

CIGESM

Cisco Integrated Gigabit Ethernet Switch Module

7 quick and simple configuration guidelines to make it work in an existing Cisco environment

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Use at your own risk. These are my observations from spending way too much time working with an experienced Cisco guy and an actual Cisco employed engineer trying to force this switch into submission. This may or may not match up to IBM or Cisco doctrine on switch management and configuration.

Background:

According to IBM marketing documentation, this switch is like a Cisco 2950G switch. As for rough capabilities, this is mostly true. However, the core design is a bit different. This document is intended to help the uninitiated and to make your standup of this switch go smoother than it has for others.

Rule #1

Don't expect this to behave like a normal Cisco switch.

It does a very limited number of things and it does those very well -- as long as you don't fight it and try to make it work differently than designed.

In order to be able to manage the BladeCenter chassis as a whole, certain components have to be able to communicate in certain ways, even if everything is all screwed up.

To that end, certain failsafes were put into place which make this switch default back to certain settings no matter you may otherwise want. Certain IOS commands have been limited or blocked to make sure that the BladeCenter management mission will always work, no matter what else you may do to the switch. Because of this, the switch does NOT configure quite exactly like any other Cisco switch you are likely to have had your hands on. This is why this document (and several more complex variations of it) exists.

Rule #2

Don't expect Cisco technical support to be of any help whatsoever.

They don't seem to understand Rule #1 or why it exists.

Rule #3

Your management vlan (for this switch) can be anything you want - so long as it is 1.

Really. I mean this. Sometime the switch will let you change it (specifically ports 15 & 16), sometimes it won't. There are about a dozen different things you can do to the switch which automatically changes it back to 1 (one) even if you didn't want it there.

Don't waste your time fighting it. Just accept it as inevitable.

You can opt to set the port the management module ethernet plugs into to something other than 1 (one), ie whatever you use for management on the rest of your network. This will functionally work and you will be able to communicate with the management module and the Cisco switch(es). However, you will get a slew of annoying VLAN mismatch errors on at least the CIGESM's, and probably on the switch the management module plugs into as well. This doesn't inhibit function, it just makes it hard to read the screen when you are logged into the switch and working at the command line.

Rule #4

Your blade ports can each be any SINGLE vlan.

They don't have to be the same vlan as each other, but each can only be on a single vlan at a time. Again, the switch may let you set more than one, but only one will really work, and it may not be the one you expect it to be.

Rule #5

Leave the trunk ports set for vlan's 2-4094.

Again, it'll let you change the trunking vlans, it just won't work. Leave them alone, save yourself a LOT of troubleshooting time.

If you don't like the fact that all of the vlans trunk down, keep in mind that you are still setting discrete vlans on each blade and the switch itself won't be managed through those uplinks. So you really aren't running into any security risks, it just looks different that you are used to doing on other Cisco switches.

Rule #6

Don't forget to turn the external ports on.

You have to go in through the management module web interface and turn on the external ports for each switch. This is an extremely annoying security feature, but it is in place for every switch you can put into this chassis.

Rule #7

Set the port function for each of the external ports.

For this one, you have to go through the web interface for the switch itself. There is a GUI for the port functions. Set them all to trunking, or to have servers plugged in, or whatever you desire. Just be sure to go in and do this.

It's a little non-intuitive how to set these. First, you change the function icon at the top. Then you click on the port you want to change to that icon.