



Mako Networks Quick Installation Guide

For ExxonMobil Locations

With Mako as MNSP

February 2024 v1.0

The ExxonMobil logo is displayed in red. It features the word "Exxon" in a bold, sans-serif font, with a stylized "X" formed by two overlapping shapes. To the right of "Exxon" is the word "Mobil" in a similar bold, sans-serif font.

General Information

Please utilize this documentation along with any POS vendor-published ExxonMobil-specific guides.

The Mako 6600-M/LTE device installed at this location connects to the internet. It has four LAN interfaces.

- LAN 1 is connected to port 1 on the preconfigured Mako 24 port managed switch.
- LAN 2 is not used and is reserved for future ExxonMobil use.
- LAN 3 is for back office devices.
- LAN 4 is free for dealers to use as they choose.

Whilst the Mako edge device will work with either a public or a private IP address, it requires unfiltered access to the internet.

VPNs are automatically formed to the ExxonMobil network for payments and loyalty and to Gilbarco and Verifone to perform their MNSP functions.

If you need to contact Mako Support, please first visit <https://makodeployment.com/> and generate a ticket. A dedicated installer support phone number will be emailed to you.

Any out of scope work will need to be approved by an authorized party and submitted via a change order form Mako Support can provide if needed.

There are four installation types covered in this guide:

- 1) Gilbarco Passport POS with Gilbarco Dispensers
- 2) Gilbarco Passport POS with Wayne Dispensers
- 3) Verifone Commander POS with Gilbarco Dispensers
- 4) Verifone Commander POS with Wayne Dispensers

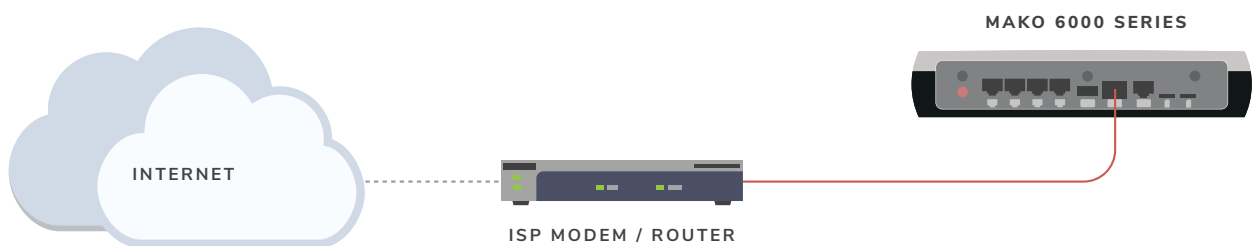
Technician **MUST** have the following tools available for the Mako installations:

- a. Laptop with functional Ethernet adapter
- b. Blank USB flash drive 1GB-32GB formatted FAT32

A local diagnostic screen (MakoScope) may be accessed by plugging a laptop into LAN3 for a DHCP address and pointing your browser to <https://1.2.3.4>. This screen will provide you information as to the status of the WAN connection, LAN connections and the last few log messages. If you experience difficulties during installation, the Mako help desk may ask you to access the MakoScope.

Basic Mako Installation

- 1) Arrive on site at the designated start time.
- 2) Unbox the Mako edge device and managed switch.
- 3) Connect cellular and WiFi antennas. The broad paddle antennas are the cellular antennas and the thin round antenna is the WiFi antenna. Please note the antenna connectors are sexed to ensure correct antenna placement.
- 4) Position the Mako devices in a preferred location near the POS equipment or near the broadband modem.
- 5) Connect cable from open Ethernet LAN port on ISP modem/router to Mako WAN port as below:



- 6) Locate conditioned power outlet for Mako devices. Preference is a power receptacle protected with a UPS.
- 7) Power up Mako edge device.
- 8) The Mako's LEDs will flash while it is booting which will take up to two minutes. The Mako should be online in approximately 2-15 minutes depending on whether there is a firmware update needed.
- 9) Check Mako LED status
- 10) Power up the Mako switch after the Mako edge device is online

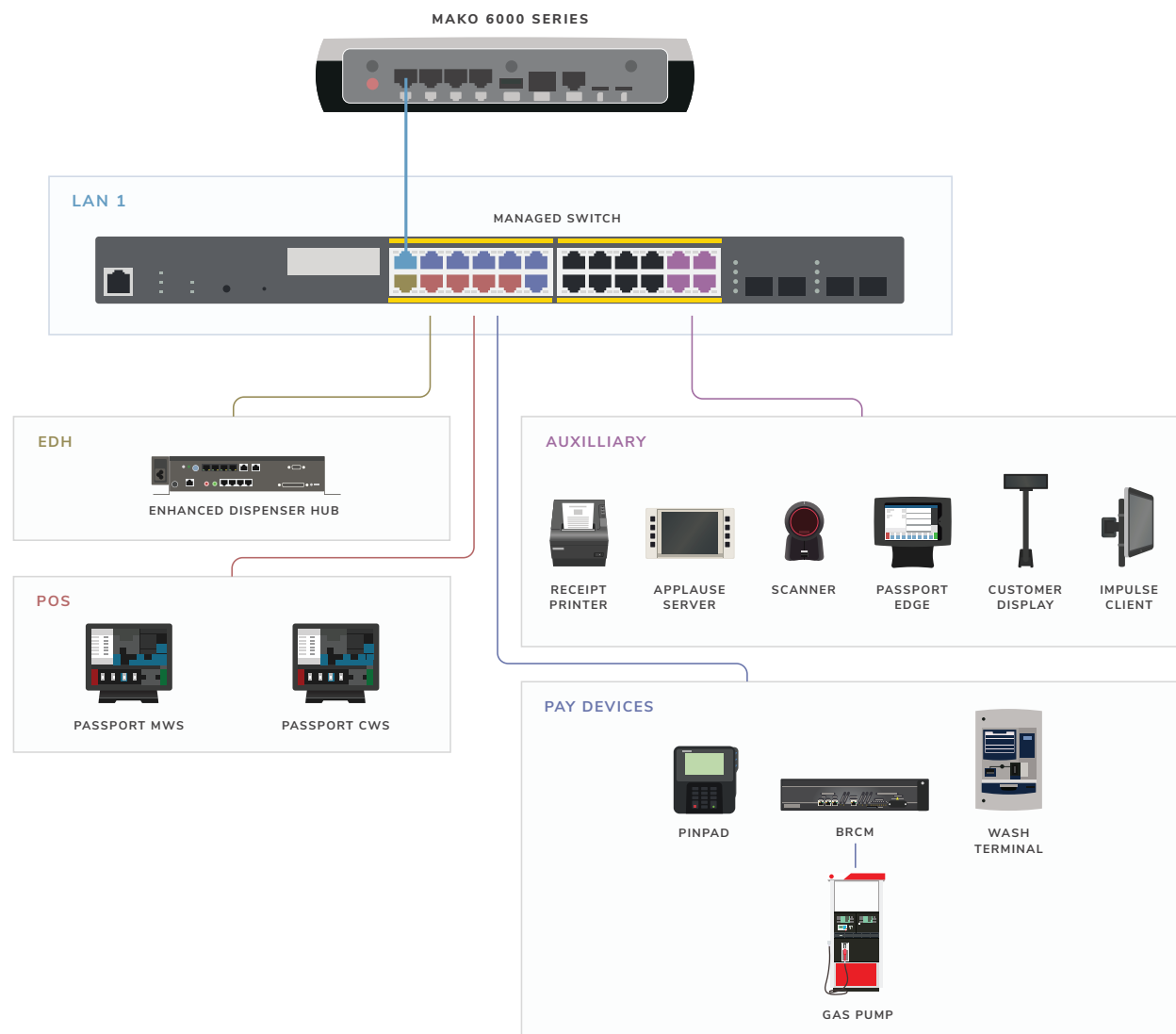


If all is operational the Power, Internet, WAN and CMS LEDs should all be illuminated in GREEN.

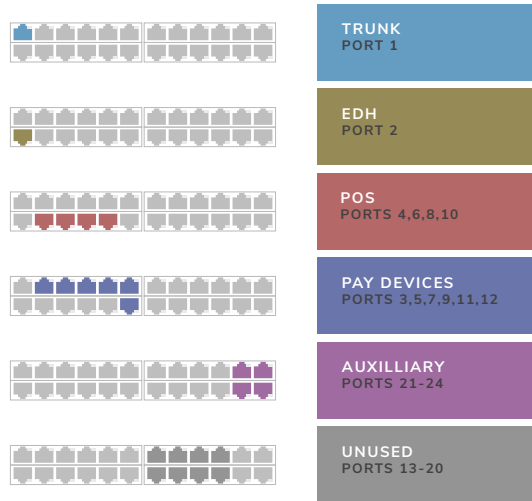
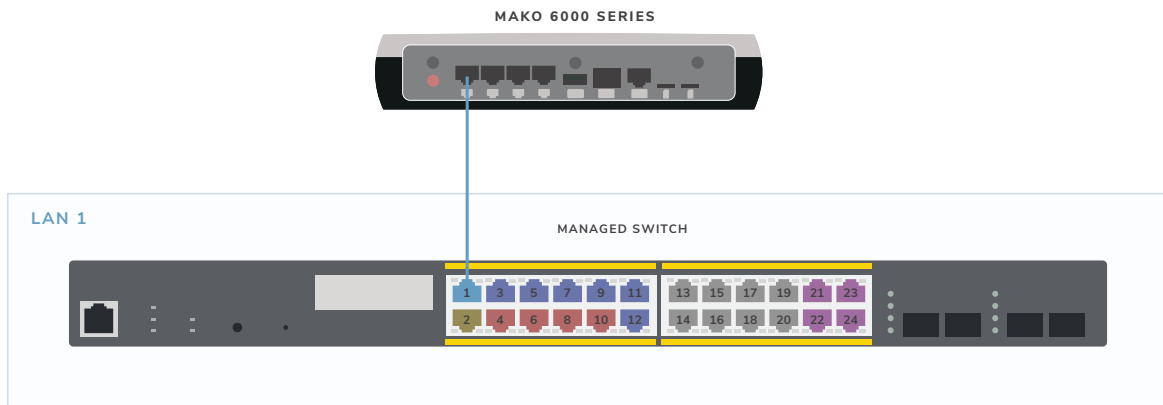
Type 1: Gilbarco Passport with Mako as MNSP – with Gilbarco Dispensers

- 1) Must be on GVR software revision 12.03 OR GREATER for Outdoor EMV with GVR dispensers.
- 2) LAN 1 (Trunk) should be cabled to port 1 on the Mako-supplied 24 port Managed Switch.
- 3) LAN2 is not used for this type of installation.
- 4) LAN3 (Back Office) needs to be cabled to the customer back-office switch if available.
- 5) LAN4 (Open) is free to be used by the location for any internet purpose they wish. You are not required to cable LAN4.

LAN Setup



Switch Setup



LAN IP Addressing

LAN 1: Trunk

Mako IP	172.20.20.1/24 DHCP ON
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LAN 3: Back Office

Mako IP	192.168.13.1/27 DHCP ON DHCP POOL 192.168.13.25-30
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BOS PC IP	192.168.13.5
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LAN 4: Open

Mako IP	Chosen by customer
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VLAN IP Addressing for Sites with GVR Passport and Gilbarco Dispensers

Please note: Passport™ does not support IP connections for Receipt Printer, Scanner or Customer Display—these devices will be connected via serial. IP connections for these devices are Passport Edge™ only.

VLAN 995, POS, 10.5.48.0/26

Mako	10.5.48.1	
Passport Server	10.5.48.2	Port 4
Passport Client (CWS) DHCP range:	10.5.48.8–19	Ports 6,8,10

VLAN 996, EDH, 10.5.50.0/30

Mako	10.5.50.1	
EDH static IP	10.5.50.2	Port 2

VLAN 997, Auxilliary, 10.5.60.0/23

Mako	10.5.60.1	
Applause Server static IP	10.5.60.66	Port 24

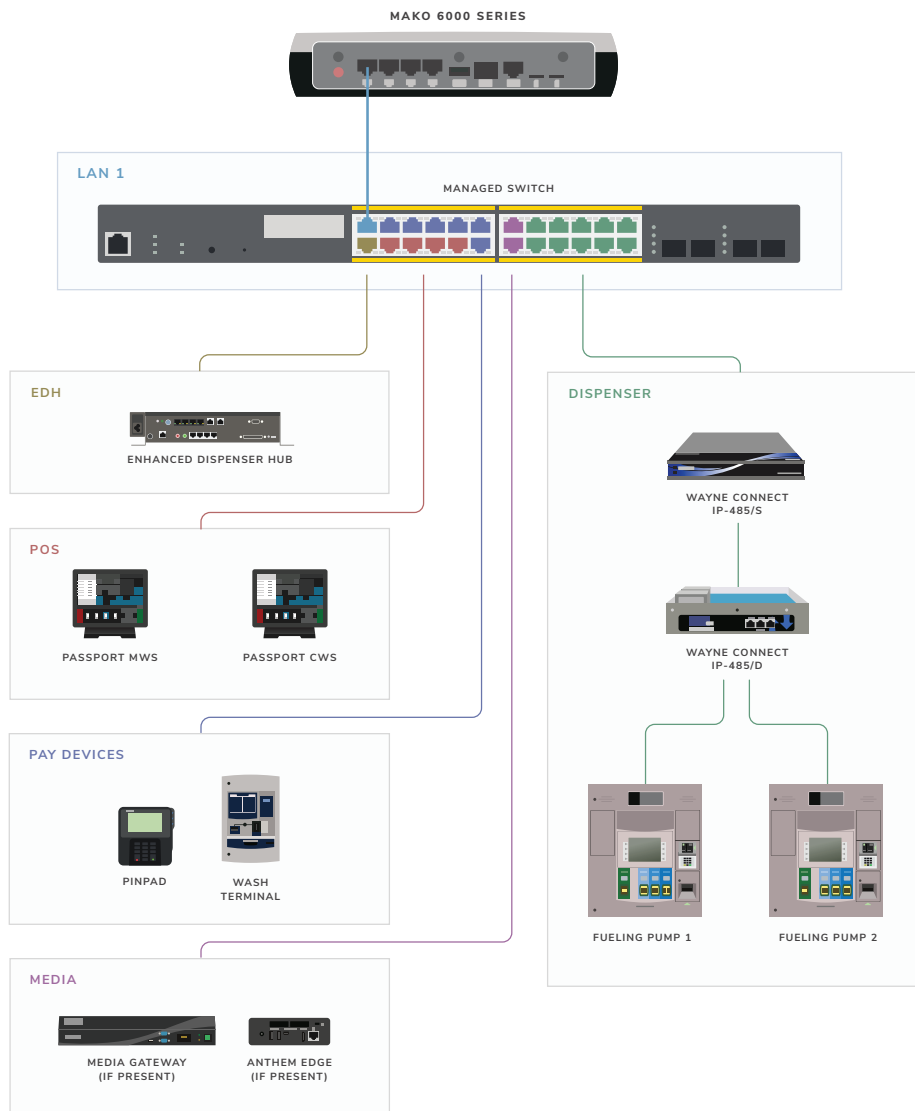
VLAN 998, Payment Devices, 10.5.55.0/24

Mako	10.5.55.1	
Pin Pad static IP range	10.5.55.11-22	Ports 3,5,7,9
Unitec Wash Terminal static IP range	10.5.55.2-3	
GVR Dispenser static IP range	10.5.55.71-231	Ports 11,12

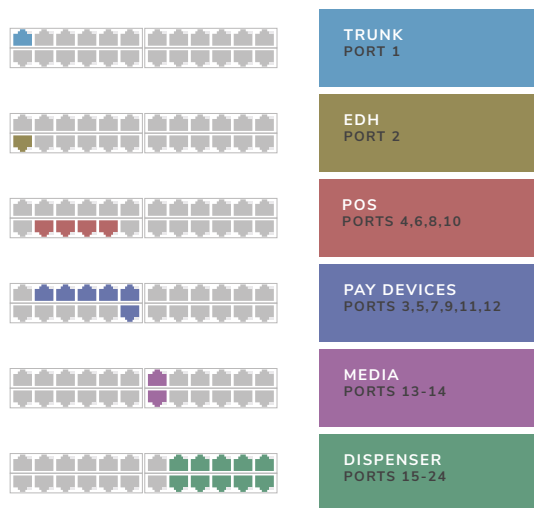
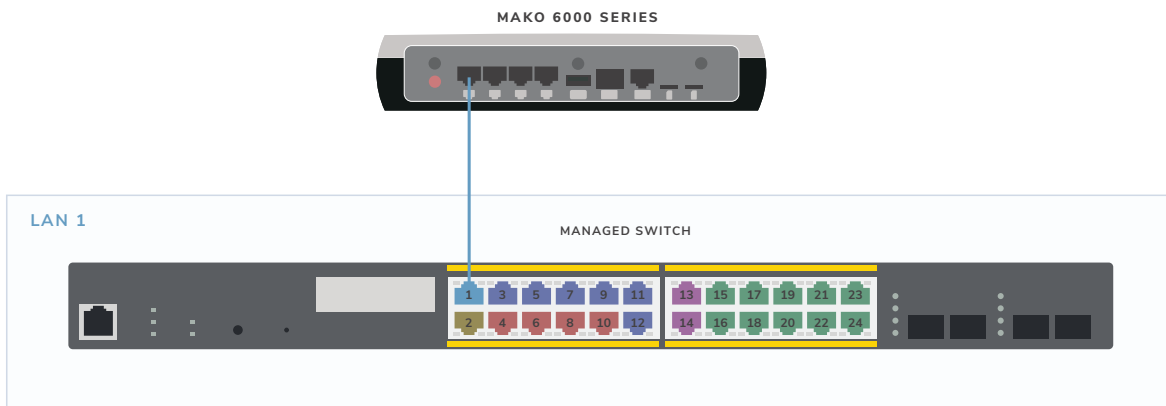
Type 2: Gilbarco Passport with Mako as MNSP – with Wayne Dispensers

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- 2) LAN 1 (Trunk) should be cabled to port 1 on the Mako-supplied 24 port Managed Switch.
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VLAN 111, Dispenser, 172.29.1.0/24

Mako	172.29.1.1	
Ovation Dispenser Boards	172.29.1.101-252	Ports 15-24
Anthem Dispenser SPM2	172.29.1.101-252	Ports 15-24

VLAN 112, Media, 172.29.2.0/24

Mako	172.29.2.1	
DFS Edge	172.29.2.51	Port 13
Anthem Dispenser SVMX Boards	172.29.2.101–252	Port 14

Gilbarco Notes

If the site has Applause Media System, refer to the following table to correctly configure the Applause Server.

The Applause Server needs only one connection from the main NIC in the unit to the replacement router. In the new configuration, the replacement router allows the Applause Server to communicate both to dispensers, as well as to the Internet, for updates.

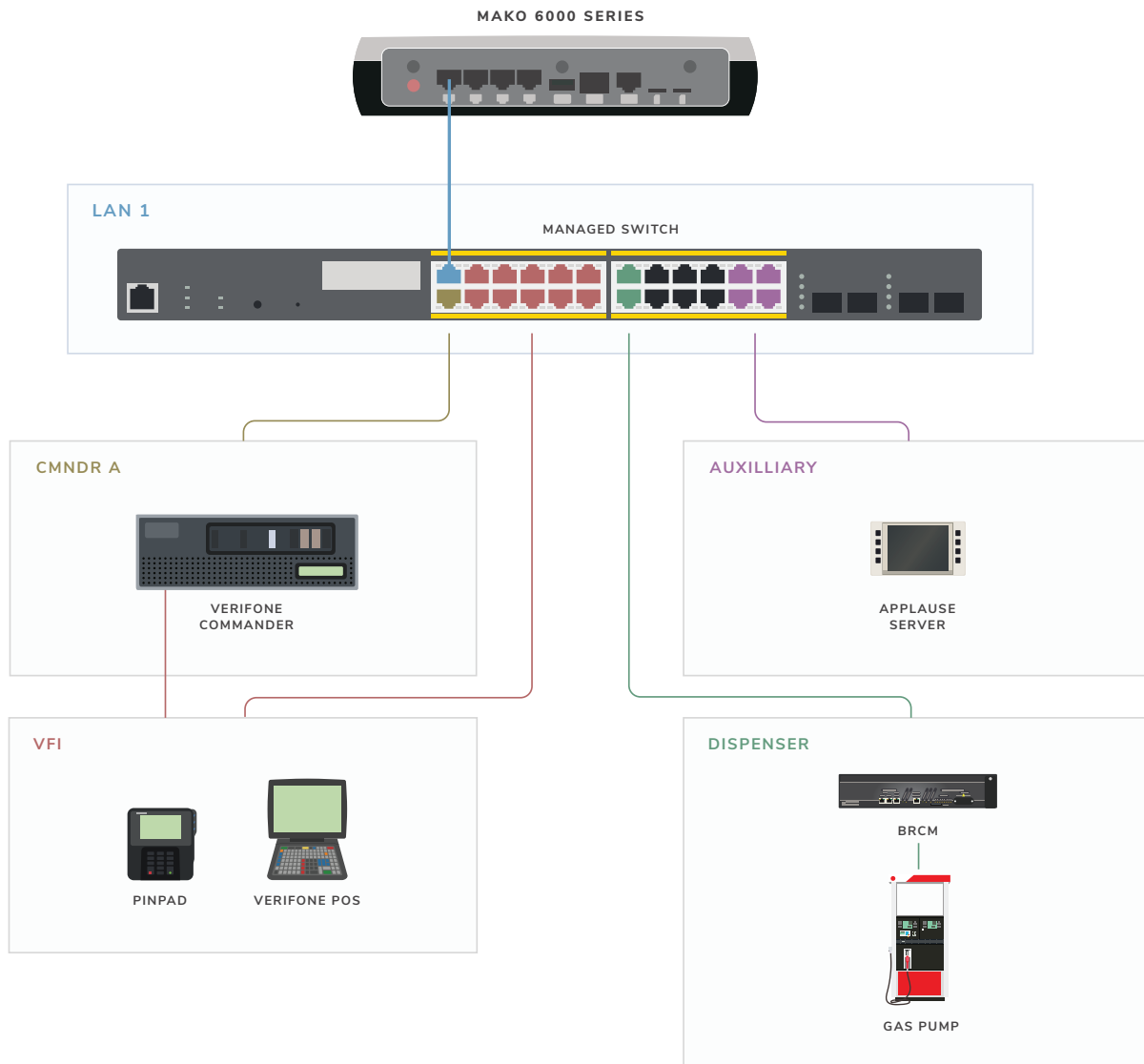
Applause Server IP Scheme

DEVICE	IP ADDRESS	FUELING POSITION	CONSIDERATIONS
Applause	10.5.60.66	All fueling devices (The scheme applies only to the Main Applause Server IP and not the gateway or DNS addresses.)	Ensure that Passport and all fueling positions are pointed to the new address.
Subnet Mask	255.255.254.0		
Default Gateway	10.5.60.1		
DNS (1st and 2nd)	10.5.60.1, 8.8.8.8		

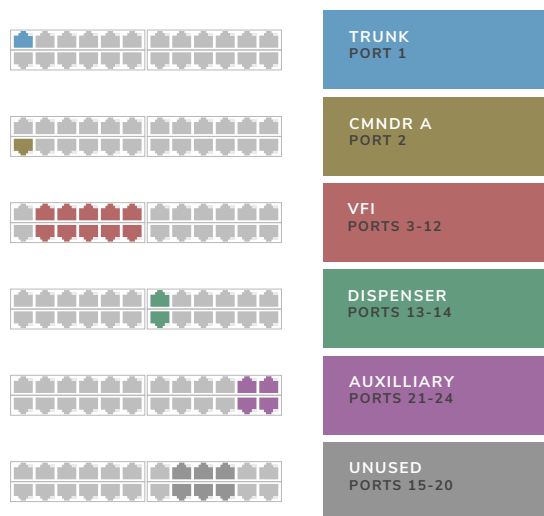
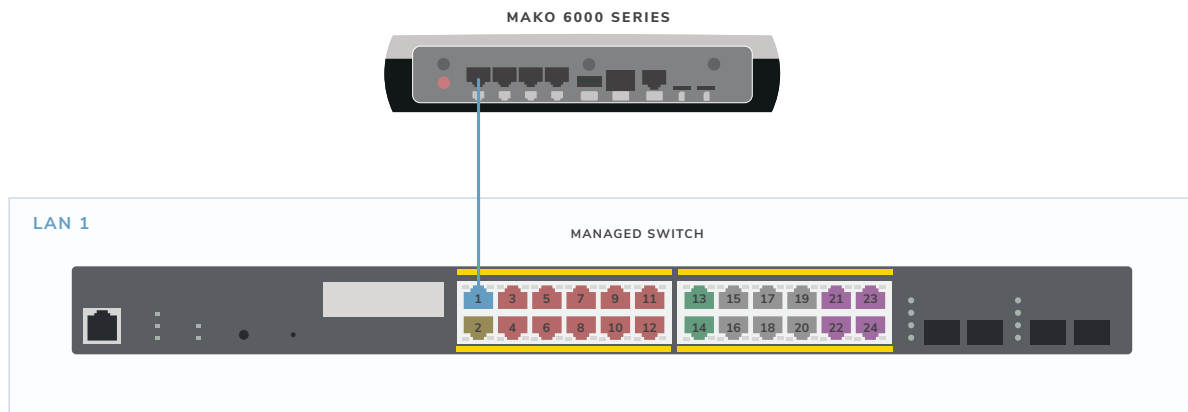
Type 3: Verifone Commander with Mako as MNSP – with Gilbarco Dispensers

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VLAN IP Addressing for Sites with Verifone Commander and Gilbarco Dispensers

VLAN 1032, CMNDR A, 192.168.32.0/24

Mako	192.168.32.31	
Commander NIC A	192.168.32.11	Port 2

VLAN 1031, VFI, 192.168.31.0/24

Mako	192.168.31.31	
Commander NIC N	192.168.31.11	Port 4
Pin Pad IP Range	192.168.31.126-138	Ports 3,5,7,9,11
POS Terminal IP Range	192.168.31.101-113	Ports 6,8,10,12

VLAN 997, Auxilliary, 10.5.60.0/23

Mako	10.5.60.1	
Applause Server static IP	10.5.60.66	Port 24

VLAN 998, Dispenser, 10.5.55.0/24

Mako	10.5.55.1	
GVR Dispenser static IP range	10.5.55.71-231	Ports 13-14

Commander Network and Route Setup

Check that the Verifone Commander NIC A is configured as follows:

IP ADDRESS: 192.168.32.11

SUBNET MASK: 255.255.255.0

GATEWAY: 192.168.32.31

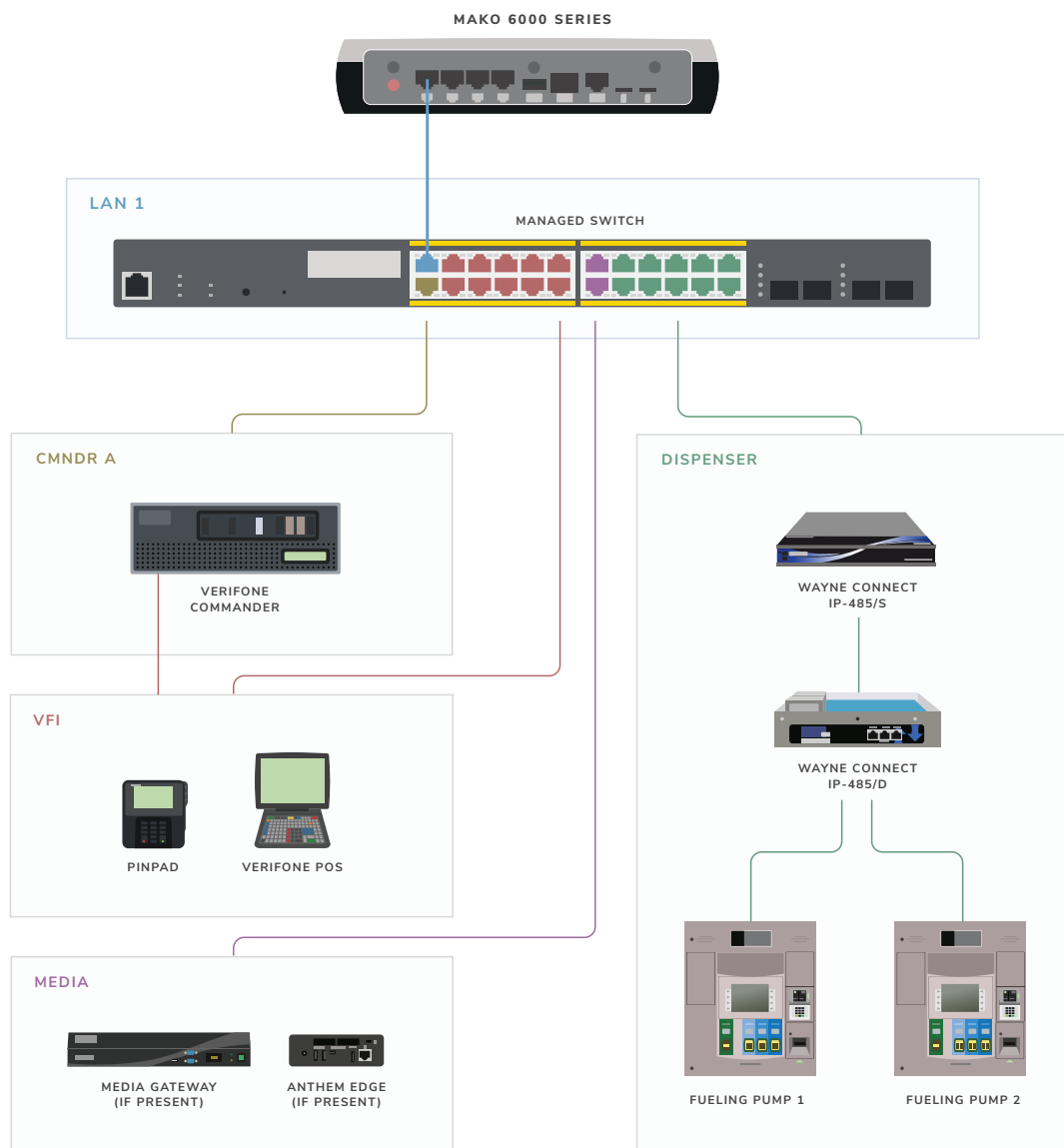
Ensure any routes in Commander that were pointing to 10.x.x.1 are updated to 192.168.32.31

The Default Route box should **not** be checked for this interface.

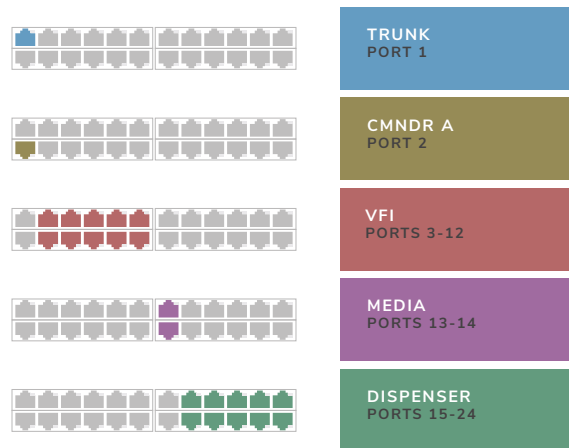
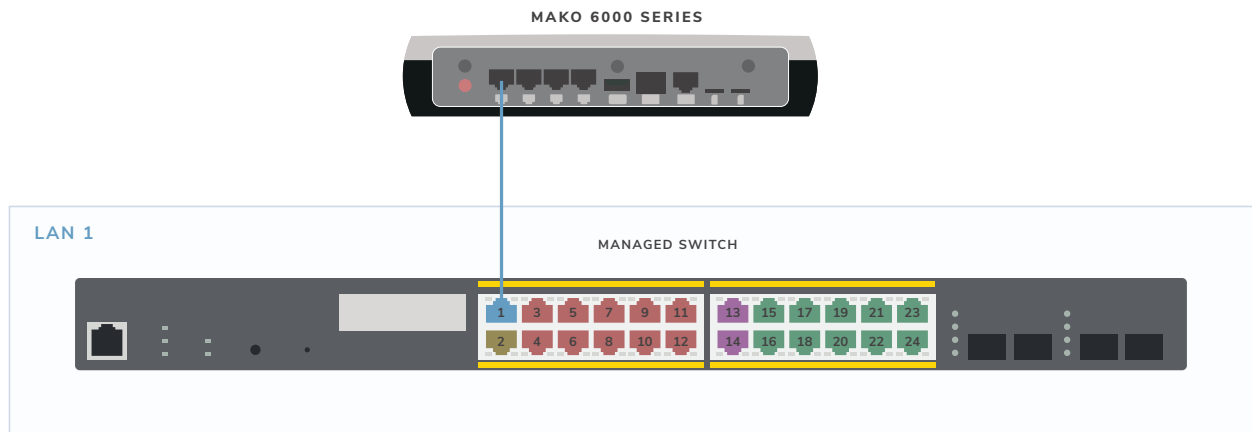
Type 4: Verifone Commander with Mako as MNSP – with Wayne Dispensers

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LAN 4: Open

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VLAN 112, Media, 172.29.2.0/24

Mako	172.29.2.1	
DFS Edge	172.29.2.51	Port 13
Anthem Dispenser SVMX Boards	172.29.2.101-252	Port 14

Commander Network and Route Setup

Check that the Verifone Commander NIC A is configured as follows:

IP ADDRESS: 192.168.32.11

SUBNET MASK: 255.255.255.0

GATEWAY: 192.168.32.31

Ensure any routes in Commander that were pointing to 10.x.x.1 are updated to 192.168.32.31

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