Configure Register Equivalent CLIs in IOS-XE

Contents

Introduction

This document describes how to modify certain system parameters with CLI commands on Catalyst 9000 switches that run Cisco® IOS-XE.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on these software and hardware versions:

- Catalyst 9000 Switches Series
- Cisco IOS-XE

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

The Command Line Interface (CLI) commands are an alternative so you do not have to change the configuration-register value on Cisco® IOS.

Problem

Config-register is a 16-bit software register value that is preconfigured in NVRAM and can be used to change switch behavior to:

- Change how the switch boots (into ROMmon, NetBoot).

- Change options while the switch boots (ignore configuration, disable boot messages).

- Change console speed (baud rate for a terminal emulation session).

On Classic platforms that run on Cisco IOS software, the configuration register is set from configuration mode with the config-register command or from ROMmon with the confreg command. The show version command allows you to view the current setting of the configuration register.

On Catalyst 9000 switches that run on Cisco IOS-XE, the confreg command was still available to configure, and the current setting appears in show version as well, but the actual config-register command was ineffective and malfunctioned which caused confusion.

This is because Cisco IOS-XE does not use this config-register command and provides alternate CLI commands to handle the same.

> ✎ **Note**: The incorrect display of configuration register value on show version output is removed from 16.12.4 and 17.3.1 release onwards.

Solution

Here are the equivalent CLI commands on Cisco IOS-XE that allows user to perform same tasks done by setting config-register value on Cisco IOS.

Operation	Cisco IOS Config-register value	Equivalent Cisco IOS-XE CLI
Boot normally	0x2102	Switch(config)#no boot manual
Boot to rommon	0x0,0x2120	Switch(config)#boot manual
Enable Break/Disable Break	0x2120/ residual register values	Switch(config)#[no]boot enable-break
Setting Baud/ Console line speed	0x102, 0x2101, 0x2102, 0x2142 : 9600 baud rate 0x1202 : 1200 baud rate 0x2120, 0x2122, 0x2124 : 19200 baud rate 0x2902 : 4800 baud rate 0x2922 : 38400 baud rate 0x3122 : 57600 baud rate 0x3922 : 115200 baud rate	Switch(config)#line console 0 Switch(config-line)#speed ? <0-4294967295> Transmit and receive speeds

	0x3902 : 2400 baud rate	
Ignore startup	0x2142	Switch(config)#system ignore startupconfig
Ignores break	0x102, 0x2101, 0x2102, 0x2122, 0x2124, 0x2142, 0x2902, 0x2922, 0x3122, 0x3902, 0x3922	Switch(config)#[no]boot manual Switch(config)#[no]boot enable-break
Disable password recovery	0x102	Switch(config)#system disable password recovery

✎ **Note**: If a system runs on Cisco IOS-XE and fails to boot for 5 consecutive times in less than 25 minutes of uptime for each reload, then the software auto-sets ROMmon variable MANUAL_BOOT="yes". In other words, if a system fails to boot for any reason it auto-boots into ROMmon after 5 consecutive tries.

If both ignore config and disable password recovery is enabled then the respective ROMmon variables are set.

SWITCH_DISABLE_PASSWORD_RECOVERY=1
SWITCH_IGNORE_STARTUP_CFG=1

If both of these variables are set, the switch prompts when it boots up and confirms before the startup-config.

```
Booting...
<snip>

Both ignore startup configuration and disable password are set
This will result in erasing the startup config
Do you want to Erase the config? Default: n, Answer y/n:
User response is YES, erasing the startup config
Removing FIPS Key. Disabling FIPS MODE
All TCP AO KDF Tests Pass

service password-encryption

service password-recovery noconfirm
```

Related Information

- [Cisco Technical Support & Downloads](#)