



Interfaces disabled due to detection of error

Teldat-Dm 794-I

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Chapter 1 Introduction

1.1 Introduction

Occasionally, an interface is disabled when an error is detected while a protocol is running. This is the case, for example, when the BPDU Guard feature is configured in a switch port and a BPDU frame is received.

The configuration of the parameters related to the recovery of a link that has been disabled due to a protocol error is carried out from the **err-disable** feature.

Chapter 2 Configuration

2.1 Accessing the configuration

To access the configuration menu for the **err-disable** feature, use the **FEATURE ERR-DISABLE** command from the global configuration menu.

Example:

```
*config
Config>feature err-disable
-- Error Disable user configuration --
errdisable config>
```

2.2 Configuration Commands

The following table summarizes all the available configuration commands. These commands are more fully explained in the following sections.

Command	Function
? (HELP)	Displays the configuration commands or their options.
NO	Configures the parameters with their default values.
RECOVERY	Configures the error recovery parameters.
EXIT	Exits the configuration menu.

2.2.1 ? (HELP)

Displays the available commands or the options for a command.

2.2.2 NO

Configures the parameters with their default values or deletes the configuration.

Syntax:

```
errdisable config>no ?
  recovery      Error disable recovery
errdisable config>
```

Example:

Disables the recovery of an interface disabled due to errors detected through the BPDU Guard mechanism.

```
errdisable config>no recovery cause bpdu-guard
```

2.2.3 RECOVERY

Configures the parameters relative to the recovery of an interface disabled due to errors detected while a protocol is running.

Syntax:

```
errdisable config>recovery
  cause          Enable error disable recovery for application
  interval       Error disable recovery timer value
```

RECOVERY CAUSE

Configures the causes so that the automatic recovery of an interface can take place. If an interface is disabled due to an error being detected and the recovery associated to the error that caused this is enabled, the interface will recover after a specified interval has timed out through the RECOVERY INTERVAL command.

In cases where the recovery associated to the cause of the error is disabled, the interface will only recover if the user disables the interface and enables it again (**SHUTDOWN** and **NO SHUTDOWN** commands found on the interface

configuration menu.

Syntax:

```
errdisable config>recovery cause ?
  bpduguard          Enable timer to recover from BPDU Guard error disable
                      state
  bpduguard-inconsistency  Enable timer to recover from BPDU inconsistency error
                      disable state
```

The error causes that can provoke an interface to disable are as follows:

- BPDU Guard: a BPDU frame is received in an interface that has the BPDU Guard feature enabled.
- BPDU Inconsistency: a BPDU Inconsistency frame is received. This happens when this is executing PVSTP (Per VLAN Spanning Tree Protocol) and a BPDU is received where there is no coincidence between the VLAN where the packet was classified on entry and the VLAN that is internally indicated in the BPDU.

Default value: by default the automatic recovery is disabled for all the possible error causes.

Example:

Automatic recovery of an interface is permitted when an inconsistency is detected in the PVSTP protocol.

```
errdisable config>recovery cause bpduguard-inconsistency
```

RECOVERY INTERVAL

Configures the interval that the interface must be disabled before trying to proceed to automatic recovery. This interval only applies to causes that have been configured for the automatic recovery of the interface.

Syntax:

```
errdisable config>recovery interval <30s..86400s>
```

Default value: **by default the recovery interval is 300 seconds.**

Example:

Configuration for an automatic recovery interval of 60 seconds.

```
errdisable config>recovery interval 60
```

2.2.4 EXIT

Exits the configuration menu.

Syntax:

```
Errdisable config>exit
```

Chapter 3 Monitoring

3.1 Accessing the monitoring

To access the monitoring menu for the **err-disable** feature, use the **FEATURE ERR-DISABLE** command from the global monitoring menu.

Example:

```
*monitor
Console Operator
+feature err-disable
-- Error Disable user console --
errdisable+
```

3.2 Monitoring Commands

The following table summarizes all the available monitoring commands. These commands are more fully explained in the following sections.

Command	Function
? (HELP)	Displays the monitoring commands or their options.
SHOW	Displays diverse information.
EXIT	Exits the monitoring menu.

3.2.1 ? (HELP)

Displays the available commands or the options for a command.

3.2.2 SHOW ERR-DISABLED

Displays the interfaces disabled due to an error being detected when a protocol is running.

Example:

```
errdisable+show err-disabled
```

Interface	Port	Instance	VID	Errdisable reason	Time left(sec)	Recovery
-----	----	-----	----	-----	-----	-----
ethernet0/0	2	1	1	BPDU Guard	245	Enabled

The following information is displayed:

Interface	Interface disabled due to error detection.
Port	Port for the interface disabled due to error detection.
Instance	Spanning Tree instance that the port pertains to.
VID	VLAN identifier associated to the Spanning Tree instance.
Errdisable reason	Feature that has provoked the disabling of the interface.
Time left	Time left before attempting to recover the interface.
Recovery	Indicates if the automatic recovery is enabled or not.

3.2.3 SHOW RECOVERY

Displays the configuration for the recovery of interfaces disabled due to error detection when a protocol is running.

Example:

```
errdisable+show recovery
```

ErrDisable Reason	Timer Status
-----	-----
BPDU Guard	Enabled

```
BPDU Inconsistency    Disabled
```

```
Timer interval: 300 seconds
```

```
Interfaces that will be enabled at the next timeout:
```

Interface	Port	Instance	VID	Errdisable reason	Time left(sec)
ethernet0/0	2	3	30	BPDU Guard	201

This displays the possible reasons that provoked an interface to disable and if the automatic recovery is enabled or not for each one of these reasons.

Additionally this displays the disabled interface that recovers automatically when the associated timer times out.

3.2.4 EXIT

Exits the monitoring menu.

Syntax:

```
errdisable+exit
```