

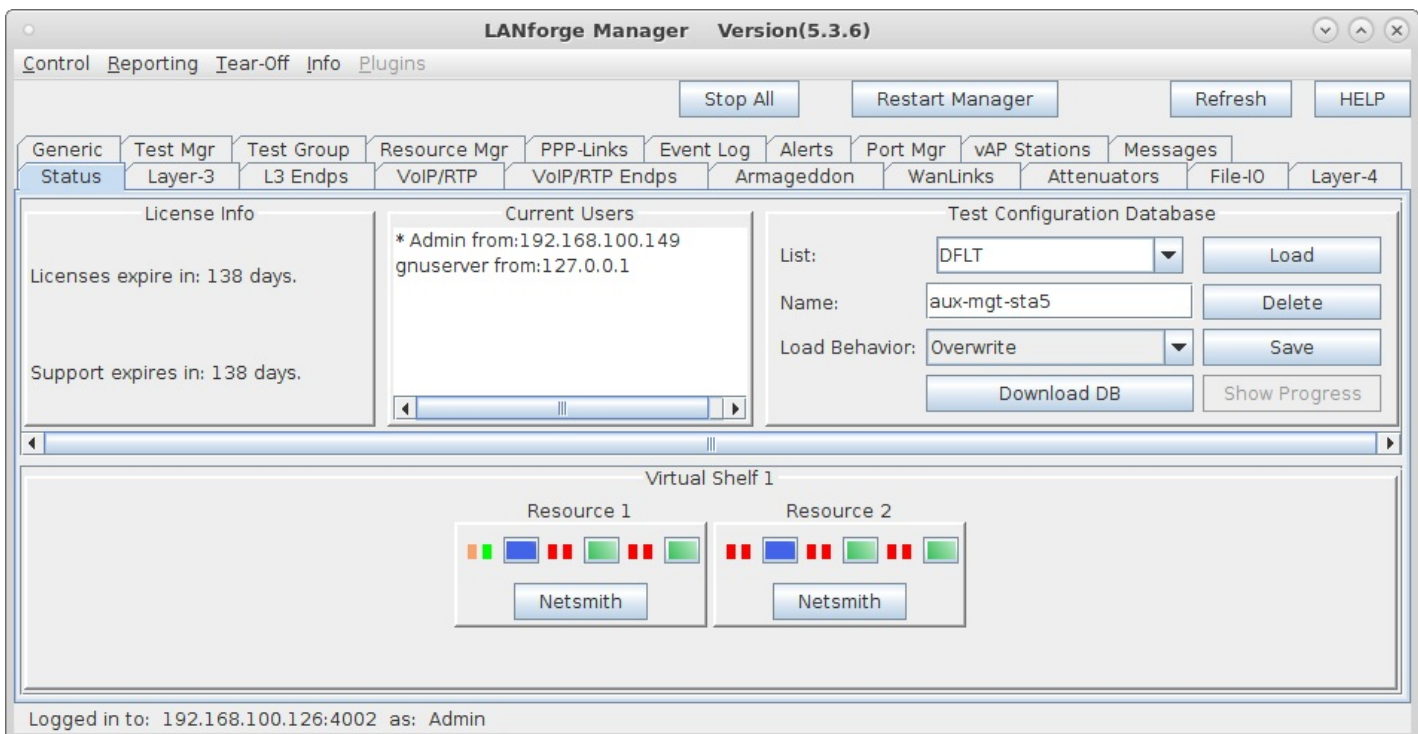
## Configure Auxiliary Management Interfaces

**Goal:** Allow LANforge to create its own wireless management network.

In cases where it is not convenient to use an existing management network, LANforge WiFi systems can be configured to provide their own WiFi management network. This may be especially useful when testing in environments where LANforge needs to be moved around or where you have no good access to existing management LANs. This example assumes that you already know how to create and configure VAP and Stations in LANforge.

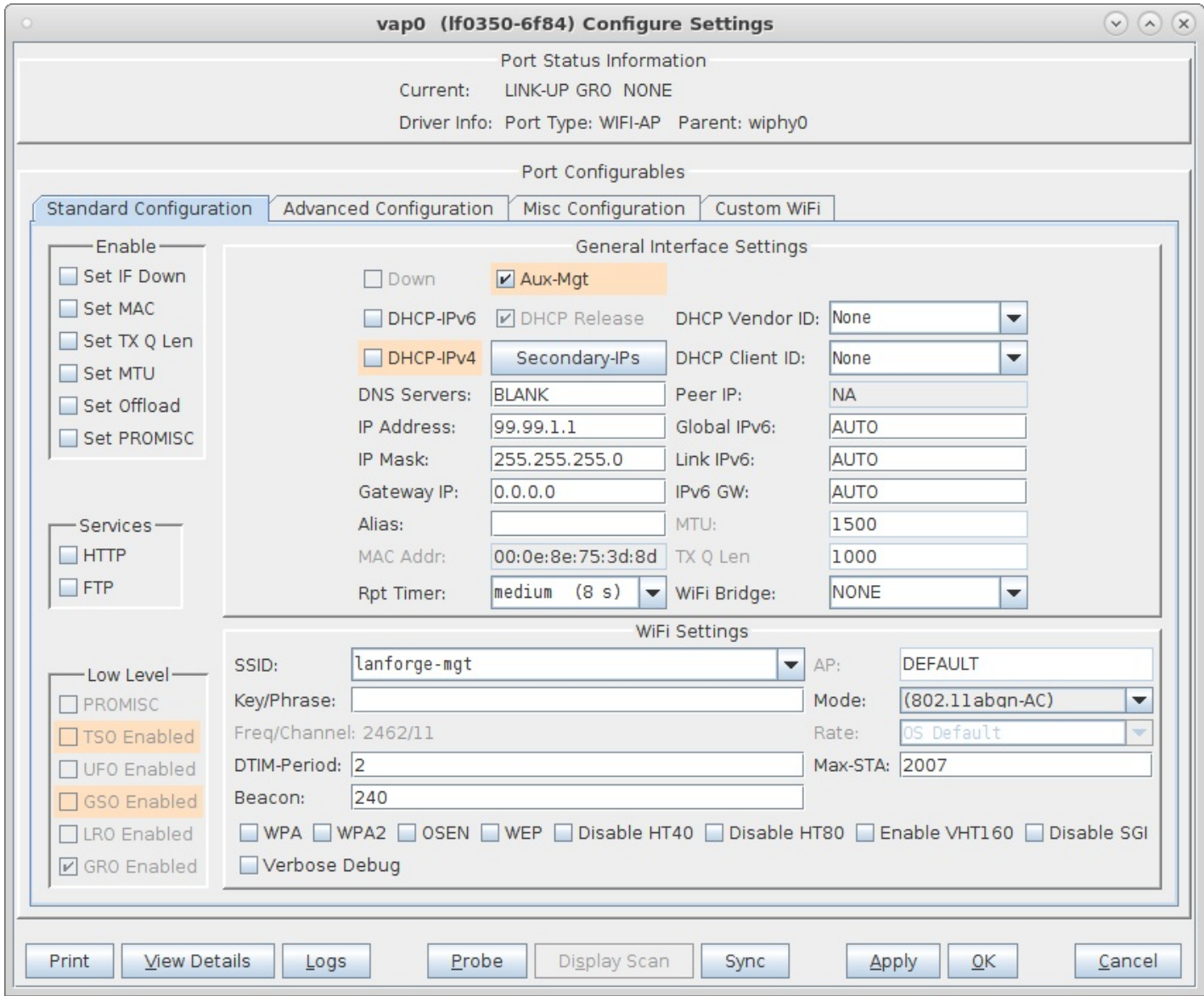
### 1. Configure LANforge for Auxiliary Management.

- A. Connect LANforge systems through the normal management LAN for initial configuration. The resources should be visible in the management tab



The screenshot shows the LANforge Manager Version 5.3.6 web interface. The top navigation bar includes tabs for Control, Reporting, Tear-Off, Info, and Plugins. Below this are buttons for Stop All, Restart Manager, Refresh, and HELP. A secondary navigation bar contains various management tabs such as Generic Status, Test Mgr Layer-3, Test Group L3 Endps, Resource Mgr VoIP/RTP, PPP-Links VoIP/RTP Endps, Event Log Armageddon, Alerts WanLinks, Port Mgr Attenuators, vAP Stations File-I/O, Messages Layer-4, and Plugins. The main content area is divided into three sections: License Info (showing 138 days remaining for licenses and support), Current Users (listing Admin from 192.168.100.149 and gnusever from 127.0.0.1), and Test Configuration Database (with fields for List: DFLT, Name: aux-mgt-sta5, Load Behavior: Overwrite, and buttons for Load, Delete, Save, Download DB, and Show Progress). Below these is a Virtual Shelf 1 section with two Resource slots (Resource 1 and Resource 2), each containing a status bar with colored indicators and a Netsmith button. The bottom status bar indicates the user is logged in as Admin from 192.168.100.126:4002.

B. In this case, we are using wiphy0 for the Aux-Mgt interfaces. On the manager system, configure wiphy0 to be on the desired channel, create a virtual AP on wiphy0, and configure it appropriately. The **Aux-Mgt** checkbox should be selected, a static IP should be assigned, and an appropriate SSID configured. The AP Aux-Mgt port will automatically serve DHCP and will try to NAT and route packets to the wired Management interface.



- C. On the other resources, configure the wlanX interface to connect to the AP on the manager system, and select the **Aux-Mgt** checkbox.

**wlan0 (If0350-6dbc) Configure Settings**

Port Status Information  
Current: LINK-UP GRO Authorized  
Driver Info: Port Type: WIFI-STA Parent: wiphy0

Port Configurables

Standard Configuration | Advanced Configuration | Misc Configuration | Corruptions | Custom WiFi

Enable

- Set IF Down
- Set MAC
- Set TX Q Len
- Set MTU
- Set Offload
- Set PROMISC

Services

- HTTP
- FTP
- RADIUS

Low Level

- PROMISC
- TSO Enabled
- UFO Enabled
- GSO Enabled
- LRO Enabled
- GRO Enabled

General Interface Settings

- Down  Aux-Mgt
- DHCP-IPv6  DHCP Release DHCP Vendor ID: None
- DHCP-IPv4 Secondary-IPs DHCP Client ID: None
- DNS Servers: 192.168.100.1 Peer IP: NA
- IP Address: 0.0.0.0 Global IPv6: AUTO
- IP Mask: 0.0.0.0 Link IPv6: AUTO
- Gateway IP: 0.0.0.0 IPv6 GW: AUTO
- Alias: MTU: 1500
- MAC Addr: 00:0e:8e:4e:5a:95 TX Q Len: 1000
- Rpt Timer: medium (8 s) WiFi Bridge: NONE

WiFi Settings

SSID: lanforge-mgt AP: DEFAULT

Key/Phrase: Mode: (802.11abgn-AC)

Freq/Channel: 2462/11 Rate: OS Default

WPA  WPA2  OSEN  WEP  Disable HT40  Enable VHT160  Disable SGI

Print | View Details | Probe | Display Scan | Sync | Apply | OK | Cancel

D. The Port-Mgr tab should look something like this when the Aux-Management interfaces are configured.

LANforge Manager Version(5.3.6)

Control Reporting Tear-Off Info Plugins

Stop All Restart Manager Refresh HELP

Generic Status Test Mgr Layer-3 Test Group L3 Endps Resource Mgr VoIP/RTP PPP-Links VoIP/RTP Endps Event Log Armageddon Alerts WanLinks Attenuators File-I/O Layer-4

Port Mgr vAP Stations Messages

Disp: 192.168.100.149:0.0 Sniff Packets Clear Counters Reset Port Delete

Rpt Timer: medium (8 s) Apply View Details Create Modify Batch Modify

All Ethernet Interfaces (Ports) for all Resources.

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			192.168.100.126	0	eth0		190,618,480	221,996	10	9,135	169,584,879	163,484	14
1.1.1			0.0.0.0	0	eth1		0	0	0	0	0	0	0
1.1.2			0.0.0.0	0	eth2		0	0	0	0	0	0	0
1.1.3			0.0.0.0	0	wiphy0		128,822,643	338,150	53	151,268	6,903,320	53,578	8
1.1.4			0.0.0.0	0	wiphy1		0	0	0	0	0	0	0
1.1.5			0.0.0.0	0	wlan0	wiphy0	0	0	0	0	0	0	0
1.1.6		<input checked="" type="checkbox"/>	0.0.0.0	0	wlan1	wiphy1	0	0	0	0	0	0	0
1.1.7			99.99.1.1	0	vap0	wiphy0	40,938,553	37,349	7	62,461	3,953,755	35,591	6
1.2.00			192.168.100.109	0	eth0		111,649,961	88,549	0	0	24,980,368	29,494	0
1.2.01			0.0.0.0	0	eth1		0	0	0	0	0	0	0
1.2.02			0.0.0.0	0	eth2		0	0	0	0	0	0	0
1.2.03			88.1.1.187	0	sta100	wiphy1	20,738	171	0	0	4,074	39	0
1.2.04			0.0.0.0	0	wiphy1		17,988,948	86,713	19	31,472	59,967	1,170	0
1.2.05			88.1.1.193	0	sta101	wiphy1	20,454	163	0	0	4,974	47	0
1.2.06			88.1.1.186	0	sta102	wiphy1	20,644	160	0	0	10,802	73	0
1.2.07			88.1.1.189	0	sta103	wiphy1	17,368	146	0	0	4,272	44	0
1.2.08			88.1.1.194	0	sta104	wiphy1	20,306	165	0	0	5,420	48	0
1.2.09			0.0.0.0	0	wiphy0		16,072,057	75,744	11	12,999	43,571,163	39,673	7
1.2.10			99.99.1.11	0	wlan0	wiphy0	3,228,043	35,474	6	4,820	41,679,777	37,345	7
1.2.11			0.0.0.0	0	wlan1	wiphy1	0	0	0	0	0	0	0

Logged in to: 192.168.100.126:4002 as: Admin

E. To test that it works properly, you can now remove the wired Manament port connection and wait about 1 minute for the old connection to time out and re-connect to the Auxiliary Management port. Or, just reboot systems with the wired ports unplugged and they should be discovered on the Aux-Mgt ports promptly.