TANDBERG Video Portal
Data port Command Interface User Guide

Software version V2
D1392501

TANDBERG

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1. Introduction

The *TANDBERG Video Portal Data port Command Interface User Guide* contains guidelines on how to use the textual command interface supported by the Video Portal. The Data port Command Interface can be accessed through Telnet via the LAN interface or through RS-232 by connecting a serial cable to the serial interface connector, referred to as the *Data port* (ref. chapter 2). Three Telnet sessions can be connected to the Video Portal at the same time in addition to the RS-232 connection.

If, after reading this manual, you require additional information concerning the use of the *TANDBERG Video Portal Data port Command Interface*, please contact your local TANDBERG dealer who will be able to supply you with relevant information for special applications.

2. Connecting to the Data port Command Interface through the RS-232 port.

The RS-232 port is a 9-pin, female, D-sub connector located on the front of the Video Portal. The port is configured as a DCE (Data Communications Equipment). The RS-232 port is default set to 115200 baud, 8 data bits, none parity and 1 stop bit from factory. The RS-232 port is also referred to as *the Data port.*

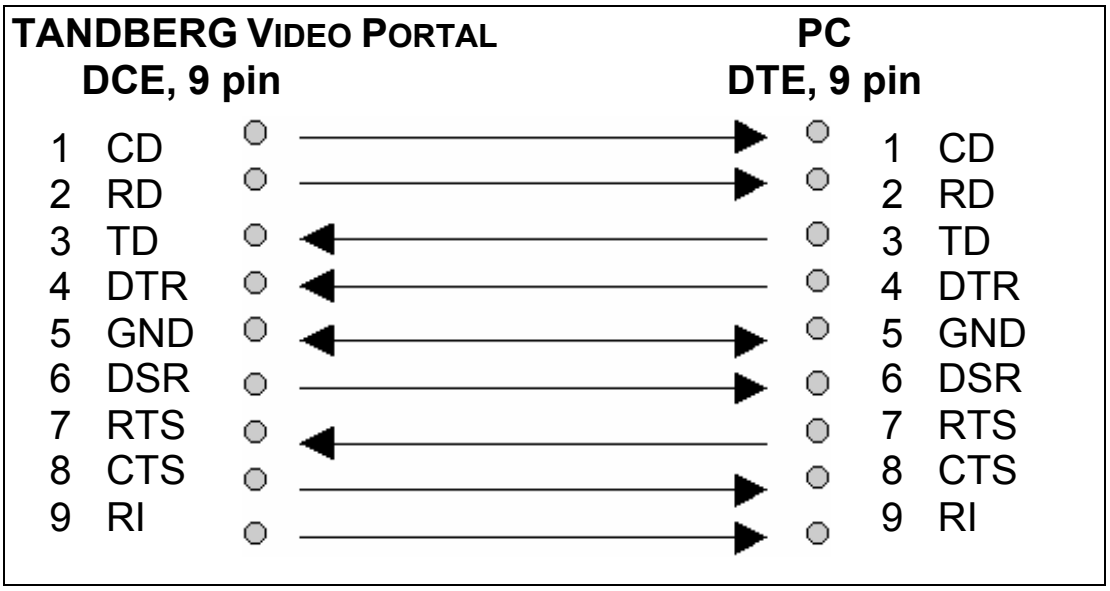
2.1. Hardware and Cabling

The pin outs for the RS-232 are defined in the following table (the DTE, Data Terminal Equipment, could be a PC or other device capable of serial communication).

Pin no	Signal	Description	Direction
1	CD	Carrier detect	To DTE
2	RD	Receive data	To DTE
3	TD	Transmit data	From DTE
4	DTR	Data terminal ready	From DTE
5		Ground	
6	DSR	Data set ready	To DTE
7	RTS	Ready to send	From DTE
8	CTS	Clear to send	To DTE
9	RI	Ring indicator	To DTE

NOTE! A straight through cable should be used between the TANDBERG Video Portal's RS-232 port and the DTE.

The figure below illustrates the recommended cable-wiring scheme for connecting the Video Portal to a PC through RS-232.



DTR and RTS are ignored. DSR, CD, and CTS are always asserted, while RI is not used.

2.2. Troubleshooting

If communication cannot be established between the PC/terminal and the TANDBERG Video Portal's Data port the following should be checked:

- Verify that the serial cable is a straight through 9-pin to 9-pin cable
- Confirm that the configuration of the PC/terminal's serial RS-232 port is identical to the configuration of the TANDBERG Video Portal RS-232 port.
- Verify that the PC/terminal's serial RS-232 port is working properly by connecting it back-to-back to another PC/terminal and send characters in both directions[1].

[1] It requires a null-modem cable to perform this test

3. Connecting to the Data port Command Interface using Telnet

The TANDBERG Video Portal has one LAN port.

The Video Portal's Telnet server provides access to the Data port Command Interface through a 10/100 base T network interface supporting the TCP/IP protocol.

When connected to the Video Portal, type tsh to start a t-shell from the command line. The Telnet client will receive a welcome message similar to the following:

```
Welcome to TANDBERG
TANDBERG Video Portal Release V2.0 customer
SW Release Date: 2006-03-28
```

NOTE! If the TANDBERG Video Portal is protected by an IP password you will be prompted to enter this password before you can access the Data port Command Interface via Telnet.

4. The TANDBERG Video Portal Commands

4.1. Introduction

Typing '**?**' or '**help**' when connected to the Data Port Command Interface will return a list of valid *commands.* The commands are used to control the functions of the Video Portal. A command may be followed by a set of *parameters* and *sub-commands*. This chapter gives a description of all valid commands for the Video Portal.

4.1.1. Command format

Typing '**?**' or '**help**' after a command will result in a *usage text* (*h of help response) being displayed. Usage text gives information about the command format, i.e. valid parameters, sub-commands etc. An example is shown below (the user input is shown in bold).

Xconf SNMP HostIPAddr ?

```
*h xConfiguration SNMP HostIPAddr [1..3]: <IPAddr>
```

Xconf SNMP Mode ?

```
*h xConfiguration SNMP Mode: <On/Off/ReadOnly/TrapsOnly>
```

Numbers 1-3 and On/Off/ReadOnly/TrapsOnly are parameters of the configuration (Xconf) command. *Parameters* are arguments upon which the command will operate. Required parameters are denoted by: < >, while optional parameters are denoted by: [ ]. All possible values for given parameters are separated with slashes (/). For some parameters, only their names are supplied within the brackets. In these cases specific parameter values need to be substituted for the parameter names. Allowed parameter values, unless obvious, are provided when the commands are discussed.

Sub-commands are commands grouped together within a command. Different sub-commands within a command may have different parameter sets. In the example below: **Address** and **Authentication** are sub-commands to the command **H323Gatekeeper.** In the same sense **Mode, ID** and **Password** are sub commands of H323Gatekeeper Authentication.

xconf H323Gatekeeper ?

*h xConfiguration H323Gatekeeper Address: <IPAddr>

*h xConfiguration H323Gatekeeper Authentication Mode: <Auto/Off>

*h xConfiguration H323Gatekeeper Authentication ID: <S: 0, 50>

*h xConfiguration H323Gatekeeper Authentication Password: <S: 0, 50>

NOTE! The Data port Command Interface is not case sensitive.

4.1.2. Command types

The commands can be divided into two major classes:

- Parameter Configuration Commands, Xconf.
- Status Commands, Xstat.
- User Commands, Xcom.

Parameter Configuration Commands are commands that set a system parameter to a specific value. E.g.: The command **Xconf telnet mode: "on"** enables telnet access on the Video Portal. If the command is syntactically correct the Video Portal returns **OK**, otherwise the Video Portal returns **ERROR**. When the parameter is successfully changed, the Video Portal will return the command with the new value. An example is shown below (the user input is shown in bold).

Xconf telnet mode: "on"

OK

*c xConfiguration Telnet Mode: On

When issuing a Parameter Setting Command without a parameter, the Video Portal will return the command with the current setting. E.g.:

Xconf telnet mode

*c xConfiguration Telnet Mode: On

OK

Status Commands are commands that list different sets of system parameters. Status commands are automatically called when corresponding parameters are being changed.

4.2. The commands

The commands are divided into five groups: System Configuration Commands, General Video Portal Commands, System Status Commands, Debug Commands and Special Commands.

4.2.1. System Configuration Commands

Command:	Description:
H323Gatekeeper	Sets gatekeeper parameters. *NOTE! H.323 services must be set before the Video Portal can be registered to a gatekeeper.* **H323Gatekeeper Address <IPAddr>** or **H323Gatekeeper Authentication Mode <Auto/off>** or **H323Gatekeeper Authentication ID: <S: 0, 50>** Or **H323Gatekeeper Authentication Password: <S: 0, 50>** --- sub-commands: • **Authentication Mode** configures the use of authentication against a gatekeeper. • **Authentication ID** Configures the user name used within an authentication challenge • **Authentication Password** sets the password used within the authentication process. *NOTE! Authentication Password is write only.* Example of **H323Gatekeeper** feedback: *Xconf H323Gatekeeper Authentication* **c xConfiguration H323Gatekeeper Authentication Mode: Off* **c xConfiguration H323Gatekeeper Authentication ID: ""*
H323CallSetup	Configures for direct or via gatekeeper calling **H323CallSetup Mode: <Direct/Gatekeeper>** -- Example of H323CallSetup feedback: *c xConfiguration H323CallSetup Mode: Direct
IP	Configures the LAN interfaces when static IP address allocation is used. *NOTE! The Video Portal needs to reboot before the changes will take effect.* **IP Assignment: <DHCP/Static>** or **IP Address <IPAddr>** or **IP Address Subnetmask <Subnetmask>** or **IP Address Gateway <IPAddr>** or **IP Address DNS Server [1..5] Address <IPAddr>** or **IP Address DNS Domain Name <S: 0, 64>** ---

	parameters: • **DNS Server:** Number identifying one of 5 DNS servers which can be configured. If this parameter is omitted the command applies to the first configuration (1). sub-commands: • **Assignment**: Selects between DHCP (Dynamic Host Configuration Protocol) or static IP address allocation. When DHCP is selected the Video Portal will automatically receive all the necessary information from the DHCP server. This function should be used when the Video Portal is connected to a LAN using DHCP. When using this mode, IP-address and IP-subnet mask are not used because the DHCP server supplies these parameters. • **Address:** Sets the static IP address for the given LAN interface. • **Subnetmask:** Sets the subnet mask variable. Subnet mask defines the network class. If the setting is 255.255.255.0 the local network will support up to 256 nodes, denoting a class C network. If the setting is 255.255.0.0 the local network is a class B network with 65536 addressable nodes. • **Gateway:** Sets the gateway IP address. If a gateway is located on the LAN and the Video Portal needs to reach nodes through this gateway, the gateway address can be set using the gateway variable (the IP address of the gateway will be set automatically if the Video Portal is in DHCP mode) • **Domain Name:** Sets the domain name string of which the Video Portal is part of. Minimum 0, maximum 64 characters. Example of **IP Address** feedback: **c xConfiguration IP Address: "127.0.0.1"*
Ethernet	Sets LAN port speed. *NOTE! The Video Portal needs to reboot before the changes will apply*. **Ethernet <speed>** --- parameters: • **speed: auto/10half/10full/100half/100full.** The speed is either set to auto or manually from 10mb half duplex to 100mb full duplex. When set to auto the Video Portal will automatically negotiate with the network and use the best available setting. Example of **Ethernet** feedback: *c xConfiguration Ethernet Speed: Auto
HTTPS	Enables or disables access to HTTPS services. *NOTE! Changes become effective after reboot* **HTTPS Mode <On/Off>** Example of **HTTPS** feedback: **c xConfiguration HTTPS Mode: Off*
HTTP	Enables or disables access to HTTP services. *NOTE! Changes become effective after reboot.* **HTTP Mode <On/Off>**

	Example of **HTTP** feedback: **c xConfiguration HTTP Mode: On*
SNMP	Configures the SNMPmib. *Note! For more information about SNMP please read the TANDBERG SNMP application note.* **SNMP Mode < On/Off/ReadOnly/TrapsOnly >** or **SNMP CommunityName: <S: 0, 16>** or **SNMP SystemContact: <S: 0, 70>** or **SNMP SystemLocation: <S: 0, 70>** or **SNMP HostIPAddr [1..3]: <IPAddr>** --- parameters: • **Mode:** < On/Off/ReadOnly/TrapsOnly > • **Community Name:** Text string of maximum 16 characters. • **System Contact:** Text string of maximum 70 characters • **System Location:** Text string of maximum 70 characters • **Host IP Addr:** The IP addresses of max 3 SNMP trap hosts sub-commands: • **Mode** enables or sets the mode of SNMP support • **Community Name** is used to authenticate SNMP requests. SNMP requests must have this 'password' in order to receive a response from the SNMP agent in the Video Portal. • **System Contact,** Used to identify the system contact via SNMP tools such as HPOpenView or TANDBERG Management Suite • **System Location** Used to identify system location via SNMP tools such as HPOpenView or TANDBERG Management Suite • **Host IP Addr** identifies the IP-address of the SNMP manager. Up to three different SNMP Trap Hosts can be defined. Your LAN administrator should provide the correct values for these fields Example of SNMP feedback: **c xConfiguration SNMP Mode: On* **c xConfiguration SNMP CommunityName: "public"* **c xConfiguration SNMP SystemContact: ""* **c xConfiguration SNMP SystemLocation: ""* **c xConfiguration SNMP HostIPAddr 1: "127.0.0.1"* **c xConfiguration SNMP HostIPAddr 2: "127.0.0.1"* **c xConfiguration SNMP HostIPAddr 3: "127.0.0.1"*
SSH	Enables or disables SSH interface on the Video Portal **SSH Mode: <On/Off>** --- Example of **SSH** feedback: *c xConfiguration SSH Mode: On
TELNET	Enables or disables telnet interface on the Video Portal **Telnet Mode: <On/Off>** ---

	Example of **TELNET** feedback: *c xConfiguration Telnet Mode: On
SystemUnit	Sets the Video Portal name and password **SystemUnit Name: <S: 0, 50>** or **SystemUnit Password: <S: 0, 16>** --- Parameters: • **Name:** Text string of maximum 50 characters • **Password:** Text string of maximum 16 characters sub-commands • Name, sets the name of the Video Portal • Password, sets the password of the Video Portal Example of **SystemUnit** feedback: *c xConfiguration SystemUnit Name: ""

4.2.2. General Video Portal Commands

Command:	Description:
ExternalManager	This command sets the path and address of TMS server. **ExternalManager Path: <S: 0, 255>** or **ExternalManager Address: <IPAddr>** **--** sub-commands: • **Path** • **Address**, the IP address of the manager Example of **ExternalManager** feedback *c xConfiguration ExternalManager Path: "tms/public/external/management/SystemManagementService.asmx" *c xConfiguration ExternalManager Address: ""
CorporateDirectory	This command sets the path and address of the Corporate Directory (phonebook) server. **CorporateDirectory Address: <IP Addr>** or **CorporateDirectory Path: <S: 0, 255>** **--** sub-commands: • **Path,** the path of the HTTP request • **Address**, the IP address of the manager Example of **Corporate Directory** feedback *c xConfiguration CorporateDirectory Path: "tms/public/external/phonebook/PhoneBookService.asmx" *c xConfiguration CorporateDirectory Address: ""
NTP	This command sets the address of the NTP server. **NTP Address: <IP Addr>** **--** sub-commands: • **Address**, the IP address of the server Example of **NTP** feedback *c xConfiguration NTP Address: "131.188.3.220"
Options	View and adapt option keys *NOTE! The Video Portal needs to reboot before the changes will take effect.* **Options [1 .. 64] Key: <S: 0, 90>** --- sub-commands: • **Key**: Option key for e.g. BRI, PRI or SS7 trunks. Example of **Options** feedback: **c xConfiguration Options 1 Key: "115201SS7-1-55C3EBB7"* **c xConfiguration Options 2 Key: "115201P1-1-6A96DAA4"*

	**c xConfiguration Options 3 Key: "115201P1-2-1811D4FA"* **c xConfiguration Options 4 Key: "115201P1-3-79828C53"* **c xConfiguration Options 5 Key: "115201P1-4-B5E5BD4A"*
SIP	Configures the SIP Proxy Mode and Address settings. **Mode <On/Off>** or **Proxy Address <IPAddr>** **or** **Proxy Port: <1 .. 65534>** --- sub-commands: • **Mode**: If Mode = On the Video Portal is registered with the Proxy server • **Address:** IP address of the Proxy server, the Video Portal is to be registered to. • **Port:** Port number of the Proxy server. Example of **SIP** feedback: **c xConfiguration SIP Proxy Mode: Off* **c xConfiguration SIP Proxy Address: "127.0.0.1"* **c xConfiguration SIP Proxy Port: 5060*

4.2.3. System Status Commands

Command:	Description:
SystemUnit	Displays information regarding the physical system **SystemUnit** Status format: **<ProductType>** **<Uptime>** **<Software** **Version>** **Name>** **ReleaseDate>** **Configuration** **Telephony:>** **VideoTelephony:>** **<Hardware :** **Version>** **SerialNumber>** **MainBoard>** **AdditionalBoard>** **Configuration:** **PRI>** **TemperatureCelcius>** **TemperatureFahrenheit>** --- Parameters: • **ProductType**, the name of the product, e.g. Video Portal • **Uptime**, the time the system is running since the last reboot in seconds • Software o **Version**, the unique name of the software o **Name**, o **ReleaseDate**, the time and date of the build of this software o Configuration • **Telephony**, the amount of supported voice channels • **VideoTelephony**, the amount of supported video channels • Hardware o **Version**, software ID o **SerialNumber**, software serial number o **MainBoard**, the ID of the main board o **AdditionalBoard**, indicates extra boards in the box o Configuration: • **PRI**, the amount of PRIs in the target system • **BRI,** the amount of BRIs in the target system • **TemperatureCelcius**, temperature of the main board in Celcius • **TemperatureFahrenheit**, temperature of the main board in Fahrenheit Example of SystemUnit feedback: **s SystemUnit:* *ProductType: "TANDBERG Video Portal"* *Uptime: 15123* *Software:* *Version: "V2beta8 (TEST SW)"* *Name: "test"* *ReleaseDate: "2006-04-21, 17:54, rsc"*

	Configuration: *Telephony: 0* *VideoTelephony: 60* *Hardware:* *Version: "Video Portal 2.0"* *SerialNumber: "43A00001"* *MainBoard: ""* *AdditionalBoard: ""* *Configuration:* *PRI:0* *TemperatureCelcius: NA* *TemperatureFahrenheit: NA* **s/end*
Ethernet	Displays the configuration of the Ethernet interface **Ethernet** Status format: **< MacAddress>** **<Speed>** --- Parameters: • **MacAddress**, The mac address of the Ethernet interface • **Speed**, The speed of the interface, possible values are Auto/10half/10full/100half/100full. Example of **Ethernet** feedback **s Ethernet:* *MacAddress: "00:0E:0C:5C:B5:7D"* *Speed: 100full* **s/end*
IP	Displays the IP configuration of the gateway **IP** Status format: **<Address>** **<SubnetMask>** **<Gateway>** **<DNS:** **Server 1:** **Address>** **Server 2:** **Address>** **Server 3:** **Address>** **Server 4:** **Address>** **Server 5:** **Address>** **Domain:** **Name>** --- Parameters: • **Address**, the IP address of the gateway • **SubnetMask**, the subnetmask used for the connected network • **Gateway**, the gateway to route traffic to an IP number outside the

	connected network • **DNS Server [1.. 5] Address**, the IP numbers of maximum 5 DNS servers • **Domain**, the name of the domain the gateway is part of. Example of **IP** feedback: **s IP:* *Address: "10.31.0.5"* *SubnetMask: "255.255.248.0"* *Gateway: "10.31.0.1"* *DNS:* *Server 1:* *Address: "127.0.0.1"* *Server 2:* *Address: "127.0.0.1"* *Server 3:* *Address: "127.0.0.1"* *Server 4:* *Address: "127.0.0.1"* *Server 5:* *Address: "0.0.0.0"* *Domain:* *Name: ""* **s/end*
H323Gatekeeper	Displays the status of the connection with the gatekeeper. **H323Gatekeeper** Status format: **<Status>** **<Address>** **<Port>** --- Parameters: • Status, indicates whether the Video Portal is registered with the gatekeeper • Address, the IP address of the connected gatekeeper • Port, the gatekeeper port the gateway is connected with Example of **H323Gatekeeper** feedback: **s H323Gatekeeper (status=Registered):* *Address: "10.47.9.1"* *Port: 1719* **s/end*
ExternalManager	Displays the configuration of the external management system (e.g. TMS). ExternalManager: Status format: **<Address>** **<Protocol>** **<URL>** --- Parameters: • **Address**, The IP address of the external management system • **Protocol**, the protocol used to access the management system • **URL**, the URL on the management system that should be opened by

	the gateway in case of status updates Example of **ExternalManager** feedback: **s ExternalManager:* *Address: ""* *Protocol: HTTP* *URL: "tms/public/external/management/SystemManagementService.asmx"* **s/end*
Feedback [1.. 3]	Lists the URL and feedback expressions registered for the given Feedback ID **Feedback** Parameters: • **status: on/off** Indicates if there is HTTP feedback registered for a given Feedback ID, ref. command *FeedbackRegister*. Example of **feedback:** *s Feedback 1 (status=Off): / *s/end *s Feedback 1 (status=On): URL: "http://10.47.14.185:8000/" Expression: "status/call[@status="Synced"]" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" Expression: "" *s/end
GatewayCall [1 .. 120]	Displays the status of the different ISDN lines of the 3G Gateways to which this Video Portal has been connected. **GatewayCall** Status format: <**Status**> Parameters: • **Status [1..100],** the status of the ISDN line Example of **GatewayCall** feedback: **s GatewayCall 1 (status=Inactive): /* **s/end* *OK*

	**s GatewayCall 1 (status=Active):* *CallRef 1: 1* *CallRef 2: 2* **s/end* *OK* *xstat gatewaycall 1* **s GatewayCall 1 (status=Active):* *CallRef 1: 1* *CallRef 2: 3* **s/end* *OK*
SystemLoad	Returns the current system load in percentage. **SystemLoad** Status format: **SystemLoad <1..100>**
Call [1 .. 360]	Displays the session legs within gateway calls. Every session can have a maximum of three legs: calling and called party and the phonebook or IVR menu. **Call** Parameters: • **Status [1 .. 360],** the status of the different session legs.
NTP	Returns the IP address of the NTP server. Status format: <**Status**> **<Address>** **<Port>** **<Last Update>** **<Last Correction>** --- Parameters: • Status, indicates whether the NTP server is active or not. • Address, the IP address of the NTP server. • Port, is default 123. • LastUpdate, indicates the last update date and time. • Last Correction, the time correction in seconds. Example of **NTP** feedback: *s NTP (status=Active): Address: "131.188.3.220" Port: 123 LastUpdate: "2006-04-10 15:21:14" LastCorrection: 1 *s/end

4.2.4. Debug Commands

Command:	Desription:
Syslog	Enables a real-time log of Bonding, H.221 and H.323, H324m, ISDN, RTSP, IVider,

	SIP and IVider Engine activity. **Note!** Logging via the serial port is limited by the speed of the serial port, which might result in loss of logging data. Therefore, it is advised to use Telnet instead. **Syslog <Level> <Mask>** Level [0..3]: no logging when level = 0 Mask: With this Mask the logging of different components can be turned on. The mask has to be used as a bit mask. FREYALOGH324m 1 // setting has no effect on Video Portal FREYALOGH323 2 FREYALOGISDN 4 // setting has no effect on Video Portal FREYALOGRTSP 8 FREYALOGIVID 16 FREYALOGSIP 32 FREYALOGENGI 64 For instance to view the logging of the H324m, SIP and IVider components, the mask value equals 1 + 16 + 32 = 49

4.2.5. Special Commands

Command:	Description:
Boot	Reboots the system. xCommand Boot
CheckDisk	This command gives status information about the internal harddisk. **Example (restore all default factory setting):** xCommand CheckDisk *r Result (status=OK): CheckDisk: "Disk present" CheckDisk: "Disk mounted" CheckDisk: "Can read and write file on disk" *r/end OK
EraseDisk	This command erases the internal harddisk (not the flash memory!). The database is cleaned completely all services, i.e. .ivr files are deleted. All ID's and passwords are reset to default. Only the settings which can be configured with the command line interface, e.g. xcom, xconf etc, are persistent, since these settings are stored in flash memory, i.e. non-volatile memory. NOTE! Reboot the system after applying this command. **Example (restore all default factory setting):** xCommand EraseDisk *r Result (status=OK): *r/end

	OK
DefaultValuesSet	This command is used to restore factory default settings. Issuing this command with no parameters will restore all settings except network settings and option keys. **DefaultValuesSet Level: <1 .. 3>** **Example (restore all default factory setting):** xCommand DefaultValuesSet *r Result (status=OK): *r/end OK
FeedbackRegister	Command used to instruct the system to return XML feedback over HTTP(S) to specific URLs. What parts of the Status and Configuration XML documents to monitor are specified by XPath expressions. The system supports issuing feedback to 3 different URLs. The system allows a total of 20 XPath expressions to be registered, with a maximum of 15 for a single URL. **Parameters:** • **ID: <1 .. 3>** ID for the registration. If this parameter is omitted the system uses the first vacant ID. • **URL(r): <S: 0, 256>** The URL to post feedback to. • **Expression: 1 .. 15: <S: 0, 256>** XPath expression **OK Result parameters:** • **ID: <1 .. 3>** **ERROR Result parameters:** • **Cause: <1…>** Cause code specifying why the command was not accepted by the system • **Description** Textual description of the cause code. **Example:** xCommand feedbackregister url:http://10.47.14.185:8000 expression.1:status/call expression.2:status/conference *r Result (status=OK): ID: 2 *r/end OK
FeedbackDeregister	Command used to deregister XML feedback over HTTP(S). **Parameters:** • **ID: <1 .. 3>** ID for the registration to deregister. **OK Result parameters:** • **ID: <1 .. 3>** **ERROR Result parameters:** • **Cause: <1…>** Cause code specifying why the command was not

	accepted by the system • **Description** Textual description of the cause code. **Example:** xCommand feedbackderegister id:1 *r Result (status=OK): ID: 2 *r/end OK
OptionKeyAdd	Command used to set new option keys. **Parameters:** • **Key(r): <S: 0, 90>** option key NOTE! Always reboot the system after adding option keys, for the option key to take effect. **Example:** Xcommand OptionKeyAdd 115201P1-1-6A96DAA4 *r Result (status=OK): / *r/end OK
OptionKeyDelete	Command used to delete option keys. **Parameters:** • **Key(r): <S: 0, 90>** option key **Example (Delete Option Key nr. 1):** xCommand OptionKeyDelete 1 *r Result (status=OK): / *r/end OK
ServiceEntryDelete	Command used to delete services from the Video Portal. **Parameters:** • **ServiceEntryNumber(r):** <1..100> **Example (Delete Service nr. 10):** xCommand ServiceEntryDelete 10 *r Result (status=OK): / *r/end OK
ServiceEntrySwap	Command used to swap service numbers. **Parameters:** • **ServiceEntryNumber(r): <1..100>** • **ServiceEntryNumber2(r): <1..100>** **Example (Swap Service nr. 10 & 11):**

	xCommand ServiceEntrySwap ServiceEntryNumber: 10 ServiceEntryNumber2: 11 *r Result (status=OK): / *r/end OK
Help or ?	Displays the help menu. **help**
Xfeedback	The special command *xfeedback* lets the user register user defined XPath expressions (with possible *exposure options*) to monitor changes in the data. Whenever there is a change in one or more elements addressed by a registered XPath expression, the part of the element structure containing these changes will be returned. The system supports a total of 20 registered expressions, with a total of 15 expressions for one session. **xfeedback ?** usage: xfeedback register <XPathExpression> or: xfeedback deregister <index> or: xfeedback list - (note: deregistration with index=0 will deregister all registered expressions) **Examples**: "xfeedback register status/call" - to monitor call changes "xfeedback register status/call--" - to monitor only call state changes "xfeedback register configuration" - to monitor all configuration changes
Xhistory	The special command *xhistory* presents the status of the last 255 calls, made to or from the Video Portal, via a cyclic buffer mechanism. **xhistory ?** usage: xhistory call [1 .. 255] - **Examples**: xhistory call 1 *l Call 1 (type=Vtlph, protocol=H323, direction=Incoming): LogTag: 1 GatewayCallLogTag: 0 RemoteNumber: "9047123456789" Q931Rate: 64 DisconnectCauseValue: 16 Duration: 67 *l/end OK

4.3. Index Commands