



## Airline Product Set Commands

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Use the commands in this chapter to configure and monitor the Airline Product Set (ALPS). For ALPS configuration information and examples, refer to the “Configuring the Airline Product Set” chapter in the *Cisco IOS Bridging and IBM Networking Configuration Guide*.

## alps a1-map a2-map

To specify the A1 and A2 logical agent-set control unit (ASCU) identification information, use the **alps a1-map a2-map** command in ALPS ASCU configuration mode. To remove the specification of the A1 and A2 logical ASCU identification information, use the **no** form of this command.

**alps a1-map** *a1-value* **a2-map** *a2-value*

**no alps a1-map** *a1-value* **a2-map** *a2-value*

Syntax Description	<i>a1-value</i>	A1 logical ASCU identification:
		<ul style="list-style-type: none"> <li>Airline Control (ALC) range—Hexadecimal number in the range 0 to 0xFF.</li> <li>Universal Transmit Support (UTS) range—Hexadecimal number in the range 0 to 0xFF.</li> </ul>
	<i>a2-value</i>	A2 logical ASCU identification:
		<ul style="list-style-type: none"> <li>ALC range—Hexadecimal number in the range 0 to 0xFF.</li> <li>UTS range—Hexadecimal number in the range 0 to 0xFF.</li> </ul>

**Defaults** No default behavior or values.

**Command Modes** ALPS ASCU configuration.

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
	12.0(2)T	The range values were modified.
	12.0(5)T	The range values were modified.

**Examples** The following example specifies the A1 identification as 0x4C and the A2 identification as 0x20:

```
alps a1-map 0x4C a2-map 0x20
```

Related Commands	Command	Description
	<b>encapsulation uts</b>	Specifies that the P1024C protocol is properly configured on .

# alps ascu

To specify a physical agent-set control unit ASCU identity, use the **alps ascu** interface configuration command. To remove the ASCU from the interface and delete any messages queued for transmission to the ASCU or the network, use the **no** form of this command.

**alps ascu** *id*

**no alps ascu** *id*

<b>Syntax Description</b>	<i>id</i>	ASCU identification. Valid range is from 41 to 7E, except 43, 44, 47, 50 to 57, 60, 64, and 7B. The universal transmit support (UTS) valid range is from 21 to 4F.
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<b>Defaults</b>	No default behavior or values.
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<b>Command Modes</b>	Interface configuration
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
	12.0(2)T	This command was modified for UTS support.

<b>Usage Guidelines</b>	If an ASCU already exists on the interface, the <b>alps ascu</b> command initiates the ALPS ASCU configuration submode for that ASCU. If the ASCU does not exist, an ASCU is created and the ALPS ASCU configuration submode is initiated.
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<b>Examples</b>	The following example specifies the interchange address as 4B:
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```
alps ascu 4B
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on the serial interface of the router.

# alps circuit

To specify an ALPS circuit at the remote CPE across a TCP/IP connection, use the **alps circuit** global configuration command. To remove the circuit definition from the configuration, send a close message on the ALPS circuit, and delete any queued messages for the circuit, use the **no** form of this command.

**alps circuit** *name*

**no alps circuit** *name*

## Syntax Description

<i>name</i>	Name given to identify an ALPS circuit.
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## Defaults

No default behavior or values.

## Command Modes

Global configuration

## Command History

Release	Modification
11.3(6)T	This command was introduced.
12.0(1)	This command was available for general release.

## Usage Guidelines

Entering this command causes a circuit control block to be created. the command also initiates the ALPS circuit submode. If the circuit already exists, the only action is the initiation of the ALPS circuit submode.

Note that this command is used to statically create an ALPS circuit at the remote CPE. ALPS X.25 circuits (at the central CPE) are always dynamically created and are never created using this command.

## Examples

The following example specifies the name of the ALPS circuit at the remote CPE as CKT1:

```
alps circuit CKT1
```

## Related Commands

Command	Description
<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps connection-type permanent

To specify that this circuit should be established when the circuit is enabled, use the **alps connection-type permanent** ALPS circuit submode command. To remove the permanent activation behavior and return the behavior to the default dynamic activation, use the **no** form of this command.

**alps connection-type permanent** [*retry-timer*]

**no alps connection-type permanent** [*retry-timer*]

<b>Syntax Description</b>	<i>retry-timer</i>	(Optional) Specifies the maximum interval between consecutive attempts to establish a circuit in the event of a failure. The default for <i>retry-timer</i> is 30 seconds and the range is 1 to 180 seconds.
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<b>Defaults</b>	The default is 30 seconds.
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<b>Command Modes</b>	ALPS circuit submode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example specifies that the circuit is established when enabled and that the CPE will retry the connection every 30 seconds in the event of a failure:

```
alps connection-type permanent 30
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps default-circuit

To specify the ALPS circuit that this ASCU uses, use the **alps default-circuit** ALPS ASCU submode command. To remove the default circuit specification, use the **no** form of this command.

**alps default-circuit** *name*

**no alps default-circuit** *name*

Syntax Description	<i>name</i>	Name given to identify an ALPS circuit on the remote CPE.
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Defaults	No default behavior or values.
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Command Modes	ALPS ASCU submode
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Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

Examples	The following example specifies that ALPS circuit to be used is CKT1:
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```
alps default-circuit CKT1
```

Related Commands	Command	Description
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps enable-alarms ascu

To enable alarms for the ALPS ASCUs, use the **alps enable-alarms ascu** global configuration command at the remote CPE. To disable alarms for the ALPS ASCUs, use the **no** form of this command.

**alps enable-alarms ascu** [*interface id*]

**no alps enable-alarms ascu**

<b>Syntax Description</b>	<i>interface id</i> (Optional) ASCU identifier. Enable alarms for the specified ASCU.
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<b>Defaults</b>	If no interface and interchange address combination is specified, then alarms (SYSLOG messages and SNMP traps) are enabled for all ALPS ASCUs.
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<b>Command Modes</b>	Global configuration
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
12.0(1)	This command was available for general release.	

<b>Usage Guidelines</b>	If an interface and interchange address combination is specified, then the alarms are enabled only for the ASCU matching that combination. Up to eight <b>alps enable-alarms ascu</b> commands can be entered to allow a set of ALPS ASCUs to be monitored. ALPS ASCU alarms are only generated at the remote CPE.
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<b>Examples</b>	The following example enables alarms for ALPS ASCU 42 on serial interface 1:
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```
alps enable-alarms ascu Serial1 42
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on that interface.

# alps enable-alarms circuit

To enable alarms for the ALPS circuits, use the **alps enable-alarms circuit** global configuration command. To remove the circuit definition from the configuration, use the **no** form of this command.

**alps enable-alarms circuit** [*name*]

**no alps enable-alarms circuit** [*name*]

<b>Syntax Description</b>	<i>name</i>	(Optional) Name given to identify an ALPS circuit on the remote CPE.
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<b>Defaults</b>	No default behavior or values.
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<b>Command Modes</b>	Global configuration
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Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

<b>Usage Guidelines</b>	If a valid circuit name is specified, then the alarms are enabled only for the circuit matching the name. Up to eight <b>alps enable-alarms circuit</b> commands can be entered to allow a subset of ALPS circuits to be monitored. ALPS circuit alarms are generated at both the remote (ALC) CPE and the central (X.25) CPE.
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<b>Examples</b>	<p>The following example enables alarms for the ALPS circuit named CKT1:</p> <pre>alps enable alarms circuit CKT1</pre>
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Related Commands	Command	Description
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps enable-alarms peer

To enable alarms for the ALPS peers, use the **alps enable-alarms peer** global configuration command. To remove the circuit definition from the configuration, send a close message on the ALPS circuit, and delete any queued messages for the circuit, use the **no** form of this command.

**alps enable-alarms peer** [*ip-address*]

**no alps enable-alarms peer** [*ip-address*]

<b>Syntax Description</b>	<i>ip-address</i> (Optional) IP address of the remote peer for which alarms are enabled.
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<b>Defaults</b>	No default behavior or values.
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<b>Command Modes</b>	Global configuration
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<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>11.3(6)T</td> <td>This command was introduced.</td> </tr> <tr> <td>12.0(1)</td> <td>This command was available for general release.</td> </tr> </tbody> </table>	Release	Modification	11.3(6)T	This command was introduced.	12.0(1)	This command was available for general release.
Release	Modification						
11.3(6)T	This command was introduced.						
12.0(1)	This command was available for general release.						

<b>Usage Guidelines</b>	If an IP address is specified, then the alarms are enabled only for the remote peer matching the IP address. Up to eight <b>alps enable-alarms peer</b> commands can be entered to allow a set of ALPS peers to be monitored. ALPS peer alarms are generated at both the remote and the central CPE.
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<b>Examples</b>	<p>The following example enables alarms for the ALPS peer at IP address 172.22.0.91:</p> <pre>alps enable alarms peer 172.22.0.91</pre>
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<b>Related Commands</b>	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><b>show alps peers</b></td> <td>Displays the status of the ALPS partner peers. If an IP address is specified, than only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.</td> </tr> </tbody> </table>	Command	Description	<b>show alps peers</b>	Displays the status of the ALPS partner peers. If an IP address is specified, than only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.
Command	Description				
<b>show alps peers</b>	Displays the status of the ALPS partner peers. If an IP address is specified, than only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.				

# alps enable-ascu

To move the previously defined ASCU from the inactive poll list to the active poll list, use the **alps enable-ascu** ALPS ASCU submode command. This move results in the protocol handler polling the ASCU and rendering it ready for handling terminal traffic. To remove the ASCU from the active poll list to the inactive poll list, use the **no** form of this command. This action prevents the ASCU from being polled, rendering it not ready for handling terminal traffic.

**alps enable-ascu**

**no alps enable-ascu**

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**Syntax Description** This command has no arguments or keywords.

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**Defaults** No default behavior or values.

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**Command Modes** ALPS ASCU submode

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Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

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**Examples** The following example moves the ASCU to the active poll list:

```
alps enable-ascu
```

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Related Commands	Command	Description
	<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on that interface.

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# alps enable-circuit

To enable the circuit to be activated when data is received from an ASCU, use the **alps enable-circuit** ALPS circuit submode command. To disable the circuit, use the **no** form of this command.

**alps enable-circuit**

**no alps enable-circuit**

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**Syntax Description** This command has no arguments or keywords.

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**Defaults** The circuit is disabled by default.

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**Command Modes** ALPS circuit submode

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Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

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**Examples** The following example specifies the circuit to be activated when data is received from an ASCU:

```
alps enable-circuit
```

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Related Commands	Command	Description
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

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# alps error-display

To specify where error messages about service availability or network problems are displayed, use the **alps error-display** ALPS ASCU submode command. To return to the default values, use the **no** form of this command.

**alps error-display** *number1 number2*

**no alps error-display** *number1 number2*

## Syntax Description

<i>number1</i>	For P1024B, specifies the terminal address where these service messages are sent. Valid numbers are hexadecimal numbers in the range 0x40 to 0x7F. The default address is 0x72.  For P1024C, specifies the screen line number where service messages are displayed. Valid numbers are hexadecimal numbers in the range 0x00 to 0x7F. The default line number is 0x37.
<i>number2</i>	For P1024B, specifies the screen line number where service messages are displayed. Valid numbers are hexadecimal numbers in the range 0x40 to 0x7F. The default screen line number is 0x66.  For P1024C, specifies the column number where service messages are displayed. Valid numbers are hexadecimal numbers in the range 0x00 to 0x7F. The default column number is 0x20.

## Defaults

The default terminal address for ALC P1024B is 0x72.  
The default screen line for ALC P1024B is 0x20.  
The default line number for UTS P1024C is 0x37.  
The default column number for UTS P1024C is 0x20.

## Command Modes

ALPS ASCU submode

## Command History

Release	Modification
11.3(6)T	This command was introduced.
12.0(1)	This command was available for general release.

## Examples

The following example specifies that error messages are displayed at terminal address 6d, on screen line number 78:

```
alps error-display 6d 78
```

## Related Commands

Command	Description
<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on that interface.

# alps host-hld host-link

To enable ALPS on the X.25 interface, use the **alps host-hld host-link** interface configuration command. To disable ALPS on the X.25 interface, use the **no** form of this command.

```
alps host-hld hld host-link number {{ax25 [damp-tmr value]} | {emtox x.121 [pseudo-conv]}}
[life-tmr value] [reply-tmr value]
```

```
no alps host-hld hld host-link number {{ax25 [damp-tmr value]} | {emtox x.121
[pseudo-conv]}} [life-tmr value] [reply-tmr value]
```

Syntax Description	
<i>hld</i>	Host high-level designator. A hexadecimal number in the range 1 to 7f7f.
<i>number</i>	Host-link identifier. A number in the range 1 to 255.
<b>ax25</b>	Specifies airline X.25 implementation of X.25.
<b>damp-tmr</b> <i>value</i>	(Optional) Specifies the AX.25 PVC damping timer. The <i>value</i> argument is the length of time that a PVC can be inactive before it is destroyed and the corresponding ALPS circuits are closed. The default is 10 seconds.
<b>emtox</b>	Specifies EMTOX implementation of X.25.
<i>x.121</i>	X.121 address of the EMTOX host (called address on calls to the EMTOX host).
<i>pseudo-conv</i>	(Optional) Specifies the pseudo-conversational format of EMTOX packets.
<b>life-tmr</b> <i>value</i>	(Optional) Specifies the maximum amount of time (in seconds) that a message may be queued for transmission to the host X.25 system before it is discarded. The <i>value</i> argument is time (in seconds).
<b>reply-tmr</b> <i>value</i>	(Optional) Specifies the duration of the no-reply timer. If the X.2 line is idle for this duration, and the X.25 transmit window is full, then ALPS sends an X.25 reset message on the virtual circuit to reset the transmit/receive windows. The no-reply timer can be configured for between 10 and 600 seconds.

Defaults	
	The default damping timer value is 10 seconds.
	The default no-reply timer value is 60 seconds.

Command Modes	
	Interface configuration

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

Related Commands	Command	Description
	<b>encapsulation x25</b>	Specifies operation of a serial interface as an X.25 device.

# alps hostlink

To specify information required to establish an X.25 virtual circuit at the central CPE, use the **alps hostlink** ALPS circuit submode command. To remove the circuit definition from the configuration, send a close message on the ALPS circuit, and delete any queued messages for the circuit, use the **no** form of this command.

```
alps hostlink number { ax25 lcn | emtox x121-addr } [winout val1] [winin val2] [ops val3]
[ips val4]
```

```
no alps hostlink number { ax25 lcn | emtox x121-addr } [winout val1] [winin val2] [ops val3]
[ips val4]
```

Syntax Description	
<i>number</i>	Interface at the host CPE. Decimal number in the range 1 to 255.
<b>ax25</b>	Specifies airline X.25 implementation of X.25.
<i>lcn</i>	Local channel number for AX.25 connections.
<b>emtox</b>	Specifies EMTOX implementation of X.25.
<i>x121-addr</i>	X.121 calling address for EMTOX connections. This is the X.121 calling address for X.25 call packets sent from the central CPE to the EMTOX host. This address is the source address in a call to the host.
<b>winout</b> <i>val1</i>	(Optional) Specifies the X.25 transmit window. The <i>val1</i> argument is a decimal number in the range 1 to 7.
<b>winin</b> <i>val2</i>	(Optional) Specifies the X.25 receive window. The <i>val2</i> argument is a decimal number in the range 1 to 7.
<b>ops</b> <i>val3</i>	(Optional) Specifies the maximum output packet size. The <i>val3</i> argument is one of the following numbers: 128, 240, 256, 512, 1024, 2048, or 4096.
<b>ips</b> <i>val4</i>	(Optional) Specifies the maximum input packet size. The <i>val4</i> argument is one of the following numbers: 128, 240, 256, 512, 1024, 2048, or 4096.

**Defaults** If no values are specified, the default values at the X.25-attached central CPE are used.

**Command Modes** ALPS circuit submode

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

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**Examples**

The following example establishes an X.25 virtual circuit at the central CPE. The configuration specifies airline X.25 implementation. The host CPE interface is 3, the local channel number for airline X.25 connections is 120, and the X.25 transmit window is 3.

```
alps hostlink 3 ax25 120 winout 3 winin 3
```

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**Related Commands**

Command	Description
<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps idle-timer

To specify (for dynamic circuits) the length of time that can elapse before an idle circuit is disabled, use the **alps idle-timer** ALPS circuit submode command. To return to the default idle-timer value, use the **no** form of this command.

**alps idle-timer** *timer*

**no alps idle-timer** *timer*

<b>Syntax Description</b>	<i>timer</i>	Length of time that can elapse before an idle circuit is brought down. The range is 10 to 600 seconds. The default is 60 seconds.
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**Defaults** The default length of time that can elapse before an idle circuit is brought down is 60 seconds.

**Command Modes** ALPS circuit submode

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example specifies that an idle circuit is maintained for 90 seconds before it is disabled:

```
alps idle-timer 90
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps keepalive

To enable TCP keepalives for ALPS TCP peer connections, use the **alps keepalive** global configuration command. A TCP keepalive request will be sent to the remote peer if the TCP connection to the remote peer is silent for a time period larger than the interval specified. The TCP connection to the ALPS host will be closed when a count equal to the retry count specified is missed consecutively. To disable keepalives for ALPS, use the **no** form of this command.

**alps keepalive** [*interval time*] [*retry count*]

**no alps keepalive** [*interval time*] [*retry count*]

Syntax Description	Parameter	Description
	<b>interval time</b>	(Optional) Interval for keepalive requests. The <i>time</i> argument is the keepalive interval, in the range of 10 to 300 seconds. The default is 30 seconds.
	<b>retry count</b>	(Optional) Indicates how many times keepalive requests will be sent before the connection is closed. The <i>count</i> argument is the retry count, in the range 1 to 10. The default is 3 retries.

**Defaults**

The default keepalive interval is 30 seconds.  
The default retry count is 3.

**Command Modes**

Global configuration

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples**

The following example specifies that a TCP keepalive request will be sent to the remote peer if the TCP peer connection is idle for 60 seconds. The connection will be closed after 3 consecutive keepalive requests are sent.

```
alps keepalive interval 60 retry 8
```

Related Commands	Command	Description
	<b>alps local-peer</b>	Specifies the IP address of the local peer.

# alps lifetime-timer

To specify the maximum amount of time messages can be queued in the ALPS circuit queue awaiting transmission to the central CPE, use the **alps lifetime-timer** ALPS circuit submode command. To return to the default lifetime-timer value, use the **no** form of this command.

**alps lifetime-timer** *timer*

**no alps lifetime-timer** *timer*

<b>Syntax Description</b>	<i>timer</i>	Length of time, in seconds, that a message can be queued. The range is 1 to 20 seconds. The default is 4 seconds.
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<b>Defaults</b>	The default length of time that a message can be queued in the ALPS circuit queue is 4 seconds.
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<b>Command Modes</b>	ALPS circuit submode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

<b>Usage Guidelines</b>	Messages that exceed the timer limit are discarded.
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<b>Examples</b>	The following example specifies that a message remains in the ALPS circuit queue for no longer than 3 seconds:  <pre>alps lifetime-timer 3</pre>
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<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps local-hld remote-hld

To specify the local and remote HLDs to use for this ALPS circuit, use the **alps local-hld remote-hld** ALPS circuit submode command. To remove the definition from the configuration, use the **no** form of this command.

**alps local-hld** *loc-hld* **remote-hld** *rem-hld*

**no alps local-hld** *loc-hld* **remote-hld** *rem-hld*

Syntax Description		
	<i>loc-hld</i>	Local HLD to use for ALPS circuit. Hexadecimal number in the range 1 to FFFF.
	<i>rem-hld</i>	Remote HLD to use for ALPS circuit. Hexadecimal number in the range 1 to FFFF.

**Defaults** No default behavior or values.

**Command Modes** ALPS circuit submode

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
	12.0(5)T	This command was modified and the <b>remote-hld</b> keyword is not applicable for MATIP.

**Usage Guidelines** The **remote-hld** keyword is not applicable for ALPS with MATIP.

**Examples** The following example specifies the local HLD as 4B10:

```
alps local-hld 4B10
```

Related Commands	Command	Description
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# alps local-peer

To specify the IP address of the local peer, use the **alps local-peer** global configuration command. To remove all subsequent ALPS configuration commands from the router, use the **no** form of this command.

**alps local-peer** *ip-address* [**promiscuous**]

**no alps local-peer** *ip-address* [**promiscuous**]

Syntax Description	<i>ip-address</i>	IP address of the local peer.
	<b>promiscuous</b>	(Optional) Keyword specified at the central CPE to accept incoming TCP connections from any remote CPE.

**Defaults** No default behavior or values.

**Command Modes** Global configuration

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example specifies the local peer IP address as 172.22.0.91 and specifies that the CPE accepts incoming TCP connections from any CPE:

```
alps local-peer 172.22.0.91 promiscuous
```

Related Commands	Command	Description
	<b>show alps peers</b>	Displays the status of the ALPS partner peers. If an IP address is specified, than only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.

# alps matip-close-delay

To specify the interval between the closing and re-opening of MATIP circuit connections, use the **alps matip-close-delay** ALPS circuit submode command. To restore the definition to the default value, use the **no** form of this command.

**alps matip-close-delay** *time*

**no alps matip-close-delay** *time*

<b>Syntax Description</b>	<i>time</i>	Minimum number of seconds between the closing and re-opening of an ALPS MATIP circuit. The range is 1 to 90 seconds. The default is 10 seconds.
---------------------------	-------------	---

<b>Defaults</b>	The default value is 10 seconds.
-----------------	----------------------------------

<b>Command Modes</b>	ALPS circuit submode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	12.0(5)T	This command was introduced.

<b>Examples</b>	The following example specifies a close delay time of 20 seconds
	<pre>alps matip-close-delay 20</pre>

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show alps circuits</b>	Displays the status of the ALPS circuits.

# alps max-msg-length

To specify maximum input message length, use the **alps max-msg-length** ALPS ASCU submode command. To return to the default maximum input message length, use the **no** form of this command.

**alps max-msg-length** *value*

**no alps max-msg-length** *value*

<b>Syntax Description</b>	<i>value</i>	Maximum input message length. The range is 1 to 3840. The default is 962 characters.
---------------------------	--------------	--

<b>Defaults</b>	The default maximum input message length is 962 characters.
-----------------	---

<b>Command Modes</b>	ALPS ASCU submode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

<b>Examples</b>	The following example specifies that the maximum length of a message is 1000 characters:
-----------------	--

```
alps max-msg-length 1000
```

# alps mpx

To specify the multiplexing and the ASCU identification header for this circuit, use the **alps mpx** ALPS circuit submode command. To remove the definition from the configuration, use the **no** form of this command.

```
alps mpx {group | single} hdr {a1a2 | none}
```

```
no alps mpx {group | single} hdr {a1a2 | none}
```

## Syntax Description

<b>group</b>	Specifies that multiple ASCUs will be multiplexed on the ALPS circuit. This setting is the default.
<b>single</b>	Specifies that only one ASCU will use this circuit.
<b>hdr</b>	Specifies the ASCU identification header for the circuit. The default is a1a2.
<b>a1a2</b>	ASCU identification via A1, A2.
<b>none</b>	No ASCU identification.

## Defaults

The default for multiplexing is **group**.

The default header is **a1a2**.

## Command Modes

ALPS circuit submode

## Command History

Release	Modification
11.3(6)T	This command was introduced.
12.0(1)	This command was available for general release.

## Usage Guidelines

If **alps mpx group** is specified, multiple ASCUs will be multiplexed on this ALPS circuit and the **none** option is not applicable. If **alps mpx single** is specified, then only one ASCU uses this ALPS circuit. If **alps mpx single hdr none** is specified, the A1 and A2 ASCU identification information is not added to the front of data frames sent across this circuit, and it is assumed that it does not exist in frames received on this circuit. The exclusion of ASCU identification should only be specified when the EMTOX protocol is used.

# alps n1

To specify the threshold of consecutive errors logged before an ASCU is declared down, use the **alps n1** interface configuration command. To reassert the default number of consecutive errors before declaring an ASCU down, use the **no** form of this command.

**alps n1 errors**

**no alps n1 errors**

<b>Syntax Description</b>	<i>errors</i>	Error count limit. The valid range is 1 to 30 errors. <ul style="list-style-type: none"> <li>• ALC default is 30 errors.</li> <li>• UTS default is 10 error.</li> </ul>
---------------------------	---------------	---

<b>Defaults</b>	The default ALC error count is 30 errors. The default UTS error count is 10 errors.
-----------------	--

<b>Command Modes</b>	Interface configuration
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
	12.0(2)T	The error ranges were modified.

<b>Usage Guidelines</b>	The error count limit is a threshold value. If the ASCU state is UP and the error count threshold is exceeded, the ASCU state changes to DOWN and it is moved to the inactive poll. If alarms are enabled for the ASCU, a SYSLOG message is displayed and an SNMP notification is sent to the SNMP network management station.
-------------------------	--

<b>Examples</b>	The following example specifies that an ASCU is declared down when the error count exceeds 1: <pre>alps n1 1</pre>
-----------------	---

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps ascu</b>	Specifies a physical ASCU identity.
	<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on that interface.

# alps n2

To specify the number of polls that must be correctly replied to before an ASCU is declared up, use the **alps n2** interface configuration command. To reassert the default number of polls that must be correctly replied before an ASCU is declared up, use the **no** form of this command.

**alps n2** *polls*

**no alps n2** *polls*

<b>Syntax Description</b>	<i>polls</i>	Number of polls that must be correctly replied to. The valid range is 1 to 30 polls. The default is 1 poll.
---------------------------	--------------	---

<b>Defaults</b>	The default number of polls that must be correctly replied to is 1.
-----------------	---

<b>Command Modes</b>	Interface configuration
----------------------	-------------------------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
12.0(1)	This command was available for general release.	

<b>Usage Guidelines</b>	If the ASCU state is DOWN and the reply threshold is exceeded, the ASCU state changes to UP and the ASCU is moved to the active poll list. If alarms are enabled for the ASCU, a SYSLOG message is displayed and an SNMP notification is sent to the SNMP management station.
-------------------------	---

<b>Examples</b>	The following example specifies that 2 polls must be correctly replied to before the ASCU is declared up:
-----------------	---

```
alps n2 2
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps ascu</b>	Specifies a physical ASCU identity.
<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on that interface.	

# alps n3

To specify the maximum number of retransmissions of an unacknowledged output data message to an ASCU, use the **alps n3** interface configuration command. To reassert the default, use the **no** form of this command.

**alps n3** *value*

**no alps n3** *value*

<b>Syntax Description</b>	<i>value</i>	Maximum number of retransmissions of an unacknowledged output data message. When the number is exceeded the output data message is dropped. The valid range is 1 to 10 retransmissions. The default is 3 retransmissions.
---------------------------	--------------	---

**Defaults** The default number of retransmissions is 3.

**Command Modes** Interface configuration

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	12.0(2)T	This command was introduced.

**Usage Guidelines** This command is valid on 1026C interfaces only.

**Examples** The following example specifies that 6 is the maximum number of retransmissions of an unacknowledged output data message to an ASCU:

```
alps n3 6
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps ascu</b>	Specifies a physical ASCU identity.
	<b>show alps ascu</b>	Displays the status of the ALPS ASCU.

# alps poll-pause

To specify the minimum interval, in milliseconds, between initiations of the polling cycle, use the **alps poll-pause** interface configuration command. To the default interval, use the **no** form of this command to revert.

**alps poll-pause** *msec*

**no alps poll-pause**

<b>Syntax Description</b>	<i>msec</i>	Minimum interval between polls, in milliseconds. The valid range is 10 to 1000 ms. The default interval is 50 ms.
---------------------------	-------------	---

<b>Defaults</b>	The default minimum interval is 50 ms.
-----------------	--

<b>Command Modes</b>	Interface configuration
----------------------	-------------------------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example sets a 200-ms minimum interval between polls.

```
alps poll-pause 200
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps ascu</b>	Specifies a physical ASCU identity.

## alps primary-peer

To specify the primary TCP peer and, optionally, a backup TCP peer for this ALPS circuit, use the **alps primary-peer** ALPS circuit submode command. To remove the definition from the configuration, use the **no** form of this command.

```
alps primary-peer ip-addr [backup-peer ip-addr]
```

```
no alps primary-peer ip-addr [backup-peer ip-addr]
```

Syntax Description		
	<i>ip-addr</i>	IP address specified in the <b>alps remote-peer</b> command.
	<b>backup-peer</b>	(Optional) Backup TCP peer for the ALPS circuit.
	<i>ip-addr</i>	(Optional) IP address specified in the <b>alps remote-peer</b> command.

**Defaults** No default behavior or values.

**Command Modes** ALPS circuit submode

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example specifies a primary peer at IP address 172.22.0.91 and a backup peer at IP address 172.22.0.92:

```
alps primary-peer 172.22.0.91 backup-peer 172.22.0.92
```

Related Commands	Command	Description
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>show alps peers</b>	Displays the status of the ALPS partner peers. If an IP address is specified, than only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.

# alps remote-peer

To specify the partner IP address, use the **alps remote-peer** global configuration command. To remove the definition from the configuration, use the **no** form of this command.

**alps remote-peer** *ip-addr* [**protocol** {**atp** | **matip-a**}] [**status-interval** *interval*] [**status-retry** *retries*] [**dynamic** [*inact-timer*] [**no-circuit** *no-circ-timer*]] [**tcp-qlen** [*num*]]

**no alps remote-peer** *ip-addr* [**protocol** {*atp* | *matip-a*}] [**status-interval** *interval*] [**status-retry** *retries*] [**dynamic** [*inact-timer*] [**no-circuit** *no-circ-timer*]] [**tcp-qlen** [*num*]]

Syntax Description	
<i>ip-addr</i>	IP address of the peer.
<b>protocol</b> { <b>atp</b>   <b>matip-a</b> }	(Optional) Specifies the type of encapsulation for the connection. The following options are available: <ul style="list-style-type: none"> <li>ALPS Tunneling Protocol encapsulation. This encapsulation is the default.</li> <li>MATIP Type A (conversational) encapsulation.</li> </ul>
<b>status-interval</b> <i>interval</i>	(Optional) Specifies amount of time, in seconds, between sending of MATIP status messages. The messages verify the integrity of the TCP connection. Number of seconds between status messages. The range is 0 to 300 seconds. The default value is 0 (off).
<b>status-retry</b> <i>retries</i>	(Optional) Specifies number of times to retry sending a MATIP status message before the peer connection is closed. Number of retries. The range is 0 to 100 retries. The default value is 2.
<b>dynamic</b> <i>inact-timer</i>	(Optional) Allows the TCP connection to the host peer to be opened only when there is data to be transferred to the host reservation system. Length of inactivity, in seconds, after which the connection is closed. The range is 0 to 300 seconds. The default is 30 seconds. A value of zero indicates that the timer is disabled.
<b>no-circuit</b> <i>no-circ-timer</i>	(Optional) Specifies amount of time, in seconds, that a peer will stay connected while no circuits are using the peer connection. This parameter is valid only if the dynamic parameter is first configured. Number of seconds before which the timer will expire. The range is 0 to 3600 seconds. The default is 90 seconds.
<b>tcp-qlen</b> <i>num</i>	(Optional) Specifies the maximum length of a TCP queue for peer connections. Number of packets allowed in the TCP queue. The range is 26 to 100 packets. The default is 50 packets.

## Defaults

The default for the **status-interval** argument is 0 (off).

The default for the **status-retry** argument is 2.

The default for the **dynamic** argument is 30 seconds.

The default for the **no-circuit** argument is 90 seconds.

The default for the **tcp-qlen** argument is 50 packets.

**Command Modes** Global configuration

Command History	Release	Modification
	11.3(6)T	This command was introduced
	12.0(1)	This command was available for general release.
	12.0(5)T	The keyword <b>protocol</b> , <b>status-interval</b> , <b>status-retry</b> and the <b>no-circuit</b> option were added.

**Usage Guidelines**

When the protocol option is configured for MATIP, the peer connection is dynamic.

When the protocol option is configured for ATP, the peer connection is permanent.

The **no-circuit** option within the dynamic keyword does not apply to permanent (ALC/UTS) connections.

The **status-interval** and **status-retry** options apply only to the MATIP protocol.

Issuing the **no alps remote-peer** command does the following:

- Closes TCP connection.
- Notifies the partner TCP peer that this connection is closed.

Notifies the ALPS circuits using this TCP peer that the connection is closed.

**Examples**

The following example specifies a MATIP peer connection at IP address 172.22.0.92. Status messages will be sent every 20 seconds and will be 2 times before the connection is closed. The maximum TCP length is 30:

```
alps remote-peer 172.22.0.92 protocol matip-a status-interval 20 status-retry 2 tcp-qlen
30
```

Related Commands	Command	Description
	<b>alps local-peer</b>	Specifies the IP address of the local peer.
	<b>show alps peers</b>	Displays the status of the ALPS partner peers. If an IP address is specified, than only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.

# alps retry-option

To configure the CPE to transmit a message to the ASCU when a message with a bad cycle check character (CCC) is received from an ASCU, use the **alps retry-option** ALPS ASCU submode command. To reassert the default action of no retry, use the **no** form of this command.

**alps retry-option {resend | reenter}**

**no alps retry-option**

## Syntax Description

<b>resend</b>	Specifies the retry option as resend. This option causes an indicator LED to signal the operator at the ASCU to resend data.
<b>reenter</b>	Specifies the retry option as reenter. This option causes a service message to signal the operator at the ASCU to reenter data.

## Defaults

The default retry option is no retry.

## Command Modes

ALPS ASCU submode

## Command History

Release	Modification
11.3(6)T	This command was introduced.
12.0(1)	This command was available for general release.

## Usage Guidelines

This command is applicable only for P1024B (ALC) interfaces; it is invalid on P1024C (UTS) interfaces.

## Examples

The following example specifies that an indicator LED signals the ASCU to resend data:

```
alps retry-option resend
```

## Related Commands

Command	Description
<b>alps ascu</b>	Specifies a physical ASCU identity.
<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on that interface.

# alps service-msg-interval

To specify the interval between transmission of a service message to an ASCU and transmission of a “PLEASE RETRY” message, use the **alps service-msg-interval** ALPS circuit submode command. To remove the definition from the configuration, use the **no** form of this command.

**alps service-msg-interval** *seconds*

**no alps service-msg-interval** *seconds*

<b>Syntax Description</b>	<i>seconds</i>	Interval, in seconds, between consecutive transmissions of service messages from the remote CPE to the ASCU. The range is 1 to 20 seconds. The default interval is 4 seconds.
---------------------------	----------------	---

<b>Defaults</b>	The default interval between consecutive transmissions of service messages from the remote CPE to the ASCU is 4 seconds.
-----------------	--

<b>Command Modes</b>	ALPS circuit submode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

<b>Usage Guidelines</b>	The “PLEASE RETRY” message is transmitted only to ASCUs that use circuits with a dynamic connection type.
-------------------------	---

<b>Examples</b>	The following example specifies an interval of 3 seconds between transmission of service messages from the CPE to the ASCU:
-----------------	---

```
alps service-msg-interval 3
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>alps service-msg-list</b>	Defines the service message list to be used for this circuit.

# alps service-msg-list

To define the service message list to be used for this circuit, use the **alps service-msg-list** ALPS circuit submode command. To remove the list from the circuit configuration, thus issuing no service messages until another list is configured, use the **no** form of this command.

**alps service-msg-list** *list*

**no alps service-msg-list** *list*

<b>Syntax Description</b>	<i>list</i>	The service message list to be used for this circuit. The valid numbers are 1 to 8.
---------------------------	-------------	---

<b>Defaults</b>	No default behavior or values.	
-----------------	--------------------------------	--

<b>Command Modes</b>	ALPS circuit submode	
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

<b>Examples</b>	The following example specifies that message list 1 is used for this circuit:	
-----------------	---	--

```
alps service-msg-list 1
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>alps service-msg-interval</b>	Specifies the interval between transmission of a service message to an ASCU and transmission of a PLEASE RETRY message.

# alps service-msg-list number

To define the service message identity and its contents for a service message list, use the **alps service-msg-list number** global configuration command. To remove a service message number from the service message list configuration, use the **no** form of this command.

**alps service-msg-list** *list number number msg*

**no alps service-msg-list** *list number number msg*

## Syntax Description

<i>list</i>	The service message list to be used for this circuit. The valid numbers are 1 to 8
<i>number</i>	List number. Valid numbers are 1 to 8.
<i>msg</i>	Contents of a service message.

## Defaults

The default service message is used if no service message list number is specified.

## Command Modes

Global configuration

## Command History

Release	Modification
11.3(6)T	This command was introduced.
12.0(1)	This command was available for general release.

## Examples

The following example specifies the text of message list 1, message number 2:

```
alps service-msg-list 1 number 2 "Turn off the terminal NOW."
```

# alps servlim

To specify the number of cycles of the active poll list to execute before polling the next ASCU on the inactive poll list, use the **alps servlim** interface configuration command. To reassert the default number of cycles through the normal (active) poll list allowed before the slow poll list is processed, use the **no** form of this command.

**alps servlim** *polls*

**no alps servlim** *polls*

<b>Syntax Description</b>	<i>polls</i>	Number of polls of the ASCU UP list. The valid range is 1 to 512 polls. The default is 30 polls.
<b>Defaults</b>	The default number of polls of the ASCU UP list allowed between two successive polls of the ASCU DOWN list is 30 polls.	
<b>Command Modes</b>	Interface configuration	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
<b>Examples</b>	<p>The following example specifies that 5 polls of the ASCU UP list are allowed between 2 successive polls of the ASCU DOWN list.</p> <pre>alps servlim 5</pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps n1</b>	Specifies the threshold of consecutive errors logged before an ASCU is declared down.
	<b>alps n2</b>	Specifies the number of polls that must be correctly replied to before an ASCU is declared up.
	<b>alps t1</b>	Specifies the timeout delay between polling and response.
	<b>alps t2</b>	Specifies the timeout delay between receipt of the first character of an IP sequence solicited by a poll and receipt of a Go Ahead (GA) sequence.

# alps t1

To specify the timeout delay between polling and response, use the **alps t1** interface configuration command. To reassert the default poll timeout value of 0.5 seconds, use the **no** form of this command.

**alps t1** *delay*

**no alps t1** *delay*

<b>Syntax Description</b>	<i>delay</i>	Timeout delay, in seconds, between polling and response. The valid range is 1 to 10 tenths of a second (.1 to 1 second). The default is 5 tenths of a second (.5 second).
---------------------------	--------------	---

**Defaults** The default timeout delay between polling and response is 5 tenths of a second (.5 second).

**Command Modes** Interface configuration

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example specifies a .5-second time-out delay between polling and response:

```
alps t1 5
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps n1</b>	Specifies the threshold of consecutive errors logged before an ASCU is declared down.
	<b>alps n2</b>	Specifies the number of polls that must be correctly replied to before an ASCU is declared up.
	<b>alps servlim</b>	Specifies the number of cycles of the active poll list to execute before polling the next ASCU on the inactive poll list.
	<b>alps t2</b>	Specifies the timeout delay between receipt of the first character of an IP sequence solicited by a poll and receipt of a Go Ahead (GA) sequence.

# alps t2

To specify the timeout delay between receipt of the first character of an I/P sequence solicited by a poll and receipt of a Go Ahead (GA) sequence, use the **alps t2** interface configuration command. To reassert the default timeout value of 6 seconds, use the **no** form of this command.

**alps t2** *delay*

**no alps t2** *delay*

<b>Syntax Description</b>	<i>delay</i>	Timeout delay, in seconds, between receipt of first character of an I/P sequence solicited by a poll and receipt of Go Ahead (GA) sequence. The valid range is 1 to 10 seconds. The default is 6 seconds.
<b>Defaults</b>	The default timeout delay between receipt of first character of an I/P sequence solicited by a poll and receipt of Go Ahead (GA) sequence is 6 seconds.	
<b>Command Modes</b>	Interface configuration	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
<b>Examples</b>	<p>The following example specifies a timeout delay of 8 seconds between receipt of the first character of an I/P sequence solicited by a poll and receipt of a Go Ahead sequence:</p> <pre>alps t2 8</pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps n1</b>	Specifies the threshold of consecutive errors logged before an ASCU is declared down.
	<b>alps n2</b>	Specifies the number of polls that must be correctly replied to before an ASCU is declared up.
	<b>alps servlim</b>	Specifies the number of cycles of the active poll list to execute before polling the next ASCU on the inactive poll list.
	<b>alps t1</b>	Specifies the timeout delay between polling and response.

# alps translate

To map an X.121 address to an IP address of a remote peer, use the **alps translate** interface configuration command. To remove mapping from the configuration, use the **no** form of this command.

**alps translate** *x.121-addr ip-addr*

**no alps translate** *x.121-addr ip-addr*

Syntax Description	<i>x.121-addr</i>	X.121 address to be mapped to an IP address of a remote peer.
	<i>ip-addr</i>	IP address of the remote peer.

**Defaults** No default behavior or values.

**Command Modes** Interface configuration

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Usage Guidelines** The X.121 address is compared to the Called Address on inbound X.25 call packets to determine if the call should be accepted. The X.121 address may have an asterisk (\*) at the end to indicate “all X.121 addresses prefixed with the address before the \*”.

**Examples** The following example maps all X.121 addresses prefixed with the address 88845 to the remote peer IP address 172.22.0.90:

```
alps translate 88845* 172.22.0.90
```

Related Commands	Command	Description
	<b>encapsulation x25</b>	Specifies that the P1024C protocol will be used on that interface.

# alps update-circuit

To update one or more ALPS circuits, use the **alps update-circuit** EXEC command. If a circuit name is specified, then only that circuit will be updated; otherwise, all circuits will be updated.

**alps update-circuit** [*name*]

<b>Syntax Description</b>	<i>name</i> (Optional) Specifies name of circuit to update.
---------------------------	---

<b>Defaults</b>	No default behavior or values.
-----------------	--------------------------------

<b>Command Modes</b>	EXEC
----------------------	------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	12.0(5)T	This command was introduced.

<b>Usage Guidelines</b>	<p>If the <b>alps update-circuit</b> command is issued for a circuit that is using the ATP protocol, the circuit will be closed and reopened.</p> <p>If the <b>alps update-circuit</b> command is issued for a circuit that is using the MATIP protocol, a configuration update will be sent in the form of a MATIP Session Open command.</p> <p>The <b>alps update-circuit</b> command is effective only for ALPS circuits that are enabled and active (opening or opened state).</p> <p>There is not a no form for this command.</p>
-------------------------	--

<b>Examples</b>	<p>The following example specifies that circuit 1 has been updated:</p> <pre>alps update-circuit CKT-1</pre>
-----------------	--

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>alps enable-circuit</b>	Enables the circuit to be activated when data is received from an ASCU.
	<b>show alps circuits</b>	Displays the status of the ALPS circuits.

# clear alps circuits

To remove configured ALPS circuits, use the **clear alps circuits** EXEC command.

**clear alps circuits** [**ipaddr** *address* / **name** *string*]

Syntax Description	
<b>ipaddr</b> <i>address</i>	(Optional) Clear ALPS circuits for peer with specified IP address.
<b>name</b> <i>string</i>	(Optional) Clear ALPS circuits for peer with specified name.

**Defaults** If no IP address or name is specified, the command clears all ALPS circuits.

**Command Modes** EXEC

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example clears the ALPS circuit named CKT1:

```
clear alps circuits name CKT1
```

Related Commands	Command	Description
	<b>alps circuit</b>	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

# clear alps counters

To clear all counters relevant to the ALPS feature, use the **clear alps counters** EXEC command.

**clear alps counters**

**Syntax Description** This command has no arguments or keywords.

**Defaults** No default behavior or values.

**Command Modes** EXEC

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Examples** The following example clears all counters for the ALPS feature:

```
clear alps counters
```

Related Commands	Command	Description
	<b>encapsulation uts</b>	Specifies that the P1024C protocol will be used on that interface.
	<b>show alps circuits</b>	Displays the status of the ALPS circuits. If a circuit name is specified, than only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.
	<b>show alps peers</b>	Displays the status of the ALPS partner peers. If an IP address is specified, than only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.

# encapsulation alc

To specify that the P1024B Airline Control (ALC) protocol will be used on the serial interface, use the **encapsulation alc** interface configuration command. To remove ALC protocol handling from the serial interface, and return the default encapsulation (HDLC) to the interface, use the **no** form of this command.

**encapsulation alc**

**no encapsulation alc**

**Syntax Description** This command has no arguments or keywords.

**Defaults** No default behavior or values.

**Command Modes** Interface configuration

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.

**Usage Guidelines** The **encapsulation alc** command causes any ASCU configuration to be removed from the interface. As each ASCU defined on the interface is removed it is also unlinked from the ASCU circuit it belongs to. All data frames queued for transmission to the ASCU are destroyed.

This encapsulation command must be entered prior to any ASCU configuration. Note that all timer and counter values are applicable to all ASCUs on the interface.

**Examples** The following example specifies that the ALC protocol is used:

```
encapsulation alc
```

Related Commands	Command	Description
	<b>show interfaces</b>	Displays statistics for all interfaces configured on the router or access server.

# encapsulation uts

To specify that the P1024C Universal Terminal Support (UTS) protocol will be used on the serial interface, use the **encapsulation uts** interface configuration command. To remove UTS protocol handling from the serial interface and return the default encapsulation (HDLC) to the interface, use the **no** form of this command.

**encapsulation uts**

**no encapsulation uts**

**Syntax Description** This command has no arguments or keywords.

**Defaults** No default behavior or values.

**Command Modes** Interface configuration

Command History	Release	Modification
	12.0(2)T	This command was introduced.

**Usage Guidelines** The **encapsulation uts** command causes any ASCU configuration to be removed from the interface. As each ASCU defined on the interface is removed it is also unlinked from the ASCU circuit it belongs to. All data frames queued for transmission to the ASCU are destroyed.

This encapsulation command must be entered prior to any ASCU configuration. Note that all timer and counter values are applicable to all ASCUs on the interface.

**Examples** The following example specifies that the P1024C protocol is used:

```
encapsulation uts
```

Related Commands	Command	Description
	<b>show interfaces</b>	Displays statistics for all interfaces configured on the router or access server.

# show alps ascu

To display the status of the ALPS ASCU, use the **show alps ascu EXEC** command.

**show alps ascu** [*interface* [*id*]] [**detail**]

Syntax Description	
<i>interface</i> [ <i>id</i> ]	(Optional) Combined interface and ASCU Interchange Address (IA). If the interface and ASCU are specified, the status for only the ASCU on that interface is displayed. If only the interface is specified, all ASCUs defined on that interface are displayed. If the interface and ASCU are not specified, then all ASCUs defined are displayed.
<b>detail</b>	(Optional) Displays detailed output.

Command Modes	
	EXEC

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
	12.0(5)T	This command was modified.

## Examples

The following example shows output from the **show alps ascu** command:

```
router# show alps ascu
interface dlc id a1 a2 circuit      pkt_tx      pkt_rx      state
-----
Serial3   ALC 41 41 41 CKT-1             0           0           UP
Serial3   ALC 42 41 42 CKT-1             0           0           UP
Serial3   ALC 45 41 45 CKT-1            29          1484        UP
```

Related Commands	Command	Description
	<b>alps ascu</b>	Specifies a physical ASCU identity.

# show alps circuits

To display the status of the ALPS circuits, use the **show alps circuits EXEC** command. If a circuit name is specified, then only the status of that circuit will be displayed; otherwise, the status of all circuits will be displayed.

**show alps circuits** [*peer *ipaddress**] [*name *name**] [*detail*]

Syntax Description	peer <i>ipaddress</i>	(Optional) Displays the status of the circuits connected to the specified peer.
	name <i>name</i>	(Optional) Displays only the status of that circuit.
	detail	(Optional) Displays detailed output.

**Command Modes** EXEC

Command History	Release	Modification
	11.3T	This command was introduced.
	12.0(1)	This command was available for general release.
	12.0(5)T	This command was modified.

## Examples

The following example shows output from the **show alps circuits** command:

```
router# show alps circuits name ckt-1 detail
CKT-1:dlc = ALC, conn_type = DYN, state = OPEN, uptime = 00:00:06
  down reason = noReason
  pri_peer = 10.227.50.106, sec_peer = 0.0.0.0
  curr_peer = 10.227.50.106, MATIP_A_CKT-1
  local_hld = 7F7F, remote_hld = 7F7F
  emtox:hostlink = 255, x121 = 1133470125
  lifetime_tmr = 4, idle_tmr = 60, retry_tmr = 0
  pkt_tx = 2239, byte_tx = 94244, pkt_rx = 2238, byte_rx = 94208
  src_corr = 0, dst_corr = 0
  drops_q_overflow = 388, drops_ckt_disabled = 30
  drops_lifetime_tmr = 24, drops_invalid_ascu = 0
  ascus:(45,41)
```

Related Commands	Command	Description
	alps circuit	Specifies an ALPS circuit at the remote CPE across a TCP/IP connection.

# show alps peers

To display the status of the ALPS partner peers, use the **show alps peers** EXEC command.

**show alps peers** [*ipaddress addr*] [*detail*]

Syntax Description	<b>ipaddress <i>addr</i></b>	(Optional) Displays only the status of that ASCU.
	<b>detail</b>	(Optional) Displays detailed output.

Command Modes EXEC

Command History	Release	Modification
	11.3(6)T	This command was introduced.
	12.0(1)	This command was available for general release.
	12.0(5)T	This command was modified.

Usage Guidelines If an IP address is specified, then only the status of that peer will be displayed; otherwise, the status of all peers will be displayed.

Examples The following example shows output from the **show alps peers detail** command:

```
router# show alps peers detail

TCP:10.227.50.106, conn_id = MATIP_A_CKT-2
  protocol = MATIP_A, fport = 350, lport = 11592
  type = DYN, create = ADMIN, state = OPENED, uptime = 00:00:53
  down reason = unknown
  pkt_tx = 1071, byte_tx = 37264, pkt_rx = 1066, byte_rx = 36010
  Drops:giants = 0, q_overflow = 0, peer_down = 0, ver_mismatch = 0
```

[Table 46](#) describes the significant fields shown in the display.

**Table 46** *show alps peers detail Field Descriptions*

Field	Description
TCP	Remote peer IP address.
conn_id	Configured circuit name.
protocol	Protocol can be one of the following: <ul style="list-style-type: none"> <li>• ATP = This protocol is used when two routers form peers.</li> <li>• MATIP_A = This protocol is used when one router directly communicates with the mainframe.</li> <li>• UNKNOWN = This protocol implies that the peer is down.</li> </ul>
fport	Foreign TCP port.
lport	Local TCP port.
type	Type can either be PERM or DYN: <ul style="list-style-type: none"> <li>• PERM =Permanent; this peer will always be connected.</li> <li>• DYN =Dynamic; this peer will go up and down based on traffic. If there is no traffic, the peer will go down.</li> </ul>
create	Create can either be ADMIN or LEARN: <ul style="list-style-type: none"> <li>• ADMIN = This peer was configured on this router, and the peer was started from this router.</li> <li>• LEARN = This is an incoming connection.</li> </ul>
state	State can be one of the following: <ul style="list-style-type: none"> <li>• DISCONN = Peer is not connected.</li> <li>• OPENING = Peer is in the process of opening.</li> <li>• OPENED = Peer is connected and is ready to exchange data.</li> <li>• WAN_BUSY = There is traffic on our end of the TCP connection.</li> </ul>
uptime	Time for which the peer is up and running.
down reason	It can assume the following 8 values: idle, noCircuits, destUnreachable, foreignReset, localReset, noMemory, openingTimeout, unknown.
pkt_tx	Number of packets transmitted.
byte_tx	Number of bytes transmitted.
pkt_rx	Number of packets received.
byte_rx	Number of bytes received.
Drops_giant	Number of packets that are dropped. A giant is counted when the ALPS process receives a packet from TCP that exceeds the maximum ALPS packet size of 4096 bytes.
q_overflow	This counter is incremented whenever an attempt to send a packet to the TCP peer fails.

*Table 46 show alps peers detail Field Descriptions (continued)*

Field	Description
peer_down	This counter is incremented when the peer is not reachable.
ver_mismatch	This counter is incremented because of mismatch between the local ALPS version and the version received from the remote peer.

**Related Commands**

Command	Description
<b>alps primary-peer</b>	Specifies the primary TCP peer and, optionally, a backup TCP peer for this ALPS circuit.
<b>alps remote-peer</b>	Specifies the partner IP address.