Tech Note – mGig Functionality in Cisco 3504 Wireless Controllers

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Introduction

The speed negotiations on the data ports (1-4) of Cisco 3504 Wireless Controllers are based on the mGig maximum speed configuration that you have done from the controller and not on the end result of the mGig port negotiation. This is because if you continuously change the remote capability, the mGig port will also continuously renegotiate.

If you change the data port speed based on the mGig-negotiated speed rather than the advertised maximum speed, it results in the flapping of data ports whenever any unintentional mGig renegotiation occurs.

If the remote end does not have support for 5 Gbps, mGig negotiates to 1 Gbps and other ports will be on 100 Mbps. If you want to get 1 Gbps for all ports, you have to set the maximum speed of the mGig port as 1 Gbps.

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mGig Functionality

Non-LAG Scenario

mGig speeds allowed are 5 Gbps, 2.5 Gbps, and 1 Gbps.

mGig Maximum Speed	Result
5 Gbps	Port 1 to 4 set to 100 Mbps
2.5 Gbps	Port 1 to 2 set to 1 Gbps Port 3 to 4 set to 100 Mpbs
1 Gbps	Port 1 to 4 set to 1 Gbps

LAG Scenario

All the ports (1-5) are set to 1 Gbps and the mGig maximum speed configuration command is disabled.

Note: If you enable LAG, port-wise speed configuration is retained. If you disable LAG, older configuration is restored.

Example

With Port 1 to 4 set at 100 Mbps and Port 5 has 5 Gbps, enable LAG. This results in every port to a speed of 5 Gbps.

Now, disable LAG. This results in the older configuration of Port 1 to 4 at 100 Mbps and Port 5 at 5 Gbps is restored.

Known Caveats

1. If you have configured a fixed speed for the switch-side interface, only the configured speed can be negotiated from the controller. In other cases, port will be disabled.

2. Whenever a link bounce occurs (soft or hard reset of PHY), it will take up to one minute until traffic starts flowing again.

Supported AQR F/W version

AQR 3.2.15.2 or higher versions

Check the supported version by entering this command:

Supported AQR F/W version

```
(Cisco Controller) >debug fastpath dump systemdb
FP0.00:====================================================

FP0.01:   AQR 107 Phy F/W Version        : 3.2.15.2
```

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