

# Wireless Printing Terms and Recommendations

ACS Technologies wants to provide its clients with information that helps them configure and use the Zebra GX420d printer on their wireless network. This document provides our recommendations for using the Zebra GX420d printer in a wireless network environment.

Please note that ACS Technologies cannot guarantee the successful use of the Zebra GX420d printer in all wireless environments. Your results may vary depending on your wireless network configuration and hardware.

## Challenges

There are a growing number of people carrying smartphones, iPads, and other devices that are capable of connecting to a church's wireless network. If you have wireless printers, they may perform well during the week, but on Sunday with dozens or even hundreds of people trying to connect wirelessly to the church's network, overall network performance can be adversely affected.

## Recommendations

We recommend using Wireless-N (802.11n) ensuring that all connected devices have good to excellent signal strength and run at least 100 Mb per second.

We recommend a business-class wireless router with WPA2 encryption.

If you offer public wireless access, even if it is only to allow members to connect to the Internet, we recommend setting up a separate, secure wireless network for your printing. This ensures that the public use of the Internet does not consume the bandwidth necessary to maintain mission-critical church network operations.

## Other Factors

Other factors that can significantly degrade wireless network performance:

- Distance between the wireless access point and each computer's wireless antenna
- Density and composition of the walls and floors
- Fire-rated sheet rock
- Concrete construction
- Metal joists and studs
- Air-conditioning compressors
- Microwave ovens
- Other electrical interference

You might need to install multiple wireless access points to ensure adequate coverage and signal strength.

## Conclusion

When setting up your wireless network, you should ensure that you have proper signal strength at each of your workstations and kiosks and that the data transfer rate is adequate. Keep in mind that the signal strength can vary at each location.

Please note that ACS Technologies cannot guarantee the successful use of the Zebra GX420d printer in all wireless environments. For mission-critical operations, we recommend an Ethernet connection. While there are clients successfully using these printers wirelessly, your results may vary due to the complexity and variability inherent in a wireless networking environment.