

Contents

[Introduction](#)

[Problem](#)

[Solution](#)

[Related Cisco Support Community Discussions](#)

Introduction

This document's intent is to address the issue of auto-negotiation not enabling by default when switching between Cisco Integrated Management Controller (CIMC) network modes using the F8 CIMC configuration utility. Auto-negotiation is only supported in Dedicated mode, thus switching from any non-Dedicated mode to Dedicated may introduce this behavior.

Problem

The issue affects customers who rely on the F8 utility for configuring the CIMC, specifically the various network modes.

Customer Visibility/Impact: Customers may notice that the auto-negotiation setting does not enable by default when switching from non-Dedicated network modes (Shared-LOM/Cisco Card/Shared-LOM Ext) to Dedicated mode.

Note: This is only seen when updating CIMC settings using the F8 CIMC Configuration Utility, and does not affect customers using the WebUI to change settings.

Solution

Steps to switch from Shared-LOM mode to Dedicated mode using the F8 utility.

1. Boot the server and select "F8" to enter the CIMC configuration utility.

```
Cisco IMC Configuration Utility Version 2.0 Cisco Systems, Inc.
*****
NIC Properties
NIC mode          NIC redundancy
Dedicated:        [ ]      None:                [ ]
Shared LOM:       [X]      Active-standby:     [ ]
Cisco Card:       [ ]      Active-active:      [X]
Shared LOM Ext:  [ ]

IP (Basic)
IPv4:             [X]      IPv6:               [ ]
DHCP enabled     [ ]
CIMC IP:          172.22.251.72
Prefix/Subnet:   255.255.252.0
Gateway:         172.22.248.1
Pref DNS Server: 0.0.0.0

VLAN (Advanced)
VLAN enabled:    [ ]
VLAN ID:         1
Priority:         0
*****
<Up/Down>Selection <F10>Save <Space>Enable/Disable <F5>Refresh <ESC>Exit
<F1>Additional settings
```

Note: Depending on the CIMC release you are using, you may have to press “F1” to view additional configuration settings as shown below.

```
Cisco IMC Configuration Utility Version 2.0 Cisco Systems, Inc.
*****
Common Properties
Hostname:      C240-FCH1612V0W4
Dynamic DNS:   [X]
DDNS Domain:
FactoryDefaults
Factory Default:      [ ]
Default User(Basic)
Default password:
Reenter password:
Port Properties
Auto Negotiation:     [ ]
Speed[1000/100 Mbps]: 100
Duplex mode[half/full]: full
Port Profiles
Reset:               [ ]
Name:

*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
<F2>PreviousPage
```

Note: Here, we are in Shared-LOM mode and you can see that Auto Negotiation is not enabled, as it is not a valid setting.

Trying to enable it will give you this error:

```
reenter password:
Port Properties
Auto Negotiation:     [_]
Speed[1000/100 Mbps]: 100
Duplex mode[half/full]: full
Port Profiles
Reset:               [ ]
Name:

*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
<F2>PreviousPage

Error: Port Properties SET operation is for Dedicated NIC mode only!
```

2. Return to the previous page by pressing “F1”.

Then make the following selections to switch the CIMC into dedicated mode:

- NIC mode Dedicated
- NIC Redundancy None

- Use of Vlan, IPv4 or IPv6 as well as Static vs DHCP address handling is up to the customer.
- Press “F10” to save these settings.

```

Cisco IMC Configuration Utility Version 2.0 Cisco Systems, Inc.
*****
NIC Properties
NIC mode                                NIC redundancy
Dedicated:      [X]                    None:           [X]
Shared LOM:     [ ]                    Active-standby: [ ]
Cisco Card:     [ ]                    Active-active:  [ ]
Shared LOM Ext: [ ]

IP (Basic)
IPV4:           [X]                    IPV6:          [ ]
DHCP enabled    [ ]
CIMC IP:        172.22.251.72
Prefix/Subnet: 255.255.252.0
Gateway:        172.22.248.1
Pref DNS Server: 0.0.0.0

VLAN (Advanced)
VLAN enabled:   [ ]
VLAN ID:        1
Priority:        0

*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
<F1>Additional settings

Hit the Refresh key in 45 seconds to get the latest network settings.

```

3. Please ensure you wait the full 45 seconds, and then press “F5” to refresh network settings.

```

Cisco IMC Configuration Utility Version 2.0 Cisco Systems, Inc.
*****
NIC Properties
NIC mode                                NIC redundancy
Dedicated:      [X]                    None:           [X]
Shared LOM:     [ ]                    Active-standby: [ ]
Cisco Card:     [ ]                    Active-active:  [ ]
Shared LOM Ext: [ ]

IP (Basic)
IPV4:           [X]                    IPV6:          [ ]
DHCP enabled    [ ]
CIMC IP:        172.22.251.72
Prefix/Subnet: 255.255.252.0
Gateway:        172.22.248.1
Pref DNS Server: 0.0.0.0

VLAN (Advanced)
VLAN enabled:   [ ]
VLAN ID:        1
Priority:        0

*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
<F1>Additional settings

Network settings configured

```

Pressing "F1" to view additional settings will now show the auto-negotiation box as checked.

Below are a few snapshots showing the older release of CIMC Configuration Utility tied to the 1.5(4g) release firmware.

Shared LOM mode:

```
CIMC Configuration Utility  Version 1.7  Cisco Systems, Inc.
*****
NIC Properties
NIC mode                               NIC redundancy
Dedicated:      [ ]                   None:           [ ]
Shared LOM:     [X]                   Active-standby:[ ]
Cisco Card:     [ ]                   Active-active:  [X]
Shared LOM Ext: [ ]

IPV4 (Basic)                            Factory Defaults
DHCP enabled:   [ ]                   CIMC Factory Default:[ ]
CIMC IP:        10.29.131.127         Default User (Basic)
Subnetmask:     255.255.255.0         Default password:
Gateway:        10.29.131.1          Reenter password:

VLAN (Advanced)                         Port Profile
VLAN enabled:   [ ]                   Reset:          [ ]
VLAN ID:        1                     Name:
Priority:        0

Port Properties
Auto Negotiation:  [ ]
Speed[1000/100 Mbps]: 100
Duplex mode[half/full]: full
*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
Network settings configured
```

Dedicated mode:

```
CIMC Configuration Utility  Version 1.7  Cisco Systems, Inc.
*****
NIC Properties
NIC mode                               NIC redundancy
Dedicated:      [X]                   None:           [X]
Shared LOM:     [ ]                   Active-standby:[ ]
Cisco Card:     [ ]                   Active-active:  [ ]
Shared LOM Ext: [ ]

IPV4 (Basic)                            Factory Defaults
DHCP enabled:   [ ]                   CIMC Factory Default:[ ]
CIMC IP:        10.29.131.127         Default User (Basic)
Subnetmask:     255.255.255.0         Default password:
Gateway:        10.29.131.1          Reenter password:

VLAN (Advanced)                         Port Profile
VLAN enabled:   [ ]                   Reset:          [ ]
VLAN ID:        1                     Name:
Priority:        0

Port Properties
Auto Negotiation:  [X]
Speed[1000/100 Mbps]: 1000
Duplex mode[half/full]: full
*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
Network settings configured
```

Note: You can see that the auto-negotiation box is in fact checked.

Conclusion: Auto-negotiation setting is only available in dedicated mode. The setting will enable itself as long as a valid dedicated configuration is set.