FMC Tech Checklist

Advanced troubleshooting guide for FMC device deployment

General Device Deployment Info

- Devices are shipped from our vendor with a factory default configuration
- Devices need to auto-update in the field when plugged in which can take 2-5 minutes depending on initial state
- Devices need to reach our vendor's provisioning servers for initial configuration and security settings
- Device should have local network plugged into WAN port only (very important)
- Always use the 12V power adapter supplied with the FMC device. Other power adapters should be verified with customer service before used.
- When the device comes online it will allow local access via web (HTTPS port 8443) and SSH (port 22)
- Contact customer support for the access to the factory default password or customer specific device maintenance account
- Devices should not have the network WAN port connected to bridged devices like printers or VoIP phones. The WAN port should go directly to an ethernet cable to a wall outlet connected directly to a network switch in the local environment
- Devices should be placed near the Fax Machine if possible
- Fax Machines are often called MFPs (multi-function printers with fax capability)

Task 1 - Verify the local environment

- From the customer network, ping the 3 test endpoints which verifies that DNS is working and there is not any port blocking affecting traffic test1.fmc.documo.com / FMC Network 1 (70.97.122.0 /24) test2.fmc.documo.com / FMC Network 2 (199.242.63.0 /24) test3.fmc.documo.com / FMC Network 3 (23.175.64.0 /24)
- FMC devices need access to the networks above and HTTPS port 443
- Question - does the device show online in our portal? This could take between 2 to 9 minutes on first time startup
- If the device does not showing online in the portal then ability to send and receive faxes will not function

Task 2 - Reset the device to factory default procedure if needed on a new local network

- Disconnect all cables from the FMC including power, WAN and Phone 1
- Plug in the power adapter
- Wait for the device Power and Status light to turn green
- Press in the indented Reset (RST) on the back with a paper clip and hold for 7 seconds
- Remove connection to the Reset button and the device will restart

- Plug in the WAN and Phone 1 cables
- Wait for the Power and Status light to turn green
- After 2-5 minutes the device should register with the portal and show ONLINE

Task 3 - Verify the network condition

- Check with your network team to get the DHCP address of the FMC device
- Make sure you can ping the IP of the DHCP address assigned to the FMC device on the local network
- Make sure the DHCP lease includes a DNS address that is reachable from the FMC device
- If needed, assigned a DHCP Reserved Address so the FMC device has a consistent IP address
- NEVER use the LAN interface on the FMC device… always use the WAN interface… this is very important as the LAN interface will interfere with other devices in the local environment

Task 4 - Verify the Fax Machine Settings

- The fax machine should have an option for sending capability
- Make sure the Phone 1 connection is plugged into the fax machine Telephone or Fax interface with the RJ11 cable provided with the FMC
- The fax machine should be setup to auto-receive inbound faxes without manual or human confirmation. Options like distinctive ring on the fax machine should be disabled. This configuration would be the same if the fax machine was plugged into a standard analog phone line from the telephone company or FXS/FAX/TEL port on a cable internet service provider.

Task 5 - Test sending a fax from the fax machine

- Send a single page fax from the fax machine. The test page should include the date and time if possible and something unique included on the physical page. Example might be… "Test 1 - Sent from Front Desk in Seattle on Tue Dec 31 at 3:02 PM"
- Make sure to include the country code with the phone number if possible… for example dial "12003004000" where 1 is the country code
- If the fax machine has a handset, you can lift the handset and dial the fax number
- After a few seconds you will hear fax tone if using a handset on the fax machine

Task 6 - Diagnose dialing conditions

- If you have a simple analog handset, plug it into the cable connected to Phone 1… in many cases listening to the audio that comes from a simple handset (when available) will tell the best story of what might be wrong
- Dial an 11 digit fax number like "12003004000"… you should hear fax tone after a few seconds
- If you don't have a analog handset, use the fax machine to test sending faxes

- To see dialing status, log into the FMC device via web interface via HTTPS on port 8443
- When logged into the web interface… go to the System Monitoring section… then the VoIP tab
- Hit refresh to see that Line 1 = Registered
- Hit refresh again to see the current state of Phone 1
- When fax machine is dialing or connected, the Phone 1 state will be "Off Hook"
- When fax machine is idle, the Phone 1 state will be "On Hook"

Task 7 - Diagnose device online status

- During startup the FMC devices will register and updated the network status. This includes the Public IP, Local IP, MAC Address and Firmware
- If the device does not show online access the log information with the following steps

Step 1: Power off the device by unplugging or using the Reboot option in the web interface in the Advanced navigation menu

Step 2: Power on the device

Step 3: The device will start responding to ping requests on the local network after about 50 seconds … in most environments the device will reach out for remote configuration after about 90 seconds… the device should be ready in about 150 seconds

Step 4: Log into the device via web interface… if the device is having trouble reaching outside services and was recently factory reset, then access with default user account (obtain from customer service) via HTTPS port 443

Step 5: Get the log information from the System Monitoring navigation menu… under the System Log set the Component Severity to Information and add a filter for Remote Update with severity Information… hit the "Apply Filters" button and then download the complete log file

Step 6: Look for this information in the log to see if the FMC device can reach the public registration services

Remote Update, Information, update_done (wget_recv_cb) Remote Update, Information, Remote Configuration finished: Success

- Note: These steps will help identify if the device can reach the online services needed to register and run… the log file should be downloaded within 3 minutes of the device restarting to catch the relevant event information

Known Anomalies with the FMC devices

- When Phone 1 is off hook… the light should always be Green
- When Phone 1 is on hook (not in use) it should be blank but sometimes shows Red… this does not mean there is any issue with the device