

**Stratecast**

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## **Innovation in an Industry in Flux – Global Operations & Monetization *10 to Watch* in 2015**

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# Innovation in an Industry in Flux – Global Operations & Monetization *10 to Watch* in 2015

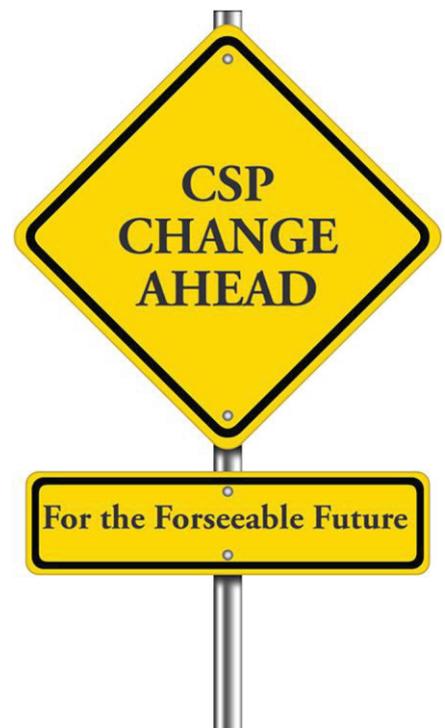
## Introduction<sup>1</sup>

For the communications service provider (CSP) global community, 2015 promises to be a year of change for an industry in flux. To be fair, the previous sentence has been true for a number of years, and the level of change seems to only increase.

Change isn't necessarily a bad thing. For the suppliers of Operations & Monetization (O&M)—also known as OSS and BSS—change is driving innovation and growth. But growth will come only to those companies, big and small, which can demonstrate that their innovations satisfy the continually evolving needs of CSPs.

The transformation of the CSP global community includes a number of catalysts. Stratecast has been describing many of these for years; yet, their relevance in 2015 remains high. These include:

- CSPs continue to be squeezed financially. Data volumes continue their exponential expansion; yet, the carriers' ability to monetize hasn't kept pace with the rise. This means that most CSPs, globally, struggle with tightening profit margins. In response:
  - The importance of Financial Assurance increases. This market, which includes Revenue Assurance, Fraud Management, and Margin Assurance, is growing rapidly.<sup>2</sup>
  - CSPs are becoming receptive to new ways of doing business. Many new business models include partnerships between the CSP and other enterprises to provide something of value to the consumer that wasn't previously possible. Partnerships require settlement; and they change what was previously a business-to-consumer (B2C) model, increasingly, into a business-to-business (B2B) to-consumer (B2B2C) model.
  - As CSPs embrace new possibilities, they are increasingly demanding flexibility in their O&M solutions. They want to experiment; and, if the experiment fails, quickly try something else.



<sup>1</sup> Please note that the insights and opinions expressed in this assessment are those of Stratecast and have been developed through the Stratecast research and analysis process. These expressed insights and opinions do not necessarily reflect the views of the company executives interviewed.

<sup>2</sup> For more insight, see Stratecast report OSSCS 15-13, *Global CSP Financial Assurance: Market Share Analysis, Forecast, and Supplier Assessment*, December 2014. To obtain a copy of this report, or any other Stratecast or Frost & Sullivan report, please contact your account representative or email [inquiries@stratecast.com](mailto:inquiries@stratecast.com).

- The Virtual Network—which Stratecast sees as a blend of Network Function Virtualization (NFV), Software Defined Networking (SDN), and cloud architecture—continues on the path to reality, even as the industry continues to define what the Virtual Network is. While none of these architectures will provide immediate relief to the financial squeeze CSPs feel, CSPs have shown solidarity in their belief that the long-term benefits of flexibility, programmability, cost reduction, and competitive prowess are compelling and achievable. CSPs will undergo much introspection and technical analysis of the architectures in 2015.
- As LTE deployments have increased globally, CSPs are looking to drive additional revenue from their LTE networks. Voice has long been the main service offering; data and messaging were add-ons. With Voice over LTE (VoLTE), voice is now an additional component on the data network. This evolution of voice service could be a game changer; but expectations will be high from both consumers and regulators. Will VoLTE finally allow CSPs to retire older voice systems? Will consumers be willing to pay for high-definition voice and/or video calls?

The solution suppliers that provide systems, services, and IT infrastructure to CSPs—the O&M suppliers—must stay abreast of the business and technology redefinitions that are now underway. The CSPs are counting on their suppliers to lead them successfully through this extended period of change.

O&M solutions will need to perform in a double-duty fashion for several years. First, seamlessly interacting with existing systems and numerous data repositories associated with previously implemented business management and network operations processes. Second, delivering new capabilities essential to operate and manage the needs of new business models, new technologies, new services, and new types of customers.

## TOP 10 2015 Operations & Monetization COMPANIES TO WATCH

AGILE · MARKET SAVVY · PRODUCT RELIABILITY · STRONG PARTNERSHIPS · A CULTURE OF INNOVATION · SCALABILITY · THOUGHT LEADERSHIP · TIME TO MARKET · DIFFERENTIATED PRODUCT OFFERINGS · VISION

In addressing these needs, some systems will be replaced, others will be augmented, and new ones will be added. This is where a new age of innovation is essential; and, from Stratecast's perspective, cannot be done by a handful of entrepreneurial startups alone. Continuing from last year, we have expanded our *10 to Watch* report to include all O&M suppliers, regardless of size. This is a significant redirection from the past, when *10 to Watch* mainly spotlighted smaller suppliers. We have seen innovation come from all sources over the past 24 months, including well-established market suppliers, some of which are featured in this 2015 edition of *10 to Watch*.

Our reasons for looking at all O&M suppliers are straightforward. While a smaller company may focus on specific or targeted business challenges for a smaller initial base of customers, larger suppliers hear the same needs magnified by many.

In response, they commission internal work teams to attend to these needs—or risk losing such customers to the competition. Larger companies also commission advanced market strategy teams to

prepare for challenges that lie ahead; in many cases, operating them as though they were small entrepreneurial startups in their own right.

Regardless of company size, 2015 will see a new era of innovation ushered in by companies that exhibit what Stratecast understands are the foundational attributes of all successful O&M suppliers: agility, alignment with market needs, product reliability, innovation, scalability, differentiation, vision, and strong partnerships with customers and other suppliers.

The answer to addressing many of today's new business problems lies in the right combination of capabilities, from several parts of the global marketplace, in a way that produces results much better than if such assets were delivered independently. This means building ecosystems, and working with partners in ways very different than in the past. We believe that O&M companies will work to solve specific problems with unique technologies and approaches. These companies will take advantage of the most recent advances in interface definitions and computing resources, regardless of delivery model (licensed or virtual), and regardless of market position. **Most importantly, Stratecast believes that answers to tough business situations come from a dedicated focus on problems, regardless of the size of the organization addressing them.**

The 10 O&M companies that Stratecast has chosen as its *10 to Watch in 2015* are focused on meeting critical business challenges and technology enablement functions. These companies are included in our list because they deliver innovative solutions that help CSPs transform operations, address new business needs, and help to improve the customer experience.

## **Innovation is Essential Now More Than Ever Before**

In the past, when CSPs were focused on delivering only network connectivity at a price point customers would accept, and at a revenue yield that maximized the return on all network investments, the O&M marketplace (then referred to as the OSS and BSS marketplace) was different.

Suppliers focused on specific operational functions such as billing, order management, network inventory, or service assurance. While many bemoaned the silo mentality of the CSPs, the communications world, in retrospect, seemed to be a much simpler place than it is now.

Today, the O&M world is not so distinct; and, in fact, that is why Stratecast moved away from the term "OSS and BSS"—the lines between the two areas have blurred. Operations & Monetization encompass both the traditional OSS and BSS functions as well as the new areas in which business and network operations management must now play a role.

In the introduction, a number of catalysts and resulting transformations were examined at a high level. But the specifics of the changes do not matter for this report. When transformation happens in an industry, innovation is needed to facilitate the transformation. The communications industry is experiencing transformation, in many different areas, and the rate of change continues to increase. Innovation, from many different directions, is the key to the future of the industry.

However, before anyone feels bad for this industry, remember the only reason to comment on the number of changes and the increasing rate of change is because the communications industry is being forced to compete in a new world. Do the Apples and Googles of the world bemoan the fact that things have changed? No, they create the change and thrive on it. But the staid and stable CSPs have

finally opened their eyes and realized that without continual change and innovation, the future might not be as bright as they would like.

**Staid and stable is not a great business plan, and it's also not very interesting, nor much fun to cover. Stratecast looks forward to increasing levels of change, expanding innovations, and a bright (and interesting) future for the communications industry.**

### What Makes a Stratecast *10 to Watch* Company

*10 to Watch* companies have developed innovative solutions that address current and business-critical objectives and business-impacting challenges. These companies come from a wide range of disciplines, business structures, and motivations. Some are small, and others are well-established suppliers in their respective fields. All *10 to Watch* companies are organizations with proven solutions through revenue-bearing customer installations. Additional characteristics of a Stratecast *10 to Watch* company are:



- **Market Focused and Aware of What Is Beyond the Horizon** – To be recognized in a very crowded Operations & Monetization environment, *10 to Watch* companies must be up-to-date on all current business challenges and O&M needs. Such companies, small and large, must always be mindful of how the industry is changing, and what will be critical business requirements 12-18 months from the present.
- **A Culture of Innovation** – A *10 to Watch* Company must be innovative—possibly not in every functional area the company may address, but surely within the functional domains for which the company is recognized in this report. Most have fundamentally changed their strategic approach to the market several times in an effort to meet on-going business challenges. These companies must be able to continuously change as the industry or industries they target evolve. *10 to Watch* companies rely on their leadership to recognize trends or impending market conditions. With their beyond-the-horizon awareness, these companies adjust to meet those conditions through either organic development or acquisition of assets. When such assets are blended with a company's existing solutions, they should yield a better approach or improved outcomes to new business requirements.
- **Support Rapid Change in Business Climate or Technology Approach** – *10 to Watch* companies recognize that the pace of necessary innovation is accelerating; and thus, solutions to address new business needs, which took several months to over a year to deliver in the recent past, must now be done in dramatically collapsed time frames.
- **Business Savvy** – *10 to Watch* companies are attentive to market issues, and understand trends relative to both CSP needs and the competitive landscape. Company executives are constantly talking with current or potential partners, customers, sales prospects, analysts, and consultants. Using their extensive radar, *10 to Watch* companies recognize patterns of unmet market needs; and rapidly translate these opportunities into strategic and marketing initiatives.

- **Market Savvy** – To match the market reputation of an entrenched supplier within a market, geography, or functional discipline, *10 to Watch* companies must establish buzz and a viral reputation tied to the business problems they address. Key needs include partnership development, sales leadership, marketing, and communications functions that must be clearly aligned around business problems at hand. This market savviness requires discipline within each organization, from individuals well-connected in industry and financial circles, who are well-spoken, and have a solid knowledge of both the CSP business problems and the solutions offered.
- **Well-defined, Clearly Differentiated Product Offering** – *10 to Watch* companies offer products that are not just technically differentiated, but often are geared to address an evolving set of business needs or process inadequacies. Software systems and business expertise tied to the solutions they offer must target a set of pain points regularly experienced by CSPs and data service providers. These solutions must also show an easy-to-use approach, appeal to a specific customer audience, instill confidence in a better way to address an existing problem, or satisfy a new business need.

*10 to Watch* status does not excuse these companies from the usual requirements that CSPs place on their network infrastructure and O&M suppliers, including: carrier-class scalability, product reliability, interoperability, financial stability, ongoing research and development, and partnerships for pre-integration and global support.

## Year Eight and Going Strong

This is the eighth year for this report. Many of the O&M suppliers identified over this period continue to grow and thrive, or have been acquired by larger solution suppliers to satisfy a growing list of business concerns. Stratecast views the *10 to Watch* companies as a source of innovation for the industry.

There will always be startups that bring new ideas and innovation to market ahead of the mainstream. These companies are important and play a valuable role in the changing communications marketplace. Pockets of innovators within the large O&M suppliers will be challenged to deliver solution strategies for the same new business problems that drive the startup companies. But, many of the larger organizations have the foresight to either apply what they do now in a different way in order to meet the needs of new business challenges, or they acquire the innovative capabilities from other organizations to complement what these suppliers now deliver to a varying number of CSPs and data services providers. Large or small, the classic “1 + 1 = 3 or more” mentality is the driving force of all O&M suppliers in meeting the needs of the expanding communications marketplace in 2015.

## Global Operations & Monetization 10 to Watch in 2015

### *Infonova: Enterprise Business Enablement*

For a number of years, Stratecast has discussed a business model known by many as Cross-Industry 2.0.<sup>3</sup> This business model allows a CSP to enhance the products from many organizations, in multiple verticals, with those of the communications marketplace, to create new or improved virtual service offers. This model embodies an ecosystem involving partner-suppliers, the CSP, sometimes other external entities, and end-user customers. Yet, to take advantage of the opportunities that are now available, a CSP must fundamentally change its approach to business, from being a provider of technology-based services—voice, data, and bandwidth access—to a horizontally-focused federator of services developed and enabled by companies across multiple industries.

The logo for Infonova, featuring the word "infonova" in a lowercase, red, sans-serif font. The logo is positioned to the right of the main text block and is partially enclosed by a light blue rectangular background.

Infonova, a wholly-owned subsidiary of BearingPoint Consulting of Europe, is an Austrian provider of monetization and business management solutions for the telecommunications industry and convergent industries. It has a laser focus on support for enterprise business enablement—the essence of the Cross-Industry 2.0 model. The company was founded in 1989, and employs approximately 350 people.

The **Infonova R6** solution is an **Ecosystem Enablement Platform (EEP)** suite, which Infonova explained to Stratecast is a “Concept-to-Cash” platform. It is shown in Exhibit 1, below. **The point of clear differentiation for Infonova is the unique ability of this solution to enable a CSP to support multi-sided business models that instantiate the Cross-Industry 2.0 concept.**

The EEP is an orchestration layer requiring significant abilities to interface with a CSP’s established operations and monetization systems environment along with the systems of other industry suppliers and partners. It is not another add-on to the hundreds of systems that already address the internal business and operations needs of network operators worldwide. It is a business enablement tool designed to orchestrate the contributions from external suppliers and partners with CSP network-based functions, in support of next-generation customer services.

**Why is 2015 a year to watch Infonova, since we have been discussing the company and the Cross-Industry 2.0 model for years? The marketplace is now ripe for large telecom operators to become business enablers and deliverers on the promises of virtual service offerings.** Stratecast firmly believes that Infonova is one of a very small number of business enablement suppliers that can deliver on the significant number of new business requirements that both virtual networking and virtual services demand.

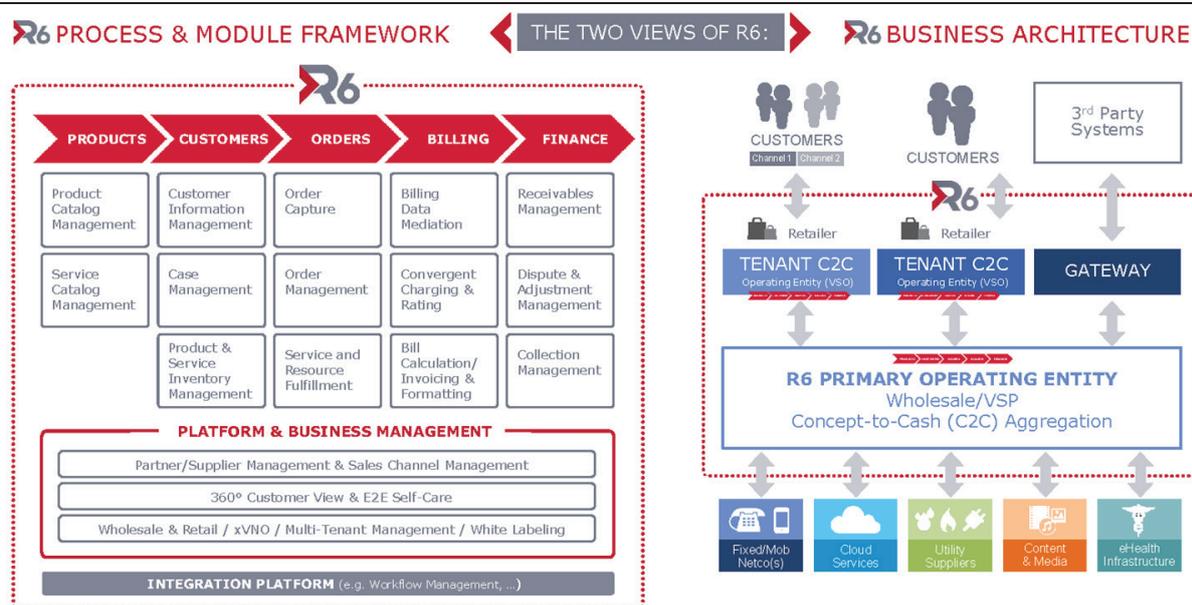
The **Infonova R6 EEP** is a robust version of perhaps one or two solutions on the market today that have been touted to address the interactions needed between partners and network operators for the delivery of advanced virtual services. These interactions include partner orchestration, fulfillment, monetization, and management functions.

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<sup>3</sup> For more insight into the Cross Industry 2.0 business model, see Stratecast report: OSSCS 14-05, *Global CSP Billing Part 1a – 2013 Edition: Market Drivers, Changing Strategies and New Business Models*, July 2013.

More specifically, the **Infonova R6** platform offers front and back office support to satisfy multi-layer business models now faced by several CSPs. It includes the ability to address triple and quad-play bundling, tenant-based white label services, wholesale products, and advanced partner models. It is designed to meet the operations needs of existing business models, and new ones, through the flexible aggregation of legacy and content-based services. **Infonova R6** addresses the needs of each layer of the Cross-Industry 2.0 value chain, from Customer to Tenant Operator to Primary Operator to Supplier/Partner.

**Exhibit 1: Two View of Infonova R6 Ecosystem Enablement Platform**



Source: Infonova

Within **Infonova R6**, the monetization-related functionality specific to horizontal orchestration between multiple enterprises includes:

- **Billing Data Mediation** – Online and off-line mediation for fixed, mobile, and IP networks, as well as support for other industries.
- **Convergent Charging & Rating** – A policy-enabled real-time rating and charging engine, with support for retail billing, wholesale billing, and partner settlement billing.
- **Bill Calculation/Invoicing/Formatting** – Calculates and generates invoices, formats the bill for print or for electronic presentation.
- **Finance** – Handles financial transactions including receivables, payments, disputes, collections, and reporting to external financial systems.
- **Partner/Supplier Management & Sales Channel Management** – Supports partners and suppliers, as well as the sales channel.

Stratecast believes that industry suppliers have maneuvered to establish end-to-end operations & monetization solutions that meet the inward-facing business concerns of the CSP community at large.

While a great start, the Cross-Industry 2.0 approach goes one step further to meet the flow of customer information and interactive communications between industry entities, in an outward-facing role, to address the collaborative business needs of enterprise-level customers.

**Infonova R6** is a good example of how to address this business concern from a single platform, especially as the cloud-based solution concept gains strength within the IT channels of all industries. It is designed to work with multiple suppliers, partners and tenant operators that add business value to the service offerings delivered to consumers and enterprise customers.

**The future of the communications industry depends on the cost-effective support of the Cross-Industry 2.0 way for all industries to be more effective with their customers and in helping them to coddle new “virtual business” opportunities. CSPs are ideally positioned to satisfy this software and services-based business infrastructure requirement. The cross-industry 2.0 approach incorporates the business management needs of most new business models associated with M2M and cloud-based services, in addition to broadband services that will always be at the center of any 21<sup>st</sup> century business strategy. Stratecast looks forward to 2015 being the year that Cross-Industry 2.0 becomes a significant reality!**

## Stratecast The Last Word

Innovation comes in all shapes and sizes as the Stratecast **Global O&M 10 to Watch in 2015** demonstrates. This year's list includes a few smaller companies, a few very large companies, and even an industry forum. Our **10 to Watch** company selections include, in alphabetical order:

- **Amdocs:** Policy Management for VoLTE
- **Centina Systems:** Strategic Assurance and Analytics
- **Ericsson and MetraTech:** An Interesting Acquisition and Integration
- **Hewlett-Packard:** NFV and API Management
- **Infonova:** Enterprise Business Enablement
- **InfoVista:** Service Assurance and Performance Management
- **QOSMOS:** Deep Packet Inspection and Network Intelligence
- **Subex:** The Return of a Revenue Leader?
- **TEOCO:** Bridging the Gap Between Operations & Monetization Functions
- **TM Forum:** Zero-Touch Orchestration, Operations and Management

CSP transformation is an expensive, painful, and time-consuming effort that is never over. The necessary changes will not happen overnight, but CSP transformation is happening, and key solution suppliers are an increasingly important part of it.

The vendors named as **10 to Watch in 2015** are innovative, but also embrace solid business and marketing strategies. Each delivers practical solutions that solve pressing problems in open, interoperable ways. This combination of innovation and practicality enable **10 to Watch** companies to continue on a solid path of growth and success.

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