VODAFONE FIJI - TROUBLESHOOTING GUIDE FOR FIREWALL SERVICES

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Firewall Issue Isolation Guide for Vodafone Corporate Customers

Purpose
To provide customers with a step-by-step guide to perform initial (Level 1) checks in the event of Internet or application connectivity issues, before escalating to Vodafone Fiji NOC.

Pre-Requisites
- Basic understanding of network devices (modem, firewall, switch)
- Access to FortiGate GUI (Limited or full access, if applicable)
- Access to local network cabinet (if safe and permitted)
- Contact for Vodafone Fiji NOC

STEP 1 – Is there power on the equipment?
- Check if modem/ONT, firewall, and switch have lights.
- **IF the lights are ON → go to Step 2**
- **IF any device has NO LIGHTS → Action:**
  - ➢ Ensure power cable is connected
  - ➢ Try another power outlet
  - ➢ Check UPS or power injector
  - ➢ Power cycle the device if allowed
  - ➢ IF the device still has no power → Escalate to Vodafone Fiji NOC

STEP 2 – Is the WAN link light ON?
- Check the WAN port on the firewall.
- **IF WAN light is ON → go to Step 3**
- **IF WAN light is OFF → Action:**
  - ➢ Check if POE cable is connected
  - ➢ Check if POE light is On
  - ➢ Reset the WAN cable
  - ➢ Try another port on the modem/ONT (if available)
  - ➢ Replace the Ethernet cable
  - ➢ If the light is still OFF: This indicates an upstream issue → Escalate to Vodafone Fiji NOC

STEP 3 – Can you access the Internet?
- From any computer, try to open www.google.com
- **IF the page loads → go to Step 5**
- **IF it DOES NOT load → go to Step 4**

STEP 4 – Can you ping 8.8.8.8?
- **On a PC**: ping 8.8.8.8
- **IF ping works (replies received) → DNS issue**
- **Action**:

> ➢ Try to ping your DNS
> ➢ If DNS still fails → escalate to IT team or Vodafone Fiji NOC.

- **IF ping DOES NOT work → WAN or firewall issue**

- **Action**:
  > ➢ Ping the Router Internet Gateway (e.g., 27.x.x.x)
  > ➢ **If ping is successful → go to Step 6**
  > ➢ **If ping still unsuccessful → go to Step 5**

STEP 5 – Can you ping the firewall LAN IP?

- ping Firewall Gateway eg 192.168.x.1
- **IF YES → firewall is reachable → go to Step 6**
- **IF NO → Customer LAN Network issue**
- **Action**:
  > ➢ Check if LAN light is On in Firewall and Switch
  > ➢ if LAN light is not On in Firewall and Switch then replace the patch cable
  > ➢ Try another LAN port on Firewall if its configured
  > ➢ Restart PC if only one user is affected.
  > ➢ Restart Switch
- If LAN still fails → IT team needs to check internal LAN network.

STEP 6 – Is the VPN/Cloud service affected?

- **Question**: Are internal applications (ERP/POS/VPN/Oracle Cloud) down but the Internet works?
- **IF YES → proceed to Step 7**
- **IF NO → issue is the Internet only (skip Steps 7–8)**

STEP 7 – Check VPN/Cloud Tunnel Status
(IT STAFF)

- Log into FortiGate:
- VPN → IPsec Tunnels
- IF tunnel is UP (green) → go to Step 8
- IF tunnel is DOWN → **Action**:
  > ➢ Bring Up Tunnel from Firewall (Click the **Down** option in Status and the tunnel tab will open. Right Click the Tunnel and select Bring Up Entire Tunnel)
  > ➢ If tunnel cannot be restored → Escalate to Vodafone Fiji NOC.

STEP 8 – Are applications slow or timing out?

- If slowness or dropouts happen:
- **Action**:
  > ➢ Check bandwidth monitor in firewall
  > ➢ Identify high usage
  > ➢ Reduce heavy downloads/streaming

> Check if issue occurs at peak hours

> IF high bandwidth usage is detected

> Apply **QoS** or discuss with Vodafone for bandwidth upgrade.

STEP 9 – Is the issue intermittent?

Question:

- Does the Internet drop at certain times?
- Does Wi-Fi drop but LAN works?
- Does everything drop including phones?
- IF only Wi-Fi drops
  - > Wi-Fi issue (Access Point / Controller)
  - > Resolve locally.
- IF only one PC affected → Local PC or LAN cable issue
  - > Replace cable or port.
- IF entire site drops intermittently → Possible causes:
  - > Radio interference (for wireless sites)
  - > Faulty cable
  - > Overloaded firewall
  - > Power fluctuation
  - > If repeated every hour/day → Escalate to Vodafone with timestamps.

WHEN TO CALL VODAFONE FIJI NOC IMMEDIATELY

Do not troubleshoot further if you see any of these:

- No WAN link light after completing above steps
- Complete loss of service and above steps did not work
- High packet loss and no congestion in link
- Latency above normal and no congestion in link
- VPN not connecting
- Modem/ONT overheating

- Call 285 or 2614182 and log a ticket.

WHAT TO SEND WHEN LOGGING A FAULT

Simple & Convenient Reporting Process for ICT Service Faults

- ➢ Customer identifies issue and sends an email to NOC.Fiji@vodafone.com.fj, cc **Account Manager**, logging the following details:
    - Name of company
    - Name and position of person logging the fault, mobile contact and email address of person logging the fault
    - Site name
    - Time issue started
    - Is it constant or intermittent?
    - Services affected
    - Ping results
    - Traceroute results
    - Troubleshooting steps performed

- ➢ Customer to follow through with a phone call to short code 285 or PSTN 2614182 / 8926405 (NOC) and NOC team will register trouble ticket on behalf of customer.

- ➢ Engineer on duty at Vodafone Fiji NOC will call customer and discuss the nature of fault, assign a priority level and provide timeframes within which this will be attended to (target restoration time). Updates will be either emailed or communicated through mobile call.

- ➢ Upon rectification and confirmation from the Customer, trouble ticket will be closed.

Firewall Troubleshooting Flowchart

START

STEP 1 – Is there power on the equipment?
Check if modem/ONT, firewall, and switch have lights.

— ON →

STEP 2 – Is the WAN link light ON?
Check the WAN port on the firewall.

— ON →

STEP 3 – Can you access the Internet?
From any computer, try to open www.google.com

— DOES NOT LOAD →

STEP 4 – Can you ping 8.8.8.8?
On a PC: ping 8.8.8.8

STEP 5 – Can you ping the firewall LAN IP?
ping 192.168.x.1

— YES →

STEP 6 – Is the VPN/Cloud service affected?
Question: Are internal applications (ERP/POS/VPN/Oracle Cloud) down but internet works?

— YES →

STEP 7 – Check VPN/Cloud Tunnel Status (IT STAFF)
Log into FortiGate:
VPN → IPsec Tunnels

— UP →

STEP 8 – Are applications slow or timing out?
If slowness or dropouts happen:

— NO →

STEP 9 – Is the issue intermittent?
Question:
Does the Internet drop at certain times?
Does Wi-Fi drop but LAN works?
Does everything drop including phones?

NO

IF any device has NO LIGHTS → Action:
Ensure power cable is connected
Try another power outlet
Check UPS or power injector
Power cycle the device if allowed
IF the device still has no power →
Escalate to Vodafone Fiji NOC

OFF

IF WAN light is OFF → Action:
Reset the WAN cable
Try another port on the modem/ONT (if available)
Replace the Ethernet cable
If still OFF: This indicates an upstream issue → Escalate to Vodafone Fiji NOC

LOADS

PING PASS

**IF ping works (replies received) → DNS Issue
Action:**
Try pinging www.google.com
Change DNS to 8.8.8.8 or 1.1.1.1 ()
If DNS still fails → escalate to IT team or Vodafone Fiji NOC.

PING FAILS

IF ping DOES NOT work → WAN or firewall issue Action:
Ping the Router Internet Gateway (e.g., 27.x.x.x)
If ping is successful → go to Step 6
If ping still unsuccessful → go to Step 5

PING FAILS

NO

**IF NO → Customer LAN Network issue,
Action:**
Check LAN Firewall and Switch lights
Replace the patch cable if light is not On
Try another LAN port on Firewall
Restart PC
Restart Switch

If LAN still fails → IT team needs to check internal LAN network.

PING PASS

NO

IF NO → issue is internet only (skip Steps 7–8)

DOWN

IF tunnel is DOWN → Action:
Bring Up Tunnel from Firewall (Click the **Down** option in Status and the tunnel tab will open. Right Click the Tunnel and select Bring Up Entire Tunnel)

If tunnel cannot be restored → Escalate to Vodafone Fiji NOC.

SLOW

Check bandwidth monitor in firewall
Identify high usage
Reduce heavy downloads/streaming
Check if issue occurs at peak hours
IF high bandwidth usage is detected
Apply or discuss with Vodafone for bandwidth upgrade.

PC AFFECTED

WIFI DROPS

IF only Wi-Fi drops
Wi-Fi issue (Access Point / Controller)
Resolve locally.

IF only one PC affected → Local PC or LAN cable issue
Replace cable or port.

IF entire site drops intermittently → Possible causes:
Radio interference (for wireless sites)
Faulty cable
Overloaded firewall
Power fluctuation
If repeated every hour/day → Escalate to Vodafone Fiji NOC with timestamps

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WHEN TO CALL VODAFONE FIJI NOC IMMEDIATELY
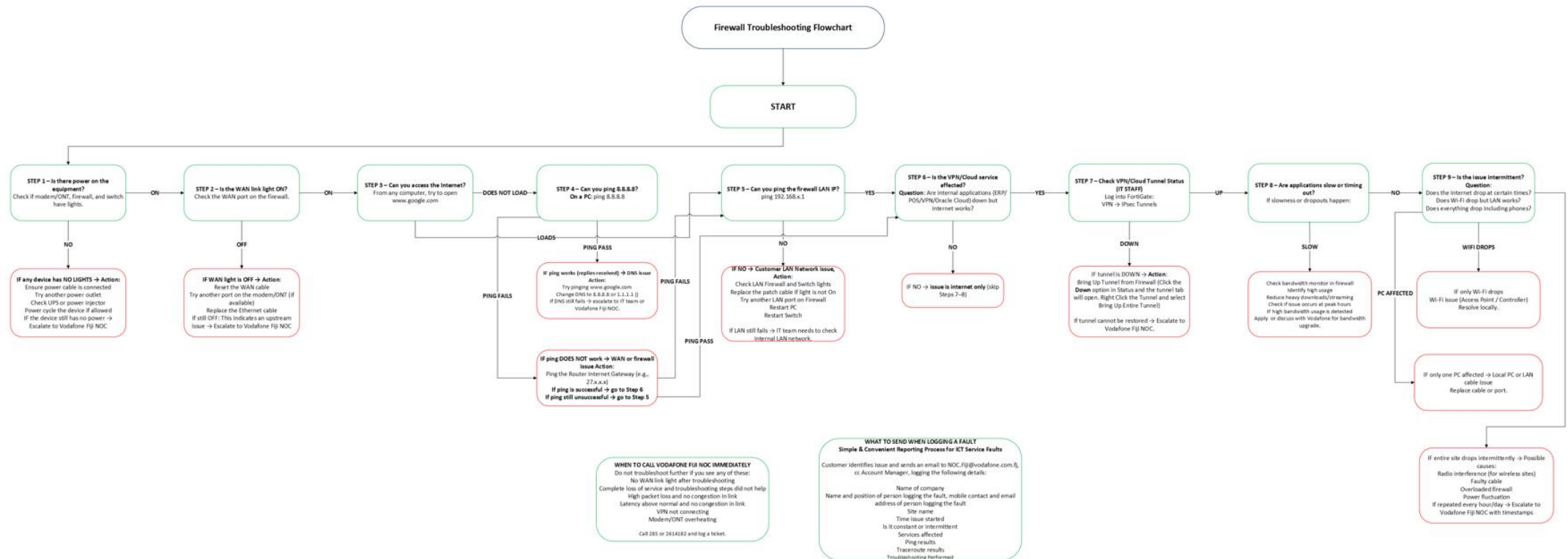Do not troubleshoot further if you see any of these:
No WAN link light after troubleshooting
Complete loss of service and troubleshooting steps did not help
High packet loss and no congestion in link
Latency above normal and no congestion in link
VPN not connecting
Modem/ONT overheating

Call 285 or 2614162 and log a ticket.

WHAT TO SEND WHEN LOGGING A FAULT
Simple & Convenient Reporting Process for ICT Service Faults

Customer identifies issue and sends an email to NOC.Fiji@vodafone.com.fj,
cc Account Manager, logging the following details:

Name of company
Name and position of person logging the fault, mobile contact and email
address of person logging the fault
Site name
Time issue started
Is it constant or intermittent
Services affected
Ping results
Traceroute results
Troubleshooting Performed

vodafone
business

Together we can