LINK
TECHNOLOGIES INC

- NETWORK DESIGN & CONSULTING
- HARDWARE SALES & SUPPORT

CONTENTS
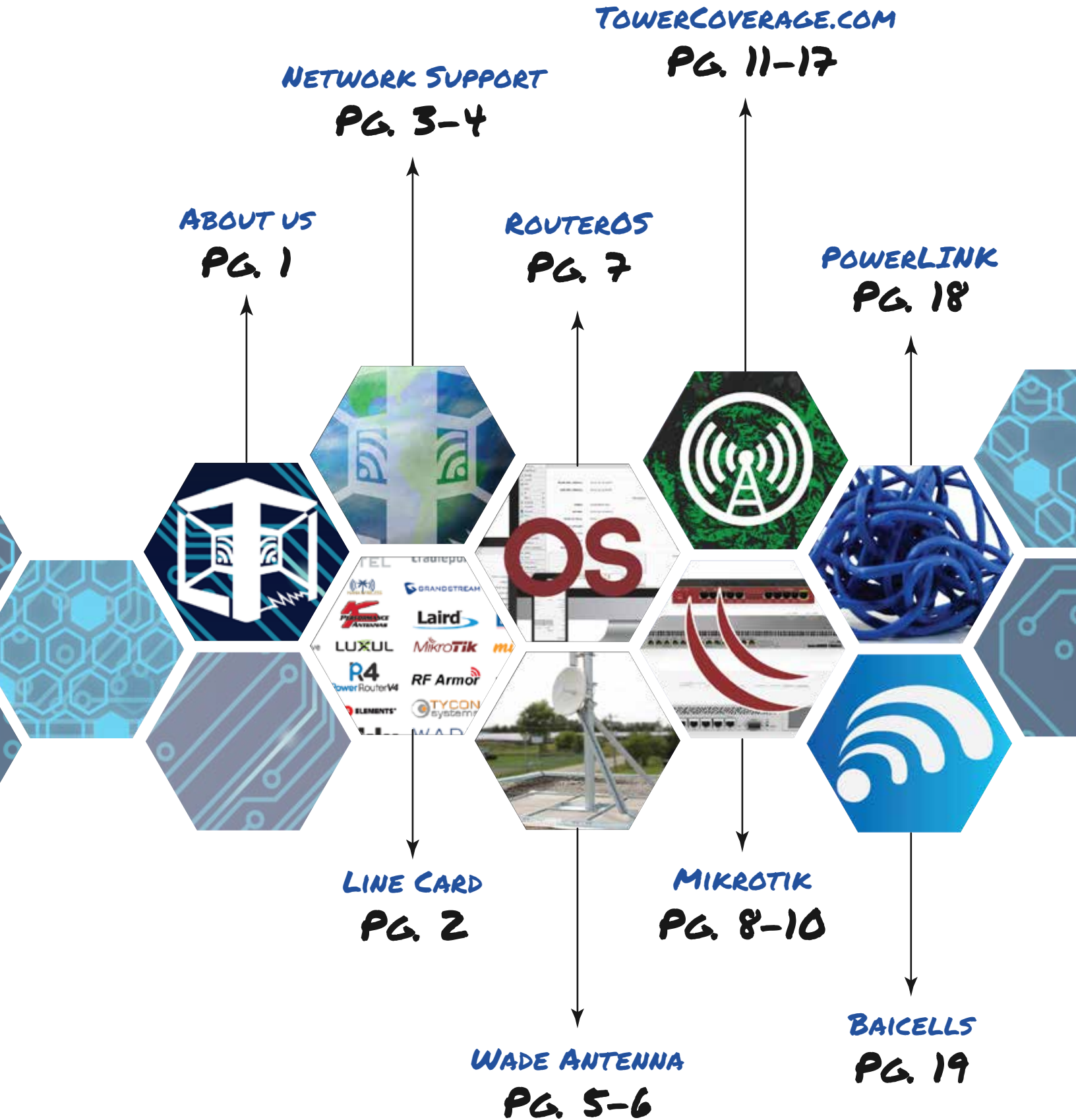
About Us

Link Technologies, Inc. is a premier ISP consulting company providing a vast array of products and services for customers from all over the globe. Our certified engineers and expert sales staff will help you keep your finger on the pulse of this industry, while providing the support and services you require.

Our unparalleled knowledge and expertise combined with over *75 years* of experience will provide solutions to help you attain the success you deserve! Patrons include wireless ISPs', government, private security, medical, transportation, and hospitality industries. We provide services and support to municipal works, ISPs', and of course, private enterprise.

No matter where you are, or what you need feel free to give us a call! We will giv you the best service the industry has to offer.

—What We Sell—

The list of brands we carry continues to grow as we aspire towards fulfilling your every need. Here are **some** of the brands we offer:

ARC wireless

Bai Cells

BridgeWave COMMUNICATIONS
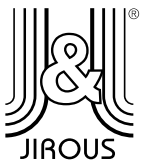
BTU RESEARCH

Cambium Networks

CITEL

cradlepoint

DIGITAL LOGGERS, INC.

DragonWave

HANA WIRELESS

GRANDSTREAM

IHS NETWORK MANAGER

J&J JIROUS

KP PERFORMANCE ANTENNAS

Laird

L-COM

LigoWave

LUXUL

MikroTik

mimosa

Netonix®

R4 PowerRouterV4

RF Armor
Carrier Class RF Shielding for the WISP industry

RUCKUS WIRELESS

PRIMUS CABLE

RF ELEMENTS®

TYCON systems

PLANET Networking & Communication

SHIREEN

Siklu

WADE ANTENNA

UBIQUITI NETWORKS

POWER LINK

TowerCoverage.com

Network Support

- Backhauls
- Bridged to Router Conversion
- Business Consulting
- DMCA Notifications
- Domains and SSL
- Dynamic Routing
- Fail-over
- Fiber Connections
- Fiber to Home
- Firewalls
- ISP Consulting
- Layer 2 Switching
- Mail Servers
- Remote Access Systems
- RF Mapping and Design
- Security
- PtP/PtMP Wireless Systems
- Surveillance Systems
- The Dude
- Traffic Management
- Traffic Prioritization
- Traffic Shaping
- Wired/Wireless Consulting
- QoS
- FCC Form 477 Filing

When you choose Link Technologies, Inc. (LTI), the benefits are endless.

What makes us the best choice? Easy! It comes from our extensive knowledge base backed by real world experience. Our engineers possess a vast array of networking knowledge on the top brands. They are consistently building on their expertise through ongoing education from today's most popular manufacturers.

Here at Link Technologies, Inc. we pride ourselves on providing you with personalized attention. We can either help build upon existing infrastructures, or start from a clean slate by developing the ideal solutions from the ground up. Not only will you have the confidence in knowing the job will get done, but also from having the leading support in the industry at your fingertips.

The networking divisions and brands we support are continuously evolving! We have provided a list of our most frequent support requests, but if you do not see something you need, GIVE US A CALL! Chances are we can get it taken care of for you. Sometimes it just takes a second set of eyes looking at an issue to see the bigger picture or a second opinion to provide the best networking implementation. From the most basic situation to the more complex let our engineers have your back!

Your success is our goal!

LINK TECHNOLOGIES, INC. ON-SITE SUPPORT IS WORLD RENOWNED!

Whether you are a small business or a large corporation we can provide you with a vast assortment of solutions. Our skilled engineers offer their experience in any situation, to make your ambition a reality. We can provide on-site network planning, troubleshooting, design, sales, and support.

Having our knowledgeable Network Engineers providing hands-on support for your network can be one of the best values and swiftest solutions for any project.

We provide the best possible way to view your "Big Picture" from any angle. Let our Engineers assess your environment so that we may design, evaluate, implement and maintain your new architecture.

Choosing Link Technologies, Inc. as your support and hardware supplier is the best option because we strive to cover as many bases as we can, providing customized solutions to fit your needs. We have first-hand knowledge of the problems you may face as a WISP, and the ways to solve them. We use reliable RF propagation to scientifically plan out and grow your company.

Get your technical team the training they need tailored to your network. This way they have specific knowledge targeted to best help your business instead of generalized network knowledge. Our engineers will analyze the needs of your network, and train your technicians based on those needs. With the specific insight targeted to your business you can finally reach beyond those goals.

To witness the power of utilizing an expert support company for all your network needs, GIVE US A CALL!

CHECK OUT OUR BOOK!

Learn RouterOS
by Dennis Burgess

MTCNA   MTCRE   MTCWE   MTCTCE

We are MikroTik certified!

Bai Cells

BridgeWave COMMUNICATIONS

Cambium Networks

HS NETWORK MANAGER

JUNIPER NETWORKS

Servers

MikroTik

RADWIN

routerboard

routerOS

SONICWALL

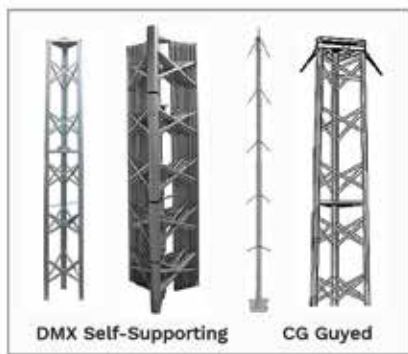Telrad Services LATAM

Windows Servers

TowerCoverage.com

WADE™
ANTENNA

Wade Antenna engineering capability and overall responsiveness have made them a leader in the development and manufacturing of high quality communication antennas.

These products have a strong reputation for ruggedness and reliability. With progressive leadership that emphasizes customer service through sales, marketing, research and innovation, WADE and TACO deliver unrivaled service and satisfaction alongside leading edge technology.

TOWERS & MASTING

DMX Self-Supporting   CG Guyed

GN Bracketed   DMX Bracketed

Pre-Galvanized Masting

Pre-Galvanized Masting
(Induction welded, galvanized coating)
• 5, 6 & 10 foot lengths
• 1.25 to 2 inch O.D.
• 16 & 18 gauge

DMX Self-Supporting Towers
• Attractive tapered 8' sections
• Free-standing installation
• High strength galvanized steel construction
• Heat treated aluminum alloy rivets
• Compact nested bundle for easy shipping
• Ideal for amateur radio, industrial/commercial communications applications
• Climb shields recommended

Package	Heights (ft)	Load Limits (ft²)
Standard	28-68 (Mast included)	3
Medium-Duty	32-56	6
Heavy-Duty	32-48	9

CG Commercial Guyed Towers
• Special 3-size strong, reliable guy stations
• Larger top section allows for greater loading
• Guying instructions supplied
• Ideal for: industrial/commercial communications, rural internet connectivity, video surveillance, site lighting

Package Heights (ft)	No. of Sections	Antenna Weight (lbs)	Wind Load (lbs)
62-147	9-19	80	300
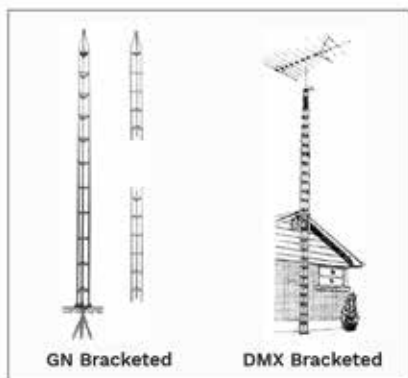
GN Bracketed Towers
• Precision swaged legs for perfect fit
• Sleeve bearing for masts up to 1.66" (3.8 cm) diameter
• Legs and braces - galvanized steel
• Rotor place for longer rotor life
• Each 10' section subjected to pressure testing
• Ensures a safe reliable tower, exceeding our minimum strength requirements

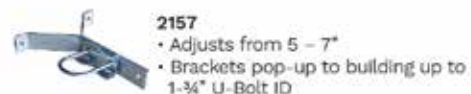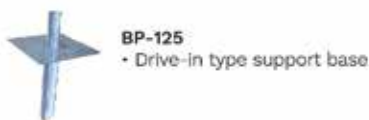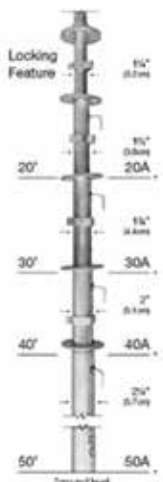| Section	Height	Load Limits (ft²)
GN18T	9'6"	3
GN18S	10'0"	3
GN16T	9'6"	3
GN16S	10'0"	3

DMX Bracketed Towers
• X-brace with beaded channel leg
• Leg profile enhancement allows for easier installation and improved tower structure
• High strength galvanized steel construction
• Heat treated aluminum alloy rivets
• Tapered top section
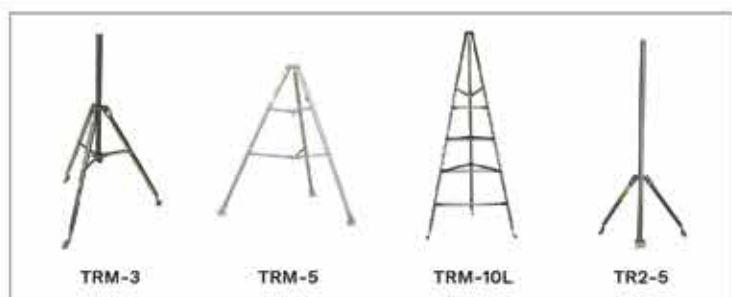• Universal house bracket
• No concrete required

Package Height (ft)	Load Limits (ft²)
20-52 (Mast included)	3

Pop-Up Masts & Accessories
• High strength galvanized steel tubing
• Precision flared and swedged for smooth fit
• 16 gauge top section, balanced 18 gauge
• Snap lock for easy installation
• Guy rings and guy collar included with 20, 30, 40 & 50 foot models
• Chafe resistant floating guy rings
• Various bases available

BP-125
• Drive-in type support base

Guy Wire
• Boxed 1,000' spool of 6-strand/ 20 gauge galvanized steel

2157
• Adjusts from 5 – 7"
• Brackets pop-up to building up to 1-¾" U-Bolt ID

2180
• Angle base for up to 2" mast

2175 & 2225
• 2175 swivel base for 20A & 30A
• 2225 swivel base for 40A & 50A

2178
• Saddle roof mount for 15A, 20A & 30A

WADE Antenna's ongoing policy of continuing development may result in specification changes to its products.

WADE ANTENNA

# TOWERS & MOUNTING EQUIPMENT

ROOF AND WALL MOUNTS

Tripods

- All models pre-assembled for quick and easy on-site installation
- Made with 1 ¼" (3.2 cm) galvanized welded steel tubing
- Heavy duty construction
- Accept up to 1 ¾" (4.4 cm) mast
- Swing away mast support
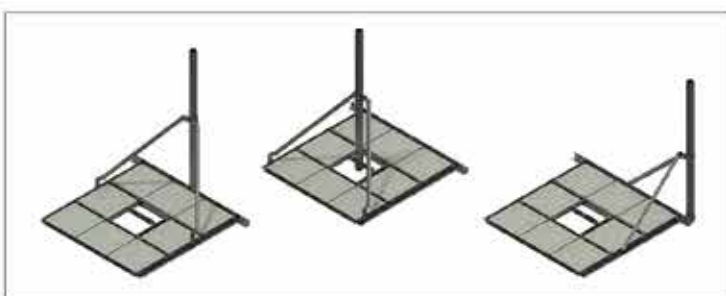- TRM-3PN boxed for easy storage
- Roof sealing lag screws available

TRM-3   TRM-5   TRM-10L   TR2-5

Model	Ship Dimensions (in)	Collar Height (ft)	Mast OD (in)
TRM-3PN	60 x 7 x 6	3	1 ¾
TRM-5N	60 x 7 x 6	5	1 ¾
TRM-10L	120 x 12 x 11	10	1 ¾
TR2-5 Bipod	60 x 7 x 6	N/A	1 ¼/18GA/60 included

Non-Penetrating Roof Mounts

Standard Models

Half Base   Full Base

NPRM-1/2-LD-3   NPRM-1/2-LD-5   NPRM-1   NPRM-2
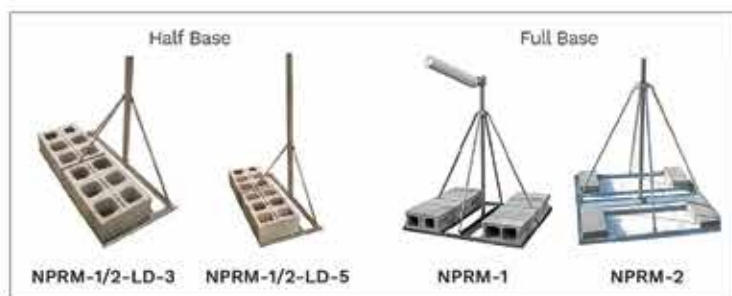
Heavy Duty Models

Half Base

- 3' or 5' mast included
- Accept both standard cinder blocks or patio stones
- No anchoring necessary
- Stabilizing white mats available to protect the mounting surface

Full Base

- 48" x 48" base frame
- NPRM-1 & 3 have 16 gauge galvanized steel frame, while NPRM-2 & 4 use 14 gauge
- Accept up to 2-½" mast
- Models 1 & 2 use 244A mast clamps, while the 3 & 4 use our more economical U-Bolts
- Accept WADE Pop-Up mast up to 40' (guyed)
- No anchoring necessary
- Stabilizing white mats available

Heavy Duty

- Hot dipped galvanized steel construction
- Conforms to CSA G40.21
- 93" x 81" base for heavy duty 12 cinder block support
- 4 different mast size options
- Center, corner and end mast location configurations
- Allowable mast height of 10'
- Commercial grade
- Wind loading available
- CSA grade strength
- Boxed for compact shipping
- Lower cost than comparable competitor mounts
- Designed for harsh environments
- Single person installation
- 2 arm mast support

Wall Mounts

2157
- Adjusts from 5-7"
- 1 ¾" U-Bolt ID
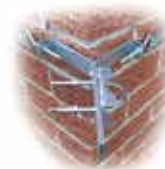
2118
- 18" arms
- 1 ¾" U-Bolt ID

2124
- 24" arms
- 1.66" U-Bolt ID

BTA UNIVERSAL WALL MOUNTS
- BTA – 23" arm
- BTA – 29" arm
- BTA-38 – 38" arm

J-BRACKET
- Hot-dipped galvanized steel
- Rugged
- Economical mounting support

CMY7-18
- 18" strap
- 1 ¾" U-Bolt ID

WADE Antenna's ongoing policy of continuing development may result in specification changes to its products.

router OS

RouterOS is stand-alone operating system based on the Linux v2.6 kernel, designed by MikroTik with the goal of a quick and simple installation, and an easy to use interface for your all your routing needs.

MikroTik RouterOS is the operating system of MikroTik RouterBOARD hardware. It can also be installed on a PC and will turn it into a router with all the necessary features - routing, firewall, bandwidth management, wireless access point, backhaul link, hotspot gateway, VPN server and more.

One of the most powerful routing platforms in existence. Almost infinitely configurable, does practically anything!

Firewall Stateful filtering, source and destination NAT, NAT helpers (h323, pptp, sip, ftp, irc, tftp), internal connection, routing and packet marks, filtering by IP address and address range, port and port range, IP protocol, DSCP and many more, address lists, custom Layer7 matcher, IPv6 support, IPv6 support, PCC - per connection classifier used in load balancing configurations, RAW filtering to bypass connection tracking

Routing Static routing, virtual Routing and Forwarding (VRF), policy based routing, interface routing, ECMP routing, IPv4 dynamic routing protocols: RIP v1/v2 & OSPFv2 & BGP v4, IPv6 dynamic routing protocols: RIPng & OSPFv3 & BGP

MPLS Static Label bindings for IPv4, label Distribution protocol for IPv4, RSVP Traffic Engineering tunnels, VPLS MP-BGP, based autodiscovery and signaling, MP-BGP based MPLS IP VPN, complete list of MPLS features

VPN IPSec – tunnel and transport mode, certificate or PSK, AH and ESP security protocols. Hardware encryption support on RouterBOARD Hardware, IKEv2 support, AES-NI hardware acceleration support for IPSec, point to point tunneling (OpenVPN, PPTP, PPPoE L2TP, SSTP), advanced PPP features (MLPPP, BCP), Simple tunnels (IPIP, EoIP) IPv4 andIPv6 support, 6to4 tunnel support (IPv6 over IPv4 network), VLAN – IEEE802.1q Virtual LAN support, Q-in-Q support, MPLS based VPNs

Wireless IEEE802.11a/b/g/n/ac wireless client and access point, Full IEEE802.11n support, Nstreme and Nstreme2 proprietary protocols, NV2 protocol, Wireless Distribution System (WDS), Virtual AP, WEP, WPA, WPA2, Access control list, Wireless client roaming, WMM, HWMP+ Wireless MESH protocol, MME wireless routing protocol

DHCP Per interface DHCP server, DHCP client and relay, Static and dynamic DHCP leases, RADIUS support, Custom DHCP options, DHCPv6 Prefix Delegation (DHCPv6-PD), DHCPv6 Client

Hotspot Plug-n-Play access to the Network, Authentication of local Network Clients, Users Accounting, RADIUS support for Authentication and Accounting

QoS Hierarchical Token Bucket (HTB) QoS system with CIR, MIR, burst and priority support, Simple and fast solution for basic QoS implementation - Simple queues, Dynamic client rate equalization (PCQ)

Proxy HTTP caching proxy server, Transparent HTTP proxy, SOCKS protocol support, DNS static entries, Support for caching on a separate drive, Parent proxy support, Access control list, Caching list

Tools Ping, traceroute, Bandwidth test, ping flood, Packet sniffer, torch, Telnet, ssh, E-mail and SMS send tools, Automated script execution tools, CALEA, File Fetch tool, Advanced traffic generator

Other Samba support, OpenFlow support, Bridging – spanning tree protocol (STP, RSTP), bridge firewall and MAC natting, Dynamic DNS update tool, NTP client/server and synchronization with GPS system, VRRP v2 and v3 support, SNMP, M3P - MikroTik Packet packer protocol for wireless links and ethernet, MNDP - MikroTik neighbor discovery protocol, supports CDP (Cisco discovery protocol), RADIUS authentication and accounting, TFTP server

MikroTik is a Latvian company which was founded in 1996 to develop routers and wireless ISP systems.

MikroTik now provides hardware and software for Internet connectivity in most of the countries around the world. Their experience in using industry standard PC hardware and complete routing systems allowed them in 1997 to create the RouterOS software system that provides extensive stability, controls, and flexibility for all kinds of data interfaces and routing.

A wide range of routers and switches for any situation from home to enterprise

Routers/Switches
& SFPs

We have routers and switches for just about any occasion. A vast variety kept in stock in order to fill your needs as quickly as possible.

Learn more by calling our sales team; 314.735.0270

Multiple SFP options such as 10Gbps, SFP+, SFP 10/100/1000Mbps copper.

Indoor wireless equipment to keep you connected!

Indoor
Wireless

Equipment designed around indoor use. Get optimal signal strength indoors with our line of indoor wireless hardware. Top of the line indoor equipment that is also easy to set up.

Don't forget to ask our sales team about our wide selection of RouterBOARD hardware!

Durable outdoor equipment for a plethora of different configurations.

Outdoor
Wireless

Equipment that was designed to not only be aesthetically pleasing, but also to withstand the harsh conditions associated with keeping hardware outside.

If you need to stay low-key, you can use one of our generic casings!

TOWERCOVERAGE.COM

TowerCoverage makes RF propagation maps simple! Quickly track and manage your coverage all from one easy to use interface!

Our easy to use system will allow you to create tower coverage maps for any geographical area in the entire world. Our maps are based on Actual RF propagation, topography, and land cover data. Maps can be created for nearly every frequency range.

SUCCESS FROM OUR PARTNERS

Gibson Family
Byhalia.net, LLC

" The value of TowerCoverage grows within our business as I integrate it into our website, use it to plan for expansion, and lastly to track customer data for easy Form 477 fillings. TowerCoverage is like a multi-tool I carry in our service bag, to help us be effective in our planning, management, and to grow our business! "

DeAnne Fefee
Wireless Internet Now

" TowerCoverage.com is an integral part of running our business successfully. The innovative feature updates just make 'easy' that much easier! I'd recommend it to any business in the industry. "

Alex Philips
Rural Broadband Network Services

" Before this service was available to me, qualifying customers was very inaccurate and inefficient. I have been very happy with TowerCoverage.com service because it helps me plan my networks better and allows prospective customers to self-qualify. Dennis Burgess and Jim Patient have been great to work with and always answer my questions as well as listen to me when I have suggestions, about TowerCoverage.com.

Thanks, TowerCoverage.Com for all of your hard work. "

AWARD WINNING

TOOLS FOR THE TRADE

TowerCoverage.com, as a whole, exists to help your network grow and expand. We held nothing back while designing this powerful and multifaceted tool. The ever growing list of features, are all here for the sole purpose of fulfilling the many needs of a growing ISP. These features are all designed to be as intuitive as possible so that they are easy to pick up and use. All this adds up to the simple fact that we are here to help your coverage and your business grow!

COVERAGE MAPS

MULTI MAPS

API CALLS

WEB BASED

CUSTOM PINS

BULK REPROCESS

FREQUENCY COORDINATION

FIBER MAPPING

GOOGLE FLY PATH

BULK-CUSTOMER UPLOAD

LINK PATH ANALYSIS
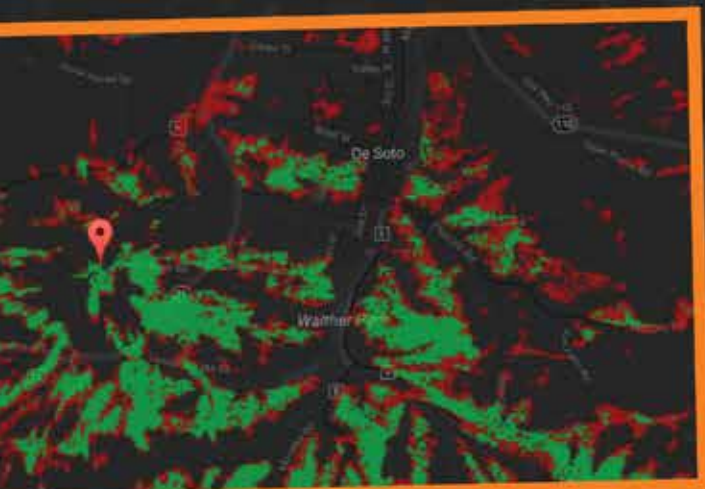
SIMPLE SETTINGS

BILLING API

ADVANCE/SAVED SEARCHES

EUS DATA

BEST TOWER **LOCATION**

COVERAGE MAPS

Based on Radio Mobile, TowerCoverage.com is an unique tool for the wireless industry. The base of this tool is the coverage creation capabilities. Simply define your 'Sites' (such as a tower location) and set the values of the gear that is, or will be, on that location. Then the powerful RF propagation software goes to work for you and creates a map of what that specific setup will look.
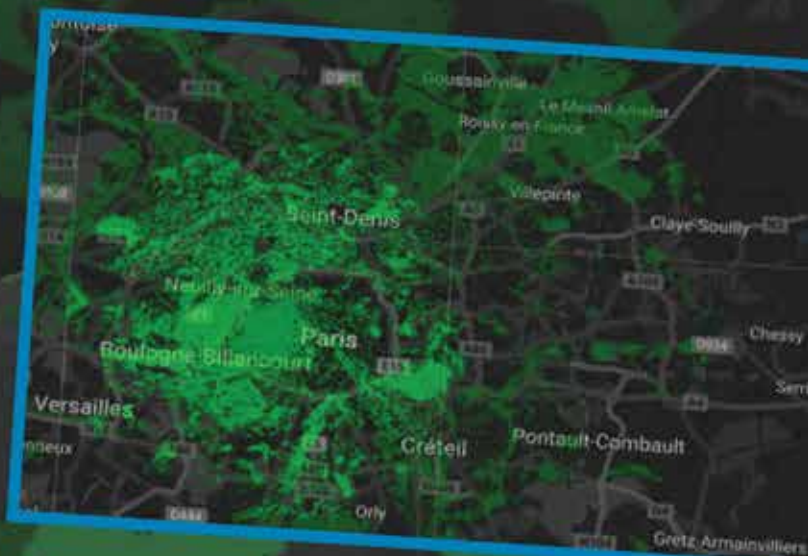
Make maps quick and easy!

MULTI MAPS

Once you have all of your coverage maps created, throw them into a multi map! You may also view land-cover data and population data in a multi map to further diagnose potential with your fixed wireless deployments.

Easily view your total reach with multimaps.

API CALLS

We have developed numerous APIs to easily customize the automation of TowerCoverage. Do you have hundreds of potential client records? No problem, just use our API to parse the information into End User Submissions so that the data is added to both TowerCoverage and your billing software. Do you have a list of sites with all the equipment specs but you don't want to manually enter each one? Just use the APIs we have developed for that.

Save time. Save money. Save the hassle! Use APIs!

CUSTOM PINS

Change your pins to reflect its meaning. Make your maps truly yours, with custom pins!
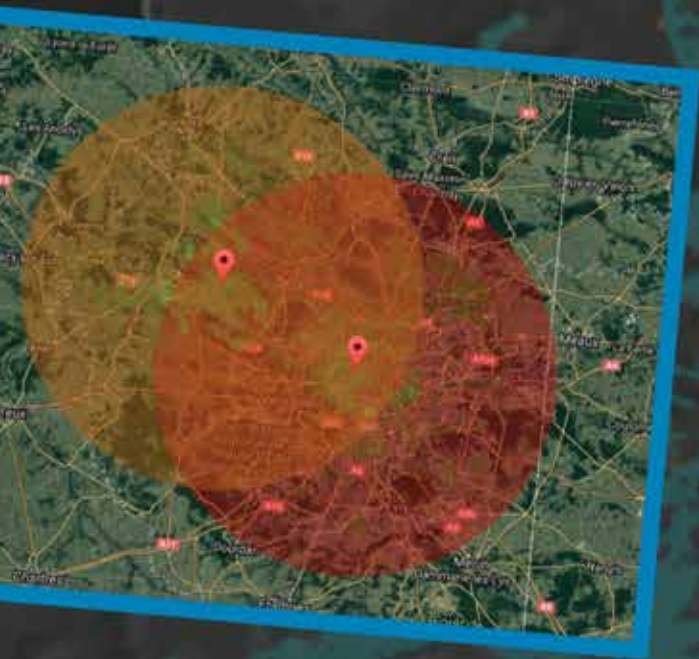
BULK REPROCESS

EUS data submitted and processed prior to a coverage change will need to be reprocessed in order to reflect the actual state of your coverage. We have made this easier by allowing for quicker bulk reprocessing. Just select multiple EUS submissions and press bulk reprocess!

Get accurate EUS data after a coverage change.

	Date/Time	First Name
✓	12/21/2017 1:07:35 PM	Stephen
✓	12/21/2017 1:03:50 PM	Stephen
✓	12/21/2017 1:01:26 PM	Stephen
✓	12/21/2017 12:51:01 PM	Stephen
✓	12/21/2017 12:27:38 PM	Stephen
✓	12/21/2017 12:24:08 PM	Stephen

FREQUENCY COORDINATION

After adding sites to a frequency group, you can view all the different configured frequencies of your multi map. Each 20MHz wide band will display in a different color. Now you can visually see if two like frequencies will cause interference.

Identify potential interference before they become a problem.

FIBER MAPPING

With just a few simple clicks you can map out your fiber network. Specify the thread count and the distance from the cable you would like people to be able to connect. Identify potential customers before deploying.

Map your fiber network with just a few clicks.

GOOGLE FLY PATH

Google fly path is a great way to view your link path from a different perspective. Take a flight along the path of your connection to see first hand if it intersects with an obstacle in its path. With this information you can see your network environment saving you time and money.

Take a birds eye view of your link path!

3D Imagery only available in certain areas

LINK PATH ANALYSIS

Identify potential issues with our link-path analysis tool. This will allow you to instantly see at what point your link encounters obstacles.

See your link-path from a side view to identify problems.

BULK CUSTOMER UPLOAD

No need to sit and upload them individually, save yourself time and your company money by using the bulk customer upload feature. This tool makes it easy to automate the processing of bulk customer data and integrate it with your networks data and coverage.

Quickly add customer data in bulk.

SIMPLE SETTINGS

Simple settings for a complex program. Its a simple process to fine tune TowerCoverage.com to your needs. With a simplified GUI for navigating the menus, and intuitive controls, anyone will be able to customize their settings in order to dial in TowerCoverage to better suit your business.

Intuitive GUI for fine tuning your settings.

BILLING API

Integrate TowerCoverage into your billing software with our billing API. This feature makes it very easy to complete the billing process by integrating with the software you are already used to using.

Make billing easier by integrating TowerCoverage with billing.

ADVANCED/SAVED SEARCHES

Quickly find that one EUS submission amongst hundreds via an advanced search. Filter your search results by many different variables; type, name, address, date, and even distance from site. You then can save these searches for easy access at a later date.

Find what you're looking for quick and easy, then save it for later.

Advanced EUS Search

Saved search criteria can be viewed later here and on c Map or single Coverage Map.

Save Search?	○ Yes ○ No
Search Name:	
Country:	--Search All--
Address:	
State:	
City:	
Zip Code:	

EUS DATA

Collect end user data by easily integrating with your website via an i-frame code. You can then use those submissions to prevent no-go truck rolls by comparing your coverage maps to the data therein. This feature has saved companies thousands on truck rolls alone!

Easily integrate with your website, save money, save time.

BEST TOWER LOCATION

Expand your coverage with a scientific approach. The best tower feature looks at all your EUS data and compares them to one another to find the best place for your next site. Use this to easily identify where you should extend your business reach due to popular demand.

Pinpoint exactly where to expand your network.

HTML BASED

TowerCoverage is a HTML based program, meaning that you will not have to deal with hefty or complicated downloads. What's even better, we are compatible with any browser! Just open your favorite internet browser and navigate to TowerCoverage.com and you're good to go.

No download required, works with all browsers.

No more running test cables!

POWER LINK

Actual Size

The PowerLINK is an installer's best friend. This portable battery provides 24 volts and is available in 8 or 15 watt versions to supply PoE power to a connected device. You can also enable the on-board 2.4GHz to create an access point for testing and convenience.

3 Optional Accessories

24V TO 48V CONVERTER**

**Only works with PowerLINK 15w for 802.3af devices.

LAN CABLE

CAMBIUM CABLE

Baicells is a privately-held, high tech company providing disruptively-priced and innovative LTE wireless broadband access solutions, supporting fixed wireless, and mobile small cells.

With the vision to connect the unconnected, Baicells has introduced some real breakthrough technologies to LTE, like moving a complete LTE system to unlicensed spectrum and building it with an IT based architecture. With Baicells' turnkey end-to-end solutions, it becomes much easier to provide wireless internet within everyone's reach at a very low cost.

BASE-STATIONS

Nova R9 3.5GHz 10W Band 42/43 LTE

Network interfaces	(2) 1G Ethernet
Traffic Management	LIPA/SIPT function
Network Connection Security	IPsec
OAM Protocol	DSL Forum TR-069
Smart SON with Plug & Play Support 3GPP Version	R9
Frequency Bands	42, and 43
Signal Strength & Frequency	3.5GHz / 40 dBm
Channel Bandwidth	10 / 20 MHz
Power Consumption	<190W
MiMO	DL 2x2 MiMO
Capacity	96 Active
Operating Temperature Range	-40 to 44°C (40 to 131°F)
Power Supply	100-240V AC/DC 48V adapter
Dimensions	17 x 9.4 x 5.5" (43 x 23.8 x 14cm)
Max TX Power	2 x 10W

Nova R9
3.5 GHz 1W Band
42/43 LTE Outdoor

Nova R9
2.5 GHz 10W Band
41 LTE Outdoor

STARTER-KIT

x1 Nova R9 3.5GHz 1w
x3 Atom R9 Outdoor
3.5GHz 19.5dBi
x3 SIM Card

DESIGNED FOR USE WITH:
KP PERFORMANCE

CPE'S

ATOM-R9 Atom R9 Indoor 3.5Ghz 5dBi

3GPP	R9, FDD Mode
Band	42/43
Bandwidth	5/10/15/20 MHz
Output Power	23dBm (200mW)
Receiving Sensitivity	-94dBm
Ethernet LAN Port	(4) RJ-45 port 1G/100 auto sensing auto MDX Tel Port: (2) FXS RJ-11 Port with FXA Connector 8/8x CT.88 Fax over IP Power/WLAN/WPS/TEL/MODE/
LED Indicators	LTE Signal/1/2/3 LAN Indicators
Frequency	3.5 GHz
Antenna	5 dBi
Throughput	DL 110 Mbps / UL 20 Mbps
WLAN	802.11b/g/n. 2x2 MiMO
Support VoIP USIM	Support 1.8/3.3V 2FF USIM
Surge Protector	Built-In
Dimensions	6.5 x 7.25 x 2.63" (16.5 x 18.4 x 6.6cm)
Weight	< 1 lbs (0.4 kg)

Atom R9 Outdoor 3.5GHz 11dBi

3GPP	R9, TDD Mode
Band	41 & 42/43
Bandwidth	5/10/15/20MHz
Output Power	23dBm (200mW)
Receiving Sensitivity	-94dBm
Ethernet LAN Port	One RJ-45 port 10/100 auto-sensing auto MDX
LED Indicators	Power/LTE Signal/LAN Indicator
Antenna	11dBi
Gross Throughput	DL 110Mbps, UL 20Mbps
USIM	Support 1.8/3.3V 2FF USIM
Environmental	IP65
USIM Support	1.9/3.3V 2FF USIM
Dimensions (LxWxD)	9 1/2" x 5 3/8" x 2 7/8" (24cm x 13.6cm x 7.3cm)
Weight	< 1 Lbs (0.4 kg)

Atom R9 Outdoor 3.5GHz 19.5dBi

3GPP	R9, TDD Mode
Band	B42
Bandwidth	5/10/15/20MHz
Output Power	23dBm (200mW)
Receiving Sensitivity	-94dBm
Ethernet LAN Port	One RJ-45 port 10/100 auto-sensing auto MDX
LED Indicators	Power/LTE Signal/LAN Indicator
Antenna	19.5dBi, ± 45°
Gross Throughput	DL 110Mbps, UL 20Mbps
USIM	Support 1.8/3.3V 2FF USIM
Environmental	IP67
Operating Input Voltage Range	9 - 28VDC
Dimensions (LxWxD)	11" X 11" x 2 3/8" (29cm x 28cm 35.5cm)
Weight	3.4 Lbs (1.5 kg)

KP Performance Antennas was founded on delivering products that are reliable and perform well at a fair cost, a product that truly does what is said it will. It is not only their goal but their mission. They don't believe one product fits all and neither should you.

Having leading edge antennas takes hundreds of R&D hours to perfect each antenna. The experienced RF engineers work hand in hand with all of KP team to collectively pool their knowledge in the design and development of each of the antennas. They don't just say they have the best product... they also have the data to back it up.

Engineered to exceed

Reflector Dish • Sector • Yagi • Panel • Feed Horn • Omni

We sell dishes for most brands!

INCREASE YOUR RADIO FUNCTION BY UP TO 30%

- Cambium
- Baicells
- MikroTIK
- Ubiquiti

DESIGNED FOR USE WITH:

BAICELLS

3GHz ±45 65° 17.5 dBi Quad Port Sector 4 x N Connectors

The KPPA-3S3S-65SS is a high performance quad port panel antenna which combines high gain with a 65° beam-width. 3GHz ±45 Quad port antenna in a single enclosure. Its dual-band quad port design makes it suitable for applications in 3GHz band..

Other configurations of sector antennas

- Dual Pol
- Dual Band
- Dual Radio with Side by Side Alignment
- Quad Port 4x4
- 60°, 90°, 120°
- 14 dBi - 19 dBi

LICENSED BANDS & UNLICENSED BANDS:

- 900MHz
- 2GHz
- 3GHz
- 5GHz

DESIGNED FOR MOST BRANDS!

- Cambium
- Baicells
- Mimosa
- Ubiquiti
- MikroTIK

RF elements technology delivers fast, massively scalable wireless while addressing the issue of RF pollution, proper use of spectrum and sustainable growth.

Use RF Elements to reduce RF system loss and achieve massive scalability of your wireless networks. RF Elements' approach to the problem of RF pollution is logical and simple, yet truly unique. Instead of dealing with excessive amounts of noise by using complex and expensive methods, such as active filtering or gps synchronization, they focus on the fundamentals of correct signal propagation.

RF ELEMENTS TECHNOLOGY

NOISE REJECTION
RF elements horn antennas have no side lobes and are immune to RF noise. They are the market leader in performance and spectrum efficiency.

ZERO LOSS
RF elements' proprietary TwistPort™ connector with no RF cables is virtually lossless and makes radio installation ridiculously easy - just "twist and lock".

MASSIVE SCALABILITY
RF elements products allow you to deploy more sectors with higher density and thus multiply the throughput of your network at no premium cost!

AP ANTENNAS

SYMMETRICAL HORN TP ANTENNAS
Symmetrical Horn TP Antennas are scalar horns with a symmetrical beam radiation pattern and an industry changing TwistPort™ connector. They offer unique features: excellent noise rejection, lossless connection of radio and massive scalability options for higher sector density, which make them perfect sector antennas. Symmetrical Horn TP Antennas are the key to fast, sustainable wireless. They come in 7 different versions, ranging from 30 to 90 degrees.

SYMMETRICAL HORN CARRIER CLASS
Symmetrical Horn Carrier Class are scalar horn antennas with a symmetrical beam radiation pattern without side lobes. They offer excellent noise rejection and supreme scalability options for higher sector density. Symmetrical Horn Carrier Class Antennas feature N-type female connectors, allowing connection with a wide range of radios, such as Cambium Networks™, LigoWave™, RADWIN, Mimosa™ and many others.

UBIQUITI NETWORKS

Call our sales team for info

PTP ANTENNAS

ULTRAHORN™ TP ANTENNAS
UltraHorn™ TP antennas are high-gain, highly directional horn antennas for point-to-point connections. They offer ultimate noise rejection, lossless connection of radio and symmetrical beam with no side lobes. They are perfect for long links in extremely noisy environments.

ULTRADISH™ TP ANTENNAS
UltraDish™ TP Antennas are high-gain directional parabolic antennas with a TwistPort™ lossless connector. These Antennas are highly directional with suppressed side lobes for ultimate performance.

ADAPTORS

TWISTPORT™ ADAPTORS
TwistPort™ Adaptors make the most popular connectorized radios compatible with any TwistPort™ antennas. They allow easy integration with various Ubiquiti™, MikroTik™, Cambium™ and Mimosa radios.

Cambium Networks

Through its extensive portfolio of reliable, scalable and secure Wi-Fi, fixed wireless broadband point-to-point (PTP) and point-to-multipoint (PMP) platforms; managed by cloud-based software, Cambium Networks makes it possible for service providers; enterprises; governmental and military agencies; oil, gas and utility companies; Internet service providers; and public safety networks to build powerful communications networks, reach users from 200 kilometres across mountain tops down to the last meter to their devices and intelligently manage their infrastructure through end-to-end network visibility and actionable analytics.

PMP

PTP

WI-FI

IIoT

Offering the only Complete Wireless Fabric Technology Solution for Enterprise, IIoT and Service Provider Community Networks

Point-to-Point

Fiber-like speeds without the wires

WI-FI

Indoor and Outdoor with cloud and on-premises management

Point-to-MultiPoint

Connect entire neighborhoods, businesses, healthcare facilities, schools or cameras

IIoT

From sensor to server, never miss critical data

Siklu

Siklu exists to develop, build and deliver the best millimeter wave wireless connectivity radios on the planet, improving a wide range of communication for a great many people.

Siklu opened the market for affordable gigabit capacity for every network. They created the first mass-produced millimeter wave radio, which is still the most deployed mmWave connectivity solution in the world.

Benefits of Siklu

- Fiber-Like wireless - Up to 5Gps full-duplex
- 60/65GHz, 70/80GHz bands - no interference
- Proven reliability - 90 year MTBF
- Integrated Layer 2 Ethernet switch
- Hitless Adaptive Modulation overcomes weather - related downtime

mmWave

Why use it?

- Recognized leader and innovator in mmWave technology since 2011
- ROI- Wireless is two to four times less expensive than trenching fiber and 1/10 of the time to revenue
- Outstanding product quality and support
- Future-proof solution for next-gen networks
- Economically priced carrier-class equipment
- Competitive time-to-market

Applications

- Video Surveillance Connectivity
- Smart Cities
- Business / MDU / Home Broadband
- Wi-Fi and Mesh Backhaul
- Medical and Educational Campuses
- Fiber Extension and Redundancy
- Macro and Small Cell Backhaul

Rooftops / Aggregation

- Lightly licensed 70/80GHz (E-Band)
- 700Mbps ÷ 1Gbps aggregated capacity
- Range: up to 0.6 miles
- 11 non-overlapping full-capacity channels
- Minimal footprint with integrated antenna

Street-Level

- Unlicensed 57-64/64-71*GHz (V-Band)
- 100Mbps ÷ 1Gps aggregated capacity
- Range: up to 0.6 miles
- 11 non-overlapping full-capacity channels
- Minimal footprint with integrated antenna

Product Matrix

Product	Band	Installation	Antennas	Base rate	Max rate w/upgrade**	Data ports	Operational Power[W]	PoE out [W]
EH-500TX	60GHz License exempt	Street level	Integrated - 36dBi	100Mbps TDD	200Mbps TDD	3x 1G base T	26	2x26/40+13
EH-600TX	60GHz License exempt	Street level	Integrated - 36dBi	500Mbps TDD	1Gbps TDD	3x 1G base T	26	2x26/40+13
EH-1200TX	70GHz Lightly licensed	Rooftop/Tower	1 ft. - 43dBi / 2 ft. - 50dBi	700Mbps TDD	1Gbps TDD	2x 1G base T + 2x 1G SFP	26	26
EH-1200FX	70/80GHz Lightly licensed	Rooftop/Tower	1 ft. - 43dBi / 2 ft. - 50dBi	1Gbps FDD	1Gbps FDD	2x 1G base T	40	13
EH-2200FX	70/80GHz Lightly licensed	Rooftop/Tower	1 ft. - 43dBi / 2 ft. - 50dBi	1Gbps FDD	2Gbps FDD	2x 1G base T + 2x 1G SFP	40	13
EH-2500FX	70/80GHz Lightly licensed	Rooftop/Tower	1 ft. - 43dBi / 2 ft. - 50dBi	1Gbps FDD	2Gbps FDD	2x 1G base T + 2x 1G SFP	45	13
EH-5500FD	70/80GHz Lightly licensed	Rooftop/Tower	1 ft. - 43dBi / 2 ft. - 50dBi	2Gbps FDD	5Gbps FDD	1x 10G SFP	30	None

**Max rate is subject to software license

mimosa

Mimosa's passion is evident.

With a goal of not simply connecting more people to the internet, but making internet access even better, faster, and stronger than it is today, Mimosa is driven. They get things done with spirit, flair, courage, instinctive intelligence, and collaboration. The Mimosa team is made up of diverse talents and backgrounds and strongly believes that those differing perspectives, ideas, convictions, values (and sense of humor) make the company stronger and their solutions better.

WIRELESS FIBER

The fastest Fixed Wireless broadband solution available, delivering fiber-fast connectivity to your customers. For rural, suburban, and urban deployments with network-wide GPS sync. Industry-leading performance with award-winning support.

Learn more at LinkTechs.net

mimosa

Primus Cable built their company based on reputation and on word of mouth. **Their greatest claim to fame is our consistent ability to deliver quality products in a timely manner.**

The company's mission? Getting The Most For Your Money - It's not just about getting the cheapest price. There's no sense in buying a product that doesn't perform or won't last. Quality is a high priority to Primus Cable. Their mission is to simplify IT, A/V and Data connectivity through dedicated staff, excellent service and innovative solutions.

CAT5e, CAT6 & CAT6A Outdoor Bulk Cable

- Unshielded
- Shielded
- Aerial
- Direct Burial
- Dual Shielded
- & More

MIG+ High Density Keystone Jacks

Save Rack Space by using Primus Cable's signature Keystone Jacks!

- MIG+ CAT5e 90-Degree Jacks
- MIG+ CAT6 90-Degree Jacks
- MIG+ CAT6A 90-Degree Jacks
- MIG+ CAT6A 180-Degree Jacks
- MIG+ Shielded CAT6A Jacks

Available in Multiple Colors

RJ45 Modular Plugs

Connections are only as good as their connectors, so don't skimp on inferior connectors. Primus Cable has a wide selection of superior RJ45 Modular Plugs suitable for Shielded or Unshielded CAT5e, CAT6, CAT6A & CAT7 Cables.

Equipment for any Installation

Mounting

We have an assortment of mounting hardware.

Universal DSS Short Mounts

Grounding

Take steps to help prevent electrical damage using our equipment to ground your next project!

Universal DSS Short Mounts

Universal DSS Short Mounts

Connectors & Adapters

A Wide selection of connectors and adapters to fit any need for your next install. Give us a call for more information!

NF to NM Right Angle Adapter

N Female to N Female Adapter

N Female to N Female Bulkhead Adapter

N Male to N Male Barrel Adapter

LMR Pigtails (N Male - N Male)

Shielded RJ45 Connectors

ACRPSMA Pigtails

MMCX to RASMA/RPSMA Pigtails

RPSMA Male to N Male Pigtails

Weather Seal

Make sure to take weather proofing step.

Seal_M Mastic Tape

Did you know?

Link Technologies hosts a web talk show where the topic is everything WISP industry related. Tune in next time to catch the latest news and tips.

ispradio.com

ISP Radio Network

HS NETWORK MANAGER

HSNM is an advanced WiFi network management Platform. Straightforward and effortless management of your networks, whether you have one network or a thousand networks.

Turn your hotspot into a source of profit with a few simple steps. Effortlessly create a customized experience for your customers that will keep them coming back to your business for years to come.

HotSpot Network Manager

The world's most advanced hotspot solution for User Management, Advertising, Surveys, Content Injection, Mobile Wi-Fi and GPS Tracking.

Straightforward management of your WiFi networks. Providing professional accounting, billing and advertising system for the managing of guest WiFi networks.

Designed for hospitality, education, public areas, trains, boats, vessels, planes and many more.
HotSpot Network Manager gives you the ability to manage numerous venues from one control panel with the plus benefit of an intuitive captive portal, 100% responsive and adapts perfectly to all vendor devices.

Social Login, one click connection

Clients can register and connect to the internet through any of their favorite social networks (Facebook, Twitter, Google, LinkedIn, Instagram). Invite users to click "Like" or "Follow" after login and publish your brand on their timeline.

Multi-Venue and Management Architecture

HSNM is designed for Multiple Venues and Management Levels. From estate/resellers level admin users, to individual managers or reception staff – you decide.

Branded Login Page

Marketing your venue with your brand identity promotes your business. HSNM provides you with a fully integrated platform to create and manage your custom branded login pages.

Custom Apps

One of the HSNM's most exciting and unique features is the ability to publish login page Apps. Create your own or use the standard Apps provided including Local Weather Information, Around Me, GPS tracking, User Profile and many more.

Multi-language

English, Italian, Spanish, French and German languages are included as standard and other languages can be added as required. Once selected to appear on the login page, clients can simply select their preferred language during the registration process.

Our compatible devices brands

MikroTik   **Ruckus** Simply Better Wireless   cisco Meraki   LigoWave   CLOUDTRAX   Cambium Networks

Personalized email and SMS notifications

Type your custom text inside the preloaded templates and you are ready to send notifications to your clients. Variables can also be entered providing personalized messages.

Complimentary Access. Connection in a blink of an eye

You may wish to offer complimentary services and amenities to guests, without requiring registration. Login will be seamless and quick. One click and your client will be connected!

Traffic Shaping

HSNM enables limiting guests to a defined amount of bandwidth or time, ensuring equally-distributed access.
It allows you to generate additional revenue by charging users for WiFi Access. Provide a certain amount of access for free or charge for premium speeds. The most popular credit card payment gateways are supported.

Custom Vouchers and Cards

A full customizable access to the Wi-Fi network. You will be able to completely create and customize as many solutions as you want. Give users a personalized passphrase to access the WiFi network. Now thanks to the new graphical tools, you can easily create, print and distribute cards and vouchers for Internet connectivity.

Voucher code access can be enabled to allow your guests to be connected in seconds. Vouchers can be customized to include your branding in addition to network policies such as speed, duration and data allowance.
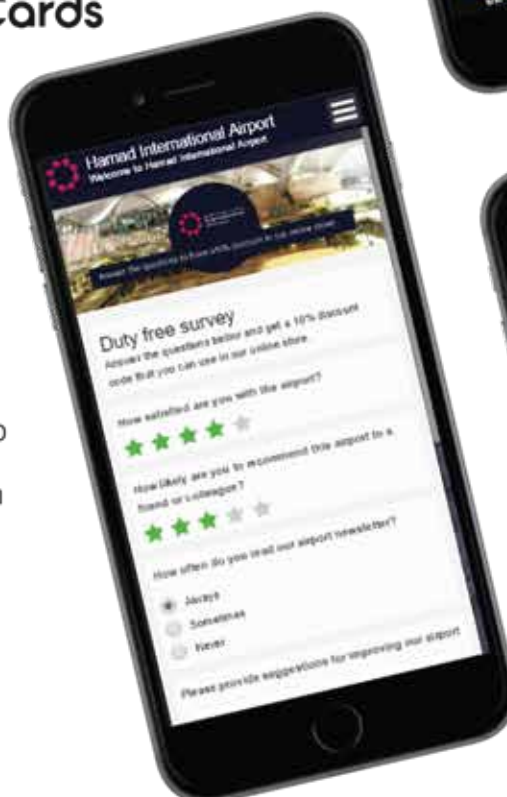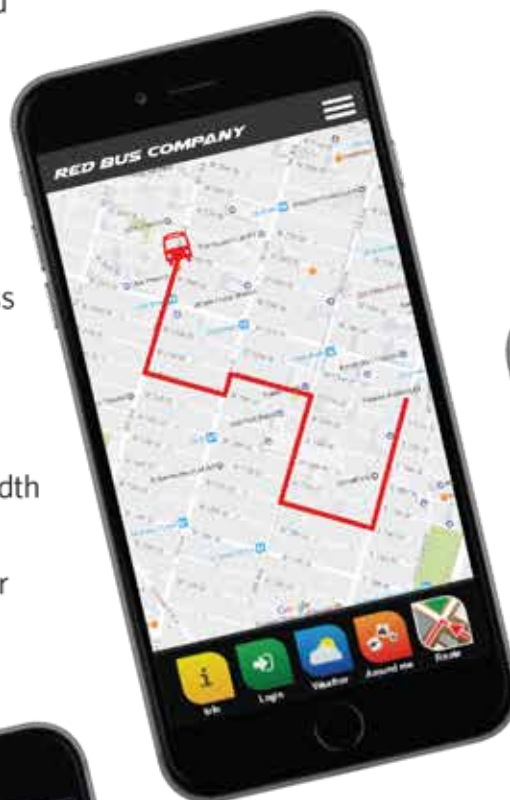
Client Surveys and Quizzes

Create surveys, quizzes and tests with just a few clicks. Obtain client feedback and react on these immediately. Whether you are testing client satisfaction or launching a new product.

Create your Pay-As-You-Go premium access without Ad and at the same time monetize your free WiFi. Grow your business with advertising across devices, where people enjoy their Wi-Fi connection. Advertise to millions of people and earn money from advertising, all in one place. The unique advertising feature enables you to captivate guests with dramatic full-page ads or videos, with a range of ad formats.
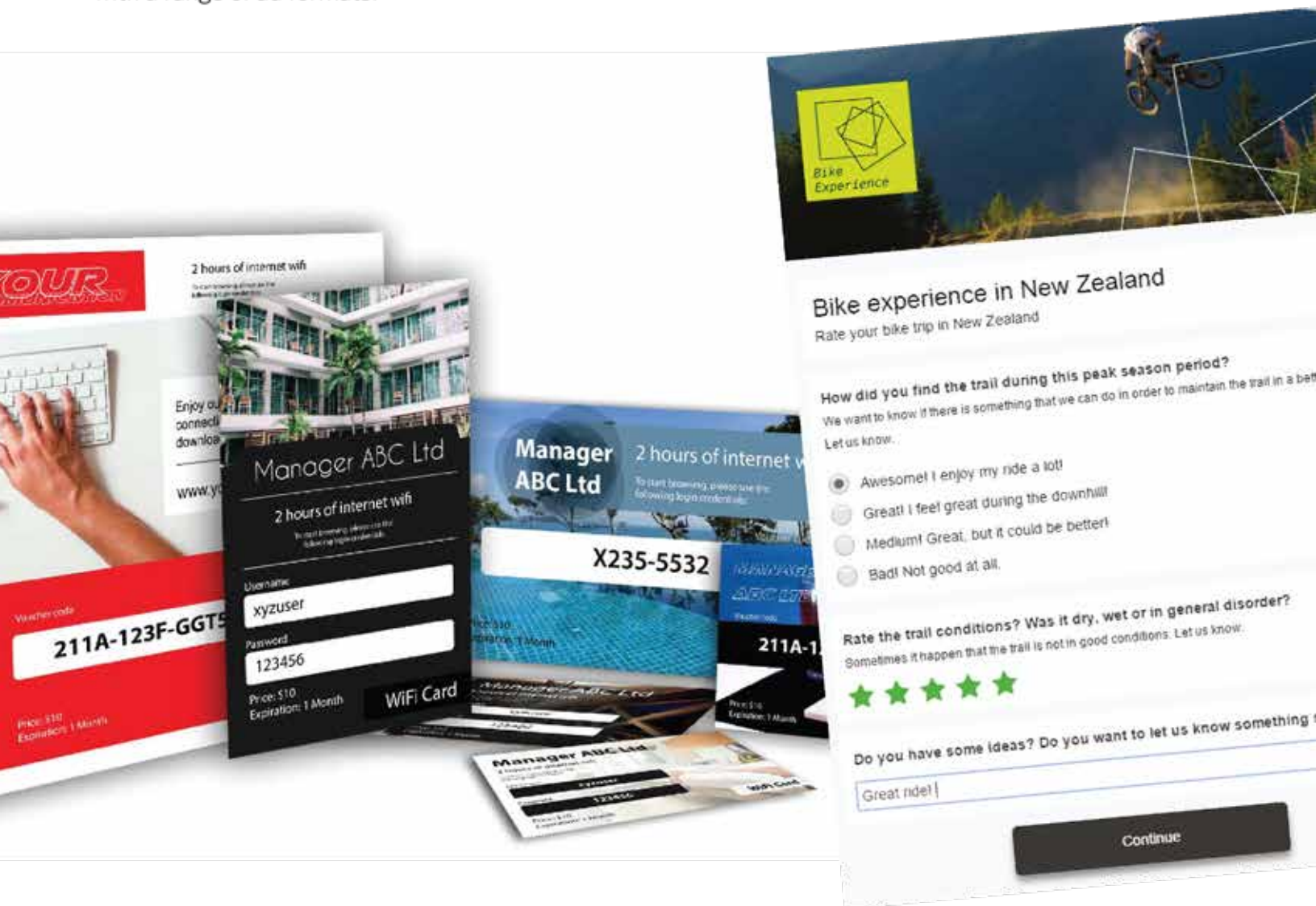
White Label Partners and Resellers

We offer a white label platform, providing you with the opportunity to grow your own portfolio of WiFi venues from small Cafes and Pubs to large Hotel Chains.

Find out the revolutionary marketing tool which gets the most out of your Wi-Fi networks while improving guest experience: www.hsnetworkmanager.com

EASILY MAP YOUR COMPLICATED
NETWORK WITH **THE DUDE.**

Let Link Technologies, Inc. engineers map out and plan the expansion of your network. Using The Dude we are able to create a network map that is easily understood. Give us a call today and we will give you an actionable plan to expand your network with!
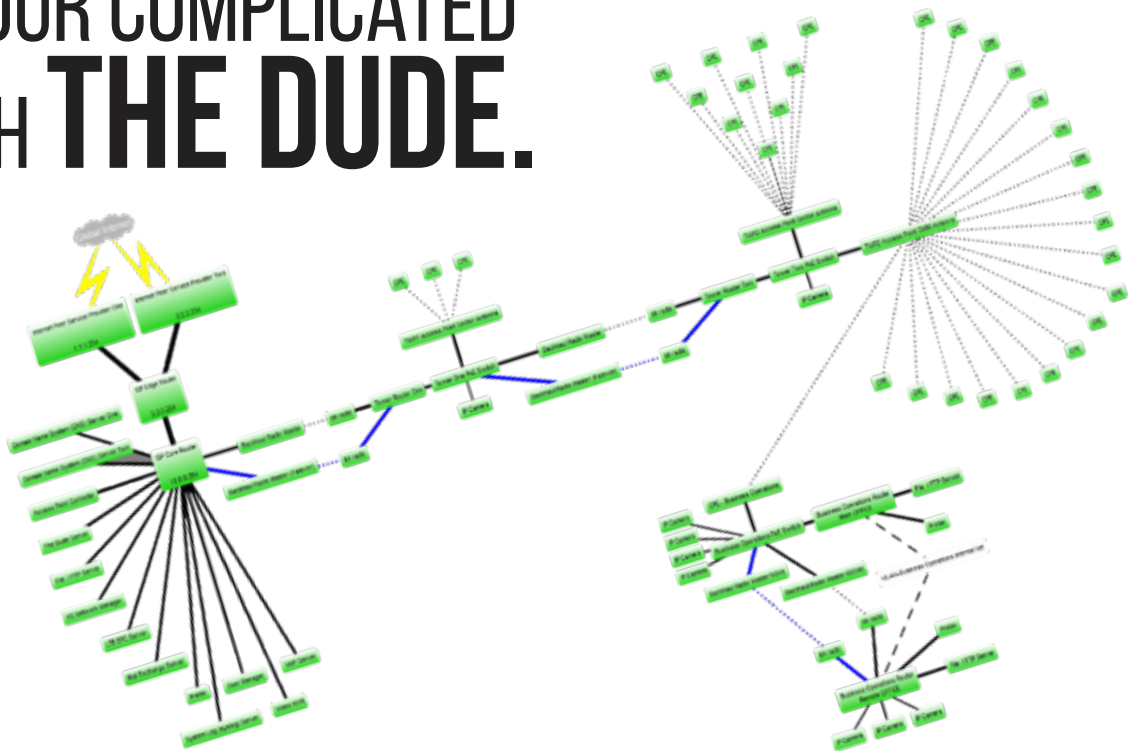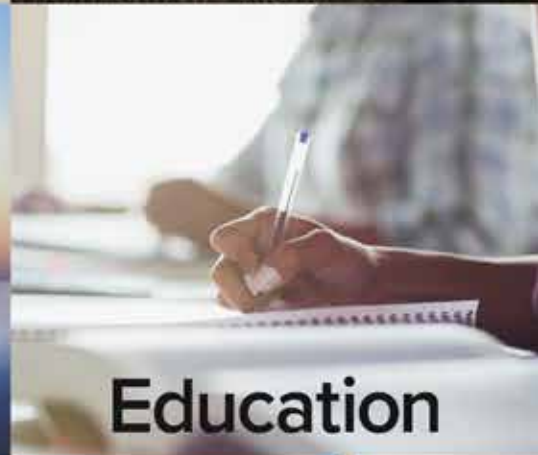
Government

Healthcare

Hospitality

Enterprise

B2B

Education

WISP's

Security

Transportation

Link Technologies, Inc. has the knowledge, expertise, and resources to ensure that we meet the standards that consort with these industries. Whether you need to meet HIPAA standards, sustain a level of security above a certain standard, need to ensure that you have the least amount of downtime possible, or many other specialized needs, we will get the job done.

Have questions? Reach out to our sales team!