



# The CiscoTeleP Driver

The CiscoTeleP driver connects to the Cisco TelePresence MX or SX series video conference system, providing values to the Touch 10 in-room control panel. Available for Commander and ObSys.

This document relates to CiscoTeleP driver version 1.0

Read the *Commander Manual* or *ObSys Manual* alongside this document, available from *www.northbt.com* 

#### Contents

Compatibility with the Cisco System
Equipment3
Values
Prerequisites4
Using the Driver
Starting the Interface5
Setting up the Driver5
Checking Communications5
Object Specifications
Example Object Reference6
Device Top-Level Objects6
TelePresence Setup7
Network
In-Room Control9
Widget Configuration10
TelePresence System11
System Information12
Toggle Widget
Slider Widget14
Spinner (Press-Release) Widget15
Spinner (Increment-Decrement) Widget17
Button Widget18
Group Button Widget19
Text Widget20
Text (Value) Widget21
Text (ENum) Widget22
Driver Versions

# Compatibility with the Cisco System

The CiscoTeleP driver allows North to interface with the in-room control panel of a Cisco TelePresence video conference system.

The driver connects via an IP network to a single on-premise Cisco TelePresence MX or SX Series video system (Fig. 1), and provides values to the Touch 10 in-room control panel.

The Touch 10 has a range of widgets to adjust and display values provided by the driver. These values can be from within the North device or any third-party system it is connected to.



#### Equipment

Cisco Systems equipment compatible with the driver include:

- Cisco TelePresence MX Series
- Cisco TelePresence SX Series

With a Cisco TelePresence Touch 10 user interface.

#### Values

The driver links to widgets on the Global, Home and In-call panels on the Touch 10. Supported widget types include:

- On/Off toggle button
- Slider adjust
- Up/Down spinner buttons
- Icon button

- Button
- Group button
- Value
- Text

The driver can typically read the following values from the video system:

- Standby mode
- Active call count

• People present in room

#### Prerequisites

Enable Telnet on the video system: Sign-in to the web interface with administrator credentials, navigate to Setup > Configuration > NetworkServices, and set Telnet Mode to 'On'.

The driver authenticates itself with the video system using a username and passphrase. This user account requires the roles 'RoomControl' (for all widget objects), and 'User' (for some system information objects).

If a firewall is between the North device and video system, the driver requires access to TCP port 23 outbound.

The driver is not compatible with Cisco Spark cloud servicce.

On Commander, version 2.0 build 01/11/17 or later is required.

# Using the Driver

On ObSys, the CiscoTeleP driver is pre-installed. On Commander, the driver is available to download in the file 'Bank 15 CiscoTeleP.cdm'. On all of these devices, you can use the driver to create an interface to a Cisco TelePresence. Once started, you will need to set up the driver before it can communicate with the video system.

#### Starting the Interface

- □ To start an interface using the CiscoTeleP driver, follow these steps:
  - → **Start Engineering** your North device using ObSys
  - → Navigate to **Configuration, Interfaces,** and set an unused **Interface** to 'CiscoTeleP' to start the particular interface
  - → Navigate to the top-level of your North device and re-scan it

The driver setup object (Mc), labelled **TelePresence Setup**, should now be available. If this object is not available, check an interface licence is available and the driver is installed.

#### Setting up the Driver

- □ To set up the driver, follow these steps:
  - → Navigate to the **TelePresence Setup** object (Mc). For example, if you started interface 1 with the driver earlier, then the object reference will be 'M1'
  - → Navigate to Network and set the Host name or IP address object with the address of the video system
  - → Set the **Username** and **Passphrase** objects with the video system user credentials. This user account requires the roles 'RoomControl' and 'User'
  - → Once the driver has discovered the widgets available, navigate to the TelePresence System and scan
  - → Edit widgets to link them with remote objects in the North system, add value limits, etc.

#### Checking Communications

Check that the interface is communicating with the video system by reading the **Device Communicating** object (DS). A value of 'yes' indicates the driver has connected, authenticated, and is communicating with the video system.

If the driver is not communicating with the video system, check: Telnet Mode is enabled in the Cisco TelePresence system; the driver is configured with the correct IP address (of the TelePresence main unit, not the Touch 10); user credentials and roles.

# **Object Specifications**

Once an interface is started, one or more extra objects become available within the top-level object of the device. As with all North objects, each of these extra objects may contain sub-objects, (and each of these may contain sub-objects, and so on) - the whole object structure being a multi-layer hierarchy. It is possible to navigate around the objects using the ObSys Engineering Software.

Each object is specified below, along with its sub-objects.

### Example Object Reference

An example of a reference to an object in the same device: the TelePresence System (S1) contains the light\_dim widget (W6). This widget contains a Current Value (V). Therefore, the complete object reference is 'S1.W6.V'.

An example of a reference to an object in a different device: the IP network object (IP) contains Default Commander object (CDIP), which contains the object above (S1.W6.V) – therefore the complete object reference is 'IP.CDIP.S1.W6.V'.

#### Device Top-Level Objects

When an interface is started using the CiscoTeleP driver, the objects below become available within the top-level object of the device. For example, if interface 1 is started, then the object reference 'M1' becomes available.

Description	Reference	Туре
TelePresence Setup	Mc	Fixed container:
Set up the CiscoTeleP driver, started on		On the Commander platform this will be
interface <i>c</i> ( <i>c</i> is the interface number)		[CDM v20\CiscoTeleP v10]
		On the ObSys platform this will be
		[OSM v20\CiscoTeleP v10]
TelePresence System	Sc	Variable container:
Link the widgets to North object values		[CiscoTeleP v10]

### TelePresence Setup

Object Type: [OSM v20\CiscoTeleP v10] Object Type: [CDM v20\ CiscoTeleP v10]

#### The Cisco TelePresence driver contains the following objects.

Description	Reference	Туре
<b>System label</b> Label displayed when scanning the system	DL	Obj\Text; Max 20chars; Adjustable
<b>Device Communicating</b> Indicates the driver has connected and authenticated with the video system	DS	Obj\NoYes
<b>Remote Read Rate</b> Frequency to read all the widget's remote objects, and update the current value	RR	Obj\ENum; Adjustable Values: Default (30s), 5s, 15s, 30s, 1min, 5min, 15min, 1h, 4h, 12h
<b>Network</b> Network address and user credentials to connect to the video system	Ν	Fixed container: On the Commander platform this will be [CDM v20\CiscoTeleP v10\Network] On the ObSys platform this will be [OSM v20\CiscoTeleP v10\Network]
<b>In-Room Control</b> Manage widgets available to the driver from the in-room control	С	Fixed container: On the Commander platform this will be [CDM v20\CiscoTeleP v10\Config] On the ObSys platform this will be [OSM v20\CiscoTeleP v10\Config]
<b>Debug Enable</b> This will store additional debug information in the record file. Use this option only when instructed by North Support	DE	Obj\NoYes; Adjustable

#### Network

Object Type: [OSM v20\CiscoTeleP v10\Network] Object Type: [CDM v20\CiscoTeleP v10\Network]

Network contains objects to specify the location and user credentials of the video system.

Use the IP address of the main Cisco TelePresence unit, and not the Touch 10 address. You can check the address from a web browser.

The user account requires the roles 'RoomControl' and 'User'.

Description	Reference	Туре
Host name or IP address	IA	Obj\Text; Max 125 chars; Adjustable
Host name or IP address of Cisco		
TelePresence system		
Username	ID	Obj\Text; Max 40 chars; Adjustable
User name to authenticate with video		
system		
Password	PW	Obj\Text; Max 40 chars; Adjustable
Password to authenticate with video		
system		

#### In-Room Control

Object Type: [OSM v20\CiscoTeleP v10\Config] Object Type: [CDM v20\CiscoTeleP v10\Config]

In-Room Control contains a list of widgets the driver links to in the Touch 10 in-room control panel.

By default, widgets are automatically discovered from the video system and added to the list. They're automatically discovered when the driver first connects or when the in-room control is edited. Widgets can also be manually added to the list, before they are configured in the video system.

Maintain the list of widgets using the Perform Action object (PA) to:

- Discover new request widgets from video system and add them to the list
- Check configuration check widgets in the list are also available in the video system
- Delete all delete the list of widgets
- Delete not found delete widgets in list that are 'not found' (use after a discover or check configuration).

Description	Reference	Туре
Auto-Discover When 'yes', the driver will automatically discover widgets when connecting to the video system or in-room control is edited, and add them to the list	AD	Obj\OffOn; Adjustable
<b>Perform Action</b> Perform a maintenance task on the list of widgets (see above)	PA	Obj\ENum; Adjustable Values: 0=None, 1=Discover new, 2=Check configuration, 3=Delete all, 4=Delete not found
<b>Discover Widgets on Panel</b> When performing a discover, select to find widgets on all panels or just one. By default, only widgets on the 'Global' panel (accessible from the system bar) are discovered.	FP	Obj\ENum; Adjustable Values: 0=All panels, 1=Global, 2=Homescreen, 3=In Call
<b>Discover Required</b> Indicates the in-room control has been edited since the driver last performed a discover. Use Perform Action to discover new widgets	ND	Obj\NoYes
Last Discover Date and time the widgets were last discovered from the video system	LD	Obj\DateTime
Widgets Discovered Number of widgets discovered in the video system	WD	Obj\Num: 050
Widget x: id List of widgets linked from the video system. The widget number, x, is in the range 150. Use Perform Action to automatically fill this list, or edit this object to manually add a widget	Wx	Fixed container: On the Commander platform this will be [CDM v20\CiscoTeleP v10\Widget] On the ObSys platform this will be [OSM v20\CiscoTeleP v10\Widget]

#### Widget Configuration

Object Type: [OSM v20\CiscoTeleP v10\Widget] Object Type: [CDM v20\CiscoTeleP v10\Widget]

Widget Configuration contains the details of a widget linked from the Touch 10 in-room control panel.

The driver discovers the following widget types from the video system. Adjust the Type object (T) for widgets that have a choice of types listed.

Discovered Type	Image	Description	Туре
Toggle		Switch a value on or off	Set to 'Toggle'
Slider	-0-	Adjust an analogue value (e.g. dim lighting)	Set to 'Slider'
Spinner	<b>`</b>	Up and down control of equipment (e.g. blinds) or a value (e.g. temperature)	Choice of types: 'Spinner (Press-Release)' provides control on a button press and release, 'Spinner Increment-Decrement)' adjusts a single value
Button	Abc	Perform an action on the button press and release. Buttons available in short, medium and wide sizes; or as an icon.	Set to 'Button'
Group button		Display and set an enumerated value. Available with 2, 3, or 4 options.	Set to 'Group Button'
Text	Т	Display a numeric value, enumerated value, or text string	Choice of types: 'Text' displays text, 'Text (Value)' displays a number with optional units string, 'Text (ENum)' displays an enumerated value

**Design tip:** when using multiple widgets to display and adjust the same object value, place them on the same row of the in-room control. Widgets on the same row will all be refreshed together after an adjustment.

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj\Text: 40 chars; Adjustable
<b>Type</b> Set which type the driver should use for the widget. See table above	Т	Obj\ENum; Range: 09; Adjustable Values: 0=Not used, 1=Toggle, 2=Slider, 3=Button, 4=Group Button, 5=Text, 6=Spinner (Press-Release), 7=Spinner(Increment-Decrement), 8=Text (Value), 9=Text (ENum)
<b>Discovered Type</b> Widget type reported by the video system	DT	Obj\ENum; Range 06 Values: 0=Unknown, 1=Toggle, 2=Slider, 3=Button, 4=Group Button, 5=Text, 6=Spinner
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range: 02 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong

#### TelePresence System

#### Object Type: [CiscoTeleP v10]

The TelePresence System presents the widgets discovered or configured within the *Widget Configuration* driver object.

Set additional parameters for each widget, to describe how it integrates with the North system and thirdparty devices. For example, selecting an object and value to be set on a button press or release.

Description	Reference	Туре
System Information	G	Fixed container:
Status information from the video system		[CiscoTeleP v10\General]
Widget Id	Wx	Fixed container depending on widget type configured:
Edit widget parameters based on the		Toggle
configured type.		[CiscoTeleP v10\Toggle]
The widget number, <i>x</i> , is in the range		Slider
150.		[CiscoTeleP v10\Slider]
		Spinner (Press-Release)
		[CiscoTeleP v10\SpinnerPR]
		Spinner (Increment-Decrement)
		[CiscoTeleP v10\SpinnerID]
		Button
		[CiscoTeleP v10\Button]
		Group Button
		[CiscoTeleP v10\Group]
		Text
		[CiscoTeleP v10\Text]
		Text (Value)
		[CiscoTeleP v10\Value]
		Text (ENum)
		[CiscoTeleP v10\ENum]

## System Information

Object Type: [CiscoTeleP v10\General]

Contains information about the video system and system processes.

Description	Reference	Туре
Name	Ν	Obj\Text
System name		
System Description	SD	Obj\Text
Video system model description		
System Version	SV	Obj\Text
Cisco Collaboration Endpoint software		
version. E.g. 'ce9.1.4.3ae3106'		
System Awake	SA	Obj\NoYes
Shows if the system is in standby or not.		
The video system can be set to wake on		
motion detection.	_	
Active Call Count	AC	Obj\Num; Range: 05
Number of calls in progress		
People Present	PP	Obj\NoYes
Shows if there are people present in the		
room or not.		
Enable this feature in the video system		
from the web interface. Navigate to Setup		
> Configuration > RoomAnalytics and set		
PeoplePresenceDetector to 'On'.		
Requires system version ce9.1 or later.		

### Toggle Widget

Object Type: [CiscoTeleP v10\Toggle]



A toggle widget switches between an on and off value. For instance, switching a light on or off.

When the widget is switched 'on' from the Touch 10, the driver writes On: Value (V2) to the Current Value (V) and the Remote Object (O1) reference. When the widget is switched 'off', the driver writes the Off: Value (V1).

The driver reads Remote Object (O1) periodically (see *Remote Read Rate object*), and updates Current Value (V). If Current Value (V) is less than or equal to Off: Value (V1), then the widget is set to the 'off' state, otherwise it is set to the 'on' state.

**Design tip:** combine toggle and slider widgets on the same row to provide both on/off and adjustment of a value, such as a lighting level. Use the toggle On: Value to set the initial level when switching on via the toggle.

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj\Text: 40 chars
<b>Current Value</b> Value of the Remote Object	Т	Obj\Num; Range 063353; Adjustable
<b>Off: Value</b> Value corresponding to the widget's 'off' state	V1	Obj\Num; Range 063353; Adjustable
<b>On: Value</b> Value corresponding to the widget's 'on' state	V2	Obj\Num; Range 063353; Adjustable
<b>Remote Object</b> Object reference to read and write	01	Obj\Obj; Adjustable
<b>Remote Fails</b> Count of times the remote object has continuously failed to read or write	RF	Obj\Num; Range: 09
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range 02 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong
<b>Location</b> Panel, page, and row position of the widget discovered on the Touch 10	LOC	Obj\Text

### Slider Widget

#### Object Type: [CiscoTeleP v10\Slider]

A slider widget adjusts an analogue value between a high and low limit. For instance, adjusting a light level.



Slider Volume and light dimmer

When the widget is adjusted from the Touch 10, the driver rescales the slider value between the Low Value Limit (V2) and High Value Limit (V1). The driver writes the rescaled value to the Current Value (V) and the Remote Object (O1) reference.

The driver reads Remote Object (O1) periodically (see *Remote Read Rate object*), and updates Current Value (V) and the widget.

**Design tip:** combine slider and value widgets on the same row to provide feedback of the slider's value.

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj\Text: 40 chars
<b>Current Value</b> Value of the widget rescaled between Low Value Limit and High Value Limit	V	Obj\Float; Range -1000010000; Adjustable
<b>High Value Limit</b> Value corresponding to the widget's maximum value	V1	Obj\Float; Range -1000010000; Adjustable
<b>Low Value Limit</b> Value corresponding to the widget's minimum value	V2	Obj\Num; Range -1000010000; Adjustable
<b>Remote Object</b> Object reference to read and write	01	Obj\Obj; Adjustable
<b>Remote Fails</b> Count of times the remote object has continuously failed to read or write	RF	Obj\Num; Range: 09
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range 02 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong
<b>Location</b> Panel, page, and row position of the widget discovered on the Touch 10	LOC	Obj\Text

### Spinner (Press-Release) Widget

Object Type: [CiscoTeleP v10\SpinnerPR]

A spinner (press-release) widget provides up and down control of equipment. For instance, controlling

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Spinner Increase/decrease value

blinds and shades. A value can be displayed between the buttons, to provide a feedback value.

The widget has two buttons, up and down. When a button is pressed or released from the Touch 10, the driver writes a set value to an object reference. There are four actions each with their own object and value – up button press, up button released, down button press, and down button released.

The driver reads the optional Remote Object (O5) periodically (see *Remote Read Rate object*), and updates the Current Value (V) and widget value displayed between the buttons.

**Design tip:** the driver provides actions for both a button press and release. When only one action is required, use the button release.

The driver can use a spinner in one of two modes – press-release, or increment-decrement. Select the type to use in *Widget Configuration* driver object, then re-scan the TelePresence System object.

See also Spinner (Increment-Decrement) Widget.

Description	Reference	Туре
Widget Id Unique widget identifier	ID	Obj\Text: 40 chars
<b>Up Button Press: Object</b> Object reference to write when up button pressed	01	Obj\Obj; Adjustable
<b>Up Button Press: Set Value</b> Value to set when up button pressed	V1	Obj\Text: 120 chars; Adjustable
<b>Up Button Release: Object</b> Object reference to write when up button released	02	Obj\Obj; Adjustable
<b>Up Button Release: Set Value</b> Value to set when up button released	V2	Obj\Text: 120 chars; Adjustable
<b>Down Button Press: Object</b> Object reference to write when down button pressed	03	Obj∖Obj; Adjustable
<b>Down Button Press: Set Value</b> Value to set when down button pressed	V3	Obj\Text: 120 chars; Adjustable
<b>Down Button Release: Object</b> Object reference to write when down button released	04	Obj∖Obj; Adjustable
<b>Down Button Release: Set Value</b> Value to set when down button released	V4	Obj\Text: 120 chars; Adjustable
<b>Current Value</b> Optional value to display between widget buttons. Value of Remote Object (read back)	V	Obj\Text: 8 chars; Adjustable
<b>Remote Object (Read back)</b> Object reference to read	05	Obj\Obj; Adjustable

Description	Reference	Туре
Remote Fails	RF	Obj\Num; Range: 0…9
Count of times an object has continuously		
failed to read or write		
Checked State	DS	Obj\ENum; Range 02
Result of a discover or check configuration		Values: 0=Discovered & type correct, 1=Not found,
action		2=Type wrong
Location	LOC	Obj\Text
Panel, page, and row position of the		
widget discovered on the Touch 10		

### Spinner (Increment-Decrement) Widget

Object Type: [CiscoTeleP v10\SpinnerID]

A spinner (increment-decrement) widget provides up and down control of a value. For instance,

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Spinner Increase/decrease value

adjusting a volume or temperature. The value is displayed between the buttons.

The widget has two buttons, up and down. When the up button is pressed from the Touch 10, the driver increments the Current Value (V) by the Value Change (V3) then writes the value to the Remote Object (O1) and the widget. When the down button is pressed, the Current Value is decremented.

The Current Value (V) is limited between the High Value Limit (V1) and Low Value Limit (V2) range.

The driver reads the Remote Object (O1) periodically (see *Remote Read Rate object*), and updates the Current Value (V) and widget value displayed between the buttons.

The driver can use a spinner in one of two modes – press-release, or increment-decrement. Select the type to use in *Widget Configuration* driver object, then re-scan the TelePresence System object.

See also Spinner (Press-Release) Widget.

Description	Reference	Туре
Widget Id Unique widget identifier	ID	Obj\Text: 40 chars
Current Value	V	Obj\Float; Range -1000010000; Adjustable
Value of the widget	-	
High Value Limit	V1	Obj\Float; Range -1000010000; Adjustable
Widget's maximum value		
Low Value Limit	V2	Obj\Float; Range -1000010000; Adjustable
Widget's minimum value		
Value Change	V3	Obj\Float; Range -100100; Adjustable
Amount to increment or decrement the		
value on a button press		
Remote Object	01	Obj\Obj; Adjustable
Object reference to read and write		
Remote Fails	RF	Obj\Num; Range: 09
Count of times the remote object has		
continuously failed to read or write		
Checked State	DS	Obj\ENum; Range 02
Result of a discover or check configuration		Values: 0=Discovered & type correct, 1=Not found,
action		2=Type wrong
Location	LOC	Obj\Text
Panel, page, and row position of the		
widget discovered on the Touch 10		

#### Button Widget

#### Object Type: [CiscoTeleP v10\Button]

A button widget provides control of equipment by triggering an action. For instance, setting blinds to a pre-set position, or silencing an alarm.

	D. etter		Icon button	static t
Abc	State less estime	+	Adjust volume, play	When t
	State-less actions		Aujust volume, play	when

Buttons are available with a static text label or icon.

When the button is pressed or released from the Touch 10, the

driver writes a set value to an object reference.

**Design tip:** the driver provides actions for both a button press and release. When only one action is required, use the button release.

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj\Text: 40 chars
<b>Button Press: Object</b> Object reference to write when button pressed	01	Obj\Obj; Adjustable
<b>Button Press: Set Value</b> Value to set when button pressed	V1	Obj\Text: 120 chars; Adjustable
<b>Button Release: Object</b> Object reference to write when button released	02	Obj\Obj; Adjustable
<b>Button Release: Set Value</b> Value to set when button released	V2	Obj\Text: 120 chars; Adjustable
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range 0…2 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong
<b>Remote Fails</b> Count of times an object has continuously failed to read or write	RF	Obj\Num; Range: 09
<b>Location</b> Panel, page, and row position of the widget discovered on the Touch 10	LOC	Obj\Text

#### Group Button Widget

Object Type: [CiscoTeleP v10\Group]

A group button widget displays and adjusts an enumerated value. For instance, to control mode or fan speed.



Group button Switch between modes

Group buttons are available with 2, 3, or 4 options:

When configuring a group button widget from the In-Room Control editor, set the ID for each button option with the value for the enumeration.

For example, in the widget properties screenshot fanspeed widget uses ID value '1' for the 'Low' state. The enumerations for the 3-option group button are as follows: 1=Low, 2=Medium, 3=High.

When a group button is pressed from the Touch 10, the driver writes the Option ID value to the Current Value (V) and the Remote Object (O1) reference.

The driver reads Remote Object (O1) periodically (see *Remote Read Rate object*), and updates Current Value (V). The button option with an ID matching the Current Value is activated.

Widget id		
fanspeed		
Button 0		Delete
ID	1	
Text	Low	
Button 1		Delete
ID	2	
Text	Medium	
Button 2 Delete		
ID	3	
Text	High	

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj∖Text: 40 chars
<b>Current Value</b> Value from the last selected option	V	Obj\Text; Adjustable
<b>Option x: Value</b> Value (ID) of the button option. The button option number, <i>x</i> , is in the range 14. This value is loaded during a discover or check configuration action	Vx	Obj\Text
<b>Remote Object</b> Object reference to read and write	01	Obj\Obj; Adjustable
<b>Remote Fails</b> Count of times the remote object has continuously failed to read or write	RF	Obj\Num; Range: 09
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range 0…2 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong
<b>Location</b> Panel, page, and row position of the widget discovered on the Touch 10	LOC	Obj\Text

#### Text Widget

Object Type: [CiscoTeleP v10\Text]



A text widget displays a text string. For instance, a label, time stamp, or error code.

The driver reads Remote Object (O1) periodically (see *Remote Read Rate object*), updating Current Value (V) and the widget text.

The driver replaces a '|' character with a comma (', ') when updating the widget text.

The driver can use text in one of three modes – text, value, or enum. Select the type to use in *Widget Configuration* driver object, then re-scan the TelePresence System object.

See also Text (Value) Widget and Text (ENum) Widget.

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj\Text: 40 chars
<b>Current Value</b> Value of the widget	V	Obj\Text: 120chars; Adjustable
<b>Remote Object</b> Object reference to read	01	Obj\Obj; Adjustable
<b>Remote Fails</b> Count of times the remote object has continuously failed to read	RF	Obj\Num; Range: 09
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range 02 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong
<b>Location</b> Panel, page, and row position of the widget discovered on the Touch 10	LOC	Obj\Text

### Text (Value) Widget

Object Type: [CiscoTeleP v10\Value]



A text (value) widget displays a numerical value with units. For instance, a temperature.

The driver reads Remote Object (O1) periodically (see *Remote Read Rate object*), updating Current Value (V) and the widget text.

When updating the widget text, the driver formats the value to the number of decimal places specified and appends the units text.

The driver can use text in one of three modes – text, value, or enum. Select the type to use in *Widget Configuration* driver object, then re-scan the TelePresence System object.

See also Text Widget and Text (ENum) Widget.

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj\Text: 40 chars
<b>Current Value</b> Value of the widget	V	Obj\Text; Adjustable
Value Units Optional units of measurement	V1	Obj\Text: 10chars; Adjustable
Value Decimal Places Number of decimal places to display the current value	V2	Obj\Num: 04; Adjustable
<b>Remote Object</b> Object reference to read	01	Obj\Obj; Adjustable
<b>Remote Fails</b> Count of times the remote object has continuously failed to read	RF	Obj\Num; Range: 09
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range 02 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong
<b>Location</b> Panel, page, and row position of the widget discovered on the Touch 10	LOC	Obj\Text

### Text (ENum) Widget

Object Type: [CiscoTeleP v10\ENum]



Display text or values

A text (enum) widget displays an enumerated text string. For instance, a mode.

The driver reads Remote Object (O1) periodically (see *Remote Read Rate object*), updating Current Value (V). From the ENum Alternatives list (V1), the driver sets the widget text with the value label.

The driver can use text in one of three modes – text, value, or enum. Select the type to use in *Widget Configuration* driver object, then re-scan the TelePresence System object.

See also Text Widget, and Text (Value) Widget.

Description	Reference	Туре
<b>Widget Id</b> Unique widget identifier	ID	Obj\Text: 40 chars
<b>Current Value</b> Numerical value to enumerate	V	Obj\Num; Adjustable
<b>ENum Alternatives</b> Comma-separated list of value labels, such as 'value-0,value-1,value-2', etc.	V1	Obj\Text: 127 chars; Adjustable
<b>Remote Object</b> Object reference to read	01	Obj\Obj; Adjustable
<b>Remote Fails</b> Count of times the remote object has continuously failed to read	RF	Obj\Num; Range: 09
<b>Checked State</b> Result of a discover or check configuration action	DS	Obj\ENum; Range 0…2 Values: 0=Discovered & type correct, 1=Not found, 2=Type wrong
<b>Location</b> Panel, page, and row position of the widget discovered on the Touch 10	LOC	Obj\Text

# Driver Versions

VersionBuild DateDetails1.001/10/2017Driver released

#### Next Steps...

If you require help, contact support on 01273 694422 or visit www.northbt.com/support



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