

## ***Wireless Applications***



## ***Proxim Portfolio Guide***



# Proxim Wireless Applications

APPLICATION	TARGET AUDIENCE	VALUE PROPOSITION	SUGGESTED PROXIM PRODUCTS		
			Point-to-MultiPoint *	WiFi / WiFi Mesh	Point-to-Point
<b>Security &amp; Surveillance</b>					
	Police, Fire, Emergency Medical, Campus, Metros, Warehouse, Roads, Ports, Railroads, Ports, etc.	<p>High bandwidth over distance is a key benefit of Proxim products. Tsunami MP.11 is a very affordable, market proven platform which has delivered Point-to-MultiPoint connectivity to surveillance applications globally. ORiNOCO® WiFi Mesh is increasingly being used to enable rapid deployment surveillance applications. Mesh's ability to quickly connect to neighbouring devices makes it ideal for rapid deployment operations centers, delivering high speed connectivity within a given area. Additionally Proxim's Point-to-Point products help to backhaul data to a central location. Optionally the tri-radio MeshMAX™ product can be used to reduce installation costs.</p> <p>As security device vendors embrace IP as a communications technology, Proxim's products offers SI's a low latency, highly scalable solution for remote connectivity, rapid deployment and also support for mobile units. Proxim products support a variety of frequencies and has both proprietary and standards based security mechanisms as well as secure management.</p>	<ul style="list-style-type: none"> <li>• MeshMax™ 5054</li> <li>• Tsunami™ MP.11 5054-R</li> <li>• Tsunami MP.11 5054-R-LR</li> <li>• Tsunami MP.11 2454-R</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• ORiNOCO® AP-4000M</li> <li>• ORiNOCO AP-4000MR(LR)</li> <li>• ORiNOCO AP-4000</li> </ul>	<ul style="list-style-type: none"> <li>• QuickBridge®.11</li> <li>• Tsunami®.GX</li> <li>• Quickbridge®60250</li> </ul>
<b>Last Mile Access</b>					
	Home, Home Office, Multi-Tenant Buildings	ISPs globally are using Proxim products to provide internet connectivity for homes, home offices and multi-tenant buildings. Proxim's Tsunami MP.11 Point-to-MultiPoint products, along with ORiNOCO Access Points and Tsunami.GX can provide a complete solution for these applications.	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• Tsunami MP.11 5054R</li> <li>• Tsunami MP.16 3500</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• MeshMax 3500</li> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-400MR(LR)</li> </ul>	<ul style="list-style-type: none"> <li>• Tsunami.GX</li> </ul>
	Rural Small Business, Hotels, Farms, and Wireless ISP	In rural or remote locations where access to high speed wired network connectivity is difficult, Proxim products can provide a very cost-effective wireless solution. With Tsunami Point-to-Point with ORiNOCO Access Points or an integrated MeshMAX product a complete network solution can be provided at a low installation cost and TCO.	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• Tsunami MP.11 5054R</li> <li>• Tsunami MP.16 3500</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• MeshMax 3500</li> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-4000MR(LR)</li> </ul>	<ul style="list-style-type: none"> <li>• Tsunami.GX</li> </ul>
<b>Enterprise</b>					
	Employee Wireless LAN	The ORiNOCO® WiFi Mesh Access Points along with the ORiNOCO® Mesh Creation Protocol (OMCP) self healing capabilities enable a reliable and secure Wireless LAN with high speed connectivity. Additionally enterprises can also use this network for VoIP connectivity and reduce their Telco expenses		<ul style="list-style-type: none"> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-700</li> </ul>	
	Building-to-Building Connectivity, Data Center connectivity	Proxim's QuickBridge®.11, QuickBridge® 60250, Tsunami®.GX and GigaLink® Point-to-Point products help to connect multiple buildings or data centers with remote locations quickly, easily and at a very low cost compared to Fibre Optic links. Bandwidth of up to 1.25 Gbps and a range of up to 20 miles (32 kms) can be supported			<ul style="list-style-type: none"> <li>• QuickBridge.11</li> <li>• Tsunami.GX</li> <li>• QuickBridge 60250</li> <li>• GigaLink®</li> </ul>
<b>Education</b>					
	Indoor Connectivity	The ORiNOCO WiFi Mesh Access Points along with the ORiNOCO Mesh Creation Protocol (OMCP) self healing capabilities enable reliable and secure indoor Wire less connectivity at high bandwidth		<ul style="list-style-type: none"> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-700</li> </ul>	
	Campus-wide Network Access	Students, faculty and staff at schools and colleges want ubiquitous campus network access, whether in the classroom, lab, cafeteria, library or common area. The Tsunami MP.11 Point-to-Multipoint products along with the ORiNOCO WiFi Mesh Access Points provide the required connectvity and high speed bandwidth. Optionally for larger networks, the MeshMAX can be used to reduce overall install lation and operational costs. Proxim's Point-to-Point products can be used to backhaul data between buildings and a data center.	<ul style="list-style-type: none"> <li>• MeshMax 3500</li> <li>• MeshMax 5054</li> <li>• Tsunami MP.11 5054R</li> <li>• Tsunami MP.11 2454-R</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-4000MR(LR)</li> </ul>	<ul style="list-style-type: none"> <li>• QuickBridge.11</li> <li>• Tsunami.GX</li> <li>• QuickBridge 60250</li> <li>• GigaLink</li> </ul>
	Inter-Campus or School District Connectivity	School Districts consisting of multiple school campuses need a cost effective but high bandwidth network which connect the various locations. Proxim's Point-Point products provide a quick and low cost solution to deploy this network without paying for expensive fibre cables leasing costs, while at the same time enabling links up to 1.25 Gbps and up to 20 miles (32 kms)			<ul style="list-style-type: none"> <li>• QuickBridge.11</li> <li>• Tsunami.GX</li> <li>• QuickBridge 60250</li> <li>• GigaLink</li> </ul>

APPLICATION	TARGET AUDIENCE	VALUE PROPOSITION	SUGGESTED PROXIM PRODUCTS		
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<b>Healthcare Wireless Mobility/Access</b>					
	Hospital Campus	Physicians, nurses and staff need access to patient records, request diagnostics tests, billing information, etc. This needs to be available at different areas of the hospital campus, such as exam rooms, nursing stations, pharmacy, cafeteria and lounges. Patients and visitors may also want network connectivity for email and internet access. The Tsunami™ MP.11 point-to-multipoint products along with the ORiNOCO® WiFi Mesh access products can provide the required network connectivity without the need for expensive fiber or leased line costs. The MeshMAX™ products can also be used for larger networks and to reduce installation and operational costs.	<ul style="list-style-type: none"> <li>• MeshMax™ 5054</li> <li>• Tsunami™ MP.11 5054R</li> <li>• Tsunami MP.11 2454-R</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• ORiNOCO® AP-4000</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-700</li> </ul>	<ul style="list-style-type: none"> <li>• QuickBridge®.11</li> <li>• Tsunami®.GX</li> <li>• Quickbridge® 60250</li> </ul>
	Healthcare WAN or Building-to-Building Connectivity	An hospital or medical diagnostic center need to send large amounts of data such as x-ray images and radiology data between departments and buildings. Proxim's point-to-point products can provide a high bandwidth (up to 1.25 Gbps), cost effective and reliable solution to achieve this without the high costs of fiber cabling and/or leased line costs.			<ul style="list-style-type: none"> <li>• QuickBridge.11</li> <li>• Tsunami.GX</li> <li>• GigaLink</li> </ul>
<b>Public Safety</b>					
	Public Safety(Police, Fire, Emergency and Medical) Disaster Recovery	Public Safety personnel need access to data on the go. The Tsunami MP.11 point-to-multipoint products work in the public safety 4.9 GHz frequency bands and provide access to voice, video and data applications while the vehicles are moving. With the additional capabilities of the ORiNOCO WiFi Mesh Access Point and Point-to-Point products SIs can provide a comprehensive solution for complete metro high badn-width coverage.	<ul style="list-style-type: none"> <li>• Tsunami MP.11 4954-R</li> <li>• Tsunami MP.11 2454-R</li> <li>• Tsunami MP.11 5054-R</li> <li>• Tsunami MP.11 5054-R-LR</li> <li>• MeshMax 5054</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• ORiNOCO AP-4900M</li> <li>• ORiNOCO AP-4900MR(LR)</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-4000MR(LR)</li> </ul>	<ul style="list-style-type: none"> <li>• QuickBridge.11</li> <li>• Tsunami.GX</li> <li>• QuickBridge 60250</li> <li>• GigaLink</li> </ul>
<b>Municipal and Public Works</b>					
	Utilities (Electrical,Water, Gas), AMR, SCADA backhaul, Substation Monitoring	Municipal and Public Utilities need to monitor their assets on a 24x7 basis. They can use a wireless network to monitor water or gas flow, secure their facilities, perform automatic meter reading and monitor their electrical substations. This can be achieved with the Tsunami MP.11 point-to-multipoint and ORiNOCO WiFi Mesh Access Points. The data can then be backhauled using the Proxim Point-to-Point products.	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• Tsunami MP.11 5054-R</li> <li>• Tsunami MP.11 5054-R-LR</li> <li>• Tsunami MP.11 954-R</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• ORiNOCO AP-4900M</li> <li>• ORiNOCO AP-4900MR(LR)</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-4000MR(LR)</li> </ul>	<ul style="list-style-type: none"> <li>• QuickBridge.11</li> <li>• Tsunami.GX</li> <li>• QuickBridge 60250</li> <li>• GigaLink</li> </ul>
	Office Connectivity	Municipal and Government workers need access to a high speed network to perform thier jobs. ORiNOCO WiFi Mesh Access Points along with the ORiNOCO Mesh Creation Protocol (OMCP) self healing capabilites enable a reliable and secure Wireless LAN with high speed connectivity. Proxim's Point-to-Point products can be used to backhaul the data to a data center or other central location.		<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-700</li> </ul>	<ul style="list-style-type: none"> <li>• QuickBridge.11</li> <li>• Tsunami.GX</li> <li>• QuickBridge 60250</li> </ul>
<b>Cellular Voice &amp; Data Backhaul</b>					
	Wireless Carriers, Wireless ISPs	Telcos and ISPs are using Proxim's Point-to-Point high performance products to back-haul their cellular data and voice traffic to a central location.			<ul style="list-style-type: none"> <li>• Lynx.GX</li> <li>• Tsunami.GX</li> </ul>
<b>Transportation</b>					
	Airport, Bus, Rail, Ferries	People at Airports, Bus, Rail or Ferry terminals and also while riding the public transports need uninterrupted access to the internet both for voice and data. ISPs globally are using Proxim products to provide high speed connectivity. Proxim's Tsunami MP.11 Point-to-MultiPoint products, along with ORiNOCO Mesh Access Points and Proxim Point-to-point products can provide a complete solution for these applications.	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• Tsunami MP.11 5054-R</li> <li>• Tsunami MP.11 5054-R-LR</li> <li>• Tsunami MP.11 2454-R</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-4000MR(LR)</li> <li>• ORiNOCO AP-700</li> </ul>	<ul style="list-style-type: none"> <li>• Tsunami.GX</li> <li>• QuickBridge.11</li> <li>• QuickBridge 60250</li> </ul>
<b>Public Hotspots</b>					
	Hotels, Hospitality, airports, train stations, shopping centers	Customers at hotel lobbies, shopping malls and other public hotspots need access to the internet both for data and voice. Proxim's Tsunami MP.11 Point-to-MultiPoint products, along with ORiNOCO Access Points provide the high bandwidth network connectivity required by them.	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• Tsunami MP.11 5054R</li> <li>• Tsunami MP.11 5012</li> </ul>	<ul style="list-style-type: none"> <li>• MeshMax 5054</li> <li>• ORiNOCO AP-4000</li> <li>• ORiNOCO AP-4000M</li> <li>• ORiNOCO AP-4000MR(LR)</li> <li>• ORiNOCO AP-700</li> </ul>	
Note: * The 5012 Subscriber Station is available either as an indoor (5012-SUI) or outdoor unit (5012-SUR) The 5054 Base Station is available either as an indoor (5054-BSU) or outdoor unit (5054-BSUR) The 5054 Subscriber Unit is available either as an indoor (5054-SUI) or outdoor unit (5054-SUR)					

## THE PROXIM ADVANTAGE

Proxim Wireless Corporation (NASDAQ: PRXM) is a leader in core-to-client solutions for broadband wireless networks. Proxim's systems enable a variety of wireless applications including security and surveillance, VoIP, last mile access, enterprise LAN and PtP backhaul. Proxim have shipped more than 1.5 million wireless devices to more than 200,000 customers worldwide. Proxim is ISO-9001 certified.

### PROXIM PRODUCT VALUE

Point-to-MultiPoint	WiFi / WiFi Mesh	Point-to-Point
Proxim's Point-to-MultiPoint Tsunami™ and MeshMax™ Wireless products offer a scalable and flexible approach to network design with multiple frequency band support, mobile roaming with fast handoff speeds up to 120 mph (200 kph), advanced security 128 bit AES encryption, quick and easy field-upgradable indoor and outdoor deployments.	Proxim's ORiNOCO® WiFi, WiFi Mesh Access Points and MeshMax™ tri-radio devices along with the Tsunami products deliver flexible, scalable and reliable quadruple play applications of voice, video, data and mobility for large metropolitan and enterprise wireless deployments, along with required enterprise-scale security, management and QOS.	Proxim's Point-to-Point QuickBridge®, Tsunami®, Lynx® and GigaLink® family of products offer affordable, highly reliable, secure outdoor links up to 1.25 Gbps bandwidth and 40 miles range. Designed for maximum installation flexibility, they feature QoS support for converged video, voice and data, enhanced security with AES encryption, and carrier-class operational features for cellular backhaul, enterprise voice applications and voice network redundancy.

### Proxim Product Advantages and Benefits

<p>• <b>Tsunami™ MP.11</b> Base Station Models: 5054-R, 5054-R-LR, 4954-R, 2454-R, 954-R Subscriber Station Models: 5012 and 5054 Frequency: 900 MHz, 2.4, 3.5, 4.9, 5.3, 5.4, 5.8 and 6 GHz bands Throughput: Up to 54 Mbps Key features: Mobile roaming with fast handoff speeds up to 200 km per hour (120 miles per hour), WOPR, WiMAX QOS, 128 bit AES encryption, Indoor and Outdoor Subscriber Stations Benefits: Excellent Price/Performance, Enables voice, data, video and mobile applications and choice of frequencies. Provides for High bandwidth, low latency and secure applications with QOS.</p> <p>• <b>MeshMAX™ series (tri-radio device)</b> Models: 3500 and 5054 Frequency: WiMAX: 3.5 or 5 GHz; Mesh and Wi-Fi: 2.4 and 5 GHz Throughput: Up to 25 Mbps aggregate Key Features: Mobile roaming, High Capacity, Integrated device Benefits: Provides all the benefits of the Tsunami MP.11 and the ORiNOCO products. In addition, the integrated tri-radio unit reduces installation and maintenance costs</p>	<p>• <b>ORiNOCO® series</b> Models: Wi-Fi: AP-4000 and AP-700 Wi-Fi; Mesh: AP-4000M, AP-4000-MR(LR) Frequency: 2.4 or 5 GHz (access); 4.9 or 5 GHz (backhaul) bands Throughput: Up to 54 Mbps Key features: Self Healing ORiNOCO Mesh Creation Protocol (OMCP), QOS support, Extensive security with 128 bit AES encryption, RADIUS accounting and authorization, low power consumption Benefits: Supports voice, video, data and mobility applications, easy to deploy lowering deployment and maintenance costs, low power allows use of alternate energy sources</p> <p>• <b>MeshMAX™ series (tri-radio device)</b> Models: 3500 and 5054 Frequency: WiMAX: 3.5 or 5 GHz; Mesh and Wi-Fi: 2.4 and 5 GHz bands Throughput: Up to 25 Mbps aggregate Key Features: Mobile Roaming, High Capacity, Integrated device Benefits: Provides all the benefits of the Tsunami MP.11 and the ORiNOCO products. In addition, the tri-radio integrated unit reduces installation and maintenance costs</p>	<p>• <b>Tsunami®.GX series</b> Models: Tsunami.GX 32, Tsunami.GX 90 and Tsunami.GX 200 Frequency: 5 GHz bands Throughput: Up to 216 Mbps aggregate Key Features: IDU/ODU unit, Encryption, Built-in Spectrum Analyzer, High capacity native IP Backhaul Benefits: Supports high bandwidth IP traffic, with quick install, low maintenance and 99.999% availability</p> <p>• <b>Lynx®.GX series</b> Frequency: 5.7 - 5.8 MHz (unlicensed) Throughput: Up to 16 T1 link (25 Mbps full duplex) or 8 E1 (16 Mbps) interfaces Key features: Split IDU/ODU product, Service Provider E1/T1 backhaul Benefits: Designed for Service Providers, with quick install, low maintenance and 99.999% availability</p> <p>• <b>QuickBridge®.11 Series</b> Models: 2454-QB, 4954-QB, 5054-QB, 5054-QB-LR Frequency: 2.4 GHz, 4.9 GHz and 5 GHz Throughput: up to 30 Mbps aggregate Range: Up to 20 miles (32 km). Key features: QoS, AES encryption, Dynamic Data Rate Selection and WOPR Benefits: Easiest-to-install, complete "hop-in-a-box", quick ROI</p> <p>• <b>QuickBridge® 60250</b> Frequency: 60 GHz (Licence free) Throughput: Up to 250 Mbps aggregate Key features: High capacity, low latency, alignment scope Benefits: Quick and easy to deploy, rapid ROI</p> <p>• <b>GigaLink® Series</b> Frequency: 57-64 GHz and 71-76 GHz (both unlicensed) Throughput: Up to 1.25 Gbps Key Features: Compact, highly reliable and Narrow beamwidth and digital modulation for security Benefits: Enables secure, virtually interference free, high speed Gigabit applications</p>
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### COMPETITIVE PRODUCTS

Point-to-MultiPoint	WiFi / WiFi Mesh	Point-to-Point
Alvarion BreezeACCESS VL Motorola Canopy lite Motorola Canopy Motorola Advantage Airsan MicroMax, MacroMAX, ProST (outdoor), EasyST (indoor) Redline RedMAX AN-100U, RedMAX SU-O, RedMAX SU-I	Airsan FlexNET ASN-900 Adtran NetVanta 150 Aruba AP-85FX, AP-85LX, AP-85TX Access Points Aruba AP-70 and AP-65 Dual-Radio Wireless Access Points Cisco Aironet 1130AG, 1240AG, 1300, 1400, 1520 PTP 200 lite Colubris MultiService MAP 330, MAP 630, MAP 330R, MAP 320R, PTP 200 lite Meru AP150, AP200, AP300, OAP180, RS4000 PTP 200 lite Motorola MotoMesh Duo AP300, AP-5131, AP-5181 Belair100, Belair200, Belair300 Strix Access/One IWS, Access/One OWS, EWS 150 Tropos MetroMesh 5320	MicroWave (2.4 - 5.8 GHz) Frequencies: Adtran Tracer 4000, 5000 and 6000 series Alvarion BreezeNET B100, BreezeACCESS LB Motorola PTP 100, PTP 200 lite, PTP 400, PTP 400 lite PTP 600, PTP 600 lite Redline RedCONNEX AN-80i, AN-50e, AN-30e Trango TrangoLink Giga, TrangoLink-45, TrangoLink-10, Atlas 5010 and Atlas 4900 MilliMeter Wave (60 - 80 GHz) Frequencies: BridgeWave AR60, FE60, GE60 and AR80, FE80 and GE80