WISPr 1+
SECURE, SEAMLESS Wi-Fi AUTHENTICATION FOR SERVICE PROVIDERS

To facilitate Wi-Fi connectivity, the industry introduced WISPr 1.0, a protocol which automated the exchange of user name/password credentials with public Wi-Fi HotSpots.

In 2010, Accuris introduced WISPr 1+ extensions to the WISPr protocol which overcame the security flaws and subscriber management complexity of the initial specification.

Today WISPr 1+ is used by Wi-Fi roaming service providers worldwide to offer seamless, secure access and authentication on WISPr-enabled Wi-Fi networks.

WISPr 1+ AUTHENTICATION

WISPr 1+ AUTHENTICATION
A MORE SECURE Wi-Fi CONNECTION MANAGER PROTOCOL.

EXISTING WISPr INFRASTRUCTURE
WISPr authentication is supported in Wi-Fi hotspot networks worldwide. WISPr 1+ makes use of the exact same infrastructure.

CARRIER-CENTRIC AUTHENTICATION
WISPr 1.0's simplistic usr/pwd credentials de-couple the subscription and the device. WISPr 1+ ties a subscription to a subscriber and to their device.

EXISTING SUBSCRIBER DATABASES
Service Providers want to use existing subscriber databases and credentials, and not be forced to create a new usr/pwd system for Wi-Fi access. WISPr 1+ can use virtually any subscriber credentials.

PUBLIC KEY ENCRYPTION
WISPr 1+ uses a Public Key Encryption system to encode the WISPr 1.0 password, as well as create a unique password per authentication, guaranteeing users can't share access credentials.

PASSPOINT™ READY
Service Providers want to offer Wi-Fi access to SIM and SIM-less devices, on a range of operating systems. WISPr 1+ is compatible with the evolution to the WFA's Passpoint/HotSpot 2.0 initiatives, bridging the gap for seamless, device authentication.
### COMPARISON OF Wi-Fi CONNECTION MANAGER PROTOCOLS

<table>
<thead>
<tr>
<th>Feature</th>
<th>WISPr 1.0</th>
<th>802.1x</th>
<th>Passpoint™ Release 2</th>
<th>WISPr 1+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support usr/pwd</td>
<td>Y</td>
<td></td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Dynamic credential exchange</td>
<td></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Smartphone/ SIM (AKA)</td>
<td></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Variety of credential support (IMSI, email, MSISDN,..)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support non-SIM devices (Laptops, Tablets,..)</td>
<td>Y*</td>
<td>Y*</td>
<td>Y*</td>
<td>Y</td>
</tr>
<tr>
<td>Downloadable Client</td>
<td></td>
<td>Y</td>
<td>Y*</td>
<td>Y</td>
</tr>
<tr>
<td>Supported on Android</td>
<td>Y</td>
<td>Y*</td>
<td>Y*</td>
<td>Y</td>
</tr>
<tr>
<td>Supported on iOS</td>
<td>Y</td>
<td>Y*</td>
<td>Y*</td>
<td>Y</td>
</tr>
<tr>
<td>Uses existing WISPr infrastructure</td>
<td>Y</td>
<td></td>
<td></td>
<td>Y</td>
</tr>
</tbody>
</table>

* Support available iOS 7 and greater, and Android Marshmallow and later

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**WISPr 1+, PASSPOINT, AND EAP-SIM AUTHENTICATION**

The Wi-Fi Alliance (WFA) and Wireless Broadband Association (WBA) have pioneered new approaches to provide smartphone users a better Wi-Fi experience.

SIM-based authentication (EAP-SIM, EAP-AKA), using existing SIM credentials provides a GSM-level security approach for smartphones to authenticate.

The latest versions of Android and iOS support SIM auth, but it is not supported in much of the Android installed base.

In addition, Wi-Fi Hotspots need to support 802.1X technology as part of a HotSpot 2.0 upgrade. While many do, WISPr continues to be the predominant access mechanism.

With WISPr 1+, service providers are able to bring a SIM-like authentication to non-SIM devices and non-802.1X Wi-Fi alike, and to an installed base of Smartphones which doesn't support EAP-SIM/AKA today.

In short, WISPr 1+ is an ideal companion technology for service providers looking to offer seamless, secure Wi-Fi access to their subscribers.

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**ABOUT ACCURIS NETWORKS**

Accuris Networks helps service providers monetise the connectivity between networks. Accuris solutions enable subscribers to move seamlessly and securely between LTE, GSM, Wi-Fi, IPX and fixed networks while ensuring a superior quality of experience.

We are a trusted supplier to blue-chip operators around the world including AT&T, Bell Canada, China Mobile, EDCCH, Mobily, Telefonica and more.

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