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# ABOVE GROUND LEVEL GROUND LEVEL BUYErs Guide 2018 | anuary 2018 | // Volume 15 // No. 01

ENHANCE YOUR BUSINESS WITH ADVERTISING 908 2033 S AUGUSTA PL 2033 S AUGUSTA PL արիրագորիկիրի հարկակիրին անդիրի իրաբերի հայարական #GO 83183# SUBSC RIBER #: 078318
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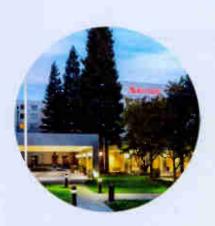






#### WHY ATTEND

- Learn from industry leaders and technology experts
- Interact with existing clients and establish new relationships
- Showcase your company's products and services
- Increase brand recognition throughout the wireless industry



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#### EVENT DATE & TIME

Thursday, January 25th, 2018 8:00am - 3:00pm | Education 3:00pm - 5:00pm | Networking

## WHO ATTENDS

- Tower Companies
- Wireless Carriers
- Service Providers
- DAS and Small Cell Integrators
- Government Officials
- Industry Professionals

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**AGL Magazine** is published 12 times a year by AGL Media Group, LLC.

**POSTMASTER:** Send address change to AGL Circulation Department, 44715 Prentice Drive #2090, Ashburn, VA 20146-2090

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Digital advertising is no longer limited to just a desktop computer.

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#### 64 Leverage Added Value with Native Advertising

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#### Disclaimer =

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70 Demarest Dr Wayne, NJ 07470 USA alliancesales@alliancecomm.com (888) 821-4797 alliancecomm.com **See ad on page 91** 

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See ad on page 78



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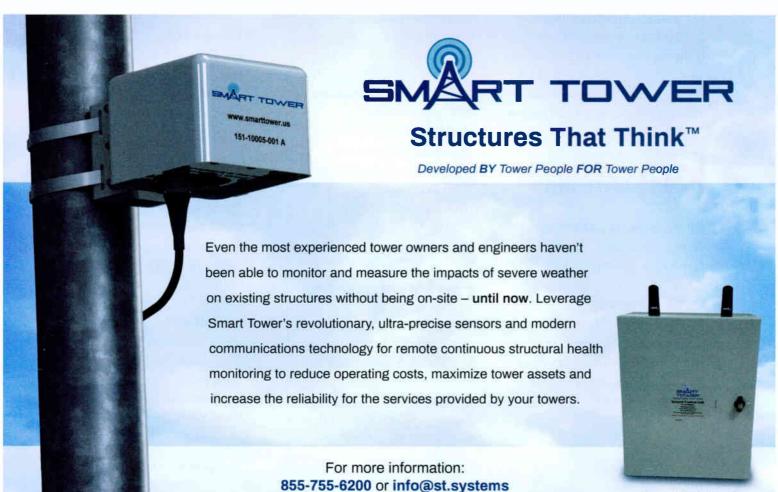
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See ad on page 37



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See ad on page 47



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Join us at the Connectivity Expo, May 21-24, 2018 at the Charlotte Convention Center in Charlotte, NC. Connect (X) provides the platform for you and your brand to reach, influence, interact with, and impact executives from a wide range of business sectors.

See ad on page 17



ince Netscape, the first mass-market web browser, was released in 1994, digital marketing has evolved at a phenomenal pace. Email outpaced postal marketing and dented telemarketing activity. The evolution of graphics technology took web ads to a whole new level, from simple SEO and keyword terms for early search engines to banner ads, popups, and today's native and interstitial ads loaded with photos and video. So what does the digital advertising landscape look like now? It's more multi-dimensional than ever, trailing consumers wherever they go.

Digital advertising is no longer limited to just a desktop computer. It's all around us, much like traditional advertising was never limited to newspapers but could be found on billboards, storefronts, in your mailbox, and through your telephone line. Digital advertising is found on the websites you visit, the phone you carry in your purse or pocket, the shows you stream online, the music you listen to through digital radio services,

embedded in the apps you download, and it still comes to you via email, SEO, and graphic ads.

Some of the latest developments in digital advertising are still unfolding. Whereas, once, you might advertise for a particular ingredient in a cooking magazine and hope the customer returns to that brand, shopping trip after shopping trip, now smart refrigerators can remind you when you're almost out of your favorite canned tomatoes. You can fill a shopping cart online from your smartphone and have your groceries delivered to your door. Delivery apps remember your favorite Chinese order, address, and billing info. National pizza chains let you see where your order is in process in real-time. There are more ways to connect customers and brands than ever before.

Two especially exciting new frontiers in digital advertising are the Internet of Things and Big Data. The Internet of Things includes webconnected devices like smart home hubs that respond to voice commands to control everything from connected light bulbs to the front door lock to your thermostat. Some companies

like Amazon are experimenting with small devices that will reorder household staples like laundry detergent at the push of a button. Pet owners can monitor Fido from the office with a camera that communicates with their smartphones. All of that and more is powered by Big Data.

Big Data collects information from customer interactions — not only what ads they click on and respond to, but what websites they were on when

Some of the most successful forms of advertising are those that listen to the consumer the most and approach the web from their point of view.

they did so, what their interests and buying habits are, and other trends.

Big Data is the reason you start to see wedding industry ads on Facebook as soon as you announce your engagement. It's how Pandora knows that if you like Bob Dylan, you might want to hear a song by Tallest Man On Earth. Big Data helps you know your customers as well or better than they know themselves.

Armed with that information, you can make smarter, more precise choices about what ad formats you use to approach your customers, and at which moments. Instead of hoping your ideal customer will drive past a billboard on a certain corner, for example, you can meet her where she's browsing online, positioning an ad before online videos she's likely to watch, on websites she'll probably peruse, and on apps other women

like her have downloaded. Rather than hoping, say, a 30-year-old urban professional man will tune into a particular television program and won't wander into the kitchen during a commercial break, you can be sure to post ads on the web forums he visits, on the digital radio stations he subscribes to, and in between episodes of the shows he watches online.

To be sure, it's still considered a success if 1-2% or higher of ad views

get a response. But with millions of ads appearing before millions of viewers at any given moment, that probability is actually pretty reliable. Some of the most successful forms of advertising are those that listen to the consumer the most and approach the web

from their point of view. Spam emails and popup ads are almost universally hated for a reason — they are intrusive. They are the digital equivalent of trying to talk to someone at a cocktail party only for a third person to physically insert themselves between you and your conversation partner and begin to talk about something irrelevant. There's definitely a better way.

Native and interstitial advertising, along with video advertising, have some of the highest rates of return precisely because they cause the least stress for the viewer. These types of advertising are either seamlessly integrated with the content the consumer got online to view, have a clear relationship to their interests, or easily go viral. At their best, they do all three. That's because these types of ads mimic the kind of content web browsers are naturally attracted to.



The most effective digital ads are informative, entertaining, and don't stick out like a sore thumb.

That might sound counterintuitive when advertisers worry so much about making sure their content is seen. You don't want the customer to miss your expensive, carefully-crafted tree for the forest of clickable content. But you also don't want your content to be a

To successfully go viral, though, you'll need something old school. Something that no amount of money can buy. And that's a deep understanding of your customer...

big obvious billboard in the middle of a national forest. In an oversaturated field of vision, customers appreciate ads that pack extra value. How much can you accomplish at once? An ad that's just an ad is obvious and a turn off. An ad that also solves a problem, provides interesting information, or makes the customer laugh — such an ad multi-tasks and that fits right in with the whole of internet culture.

One of the biggest struggles that digital publishers and digital advertisers share come from trying to play by the rules of print. But when you start to think like a digital native — that is, the customers who grew up getting online and are totally at home

in a digital environment, you start to see new avenues towards making a positive impression. For example, simply by sharing relevant information presented in a style similar to journalism, customers might encounter and remember you as a reliable, trusted resource for information.

An infographic that includes a map showing the states with the most breweries per capita, for example, might not specifically pertain to your beverage industry company, but it does establish you as an expert with a sense of fun. A funny video breaking down something complicated and often stuffy like, say, mortgage interest rates, could help younger or first-time home buyers see a bank or financial planning firm as accessible and relatable. And if your viewers like your content enough, they'll share it with their friends. That's the other great thing about digital media- if you play your cards right, your viewers will not only engage with your brand, they'll do some of the heavy lifting for you. Word of mouth has nothing on word of keyboard.

To successfully go viral, though, you'll need something old school. Something that no amount of money can buy. And that's a deep understanding of your customer — who they are, what they want, and how you can help them get it. But that's also where you're the expert. If you know your customer as they know themselves, you can't go wrong — and you can craft killer digital ads that will strengthen your bond. All it takes is a little familiarity, and to think digital.

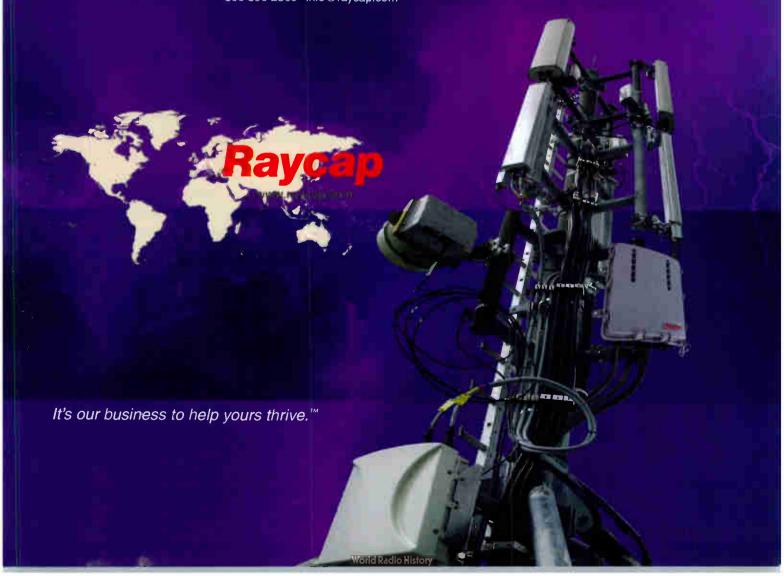


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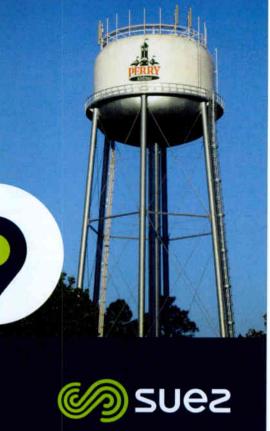






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855 Community Dr Sauk City, WI 53583-1380 USA Michael Pinske, P.E. telproposal@ramaker.com (608) 643-4100 ramaker.com

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9009 Wimbley Court Elk Grove, CA 95624 USA Paul Niemann sales@rfsignalman.com (916) 686-1776 rfsignalman.com

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Langston, AL 35755 USA Douglas A. Perry info@riverviewsoftwaresolutions.com (256) 582-9652 riverviewsoftwaresolutions.com

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#### Strategic Tower Advisors

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#### **Tower Advisors LLC**

2338 Messenger Cir Safety Harbor, FL 34695 USA Steve Ouzts steve@toweradvisorsllc.com (727) 643-8907 toweradvisorsllc.com

#### **Tower Innovations Inc**

107 Dunbar Ave, Ste E Oldsmar, FL 34677 USA Bruce McIntyre

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#### V-COMM LLC

2540 US Highway 130, Ste 101 Cranbury, NJ 08512 USA Gina Villecco gina.villecco@vcomm-eng.com (609) 655-1200 vcomm-eng.com



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#### **Plug Power**

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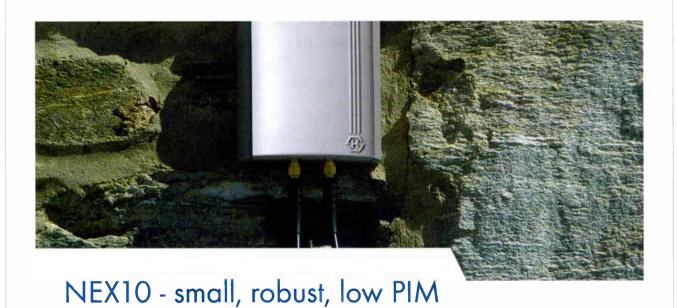
67 West Boulder St Colorado Springs, CO 80903 USA Deborah Crowley johngolden@dasadvisers.com (304) 549-5075 dasadvisers.com

#### **Distributed Wireless Group Inc**

587 North Ventu Park Rd, Ste E221 Newbury Park, CA 91320 USA Craig J. Stanziano info@distributed-wireless.com (805) 768-4121 distributed-wireless.com

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Digital and mobile advertising sales will grow by +13% in 2018 to reach \$237 billion or 44% of global advertising revenues. American advertising sales is projected to grow by +5.0% in 2018 to reach \$195 billion.

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See ad on the inside front cover

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#### Kathrein

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Mo Bhuyan mo@phazar.com (940) 445-5988 phazar.com



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See ad on page 75

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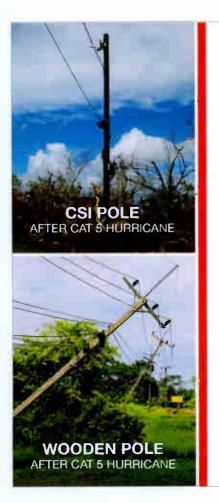
2500 Main St, Ext #12 Sayreville, NJ 08872 USA Sandra Bullock sbullock@cheytec.com (732) 810-2764 cheytec.com

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12976 Sandoval St Santa Fe Springs, CA 90670 USA Pat Flynn sales@talleycom.com (800) 949-7079 talleycom.com Talley Inc is a leading distributor of wireless communications infrastructure and mobile products.

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### CellTech

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### Needmore Towers Inc

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### Two Hops Wireless LLC

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Round Hill, VA 20141 USA Rich Biby rbiby@two-hops.com (540) 987-0500 two-hops.com Using more than 30 years of wireless experience, our services include design, deployment and operation of small LTE networks and WiSP services, RF engineering services, spectrum analysis and technical business consulting, small network operations, billing, roaming negotiations and management, FCC/FAA compliance, and RF exposure analysis.

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emember flipping through your morning paper and finding a full page ad between sections? The spread had plenty of room for stunning design and compelling information on why a product

mation on why a product or service was a must-have. Advertisers have puzzled over how to create the same experience in a digital publishing landscape, and the same results. Interstitial advertising is the answer.

One of the top complaints consumers have about digital advertising is the way it can be disruptive. It's certainly frustrating to log on to a site to read an article only to be bombarded by popups, auto-playing videos, and flashing banners that interrupt the reader's concentration on a written article or piece of video content. Interstitial advertising gets more of the viewer's

These invitations to transfer from a web browser to an app are one of the biggest success stories of interstitial advertising

attention because it can fit naturally into transitional moments in the digital consumer's reading experience.

In between articles, app screens, chapters in a video game, or between videos, interstitial ads appear and take up the whole screen. You get more real estate to share your brand message, the viewer is more

likely to linger rather than immediately click away to get back to their preferred content, and you create a similar experience to flipping through a magazine or paper. In fact, interstitials create such a seamless experience that some websites, including

Google Docs and Yelp, have started designing their web interfaces to look more like interstitial ads.



That style is distinctive, but so familiar you might take it for granted. A big, splashy image typically makes up the background of an interstitial ad, overlaid with a headline or slogan, some brief informational copy, and an invitation to move to an app or continue on to a mobile or desktop site. On the periphery, a button might appear allowing you to close the ad. Sometimes there's just a link to the next page or the brand's site. Sometimes the interstitial ad is designed to disappear after a certain brief span of time has passed.

These invitations to transfer from a web browser to an app are one of the biggest success stories of interstitial advertising, giving users a quick, easy portal, as well as an immediate sense of the app's value. Even if they choose not to download, the fastest path to the content they're looking for is on your mobile site. While they make that decision, they've spent precious seconds considering your brand. And to exit the ad, they have to make some

form of meaningful interaction.

Consider video streaming services, for example, that include ads between scenes just like on TV. Those ads might take the form of a traditional television commercial, or they might take a page from the interstitial playbook. You might be invited to watch a longer, commercial style ad, or choose to interact with a shorter offering. The advertiser can afford to run a shorter ad knowing the consumer will have to pay greater attention, clicking on the ad or responding to it in some way.

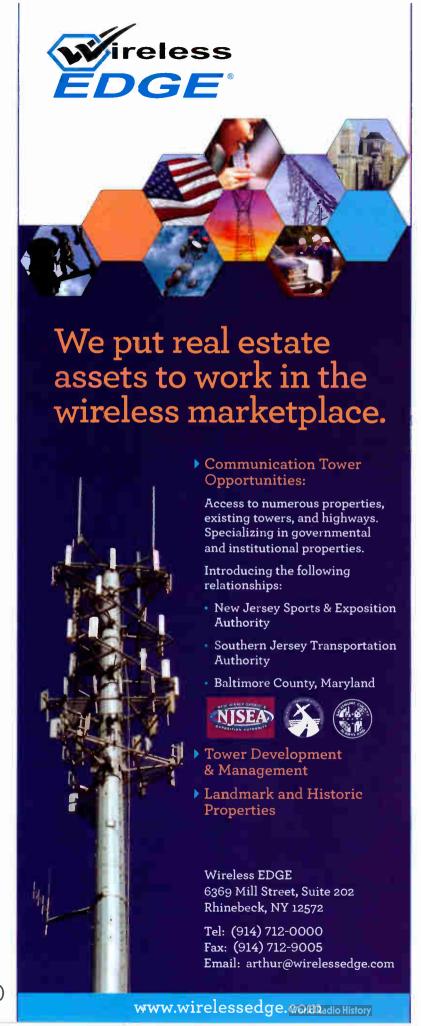
With more competition than ever for digital readers' attention spans and online real estate, interstitial ads offer the unparalleled opportunity to have the whole screen with which to make an impression and actually catch readers' attention. So if you're considering this type of advertising, keep in mind that you'll want to produce a sleek, graphic interface that is tailored specifically for that format. You'll want to have a strong visual statement and a simple, brief message or call to action.

Don't use so many interstitial ads that the reader gets fatigued. You can get away with using these ads more sparingly than other types because they pack such a punch. And it's not often, since the digital publishing revolution, that you can display a little of the print experience to your mobile audience.

Interstitial ads generated 70% of global app-ad revenue.

- AppFlood





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wrupert@peprollc.com
(814) 676-5688
peprollc.com

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Spending on digital video advertising will double in the next year.

– predicted by eMarketer



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See ad on page 13

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### **FDH Infrastructure Services**

6521 Meridien Dr Raleigh, NC 27616 USA David Allen sales@fdh-inc.com (561) 249-4994 fdhvelocitel.com

"It's clear that the younger consumer engages with us predominantly over their mobile device."

– Kasper Rorsted, Chief Executive of Adidas

Between 2017 and 2020, it's predicted that digital video, social media, and banner ads will drive 12% annual growth in total display advertising.

- Zenith Media

FDH provides turnkey services that support the needs of telecommunications infrastructure owners and managers. Services include: site acquisition and development, environmental compliance, engineering, nondestructive evaluations, and construction management.

### **Fullerton Engineering**

1100 E Woodfield Rd Schaumburg, IL 60173 USA Fred Teichman Info@FullertonEngineering.com (847) 908-8400 fullertonengineering.com



### **Hodge Structural Engineers**

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Evansville, IN 47713-1022 USA
Gray Hodge
ghodge@hodgestructural.com
(812) 422-2558
hodgestructural.com
Tall tower specialists. Nationally
licensed PE's with over 40 years
experience in the design of new
towers and the analysis and reinforcement of existing towers.

### Isotrope LLC

503 Main St Medfield, MA 02052 USA Steve Riggs contact@isotrope.im (508) 359-8833 isotrope.im

### MALOUF ENGINEERING INTL., INC.



### Malouf Engineering Intl

17950 Preston Rd, Ste 720
Dallas, TX 75252 USA
Mark Malouf
malouf@maloufengineering.com
(972) 783-2578
maloufengineering.com
Malouf Engineering Intl is a structural engineering firm specializing in the inspection, analysis, design, and strengthening modification of tower structures, watertanks, building rooftops, and other special structures with the goal of providing high level of technical services.

# Maranantha Microwave Path Surveys

10395 W Clover Ln Forney, TX 75126 USA Sandy St. John stjon@mindspring.com (972) 564-4643 linkedin.com/in/ marananthamicrowavepathsurveys/



# NB+C (Network Building + Consulting)

6095 Marshalee Dr, Ste 300
Elkridge, MD 21075 USA
Meghan Mulvany
mmulvany@nbcllc.com
(410) 721-7092
networkbuilding.com
Founded in 1984, NB+C is a leading
wireless site development firm with
three business units: site development, engineering services, and
construction and technical services.
Staffed with over 400 professionals,
we are totally committed to client
service and project results.

### See ad on page 5

### NXG

1422 Edinger Ave, Ste 250 Tustin, CA 92780 USA Aleksey Kurochkin sales@nxgus.com (800) 277-6877 nxgus.com



# P. Marshall and Associates LLC (PM&A)

1000 Holcomb Wood Pkwy, Ste 210 Roswell, GA 30076 USA Greg Hazlehurst ghazlehurst@pmass.com (678) 280-2325

pmass.com

PM&A is a national site acquisition, multidisciplinary engineering, and construction management firm offering turn-key consulting and construction management services to our clients in the communications sector. Small cell, OSP, mods, or new site builds — we can deliver it!



### Paul J. Ford and Company

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John Werner
jwerner@pjfweb.com
(614) 221-6679
pauljford.com
As structural engineers, PJF provides engineering, design consulting, and project management services. Registered throughout
North America and with 53 years of structural engineering history, PJF
provides cost-effective and efficient solutions. Committee level involvement in 222-H.

See ad on page 23

### **PML Consulting Engineers LLC**

369 South Riverside Dr Neptune, NJ 07753 USA Pete Longo pmlongo@pmlllc.com (908) 770-4105 pmlllc.com

### Ramaker & Associates Inc

855 Community Dr Sauk City, WI 53583-1380 USA Michael Pinske, P.E. telproposal@ramaker.com (608) 643-4100 ramaker.com

### **Reese Tower Services**

1044 St. John's Rd Drums, PA 18222 USA Brian Reese info@reesetowerservices.com (570) 359-3293 reesetowerservices.com

### See ad on page 60

### **Riverview Software Solutions**

1295 S Sauty Rd Langston, AL 35755 USA Douglas A. Perry info@riverviewsoftwaresolutions.com (256) 582-9652 riverviewsoftwaresolutions.com

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Matevz Klanjsek, cofounder and CPO of Celtra

# **SSOC**

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SSOE is a full-service A&E firm with staff in more than 20 offices worldwide. Licensed in all 50 states, we have expertise in structural analysis/modification design, DAS/Small Cell, and all A&E services. SSOE is an industry leader in mount



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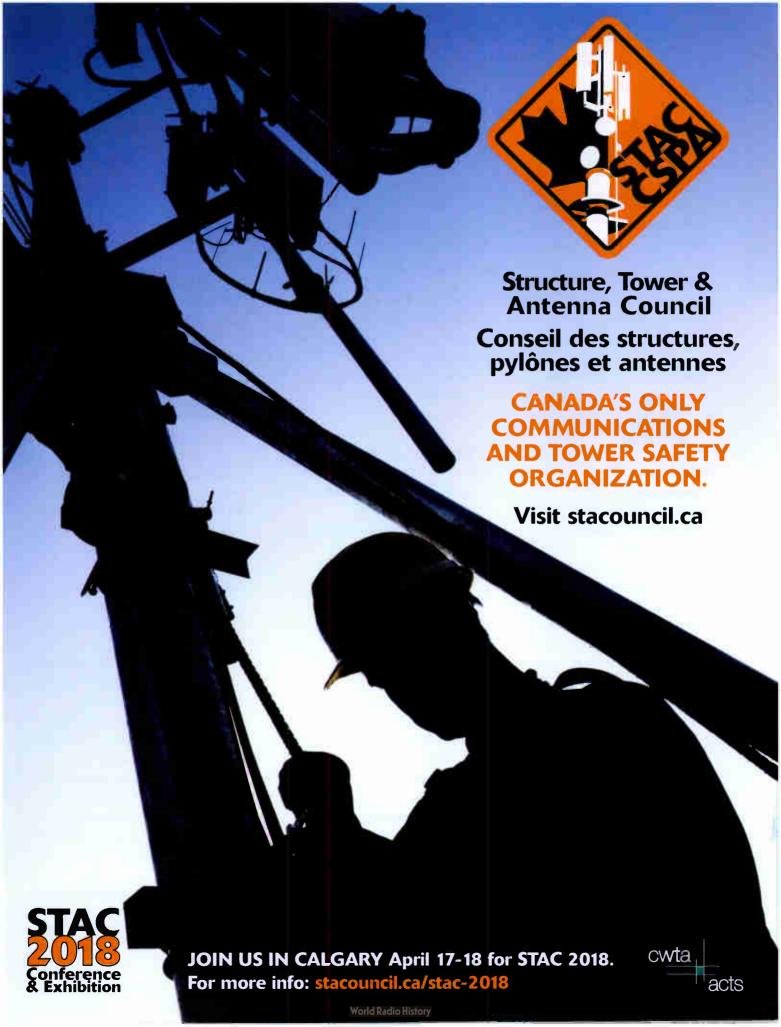
analysis and modification design.

### **Stainless**

King of Prussia, PA 19406 USA
Jon Marcusse
jon.marcusse@fdhvelocitel.com
(214) 717-2282
stainlesstowers.com
Stainless offers all the resources
and capabilities needed to bring
your tower from the drawing board
to reality. Plus, we do it all with
industry-leading safety and training programs. Stainless is a trusted
partner to the industry's top broadcasters and tower owners.

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2540 US Highway 130, Ste 101 Cranbury, NJ 08512 USA Gina Villecco



gina.villecco@vcomm-eng.com (609) 655-1200 vcomm-eng.com

### **Westchester Services LLC**

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Jack Auriema
jauriema@westchesterservices.com
(224) 655-2701
westchesterservices.com

### **ENVIRONMENTAL**



### **Aarcher Inc**

2635 Riva Rd, Ste 100
Annapolis, MD 21401 USA
Craig Scwhartz
cscwhartz@aarcherinc.com
(410) 897-9100
aarcherinc.com
Aarcher provides Phase I environmental due diligence, NEPA
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### **Environmentex Inc**

6060 N Central Expwy, Ste 560 Dallas, TX 75206 USA Brian McCallister brian@environmentex.com (214) 793-7317 environmentex.com

# Martin Environmental Solutions Inc

4209 Baymeadows Rd Jacksonville, FL 32217 USA Sherrie Leman contactme@martinenviro.com (904) 737-1034 martinenviro.com

### Ramaker & Associates Inc

855 Community Dr Sauk City, WI 53583-1380 USA Michael Pinske, P.E. telproposal@ramaker.com (608) 643-4100 ramaker.com

### **Westchester Services LLC**

604 Fox Glen
Barrington, IL 60010 USA
Jack Auriema
jauriema@westchesterservices.com
(224) 655-2701
westchesterservices.com

### FCC/FAA FILING

### **4G Unwired Inc**

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### **CSI Telecommunications Inc**

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San Francisco, CA 94111 USA
Catherine Newman
cnewman@csitele.com
(415) 751-8845
csitele.com

### **Hammett & Edison Inc**

470 W 3rd St Sonoma, CA 95476 USA William F. Hammett, P.E. mail@h-e.com (707) 996-5200 h-e.com

# Martin Environmental Solutions Inc

4209 Baymeadows Rd Jacksonville, FL 32217 USA Sherrie Leman contactme@martinenviro.com (904) 737-1034 martinenviro.com



# SBA Communications Corporation

8051 Congress Ave
Boca Raton, FL 33487-1304 USA
Lynne Hopkins
request@sbasite.com
(800) 487-SITE
sbasite.com
As your first choice service provider
of wireless infrastructure solutions,
SBA continues to set the stan-

of wireless infrastructure solutions, SBA continues to set the standard for customer satisfaction by "Building Better Wireless". Clients depend on SBA to provide their wireless infrastructure needs at all stages. We focus on tower ownership, leasing, site management, site development, construction and technical services.

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12505 Park Potomac Ave, 6th Floor

Potomac, MD 20854 USA Alan Tilles atilles@shulmanrogers.com (301) 230-5200 shulmanrogers.com



### Two Hops Wireless LLC

18331 Turnberry Dr Round Hill, VA 20141 USA Rich Biby rbiby@two-hops.com (540) 987-0500 two-hops.com Using more than 30 years of wireless experience, our services include design, deployment and operation of small LTE networks and WiSP services, RF engineering services, spectrum analysis and technical business consulting, small network operations, billing, roaming negotiations and management, FCC/FAA compliance, and RF exposure analysis.

See ad on page 100

# FINANCIAL SERVICES & LENDING

### **Advantage Funding**

1000 Parkwood Circle Atlanta, GA 30339 USA Jeff Farkas info@advantagefunding.com (800) 241-2274 advantagefunding.com

# **BKD**Corporate Finance

### **BKD Corporate Finance**

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Denver, CO 80202 USA
Kevin Brynestad
kbrynestad@bkd.com
(303) 837-3567
bkd.com/corporate-finance/
BKD Corporate Finance LLC specializes in providing investment
banking services to closely held
businesses. Our experienced bankers can help you develop a growth
and exit strategy that meets your
unique needs. The firm is a member
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### MVP Capital

255 California St, Ste 850
San Francisco, CA 94111 USA
info@mvpcapital.com
(415) 391-4877
mvpcapital.com
MVP Capital brings over 30 years
of expertise in the shared wireless
infrastructure, renewable energy,
media, and technology industries.
We approach our work as a team,
which means our clients benefit
from our diverse, cross-industry
knowledge, relationships, and
resources.



### Peppertree Capital

### Peppertree Capital Management Inc

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Chagrin Falls, OH 44022 USA
Howard Mandel
hmandel@peppertreecapital.com
(440) 528-0333
peppertreecapital.com
Peppertree Capital Management
Inc is a private equity firm focused

"You can't 'growth hack' your way out of a bad product. Instead, growth hacking begins with a product or service that adds value to a customer's life."

- Sean Ellis, CEO of GrowthHackers



## JANUARY 2018

Site Name: Sunnymeade

Site Owner: Crown Castle International

Tower Manufacturer: Valmont

Applications: Cellular and microwave

Year Constructed: 2010

Height: 195 feet

Location: Lynchburg, Virginia

Photography courtesy of Reese Tower Services





on making investments in growing communication infrastructure companies both in the US and internationally. Peppertree was formed in 2004 and has made more than 60 communication infrastructure investments.

See ad on page 93

# GENERATORS & BATTERIES

### **EnerSys**

2366 Bernville Road Reading, PA 19605 USA Jason Zerbe Jason.Zerbe@enersys.com (610)208-1991 EnerSys.com

### **Plug Power**

15913 E Euclid Ave Spokane, WA 99216 USA Sandra Saathoff gensure@plugpower.com (509) 228-6500 plugpower.com/products/gensure/

### **Trojan Battery**

12380 Clark St Santa Fe Springs, CA 90670 USA Ganesh Balasubramanian info@trojanbattery.com (562) 236-3000 trojanbattery.com

### **GROUNDING SYSTEMS**

### Advanced Lightning Technology Ltd (ALT)

122 Leesley Ln Argyle, TX 76226 USA Josh Leverett sales@altfab.com (800) 950-7960 altfab.com

### Comsite Hardware Inc

PO Box 3951 Inclinen Village, NV 89450 USA sales@comsitehardware.com (775) 832-2523 comsitehardware.com



### **ERICO**

34600 Solon Rd Solon, OH 44139 USA Jeff Regan jeff.regan@pentair.com (800) 677-9089 erico.com With more than 60 years of research, testing and product development, the ERICO comprehensive facility protection system minimizes risk of lightning damage and related effects while providing tremendous value to the owner.

See ad on page 94

### Harger Lightning & Grounding

301 Ziegler Dr Grayslake, IL 60030 USA hargersales@harger.com (800) 842-7437 harger.com

### **Noash Construction Inc**

PO Box 249
Sebree, KY 42455 USA
Jeff Pettit
jp@noashconstruction.com
(270) 835-9100
noashconstruction.com

### **INSPECTIONS**

### **Aarcher Inc**

2635 Riva Rd, Ste 100 Annapolis, MD 21401 USA Craig Scwhartz cscwhartz@aarcherinc.com (410) 897-9100 aarcherinc.com

For the first time ever, digital political advertising on websites and mobile devices will go over \$1.8 billion as Senate, House, and local races turn to cheaper internet-based outreach and advocacy campaigns.

- Washington Examiner



## BUYERS GUIDE 2018



### Allstate Tower

PO Box 25 Henderson, KY 42419 USA Kevin Roth kroth@pttg.com (270) 830-8512

pttg.com
Allstate Tower is a full service,
quality conscience, highly motivated tower company, with a driven
focus to meet the needs, quality,
safety, and price expectations of
our customers. AST is committed
to exploring new innovations and
technologies to better serve our
customers. AST asks for the opportunity to serve you, knowing the
outcome will be above and beyond.

### **Anchor Guard LLC**

See ad on page 100

2224 NE 39th St Sioux Falls, SD 57104 USA Jayson Nelson jnelson@anchorguard.com (605) 331-6426 anchorguard.com

### **AW Solutions Inc.**

300 Crown Oak Centre Dr Longwood, FL 32750 USA Keith Hayter keith.hayter@awsolutionsinc.com (407) 260-0231 awsolutionsinc.com

### **FDH Infrastructure Services**

6521 Meridien Dr Raleigh, NC 27616 USA David Allen sales@fdh-inc.com (561) 249-4994 fdhvelocitel.com



### **Needmore Towers Inc**

4400 W 31st St
Yankton, SD 57078 USA
Greg Mueller
eric.t@needmoretowers.com
(605) 665-7532
ehresmannengineering.com
Needmore Towers provides services
including data collection for structural engineering, tower mappings,
post construction quality audits,
infrastructure installations, and
tower maintenance. Our UAS group
provides tower mappings, pictures,
videos, and 3D point clouds.

### **Noash Construction Inc**

PO Box 249 Sebree, KY 42455 USA Jeff Pettit jp@noashconstruction.com (270) 835-9100 noashconstruction.com



### **Reese Tower Services**

1044 St. John's Rd

Drums, PA 18222 USA
Brian Reese
info@reesetowerservices.com
(570) 359-3293
reesetowerservices.com
With many years of experience from
manufacturing through installation
and field modifications, RTS is a recognized expert in ground-based and
safe aerial inspections, including
condition assessments, retrieving
field data, performing weld inspections, and non-destructive weld
examinations.

See ad on page 60

# INSTALLATION SERVICES

### **Airosmith Development**

32 Clinton St Saratoga Springs, NY 12866 USA Ann D'Alessandro adalessandro@airosmithdevelopment.com (518) 350-4060 airosmithdevelopment.com



### **AW Solutions Inc**

300 Crown Oak Centre Dr Longwood, FL 32750 USA Keith Hayter keith.hayter@awsolutionsinc.com (407) 260-0231 awsolutionsinc.com AW Solutions, your premier OSP/ ISP turnkey network solutions provider for macro, DAS, small cell, fiber, and facilities infrastructure

deployments and audits. Licensed nationally and internationally to perform civil, structural, and electrical engineering with GC licenses.



### **CompSites International**

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Will Jacobs
wjacobs@compsitesint.com
(502) 550-0015
compsitesintgov.com
CompSites International's composite poles have a proven track record for quality, reliability and being cost effective. Contact CSI today to see how our innovative small cell structure designs and products can help you meet your project's timelines, budgets, and quality requirements.

See ad on page 35

### **Distributed Wireless Group Inc**

587 North Ventu Park Rd, Ste E221 Newbury Park, CA 91320 USA Craig J. Stanziano info@distributed-wireless.com (805) 768-4121 distributed-wireless.com



### **EMF Telecom Inc**

328 Hill Ave Nashville, TN 37210 USA Erika Brown info@emftelecom.com
(615) 291-6279
emftelecom.com
With a focus on safety, quality,
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provides full turnkey services for
tower construction, structural steel
modifications, site upgrades, network maintenance, and most forms
of emergency service. We're a small
company doing big things better!



### Flash Technology

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An OEM since 1969, Flash
Technology makes the world safer
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broadcast, telecom, utility, and
wind markets, and provide training,
installation, troubleshooting, and
maintenance services.

### **Needmore Towers Inc**

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### **Noash Construction Inc**

PO Box 249 Sebree, KY 42455 USA Jeff Pettit jp@noashconstruction.com (270) 835-9100 noashconstruction.com

### NXG

1422 Edinger Ave, Ste 250 Tustin, CA 92780 USA Aleksey Kurochkin sales@nxgus.com (800) 277-6877 nxgus.com



# SBA Communications Corporation

8051 Congress Ave
Boca Raton, FL 33487-1304 USA
Lynne Hopkins
request@sbasite.com
(800) 487-SITE
sbasite.com
As your first choice service provider
of wireless infrastructure solutions,
SBA continues to set the standard for customer satisfaction by
"Building Better Wireless". Clients

depend on SBA to provide their wireless infrastructure needs at all stages. We focus on tower ownership, leasing, site management, site development, construction and technical services.

# Solar Communications International Inc

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Learn more about the services AFC offers at www.apcointl.org/spectrum-management.

AFC is a division of APCO International – a non-profit organization dedicated to serving those in public safety communications.



(951) 698-5985 rftransparent.com

### **Stainless**

200 North Warner Rd, Ste 215 King of Prussia, PA 19406 USA Jon Marcusse jon.marcusse@fdhvelocitel.com (214) 717-2282 stainlesstowers.com

# INSURANCE & RISK MANAGEMENT



### BB&T - Atlantic Risk Management

5850 Waterloo Rd, Ste 240
Columbia, MD 21045 USA
David Saul
dsaul@bbandt.com
(410) 480-4413
insurance.bbt.com
Atlantic Risk Management is offering an insurance program endorsed
by WIA to meet the unique needs
of tower owners. Property, liability,
auto, worker's compensation, and
bonds are included.

See ad on page 68

# Old Republic National Title Insurance Co

530 S Main St, Ste 1031 Akron, OH 44311 USA Lori DiTomaso Iditomaso@oldrepublictitle.com (330) 436-6134 orscs.com

### **LEGAL SERVICES**

### Keller and Heckman LLP

1001 G St NW, Ste 500 West Washington, DC 20001 USA Wes Wright wright@khlaw.com (202) 434-4100 khlaw.com/telecommunications

### Matthew J. Traiser, P.A.

8805 Tamiami Trail North Naples, FL 34108 USA Matthew Traiser matthew.traiser@gmail.com (612) 414-3322



# Phillips Lytle LLP

### Phillips Lytle LLP

125 Main St
Buffalo, NY 14203 USA
Douglas W. Dimitroff
ddimitroff@phillipslytle.com
(716) 847-5408
phillipslytle.com
Phillips Lytle's telecommunications attorneys handle a full range of transactional, operational, regulatory and litigation matters, including asset purchases and sales;

infrastructure siting and permitting; right of way and pole attachment agreements; and service and interconnection agreements. We represent leading telecommunications providers, telecommunications infrastructure providers, site owners and managers across the United States and beyond.

# Shulman, Rogers, Gandal, Pordy & Ecker, P.A.

12505 Park Potomac Ave, 6th Floor Potomac, MD 20854 USA Alan Tilles atilles@shulmanrogers.com (301) 230-5200 shulmanrogers.com

### LIGHTING

### **Avlite Systems**

61 Business Park Dr Tilton, NH 03276 USA Jason Larrere h.charest@avlite.com (603) 737-1327 avlite.com

### Carmanah Technologies

250 Bay St

"Consumers are expecting content to be even more personalized and social."

- Dave Finocchio, CED and co-founder of Bleacher Report

Victoria, BC V9A3K5 Canada Stewart Erwin obstruction@carmanah.com (250) 412-8392 carmanah.com

### **Dialight Corporation**

1501 State Route 34 South Farmingdale, NJ 07727 USA Tim Cillessen info@dialight.com (732) 919-3119 dialight.com

### Flash Technology

332 Nichol Mill Ln Franklin, TN 37067 USA Wade Collins flashsales@spx.com (615) 503-2000 flashtechnology.com

### **Fuellgraf Chimney & Tower**

124 South St Franklin, KY 42134 USA Jason Jennett jjennett@chimneytower.com (800) 621-4419 chimneytower.com

### **H&H** Industries Inc

110-112 W Main St Elmwood, IL 61529 USA Mike Stenwall mstenwall@lightsbyhh.com (800) 637-3853 lightsbyhh.com

### Hi Tech Composite Structures

1266 SE Lake Rd Redmond, OR 97756 USA David Ullrich sales@hitechcomposites.com (541) 548-0812 hitechcomposites.com

### **Hughey & Phillips**

240 W Twain Ave Urbana, OH 43078 USA Jeff Jacobs jjacobs@hugheyandphillips.com (937) 652-3500 hugheyandphillips.com

### **International Tower Lighting**

1001 Centre Pointe, Ste A La Vergne, TN 37086 USA Elliot Richardson erichardson@itl-llc.com (615) 256-6030 itl-llc.com

### **Noash Construction Inc**

PO Box 249 Sebree, KY 42455 USA Jeff Pettit jp@noashconstruction.com (270) 835-9100 noashconstruction.com

### **RVA** Lighting & Masts Inc

5240 Finch Ave E, Unit 10 Toronto, ON M1S5A3 Canada Brian Gray brian@rvalm.com (905) 719-6500 rvalm.com

### Skytec Inc

23 Inland Farm Rd Windham, ME 04062 USA Rick Sullivan skytecinc@aol.com (207) 893-1700 skytecinc.com



### Slatercom - WCD

7905 State St Salem, OR 97317 USA Al Slater ads@slatercom.com (503) 581-5550 slatercom.com

Slatercom- WCD is a Dialight FAA lighting Master Distributor, stocking all obstruction lighting products including the D266 High Intensity systems. Complete systems are available from stock. Slatercom Modular lighting controllers allow custom configuration changes.

### See ad on page 100



### **Specialty Tower Lighting**

1630 Elmview Dr
Houston, TX 77080 USA
Alberto Resendez
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,
and competitively-priced. STL has
over 25 years experience in design,
manufacturing, and installation of
obstruction lighting products.

See ad on page 62



### TWR Lighting Inc

10810 W Little York Rd, Ste 130
Houston, TX 77041-4051 USA
Jeremy Lochner
sales@twrlighting.com
(713) 973-6905
twrlighting.com
TWR is a leading manufacturer of
obstruction lighting systems and
monitoring solutions for structures
that present a hazard to aviation.
Our goal is to provide top quality
products and unrivaled customer
service to our clients!

### **Unimar Inc**

3195 Vickery Rd North Syracuse, NY 13212 USA Alyssa Santoferrara alyssa@unimar.com (315) 699-4400 unimar.com

### **Xcel Tower Controls**

PO Box 187 Gilbertsville, NY 13776 USA John Brickley info@xcel.com (800) 288-7362 xcel.com

# LIGHTNING PROTECTION

### Advanced Lightning Technology Ltd (ALT)

122 Leesley Ln Argyle, TX 76226 USA Josh Leverett sales@altfab.com (800) 950-7960 altfab.com



### **ERICO**

34600 Solon Rd
Solon, OH 44139 USA
Jeff Regan
jeff.regan@pentair.com
(800) 677-9089
erico.com
With more than 60 years of
research, testing and product
development, the ERICO comprehensive facility protection system
minimizes risk of lightning damage
and related effects while providing
tremendous value to the owner.

See ad on page 94

### Fuellgraf Chimney & Tower

124 South St Franklin, KY 42134 USA Jason Jennett jjennett@chimneytower.com (800) 621-4419 chimneytower.com

### Harger Lightning & Grounding

301 Ziegler Dr

Grayslake, IL 60030 USA hargersales@harger.com (800) 842-7437 harger.com

### **LBA Technology**

3400 Tupper Dr Greenville, NC 27834 USA Jerry Brown jerry.brown@lbatechnology.com (252) 757-0279 lbatechnology.com

### Pepro LLC

671 Colbert Ave
Oil City, PA 16301 USA
William Rupert
wrupert@peprollc.com
(814) 676-5688
peprollc.com



### PolyPhaser

10701 Airport Rd
Hayden, ID 83835 USA
(800) 882-9110
polyphaser.com
PolyPhaser designs and manufactures innovative lightning and surge protection solutions for RF applications, ensuring reliable operation of critical systems.

In its year-end report on the most-used GIFs of 2017, Giphy said that 300 million people used 2 billion GIFs every day.

- Adweek

# Raycap

806 S Clearwater Loop

### Raycap Inc

Post Falls, ID 83854 USA
Ken Hamilton
sales@raycap.com
(208) 777-1166
raycap.com
Raycap™s wireless solutions include
custom enclosures for indoor or outdoor applications, cable and accessories, lightning surge protection,
and cable connectivity solutions for
Remote Radio Head (RRH) network
equipment located on towers, roof-

tops, and shelters.

See ad on page 13

### Talley Inc

12976 Sandoval St Santa Fe Springs, CA 90670 USA Pat Flynn sales@talleycom.com (800) 949-7079 talleycom.com



### **Times Microwave Systems**

358 Hall Ave
Wallingford, CT 06492 USA
Carolyn Turner
sales@timesmicro.com
(203) 949-8400
timesmicrowave.com
Times Microwave Systems designs
and manufactures high performance
coaxial cable, connectors, and cable
assemblies for use in wireless systems. Products include flexible, low

loss 50 Ohm LMR® coaxial cables, low PIM SPP™ jumpers for DAS, EZ connectors, installation tools and accessories. Times LMR® coaxial cable is considered the standard for flexible low loss coax cable. Other products cover military-aerospace, shipboard high-performance flexible, semi-flexible and rigid coaxial cable assemblies, connectors and delay lines. Times Microwave Systems is the leader in the design and manufacture of coaxial cables for RF and microwave applications. **See ad on page 28** 



### **Transtector**

10701 Airport Rd Hayden, ID 83835 USA (800) 882-9110 transtector.com

Transtector engineers innovative power and signal integrity solutions that ensure reliable operation of critical electronics and protect against lightning and power anomalies for AC, DC, data, and EMP applications.



### **WANHO Manufacturing LLC**

154 Knotter Dr Cheshire, CT 06410 USA sales@wanho.com (203) 759-3744 wanho.com WANHO is a key supplier to all major OEMs throughout the world and is dedicated to serving these companies which build and maintain wireless systems on a global basis. Today WANHO components are used extensively in communications systems in the Americas, Europe, and Asia.

### **MAINTENANCE**



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### **Allstate Tower**

PO Box 25 Henderson, KY 42419 USA Kevin Roth kroth@pttg.com (270) 830-8512

pttg.com
Allstate Tower is a full service,
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focus to meet the needs, quality,
safety, and price expectations of
our customers. AST is committed to
exploring new innovations and technologies to better serve our customers. AST asks for the opportunity to
serve you, knowing the outcome will
be above and beyond.

See ad on page 100

### **Anchor Guard LLC**

2224 NE 39th St Sioux Falls, SD 57104 USA Jayson Nelson jnelson@anchorguard.com (605) 331-6426 anchorguard.com

### **AW Solutions Inc**

300 Crown Oak Centre Dr Longwood, FL 32750 USA Keith Hayter keith.hayter@awsolutionsinc.com (407) 260-0231 awsolutionsinc.com

**EMF Telecom Inc** 

328 Hill Ave

Nashville, TN 37210 USA Erika Brown info@emftelecom.com (615) 291-6279 emftelecom.com

### **Multiwave Sensors**

110 Parr Blvd, Unit 1 Bolton, ON L7E 4J4 Canada Bruce Clifford info@multiwavesensors.com (905) 857-4481 multiwavesensors.com

### **Needmore Towers Inc**

4400 W 31st St Yankton, SD 57078 USA Greg Mueller eric.t@needmoretowers.com (605) 665-7532 ehresmannengineering.com

### **Noash Construction Inc**

PO Box 249 Sebree, KY 42455 USA Jeff Pettit jp@noashconstruction.com (270) 835-9100 noashconstruction.com

### NXG

1422 Edinger Ave, Ste 250 Tustin, CA 92780 USA Aleksey Kurochkin sales@nxgus.com (800) 277-6877 nxgus.com

### **Reese Tower Services**

1044 St. John's Rd Drums, PA 18222 USA Brian Reese info@reesetowerservices.com



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Reese Tower Services' expertise lies in years of experience with structures from engineering through manufacturing, installation, and field modifications for repair and to enhance structural capacity. Reese Tower Services is an expert in ground-based and safe aerial inspections including assessments, retrieving engineering data, performing weld inspections, and non-destructive testing.



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(570) 359-3293 reesetowerservices.com

See ad on page 60



# SBA Communications Corporation

8051 Congress Ave Boca Raton, FL 33487-1304 USA Lynne Hopkins request@sbasite.com (800) 487-SITE sbasite.com As your first choice service provider of wireless infrastructure solutions. SBA continues to set the standard for customer satisfaction by "Building Better Wireless". Clients depend on SBA to provide their wireless infrastructure needs at all stages. We focus on tower ownership, leasing, site management, site development, construction and

# Sioux Falls Tower & Communications

technical services.

2224 NE 39th St Sioux Falls, SD 57104 USA Mike Fowler mfowler@siouxfallstower.com (605) 331-6972 siouxfallstower.com



### **Smart Tower**

1 Fairholm Ave Peoria, IL 61603 info@st.systems (833) 646-6200 smarttower.us Structures That Think™. A completely new application of technology in structural health monitoring for owners, operators and engineers that can reduce operating costs, maximize tower assets and increase the reliability of all towers structures. The Smart Tower top sensor (SMU) detects and measures displacement, sway, oscillations, and potential damage from disasters at the top of the tower and can be viewed remotely and securely from an office or mobile device.

See ad on page 7

# Solar Communications International Inc

41146 Elm St, Ste F Murrieta, CA 92562 USA Steve Holborn sholborn@rftransparent.com (951) 698-5985 rftransparent.com

### **Tower Systems Inc**

17226 447th Ave Watertown, SD 57201 USA Lynnette Cotten lcotten@towersystems.com (605) 886-0930 towersystems.com

### **Wireless Legacy Corp**

5743 County Rd PP Avoca, WI 53506 USA John Crooks jcrooks@wirelesslegacy.com (608) 577-0160 wirelesslegacy.com

### PAINTING

### **Allstate Tower**

PO Box 25
Henderson, KY 42419 USA
Kevin Roth
kroth@pttg.com
(270) 830-8512
pttg.com
See ad on page 100

# POWER EQUIPMENT & SUPPLIES

### **DuraComm Corporation**

6655 Troost Ave
Kansas City, MO 64131 USA
Joe White
sales@duracomm.com
(816) 472-5544
duracomm.com

### Newmar

15272 Newsboy Cir Huntington Beach, CA 92649 USA Jeff Wright sales@newmarpower.com (714) 751-0488 poweringthenetwork.com

### Sun Power Technologies

17437 Carey Rd, Ste 226 Westfield, IN 46074 USA Roger M. Fox roger@sunpowertech.com (317) 804-5047 sunpowertech.com

### **Talley Inc**

12976 Sandoval St Santa Fe Springs, CA 90670 USA Pat Flynn

sales@talleycom.com (800) 949-7079 talleycom.com

### **Trojan Battery**

12380 Clark St Santa Fe Springs, CA 90670 USA Ganesh Balasubramanian info@trojanbattery.com (562) 236-3000 trojanbattery.com

### **POWER SYSTEMS**

### **AW Solutions Inc**

300 Crown Oak Centre Dr Longwood, FL 32750 USA Keith Hayter keith.hayter@awsolutionsinc.com (407) 260-0231 awsolutionsinc.com

### **DuraComm Corporation**

6655 Troost Ave
Kansas City, MO 64131 USA
Joe White
sales@duracomm.com
(816) 472-5544
duracomm.com

### **EnerSys**

2366 Bernville Road Reading, PA 19605 USA Jason Zerbe Jason.Zerbe@enersys.com (610)208-1991 EnerSys.com

### Newmar

15272 Newsboy Cir Huntington Beach, CA 92649 USA Jeff Wright sales@newmarpower.com (714) 751-0488 poweringthenetwork.com

### **Plug Power**

15913 E Euclid Ave Spokane, WA 99216 USA Sandra Saathoff gensure@plugpower.com (509) 228-6500 plugpower.com/products/gensure/

### **Trojan Battery**

12380 Clark St Santa Fe Springs, CA 90670 USA



Ganesh Balasubramanian info@trojanbattery.com (562) 236-3000 trojanbattery.com

# RADIO EQUIPMENT & SUPPLIES

### **Charles Industries**

1450 American Ln, 20th Fl Schaumburg, IL 60173 USA Dominic Imbrogno mktserv@charlesindustries.com (847) 806-6300 charlesindustries.com

See ad on page 24



### DX Engineering

1200 Southeast Ave
Tallmadge, OH 44278 USA
Tim Duffy
dxengineering@dxengineering.com
(330) 572-3200
dxengineering.com
DX Engineering is a leader in providing a huge assortment of high quality gear to both novices and seasoned operators. You also get expert tech advice 24 hours a day,

seven days a week with fast shipping right to your shack. Call 1-800-777-0703 or visit dxengineering.com

### See ad on page 78

### **EDX Wireless**

132 E Broadway, Ste 590 Eugene, OR 97401 USA Bob Akins bob.akins@edx.com (541) 345-0019 edx.com

# SNETWORK SINFRASTRUCTURE FORUM

# International Wireless Communications Expo (IWCE)

6190 Powers Ferry Rd, Ste 320

Atlanta, GA 30339 USA
Nadira Ramatally
nadira.ramatally@knect365.com
(770) 618-0121
iwceexpo.com
IWCE's Network Infrastructure
Forum provides the understanding,
products and services to assure that
your network is always connected,
always on. This year's event will be
co-located with IWCE, taking place
March 5-9, 2018 in Orlando, FL.
Learn more at iwceexpo.com.

See ad on page 43

### Pryme Radio

911 Mariner St Brea, CA 92821 USA Dave George daveg@pryme.com 800-666-2654 Pryme.com

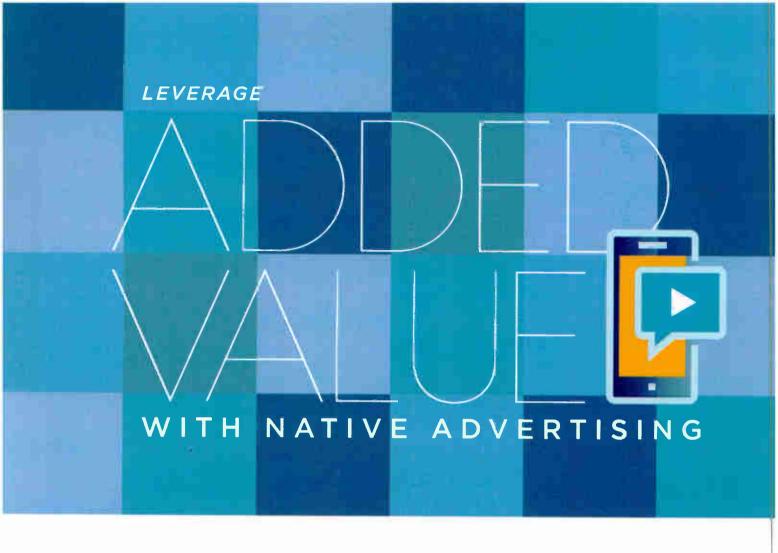
# redline communications

# **Redline Communications**302 Town Centre Blvd, Ste 400

Markham, ON L3R 0E8 Canada
John Celentano
jcelentano@rdlcom.com
(443) 900-0048
rdlcom.com
Redline Communications™ Virtual
Fiber and iLTE wireless broadband
networks are deployed globally in
the most challenging applications
and locations. Redline™s powerful, versatile and reliable wireless
systems deliver voice, data, IoT, and
video communications.

Television and online video accounted for 48.7% of display advertising in 2017, up from 43.7% in 2010, and expect its share to rise to 49.0% in 2020.

- Zenith Media



ne result of the digital revolution is that the line between traditional publishing and advertising has blurred. That's changed what consumers want from an ad. Savvy browsers are more receptive than ever to marketing copy that reads like the content it's surrounded by. In a landscape of endless pop-up ads, flashing banners, and auto-play videos, readers frequently want something more seamless. Enter native advertising.

Native advertising might sound exotic, but it's a simple premise — writing and designing ads that feel like the articles and videos around them. Consumers are more sophisticated than ever when it comes to

marketing, and a heavy-handed approach doesn't appeal the way it did in decades past. Instead, think like a magazine writer, integrating advertising with well-written copy and visuals that appeal to your audience's tastes and their own sensibility about their personal brands. Rather than sticking out like a sore thumb, native advertising tactfully inserts the product or service that's advertised into the flow of the content being enjoyed by the reader.

Statistics show that as many as 85% of consumers are so tired of traditional advertising that they simply tune it out — or would rather complete annoying appointments like going to the dentist than face another pop-up window. Part of that comes from the

way native advertising is written — often in article form rather than made up of catchy slogans and brief bursts of information. A large part of why native advertising appeals to readers, though, is the way it's designed.

Webpages, especially those on mobile devices, can easily become cluttered. Rather than facing a simple two page or newspaper layout, consumers now face multiple windows layered on top of one another and loading at different times. And that effect can be multiplied depending on how many tabs they have open. Having as little visual interruption as possible reduces reader stress.

Native advertising is designed to blend in with its surroundings. That makes it even easier to engage readers before they even realize you're promoting a product or service. Rather than skimming over your sales pitch, they'll spend as much time reading your content as the story they logged

on to read, even if they have to click through to get to your native ad.

You can even think beyond blocks of text to dream up video and social media campaigns that operate on native advertising principles.

Think of Snapchat filters, for example, that users enjoy interacting with and sharing, but might share a brand logo, pop song, or a film or TV tie-in. These filters work the same way as non-branded content, applying silly or eye-catching graphics to users' selfies, making them a great example of visual native advertising.

You can even create maps, travel guides, "listicles", or super-short documentaries that align your brand with trending topics like hot destinations or suddenly popular culinary dishes, drinks, or decor themes. If you provide compelling information that the reader finds interesting, you can come across not as the pushy brand getting in the consumer's face, but as the helpful resource that offered up their next cocktail party factoid or anecdote. Think of the viral ad for the Squatty Potty — a device that many might find embarrassing to think about, much less purchase and use. But the ad offered useful information, creative imagery, and appealing humor that was memorable and explained to the viewer how the product could improve their health. It was entertaining, educational, and shareable. And that led to big sales.

To pull off native advertising, you'll want to make sure you hit the right note. First, does this style of advertising work for your brand? Second, how

Some of the most successful forms of advertising are those that listen to the consumer the most and approach the web from their point of view.

can you provide added value for the consumer? Those are the first questions to ask. Next, brainstorm some information your target audience might be interested in. Don't think in terms of your advertising goals yet. Try to get in the mind of your ideal reader or viewer.

Consider where you will be publish-

ing the ad, and what might have gotten the consumer to that site or platform in the first place. Then begin to develop concepts that blend your ideal viewer's interests with your product message, keeping in mind the tone and style of the publication so you

can blend right in. Soon you'll move from a native advertising tourist, to putting together native campaigns like a local.

### 6 TYPES OF NATIVE ADVERTISING<sup>1</sup>

### **Recommended Content**

These ads suggest content that is related to media on the page which entice users to click the advertiser's content.

### **Promoted Listings**

These ads feature sponsored products, services, or companies ahead of others on a category page or other relevant section where there are interested viewers.

### Paid Search Ads

These ads feature sponsored products, services, or companies ahead of others on a search results page, giving them prominence.

### **In-Feed Units**

Promote sponsored content among other content. Usually is marked as "sponsored" but looks much like native content.

### **In-Ad with Native Elements**

Looks like a regular ad, but has strongly related content to its context, making it particularly relevant to viewers.

### Custom Ads (Other)

Highly customized ads may take on a variety of forms while staying strictly relevant to other content being actively consumed by users.

1. Taken from "6 Types Of Native Advertising And How Each Can Benefit Your Business" by Steve Olenski via Forbes.com. https://www.forbes.com/sites/steveolenski/2015/11/12/6-types-of-native-advertising-and-how-each-can-benefit-your-business/

# REMOTE MONITORING & CONTROL (RMC)

### **Avlite Systems**

61 Business Park Dr Tilton, NH 03276 USA Jason Larrere h.charest@avlite.com (603) 737-1327 avlite.com

### **DPS Telecom**

4955 E Yale Ave Fresno, CA 93727 USA Andrew Erickson sales@dpstele.com (559) 454-1600 dpstele.com

### **DuraComm Corporation**

6655 Troost Ave
Kansas City, MO 64131 USA
Joe White
sales@duracomm.com
(816) 472-5544
duracomm.com

### Flash Technology

332 Nichol Mill Ln Franklin, TN 37067 USA Wade Collins flashsales@spx.com (615) 503-2000 flashtechnology.com

### **Hughey & Phillips**

240 W Twain Ave Urbana, OH 43078 USA Jeff Jacobs jjacobs@hugheyandphillips.com (937) 652-3500 hugheyandphillips.com

### Newmar

15272 Newsboy Cir Huntington Beach, CA 92649 USA Jeff Wright sales@newmarpower.com (714) 751-0488 poweringthenetwork.com

### **RVA Lighting & Masts Inc**

5240 Finch Ave E, Unit 10 Toronto, ON M1S5A3 Canada Brian Gray brian@rvalm.com (905) 719-6500 rvalm.com

### **Sentor Controls Inc**

101 Pine Needle Rd Aiken, SC 29803 USA Bob Selby-Wood bob.sw@sentor.com (310) 464-1604 sentor.com

### Slatercom - WCD

7905 State St Salem, OR 97317 USA Al Slater ads@slatercom.com (503) 581-5550 slatercom.com **See ad on page 100** 

### TWR Lighting Inc

10810 W Little York Rd, Ste 130 Houston, TX 77041-4051 USA Jeremy Lochner sales@twrlighting.com (713) 973-6905 twrlighting.com

### **Unimar Inc**

3195 Vickery Rd

North Syracuse, NY 13212 USA Alyssa Santoferrara alyssa@unimar.com (315) 699-4400 unimar.com

### Westell Technologies Inc

750 N Commons Dr Aurora, IL 60504 USA Dean Henry dhenry@westell.com (630) 375-4165 westell.com

### **Xcel Tower Controls**

PO Box 187 Gilbertsville, NY 13776 USA John Brickley info@xcel.com (800) 288-7362 xcel.com

### RF COMPLIANCE, MONITORING, & MANAGEMENT

### 3Z Telecom

3361 Executive Way Miramar, FL 33025 USA sales@3ztelecom.com (954) 581-6565 3ztelecom.com

### FieldSENSE USA

1391 E Boone Industrial Blvd Columbia, MO 65202 USA Max Birch info@fieldsenseusa.com (312) 260-6055 fieldsense.com

# FLASH TECHNOLOGY

### Flash Technology

332 Nichol Mill Ln
Franklin, TN 37067 USA
Wade Collins
flashsales@spx.com
(615) 503-2107
flashtechnology.com
An OEM since 1969, Flash
Technology makes the world safer
through FAA-compliant tower lighting solutions and remote monitoring systems. We serve airport,
broadcast, telecom, utility and wind
markets, and provide training,
installation, troubleshooting and
maintenance services.

### **Hammett & Edison Inc**

470 W 3rd St Sonoma, CA 95476 USA William F. Hammett, P.E. mail@h-e.com (707) 996-5200 h-e.com

### Lawrence Behr Associates

3400 Tupper Dr Greenville, NC 27834 USA David Horn david.horn@lbagroup.com (252) 757-0279 lawrencebehrassociates.com

### **RFSignalman**

9009 Wimbley Court Elk Grove, CA 95624 USA Paul Niemann sales@rfsignalman.com (916) 686-1776 rfsignalman.com

# RFSigns.com

# RFSigns.com 503 Main St

Medfield, MA 02052 USA
Steve Riggs
contact@rfsigns.com
(508) 359-8833
rfsigns.com
RFSign's mission is to provide the
wireless industry with the best,
most effective, standards-compliant
RF safety communication tools. Our
products include bilingual RF safety
signs, as well as ASR tower registration signs.

### **Specialty Tower Lighting**

1630 Elmview Dr Houston, TX 77080 USA Alberto Resendez sales@specialtytowerlighting.com

Consumers are 25% more likely to look at a native ad than at a banner, and they look at them 53% more frequently.

- CMO by Adobe



(713) 722-8123 specialtytowerlighting.com **See ad on page 62** 



### Two Hops Wireless LLC

18331 Turnberry Dr Round Hill, VA 20141 USA Rich Biby rbiby@two-hops.com (540) 987-0500 two-hops.com

Using more than 30 years of wireless experience, our services include design, deployment and operation of small LTE networks and WiSP services, RF engineering services, spectrum analysis and technical business consulting, small network operations, billing, roaming negotiations and management, FCC/FAA compliance, and RF exposure analysis.

See ad on page 100

### **ROOFTOP EQUIPMENT**

### Advanced Lightning Technology Ltd (ALT)

122 Leesley Ln Argyle, TX 76226 USA Josh Leverett sales@altfab.com (800) 950-7960 altfab.com

### Comsite Hardware Inc

PO Box 3951 Inclinen Village, NV 89450 USA sales@comsitehardware.com

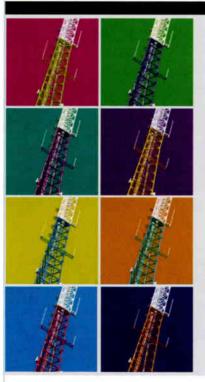
(775) 832-2523 comsitehardware.com

Hi Tech Composite Structures

1266 SE Lake Rd

Redmond, OR 97756 USA
David Ullrich
sales@hitechcomposites.com
(541) 548-0812
hitechcomposites.com

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Insurance.BBT.com

### Paul J. Ford and Company

250 E Broad St Columbus, OH 43215 USA John Werner jwerner@pjfweb.com (614) 221-6679 pauljford.com

See ad on page 23

# **SAFETY: EQUIPMENT & SUPPLIES**



### 3M Communications

6801 River Place Blvd
Austin, TX 78726 USA
Linnea Angle
langle@mmm.com
(512) 984-4641
3m.com/wireless
From backhaul to base stations.
From MIMO to mobile switches.
From small cell to 5G. 3M is
using science to create wireless
solutions that help you meet the
needs for capacity and coverage
today, while keeping an eye, and
ear, on the future.

### Advanced Lightning Technology Ltd (ALT)

122 Leesley Ln Argyle, TX 76226 USA Josh Leverett sales@altfab.com (800) 950-7960 altfab.com Native ad engagement rates are 39.1% (more than three times higher) and video completion rates are nearly twice as high as those in standard rich-media ads.

- Fast Company



### **Bishop Lifting Products Inc**

125 McCarty Dr
Houston, TX 77029 USA
David Moseley
sales@lifting.com
(713) 674-2266
lifting.com
Founded in 1984, Bishop Lifting
Products, along with Delta Rigging
& Tools, Morgan City Rentals, and
Matex, is a leading fabricator of
slings, wire rope assemblies, and
lifting equipment, and a distributor of rigging hardware, hoists,
winches, and fall protection gear.

### **Bronto Skylift Inc**

47 Taft Vineland Rd Orlando, FL 32824 USA Steve Starling Steve.starling@bronto.us (352) 895-1009 bronto.us

### **Connect-It Wireless**

33 Commerce Way Jupiter, FL 33458 USA Alisa Reed sales@ciwireless.com (866) 781-1300 ciwireless.com

Cullman, AL 35056 USA



### **Elk River** PO Box 1770

sales@elkriver.com
(800) 633-3954
elkriver.com
For nearly three decades, Elk River
has been a leading manufacturer of
U.S. made harnesses, lanyards, and
many other fall protection products.
Don't gamble with your safety —
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protection needs.

### FieldSENSE USA

1391 E Boone Industrial Blvd Columbia, MO 65202 USA Max Birch info@fieldsenseusa.com (312) 260-6055 fieldsense.com

### **GME Supply**

1391 E Boone Industrial Blvd Columbia, MO 65202 USA John Lamond info@gmesupply.com (718) 210-3913 gmesupply.com

### **Pryme Radio**

911 Mariner St Brea, CA 92821 USA Dave George daveg@pryme.com 800-666-2654 Pryme.com

### RFSigns.com

503 Main St Medfield, MA 02052 USA Steve Riggs contact@rfsigns.com (508) 359-8833 rfsigns.com

# TALLEY

### Talley Inc

12976 Sandoval St
Santa Fe Springs, CA 90670 USA
Pat Flynn
sales@talleycom.com
(800) 949-7079
talleycom.com
Talley Inc is a leading distributor
of wireless communications infrastructure and mobile products.
Talley has served our industry
for over 30 years & stocks more
than 300 top manufacturers.
Headquartered in Los Angeles,
Talley offers ten distribution centers nationwide.



ore than any other development, video is what sets digital media apart from print. And it's no wonder video makes a huge impression on viewers, and gives advertisers even more ways to engage and interact with potential customers. But not all video ads are created equal. So how do you decide what kind of video to employ to best reach your ideal customer? Thanks to big data and leaps in web technology, there are plenty of different kinds of video strategies that can work for you.

Cross-channel video ads take advantage of just how huge the World Wide Web has become. Instead of thinking in terms of print and

television, now you can think in terms of web, mobile, apps, social media, and video streaming services. You can tailor video ads not only to where the consumer will encounter the ad, but also what stage of the buying process they might be in. An ad that appears between episodes of their favorite Netflix comedy, for example, might create a subtle impression in a product, but one that appears on a mobile or desktop device could catch that same consumer when he or she is looking for more information or is ready to buy. And thanks to cookies that track digital data, it's possible to make sure your video ad package follows a potential buyer across multiple websites and platforms, creating more

opportunities to get a click and a sale.

Mobile video ads are highly effective at holding viewers' attention. Because mobile users are on their devices so frequently and use such a variety of websites and apps, you have a huge number of opportunities to make an impression. People now use phones and tablets not only to browse the web, but also to watch videos on sites like YouTube, apps like Snapchat and Yelp, or streaming services like Hulu. Tailoring ads for the mobile viewer by making them responsive and non-skippable can make them more appealing, more effective, and more memorable. And by focusing on mobile ads, you can keep up with the rapidly increasing rate at which

viewers turn to mobile for online content.

In-stream video ads appear before, in the middle of, or after another piece of video content. Pre-roll ads precede a television episode or piece of user-generated content much like the previews that are shown before a feature film in theaters. Mid-roll ads appear during breaks in a video, such as traditional TV commercials. Mid-roll ads can also be a great opportunity to try interstitial advertising techniques. Post-roll ads follow a piece of video content. Pre and mid-roll ads are amongst the most effective in terms of keeping users from clicking away, but can frustrate viewers for delaying or interrupting their time with the content they're seeking out.

Social media video ads are easier to create than ever. As more and more social media platforms recognize the power of video, they make it easier for brands to create custom videos that fit right in with the content users joined to see. Instagram,

Snapchat, Vine, and Facebook are all further integrating video into their platforms. That means that you can either tailor videos specifically for different platforms or form partnerships with social media influencers who have highly specialized expertise in getting views on, and interactions with, visual content. And because social media is so personal, this is a great opportunity to show how your product or service integrates in the lives your target customers aspire to.

Display or banner video ads appear



around the content the user has sought out, such as in a banner above or to the right of the main content display area. This is a great opportunity to provide added value for the user, offering more

Because mobile users are on their devices so frequently and use such a variety of websites and apps, you have a huge number of opportunities to make an impression.

information on the subject they're reading about or showing a product that's related. That's also especially crucial with display ads, which can be easier for viewers to ignore, in part because they take up a smaller amount of space on a webpage.

No matter what type of video ad you choose to employ, there are a few tips that will help guarantee success. You'll want to front-load the most important information into the first 5 to 15 seconds of your ad, because the reality is that many users will try to

skip or mute the ad. You also want to make sure your video is tailored to the platform on which it will appear. An ad designed for desktop, for example, might not display correctly on a smart-

phone screen, or could take too long to load. Likewise, a highly interactive video designed to appear mid-roll might be too distracting as a banner ad or might not be functional when squeezed into a Facebook post. Those are all considerations to be aware of when developing cross-channel campaigns.

More and more, consumers are proving they like their content short, entertaining, and in a video format. Attention spans are brief, long reads are out of fashion, and video is more engaging and shareable. The key to capturing your ideal audience's clicks increasingly comes down to giving your brand the moving picture treatment. So get ready for your close-up! The age of video advertising is here to stay.

#### SAFETY: TRAINING & EDUCATION

#### **GME Supply**

1391 E Boone Industrial Blvd Columbia, MO 65202 USA Alex Giddings climbhigher@gmesupply.com (718) 210-3913 gmesupply.com

#### **Hammett & Edison Inc**

470 W 3rd St Sonoma, CA 95476 USA William F. Hammett, P.E. mail@h-e.com (707) 996-5200 h-e.com

#### **LBA University**

3400 Tupper Dr Greenville, NC 27834 USA Stacey Moore stacey.moore@lbauniversity.org (252) 757-0279 lbauniversity.org



## National Association of Tower Erectors (NATE)

8 SE 2nd St Watertown, SD 57201 USA Todd Schlekeway nate@natehome.com (605) 882-5865 natehome.com **See ad on page 37** 

#### **RSI Corp**

543 Main Kiowa, KS 67070 USA Brenda Myers brendam@rsicorp.com (620) 825-4600 rsicorp.com



Structure, Tower & Antenna Council Conseil des structures, pylônes et antennes

#### Structured, Tower & Antenna Council (STAC)

80 Elgin St, Ste 300
Ottawa, ON K1P 6R2 Canada
Nick Kyonka
info@stacouncil.ca
(613) 233-4888
stacouncil.ca
STAC is administered by
the Canadian Wireless
Telecommunications Association.

See ad on page 47

## SAFETY/SECURITY: CONSULTANTS

#### **LBA University**

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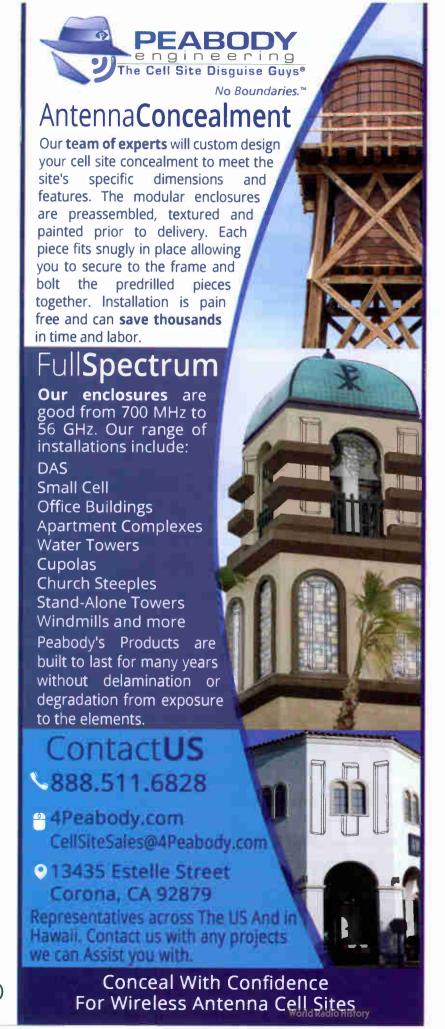
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In 2017, 45% of people watched more than an hour of Facebook or YouTube videos a week.

- WordStream.com



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Youtube's top ten most watched videos this year together garnered 633 million views. The top two most watched videos were ads.

- Adweek



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installation of obstruction lighting
products.

See ad on page 62



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Terry Shank
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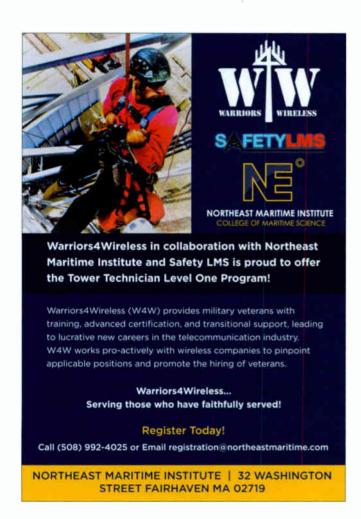
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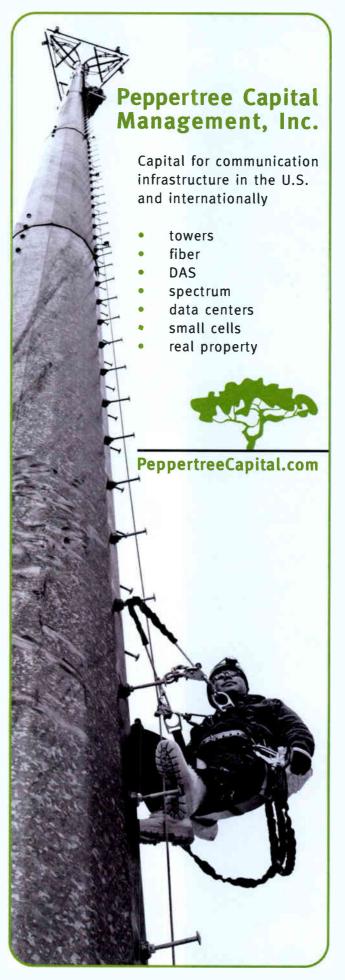
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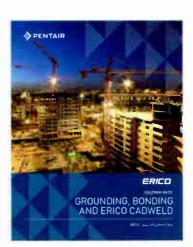
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at the top of the tower and can be

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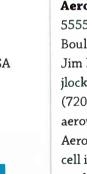
12976 Sandoval St Santa Fe Springs, CA 90670 USA Pat Flynn sales@talleycom.com (800) 949-7079 talleycom.com

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Snapchat expects 1 trillion photos will be taken using the app in 2018, equivalent to 31,710 Snaps every second.

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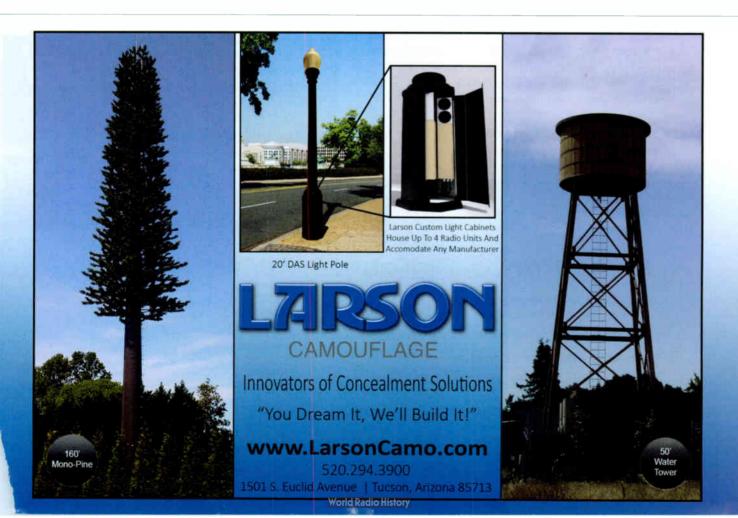
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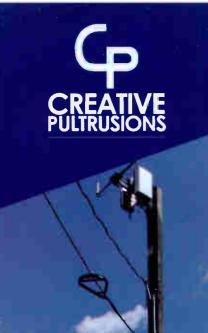
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