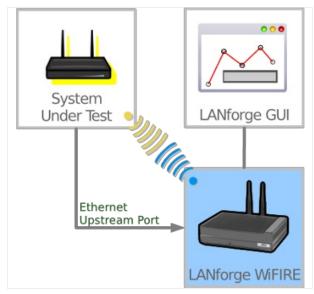
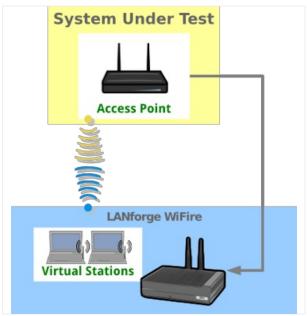


LANforge WiFi Station Association Code 17

Goal: Configure Two virtual APs with a maximum of ten stations each.

This cookbook provides a basic station setup to emulate over-populating an AP with stations. Requires a WiFIRE system such as a CT520 or better than can provide more stations than your AP(s) under test will accept. This is not a roaming setup (Wireless Roaming/HS2.0 or 802.11r) because it is not exercising enterprise authentication or roaming specifications.





- 1. Set up one AP with a maximum of 10 stations permitted and an SSID of jedtest. (Not shown.)
- 2. Create 11 stations for SSID jedtest
 - A. In the *Port Mgr* tab, select *wiphy0* and click the **Create** button.

🛃 LANforge Manager Version(5.3.3) 🗕 🗖													
<u>C</u> ontrol <u>R</u> eporting <u>T</u> ear-Off <u>I</u> nfo <u>P</u> lugins													
							Stop All	F	Restart Ma	anager		Refresh	HELP
File-IO		yer-4	<u> </u>	est Mg			Resource M					essages	
´ Status ̈́ Layer-3 ̈́ L3 Endps ̈́ VoIP/RTP ̈́ VoIP/RTP Endps ̈́ Armageddon ̈́ WanLinks ̈́ Attenuators ̈́ Collision-Domains													
Disp: 192.168.100.133:0.0 Sniff Packets Clear Counters Reset Port Delete													
R	Rpt Timer: medium (8 s) Apply View Details Create Modify Batch Modify												
					— All Ethe	ernet Ir	terfaces (Po	rts) for all	Resource	5.			
Port	Pha	Down	IP	SEC	Alias	Parent Dev	RX Bytes	RX Pkts	Pps RX	bps RX	TX Bytes	TX Pkts	Pps TX
1.1.0			192.168.100.1	85 0	eth0		3,583,464	40,616	6	5,843	27,373,703	20,877	8
1.1.1			0.0.0.0	0	eth1		0	0	0	0	1,360	16	0
1.1.2			0.0.0.0	0	wiphy0		312,252,546	1,213,599	0	402	2,111,915	13,451	0
1.1.3			0.0.0.0	0	wiphyl		49,955,029	965	0	0	743,390	4,705	0
1.1.4			0.0.0.0	0	wiphy2		90,878,491	1,026	0	0	1,266,152	6,550	0
1.1.5		V	0.0.0.0	0	wlan0	wiphy0	0	0	0	0	0	0	0
1.1.6		V	0.0.0.0	0	wlan1	wiphy1	0	0	0	0	0	0	0
1.1.7		V	0.0.0.0	0	wlan2	wiphy2	0	0	0	0	0	0	0
•													•
Logge	d in to	: bre	nt-523:4002 a	s: Adm	in								

B. In the Create VLANs window, create 21 stations:

\$	💁 Create VLANs on Port: 1.1.2													
0	○ MAC-VLAN ⑧ WiFi STA													
0	Shelf:	1	Resource:	1 (brent-523) 🔻	Port: 2 (w	viphy0) 💌								
B	VLAN ID:		DHCP-IPv4											
Ģ	Parent MAC:	00:0e:8e:4e:59:2f	DHCP Client ID:	None 💌										
	MAC Addr:	xx:xx:xx:*:*:xx 💌	IP Address:		Global IPv6:	AUTO								
	Quantity:	11	IP Mask or Bits:		Link IPv6:	AUTO								
			Gateway IP:		IPv6 GW:	AUTO								
	#1 Redir Name:		#2 Redir Name:											
	STA ID:	0	SSID:	jedtest		•								
	WiFi AP:		Key/Phrase:	jedtestl										
	WPA	WPA2	WEP											
4	Down													
	Apply	<u>C</u> ancel												
A.	. Select WiFi STA	4												

- B. Select DHCP-IPv4
- C. and choose pattern xx:xx:*:*:xx for MAC Addr.
- D. Then enter **11** for *Quantity*
- E. STA ID should be **0**
- F. and *SSID* will be **jedtest** for this example.
- G. We also will select WPA2
- H. ...and click the **Apply** button.
- C. We will see 11 stations in the Port Mgr tab:

<u></u>	LANforge Manager Version(5.3.3)												- • ×	
<u>Control Reporting Tear-Off Info Plugins</u>														
Stop All Restart Manager Refres											Refresh	HELP		
File-IO Laver-4 Generic Test Mar Test Group Resource Mar Event Log Alerts Port Mar Messages														
										Demaine				
Status Layer-3 L3 Endps VolP/RTP VolP/RTP Endps Armageddon WanLinks Attenuators Collision-Domains														
Disp: 192.168.100.133:0.0 Sniff Packets Clear Counters Reset Port Delete														
R	Rpt Timer: medium (8 s) 🔻				Apply		<u>V</u> iew	Details	Cr <u>e</u> ate <u>M</u> odify			Batch Modify		
					-All Ethe	ernet In	terfaces (Po	rts) for all	Resources	5				
Port	Pha	Down	IP	SEC	Alias	Parent Dev	RX Bytes	RX Pkts	Pps RX	bps RX	TX Bytes	TX Pkts	Pps TX	
1.1.05		V	0.0.0.0	0	wlan0	wiphy0	0	0	0	0	0	0	0	
1.1.06		~	0.0.0.0	0	wlan1	wiphy1	0	0	0	0	0	0	0	
1.1.07		~	0.0.0.0	0	wlan2	wiphy2	0	0	0	0	0	0	0	
1.1.08			0.0.0.0	0	sta0	wiphy0	0	0	0	0	0	0	0	
1.1.09			0.0.0.0	0	stal	wiphy0	0	0	0	0	0	0	0	
1.1.10			0.0.0.0	0	sta2	wiphy0	0	0	0	0	0	0	0	
1.1.11			0.0.0.0	0	sta3	wiphy0	0	0	0	0	0	0	0	
1.1.12			0.0.0.0	0	sta4	wiphy0	0	0	0	0	0	0		
1.1.13			0.0.0.0	0	sta5	wiphy0	0	0	0	0	0	0	0 =	
1.1.14			0.0.0.0	0	sta6	wiphy0	0	0	0	0	0	0	0	
1.1.15			0.0.0.0	0	sta7	wiphy0	0	0	0	0	0	0		
1.1.16			0.0.0.0	0	sta8	wiphy0	0	0	0	0	0	0	0	
1.1.17			0.0.0.0	0	sta9	wiphy0	0	0	0	0	0	0		
1.1.18			0.0.0.0	0	stal0	wiphy0	0	0	0	0	0	0	0 🗸	
													•	
Logge	d in to:	: brer	nt-523:4002 as	: Adm	in									

D. The stations should start and ten will associate.

2					LA	Nforge	Manager Ver	sion(5.3.3)					
ontrol	<u>R</u> epor	ting]	<u>[ear-Off info Pl</u>	ugins									
							Stop All	F	estart Ma	anager		Refresh	HELP
File-IO	Lay	yer-4	Generic Te	st Mgi	Test (Group	Resource M	gr Event	Log Al	erts P	ort Mgr M	essages	
Status	La	ayer-3	L3 Endps	VoIP/	RTP V	oIP/RTP	Endps Ari	nageddon	WanLi	inks A	ttenuators	Collision	n-Domains
Disp: 192.168.100.133:0.0 Sniff Packets Clear Counters Reset Port Delete													
Rpt Timer: medium (8 s) V Apply View Details Create Modify Batch Modify								dify					
					—All Ethe	ernet In	terfaces (Po	ts) for all I	Resources	s. —			
Port	Pha	Down	IP	SEC	Alias	Parent Dev	RX Bytes	RX Pkts	Pps RX	bps RX	TX Bytes	TX Pkts	Pps TX
1.1.05		V	0.0.0.0	0	wlan0	wiphy0	0	0	0	0	0	0	0
1.1.06		V	0.0.0.0	0	wlan1	wiphy1	0	0	0	0	0	0	0
L.1.07		~	0.0.0.0	0	wlan2	wiphy2	0	0	0	0	0	0	0
.1.08			177.1.9.17	0	sta0	wiphy0	138,318	838	1	2,018	24,802		C
.1.09			177.1.9.12	0	stal	wiphy0	170,662	1,007	1	1,482	27,222		0
1.10			0.0.0.0	0	sta2	wiphy0	158,530	919	0	1,127	27,638		C
.1.11			177.1.9.16 🤻	0	sta3	wiphy0	168,518	1,006	1	2,069	30,258		
.1.12			177.1.9.18	0	sta4	wiphy0	170,638	988	1	1,286	27,904		0
.1.13			177.1.9.11	0	sta5	wiphy0	178,574	1,043	1	1,937	30,468		0
.1.14			177.1.9.13	0	sta6	wiphy0	180,540	1,045	1	2,006	28,184		((
.1.15			177.1.9.21	0	sta7	wiphy0	162,740	967	1	2,007	29,020		
.1.16			177.1.9.15	0	sta8	wiphy0	183,734	1,052	1	2,031	29,834		0
1.17			177.1.9.14	0	sta9	wiphy0	184,654	1,064	1	2,137	29,558		
1.18			177.1.9.19	0	stal0	wiphy0	180,334	1,030	1	2,108	29,356	159	C
•													•
0000			nt-523:4002 as:										

E. In the LANforge Wireless Events window, you will see a warning for Association denied.

LANforge Wireless Events (brent-523:4002)		
2015-11-20 13:04:04.648 1.1: sta2: new station 00:0e:8e:d1:c4:f8		
2015-11-20 13:04:04.686 1.1: sta2: del station 00:0e:8e:d1:c4:f8		
2015-11-20 13:04:04.687 1.1: sta2 (phy #1): auth 00:0e:8e:d1:c4:f8 -> 00:0e:8e:eb:72:2f status: 17: Association denied because AP is unable to handl	e	
additional associated STA		
2015-11-20 13:04:09.658 1.1: sta2 (phy #1): scan started		
2015-11-20 13:04:09.688 1.1: sta2 (phy #1): scan finished: 5180, ""		
2015-11-20 13:04:09.689 1.1: sta2: new station 00:0e:8e:d1:c4:f8		
2015-11-20 13:04:09.702 1.1: sta2: del station 00:0e:8e:d1:c4:f8		=
2015-11-20 13:04:09.702 1.1: sta2 (phy #1): auth 00:0e:8e:d1:c4:f8 -> 00:0e:8e:eb:72:2f status: 17: Association denied because AP is unable to handl	e	_
additional associated STA		
		•
Pause Close Save File		

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