



Apple iOS9 Incompatibility Workaround and Support Notification (See FN-PRD-PS-092115-01)

The purpose of this document is to bring awareness to known connectivity issues with Apple Devices running IOS9.0 and Meru AP's 320 and 433's running in Virtual mode. In short, ios9 devices will not be able to connect to these access points as the client will send an authentication request to the wrong BSSID , therefore the authentication process will not occur properly.

Meru has identified an interim workaround that can be applied to relieve these symptoms in most cases, but the workaround may not be applicable to all scenarios as there are different variables that may come into play.

Therefore there are two recommendations for addressing this issue:

- Applying the workaround provided in the steps below
- Contacting Apple support directly for troubleshooting and further assistance

For the second option, please note that Meru/Fortinet has already opened up a ticket and filed a bug with Apple developers and Apple has requested that Meru customers experiencing connectivity issues with IOS9 clients contact apple support and open a ticket referencing the Apple bug ID # 22800345.

Please see the pages below for the identified workaround steps.

Note: These steps are intended for customers running System Director Versions 6.1 and greater.

Changes required on each ESS-Profile with RF virtualization mode set to Virtual port
GUI->Configuration->ESS->select the ESS profile and click edit



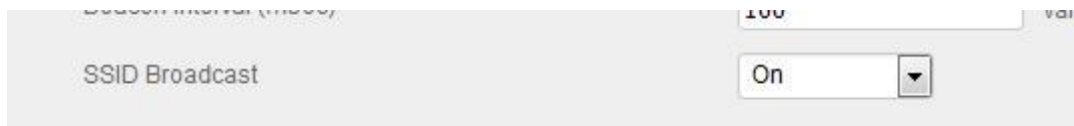
If Bandsteering is disabled,

Follow the items (a), (b), (c), (d), (e) as mentioned below

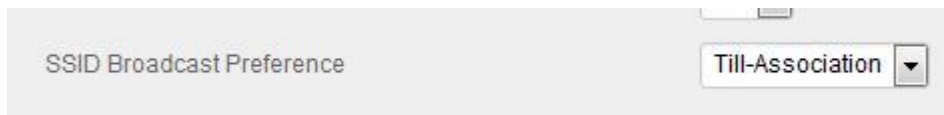
From the controller GUI navigate to *Configuration > Wireless > ESS*.

From here, individually select each ESS-Profile that uses Virtual port and apply the following changes if not already present:

a) SSID broadcast is set to ON : img 01



b) SSID broadcast on Virtual Port is set to Till-Association :img 02



c) After all ESS-Profiles reflect the above changes, from the controller GUI, go to *Maintenance > File Management*

On the AP Init Script tab, click New, and when the dialog box comes up, paste the following script:

For Aps with two radios use:

```
radio parentbeacon radio0 never  
radio parentbeacon radio1 never
```

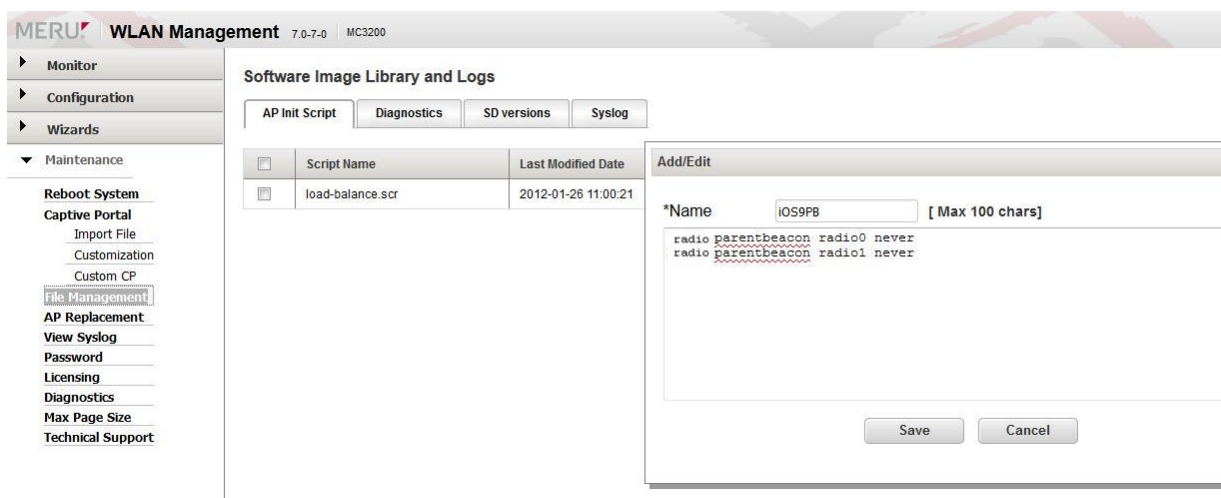
For Aps with three radios (AP433) use:

```
radio parentbeacon radio0 never  
radio parentbeacon radio1 never  
radio parentbeacon radio2 never
```

Here's an example for the AP320 script named iOS9PB.scr :

Note: Img 03 is an example only for the scenarios where you need to create a new script.

Img 03



Make sure to click the Save button and you can double check the script by selecting the script you added and clicking on the



button.

If you already have a default boot script in place, how to check if there is a bootscript applied?

GUI-Configuration->devices->controller->

Location	<input type="text"/>	Enter 0-127 chars.
Contact	<input type="text"/>	Enter 0-127 chars.
Automatic AP Upgrade	On <input type="button" value="v"/>	
DHCP Server	<input type="text" value="172"/> <input type="text" value="18"/> <input type="text" value="0"/> <input type="text" value="130"/>	
Statistics Polling Period (seconds)/0 disable Polling	<input type="text" value="60"/>	Valid range: [0, 5-65535]
Audit Polling Period (seconds)/0 disable Polling	<input type="text" value="60"/>	Valid range: [0, 5-65535]
Default AP Init Script	<input type="text"/>	Enter 0-64 chars.
DHCP Relay Passthrough	On <input type="button" value="v"/>	
Management by wireless stations	On <input type="button" value="v"/>	
Controller Index	<input type="text" value="0"/>	Valid range: [0, 0-31]

Img :04

If you see a script (file name with .scr extension), you need to edit that file (instead of creating a new one as mentioned img 03)

To edit the file

GUI->Maintenance->File management -> under AP init Script-> check the box and select "Edit"

Append already existing lines with following scripts

"radio parentbeacon radio0 never"

"radio parentbeacon radio1 never"

Example:

and L

ics

Add/Edit

*Name [Max 100 chars]

```

radio prt radio0 assigned
radio prt radio1 assigned
radio prt radio2 assigned
radio parentbeacon radio0 never
radio parentbeacon radio1 never |

```

Click Save and follow steps (d) and (e)

If Band steering is enabled, Small modification required in Item (c)

example below (GUI->configuration->select ESS profile->edit->Band steering mode like shown below

Countermeasure

Multicast MAC Transparency

Band Steering Mode

Band Steering Timeout(seconds) Valid range: [1-65535]

Expedited Forward Override

B Supported Transmit Rates (Mbps) 1 Mbps 2 Mbps 5.5 Mbps
 11 Mbps

Recommended band steering configuration

- Bandsteering to A band
- Band steering Timeout to 1 second

Follow items (a), (b), (d) & (e)

Small change is required in option (c), instead of two scripts lines, we only need script to be applied on radio1 which is 5 GHz band like below.

“radio parentbeacon radio1 never”

Eg:

Add/Edit

*Name [Max 100 chars]

```
radio parentbeacon radio1 never
```

Below two steps are common for both the check points (with bandsteering Enabled and Bandsteering disabled)

(d) Now navigate to *Configuration > Devices > APs*.

From here select the AP's you want to load the AP script to:

AP Table (6 entries) Selected:1

<input type="checkbox"/>	AP ID	AP Name	Serial Number	Uptime	Operational State	Availability Status	Runtime Image Version	Connectivity Layer	AP IP Address for L3	AP
Search: <input type="text"/>										
<input type="checkbox"/>	1	AP-1	00:0ce6:0a:49:71	00d:00h:00m:00s	Disabled	Offline	7.0-7-0	None	172.26.0.71	AP
<input type="checkbox"/>	2	AP-2	00:0ce6:17:2e:a7	00d:00h:00m:00s	Disabled	Offline	7.0-7-0	None	0.0.0.0	AP
<input type="checkbox"/>	3	AP-3	00:0ce6:15:f3:65	06d:00h:07m:39s	Enabled	Online	7.0-7-0	L2	0.0.0.0	AP
<input checked="" type="checkbox"/>	4	AP-4	00:0ce6:08:69:d5	00d:00h:00m:38s	Enabled	Online	7.0-7-0	L2	0.0.0.0	AP
<input type="checkbox"/>	5	AP-5	00:0ce6:1b:0c:0c	00d:00h:00m:00s	Disabled	Offline	7.0-7-0	None	0.0.0.0	AP
<input type="checkbox"/>	7	AP-7	00:0ce6:14:6b:7	00d:00h:00m:00s	Disabled	Offline	7.0-7-0	L2	0.0.0.0	AP

Click the Bulk Update button on the bottom right of the screen. Now check the box on the AP Init Script row, and enter the name of the script you entered earlier, this example uses the iOS9PB.scr script:

Location	<input type="checkbox"/>	<input type="text"/>	Enter 0-64 chars.
Building	<input type="checkbox"/>	<input type="text"/>	Enter 0-64 chars.
Floor	<input type="checkbox"/>	<input type="text"/>	Enter 0-64 chars.
Contact	<input type="checkbox"/>	<input type="text"/>	Enter 0-64 chars.
LED Mode	<input type="checkbox"/>	<input type="checkbox"/>	
AP Init Script	<input checked="" type="checkbox"/>	<input type="text" value="iOS9PB.scr"/>	Enter 0-64 chars.
Link Proving Duration	<input type="checkbox"/>	<input type="text"/>	Valid range: [1-32000]
Power Supply Type	<input type="checkbox"/>	<input type="text"/>	
KeepAlive Timeout(seconds)	<input type="checkbox"/>	<input type="text"/>	Valid range: [1-1800]

*** To update a Field, click the checkbox next to it and input a new value.**

OK Cancel

Now check OK.

(e) From here, reboot the AP's that need the Init Script. Go back to the *Maintenance* screen, and it will land you on the page that says *Select APs for Reboot*. Select the appropriate AP's for the script to be applied to, and then click Reboot on the bottom right side of the window.

Reboot All Reboot Controller

Select APs for Reboot (6 entries) Selected:1

<input type="checkbox"/>	AP ID	AP Name	Serial Number	Uptime	Operational State	Availability Status	Runtime Image Version	Connectivity Layer	AP IP Address for L3	AP Model
<input type="checkbox"/>	3	AP-3	00:0c:e6:16:f3:66	06d:00h:31m:42s	Enabled	Online	7.0-7-0	L2	0.0.0.0	AP832e
<input checked="" type="checkbox"/>	4	AP-4	00:0c:e6:08:69:d5	00d:00h:24m:11s	Enabled	Online	7.0-7-0	L2	0.0.0.0	AP320
<input type="checkbox"/>	1	AP-1	00:0c:e6:0a:49:71	00d:00h:00m:00s	Disabled	Offline	7.0-7-0	None	172.26.0.71	AP1010e
<input type="checkbox"/>	2	AP-2	00:0c:e6:17:2e:a7	00d:00h:00m:00s	Disabled	Offline	7.0-7-0	None	0.0.0.0	AP822i
<input type="checkbox"/>	5	AP-5	00:0c:e6:16:dc:8c	00d:00h:00m:00s	Disabled	Offline	7.0-8-0	None	0.0.0.0	AP822e
<input type="checkbox"/>	7	AP-7	00:0c:e6:14:6b:b7	00d:00h:00m:00s	Disabled	Offline	7.0-7-0	L2	0.0.0.0	AP832i

The AP Init script will take affect after the AP's are rebooted, once rebooted, test iOS9 devices to ensure proper connectivity. If these steps do not improve the performance please contact Apple support and reference the appropriate bug ID provided up top.

Thank you,



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