Secure Home Network Deployment Report

User and Router Info
User: Zachary A. Carriker
Router Model: TP-Link AX55 (AX3000 Dual-Band Wi-Fi 6 Router)
Date of Setup: June 23, 2025
ISP: Focus Broadband
Original Gateway: Arris DG9450 (placed in bridge mode)

Network Deployment Summary
- Replaced ISP modem/router combo with TP-Link AX55 to gain full control.
- ISP placed Arris DG9450 in bridge mode, disabling NAT/Wi-Fi functions.
- Connection method: Dynamic IP (DHCP) WAN port of TP-Link.

Security Hardening Checklist (Completed)

Administrative Access:
- Changed default admin credentials
- Disabled Remote Management
- Enabled HTTPS for local admin access
- Verified use of self-signed certificate

Wi-Fi Configuration:
- Created secure custom SSIDs (2.4GHz & 5GHz)
- Set WPA2/WPA3 encryption
- Disabled WPS
- Enabled Guest Network with WPA2/WPA3

Firewall & ICMP:
- SPI firewall enabled
- WAN ping (ICMP) disabled
- LAN ping enabled for diagnostics

DNS Configuration:
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- Set manual DNS: Google (8.8.8.8, 8.8.4.4)

Vulnerability Surface Reduction:
- Disabled UPnP
- Enabled auto firmware updates
- Scheduled monthly auto-reboot

Backup & Monitoring:

- Saved router configuration backup
- Inspected HTTPS certificate behavior

Results & Next Steps:

- LAN and admin interfaces secured
- Guest Wi-Fi segment operational

Optional: VPN, QoS, NextDNS filtering available for future use.

Final Status

Router is fully deployed, secured, and optimized for performance and resilience.