Von Swisscom (Schweiz) AG   Geht an ISP
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Thema Operator Manual BBCS Access

Operator Manual DSLAM Port Access

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1 Introduction

1.1 Goal and Purpose

The available Operator_Manual „DSLAM -Port-Access" is the basis for Users of Get DSLAM Port Access.

1.2 Range of Validity

It applies to all users of the port request over the WSG within the range of Service Assurance.

1.3 Target audience, conditions to the reader

This document addresses all users of XDSL-Port-Access. In particular this document is provided for the Use of ISPs. The reader of this manual is supposed to be familiar with the Service Assurance Process and has basic knowledge of ATM, IP and xDSL.

1.4 Terms, abbreviations

AAA	Authentification Authorisation Accounting	OH /NOH	Office Hour / Non Office Hour
ADSL	Asymmetric Digital Subscriber Line	SDSL	Symmetric Digital Subscriber Line
ASAM	Advanced Services Access Manager	SHDSL	Single-pair High-speed Digital Subscriber Line (-> normally SDSL is used)
ATM	Asynchron transfer mode	SLA	Service Level Agreement
DSLAM	Digital Subscriber Line Access Multiplexer (comes in 2 Flavours: ASAM for ADSL/SDSL; ISAM for VDSL)	SA	Service Assurance
DB	Database	SF	Service Fulfillment
E2E	End to End	SPOC	Single point of contact
ISP	Internet Service Provider	TT	Trouble Ticket
ISAM	Intelligent Services Access Manager	WSG	Web server gateway
OE	Organisationseinheit	IP	Internet Protocol

2 Basics

In the following section the roles and tasks are described. An Overview of the Process is given.

2.1 Roles and tasks

The roles can be divided into 2 main parts:

ISP	• Has direct Contact to the End Customer. Can retrieve data about the BBCS using the get DSLAM- Functionality provided by Swisscom. Uses the Data to identify possible problems on the customer site.
Swisscom (FWS)	• Is responsible for resolving all Problems concerning the FWS-Product as defined in the Contract.

3 BBCS-Access process

The following reference model represents the roles and functions in the BBCS Service Assurance process E2E.
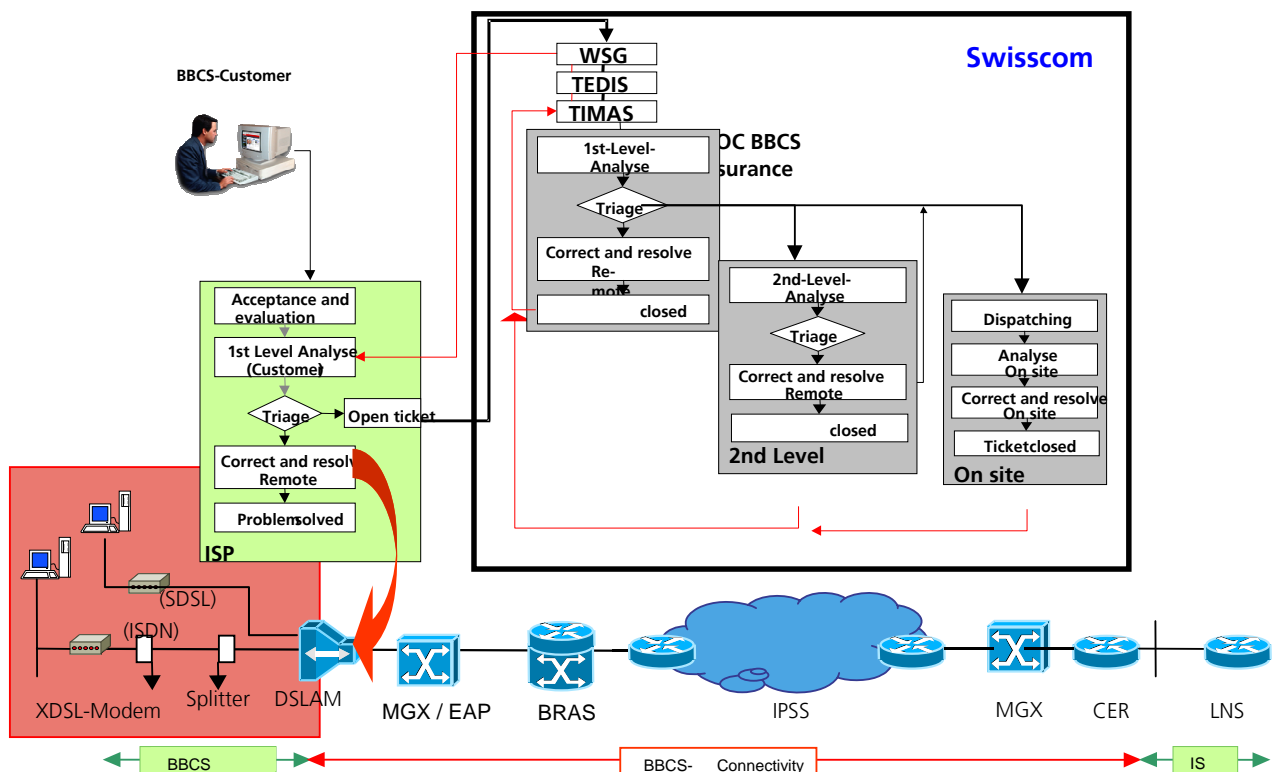

Illustration 1: Reference model Service Assurance E2E

3.1 Detailed Process "get DSLAM Port Access"

The following picture gives an overview of the query process and the involved functions.

3.2 Query Steps

Each get DSLAM Port Status - Query is divided into the following steps. The Response Screen corresponds to those Steps.

Verification

Entry	• Examination of the authorization on call number query
	• Restriction of the hourly queries
	• Data examination on correctness and on status of the fulfilment process
Speed	• Query about the **provisioned** speed (according to FWS-Database)

Portstate

ATM /IP	• Examine the port state
	• Examine Up-/ Down-Stream
	• Check incorrect cells
xDSL	• xDSL near end or central
	• xDSL far end or remote

3.3 Error messages for "get DSLAM- Port Access"

Message	Action
Customer could not be matched with port data	please verify pending orders
Timeout while waiting for reply from UnityDB adapter (CustomerDB)	please try again later
Timeout while waiting for reply from TeMIP adapter (DSLAM)	please try again later
Unknown subscriber number	Please check the entered data
Invalid order state	please verify pending orders
Modem has no synchronization	Please check with customer if Modem is switched on
SYSTEM-ERROR, AtmStatus cannot be retrieved	please try again later
Error of the Temip:Port is unknown in Temip	please verify pending orders and check the entered data
Problems with the connection of the SIF adapter to the data base	please try again later
Problems with the connection of the SIF adapter to the data base	please try again later
Problems with the connection of the SIF adapter to the data base due to congestion	please try again later
Customer belongs to another ISP	Please check the entered data
Customer has no xDSL service	Please check the entered data
Phone number not active/planned	please verify pending orders
Timeout, no answer from the subsequent system	please try again later
Order is not approved: switching order is not final	please try again later
Timeout, no answer from subsequent System	please try again later

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3.4 Response "get DSLAM-Port-Access"

3.4.1 Screenshot ADSL/ SDSL

The following Screenshot is valid for SDSL and ADSL.

DSLAM Port Status Detail

Order Nr	9999992006100400349500000
Transaction Date/Time	04/10/2006 09:50
ISP	100008 Bluewin
BBCS DN/VN/NSN	0444519385
BBCS DN/VN/NSN Req	0444519385
BBCS connection type	Economy Line
BB Type	ADSL
Contract Element	BBCS_DHCP Private

Entry

Service Profile	max 2000 down / 100 up	BB Quality	best effort
Contract Element	VoBB		

Speed

Service Profile	ENABLING
DN Office	79WID
BB Device Location	WID

ATM

ATM Status	OK	
ATM Port Info	INCELLS	0
	INHECDISCARDS	0
	OUTCELLS	269

xDSL

xDSL Status NE	OK	
xDSL Status FE	Not OK	
xDSL Port Info	STATUSNE	NORMAL
	STATUSFE	NOATUR
	LASTCHNGDATE	8-24
	LASTCHNGTIME	8-29-33

Request Status	OK
Response Comment	

back	Trouble Ticket Creation

3.4.2 Definitions Response Parameters

ISP	Internet Service Provider
BBCS DN	Voice Number connected to the BBCS
BBCS Connections type	DSL Flavour
BBCS Speed	Provisioned Speed @Service Fulfillment
DN Office	DN Office where the BBCS Port is located
ATM Status	
ATM Port Info	
• INCELLS	Rolling Count of Received Cells (@ User Modem)
• OUTCELLS	Rolling Count of Sent Cells (@ User Modem)
XDSL Status NE	Status of DSLAM- Modem (Port)
XDSL Status FE	Status of User Modem (Inhouse)
XDSL Port Info	
• Status NE	More Detailed Information about the Transport Layer; Details see Response Comments
• Status FE	More Detailed Information about the Transport Layer; Details see Response Comments
• LASTCHNGDATE	Date of last successful synchronization
• LASTCHNGTIME	Time of last successful synchronization

3.5 Response get ISAM-Port-Access

3.5.1 Screenshot VDSL

The following Screenshot is valid for VDSL

3.5.2 Definitions Response Parameters

ISP	Internet Service Provider
BBCS DN	Voice Number connected to the BBCS
BBCS Connections type	DSL Flavour
BBCS Speed	Provisioned Speed @Service Fulfillment
DN Office	DN Office where the BBCS Port is located
VDSL Port Status	
IP Port Info	
• INOCTETS	Rolling Count of Received Octets (@ User Modem)
• OUTOCTETS	Rolling Count of Sent Octets (@ User Modem)
VDSL Status NE	Status of ISAM- Modem (Port)
VDSL Status FE	Status of User Modem (Inhouse)
VDSL Port Info	
• xdslLineFailureState	Status NE: More Detailed Information about the Transport Layer; Details see Response Comments
• xdslFarEndLineFailureState	Status FE: More Detailed Information about the Transport Layer; Details see Response Comments
• LASTCHNGDATE	not available for VDSL
• LASTCHNGTIME	not available for VDSL

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4 Response Parameters

4.1 Entry and Speed

#	Parameter:	Information:	Explanation:	Action
			Entry "Get DSLAM Port Access"	
1	Response status	OK	DSLAM Request successful (see response comment)	
2	Response status	NOK	Status not current of data (see response comment)	See response comment
3	Response status	RATETH	"Rate adaptive" profile, modem has synchronised but downstream line rate is lower than target rate (line rate: min < current < target)	verify if customer qualifies for "rate adaptive" profile only
4	Response status	System-Error	Problem with entry system.	Please, try it again (Entry)
5	Response com-ment	DSLAM / ISAM Request successful	Data and verification correct.	
6	Response com-ment	Data not correct	This telephone number doesn't have an ADSL-Port. *Service fulfillment isn't finished.*	Please check your order handling (fulfillment process).
7	Response com-ment	Number not correct	Number not connected. *Verification ISP <> telephone number isn't OK. This number isn't con-nected in the data base for your company.*	Please try it again (Entry) with the correct number.. On the second time open a trouble ticket to Swisscom.

#	Parameter:	Information:	Explanation:	Action
			Speed DSLAM-Port	
8	DSLAM-Port	"Speed Profile"	Get the speed profile from the entered telefon number.	Compare the get DSLAM-Port-Profile with the customer profile.

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4.2 ATM-Parameter

			Asynchronous transfer mode "ATM"	
#	Parameter:	Information:	Explanation:	Action
9	ATM-STATUS	OK	The port receives cells normally	See STATUSNE
10	ATM-STATUS	NOK	Status not current of far-end modem (Not OK) *With response "Not OK" you have always to check all ATM Parameter (ATM-PORT-INFO).*	See ATM-PORT-INFO and also STATUSNE, STATUSFE
11	ATM-STATUS	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't succeed the 2nd time open a trouble Ticket with an announcement
12	ATM-PORT-INFO	NORMAL	No failure condition. This Port working normal.	Please check the xDSL Status for STATUSNE and STATUSFE.
13	ATM-PORT-INFO	INCELLS "cells"	Rolling count of cells received at this port. -> Upstream *The counter has only the value "0",if a profile was never configured on this port. The counter increases only the cells when the customer is connected.*	Start another Request later. If the Values of the Counter have changed please contact the Customer to resolve the Problem
14	ATM-PORT-INFO	INHECDISCARDS "cells"	Rolling count of cells received at this port that were discarded because of non-correctable HEC errors. *Non-correctable HEC errors can be an equipment problem customer side or a cable problem from DSLAM-Port to customer modem.*	See STATUSNE and STATUSFE
15	ATM-PORT-INFO	OUTCELLS "cells"	Rolling count of cells transmitted at this port. -> Downstream *The counter has only the value "0 if a profile was never configured on this port. The counter increase only the cells when the customer is connected.*	Start another Request later. If the Values of the Counter have changed please contact the Customer to resolve the Problem

4.3 ADSL-Parameter

4.3.1 ADSL-near end Parameter

Asymmetric digital subscriber line "xDSL" (see also ITU G992.1)

Near-end "NE" *means performance of the loop-side received signal at the input of the ATU (ADSL Transceiver Unit).*

#	Parameter:	Information:	Explanation:	Action
16	xDSL-STATUS-NE	OK	Current status of near-end modem (OK)	See STATUSFE
17	xDSL-STATUS-NE	NOK	Status not current of near-end modem (Not OK) *With response "Not OK" you have always to check all xDSL-Port-INFO with information STATUSNE.*	See STATUSNE, STATUSFE and ATM-PORT-INFO
18	xDSL-STATUS-NE	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't suceed the 2nd time open a trouble Ticket with an announcement
19	xDSL-PORT-INFO	STATUSNE ,NORMAL'	No failure condition. All status NE working normal.	See STATUSFE.
20	xDSL-PORT-INFO	STATUSNE ,LOS'	Loss of signal *persistent LOS: Persistent LOS is declared after 2.5 +/- 0..5 s of near-end LOS failure with LOS defect still present. LOS failure and LOS defect are defined for operations and maintenance.*	See STATUSFE and ATM-PORT-INFO
21	xDSL-PORT-INFO	STATUSNE ,LOF'	Loss of framing *LOF-rs: Loss of ADSL frame synch/resync event. This event occurs when some algorithm, which may be vendor-specific, determines that a resync attempt is required.* *persistent LOF: Persistent LOF is declared with SEF defect still present. LO*	See STATUSFE and ATM-PORT-INFO

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#	Parameter:	Information:	Explanation:	Action
22	xDSL-PORT-INFO	STATUSNE ‚LPR'	Loss of Power *Loss of Power detected from the XTU–C.* *XTU-C Port powered down.*	Open a Trouble ticket and send it to Swisscom
23	xDSL-PORT-INFO	STATUSNE ‚LOM'	Loss of Margin *LOM is declared when the expected signal margin is not reached. The modem cannot synchronize.*	See STATUSFE and ATM-PORT-INFO
24	xDSL-PORT-INFO	STATUSNE ‚ESE'	Excessive Severe Errors *ESE is declared when 10 consecutive SES (severely errored seconds) result in UAS (Unavailable Seconds). The modem still syncrhonized, but have risks of synch loss. This case might occur just before a synch loss.*	See STATUSFE and ATM-PORT-INFO
25	xDSL-PORT-INFO	STATUSNE ‚CFGF'	Failure to meet configuration *Configuration ADSL-Port profil is default -> no customer profil configured.*	see STATUSNE/FE and ATM-PORT-INFO
26	xDSL-PORT-INFO	STATUSNE ‚PROFERR'	Error in Configuration Profile *PROFERR is declared when in the configuration of the profile is given a not supported value by the DSLAM board.*	See STATUSFE and ATM-PORT-INFO
27	xDSL-PORT-INFO	STATUSNE ‚RATETH'	Failed to meet planned bit–rate threshold *When the actual bit-rate is lower than planned bit-rate (in case of flex profiles). The modem still syncrhonized (no service interruption).*	See STATUSFE and ATM-PORT-INFO
28	xDSL-PORT-INFO	STATUSNE ‚INITF	Modem Initialisation Failure	Please check the customer modem and installation.
29	xDSL-PORT-INFO	STATUSNE ‚UNKNWON'	Cannot determine status.	Please try again (Entry). If you don't succeed the 2nd time open a trouble Ticket

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4.3.2 ADSL-far end Parameter

Far end "FE"
Far-end means performance of the downstream loop-side received signal at the input of the cutomer site, where this performance is reported to the network site in upstream indicators, or performance of the upstream loop-side received signal

#	Parameter:	Information:	Explanation:	Action
24	x-DSL-STATUS-FE	OK	Current status of far-end modem (OK)	See INFO-NE
25	x-DSL-STATUS-FE	NOK	Status not current of far-end modem (Not OK) *With response "Not OK" you have always to check all xDSL-Port-INFO with information STATUSFE.*	See STATUSNE, STATUSFE and ATM-PORT-INFO
26	x-DSL-STATUS-FE	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't succeed the 2nd time open a trouble Ticket with an announcement
27	xDSL-PORT-INFO	STATUSFE 'NORMAL'	No failure condition. All status FE working normal.	Please check the customer modem and installation.
28	xDSL-PORT-INFO	STATUSFE 'LOS'	Loss of signal *persistent LOS: Persistent LOS is declared after 2.5 +/-0.5s of near end LOS failure with LOS defect still present. LOS failure and LOS defect are defined for operations and maintenance.*	Please check the customer modem and installation.
29	xDSL-PORT-INFO	STATUSFE 'LOF'	Loss of framing *LOF-rs: Loss of ADSL frame synch/resync event. This event occurs when an algorithm, which may be vendor-specific, determines that a resync attempt is required. Persistent LOF: Persistent LOF is declared with SEF defect still present. LO*	Please check the customer modem and installation.
30	xDSL-PORT-INFO	STATUSFE ‚LOM'	Loss of Margin *LOM is declared when the expected signal margin is not reached. The modem cannot synchronize.*	Please check the customer modem and installation.

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#	Parameter:	Information:	Explanation:	Action
31	xDSL-PORT-INFO	STATUSFE 'LPR'	Loss of power to modem. Fail customer side. Modem isn't switched on or dosen't have power.	Please check the customer modem and installation.
32	xDSL-PORT-INFO	STATUSFE 'LOL'	Loss of link.	Please check the customer modem and installation.
33	xDSL-PORT-INFO	STATUSFE 'ESE'	Excessive Severe Errors *ESE is declared when 10 consecutive SES (severely errored seconds) result in UAS (Unavailable Seconds). The modem still syncrhonized, but have risks of synch loss. This case might occur just before a synch loss.*	Please check the customer modem and installation.
34	xDSL-PORT-INFO	STATUSFE 'COMMF'	Communication with modem failed. *When the modem has been detected at the customer side, but the synchronization cannot be done because of profile, or bad installation.*	Please check the customer modem and installation.
35	xDSL-PORT-INFO	STATUSFE 'NOATUR'	No modem dedected: *Since Fulfillment is finished, it was never a modem connected.*	Please check the customer modem and installation.
36	xDSL-PORT-INFO	STATUSFE 'RATETH'	Failed to meet planned bit–rate threshold *When the actual bit-rate is lower than planned bit-rate (in case of flex profiles). The modem still syncrhonized (no service interruption).*	Please check the customer modem and installation.
37	xDSL-PORT-INFO	STATUSFE 'UNKNOWN'	Cannot determine status.	Please try again (Entry). If you don't succeed the 2nd time open a trouble Ticket with an announcement
38	xDSL-PORT-INFO	LASTCHNGDATE+"date"	Date of last change in the operational state of the modem. *The modem has synchronized the last time on this date.*	Is the customer message is older than this date and you have in-/outcells, please contact the customer. Perhaps the problem has been solved by the customer.

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#	Parameter:	Information:	Explanation:	Action
39	xDSL-PORT-INFO	LASTCHNGTIME+"time"	Time of last change in the operational state of the modem. *The modem has synchronized the last time on this time.*	Is the customer message older is than this date and you have in-/ outcells, please contact the customer. Perhaps the problem has been solved by the customer.
40	xDSL-PORT-INFO	ACTMODE	Actual operating mode of XDSL line. *List of possible returned values:* T1413 : ADSL (ANSI T1.413) ETSI101388 : ADSL over ISDN (ETSI TS101388 Annex C, same as ETSI DTS/TM06006) G9921POTSNOS : ADSL over POTS, Non–Overlapped Spectrum (G.992.1 Annex A) G9921ISDNNOS : ADSL over ISDN, Non-Overlapped Spectrum (G.992.1 Annex B) UNKNOWN : Unknown operating mode.	

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4.4 SDSL-Parameter

Symmetric single pair high bitrate Digital Subscriber Line
"SDSL" (see also ETSI TS 101 524)

#	Parameter:	Information:	Explanation:	Action
37	**xDSL-Status NE:** Near-end "NE" *means performance of the loop-side received signal at the input of the* **STU-C** *(SDSL Termination Unit Central).*			
38	xDSL-STATUS-NE	OK	Current status of near-end modem (OK)	See xDSL Status FE
39	xDSL-STATUS-NE	NOK	Status not current of near-end modem (Not OK*)* *With response "Not OK" you have always to check all xDSL-Portinfo*	See xDSL-Portinfo and ATM-PORT-INFO
40	xDSL-STATUS-NE	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't succeed the 2nd time open a trouble Ticket with an announcement
41	**xDSL Status FE:** *Far-end means performance of the loop-side received signal at the input of the customer site from the* **STU-R** *(SDSL Termination Unit Remote)*			
42	x-DSL-STATUS-FE	OK	Current status of far-end modem (OK)	See xDSL Status NE
43	x-DSL-STATUS-FE	NOK	Status not current of far-end modem (Not OK) *With response "Not OK" you have always to check all xDSL-Portinfo*	See xDSL-Portinfo, ATM-PORT-INFO and please check the customer modem and installation.
44	x-DSL-STATUS-FE	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't suceed the 2nd time open a trouble Ticket with an announcement
45	**xDSL-Portinfo:** contains SDSL-specific parameters **STU-R** *means the SDSL Termination Unit Remote (far end or customer site)* **STU-C** *means the SDSL Termination Unit Central (near end)*			
46	SPANSTATE	ACTIVE	Span state is operational	See SPANSTATUS

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#	Parameter:	Information:	Explanation:	Action
47	SPANSTATE	FAULTY	Did not initialize (this state can be reached during the training phase of the modem, i.e. between STARTUP and ACTIVE)	Please try it again (Entry), wait at least 2 minutes. On checking for the second time, check the modem before you go trough the problem process.
48	SPANSTATE	IDLE	No STU-R detected	Please check the customer modem and installation.
49	SPANSTATE	STARTUP	Initializing = IDLE (state shown also if no modem connected to the STU-C)	Please try it again (Entry), wait at least 2 minutes. On the second time check modem before you go trough the problem process.
50	SPANSTATE	UNEQUIPPED	Equipment not installed	Go trough the problem process.
51	SPANSTATE	UNKNOWN	Cannot determine state	Please try it again (Entry), wait at least 2 minutes. On the second time check modem before you go trough the problem process.
52	SPANSTATUS	LOSW	Loss of sync word. May occur during initialization	Please try it again (Entry), wait at least 2 minutes. On the second time check customer modem before you go trough the problem process.
53	SPANSTATUS	ATEN	Signal attenuation threshold alarm	Please check the customer modem
54	SPANSTATUS	SNR	Signal-to-Noise Ratio margin threshold alarm	Please check the customer modem
55	SPANSTATUS	DCCONT	DC continuity failure	Please check the customer modem
56	SPANSTATUS	DEV	Device failure	Go trough the problem process.

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#	Parameter:	Information:	Explanation:	Action
57	SPANSTATUS	CFG	Configuration failure. May occur during initialization	Please try it again (Entry), wait at least 2 minutes. On the second time check modem before you go trough the problem process.
58	SPANSTATUS	LPBK	Loopback active	Reset customer modem and try again before you go trough the problem process.
59	SPANSTATUS	SECUERR	Unable to disable STU-R access	STU-R shouldn't have access. Please check the customer modem
60	SPANSTATUS	LCD	Loss of ATM cell delination	Check customer modem & installation and try again before you go trough the problem process
61	SPANSTATUS	NCD	No ATM cell delineation	Check customer modem & installation and try again before you go trough the problem process
62	SPANSTATUS	LPR	Loss of Power at STU-R. Occur only with some modem types.	Please check the customer modem and installation.
63	UNITSDETECTED	STU-C	*List of SHDSL units detected in the span. Multiple unit names are separated by commas* STU-C (SHDSL Termination Unit, Central)	Use as information only
64	UNITSDETECTED	STU-R	STU-R (SHDSL termintation Unit, Remote).	If no STU-R detectet please check the customer modem and installation.
65	UNITSINVENTORY	STU-C	*List of SHDSL units inventoried in the span. Multiple unit names are separated by commas* STU-C (SHDSL Termination Unit, Central)	Use as information only

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#	Parameter:	Information:	Explanation:	Action
66	UNITSINVENTORY	STU-R	STU-R (SHDSL Termination Unit, Remote)	If STU-R detected (see UNITSDE-TECTED) please try it again (Entry), wait at least 2 minutes. If not STU-R detected or on the second time check customer modem and installation.
67	UNITSCONFIGU-RED	STU-C	*List of SHDSL units successfully configured in the span. Multiple unit names are separated by commas* STU-C (SHDSL Termination Unit, Central)	Use as information only
68	UNITSCONFIGU-RED	STU-R	STU-R (SHDSL termintation Unit, Remote).	If STU-R detected (see UNITSDE-TECTED) please try it again (Entry), wait at least 2 minutes. If not STU-R detected or on the second time check customer modem and installation.
69	CURRENTBR	0..4624 kb/s	Current payload bit-rate that the SHDSL is operating at (0..4624 kb/s) *Note: This is the brutto bit-rate at not identical to the commercial netto bit-rate*	Check correspondence with netto bit-rate
70	WIREASSNMT	UNKNOWN	Unknown	See SPANSTATUS
71	WIREASSNMT	NOTAPPLICABLE	Not applicable, 2-wire mode	Check if 2-wire mode is the normal operation mode (usually 2-wire is used)
72	WIREASSNMT	LOWERNUMBERFIRST	Lower numbered port is loop 1 *Indicates the Port-loop assignement in 4-wire mode*	Check if 4-wire mode is the normal operation mode (usually 2-wire is used)
73	WIREASSNMT	HIGHERNUMBER-FIRST	Higher numbered port is loop 1 *Indicates the Port-loop assignement in 4-wire mode*	Check if 4-wire mode is the normal operation mode (usually 2-wire is used)
74	INCELLS	counter	Rolling count of cells received at this facility	see also ATM-cell counter
75	OUTCELLS	counter	Rolling count of cells transmitted by this facility	see also ATM-cell counter

4.5 Get ISAM Port Access

#	Parameter:	Information:	Explanation:	Action
			IP	
72	VDSL-PORT-STATUS	OK	The port receives packets normally	Check STATUSNE
73	VDSL-PORT-STATUS	NOK	Status not current of far-end modem (Not OK) *With response "Not OK" you have always to check all INFO Parameters.*	Check VDSL-PORT-INFO and STATUSNE, STATUSFE
74	VDSL-PORT-STATUS	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't succeed the second time place a Trouble Ticket
75	IP-PORT-INFO	NORMAL	No failure condition. This port is normally working.	Check the xDSL Status from STATUSNE and STATUSFE.
76	IP-PORT-INFO	INOCTETS	Rolling count of IP-Bytes (Octets) received at this port. -> Upstream *The counter has only the value "0", when never a profile was configured on this port. The counter increases only the cells when the customer is connected.*	Perform a second Request a few Minutes later. If the values differ then there is traffic. Contact the customer and check the Problem.
77	IP-PORT-INFO	OUTOCTETS	Rolling count of IP-Bytes (Octets) transmitted at this port. -> Downstream *The counter has only the value "0", when never a profile was configured on this port. The counter increases only the cells when the customer is connected.*	Perform a second Request a few Minutes later. If the values differ then there is traffic. Contact the customer and check the Problem.

4.5.1 xDSL (VDSL and ADSL@ISAM) -near end Parameter

ADSL@ISAM: Implementation of ADSL technology on ISAM-FD VDSL units (NVLT-C/D)

#	Parameter:	Information:	Explanation:	Action
	Near-end "NE" *means performance of the loop-side received signal at the input of the VTU-O (xDSL Transceiver Unit at the Operator side).*			
78	XDSL-STATUS-NE	OK	Current status of near-end modem (OK)	See STATUSFE
79	XDSL-STATUS-NE	NOK	Current status of near-end modem is not OK *With response "Not OK" you have always to check all XDSL-Port-INFO with information STATUSNE.*	See STATUSNE, STATUSFE and XDSL-PORT-INFO
80	XDSL-STATUS-NE	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't succeed the second time, place a Trouble Ticket
	XDSL-PORT-INFO			
81	xdslLineFailureSta-tus	xdslLineNoDefect	No failure condition. All status NE working normal.	See STATUSFE.
82	xdslLineFailureSta-tus	xdslLineActFail-CNF	Failure to meet configuration. Line is probably too long or bad installation at the customer side.	Please check the customer mo-dem and installation and if it seems to be OK, open a Trouble ticket and send it to Swisscom
83	xdslLineFailureSta-tus	xdslLineActFail-CE	Failure due to Configuration Error	Please check the customer mo-dem and installation and if it seems to be OK, open a Trouble ticket and send it to Swisscom
84	xdslLineFailureSta-tus	xdslLineLOF	Loss of framing *LOF: Loss of xDSL frame synch/resync event. This event oc-curs when some algorithm, which may be vendor-specific, de-termines that a resync attempt is required.*	See STATUSFE and XDSL-PORT-INFO

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#	Parameter:	Information:	Explanation:	Action
85	xdslLineFailureSta-tus	xdslLineLOS	Loss of signal *Persistent LOS: Persistent LOS is declared after 2.5 +/- 0..5 s of near-end LOS failure with LOS defect still present.*	See STATUSFE and XDSL-PORT-INFO
86	xdslLineFailureSta-tus	xdslLineLOM	Loss of Margin in the Upstream Direction *If increase of VTU-R transmit power is no more possible, a loss-of-margin (LOM) defect occurs, line may re-initialize.*	Please check the customer modem and installation.
87	xdslLineFailureSta-tus	xdslLineLPR	Loss of Power of the VTU-O *VTU-O port is powered down*	Open a Trouble ticket and send it to Swisscom
88	xdslLineFailureSta-tus	xdslLineESE	Excessive Severe Errors in the Upstream direction	Please check the customer modem and installation.
89	xdslLineFailureSta-tus	xdslLineBRTh	xDSL Line Bitrate Threshold for the upstream direction. LDS service reaches not the max upstream speed	Customer may try to optimize its installation in order to get more upstream
90	xdslLineFailureSta-tus	unknown	Cannot determine status.	Please try again (Entry). If you don't succeed the second time place a Trouble Ticket

4.5.2 xDSL (VDSL- and ADSL@ISAM) - far end Parameter

Far end "FE"
Far-end means performance of the downstream loop-side received signal at the input of the cutomer site, where this performance is reported to the network site in upstream indicators, or performance of the upstream loop-side received signal at

ADSL@ISAM: Implementation of ADSL technology on ISAM-FD VDSL units (NVLT-C/D)

#	Parameter:	Information:	Explanation:	Action
91	x-DSL-STATUS-FE	OK	Current status of far-end modem (OK)	See INFO-NE
92	x-DSL-STATUS-FE	NOK	Current status of near-end modem is not OK *With response "Not OK" you have always to check all xDSL-Port-INFO with information STATUSFE.*	See STATUSNE, STATUSFE and XDSL-PORT-INFO
93	x-DSL-STATUS-FE	SYSTEM-ERROR	Problem with system "Get DSLAM Port Access".	Please try again (Entry). If you don't succeed the second time place a Trouble Ticket
	XDSL-PORT-INFO			
94	xdslFarEndLineFailureStatus	STATUSFE 'NODE-FECT'	No failure condition. All status NE working normal.	See STATUSNE.
95	xdslFarEndLineFailureStatus	xdslFarEndLineLOF'	Loss of framing *LOF: Loss of xDSL frame synch/resync event. This event occurs when some algorithm, which may be vendor-specific, determines that a resync attempt is required.*	Please check the customer modem and installation. See also STATUSFE and XDSL-PORT-INFO
96	xdslFarEndLineFailureStatus	xdslFarEndLineLOS	Loss of signal *Persistent LOS: Persistent LOS is declared after 2.5 +/- 0..5 s of near-end LOS failure with LOS defect still present. LOS failure and LOS defect are defined for operations and maintenance.*	Please check the customer modem and installation. See also STATUSFE and XDSL-PORT-INFO

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#	Parameter:	Information:	Explanation:	Action
97	xdslFarEndLineFailureStatus	xdslFarEndLineLOM	Loss of Margin in the Upstream Direction *If an increase of VTU-O transmit power is nolonger possible, a loss-of-margin (LOM) defect occurs, line may re-initializde.*	Please check the customer modem and installation.
98	xdslFarEndLineFailureStatus	'xdslFarEndLineLPR':	Loss of power at the customer modem side. *VTU-R port is powered down*	Modem isn't switched on or doesn't have power. Please check the customer modem and installation.
99	xdslFarEndLineFailureStatus	xdslFarEndLineLOL	Loss of link	Please check the customer modem and installation.
100	xdslFarEndLineFailureStatus	xdslFarEndLineESE'	Excessive Severe Errors in the Downstream direction	Please check the customer modem and installation.
101	xdslFarEndLineFailureStatus	'xdslFarEndLineActFail-CP'	Far End Line Activation failure due to Communication Problems	Please check the customer modem and installation and if it seems to be OK, open a Trouble ticket and send it to Swisscom
102	xdslFarEndLineFailureStatus	'xdslFarEndLineActFail-nXd	Far End Line Activation failure due to no VTU-R detected	Please check the customer modem and installation and if it seems to be OK, open a Trouble ticket and send it to Swisscom
103	xdslFarEndLineFailureStatus	'xdslFarEndLineBRTh':	xDSL Line Bitrate Threshold for the downstream direction. LDS service reaches not the max downstream speed	Customer may try to optimize its installation in order to get more downstream
104	xdslFarEndLineFailureStatus	unknown	Cannot determine status.	Please try again (Entry). If you don't suceed the second time place a Trouble Ticket