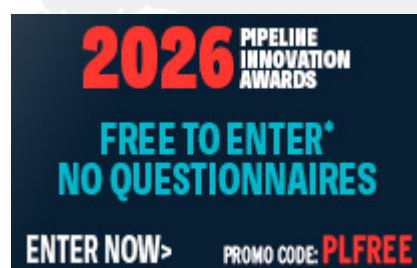


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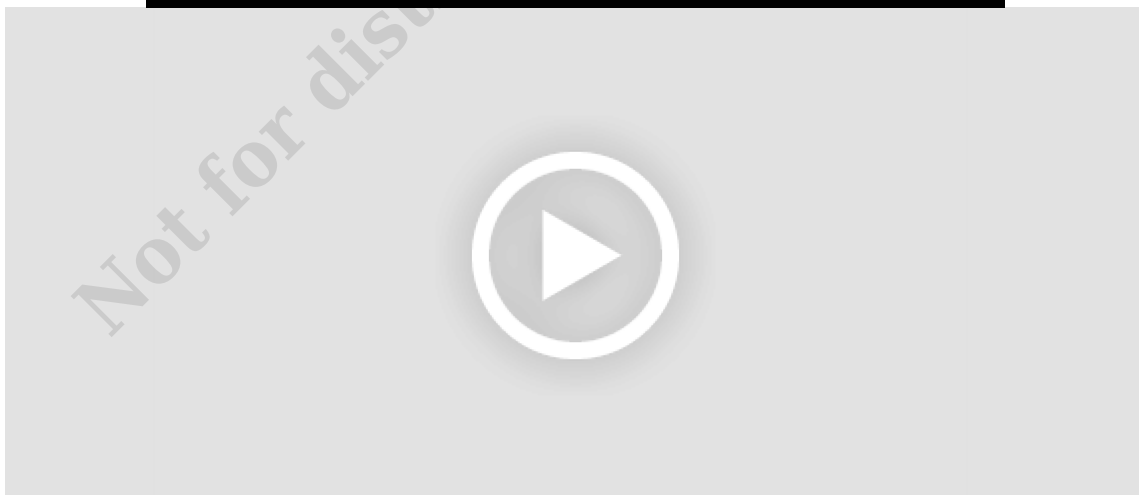
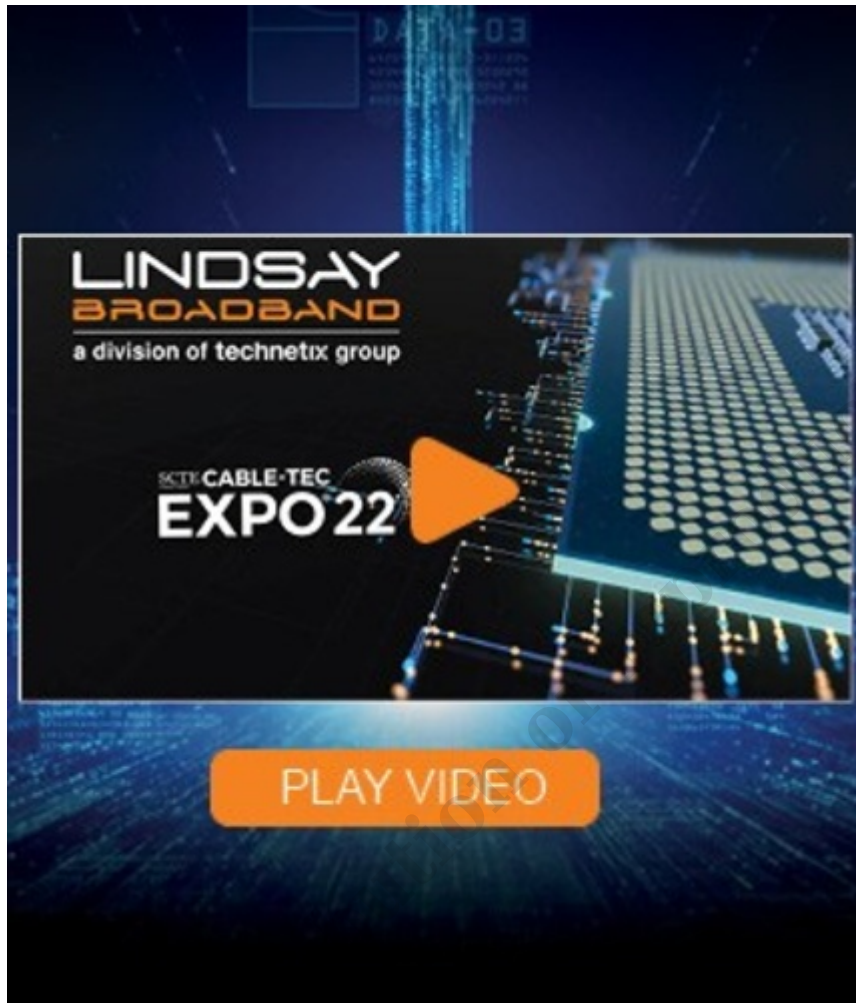
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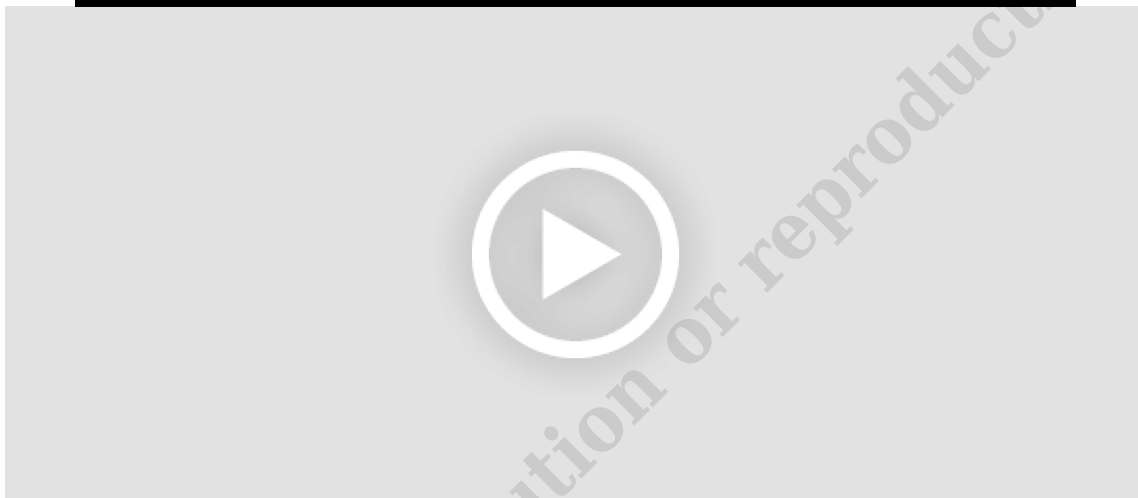
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End-to-End Solutions for Broadband Networks

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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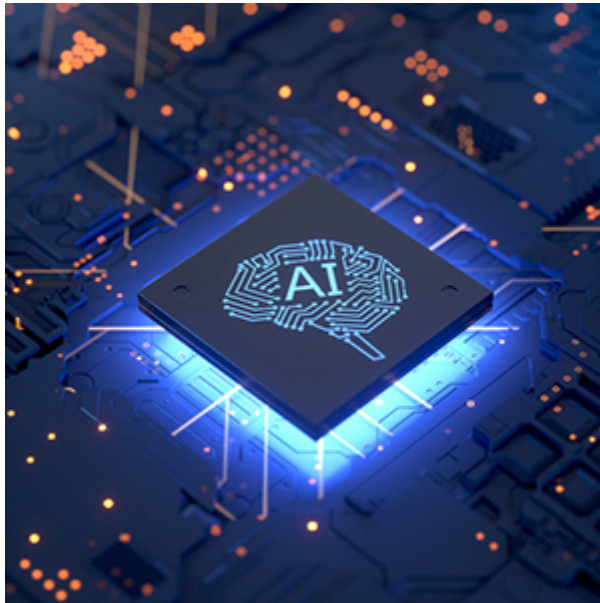
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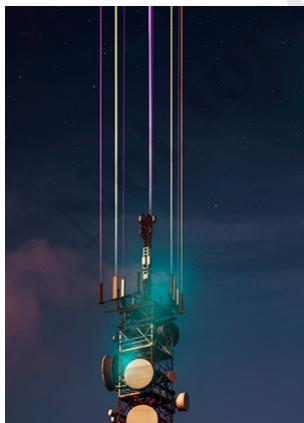
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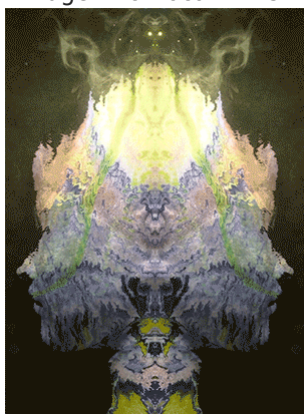
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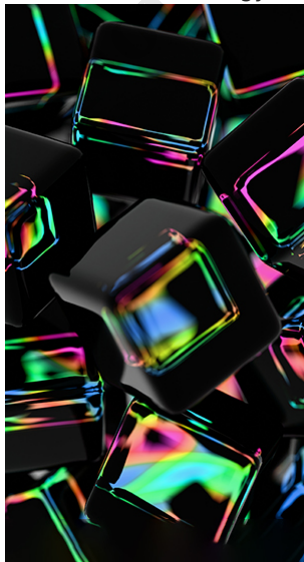
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**SPOTLIGHT**
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Customers expect organizations to be aware of their distinct preferences and to interact with them on an individual basis rather than as part of customer segments or groups. Providing each person with individualized messaging, offers, and products ensures a personalized customer experience.

Toward Superior Customer Experience: Building Blocks for Personalization

November 2022
Written by: Eren Eser, Associate Research Director, Services, IDC Türkiye

Introduction

Customers have always wanted a hassle-free experience in their interactions with brands. In the meantime, customer expectations for smooth and enjoyable experiences are constantly changing and evolving due to the ever-accelerating pace of digital technology and advances in the market. In parallel with its growing importance among customers, customer experience (CX) has become a strategic concern for businesses. According to IDC's Future Enterprise Resiliency and Spending Survey, enhancing customer experience was enterprises' top business goal globally for a five-month period (September 2021–January 2022, inclusive).

Customer experience now has significantly less friction thanks to developments in customer experience technologies across advertising, marketing, commerce, sales, customer service, and more. However, focusing purely on technological advancement without considering the human connection in CX projects hinders organizations in creating and sustaining emotional connections with customers.

Differentiating by efficiency or product is doomed to failure. The return on investment for efficiency improvements will eventually be close to zero at some time in the near future. The capacity to differentiate at the product level has been hampered by technology because every new product feature or function can easily be copied by rivals and introduced to the market. Customers now consider brand experience their key criterion for choosing which items to buy and use, since they perceive less differentiation at the product level, with products essentially identical in terms of desired features.

AT A GLANCE

KEY STATS
According to IDC research:

- Improving customer experience is a top business priority for most enterprises.
- Personalization improves engagement rates by 35–40% versus non-personalized communication.

KEY TAKEAWAYS

- Customers now view personalization as the default engagement standard.
- Organizations can differentiate themselves and achieve a long-term competitive edge by offering highly personalized customer experiences.



Customer Centric Marketing for the Telecommunications Industry

A strategic approach to marketing
for customer retention and business growth



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Case Study

**Mobility: Transforming their OSS
landscape with Comptel solutions**

January 2015

Dean Ramsay and Justin van der Laan

Ref: RXB98

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Info Directions Earns Place on Inc. List as One of America's 5,000 Fastest-Growing Private Companies

5,000 Fast-Growth Companies Report Aggregate Revenue of \$214 Billion

VICTOR, August 13, 2009 – Inc. ranked software engineering firm Info Directions, Inc. on its annual ranking of the 5,000 fastest-growing private companies in the country. The list is the most comprehensive look at the most important segment of the economy – America's independent-minded entrepreneurs. Taken as a whole, these companies represent the backbone of the U.S. economy.

"Our third annual Inc. 5000 continues the most ambitious project in business journalism," said Inc. 5000 Project Manager Jim Melloan. "The Inc. 5000 gives an unrivaled portrait of young, underreported companies across all industries doing fascinating things with cutting-edge business models, as well as older companies that are still showing impressive growth."

Established in 1996, Info Directions is an Independent Software Vendor (ISV) that designs, hosts and installs billing, CRM and point of sale solutions for mobile, wireline and IP-based telecommunications service providers. Info Directions' software solutions, including its benchmark CostGuard® and Lexsys Point of Sale™ products, help service providers eliminate the complexity of selling, activating, managing, billing and caring for customers. Info Directions also appeared on the Inc. 500 list in 2001.

"It is rewarding to be recognized by Inc. for accomplishing our strategic growth initiatives. We share this Inc. acknowledgement with our clients, who leverage our software solutions to create the new business models and superior customer experiences that drive both their growth and ours," said Don Culeton, president of Info Directions. "Innovation is one of the primary tenets on which Info Directions is built, and appearing on this list reinforces the importance of investing in our position as a leading developer of telecommunications billing, CRM and point of sale applications."

Despite the ongoing recession the aggregate revenue of the 5,000 companies that made the list increased to \$214 billion, up \$29 billion from last year, with a median three-year growth rate of 126 percent. Most important, the Inc. 5000 companies were engines of job growth, having created more than 1 million jobs since those companies were founded. Complete results of the Inc. 5000, including company profiles and an interactive database that can be sorted by industry, region, and other criteria, can be found on www.inc.com.

CSP ENTERPRISE PRODUCT MANAGEMENT: THE SOLUTION TO ORGANIZING THE FACTORY AND THE STORE

A model for getting organized

In running a retail store, there are some basic principles that everyone understands about products and inventory. For a start, the Sales staff rely on knowing exactly what they have to sell – what is in stock, what options are available and to whom, what the lead times are for special orders, etc.

Purchasing needs the same information to know when to source additional stock to match customer demands and to find suppliers that can deliver.

And Marketing and Product Management need to know which products are doing well, which ones need refreshing or retiring and where to focus their next product campaigns and development ideas.

The common thread across these departments is the need to service the customer with the right products.

To that end, the idea of product is at the center of the retail universe. The retail business is all about procuring, marketing and selling products, with business success clearly linked to product success. Retail success is therefore heavily dependent on factory supply – the product design, build, warehousing, and distribution tasks associated with making the products the retailer wants to sell.

Communication Service Providers (CSPs) certainly share the same challenges of the physical product retailer, especially when it comes to determining and then supplying the products that customers will find attractive and want to buy.

There are a few important differences for a CSP, given the fact that CSP products are mainly service offerings that they often supply themselves. Services are not lined up in boxes on shelves. Services are not shipped from distant factories whenever stocks run low. Still, services *are* products. They must be designed, manufactured and packaged.

The underlying service delivery capability must be in place before the services can be delivered, just as the factory – for the retailer's product must be operational before a retailer can expect to have that product to sell. And like any other products, services are subject to supply limitations – their delivery is constrained by network and systems capacity and capability, and by the ability of the organization to manage the delivery and support of those services.

With this dual role as Wholesaler and Retailer, CSPs have all the same requirements as an automotive company for the manufacturing, management and supply of products, on a day-to-day basis as the orders flow in from the customers and on a longer term basis as products are created, delivered, and eventually retired. But while everyone in most any CSP company understands the primary importance of products, too many CSPs continue to mishandle products across this chain in a fragmented and uncoordinated way. They simply do not have either the day-to-day or long term viability of their products that is essential for profitable performance.



Business Process Outsourcing services



CHR provides a full suite of Business Process Outsourcing (BPO) services to enable Communication Service Providers (CSPs) to meet the escalating competition, reduce operating and capital costs, and address the increased complexities of converging technologies that make it challenging to run their business. CHR's BPO Services, on average, can reduce your operating costs ten percent (10%) to forty percent (40%). Your business could avoid hundreds of thousands, and in some cases millions of dollars of capital expenditures while improving your operational effectiveness at a fixed and predictable price.

NOC SERVICES

CHR provides 24x7 Managed NOC Services for CSP core networks and ISP operations. Our NOC is staffed with technical experts armed with the latest technology and world class best practices to assure your network and systems uptime. We can operate as Tier 1 to Tier 4 support, or as a backup or nighttime coverage for your staff.

IT MANAGED SERVICES

CHR provides 24x7 IT Services for your internal IT operations. Our IT Service is staffed with technical experts armed with the latest technology to assure your internal IT network and systems uptime. We can advise and guide you on world class best IT practices and provide a single service desk that can deliver Tier 1 to Tier 4 IT support 24x7 or as a backup or nighttime coverage for your staff. Our services include all end-user support, systems patching, data backup, remote control, spare and virus scanning, systems administration, monitoring and planning.

ISP SERVICES

CHR's 24x7 Managed ISP Services provide world class customer support—leveraging CHR's tech support expertise, real-time network monitoring and convenient customer communications portal, cloud based e-mail, backup services, spam and virus filtering, hosted content management systems and webinars. We provide support options including management and troubleshooting into the end customer's premise based equipment.

GIS/CAD SERVICES

CHR's GIS/CAD Services provides a turnkey solutions for managing all plant and operational CAD records in our cloud based systems. Our technical support, proven process and systems assure business continuity, improve operational efficiencies and reduce reporting errors through real-time geo-referenced intelligence. GIS/CAD services empower the client to make more informed decisions with active and relevant data. CHR's GIS/CAD is scalable and highly customizable—capable of integrating with any GIS system.

BILLING SERVICES

CHR provides turnkey back-office management including system updates, administration, reporting, running billing and all other aspects required to operate your business. CHR can provide this function on our cloud based systems or your on-site systems – even if it's not our BSS/BOSS solution. We will apply our best practices and industry expertise to reduce your operating costs and improve your operations.

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
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Communication is our lifeblood. It's what makes the world run and gives our lives meaning. Though technology evolves, the desire to seamlessly and securely access and exchange information anywhere, anytime never changes. While technological advances make communications simpler and more ubiquitous, efficiently interconnecting disparate applications, networks and devices and delivering it to the right person, at the right time, in the right way is enormously complex.

Creating a globally connected world is what iconectiv does better than anyone. Our cloud-based Software as a Service (SaaS) solutions and **trusted communications platforms** spin network and operations management, numbering, business-to-consumer communications and fraud prevention.

At iconectiv, **our vision** is a world without boundaries, where the ability to access and exchange information is simple, seamless and secure.

And **our mission** is enabling the world of tomorrow through the simple, seamless and secure interconnection of networks, devices and applications.

business principles

With unparalleled leadership and legacy in global communications, iconectiv strives to make connectivity:

simple – making the systems and processes that are extraordinarily complex, comprehensible

seamless – simplifying information exchange, on a global scale, and making it instantly available

secure – entrusted with the critical data that makes the world run



Reports

Prepared for Progress Actional
February 2009

**The Total Economic Impact™ Of
Progress Actional Management For
Interconnected Applications**

Implemented by a communication and media service
provider

Project Directors: Paul Devine and Sebastian Seihorst



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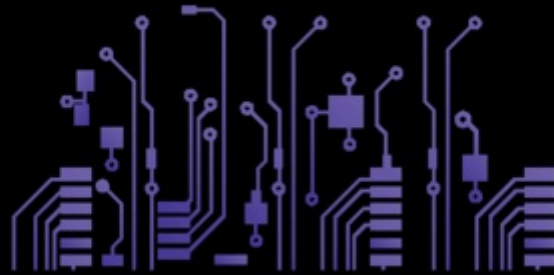


A Revolution in Evolution

Policy Control and Mobile Broadband's
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GSM v. CDMA: Technical Comparison of M2M Technologies





**Know Your Customers, Keep Your
Customers: Five Key Benefits of
Using Automated Surveys to
Gauge Customer Satisfaction**

CSG International | September 2011

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Living on the (Network) Edge:

A TELECOMMUNICATION PROVIDER'S GUIDE TO MAKING THE MOVE

The Internet of Things (IoT) is not new. Neither is the rapid rise of connected devices or customers' demands for instantaneous service. These are realities of digitalization. While they have become normalized, they are by no means the final destination on the journey to digital transformation. They are merely the first wave of the transformation process. In their wake, the next round of changes is brewing. These changes will require providers turn their focus to the periphery of their networks and get closer to their customers. This next frontier for providers to conquer? The Edge.

networktransformation.fntsoftware.com



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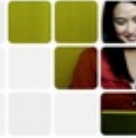
Network Automation Blueprint

A best practice reference architecture for achieving secure & reliable digital services



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CSG Point of View: Making the Most of Policy Management



"It is now generally agreed ... that the market focus for policy control and its related technologies has shifted from basic traffic management to enabling the implementation of real-time discounting, upselling, cross-selling and a range of mobile broadband services as yet unimagined. Fundamental to the realization of this bright new and hopefully profitable future is the requirement for close integration between OLC (On-Line Charging) and the PCRF." Informa Telecoms & Media

Profitability as well as Control

The exponential growth of mobile data traffic has been well-documented. According to Cisco, mobile data traffic in 2010 was three times the size as that of the entire global Internet in 2000. As a result, Communications Service Providers (CSPs) have understandably been scrambling to control the amount of traffic on their networks before the networks get swamped and customers get more than disgruntled.

On its inception, many pundits lauded policy management as the solution to cure all network woes. CSPs could throttle back heavy users, avoid congestion and keep customers happy.

But this approach has limitations, since the heaviest users are potentially the heaviest spenders. Policy management practices restrict their usage without exploring other, more profitable mechanisms for traffic shaping. Mechanisms that can earn the CSP revenue as well as offering the CSP – and importantly the customer – control over their own destiny.

'Policy 2.0' has emerged as an improved model for CSPs – add some charging to policy management to enable operators to extract revenue from the high-end users, not just restrict their access/ bandwidth/ usage.

While this development goes some way towards delivering on the potential that policy management has to offer, it does not go far enough. True integration of policy management with sophisticated online charging provides the opportunity not only to manage

bandwidth and even gain revenue, but to deliver truly innovative solutions to service providers, to offer compelling value to customers and a competitive advantage in the market.



Policy Management Develops

Initially, faced with the dramatic growth in data on their networks, CSPs turned to policy management to fix particular, urgent problems. They needed to protect their network – and quickly.

Subsequently, CSPs have taken a more holistic approach to policy, implementing more scalable solutions that address multiple issues across the business.

Today, there is increasing recognition that charging needs to be utilized alongside policy in order to grow revenue. When combined with policy, charging can be used, for example, to offer top-ups to customers who are about to exceed their download cap, providing the



How to Succeed In Wireless Backhaul

A Whitepaper: State of the Industry and Suggestions for Success
Joe Conn, Sr. Director of Wireless Engineering

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Evaluating the Emerging Market Opportunity
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