Reset Router to Factory Defaults

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Introduction

This document describes how to restore a Cisco router to its original factory default settings.

Prerequisites

Requirements

In order to perform the procedures described in this document, you must have enable (also known as **privileged EXEC**) access on the router.

Components Used

This document is not restricted to specific software and hardware versions.

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.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Instructions to Reset a Cisco Router Back to Factory Defaults

There are two main methods to return a Cisco router to its original factory defaults. These two methods are described next.

Note: To view any information on the commands in this article refer to the Cisco IOS® Configuration Fundamentals Command Reference.

Method 1

This method uses the **config-register 0x2102** command in global configuration mode.

1. Issue the **show version** command to check the configuration register on the router.

The configuration register setting is displayed in the last line of the **show version** command output and must be set to 0x2102:

```
<#root>

Router#

show version

Cisco IOS Software, VG3X0 Software (VG3X0-UNIVERSALK9-M), Version 15.4(3)M3, RELEASE SOFTWARE (fc2
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Fri 05-Jun-15 17:29 by prod_rel_team

ROM: System Bootstrap, Version 15.4(3r)M1a, RELEASE SOFTWARE (fc1)

Router uptime is 1 day, 14 hours, 14 minutes
System returned to ROM by power-on
System image file is "flash0:vg3x0-universalk9-mz.SPA.154-3.M3.bin"
Last reload type: Normal Reload
Last reload reason: power-on



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Cisco VG320 (revision 1.0) with 1003520K/45056K bytes of memory.
Processor board ID FGL2023103U
2 Gigabit Ethernet interfaces
1 Virtual Private Network (VPN) Module
DRAM configuration is 32 bits wide with parity enabled.
255K bytes of non-volatile configuration memory.
255488K bytes of ATA System CompactFlash 0 (Read/Write)


License Info:

License UDI:

-------------------------------------------------
Device#   PID                   SN
```

```
-------------------------------------------------
*0        VG320                 FGL2023103U


Technology Package License Information for Module:'vg3x0'

-----------------------------------------------------------------------
Technology    Technology-package                Technology-package
              Current             Type          Next reboot
-----------------------------------------------------------------------
ipbase        ipbasek9            None          ipbasek9
security      securityk9          RightToUse    securityk9
uc            None                None          None
data          datak9              RightToUse    datak9
NtwkEss       None                None          None
CollabPro     None                None          None

Configuration register is 0x2102
```

If this is not the case, enter the **config-register 0x2102** command once in global configuration mode.

```
<#root>

Router#

configure terminal

Router(config)#

config-register 0x2102

Router(config)#

end

Router#
```

If the **show version** command is issued again, the same line in the command output can have **(0x2102 at next reload)** appended to the current register setting.

2. Erase the current start-up configuration on the router with the **write erase** command.

3. Reload the router with the **reload** command. When prompted to save the configuration, **DO NOT** save:

```
<#root>

Router#

reload

System configuration has been modified. Save ?  [yes/no]:

 n


Proceed with reload? [confirm]
```

Once the router reloads, the System Configuration Dialog appears:

```
         --- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]:
```

The router is now reset to the original factory defaults.

Method 2

This method uses the **config-register 0x2142** command in global configuration mode.

1. Enter the **config-register 0x2142** command in global configuration mode:

   <#root>

   Router(config)#

   config-register 0x2142

   This causes the router to ignore the start-up configuration on the next reload. If you run a **show version** again, it has **(0x2142 at next reload)** appended to the current configuration register setting:

   <#root>

   Router#

   show version

```
Cisco IOS Software, VG3X0 Software (VG3X0-UNIVERSALK9-M), Version 15.4(3)M3, RELEASE SOFTWAR
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2015 by Cisco Systems, Inc.
Compiled Fri 05-Jun-15 17:29 by prod_rel_team

ROM: System Bootstrap, Version 15.4(3r)M1a, RELEASE SOFTWARE (fc1)

Router uptime is 1 day, 14 hours, 19 minutes
System returned to ROM by power-on
System image file is "flash0:vg3x0-universalk9-mz.SPA.154-3.M3.bin"
Last reload type: Normal Reload
Last reload reason: power-on



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```

```
A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

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Cisco VG320 (revision 1.0) with 1003520K/45056K bytes of memory.
Processor board ID FGL2023103U
2 Gigabit Ethernet interfaces
1 Virtual Private Network (VPN) Module
DRAM configuration is 32 bits wide with parity enabled.
255K bytes of non-volatile configuration memory.
255488K bytes of ATA System CompactFlash 0 (Read/Write)


License Info:

License UDI:

-------------------------------------------------
Device#   PID                 SN
-------------------------------------------------
*0        VG320               FGL2023103U



Technology Package License Information for Module:'vg3x0'

-----------------------------------------------------------------------------
Technology    Technology-package                  Technology-package
              Current              Type           Next reboot
-----------------------------------------------------------------------------
ipbase        ipbasek9             None           ipbasek9
security      securityk9           RightToUse     securityk9
uc            None                 None           None
data          datak9               RightToUse     datak9
NtwkEss       None                 None           None
CollabPro     None                 None           None


Configuration register is 0x2102 (will be 0x2142 at next reload)
```

2. Reload the router with the **reload** command in the enable mode. It is not necessary to **save** when prompted to **save** the system configuration.

```
<#root>

Router#

reload

System configuration has been modified. Save? [yes/no]:

 n


Proceed with reload? [confirm]
```

After the router has reloaded, the **System Configuration Dialog** appears.

1. Enter **no** to the question: **Would you like to enter initial configuration dialog?**
2. Change the configuration register setting back to 0x2102 with the **config-register 0x2102** command, entered once in global configuration mode.
3. Issue the **write memory** command in enable mode to overwrite the current start-up configuration with the configuration that currently runs.
4. Reload the router with the **reload** command in enable mode.
5. Once the router reloads, the **System Configuration Dialog** appears:

```
          --- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]:
```

   The router is now reset to the original factory defaults.

Note: The next configurations are stored in ROMMON and the **write erase** or **config-register 0x2142** commands cannot reset them to the factory default settings.

- **warm-reboot**
- **memory-size iomem <not default>**

Verification

This section provides information you can use to verify that your router has been returned to the factory defaults:

- **show running-config** — Use this command to verify that the previous configuration that the router ran has been erased. The output must result in a skeleton configuration. For example, there must be no IP addresses or descriptions configured under any interface on the router, no hostname or settings particular to your environment.
- **show version** — Use this command to verify that the configuration register is set to the default value of 0x2102.

Related Information

- **Cisco Technical Support & Downloads**