



## **Metropolitan Area HotZones for Municipalities** ***Cost-Effective High-Speed Internet Access for a Broad Range of Uses***

Metro Area Wi-Fi HotZones can provide municipalities with a host of benefits, including:

- High-speed Internet Access (HSIA) for citizens, guests, and nomadic users – this helps to stimulate business, bridge the “digital gap,” support tourism and enhance the city’s image
- High-speed access for metro-specific uses like traffic management systems and utility meter reading systems
- Improved communication and civic awareness using broadly-available community calendar
- Ad hoc networks for conventions, festivals, special events or emergencies

Nomadix offers solutions that address the critical security, management, and billing issues associated with wireless public networks.

### **Benefits of the Nomadix Solution for Metro HotZones**

- *Multi-use* – High-speed connectivity for residents, businesses, government organizations, and visitors
- *Multi-revenue* – Multiple revenue streams from residential, business, and visitor users; plus location-aware services such as advertising, contribute to rapid return on investment
- *Plug and play* – Nomadix simplifies the end user connection experience better than other solutions, which dramatically reduces support costs and improves customer satisfaction
- *Secure guest access* – Nomadix offers superior security for both permanent users and guests accessing metro public wireless networks
- *Superior network security* – Nomadix offers robust network security features to protect against malicious attacks and hackers

### **Why Choose Nomadix?**

Nomadix has become a leading supplier of Gateway solutions for metro area Wi-Fi networks, with dozens of successful metro installations completed. Actively working with municipalities, utility companies, service providers, and other vendor partners, Nomadix is committed to providing the hardware and technology needed to make network deployments successful for all entities involved. In addition, the Nomadix solution offers superior stability and scalability – both important benefits as metro networks grow.



**Key features provided by the Nomadix solution include:**

- *User Security* – Nomadix offers industry-standard VPN support for PPTP, IPsec, and adds its patented iNAT technology that allows multiple VPN tunnels without requiring many public IP addresses to provide all users with high levels of security.
- *Network Security* – To protect against Denial of Service (DoS) attacks, Nomadix features Session Rate Limiting (SRL), MAC filtering, and ICMP packet blocking from non-authenticated users. Additionally, Nomadix supports Tracking Logs for Lawful Intercept initiatives.
- *Support for Disparate Wireless Clients* – Nomadix' Dynamic Address Translation (DAT) technology makes sure all users can get connected, regardless of system or browser configuration.
- *User Authentication* – Nomadix simultaneously supports multi-mode authentication, including browser-based, Smart Clients, 802.1x, and features WISPr-compliant RADIUS support for billing flexibility. A walled garden feature presents select web pages to users before authentication, allowing cities to present information on how to connect as well as current information such as community calendars and events.
- *Billing Management* – Seamless integration with existing systems and integrated RADIUS server allow user identification and billing using MAC addresses, username/password, or port; billing using PayPal, facebook, credit cards, scratch cards, or monthly subscriptions; and the ability to bill by time, volume, or bandwidth.
- *Management and Administration* – Nomadix Access Gateways and other NSE-enabled devices feature remote web-based management using standard CLI (Telnet, SSH, and serial) interfaces and extensive SNMP support. RADIUS-driven auto-configuration simplifies initial gateway deployment and allows centralized management of all NSE-enabled devices within the HotZone.
- *Ability to Support Roaming Users* – Nomadix Intelligent Roaming feature allows visiting subscribers to access the HotZone using existing Wi-Fi subscriptions like IPass.
- *Home Page Redirection* – Redirects the HotZone user's browser to the city's sign-up page, with the ability to redirect both pre- and post-authentication. This gives the municipality significant opportunities to provide community information or leverage marketing and promotional opportunities with local businesses.
- *Policy-Based Traffic Shaping* – Allows bandwidth usage to be controlled by minute, hour, day, or week on a per-device basis.

Generating revenue from residents, businesses and visitors contribute to rapid return on investment for the HotZone. Because the Nomadix solution easily supports visitors, guests, and roaming users, as well



as flexible billing and service options, it’s easy for a municipality to set up a variety of ways to charge for high-speed Internet access.

Nomadix also helps reduce the cost of running a metro HotZone by providing a superior plug and play experience, which can significantly reduce connectivity issues. Clearly, reducing or eliminating the number of support calls, even by a small percentage, can greatly improve the profitability prospects for the metro network. Nomadix offers the most effective plug and play experience available for public access networks – not only reducing support needs, but also providing users with a much better connectivity experience.

**Nomadix Solutions for Metro Area HotZones**

<b><i>Nomadix Gateway</i></b>	<b><i>Description</i></b>
AG 5900 (8,000 users) AG 2500 (500 users)	Nomadix Gateways provide functionality for: <ul style="list-style-type: none"> <li>• Customer Acquisition</li> <li>• Service Provisioning</li> <li>• Multi-mode Authentication &amp; Access Control</li> <li>• Advanced Security</li> <li>• Billing Plan Enablement</li> <li>• Global Roaming</li> </ul>
<b><i>Nomadix Service Engine (NSE)</i></b>	<b><i>Enables:</i></b>
NSE Core Software (on all Gateways) NSE High-Availability Module NSE Load Balancing Module NSE Routed Subscriber Module	<ul style="list-style-type: none"> <li>• Plug And Play via patented Dynamic Address Translation (DAT)</li> <li>• Home page redirect for information or promotional uses</li> <li>• Multiple VPN tunnels for per-user security</li> <li>• Supports layer 3 WLAN, MESH and other routed networks</li> <li>• Allows data packets to be classified and marked so they can be acted upon</li> <li>• Web-based and auto-configuration for ease of deployment and support</li> <li>• Policy-based traffic shaping for granular control of bandwidth usage</li> <li>• Link Aggregation and Failover across multiple ISP connection</li> <li>• Hardware failover</li> <li>• Clustering providing a design capacity up to 2 million subscribers being served</li> </ul>