Home
Subscribe
Knowledge Center
About Pipeline
Innovation Awards
Executive Summits

February 2026, Volume 22, Issue 4

- Past Issues
- News Center
- Research Center
  - Webinars
  - Events
- Sponsors
- Members

FEATURED SPONSOR:

IN THIS ISSUE

PIPELINE | VOLUME 22 | ISSUE 4

PL

Unified Orchestration for
ENTERPRISE AI
WITH: ORACLE

O-RAN & DAS
*Transforming
Indoor Connectivity*
WITH: **SOLiD**

Accelerating
**AUTONOMOUS
NETWORKS**
WITH:
ERICSSON

RF COVERAGE
FOR NEXT-GEN IoT

**6G
& WIRELESS
TRENDS**

PERVASIVE MOBILE
CONNECTIVITY

5G SA & AI-NATIVE 6G
MOBILE MESSAGING

MOBILE
& WIRELESS

MOBILE AI • INTERNET BACKUP • ROAMING INTELLIGENCE

CONNECT WITH US

Follow @PipelineWire

Back More

[Advertising Placements](#)

[Sponsor Articles and Issues](#)

[View More Issues](#)

TRENDING NEWS

Salesforce Announces General Availability of Slackbot

Full Story>

Camunda Releases Agentic AI Report

Full Story>

AST SpaceMobile Shares BlueBird 7 Orbital Launch Date

Full Story>

Verizon to Acquire Frontier

Full Story>

AOK Bayern Deploys NiCE CXone

Full Story>

Cloudflare Report Warns of a Technical Glass Ceiling

Full Story>

[View More News](#)
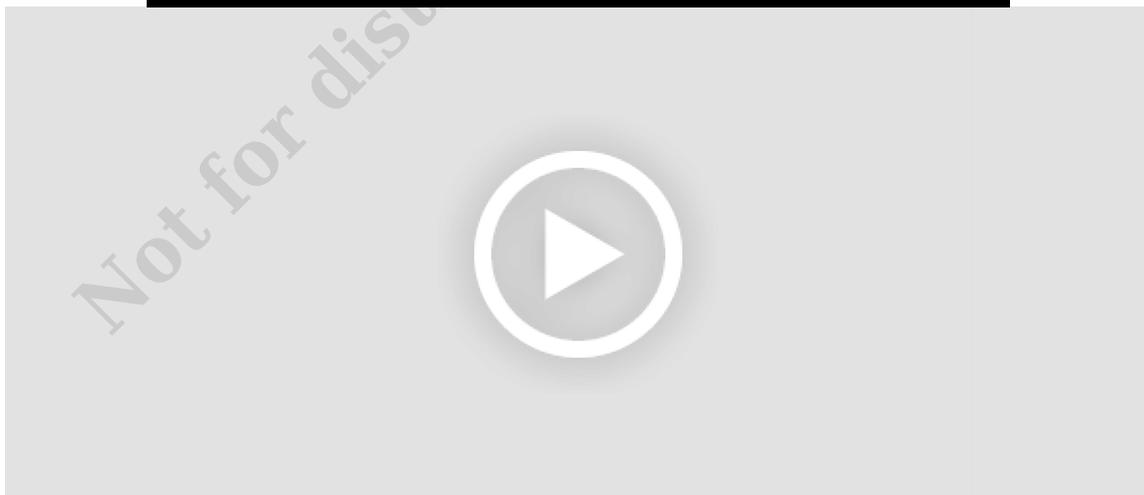
End-to-End Solutions for Broadband Networks

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.
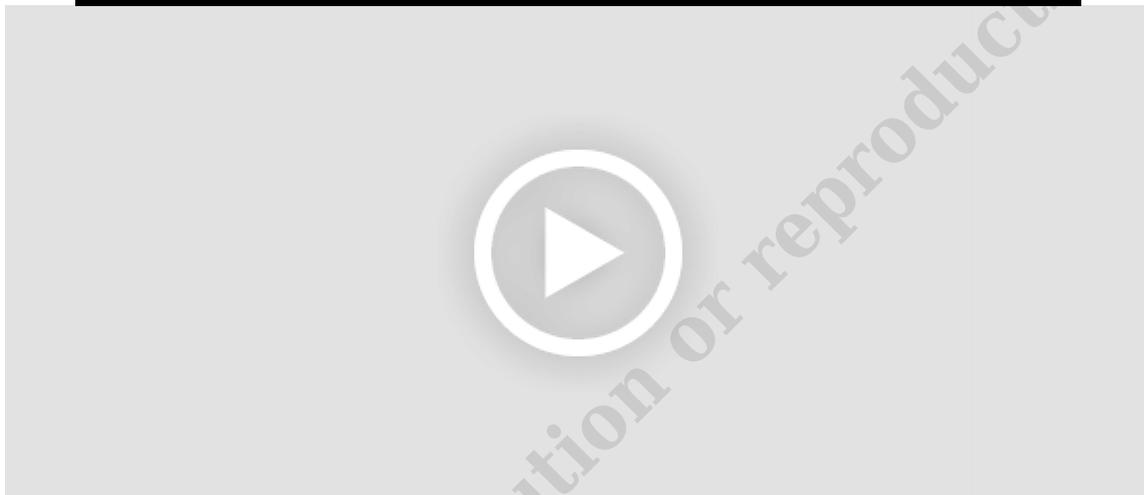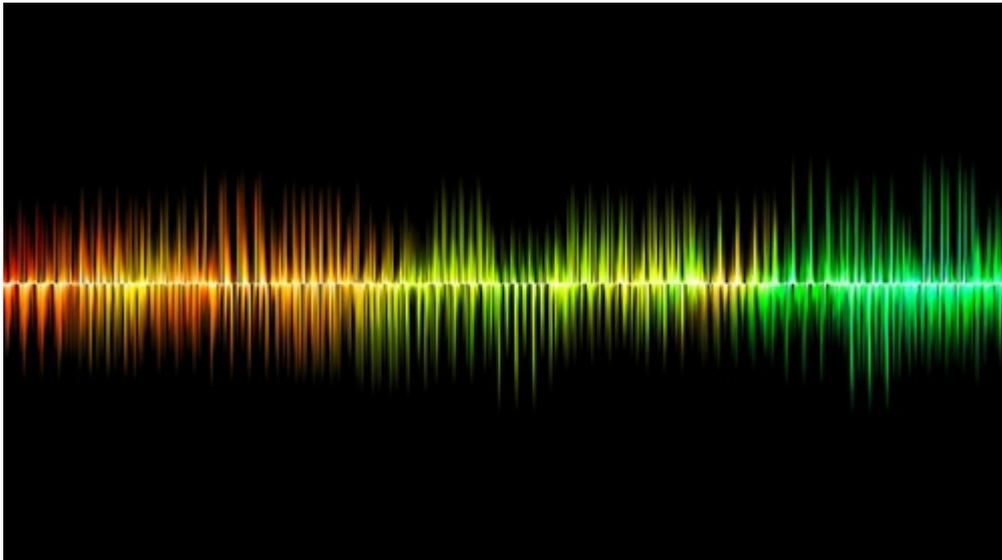
Predicting Colonial Pipeline: Mitigating Risk and Compliance

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.
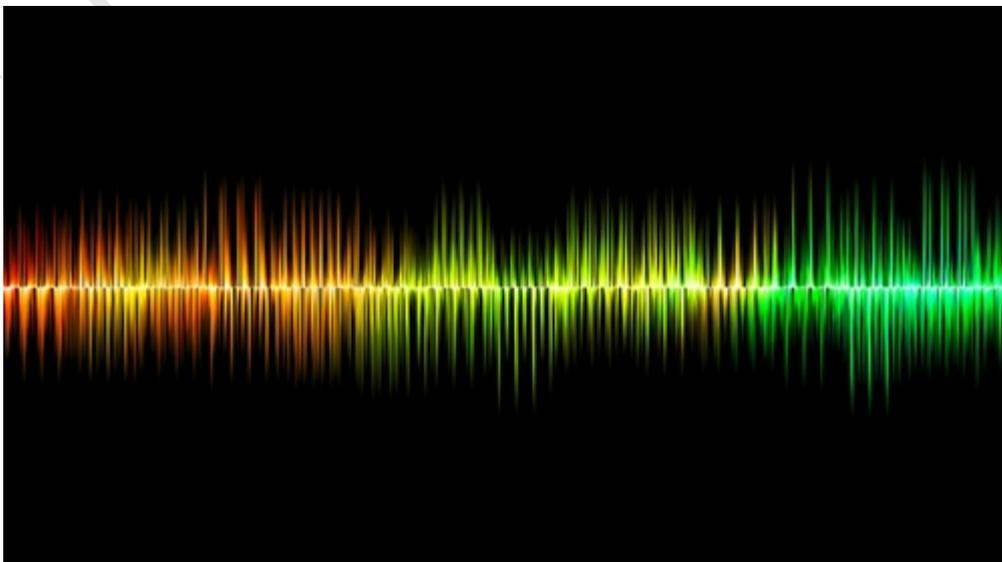
Podcast: The Evolution to 6G

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.

Request Video

View More Videos

Latest Webinars

Previously live
IT Ukraine Association   JEVERA software solutions   23 NOV 2023 4PM EET online

Discover how to mitigate risks of 2024

"DIGITAL TRANSFORMATION FOR TELCOS: A 101 GUIDELINE"

The Impact of Transformation

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

© 2018. All rights reserved.

The Network Transformation Imperative

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

© 2018. All rights reserved.

Agile Architecture for Digital Innovation

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

© 2017. All rights reserved.

Participate in Webinars

Join Next Webinar

View More Webinars

Latest Articles
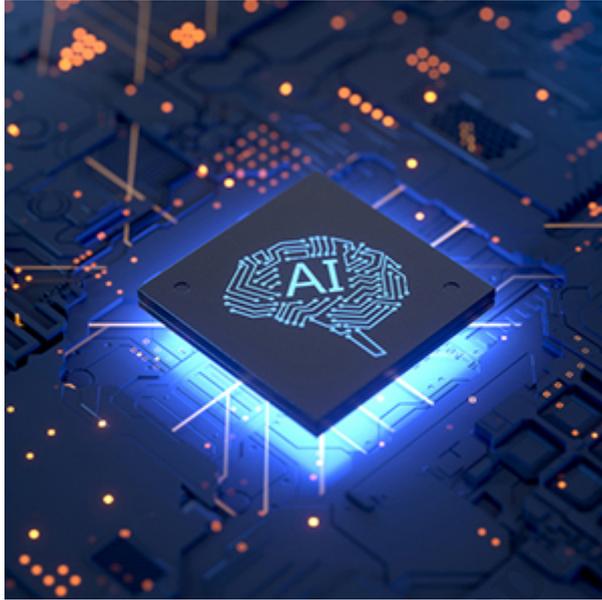
AI-Powered Orchestration

Order Article Reprint **Read More**

5G SA & Autonomous Networks

Order Article Reprint **Read More**

O-RAN for Indoor Connectivity

Order Article Reprint **Read More**

IoT Connectivity Design

Order Article Reprint **Read More**

Sponsor Articles

Advertising Placements

TRENDING ARTICLES
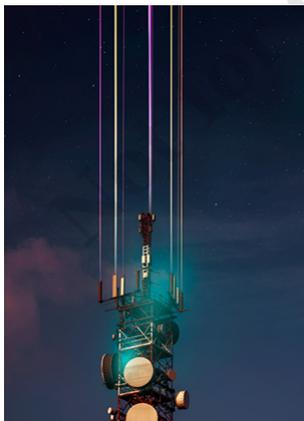
5G NTN Satellite Networks

Edge AI & Local LLMs

Letter from Editor

IT & Telecom Technology News

Enterprise Network Provisioning

Other Featured Content

Total Cost of Ownership
for M2M Deployments:
A Real-World Case Study

Opaque pricing and hidden costs from using traditional MNOs &
MVNOs can lead to nearly 2x the TCO

Aeris
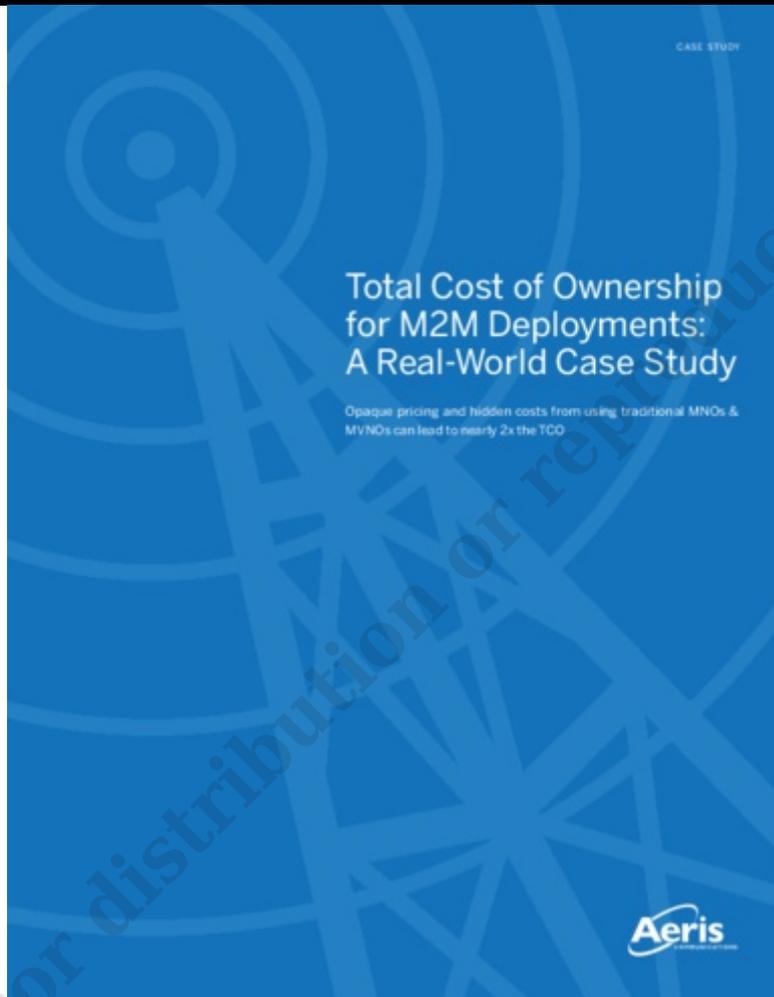
Mobile Video Policy Control

Benefits at a glance

- Generate new revenue with mobile video services
- Create mobile video services tailored to specific customer segments
- Align revenue and network costs using dynamic policy controls

Business Requirement

There is no question that video is both popular and consumes more network resources than almost any other application. A look at current data points tells the story. YouTube has become the second largest search engine. Mobile video is predicted to grow 66 fold from 2009 to 2014 and consume 66 percent of all mobile bandwidth by 2014. Clearly, finding ways to mitigate the impact of mobile video on the network in a way that still meets consumers' demands is critical to the success of mobile operators.

Challenges

Previous network solutions for handling data services primarily centered on static service provisioning in which operators take a "one-size-fits-all" approach. However, with the advent of data-rich services like mobile video, that approach has a number of shortcomings. In fixed networks, geographical service demand can be accurately predicted and the network built out accordingly. However, mobile networks, by nature, enable movement, which makes it more difficult to predict geographical service demand and network build out. Moreover, operators are increasingly investigating and deploying tiered pricing plans, which offer end users a variety of service levels and options that go far beyond the "one-size-fits-all" static provisioning approach.

Mobile Video Architecture
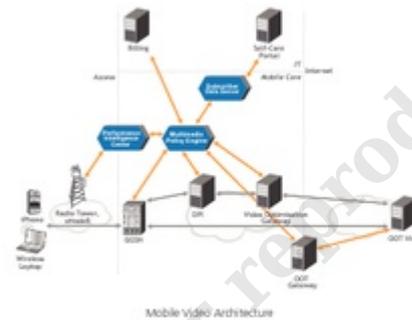
IP Video Services Accelerator

Sigma Systems' IP Video Services Accelerator is a robust solution enabling cable service providers to extend video service offerings to deliver an enhanced and unified entertainment experience.

Without a doubt, the enhanced entertainment experience over IP video networks is emerging as the "next big thing" for service providers as over-the-top (OTT) content, Internet video and 3rd party applications continue to threaten customer loyalty. Gone are the days of just delivering traditional video offerings as cable service providers begin embracing the opportunity to create new business models and deliver an exciting, personalized multi-screen experience to subscribers. But without the proper supporting service fulfillment foundation, the accurate delivery of this experience is a significant challenge for cable service providers.

Simultaneous Linear & IP Video Provisioning & Support

The IP Video Services Accelerator provides a service fulfillment solution that simultaneously provisions and supports both linear and IP video networks to deliver digital TV, PPV, VOD, DVR/PVR, Internet Video, OTT content, and 3rd party applications. This unique integrated OSS service management solution eliminates operational silos and provides seamless order management, provisioning, and entitlement management across all technologies, services, and systems.

Simplify All-IP Video Migration

By supporting a hybrid linear and IP video network that provisions all video services, the IP Video Services Accelerator gives you the ability to simplify and implement a logical migration strategy from legacy to all-IP video. You can manage this migration at the pace of your business and benefit from the flexibility to migrate in stages by managed service area, network segmentation, and even customer profile. With the IP Video Services Accelerator you can rapidly launch enhanced entertainment services and migrate linear video subscribers to a common OSS back-office solution when your business is ready.

SIGMA SYSTEMS
NEW SERVICES DELIVERED

W²CM Smart Replay

Near Saradi, Product Manager, EXFO

INTRODUCTION

Along with the phenomenal growth in volume of data on the mobile Internet, there has been an increase in the different types of data flowing through wireless networks. In addition to traditional types of data, such as file transfer protocol (FTP), hypertext transfer protocol (HTTP), voice-over-Internet protocol (VoIP), e-mail and video streaming, there has been a constantly increasing list of over-the-top (OTT) smartphone applications generating new types of data, including peer-to-peer (P2P) data from applications such as BitTorrent and Kazaa. In an effort to differentiate themselves, operators have also been offering their subscribers their own unique applications, which in turn contribute to the variety of data on wireless networks.
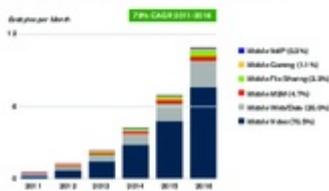

Figure 1. The explosive growth in mobile data.

This vast amount and variety of data has created a need for it to be managed effectively. There are several motivating factors to do so, chief among them being:

› Honoring service-level agreements (SLAs) and delivering committed quality of service (QoS) to customers
› Efficiently managing network resources
› Generating revenue as opposed to being just a "dumb pipe" for data
› Securing the network

Let's look at each one of these aspects in a little more detail.

HONORING SLAS

Operators have SLAs with their customers to guarantee a certain minimum performance from their networks. To be able to meet these commitments, the network elements have to be able to ensure that the required amount of resources is made available when needed. A recent study has shown that 5% of users consume 60% of bandwidth. This type of usage pattern can endanger an operator's ability to meet its SLA commitments to the rest of its subscribers. Operators have a strong incentive to manage the data usage of such heavy data users (e.g., by throttling the throughput rates available to such users).
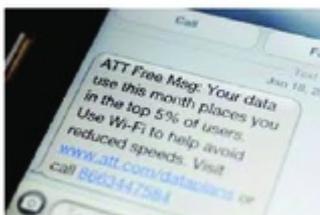

Figure 2. Mobile network operators (MNOs) need to proactively manage network usage.

Honoring SLAs may also mean being able to identify data associated with key customers and giving it preferential treatment in the network. There are strict guidelines in the LTE specifications about the handling of data with different levels of QoS. Gateways in the network have to correctly implement these techniques to ensure that committed QoS is delivered.

EFFICIENT MANAGEMENT OF NETWORK RESOURCES

Another motivation for operators is to manage their CAPEX. Operators are making huge investments in building out their networks to keep up with the growth in data consumption. Unmanaged data usage coupled with the need to deliver on SLAs would result in operators having to deploy more equipment to handle the load. A better alternative is to manage the data usage. The LTE 3GPP specifications introduced the concept of maximum bit rates (MBR). The idea is to limit the maximum throughput used by a subscriber. This is a very critical technique for operators in order to prevent abuse of network resources by a few "bad" subscribers.

REVENUE GENERATION

With an explosion in over-the-top (OTT) applications on the Internet, operators risk becoming mere "dumb" pipes carrying user data back and forth. This is not an enviable situation for operators, considering the enormous investments in infrastructure required to keep up with growth in data usage. Operators want to find ways to generate revenue from the data flowing through their pipes. They can do this by providing the same services as the OTT players, for instance voice-over LTE (VoLTE), but with significantly better and more predictable quality. Operators may want data associated with their own applications to be given preferential treatment as compared to equivalent OTT applications. Additionally, they can add value to the data already flowing through their network (e.g., by signing revenue-sharing deals with service providers in exchange for prioritizing their data, or through targeted advertising based on the content of user data, similar to what Google does with Gmail).

EXFO

The 2014 COMET Executive Summit
November 5 - 7, 2014 — San Diego, California

Pipeline
Technology for Service Providers.

Wednesday November 5, 2014				
TIME	SESSION	SESSION TYPE	DEMO AREA	BOARD ROOMS
7:00pm - 11:00pm	Speed Networking Cocktail Reception	Networking		

Thursday November 6, 2014				
TIME	SESSION	SESSION TYPE	DEMO AREA	BOARD ROOMS
8:00am - 9:00am	Networking Breakfast	Networking		
9:15am - 10:00am	Opening Remarks	General	Setup	
10:00am - 10:45am	Service Provider Perspectives: Contending with Key Challenges (featuring: AT&T, BT, Comcast, Level 3 and Verizon)	General		
10:45am - 11:15am	Networking Break	Networking	Open	
11:15am - 12:00pm	Advanced Customer Experience Management (featuring: Amdocs and ICT Intuition)	General		Open
12:00pm - 12:45pm	Leveraging Big Data for Enterprise Business Intelligence (featuring: Microsoft and Skype)	General		
12:45pm - 1:45pm	Topic Roundtable Luncheon	Networking	Open	
2:00pm - 2:45pm	The Agile Architecture (featuring: Dr. Tom Wise, ICT Intuition and Tahl)	General		
2:45pm - 3:30pm	Delivering Elastic Services (featuring: Appledore, Comcast and TEONE)	General		
3:30pm - 4:00pm	Networking Break	Networking	Open	
4:00pm - 4:45pm	The New Network (featuring: Nokia and AT&T)	General		
4:45pm - 5:30pm	Transformation: Managing the Evolution to Virtual Networks (featuring: ICT Intuition and AT&T)	General		
5:30pm - 6:00pm	Pre-Dinner Break	Break	Open	
6:00pm - 7:00pm	Networking Dinner	Networking		
7:00pm - 10:00pm	Evening Entertainment	Networking		

| Friday November 7, 2014				
TIME	SESSION	SESSION TYPE	DEMO AREA	BOARD ROOMS
8:00am - 9:00am	Networking Breakfast	Networking		
9:15am - 10:15am	Market Analysis: Industry Insights (featuring: Appledore, ICT Intuition and NPRG)	General		
10:15am - 11:15am	Risk Mitigation: Advanced Security Planning (featuring: Level 3, NPRG and Verizon)	General		
11:15am - 12:15pm	Competitive Edge: Leveraging Content and Web RTC (featuring: Appledore and Genband)	General	Open	Open
12:15pm - 1:15pm	Networking Lunch	Networking		
1:15pm - 2:15pm	Lions Den - Sessions 1 & 2	Interactive		
2:15pm - 3:15pm	Lions Den - Sessions 3 & 4	Interactive		
3:15pm - 4:15pm	Lions Den - Sessions 5 & 6	Interactive		
4:15pm - 5:00pm	Editorial Calendar Input	Interactive		
5:15pm - 5:30pm	Closing Remarks	General		

* Note: Agenda is subject to change based on input from Pipeline's Industry Advisory Board (IAB), attendee feedback, and presenters. Please check for updates.

Included with regular admission.

Not included with regular admission. Additional participation required. See the How To Participate page for more information.
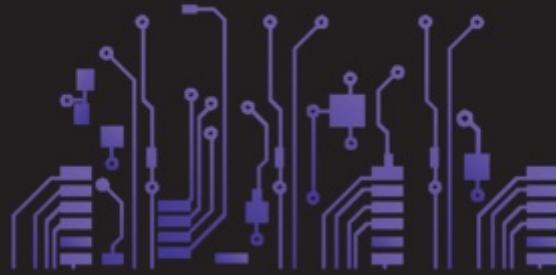
Why MVNOs and Carriers Aren't
Right for Your M2M Application

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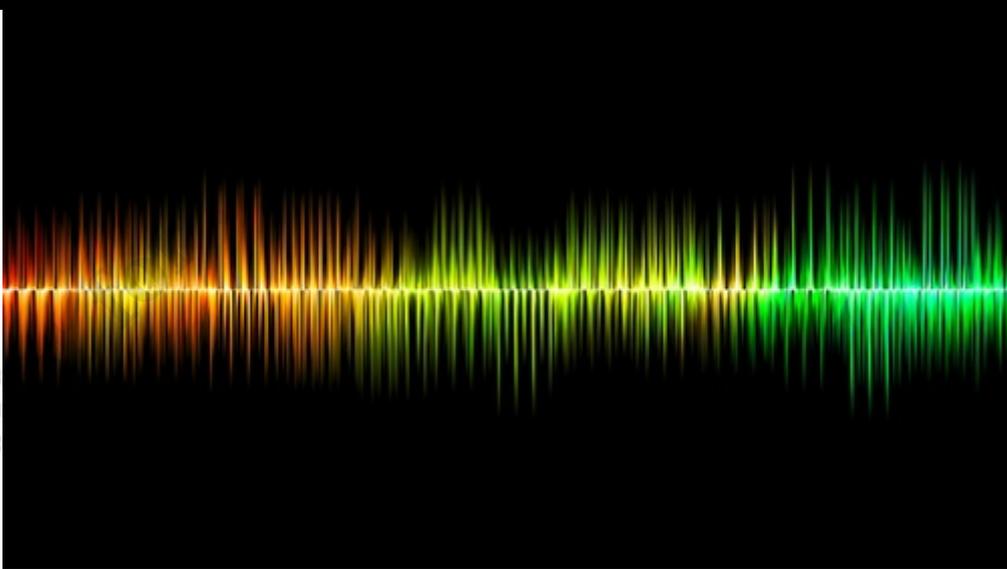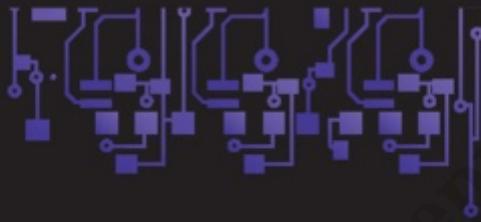
Going Global with M2M: What You Must Know to Control Costs

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 Aeris 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.

Aeris

Brochures

DATA SERVICES OVER 25 YEARS, 150,000 MILES OF DATA

SAVE money on data services
GUARANTEE best practices
ENSURE data accuracy
AVOID government regulatory obstacles

Enghouse Data Services (formerly Moore Resource Systems) is a specialized team of GIS experts who make it possible for organizations to create and maintain geo-spatial enabled data for their next generation enterprise IT applications. The services that Enghouse provides can involve large data entry tasks to help populate unique data models or specific data updates based on field changes to a company's assets.

Our Enghouse Data Services team specializes in providing seamless project management support for an organization's own team. Data Services works with an organization's staff to assist in the tracking and completion of tasks on a daily basis to meet specific and prioritized needs.

DATA VALIDATION & QA
The Enghouse Data Services team offers specialized tools that enable validation of source data before conversion to the target. These specialized tools can highlight problem areas that need to be corrected (e.g. data integrity rules) that might be broken by migrating to the target system.

DATA TRANSFORMATION
In a complex data cleansing and migration effort, data very often needs to be transformed between one or more formats. The Enghouse Data Services team accurately transforms the most challenging data, whether spatial or non-spatial.

Task report post QC validation

GIS data aligned to imagery

Enghouse Networks

+1 (866) 772-8245 or (905) 946-3200 just say "sales"
networks@enghouse.com
www.enghousenetworks.com

Case Studies

CHR Solutions

DELIVERING BROADBAND WHERE MOST WON'T
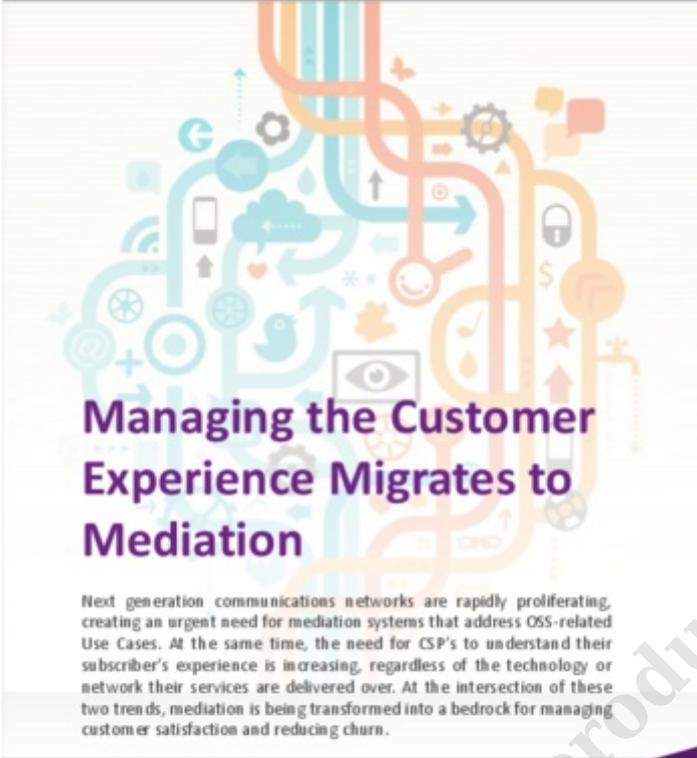
THE SURF INTERNET STORY
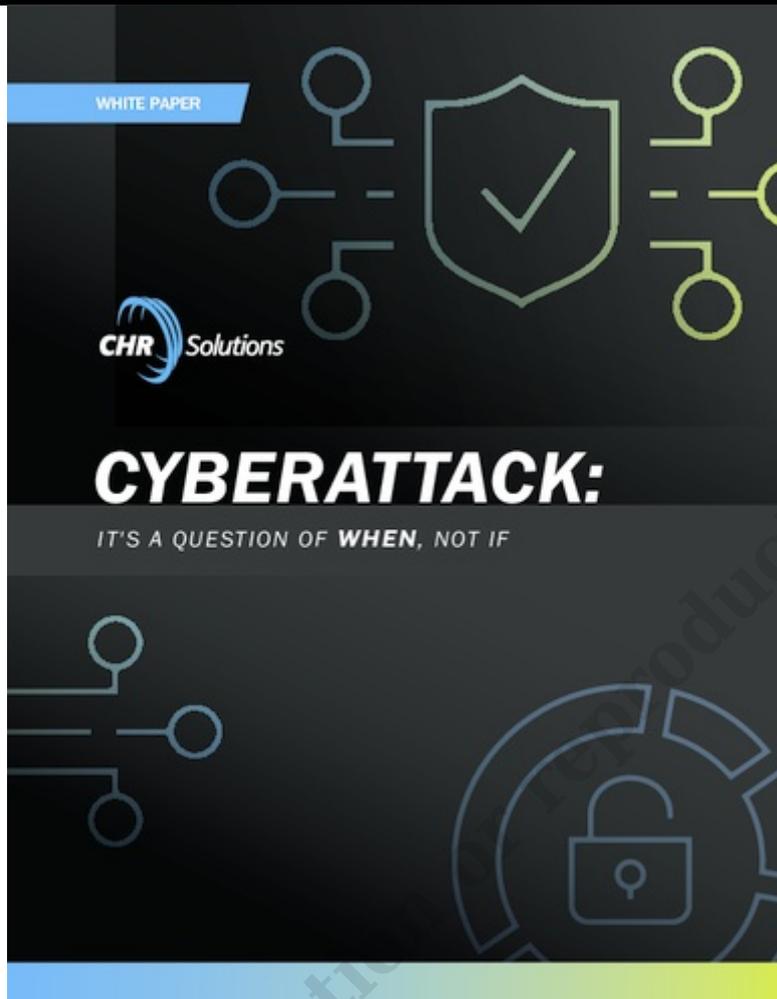
SURF Internet

Case Studies

Telesperience case study

Neotel

prepared by
telesperience

sponsored by
ONTOLOGY

Brian Cappellani
CTO & VP Engineering

SIGMA SYSTEMS
NEW SERVICES | DELIVERED

CHR Solutions

IPTV simplified

Making it work and making a profit are the two greatest challenges **IPTV** service providers face. From building your network to billing for service, CHR is with you every step of the way.

■ IMPROVE INTEGRATION

Whether you're integrating legacy and next-gen systems or middleware and B/OSS, the variables of IPTV implementation are vast. With more than 60 years serving communications service providers in every capacity of their business, CHR has the expertise and resources to simplify your IPTV experience. Our holistic approach and experienced team work with you to weave together the many elements necessary to make IPTV work.

■ PROMOTE PROFITABILITY

As competition escalates and regulatory support declines, the battle for profit becomes ever more crucial. Uncover new ways to increase profits margins and drive new revenue by leveraging CHR's cross-discipline philosophy and comprehensive service offerings. CHR's Integration Services and In-Home Wiring team will help you speed time to market—more quickly making returns on your investment and improving customer retention with professionally provisioned home networks. Create an unparalleled customer experience with MediaSj™—reducing churn and raising ARPU.

SPIRIT COMMUNICATIONS
Switches to EMC Watch4net and reduces OPEX by 60%

ABOUT SPIRIT COMMUNICATIONS

Headquartered in Columbia, SC, Spirit Communications provides carrier-class telecommunications services to businesses and government agencies throughout the southeastern U.S. over its private fiber-based MPLS network. Spirit offers a wide variety of solutions including VoIP, SIP trunking, local and long-distance calling, wholesale long distance/ SS7/ AIN, on-demand video conferencing, audio/Web conferencing and hosted Internet services. Spirit Communications prides itself in providing solutions that are reliable, flexible and responsive to customers' business needs.

Monitoring efficiently the wide choice of bandwidth and quality of service along with the service level agreements (SLA) is essential to the success of their enterprise.

ESSENTIALS

Challenges
* Customer contracts required robust SLA monitoring solution
* The legacy system (InfoVista) grew too expensive and difficult to maintain
* InfoVista was slow to deliver upgrades
* InfoVista's upgrade costs were comparable to purchasing an entire solution

Solution
* Watch4net was deployed in just a few days
* Watch4net is running in a virtualized environment
* Dedicated Oracle, Solaris resources are no longer required, resulting in cost savings

IT Improvements
* 60% reduction in cost-per-managed device
* 40% savings on collectors and additional modules
* Replaced Java JRE with fast AJAX/Web 2.0 front end
* Troubleshooting is simpler, faster due to Watch4net's streamlined architecture

Business Benefits
* Increased revenue from premium portal offerings
* Improved data retention (from 7 days to 7 months of "5-minute" data)
* Improved SLA metrics and more accurate billing from more granular bandwidth utilization reports
* Enhanced service offering with ad-hoc reporting and automated report delivery

CUSTOMER PROFILE

BUSINESS CHALLENGE

Spirit operates a mixed network comprising equipment from Alcatel-Lucent, Cisco, Adva, Adtran, Ciena, Brocade and more – over scores of servers and several thousand network devices. Proactive performance monitoring is strategic to Spirit success in delivering a competitive offering that features a variety of options for granularity of bandwidth and quality of service (QoS). Spirit provisions service level agreements (SLAs) that allow customers to select end-to-end performance metrics based on CIR, frame loss, delay and jitter. Spirit's customer contracts absolutely require robust SLA monitoring solution.

In 2006, Spirit implemented InfoVista's performance management solution. The product met the initial requirements, but as time went on, the software became more cumbersome to upgrade and maintain; additionally, Spirit needed upgrades to support the Alcatel/Lucent 5620 SAM and these were slow in coming. Spirit decided to investigate a variety of alternatives, including using open source tools to build their own solution as well as purchasing commercially available products.

EVALUATION AND SELECTION

Spirit embarked on a search for solutions capable of providing performance reporting for Alcatel/Lucent equipment. Spirit determined that the cost of InfoVista upgrades equaled the cost of purchasing an entirely new solution. Next, the IT team carefully

EMC²
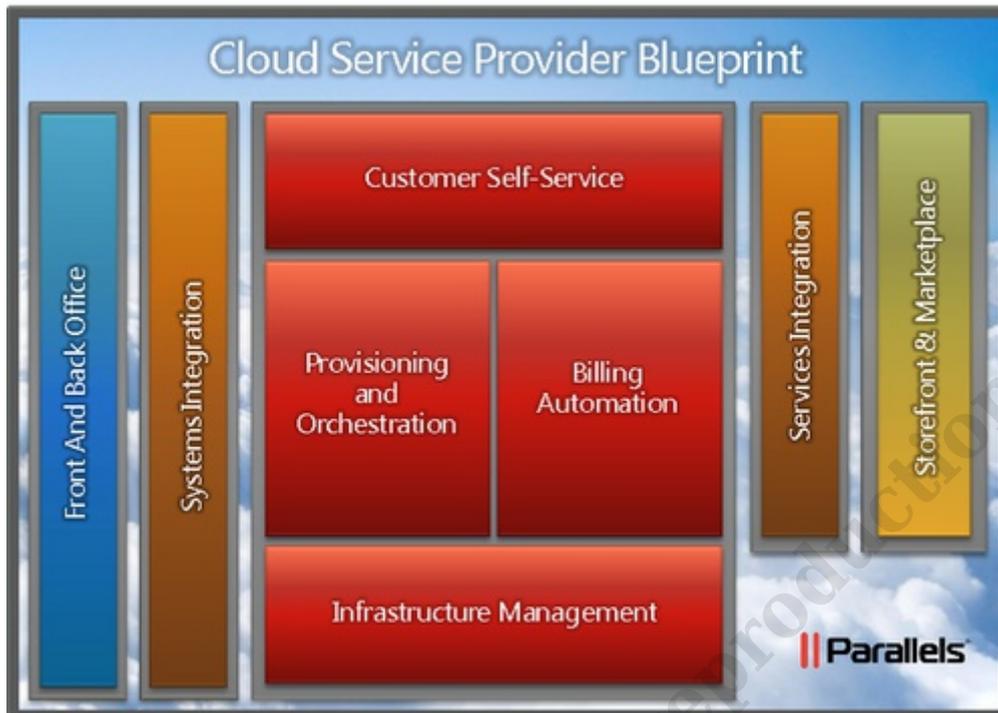
Integrating to Mediaroom: Using Media(n) to Simplify the Experience
A White Paper

Secure Access and Single Sign-on

Keep your distributed network ship-shape by ensuring that globally dispersed access points don't represent security leaks. Our Secure Access and Single Sign-on Solution gives you a crows-nest view of who is accessing network elements, and the potential impact.

Know your crew

Securing large, multi-vendor, multi-technology networks can be a daunting task. With thousands of people accessing thousands of network elements, the problem is clear. But a consistent set of security procedures can help — as long as you know they are being followed. Still, how can you manage security in an environment when different element management systems all handle user accounts and auditing differently? Secure Access and Single Sign-on from Nakina Systems solves these complex issues by assigning security privileges by user in a central location and tracking activity in easy to access reports.

Watching the horizon

When something goes wrong, the ability to quickly audit who accessed network elements, if they made any changes, and from what network entry point they accessed them, can make the difference in meeting service level agreements. Nakina Systems' Secure Access solution allows security administrators to implement a single user interface to control and manage all access to network elements and element management systems in the network. A broad range of security policies can be created and enforced network-wide, and administrators can audit activity at anytime.

Set sail safely

Nakina's multi-vendor security management solution offers the ability to:

- Centralize security policy administration via a single tool that integrates into existing corporate identity management systems
- Substantially reduce the effort and cost to administer security credentials for thousands of users across large networks
- Standardize the implementation of security policies across multi-vendor environments
- Enforce robust and consistent security policies with automated network-wide security measures like password aging and minimum alphanumeric password requirements
- Customize security privileges at the individual user level and define and assign privileges to a user or group of users based on job responsibilities.

Key Functions

The Nakina Secure Access and Single Sign-on solution addresses four key problem areas:

Network Element Security
- This feature enables the security administrator to automate and centrally manage user password management across all network elements and element management systems.

User Security Proxy
- This allows users a single portal with his or her own unique account credentials and a list of authorized applications or elements, significantly simplifying and improving the end-user experience

User Privileges
- This enables the security administrator to assign user access privileges by network element or element management system

Auditing
- This enables the Security Administrator to centrally log, review the activity of and terminate select individual user sessions

WWW.NAKINASYSTEMS.COM

Upload Content

View More Content