

WHITE PAPER:

Guest Wi-Fi 101: A Retailer's Guide to Captive Portals and Location Analytics

How to Leverage Guest Wi-Fi to Optimize the Customer Experience, Tailor Marketing Efforts, and Gather Data on Customer Behavior





EXECUTIVE SUMMARY

Customers have come to expect on-demand Internet connectivity while they shop, and retailers who don't provide network access are not delivering the best customer experience. That's why many retailers have implemented a guest wireless network.

A guest wireless network enables retailers to meet customer expectations for free, reliable Internet access while protecting business applications and data on the corporate network. However, guest Wi-Fi can be more than just a convenience for customers — it can enable retailers to target customers with tailored promotional/marketing messaging and gather data that provides insight into customer demographics and behavior.

The captive portal which customers use to access the guest Wi-Fi network can help retailers identify high-value customers through their network usage patterns and manage network traffic to optimize the user experience. It can also display targeted messaging and help drive marketing campaigns during certain times or to specific locations.

Wi-Fi location analytics enable retailers to track the movement of customers through the store. This data can be used to optimize store layouts, displays and even staffing levels to boost sales.

This whitepaper offers a primer on guest Wi-Fi networks and looks at ways to maximize the value of the captive portal and location analytics. It also explains how SageNet's guest Wi-Fi solutions provide retailers with advanced capabilities that give them the competitive edge.

GUEST WI-FI BASICS

A guest wireless network is implemented through the use of a virtual LAN (VLAN) to segment visitor traffic from the rest of the network. Firewall policies are set to block access to other network segments while providing an open gateway to the Internet. This prevents unauthorized users from accessing company data and resources and helps prevent the spread of malware that may exist on visitor devices. Many retailers also implement content filtering on guest networks to block access to inappropriate sites and materials that could damage the company's brand or bring legal liability.

Customers typically connect through a captive portal (login page) that has a legal disclaimer releasing the retailer from any liability of a user's online actions and potential repercussions. At a minimum, guests

should have to agree to the retailer's acceptable use policy, although some retailers require guests to enter a password, provide their email address, or link social media accounts. While such restrictions can be valuable, a guest wireless network should be simple for customers to use and access, and easy for IT to manage and monitor. Complex login processes frustrate users and waste the time of employees who have to help visitors connect to the guest network.

It is also important to provide a high-quality experience. Guests will be sharing Wi-Fi bandwidth so the network should be engineered to handle peak times of the day. In addition, traffic should be managed to ensure that online activity related to the business is given priority over visitor activity. A rate control policy can prevent guests from slowing your network to a crawl.

Guest Access and PCI Compliance

Hackers looking to steal payment card data often try to gain entry through the wireless access points provided for visitors. The Payment Card Industry Data Security Standard (PCI DSS) recommends that point-of-sale systems use a separate WAN circuit than the guest wireless network. If one circuit is used, the guest wireless network must be properly segmented from any in-scope cardholder environment systems.



MAXIMIZING THE VALUE OF THE CAPTIVE PORTAL

The captive portal can do much more than simply enable guest access. The landing page can be customized with the retailer's branding and even display advertisements and other promotional messaging. When the portal is integrated with the retailer's content management platform, the portal can even vary the messaging based upon location, time of day, and other criteria.

More importantly, the portal can capture data on how long and how often a guest stays logged onto the network, enabling the retailer to identify high-value and repeat customers. This segmentation can be used to provide marketing teams with the necessary prompt to promote loyalty programs or current sales promotions which may provide appealing incentives to the customer. IT teams can also use this segmentation data to give loyalty members "premium" access with greater bandwidth or extended usage time. In addition, loyalty programs can also simplify wireless onboarding by providing a seamless experience to customers who may roam between different brick-and-mortar locations under the brand or parent brands after their initial login session. In turn, the network recognizes the loyalty member's device as it enters a location and automatically grants them access to the Wi-Fi and any available loyalty perks; all without having to log back in through the portal as they would in the pleasure of their own home.

If guests log in through social media or an email address associated with a loyalty program, the captive portal can provide statistics on the customer's gender, age, interests and other demographic information. This data can be used to drive opt-in email, text messaging or social media campaigns. The captive portal can also be integrated with loyalty programs for the delivery of customized content and services to customers while they're in the store.

Controlling Guest Network Usage

Best-in-class captive portals can be used to limit the duration of user sessions during the busy times of the day and to shut down the guest network after business hours. This is particularly valuable for convenience stores and other retailers that extend Wi-Fi access to parking lots. An open Wi-Fi network encourages people to loiter in the parking lot after hours, bringing complaints from nearby businesses or residents.



UNDERSTANDING LOCATION ANALYTICS

Even when customers aren't connected to the guest wireless network, their devices are constantly sending signals to find available networks. The strength of these signals can be used to triangulate the location of the device much like how GPS satellites function. Armed with this data, retailers can track the movement of every customer who enters the store without necessarily knowing the customer's identity.

Wi-Fi location analytics applies a series of advanced algorithms to this data to provide insight into the behavior of individual customers and larger trends over time. Retailers can distinguish people that walk by the store and those that actually enter. They are also able to determine which sections of the store a customer visits, when they visit, in what order, and how much time they spend at each stop.

Advanced heatmapping technology can also help a retailer determine not only which areas of a store receive the most traffic, but where customers are spending the most time engaging products and services. Path clustering can indicate different customer journeys, allowing retailers to focus marketing and operational efforts to improve their experiences. Points of interest can be used to assess the level of engagement with in-focus products, marketing collateral, or displays experience. When combined with point-of-sale data, location analytics can help retailers determine the impact of store layouts on sales and profits.

Wi-Fi location analytics also allow retailers to test different strategies to determine what works best. It allows them to visualize activity, showing where customers spend their time during different parts of the day. Retailers can compare and analyze behavior based on a number of factors, such as layout, promotions and staffing levels

Wi-Fi Location Analytics Is Hot

According to Research and Markets, the Wi-Fi location analytics market is expected to grow at a rate of more than 13 percent through 2021 and more than double in size from \$5.72 billion to \$12.2 billion. More and more organizations are turning to existing Wi-Fi deployments to better understand customer needs and preferences, optimize the customer experience and gain competitive advantages.



NEXT-GEN GUEST WI-FI SOLUTIONS

Next-generation guest Wi-Fi solutions, such as SageNet's captive portal, take guest Wi-Fi to the next level through device tracking and zone mapping, advanced analytics, and integration with other business applications. One-time enrollment of all devices enhances the customer experience through hassle-free access on return visits.

The latest captive portals are also highly customizable. The Wi-Fi partner sits down with the retailer to determine what information the organization would like to capture, and the specific functionality needed. In most cases, the retailer's IT and marketing teams are involved in this process as stakeholders.

These advanced, and even custom, solutions also offer sophisticated Wi-Fi location analytics that can be applied to a wide range of use cases. Machine learning enables first-of-its-kind market segmentation and traffic prediction algorithms, allowing retailers to understand their customers at a whole new level.

CONCLUSION

A guest Wi-Fi network is a basic amenity that retailers should provide for customers. Retailers should leverage guest wireless access to capture valuable data and drive promotional efforts to maximize their return on this investment.

The captive portal which customers use to log in to the network should be viewed as an important point of interaction. Retailers should capitalize on this touchpoint with targeted messaging and leverage network usage data to enhance customer profiles. Location-based networks can provide behavioral data even if customers don't log in, enabling retailers to fine-tune store layouts, displays and more.

SageNet offers sophisticated guest Wi-Fi solutions that provide advanced tracking and analytics and integration with other applications. A consultative approach to design and implementation ensures that retailers get the right solution to meet their IT and marketing requirements and give them that competitive edge.

ABOUT SAGENET

SageNet is passionate about trusted connections. The company believes that by creating, discovering and nurturing trusted connections with its customers, associates and community, SageNet enhances the world that connects us all.

As a leader in managed network and cybersecurity services, SageNet connects, manages and protects technologies and devices across the enterprise. SageNet's collaborative approach provides peace of mind and systems-confidence that empowers an organization to focus on its core mission.

The company offers world-class service and support via its three US-based 24/7 Network Operations Centers (NOCs) and Security Operations Centers (SOCs), geographically-diverse teleports, a central National Logistics Center, multiple data centers, and a nationwide field service organization.

With a three-decade track record in managed services, SageNet boasts a long-term customer base that includes the nation's largest retail, healthcare, financial, utilities and energy organizations. SageNet manages communications at more than 220,000 endpoints. Headquartered in Tulsa, SageNet has regional offices in Washington, D.C., Atlanta, Chicago and Philadelphia.