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PIPELINE / VOLUME 20 / ISSUE 6

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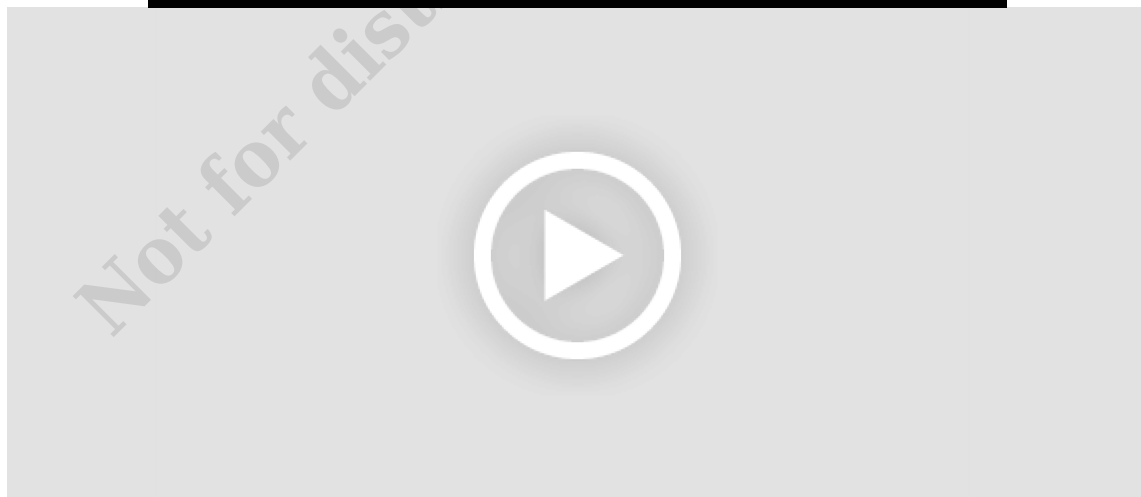
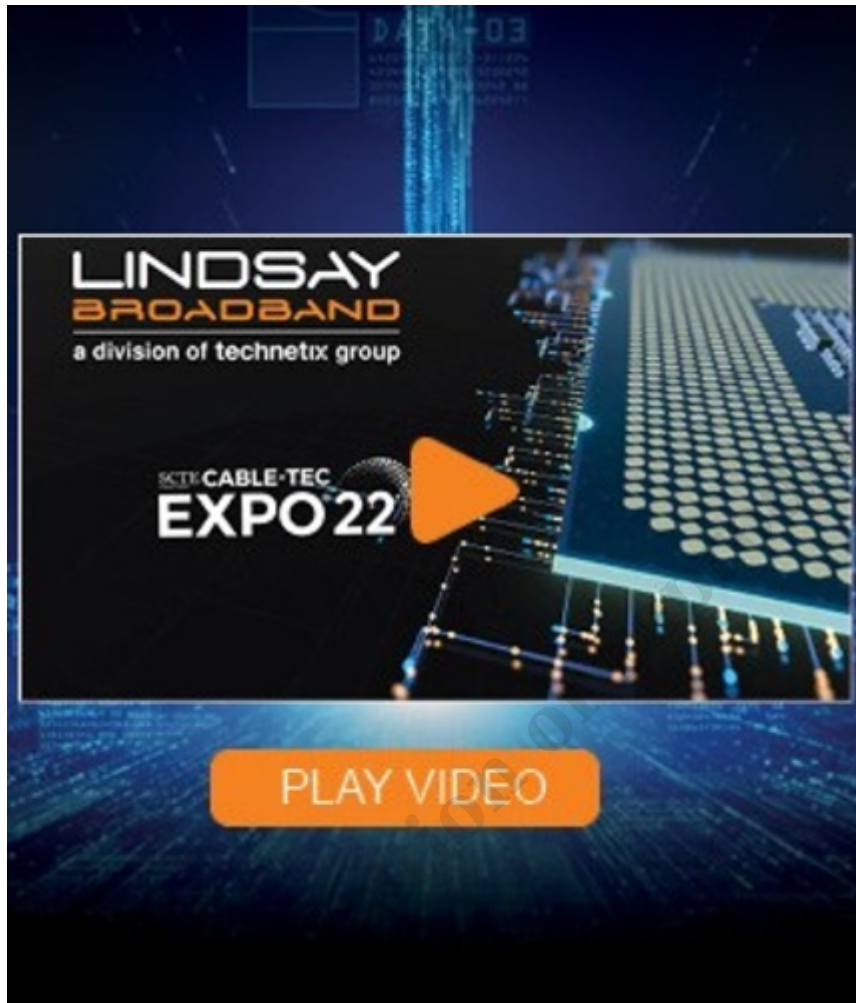
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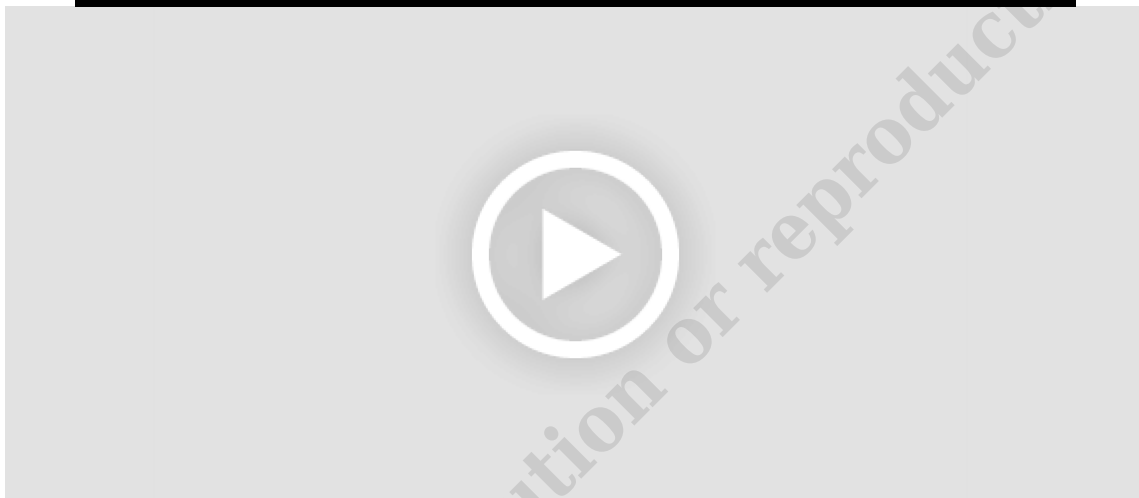
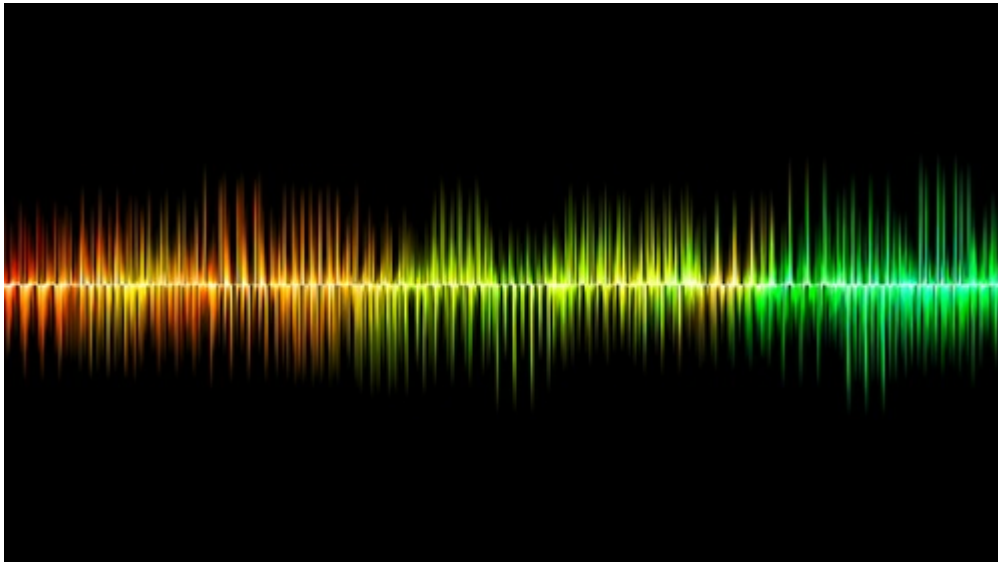
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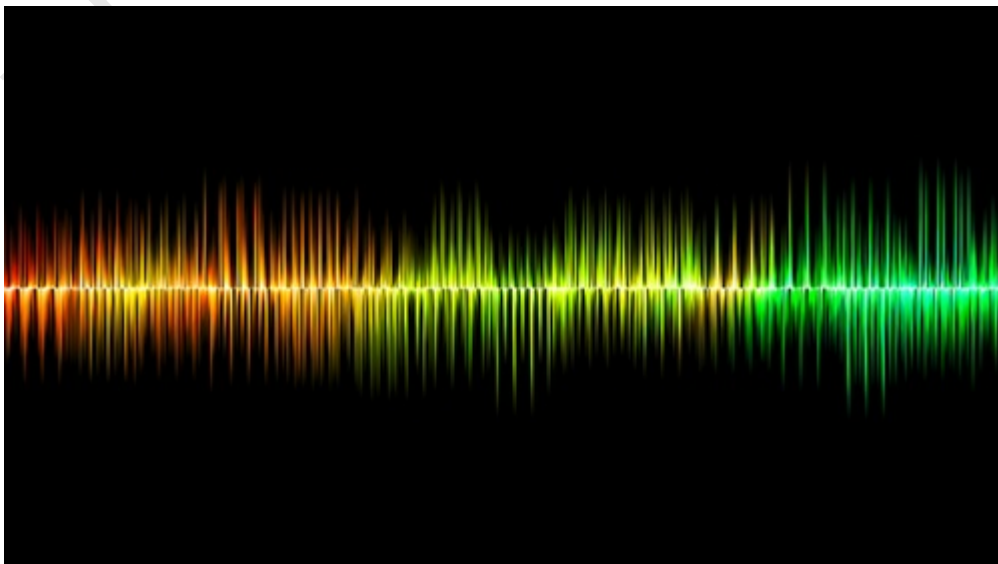
End-to-End Solutions for Broadband Networks

In case you missed Lindsay Broadband - a division of Technetix group at the SCTE Cable-Tec Expo, this video highlights the must-have, end-to-end solutions for your network.



Predicting Colonial Pipeline: Mitigating Risk and Compliance

Mitigating risk and compliance for lawful intercept using lawful intelligence is explored in this Pipeline article feature SS8. Learn how CSPs can comply with lawful intercept regulation, while empowering law information with critical, real-time data.





Podcast: The Evolution to 6G

The world's eyes are already looking forward to the potential of 6G. Demands resulting from innovative use cases, for instance specific requirements from different industries and other user groups, as well as overarching goals like sustainability, are driving the standardization and development of mobile technologies.

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The Impact of Transformation

*A Dynamic Panel Discussion Featuring
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The Network Transformation Imperative

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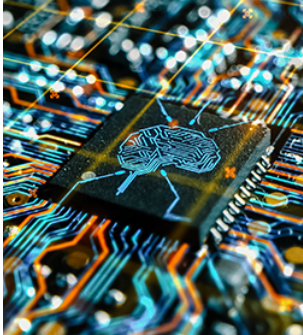
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software solutions

CHR provides integrated business solutions that address today's needs while positioning for future revenue streams, such as cloud based services. CHR software is available through traditional on-site licensing, through our supported cloud service model, or Software as a Service (SaaS). Our cloud based and SaaS options provide all the benefits of a traditional on-site license, and the platform hardware, operating systems, and a team of highly skilled professionals – all in a hosted environment without the upfront capital expense. SaaS and cloud based software are served from one of our four data centers and managed by CHR's 24x7 NOC services team.



ORDER MANAGEMENT (ORDER TO CASH)

CHR's Order Management accelerates cash flow with an integrated order-to-cash process – providing a faster path to revenue, improved operational efficiencies, and higher customer satisfaction. Order Management supports complex product bundling, parallel and sequential order flows, and end-to-end automation from order capture to fulfillment. Our intuitive tool makes it easy to identify and correct errors. Order Management provides robust pricing and promotion capabilities to include bundling and discounting. We provide a complete solution for credit analysis, order entry, fulfillment and billing.

PRODUCT LIFE CYCLE MANAGEMENT

Clearly defined products drive order entry and service fulfillment. CHR's Product Life Cycle Management takes a product through design, approval, release all the way to retirement. Our team of experts partner with you to craft products that meet customer demand in alignment with available technology and support infrastructure. Products are able to be built by component and managed with expiration dates. Throughout the product life cycle CHR works with you to adapt to new business models, added products and services.

CUSTOMER CARE MANAGEMENT

CHR's Customer Care Management is a powerful tool which provides you a 360 degree view of the customer—allowing you to review all relevant information about a customer's account, add new locations, and launch a service order to add or change data. Customer Care Management offers a combination of search, inquiry and order entry tools. Our unique "accounts-at-a-glance" feature provides flexibility for the CSR to manage their view of the customer—helping the CSR deliver efficient and effective service. CHR's Customer Care Management delivers the right tools and necessary authority for CSRs to solve client problems—improving quality of care and reduction in issue resolution time.

CHR Solutions
.com

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The Cable Customer of the Future:
More Autonomous, Mobile & Personalized
3 Key Trends that will Dramatically Change the
Cable Industry Over the Next 5 Years
CSG International | May 2012

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Rethinking Communications to Improve Retention

Transitioning from campaigns to ongoing dialogues

WHITE PAPER
COMMUNICATIONS

Jeff Michelson - Vice President of Global Marketing,
Customer Analytics & Interaction,
Pitney Bowes Software



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*An Excerpt - BRIDGING THE OSS/BSS GAP –
STRATEGIES FOR DYNAMIC ORDER MANAGEMENT
(OSSCS 11-11)*



January 2011

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Digital transformation, which is the key for higher agility, efficiency, cost reduction and improved customer experience, is inevitable for CSPs to survive in the new digital economy. However, large-scale digital transformation projects are expensive and risky and may take years to complete. Meanwhile, agile competitors are eroding your market share. Speed to digitalization is imperative.

Why Etiya's Digital Business Platforms?? Etiya Digital Business Platforms, unlike legacy BSS, will create real value for your business. They do not only provide technical capability, but offer an infrastructure to create an all-digital customer experience, with the personalization and flexibility demanded by Connected Customers. All this in a matter of months, while ensuring business continuity and, at the same time, reducing traditional BSS costs.

Advanced technology to enable better customer focus Etiya's AI expertise and platform capabilities are used to differentiate the BSS platform via better customer insights, more personalized customer experiences and increased process automation. Knowing your customers' behaviour and needs allows personalized customer interactions and service targeting, and supports smart decision making during the customer journey, that will ultimately drive both customer and employee efficiency and satisfaction.

Etiya uses innovative AI technologies, including natural language processing (NLP) techniques and predictive analytics in its platform to help companies transform their businesses and reduce costs.

Modular, flexible, cost effective and scalable digital solutions Etiya Digital Business Platforms are 5G ready, agile, end-to-end, and fully virtualized digital platforms. They are cloud-native, full-stack platforms that are pre-integrated into partner solutions and include all Etiya's product portfolio: Customer Relationship Management (CRM), Customer Service Management (CSM), Configure, Price, Quote (CPQ), Product Catalog, Order Management, OmniChannel Management, Billing and Charging and API gateways. They support both B2C and B2B customer segment operations.

Since the platforms use a modular, API-driven architecture, they are flexible. CSPs can select to launch a full-stack new BSS platform, to replace their legacy platform, or modernize it step-by-step, by choosing which platform components they want first and add new solutions, as needed, later.

Its cloud-compatible implementation significantly reduces up-front CapEx, and all this enables fast implementation and a cost-effective digital transformation. And easy scalability also means, that the costs grow as the business grows.

Etiya real-time, automated digital platforms use microservices to speed time-to-market for new products and enable easy experimentation with new business models and service concepts.

How does it work? Etiya Digital Business Platforms contain three main layers: Experience, Engagement, and Enablement. Data analytics, AI, and business intelligence functions are used to add intelligence to these layers and enable personalization, process automation, and efficiency.

Etiya Digital Business Platform Solutions			
Digital Experience	Online self-care, E-commerce, Mobile App, Content Management	Open APIs	Data Analytics, AI, Business Intelligence
Digital Engagement	CRM, CPQ, Offer Management, Rewards & Loyalty, Community Management, CSM, Recommendation Engine, Order Management		
Digital Enablement	Product Catalog Management, Charging & Rating Management, Billing Management, Partner Management, Policy Management		

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Case Studies

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MDS BillAnalyzer

Deliver clear e-bills to business customers, provide the management information and customized reporting they need to effectively manage their accounts and services, simplify integration with existing infrastructure, improve ROI and reduce risk.

Consolidated e-billing and Analytics for Business Customers

Communication Service Providers (CSPs) are faced with the challenge of how to increase revenues and drive up profitability despite intense competition and slow growth in core markets. One revenue growth strategy being pursued is to expand into new business areas and increase the range of products offered. However, this expansion can increase billing complexity and have a negative impact on customer experience. As business customers represent a significant source of revenues for CSPs, it is imperative to deliver increasing levels of value to customers while reducing complexity and minimizing the cost to serve.

Businesses are demanding access to tools that enable them to view their consolidated bills, analyze usage, leverage business intelligence reports and control the cost of the services they use across their organization. CSPs need to satisfy this need to differentiate from the competition, attract and retain key customers, and efficiently deliver a superior customer experience.

MDS BillAnalyzer

MDS BillAnalyzer is a sophisticated e-billing and analytics application that allows you to present an integrated view of products and services to business customers. It provides a seamless customer experience from disparate billing systems and allows business customers to manage their consolidated bills in a convenient manner that eliminates the need for paper bills. Powered by the Lavastorm Analytics Engine, MDS BillAnalyzer provides light-touch integration capabilities to deliver rapid go to market and low-risk deployment that capitalizes on existing infrastructure.

MDS BillAnalyzer



MDS BillAnalyzer Analytics Dashboard

Advantages for CSPs

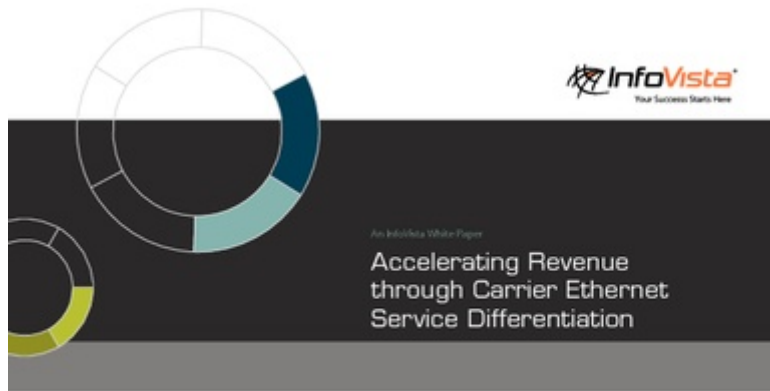
Single View of Products and Services

MDS BillAnalyzer has been designed to be billing-system agnostic. It streamlines the task of bringing together information from multiple billing systems, presenting the customer with a single, converged view of their services. Its non-intrusive ETL functionality and standard APIs simplify the capture of data from multiple sources, provide data synchronization and assurance, support data enrichment for presentation, and offer rapid system integration with low project risks and costs.

Single View of Customer

With MDS BillAnalyzer, CSP care staff and relationship managers can view bill and usage data in the same way as customers. It provides them with a holistic view of the customer and their services, enhancing first-time call resolution and helping staff to have a better understanding of the true value of the customer.





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Convergys Perspective Paper

4G Services: Getting pay for play

Insights and new survey data on leading communication service providers' 4G strategies

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Customer-Focused Experience Management Must Be an End-to-End Process



By Susan McKeon and Sheryl Kingstone | June 2011

Key Takeaways

- The new market reality for communications service providers (CSPs) is to transform their business around their customers.
- Yankee Group believes enhancing customers' experience is CSPs' last remaining opportunity for real competitive differentiation.
- Today's CSP operations infrastructure is neither meeting the needs of customers, nor is it as cost-effective as the competitive market requires.
- CSPs must have an end-to-end perspective on customer experience.
- Intelligent, interactive operations software is key to delivering on this perspective.
- Transformation to customer-centric operations requires a process-based overlay to existing operations.

A Good Customer Experience Is Essential in the Connected World

CSPs are experiencing pressure for a fundamental transformation due to the hyper-convergence of connectivity, media, mobility and devices. In a world where product differentiation leads to short-term success, customer-centricity is paramount. But unlike earlier times, managing customer experience is not simply a matter of capturing customer information and order requests. Today's reality requires CSPs to evolve from an operational service strategy to a more customer-focused experience management model. This is the only way they can differentiate from the competition as they strive to increase customer loyalty and overall spend.

Likewise, CSPs are grappling with economic and ecosystem challenges. Iconic devices such as the BlackBerry and iPhone have stimulated customer demand for more sophisticated tools and services, changing their connectivity lifestyles. In the past, innovation was constrained by less feature-rich phones with architectures proprietary to specific CSPs. The new world order, however, is driving change across consumers, devices, data connectivity and application ecosystems (see Exhibit 1 on the next page).

The Customer Is Now in Charge

Yankee Group first identified the concept of the Anywhere Consumer[®] in 2007 as a class of consumer that demands connectivity at the core of their every activity. This point of view influences their buying behaviors, from the devices they acquire and the services to which they subscribe to the applications they download.

Today, we sharpen our focus beyond Anywhere to connected experience. This takes customers to a new world of always-on connectivity, smart devices with intuitive interfaces and cloud-based content and applications, all delivered according to the customer's expectations, including:

- More channels of interaction, e.g., mobile and social networks
- Immediate delivery of content and applications
- The latest digital lifestyle solutions

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Small-to-Medium sized Businesses (SMBs) are looking to leverage the latest technology in order to improve and efficiently grow their businesses. Many SMBs are now looking for Next Generation Operators (NGOs) who offer compelling, integrated business solutions that are quick to implement and easy to manage. This SMB market represents a new opportunity for many operators and Sigma Systems helps NGOs tap into the SMB market by providing them with all the necessary components to efficiently design, deliver, and manage next-generation business services.




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- Central Office
- Headend/Hub
- Network Ops Center
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- Switching Center
- Customer Premise
- APOP/Data Center

We identify and implement infrastructure solutions that meet your technical needs, timelines, and financial requirements!

CHR understands that traditional communications isn't just Voice, Data, and Video services anymore. Knowledge and expertise of current and emerging technology is our business, and our staff is experienced in applying those technologies to replace revenues that are eroding under pressure from changing demographics and competition. We don't provide a quick fix, we partner with you every step of the way and work to provide long-term solutions.

“CHR's designs build better in comparison to other Engineering companies.”
—a Utility Construction Director

Who Are We, You Ask?

CHR is a leading provider of engineering, billing software, and managed services for communications service providers. Our legacy was built by providing comprehensive services to the independent and rural carriers for all of their network and business needs. We have taken that knowledge and created specialized programs, most notable being Outside Plant, FTTH, wireless, access equipment, network and switching design. Our industry experts help clients grow revenue and reduce cost through operational efficiencies and enhanced customer experience.

Our Experience is Your Advantage

- 75+ years of service to broadband providers
- Professional Engineers, certified in 44 states
- Surpassed 2 million FTTH packages designed
- Secured over \$2.5 billion in private and government funding
- Completed over 300 RUS loan designs; helping clients acquire Federal funds
- Prepared applications and design engineering for 50+ RUS/FCC-funded projects

Why CHR?

CHR provides holistic program and project management and has the experience and success to deliver overall network deployment projects. We are an industry leader with intimate knowledge of large and small broadband providers, including power, fiber, radio, and cable. Our Infrastructure Engineers and Project Management resources are experienced in construction, which heavily influences our design methods, resulting in lower build costs.

CHR can deliver an end-to-end solution or a subset of individual projects, such as engineering designs. A project manager will be assigned to work with our subject matter experts to lead your project from beginning to end, delivering all aspects. We take on complete ownership of delivery, including managing all partner agreements and performance.

BUILDING THE FUTURE WITH BROADBAND



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Omnia360™ Product Bulletin

PLATFORM

- Centralized Customer Management
- Dynamic Product Catalog
- Powerful Business Analytics
- Market-Leading CRM

MODULES

- Account Management
- Billing
- Product Catalog
- Case Management
- Order Capture & Management
- Financials
- Service Activation
- Dashboards
- Facilities Management
- Sales & Marketing
- Capital Credits



- **Improve Monetization Opportunities** with a unified customer view and increased pipeline visibility
- **Simplify Business Systems** with a complete, pre-integrated back office solution
- **Elevate Customer Experience** with consistent customer interactions

A dynamic, pre-integrated billing and CRM solution that brings together your entire business ecosystem.

Omnia360 transcends traditional billing platforms with a complete “out-of-the-box,” pre-integrated customer relationship management and billing solution. Available as a fully-hosted cloud-based solution or on-site license subscription, our next-generation solution empowers communications service providers (CSPs) with a client-centric model for service differentiation and rapid deployment of new services, especially within the Enterprise space.

Leveraging Microsoft Dynamics® CRM, Omnia360 best-of-breed software platform delivers a comprehensive, turn-key back-office solution for CSPs to monetize new, untapped revenue opportunities.

Centralized Customer Management

Omnia360 provides a holistic view of your customers. Within a single screen, service providers can view all billing, accounts receivable, orders, and service details. Our solution helps drive operational efficiencies by empowering you to enforce business-specific rules, create custom fields, and even integrate third-party applications with simple point-and-click customization.

Dynamic Product Catalog

Omnia360 delivers a dynamic, centralized product catalog enabling the selling and fulfillment of next-generation products and services, such as cloud services, productivity solutions, unified communications, and Voice over IP products — all while enabling traditional voice, video, and data products. This unlimited product flexibility capability helps optimize sales accuracy while reducing the time it takes to complete the entire concept-to-cash cycle.

Powerful Business Analytics

It is critical for management to be able to monitor business performance. Omnia360 maintains a single scorecard that covers sales, marketing, and customer service. Thanks to the minute information provides in-line charts, with drill-down intelligence to visualize service data, identify trends, and uncover new insights.

Market-Leading CRM

Combine the familiar Microsoft® Office 365 user interface with powerful CRM software to maximize marketing effectiveness, win more sales, and enrich customer service interactions. Leveraging the power of Microsoft Dynamics® CRM, marketing and sales professionals are equipped with flexible segmentation tools, simplified campaign management capabilities, lead-to-cash visibility, real-time sales forecasts, and much, much more. Customer service specialists are empowered with tools that simplify case management, streamline escalators, improve knowledge sharing, and enable more effective account management, all while helping to contain service costs.

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