# ACCESS

Monomous Communications Offers & Insights Winter Issue 2013

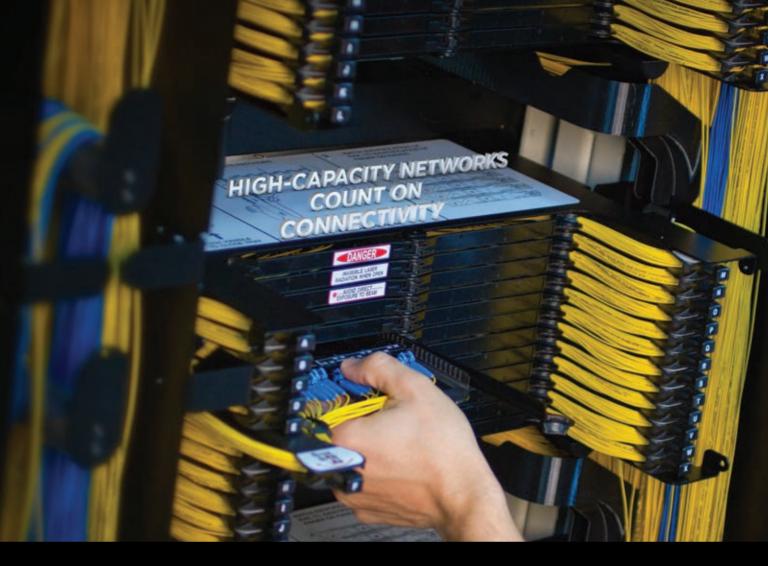
#### NSIDE

"The Inside View" by Marc Bolick Page 4

Data Center Growth to Support Cloud Computing BlueStream Professional Services Page 8

Accessing Increased Revenue by Implementing Smart-Premise Access Services Page 14

# The Sky's the Limit Data Center Growth to Support Cloud Computing



#### THAT'S WHY SERVICE PROVIDERS COUNT ON TE CONNECTIVITY.

Meeting the demands of a data-driven world requires a smarter approach to connectivity. That's why telecommunications networks count on TE Connectivity, the world leader in fiber connectivity. TE builds critical connections that make fiber deployments faster, capacity greater, installation simpler and network reliability better, all while providing end-to-end support and lower total cost. KGP Logistics provides industry-leading supply chain expertise, ensuring that the material you need arrives on time. Together, TE and KGP Logistics make every connection count.



#### Introducing TE's NG4access ODF Platform: Industry-leading density, superior access and faster installation.

The NG4access ODF platform is an innovative new solution designed to address the complexities of fiber-heavy offices, head ends and data center environments. From minimizing your labor requirements to faster deployment and delivery, the NG4access ODF was designed with innovation and accessibility in mind.

Contact KGP Logistics for TE Solutions: 800-755-1950 or visit kgplogistics.com

te.com/NG4access





EVERY CONNECTION COUNTS



## In this issue

#### DEPARTMENTS

- 4 The Inside View Moving Forward and Exceeding Expectations - Marc Bolick
- **19-21** Ordering Guide Part numbers to reference when placing orders for products referenced in this issue of ACCESS.

#### FEATURES

- 8-11 Data Center Growth to Support Cloud Computing - BlueStream Professional Services
  - 12 Taking Mobile Data Offload to the Cloud
- 14-17 Accessing Increased Revenue by Implementing Smart-Premise Access Services
  - 22 The Download Invoicing Enhancements

#### **ADVERTISERS**

- 2 TE Connectivity
- 5 PREMIER / Uniden
- 6-7 Telect
- 13 ADTRAN
- 18 PREMIER
- 23 Comtrend

KGP Logistics is one of the country's largest single-source, value-added providers of supply chain services, communications equipment and integrated solutions to the telecommunications industry. We have a diverse and valued customer base, a national logistics network, and a portfolio of manufacturer partnerships that is second to none.

**KGP Logistics, Inc.** • 600 New Century Parkway • New Century, KS 66031 www.kgplogistics.com • 800-755-1950

KGP Logistics is a certified to the TL 9000 Quality Management System (QMS) US07/3791



© 2013 KGP Logistics, Inc. All rights reserved. The name Premier and the Premier logo are trademarks of KGP Logistics, Inc. All other marks are property of their respective owners.

# **Inside View**



#### **Moving Forward and Exceeding Expectations**

by Marc Bolick KGP Logistics Vice President, Product Management and Marketing

> *"KGP Logistics has unmatched, marketleading capabilities for our industry. Putting that experience to work for our customers is our top priority."*

The telecom market is immensely complex and rapidly changing, now more than ever. The speed of transformation can create a fork in the road between those who are prepared for next generation services and those who are not. Through this time of change, KGP Logistics is determined to not only meet and exceed our current customer's expectations but, attract customers from the new, emerging communication industries.

# *"I think distribution complements who we are, but I don't think it's WHO we are." - Marc Bolick*

When I joined KGP in early 2012, I came with a strong relationship and history with KGP Logistics. However, what I quickly learned is that the capabilities of KGP are far beyond my initial thoughts. My 20 years in telecom manufacturing provided the foundation for identifying how these solutions can be better utilized as an asset for our customers to deploy services quickly and cost-effectively.

KGP Logistics is not only a best-in-class distributor; we have the expertise and capabilities far beyond sourcing, distribution and supply chain services that are unmatched in the industry. For instance, we offer a broad range of product integration services such as: EF&I (engineer, furnish and install); AWT (assemble, wire and test); pre-configured cabinets; rack and stack; and more.

Through the acquisition of TE Professional Services, now BlueStream Professional Services, we are a much more complete resource for customers in all communication industries. With our nation-wide presence, our companies offer everything from inventory, sourcing, and shipping to design, furnish, installation, and broadband support, plus advanced web-based solutions including basic order entry, requisition management and complex staging solutions.

As demand for data continues to drive new markets, our team is striving to ensure that KGP will be available with the right services, the right products, and the right technology to meet the ever changing demands of the communications industry.

Marc Bolick

Vice President of Product Management and Marketing

# Uniden

PREMIER

Communication products to depend on.<sup>™</sup> for more information call 800-755-1950 or visit www.kqplogistics.com

# Simplify your customers' life

freedom from their cell phone at home

#### Bluetooth<sup>®</sup> CELLL*iNK*<sup>™</sup> works with wireline & cell phones



# Connect multiple cell phones to your home phone system

- Download cell phone contacts to phone book memory
- Receive or make cell phone calls on cordless phone handsets (no landline required)
- · Make or receive one cell call and one landline call simultaneously on two different cordless handsets

#### Don't Miss a Call

No need to run to catch a cell call before it goes to voicemail, simply pick up the nearest cordless handset and you are connected.

#### Eliminate Weak Cell Reception

Place the CELLLink cordless phone in a location with the strongest cell signal & take calls anywhere in the house from the cordless phone handsets.

#### Stop Searching for Contacts

Sync cell phone contacts with the CELLLink cordless phone for convenient access from any cordless handset.



#### D1780-2B

- 1,400 Cell phone contacts downlop
- Connect up to 2 cell phones
- Expandable to 12 Cordless Handsets (with accessory handset)
- Accessory Handset DCX170BT



#### D3588-2

- Connect up to 4 cell phones
- Power-Fail operation on corded base
- Expandable to 12 Cordless Handsets
- (with accessory handset)
  - Accessory Handset DCX350



#### D3580-2

- 6,000 Cell phone contacts download
- Connect up to 4 cell phone
   Built in USB shareing port
- Built-In USB Charging port
   Expandable to 12 Cordless Handset
- expandable to 12 Cordless nand (with accessory handsot)
- Accessory Handset DCX350

leading airflow

cable

# start a revolution

# shape your cloud

#### Shape your cloud.

Shape your cloud with a fundamental foundation– Telect's Data Center Rack.

Telect's Data Center Racks are designed and manufactured in the USA, backed by a legacy of metals manufacturing. From seismic-certification (independently tested and certified) to intuitive configurability, industry-leading airflow, and maximized cable management, Telect's product teams responded to the network's dynamic demands by developing the robust Data Center Rack, answering today's requirements for securing core equipment while shaping tomorrow's growing network infrastructure.

House servers, routers, and other key network equipment in this configurable data center rack, offered as a fully integrated custom solution or a single, standalone data center rack.

Shape your cloud. Buy Telect's Data Center Rack today–to build tomorrow's network.

#### Data is on the move.

Not like a turtle. More like a jet.

From Netflix<sup>™</sup> and its contemporaries–other on-demand internet streaming video services; to Baby Boomers social mediaing; to Smartphone growth; to the technological advancement of developing countries; data traffic in the cloud is heavier than ever.

Data is on the move, and the trajectory will continue to increase, pushing network engineers to handle today's data use while preparing for the future network's burgeoning data consumption.

Your active gear is moving data like never before.

Keep your active equipment and data safe, secure, and managed.

Start a revolution. Shape your cloud with Telect's customizable Data Center Racks.



PHOTO :: A customer's switch office, with over 50 Telect Data Center Racks.

Through its strength, seismic security, and sheer good looks, you'll show the cloud a thing or two with a rack that's born in the USA.

#### Tough. Secure. Cool.

zone 4 seismic-certified up to 2,000 lbs.

Manage your valuable data assets and equipment with Telect's powerful, seismic-certified Data Center Racks.

- Zone 4 seismic-certified to support up to 2,000 lbs. of network equipment. (Static certified up to 4,000 lbs.)
- Industry-leading airflow doors
- · Compatible with major cooling solutions
- · Highly versatile and configurable
- Ideal solution for protecting and ensuring safety of core equipment
- Adjustable front and rear rails for flexible equipment mounting
- Robust design ensures reliable, long-term performance
- Compatible with standard rack-mount equipment, a wide range of cable management solutions, and Telect's CFlow<sup>™</sup> strip for data center temperature mapping
- Secure and lockable







#### distinct branding ::

Imagine walking into a data center and seeing your logo boldly displayed among the rows of data center racks. Get your logo and custom accents on your Telect Data Center Racks through Telect's private-label customization program.

#### inside Telect video ::

All of Telect's metals are designed and manufactured in the USA. Watch this brief video for an inside glimpse into Telect's metals production plant in Plano, Texas. telect.com/racks

#### watch and learn ::

The CFlow<sup>™</sup> strip, designed to adhere to the front and rear of all data center racks, exhibits a dynamic, real-time temperature map for data centers–a simple, smart tool for data center HVAC efficiencies. Watch and learn! telect.com/cflow



# **Data Center Growth to Support Cloud Computing**

Experience and Efficiency are the Keys to BlueStream Professional Services' Data Center Deployment

8 ACCESS | Winter Issue 2013

# Satisfying demand for higher bandwidth services can hinge on precise Data Center planning and swift, reliable connectivity

Data centers may well be the salvation for expanding Central Office data processing capacity outside the plant, which is necessary to meet ever-escalating network bandwidth demands. In short, data centers provide the ability to offer a wide-range of important customer services; including digital HDTV, rapid streaming, video downloads, high-speed Internet, digital phone, and even integrated smart-home solutions involving remote programming, on-demand entertainment services and advanced security systems.

# The reality is exceedingly clear – the ability to deliver these services to customers who are willing to pay more, right now, to get the full range of options they want is critical for future growth.

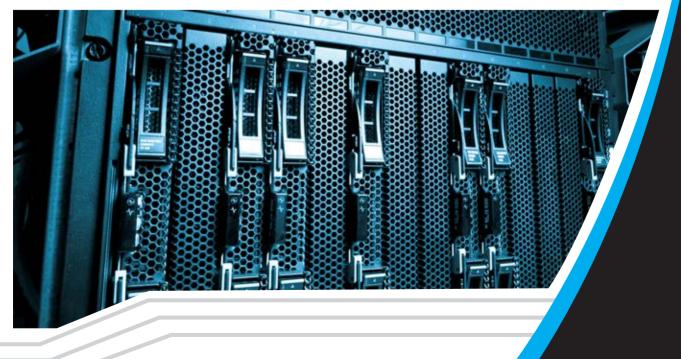
The substantial dollar investment required to build a data center is a sizeable component of any operating budget and requires several complicated issues to be considered. As pressures mount to speed deployment, there are equally as many possibilities for miscalculations and glitches that should be accounted for in order to keep the project on time.

A few critical considerations include;

- » the constraints of existing building space/layout
- » sufficient energy cost controls
- » scalability
- » fire protection

- » complex thermal management issues
- » adequate power and emergency backup systems
- » infrastructure and information security
- » proper cabling/connectivity

All of these considerations lend themselves to considering a partnership with a highly experienced and capable outsource expert. Few in the business have more experience than BlueStream Professional Services data center deployment teams.



#### BlueStream Professional Services can help Carriers avoid costly, "failure to launch" scenarios.

It's not only important to overcome the challenges in equipping data center build-outs, it must also be done in the absolute shortest amount of time. Every day without the ability to provide high-demand services to potential customers is another day of lost revenue opportunities.

BlueStream Professional Services has assembled specialized teams of data center experts that have between seven-to-eight years of experience. They are accustomed to working in unison with clients with full awareness of the challenges and equipped to solve them.

Amin Anshasi, BlueStream Program Manager, sums up the intricate task of data center systems setup and installation in short, to-the-point fashion, "Rapid response, available resources and precise execution are the keys. An outsource partner must have the capability to implement in a very short timeframe. That also means ensuring that the entire system is functioning reliably and efficiently." To this end, BlueStream created dedicated teams with one program manager and one lead engineer to interface with customers, which makes communication, responsiveness and assignment of responsibilities more efficient for all involved.

Equipping multiple data centers each year has provided BlueStream the experience to handle the precise, upfront planning that is essential, along with the flexibility to adapt. Service providers without the same experience in data centers as BlueStream are not as able to anticipate and handle project complexities.

"We work very closely with telco engineers, IT and operations people all along the way to make sure every consideration has been discussed and that we stay focused on the right issues," stated Anshasi. "It all relies heavily on an accurate design analysis and formulation of a good build plan for execution. Timelines and scheduling are critical. An experienced team leader can keep things moving and plan for the unexpected. So as problems do surface, the team is prepared to recommend a workable solution."

For instance, if HVAC system installations are off even a few inches, cabling may need to be re-routed and racking systems adjusted to accommodate. Subflooring space and layout can impact cabling or placement of bays as well. There are also electrical compatibility aspects between different equipment that must be taken into account.

"Standardization of interconnect equipment – the fiber connects or patch-panel connects – is essential to system integrity," Anshasi added. "Updating our customer's database is also a valuable part of our full, turnkey services. Consistency is perhaps the most important aspect of performance optimization. That's where a cohesive, experienced team is invaluable in guaranteeing a timely, successful launch."









#### BlueStream's deployment speed advantage is enhanced by its partnership with KGP Logistics.

Beyond the technical and organizational intelligence required to orchestrate such an intricate process, speed is of the essence. Carriers are under pressure to supply the complete menu of services customers' desire today, as the appetite for greater bandwidth capacity continues to ratchet up.

Anshasi pointed out, "We now have an advantage over other data center service providers due to our affiliation with KGP Logistics. It's one of the key factors why we are able to perform complete data center build-outs in 40-50% less time than other vendors are able to do."

"We have the ability to quickly source materials through KGP Logistics, and they can have what we need, on site, sooner. KGP is quick to respond to change orders or last minute additions. Another service KGP offers and can add significant time savings is pre-assembling and pre-configuring multi-device equipment, which helps to condense schedules and expedite the install process."

"Another distinct advantage is BlueStream's nationwide workforce availability and our capacity to deploy multiple shifts, when necessary, to meet the most aggressive timeframes. At least a third of the builds we're involved in require extended/multiple shifts. However, we are always mindful that price is a big factor. At the same time, the financial impact of deploying quickly can be outweighed by the increase in revenue."

A heavy dose of planning, an experienced team and the accessibility of needed resources and services are the main ingredients of a successful data center deployment.

BLUESTREAM

BlueStream Professional Services, a company in partnership with KGP Logistics, provides planning, implementation and maintenance support for customers delivering voice, video and data over wireless, wireline, cable and enterprise networks. The company combines a nationwide footprint with highly skilled professional services teams. Their unique portfolio of Network Deployment and Product Integration services is designed to reduce costs and minimize redundancies.

# The only constant is change.

ADTRAN<sup>®</sup> is *Reinventing Access* for the mobile operator with a portfolio of solutions designed to deliver scalable reliability for backhaul and Wi-Fi® offload. With these solutions. service providers can eliminate the need for capital intensive overlays to support 4G backhaul services, easily deploy services ranging from 1 Mbps to 10 Gbps speeds, exceed their Quality of Service objectives for mission critical backhaul circuits and provide a seamless extension of 3G/4G networks that is simple and economical to deploy with Virtual Wireless LAN-based Wi-Fi offload.

ADTRAN's innovative approach to Wi-Fi offload provides a virtualized, carrier-grade architecture that complements existing fixed and mobile core networks. Offload occurs seamlessly to both the subscriber and the mobile core, ensuring no disruption of service. This solution provides a revenue opportunity to service providers that build out a Wi-Fi network in their service area by supporting data traffic offloading for wireless carriers.

To find out more about how ADTRAN can help reinvent Wi-Fi offload for your network, visit www.adtran.com/wifioffload.









#### **Taking Mobile Data Offload to the Cloud** By: Kevin Morgan, Director of Marketing, ADTRAN

Mobile data demand is at an all-time high and experts anticipate growth of 15 to 25-fold over the next three years. This growth is being driven by the fact that individuals now carry multiple mobile devices, not just a simple smartphone. Take the smartphone and add a laptop, tablet, e-reader or machine-to-machine application and you quickly grow from one to three to five devices per person. The demand for mobility is exploding. Today, there are more than 5 billion mobile phones in use globally. Mobility is no longer a convenience – but a necessity. More and more new devices rely on wireless connectivity – driving mobile data traffic growth exponentially. This, in turn, is driving the move to offload mobile traffic onto the fixed network using innovative schemes.

Mobile data traffic growth is currently experiencing growth rates similar to that of Internet traffic in the late 90s. In fact, Cisco VNI projects that global mobile data traffic will increase 26 times from 2010 to 2015, a 92 percent compounded annual growth rate (CAGR). In addition, the average mobile connection speed will in-

crease by a factor of 10 from 2010 (215 kbps) to 2015 (2.2 Mbps), a 60 percent CAGR. To top this off, by 2015, global mobile data traffic will reach an annual run rate of 75 Exabytes per year. This is the equivalent of 19 billion DVDs or 536 quadrillion SMS text messages.

### How Have Mobile Network Operators Coped?

With the rapid growth in mobile data traffic, operators have struggled to keep up with demand. Two approaches to keep data usage "under control" have been rate limiting and tiered billing. With rate limiting, data usage is metered and the user has to be warned as they are approaching or exceeding their plan limi-

tation. Tiered data billing seems punitive. It is difficult for the user to relate their activities to Megabytes of usage. It is virtually impossible to achieve a positive ROI with this model. The failure of these attempts to "control" data has resulted in user revolt. The ability to use a laptop creates an expectation for data services and users want the ability to independently use their device, be it laptop, smartphone, or any Internet appliance to access the Wi-Fi network.

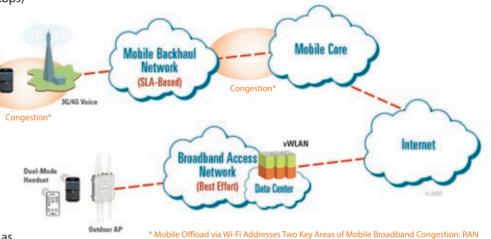
#### Wi-Fi Mobile Data Offload

The answer to this conundrum is Wi-Fi Mobile Data Offload. This solution allows service providers to utilize relatively low-cost wireless access points designed for data traffic to offload cellular data traffic from the cell network to available Wi-Fi infrastructure. Carriers have leveraged Wi-Fi for consumer services, managed services and hotspot applications, but not in the cellular network – until now. Cisco VNI Mobile projects that by 2015 some 39 percent of smartphone and tablet traffic will be offloaded.

#### Why can't public Wi-Fi service be as easy as cell service?

Cell service offers an automatic connection with automatic roaming based on global agreements, making service seamless. It requires no passwords, no log-in and is covered as part of the billing plan. However, it is expensive and rate limited. Wi-Fi, on the other hand, makes the user search for a SSID and roaming provisioning is handled by the user. There are limited roaming agreements, meaning frequent log-ins and a separate rate plan is required. It does, however, offer the benefits of being inexpensive and non-rate limited. The demand is there for a Wi-Fi solution. According to the Wi-Fi Alliance, 87% of subscribers want greater Wi-Fi availability for their device and 85 percent prefer Wi-Fi over their provider's data service. The Wi-Fi Alliance is leading the charge for an industry standard to make this dream a reality. Passpoint (also known as Hotspot 2.0) is the beginning of industry unification around a certification process. Two pieces of the standard – 802.11u and WPA2 (802.1x) have been defined. A third element regarding automated roaming accounting, billing and settlement is scheduled to be phased in during 2013.

Under the Passpoint certification, compliant devices are able to identify and associate with Passpoint networks in the background – eliminating the need for subscriber intervention, much like cell phones operate today when passing between cell towers or carriers. Another advantage is seamless network access. With Passpoint, authentication no longer requires a browser-based sign-on or a subscriber-entered password. Passpoint-enabled devices authenticate automatically. Security is also addressed with WPA2. All connections are secured with WPA2-Enterprise, which provides a level of security comparable to that of cellular networks.



Congestion and Backhaul Congestion

#### The first Step: The Vertical Model

The first step in the evolution to cohesive Wi-Fi offload is what is known as the vertical model. This model allows Passpoint devices to gain access to provider services once they have been admitted onto the network. This will address two major areas of mobile broadband congestion: Radio Access Network (RAN) and backhaul congestion.

#### Step Two: The Hybrid Offload Model (On Loading)

The next progression in this evolution is known as the hybrid model. In operator-owned networks, operators deploy backhaul and Carrier Wi-Fi access networks for mobile offload and enterprise/ metro Wi-Fi services. Third-party networks will partner with businesses to deploy managed Wi-Fi as an extension of wireline operator metro Wi-Fi services or as an extension of mobile offload. This will usher in a new revenue stream for regional wireline operators. What we need is a secure, cloud-based approach to Wi-Fi.

#### **The Solution**

The fourth-generation Wi-Fi architecture from ADTRAN Bluesocket enables scalability of the access points (APs) since the control resides on servers located in either a data center or NOC. This approach enables the AP network to scale to thousands of nodes without impacting performance. As long as the APs are Passpoint certified, these Wi-Fi networks can be rolled out with full support of seamless roaming without user intervention.

# **Accessing Increased Revenue**

by Implementing Smart-Premise Access Services

By Craig Steen
President and CEO, Clear2there, LLC

\*\*\*\*\*\*\*\*\*

For today's Local Exchange Carriers (LEC), maintaining steady and reliable revenue streams is perhaps the biggest challenge they now face. With service rates and margins trimmed down to the bone, encroachment from national cellular services, aggressive market erosion due to broadband cable companies bundled services, and the rapidly diminishing importance of the fixed line residential phone, incumbent providers have had to do all they can to hang onto their tenuous customer bases. With federal reimbursements now dwindling, the issue of decreasing revenues rises to the forefront as the LEC's most significant concern.

Yet, despite this challenging scenario, there is also a door of opportunity opening for those ready to tap into an emerging—and exciting—revenue stream. Recent advances in personal devices, infrastructure expansion, commercial market needs, and lifestyle dynamics have all perfectly aligned to make smart-premise access services the next frontier in service offerings. In addition, paradigm shifts in network management, such as the expansion of broadband services and the rapid proliferation of cloudbased technologies, combined with the explosion of next-generation sensors and devices, have all come together to make smart-premise services a viable and lucrative business to deliver across the customer base — from commercial and residential subscribers complete to institutional and agricultural operations, as well.

#### What Does Smart-Premise Mean?

Not sure of what smart-premise services entail? Here's a quick working definition. The phrase "smart-premise" refers to any location that can leverage two-way real-time, automated communication and control, as in smart-home, smart-business, and smart-farm deployments. Smart-premise services incorporate the remote access, monitoring, management and control of various systems and devices located throughout a customer premise that are designed and configured to convey information and respond to returning commands. Depending on the premise and its particular needs, these devices might fall under such categories ranging from energy management to security control — all monitored and administered remotely most likely through an Internet-connected smartphone or tablet.

Within such multi-device, multi-protocol, and multi-platform environments, the first question that usually springs to mind is: How can so many diverse devices and networks all integrate and interoperate without causing prohibitive compatibility nightmares? The answer lies in incorporating astoundingly flexible, versatile, and universal gateways installed at the "network edge." These gateways enable seamless connectivity between premise-based sensors and remote endpoint devices, as if they were all connecting and communicating across one unified network.

The edge gateway is a customer premise device that aggregates all of the various device and sensor signals into a single, encrypted stream that is delivered upstream to the Central Office (CO)-based application servers that are hosting the smart-premise services. In order to minimize maintenance and service costs, the optimal edge gateway should be remotely administered, and operate as a thin-client that relies on intelligence and direction from the server. These simple thin-client edge gateways can

support a broad variety of common device communication protocols, including the popular wireless Z-Wave, ZigBee, and WiFi standards, as well as familiar wired standards such as TCP/IP and ModBus.



#### **Typical Smart-Premise Access Applications**

Such all-purpose edge gateways allow for a variety of two-way functions, applications, and communications to take place at and across a variety of diverse environments. Here are some fundamental examples and applications:

#### **Smart-Home Access**

Typical smart-home access services include energy management applications, such as remote access and control of thermostats in multiple zones of the home. Security management applications involve monitoring sensors at doors and windows, enabling the remote locking and unlocking of doors and other entryways. Subscribers can receive streamed HD video or snapshots of entrances and other key areas of their property. In addition, more and more consumer electronics and appliances are being designed smart-home-ready, allowing for remote access, management, and control. With the home automation market projected to reach \$5.5 billion by 2015, this opportunity, alone, is substantial.



Typical smart-home access services include energy management applications, such as remote access and control of thermostats in multiple zones of the home.



#### Smart-Business Access

Similarly, smart-business access also delves into energy and security management applications; but additional manufacturing, operational, and climate control applications also become relevant, as in thermostat monitoring and management in data centers, labs, and other ambience-sensitive environments. Electrical current and voltage sensors can be monitored and controlled, as with round-the-clock management of mission-critical manufacturing or storage operations, and it can be done from anywhere in the world through a high-speed Internet connection. Real-time user-defined no-tifications of the status of crucial systems or operations can also be easily delivered and acted upon in this way.

#### Smart-Farm Access

A great challenge for agricultural environments lies in distributing real-time information and communications across, literally, thousands of acres of land. Smart-premise access services become key to the operation by linking these widely dispersed endpoints that reside within the location itself, such as in the management of automated granary operations, livestock feeding systems, and climate control requirements across diverse animal habitats. In addition, smart-farm solutions enable extensive security and property management capabilities, protecting indispensable physical assets.

#### Smart-Seniorcare Access

With "aging in place" increasingly becoming the accepted trend in senior living, adult children today require much greater access and interaction with their aging parents than simple personal emergency-alert devices can afford. Straightforward "if/then" scripts can be programmed throughout the smart service to monitor certain events based on predictable patterns and behaviors of living, such as lights not turned on at fixed times, stoves and other appliances not turned off, and doors that are left open too long. These 24/7/365 alerts can greatly improve the vigilance and attention caregivers can provide to their elderly loved ones.

Of course, the preceding examples represent but a glimpse of the enormous lifestyle and workstyle enhancements smart-premise access services can achieve. And technology advancements have now made it possible for LECs to equip themselves for delivering these profitable services immediately, both easily and cost-effectively.

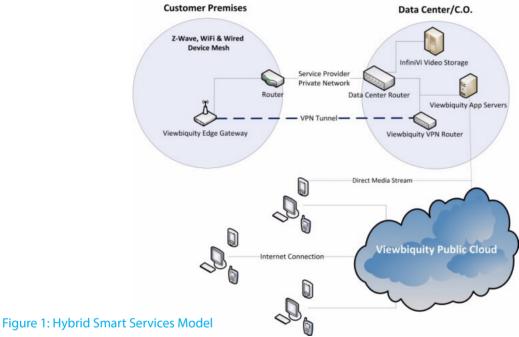


Smart-Senior Access allows seniors to continue their daily activities while their children and caregivers have the ability to monitor them without being invasive.

#### How to Do It Right

With the technology, the network, the devices, and the market all now in place for viable smart-premise access service rollout to the customer, how does the LEC now implement this offering in a way that makes it cost-feasible for both provider and subscriber? And, mind, you, cost is not the only concern. The last thing LECs also want is to do add unnecessary complexity, causing costly disruption to current infrastructure, to back office administration, or to standard billing operations. For a LEC, these all become the first and fastest reasons for quelling the adoption and rollout of any new technology.

However, LECs can easily get past these common roadblocks by implementing smart-premise access services through a hybrid deployment model. Here's how. The access services that demand significant bandwidth are the ones you'd want to manage from the CO. These would include high-definition streaming video applications, for example. The reason for this is that the "fat pipe" that lies between the CO and the premise is under your ownership and control, so you can apportion bandwidth in any way that best suits your cost and consumption needs — and you can do so without adding incremental expenses or upstream Internet bandwidth costs. When compared with competitive Internet-based video surveillance offerings, you can offer better quality video capture (up to and including High-Definition) with virtually no incremental operational costs, all by simply hosting the service in the CO.



Of course, leveraging Cloud-based services and resources for the many applications other than video makes perfect economic sense. The flexibility of connectivity and resource scaling available with Cloud platforms offers significant operational advantages and economies of scale for delivering a wide variety of services to different customer types.

With simple application servers located in the CO to manage the "heavy bandwidth lifting", linked to a Cloud-based control platform, the hybrid implementation model employs the best tool for each specific task to maximize performance and minimize cost. Critical operational functions that require flexibility but demand little bandwidth enable the hybrid solution to control the intelligence of the service offerings, provide remote customer connectivity, control authentication and secure access, and provide anywhere/anytime access for system control and maintenance — all at a very low cost.

The most easily discerned and common thread in all of these service offerings is remote access to the premise via the Internet. The virtually unfathomable penetration of intelligent mobile devices with Internet access, including smartphones and tablets over the past few years, has dramatically increased both the ability for and the expectation of information accessibility anywhere and at any time. Hybrid smart services implementations that deliver the connectivity customers expect, while providing efficient aggregation of service resources, enable LECs to quickly and effectively shape offerings to meet customer demands without making significant capital investments.

Expressed another way, the brains of the deployment can be hosted and handled in the Cloud, while the higher bandwidth communications traffic can be managed inline at the CO.

#### Going Hybrid Ensures Higher Returns at Lower Costs

Such a hybrid approach minimizes the LEC's CAPEX and OPEX investments while enabling it to offer customers high-quality access and control capabilities at highly controllable and predictable operating costs. The bottom line advantage for deploying such a hybrid platform at the CO — a program that also installs universal thin-client, premise-based edge gateways for transcoding diverse communication protocols at the customer location as needed — is an easily deployable, low-cost/low-risk smart-premise access implementation solution, resulting in a new and lucrative long-term service revenue stream that can be flexibly configured, controlled, and customized by the LEC. The elegance and beauty of this solution is that the smart-premise services can be turned on and turned off for customers as easily as any other service offering once the hybrid platform has been installed at the C.O. and the auto-configurable/auto-programmable edge gateway has been self-installed at the premise. Thus, allowing for easy and efficient monetization with the benefit of plug-n-play implementation.

Profitable and recurring smart-premise service revenues immediately begin to flow, and after a minimal upfront investment. And, from a business office standpoint, smart-premise services become just another service line item easily added to existing billing systems. They become just one more set of recurring billable features that require no special administrative handling. Moreover, the additional up-sell account penetration that smart-premise access services allows makes the LEC that much more indispensable to the subscriber, decreasing customer account churn. In addition, confidence and trust strengthens in customers who increasingly perceive their LECs as providers that understand and fulfill their evolving communications and lifestyle/ workstyle needs.

In conclusion, for a minimal investment in technology that supplements already existing CO gear, and with the self-installation of universal edge-based gateways at the customer premise, local exchange carriers can begin generating substantial recurring revenue through offering smart-premise access services. It's a lucrative line of business that virtually any operating company can leverage.





#### CUSTOMER PREMISE EQUIPMENT

# Surge Suppressors and Uninterruptible Power Supplies from PREMIER

#### YOUR FIRST LINE OF DEFENSE AGAINST SUMMER STORMS.

Spring storms bring lightning, power outages and increases in power problems. Surge Suppressors and Uninterruptible Power Supplies can help guard you and/or your customer against the spikes and outages Mother Nature brings each year and offer you power protection for all aspects of your business, including workstations, telecom and security systems.

PREMIER<sup>®</sup> offers Surge Suppressors from ITW Linx, Minuteman and CyberPower and Uninterruptible Power Supplies from CyberPower and Minuteman. So, what's standing between your equipment and the next storm front headed your way?

#### + AC SURGE SUPPRESSORS

To protect AC lines from catastrophic surges and spikes

♦ UPS (UNINTERRUPTIBLE POWER SUPPLIES)

A full line of battery backup systems for Fiberto-the-home and CPE applications (PC, key systems, PBX's, networks, etc.)



for more information call 800-755-1950 or visit www.kgplogistics.com

### Ordering Guide

KGP Logistics Item #	Mfgr Part #	Description
ADTRAN		Bluesocket vWLAN <sup>®</sup> Control and Management Software
Call KGP Logistics at 1-800-755-1950	1951900G1	vWLAN Control and Management Software: For existing VMware ESX/ESXi platforms - Required
Call KGP Logistics at 1-800-755-1950	1700900F1	vWLAN Appliance (for non-VMware environments): Bundle includes pre-loaded vWLAN software and VMware ESXi, on a 1U appliance - Required
		Bluesocket vWLAN <sup>®</sup> Access Point Software License & Options
0000376203	1951901G1	Access Point vWLAN Software License - Required
0000380944	1951904G1	High Availability Access Point Software: Provides hitless failover to secondary control instance - Optional
0000380945	1951910G1	Unified User Access Control Software for vWLAN: Supports 32 users per access point from a source other than a Bluesocket 1800/1840 AP - Optional
		Bluesocket vWLAN® Access Points
Call KGP Logistics at 1-800-755-1950	1700954F1	Bluesocket 1920 (2x2:2) Indoor Access Point - 802.11a/b/g/n wireless access point with four internal MIMO antennas
Call KGP Logistics at 1-800-755-1950	1700955F1	Bluesocket 1925 (2x2:2) Indoor Access Point - 802.11a/b/g/n wireless access point with four external RP-SMA connectors
Call KGP Logistics at 1-800-755-1950	1700950F1	Bluesocket 1930 (3x3:3) Indoor Access Point - 802.11a/b/g/n wireless access point with six internal MIMO antennas
Call KGP Logistics at 1-800-755-1950	1700951F1	Bluesocket 1935 (3x3:3) Indoor Access Point - 802.11a/b/g/n wireless access point with six external RP-SMA connectors
Call KGP Logistics at 1-800-755-1950	1700952F1	Bluesocket 1940 (3x3:3) Outdoor Access Point - 802.11a/b/g/n wireless access point with six external N-type connectors
0000376204	1700910F1	Bluesocket 1800 (2x3:2) Indoor Access Point - 802.11a/b/g/n wireless access point with six internal MIMO antennas
Call KGP Logistics at 1-800-755-1950	1700911F1	Bluesocket 1840 (2x3:2) Indoor Access Point - 802.11a/b/g/n wireless access point with six external RP-SMA connectors
		Bluesocket vWLAN <sup>®</sup> Antenna Bundles
Call KGP Logistics at 1-800-755-1950	1700939F1	A set of three 2.4GHz and three 5GHz omni-directional antennas for the BSAP-1840 - Required
Call KGP Logistics at 1-800-755-1950	1700932F1	A set of two 2.4GHz and two 5GHz omni-directional antennas for the BSAP- 1925 (one set included with AP purchase) - Optional
Call KGP Logistics at 1-800-755-1950	1700931F1	A set of three 2.4GHz and three 5GHz omni-directional antennas for the BSAP- 1935 (one set included with AP purchase) - Optional
Call KGP Logistics at 1-800-755-1950	1700930F1	A set of three 2.4GHz and three 5GHz omni-directional antennas for the BSAP- 1940 (one set included with AP purchase) - Optional
		Bluesocket vWLAN <sup>®</sup> Accessories
Call KGP Logistics at 1-800-755-1950	1700920F1	802.3af compliant Power over Ethernet (PoE) injector for BSAP-1800/1840 - Optional
Call KGP Logistics at 1-800-755-1950	1700926F1	802.3af compliant Power over Ethernet (PoE) injector for BSAP-1920/1925/1930/1935 - Optional
Call KGP Logistics at 1-800-755-1950	1700923F1	802.3at compliant Power over Ethernet (PoE) injector for BSAP-1940 - Optional
Call KGP Logistics at 1-800-755-1950	1700922F1	12V External Power Adapter for use with the BSAP-1800 / 1840 - Optional
Call KGP Logistics at 1-800-755-1950	1700928F1	AC/DC power adapter for the BSAP 1920/1925 - Optional
Call KGP Logistics at 1-800-755-1950	1700929F1	AC/DC power adapter for the BSAP 1930/1325 - Optional
Call KGP Logistics at 1-800-755-1950	1700921F1	Suspended ceiling bracket for BSAP-1800/1840 - Optional
Call KGP Logistics at 1-800-755-1950	1700941F1	Ceiling mount kit for the BSAP-1920/1925 (one set included with AP purchase) - Optional
Call KGP Logistics at 1-800-755-1950	1700942F1	Ceiling mount kit for the BSAP-1930/1935 (one set included with AP purchase) - Optional
Call KGP Logistics at 1-800-755-1950	1700943F1	Universal mounting kit for the BSAP-1940 (one set included with AP purchase) - Optional
Clear2there		Smart Premise Solutions
Call KGP Logistics at 1-800-755-1950	for more details.	
Comtrend		Cable Modems
0000358329	CM-6200un	Cable Modem, DOCCIS 2.0, Wireless, 4 Port LAN 10/100 with USB Port
0000358330	CM-6300n	Cable Modem, DOCCIS 3.0, Wireless, 4 Port LAN 10/100 with USB Port

## Ordering Guide

KGP Logistics Item #	Mfgr Part #	Description
PREMIER		Uniden Cordless Telephones
0000386294	D1780-2BT	Uniden Cordless CellLinkTM D1780-2BT, Two Cordless Handsets, ITAD, Use with Wire Line Service & up to 2 Bluetooth Cell Phones, Transfer up to 1400 Cell Contacts, Conduct Cell & Land Line Call Simultaneously, CWCID, Expand to 12 Handsets with DCX170BT
0000386295	DCX170BT	Phone Cordless DECT 6.0 Uniden Model DCX170BT, Accessory Model for D1780-2BT Series, Will not operate as standalone phone
0000366605	D3580-2	Phone Cordless Uniden CellLinkTM D3580-2, Two Cordless Handsets, ITAD, Use with Wire Line Service and Connect up to 4 Bluetooth Enabled Cell Phones, Transfer 1500 Contacts per Cell Phone, Conduct Cell & Land Line Calls Simultaneously, USB Charging Port, Speaker Phone, Caller ID Announce, Expand to 12 Handsets-See DCX350
0000366607	D3588-2	Phone Corded-Cordless Combo Uniden CellLinkTM D3588-2, Two Cordless Handsets ITAD, Use with Wire Line Service and Connect up to 4 Bluetooth Enabled Cell Phones, Transfer 1500 Contacts per Cell Phone, Conduct Cell & Land Line Calls, Speakerphone, CallerID Announce, Expand to 12 Handsets-See DCX350
0000366610	DCX350	Phone Cordless DECT6.0 Uniden Model DCX350 Accessory Handset and Charger for D3580 and D3588 Series Phones Will not Operate as Standalone phone
ITW Linx from PREMIER		Surge Protection
000003418	M4KSU	M4KSU 4 outlet AC protection
9840177500	M8KSU	M8KSU 8 outlet AC Protection
9840187500	M8COM	M8COM 8 outlet AC protection, 4 lines, 1 LL/T1, 1 LAN line protected
9848247500	MCO4X4	MCO4X4 Protects four lines using RJ-11/45 connectors
9840197500	MCO8110	Protects up to 8 lines using two 110 punchdown input & two 110 punchdown on the output
0000135817	RM3400	12 outlet Premier AC surge protection, rack mount 1U
0000101137	UP3B-235	UltraLinx 66 Block Protector - 235V Clamp, 350mA Fuse, Indicator Lights
0000126485	UP3P-75	UltraLinx 66 Block Protector - 75V Clamp, 160mA PTC, Indicator Lights
0000143847	UP3P-39	UltraLinx 66 Block Protector - 39V Clamp, 160mA PTC, Indicator Lights
0000110445	UP3P-235	UltraLinx 66 Block Protector - 235V Clamp, 160mA PTC, Indicator Lights
0000213906	MMS362P	Minuteman MMS362P has 6 outlets, 241 Joules, 600 Clamping Volts, 3-ft. cord and 2 Year Limited Warranty 2 units to a pack
0000199445	MMS370T	Minuteman MMS370T;7 outlets, RJ11, 1440 Joules, 330 Clamping Volts, 6 ft cord and \$75,000 Connected Equipment Warranty
CyberPower from PREMIER		DC Power Supplies / Battery Backup
0000172742	CS16U48V-8	Indoor 48-volt 16-watt DC Output with 8 amp-hour Battery
0000126710	CS24U12V	Indoor 12-volt 24-watt 7.2 amp-hour Battery 2-Prong Power Cord Floating Ground
0000212078	CS24U12V-NA3	Indoor 12-volt 24-watt 7.2 amp-hour Battery with 3-Prong Power Cord Floating Ground
0000241456	CS24U12V- NA3-G	Indoor 12-volt 24-watt 7.2 amp-hour Battery with 3-Prong Power Cord Earth Grounded
Call KGP Logistics at 1-800-755-1950		Indoor 12-volt 24-watt 7.2 amp-hour Battery with 2 Prong Plug Floating Ground
0000366131	CSN27U12V-NA3	Indoor 12-volt 24-watt 7.2 amp-hour Battery with 3 Prong Plug Floating Ground
0000366132	CSN27U12V- NA3-G	CyberShield DC Power Supply Indoor 12-volt 24-watt 7.2 amp-hour Battery with 3 Prong Plug and Earth Grounded
0000356280	DT30U12V-NA3	Desk Top DC Power Supply Indoor 12-volt 30-watt 7.2 amp hour battery with 3 Prong Plug Floating Ground
0000364439	DT30U12V- NA3-G	Desk Top DC Power Supply 12-volt 30-watt 7.2 amp hour battery with 3 Prong Plug and Earth Grounded
0000160649	CS50U48V	Indoor 48-volt 24-watt 17 amp-hour Battery
0000196242	CS75A12V3	Indoor 12-volt 75-watt 20 amp-hour Battery
PREMIER		Power Wire (use to connect DC power supply to ONT)
0000146379	92151A.38.17	7 Conductor Beige w/CMX Rated Outer Jacket. Wire Consists of 2 Stranded 16 Gauge Wires Red/Black and 5 Stranded 24 Gauge Wires Blue Green Orange Brown and Gray. 500 foot Reel Used to connect ONT to Power Supply
0000156503	92282.38.10	8 Conductor Beige with a CMX Rated Outer Jacket. Consists of 2 Strand 12 Gauge Wires Red/Black and 3 Pair Strand 24 Gauge Wires Blue/White Green/White Orange/ White. Wire Has an Overall Shield and Drain Wire. 500 Foot Reel
Minuteman from PREMIER		Stand-By UPS
0000174984	EN400	EnSpire 400VA/200 watt Stand-By UPS, wall mountable, 6 outlets
0000174983	EN600	EnSpire Series EN600 - 600VA/ 300 Watts Stand-By UPS, Wall Mountable, 6 Outlet
0000232866	EN750	EnSpire 750 VA Stand-by UPS with 8 outlets
0000232867	EN900	EnSpire 900 VA Stand-by UPS with 8 outlets

## Ordering Guide

KGP Logistics Item #	Mfgr Part #	Description
Minuteman from PREMIER		Line-Interactive UPS
0000291732	PRO1000RT	1000VA/700W 120 VAC Line-Interactive UPS with 6 battery backup/surge outlets 2 surge-only
		outlets USB and RS232 communication ports and fax/modem/network line surge protection UPS Minuteman PRO1100LCD is a 1100VA/770Watt 120 VAC Line Interactive UPS with
0000356437	PRO1100LCD	8 Outlets Designed for Desktop or Floor Mounting
0000291733	PRO1500RT	1500VA/1050W 120 VAC Line-Interactive UPS with 6 battery backup/surge outlets 2 surge-only outlets USB and RS232 communication ports and fax/modem/network line surge protection
0000356435	PRO500LCD	500VA/350Watt 120 VAC Line Interactive UPS with 8 Outlets Designed for Desktop or Floor Mounting
0000356436	PRO700LCD	700VA/490Watt 120 VAC Line Interactive UPS with 8 Outlets Designed for Desktop or Floor Mounting
0000187212	ETR500	Entrust 500 Line Interactive UPS With 8 Outlets 3 year warranty SentryPlus software included with all models
0000187213	ETR700	Entrust 700 Line Interactive UPS With 8 Outlets 3 year warranty SentryPlus software
0000187374	E750RM2U	included with all models Enterprise Plus 750 VA Line Interactive Rack/Wall/Tower UPS with 6 Outlets
0000187366	E1000RM2U	Enterprise Plus 1000 VA Line Interactive Rack/Wall/Tower UPS with 6 Outlets
0000187368	E1500RM2U	Enterprise Plus 1500 VA Line Interactive Rack/Wall/Tower UPS with 4 Outlets
0000187370	E2000RM2U	Enterprise Plus 2000 VA Line Interactive Rack/Wall/Tower UPS with 4 Outlets
Minuteman from PREMIER	L2000RM20	On-Line UPS
0000172528	ED1000RM2U	1000 VA 800 watt on-line UPS
0000172529	ED1500RM2U	1500 VA-1200 watt on-line UPS
	EDTSOOTINE	
TE Connectivity	C for more details	NG4Access Optical Distribution Frame Platform
Call KGP Logistics at 1-800-755-19	so for more details.	
Telect		Data Center Rack
0000386922	DR1250-84836	Data Rack Seismic 1250 36"D 28"W 84"H
0000386923	DR1250-84436	Data Rack Seismic 1250 36"D 24"W 84"H
0000386924	DR1250-84442	Data Rack Seismic 1250 42"D 24"W 84"H
0000386925	DR1250-84842	Data Rack Seismic 1250 42"D 28"W 84"H
0000386926	DR1250-84830	Data Rack Seismic 1250 30"D 28"W 84"H
0000386927	DR1250-84430	Data Rack Seismic 1250 30"D 24"W 84"H
0000386928	DR1250-84424	Data Rack Seismic 1250 24"D 24"W 84"H
0000386929	DR1250-84824	Data Rack Seismic 1250 24"D 28"W 84"H
0000386930	DR750-84842	Data Rack Seismic 750 42"D 28"W 84"H
0000386931	DR750-84442	Data Rack Seismic 750 42"D 24"W 84"H
0000386932	DR750-84836	Data Rack Seismic 750 36"D 28"W 84"H
0000386933	DR750-84436	Data Rack Seismic 750 36"D 24"W 84"H
0000386934	DR750-84830	Data Rack Seismic 750 30"D 28"W 84"H
0000386935	DR750-84430	Data Rack Seismic 750 30"D 24"W 84"H
0000386936	DR750-84824	Data Rack Seismic 750 24"D 28"W 84"H
0000386937	DR750-84424	Data Rack Seismic 750 24"D 24"W 84"H
0000386938	DR2000-84842	Data Rack Seismic 2000 42"D 28"W 84"H
0000386939	DR2000-84442	Data Rack Seismic 2000 42"D 24"W 84"H
0000386940	DR2000-84836	Data Rack Seismic 2000 36"D 28"W 84"H
0000386941	DR2000-84436	Data Rack Seismic 2000 36"D 24"W 84"H
0000386942	DR2000-84830	Data Rack Seismic 2000 30"D 28"W 84"H
0000386943	DR2000-84430	Data Rack Seismic 2000 30"D 24"W 84"H
0000386944	DR2000-84424	Data Rack Seismic 2000 24"D 24"W 84"H
0000386945	DR2000-84824	Data Rack Seismic 2000 24"D 28"W 84"H
0000386946	DR-84436	Data Rack 36"D 24"W 84"T INC TWO RAILS
0000386947	DR-84442	Data Rack 42"D 24"W 84"T INC TWO RAILS
0000386948	DR-84830	Data Rack 30"D 28"W 84"T INC TWO RAILS
0000386949	DR-84842	Data Rack 42"D 28"W 84"T INC TWO RAILS



#### KGP Logistics Website - www.kgplogistics.com

Our website has many features that help you manage your business more efficiently.

#### KGP Logistics has Added Several Enhancements to the Order Status Web Page.

#### Login and Navigation Instructions to the Order Status Web Page

#### From KGP Logistics Home Page:

Enter your Username and Password and click on Login. This will take you to the Welcome page or Select Account page depending on your account setup.

#### From Select Account Page:

If you have access to more than one account, the Select Account page presents those accounts. Simply select the account you wish to use and click the Select Account button. You will be taken to the Welcome Page.

#### From Welcome Page:

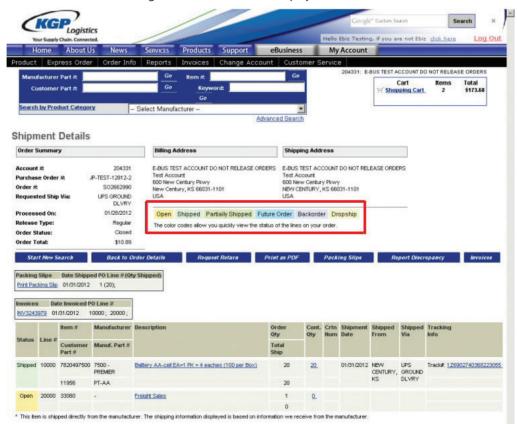
Click on Order Info, then Order Tracking from the Black Navigation bar at the top of the page. You will be taken to the Order Status landing page.

#### From the Order Status Landing Page:

If you enter your purchase order number and click continue, you are taken directly to the Order Status Details page. If you choose from the other available search options, you are presented with the Order Status Results page where you can choose the Purchase Order you wish to view.

#### New Features from the Order Status Search Results Page include:

- 1. Color-Coded Order Status per Line Make it easier to determine the shipment status of each line on the order.
- 2. RAS (Requested at Site) Date -The RAS date for each line on the order is now displayed.
- 3. Tracking Numbers Tracking numbers are linked directly to the carrier's website for easy access to tracking information.
- 4. Serial Numbers Serial numbers for each package can be found by clicking on the "Cont. Qty" links.
- 5. Packing Slips Packing slips are now available to view or print. These are displayed as a link and reference the line, quantities and ship date per packing slip.
- 6. Report Discrepancy Tab This tab allows you report Shipment and Invoice discrepancies. You can use the drop down box list of common discrepancies or state your discrepancy in the text box.
- 7. Invoice Display at Order Level Tab Clicking on the Invoices button displays the invoices associated to the order along with the lines associated to each invoice. Clicking on the invoice link will display the invoice as a PDF which can be viewed or printed.





# **Deciding on a Cable Gateway?**





CM-6200un DOCSIS 2.0 Compatible Up to 38 Mbps 4 LAN 10/100 + USB



CM-6300n DOCSIS 3.0 Compatible Up to 308 Mbps 4 LAN 10/100/1000

WHERE IS MY QR READER APP?

WILL IT REALLY LOWER OUR COST?

www.comtrend.com



600 New Century Parkway New Century, Kansas 66031-8000



## Winter 2013 Trade Shows

#### **National Trade Shows and Events**

January 20<sup>th</sup> - 24<sup>th</sup> BICSI Winter Conference and Exhibition - Tampa Convention Center - Tampa, FL

#### **Regional Trade Shows and Events**

**February 4<sup>th</sup> - 6<sup>th</sup>** 2013 Utility Telecom Forum (Regions 8-10) - Silver Legacy Resort - Reno, NV

**February 19<sup>th</sup> - 21<sup>st</sup>** CalCom Tech Expo - Double Tree Hilton - Sacramento, CA

March 5<sup>th</sup> - 7<sup>th</sup> ITA Showcase (OTA / WITA) - Holiday Inn Portland Airport - Portland, OR



Contact KGP Logistics at: 800-755-1950 www.kgplogistics.com