

# AirWave 使用 Template 对 IAP 下发配置

## ➤ AirWave 管理的 VC 状态异常

### 故障现象:

IAP325 上线后, 发现 VC 的配置出现 Error

DEVICES LIST

AP-version [总数行数: 18]

设备	版本	配置	IP 地址	LAN MAC 地址	序列号	类型
组 JT1 AP-02	6.5.4.3-6.5.4.3_61959	Good	10.16. .16	F42E:7F: .D0	CN44 .09	Aruba AP 325
组 JT1 AP-03	6.5.4.3-6.5.4.3_61959	Good	10.16. .31	F42E:7F: .0E	CN44 .03	Aruba AP 325
组 JT1 AP-04	6.5.4.3-6.5.4.3_61959	Good	10.16. .17	F42E:7F: .20	CN44 .CJ	Aruba AP 325
组 JT1 AP-05	6.5.4.3-6.5.4.3_61959	Good	10.16. .47	F42E:7F: .7C	CN44 .9V	Aruba AP 325
组 JT1 AP-07	6.5.4.3-6.5.4.3_61959	Good	10.16. .54	80:80:81: .478	CNG7 .3L7	Aruba AP 325
组 JT1 AP-08	6.5.4.3-6.5.4.3_61959	Good	10.16. .53	80:80:81: .3A	CNG7 .3M4	Aruba AP 325
组 JT1 AP-09	6.5.4.3-6.5.4.3_61959	Good	10.16. .38	80:80:81: .70	CNG7 .PS	Aruba AP 325
组 JT1 AP-10*	6.5.4.3-6.5.4.3_61959	Good	10.16. .45	80:80:81: .0	CNG7 .8RF	Aruba AP 325
组 JT1 L-AP-11	6.5.4.3-6.5.4.3_61959	Good	10.16. .20	80:80:81: .	CNG7 .8RX	Aruba AP 325
组 JT1 L-AP-13	6.5.4.3-6.5.4.3_61959	Good	10.162. .34	F42E:7F: .	CN44 .98	Aruba AP 325
组 JT1 L-AP-14	6.5.4.3-6.5.4.3_61959	Good	10.162. .10	F42E:7F: .C	CN44 .9G	Aruba AP 325
组 JT1 L-AP-15	6.5.4.3-6.5.4.3_61959	Good	10.162. .2	F42E:7F: .CA	CN44 .9B	Aruba AP 325
组 JT1 L-AP-16	6.5.4.3-6.5.4.3_61959	Good	10.162. .5	F42E:7F: .	CN44 .9F2	Aruba AP 325
组 JT1 L-AP-17	6.5.4.3-6.5.4.3_61959	Good	10.162. .3	F42E:7F: .CA	CN44 .08L	Aruba AP 325
组 JT1 L-AP-18	6.5.4.3-6.5.4.3_61959	Good	10.162. .3	F42E:7F: .CA	CN44 .08Z	Aruba AP 325
组 JT1 L-AP-20	6.5.4.3-6.5.4.3_61959	Good	10.162. .9	F42E:7F: .CA	CN44 .09P	Aruba AP 325
组 JT1 L-AP-21	6.5.4.3-6.5.4.3_61959	Good	10.162. .5	F42E:7F: .C	CN44 .09F	Aruba AP 325
组 JT1 L-VC	6.5.4.3-6.5.4.3_61959	Error	10.162. .5	-	-	Aruba Instant Virtual Controller

### 故障排查:

- 1) 新上线的 IAP325 均为出厂 AOS6 版本, 而在 AirWave Template 中的配置均为 AOS8, CLI 存在差异

DEVICES LIST

version [总数行数: 20]

设备	LAN MAC F	类型	版本
组 JT1 AP-02	F42E:7F: .D0	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-03	F42E:7F: .0E	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-04	F42E:7F: .20	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-05	F42E:7F: .A7C	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-06	F42E:7F: .475E	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-07	80:80:81: .FA78	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-08	80:80:81: .023A	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-09	80:80:81: .0270	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-10	80:80:81: .F0300	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-11	80:81: .F03222	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-13	F42E: .A6A4C	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-14	F42E: .A69D2	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-15	F42E: .A68CB	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-16*	F42E: .A68C2	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-17	F42E: .A69A6	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-18	F42E: .A6A30	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-20	F42E: .A68B8	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 AP-21	F42E: .A6982	Aruba AP 325	6.5.4.3-6.5.4.3_61959
组 JT1 L-VC	-	Aruba Instant Virtual Controller	6.5.4.3-6.5.4.3_61959
组 JT1 L-AP-22	F42E: .A69A2	Aruba AP 325	6.5.4.3-6.5.4.3_61959

2) 点击 Error 发现 AOS6 的 CLI 命令格式与 AirWave Template 中的 CLI 格式有区别

- AOS6 CLI 使用 **udp** 作为 ACL 的格式
- AOS8 CLI 使用**协议号 17** 作为 UDP 的 ACL 格式

TIPS:

以本次 TS 为例，发现如下情况：

- ✧ AOS8.5 以下的版本使用的 CLI 中 ACL rule 格式均为 **udp**
- ✧ AOS8.6 以上的版本使用的 CLI 中 ACL rule 格式为**协议号**

```
Show entire config
```

```
CONTROLLER SETTINGS

allow
ams-l
ams-l
ams-key XXXXXXXXXXXX
auth-failure-blacklist-time 3600
auth-survivability cache-time-out 24
blacklist-time 3600
clock timezone none 00 00
enet6-port-profile default_wired_port_profile
extended-ssid
hash-mgmt-password
hash-mgmt-user admin password XXXXXXXXXXXX s .0506aacc985dde45d4b0b4584a2865f69074765bbcc1c235f708283f5ab
name "BJ-JT"
ntp-server
organization
rf-band all
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
terminal-access
virtual-controller-country CN
virtual-controller-key XXXXXXXXXXXX

wlan access-rule "1x"
rule any any match any any any permit

wlan access-rule "default_wired_port_profile"
rule any any match any any any permit

wlan access-rule "Guest-portal-portal"
rule any any match udp 67 68 permit
rule alias . . . . . match tcp 80 80 permit
rule alias . . . . . match tcp 443 443 permit
rule any any match icmp any any permit
rule any any match 17 67 68 permit
rule alias . . . . . match 6 80 80 permit
rule alias . . . . . match 6 443 443 permit
rule any any match 1 any any permit
rule any any match 17 53 53 permit
rule . . . . . 7.73 255.255.255.255 match any any any permit
```

解决办法：

1) 上传 AOS8 的版本，将 IAP325 升级至 AOS

TIPS:

- ✧ 本次升级选择的 8.5.0.13，在升级之后发现 VC 仍然处于校验配置、加载的状态。
- ✧ 通过升级至 8.6.0.13 后状态正常

	TYPE	SOURCE	USER	DESCRIPTION	SERVER PROTOCOL	USE GROUP FILE SER
<input type="checkbox"/>	Aruba Instant Virtual Controller	User	admin		HTTPS	Disabled
<input type="checkbox"/>	Aruba Instant Virtual Controller	User	admin	-	HTTPS	Disabled
<input type="checkbox"/>	Aruba Instant Virtual Controller	User	admin	IAP325-85013	HTTPS	Disabled
<input type="checkbox"/>	Aruba Instant Virtual Controller	User	admin	IAP 515 Software version 8.7.1.1	HTTPS	Disabled
<input type="checkbox"/>	Aruba Instant Virtual Controller	User	admin	-	HTTPS	Disabled

2) 对 VC 进行升级, 选择 VC 点击管理, 页面最下面, 选择 update firmware

AP-System [ 总数行数: 20 ]

设备	配置	LAN MAC 地址	序列号	IP 地址	状态	控制器
BJ-JT-L-AP-17	Good	F4:2E:7F:9:A6	CNJ4 8L	10.40.18	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-02	Good	F4:2E:7F:9:D0	CNJ4 9J	10.16	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-14	Good	F4:2E:7F:9:D2	CNJ4 9G	10.50	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-19	Good	F4:2E:7F:9:A2	CNJ4 93	10.22	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-10	Good	80:8D:B:3:00	CNG: 3RF	10.45	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-06	Good	F4:2E:7F:7:5E	CNJ3 7H	10.10.56	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-18	Good	F4:2E:7F:A:30	CNJ4 8Z	10.0.36	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-15	Good	F4:2E:7F:8:C8	CNJ4 9B	10.0.52	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-13	Good	F4:2E:7F:A:4C	CNJ4 98	10.0.34	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-20	Good	F4:2E:7F:8:B8	CNJ4 9P	10.0.59	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-21	Good	F4:2E:7F:9:82	CNJ4 9F	10.0.25	Up	BJ-JT-BJWL-VC
BJ-JT-L-VC	Error	-	-	10.0.35	Up	-
管理	Good	F4:2E:7F:5B:C2	CNJ4 0F2	10.0.35	Up	BJ-JT-BJWL-VC
配置	Good	80:8D:f:02:3A	CNC 73M4	10.0.53	Up	BJ-JT-BJWL-VC
监控	Good	F4:2E:7F:6C:20	CNJ4 0CJ	10.0.17	Up	BJ-JT-BJWL-VC
合规	Good	F4:2E:7F:6C:20	CNJ4 0CJ	10.0.17	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-04	Good	F4:2E:7F:6C:20	CNJ4 0CJ	10.0.17	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-11	Good	80:8D:73:03:22	CNC 73RX	10.0.20	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-09	Good	80:8D:73:02:70	CNC 73PS	10.0.38	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-07	Good	80:8D:73:FA:78	CNC 73L7	10.0.54	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-03	Good	F4:2E:7F:6C:0E	CNJ4 0D3	10.0.31	Up	BJ-JT-BJWL-VC
BJ-JT-L-AP-05	Good	F4:2E:7F:6A:7C	CNJ4 09V	10.0.47	Up	BJ-JT-BJWL-VC

Network Settings

LAN IP Address:

Control Plane Vlan:  Yes  No

Maintenance Windows

[Add](#) New AP Maintenance Window

Dynamic Variables

Template Variables:  [Add as Dynamic Variable](#) [Add All as Dynamic Variable](#)

[Save and Apply](#) [Revert](#) [Delete](#) [Import Settings](#) [Update Firmware](#) [Reboot](#) [Factory Reset](#)

3) 选择上传号的版本，点击 upgrade

Choose the desired firmware version to be applied to BJ-JT-BJWL-VC. Upload firmware files on the Device Setup Upload Firmware & Files page.

Update List of Aruba Image Versions:

Current Version: 6.5.4.3-6.5.4.3\_61959

Desired Version: 8.5.0.13-8.5.0.13\_80140 local

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**Firmware Upgrade Job Options**

Job name:

Failure Timeout (mins) (5-60):

Number of retries when failed (0-4, zero disables):

Periodic run failed upgrades interval:

Reboot immediately after image download:  Yes  No

Allow Firmware Upgrade For Same Version: This option can be used to upgrade to Private/Intermediate Builds. Select YES if the target FW version is same as Device FW version. Else select NO  Yes  No

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**Failure Notification Options**

To be notified when upgrades fail and when a job is stopped, enter email addresses of the form user@domain. Separate multiple addresses by spaces, commas, or semicolons.

Email Recipients:

Sender Address:

Start or Schedule Firmware Upgrade Job:

4) 升级完成查看 VC 状态

恢复 good

DEVICES LIST

AP-version [ 总数行数: 22 ]

设备	AP-version	版本	配置	IP 地址	LAN MAC	序列号	类型
BJJT	L-AP-01	8.6.0.13-8.6.0.13_81374	Good	10.1.1.5	B0:8B:67:...	CNG7:30R	Aruba AP 325
BJJT	L-AP-02	8.6.0.13-8.6.0.13_81374	Good	10.1.1.16	F4:2E:7F:C...	CN4I:9J	Aruba AP 325
BJJT	L-AP-03	8.6.0.13-8.6.0.13_81374	Good	10.1.1.31	F4:2E:7F:C...	CN4I:03	Aruba AP 325
BJJT	L-AP-04	8.6.0.13-8.6.0.13_81374	Good	10.1.1.17	F4:2E:7F:C...	CN4I:CJ	Aruba AP 325
BJJT	L-AP-05	8.6.0.13-8.6.0.13_81374	Good	10.1.1.47	F4:2E:7F:C...	CN4I:3V	Aruba AP 325
BJJT	L-AP-06	8.6.0.13-8.6.0.13_81374	Good	10.1.1.56	F4:2E:7F:C...	CN3I:7H	Aruba AP 325
BJJT	L-AP-07	8.6.0.13-8.6.0.13_81374	Good	10.1.1.54	80:8D:87:1...	CNG7:L7	Aruba AP 325
BJJT	L-AP-08	8.6.0.13-8.6.0.13_81374	Good	10.1.1.53	80:8D:87:1...	CNG7:M4	Aruba AP 325
BJJT	L-AP-09	8.6.0.13-8.6.0.13_81374	Good	10.1.1.38	80:8D:87:1...	CNG7:P5	Aruba AP 325
BJJT	L-AP-10	8.6.0.13-8.6.0.13_81374	Good	10.1.1.45	80:8D:87:1...	CNG7:RF	Aruba AP 325
BJJT	L-AP-11	8.6.0.13-8.6.0.13_81374	Good	10.1.1.20	80:8D:87:1...	CNG7:RX	Aruba AP 325
BJJT	L-AP-12	8.6.0.13-8.6.0.13_81374	Good	10.1.1.14	F4:2E:7F:C...	CN4H:4	Aruba AP 325
BJJT	L-AP-13	8.6.0.13-8.6.0.13_81374	Good	10.1.1.34	F4:2E:7F:C...	CN4H:8	Aruba AP 325
BJJT	L-AP-14	8.6.0.13-8.6.0.13_81374	Good	10.1.1.50	F4:2E:7F:C...	CN4H:G5	Aruba AP 325
BJJT	L-AP-15	8.6.0.13-8.6.0.13_81374	Good	10.1.1.52	F4:2E:7F:CA...	CN4H:3	Aruba AP 325
BJJT	L-AP-16*	8.6.0.13-8.6.0.13_81374	Good	10.1.1.35	F4:2E:7F:CA...	CN4H:1	Aruba AP 325
BJJT	L-AP-17	8.6.0.13-8.6.0.13_81374	Good	10.1.1.18	F4:2E:7F:CA1	CN4H:1	Aruba AP 325
BJJT	L-AP-18	8.6.0.13-8.6.0.13_81374	Good	10.1.1.36	F4:2E:7F:CA6	CN4H:7	Aruba AP 325
BJJT	L-AP-19	8.6.0.13-8.6.0.13_81374	Good	10.1.1.22	F4:2E:7F:CA...	CN4H:3	Aruba AP 325
BJJT	L-AP-20	8.6.0.13-8.6.0.13_81374	Good	10.1.1.59	F4:2E:7F:CA...	CN4H:9	Aruba AP 325
BJJT	L-AP-21	8.6.0.13-8.6.0.13_81374	Good	10.1.1.25	F4:2E:7F:CA...	CN4H:5	Aruba AP 325
BJJT	-VC	8.6.0.13-8.6.0.13_81374	Good	10.1.1.35	-	-	Aruba Instant Virtual Controller