layer 2 in ISDN parameter proved very helpful.

The screenshot shows the configuration window for 'LASTLOAD.KDS (-)'. The 'ISDN-Parameter' tab is active. Under 'Leitung', the 'Leitung' dropdown is set to 'Userside/Networkside'. A red arrow points to this dropdown with the text: 'Synchronisation click tones!!! Change the layer 1 setting from userside to networkside.' The 'Layer 1' section has 'Userside/Networkside' selected. The 'Layer 2' section has 'Userside/Networkside' selected. The 'Layer 3' section has 'Logical/Physical' selected. The 'B-Channel-Mode' section has 'gehend' and 'kommend' checked. The 'Protocol' is set to 'EDSS1'. The 'Bus type' is set to 'short/long'. The 'Active TEI verify' checkbox is checked. The 'Layer 3' section has 'Logical/Physical' selected. The 'B-channel neg.' is set to 'S/M'. The 'B-channel alloc.' is set to 'HH/LL'. The 'IE\_OSA' and 'IE\_TNS' checkboxes are checked. The 'Layer 1' section has 'Permanent active' checked. The 'Layer 2' section has 'Permanent active' checked. The 'Layer 3' section has 'Protocol timers' checked. The 'PRI quickstart' checkbox is checked. The 'CR length' is set to '1octet2'. The 'CHI format' is set to 'S0/S2M'. The 'B-channel neg.' is set to 'S/M'. The 'B-channel alloc.' is set to 'HH/LL'. The 'IE\_OSA' and 'IE\_TNS' checkboxes are checked. The 'Layer 1' section has 'Permanent active' checked. The 'Layer 2' section has 'Permanent active' checked. The 'Layer 3' section has 'Protocol timers' checked. The 'PRI quickstart' checkbox is checked. The 'CR length' is set to '1octet2'. The 'CHI format' is set to 'S0/S2M'. The 'B-channel neg.' is set to 'S/M'. The 'B-channel alloc.' is set to 'HH/LL'. The 'IE\_OSA' and 'IE\_TNS' checkboxes are checked.

Configuration hints for connection via IP-trunking:

- HiPath 3800 set as node 1, ECOTEL GSM GW was node 2
- LCR has to be enabled
- Dial mode has to be en-bloc sending (Blockwahl)
- Node monitoring switched off (Knotenüberwachung aus)
- Always use DSP set to ON



## 5 *Confirmation*

Testing personnel confirms that the testcases in Chapter 3 were performed and that the results are conform to the descriptions in this document.

Both sides agree with the remarks in chapter 1.4.

Friedrich Weber

SEN RPM

Bernhard EMMERT

VIERLING Communications GmbH