Customer Tips

… for the user

Wi-Fi Networking and Xerox Multifunction Devices

Purpose

This document describes Wireless Fidelity (Wi-Fi) networking and how to integrate a Xerox multifunction device into a Wi-Fi network.

A wireless network supports all features and options available on a Xerox multifunction device including print, scan to file, LAN fax, scan to email and network accounting.

This document applies to the Xerox products indicated in the table below. For some products, it is assumed that your device is equipped with the appropriate option to support this document.

x	WC 7655/7665
x	WC Pro 232/238/245/255/265/275
x	WC 232/238/245/255/265/275
x	WC Pro C2128/C2636/C3545
x	WC Pro 165/175
x	WC M165/M175
x	WC Pro 32/40 Color
x	WC Pro 65/75/90
x	WC Pro 35/45/55
x	WC M35/M45/M55
x	DC 555/545/535
x	DC 490/480/470/460
x	DC 440/432/425/420

Basics of Wi-Fi Networking

Wi-Fi networks use radio signals to connect devices throughout businesses and homes. Wi-Fi networks are fully functional local area networks, but without the cables. Wi-Fi networks use the 802.11 a/b/g/x standard, an IEEE specification for Wi-Fi networks. Ethernet-like protocols provide the Wi-Fi network with 11 -- 54 MBPS throughput, with fallback rates of 5.5, 2, and 1 MBPS, to all wireless-enabled desktop and notebook PCs on the network. Most Wi-Fi certified products are interoperable, regardless of manufacturer. These products deliver a full-service Wi-Fi network you can use to extend your wired LAN or as a complete cableless network with no sacrifice of performance.

Wi-Fi networks use the 2.4/5 GHz radio frequency to connect devices. They use a PCMCIA form factor card that plugs into a wireless client, typically a laptop or a desktop PC. Wi-Fi clients communicate with access points. Access points plug into a wired infrastructure, and provide 802.11 a/b/g/x access to the Wi-Fi clients. An Ethernet bridge connects a client, such as a Xerox multifunction device, to the Wi-Fi network. The client connects to the bridge that communicates with the access point.

Key Features of Wi-Fi Technology

- Speed - 2.4 GHz direct sequence spread spectrum radio provides an 11 MBPS maximum data rate without line of sight requirements.

- Dynamic Rate Shifting - Rates fallback to 5.5 MBPS, 2 MBPS, and 1 MBPS when RF conditions deteriorate.

- Local Area Range - Wi-Fi technology has a range of up to 100 meters (328 feet) in office environments.

- Reliability - An Ethernet-like link-layer protocol combined with packet recognition provides reliable data delivery and efficient use of network bandwidth.

- Power Management - Wi-Fi PC cards can go to sleep, and access points can buffer messages to these clients (to enhance notebook battery life).

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- Roaming Support - Enables seamless roaming between access points as a user moves across a building or campus.

- Load Balancing - Wi-Fi PC cards and PCI adapters change access points if the signal degrades or the current access point becomes congested.

- Scalability - Co-locate up to three access points in a given coverage area to support hundreds of users.

- Voice and Data Support - Wi-Fi certified products support simultaneous voice and data channels.

- Security - Most products come with built-in 40-bit Wireless Equivalent Privacy (WEP) encryption and authentication. In addition, many wireless products offer 128-bit encryption with unique session keys.
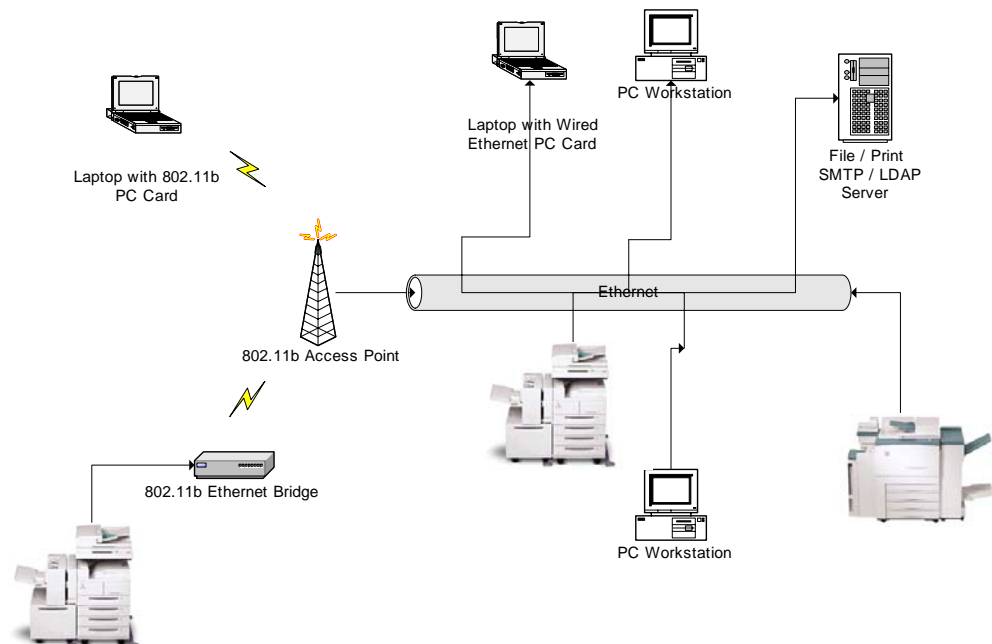
Benefits of Wi-Fi Networks

- Employees gain improved productivity with increased access to company resources anywhere within range of an access point—including conference rooms, colleagues' offices, training rooms, and branch offices.

- Network setup can include location of devices in non-wired settings such as asbestos-insulated buildings, clean rooms, plaster-walled structures and older, solid-walled buildings.

Connecting the Xerox Multifunction Device to a Wireless Network

To communicate with the Xerox multifunction device on a Wi-Fi network, connect the device's Ethernet port with an Ethernet 802.11 a/b/g/x compatible wireless Ethernet bridge.

The following illustration of a 802.11b Wi-Fi network includes a Xerox multifunction device with a Wi-Fi network connection. This device communicates fully with all devices on the Wi-Fi network, as well as, those connected to the wired Ethernet network.

Compatibility

Xerox devices operate with a broad range of adapters for WIFI (802.11 a/b/g/x) and Bluetooth adapters. The wireless adapter interprets the Xerox device as an Ethernet device.

Additional Information

Xerox Customer Support welcomes feedback on all documentation - send feedback via e-mail to: USA.DSSC.Doc.Feedback@mc.usa.xerox.com.

You can reach Xerox Customer Support at 1-800-821-2797 (USA),
TTY 1-800-855-2880 or at http://www.xerox.com.

Other Tips about Xerox multifunction devices are available at the following URL:
http://www.office.xerox.com/support/dctips/dctips.html.

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