

Contents

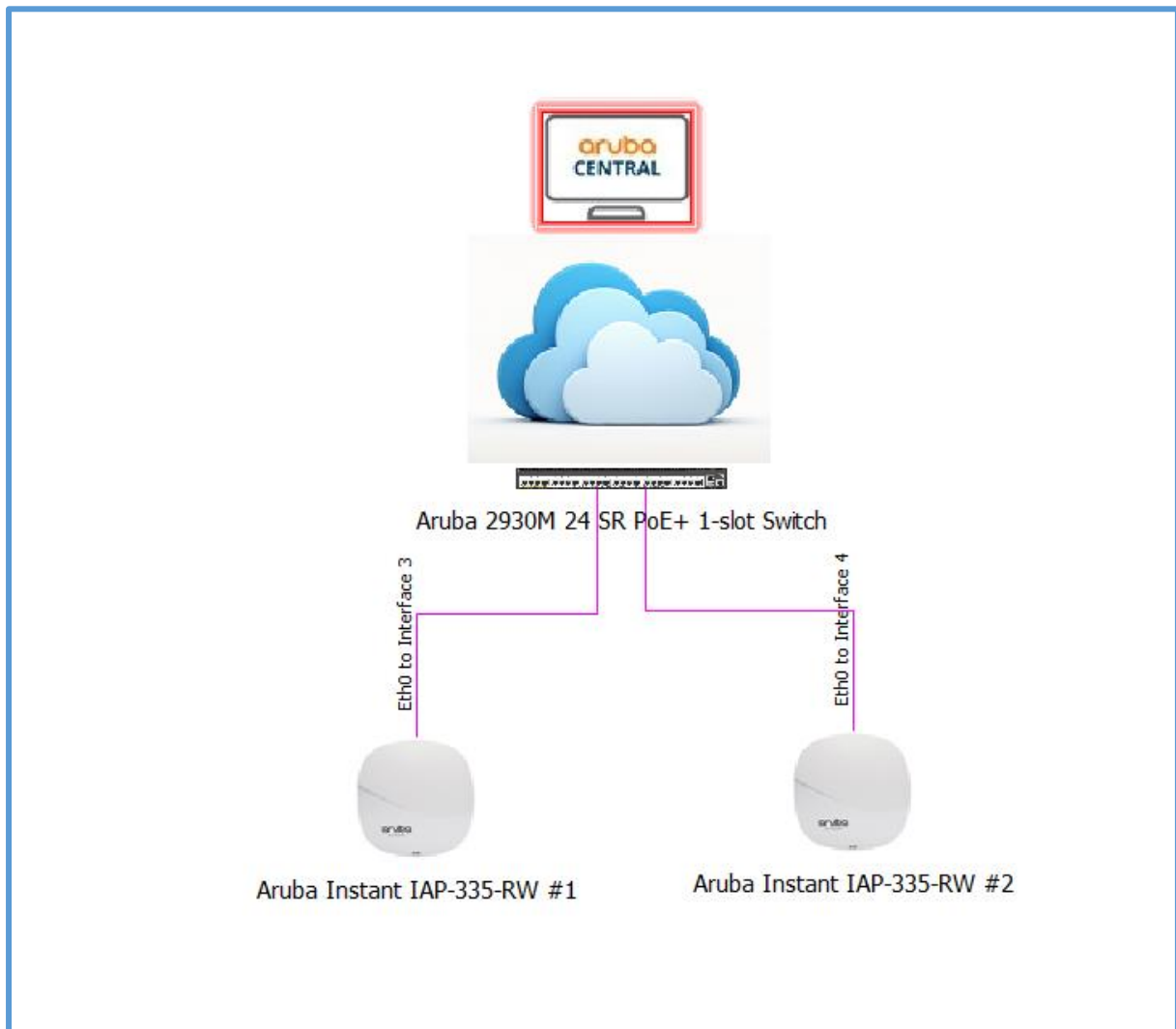
IAP335 to 2930M smartrate connection	1
Topology	2
Central View of IAP	2
IAP 335 Cli	3
Show version	3
Show interface	3
Show running config	4
Aruba 2930M Cli view	8
Show Version	8
Show hardware	8
New command option smartrate	8
 Figure 1: Central does not recognise smart rates	3

IAP335 to 2930M smartrate connection

The IAP335 has one smartrate port that can run at a maximum of 5Gbps. When the IAP335 that is running 6.5.4.3 code is connected to the 2930M with ports on either side a default Auto/Auto settings they will attempt to connect at the fastest mutual rate. The 2930M support up to 10G but the 335 is limited to 5G. Note that previous code versions of the 335 negotiated at 2.5G.

In this configuration short patch leads were used so you may not get full 5G speed in a real world scenario.

Topology



Central View of IAP

At the time of writing Central does not support smartrate, however it still works with auto negotiation

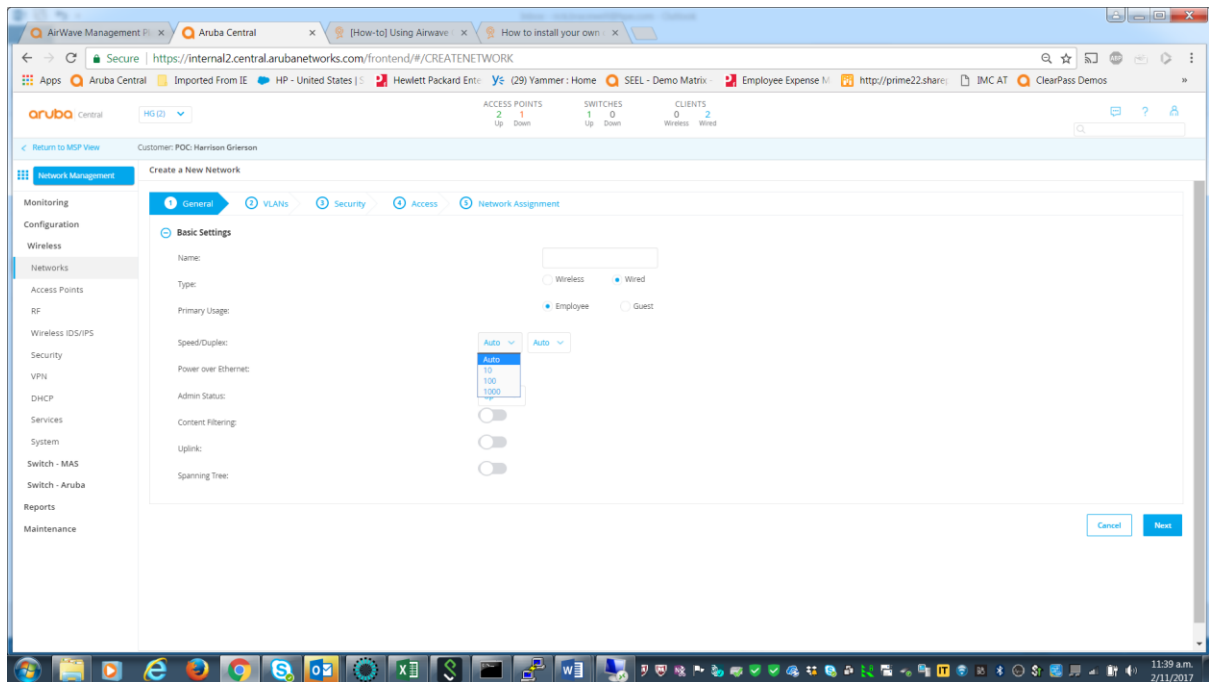


Figure 1: Central does not recognise smart rates

IAP 335 Cli

Show version

```
a8:bd:27:c6:ae:46# show version
Aruba Operating System Software.
ArubaOS (MODEL: 335), Version 6.5.4.3
Website: http://www.arubanetworks.com
```

```
(c) Copyright 2017 Hewlett Packard Enterprise Development LP.
```

```
Compiled on 2017-10-19 at 19:42:06 PDT (build 61959) by p4build
```

```
FIPS Mode :disabled
```

```
AP uptime is 19 hours 52 minutes 8 seconds
```

```
Reboot Time and Cause: Rebooting AP after Fman firmware upgrade
```

```
a8:bd:27:c6:ae:46#
```

Show interface

```
eth0 is up, line protocol is up
Hardware is 5 Gigabit Ethernet, address is a8:bd:27:c6:ae:46
Speed 5000Mb/s, duplex full
```

Received packets	100390
Received bytes	36437973
Receive dropped	0
Receive errors	0
Receive missed errors	0
Receive overrun errors	0
Receive frame errors	0
Receive CRC errors	0
Receive length errors	0
Transmitted packets	161207
Transmitted bytes	34768575
Transmitted dropped	0
Transmission errors	0
Lost carrier	0

Show running config

The entire config is included for reference and the relevant port setting are highlighted in **red**.

This is using the default setting and successfully auto negotiates to 5Gigabit full duplex. Previous versions of IAP code advertised 2.5G.

```
a8:bd:27:c6:ae:46# show runn
version 6.5.4.0-6.5.4
virtual-controller-country NZ
virtual-controller-key
e1b9ed510111b51f899d39d152e5a9e1d65903bf1d8e252edb
name instant-C6:AE:46
terminal-access
clock timezone none 00 00
rf-band all
report-rssi-to-central unassociated-and-associated-clients

allow-new-aps
allowed-ap a8:bd:27:c6:ae:46
allowed-ap a8:bd:27:c6:ab:5c
allowed-ap 20:4c:03:0c:f6:e0

arm
wide-bands 5ghz
80mhz-support
min-tx-power 18
max-tx-power 127
```

```
band-steering-mode prefer-5ghz
air-time-fairness-mode default-access
client-aware
scanning
```

```
syslog-level warn ap-debug
syslog-level warn network
syslog-level warn security
syslog-level warn system
syslog-level warn user
syslog-level warn user-debug
syslog-level warn wireless
```

```
extended-ssid
```

```
hash-mgmt-password
hash-mgmt-user admin password hash
0603e7ee02bf2a30f5bf1f951b38072ba2618e74da5438a691a152312ad1
e16e0b52bef032
```

```
wlan access-rule default_wired_port_profile
index 0
rule any any match any any any permit
```

```
wlan access-rule wired-SetMeUp
index 1
rule masterip 0.0.0.0 match tcp 80 80 permit
rule masterip 0.0.0.0 match tcp 4343 4343 permit
rule any any match udp 67 68 permit
rule any any match udp 53 53 permit
```

```
wlan access-rule HG_Test
index 2
rule any any match any any any permit
```

```
wlan ssid-profile HG_Test
enable
```

```
index 0
type employee
ssid HG_Test
wpa-passphrase
f5dd5737d898f1f39d8d03d3920b2ca2940342903687d59a
opmode wpa2-psk-aes
max-authentication-failures 0
auth-server InternalServer
rf-band all
captive-portal disable
dtim-period 1
broadcast-filter arp
dmo-channel-utilization-threshold 90
local-probe-req-thresh 0
max-clients-threshold 64
```

```
auth-survivability cache-time-out 24
```

```
wlan external-captive-portal
server localhost
port 80
url "/"
auth-text "Authenticated"
auto-whitelist-disable
https
```

```
blacklist-time 3600
auth-failure-blacklist-time 3600
```

```
ids
wireless-containment none
```

```
wired-port-profile wired-SetMeUp
switchport-mode access
allowed-vlan all
native-vlan guest
no shutdown
access-rule-name wired-SetMeUp
speed auto
duplex auto
```

```
no poe
no dot3bz
type guest
captive-portal disable
no dot1x
```

```
wired-port-profile default_wired_port_profile
switchport-mode trunk
allowed-vlan all
native-vlan 1
shutdown
access-rule-name default_wired_port_profile
speed auto
duplex full
no poe
no dot3bz
type employee
captive-portal disable
no dot1x
```

```
enet0-port-profile default_wired_port_profile
```

```
uplink
preemption
enforce none
failover-internet-pkt-lost-cnt 10
failover-internet-pkt-send-freq 30
failover-vpn-timeout 180
```

```
airgroup
disable
```

```
airgroupservice airplay
disable
description AirPlay
```

```
airgroupservice airprint
disable
description AirPrint
```

```
clarity
inline-sta-stats
inline-auth-stats
inline-dhcp-stats
inline-dns-stats

cluster-security
allow-low-assurance-devices
```

Aruba 2930M Cli view

Show Version

```
Aruba-2930M-24SR-PoEP(config)# sh vers
```

Image stamp:

```
/ws/swbuildm/rel_ukiah_qaoff/code/build/lvm(swbuidm_rel_ukiah_qaoff_rel_ukiah)
```

```
Jul 21 2017 14:09:42
```

```
WC.16.04.0008
```

```
423
```

```
Boot Image: Primary
```

```
Boot ROM Version: WC.17.02.0003
```

```
Active Boot ROM: Primary
```

```
Aruba-2930M-24SR-PoEP(config)#
```

Show hardware

We have an additional smartrate uplink module

```
Aruba-2930M-24SR-PoEP(config)# show modules
```

Status and Counters - Module Information

```
Chassis: 2930M-24SR-PoE+ JL324A Serial Number: SG78JQQ07T
```

Slot	Module Description	Serial Number	Status
A	Aruba JL081A 4p 10GbE XGT Module	SG76GZ402G	Up

New command option smartrate

We can append the smartrate option to show interface command to see detail. In this case the max advertised rate from the 335 is 5G Nbase-T and that has been successfully negotiated

```
Aruba-2930M-24SR-PoEP(config)# sho interfaces 3 smartrate
```

Status and Counters - Smart Rate information for Port 3

Model : 0x03a1
Chip : 0xb582
Firmware : 3.3.e
Provisioning : 0x0001

Current SNR Margin (dB)	Chan1	Chan2	Chan3	Chan4
	9.6	9.7	9.7	9.6

Minimum SNR Margin (dB)	Chan1	Chan2	Chan3	Chan4
	9.0	9.2	9.5	9.2

Ethernet FCS errors : 0
Uncorrected LDPC errors : 0

Corrected LDPC errors
LDPC iteration 1 : 4294967295
LDPC iteration 2 : 31890148
LDPC iteration 3 : 18
LDPC iteration 4 : 0
LDPC iteration 5 : 0
LDPC iteration 6 : 0
LDPC iteration 7 : 0
LDPC iteration 8 : 0

- 0 | Number of RFI Cancellation Events.
- 0 | Number of Link Recovery Events.
- 0 | Accumulated time (ms) spent in Fast Retrain.

Established link speed : 5G NBASE-T
Number of attempts to establish link : 1
Uptime since link was established : 70010 seconds

Local Port advertised capabilities
1000BASE-T | 2.5G NBASE-T | 5G NBASE-T | 2.5GBASE-T | 5GBASE-T | 10GBASE-T
Yes | Yes | Yes | Yes | Yes | No

Link Partner advertised capabilities
1000BASE-T | 2.5G NBASE-T | 5G NBASE-T | 2.5GBASE-T | 5GBASE-T | 10GBASE-T
Yes | Yes | Yes | No | No | No