

VODAFONE FIJI - TROUBLESHOOTING GUIDE FOR DI & IPVPN SERVICES



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DI & IPVPN Issue Isolation Guide for Vodafone Corporate Customers

Purpose of this Document

This guide is designed to help ICT customers quickly identify where a connectivity issue may be occurring before logging a fault with Vodafone Fiji. By following the steps below, you can determine whether the issue is related to:

- Your local LAN or WAN infrastructure
- Edge equipment (firewall, switches, routers)
- Power or environmental factors
- Radio or fiber link performance
- Vodafone IPVPN or Dedicated Internet Service

STEP 1: Identify the Symptom

- i. No connectivity at all → Go to **Step 2A: Complete Outage Flow**
- ii. Internet is slow but still working → Go to **Step 2B: Slow Internet Flow**
- iii. If only some applications are down → Go to **Step 2C: Partial Application Outage**
- iv. If voice/SIP is failing but internet works, → Go to **Step 2D: Voice/SIP/PRI Issue Flow**

STEP 2A – COMPLETE OUTAGE FLOW

A1. Check Power Supply

Confirm that all the required devices are powered on:

- Firewall
- LAN switch
- Router (if separate from Firewall)
- Radio unit's PoE injector
- Access Points

If any device is OFF:

- i. Power it ON
- ii. Wait 3 - 5 minutes
- iii. Test connectivity again.
- iv. If issue persists after powering device on, continue to **A2**.

If all devices are ON:

- i. Proceed to **A2**.

A2. Check WAN Interface Light on the Firewall/Router

Is the WAN interface light ON?

If NO:

- i. Check the ethernet cable between the radio's PoE injector and firewall/router's WAN interface.
- ii. Reseat the cable firmly.
- iii. If there is still no light on the WAN port, contact Vodafone Fiji NOC immediately.

If YES:

- i. Proceed to **A3**.



A3. Check Internal LAN Connectivity

Can you access internal resources such as:

- file servers
- Printer
- Internal applications

If NO

- i. Issue is likely within the local LAN
- ii. Restart the core switch once.
- iii. If still unresolved, contact your local IT support

If YES

- i. Proceed to **A4**.

A4. Test Connectivity from Edge Device

If you have access to the edge firewall/router, ping the Vodafone WAN gateway IP.

If ping fails:

- i. Likely radio or remote Vodafone base station end issue
- ii. Log a fault with Vodafone Fiji NOC to troubleshoot.

If ping succeeds:

- i. Proceed to **A5**.

A5. Test IPVPN Connectivity (If Applicable)

Ping a remote branch site over IPVPN

If ping fails:

- i. Likely IPVPN path issue
- ii. Log a fault with Vodafone Fiji NOC.

If ping succeeds:

- i. Proceed to **A6**.

A6. Test Internet Connectivity (Dedicated Internet)

Ping Google DNS IP: 8.8.8.8

If ping fails:

- i. Possible Vodafone's backhaul or upstream internet issue
- ii. Log a fault with Vodafone Fiji NOC.
- iii. Provide ping and trace route results for Google DNS IP: 8.8.8.8

If ping succeeds but websites does not load:

- i. Check DNS settings
- ii. Check firewall rules



STEP 2B – SLOW INTERNET FLOW

B1. Run Basic Tests

From a laptop or work station:

- Ping 8.8.8.8
- Traceroute to 8.8.8.8
- Run an internet speed test

If latency and speed is normal:

- i. The issue may be application or device-specific
- ii. Proceed to **Step 2C**.

If the speed is slow:

- i. Proceed to **B2**.

B2. Check Bandwidth Utilization

Using SolarWinds or any monitoring tool:

- Check WAN interface utilization.
- Traffic utilization above 85 to 90% indicates congestion.

Actions:

- i. Pause large downloads or backups.
- ii. Retest speed

If speed improves

- Congestion confirmed.
- Request a bandwidth review from Vodafone

If speed remains slow:

- Proceed to **B3**.

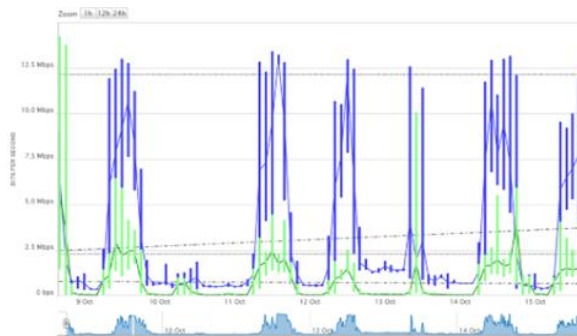
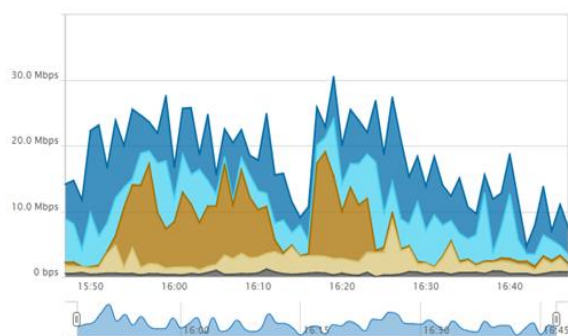
B3. Check Packet Loss and Latency

In SolarWinds or similar monitoring tools,

If Packet loss is greater than 5 percent:

- i. Possible radio link issue causing signal degradation
- ii. Unusual or high traffic spikes causing high latency
- iii. Log a fault with Vodafone Fiji NOC





If NO

- Proceed to **B4**.

B4. Scope of the Issue

Is the problem affecting:

- One site only → Likely site-specific issue.
- Multiple sites
- Escalate to Vodafone Fiji NOC.

STEP 2C – Partial Application Outage

C1. Confirm Impact Scope

Are all applications down?

If YES: Return to Step **2A**.

If NO: Proceed to **C2**

C2. Check Internet Status

Is general internet access working?

If YES, but specific applications are down; likely causes:

- Firewall rules
- Routes on Firewall/Router
- Server Issue

Actions:

- Check if the server is reachable internally.
- Review recent firewall or routing changes.
- Involve local IT support.

If Internet is also slow → Return to Step **2B**.

C3. Review Recent Changes

Check whether any recent changes were made:

- Firewall or security rules



- New devices installed
- Cabling adjustments
- Auto software upgrades
- Network changes done by I.T support

If YES:

- Revert the change and test again.

If NO:

- Log a fault with Vodafone Fiji NOC
- Include ping and traceroute results

STEP 2D – VOICE/SIP/PRI ISSUE FLOW

D1. Scope of the Issue

Are all the phones affected? Check 2–3 different phones

If Yes:

- Return to Step 2A.

If No:

- Check the phones power cable (if not PoE)
- Check the phones data cable
- Reset the data cable

D2. Check call behavior

- Calls not connecting at all → possible SIP trunk or firewall issue
- Calls connect but drop → likely packet loss or high latency.
- One way speech → Check firewall routing
- No service → If no router/firewall present, escalate issue to Vodafone NOC.

D3. Check Network Performance

Using SolarWinds:

- If packet loss present → this affects voice quality.
- Escalate to Vodafone Fiji NOC for link investigation.
- If no packet loss → check PBX, SIP trunk config, or firewall ports.



WHEN TO CALL VODAFONE FIJI NOC IMMEDIATELY

Do not troubleshoot further if you see any of these:

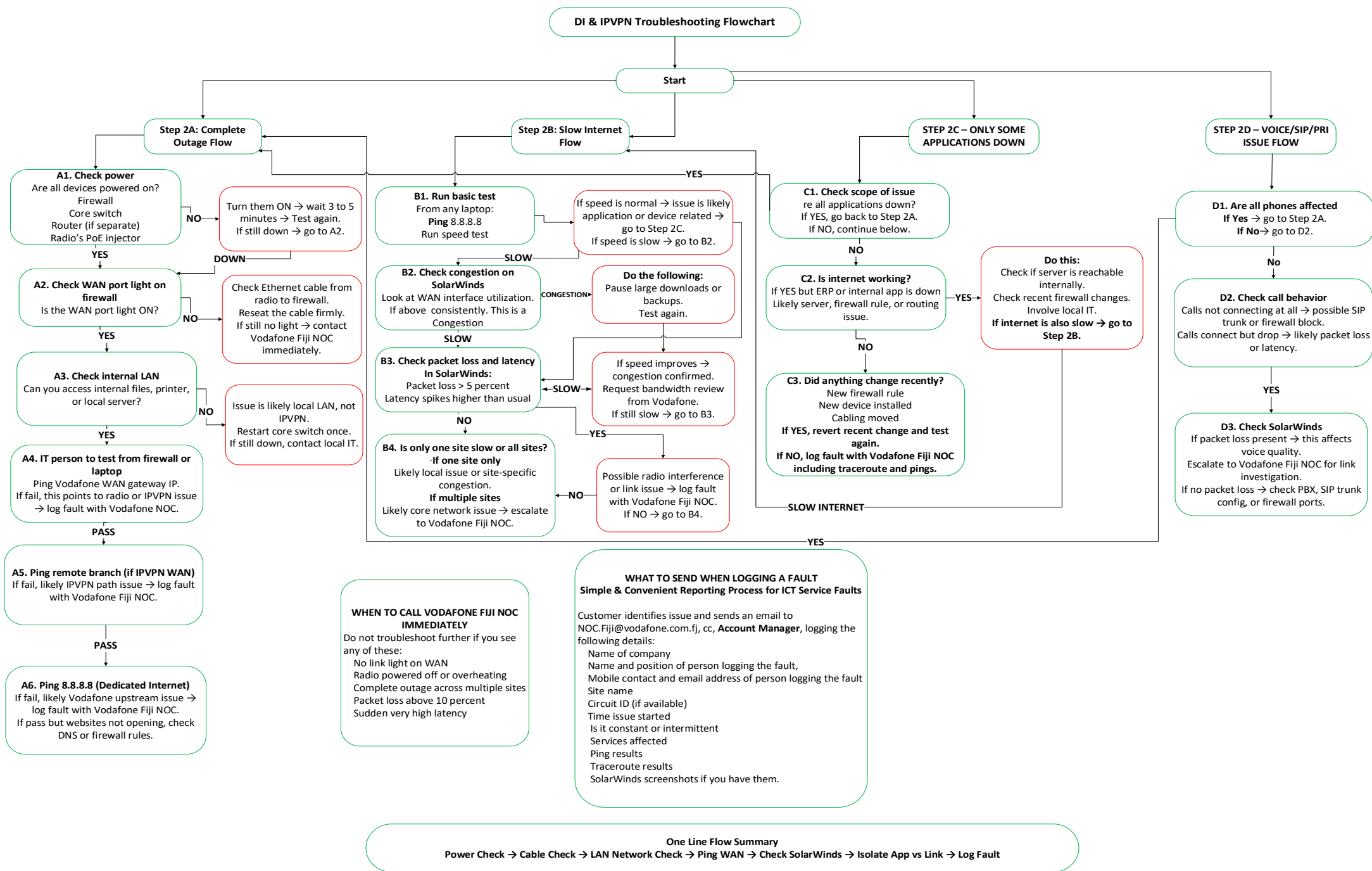
- No link light on WAN
- Radio powered off or overheating
- Complete outage across multiple sites
- Packet loss above 10 percent
- Sudden optimal latency
- Call 285 or 2614182 and log a ticket.

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
 - Circuit ID (if available)
 - Time issue started
 - Is it constant or intermittent?
 - Services affected
 - Ping results
 - Traceroute results
 - SolarWinds screenshots if you have them
- 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.





WHEN TO CALL VODAFONE FIJI NOC IMMEDIATELY
Do not troubleshoot further if you see any of these:
No link light on WAN
Radio powered off or overheating
Complete outage across multiple sites
Packet loss above 10 percent
Sudden very high latency

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:

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One Line Flow Summary
Power Check → Cable Check → LAN Network Check → Ping WAN → Check SolarWinds → Isolate App vs Link → Log Fault



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Together we can