

CHURCH WI-FI NETWORK DESIGN CHECKLIST



Executive Tool for Reliable Event Connectivity

Built for church tech leaders and event coordinators. Use this checklist to design a Wi-Fi network that avoids outages, overloads, and connectivity issues.



How to Use

1. Takes 20–30 minutes
2. Check each box that applies
3. Count the total number of checked items
4. Identify connectivity and performance risks

1

Infrastructure Planning

- Survey event venue layout and client density
- Identify capacity needs (attendees + staff)
- Select appropriate number of access points
- Allocate separate Wi-Fi for staff and guests
- Plan for future crowd growth and events
- Document IP addressing scheme

3

Access Point Setup

- Place access points evenly across venue
- Avoid physical obstacles (walls, metal)
- Set AP power to prevent interference
- Assign non-overlapping Wi-Fi channels
- Use dual-band (2.4 GHz + 5 GHz) SSIDs
- Secure management access to APs

2

Internet & Bandwidth Provisioning

- Confirm internet plan supports peak load
- Test bandwidth during event-like load
- Reserve additional bandwidth for streaming
- Avoid oversubscription for critical services
- Provision failover internet connection
- Validate ISP uptime SLAs

4

Security & Access Control

- Use WPA2/WPA3 encryption for all SSIDs
- Assign separate SSIDs for staff/admin
- Implement guest network isolation
- Disable unused network ports
- Limit broadcast SSID visibility
- Enforce strong password rotation policy



5

Monitoring & Performance Tools

- Enable real-time Wi-Fi performance monitoring
- Monitor client counts per access point
- Track bandwidth usage over time
- Set automated alerts for high load
- Log network events for review
- Validate monitoring before events

6

Event-Day Preparation

- Conduct pre-event connectivity test
- Confirm all APs online and configured
- Verify guest access works on devices
- Assign tech support contact for event
- Test streaming and presentation systems
- Review contingency plan for outages



Scoring Model

- Count the total number of checked items
- Total Possible Score: 36
- 0–12 → High Risk
- 13–24 → Moderate Risk
- 25–36 → Controlled / Testing-Day Ready



Immediate Red Flags

- No bandwidth testing under load
- No network segmentation
- No monitoring configured
- No failover internet connection
- Access points placed without site survey
- No event-day response plan



Next Step

If your score indicates exposure, schedule a Church Wi-Fi Readiness Assessment.

[Church Wi-Fi Readiness Assessment](#)