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agi *Buyers Guide 2014*™

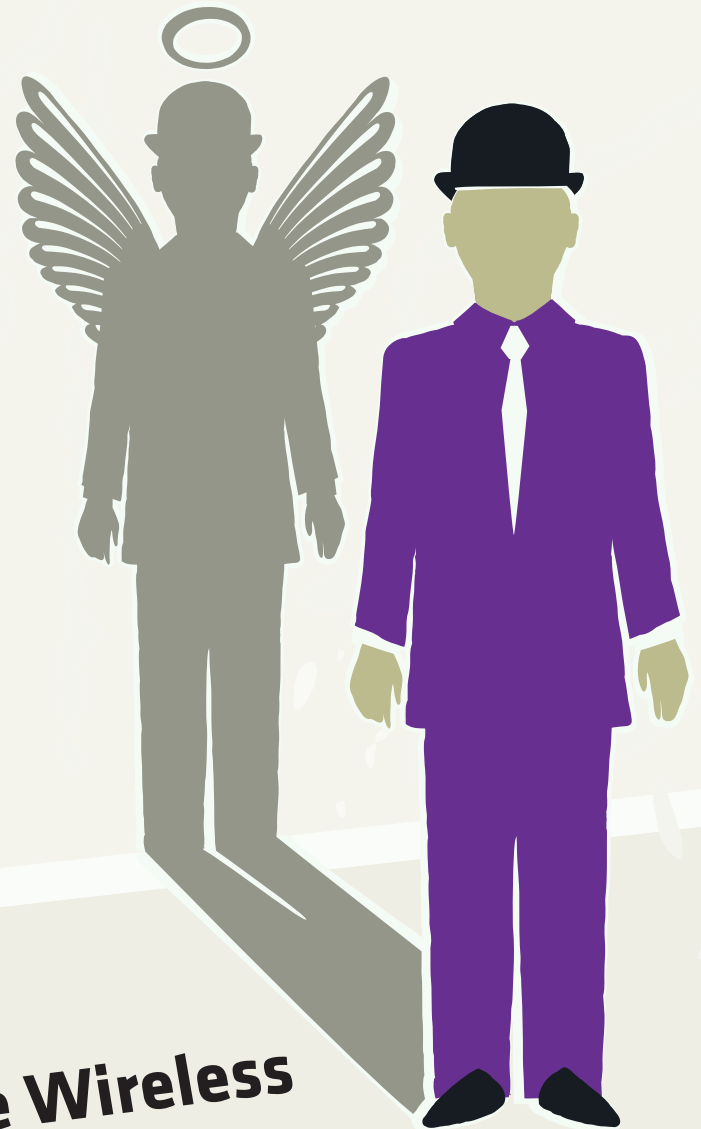
Picking Your Partners

What to look for in a great supplier and how to know them when you see them.

Interviews with Industry Leaders

Tips & Quotes to Consider

And a List of the Best Companies to Work with in the Wireless Infrastructure Community



Your Resource for the Wireless Infrastructure Community

January 2014 /// Volume 11 /// No. 01

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Picking Your Partners

What to look for in a great supplier and how to know them when you see them.

Interviews with Industry Leaders

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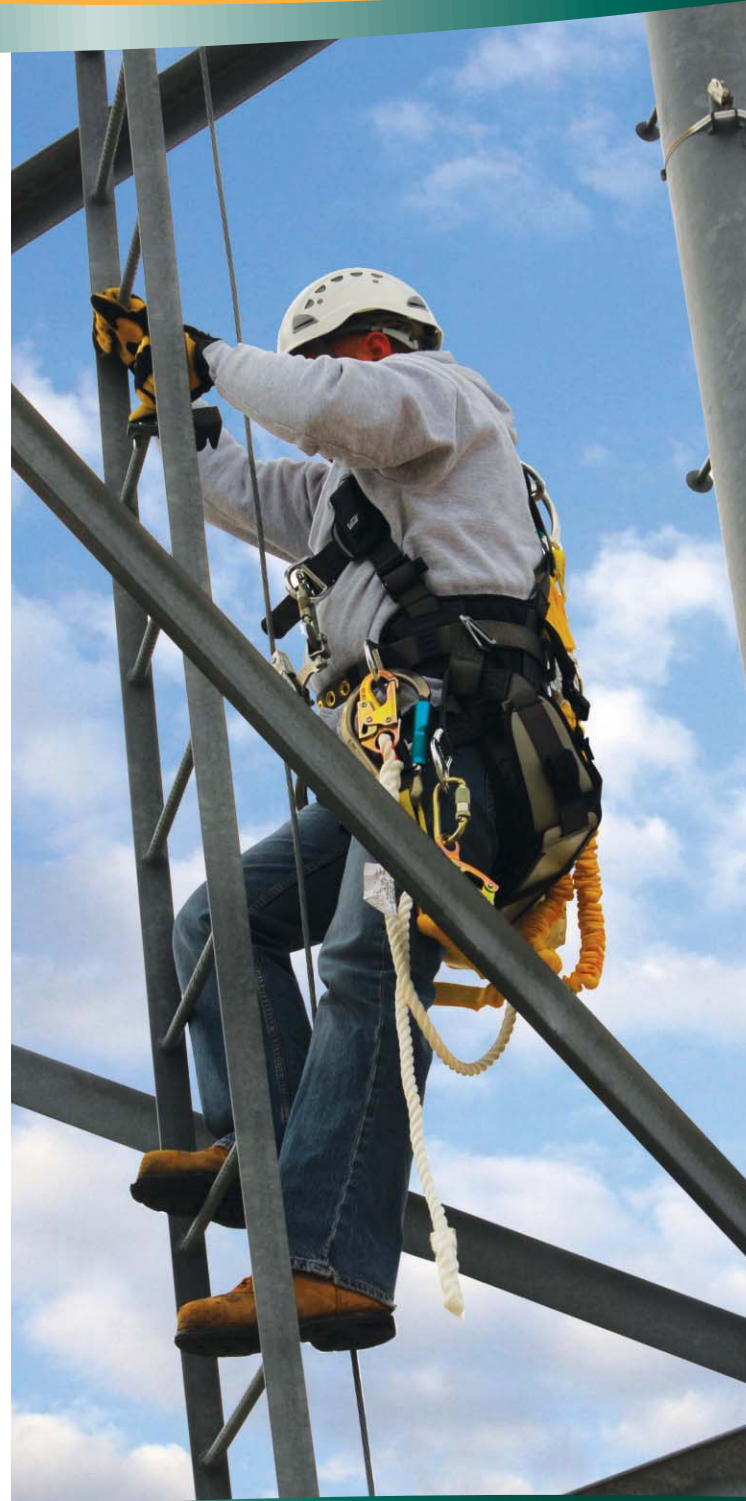
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agl *Buyers Guide™*

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From The Editor



Although many business partnerships do not stand the test of time, such as Bill Gates and Paul Allen, others do, such as Warren Buffet and Charlie Munger, partners since the 1970s.

The best partnerships include partners equally committed to success yet complementary in their skills and interests.

The person with an interest in the product or service offered might be better off with a partner who instead has an interest in marketing, sales and business operations.

If one partner is available to spend full time with the business and the other isn't, the full-time partner risks becoming distracted by the other partner's absence, inattention or perceived lack of commitment. Distractions could be other business interests, family obligations, health problems and a desire to spend more time at leisure.

Maybe in an effort to cement a sales and purchasing relationship that otherwise would not have the hallmarks of a business partnership or maybe in a genuine effort to elevate such a relationship to a higher degree of information sharing and co-operation, some people call their customers their partners. I'm not certain customers think of their vendors as partners as often as their vendors do, but maybe so.

Some tower owners refer to their wireless carrier customers as partners. Their interests are complementary in that carriers operate communications networks and tower owners offer them places to put network equipment. I've heard industry

leaders say wireless carriers and tower owners are all in the wireless broadband business together. I've also heard many tower owners say they are in the real estate business, and I've never heard a wireless carrier say it was in the real estate business.

Meanwhile, some suppliers to the tower owners and antenna-site developers want to be considered more as partners. There's good reason. A supplier becoming involved early on with siting projects, as a partner might, could benefit both parties, as a partnership is supposed to do.

Whether you use this buyers guide issue of AGL to find a vendor to sell you a product or a service, or whether you use it to find a partner, the steps you take to qualify your counterparty should include evaluating quality, reliability, customer service and delivery.

If buyers guide helps you find just the right vendor or even a partner, let me know, won't you?

Don Bishop, Executive Editor
dbishop@aglmediagroup.com

Towers That Mean Business

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From The Publisher



Sometimes I've missed the benefit of picking the right partner. I've spent my professional life being the company/professional that another company has to pick to award business to.

I started out as a supplier of online radio coverage and database services, and in those early days it was about having the best products and marketing them. For me, as an engineer, it was always about the product. Perhaps the downfall of almost all engineers is to let the service stand above all else and forget to market, promote and sell. You may have the best thing going, but if no one knows about it, it will make no difference to your customers or to you.

I've always had success getting to know my customers/clients by having an opening dialog. "These are the things I know," I say. "Is there anything I can do to help your process and to help your deployment?" Or turn that around, as we did in the early days of the industry: "Show me how you are doing things, and let me see if I can help improve the process and increase efficiency."

For my particular skillset, I was able to make a big difference in the deployment of some early cellular and PCS systems and help a lot of companies make things more efficient. Of course, I did well at the same time. That is a good vendor. That is a partnership.

Picking the right vendor partner is a fairly difficult choice. I've been working to deploy a number of rural markets and a number of fast-turn projects

for some folks who obtained spectrum a little late and who are up against the mandatory build out requirements. I've learned to appreciate the importance of a vendor partner that knows you and your needs, and that will go the extra mile when you need help. Business should be more cut and dried, but it never is.

In some of the projects I've been successful at lately, I've only been able to be successful through the extraordinary efforts of my vendors. Because my company is just a vendor to another company, I've been A+. So I get more work. And I give more work to my vendors—those that do well for me.

And so we present our annual buyers guide to the industry. I know one thing: The right partner/vendor is in this issue, here for you. The right partner sometimes takes a little effort to find, but it sure is worth the effort in the end.

Rich Biby, Publisher
rbiby@aglmediagroup.com

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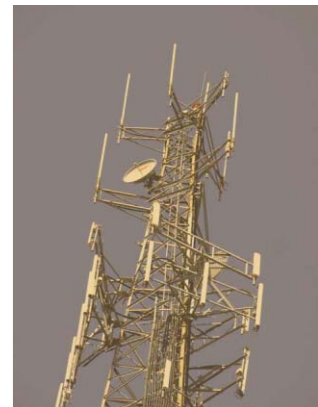
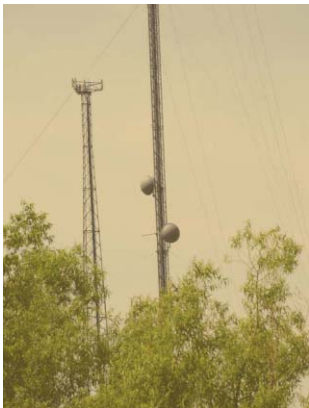
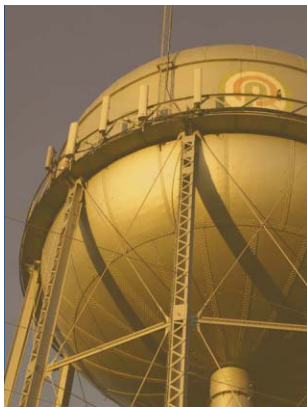
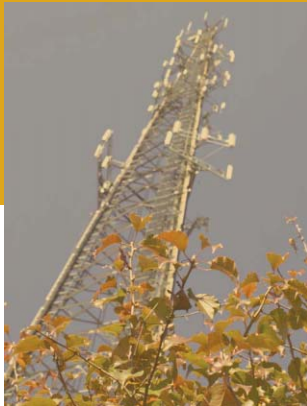
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Waterford Consultants

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Thomas Ferguson
sales@waterfordconsultants.com
703.910.5054
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Waterford Consultants offers a wide array of professional and regulatory consulting services with expertise in AM detuning, RF emissions analysis (EME), intermodulation studies, FAA certification and filing, site audit and third-party inspection, and tower structural and appurtenance mapping. Waterford says it has a national team of highly respected and reputable experts who are committed to providing superior, timely and budget-sensitive customer service. Waterford says it understands regulatory requirements and can alleviate the burden of FCC compliance for its customers.

See ad on page 42

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ANTENNAS



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Alliance Corporation is a value-added distributor of wireless infrastructure products. The company builds custom fiber optic and coax cable assemblies and jumpers and supplies all the necessary accessories. Alliance Corporation stocks products from the industry's key manufacturers.

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alphaantennas.com



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Anis Khemakhem
sales@amphenol-fiberoptics.com
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Westchester, IL 60154

Tania Patrone

tania.patrone@commscope.com

708.236.6586

commscope.com/andrew

CommScope says it has played a vital role in the world's best communication networks. The company says its solutions span the entire RF landscape, helping wireless carriers manage ever-increasing cell site complexities. CommScope's end-to-end RF solutions include critical infrastructure needed to build high-performance wireless networks.

See ad on page 17

Flanigan Communications

109 E. Woodfield St.

Norton, KS 67654

Gary Flanigan

cmf1958@yahoo.com

785.871.0010



GALTRONICS

Galtronics

1131 W. Warner Road

Tempe, AZ 85284

Robert Booth

sales@galtronics.com

aglmediagroup.com

866.206.9482

galtronics.com

Galtronics says it designs and manufactures in-building and outdoor DAS and small cell anten-

applications. Huber+Suhner offers expertise in radio frequency, fiber optics and low frequency all under one roof, thus providing innovation for the in-building (DAS and small cell) and FttA/

The right partnership can make or break a company. -Seth Godin

nas of the highest quality and superior performance. The company's Pear and Ethernet product lines include several omnidirectional and panel antennas that are low-PIM-certified and that offer what Galtronics calls innovative mounting flexibility.

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Dick Schmidt

info@hubersuhner.com

630.816.4021

hubersuhner.com

The Huber+Suhner group is a global supplier of components and systems for electrical and optical connectivity. The company says its communications customers appreciate that it has specialists with detailed knowledge of practical

PttA macro site needs of customers all over the world.

See ad on page 134

IEEE Communications Society

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comsoc.org/training

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David Klein

david@metal-cable.com

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See ad on page 97



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Phazar Antenna

101 S.E. 25th Ave.
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Steve Schueler
sschueler@phazar.com
940.325.3301
antennaproducts.com

Phazar says it is the largest supplier of oDAS antennas used on street lights, utility poles or structures. It offers multiple-frequency coverage for 700/850 MHz, AWS, PCS, WiMAX, and Wi-Fi on omni's, tri-sector and quasi-omni styles. New antennas offer LTE/MIMO with low PIM and VSWR performance.

**Pulse Electronics/
Larsen Antennas**

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Customer Service
antennas.us@pulseelectronics.com
800.426.1656
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Radio Frequency Systems (RFS) is a global designer and manufacturer of cable, antenna and tower systems, along with active and passive RF conditioning modules, providing total-package solutions for outdoor and indoor wireless infrastructure. RFS serves OEMs, distributors, system integrators, operators and installers. Its customers include the four largest wireless carriers, the majority of tier 2 and 3 wireless carriers in North America and many of the top wireless and microwave OEMs worldwide.

See ad on page 57

Radio Waves

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spectracomcorp.com

The Path Align-R is a high-performance test solution designed for fast, accurate microwave path alignment. The manufacturer says the unit is endorsed by leading wireless communications suppliers, and it provides precise alignment results in about 20 minutes. No power or radios are required on-site. The Path Align-R provides proof of alignment with recorded and documented records.

See ad on page 103



Spinner ICT

5126 South Royal Atlanta Drive
Tucker, GA 30084
Michael Horan
info-atlanta@spinner-group.com
770.263.6326
spinner-group.com/us

Spinner ICT says it is the leader in low-PIM performance for jumper cables, coaxial connectors and passive components. The company says it provides the highest quality German-engineered design to meet and exceed industry requirements.

See ads on pages 77 and 85

ANTENNAS



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562.906.8023
talleycom.com

TE Connectivity

541 E. Trimble Road
San Jose, CA 95131
Seri Yoon
seri.yoon@te.com
408.952.2400
te.com/DAS



Telewave

660 Giguere Court
San Jose, CA 95133
sales@telewave.com
800.331.3396
telewave.com

Telewave designs and manufactures RF infrastructure equipment for wireless communication systems and interoperability. Customers include public safety organizations; local, county and federal agencies; industry; and the military.

See ad on page 27

Tessco Technologies

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John Celentano
celentanoj@tessco.com
410.229.1186
tessco.com

Thin Air Construction

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Hastings, MN 55033
Jules Fisher
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Ginny Gullett-Tawes
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800.759.9996
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43320 Business Park Drive,
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Media Venture Partners provides strategic counsel and financial services, mergers/acquisitions, private equity/debt raises, valuations and appraisals. Media Venture Partners has completed

more than \$14 billion in transactions and focuses on clients in the media, telecom, data center, renewables and technology industries. Founded in 1987, Media Venture Partners has offices in San Francisco, CA; Kansas City, Mo.; Boston and Boulder, Colo.

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ASSOCIATIONS



ACUTA

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859.278.3338
acuta.org

ACUTA is a 43-year-old nonprofit association that provides professional networking and educational resources such as conferences, seminars, and printed and electronic publications to the men and women responsible for collaboration technologies, including voice, data and video communications on college campuses.



/ SUPPLIERS /

The association says it has earned a reputation as the go-to source for information regarding campus networks, including Wi-Fi, fixed mobile convergence, VoIP, DAS and wireless security issues.



National Association of Tower Erectors

8 Second St. S.E.
Watertown, SD 57201
Todd Schlekeway
nate@natehome.com
605.882.5865
natehome.com

The National Association of Tower Erectors (NATE) is a nonprofit trade association in the wireless infrastructure industry providing a unified voice for tower erection, service and maintenance companies. The association has more than 600 member companies throughout the United States, Bahamas, Canada, Ghana, India, Jamaica, Romania, Saudi Arabia, South Africa, Trinidad and Tobago and the United Arab Emirates.

See ad on inside front cover

2014 WIRELESS INFRASTRUCTURE SHOW MAY 19-22, ORLANDO, FL

PCIA
500 Montgomery St., Suite 500
Alexandria, VA 22314
Caitin Colligan
caitin.colligan@pcia.com
703.535.7424
pcia.com

PCIA - The Wireless Infrastructure Association represents the companies that make up the wireless telecom infrastructure industry. Members are the carriers, infrastructure providers and professional services firms that own and manage more than 130,000 telecommunications facilities worldwide.

See ad on page 50

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Phillips Lytle's telecommunications attorneys handle a full range of matters including

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Shulman Rogers is a full-service telecom and business law firm, providing brokerage services, contract negotiations, regulatory filings and dispute resolution, among other services, for tower owners, lessors and lessees. From rooftops to DAS and backhaul to insurance, Shulman Rogers says, "We stand ready to assist."

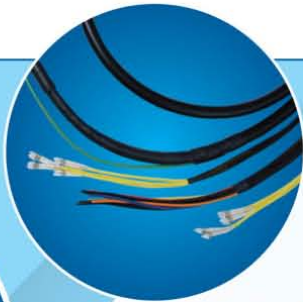
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Tower Seekers

3805 Shale Court
Carlsbad, CA 92010
Mike Ritter
mike@towerseekers.com
760.917.1123
towerseekers.com

COMMSCOPE®

Helping you build the top
of the tower from the ground up...
and everything in between



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Whether you plan to build a single site or undertake a massive network upgrade, CommScope is there to provide high-performance solutions for all your needs, from the base station to the top of the tower — along the entire RF path.

To learn more, visit www.commscope.com

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BRACKETS/ MOUNTS



Alliance

2 Frassetto Way
Lincoln Park, NJ 07035
alliancesales@alliancecomm.com
888.821.4797
alliancecomm.com

Alliance is a distributor of wireless infrastructure products. The company builds custom fiber-optic assemblies, coax cable assemblies and jumpers and supplies all the necessary accessories. Alliance stocks product from the industry's key manufacturers.

Allstate Tower

P.O. Box 25
Henderson, KY 42419
Kevin Roth
Kroth@allstatetower.com
270.830.8512
allstatetower.com

See ad on page 161

Comsite Hardware

P.O. Box 3951
Incline Village, NV 89450
Steve Hopkins
sales@comsitehardware.com
775.832.2523
comsitehardware.com



Connect-It Wireless

210 Commerce Way, Suite C
Jupiter, FL 33458
Alisa Whitacre
sales@connectitwireless.net
866.781.1300

connectitwireless.net

Connect-It Wireless manufactures and supplies what it calls the highest-

330.963.7909

metal-cable.com

Metal & Cable's high-capacity

Asking for referrals from business associates you respect and trust is a great way to source supplier candidates.

quality site hardware available. It says its customer service and industry knowledge are second to none. Connect-It Wireless has antenna site needs in stock, including antenna mounts, bridge kits, coax support, grounding and a huge safety line.



Kenwood Telecom

3431 Novis Pointe
Acworth, GA 30101
Paul Novis
pauln@kenwoodtelecom.com
888.439.0500
kenwoodtelecom.com

In business since 1980 and a veteran-owned business, Kenwood Telecom manufactures tower site infrastructure steel components, accessories and customized mounting and bracket solutions. The company also provides installation support material needs.

Metal & Cable Corp., Inc.

Metal & Cable
9337 Ravenna Road, Unit C
Twinsburg, OH 44087
David Klein
david@metal-cable.com

Magnemount antenna mount and Magnemount cable/cable tray mount are nonpenetrating magnetic mounts designed for use on steel water towers. Metal & Cable says that in eight years in service, it has never had a service failure.

See ad on page 97

Radio Waves

495R Billerica Ave.
North Billerica, MA 01876
sales@radiowaveinc.com
978.459.8800
radiowavesinc.com

Sabre Site Solutions

2101 Murray St.
Sioux City, IA 51111
Michael Burnett
mjburnett@sabreindustries.com
800.369.6690
sabresitesolutions.com

See ad on page 99



Telewave

660 Giguere Court
San Jose, CA 95133
sales@telewave.com
800.331.3396
telewave.com

See ad on page 27

BRACKETS / MOUNTS



SITE PRO 1

A **valmont** COMPANY

Valmont Site Pro 1

15 Oser Ave.
Hauppauge, NY 11788
Steve Hagee
steven.hagee@valmont.com
888.GETPRO1
sitepro1.com

Valmont Site Pro1 says it is the industry's leading manufacturer and distributor of high-quality wireless site components. The company's broad product offering is available for same-day shipping from any one of its six distribution centers located in Atlanta; Los Angeles; New York; Dallas, Plymouth, Ind.; and Salem, Ore. Products include coax cable accessories, grounding components, ice bridges, antenna mounts and platforms, guy material, fiber components and safety products.



Wanho Manufacturing

137 Mattatuck Heights
Waterbury, CT 06705
sales@wanho.com
203.759.3744
wanho.com

Wanho says it is a key supplier to all major OEMs throughout the world and that it is dedicated to serving these companies, which build and maintain wireless systems on a global basis. Wanho says its components are used extensively in communications systems in all corners of the world including the Americas, Europe and Asia.

See ad on page 137

aglmediagroup.com

BUILDINGS/ SHELTERS

Alpha Technologies

7700 Riverfront Gate
Burnaby, BC V5J 5M4
Canada
sales@alpha.ca
800.667.8743
alpha.ca

See ad on page 39



FIBREBOND

Fibrebond

1300 Davenport Drive
Minden, LA 71055
Kevin McCann
kevin.mccann@fibrebond.com
318.371.6361
fibrebond.com

Fibrebond says quality and service have earned it a reputation as a trusted partner in the telecommunications industry. The company's shelters, equipment installations and field services offer a number of benefits that translate into cost savings, time savings and safer working conditions.

See ad on page 153

Hanson Pipe & Precast

13201 Old Gentilly Road
New Orleans, LA 70129
Oliver Delery
heather.meiner@hanson.com
504.254.1596
hansonpipeandprecast.com



Mobile Modular Express II / Reliant Shelters

58120 County Road 3 South
Elkhart, IN 46517
Tim Fye
tfye@mobilemodular.com
574.295.1214
mobilemodular.com

Wherever you need an equipment shelter, Mobile Modular Express II/Reliant Shelters says its highly experienced engineering and production teams are ready to provide a cost-efficient design. The company says they get the job done by offering unlimited solutions in custom factory-built shelters of any size and shape.

Oldcastle Precast Shelter Solutions

7921 S. Park Plaza
Littleton, CO 80120
John Albert
barbara.bogo@oldcastle.com
561.914.6584
oldcastleprecast.com

Oldcastle Precast Shelter Solutions and Services offers a single point of contact. The company offers a turnkey shelter solution. It specializes in head ends, data centers, OTNs and hubs, and any type of above and below ground equipment shelter. Whether it's a concrete shelter, existing facility build out or new construction, Oldcastle Precast manages customers' projects from beginning to end. Oldcastle Precast produces precast concrete products and has more than 70 manufacturing facilities in the United States.



/ SUPPLIERS /



Pioneer Energy Products (Pepero)

671 Colbert Ave.
Oil City, PA 16301
Kelly Lander
klander@peprollc.com
814.676.5688
peprollc.com

Pepero says it is the leading manufacturer of patented shielded enclosures for remote communication and mission-critical applications. Pepero has more than 20 years in the industry without loss or upset of radio equipment caused by lightning. Pepero provides complete site solutions and installation.

See ad on page 143



Sabre Building Systems by CellXion

5031 Hazel Jones Road
Bossier City, LA 71111
Jim Phillips
jphillips@sabreindustries.com
770.301.8080
sabrebuildingsystems.com

Sabre Building Systems designs and manufactures concrete, structural steel and ultra-light aluminum shelters. The company also offers mobile, panelized and field-erectable products including COWs, mini-COWs, COLTs and tower trailers.

See ad on page 99



Thermo Bond Buildings

109 E. Pleasant St.
Elk Point, SD 57025
Jonathan Jansen
jon@thermobond.com
800.356.2686
thermobond.com

Thermo Bond Buildings is a manufacturer of equipment shelters and cabinets engineered and constructed to meet any project's unique needs. Thermo Bond Buildings offers full electrical and integration capabilities so customers' buildings are ready for power and equipment once they are offloaded.

See ad on page 161

BUILD-TO-SUIT SERVICES



AMERICAN TOWER®

American Tower
10 Presidential Way
Woburn, MA 01801
leasing@americantower.com
877.409.6966
americantower.com

American Tower is a wireless and broadcast communications infrastructure provider that offers access to more than 49,000 communications sites throughout the United States. Its solutions include wireless and broadcast towers, managed rooftops, in-building and outdoor distributed antenna system (DAS), small cell and Wi-Fi

networks, and other right of way options and services that speed network deployment.

Antietam Wireless Services

103 Carnegie Center, Suite 300
Princeton, NJ 08540
Michael Shine
info@anteitam-wireless.com
973.454.0302
anteitam-wireless.com

Arcadia Communications

3814 West St., Suite 325
Cincinnati, OH 45227
Sam Johnston
sam@arcadiatowers.com
513.702.0628
arcadiatowers.com



AW Solutions

300 Crown Oak Centre Drive
Longwood, FL 32750
Keith Hayter
keith.hayter@awsolutionsinc.com
407.260.0231
awsolutionsinc.com

AW Solutions is licensed throughout the United States, Canada and Caribbean to provide turnkey site infrastructure development and build-to-suit services to the wireless, iDAS, oDAS, wireline and fiber industries.



Beacon Towers

3001 Salterbeck St., Suite 200
Mt. Pleasant, SC 29466
Martin Deputy
martind@vitessewireless.com
843.324.9731

BUILDINGS/SHELTERS - BUILD-TO-SUIT SERVICES



Branch Communications

1516 S. Boston, Suite 215
Tulsa, OK 74119
Johnie Johnson
jj@branchcomm.net
918.404.9289
branchcomm.net

Central States Tower

323 S. Hale St.
Wheaton, IL 60187
Liz Erbes
elizabeth@centralstater.com
centralstater.com
630.221.8500
centralstater.com

CIS Communications

749 Old Ballas Road
Saint Louis, MO 63141
Brick P. Storts
brick@ciscomm.com
314.569.2275
ciscomm.com

ComSites West

2555 Third St., Suite 200
Sacramento, CA 95818
Charlie Feick
charlie@comsiteswest.com
530.414.4376
comsiteswest.com

Dietz Brothers

12185 51st. St. NE
Spicer, MN 56288
Alan Dietz
alan@dietzbros.net
320.894.5957
dietzbros.net

Eco-Site

1414 Raleigh Road, Suite 445
Chapel Hill, NC 27517
Mike Collins
mcollins@eco-site.com
919.636.6810
eco-site.com

aglmediagroup.com



High Gain Wireless

P.O. Box 308
Great Falls, VA 22066-0308
Tom Ferguson
tferguson@highgainwireless.com
717.592.9578
highgainwireless.com

High Gain Wireless says it offers experts to help customers in executing difficult site developments by unifying team members' diverse backgrounds in engineering, site development, construction, project management and finance. The company says one of its unique offerings is High Gain Wireless' expertise in building out license-save markets.



Industrial Communications

40 Lone St.
Marshfield, MA 02050
Tom Lennon
melissa.goodwin@induscom.com
781.319.1012
industrialcommunications.com

MidAmerica Towers

P.O. Box 6556
Gainesville, GA 30504
Jay Panozzo
jay@midamericatowers.com
815.693.1565
midamericatowers.com

New Horizon Towers

11471 Twin Lakes Lane
San Angelo, TX 76904
Tom Thornton
newhorizontowers@aol.com
325.947.3436
newhorizontowers.com

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John Albert
barbara.bogo@oldcastle.com
561.914.6584
oldcastleprecast.com

Parallel
INFRASTRUCTURE

Parallel Infrastructure
4601 Touchton Road East,
Building 300, Suite 3200
Jacksonville, FL 32246
Edward Lee
eddy@parallelinfrastructure.com
904.565.4115
parallelinfrastructure.com

Parallel Infrastructure says it is the leader in right of way management and infrastructure development, focusing on maximizing the value of underutilized land assets for third-party clients. The firm's capabilities include telecommunications infrastructure development.

See ad on page 117



Prime Tower Development
5755 N. Point Parkway, Suite 37
Alpharetta, GA 30022
Steve Handmaker
shandmaker@

aglmediagroup.com

primetowerdevelopment.com
770.335.1057

Retel Services

5871 Glenridge Drive N.E.,
Suite 110
Atlanta, GA 30328
Kathy Kelly-Jacobs
kathy@retelservices.com
678.292.5723
retelservices.com

Rinkers Communications

103 South Main St.
Barre, VT 05641
Karl A. Rinker
lazykarl@aol.com
802.479.0121
rinkers.com



SBA Communications

5900 Broken Sound
Parkway N.W.
Boca Raton, FL 33487
Lynne Hopkins
request@sbsite.com
800.487.SITE
sbsite.com

As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

See ad on back cover

BUSINESS BROKERS

17 Mile

P.O. Box 826
Ardmore, PA 19003
Phone: (610) 613-6927
mark@17mile.net
17mile.net



Endeiro Capital Partners, LLC

Endeiro Capital Partners

741 Avignon, Suite B
Ridgeland, MS 39157
Jerry M. Sullivan
jmsullivan@endeiro.com
601.326.0525

Endeiro Capital Partners is a diversified management and investment firm providing private equity, debt and operating support services to entrepreneurs in both new and emerging businesses and to growth-stage companies seeking to expand their existing operations.

Media Capital Advisors

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Steve Bitner
steve@mediacapadvisors.com
610.701.0961
mediacapadvisors.com



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415.391.4877
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Media Venture Partners provides strategic counsel and financial services, mergers/acquisitions, private equity/debt raises, valuations and appraisals. Media Venture Partners has completed more than \$14 billion in transactions and focuses on clients in the media, telecom, datacenter, renewables and technology industries. Founded in 1987, Media Venture Partners has offices in San Francisco; Kansas City, Mo.; Boston and Boulder, Colo.

See ad on page 87

Milestone Media

848 N. Rainbow Blvd., #680
Las Vegas, NV 89107
Derrick Engel
mmllc.com@gmail.com
303.335.9843
milestonemediallc.com

RBC Capital Markets

3 World Financial Center,
200 Vesey St., 11th Floor
New York, NY 10281
Nick Stevenson
bruce.wilmsen@rbccm.com
212.428.6405
rbccm.com/communications

Tower Advisors

2338 Messenger Circle
Safety Harbor, FL 34695
Steven L. Ouzts
steve@toweradvisorsllc.com
727.643.8907
toweradvisorsllc.com

Vertex Consulting

2961-A Hunter Mill Road,
Suite 640
Oakton, VA 22124
Greg Weiner
greg.weiner@vertexconsulting.com
866.990.8378
vertexconsulting.com

**CABINETS/
ENCLOSURES**

Alpha Technologies

7700 Riverfront Gate
Burnaby, BC V5J 5M4
Canada
sales@alpha.ca
800.667.8743
alpha.ca

See ad on page 39

Amphenol
FIBER OPTIC PRODUCTS

Amphenol Fiber Optic Products

2100 Western Court
Lisle, IL 60532
Anis Khemakhem
sales@amphenol-fiberoptics.com
630.432.5715

Amphenol provides interconnectivity. Founded in 1932, Amphenol designs, manufactures and markets fiber-optic, electrical and coaxial interconnect products, including antennas. Amphenol products are engineered and manufactured globally.



Charles Industries

5600 Apollo Drive
Rolling Meadows, IL 60008
Dominic Imbrogno
mktsserv@charlesindustries.com
847.806.6300
charlesindustries.com

Charles Industries manufactures innovative enclosed solutions including remote cabinets for wireless backhaul, small cell, DAS, AMI, site support, and BTS deployments; fiber distribution building terminals and hubs; and

fiber cross-connect and distribution point pedestals. Charles is a U.S. based manufacturer and ISO 9001/TL 9000 registered company.

See ad on page 33



CLEARFIELD

Clearfield

5480 Nathan Lane
Plymouth, MN 55442
Johnny Hill
sales@clfd.net
763.476.6866
clearfieldconnection.com

No matter whether the objective is to deliver fiber to the home, business or cell site, Clearfield delivers solutions that lower the cost of broadband deployment. Clearfield says its FieldSmart fiber management platform is the industry's only fiber management solution based upon a single architecture. With the Clearview Cassette and Clearview xPAK at its heart, FieldSmart delivers a value proposition that scales from small towns to large enterprises.

See ad on page 109

CommScope

4 Westbrook Corporate Center,
Suite 400
Westchester, IL 60154
Tania Patrone
tania.patrone@commscope.com
708.236.6586
commscope.com/andrew

See ad on page 17

BUSINESS BROKERS - CABINETS/ENCLOSURES



Eltek

2925 E. Plano Parkway
Plano, TX 75074
Sales
sales.us@eltek.com
469.330.9100
eltek.com

Peabody Concealment

13435 Estelle St.
Corona, CA 92879
Sales RFTC
sales@peabodyconcealment.com
888.511.6828
peabodyconcealment.com

See ad on page 67

Sabre Building Systems by CellXion

5031 Hazel Jones Road
Bossier City, LA 71111
Jim Phillips
jphillips@sabreindustries.com
770.301.8080
sabrebuildingsystems.com

See ad on page 99

Talley

12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com

Tessco Technologies

11126 McCormick Road
Hunt Valley, MD 21031-1494
John Celentano
celentanoj@tessco.com
410.229.1186
tessco.com

Valmont Site Pro 1

15 Oser Ave.
Hauppauge, NY 11788
Steve Hagee
steven.hagee@valmont.com
888.GETPRO1
sitepro1.com

Valmont Site Pro1 says it is the industry's leading manufacturer and distributor of high-quality wireless site components. The company's broad product offering is available for same-day shipping from any one of its six distribution centers located in Atlanta; Los Angeles; New York; Dallas, Plymouth, Ind.; and Salem, Ore. Products include coax cable accessories, grounding components, ice bridges, antenna mounts and platforms, guy material, fiber components and safety products.

*Surround yourself with winners. Never forget
—people win. —Bear Bryant*

Fibrebond

1300 Davenport Drive
Minden, LA 71055
Kevin McCann
kevin.mccann@fibrebond.com
318.371.6361
fibrebond.com

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Hanson Pipe & Precast

13201 Old Gentilly Road
New Orleans, LA 70129
Oliver Delery
heather.meiner@hanson.com
504.254.1596
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Mobile Modular Express II / Reliant Shelters

58120 County Road 3 South
Elkhart, IN 46517
Tim Fye
tfye@mobilemodular.com
574.295.1214
mobilemodular.com

Oldcastle Precast Shelter Solutions

7921 S. Park Plaza
Littleton, CO 80120
John Albert
barbara.bogo@oldcastle.com
561.914.6584
oldcastleprecast.com

Pioneer Energy Products (Pepro)

671 Colbert Ave.
Oil City, PA 16301
Kelly Lander
klander@peprollc.com
814.676.5688
peprollc.com

See ad on page 143



Raycap

806 S. Clearwater Loop
Post Falls, ID 83854
Lisa Duckett
marketing@raycap.com
208.777.1166
raycapsurgeprotection.com

Raycap says it is a world leader in lightning protection and cable management solutions for fiber-to-the-antenna (FTTA) networks. Its products connect and protect tens of thousands of 3G and 4G sites in the latest networks being built by the world's largest operators.

See ad on page 69

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Ventev

375 W. Padonia Road
Timonium, MD 21093
Ginny Gullett-Tawes
gulletttawes@ventev.com
800.759.9996
ventev.com

Westell Technologies

750 N. Commons Drive
Aurora, IL 60504
contactsales@westell.com
800.377.8766
westell.com

CABLE

ACS Solutions

495 Horizon Drive, Suite 200
Suwanee, GA 30024
Bob Diehl
bdiehl@acssolutions.com
800.241.9881
acssolutions.com



Alliance

2 Frassetto Way
Lincoln Park, NJ 07035
alliancesales@alliancecomm.com
888.821.4797
alliancecomm.com

Alliance is a value-added distributor of wireless infrastructure products. The company builds custom fiber-optic assemblies, coax cable assemblies and jumpers and supplies all the necessary accessories. Alliance stocks products from the industry's key manufacturers.

Allied Fiber

845 Third Ave., 8th Floor
New York, NY 10022
Hunter Newby
info@alliedfiber.com
631.285.1136
alliedfiber.com



Amphenol Fiber Optic Products

2100 Western Court
Lisle, IL 60532
Anis Khemakhem
sales@amphenol-fiberoptics.com
630.432.5715

Amphenol provides interconnectivity. Founded in 1932, Amphenol designs, manufactures and markets fiber-optic, electrical and coaxial interconnect products, including antennas. Amphenol products are engineered and manufactured globally.



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Richardson, TX 75081
Technical Support
marcom@anritsu.com
800.ANRITSU
anritsu.com

Anritsu, a global provider of innovative test and measurement solutions, provides solutions for existing and next-generation wired and wireless communication systems and operators. Products include wireless, optical, microwave/RF and digital instruments, together with operations support systems for R&D, manufacturing, installation and maintenance.

See ad on page 1



CLEARFIELD

Clearfield

5480 Nathan Lane
Plymouth, MN 55442
Johnny Hill
sales@clfd.net
763.476.6866
clearfieldconnection.com

No matter whether the objective is to deliver fiber to the home, business or cell site, Clearfield delivers solutions that lower the cost of broadband deployment. Clearfield says its FieldSmart fiber management platform is the industry's only fiber management solution based upon a single architecture. With the Clearview Cassette and Clearview xPAK at its heart, FieldSmart delivers a value proposition that scales from small towns to large enterprises.

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CommScope

4 Westbrook Corporate Center, Suite 400
Westchester, IL 60154
Tania Patrone
tania.patrone@commscope.com
708.236.6586
commscope.com/andrew

CommScope says it has played a vital role in the world's best communication networks. The company says its solutions span the entire RF landscape, helping



wireless carriers manage ever-increasing cell site complexities. CommScope's end-to-end RF solutions includes critical infrastructure needed to build high-performance wireless networks.

See ad on page 17

Corning

800 17th St. NW
Hickory, NC 28601
Isolde Karro
karroi@corning.com
828.901.6406

Electro-Wire

933 E. Remington Road
Schaumburg, IL 60173
James Torok
sales@electrowire.com
847.944.1500
electrowire.com

Huber+Suhner

19 Thompson Drive
Essex Junction, VT 05452
Dick Schmidt
info@hubersuhner.com
630.816.4021
hubersuhner.com

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Hutton Communications

2520 Marsh Lane
Carrollton, TX 75006
Wendy DeLawder
sales@huttoncom.com
877.648.8866
huttononline.com

Pasternack Enterprises

17802 Fitch
Irvine, CA 92614
Shaun Gameroz
sales@pasternack.com
949.261.1920
pasternack.com

RADIO FREQUENCY SYSTEMS
The Clear Choice®



Radio Frequency Systems

200 Pond View Drive
Meriden, CT 06450
Paula Mennone-Preisner
sales.americas@rfsworld.com
800.321.4700
rfsworld.com

Radio Frequency Systems (RFS) is a global designer and manufacturer of cable, antenna and tower systems, along with active and passive RF conditioning modules, providing total-package solutions for outdoor and indoor wireless infrastructure. RFS serves OEMs, distributors, system integrators, operators and installers. Its customers include the four largest wireless carriers, the majority of

Telewave wideband yagi antennas are ideal for handheld or fixed use with many popular measurement devices. They are also well suited for link and booster operation. Front to back ratio of 20 dB or better enhances your ability to track down interference. These antennas weigh less than 3 lb and are fully coated to resist any adverse conditions. 7-16 DIN-F connectors and multiple fixed mounting options are available.

ANT1800Y10-WR
1710-1880 MHz
10 dBd gain / 20 dB F/B
19" length / 2 lb

ANT2045Y12-WR
1910-2170 MHz
12 dBd gain / 30 dB F/B
24" length / 3 lb

TELEWAVE, INC.
San Jose, CA • 1-800-331-3396 • www.telewave.com

MADE IN USA



/ SUPPLIERS /

tier 2 and 3 wireless carriers in North America and many of the top wireless and microwave OEMs worldwide.

See ad on page 57

Radio Waves

495R Billerica Ave.
North Billerica, MA 01876
sales@radiowaveinc.com
978.459.8800
radiowavesinc.com

RF Industries

7610 Miramar Road
San Diego, CA 92126
Richard LaFay
rlafay@rfindustries.com
800.233.1728
rfindustries.com



Southwire

240 Chestnut St.
Warwick, RI 02888
Karen Lawrence
bruce.wasser@southwire.com
401.780.2035
southwire.com/industrial/telcoflex.htm

Southwire says its TelcoFlex cable the premier LSZH central office power cable used for all levels of telecom equipment installations and battery back-up in central offices and remote locations. TelcoFlex is compliant with Telcordia GR-347, and it is UL-listed and CSA-certified.

See ad on page 121



Spinner ICT

5126 South Royal Atlanta Drive
Tucker, GA 30084
Michael Horan
info-atlanta@spinner-group.com
770.263.6326
spinner-group.com/us

Spinner ICT says it is the leader in low-PIM performance for jumper cables, coaxial connectors and passive components. The company says it provides the highest quality German-engineered design to meet and exceed industry requirements.

See ads on pages 77 and 85

Superior Essex

6120 Powers Ferry Road,
Suite 150
Atlanta, GA 30339
Matt Wheeler
jamie.bailey@spsx.com
770.657.6000
ce.superioressex.com

Talley

12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com

Tech Products

105 Willow Ave.
Staten Island, NY 10305
Daniel D. O'Connor
team@techproducts.com
718.442.4900
techproducts.com



Times Microwave Systems

358 Hall Ave.
Wallingford, CT 06492
Carolyn Turner
sales@timesmicro.com
203.949.8400
timesmicrowave.com

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Trilogy Communications

2910 Highway 80E
Pearl, MS 39208
Angela Lourenco
info@trilogycoax.com
601.932.4461
trilogycoax.com

Trilogy is a manufacturer of fully bonded air-dielectric coaxial cables. AirCell Transline, radiating and plenum cables eliminate water migration and offer the best attenuation. Trilogy offers LTE PIM-certified premade jumpers. AirCell cables have been 100 percent American-made since 1985.

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Wanho Manufacturing

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sales@wanho.com
203.759.3744
wanho.com

Wanho says it is a key supplier to all major OEMs throughout the world and that it is dedicated to serving these companies, which build and maintain wireless systems on a global basis. Wanho says its components are used extensively in communications systems in all corners of the world including the Americas, Europe and Asia.

See ad on page 137

CLIMATE CONTROL



Bard Manufacturing

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Paul Quigley
bard@bardhvac.com
419.636.1194
bardhvac.com

Wall-mount air conditioners from Bard Manufacturing for telecommunication shelters feature 1-to 6-ton cooling capacity, left or right service access, economizer ventilation options and specific telecom control module options. Single-stage equipment is available up to 10.2 EER efficiencies, and two-stage equipment up

to 15.2 IPLV is also offered for even greater efficiencies.

See ad on page 62



Dantherm

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110 Corporate Drive, Suite K
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Lourdes Sisk
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864.699.1058
dantherm.com/us

Dantherm Solutions provides energy-efficient heat removal from telecom shelters, rooms, cabinets and enclosures. Dantherm also offers air conditioners, heat exchangers, free cooling and combo cooling designed to meet cooling requirements while reducing energy and operating costs.



Marvair

156 Seedling Drive
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Kim Pate
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229.273.3636
marvair.com

COLLOCATION SERVICES

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Hunter Newby
info@alliedfiber.com

631.285.1136
alliedfiber.com

Arcadia Communications

3814 W. Street, Ste. 325
Cincinnati, OH 45227
Sam Johnston
sam@arcadiatowers.com
513.702.0628
arcadiatowers.com

Blue Ridge Telecom

20 Cochran Oaks Lane
Dalls, TX 75220
Site Manager
info@BlueRidgeTelecom.com
469.366.4043
blueridgetelecom.com

Central States Tower

323 S. Hale St.
Wheaton, IL 60187
Liz Erbes
elizabeth@centralstatestower.com
630.221.8500
centralstatestower.com

CIS Communications

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Saint Louis, MO 63141
Brick P. Storts
brick@ciscomm.com
314.569.2275
ciscomm.com

Communications Structures

1920 Front St., Suite 840
Durham, NC 27705
Charles Durst
charles.durst@csmitowers.com
919.309.1106
csmitowers.com



ComSites West

2555 Third St., Suite 200
Sacramento, CA 95818

CABLE - COLLOCATION SERVICES



Charlie Feick
charlie@comsiteswest.com
530.414.4376
comsiteswest.com

ComSites West develops, owns and operates wireless communications sites in Northern California and Nevada, including tower and rooftop communications facilities. The company develops towers jointly with landowners and acquires towers through purchases and through purchase-leaseback programs.

Dynamic Environmental Associates
P.O. Box 7058
Lake Worth, FL 33466
David Jermakian
djermakian@dynamicenvironmental.com
877.968.4787
dynamicenvironmental.com

See ad on page 65

Eco-Site
1414 Raleigh Road,
Suite 445

LAB Development
Wallace Grove Lane
Milford, OH 45150
Doug Bartsch
dbartsch@labdevelopment.com
513.236.0356
labdevelopment.com

LBA Group
3400 Tupper Drive
Greenville, NC 27834
Jerry Brown
lbagrp@lbagroup.com
252.757.0279
lbagroup.com

Lyle
3140 Gold Camp Drive, Suite 30
Rancho Cordova, CA 95670
Matt Johnson
mjohnson@lyleco.com
916.804.7528
lyleco.com

Parallel Infrastructure
4601 Touchton Road East, Building 300, Suite 3200
Jacksonville, FL 32246
Edward Lee
eddy@parallelinfrastructure.com
904.565.4115
parallelinfrastructure.com

See ad on page 117



Prime Tower Development
5755 N. Point Parkway, Suite 37
Alpharetta, GA 30022
Steve Handmaker
shandmaker@primetowerdevelopment.com
770.335.1057

Look for signs of collaboration, innovation and problem solving skills in the interviewing process. These skills and attitudes are always welcome.



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Dean Ballew
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503.659.1240
daywireless.com

Founded in 1969, Day Wireless Systems has 26 offices and 190 towers in the seven western states. The company specializes in collocation, site management, tower construction, system design, sales and service. Day Wireless says it is the largest full-service wireless integrator on the West Coast.

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Chapel Hill, NC 27517
Mike Collins
mcollins@eco-site.com
919.636.6810
eco-site.com

EMF Telecom
328 Hill Ave.
Nashville, TN 37210
info@emftelecom.com
615.291.6279
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Industrial Communications
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Marshfield, MA 02050
Tom Lennon
melissa.goodwin@induscom.com
781.319.1012
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COLLOCATION SERVICES



/ SUPPLIERS /

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Suite 110
Atlanta, GA 30328
Kathy Kelly-Jacobs
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678.292.5723
retelservices.com



SBA Communications

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Boca Raton, FL 33487
Lynne Hopkins
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800.487.SITE
sbsite.com

As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

See ad on back cover

Spider Telecom Construction

P.O. Box 1960
Vega Alta, PR 00692
Carlos A. Rivera
crivera@stcpr.com
787.553.9636



Subcarrier Communications

139 White Oak Lane
Old Bridge, NJ 08887
John Paleski
subcom1@subcarrier.com

732.607.2828
subcarrier.com

Subcarrier Communications is a provider of telecommunications sites and services throughout the United States. The company's primary business is leasing antenna space on its multitenant towers and exclusively managed building rooftops.

See ad on page 5

Synergy Concepts

105 Ford Lane
Hazelwood, MO 63042
Ben White
benwhite@synergyconceptsinc.com
synergyconceptsinc.com
314.895.2800
synergyconceptsinc.com

Total Telecom Consulting

2218 Boustead St.
Pittsburgh, PA 15216
Robert Stevens
rstevens@totaltelecomconsulting.com
412.450.0005
totaltelecomconsulting.com



Utility Service Communications

535 Courtney Hodges Blvd.
Perry, GA 31069
Kerri Wright
sitemanagement@utilityservice.com
utilityservice.com
800.679.7819
utilityservice.com

Utility Service Communications specializes in site marketing and management for wireless facilities on water tank sites. The company

provides tech services including tank mapping, structural analysis, and architectural and engineering drawings.

See ad on page 133

Valmont Site Pro 1

15 Oser Ave.
Hauppauge, NY 11788
Steve Hagee
steven.hagee@valmont.com
888.GETPRO1
sitepro1.com

COMBINERS



Bird Technologies

30303 Aurora Road
Solon, OH 44139
Tom Boyle
sales@birdrf.com
440.519.2172
birdrf.com

See ad on page 161



Spinner ICT

5126 South Royal Atlanta Drive
Tucker, GA 30084
Michael Horan
info-atlanta@spinner-group.com
770.263.6326
spinner-group.com/us

Spinner ICT says it is the leader in low-PIM performance for jumper

COLLOCATION SERVICES - COMBINERS



cables, coaxial connectors and passive components. The company says it provides the highest quality German-engineered design to meet and exceed industry requirements.

See ads on pages 77 and 85

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12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com



Telewave

660 Giguere Court
San Jose, CA 95133
sales@telewave.com
800.331.3396
telewave.com

Telewave designs and manufactures RF infrastructure equipment for wireless communication systems and interoperability. Customers include public safety organizations; local, county and federal agencies; industry; and the military.

See ad on page 27

CONNECTORS

ACS Solutions

495 Horizon Drive, Suite 200
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Bob Diehl
bdiehl@acssolutions.com
800.241.9881
acssolutions.com

aglmediagroup.com

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Amphenol Fiber Optic Products

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sales@amphenol-fiberoptics.com
630.432.5715

Amphenol provides interconnectivity. Founded in 1932, Amphenol designs, manufactures and markets fiber-optic, electrical and coaxial interconnect products, including antennas. Amphenol products are engineered and manufactured globally.

Bird Technologies

30303 Aurora Road
Solon, OH 44139
Tom Boyle
sales@birdrf.com
440.519.2172
birdrf.com

See ad on page 161

CommScope

4 Westbrook Corporate Center, Suite 400
Westchester, IL 60154
Tania Patrone
tania.patrone@commscope.com
708.236.6586
commscope.com/andrew

CommScope says it has played a vital role in the world's best communication networks. The company says its solutions span the entire RF landscape, helping wireless carriers manage ever-increasing cell site complexities. CommScope's end-to-end RF solutions includes critical infrastructure needed to build high-performance wireless networks.

See ad on page 17

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karroi@corning.com
828.901.6406

Harger Lightning & Grounding
301 Zielger Drive
Grayslake, IL 60030
hargersales@harger.com
800.842.7437
harger.com

Huber+Suhner
19 Thompson Drive
Essex Junction, VT 05452
Dick Schmidt
info@hubersuhner.com
630.816.4021
hubersuhner.com

See ad on page 134

Pasternack Enterprises
17802 Fitch
Irvine, CA 92614
Shaun Gameroz
sales@pasternack.com
949.261.1920
pasternack.com



Phoenix Contact
586 Fulling Mill Road
Middletown, PA 17057
Technical Service
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Phoenix Contact develops and manufactures industrial electrical and electronic technology products that power, protect, connect and automate systems and equipment for many industries. Phoenix Contact

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employs more than 12,000 people worldwide, including 630 in the United States.

See ad on page 34

RF Industries
7610 Miramar Road
San Diego, CA 92126
Richard LaFay
rlafay@rfindustries.com
800.233.1728
rfindustries.com



Spinner ICT
5126 South Royal Atlanta Drive
Tucker, GA 30084
Michael Horan
info-atlanta@spinner-group.com
770.263.6326
spinner-group.com/us

Spinner ICT says it is the leader in low-PIM performance for jumper cables, coaxial connectors and passive components. The company says it provides the highest quality German-engineered design to meet and exceed industry requirements.

See ads on pages 77 and 85

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6120 Powers Ferry Road, Suite 150
Atlanta, GA 30339
Matt Wheeler
jamie.bailey@spsx.com
770.657.6000
ce.superioressex.com

Talley
12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com



Times Microwave Systems
358 Hall Ave.
Wallingford, CT 06492
Carolyn Turner
sales@timesmicro.com
203.949.8400
timesmicrowave.com

See ad on page 104

Tractel
51 Morgan Drive
Norwood, MA 02062
Fritz Butts
fallstop@tractel.com
800.421.0246
tractel.com

Trilogy Communications
2910 Highway 80E
Pearl, MS 39208
Angela Lourenco
info@trilogycoax.com
601.932.4461
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CONSTRUCTION

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Anritsu, a global provider of innovative test and measurement solutions, provides solutions for existing and next-generation wired and wireless communication systems and operators. Products include wireless, optical, microwave/RF and digital instruments, together with operations support systems for R&D, manufacturing, installation and maintenance.

See ad on page 1

AW Solutions

300 Crown Oak Centre Drive
Longwood, FL 32750
Keith Hayter
keith.hayter@awsolutionsinc.com
407.260.0231
awsolutionsinc.com



Black & Veatch

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Kristi Klohs
klohskm@bv.com
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bv.com

Black & Veatch network infrastructure deployment/upgrade solutions include program/project management, site acquisition, A&E engineering, zoning and permitting, tower

structural analysis/mods, procurement, construction and construction management, DAS and small cell and decommissioning.

See ad on page 10

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mdostal@caltrop.com
480.241.6363
caltrop.com

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404.541.1300
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919.755.1012
fdh-inc.com

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Blue Bell, PA 19422
Paul DeMara
pdemara@henkels.com
215.283.7578
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MasTec Network Solutions

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Atlanta, GA 30339

John Albert
barbara.bogo@oldcastle.com
561.914.6584
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As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless

infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

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Thin Air Construction

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Hastings, MN 55033
Jules Fisher
lules.fisher@thinairconstruction.net
651.319.0152
thinairconstruction.net

TRM

16 Chestnut St., Suite 220
Foxborough, MA 02035
Justin Leland
617.510.1115
trmcom.com



Unites States Tower Services

5263 Agro Drive
Frederick, MD 21703
Quentin Ellis
jim.martin@ustowerservices.com
301.874.5885
ustowerservices.com

United States Tower Services is based in Frederick, Md. Its business encompasses the sales, installation, construction, inspection, maintenance, repair, restructure, service and support of communications towers and related facilities.

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Mark Lavallee
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954.961.2642
advantage-com.com

Aeroacoustic Engineering Consultants
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Minneapolis, MN 55427-4712
Lawrence F. Hansen
larry.hansen@aecnnoise.com
763.355.2030
aecnnoise.com

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Wilmington, NC 28409
Steve Kazella
steve@airwavemanagement.com
888.313.9750
cell-tower-leases.com

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Suite 500
Birmingham, AL 35242
Ashley Little
info@aldensys.com
205.978.2430
aldensys.com



Alltec
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Canton, NC 28716
Eric Schilling
info@alltecglob.com
828.646.9290
alltecglob.com

Alltec is an international, full-service company specializing in engineered grounding/earthing and bonding, surge/transient protection and lightning protection systems. It provides risk-mitigation strategy and engineered solutions for today's infrastructure challenges.

See ad on page 43

Atlantic Site Development
229 Fenimore Lane
Delanco, NJ 08075
Matt Bartlett
mbartlett@atlanticsite.net
856.735.0443



Caldwell Compliance
3180 Crow Canyon Place,
Suite 109
San Ramon, CA 94583
Karen Caldwell
info@caldwellcompliance.com
925.570.9462
caldwellcompliance.com

Caldwell Compliance manages all aspects of the environmental regulatory process. Its experts oversee the process so its customers don't have to. Caldwell Compliance says it provides peace of mind that site compliance is taken care of 100 percent. The company says it improves customers' compliance experiences through its fresh approach.

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San Francisco, CA 94111
Cathy Newman
info@csitele.com
415.751.8845
csitele.com

DAS Advisers
67 W. Boulder St.
Colorado Springs, CO 80903
Deborah Crowley
deborahcrowley@dasadvisers.com
304.549.5075
dasadvisers.com



DAS Advisers is an independent consultant for facilities or communities that need to improve their wireless connectivity. The company's services include proper assessment of current coverage issues, recommendation for strategic solutions, RFP development, coordination with wireless service providers and public safety groups, design review, and overseeing construction through to deployment.

Distributed Wireless Group

587 N. Ventu Park Road,
Suite E221
Newbury Park, CA 91320
Craig J. Stanziano
craig.stanziano@distributed-wireless.com
805.768.4121
distributed-wireless.com



DYNAMIC ENVIRONMENTAL ASSOCIATES, INC.

Dynamic Environmental Associates

P.O. Box 7058
Lake Worth, FL 33466
David Jermakian
djermakian@dynamicenvironmental.com
877.968.4787
dynamicenvironmental.com

Dynamic Environmental Associates says it is the industry-recognized source for NEPA compliance, environmental site assessments, permitting, auditing and reporting. The company says that by adhering to its core principles, DEA has achieved recognition from both the tower industry and peers as leading experts in environmental assessment and

compliance. DEA says that for nearly 20 years, it has been providing the communications industry with expert professional environmental services.

See ad on page 65

Engineering Specialties Group

8501 Turnpike Drive, Suite 106
Westminster, CO 80031
Joel Deis, P.E.
joeld@engineeringspecialtiesgroup.com
303.482.3186
engineeringspecialtiesgroup.com

FDH

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Christopher Ply
cply@fdh-inc.com
919.755.1012
fdh-inc.com



The Importance of Partners

Industry veteran Jim Innes recounts the importance of partners for his tower-building and tower-owning businesses

Jim Innes has seen many changes during his nearly 30 years in the telecom-infrastructure industry—including some changes that he himself pioneered. But he's yet to employ a full-time purchasing manager for one of the tower-building or owning firms he's headed. And he's never hired a certified purchasing manager (CPM).

Innes says the trend toward tower builders employing CPMs on their staffs started to pick up steam around 2009 or 2010—just when he was leaving that business. “Before then, there were very few CPMs, or even full-time purchasing managers, in the small and medium portfolio tower development industry,” he said. “And very few wireless tower builders in my experience used supplier databases until very recently.”

For the past five years, Innes has run what he calls a “boutique wireless technical services and wireless real-estate firm.” He describes it as a half consulting/half management services business. “I don't build or operate wireless towers now,” he said. “I manage tenant sites for others and provide advisory services to larger companies such as

power utilities for specific wireless tenant and carrier backhaul provider issues.”

Innes is the chief executive officer of CarrierClass Group, the founder and president of CarrierClass Deployment Services (CCDS) and was formerly the CEO of CarrierClass Site Development. CCDS operates in several wireless infrastructure development areas: multitenant wireless antenna site development; wireless backhaul systems design, engineering, deployment, and operations; wireless infrastructure deployment technical services; and rooftop wireless site management.

Innes knows his way around the telecom infrastructure business because he's been involved in almost every facet of it, starting in 1986 with his first job in the industry. His experience includes sales, marketing, management, and 14 years in developing, leasing, and operating every type of wireless site. He's designed and deployed low and high-capacity wireless backhaul systems for cellular carriers in major metro area markets; he's developed and operated high-density telecom real estate including income-generating antenna sites of all types.

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Innes spent the most amount of time choosing partners when he was in the microwave backhaul world. “I had a part-time purchasing manager who did purchasing, but not a full-time one,” he said. He used a tracking software program to keep tabs on project spending, products, suppliers and prices. “When I was a tower builder, we got advance notice if prices were expected to vary within the known ranges. We’ve delivered infrastructure to carriers. I hired all the individual vendors, and purchased most of the hardware pieces. I tended to use the same group of vendors, and the same group of contractors did the work,” he said.

These days, Innes often turns to distributors for purchasing smaller items. “Distributors, especially on a boutique basis, can really add value to a project,” he said. “As a smaller firm, we more often go to manufacturing reps for big items because distributors mostly serve large-scale tower builders on larger infrastructure items.”

Like many technical specialists who specify products for specific applications, Innes demands a particular quality. “Our industry specifies very sophisticated technical equipment,” he said. “While I don’t want to pay top price, quality is always more important in my business—this was especially true when I was building towers and implementing critical microwave facilities. Also, I like to build a good relationship with people I know I can trust. Vetting and quality control on vendors and subcontractors is an ongoing process. It is important to see how well they pay attention to quality and their overall level of ethics.

Innes said he was lucky during a period from 2002 to 2005 when all he did was microwave-backhaul work. “The firm I was involved with built 36 towers, and we had a really great team,” he said. “We were all good buddies. And we kept margins. Everyone’s expectations were well aligned.”

Another of Innes’s best practices was rigorous, pre-price quote or proposal profit-and-loss modeling of the overall job. He would do a practice markup pricing bid to allow a cushion for any of the many unforeseen problems that can plague a construction site. “I’d allow a normal prices markup, setting mar-

gins that allowed overages,” Innes said. “I would never charge them the maximum price and then would try to negotiate from there. I would try to find the highest prices I could get from a customer—that the customer would happily take—but on my models, I’d actually lower my profit by building in a contingency factor right from the start.”

Basically, Innes would build in a 10 percent contingency for overruns. “On a job where I wanted to get 35 percent, my model would say 25 percent or maybe 22 percent,” he said. “Vendors would say, ‘Why’s your margin so low?’ I’d say, ‘I’ve included a 5 percent contingency for cost overruns that I expect.’ Therefore, if everyone did a really good job, and nothing bad happened on the project, then the contractor got a 5 percent bonus. If the job didn’t go well, the contractor had margins.” Innes believes that this model may be going by the wayside with the pressures of the large-scale carrier build outs.

About the author:

Mike Harrington is a freelance writer in Prairie Village, KS.

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 Tucker, GA 30084
 Michael Horan
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DAS & SMALL CELLS



770.263.6326
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Spinner ICT says it is the leader in low-PIM performance for jumper cables, coaxial connectors and passive components. The company says it provides the highest quality German-engineered design to meet and exceed industry requirements.

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Santa Fe Springs, CA 90670
Celina Frazier

sales@talleycom.com
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lskinner@tectonicengineering.com
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Tempest Telecom Solutions

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erudd@tempesttelecom.com
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Tessco Technologies

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John Celentano
celentanoj@tessco.com
410.229.1186
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Tessco Technologies says it is "your total source for making wireless work." With more than 25,000 products, services and solutions from over 375 industry-leading manufacturers, Tessco says it has everything its customers need for building, using and maintaining wireless broadband, DAS and small cell systems.



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Trilogy Communications

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WESTELL

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Valmont Site Pro1 says it is the industry's leading manufacturer and distributor of high-quality wireless site components. The company's broad product offering is available for same-day shipping from any one of its six distribution centers located in Atlanta; Los Angeles; New York; Dallas, Plymouth, Ind.; and Salem, Ore. Products include coax cable accessories,

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Waterford Consultants

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Waterford Consultants offers a wide array of professional and regulatory consulting services with expertise in AM detuning, RF emissions analysis (EME), intermodulation studies, FAA certification and filing, site audit and third-party inspection, and tower structural and appurtenance mapping. Waterford says it has a national team of highly respected and reputable experts who are committed to providing superior, timely and budget-sensitive customer service. Waterford says it understands regulatory requirements and can alleviate the burden of FCC compliance for its customers.

See ad on page 42

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Advantage Engineers provides consulting and engineering services to design, procure and deploy communications networks for commercial and government clients.

See ad on page 73



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CSI has delivered innovative telecommunications engineering solutions for more than 25 years. The company performs design work, and government agency and license application engineering. It prepares specifications and conducts propagation analysis, measurements, testing and operational reviews.



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Ehresmann Engineering says that values and ethics are entrenched in the company's daily activities. The company says it achieves performance with honesty in all aspects of its work. Whether it's managing a turnkey project or fabricating a custom-designed stealth structure, Ehresmann Engineering says it will compete aggressively on quality to provide

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Fullerton Engineering says it consistently delivers innovative solutions reinforced by responsive client service and a commitment to quality and excellence.

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ENGINEERS



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Malouf Engineering is a nationwide structural engineering consulting firm specializing in the inspection, analysis, design and strengthening modification of tower structures, water tanks, building rooftops, and other special structures including camouflaged designs and facility support buildings.

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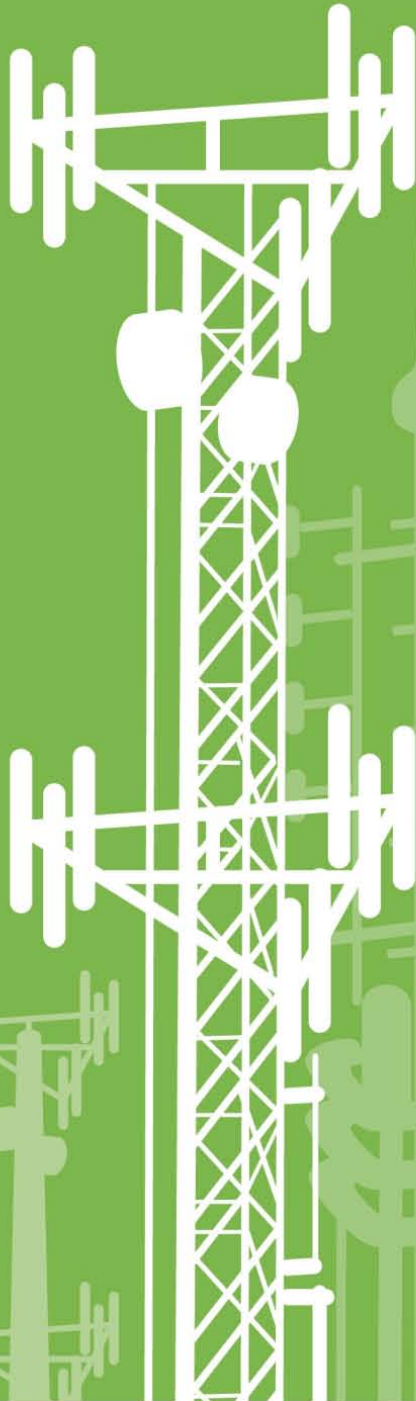
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PJF is a structural engineering firm that says it has a national reputation for designing and analyzing communications structures since 1966. PJF offers high-volume capacity with quick turn times. PJF has professional engineer registrations in all 50 states, the District of Columbia, Puerto Rico and Canada.

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SSC provides services to the telecommunications, development and construction industries. The company says its full range of in-house services and abilities makes it uniquely capable of

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Aarcher provides Phase I environmental due diligence, NEPA screening, and cultural and natural resource services for antenna and tower installations. Since 1997, its team of environmental and conservation specialists and architectural historians supported thousands of installations from offices in Colorado, Maryland and Texas.

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Dynamic Environmental Associates

P.O. Box 7058
Lake Worth, FL 33466
David Jermakian
djermakian@dynamicenvironmental.com
877.968.4787
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Dynamic Environmental Associates says it is the industry-recognized source for NEPA compliance, environmental site assessments, permitting, auditing and reporting. The company says that by adhering to its core principles, DEA has achieved recognition from both the tower industry and peers as leading experts in environmental assessment and compliance. DEA says that for nearly 20 years, it has been providing the communications industry with expert professional environmental services.

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ivi-telecom.com

IVI Telecom Services offers a wide spectrum of environmental services for nationwide telecommunications infrastructure development ranging from environmental site assessments to FCC/NEPA screenings and Section 106 consultations. IVI says it understands customers' program and schedule constraints and uses its expertise to realize customers' goals in a cost-effective and timely manner.

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Retel Services, a certified Women's Business Enterprise, offers a self-performed turnkey solution. The company's experienced team delivers site acquisition, project management, environmental, engineering and construction services.

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White Buffalo Environmental
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 Tulsa, OK 74137
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steve.mcfarlin@whitebuffalo.com
 918.660.0999
whitebuffalo.com

White Buffalo Environmental conducts Phase I, NEPA, EA, tribal and agency consults. The company says customers can count on it to meet timelines and budgets. The company says it has experienced telecommunications environmental professionals, and that since 1998, it has provided expert services to majors and independents from single projects to large, multi-tower build outs.

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FCC/FAA FILING

Advantage Communications
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 Hollywood, FL 33021
 Mark Lavallee
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 San Ramon, CA 94583

Karen Caldwell
info@caldwellcompliance.com
 925.570.9462
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Caldwell Compliance manages all aspects of the environmental regulatory process. Its experts oversee the process so its customers don't have to. Caldwell Compliance says it provides peace of mind that site compliance is taken care of 100 percent. The company says it improves customers' compliance experiences through its fresh approach.

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satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

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m.langford@velocitel.com
 703.558.0502
sitesafe.com

Tessco Technologies
 11126 McCormick Road
 Hunt Valley, MD 21031-1494
 John Celentano
celentanoj@tessco.com
 410.229.1186
tessco.com



Waterford Consultants
 P.O. Box 2090
 Ashburn, VA 20146-2090
 Thomas Ferguson
sales@waterfordconsultants.com
 703.910.5054
waterfordconsultants.com

ENVIRONMENTAL SERVICES – FCC/FAA FILING



Waterford Consultants offers a wide array of professional and regulatory consulting services with expertise in AM detuning, RF emissions analysis (EME), intermodulation studies, FAA certification and filing, site audit and third-party inspection, and tower structural and appurtenance mapping. Waterford says it has a national team of highly respected and reputable experts who are committed to providing superior, timely and budget-sensitive customer service. Waterford says it understands regulatory requirements and can alleviate the burden of FCC compliance for its customers.

See ad on page 42

FINANCIAL SERVICES



Advantage Funding

1000 Parkwood Circle
Atlanta, GA 30339
Jeff Farkas
info@advantagefunding.com
800.241.2274
advantagefunding.com

Advantage Funding converts its customers' accounts receivables into instant cash at the time its customers are ready to bill their own clients. Customers can factor

one invoice or as many as they want. AFC does not require audits, financial statements or term contracts. It eliminates the drawbacks of traditional funding methods and offers many more advantages. The company says that dealing with AFC is as simple as 1-2-3.

See ad on page 161

Black Dot

27271 Las Ramblas
Mission Viejo, CA 92691
Phil Ackerman
packerman@blackdotwireless.com
949.502.3819
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Custom built to match

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/ SUPPLIERS /



Endeiro Capital Partners

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Jerry M. Sullivan
jmsullivan@endeiro.com
601.326.0525

Endeiro Capital Partners is a diversified management and investment firm providing private equity, debt and operating support services to entrepreneurs in both new and emerging businesses and to growth-stage companies seeking to expand their existing operations.



LANDMARK
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Landmark Dividend

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El Segundo, CA 90245-4747
Stephanie Simmons
info@landmarkdividend.com
800.843.2024
landmarkdividend.com

Landmark Dividend says it is the national industry leader in ground lease transactions. Ground lease transactions are Landmark's only focus. The company says this single-minded commitment enables it to better understand customer needs as landlords and to offer customized capital solutions.

See ad on page 111

Media Capital Advisors

824 Topaz Drive
West Chester, PA 19382
Steve Bitner

steve@mediacapadvisors.com
610.701.0961
mediacapadvisors.com



Peppertree Capital

Peppertree Capital Management

86 West St.
Chagrin Falls, OH 44022
Howard Mandel
hmandel@peppertreecapital.com
440.528.0333
peppertreecapital.com

Peppertree Capital Management is a private equity fund manager focused on providing growth equity to telecommunications infrastructure companies in the United States and internationally. To date, Peppertree has sponsored 17 tower companies.

See ad on page 141



RBC Capital Markets

RBC Capital Markets

3 World Financial Center,
200 Vesey St., 11th Floor
New York, NY 10281
Nick Stevenson
bruce.wilmsen@rbccm.com
212.428.6405
rbccm.com/communications

Tower Advisors

2338 Messenger Circle
Safety Harbor, FL 34695
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Cell Blocks is a nonpenetrating, engineered foundation made from individual precast concrete 7-foot-square blocks. The blocks are assembled in various configurations and post-tensioned, providing a foundation for poles, shelters and cabinets. Cell Blocks says predictability is key value.

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919.755.1012
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Retel Services

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Suite 110
Atlanta, GA 30328
Kathy Kelly-Jacobs
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Raycap's FTTA/PTTA connectivity and protection solutions for Remote Radio Head architectures enable distributed base station architectures and protect RRH systems from lightning damage. They provide unique weatherproof solutions that protect your radios, manage your cables, are field upgradable, fully customizable, and significantly enhance the reliability and availability of the RRH site. Raycap products are the only protection you'll ever need for your valuable assets atop cell towers and inside base stations. We know our Strikesorb® surge protection technology works because it's already protecting tens of thousands of RRH sites worldwide.

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Raycap

www.raycapsurgeprotection.com



GENERATORS/ BATTERIES

Alpha Technologies

7700 Riverfront Gate
Burnaby, BC V5J 5M4
Canada
sales@alpha.ca
800.667.8743
alpha.ca

See ad on page 39

Legacy Power Systems

P.O. Box 360
Burley, WA 98322
Jamie Tracy
jamiet@legacytowers.com
253.858.0214
legacypower.com



Sabre Industries Telecom Services

MUTI-Sabre Industries Telecom Services

2626 Midwest Court
Champaign, IL 61822
Scott Kisting
skisting@mutionline.com
217.819.3040
mutionline.com

MUTI-Sabre Industries Telecom Services provides a variety of services to the telecommunications industry including tower construction, modifications, maintenance, inspections, microwave design and deployment, equipment integration, generators and HVAC maintenance.

ReliOn

15913 E. Euclid Ave.
Spokane, WA 99216
Sandra Saathoff
fuel.cells@reliion-inc.com
509.228.6553
reliion-inc.com



Southwire®

Southwire

240 Chestnut St.
Warwick, RI 02888
Karen Lawrence
bruce.wasser@southwire.com
401.780.2035
southwire.com/industrial/telcoflex.htm

Southwire says its TelcoFlex cable is the premier LSZH central office power cable used for all levels of telecom equipment installations and battery back-up in central offices and remote locations. TelcoFlex is compliant

GROUNDING / SURGE SUPPRESSION



Alltec

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Canton, NC 28716
Eric Schilling
info@alltecglobal.com
828.646.9290
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Alltec is an international, full-service company specializing in engineered grounding/earthing and bonding, surge/transient

Ask your potential partners to identify their business strategies to see if you think your business is a good fit.

with Telcordia GR-347, and it is UL-listed and CSA-certified.

See ad on page 121

Thermo Bond Buildings

109 E. Pleasant St.
Elk Point, SD 57025
Jonathan Jansen
jon@thermobond.com
800.356.2686
thermobond.com

See ad on page 161

Trojan Battery

12380 Clark St.
Santa Fe Springs, CA 90670
Meryl Cook
kgarcia@trojanbattery.com
562.236.3165
trojanbattery.com

protection and lightning protection systems. It provides risk-mitigation strategies and engineered solutions for today's infrastructure challenges.

See ad on page 43

Comsite Hardware

P.O. Box 3951
Incline Village, NV 89450
Steve Hopkins
sales@comsitehardware.com
775.832.2523
comsitehardware.com

Harger Lightning & Grounding

301 Zielger Drive
Grayslake, IL 60030
hargersales@harger.com
800.842.7437
harger.com



Ingenuity Industries

1114 G St.
Marysville, CA 95901
Matthew Younce
matthew@bondwasher.com
530.933.1522
bondwasher.com

The original two-hole ground lug washer (Bondwasher) is here to stay, according to Ingenuity Industries, the company that brought the product to market five years ago. The company says it's now the only washer to consider using on ground bars. Ingenuity Industries also says the product is approved by the telecom industry "hands down."

Lyncole XIT Grounding

3547 Voyager St.
Torrance, CA 90503
Leslie Provenzano
lprovenzano@lyncole.com
310.214.4000
lyncole.com



NexTek

2 Park Drive, Building #1
Westford, MA 01886
Mike Kauffman
sales@nexteklightning.com
978.486.0582
nexteklightning.com

NexTek designs and manufactures coaxial surge arrestors with performance from DC to 18 GHz and with transient ratings to 200 kA. The high-quality protectors feature

aglmediagroup.com

a 10-year warranty and competitive pricing, and they are made in the United States. NexTek says, "Protect your investment by using NexTek arrestors."

Raycap

Raycap
806 S. Clearwater Loop
Post Falls, ID 83854
Lisa Duckett
marketing@raycap.com
208.777.1166
raycapsurgeprotection.com

Raycap says it is a world leader in lightning protection and cable management solutions for fiber-to-the-antenna (FTTA) networks. Its products connect and protect tens of thousands of 3G and 4G sites in the latest networks being built by the world's largest operators.

See ad on page 69

Southwire

240 Chestnut St.
Warwick, RI 02888
Karen Lawrence
bruce.wasser@southwire.com
401.780.2035
southwire.com/industrial/telcoflex.htm

See ad on page 121

Talley

12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com

Tessco Technologies

11126 McCormick Road
Hunt Valley, MD 21031-1494

John Celentano
celentanoj@tessco.com
410.229.1186
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See ad on page 62

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marvairsales@airxcel.com
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Champaign, IL 61822
Scott Kisting
skisting@mutionline.com
217.819.3040
mutionline.com

Tempest Telecom Solutions

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Santa Barbara, CA 93101
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erudd@tempesttelecom.com
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Thermo Bond Buildings

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Elk Point, SD 57025
Jonathan Jansen
jon@thermobond.com
800.356.2686
thermobond.com

See ad on page 161

Thin Air Construction

3500 Cannon St.
Hastings, MN 55033
Jules Fisher
jules.fisher@thinairconstruction.net
651.319.0152
thinairconstruction.net

INSPECTIONS

Alden

10 Inverness Center Parkway,
Suite 500
Birmingham, AL 35242
Ashley Little
info@aldensys.com
205.978.2430
aldensys.com

Allstate Tower

P.O. Box 25
Henderson, KY 42419
Kevin Roth
kroth@allstatetower.com
270.830.8512
allstatetower.com

See ad on page 161



AW Solutions

300 Crown Oak Centre Drive
Longwood, FL 32750
Keith Hayter
keith.hayter@awsolutionsinc.com
407.260.0231
awsolutionsinc.com

AW Solutions is licensed throughout the United States, Canada and Caribbean to provide turnkey site infrastructure development and build-to-suit services to the

wireless, iDAS, oDAS, wireline and fiber industries.



Bell Tower

6037 S. Industrial Road
Chelsea, OK 74016
Richard Bell
rose-btc@sbcglobal.net
918.789.9020
belltowercorp.com

For 22 years, Bell Tower has been designing, manufacturing and installing towers throughout the United States from 100-foot self-supporters to 2,000-foot broadcast towers. The company's experienced staff offers customers what Bell Tower says is finest safety record in the industry and fair pricing on challenging projects.



BuzB

129 W. Official Road
Addison, IL 60101
Jack Busby
info@buzbcorp.com
630.543.5560
buzbcorp.com

BuzB offers detailed field mapping services for all tower structures and water tanks. Services include full structural, post modification inspections and platform audits. The areas served by BuzB include the Midwest and mid-South states from Minnesota to Arkansas and from Kansas to Ohio.

See ad on page 161

HVAC SYSTEMS - INSPECTIONS



Doty-Moore Tower Services

100 W. Main St., Suite 400
Lansdale, PA 19446
Ed Deetscreek
ed.deetscreek@stainlessllc.com
215.631.1323
stainlessllc.com



Dynamic Environmental Associates

P.O. Box 7058
Lake Worth, FL 33466
David Jermakian
djermakian@dynamicenvironmental.com
877.968.4787
dynamicenvironmental.com

Dynamic Environmental Associates says it is the industry-recognized source for NEPA compliance, environmental site assessments, permitting, auditing and reporting. The company says that by adhering to its core principles, DEA has achieved recognition from both the tower industry and peers as leading experts in environmental assessment and compliance. DEA says that for nearly 20 years, it has been providing the communications industry with expert professional environmental services.

See ad on page 65

EMF Telecom

328 Hill Ave.
Nashville, TN 37210
info@emftelecom.com
615.291.6279
emftelecom.com

Engineering Specialties Group

8501 Turnpike Drive, Suite 106
Westminster, CO 80031

aglmediagroup.com

Joel Deis, P.E.

joeld@engineeringspecialtiesgroup.com
303.482.3186
engineeringspecialtiesgroup.com

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Christopher Ply
cply@fdh-inc.com
919.755.1012
fdh-inc.com

Matco Services

100 Business Center Drive
Pittsburgh, PA 15205
Dan Witt
dan.witt@matcoinc.com
402.359.6753
matcoinc.com

MidSouth Towers

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Jay Panozzo
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815.693.1565
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MUTI-Sabre Industries Telecom Services

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Champaign, IL 61822
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skisting@mutionline.com
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- Eliminates Re-Trips
- Field proven to work in any environment you do
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- Versatile mounting options
- Light at only 8 pounds
- Measurements based on True North, no need to worry about declination
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Accurate
Versatile
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Efficient
Durable
Accessible
Customizable

Site Alignment Results
MCO-118
Phase 1 LTE Buildout

Antenna Position	Antenna Azimuth	Antenna Height	Rich D-FIR	Roll	Tilt	Height	Roll	Height	Capture Time/Temp	
Alpha (2)	0	0	3.0	-0.5	0.0	1.2	0.2	145.0	N/C	2013-05-13 15:30:27
Gamma (2)	255	255	3.0	-0.7	2.0	0.4	0.0	145.0	N/C	2013-05-13 15:30:27

Measures Latitude and Longitude of site and each antenna

- Azimuth +/- 1 degree
- Tilt +/- 0.25 degree
- Roll +/- 0.25 degree
- Height +/- 1 foot AGL,
Exceeds all carrier's requirements

Approved by all carriers

*Field-proven, High-quality
Antenna Alignment Solution*

Sunsight

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www.sunsight.com



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240.205.1588
trmcom.com

Valmont Structures

1545 Pidco Drive
Plymouth, IN 46563
Sean Gallagher
sean.gallagher@valmont.com
503.589.6616
valmontstructures.com

See ad on page 135

Vertical Solution

2002 Production Drive
Apex, NC 27539
Korey Stickney
kstickney@verticalsolutions-inc.com
919.321.6167
verticalsolutions-inc.com

Waterford Consultants

P.O. Box 2090
Ashburn, VA 20146-2090
Thomas Ferguson
sales@waterfordconsultants.com
703.910.5054
waterfordconsultants.com

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INSTALLATION SERVICES

Aerial Infrastructure Services

14026 W. 107th St.
Lenexa, KS 66215
Tom Oren
toren@AerialIServices.com
913.549.4545

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Aero Solutions

5500 Flatiron Parkway, Suite 100
Boulder, CO 80301
Jim Lockwood
info@aerosolutionsllc.com
720.304.6882
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Aero Solutions optimizes the load carrying capacity of monopole and tower structures, with thousands of upgrades completed in the United States since 2002. The company's innovative, nonwelded PoleMax reinforcing systems are supported by AeroSoft design software and technical field support.



AFL

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AW Solutions is licensed throughout the United States, Canada and Caribbean to provide turnkey site infrastructure development and build-to-suit services to the wire-

less, iDAS, oDAS, wireline and fiber industries.

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BlueStream

Professional Services

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contactkgp@kgptel.com
800.755.1950
bluestreampro.com

Coleman

Global Telecommunications

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Clifton, NJ 07012-1622
Marty Coleman
marty@colemanglobal.com
973.519.6416
colemanglobal.com



Day Wireless Systems

4700 S.E. International Way
Milwaukie, OR 97222
Dean Ballew
dwssites@daywireless.com
503.659.1240
daywireless.com

Founded in 1969, Day Wireless Systems has 26 offices and 190 towers in the seven western states. The company specializes in collocation, site management, tower construction, system design, sales and service. Day Wireless says it is the largest full-service wireless integrator on the West Coast.



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INSTALLATION SERVICES

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emftelecom.com

Flanigan Communications

109 E. Woodsfield St.
Norton, KS 67654
Gary Flanigan
cmf1958@yahoo.com
785.871.0010

MUTI-Sabre Industries Telecom Services

2626 Midwest Court
Champaign, IL 61822
Scott Kisting
skisting@mutionline.com
217.819.3040
mutionline.com

NetStructures

9800 E. Easter Ave., Suite 140
Centennial, CO 80112
Fred McCoy
fred@netstructures.com
303.539.008
netstructures.com

Optiglow Systems

380 Holly Trail
Crownsville, MD 21032
William Imperato
wimperato@optiglow.com
410.409.8061
optiglow.com

Retel Services

5871 Glenridge Drive N.E.,
Suite 110
Atlanta, GA 30328
Kathy Kelly-Jacobs
kathy@retelservices.com
678.292.5723
retelservices.com



SBA Communications

5900 Broken Sound Parkway N.W.
Boca Raton, FL 33487
Lynne Hopkins
request@sbsite.com
800.487.SITE
sbsite.com

As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

See ad on back cover

Shenandoah Tower Service

P.O. Box 956
Staunton, VA 24402-0956
Dave Anthony
davea@shensvc.com
540.569.6890
shenandoahtower.com

SPAA05.com

Kleiweg 24
Waalwijk, FL 5145NB
Hans Le Sage
hans@spaa05.com
003.141.6565005
spaa05.com



Spectracom

1565 Jefferson Road, Suite 460
Rochester, NY 14559
Wade Sober
wade.sober@spectracom.rolia.com

585.321.5810
spectracomcorp.com

The Path Align-R is a high-performance test solution designed for fast, accurate microwave path alignment. The manufacturer says the unit is endorsed by leading wireless communications suppliers, and it provides precise alignment results in about 20 minutes. No power or radios are required on-site. The Path Align-R provides proof of alignment with recorded and documented records.

See ad on page 103

Spider Telecom Construction

P.O. Box 1960
Vega Alta, PR 00692
Carlos A. Rivera
crivera@stcpr.com
787.553.9636

Stainless

100 W. Main St., Suite 400
Lansdale, PA 19446
Ed Deetscreek
ed.deetscreek@stainlessllc.com
215.631.1323
stainlessllc.com

Synergy Concepts

105 Ford Lane
Hazelwood, MO 63042
Ben White
benwhite@synergyconceptsinc.com
314.895.2800
synergyconceptsinc.com

TE Connectivity

541 E. Trimble Road
San Jose, CA 95131
Seri Yoon
seri.yoon@te.com
408.952.2400
te.com/DAS



TRM

7468 Candlewood Road
Hanover, MD 21076
Tom Napoli
tnapoli@trmcom.com
240.205.1588
trmcom.com

Vision Technologies

530 G McCormick Drive
Glen Burnie, MD 20161
Al Saxon
asaxon@visiontech.biz
410.424.2183
visiontech.biz

WesTower Communications

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BB&T — Atlantic Risk Management offers an insurance program

endorsed by PCIA to meet the unique needs of tower owners. Property, liability, auto, workers' compensation and bonds are included.

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Landmark Dividend

2141 Rosecrans Ave., Suite 2100
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Stephanie Simmons
info@landmarkdividend.com
800.843.2024
landmarkdividend.com

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U.S. Title Solutions

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jkudless@ustitlesolutions.com
908.849.3017
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This is also true for today's DAS systems. The N Type connector provides poor PIM performance when compared to a 7-16 connector, but the 7-16 is too big for DAS sytems. The 4.1-9.5 connector is the best available choice, it's the size of an N Type connector but it provides the superior PIM performance of a 7-16 connector.

The 4.1-9.5 connector family includes panel mount, bulkhead, field-fit and jumper products, all available to suit your Low PIM system design.

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INSTALLATION SERVICES — INSURANCE



PICKING YOUR PARTNERS

With supplier partners, product quality tends to trump price, while superior customer service tends to trump everything.

By Mike Harrington

So much depends upon having the right partners for your business. The overall operation of any business—whether contractor, manufacturer, facility, or operational site—is only as good as the people, products and supplier partners it has. If employees are the heart and soul of your business, then your partners for products and services are the lifeblood. Picking the right partners can be just as important as choosing the right employees—particularly you're your partners provide big-ticket-item goods and services.

During the past decade or so, an increasing number of smaller businesses, including wireless infrastructure industry firms, have hired dedicated purchasing managers to help them track and choose partners to supply them with products. Smaller businesses also increasingly buy project management and tracking software to help them track project spending, quality products, good suppliers and low prices.





COVER STORY



/ FEATURES /

COVER STORY

Purchasing products and services for a business is a specialized task that can be a daunting endeavor. For many industries, the purchasing management profession is no day at the beach—or shopping spree at the mall. Rather, it's a hydra-headed, shape-shifting monster rife with provisions, promises, factors, fears, options, negotiations and many other details. At least one professional likens purchasing management to spending each workday negotiating with tire sellers in an effort to buy the absolute best set of tires at the best price for a different car driven in a different climate—all while trying to capitalize on every special offer and discount.

Like selecting a new set of tires, choosing a product or service partner based on price alone is seldom the best way to go. For one thing, quality tends to trump price for both contractors and customers alike. More likely your supplier choice will depend on a wide range of factors including value, quality, reliability and service. Making the mistake of picking the wrong partners can quickly turn into a nightmare.

Still, some businesses in some industries are lucky to have formed long-term relationships with their suppliers and don't need to look for new ones. "There isn't one supplier that I found needed to be replaced," said John Paleski, owner and president Subcarrier Communications, a tower site management and telecommunications infrastructure development company with headquarters in Old Bridge, N.J.

Of course, for most companies purchasing doesn't always work so smoothly, or else there would be no need for purchasing managers. Because purchasing products and services is so complicated, and especially because mistakes can be expensive, most corporations have purchasing managers. Many of these procurement professionals have certified purchasing manager (CPM) credentials.

Most corporations have long employed computerized purchasing and procurement systems and order-management software to facilitate purchasing



management systems that can also manage a tender process and ad hoc purchasing activities. These programs are tailored to help the purchasing department with everything from what is in the inventory and what needs to be ordered to when things need to arrive. Therefore, most procedures for purchasing agents are centered on the use of software to perform many of the daily functions.

LIFE OF A PURCHASING MANAGER

The fundamental job of a purchasing manager is to ensure that goods are purchased at the best price and terms to deliver the best profit for the company. This means that strong, clear purchasing procedures, including purchase orders and purchase requisitions, need to be in place.

According to eHow, an online how-to guide with more than 1 million articles and 170,000 videos, purchasing managers strive to make the best deals for their companies, while considering product cost, quality, availability, reliability and support when choosing supplies and suppliers. They dedicate endless hours to studying sales records, evaluating



inventory levels, projecting demand, researching foreign and domestic suppliers and staying abreast of financial and political changes that could potentially affect the supply of, and demand for, necessary materials.

CareerBuilder.com, the online employment website, defines purchasing manager duties as follows:

- Maintain records of goods ordered and received
- Locate vendors of materials, equipment or supplies and interview them to determine product availability and terms of sales
- Prepare and process requisitions and purchase orders for supplies and equipment
- Control purchasing department budgets
- Interview and hire staff, and oversee staff training procedures
- Review purchase order claims and contracts for conformance to company policy

if the products come from overseas supplies. These procurements typically are handled by the most experienced purchasing managers. In addition to negotiating skills, they need in-depth knowledge of specific products and market conditions.

WHAT TO LOOK FOR IN A SUPPLIER

“When choosing suppliers, one should consider quality, reliability, and service, as well as value for money,” said Business Gateway, a business consulting firm with locations throughout Scotland. “How you weigh the importance of these different factors will depend on your business priorities and strategy. There are a number of key characteristics that you should look for when identifying and short-listing possible suppliers. Good suppliers should be able to demonstrate that they can offer the following benefits.” Business Gateway prepared this checklist of supplier attributes:

Quality and Reliability: The quality of your supplies needs to be consistent—your customers will associate poor quality with you, not your suppliers. Equally, if your supplier lets you down with a late delivery or poor quality supplies, you may let your customer down.

Speed and Flexibility: Being able to place frequent, small orders lets you avoid tying up too much working capital in stock. Flexible suppliers help

you respond quickly to changing customer demands and sudden emergencies.

Value: The lowest price is not always the best value. If you want reliability and quality from your suppliers, you’ll have to decide how much you’re willing to pay for your supplies and the balance you want to strike between cost, reliability, quality and service.

Strong Service and Clear Communication: You need your suppliers to deliver on time or give you plenty of warning if they can’t. The best will want to talk with you regularly about what needs you have now and how they can better serve you the future.

Like selecting a new set of tires, choosing a product or service partner based on price alone is seldom the best way to go.

These days, it’s only natural that most consumers, including purchasing managers, start their search for suppliers on the Internet. But most purchasing managers begin their days looking through reports, checking production schedules and noting any changes that might have happened from since the previous day. Purchasing managers within a company are usually each given a set responsibility for specialized items that the company uses on a regular basis—anything from purchasing office supplies to importing electronics from overseas. Each set of items has its place in the company, but some are easier to obtain than others and often take a great deal of planning to procure, especially

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Finally, according to Business Gateway, it's only common sense to focus your efforts on choosing and managing strategic suppliers who provide goods or services that are essential to your business. "A strong relationship between buyer and supplier will benefit both sides," according to the consulting firm. "You want your suppliers to make every effort to provide the best service possible. Don't be afraid to remind your suppliers how important they are to your business.

"A strong relationship between buyer and supplier will benefit both sides"

Experts agree that the best way to deal with supplier partners is to acquire products in the right quantity, of the right quality, at the right cost, and at the right time and place. Avoid over-dependence on one partner. Cultivate good relationships with several partners, so that when one is unable to come through, you will always have a backup.

It pays to promote closer cooperation with all of your key partners. For instance, you may need to pay a higher premium for specific assurances or reward good service by paying more to certain suppliers who are prepared to go over and above what is usually expected of them. These actions can foster a special relationship, which ironically may save you money in the long run. Your partners and vendors can give you detailed specifications regarding products you have purchased and products you are considering purchasing.

SUPPLIERS FOR CONSTRUCTION SITES

Contractors that perform construction work at sites all over the country typically develop relationships with partners they trust. The secret to success for some companies is simple: Treat your supplier partners well, and you'll be well treated. "Some organizations are net 30 or net 60 (a credit term, in which a client has either 30 or 60 days to pay the bill)," said Subcarrier's John Paleski. "We pay for all of our supplies right away. That really benefits both parties. It especially benefits me, because we don't have a list of payables that we have to worry about. And it benefits the supplier because they get paid right away.

"Our business requires that we work in faraway locations, including California or Hawaii, so we have to trust the contractors we hire are doing a good job for us," Paleski continued. "But, in the same vein, they have to trust us as well if they're going to get paid. So it helps to have very long-standing rela-

tionships with all the different contractors and suppliers because they trust you. And if they trust you, they're going to do the work. If they don't trust you, you're not going to get your work done. Or, you're going to have to hire someone who may not be as qualified—a contractor who needs the work. That's why relationships in our industry are more important than in most industries — because I can't go to every site to supervise every little thing."

According to MonsterFm.com, a website founded to help FM start-ups, the best tower supplier partners will be those who share the following attributes:

In-house engineering support: Look for a supplier who has the in-house capability to design a tower to meet the particular criteria of your location and usage. Beware of suppliers who sell ready-made solutions to your tower needs.

Professional, registered engineers: Be sure that professional, registered engineering in your state is available through the tower manufacturer. This certification assures you that the manufacturer has the credentials and capability to design a tower that will provide the required performance, and that the documentation will be timely and certified.

Tower experience: As with nearly any industry, the best, most-qualified suppliers are those who have been in the business the longest. Look for a supplier with at least 20 years' experience. Be sure to ask for a list of references.



Responsiveness: Look for a tower supplier with the ability to quickly give you the right answers to your tower design questions. During the design construction process, prompt response to design changes and modifications of documentation can be key. A timely response to your questions can be a valuable benefit of selecting the right manufacturer.

FACTORS IN PICKING THE RIGHT PARTNER

What's the best way to find suppliers in a very specialized industry? Meyer Tool & Manufacturing, Oak Lawn, Ill., which specializes in the design and manufacture of cryogenic, vacuum and pressure technologies for scientific and commercial applications, puts it this way: "We make buying decisions all the time. Most are trivial, and some are important. The selection of the supplier for the vacuum vessel, dewar, etc., will make the difference between real 'plug and play' integration vs. a more complicated process to integrate the component.

From our yearly customer surveys we see five factors that influence buying decisions: price, quality, schedule, experience and responsiveness. Each customer values these factors differently. The evaluation of these factors based on the bid responses leads to the determination of the best cost."

MEYER DETAILS THE FACTORS

Price: This factor is easiest to evaluate, but the lowest price is not always your best choice.

Quality: This is hard to quantify. Use the supplied references. Ask for more if you are not sure. Anyone you are asking to bid should be able to supply three good references, but what about six or 10?

Schedule: Be up front with the supplier about schedule. Tight schedules often can lead to higher prices. If the schedule is important, indicate it in the request document. Ask the references about delivery.

Experience: Who are the supplier's customers? What value contracts do they give them? Are the references enthusiastic or lukewarm about the supplier?

Responsiveness: Again, what do the references



say? How were you treated during the bid? What sort of information/feedback did you get in the quotation? Did you get a price or a reasonable explanation of what to expect?

Meyer recommends asking a supplier straight out: Have you built X before? What project? When? What size/shape were the parts? If you're not satisfied with the answers, move on to the next supplier.

It's important to ask for references. "Explore possible mutual connections with the supplier," Meyer said. "Follow up and contact the references. How do you decide to whom to tender a request? If their references don't check out, skip them. Follow your instinct. You're sending out the request, not an order. If you've received good reference feedback and had a good conversation, try them out.

If you want to be analytical about it, look at your checklist. Assign a weight (0 to 5) to each item. Add up the scores—voilà—pick your winners."

About the author:

Mike Harrington is a freelance writer in Prairie Village, KS.

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Telewave designs and manufactures RF infrastructure equipment for wireless communication systems and interoperability. Customers include public safety organizations; local, county and federal agencies; industry; and the military.

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Waterford Consultants offers a wide array of professional and regulatory consulting services with expertise in AM detuning, RF emissions analysis (EME), intermodulation studies, FAA certification and filing, site audit and third-party inspection, and tower structural and appurtenance mapping. Waterford says it has a national team of highly respected and reputable experts who are committed to providing superior, timely and budget-sensitive customer service. Waterford says it

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—Dr. Barton Goldsmith

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Tower Numerics is the developer of tnxTower (formerly RISA-Tower), which it says is the industry standard software for tower analysis and design.

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Quebec, QC G1N 4L2
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> Flash Technology

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DeltaNode

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Solon, OH 44139
Tom Boyle
tboyle@birdrf.com
440.248.2172
deltanode.com

See ad on page 161

Dialight

Dialight

1501 State Route 34
Farmingdale, NJ 07727-3932
info@dialight.com
732.919.3119
dialight.com

Dialight offers the Vigilant line of obstruction LED lighting, controls and monitoring systems. With FAA certification for all tower and obstruction types and heights, Dialight says the new Vigilant obstruction line provides worry-free operation, lower power consumption, smaller size, less wind load and lighter weight.

See ad on page 118

Flash Technology

Flash Technology

332 Nichol Mill Lane
Franklin, TN 37067
Technical Sales
gayle.mason@spx.com
615.503.2025
flashtechnology.com

Flash says it is the world leader in FAA-approved aviation obstruction lighting, designed for easy installation, low power consumption and reduced maintenance with the latest in LED technology. Flash also offers

aglmediagroup.com

component-level training and a 24/7/365 national operations center. Its product solutions enable customers to obtain QLI waivers. Flash Technology's slogan is: "Simply the Best!"

See ad on page 92

High Gain Wireless

P.O. Box 308
Great Falls, VA 22066-0308
Tom Ferguson
tferguson@highgainwireless.com
717.592.9578
highgainwireless.com

Remote Monitoring Services

7732 County Road 150
Salida, CO 81201
Art Stone
hillary@stonetechnology.com
719.539.1222
stonetechnology.com



Sunsight Instruments

125 Candace Drive
Maitland, FL 32751
Marla Riggs
sales@sunsight.com
321.244.9443
sunsight.com

Sunsight says it is the industry leader in the development and manufacturing of antenna alignment sensors, monitoring systems and tools. Their products will help you build your network and keep your signal strong. Contractors and carriers will benefit from eliminating re-trips and site level closeouts.

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Supra

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503.545.7402
suprasystems.com/traccess

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TWR Lighting

4300 Windfern Road
Houston, TX 77041-8943
Jeremy Lochner
jlochner@twrlighting.com
713.973.6905
twrlighting.com

TWR says it is "your one-source solution for LED lighting and wireless monitoring." With more than 100,000 systems installed worldwide, TWR says its field-proven, proprietary technology provides the lowest power consumption and community-friendly narrow beam optics, and it allows for a single controller and cable installation even with multiple flash heads. TWR says it has the most comprehensive five-year complete system warranty, and that it had the first FCC/FAA avian-compliant lighting system. Paired with its wireless monitoring systems, TWR's systems allow for yearly light inspections, which saves customers thousands of dollars over the system life.

See ad on page 125

Unimar

3195 Vickery Road
North Syracuse, NY 13212-4574
Christopher Phelps
maurita@unimar.com
315.699.4400
unimar.com

See ad on page 53



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Thomas Ferguson
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waterfordconsultants.com

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Westell Technologies

750 N. Commons Drive
Aurora, IL 60504
Sales
contactsales@westell.com
800.377.8766
westell.com

PAINTING

Allstate Tower

P.O. Box 25
Henderson, KY 42419
Kevin Roth
Kroth@allstatetower.com
270.830.8512
allstatetower.com

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BASE

Base Group

5636 Kendall Court U-F
Arvada, CO 80002
Dutch Purnell
contact@basepainters.com
303.408.6643
basepainters.com



GME Supply

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Jim Zepp
info@gmesupply.com
718.210.3913
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GME Supply says it is America's premier outfitter of equipment and supplies. It says its mission is to keep workers safe and productive while on the job. The company asks customers to "climb higher with GME Supply, your trusted resource for expert advice and superior service."

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alliancesales@alliancecomm.com
888.821.4797
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Canada
Bill Paulsen
info@dragonwaveinc.com
613.599.9991
dragonwaveinc.com

EBlink

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Suite 164
Pleasanton, CA 94566
Frederic Leroudier
frederic.leroudier@e-blink.com
408.420.5858
e-blink.com

Exalt Communications

254 E. Hacienda Ave.
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Pamela Valentine
pvalentine@exaltcom.com
408.688.0200
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PierCon Solutions

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Rich Conroy
rich.conroy@piercon.net
973.628.9330
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Positron

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Daniel White
salesna@saftehnika.com
720.502.0724
saftehnika.com/en/spectrumalyzer

Tarana Wireless

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Santa Clara, CA 95054
Luke Angelus
info@taranawireless.com
617.413.4373
taranawireless.com

Tessco Technologies

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POWER DISTRIBUTION EQUIPMENT



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816.472.5544
duracomm.com

DuraComm is a source of ultra-reliable AC-to-DC switch mode power supplies, DC-to-DC power converters, battery management and charging systems, DC power distribution equipment, and complementary accessories.

Intelligent Power Management

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888.476.4752
intelligentpowermgmt.com

Legacy Power Systems

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Burley, WA 98322
Jamie Tracy
jamiet@legacytowers.com
253.858.0214
legacypower.com

MUTI-Sabre Industries Telecom Services

2626 Midwest Court
Champaign, IL 61822
Scott Kisting
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217.819.3040
mutionline.com

*Friendship is essentially a partnership.
-Aristotle*

Radio Frequency Systems (RFS) is a global designer and manufacturer of cable, antenna and tower systems, along with active and passive RF conditioning modules, providing total-package solutions for outdoor and indoor wireless infrastructure. RFS serves OEMs, distributors, system integrators, operators and installers. Its customers include the four largest wireless carriers, the majority of tier 2 and 3 wireless carriers in North America and many of the top wireless and microwave OEMs worldwide.

See ad on page 57

SAF Tehnika JSC

10500 E. 54th Ave., Unit D

John Celentano
celentanoj@tessco.com
410.229.1186
tessco.com

Total Telecom Consulting

2218 Boustead St.
Pittsburgh, PA 15216
Robert Stevens
rsteven@totaltelecomconsulting.com
412.450.0005
totaltelecomconsulting.com

Trango Systems

14118 Stowe Drive, Suite B
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John Seaman
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240 Chestnut St.
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southwire.com/industrial/telcoflex.htm

See ad on page 121

Westell Technologies

750 N. Commons Drive
Aurora, IL 60504
Sales
contactsales@westell.com
800.377.8766
westell.com

POWER SUPPLIES



Alpha Technologies

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Alpha Technologies designs and manufactures powering solutions for evolving wireless networks. With over 35 years of expertise, Alpha offers superior AC, DC and renewable energy powering solutions.

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DuraComm is a source of ultra-reliable AC-to-DC switch mode power supplies, DC-to-DC power converters, battery management and charging systems, DC power distribution equipment, and complementary accessories.



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eltek.com

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Karen Lawrence
bruce.wasser@southwire.com
401.780.2035
southwire.com/industrial/telcoflex.htm

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Talley

12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com

Trojan Battery

12380 Clark St.
Santa Fe Springs, CA 90670
Meryl Cook
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Alpha Technologies designs and manufactures powering solutions for evolving wireless networks. With over 35 years of expertise, Alpha offers superior AC, DC and renewable energy powering solutions.

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Plano, TX 75074
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469.330.9100
eltek.com

Intelligent Power Management

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Clint Pingleton
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888.476.4752
intelligentpowermgmt.com



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Jason Los
cboswell@aarcherinc.com
410.897.9100
aarcherinc.com

Atlantic Site Development

229 Fenimore Lane
Delanco, NJ 08075
Matt Bartlett
mbartlett@atlanticsite.net
856.735.0443



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klohskm@bv.com
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bv.com

Black & Veatch network infrastructure deployment/upgrade solutions include program/project management, site acquisition, A&E engineering, zoning and permitting, tower structural analysis/mods, procurement, construction and construction management, DAS and small cell and decommissioning.

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201.317.0143
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877.968.4787
dynamicenvironmental.com

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Infrastructure Realty

1620 Central Ave.
Cheyenne, WY 80021
Randy Whitehead
manager@infrastructurerealty.com
infrastructurerealty.com
307.213.9720
infrastructurerealty.com

KJK Wireless

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Nashua, NH 03062
Ken Kozyra
ken@kjkwireless.com
603.888.8974
kjkwireless.com

LAB Development

Wallace Grove Lane
Milford, OH 45150
Doug Bartsch
dbartsch@labdevelopment.com
513.236.0356
labdevelopment.com

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2141 Rosecrans Ave., Suite 2100
El Segundo, CA 90245-4747
Stephanie Simmons
info@landmarkdividend.com
800.843.2024
landmarkdividend.com

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Lyle

3140 Gold Camp Drive, Suite 30
Rancho Cordova, CA 95670
Matt Johnson

mjohnson@lyleco.com
916.804.7528
lyleco.com

MasTec Network Solutions

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Atlanta, GA 30339
Shauncey Mashia
shauncey.mashia@mastec.com
404.541.1300
mastec.com/communications

Matthew J. Traiser

8805 Tamiami Trail North
Naples, FL 34108
Matthew Traiser
matthew.traiser@gmail.com
612.414.3322

P. Marshall and Associates

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Roswell, GA 30076
Greg Hazlehurst
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678.280.2325
pmass.com



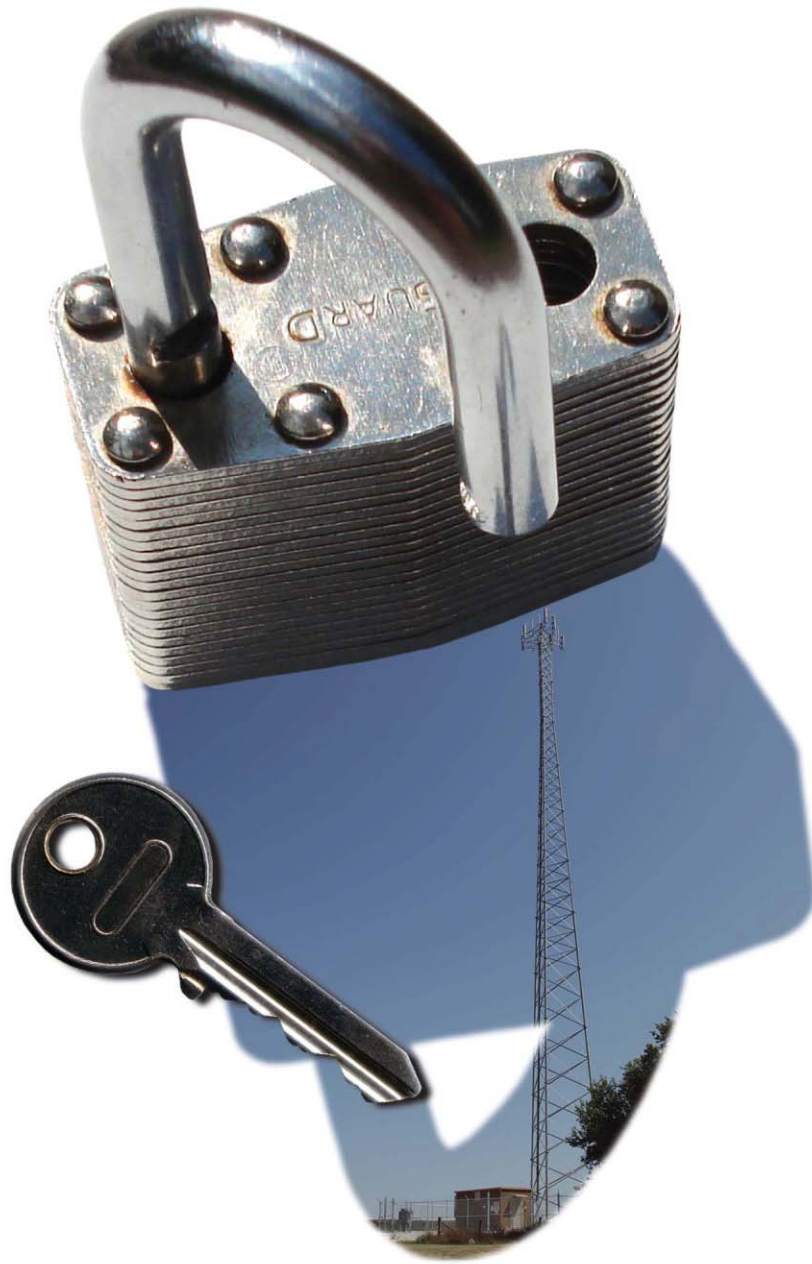
Parallel Infrastructure

4601 Touchton Road East,
Building 300, Suite 3200
Jacksonville, FL 32246
Edward Lee
eddy@parallelinfrastructure.com
904.565.4115
parallelinfrastructure.com

Parallel Infrastructure says it is the leader in right of way management and infrastructure development, focusing on maximizing the value of underutilized land assets for third-party clients. The firm's capabilities include telecommunications infrastructure development.

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Retel Services

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kathy@retelservices.com
678.292.5723
retelservices.com

Retel Services, a certified Women's Business Enterprise, offers a self-performed turnkey solution. The company's experienced team delivers site acquisition, project management, environmental, engineering and construction services.



SBA Communications

5900 Broken Sound Parkway N.W.
Boca Raton, FL 33487
Lynne Hopkins
request@sbsite.com
800.487.SITE
sbsite.com

As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

See ad on back cover

SellTower Consulting

2925 Saint Charles Drive
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Thomas Dolislager
thomasd@selltower.com
501.329.2114
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Paul Wrablica
pwrablica@me.com
913.449.4774

Tower Seekers

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Carlsbad, CA 92010
Mike Ritter
mike@towerseekers.com
760.917.1123
towerseekers.com

TRM

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U.S. Title Solutions is a nationwide provider of title search and document filing services to the telecommunications industry. Its online order entry, status and document delivery system provides up-to-date information. The company offers full deed reports and property detail reports, among other products. Nationwide pricing is available.

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Colorado Springs, CO 80903
Deborah Crowley
deborahcrowley@dasadvisers.com
304.549.5075
dasadvisers.com

Electro Rent

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Van Nuys, CA 91411
Electro Rent
sales@electrorent.com
800.553.2255
electrorent.com



FieldSense USA

P.O. Box 30014
Columbia, MO 65205
Max Birch
info@fieldsenseusa.com
312.260.6055
fieldsense.com

FieldSense says its personal RF monitor is a cost-effective solution for mobile network operators and professionals searching for a way to ensure safety for all personnel working in the vicinity of base station antennas. The unit is compact and has a durable design intended for everyday use.

See ad on page 7

aglmediagroup.com

Isotrope

503 Main St.
Medfield, MA 02052
Steve Riggs
contact@isotrope.im
508.359.8833
isotrope.im

Isotrope offers what it calls total support in design, specification, evaluation and construction of wireless facilities. Services provided include RF design, project management, coverage mapping, drive testing, zoning compliance, RF interference remediation and RF safety compliance.

LBA Technology

3400 Tupper Drive
Greenville, NC 27834
Byron Johnson
lbagr@lbagroup.com
252.757.0279
lbatechnology.com

Pinnacle Telecom Group

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Dan Collins
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973.451.1630
pinnacletelecomgroup.com

Radio Licensing Services

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Rick Mills
radiolicensing@cuaccess.net
800.304.8821
radiolicensing.com



RFSigns.com

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Medfield, MA 02052

Steve Riggs
contact@rfsigns.com
508.359.8833
rfsigns.com

RFSigns.com says it is the leading provider of RF safety signage. Signs are durable and compliant with ANSI/OSHA standards. Signs are available in bilingual versions (English/Spanish). RFSigns offers tower registration signs, RF safety decals and innovative, tamper-resistant sign mounting hardware.

Sitesafe

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Suite 1000
Arlington, VA 22203
Matt Butcher
m.langford@velocitel.com
703.558.0502
sitesafe.com



Solid

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Sunnyvale, CA 94085
Matt Atkins
info@solid.com
888.409.9997
solid.com

Solid is a global wireless infrastructure company that enables indoor and outdoor cellular, public-safety and Wi-Fi communications at some of the world's best-known venues.

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Sunsight Instruments

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Marla Riggs
sales@sunsight.com
321.244.9443
sunsight.com

Sunsight says it is the industry leader in the development and manufacturing of antenna alignment sensors, monitoring systems and tools. Their products will help you build your network and keep your signal strong. Contractors and carriers will benefit from eliminating re-trips and site level closeouts.

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Tech Products

105 Willow Ave.
Staten Island, NY 10305
Daniel D. O'Connor
team@techproducts.com
718.442.4900
techproducts.com



UniTech Services Group

295 Parker St.
Springfield, MA 01151
Stephen Hofstatter
shofstatter@unitechus.com

413.304.2100
unitech-rf.com

Unitech, which says it is a 50-year pioneer in radiation protection, wants customers to choose it for their RF protection compliance. UniTech's RF garment system uses patented, proven Naptex and can be purchased or rented. Its rugged, FCC-compliant signs are offered in many materials and may be customized at no additional charge.

See ad on page 131



Waterford Consultants

P.O. Box 2090
Ashburn, VA 20146-2090
Thomas Ferguson
sales@waterfordconsultants.com
703.910.5054
waterfordconsultants.com

Waterford Consultants offers a wide array of professional and regulatory consulting services with expertise in AM detuning, RF emissions analysis (EME), intermodulation studies, FAA certification and filing, site audit and third-party inspection, and tower structural and appurtenance mapping. Waterford says it has a national team of highly respected and reputable experts who are committed to providing superior, timely and budget-sensitive customer service. Waterford says it understands regulatory requirements and can alleviate the burden of FCC compliance for its customers.

See ad on page 42

RF MANAGEMENT

Advanced Frequency Engineering

10482 Almond St.
Rancho Cucamonga, CA 91737
Dana Dulabone
dana@rfawareness.com
813.495.0038
rfawareness.com

Ameen Communications

2 Enfield Circle
Princeton Junction, NJ 08550
Damian Ameen
dameen5086@aol.com
609.716.7699
ameencommunicationscompany.com

Distributed Wireless Group

587 N. Ventu Park Road,
Suite E221
Newbury Park, CA 91320
Craig J. Stanziano
craig.stanziano@distributed-wireless.com
805.768.4121
distributed-wireless.com



FieldSense USA

P.O. Box 30014
Columbia, MO 65205
Max Birch
info@fieldsenseusa.com
312.260.6055
fieldsense.com

FieldSense says its personal RF monitor is a cost-effective solution for mobile network operators and professionals searching for a way to ensure safety for all personnel working in the vicinity of base

RF COMPLIANCE/MONITORING - RF MANAGEMENT



station antennas. The unit is compact and has a durable design intended for everyday use.

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Hariton Wireless Consulting

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jhariton@hotmail.com
978.887.3833
haritonwireless.com

IEEE Communications Society

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Marilyn Catis
t.gallus@comsoc.org
212.705.8953
comsoc.org/training

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919.388.5069
jdsu.com/en-us/test-and-measurement/products/wireless/pages/default.aspx

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contact@rfsigns.com
508.359.8833
rfsigns.com

UniTech Services Group

295 Parker St.
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Stephen Hofstatter
shofstatter@unitechus.com
413.304.2100
unitech-rf.com

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Waterford Consultants

P.O. Box 2090

aglmediagroup.com

Ashburn, VA 20146-2090
Thomas Ferguson
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703.910.5054
waterfordconsultants.com

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FIBER OPTIC PRODUCTS

Amphenol Fiber Optic Products

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Lisle, IL 60532
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Amphenol provides interconnectivity. Founded in 1932, Amphenol designs, manufactures and markets fiber-optic, electrical and coaxial interconnect products, including antennas. Amphenol products are engineered and manufactured globally.



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Campbellsville Industries, whose nickname is “the Steeple People,” says it is the oldest and largest steeple/cupola company in the United States with more than 18,000 installations throughout the world. The company uses traditional architectural styling and historic reproduction to conceal antennas inside the steeple/cupola.

See ad on page 151



Charles Industries

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See ad on page 21



Environmental Integration

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Thor Holbek
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978.544.1900
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Environmental Integration designs and manufactures concealment products for monopole, rooftop and steeple applications. Branch canopy systems, including refurbish projects, are engineered for durability and longevity. The company specializes in realistic reproductions for concealment.

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Larson says it pioneered cellular camouflage with the first monopine in 1992 and that it has been leading the industry ever since. The company’s products include pines, palms, elms, cypress, cacti, rooftops and DAS towers. Larson also refurbishes trees with field-installed bark, branches and fronds.

See ad on page 37

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See ad on page 67





/ SUPPLIERS /



SOLAR COMMUNICATIONS INTERNATIONAL

Solar Communications
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Steve Holborn
sholborn@rftransparent.com
619.243.2750
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Solar Communications offers an array of concealment products and services for integrating wireless infrastructure into the community character, making SCI products what the company calls the ideal choice in any setting.

See ad on page 45



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“Got something to hide?” Stealth Concealment Solutions asks. “Camouflage your antennas and improve the environmental landscape. Trust the experts who were here first.” Stealth Concealment Solutions says it has been the leader

and master of quality antenna concealment solutions for the wireless industry since 1992.

See ad on page 29

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See ad on page 137

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See ad on inside back cover

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National Association of Tower Erectors

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nate@natehome.com
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The National Association of Tower Erectors (NATE) is a nonprofit trade association in the wireless infrastructure industry providing a unified voice for tower erection, service and maintenance companies. The association has more than 600 member companies throughout the United States, Bahamas, Canada, Ghana, India, Jamaica, Romania, Saudi Arabia, South Africa, Trinidad and Tobago and the United Arab Emirates.

See ad on inside front cover

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303.734.0772
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See ad on page 131



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Waterford Consultants offers a wide array of professional and regulatory consulting services with expertise in AM detuning, RF emissions analysis (EME), intermodulation studies, FAA certification and filing, site audit and third-party inspection, and tower structural and appurtenance mapping. Waterford says it has a national team of highly respected and reputable experts who are committed to providing superior, timely and budget-sensitive customer service. Waterford says it understands regulatory requirements and can alleviate the burden of FCC compliance for its customers.

See ad on page 42



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Trust in Partnerships

How Subcarrier Communications' trust in its partners helps the tower building and maintenance firm hit all the high points.

Just hearing the tone of his voice in his first few words over the telephone, you sense that John Paleski's story will be a successful one. Paleski, owner and president Subcarrier Communications, a company that owns more than 300 towers, speaks in a clear, positive pitch. It sounds like a voice you can trust. Subcarrier also manages sites and develops telecommunications infrastructure. The company headquarters is in Old Bridge, N.J.

When Paleski speaks about the wireless tower industry he makes the secret to success seem as simple as the Golden Rule: Treat your customers and partners well, and you'll be well-treated in return.

"I have to say I am thoroughly satisfied with all of my suppliers," said Paleski. "There isn't one supplier that I found needed to be replaced. I think the suppliers in this industry are generally top-notch. Even the suppliers that we don't deal with are almost as good or just as good as the ones we do deal with. The ones we deal with have a relationship with us. I happen to know that there are products out there that we don't use that are every bit as good as the products we do use."

When the company's wireless infrastructure development projects are in its northeastern service area—including New York, New Jersey, Connecticut, Pennsylvania and Virginia—Subcarrier performs as its own general contractor, choosing supplier partners. When working on projects in a faraway state, Subcarrier hires a local general contractor. The company also leases antenna space to wireless service providers towers it owns or manages. It engages in third-party marketing and offers management services for leasing antenna space on rooftops and other suitable structures throughout the United States.

Subcarrier owns 315 towers. During his 29-year career, Paleski estimates he has built more than 800 towers. He said his firm can build a monopole from beginning to end in 30 days, but the bigger self-supporting towers take a few months. "Towers take a lot of different contractors, and the monopoles do as well," he said. "You need more lead time and more specialty-type contractors for bigger sites."

Unlike many companies of its size, Subcarrier doesn't employ a dedicated purchasing manager



Paleski selects most of the partners himself, or he delegates the task to one of his administrative assistants. Sometimes he relinquishes project control to one of his two vice presidents, C.J. Manolescu and Kerri Sullivan. However, in a fashion similar to many contractors its size, Subcarrier uses a software program to help keep tabs on project spending, products, partners and prices.

“We’ve been dealing with the same suppliers for a long time, and we’ve only added new ones when a supplier went out of business,” Paleski said. “That makes my life so much easier because once you start having issues with your supply chain it bogs down the whole process. But we haven’t experienced that; in fact, the only problems we’ve had are in planning and zoning. There are wonderful suppliers in this industry—very proactive—whether we’re dealing with an OEM or with a product distributor, they always get our orders right.”

Paleski attributes much of Subcarrier’s success to its financial policy: “We pay for all of our supplies right away; we don’t run any net on our suppliers at all,” he said. “Some organizations are net 30 or net 60 (in which a client has either 30 or 60 days to pay the bill), but we don’t do that. It certainly helps that, financially, we’re prequalified everywhere because our credit is excellent. We just need to pick up the phone to place orders. That’s the way I like it. It especially benefits me, because we don’t have a list of payables that we have to worry about. And it benefits the supplier because they get paid right away.”

When asked what attribute of a supplier partners is most important, Paleski didn’t hesitate: “Quality is the most important thing for me,” he said. “When we build a tower, we build the biggest, heaviest-duty tower we possibly can in each location. We do that for two reasons. One: We don’t want to keep going back, making modifications to the original structure. And two: We’re going to build a heavy-duty structure to survive any storm thrown at it. And because we pay extra for higher-quality, heavier-duty steel, we don’t have to worry about

overloading on our structures. So the quality of the tower that we build is the most important thing. That’s the way we’ve always conducted our business here.”

“Our business requires that we work in faraway locations. So, if we have projects out in California or Hawaii, we trust the contractors we hire are doing a good job for us. In the same vein, they have to trust us to get paid. So it helps to have long-standing relationships with all the different contractors and suppliers because they trust you.

Subcarrier has 40 employees right now, but the real strength of our organization is in our contractors and in our third-party independent contractors. We have many of them—probably hundreds of independent third-party contractors that transact business for us in states around the country.”

About the author:

Mike Harrington is a freelance writer in Prairie Village, KS.

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See ad on page 73

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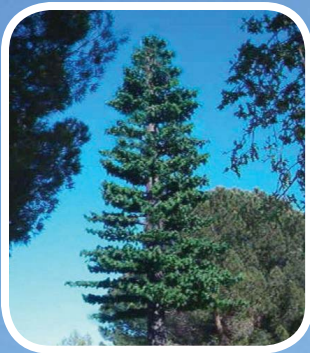
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See ad on pages 8-9



NewCore Wireless

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stephanie.court@corewg.com
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newcorewireless.net

NewCore Wireless is a full-service hosted wireless switching provider offering solutions to carriers. Its switching platforms are capable of providing 2G (GSM), 3G (UMTS) and 4G (LTE) wireless services. NewCore Wireless also provides value-added services such as SMS, MMS, voicemail, prepaid, E911, CALEA and CMAS that allow small carriers the opportunity to compete on the same level as Tier 1 carriers. NewCore Wire-

less was founded in 2008 with the mission of providing innovative technology solutions to rural carriers that deliver scalable, end-to-end solutions. NewCore Wireless offers each of its network partners the flexibility to run its own wireless business without the added expense of the core network.

See ad on page 123

PAM

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Scott Goble
gradyw@mac.com
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Mike Hunter
info@rcc.com
732.404.2400
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Site Management Services

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aglmediagroup.com



Subcarrier Communications

139 White Oak Lane
Old Bridge, NJ 08887
John Paleski
subcom1@subcarrier.com
732.607.2828
subcarrier.com

Subcarrier Communications is a provider of telecommunications sites and services throughout the United States. The company's primary business is leasing antenna space on its multitenant towers and exclusively managed building rooftops.

See ad on page 5

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Tom Napoli
tnapoli@trmcom.com
240.205.1588
trmcom.com



Utility Service Communications

535 Courtney Hodges Blvd.
Perry, GA 31069
Kerri Wright
sitemanagement@utilityservice.com
utilityservice.com
800.679.7819
utilityservice.com



/ SUPPLIERS /

Utility Service Communications specializes in site marketing and management for wireless facilities on water tank sites. The company provides tech services including tank mapping, structural analysis, and architectural and engineering drawings.

See ad on page 133

SITE CONSTRUCTION

Anchorguard

2224 E. 39th St. N.
Sioux Falls, SD 57104
Scott Bartlett
dscott@anchorguard.com
800.653.3392
anchorguard.com



AW Solutions

300 Crown Oak Centre Drive
Longwood, FL 32750
Keith Hayter
keith.hayter@awsolutionsinc.com
407.260.0231
awsolutionsinc.com

AW Solutions is licensed throughout the United States, Canada and Caribbean to provide turnkey site infrastructure development and build-to-suit services to the wireless, iDAS, oDAS, wireline and fiber industries.

Black Dot

27271 Las Ramblas
Mission Viejo, CA 92691
Phil Ackerman

packerman@blackdotwireless.com
949.502.3819
blackdotwireless.com

Cell Blocks

277 Sumption Drive
Columbus, OH 43230
Phillip Colflesh
philcolflesh@cellblocksinc.com
614.800.0534
cellblocksinc.com

CIS Communications

749 Old Ballas Road
Saint Louis, MO 63141
Brick P. Storts
brick@ciscomm.com
314.569.2275
ciscomm.com

Communications Structures

1920 Front St., Suite 840
Durham, NC 27705
Charles Durst
charles.durst@csmitowers.com
919.309.1106
csmitowers.com



Day Wireless Systems

4700 S.E. International Way
Milwaukie, OR 97222
Dean Ballew
dwssites@daywireless.com
503.659.1240
daywireless.com

Founded in 1969, Day Wireless Systems has 26 offices and 190 towers in the seven western states. The company specializes in collocation, site management, tower construction, system design, sales and service. Day Wireless says it is the largest full-service wireless integrator on the West Coast.

Dietz Brothers

12185 51st. St. NE
Spicer, MN 56288
Alan Dietz
alan@dietzbros.net
320.894.5957
dietzbros.net

EMF Telecom

328 Hill Ave.
Nashville, TN 37210
info@emftelecom.com
615.291.6279
emftelecom.com

FDH

6521 Meridien Drive
Raleigh, NC 27616
Dan Sammartano
dsammartano@fdh-inc.com
919.755.1012
fdh-inc.com

High Gain Wireless

P.O. Box 308
Great Falls, VA 22066-0308
Tom Ferguson
tferguson@highgainwireless.com
717.592.9578
highgainwireless.com



Industrial Communications

40 Lone St.
Marshfield, MA 02050
Tom Lennon
melissa.goodwin@induscom.com
781.319.1012
industrialcommunications.com

Legacy Telecommunications

1566 E. Weber Road
Ritzville, WA 99169
Ryan J. Tracy
ryant@legacytowers.com
509.659.4470
legacytowers.com



Sabre Industries Telecom Services

**MUTI-Sabre Industries
Telecom Services**

2626 Midwest Court
Champaign, IL 61822
Scott Kisting
skisting@mutionline.com
217.819.3040
mutionline.com

MUTI-Sabre Industries Telecom Services provides a variety of services to the telecommunications industry including tower construction, modifications, maintenance, inspections, microwave design and deployment, equipment integration, generators and HVAC maintenance.



**Network Building
and Consulting**

7380 Coca Cola Drive, Suite 106
Hanover, MD 21076
Jeff Ebihara
chelseas@marriner.com
616.218.9444
networkbuilding.com

NB+C (Network Building & Consulting) says customers can count on it for wireless infrastructure needs: architecture and engineering, construction and site development. From new site construction, small cell installs or engineering, NB+C says it is the company to count on for results, not excuses.

See ad on pages 8-9

Patriot Towers

9332 N. 95th Way, Suite B203
Scottsdale, AZ 85258
Dale Gray
dgray@patriot-tower.com
480.421.0234
patriot-tower.com

Retel Services

5871 Glenridge Drive N.E.,
Suite 110
Atlanta, GA 30328
Kathy Kelly-Jacobs
kathy@retelservices.com
678.292.5723
retelservices.com

Rohn Products

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Tim Rohn
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Dialight

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SBA Communications

5900 Broken Sound Parkway N.W.
Boca Raton, FL 33487
Lynne Hopkins
request@sbsite.com
800.487.SITE
sbsite.com

As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

See ad on back cover

Spider Telecom Construction

P.O. Box 1960
Vega Alta, PR 00692
Carlos A. Rivera
crivera@stcpr.com
787.553.9636

Squan

329 Harold Ave.
Englewood, NJ 07631
Douglas Fishman
info@squan.com
201.408.5111
squan.com

Tower Innovations

107 Dunbar Ave., Suite E
Oldsmar, FL 34677
Bruce McIntyre
bruce@towerinnovationsinc.com
813.818.8766
towerinnovationsinc.com

aglmediagroup.com



WestTower Communications

2460 Sand Lake Road
Orlando, FL 32804
Angelique Stephens
ccarlisle@westtower.com
818.309.5163
westtower.com

SITE MANAGEMENT

AFL

170 Ridgeview Center Drive
Duncan, SC 29334
Dennis Beck
sales@afglobal.com
678.576.7641
afglobal.com

Arcadia Communications

3814 West St., Ste. 325
Cincinnati, OH 45227
Sam Johnston
sam@arcadiatowers.com
513.702.0628
arcadiatowers.com

Asentria

1200 N. 96th St.
Seattle, WA 98103
Sales
chuck.erickson@asentria.com
206.344.8800
asentria.com

Beacon Towers

3001 Salterbeck St., Suite 200
Mt. Pleasant, SC 29466
Martin Deputy
martind@vitessewireless.com
843.324.9731

Branch Communications

1516 S. Boston, Suite 215
Tulsa, OK 74119
Johnie Johnson
jj@branchcomm.net
918.404.9289
branchcomm.net

CarrierClass

Deployment Services

400 Stenton Ave., Suite 204
Plymouth Meeting, PA 19462
James Innes
james.innes@carrierclassgroup.com
267.481.1461
carrierclassgroup.com

CIS Communications

749 Old Ballas Road
Saint Louis, MO 63141
Brick P. Storts
brick@ciscomm.com
314.569.2275
ciscomm.com

Communications Structures

1920 Front St., Suite 840
Durham, NC 27705
Charles Durst
charles.durst@csmitowers.com
919.309.1106
csmitowers.com

ComSites West

2555 Third St., Suite 200
Sacramento, CA 95818
Charlie Feick
charlie@comsiteswest.com
530.414.4376
comsiteswest.com

Crown Castle

2000 Corporate Drive
Canonsburg, PA 15317
National Sales
nationalsales@crowncastle.com
877.486.9377
crowncastle.com



/ SUPPLIERS /

Davicom

2300 Leon-Harmel, Suite 220
Quebec, QC G1N 4L2
Canada
Guy Fournier
dvsales@davicom.com
418.682.3380
davicom.com



Day Wireless Systems

4700 S.E. International Way
Milwaukie, OR 97222
Dean Ballew
dwssites@daywireless.com
503.659.1240
daywireless.com

Founded in 1969, Day Wireless Systems has 26 offices and 190 towers in the seven western states. The company specializes in collocation, site management, tower construction, system design, sales and service. Day Wireless says it is the largest full-service wireless integrator on the West Coast.

GSS

3311 109th St.
Urbandale, IA 50322
Steve Blazenko
sjblazenko@gssmidwest.com
515.205.6570
gssmidwest.com

High Gain Wireless

P.O. Box 308
Great Falls, VA 22066-0308
Tom Ferguson
tferguson@highgainwireless.com
717.592.9578
highgainwireless.com



Industrial Communications

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Marshfield, MA 02050
Tom Lennon
melissa.goodwin@induscom.com
781.319.1012
industrialcommunications.com

MidSouth Towers

P.O. Box 6556
Gainesville, GA 30504
Jay Panozzo
jay@midsouthtowers.com
815.693.1565
midsouthtowers.com



Network Building and Consulting

7380 Coca Cola Drive, Suite 106
Hanover, MD 21076
Jeff Ebihara
chelseas@marriner.com
616.218.9444
networkbuilding.com

NB+C (Network Building & Consulting) says customers can count on it for wireless infrastructure needs: architecture and engineering, construction and site development. From new site construction, small cell installs or engineering, NB+C says it is the company to count on for results, not excuses.

See ad on pages 8-9

New Horizon Towers

11471 Twin Lakes Lane
San Angelo, TX 76904
Tom Thornton
newhorizontowers@aol.com
325.947.3436
newhorizontowers.com

PierCon Solutions

63 Beaver Brook Road, Suite 201
Lincoln Park, NJ 07035
Rich Conroy
rich.conroy@piercon.net
973.628.9330
piercon.net

RCC Consultants

100 Woodbridge Center Drive
Woodbridge, NJ 07095
Mike Hunter
info@rcc.com
732.404.2400
rcc.com

RJR Wireless

23501 Park Sorrento, Suite 218
Calabasas, CA 91302-1381
Rich Reichler
rjrwireles@aol.com
818.222.7483



SBA Communications

5900 Broken Sound Parkway N.W.
Boca Raton, FL 33487
Lynne Hopkins
request@sbasite.com
800.487.SITE
sbasite.com

As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

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Our success has really been based on partnerships from the very beginning. –Bill Gates

Site ID

103 Carnegie Center, Suite 300
Princeton, NJ 08540
Michael Shine
mshine@siteidinc.com
973.454.0302
siteidinc.com



SSC

8500 W. 110th St., Suite 300
Overland Park, KS 66210
David Blaha
info@ssc.us.com
913.438.7700
ssc.us.com

SSC provides services to the telecommunications, development and construction industries. The company says its full range of in-house services and abilities makes it uniquely capable of handling all aspects of the most challenging projects. SSC says it strives hard to serve its clients, solve their problems and communicate effectively.

See ad on page 91



Subcarrier Communications
139 White Oak Lane
Old Bridge, NJ 08887
John Paleski
subcom1@subcarrier.com

732.607.2828
subcarrier.com

Subcarrier Communications is a provider of telecommunications sites and services throughout the United States. The company's primary business is leasing antenna space on its multitenant towers and exclusively managed building rooftops.

See ad on page 5



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Tectonic provides a full spectrum of site acquisition, A/E professional services and program management. Tectonic's staff of 500 is located throughout offices nationally, providing site acquisition, permitting, zoning, due diligence, NEPA/SHPO, Phase I, civil, structural and geotechnical engineering and tower analysis.

See ad on page 61

Tower Maps

38659 Bolington Road
Lovettsville, VA 20180
David Ward
info@towermaps.com
540.822.5092
towermaps.com

Tower Seekers

3805 Shale Court
Carlsbad, CA 92010
Mike Ritter
mike@towerseekers.com
760.917.1123
towerseekers.com



Utility Service Communications

535 Courtney Hodges Blvd.
Perry, GA 31069
Kerri Wright
sitemanagement@utilityservice.com
800.679.7819
utilityservice.com

Utility Service Communications specializes in site marketing and management for wireless facilities on water tank sites. The

company provides tech services including tank mapping, structural analysis, and architectural and engineering drawings.

See ad on page 133

Westell Technologies

750 N. Commons Drive
Aurora, IL 60504
Sales
contactsales@westell.com
800.377.8766
westell.com

White Buffalo Environmental

6321 E. 102nd St., Suite C
Tulsa, OK 74137
Steve McFarlin
steve.mcfarlin@whitebuffalo.com
918.660.0999
whitebuffalo.com

See ad on page 161



Wireless Edge

270 North Ave., Suite 809
New Rochelle, NY 10801
John Arthur
arthur@wirelessedge.org
914.712.0000
wirelessedge.org

Wireless Edge is a provider of network implementation services and strategic tower sites. Nationwide services include tower development, site management, development of cell sites and satellite terrestrial repeaters and special projects. The company specializes in development and permitting of antenna sites on landmark and historic properties.

See ad on page 49

SOLAR POWER

Alpha Technologies

7700 Riverfront Gate
Burnaby, BC V5J 5M4
Canada
sales@alpha.ca
800.667.8743
alpha.ca

See ad on page 39

Synergy Concepts

105 Ford Lane
Hazelwood, MO 63042
Ben White
benwhite@synergyconceptsinc.com
314.895.2800
synergyconceptsinc.com

Synergy Concepts works with businesses and communities to develop renewable energy systems that produce affordable and efficient renewable energy as the world moves toward a greener way of living.

Trojan Battery

12380 Clark St.
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Meryl Cook
kgarcia@trojanbattery.com
562.236.3165
trojanbattery.com

SUPPORT STRUCTURES

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Oliver Delery
heather.meiner@hanson.com
504.254.1596
hansonpipeandprecast.com

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Acworth, GA 30101
Paul Novis
pauln@kenwoodtelecom.com
888.439.0500
kenwoodtelecom.com

Oldcastle Precast Shelter Solutions

7921 S. Park Plaza
Littleton, CO 80120
John Albert
barbara.bogo@oldcastle.com
561.914.6584
oldcastleprecast.com

Valmont Site Pro 1

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Hauppauge, NY 11788
Steve Hagee
steven.hagee@valmont.com
888.GETPRO1
sitepro1.com

SURGE PROTECTION



Alltec

64 Catalyst Drive
Canton, NC 28716
Eric Schilling
info@alltecglobal.com
828.646.9290
alltecglobal.com

Alltec is an international, full-service company specializing in engineered grounding/earthing and bonding, surge/transient protection and lightning protection systems. It provides risk-mitigation strategy and engineered solutions for today's infrastructure challenges.

See ad on page 43

aglmediagroup.com

Huber+Suhner

19 Thompson Drive
Essex Junction, VT 05452
Dick Schmidt
info@hubersuhner.com
630.816.4021
hubersuhner.com

See ad on page 134



Nextek

2 Park Drive, Building #1

Westford, MA 01886

Mike Kauffman
sales@nexteklightning.com
978.486.0582
nexteklightning.com

NexTek designs and manufactures coaxial surge arrestors with performance from DC to 18 GHz and with transient ratings to 200 kA. The high-quality protectors feature a 10-year warranty and competitive pricing, and they are made in the United States. NexTek says, "Protect your investment by using NexTek arrestors."

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301.444.2047
pctel.com



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Phoenix Contact

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Middletown, PA 17057
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info@phoenixcon.com
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phoenixcontact.com

Phoenix Contact develops and manufactures industrial electrical and electronic technology products that power, protect, connect and automate systems and equipment for many industries. Phoenix Contact employs more than 12,000 people worldwide, including 630 in the United States.

See ad on page 34



Raycap

806 S. Clearwater Loop
Post Falls, ID 83854
Lisa Duckett
marketing@raycap.com
208.777.1166
raycapsurgeprotection.com

Raycap says it is a world leader in lightning protection and cable management solutions for fiber-to-the-antenna (FTTA) networks. Its products connect and protect tens of thousands of 3G and 4G sites in the latest networks

being built by the world's largest operators.

See ad on page 69

Remote Monitoring Services

7732 County Road 150
Salida, CO 81201
Art Stone
hillary@stonetechnology.com
719.539.1222
stonetechnology.com



Spinner ICT

5126 South Royal Atlanta Drive
Tucker, GA 30084
Michael Horan
info-atlanta@spinner-group.com
770.263.6326
spinner-group.com/us

Spinner ICT says it is the leader in low-PIM performance for jumper cables, coaxial connectors and passive components. The company says it provides the highest-quality German-engineered design to meet and exceed industry requirements.

See ads on pages 77 and 85



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Valmont Site Pro 1

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Steve Hagee
steven.hagee@valmont.com
888.GETPRO1
sitepro1.com

Valmont Site Pro1 says it is the industry's leading manufacturer and distributor of high-quality wireless site components. The company's broad product offering is available for same-day shipping from any one of its six distribution centers located in Atlanta; Los Angeles; New York; Dallas, Plymouth, Ind.; and Salem, Ore. Products include coax cable accessories, grounding components, ice bridges, antenna mounts and platforms, guy material, fiber components and safety products.

SYSTEM DESIGN

Alpha Technologies

7700 Riverfront Gate
Burnaby, BC V5J 5M4
Canada
sales@alpha.ca
800.667.8743
alpha.ca

See ad on page 39

Axell Wireless

15950 N. Dallas Parkway,
Suite 400
Dallas, TX 75248
Matthew Thompson
info@axellwireless.com
972.361.8038
axellwireless.com

Bird Technologies

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415.751.8845
csitele.com

DeltaNode

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Solon, OH 44139
Tom Boyle
tboyle@birdrf.com
440.248.2172
deltanode.com

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iBwave

7075 Robert-Joncas, Suite 95
Montreal, QC H4M 2Z2
Canada
Juan Felipe Gonzalez
info@ibwave.com
514.397.0606
ibwave.com

Mobile Relay Associates

15330 Vermont Ave.
Paramount, CA 90723
Joyce Peters
joyce@mra-raycom.com
323.636.5202
mra-raycom.com

PierCon Solutions

63 Beaver Brook Road, Suite 201
Lincoln Park, NJ 07035
Rich Conroy
rich.conroy@piercon.net
973.628.9330
piercon.net

Pierson Wireless

P.O. Box 22704
Lincoln, NE 68542
Ross Pierson
solutions@piersonwireless.com
402.730.8638
piersonwireless.com



Solid

617 N. Mary Ave.
Sunnyvale, CA 94085
Matt Atkins
info@solid.com
888.409.9997
solid.com

Solid is a global wireless infrastructure company that enables indoor and outdoor cellular, public-safety and Wi-Fi communications at some of the world's best-known venues.

See ad on page 129

V-Comm

2540 U.S. Highway 130,
Suite 101
Cranbury, NJ 08512
Dominic Villecco
dominic.villecco@vcomm-eng.com
609.655.1200
vcomm-eng.com

Vision Technologies

530 G McCormick Drive
Glen Burnie, MD 20161
Al Saxon
asaxon@visiontech.biz
410.424.2183
visiontech.biz

Waterford Consultants

P.O. Box 2090
Ashburn, VA 20146-2090
Thomas Ferguson
sales@waterfordconsultants.com
703.910.5054
waterfordconsultants.com

See ad on page 42

SYSTEM INTEGRATORS

AFL

170 Ridgeview Center Drive
Duncan, SC 29334
Dennis Beck
sales@aflglobal.com
678.576.7641
aflglobal.com

BlueStream

Professional Services
3305 Highway 60 West
Faribault, MN 55021
Sales
contactkgp@kgptel.com
800.755.1950
bluestreampro.com

Copper Mountain Technologies

3905 Vincennes Road
Indianapolis, IN 46268
Sasha Fainberg
info@coppermountaintech.com
317.222.5400
coppermountaintech.com

Dali Wireless

535 Middlefield Road, Suite 280
Menlo Park, CA 94025
Laura Hayes
lhayes@daliwireless.com
604.420.7760
daliwireless.com

MUTI-Sabre Industries Telecom Services

2626 Midwest Court
Champaign, IL 61822
Scott Kisting
skisting@mutionline.com
217.819.3040
mutionline.com

MUTI-Sabre Industries Telecom Services provides a variety of services to the telecommunications industry including tower construction, modifications, maintenance,



inspections, microwave design and deployment, equipment integration, generators and HVAC maintenance.

Squan

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Englewood, NJ 07631
Douglas Fishman
info@squan.com
201.408.5111
squan.com

UniTek Global Services

1777 Sentry Parkway West
Blue Bell, PA 19422
Mike Treger
mtreger@pinnaclewireless.com
201.249.8528
unitekglobalservices.com

TESTING & MEASUREMENT



AEA Technology, Inc.

AEA Technology

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aeatechnology.com

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678.576.7641
afglobal.com

Agilent Technologies

5301 Stevens Creek Blvd.
Santa Clara, CA 95051

Janet G Smith

janet_smith@agilent.com
970.679.5397
agilent.com

Alliance

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Lincoln Park, NJ 07035
alliancesales@alliancecomm.com
888.821.4797
alliancecomm.com

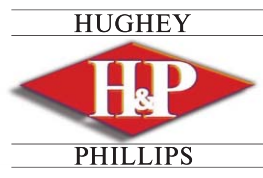


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See ad on page 1

Bird Technologies

30303 Aurora Road
Solon, OH 44139
Tom Boyle
sales@birdrf.com
440.519.2172
birdrf.com

See ad on page 161

Copper Mountain Technologies

3905 Vincennes Road
Indianapolis, IN 46268
Sasha Fainberg
info@coppermountaintech.com
317.222.5400
coppermountaintech.com

Electro Rent

6060 Sepulveda Blvd.
Van Nuys, CA 91411
Electro Rent
sales@electrorent.com
800.553.2255
electrorent.com

Galtronics

1131 W. Warner Road
Tempe, AZ 85284
Robert Booth
sales@galtronics.com
866.206.9482
galtronics.com

GPS Networking

373 E. Industrial Blvd.
Pueblo West, CO 81007
Steve Vasquez
salestech@gpsnetworking.com
719.595.9880
gpsnetworking.com

Isotrope

503 Main St.
Medfield, MA 02052
Steve Riggs
contact@isotrope.im
508.359.8833
isotrope.im

Isotrope offers what it calls total support in design, specification, evaluation and construction of wireless facilities. Services provided include RF design, project management, coverage mapping, drive testing, zoning compliance, RF interference remediation and RF safety compliance.

JDS Uniphase

430 N. McCarthy Blvd.
Milpitas, CA 95035
Michael Tschirret
jdsu.quickpurchase@jdsu.com
919.388.5069
jdsu.com/en-us/test-and-

measurement/products/wireless/pages/default.aspx

LBA Group

3400 Tupper Drive
Greenville, NC 27834
Jerry Brown
lbagrplbgroup.com
252.757.0279
lbagroup.com

Matco Services

100 Business Center Drive
Pittsburgh, PA 15205
Dan Witt
dan.witt@matcoinc.com
402.359.6753
matcoinc.com



Pctel

20410 Observation Drive,
Suite 200
Germantown, MD 20876
Chintan Fafadia
chintan.fafadia@pctel.com
301.444.2047
pctel.com

Positron

5101 Buchan St., Suite 220
Montreal, QC H4P 2R9
Canada
Salvatore Carbonaro
scohen@positron.ca
514.345.2214
positronpower.com

Shared visions and principles support long term partnerships so take the time to understand the motivations and values of your potential suppliers.



SAF Tehnika JSC

10500 E. 54th Ave., Unit D
 Denver, CO 80239
 Daniel White
salesna@saftehnika.com
 720.502.0724
saftehnika.com/en/spectrumanalyzer

SAF's spectrum compact is a hand-held analyzer for the 6-GHz to 40-GHz spectrum. It has a multi-meter's form factor and comes at what SAF says is only a fraction of a portable spectrum analyzer's price. The LCD touchscreen ensures intuitive use, and onboard memory allows saving the data on a PC.

SPAA05.com

Kleiweg 24
 Waalwijk, FL 5145NB
 Hans Le Sage
hans@spaa05.com
 003.141.6565005
spaa05.com



Spectracom

1565 Jefferson Road, Suite 460
 Rochester, NY 14559
 Wade Sober
wade.sober@spectracom.orolia.com
 585.321.5810
spectracomcorp.com

The Path Align-R is a high-performance test solution designed for fast, accurate microwave path alignment. The manufacturer says the unit is endorsed by leading wireless commu-

nications suppliers, and it provides precise alignment results in about 20 minutes. No power or radios are required on-site. The Path Align-R provides proof of alignment with recorded and documented records.

See ad on page 103



Spinner ICT

5126 South Royal Atlanta Drive
 Tucker, GA 30084
 Michael Horan
info-atlanta@spinner-group.com
 770.263.6326

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solid.com



/ SUPPLIERS /

spinner-group.com/us

Spinner ICT says it is the leader in low-PIM performance for jumper cables, coaxial connectors and passive components. The company says it provides the highest-quality German-engineered design to meet and exceed industry requirements.

See ads on pages 77 and 85



Sunsight Instruments

125 Candace Drive
Maitland, FL 32751
Marla Riggs
sales@sunsight.com
321.244.9443
sunsight.com

Sunsight says it is the industry leader in the development and manufacturing of antenna alignment sensors, monitoring systems and tools. Their products will help you build your network and keep your signal strong. Contractors and carriers will benefit from eliminating re-trips and site level closeouts.

See ad on page 74

Talley

12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com

Telewave

660 Giguere Court
San Jose, CA 95133
sales@telewave.com
800.331.3396

telewave.com

See ad on page 27

TRM

7468 Candlewood Road
Hanover, MD 21076
Tom Napoli
tnapoli@trmcom.com
240.205.1588
trmcom.com

Valmont Structures

1545 Pidco Drive
Plymouth, IN 46563
Sean Gallagher
sean.gallagher@valmont.com
503.589.6616
valmontstructures.com

See ad on page 135



Waterford Consultants

P.O. Box 2090
Ashburn, VA 20146-2090
Thomas Ferguson
sales@waterfordconsultants.com
703.910.5054
waterfordconsultants.com

Waterford Consultants offers a wide array of professional and regulatory consulting services with expertise in AM detuning, RF emissions analysis (EME), intermodulation studies, FAA certification and filing, site audit and third-party inspection, and tower structural and appurtenance mapping. Waterford says it has a national team of highly respected and reputable experts who are committed to providing superior, timely and budget-sensitive customer service. Waterford says it understands regulatory requirements and can alleviate the burden of FCC compliance for its customers.

See ad on page 42

Penn-Tech International

3 S. Bacton Hill Road, Unit 2
Frazer, PA 19355
Thomas Hedberg
pti@ptii.net
484.395.0145
ptii.net

TOOLS & SUPPLIES

Black Box Network Services

1000 Park Drive
Lawrence, PA 15055-1018
Carly Burton
carly.burton@blackbox.com
724.746.5500
blackbox.com

Connect-It Wireless

210 Commerce Way, Suite C
Jupiter, FL 33458
Alisa Whitacre
sales@connectitwireless.net
866.781.1300
connectitwireless.net

Deus Rescue

3012 Sterling Circle, Suite 100
Boulder, CO 80301
Jeff Wild
Info@deusrescue.com
866-405-3461
deusrescue.com



FieldSense USA

P.O. Box 30014
Columbia, MO 65205
Max Birch
info@fieldsenseusa.com
312.260.6055
fieldsense.com

TESTING & MEASUREMENT – TOOLS & SUPPLIES



FieldSense says its personal RF monitor is a cost-effective solution for mobile network operators and professionals searching for a way to ensure safety for all personnel working in the vicinity of base station antennas. The unit is compact and has a durable design intended for everyday use.

See ad on page 7



GME Supply
1801 Westfall Drive
Columbia, MO 65202
Jim Zepp
info@gmesupply.com
718.210.3913
gmesupply.com

GME Supply says it is America's premier outfitter of equipment and supplies. It says its mission is to keep workers safe and productive while on the job. The company asks customers to "climb higher with GME Supply, your trusted resource for expert advice and superior service."

See ad on inside back cover



H&H Industries
110 W. Main St.
Elmwood, IL 61529
Rick Howerton
sales@lightsbyhh.com
800.637.3853
lightsbyhh.com

aglmediagroup.com

H&H Industries is supplies incandescent code beacon and obstruction lamps. The company's Task-Master lamps are independently tested to meet or exceed all FAA regulations. The company offers products for tower, shop and office lighting applications. H&H is a member of the National Association of Tower Erectors.

See ad on page 161

KGP Logistics
3305 Highway 60 West
Faribault, MN 55021
Chanel Cottengim
contactkgp@kgptel.com
800.755.1950
kgplogistics.com

Landmark Dividend
2141 Rosecrans Ave., Suite 2100
El Segundo, CA 90245-4747

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...Low Cost Facility Signs

UniTech's FCC compliant tower signs are unmatched in price and quality. Standard designs ship quickly with no additional charge for customization. Many materials and sizes available, including adhesive labels.

NOTICE



Radio Frequency Fields beyond this point may exceed the FCC general public exposure limit. Obey all posted signs and site guidelines for working in radio frequency environments.

AVISO



Mezcla de este punto los campos de la radiofrecuencia en este sitio pueden exceder las reglas de la FCC para la exposición humana. Para su seguridad obedezca todas las advertencias y señales. Señales de este tipo trabajan en ambientes de la radiofrecuencia.

DANGER



Don't touch tower! Serious RF burn hazard! Maintain adequate clearance. Failure to obey all posted signs and site guidelines for working in radio frequency environments could result in serious injury. Contact center only, never touch, proceed to 800-637-3853 for the nearest professional.

INFORMATION

Federal Communications Commission Tower Registration Number

1 2 3 4 5 6 7

This sign is posted in accordance with U.S. Federal Communications Commission regulations on antenna tower registration 47CFR 17.40g.

••T••Mobile•

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 800.843.2024
landmarkdividend.com

See ad on page 111



My-te Products
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 Indianapolis, IN 46229
 Sales Department
sales@myte.com
 800.840.9880
myte.com

See ad on page 147

SAF Tehnika JSC
 10500 E. 54th Ave., Unit D
 Denver, CO 80239
 Daniel White
salesna@saftehnika.com
 720.502.0724
saftehnika.com/en/spectrumalyzer



Sunsight Instruments
 125 Candace Drive
 Maitland, FL 32751
 Marla Riggs
sales@sunsight.com
 321.244.9443
sunsight.com

Sunsight says it is the industry leader in the development and manufacturing of antenna alignment sensors, monitoring

systems and tools. Their products will help you build your network and keep your signal strong. Contractors and carriers will benefit from eliminating re-trips and site level closeouts.

See ad on page 74

UniTech Services Group
 295 Parker St.
 Springfield, MA 01151
 Stephen Hofstatter
shofstatter@unitechus.com
 413.304.2100
unitech-rf.com

See ad on page 131



A valmont COMPANY

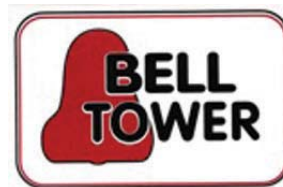
Valmont Site Pro 1
 15 Oser Ave.
 Hauppauge, NY 11788
 Steve Hagee
steven.hagee@valmont.com
 888.GETPRO1
sitepro1.com

Valmont Site Pro1 says it is the industry's leading manufacturer and distributor of high-quality wireless site components. The company's broad product offering is available for same-day shipping from any one of its six distribution centers located in Atlanta; Los Angeles; New York; Dallas, Plymouth, Ind.; and Salem, Ore. Products include coax cable accessories, grounding components, ice bridges, antenna mounts and platforms, guy material, fiber components and safety products.

TOWER ERECTORS

Allstate Tower
 P.O. Box 25
 Henderson, KY 42419
 Kevin Roth
Kroth@allstatetower.com
 270.830.8512
allstatetower.com

See ad on page 161



Bell Tower
 6037 S. Industrial Road
 Chelsea, OK 74016
 Richard Bell
rose-btc@sbcglobal.net
 918.789.9020
belltowercorp.com

For 22 years, Bell Tower has been designing, manufacturing and installing towers throughout the United States from 100-foot self-supporters to 2,000-foot broadcast towers. The company's experienced staff offers customers what Bell Tower says is finest safety record in the industry and fair pricing on challenging projects.

Branch Communications
 1516 S. Boston,
 Suite 215
 Tulsa, OK 74119
 Johnie Johnson
jj@branchcomm.net
 918.404.9289
branchcomm.net

TOOLS & SUPPLIES - TOWER ERECTORS



Campbellsville Industries
P.O. Box 278
Campbellsville, KY 42718
David England
steeple@cvilleindustries.com
270.465.8135
cvilleindustries.com

Campbellsville Industries, whose nickname is "the Steeple People," says it is the oldest and largest steeple/cupola company in the United States with more than 18,000 installations throughout the world. The company uses traditional architectural styling and historic reproduction to

conceal antennas inside the steeple/cupola.

See ad on page 151



CommStructures
101 E. Roberts Road
Pensacola, FL 32534
Jim Hobbs
jhobbs@commstructures.com
850.968.9293
commstructures.com



Day Wireless Systems
4700 S.E. International Way
Milwaukie, OR 97222

Dean Ballew
dwssites@daywireless.com
503.659.1240
daywireless.com

Founded in 1969, Day Wireless Systems has 26 offices and 190 towers in the seven western states. The company specializes in collocation, site management, tower construction, system design, sales and service. Day Wireless says it is the largest full-service wireless integrator on the West Coast.

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Chandler, IN 47610
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sales@eriinc.com
812.925.6000
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- Lightweight modules
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- Reliable electrical performance
- DAS indoor and outdoor applications





FDH

6521 Meridien Drive
Raleigh, NC 27616
Dan Sammartano
dsammartano@fdh-inc.com
919.755.1012
fdh-inc.com



J.W. Project Management

1206 5th St., Bay 4
Nisku, AB T9E8B6
Canada
Jim Wannamaker
wmaker@telus.net
780.955.2122
jwpm.ca

J.W. Project Management says it endeavors to establish lasting relationships with customers by exceeding their expectations and gaining their trust through exceptional performance by every member of its construction and management team.

Parallel
INFRASTRUCTURE

Parallel Infrastructure
4601 Touchton Road East,
Building 300, Suite 3200
Jacksonville, FL 32246
Edward Lee
eddy@parallelinfrastructure.com
904.565.4115
parallelinfrastructure.com

Parallel Infrastructure says it is the leader in right of way management and infrastructure development, focusing on maximizing the value of underutilized land assets for third-party clients. The firm's capabilities include telecommunications

aglmediagroup.com

infrastructure development.

See ad on page 117



Penn-Tech International
3 S. Bacton Hill Road, Unit 2
Frazer, PA 19355
Thomas Hedberg

pti@ptii.net
484.395.0145
ptii.net

Retel Services

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www.valmont-towers.com

TOWER ERectors



/ SUPPLIERS /



SBA Communications

5900 Broken Sound Parkway N.W.
Boca Raton, FL 33487
Lynne Hopkins
request@sbsite.com
800.487.SITE
sbsite.com

As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

See ad on back cover



Shenandoah Tower Service

P.O. Box 956
Staunton, VA 24402-0956
Dave Anthony
davea@shensvc.com
540.569.6890
shenandoahtower.com

Shenandoah Tower Service, formed in 1983, says it is dedicated to setting the standard in the wireless communications industry by providing exceptional construction, maintenance and management services.

Stainless

100 W. Main St., Suite 400
Lansdale, PA 19446
Ed Deetscreek
ed.deetscreek@stainlessllc.com

215.631.1323
stainlessllc.com

Tower Systems

17226 447th Ave.
Watertown, SD 57201
Chuck Erickson
chucke@towersystems.com
605.886.0930
towersystems.com



Unites States Tower Services

5263 Agro Drive
Frederick, MD 21703
Quentin Ellis
jim.martin@ustowerservices.com
301.874.5885
ustowerservices.com



WesTower Communications

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Orlando, FL 32804
Angelique Stephens
c Carlisle@westtower.com
818.309.5163
westtower.com

TOWER LIGHTS

Allstate Tower

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Henderson, KY 42419
Kevin Roth
Kroth@allstatetower.com
270.830.8512
allstatetower.com

See ad on page 161

Dialight

Dialight

1501 State Route 34
Farmingdale, NJ 07727-3932
info@dialight.com
732. 919.3119
dialight.com

Dialight offers the Vigilant line of obstruction LED lighting, controls and monitoring systems. With FAA certification for all tower and obstruction types and heights, Dialight says the new Vigilant obstruction line provides worry-free operation, lower power consumption, smaller size, less wind load and lighter weight.

See ad on page 118

EMF Telecom

328 Hill Ave.
Nashville, TN 37210
info@emftelecom.com
615.291.6279
emftelecom.com



Precision LED Lighting

Farlight

846 Watson Ave.
Wilmington, CA 90744
Robert Wolfenden
info@farlight.com
800.741.1545
farlight.com

Farlight has designed and manufactured compact and efficient LED obstruction lights and controllers in California. The company's LED obstruction lights combine the cost-saving benefits of LEDs with advanced technology to ensure reliable operation in

TOWER ERECTORS - TOWER LIGHTS



all environments. All Farlight obstruction lights are backed by a five-year warranty.

See ad on page 107

First Light Resources

189 Rivergate Drive
Franklin, TN 37064
Richard Hickey
rh@firstlightresources.com
615.856.5526
firstlightresources.com

Flash Technology

Flash Technology

332 Nichol Mill Lane
Franklin, TN 37067
Technical Sales
gayle.mason@spx.com
615.503.2025
flashtechnology.com

Flash says it is the world leader in FAA-approved aviation obstruction lighting, designed for easy install, low power consumption and reduced maintenance with the latest in LED technology. Flash also offers component-level training and a 24/7/365 national operations center. Its solutions enable customers to obtain QLI waivers. Flash Technology's slogan is: "Simply the Best!"

See ad on page 92



H&H Industries
110 W. Main St.
Elmwood, IL 61529
Rick Howerton
sales@lightsbyhh.com
800.637.3853
lightsbyhh.com

aglmediagroup.com

H&H Industries is supplies incandescent code beacon and obstruction lamps. The company's Task-Master lamps are independently tested to meet or exceed all FAA regulations. The company offers products for tower, shop and office lighting applications. H&H is a member of the National Association of Tower Erectors.

See ad on page 161



Hughey & Phillips
240 W. Twain Ave.
Urbana, OH 43078
Jim Sullivan
jsullivan@hugheyandphillips.com

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Cable range 4mm up to 14mm

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Cable range 14mm up to 36mm

BC U214
U.S. Patent Pending
Cable range 14mm to 45mm

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937.652.3500
hugheyandphillips.com

Hughey & Phillips says it is a global leader in the design and manufacturing of low-, medium- and high-intensity obstruction lighting technology. H&P offers obstruction lighting in LED, strobe and incandescent technologies. H&P manufactures all of its products in the United States.

See ad on page 127

International Tower Lighting

P.O. Box 41875
Nashville, TN 37204
Jack Burden
jburden@itl-llc.com
615.256.6030
itl-llc.com

Skytec

23 Inland Farm Road
Windham, ME 04062
Richard Sullivan
skytecinc@hotmail.com
207.893.1700
skytecInc.com

Slatercom-WCD
(Div Of Afcomm, LLC)

Slatercom-WCD
7905 State St.
Salem, OR 97317
Al Slater
info@slatercom.com
503.581.5550
slatercom.com

Slatercom-WCD is a master integrating Dialight tower lighting distributor. Extensive stocks of the new D464 red beacon and D1RW-008 dual red/white beacon as well as RTO and the 860 series of marker lights are available from stock in either individual purchases or complete kits.

See ad on page 155

If you do not seek out allies and helpers, then you will be isolated and weak. –Sun Tzu



Specialty Tower Lighting

1630 Elmview Drive
Houston, TX 77080
Meredith Steves
sales@specialtytowerlighting.com
713.722.8123
specialtytowerlighting.com

Specialty Tower Lighting offers a diverse line of ETL-certified and FAA-approved aviation obstruction lighting products, in stock, competitively priced and ready to ship. STL has more than 25 years of experience in design, manufacturing and installation of obstruction lighting products.

See ad on page 149

TowerMRL

2851 Capitol Drive
Sun Prairie, WI 53590
Chris Mallon
cmallon@towermrl.com
608.244.1855
towermrl.com



TWR Lighting

4300 Windfern Road
Houston, TX 77041-8943
Jeremy Lochner
jlochner@twrlighting.com
713.973.6905
twrlighting.com

TWR says it is “your one-source solution for LED lighting and wireless monitoring.” With more than 100,000 systems installed worldwide, TWR says its field-proven, proprietary technology provides the lowest power consumption and community-friendly narrow beam optics, and it allows for a single controller and cable installation even with multiple flash heads. TWR says it has the most comprehensive five-year complete system warranty, and that it had the first FCC/FAA aviation-compliant lighting system. Paired with its wireless monitoring systems, TWR’s systems allow for yearly light inspections, which saves customers thousands of dollars over the system life.

See ad on page 125



Unimar

3195 Vickery Road
North Syracuse, NY 13212-4574
Christopher Phelps
maurita@unimar.com
315.699.4400
unimar.com

As a provider of lighting solutions designed specifically to meet customers’ needs, Unimar says it learns every aspect of its customers’ business and regulatory needs, provides expertise in designing and building their lighting systems, and follows up with



customer support. Unimar says the result is greater reliability, economy and performance.

See ad on page 53

TOWER LIGHTS/ CONCEALMENT

Dialight

1501 State Route 34
Farmingdale, NJ 07727-3932
info@dialight.com
732. 919.3119
dialight.com

See ad on page 118



Environmental Integration

18 Chase Court
Orange, MA 01364
Thor Holbek
info@environmentalintegration.com
978.544.1900
environmentalintegration.com

Environmental Integration designs and manufactures concealment products for monopole, rooftop and steeple applications. Branch canopy systems, including refurbish projects, are engineered for durability and longevity. The company specializes in realistic reproductions for concealment.

FARLIGHT

Precision LED Lighting

Farlight

846 Watson Ave.
Wilmington, CA 90744
Robert Wolfenden

info@farlight.com
800.741.1545
farlight.com

Farlight has designed and manufactured compact and efficient LED obstruction lights and controllers in California. The company's LED obstruction lights combine the cost-saving benefits of LEDs with advanced technology to ensure reliable operation in all environments.

All Farlight obstruction lights are backed by a five-year warranty.

See ad on page 107

International Tower Lighting

P.O. Box 41875
Nashville, TN 37204
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jburden@itl-llc.com
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corporatecollege.biz • 4647 Stone Ave. • Sioux City, IA
Located on the campus of Western Iowa Tech Community College

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Richard Sullivan
skytecinc@hotmail.com
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skytecInc.com

Slatercom-WCD

7905 State St.
Salem, OR 97317
Al Slater
info@slatercom.com
503.581.5550
slatercom.com

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TOWER MANUFACTURERS



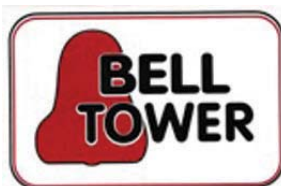
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Henderson, KY 42419
Kevin Roth
Kroth@allstatetower.com
270.830.8512
allstatetower.com

Allstate Tower fabricates a line of self-supporting, guyed, agriculture and specialized steel structures engineered specifically for its customers' demanding requirements. Allstate Tower offers turnkey installation services, tower maintenance and inspection services for any type of tower. The company has served the broadcast, wireless, CATV, agriculture, government,

utility and general contracting market for more than 10 years.

See ad on page 161



Bell Tower

6037 S. Industrial Road
Chelsea, OK 74016
Richard Bell
rose-btc@sbcglobal.net
918.789.9020
belltowercorp.com

For 22 years, Bell Tower has been designing, manufacturing and installing towers throughout the United States from 100-foot self-supporters to 2,000-foot broadcast towers. The company's experienced staff offers customers what Bell Tower says is finest safety record in the industry and fair pricing on challenging projects.



Campbellsville Industries

P.O. Box 278
Campbellsville, KY 42718
David England
steeple@cvilleindustries.com
270.465.8135
cvilleindustries.com

Campbellsville Industries, whose nickname is "the Steeple People," says it is the oldest and largest steeple/cupola company in the United States with more than

18,000 installations throughout the world. The company uses traditional architectural styling and historic reproduction to conceal antennas inside the steeple/cupola.

See ad on page 151



CommStructures

101 E. Roberts Road
Pensacola, FL 32534
Jim Hobbs
jhobbs@commstructures.com
850.968.9293
commstructures.com

ConcealFab

3265 Fillmore Ridge Heights
Colorado Springs, CO 80907
Mike Slattery
msslattery@concealfab.com
719.599.3400
concealfab.com



EHRESMANN ENGINEERING INC.

Ehresmann Engineering

4400 W. 31st St.
Yankton, SD 57078
Eric Taylor
e.taylor@ehresmannengineering.com
605.665.7532
ehresmannengineering.com

Ehresmann Engineering says that values and ethics are entrenched in the company's daily activities. The company says it achieves performance with honesty in all aspects of its work. Whether it's managing a turnkey project or fabricating a custom-designed stealth structure, Ehresmann Engineering says it will compete

TOWER LIGHTS/CONCEALMENT - TOWER MFGS.



aggressively on quality to provide its customers with what they need, and nothing less.

See ad on page 113

Electronics Research

7777 Gardner Road
Chandler, IN 47610
David White
sales@eriinc.com
812.925.6000
eriinc.com

FWT

5750 E. I-20
Fort Worth, TX 76119
Ashley Glenn
aglenn@fwtlc.com
817.255.3022
fwtlc.com

Hi Tech Composite Structures

P.O. Box 609
Redmond, OR 97756
David Ullrich
sales@hitechcomposites.com
541.548.0812
hitechcomposites.com

International Tower Lighting

P.O. Box 41875
Nashville, TN 37204
Jack Burden
jburden@itl-llc.com
615.256.6030
itl-llc.com



Rohn Products

1 Fairholm Ave.
Peoria, IL 61603
Tim Rohn
sales@rohnnet.com
309.566.3000
rohnnet.com

aglmediagroup.com



Sabre Towers and Poles

2101 Murray St.
Sioux City, IA 51111
Mike Coghlan
mpcoghlan@sabreindustries.com
800.369.6690
sabretowersandpoles.com

Sabre Towers and Poles designs and manufactures guyed and self-supporting towers, mono-

poles and concealment structures. In addition, it designs, fabricates and installs tower and monopole upgrade components.

See ad on page 99

Stainless

100 W. Main St., Suite 400
Lansdale, PA 19446
Ed Deetscreek
ed.deetscreek@stainlessllc.com
215.631.1323
stainlessllc.com

Peppertree Capital Management, Inc.

Is pleased to announce that

Peppertree Capital Fund IV, LP

has been oversubscribed.

\$280,000,000 under management with a focus on communication infrastructure



Peppertree Capital

PeppertreeCapital.com • Chagrin Falls, Ohio



/ SUPPLIERS /



Valmont Structures

1545 Pidco Drive
Plymouth, IN 46563
Sean Gallagher
sean.gallagher@valmont.com
503.589.6616
valmontstructures.com

Valmont Structures is a supplier of towers, poles, engineering and inspection services. Valmont's brands include Matco, Microflect and PiRod. Valmont says whatever a customer's wireless tower application may be, it can offer a solution that meets or exceeds the customer's needs.

See ad on page 135

TOWER PARTS & ACCESSORIES

ACS Solutions

495 Horizon Drive, Suite 200
Suwanee, GA 30024
Bob Diehl
bdiehl@acssolutions.com
800.241.9881
acssolutions.com



Allstate Tower

P.O. Box 25
Henderson, KY 42419
Kevin Roth
Kroth@allstatetower.com
270.830.8512
allstatetower.com

Allstate Tower fabricates a line of

self-supporting, guyed, agriculture and steel structures engineered specifically for its customers' requirements. Allstate Tower offers turnkey installation services, tower maintenance and inspection services for any tower. The company has served the broadcast, wireless, CATV, agriculture, government, utility market for more than 10 years.

See ad on page 161

Birdbusters

707 S. Gulfstream Ave., Suite 405
Sarasota, FL 34236
Jack Wagner
jackwagner@birdbusters.com
866.915.8225
birdbusters.com



Connect-It Wireless

210 Commerce Way, Suite C
Jupiter, FL 33458
Alisa Whitacre
sales@connectitwireless.net
866.781.1300
connectitwireless.net

Connect-It Wireless manufactures and supplies what it calls the highest-quality site hardware available. It says its customer service and industry knowledge are second to none. Connect-It Wireless has antenna site needs in stock, including antenna mounts, bridge kits, coax support, grounding and a huge safety line.



GME Supply

1801 Westfall Drive

Columbia, MO 65202
Jim Zepp
info@gmesupply.com
718.210.3913
gmesupply.com

GME Supply says it is America's premier outfitter of equipment and supplies. It says its mission is to keep workers safe and productive while on the job. The company asks customers to "climb higher with GME Supply, your trusted resource for expert advice and superior service."

See ad on inside back cover

Hill Radio Communications

2503 General Electric Road
Bloomington, IL 61704
Steve Larkin
wa9gck@aol.com
309.663.2141
hillradio.net

International Tower Lighting

P.O. Box 41875
Nashville, TN 37204
Jack Burden
jburden@itl-llc.com
615.256.6030
itl-llc.com



Kenwood Telecom

3431 Novis Pointe
Acworth, GA 30101
Paul Novis
pauln@kenwoodtelecom.com
888.439.0500
kenwoodtelecom.com

TOWER MANUFACTURERS - TOWER PARTS & ACC.



Sabre Industries™
Site Solutions

Sabre Site Solutions

2101 Murray St.
Sioux City, IA 51111
Michael Burnett
mjburnett@sabreindustries.com
800.369.6690
sabresitesolutions.com

Sabre Site Solutions' wireless components and site accessories catalog offers everything from grounding lugs to pre-engineered lightweight towers. The company's antenna mounts are designed to provide the strength and capacity needed for LTE/4G upgrades.

See ad on page 99

Skytec

23 Inland Farm Road
Windham, ME 04062
Richard Sullivan
skytecinc@hotmail.com
207.893.1700
skytecInc.com

Talley

12976 Sandoval St.
Santa Fe Springs, CA 90670
Celina Frazier
sales@talleycom.com
562.906.8023
talleycom.com

Tessco Technologies

11126 McCormick Road
Hunt Valley, MD 21031-1494
John Celentano
celentanoj@tessco.com
410.229.1186
tessco.com

Tuf-Tug Products

3434 Encrete Lane
Moraine, OH 45439

aglmediagroup.com

Joey Deuer
tuftug@aol.com
937.299.1213
tuf-tug.com



A **valmont** COMPANY

Valmont Site Pro 1

15 Oser Ave.
Hauppauge, NY 11788
Steve Hagee
steven.hagee@valmont.com
888.GETPRO1
sitepro1.com

Valmont Site Pro1 says it is the industry's leading manufacturer and distributor of high-quality wireless site components. The company's broad product offering is available for same-day shipping from any one of its six distribution centers located in Atlanta; Los Angeles; New York; Dallas, Plymouth, Ind.; and Salem, Ore. Products include coax cable accessories, grounding components, ice bridges, antenna mounts and platforms, guy material, fiber components and safety products.

Pepero Pan & Tilt 300

The Pepero Pan & Tilt 300 is specifically designed for the wireless communication industry; providing speed, precision and reliability for the positioning of a variety of antennas.

- ▶ Engineered to withstand 120 mph wind speeds and extreme weather conditions
- ▶ 60° of pan and 10° of tilt adjustment
- ▶ Positive positioning via electric motor
- ▶ Lightweight (15 lbs.) all-aluminum design
- ▶ AC or DC operation
- ▶ Water and dust resistant (IP67) electrical connections



PEPERO www.peprollc.com
671 Colbert Ave • Oil City, PA 16301
P: 814-676-5688 • F: 814-676-3729

TOWER PARTS & ACCESSORIES

Photo © Copyright 2014 by Don Bishop



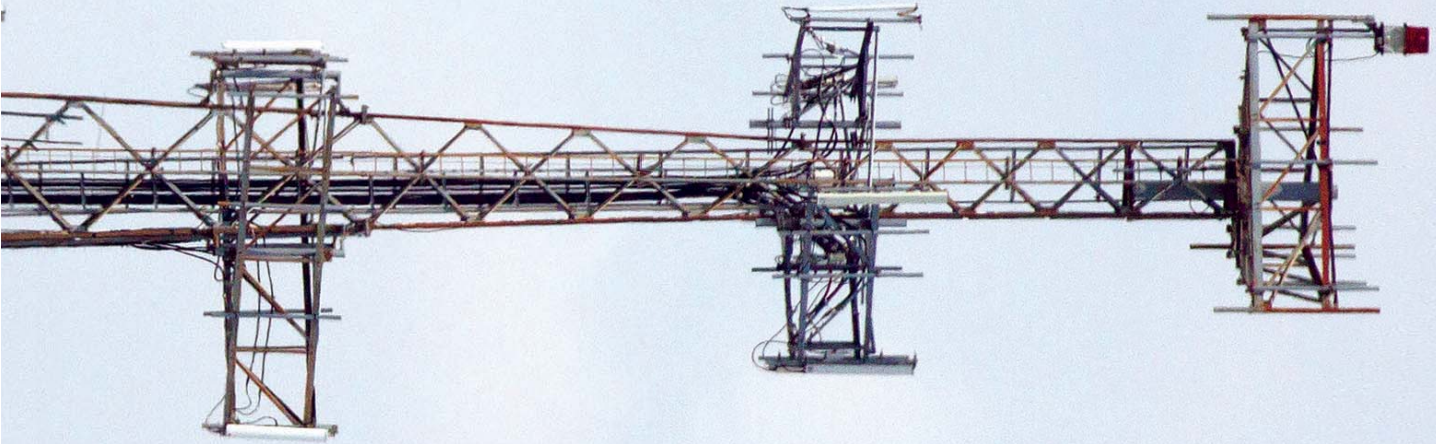
SITE NAME
POP'S PARKING LOT
MONSANTO AVENUE

TOWER OWNER
CROWN CASTLE

TOWER TYPE
SELF-SUPPORTING
LATTICE

LOCATION
SAUGET, ILL.

AGL TOWER OF THE MONTH



agl
ABOVE GROUND LEVEL

JANUARY 2014

AGL TOWER OF THE MONTH



/ SUPPLIERS /

Valmont Structures

1545 Pidco Drive
Plymouth, IN 46563
Sean Gallagher
sean.gallagher@valmont.com
503.589.6616
valmontstructures.com

See ad on page 135



Wanho Manufacturing

137 Mattatuck Heights
Waterbury, CT 06705
sales@wanho.com
203.759.3744
wanho.com

Wanho says it is a key supplier to all major OEMs throughout the world and that it is dedicated to serving these companies, which build and maintain wireless systems on a global basis. Wanho says its components are used extensively in communications systems in all corners of the world including the Americas, Europe and Asia.

See ad on page 137

TOWER REINFORCEMENT



Aero Solutions

5500 Flatiron Parkway, Suite 100
Boulder, CO 80301
Jim Lockwood
info@aerosolutionsllc.com

720.304.6882
aerosolutionsllc.com

Aero Solutions optimizes the load carrying capacity of monopole and tower structures, with thousands of upgrades completed in the United States since 2002. The company's innovative, nonwelded PoleMax reinforcing systems are supported by AeroSoft design software and technical field support.



Allstate Tower

P.O. Box 25
Henderson, KY 42419
Kevin Roth
Kroth@allstatetower.com
270.830.8512
allstatetower.com

Allstate Tower fabricates a line of self-supporting, guyed, agriculture and specialized steel structures engineered specifically for its customers' demanding requirements. Allstate Tower offers turnkey installation services, tower maintenance and inspection services for any type of tower. The company has served the broadcast, wireless, CATV, agriculture, government, utility and general contracting market for more than 10 years.

See ad on page 161

Black & Veatch

10950 Grandview Drive
Overland Park, KS 66210
Kristi Klohs
klohskm@bv.com
913.458.6271
bv.com

See ad on page 10



CommStructures

101 E. Roberts Road
Pensacola, FL 32534
Jim Hobbs
jhobbs@commstructures.com
850.968.9293
commstructures.com

Doty-Moore Tower Services

100 W. Main St., Suite 400
Lansdale, PA 19446
Ed Deetscreek
ed.deetscreek@stainlessllc.com
215.631.1323
stainlessllc.com



Ehresmann Engineering

4400 W. 31st St.
Yankton, SD 57078
Eric Taylor
e.taylor@ehresmannengineering.com
605.665.7532
ehresmannengineering.com

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See ad on page 113

FDH

6521 Meridien Drive
Raleigh, NC 27616

TOWER PARTS & ACCESSORIES - TOWER REINFORCEMENT



Dan Sammartano
dsammartano@fdh-inc.com
919.755.1012
fdh-inc.com

International Climatic Evaluation

1110 Finch Ave. West, Suite 716
Toronto, ON M3J 2T2
Canada
Simon Weisman
simon@weisman-consultants.com
416.736.7453
weisman-consultants.com

Malouf Engineering

17950 Preston Road, Suite 720
Dallas, TX 75252
Mark Malouf
mmalouf@maloufengineering.com
972.783.2578
maloufengineering.com

MidAmerica Towers

P.O. Box 6556
Gainesville, GA 30504
Jay Panozzo
jay@midamericatowers.com
815.693.1565
midamericatowers.com

Mikab

P.O. Box 36
Dumont, NJ 07628
brian weis
bweis@mikabcorp.com
201.387.7700
mikabcorp.com



Paul J. Ford and Company

250 E. Broad St., Suite 600
Columbus, OH 43215
Barb Tucker
btucker@pjfweb.com
614.221.6679
pjfweb.com

aglmediagroup.com

PJF is a structural engineering firm that says it has a national reputation for designing and analyzing communications structures since 1966. PJF offers high-volume capacity with quick turn times. PJF has professional engineer registrations in all 50 states, the District of Columbia, Puerto Rico and Canada.

Rohn Products

1 Fairholm Ave.
Peoria, IL 61603

Tim Rohn
sales@rohnnet.com
309.566.3000
rohnnet.com



Sabre Towers and Poles


2101 Murray St.
Sioux City, IA 51111
Mike Coghlan
mpcoghlan@sabreindustries.com
800.369.6690

CAPSTAN SERIES

Rock Steady

So, you're looking for a utility capstan winch-hoist you can depend on in the worst, remote-site conditions?

You got it.




1,600-lb. * lift capacity * worm gear reduction • 12V DC, 115V AC or hydraulic • 10' pendant hand or foot control * double-line

Featuring the Trifecta™ triple-redundant brake system. (115V only)

Call or go online for application assistance and a My-te distributor near you.

800.840.9880 / www.myte.com



TOWER REINFORCEMENT



/ SUPPLIERS /

sabretowersandpoles.com

Sabre Towers and Poles designs and manufactures guyed and self-supporting towers, monopoles and concealment structures. In addition, it designs, fabricates and installs tower and monopole upgrade components.

See ad on page 99

TowerMRL

2851 Capitol Drive
Sun Prairie, WI 53590
Chris Mallon
cmallon@towermrl.com
608.244.1855
towermrl.com



A **valmont** COMPANY

Valmont Site Pro 1

15 Oser Ave.
Hauppauge, NY 11788
Steve Hagee
steven.hagee@valmont.com
888.GETPRO1
sitepro1.com

Valmont Site Pro1 says it is the industry's leading manufacturer and distributor of high-quality wireless site components. The company's broad product offering is available for same-day shipping from any one of its six distribution centers located in Atlanta; Los Angeles; New York; Dallas, Plymouth, Ind.; and Salem, Ore. Products include coax cable accessories, grounding components, ice bridges, antenna mounts and platforms, guy material, fiber components and safety products.

WesTower Communications

2460 Sand Lake Road
Orlando, FL 32804
Angelique Stephens
ccarlisle@westower.com
818.309.5163
westower.com

TOWER TOP AMPLIFIERS

Bird Technologies

30303 Aurora Road
Solon, OH 44139
Tom Boyle
sales@birdrf.com
440.519.2172
birdrf.com

See ad on page 161



Telewave

660 Giguere Court
San Jose, CA 95133
sales@telewave.com
800.331.3396
telewave.com

Telewave designs and manufactures RF infrastructure equipment for wireless communication systems and interoperability. Customers include public safety organizations; local, county and

federal agencies; industry; and the military.

See ad on page 27



WESTELL

Westell Technologies

750 N. Commons Drive
Aurora, IL 60504
Sales
contactsales@westell.com
800.377.8766
westell.com

TOWER/MOBILE/PORTABLE

Allied Fiber

845 Third Ave., 8th Floor
New York, NY 10022
Hunter Newby
info@alliedfiber.com
631.285.1136
alliedfiber.com

High Gain Wireless

P.O. Box 308
Great Falls, VA 22066-0308
Tom Ferguson
tferguson@highgainwireless.com
717.592.9578
highgainwireless.com

Discuss and agree on specific performance criteria to evaluate the success of the supplier's performance.



Nello

211 W. Washington St., Suite 2000
South Bend, IN 46601
Kevin Goggins
sales@nelloinc.com
574.288.3632
nelloinc.com

Pctel

20410 Observation Drive,
Suite 200
Germantown, MD 20876
Chintan Fafadia
chintan.fafadia@pctel.com
301.444.2047
pctel.com



Peak Industries

1408 E. Stutler Road
Spangle, WA 99031
Rick Covey
contact@peakindustriesinc.com
509.443.0479
peakindustriesinc.com

Peak Industries offers the strongest towers in the market. The company has a large variety of mobile towers and can modify to suit customers' specific needs. Its towers have a small footprint, multicarrier capacity, and excellent wind and tower loading with quick and easy set up. The towers are available nationwide for lease or sale.



Pioneer Energy Products (Pepero)

671 Colbert Ave.
Oil City, PA 16301
Kelly Lander

klender@peprollc.com
814.676.5688
peprollc.com

Pepro says it is the leading manufacturer of patented shielded enclosures for remote communication and mission-critical applications. Pepero has more than 20 years in the industry without loss or upset of radio equipment caused by lightning. Pepero provides complete site solutions and installation.

See ad on page 143

Sabre Building Systems by CellXion

5031 Hazel Jones Road
Bossier City, LA 71111
Jim Phillips
jphillips@sabreindustries.com
770.301.8080
sabrebuildingsystems.com

See ad on page 99

Viking Communications

1421 S. 62nd. St.
Milwaukee, WI 53214
Sal Dragotta

Make it easy on yourself...

Order from the manufacturer.



We don't just market and sell a variety of obstruction lighting fixtures and controllers — we are a manufacturer.

Choose from our in-stock products or design a custom system. Your order will be fabricated, based on your requirements and schedule, with our superior competitively-priced products.



At Specialty Tower Lighting, you can rely on our world-wide reputation. Call us today!



713.722.8123 specialtytowerlighting.com



/ SUPPLIERS /

gm@vikingwireless.com
414.771.8960
viking-communications.com

WILL-BURT

Will-Burt
169 S. Main St.
Orrville, OH 44667
Will-Burt Sales
contact_us@willburt.com
330.684.4000
willburt.com

Will-Burt says it delivers the widest selection and the highest-performance portable, telescopic masts and telescoping lattice towers in the world. The company says that when a customer's requirement is for high pointing accuracy and reliability in any operating environment, it will deliver the solution.

TOWERS / GUYED

Alliance
2 Frassetto Way
Lincoln Park, NJ 07035
alliancesales@alliancecomm.com
888.821.4797
alliancecomm.com



AMERICAN TOWER®
American Tower
10 Presidential Way
Woburn, MA 01801
leasing@americantower.com
877.409.6966
americantower.com

American Tower is a wireless and broadcast communications

infrastructure provider that offers access to more than 49,000 communications sites throughout the United States. Its solutions include wireless and broadcast towers, managed rooftops, in-building and outdoor distributed antenna system (DAS), small cell and Wi-Fi networks, and other right of way options and services that speed network deployment.

Flanigan Communications

109 E. Woodfield St.
Norton, KS 67654
Gary Flanigan
cmf1958@yahoo.com
785.871.0010

Hill Radio Communications

2503 General Electric Road
Bloomington, IL 61704
Steve Larkin
wa9gck@aol.com
309.663.2141
hillradio.net

Rohn Products

1 Fairholm Ave.
Peoria, IL 61603
Tim Rohn
sales@rohnnet.com
309.566.3000
rohnnet.com

Sabre Towers and Poles

2101 Murray St.
Sioux City, IA 51111
Mike Coghlan
mpcoghlan@sabreindustries.com
800.369.6690
sabretowersandpoles.com

See ad on page 99

Tower Systems

17226 447th Ave.
Watertown, SD 57201
Chuck Erickson
chucke@towerystems.com
605.886.0930
towerystems.com

valmont

STRUCTURES

Valmont Structures

1545 Pidco Drive
Plymouth, IN 46563
Sean Gallagher
sean.gallagher@valmont.com
503.589.6616
valmontstructures.com

Valmont Structures is a supplier of towers, poles, engineering and inspection services. Valmont's brands include Matco, Microflect and PiRod. Valmont says whatever a customer's wireless tower application may be, it can offer a solution that meets or exceeds the customer's needs.

See ad on page 135

TOWERS / SELF SUPPORTING

American Tower

10 Presidential Way
Woburn, MA 01801
leasing@americantower.com
877.409.6966
americantower.com

American Tower is a wireless and broadcast communications infrastructure provider that offers access to more than 49,000 communications sites throughout the United States. Its solutions include wireless and broadcast towers, managed rooftops, in-building and outdoor distributed antenna system (DAS), small cell and Wi-Fi networks, and other right of way options and services that speed network deployment.

TOWER/MOBILE/PORTABLE – TOWERS SELF SUP.



**EHRESMANN
ENGINEERING INC.**

Ehresmann Engineering

4400 W. 31st St.
Yankton, SD 57078
Eric Taylor
e.taylor@ehresmannengineering.com
ehresmannengineering.com
605.665.7532
ehresmannengineering.com

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Hill Radio Communications

2503 General Electric Road
Bloomington, IL 61704
Steve Larkin
wa9gck@aol.com
309.663.2141
hillradio.net



**N E L L O
CORPORATION**

Nello

211 W. Washington St., Suite 2000
South Bend, IN 46601
Kevin Goggins
sales@nelloinc.com
574.288.3632
nelloinc.com

aglmediagroup.com

Retel Services

5871 Glenridge Drive N.E., Suite 110
Atlanta, GA 30328
Kathy Kelly-Jacobs
kathy@retelservices.com
678.292.5723
retelservices.com

Rohn Products


1 Fairholm Ave.
Peoria, IL 61603
Tim Rohn
sales@rohnet.com
309.566.3000
rohnet.com



Sabre Towers and Poles

2101 Murray St.
Sioux City, IA 51111
Mike Coghlan
mpcoghlan@sabreindustries.com
800.369.6690
sabretowersandpoles.com

Sabre Towers and Poles designs and manufactures guyed and self-supporting towers, monopoles and concealment structures. In addition,





CAMPBELLSVILLE INDUSTRIES, INC. *"The Steeple People"®* ...PLUS!

When local architectural standards and sentiment prevent free-standing towers, Campbellsville Industries can provide concealment with correct and traditional architectural styling in the form of a steeple, cupola or tower. Cellular phone companies are no longer limited to "stock" molds or a "plastic" look.

Campbellsville is the leader in historic replication of steeples and cupolas in America, with over 18,000 installations, and is the standard in the industry for quality and attention to detail. The same craftsmanship that can be seen on our award winning historic projects, is now available with cell-phone antenna concealment. Call us for a quote or design assistance: 800/467-8135.

Cellular Antenna...Or Not?

www.cvilleindustries.com Ph: 800/467-8135

TOWERS/SELF SUPPORTING



/ SUPPLIERS /

it designs, fabricates and installs tower and monopole upgrade components.

See ad on page 99

Tower Systems

17226 447th Ave.
Watertown, SD 57201
Chuck Erickson
chucke@towersystems.com
605.886.0930
towersystems.com



Valmont Structures

1545 Pidco Drive
Plymouth, IN 46563
Sean Gallagher
sean.gallagher@valmont.com
503.589.6616
valmontstructures.com

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**TOWERS/
CONCEALMENT**



AMERICAN TOWER®

American Tower
10 Presidential Way
Woburn, MA 01801

Leasing

leasing@americantower.com
877.409.6966
americantower.com

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P.O. Box 278
Campbellsville, KY 42718
David England
steeple@cvilleindustries.com
270.465.8135
cvilleindustries.com

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See ad on page 151

ConcealFab

3265 Fillmore Ridge Heights
Colorado Springs, CO 80907
Mike Slattery
mslattery@concealfab.com
719.599.3400
concealfab.com



**EHRESMANN
ENGINEERING INC.**

Ehresmann Engineering

4400 W. 31st St.
Yankton, SD 57078
Eric Taylor
e.taylor@ehresmannengineering.com
605.665.7532
ehresmannengineering.com

See ad on page 113



Engineered Endeavors

10975 Kinsman Road
Newbury, OH 44065-9787
Jeff Syslo
jsyslo@engend.com
440.564.5484
engend.com

Engineered Endeavors offers monopoles, disguised slim-line monopoles, flagpoles and custom concealment products. The company also specializes in retrofits of existing monopoles such as antenna/equipment upgrades. Engineered Endeavors has in-house engineering/drafting and P.E. certification in all 50 states.

See ad on page 21

TOWERS/SELF SUPPORTING – TOWERS/CONCEALMENT



Environmental Integration

18 Chase Court
Orange, MA 01364
Thor Holbek
info@
environmentalintegration.com
978.544.1900
environmentalintegration.com

Environmental Integration designs and manufactures concealment products for monopole, rooftop and steeple applications. Branch canopy systems, including refurbish projects, are engineered for durability and longevity. The company specializes in realistic reproductions for concealment.

Hi Tech Composite Structures

P.O. Box 609
Redmond, OR 97756
David Ullrich
sales@hitechcomposites.com
541.548.0812
hitechcomposites.com



Larson Camouflage

1501 S. Euclid Ave
Tucson, AZ 85713
Tom Feddersen
feddersen@larsoncamo.com
520.294.3900
larsoncamo.com

Larson says it pioneered cellular camouflage with the first monopine in 1992 and that it has been leading the industry ever since. The company's products include pines, palms, elms,

aglmediagroup.com

cypress, cacti, rooftops and DAS towers. Larson also refurbishes trees with field-installed bark, branches and fronds.

See ad on page 37



Peabody Concealment

13435 Estelle St.
Corona, CA 92879
Sales RFTC
sales@peabodyconcealment.com
888.511.6828
peabodyconcealment.com

Peabody Concealment offers pre-fabricated cell site RFTC concealment enclosure design, engineering and fabrication. Large prefab sections are built to match architecture to help pass zoning and siting regulations for easy permit approval, and they install in hours, saving thousands of dollars in costs.

See ad on page 67

Porter

164 Malbert St., Building B
Perris, CA 92570
Dwain Porter
porter@porterrf.com
951.940.9090
porterrf.com

Sabre Towers and Poles

2101 Murray St.
Sioux City, IA 51111
Mike Coghlan
mpcoghlan@sabreindustries.com
800.369.6690
sabretowersandpoles.com

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SOLAR COMMUNICATIONS INTERNATIONAL

Solar Communications

8885 Rio San Diego Drive,
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San Diego, CA 92108
Steve Holborn
sholborn@rftransparent.com

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619.243.2750
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Solar Communications offers an array of concealment products and services for integrating wireless infrastructure into the community character, making SCI products what the company calls the ideal choice in any setting.

See ad on page 45



STEALTH[®]
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Stealth Concealment Solutions
 3034-A Ashley Phosphate Road
 North Charleston, SC 29418
 Cindy Wishart
cindywishart@stealthsite.com
 800.755.0689
stealthconcealment.com

“Got something to hide?” Stealth Concealment Solutions asks. “Camouflage your antennas and improve the environmental landscape. Trust the experts who were here first.” Stealth Concealment Solutions says it has been the leader and master of quality antenna concealment solutions for the wireless industry since 1992.

See ad on page 29

Valmont Structures
 1545 Pidco Drive
 Plymouth, IN 46563
 Sean Gallagher
sean.gallagher@valmont.com
 503.589.6616
valmontstructures.com

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**TOWERS/
 MONOPOLES**



Aero Solutions
 5500 Flatiron Parkway, Suite 100
 Boulder, CO 80301
 Jim Lockwood
info@aerosolutionsllc.com
 720.304.6882
aerosolutionsllc.com

Aero Solutions optimizes the load carrying capacity of monopole and tower structures, with thousands of upgrades completed in the United States since 2002. The company’s innovative, nonwelded PoleMax reinforcing systems are supported by AeroSoft design software and technical field support.



AMERICAN TOWER[®]
American Tower
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 Leasing
leasing@americantower.com
 877.409.6966
americantower.com

American Tower is a wireless and broadcast communications infrastructure provider that offers access to more than 49,000 communications sites throughout the United States. Its solutions include wireless and broadcast towers, managed rooftops, in-building and outdoor distributed antenna system (DAS), small cell and Wi-Fi

networks, and other right of way options and services that speed network deployment.



Campbellsville Industries
 P.O. Box 278
 Campbellsville, KY 42718
 David England
steeple@cvilleindustries.com
 270.465.8135
cvilleindustries.com

Campbellsville Industries, whose nickname is “the Steeple People,” says it is the oldest and largest steeple/cupola company in the United States with more than 18,000 installations throughout the world. The company uses traditional architectural styling and historic reproduction to conceal antennas inside the steeple/cupola.

See ad on page 151

COMMSCOPE[®]
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 Suite 400
 Westchester, IL 60154
 Tania Patrone
tania.patrone@commscope.com
 708.236.6586
commscope.com/andrew

CommScope says it has played a vital role in the world’s best communication networks. The company says its solutions span the entire RF landscape, helping wireless carriers manage ever-in-

TOWERS/CONCEALMENT – TOWERS/MONOPOLES

creasing cell site complexities. CommScope's end-to-end RF solutions includes critical infrastructure needed to build high-performance wireless networks.

See ad on page 17

ConcealFab

3265 Fillmore Ridge Heights
Colorado Springs, CO 80907
Mike Slattery
msslattery@concealfab.com
719.599.3400
concealfab.com

Edison Carrier Solutions

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First Floor
Irwindale, CA 91706
Brian Ryan
carriers@sce.com
800. 634.7999
edisoncarriersolutions.com



Engineered Endeavors

10975 Kinsman Road
Newbury, OH 44065-9787
Jeff Syslo
jsyslo@engend.com
440.564.5484
engend.com

Engineered Endeavors offers monopoles, disguised slim-line monopoles, flagpoles and custom concealment products. The company also specializes in retrofits of existing monopoles such as antenna/equipment upgrades. Engineered Endeavors has in-house engineering/drafting and P.E. certification in all 50 states.

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TOWERS/MONOPoles



and installs tower and monopole upgrade components.

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Tower Systems

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Chuck Erickson
chucke@towersystems.com
605.886.0930
towersystems.com



Valmont Structures

1545 Pidco Drive
Plymouth, IN 46563
Sean Gallagher
sean.gallagher@valmont.com
503.589.6616
valmontstructures.com

Valmont Structures is a supplier of towers, poles, engineering and inspection services. Valmont's brands include Matco, Microflect and PiRod. Valmont says whatever a customer's wireless tower application may be, it can offer a solution that meets or exceeds the customer's needs.

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Wireless Edge

270 North Ave., Suite 809
New Rochelle, NY 10801
John Arthur
arthur@wirelessedge.org
914.712.0000
wirelessedge.org

Wireless Edge is a provider of network implementation services

and strategic tower sites. Nationwide services include tower development, site management, development of cell sites and satellite terrestrial repeaters and special projects. The company specializes in development and permitting of antenna sites on landmark and historic properties.

See ad on page 49

TRADE SHOWS



ACUTA

152 W. Zandale Drive
Lexington, KY 40503
Corinne Hoch
choch@acuta.org
859.278.3338
acuta.org

ACUTA is a 43-year-old nonprofit association that provides professional networking and educational resources such as conferences, seminars, and printed and electronic publications to the men and women responsible for collaboration technologies, including voice, data and video communications on college campuses. The association says it has earned a reputation as the go-to source for information regarding campus networks, including Wi-Fi, fixed mobile convergence, VoIP, DAS and wireless security issues.



AGL Conferences

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Traci Gregory
traci@aglmediagroup.com
714.812.7686

AGL Conferences bring education and networking to the local level while maintaining a national recognition of industry leaders and speakers. Visit its website for a list of 2014 conference locations.

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National Association of Tower Erectors

8 Second St. S.E.
Watertown, SD 57201
Todd Schlekeway
nate@natehome.com
605.882.5865
natehome.com

The National Association of Tower Erectors (NATE) is a nonprofit trade association in the wireless infrastructure industry providing a unified voice for tower erection, service and maintenance companies. The association has more than 600 member companies throughout the United States, Bahamas, Canada, Ghana, India, Jamaica, Romania, Saudi Arabia, South Africa, Trinidad and Tobago and the United Arab Emirates.

See ad on inside front cover

TOWERS/MONOPOLES – TRADE SHOWS



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PCIA

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Alexandria, VA 22314
Nancy Touhill
nancy.touhill@pcia.com
703.535.7411
wirelessinfrastructureshow.com

PCIA says its 2014 Wireless Infrastructure Show, to be conducted May 19-22 in Orlando, Fla., is the premier national event for wireless infrastructure. PCIA says it doesn't want anyone to miss what it calls an essential networking and business opportunity for anyone who owns, builds, manages or services wireless networks.

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Richard Hickey
rh@firstlightresources.com
615.856.5526
firstlightresources.com

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FrenchCreek Production

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Global RF Solutions

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Chandler, AZ 85226
Marv Wessel
marv@grfs.net
480.814.1393
grfs.net



IWCE - International Wireless Communications Expo

11 River Bend Drive South
Stamford, CT 06907
Stacey Orlick
stacey.orlick@penton.com
203.358.3777
iwceexpo.com

IWCE, taking place March 24-28, 2014, in Las Vegas, says it is the authoritative annual event for communications technology in the working world. IWCE invites attendees to join 7,500 of their peers and more than 350 manufacturers to discuss next-generation networks, spectrum utilization, regulatory issues, wireless infrastructure and interoperability.

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Waterford Consultants

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Thomas Ferguson
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703.910.5054
waterfordconsultants.com

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/ SUPPLIERS /



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mastec.com/communications

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joyce@mra-raycom.com
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MUTI-Sabre Industries Telecom Services

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Champaign, IL 61822

Scott Kisting
skisting@mutionline.com
217.819.3040
mutionline.com

Oldcastle Precast Shelter Solutions

7921 S. Park Plaza
Littleton, CO 80120
John Albert
barbara.bogo@oldcastle.com
561.914.6584
oldcastleprecast.com



Subcarrier Communications

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John Paleski
subcom1@subcarrier.com
732.607.2828
subcarrier.com

Subcarrier Communications is a provider of telecommunications sites and services throughout the United States. The company's primary business is leasing antenna space on its multitenant towers and exclusively managed building rooftops.

See ad on page 5

Thermo Bond Buildings

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Elk Point, SD 57025
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jon@thermobond.com
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thermobond.com

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stephanie.court@corewg.com
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Optiglow Systems

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William Imperato
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Advantage Engineers

7070 Samuel Morse Drive,
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Matt Eveland
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443.367.0003
advantageengineers.com

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Black & Veatch

10950 Grandview Drive
Overland Park, KS 66210
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El Segundo, CA 90245-4747
Stephanie Simmons
info@landmarkdividend.com
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Phillips Lytle

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Phillips Lytle's telecommunications attorneys handle a full range of matters including site development work, leasing, zoning and land use, tower and other infrastructure sales, acquisitions, contract negotiations, construction and other financing, federal and state tax, and litigation. They represent some of the world's largest telecommunications companies, infrastructure companies, lenders and investors across the United States.

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Melissa Brofford
melissa@projectconnection.net
614.403.4752
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As a service provider of wireless infrastructure solutions, SBA says it sets the standard for customer satisfaction by building better wireless. It says its clients depend on it to provide their wireless infrastructure needs at all stages. SBA focuses on tower ownership, leasing, site management, site development, construction and technical services.

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Potomac, MD 20854
Michael Higgs
mhiggs@shulmanrogers.com
301.945.9244
shulmanrogers.com

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SSC

8500 W. 110th St., Suite 300
Overland Park, KS 66210
David Blaha
info@ssc.us.com

913.438.7700
ssc.us.com

SSC provides services to the telecommunications, development and construction industries. The company says its full range of in-house services and abilities makes it uniquely capable of handling all aspects of the most challenging projects. SSC says it strives hard to serve its clients, solve their problems and communicate effectively.

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Telecom Realty Consultants

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