

Test Report of Certification



EasyLink 3.0

with

SIEMENS

HiPath 3000 V8.0

HiPath OpenOffice EE V1.0

HiPath OpenOffice ME V1.0

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History of Change

<u>Date</u>	<u>Description</u>	<u>Name</u>
November 24th, 2009	Initial Creation	Eddy De Braekeleer SEN Service PS eddy.debraekeleer@siemens-enterprise.com phone: +32 2 4067316
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1 Overview

1.1 Test Object

1.1.1 Basis Equipment

Test system: HiPath 3000 V8.0
HiPath OpenOffice EE V1.0
HiPath OpenOffice ME V1.0

Software Version: HiPath 3000 V8 :
3000 system : H3K_V8_R2.0.1_012 (HE682P.11.012)
HG1500 : HXGs_V8_R2.4.0 (HI-G15.82.004.S)

HiPath OpenOffice EE V1 R2.2.0 :
Software release version: HOOEE_V1_R2.2.0_015
Software build version: HE682Y.00.015
Besturings system version: HE620Y.50.RFS.052
Feature Process (FP)-version: HE682B.00.015
LAN Device Handler (LDH) version: HI-LDH.32.015
Process Manager (PM) version: HE640M.50.001
MSP version: HI-MSP.32.002
DSP software-version: HI-DSP.32.002
PPP Manager (PPPM) version: HI-PPP.10.002
CLA version: TB-CLA.11.192
CLC version: TB-CLC.11.130
Firmware version: HE620Y.50.FMW.008-290

HiPath OpenOffice ME :
HOO_V1_R4.5.0_080

Remark : the HiPath OpenOffice ME V2 was at the time of the certification still in Field trial status, and was thus not tested.

1.1.2 EasyLink 3.0

Certification: Test of interface functionality
- against failures and
- of the features
of the application

Test Equipment: Microsoft Windows Server 2003

Software Release: EasyLink 3.0
Subversions :

- PBX link Service v3.0.0.1018
- Recognition service v3.0.0.1006
- Client Operator Service v3.0.0.1010
- Database Service v3.0.0.1070
- CTI event Service v3.0.0.1046
- User Service v3.0.0.1007

HW / FW Release: -

Manufacturer: Key-link B.V.
Energistraat 16D
1411AT Naarden
The Netherlands
www.key-link.com

Description: EasyLink is a CTI and call center software application

Documentation:

Test Network:

Test Configuration:

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:

- CSTA III interface via HG1500
- CSTA III interface via serial connection (V24)

1.2.1 Test Intensity

Scopes of the tests are to execute / to verify the solution performs within the limits of the system requirements, targeting the end product. To accomplish this, feature and solution based test cases are created, inspected, and executed under a real system environment (mirroring as close as possible real customer's environment).

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.

1.2.2 Measuring / Test Instruments

1.3 Realisation Data

Test Preparation: November 23th, 2009

Test Duration: November 24th, 2009
Januari 12th, 2010

Test Location: Siemens Brussels
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1654 Huizingen
Test LAB

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1.4 Test Result Summary

Functional tests	Configuration	OK
	Call Management	OK
	Team Assistant	OK
	Calling Number Identification	Ok
	Hotkey Functionality	OK
	Journal / Statistics	OK
Reliability tests	HiPath Restart EasyLink 3.0 restart Loss Of Links	OK

1.4.1 Problems

1. Do Not Disturb (DND) could be correct set by the Easylink application for phones on the HOOEE, but the phone did ring anyway if the user was called. However, if the DND was manually set, the phone did ring also, so we conclude that this was an internal HOOEE issue.

1.4.2 Restrictions

1. Conference call not supported by Easylink

1.4.3 Remarks

1. For toggle between to calls the phone NO General call keys on the phone needed anymore.

1.4.4 Hints

1. System parameters -> MOH with ringing
2. Configure at least one MOH codec when IP phones are used
3. CSTA port number 7001 was used for HiPath 3000 and HiPath OpenOffice EE
For HiPath 3000 and HiPath OpenOffice EE was no additional license needed to test CSTA with an external server.

CSTA port number 8800 was used for HiPath OpenOffice ME
For HiPath OpenOffice ME was an additional CSTA license needed to test CSTA with an external CTI server.

2 Configuration

2.1 Key-link

EasyLink was configured by Key-link personnel for the certification test due to system settings of the switch in the certification lab.

2.1.1 Configuration Advices

You have to configure the complete UCD functionality in the HiPath, this means also adding an Agent ID in the UCD group.

2.2 HiPath systems

HW Version: HiPath 3000 V8.0
HiPath OpenOffice EE V1
HiPath OpenOffice ME V1

Phones: optiPoint 500 standard
optiPoint 420 standard HFA
OpenStage 60 HFA
Analogue phones

2.2.1 Configuration Advices

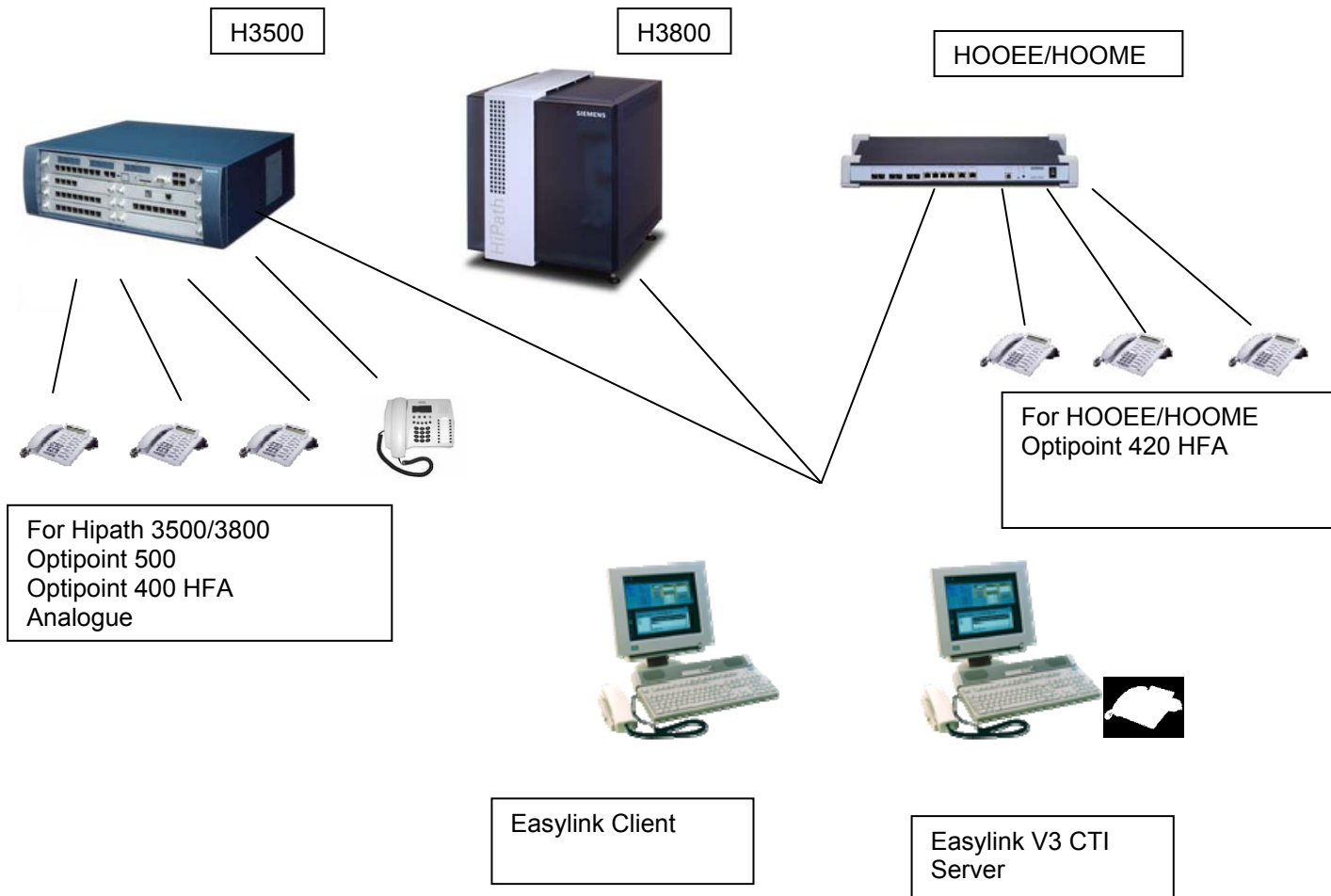
2.2.1.1 CSTA Link

- CSTA III is used

2.2.1.2 Devices

optiPoint 500 standard
optiPoint 410 standard
optiPoint 420 advance
Analogue phones

2.3 Configuration Block Diagram



EasyLink (connect via LAN or via V24)

3 Test Results in Detail

This test part checks the correct connection of the HiPath 3000 system to the Key-link computing system. For that different call scenarios are executed.

3.1 Reliability and administration

3.1.1 Startup, Configuration and Administration

3.1.1.1 HiPath 3000

No	Test Procedure	Expected Result	Result
1.	Power-on and Start-up	Start-up is successful. Configuration is successful and in case there already was a stored configuration it still exists	OK
2.	Specify client capabilities	System capabilities and settings are done for the specific test environment	OK
3.	Team Configuration	HiPath3000 parties can be configured into EasyLink	OK

3.1.1.2 HiPath OpenOffice EE (HOOEE)

No	Test Procedure	Expected Result	Result
4.	Power-on and Start-up	Start-up is successful. Configuration is successful and in case there already was a stored configuration it still exists	OK
5.	Specify client capabilities	System capabilities and settings are done for the specific test environment	OK
6.	Team Configuration	HiPath3000 parties can be configured into EasyLink	OK

3.1.1.3 HiPath OpenOffice ME (HOOME)

No	Test Procedure	Expected Result	Result
7.	Power-on and Start-up	Start-up is successful. Configuration is successful and in case there already was a stored configuration it still exists	OK
8.	Specify client capabilities	System capabilities and settings are done for the specific test environment	OK
9.	Team Configuration	HOOME parties can be configured into EasyLink	OK

3.1.2 Recovery from EasyLink 3.0 restart

3.1.2.1 Via LAN connection

No	Test Procedure	Expected Result	Result
10.	Power off/on of the CTI Server	Server comes back to work without manual interferences.	OK
11.	Restart of the CTI Server	Server comes back to work without manual interferences. Clients are disconnected.	OK

3.1.2.2 Via Serial connection (only HiPath 3000)

No	Test Procedure	Expected Result	Result
12.	Power off/on of the HiPath 3000	Server comes back to work without manual interferences.	OK
13.	Disconnect LAN cable from server	Server comes back to work without manual interferences.	OK
14.	Restart of PC with V24 Bridge Software	Server comes back to work without manual interferences.	OK

3.1.3 Restart behavior

3.1.3.1 HiPath 3000

No	Test Procedure	Expected Result	Result
15.	Restart of HG1500	After restart, the client comes back to work without manual interferences.	OK
16.	Power off of HiPath3000	After restart, the client comes back to work without manual interferences.	OK
17.	Restart of HiPath3000	After restart, the client comes back to work without manual interferences.	OK
18.	Pull and push HG1500	After reload of the HiPath, the client comes back to work without manual interferences.	OK
19.	Pull and push SLMO card with the configured digital subscriber 120 and 121.	After reload of the card, the subscriber comes back into service without manual interferences.	OK

No	Test Procedure	Expected Result	Result
20.	Pull and push line of digital subscriber	After reconnection, the subscriber comes back to work without manual interferences.	OK

3.1.3.2 HiPath OpenOffice EE

No	Test Procedure	Expected Result	Result
21.	Power off of HiPath OpenOffice EE	After restart the client comes back to work without manual interferences.	OK
22.	Reset of HiPath OpenOffice EE	After restart the client comes back to work without manual interferences.	OK
23.	Pull and push line of IP phone 100.	After reconnection, the subscriber comes back to work without manual interferences.	OK
24.	Disconnect LAN cable of HOOEE	After the LAN disconnect, the client comes back to work without manual interferences.	OK

3.1.3.3 HiPath OpenOffice ME

No	Test Procedure	Expected Result	Result
25.	Reset of HOOME	After the restart, the client comes back to work without manual interferences.	OK
26.	Disconnect LAN cable of HOOME	After the LAN disconnect, the client comes back to work without manual interferences.	OK

3.1.4 Loss of Input Data for EasyLink

No	Test Procedure	Expected Result	Result
27.	Disconnect LAN cable of EasyLink client and put it back again	The client continues to work but shows inoperability. After re-establishing the link the client continues work.	OK
28.	Disconnect LAN cable of EasyLink server and put it back again	The client continues to work but shows inoperability. After re-establishing the link the client continues work.	OK
29.	Disable network card of EasyLink Server and enable it again	The client continues to work but shows inoperability. After re-establishing the link the client continues work.	OK
30.	Disconnect LAN cable between LAN switches and HiPath 3000 and put it back again	The client continues to work but shows inoperability. After re-establishing the link the client continues work.	OK

3.2 Call Processing

3.2.1 Telephony Functions

No	Test Procedure	Expected Result	Result HiPath 3000 HOO EE HOO ME
31.	EasyLink dials digits and initiates an internal, external and a net call to other nodes	Call is set up	OK
32.	EasyLink dials digits and initiates a private external call using the line access code	Call is set up	OK
33.	EasyLink initiates a consultation	Consultation status is reached (see remark 1)	OK
34.	EasyLink transfers the call via BLIND call transfer	Call is transferred	OK
35.	EasyLink transfers the call via supervised transfer	Call is transferred	OK
36.	EasyLink chooses to toggle	Toggleing between the two calls (see remark 1)	OK
37.	EasyLink chooses to initiate a conference step by step (consultation, ...)	Conference is established	OK
38.	EasyLink chooses to release the call	Call is released	OK
39.	EasyLink accepts an incoming call	Call is accepted, EasyLink client is in conversation status	OK
40.	EasyLink is busy, another call camps on. The user chooses to accept this call	Call is accepted, original party is put on hold. EasyLink client is in conversation status	OK
41.	EasyLink forwards an incoming call to any valid number (team member or not team member)	Call is forwarded, there it starts ringing	OK
42.	Easylink activates Do Not Disturb	Phone comes in the Do Not Disturb state	OK
43.	Lists for missed calls, accepted calls, outgoing calls etc. are generated in easylink with complete call history.	Call list is offered	OK
44.	EasyLink calls a hunting group. User 1XX, member of the hunting group, takes the call.	User 1XX is connected to client.	OK
45.	EasyLink is member of a hunting group. It gets a call over the hunting group and takes the call.	Client is connected to the caller of the hunting group.	OK
46.	EasyLink calls a pickup group. (pickup not signaled on application, but possible to pick up)	Client is connected to a member of the pickup group, which takes the call.	OK
47.	EasyLink is member of a pickup group. It gets call directly and takes the call.	Client is connected to the caller.	OK

3.2.2 Agent Monitoring with EasyQ Supervisor (Agent Info)

Remark : UCD functionality for the HiPath OpenOffice EE is not available on the web based management. The UCD functionality is however released, and needs to be configured via the Manager-E tool.

No	Test Procedure	Expected Result	Result HiPath 3000 HOO EE HOO ME
48.	Agent 1XX is in idle status and not logged in	Status Available is shown	OK
49.	Agent 1XX is in off hook status	Status Busy is shown	OK
50.	Agent 1XX is in ring status from internal party	Status Busy is shown	OK
51.	Agent 1XX is in ring status from external party	Status Busy is shown	OK
52.	Agent 1XX is in internal incoming conversation status	Status Busy is shown	OK
53.	Agent 1XX is in internal outgoing conversation status	Status Busy is shown	OK
54.	Agent 1XX is in external incoming conversation status	Status Busy is shown	OK
55.	Agent 1XX is in external outgoing conversation status	Status Busy is shown	OK
56.	Agent 1XX is in not available status (*402 to activate)	Status Not Available is shown	OK
57.	Agent 1XX is in automatic wrap up status	Status Wrap Up is shown	OK
58.	Agent 1XX is in manual wrap up status (*403 to activate)	Status Wrap Up is shown	OK
59.	Agent 1XX is in Logged off status	Status Logged Off is shown	OK
60.	Agent 1XX is in conversation with an ACD call	Status Busy ACD is shown	OK

3.2.3 Agent Monitoring and Call Queue monitoring with EasyQ Agent

Agent status of all Agents is visible with the EasyQ Agent (ACD info). There is no option to change the status of the Agent with EasyQ Agent. The amount of calls and waiting time in the call waiting queue are also visible with the EasyQ Agent (call queue). There a lot more functions with the EasyQ Agent but the features descript are the most common call related features.

No	Test Procedure	Expected Result	Result HiPath 3000 HOO EE HOO ME
61.	Agent 1XX is in idle status and not logged in	Status Available is shown	OK
62.	Agent 1XX is in off hook status	Status Busy is shown	OK
63.	Agent 1XX is in ring status from internal party	Status Busy is shown	OK
64.	Agent 1XX is in ring status from external party	Status Busy is shown	OK
65.	Agent 1XX is in internal incoming conversation status	Status Busy is shown	OK
66.	Agent 1XX is in internal outgoing conversation status	Status Busy is shown	OK
67.	Agent 1XX is in external incoming conversation status	Status Busy is shown	OK
68.	Agent 1XX is in external outgoing conversation status	Status Busy is shown	OK
69.	Agent 1XX is in not available status (#402 to activate)	Status Not Available is shown	OK
70.	Agent 1XX is in automatic wrap up status	Status Wrap Up is shown	OK
71.	Agent 1XX is in manual wrap up status (*403 to activate)	Status Wrap Up is shown	OK
72.	Agent 1XX is in conversation with an ACD call	Status Busy ACD is shown	OK
73.	Call is in the ACD queue	Amount of calls in ACD waiting queue	OK

3.2.4 Busy Lamp feature with EasyAssistant / EasyAttendant

Easy Assistant is a busy lamp field module, with customer identification displayed on the PC. Each employee equipped with easy assistant can see the telephone status extensions and call status of colleagues.

No	Test Procedure	Expected Result	Result HiPath 3000 HOO EE HOO ME
74.	Phone 1XX is off hook	Status Off hook is shown	OK
75.	Phone 1XX is in ringing status	Status Ringing is shown	OK
76.	Phone 1XX is in connected status	Status Connected is shown	OK
77.	Phone 1XX is in camp on status	Status Camp on is shown	OK
78.	Phone 1XX is in hold status	Status Hold is shown	OK
79.	Phone 1XX is in hold status and idle	Status Hold and idle is shown	OK
80.	Phone 1XX is in Do not disturb	Status Do Not Disturb is shown	OK (see problem 1)
81.	Phone 1XX is in Forward status	Status Forward is shown	OK

3.2.5 Reporting Functions with EasyInfo

With this interface you have the possibility to make reports of almost every call information received on the HiPath. So a complete CDR reporting is possible. In the test we just go to verify the ACD queue and Agent reporting.

No	Test Procedure	Expected Result	Result HiPath 3000 HOO EE HOO ME
82.	Amount of calls on Agent phone	Detailed reporting of answered, unanswered, etc	OK
83.	Amount of calls in ACD queue	Amount of calls, call duration, etc..	OK
84.	Agent status information	Detailed status of agent e.g. available, wrap up, etc...	OK

3.2.6 Reporting functions with EasyMonitor

With this interface you have the possibility to the total inbound and outbound calls for 1 day. In the test we just go to verify the inbound and outbound calls.

Minor remark : in the EasyMonitor tool, you can only see the external calls, no internal calls.

No	Test Procedure	Expected Result	Result HiPath 3000 HOO EE HOO ME
85.	Check the inbound and outbound visualization graphics	In the graphics you see increase the call percentage	OK
86.	Check the graphics from the unanswered calls	In the graphics you see increase the call percentage	OK

3.2.7 Service and Maintenance

The Key-Link solution will be mainly maintained / administrated by Service Engineers from Key-Link or their partners.

3.2.8 Service

- Replacement of faulty equipment under the terms of configuration and replacement-procedures
- Restart Behaviour:
The whole system comes back to work without manual interferences.

3.2.9 Backup Recovery

- Configuration is stored in .INI files, reporting data is stored in SQL database

3.3 Remarks

Meanings of Abbreviations:

- OK Test case successful
- NOK Test case NOT successful
- NA Test case not applicable
- NP Test case not processed
- NS Situation not supplied
- N *X Error / restriction with description
- * X Remark to Functionality
- HOOEE HiPath OpenOffice Entry Edition
- HOOME HiPath OpenOffice Medium Edition

4 *Confirmation*

Testing personnel confirms that the test cases Nr.1 until Nr.86 were performed and that the results were as described in this document.

Testing personnel confirms test duration: November 24th, 2009 and Januari 12th, 2010

Patrick Lemmers

Michel Lambrecht

Key-Link B.V.

Siemens Enterprise Communications