Aruba 2930F Troubleshooting Report

Control Plane Overload: Aruba Central / Activate Loop

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1 Executive Summary

A degradation was identified in the management plane of an Aruba 2930F switch, evidenced by:

- High ICMP latency toward the management SVI

- Elevated CPU utilization

- Repetitive Aruba Central / Activate events

- Configuration changes triggered via SNMP

> **Outcome**
>
> The applied fix eliminated the abnormal behavior, reducing CPU utilization to normal levels (1–9%) and stabilizing connectivity.

2 CPU Analysis

Before:

```
1 sec ave: 75 percent busy
5 sec ave: 54 percent busy
1 min ave: 49 percent busy
```

After:

```
1 sec ave: 9 percent busy
5 sec ave: 5 percent busy
1 min ave: 1 percent busy
```

> The CPU reduction confirms the removal of repetitive processes impacting the **control plane**.

3 Control Plane Impact

ICMP traffic directed to the switch SVI is processed by the CPU. When the control plane is busy:

- ICMP latency increases
- Management services are affected (SNMP, SSH, NTP)

> This incident was caused by a **control plane issue**, not a data plane (forwarding) problem.

4 MTU Design (VLAN 1 vs Jumbo)

VLAN 1 (management) operates with standard MTU (1500), while server-related VLANs use jumbo frames.

- Layer 3 (SVIs): MTU 1500 → stability and compatibility
- Layer 2 (servers): jumbo frames → traffic efficiency

> Separating MTU between control plane (1500) and data plane (jumbo) is a recommended best practice.

5 Logs Analysis

Before:

```
Maximum retries to Aruba Central
Startup configuration changed by SNMP
SSL sessions (user cloud)
```

After:

```
Connection to Aruba Central disabled
SNMP "public" removed
Configuration stable
```

6 Root Cause

> A reprovisioning loop between **Aruba Central and Activate**, combined with SNMP-triggered configuration changes, caused control plane overload.

7 Fix Applied

```
aruba-central disable
no snmp-server community "public"
```

> These changes removed the root cause of CPU consumption.

8   Commands Used

Troubleshooting:

```
show logging -r
show cpu
show run
show spanning-tree 1/4
```

Verification:

```
show interfaces
show ip route
show spanning-tree
```

9   Conclusion

- Issue identified in the **control plane** (not data plane)

- Root cause: Aruba Central loop + SNMP configuration writes

- Fix successfully stabilized the system

- Recommended to standardize across all Aruba 2930F switches