WiDIRECT

&

WiCLIENT

Building Smarter WIFI Control

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Contents

Introduction

There has been lots of well-deserved buzz lately about 4G mobile phone technology, but it is important to remember that virtually every electronic consumer device produced today, from laptops and desktops to gaming consoles, to tablets, to cell phones, has one common feature: built-in Wi-Fi compatibility. Wi-Fi is used by over 700 million people, there are over 4 million hotspots around the world, and about 800 million new Wi-Fi capable devices will be produced this year alone. So, Wi-Fi continues to play a major role in the communications world, even though it is not front page news. It presents clear opportunities to connect to an enormous number of people through the vast array of Wi-Fi capable devices used as tools for running offices or stores, as an amenity to attract shoppers, and as a way for retailers to communicate with them -- through coupons, specials, advertisements, or just welcome messages -- while they are shopping. Companies selling Wi-Fi services, and those using Wi-Fi in the Enterprise, can leverage their public-facing Wi-Fi capacity to better serve their customer base -- and in doing so, increase their bottom line. Those offering Wi-Fi connectivity are also well-advised to maintain firm control of their systems, and to assure high security to prevent inappropriate or illegal use.

Connecting customers to the Internet and centralizing management, control and security is normally expensive, and often doesn't properly address public access needs. Services that are available on hosted platforms that will authenticate users at a cost of around a $1 per account, but won't allow you to change splash screens or content easily and generally won't provide the host business with user information. There is typically also an ongoing maintenance fee, so while the service to the end customer might be free, as connections increase the host business can be caught in the middle.

WiDirect and WiClient Solutions

The WiDirect and WiClient from AllCity Wireless (ACW) are very flexible, very secure, and much less expensive solutions to deploy, for managing, monitoring and maintaining Wi-Fi systems. The WiDirect and WiClient product lineup is designed to make centrally controlled Wi-Fi deployments easy, inexpensive and 100% customizable. WiDirect and WiClient architecture can manage any type of network, whether it is a single AP in multiple locations, or a group of meshing access points in a city center, or fixed point to multipoint wireless, or wired access in public buildings.

WiClient technology, which causes WiClient-equipped devices located anywhere in the world to connect to and be controlled by a corresponding WiDirect central server, can be incorporated in a remote appliance which manages a group of access points, and it can also be flashed onto individual, inexpensive, access points.

There is no need for any of the system's devices to have public IP addresses, and VPNs are also not required. WiClient's patent-pending technology allows communications to traverse NAT routers and firewalls, and make use of any type of connection that allows access to the internet.

A WiDirect maintains complete, centralized control over each remotely-located WiClient device, whether appliance or access point, and can fully and dynamically customize the device (and re-customize it whenever desired), manage who can use the Wi-Fi, and what access to what content over the Internet. So, the owner will derive value in a variety of ways, and can attract customers to its stores while discouraging "parking" and free-riding. The WiDirect WiClient solution will:

* provide its customers any desired (by the store owner) level of access to the Internet, which can vary by customer and by individual outlet, and by state, country or region;

* identify its customers through a central authentication server by the unique indicator embedded in each user device, or by login information provided by the user in response to prompts;

* be able to require customers to view one or more advertising pages prior to obtaining Internet access;

* be able to track usage patterns of repeat customers;

* be able to offer customers any combination of free, "free-with-purchase" and prepaid access (including walled garden content) based on frequency or aggregate amount of purchases, or any other criterion;

* be able to offer different tiers of service

for customers, employees, contractors, "drive-bys," etc. and limit bandwidth and the amount of time each category of user can be online.

The WiDirect is 100% customizable, and virtually every WiDirect deployment has a unique feature or meets a unique need. The ACW team has the ability to customize each system to accommodate the full range of customers needs. Each WiClient has the capability to impose, by individual user or by any number of user classifications, any restrictions on Internet access that might be wished:

* access limited to pre-specified websites, or
* access limited to pre-specified websites and also the advertisers embedded in those websites, or
* maximum aggregate period of connection time, or
* a maximum connection time per any given time interval, or
* maximum aggregate throughput, or
* maximum instantaneous throughput rate, or
* restrictions on time of access to specific windows (e.g., 9am – 10pm), or
* any combination of the above, in further combination with free or prepaid pricing schedules, or
* otherwise impose any terms and conditions or other functional restrictions as may be wished.

In addition, WiDirect includes the capability to process and clear credit cards through individual access points with no further cost or third-party involvement (Merchant Account Required). WiClient access points can also be combined with security cameras to provide monitoring and verification of employee performance and customer patterns. Last but by no means least, the WiDirect and its WiClient access points are very secure, and protect the system against

attacks and also discourage/prevent its use for illegal activities.

These systems are operated in the United States as well as worldwide. WiDirects and WiClients operate in retail settings, franchised restaurants chains, fixed point to multi-point wireless, MDUs, marinas, military bases, sporting events, concerts, hospitals, and colleges. WiDirect and WiClient architecture is the most comprehensive and flexible solution for public Wi-Fi access through dedicated or multi-use wireless networks.

Unique User Experience

With multiple SSID and VLAN support, the WiDirect and WiClient access points make it easy to create multiple networks for different classes of users. One SSID can be public and require users to purchase access, while another SSID can be private and can bypass the login process entirely by virtue of Mac address, or a separate VLAN. The possibilities on classes of service are infinite. If you can think of it, WiDirect and WiClient architecture can make it happen.

Monitoring and Troubleshooting

WiDirect generates and displays Transient Link graphs of all meshing access points. By clicking on the access point's link icon in the *Access Point Monitor*, you will be presented with an overview page that shows general statistics such as bandwidth utilization strength including the number of transmit errors and receive signal strength along with other information that will be useful when troubleshooting. This type of data is extremely helpful and shows exactly what is happening if users experience problems.

Configuration and Scalability

Configuring the WiDirect is very intuitive and very easy to learn. The GUI allows administrators to make network and configuration changes on the fly as well as change access plans and branding at a moments notice. This is very valuable function, and also makes it possible to resolve issues and update settings without a truck roll. That makes a big difference when the remote network is hundreds, if not thousands of miles away.

Implementation

The WiDirect is ready to manage any network straight out of the box. With its built in Authorze.net and PayPal support, you can begin making money minutes after appliance starts up. Just because the WiDirect is easy to install and run does not mean it isn't capable of more advanced functionality. Firewall, DHCP, DNS, Web Hosting, Proxy Services, and Dynamic Walled Garden support are but a few of the services that the WiDirect effortlessly provides, and that will support a complete, efficiently run Wi-Fi or WiMAX network. WiDirect can also be layered into any existing network to carve out a portion of network capacity for public access, all the while preserving the original design and intent of the Wi-Fi, making WiDirect the most comprehensive and complete Wi-Fi management on the market.