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PIPELINE | VOLUME 20 | ISSUE 4

# PL

**SATELLITE IOT**  
**FOR MISSION-CRITICAL APPLICATIONS**

THE COURSE TO

# 6G

**NEXT GEN**  
**WIRELESS LAN**

DELIVERING

# 5G

**MOBILE CHARGING**  
**2024 WI-FI TRENDS**  
**WIRELESS SUSTAINABILITY**

**DELIVERING**  
**IN-BUILDING**  
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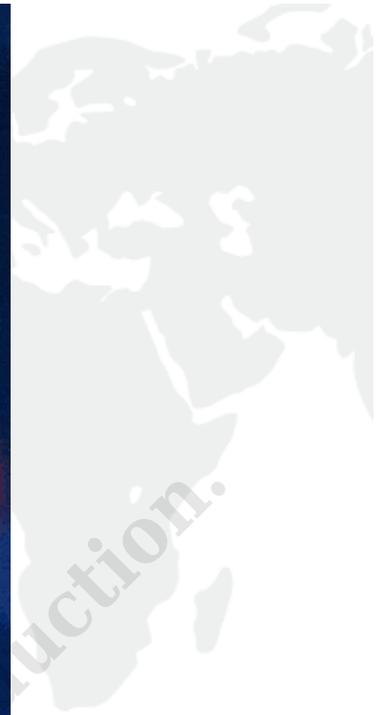
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A Dynamic Panel Discussion  
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Business to Restore Coral Reef**

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**Nokia and NTT Demonstrate  
All-photonics Network  
Technology**

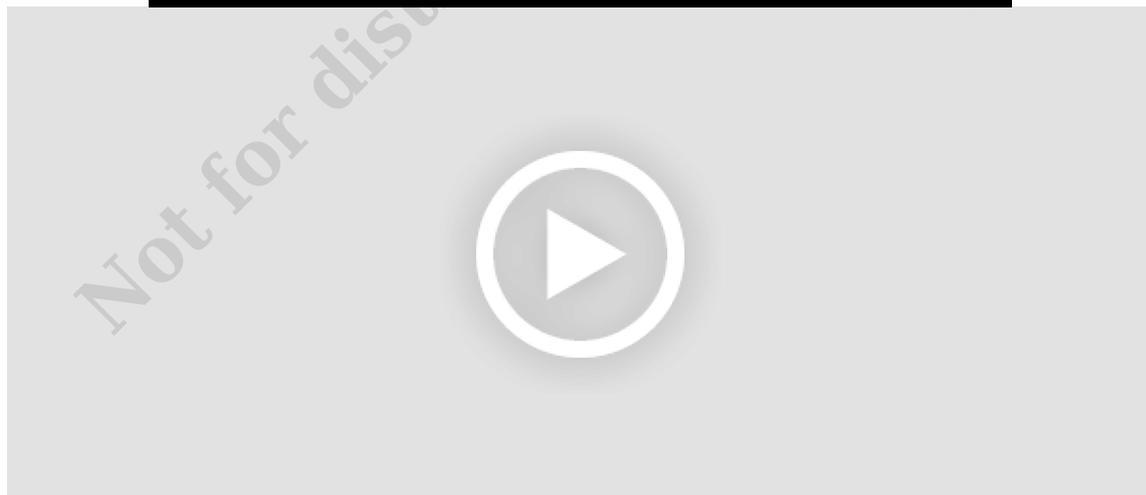
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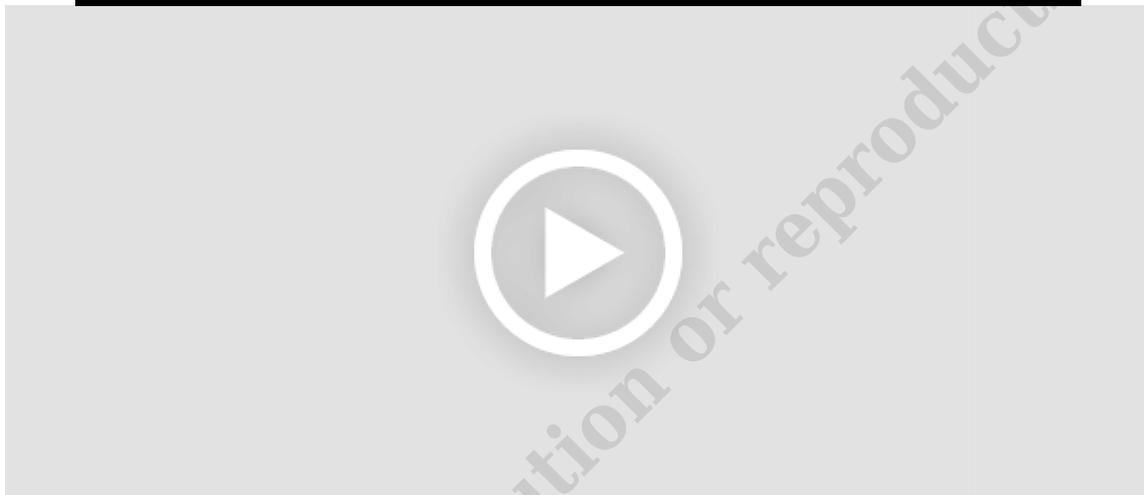
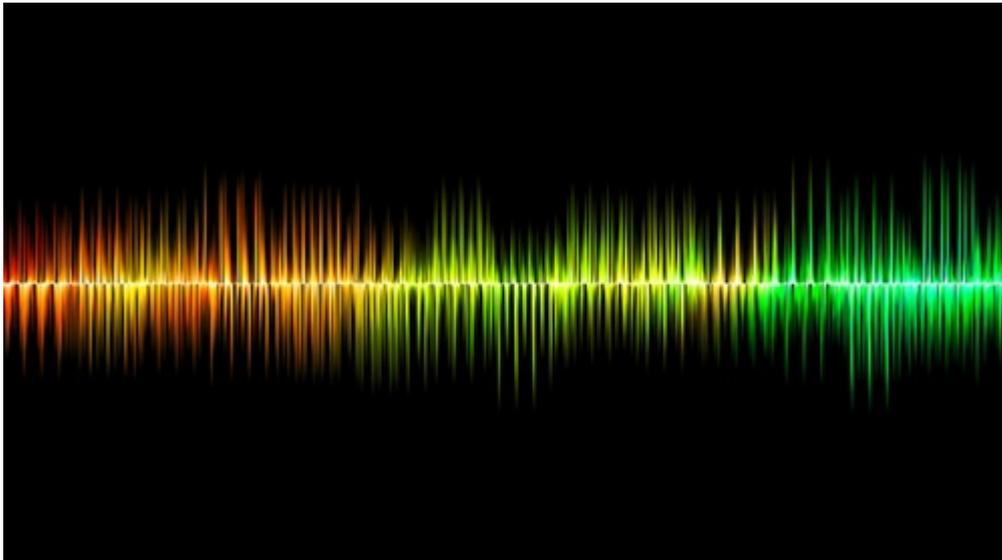
## Featured Content

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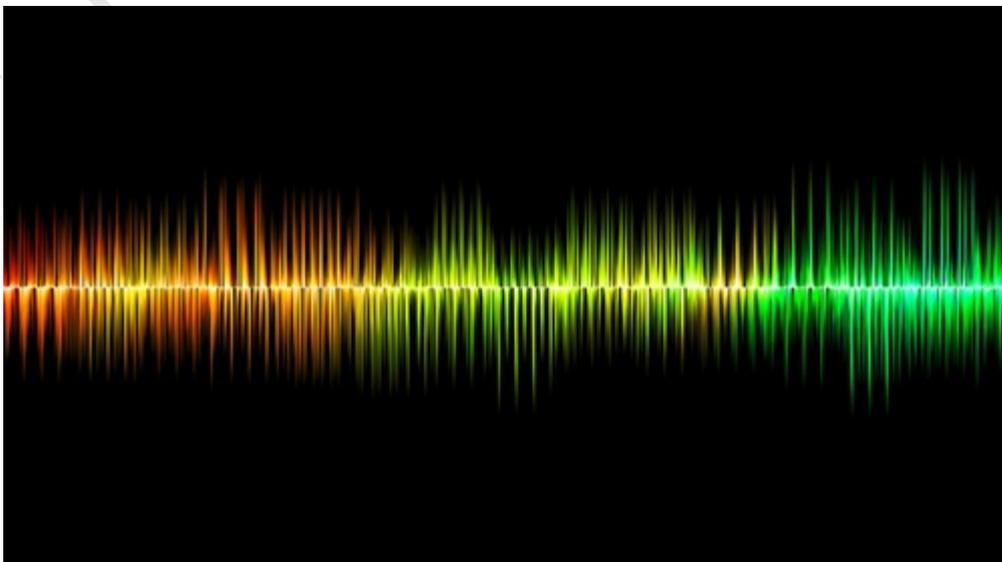
### End-to-End Solutions for Broadband Networks

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  
The Industry's Top Thought Leaders*



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## The Network Transformation Imperative

*A Dynamic Panel Discussion Featuring  
The Industry's Top Thought Leaders*



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## Agile Architecture for Digital Innovation

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Customer-driven Networks



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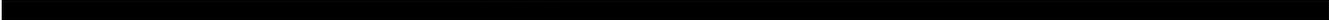
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The Power of Access PoPs  
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## MATRIXX CONVERGENT CHARGING

As communications business models evolve and mature, marketing organizations are constantly creating new services, payment models are evolving, and devices are becoming increasingly sophisticated. Customer segments are becoming more defined and granular, and what once was either a prepaid or a postpaid relationship has grown into a multi-faceted array of payment options. These mix and match payment methods also provide options to charge physical goods to a mobile account or access personal funds as a customer would at a bank.

Devices and access methods are also multiplying making the picture yet more complex for service providers. Their subscribers have a choice of Smartphones, set top boxes, tablets, PCs, laptops, gaming consoles, and mp3 players to access services via cable, DSL, FTTH, 3G, Wi-Fi, Wi-Max and new LTE networks. However, competition is fierce and network access charges are becoming commoditized.

Communications service providers are challenged with rising above these complex operational and service delivery environments to focus on the customer. Regardless of device, access method or

payment option, customers should be presented with compelling, integrated service bundles that are intuitive and customizable to fit their personal needs. Convergent charging applications play a key role in delivering a differentiated and consistent customer experience as they provide the central link between services, payment methods, and devices.

MATRIXX Convergent Charging provides a highly flexible, hyper-efficient application that runs on low cost, commoditized hardware and which easily integrates with existing billing systems. It helps the marketing department and the business implement initiatives to strengthen the brand and increase customer value while providing dramatic scale and driving cost out of operations.

### Increase Customer Value

MATRIXX Convergent Charging enables service providers to better monetize their portfolio of services and content and increase customer lifetime value. It provides a flexible and configurable set of pricing, charging and balance management features so that service providers can quickly and cost-effectively implement a convergent charging layer without disrupting existing IT and network assets.

### Functional Highlights

- ▶ Bundle products and services together regardless of access network
- ▶ Quickly deploy new pricing models, promotions or discounts
- ▶ Manage balances and payment relationships
- ▶ Develop and implement loyalty programs and preferred pricing
- ▶ Track and enforce usage quotas, allowances and credit limits
- ▶ Bundle services together to provide cross-product discounts
- ▶ Roll out the same offers across prepaid and postpaid subscribers
- ▶ Share balances across devices, such as sharing a data allowance across a laptop, tablet and Smartphone
- ▶ Create prepaid/postpaid hybrid offerings

### MATRIXX Software

779 E. Evelyn Ave | Suite E | Mountain View, CA 94041 | [matrixx.com](http://matrixx.com)

## Mediation for the Changing Business Environment

Mediation as a BSS/OSS Interaction Layer in Anticipation of Telco 2.0

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Enterprise Customer Experience Transformation with  
e-billing and e-care

MDS 2010 White Paper Series



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**White Paper**

**Managing Complex Multi-Enterprise  
Selling & Ordering Process Critical for  
Next-Gen Order Management Solutions**

Prepared by

Ari Banerjee  
Senior Analyst, *Heavy Reading*



[www.heavyreading.com](http://www.heavyreading.com)

On behalf of

***Sterling Commerce***  
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[www.sterlingcommerce.com](http://www.sterlingcommerce.com)

November 2010

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## Going Global with M2M: What You Must Know to Control Costs

To launch a successful global M2M deployment, service providers and enterprise customers should first develop a plan that takes into account diverse cultures, languages, regulations, technologies and pricing. This Aerus White Paper outlines how differing regions and individual countries can create challenges in certification, support, and cost control and recommends actions to avoid these pitfalls.



## The Ultimate Edge: Building a Lunar Network

Robert Brumley, co-founder and chairman of Commstar



**NEERAJ PATEL**



## Surveys

## How business processes contribute to performance

A survey of Operations Managers in  
airlines, corporate banks and  
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January 2011

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SS8 Networks provides the fastest and simplest way to collect, monitor, analyze, and visualize lawful interception data. For more than 20 years, we have been evolving and innovating to match the changing needs of Communications Service Providers (CSPs) and Law Enforcement Agencies (LEAs), while delivering comprehensive solutions that are easy to use and optimized for the best results.

Our solutions make analyzing, enriching and managing complex data sets simple, helping LEAs stop organized crime, catch criminals, and prevent terror attacks. For CSPs, we provide a trusted foundation for meeting regulatory requirements efficiently and effectively.

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Artificial Intelligence (AI) has become one of the most powerful, transformative technologies that enable the development of new business models, new product/service offerings, and business ecosystems in many industries. AI technologies help organizations to enhance performance and productivity by enabling effective automation which provides larger revenue increases, greater cost reduction, and higher customer loyalty.

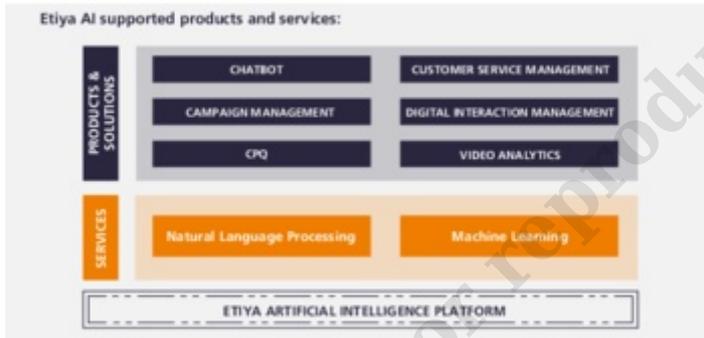
<b>Why Etiya's AI Platform?</b>	Etiya uses the building block of future technology, artificial intelligence technologies, and enables automation between service and operation processes. It allows companies to be able to offer personalized services and propositions through emotional, contextual predictions and recommendation mechanisms.
---------------------------------	---

<b>Advanced capabilities with ML &amp; NLP</b>	Etiya AI Platform, Cognitus, is an advanced artificial intelligence platform that provides standardization, simple and centralized management, monitoring and improvement, easy ROI detection and measurement, fewer implementation failures, and scaling with its advanced capabilities along with advanced machine learning and natural language processing services.
--	---

<b>Multi-language Support</b>	The platform currently supports Turkish, English, French, and Spanish languages. In addition to these, developments continue to support more languages in a short time.
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<b>Increasing Revenue &amp; Reducing Costs</b>	Etiya also offers innovative and experience-oriented approaches that will contribute to the digital transformation of the corporate processes of companies and create cost advantages with Artificial Intelligence-Cognitus supported products and solutions in its product portfolio. At this point, Cognitus which is also located at the heart of Etiya product architecture, works in harmony with all Etiya's products, solutions, and services and enhances their features with AI capabilities.
--	--

These AI-supported Etiya products and solutions enable effective automation and operational productivity by making information understandable in different business areas.



# The Business Potential of NFV/SDN for Telecoms

How a Network as a Distributed Cloud can Reshape Itself to Better Serve Customer Applications

## What will you learn

- What are the potential benefits of implementing Network Function Virtualization (NFV) and software-defined networking (SDN)?
- How to transform the (access) network towards a distributed cloud platform capable to reshape itself dynamically to better serve customer applications?
- How to run network functions and customer cloud applications on the same hardware?
- What are the benefits of collocated network functions and customer applications for improving customer experience?
- Why is it essential to implement control via policies in the NFV/SDN scenario?
- How does BSS/OSS support NFV and why should OSS work in real-time?

Network Function Virtualization (NFV) appears to be a very promising, yet very disruptive, technology. At its simplest, NFV is about decoupling software from hardware and enabling the implementation to run on a farm of commodity hardware. In other words, it means placing network functions (NF) in the cloud.

### The Potential Benefits of NFV/SDN technology

From the perspective of network operators, the new technology entails the ability to become a real cloud provider in a new sense, where a network is no longer simply an access network to data centers. On the contrary, the network can become a cloud serving as a platform for customer applications, and it can dynamically reshape its architecture to meet customer needs. This revolution is possible thanks to combining NFV and software defined networking (SDN) technologies, which means that networks can adapt by being reprogrammed. Moreover, network nodes can also become part of distributed data centers that not only can host network functions, but also host applications. From the perspective of customers, this means that applications can be moved "closer to the customer," entailing lower latency and higher speed, thus leading to better customer experience.

The technology also promises to open the network to innovation from the software developer ecosystem. Instead of rigid networks that are difficult to adjust to different application needs, the network is to be programmable, ready for the era of the Internet of Things (IoT), where applications can have their own virtual networks programmed.

From the cost savings point of view, the liberation from dedicated (expensive) hardware in favor of commodity (cheap) hardware promises to reduce CAPEX (capital expenditure). Also, the idea of a purely software-based network reconfiguration should reduce OPEX (operational expenditure). This may not be that obvious if one of the goals is to make the network more dynamic, reshaped to meet the needs of applications and thus be much more complex to control, when a traditional approach to network management is taken.



From the cost savings point of view, the liberation from dedicated (expensive) hardware in favor of commodity (cheap) hardware promises to reduce CAPEX (capital expenditure). Also, the idea of a purely software-based network reconfiguration should reduce OPEX (operational expenditure).

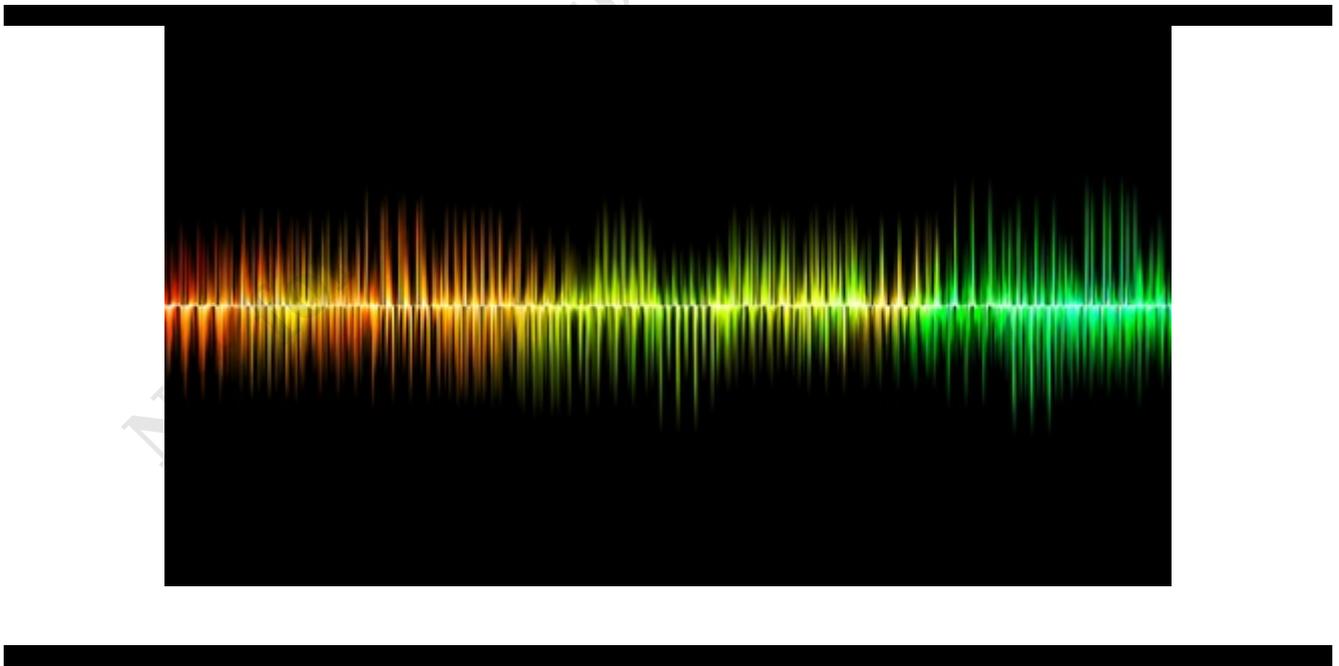
**JEVERA**  
software solutions

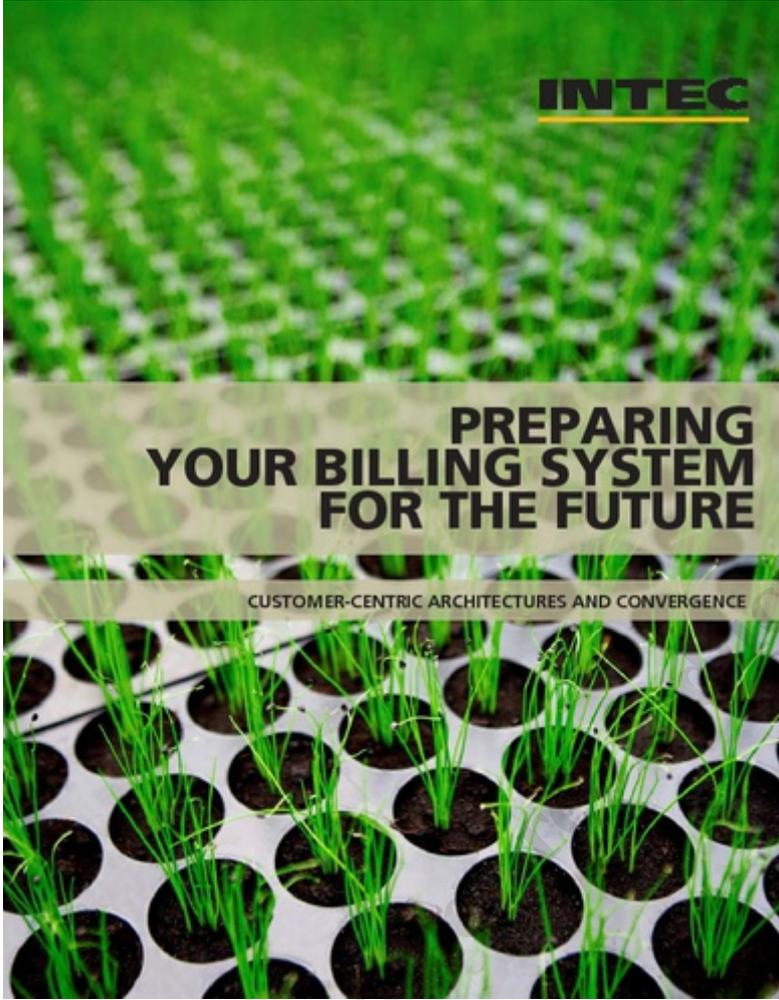
**IT Ukraine**  
Association

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101 guideline

November 2023





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CUSTOMER-CENTRIC ARCHITECTURES AND CONVERGENCE



## 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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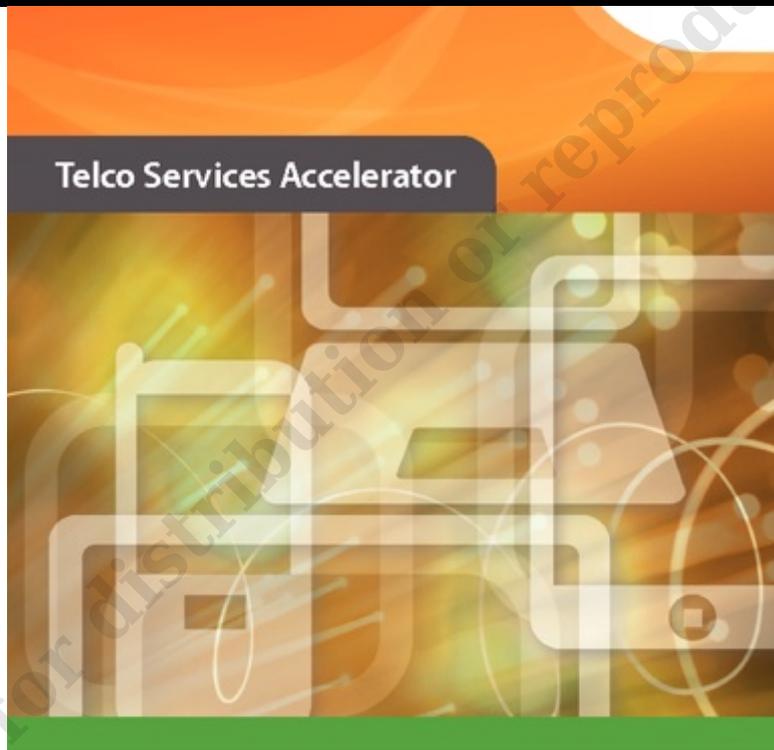
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Know your network: Now.

Ontology Real Time Inventory for NFV

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Design, Deliver and Manage Triple-Play Services



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