NETGEAR®
Connect with Innovation™

Solution Overview

Considerations for Configuring an Efficient Network Solution for a Retail Store or Restaurant

Introduction

Like most small businesses, retail stores and restaurants rely on network connectivity for their daily operations. Employee computers require Internet connectivity, while inventory control systems, customer databases and POS systems all require access to one another, via the internal network. Network configurations can vary dramatically, based on speed requirements, store configuration and the number and types of network assets. Will wired, wireless, or a combination of the two be employed? Will guest or public access be allowed, in addition to the company's private network? Will surveillance cameras be used? Will the number of networked devices cause bandwidth and latency issues? The answer to each of these questions will have an impact on the final network configuration.

Wired versus Wireless Connectivity

Wired and wireless connectivity each has their place in business environments. Wired connectivity requires physical connections to and from each device. If the physical cabling infrastructure is already in place, wired connectivity can offer higher performance and lower cost. If the physical cable infrastructure is not in place, wireless connectivity can be more efficient with a quicker time to deploy, allowing the user to connect from any part of the business that is covered by the wireless infrastructure. Additionally, the latest generation of wireless systems can operate at the same or higher speeds of many wired networks, with state-of-the-art encryption and access control policies to protect against unauthorized access.

For most retail stores and restaurants, a combination of wired and wireless devices will provide the best solution. Where speed is important and physical cable infrastructure is available, wired devices are cost-effective and simple to deploy. However, throughout public areas, meeting rooms and open plan offices, where limited access and unsightly wires can create unreasonable challenges, wireless connectivity can provide a clean, straightforward way for devices to connect to the network. These two technologies can be mixed and matched to produce a customized solution that solves specific business needs and fits with budgetary constraints.

Providing Wireless Connectivity for Customers

While providing wireless access can go a long way toward encouraging additional business, it also carries additional security, access control and privacy concerns. Wireless solutions need to support industry leading encryption to secure the transport of data across the wireless spectrum. In addition, these systems need to provide access control capabilities by integrating with the organization's existing authentication systems. Non-employee access can supported by the wireless system through the creation of a separate 'guest' networks, which effectively separates the guest traffic from that of employees, and prevents access to company servers, applications and other assets.

Surveillance cameras

The usage of video surveillance systems has grown dramatically in businesses over the past decade, to reduce theft, improve staff security and provide superior customer service. As with other operational assets, performance and availability of the surveillance system is key. However, configuring and deploying a robust surveillance system can present significant challenges. First, the location where each camera is to be placed will determine whether a wired or wireless model is required. Additionally, cameras should reside on a secure network subnet to limit access to this critical resource from unauthorized employees.

Speed and Efficiency of the Network

There are a wide range of applications in use by most businesses today. In addition to traditional client/server applications and email systems, businesses also frequently support instant messaging, VoIP, video streaming, social networks and other peer-to-peer (P2P) applications. Delivering these applications across the business in real time presents challenges for IT departments. Switches play a critical role in the delivery of applications within quality of service (QoS) guidelines. Many switches support QoS, Power over Ethernet (PoE), high availability, link aggregation and load balancing to ensure applications are delivered reliably, on time and within acceptable service levels.

NETGEAR® Solution

NETGEAR® provides reliable, high-performance, business-class networking products that are designed to meet the needs of small and mid-size businesses like retail stores and restaurants. Each product line includes a wide range of configurations and features, for a customized solution that fits the specific needs and budget of a retail store or restaurant.

ProSafe® Gigabit Smart Switch

The NETGEAR ProSafe® Gigabit Smart Switch was designed to provide growing businesses with control over their network, without the cost and complexity that accompanies fully-managed switches. These Smart Switches support wired and wireless connections to effectively manage all the assets on the network, and effectively separates business and customer access to prioritize business-related traffic and limit guest Internet access. The ProSafe PoE Smart Switches, such as the newly released GS110TP also provide power and data through the same port, to power Wireless Access Points and IP surveillance cameras – for maximum deployment flexibility.

Wireless Access Points

All NETGEAR ProSafe wireless access points deliver secure; reliable; and high-performance wireless local area networks (WLANs). NETGEAR wireless access points support multiple wireless LANs, so surveillance cameras, POS systems, employee wireless traffic and customer access can be easily separated – maximizing available bandwidth and ensuring business network security. ProSafe wireless access points provide a reliable centralized wireless management solution that is easy to use.

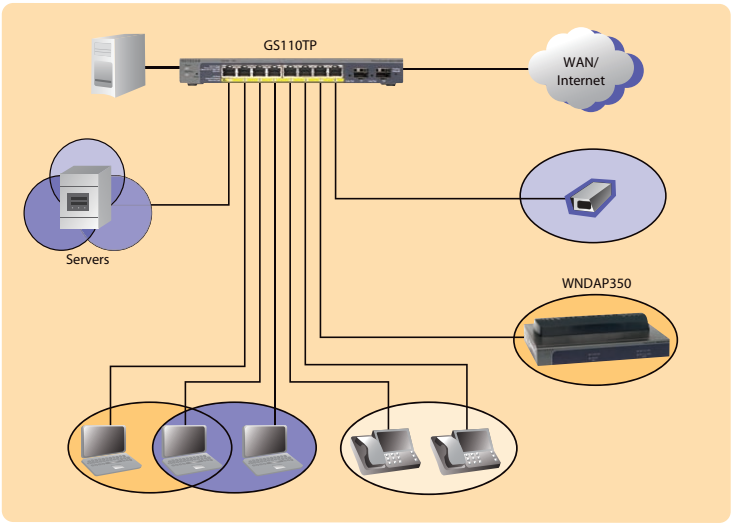

Diagram: An Example of a Retail Store Network

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