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The Value of Location Intelligence in the Communications Industry

WHITE PAPER:
COMMUNICATIONS

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ABSTRACT

From Business Intelligence to Location Intelligence

COMMUNICATIONS COMPANIES HAVE DATA—ENORMOUS AMOUNTS OF DATA. IS THAT DATA BEING MAXIMIZED TO ITS FULL POTENTIAL? HOW CAN IT BE LEVERAGED TO ATTRACT MORE NEW CUSTOMERS, BETTER SERVICE EXISTING CUSTOMERS AND MORE EFFECTIVELY DEPLOY NEW SERVICES? GIVEN THE VASTNESS OF IT ALL, IT CAN SEEM DAUNTING TO ADDRESS SUCH QUESTIONS. IF ORGANIZATIONS FAIL TO LEVERAGE THEIR DATA TO ITS FULLEST POTENTIAL, THEY MAY PAY A STEEP PRICE. DISCERNING COMPANIES KNOW THAT ONE OF THE MOST PROFOUND WAYS TO TAKE THE VALUE OF THEIR DATA TO ANOTHER LEVEL IS TO LEVERAGE ITS LOCATION COMPONENT.

ESTIMATES CONTEND THAT APPROXIMATELY 80 PERCENT OF ALL DATA STORED AND MAINTAINED BY ORGANIZATIONS HAS A LOCATION COMPONENT. IN OTHER WORDS, SOMEWHERE WITHIN EACH RECORD IS INFORMATION THAT CAN BE TIED TO A GEOGRAPHIC AREA.

WHAT CAN COMPANIES DO TO TAKE ADVANTAGE OF THIS VALUABLE INFORMATION?

FOR TODAY'S COMMUNICATIONS COMPANIES, RISK SEEMS TO COME FROM ALL SIDES

By using the right analytic capabilities, communications companies can access sophisticated spatial analysis tools, transforming business intelligence into location intelligence. This allows a communications company to geographically analyze, measure and compare data from business operations in conjunction with external data, such as network-asset locations, customer characteristics, revenue trending, regulatory boundaries and demographics.

Working with this type of tool, staff from all areas of an organization—sales and marketing executives, engineering leaders, analysts, etc.—can quickly visualize demand on a real-time basis. They can compare sales, including both closed deals and forecasts, and see where gaps exist. They can set up alerts that detect imbalances in supply and demand and use those alerts to initiate further action in numerous departments. And, they can reduce truck roll-outs by pinpointing where network outages occur.

For example, a marketing department could query a database geographically in order to see what resources could help increase sales in the area. Or a business development manager could query the map to see what channels are active in the area and to determine which sales managers are responsible for supporting those channels. Ultimately, connecting all parts of the organization by a central knowledge base and allowing every member of a team to visualize and query the data in the most intuitive manner possible—via maps—can allow organizations to capitalize fully on opportunities.

Hard Science for Communications Providers

For today's communications companies, risk seems to come from all sides. Cable, wireless and wireline providers face ongoing challenges related to industry consolidation, service convergence, increasing competition and—in some cases—an aging infrastructure.

WHAT CAN COMMUNICATION COMPANIES USE LOCATION INTELLIGENCE TO DO?

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- Determine the most cost-effective and profitable network design by modeling alternative build-outs in relation to customers, potential customers, competitors and other network assets.
- Track and analyze trends in product sales and revenue growth to identify areas with the highest revenue potential.
- Track and analyze “promo lift” or marketing campaign effectiveness by evaluating those that received specific marketing material, and identifying those that purchased to gauge the success of marketing efforts.
- Track and analyze trouble tickets and outages to get a better understanding of trouble causes and take steps towards proactive repair of issues.
- Track, analyze and visualize traffic and capacity to pinpoint over and under utilization of network.
- Determine the characteristics of their most productive customers.
- Identify geographic concentrations of their most productive customers.
- Identify specific services that their customers are most likely to purchase.

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In this context, now more than ever, companies simply cannot afford to make decisions by acting on gut feelings or reacting to competitive pressures. Instead, they can mitigate some of that risk by developing a strategic approach that incorporates location intelligence. By doing so, carriers can replace an inexact art with some hard science, posing a key set of “where” questions and basing their decisions on the answers.

Some examples:

- Where are our network assets?
- Where are our current customers?
- Where are our potential consumer and commercial customers—and how can I reach them?
- Where do our competitors do business?
- Where are shared network boundaries, operating centers and franchise areas—and how can we leverage them?
- Where are we vulnerable to competition?
- Where is the competition vulnerable?

At their best, location intelligence solutions combine software, data and services to help organizations measure, compare, visualize and analyze data in powerful new ways. By adding location as a critical dimension in the decision-making process, communications providers can identify relationships between and among network infrastructure, existing customers, industry boundaries and potential customer demographics in both business and consumer areas.

By implementing a sound location analysis strategy, cable, wireless and wireline providers can intelligently move beyond the “build it and they will come” deployment strategy and increase their potential for success. Let us look at how.

Cable. Using location intelligence analysis, cable providers can identify all of the high-bandwidth businesses within a market area based on industry modeling and make sales, marketing and even network growth plans based on this information.

Wireless. Providers can manage RF propagation, network capacity and backhaul, all while analyzing demographic segmentation and traffic patterns.

Wireline. Providers in this segment can accurately gauge market potential and ROI for FTTH (fiber to the home) deployments.

In the end, communications providers who truly wish to plan, predict and make decisions with greater accuracy can rely on location analysis to help them do so. Once they have successfully evolved into location intelligence, they can expect to see an impact on their bottom line.

Now, let us look in greater detail at how location can impact each of our three key industry segments—cable, wireless and wireline.

1. Cable

Fundamental shifts are occurring in the way cable service providers access, disseminate, analyze and store information. For example, decisions on where to introduce new services take into account a number of location factors—existing plant, customer demographics, potential for revenue growth and competitive presence.

Similarly, call centers must quickly and effectively respond to customer inquiries, identifying outage areas that require fast resolution, accurately determining services and pricing for potential customers and upselling additional services.

But even while a vital link exists between communications and location, the available information is rarely used together. As a result, its full potential is rarely realized. The result is that many carriers lose out on market opportunities and revenue.

What happens when cable providers add the right location intelligence tools to the mix? Suddenly, they are able to:

ALL AROUND THE COMPANY — THE IMPACT OF LOCATION INTELLIGENCE IS IMMENSE

- Ensure address standardization, cleansing and validation.
- Share CAD-based information by converting CAD to other formats.
- Use aerial imagery to make more accurate design and planning decisions.
- Roll out VoIP more effectively.
- Use detailed business and consumer demographics to maximize ROI on targeted sales and marketing campaigns.

All around the company—from network engineering to operations to marketing—the impact of location intelligence is immense.

Network Engineering

What product is a cable provider actually selling? When you get right down to it, more than anything else, they are selling their network. A network built on gut feeling and rough estimates faces long odds for succeeding. But a network informed by the hard science of the latest location intelligence data can be built, designed, maintained and optimized with great confidence. Some examples follow.

How can cable providers anticipate problems and make necessary network modifications before customers experience loss of service?

Network engineers can use location intelligence tools to perform visual analysis of traffic patterns and volumes.

How can companies get a better sense of when and where to grow?

Network planners can leverage location data to intelligently assess expansion options.

Operations

As was previously mentioned, not all cable companies are adept at tapping into the location component of their information. Unused data yields no benefit. On the other hand, using location intelligence tools lends companies

quick access to information and answers to previously unanswerable questions like these:

Where are service trucks relative to network sites?

Operation managers can use location intelligence to get a real-time view and flag sites with outages.

Where exactly are planned network outages or emergency repairs?

Customer service representatives can check and pass information along to customers.

What are the exact locations of facilities at job sites?

Construction managers can utilize detailed maps to find exact locations, avoiding costly repair and loss of service from construction mishaps.

Sales and Marketing

Cable providers can use location intelligence tools to increase sales and improve marketing efforts. Using location-based analysis, they can target potential customers and determine what types of services might be most popular in a given area based on household income and family size variables. They can also solve the relevant queries highlighted below.

How can companies geographically pinpoint their sales and marketing campaigns?

Marketing teams can overlay network usage data with publicly available demographics.

Then they can use this information to target marketing efforts toward a specific audience, determining which services will be marketed in each area and designing rate plans accordingly.

How can providers increase their ROI?

Product managers can design and market products and services that map directly back to existing demographics, network capacity, revenue and customer location information.

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How can providers do more cross-selling of additional services?

Customer service representatives can base efforts on specific customer geographic location information in relation to the network.

How can companies root out churn?

Marketing managers can analyze churn by location, with cross references to network outage and performance, competitive and demographic indicators.

2. Wireless

Wireless providers face a unique and demanding set of challenges. Location intelligence capabilities can make a world of difference to them in everything from RF propagation to customer demographics, backhaul network design to drive-time analysis.

Here is a look at how location makes a big difference all across the wireless enterprise.

Network Engineering

How can wireless providers use location intelligence to plan for network expansion?

Location analysis allows wireless providers to view and analyze all of the location factors involved in network design and management to ensure that the network is optimized.

After all, companies considering network expansion must first model and evaluate variables such as topography, demographic data, clutter and building height.

How can network design teams balance the variables that comprise the wireless network landscape?

Location data can help them consider wireless license area boundaries, E911 PSAP areas, backhaul networks and even the underlying local exchange infrastructure.

How can wireless providers best optimize their network?

By using location intelligence, they can view and analyze all of the location factors involved in network design and management.

Operations

How can wireless companies manage extremely complex retail distribution networks?

The entire retail distribution network for a wireless carrier can include tens of thousands of retail locations. Location analysis can help wireless providers optimize their distribution channels to achieve the right balance and maximize ROI.

Sales and Marketing

How can location intelligence help wireless companies assess customer potential?

Wireless providers can analyze existing and potential customers via demographic analysis and segmentation. By analyzing their existing customer base, carriers can determine the characteristics of their most profitable customers and know where to look for additional clusters of high-value prospects.

How can wireless companies efficiently expand marketing efforts?

Location data and demographic analysis enable wireless providers to expand coverage, introduce new services and reach their targeted marketing audience in the most effective way possible.

3. Wireline

Wireline networks are fast evolving in an effort to support voice, video and data delivery over the access network.

Location intelligence has a major role to play as the evolution continues apace—by including a location analysis component in the planning strategy, carriers can capitalize on numerous opportunities.

Here is an overview of how location makes a big difference all across the wireline enterprise.

COMMUNICATIONS COMPANIES HAVE ENORMOUS AMOUNTS OF DATA, BUT IT IS WHAT THEY DO WITH THAT DATA THAT COUNTS

Network Engineering

How can location intelligence help wireline carriers leverage infrastructure data?

Staff can use location data to see where existing telephone network assets are and how infrastructure data can be leveraged. Companies can determine which wire centers have the highest concentrations of potential customers that fit their profile and make decisions regarding FTTH deployment based on this analysis.

How can location intelligence help wireline carriers leverage competitive information?

Location analysis can reveal which competitors are operating within specific telephone network boundaries, the number of customers they have in those areas and which services they are offering, along with their pricing models.

Operations

How can wireline companies swiftly determine if and how they can serve a customer?

Staff can quickly and accurately pre-qualify prospects and determine important information such as serving central offices, wire centers, rate centers, PSAP, feature availability, rates and call plans.

Sales and Marketing

How can location intelligence help wireline carriers assess customer potential?

Staff can visualize where current voice and data customers are physically located, where concentrations of high-value potential subscribers are and, most importantly, where these groups intersect.

How can location intelligence help wireline carriers pinpoint marketing campaigns?

Marketing teams can make targeted efforts towards only those geographic areas that have the highest density of high-value potential subscribers.

Pitney Bowes Software and Location Intelligence

Pitney Bowes Software has long held a leadership position in the location intelligence arena, presenting customers with complete solutions that encompass software, data and services. In the communications space, evidence of this leadership is not hard to find: the majority of tier one providers currently rely on Pitney Bowes Software for its location intelligence technology.

The Pitney Bowes Software client experience in the communications sector is extensive, including 40 of the top 50 communications providers in the world¹ and nine of the top 10 communications providers in the United States², not to mention hundreds of small and medium-sized communications providers the world over.

Pitney Bowes Software helps cable, wireless and wireline companies develop a sound strategy for leveraging their business intelligence, turning it into true location intelligence and impacting their bottom line.

FOR MORE INFORMATION ON PITNEY BOWES SOFTWARE LOCATION INTELLIGENCE, GO TO WWW.PB.COM/SOFTWARE.

1. Based upon the Global 50 Carrier Index 2. Based upon the Fortune 500 (2006)

Summary

Communications companies have enormous amounts of data, but it is what they do with that data that counts. By using the right tools and integrating sophisticated mapping directly into their data, providers can transform business intelligence into location intelligence.

By utilizing location analysis tools, different departments—from network planning to operations to sales and marketing—can stay ahead of supply and demand issues, proactively manage their networks and attract the best customers more easily than ever before.

Ultimately, connecting disparate parts of an organization via a central knowledge base and allowing broad access to data allows organizations to capitalize more fully on opportunities and paves the way for greater success down the line.



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