

Masses of Innovation

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“Business has only two functions — marketing and innovation.” — **Milan Kundera**

“Business has only two functions — marketing and innovation.” — **Peter F. Drucker**

Here we have a quandary at the heart of competitive progress. Two different people are attributed to the same quote. It’s reveling in how this quote is both right and, in its simplicity, profoundly wrong. This simplified wrongness accentuates the core of its truth. To do business you must both innovate and market. More often than not the quote is attributed to Peter Drucker; this is a testament to his prowess at marketing his ideas.

Innovation is a function of idea, execution, and opportunity. Innovation is sometimes associated with uniqueness, but uniqueness is at war with opportunity. Opportunity rises as the qualities of an innovation are communicated to its target users. When multiple people offer an innovation, awareness of the innovation increases by exposure and competition. When everyone is talking about the value of an idea, the opportunity to succeed with it, for both the developer and the consumer, increases. Hence marketing and innovation are right and left hands working together towards execution of a business success. The Innovation Awards at Pipeline are a conjunction of both marketing and innovation. They help everyone succeed at business. These awards are the most credible recognition of innovation in the industry – let me explain why.

Innovation is valuable because it provides both a competitive edge to the supplier, a competitive advantage for the operator, and an advancement in communication for the consumer. Our award judges know this is true as they are capital suppliers of entrepreneurship and consumers of innovative products and services. Let me explain by peeling back some curtains on the road leading up to these awards. This year, I was privileged to help with these awards by both helping nominate candidates and narrowing the enormous field of the nominated to the finalists that went before the judges. It is a process unique to Pipeline



and underscores the value of Pipeline’s Innovation Awards to the whole telecom value chain. This process is rigorous and ensures the most credible recognition of innovation in the industry. Because of this, Pipeline’s Innovation Awards attracts the most innovative technology companies who are driven by the value they experience in the program’s unique, targeted market validation of their innovation.

Nominations

Anyone is free to nominate a company and product for the awards. Anyone. Companies nominate themselves; that’s perfectly fine. Service Providers nominate companies their suppliers; also fine. And analysts, yes analysts who look for and compare fresh features for a living, also can nominate companies. Even technology-struck inventor/analysts like myself throw some maverick entries into the mix. And Pipeline nominates companies it knows to be innovative through its ongoing news and editorial coverage. It only takes one nomination to be considered. But then nominations are only the start of a long and extensive evaluation process.

Over one hundred and eighty companies from the field of ICT suppliers and twenty-four service providers were nominated this year. Every one of these nominated companies offered something unique and special to our value chain. This speaks to our industry still being quite alive and very vital. Telecommunications itself might win an innovation award this year - if civilization were judging.

Prep and Entry

Nominated companies are invited by Pipeline to submit an entry. This is the first significant threshold. The submission questionnaire for the innovation awards is rigorous. It requires that a company’s marketing team establish multiple facts about their company and explain the features, value and demonstrated success of the

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product. There are about a dozen questions about the company and more than a dozen on the product or solution. What problem it targets, what it does, how it is designed, how it is being accepted, inventions and spinoffs, future evolution plans and not least, its importance to the product provider. This is not a beauty contest about how you might have helped Pipeline or any industry organization. The answers supplied expose the precise nature of the innovations within their companies, products and technology. Submissions include detailed technical information and measurements around the impact their technical developments have on the industry and the way we communicate as a global, networked society. Contestants often also include volumes of supporting material, including return-on-investment metrics, case studies, whitepapers, presentations and even videos to reinforce their nomination.

So the submission questionnaire is like a detailed RFI, or even a RFP, detailing the innovation within your products and corporate culture. Was your competitor among the nominations? Was your technology provider innovative enough for the list? The complete list can be found here.

Many of those nominated choose not go forward with their nomination and the extensive evaluation process. This says nothing about the store of innovation accumulated in their product. But it does speak to execution and opportunity. If nominated next year, I recommend expending the effort to fill out all of those questions. These answers speak to the quality of your company, vision and products. These are answers you need to succeed at business. It also provides extensive visibility through ongoing editorial coverage of innovative technical advancements, and to the judges who ultimately review and frequently buy products from the contestants.

There is a small fee for submitting an entry form to subsidize the cost of the program. And, as a result of their investment, contestants have won millions of dollars in new business opportunities through the exposure and validation the program provides. But this is not a lottery. The fees help cover the extensive effort made by Pipeline associates in reviewing these extensive entries, insuring their quality for the award judges, and hosting a red-carpet awards reception in Nice, France where the industry's innovators come together each year.

Award Categories

Awards are given for ten areas of innovation each year. Award winners receive a one of a kind, art-glass trophy and each category is backed up by a runner up who

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takes home a trophy of their own. Categories include established and emerging technology fields. Established fields include Operational Support Systems, Business Support Systems, Network Technology, Managed Services, and Customer Experience Management. Emerging technology fields include Big Data and Analytics and Security & Assurance. New categories are established as new technologies become important to operators. As innovation comes, not just from small single product new entrants, but from established purveyors of many integrated solutions who have created a culture of innovation, there is also a category for Most Innovative Technology Provider.

Each year, Pipeline also recognizes the Most Innovative Operator and a runner up in this category as well. The pillar around which our value chain wraps is the service provider's customers. Innovation is only a potential until it is integrated into the operation and services provided to a provider's business customers and consumers of telecommunication and entertainment. Realizing the value of innovation is a significant effort. Often the service provider is a partner with the product supplier in refining the implementation and value of the product. Sometimes even the initial idea and the development are home grown. Service Providers pull everyone in the innovation flow forward.

Selection of Semi-Finalists

Companies respond by submitting questionnaires in the relevant categories they select. Often a company enters several categories with different products. A team of Pipeline editors moderate various categories and divide up the responses from those companies. Then the working team reviews the entries. Many entries are evaluated by multiple reviewers. This is a huge task taking many weeks of work. Each entry contains dozens of detailed pages and takes several hours to review. Companies are invited to submit additional information which is also considered.

I specifically say review because the Pipeline team

does not evaluate the company or products. What the staff evaluates is the completeness and quality of the application. Was the question answered? Did the nominated respondent understand the question? Would the judges be annoyed with vacuous marketing speak? Were significant answers supplied? By significant, specifically, would a judge reading this answer understand what the company was communicating? Would they learn something? Is there enough information for the judge to evaluate the product using the Judge's own specific criteria? Do the answers provided relate well to the category and convey a truly innovative approach?

The moderators analytically score the completeness and quality of the response. Then the data is normalized to amplify both category-specific information and areas of innovation, while dampening other areas to ensure an even playing field for all competitors. Only the top two Semi-finalists with the highest scores are selected to move on to the Finalist level. This is an important filtering process because the time and thoughts of our judges are quite valuable. Judges consist of technical executives from influential companies, including companies like BT, Comcast, Time Warner Cable, and Vodafone this year. And reading 20 to 60 documents is a steep task. Only 10 percent of the nominated companies made it to the finalist level. Notably, many of the largest technologies faced off against nimble, new market entrants. And some of those fresh new competitors won.

This Year's Innovation Entries

Operational Support Systems: Virtualization was a theme. Ericsson entered its Ericsson Cloud Manager 15.2. In the providers transition to SDN and NFV, services will need to become cloud resident. Cloud manager uses SDN and virtualization technologies to "provides orchestration, management and monitoring of services running on geographically distributed" systems. NEC entered Netcracker 10 Operations Management. It leverages virtualization in the product. For providers, it supplies top to bottom management of hybrid infrastructure and services across physical and virtual platforms. Along the way it uses provides and uses analytics. Analytics were big this year in many categories. Subex's Network Analytics provides "network intelligence and actionable insights for managing and optimizing network capex." It employs "predictive and descriptive analytics across the entire network asset lifecycle combined with complex process management...". Capex is better leveraged by decision makers that are provided with network intelligence, capacity analytics, and lifecycle analytics.

A theme across several categories was using analytics as an engine to combine data from different lines of businesses, technologies, services, networks, systems and tools.

Business Support Systems: Cloud is also targeted in BSS innovations. Ericsson Revenue Manager is a cloud resident, "catalog-driven convergent real-time charging and billing system"...delivered with technologies such as Apache Cassandra and Hadoop." It's another agile entry for provisioning time-to-market in 2-5 days; so also is TRACT® by goTransverse. Transverse's cloud-based product and service deployment solution is targeting newer state of the art service domains such as "cloud solutions, digital entertainment and media, Internet of Things (IoT), Machine-to-Machine (M2M), Over-the-Top (OTT) streaming services, connected car/telematics, logistics" providing monetization and subscription management. NEC/Netcracker's Converged BSS solution, another Cloud-enabled platform, also targets "next-gen services, enables complex partnership models, creates customer-specific promotions, and support cross-industry offerings." Netcracker's message underscores the value achieved in a full integration across OSS and BSS.

Network Technology: ADVA Ensemble Connector expresses itself as a "Pure-Play NFV Platform" meaning it is hardware agnostic and supports multiple VNF vendors. "Ensemble Connector handles virtual switching, flow steering [and security] across L2, L3 and MPLS physical and virtual network systems and Carrier Ethernet 2.0 functionality." gen-E OpsCenter™ InfiniView is "a business intelligence platform providing automated mediation, advanced analytics and a real-time dashboard view into overall business health and performance." A theme across several categories was using analytics as an engine to combine data from different lines of businesses, technologies, services, networks, systems and tools.

InfoVista's Ipanema uses the controller/appliance SDN/NFV technology separation to orchestrate network functions, aka, VNFs. It leverages innovation inherent in autonomic functionality of "self-learning, self-adapting and self-healing application." It provides "application control, dynamic hybrid wide-area network (WAN), WAN optimization and WAN security in real-time for enterprise

networks.” The ItsOn platform provides a service implementation as a service platform that could run in parallel to legacy operations to allow rapid introduction of new services.

Managed Services: Amdocs Value Mining Service uses the Amdocs’ ORBIT Business Intelligence platform. Amdoc’s professional services focus “on optimizing CSPs’ IT environment and maximizing its existing assets’ value by identifying and improving areas with the highest monetary business value per the company’s business goals.” CSG International Managed Services deploys its Business Support Systems (BSS) engine to the “provision of complex operations; proactively translates strategy into a vision for how BSS should evolve; and deconstructs current BSS infrastructure to create flexibility and agility.”

Customer Experience Management: Amdocs Contact Center Services transforms “the contact center into a growth engine...” by providing “a personalized, omni-channel, proactive experience for the end subscriber.” Aptium entered Cognitive Troubleshooting. Here innovative technology was apparent in its use of “predictive analytics, graph database and machine learning to improve customer experience by automating problem resolution,” proactively eliminating negative customer issues”. CSG Ascendon™ targets agile delivery of new services through its overlay design – “an integrated digital overlay to an organization’s existing systems” is implemented in the cloud. ItsOn the cloud. ItsOn’s platform is a full customer service application stack built from scratch for cloud implementation. InfoVista’s VistaNEO solution “automatically post-processes and aggregates call records into rich and accurate network and geo-located subscriber intelligence that can be converted into actionable insight about [a group of customer’s] quality of experience (QoE)”. NEC’s Netcracker Customer Experience Management (CEM) solution “leverages underlying analytics capabilities to gather information from a wide range of sources (structured and unstructured) and drive smarter business decisions based on the collected data.”

Big Data and Analytics: Some entries targeted the computation and then use of analytics to improve customer services. Here there was overlap with the products in Customer Experience Management. In these action-oriented products, crossing thresholds triggers work flows or other action-oriented responses. Ericsson Expert Analytics uses “untapped provider data” to compute its proprietary Service Level Index (SLI). The “SLI measures the perceived experience of individual subscribers based on real-time measurements and provides insights into how to improve satisfaction.

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The SLI predicts customer satisfaction and proactively eliminates the root-cause of the problem so it will not re-occur.” Procera Networks entered ScoreCard. This product provides a service console view that helps management understand and act on metrics of customer mobile experience. Subex’s Revenue Operations Center, ROC, combines technology and domain expertise to deliver meaningful business insights by applying patterns in big data to “generate nuggets of information – which are Consumable, Actionable and Contextual”.

Flytxt and the NEON platform interwork actionable insights reflecting mobile consumer behavior based on data from network, internet middleware services, OSS and BSS. Specifically, Flytxt has been successfully used in market micro-segmentation. MYCOM OSI entered ProInsight which also combines cross layer data from network, service, device and customer layers. Following the fresh trend of products which enable data science in telecom, it provides a “statistical view of technical and commercial metrics, analysis of key variables, network profiling and forecasting based on simple/multiple regression and projection” using “a library of mathematical, time and logical functions for analysis. The computations include statistical distributions, correlation of KPIs and profiling of network areas or mobile cells.” ProInsight uses state-of-the-art big data platform technology to digest over 150 billion data records an hour.

Viavi, gen-E and Infosys also made submissions, Infosys with a decision engine for marketing that could sample pool data and predict data types and target schema. These companies should be watched for implementation progress over the next year.

Security & Assurance: Amdocs made another entry with its Real-Time, Preventive PBX Hacking Fraud Solution which targets exposure to international revenue share fraud occurring from PBX hacking. “In addition to the traditional [fraud analysis] reactive IRSF detection, it enables real-time prevention of PBX hacking” by blocking of IRSF calls before they are established.

This innovative solution uses “real-time Complex Event Processing analysis of the VoIP signaling” to detect and action fraudulent patterns. Subex Secure is a managed subscription “security solution designed specifically for Internet of Things (IoT) ecosystem.” Non-invasive data collection agents route events for analysis in the cloud where associations provide notification of actionable cluster events. These are either automatically defended or given to security teams via workflow.

Most Innovative Technology Provider: This year the aforementioned, multi-entry companies: Amdocs, Aptium, Ericsson, and NEC/Netcracker submitted in this illustrious category. Additionally, offering a collection of services on its service development platform, such as Unified Communications, IoT, NFV/VNF, and specifically the Kandy Wrappers API aggregator, GENBAND entered their encompassing solution here. But this category is different than the rest, looking at the pervasiveness of innovation within an organization beyond the products it creates.

Judges, Buyers and Investors

Pipeline accumulated a select list of the most important companies an innovator must impress. Pipeline’s awards reputation as the benchmark of innovation has won over key individuals from these companies who become judges of the program, and several serve year over year because of the exposure it provides to the industry’s technical advancements. All judges are external and independent of Pipeline. And this year, the judges came in three distinct categories.

The largest category is technical executives from communications service provider companies who purchase and use information, communication and entertainment (ICE) products. Many household name service providers have agreed to be judges in 2016. The judges’ individual identities remain confidential until the red-carpet awards reception in Nice, France. Paraphrasing typical comments of these judges in prior years, ‘I am amazed at the quality of the entries... the comprehensiveness of the answers... and value explanations provided in the categories I judge’ and ‘These innovation entries streamline my product research each year and I have bought product after reading these entries.’

The second category of judges is comprised of highly-experienced industry analysts who make their living evaluating and recommending products and services. These come back year after year as judges because reading a Finalist entry multiplies and short circuit hours of research. These judges are of value to the contestants as they use the information they acquire

from reviewing the extensive entry forms to introduce operators to the most innovative technology suppliers.

The third category of judges, and unique to Pipeline and new this year, are companies who invest in innovative tech companies. It was Pipeline’s own innovative spirit that brought these judges to the fold. These investor companies are necessary, as each year big suppliers buy up smaller past winners of Innovation Awards. The industry needs to fund new innovative suppliers each year to keep the value chain intact, to promote competition, and spur innovation. Lotus Innovations, Moonlight Capital, KREM Group, and Rhapsody Ventures were all new judges in 2016. Lotus Innovations saw so much value in this program that they asked to be the Premier Sponsor for the 2016 Pipeline Innovation Awards.

Judging the Finalists

The Finalists entries and supplied supplemental information are read, objectively evaluated, scored, and selected by the judging committee. All the Finalists receive deep exposure to the judges and each judge selects which of the two finalists in each category they feel is the most innovative. From those summations of collective scores, only 10 winners will be chosen by the esteemed Judges Panel to win their respective categories. These winners join the pantheon of past winners who have benefited from the program.

Speaking of past winners, Amdocs, a multiple winner over the years, expressed its commitment to innovation by also becoming a sponsor of the 2016 awards program. Amdocs is a big company and, as such, works hard at maintaining innovation in its ranks. We know it evaluates innovative new companies for inclusion in its portfolio. But Amdocs also values innovation as a process and has created a branch, the Amdocs Innovation Lab, to foster internal innovation and integration of external innovation into its services.

Winning is not Pipeline’s endorsement of a product, technology, or innovation – but an independent endorsement of the award judges. Winning provides a special validation by the individuals who recommend, buy, and use this technology to deliver the most advanced communications and entertainment services in the world. The Innovation Award winners enjoy a unique recognition and credibility surrounding their technical innovation which past awards recipients have leveraged to win multiple new deployments as a direct result of the credibility the program provides.

While Pipeline has no involvement in the selection of the winners, it does gain significant insight into

the most recent technical advancements through its moderation of the program. This insight dovetails into Pipeline's editorial themes and is incorporated into the massive volume of feature content we produce each year. Lastly, Pipeline, in receiving and further discussing the impressions of all the individual judges, makes one decision itself. Being the only fully-informed entity of all the judging responses in all the categories, Pipeline selects the Winner and Runner-up of Editor's Choice award category. Any company that entered, not just Finalists, can become an Editor's Choice.

It was a heated contest this year, making it difficult for judges to select several winners this year. Innovations in Security & Assurance and Most Innovative Technology Provider both came down to a single vote. See full coverage of the awards red-carpet reception next month, including those that won or placed in each category.