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COMMUNICATIONS

Are You Ready for the 'NOW Economy'?

In networking and IT, the rate of change is accelerating, making agility and adaptability critical for business leaders in an environment of constant market disruption. IT and Networking are becoming ever more virtualized, orchestrated, software-driven and cloud-enabled to fuel innovation and revolutionize business models, revealing communications as the key enabler of strategic competitive advantage going forward.

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In the NOW Economy, communications will no longer be a "vertical" market, as it will be driven into all things — people, objects, devices, sensors. As more dimensions of the enterprise become communications-enabled, businesses will move beyond connectivity and toward 'connected intelligence', where communications drives context about user, availability, location and preferences.

I. Introduction: What is the 'NOW Economy'?

The NOW Economy is one of instant interaction, not to mention highly individualized customer and employee experiences. These experiences are increasingly context-driven across the devices, tools, and applications that are revolutionizing the way people consume, communicate, collaborate and engage in both their personal and professional lives.

As evidenced by the 2016 Oracle Corp. report[1] "The Era I Enterprise: Ready for Anything," in which 300 North American C-level executives across communications and other industries were surveyed, 84% of respondents noted a trend toward customers wanting more individualized experiences, with 70% stating they've experienced this trend from employees as well. Executives believed that delivering an individualized customer experience could potentially earn an additional 18% in annual revenue, meaning as much as $180 million per year, per billion dollars.

This recognition of individualism will be important for executives hoping to instill in the enterprise the same level of revolution and innovation that now increasingly characterize the consumer market.

If one considers how digital lifestyle companies such as Uber, Etsy and Airbnb have disrupted the consumer market, it becomes evident that the freedom and flexibility to subscribe to, rent, lease, borrow or swap virtually anything and everything through the Internet and an expanding web of social networks is what matters to people. People want to extract more value out of what already exists, and create more value where none had previously existed. It is through decentralized systems, micro-entrepreneurship and on-demand market places that NOW Economy players have thus far exhibited common attributes, such as to:

» Disrupt markets by eviscerating incumbents or furthering what incumbents have already built

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[1] http://www.oracle.com/us/industries/oracle-era-ready-anything-2969053.pdf

» Build new consumption models such as pay-as-you-go subscriptions and recurring revenue streams with each and every customer
» Commit to constant innovation, even at the expense of current product sets
» Adopt industry-standard software and hardware, interfaces and APIs for rapid configuration around customer preferences and interoperability
» Respond quickly to customer/marketplace feedback; adapt platforms and applications rapidly
» Hold customer experience excellence as a non-negotiable requirement
» Leverage real-time communications/networking for competitive advantage and economic value
» Implement platforms that are adaptable to product-line extensions and new markets
» Consider user privacy and data security transparency to be a new social contract
» Elevate the strategic use of information to a higher level so as to improve the relationship with customers and to simultaneously enhance products/services. Analytic feedback becomes critical to product/service design.

In the business world, business leaders want to assume some of the above characteristics when it comes to not only their end customers, but their internal customers as well. They recognize that employees want more flexibility and empowerment in terms of devices-of-choice, Web-based applications and services, and real-time customer experience.

Employees want to more readily update and manage services, better gather and analyze customer data, and effectively anticipate and address customer needs.

To address these demands, business leaders are going to have to implement IT systems that help employees collect and analyze customer demographic data. They will have to invest more in data analytics to give employees more insight, and more sophisticated collaboration tools to foster greater cooperation. Additionally, they will have to do more to improve industry-specific applications and the unified communications platforms that help employees interconnect video, voice, messaging, and emails that currently break or make the overall experience disjointed.

This will put more pressure on the communications service providers (CSPs) responsible for delivering connectivity and the IT and cloud services enterprises increasingly need to serve, compete with and partner with NOW Economy players.

As such, CSPs will have to dedicate more spend to innovation and less on day-to-day operations. As it is today, CSPs on average spend 90% of their revenue on OpEx and allow 75%-80% of every IT budget dollar to go toward just running the business, according to Oracle Communications data. That's a stark contrast to the leading NOW Economy providers, which commit only 74% of revenue to OpEx.

CSPs will have to become more efficient and more innovative as enterprises accelerate their move toward the cloud. With as much as 80% of production apps expected to be in the cloud by 2025, and with 85% of all new applications architected for SaaS, according to IDC predictions, there will be a tremendous shift in what enterprises expect of their communications providers.

There will be a similar shift to the cloud for PBXs and communications. However, just replicating today's communications in the cloud will be ineffective in the NOW Economy's consumption and delivery model. In the NOW Economy, communications will have to be native to the cloud and to cloud applications — to the extent that enterprises should be able to real-time communications-enable not only the public cloud but also the marketing, sales and other clouds critical to the enterprise.

II. Communications as the New, Strategic, Competitive Advantage

In the NOW Economy, communications will no longer be a "vertical" market, as it will be driven into all things — people, objects, devices, sensors. As more dimensions of the enterprise become communications-enabled, businesses will move beyond connectivity and toward connected intelligence, where communications will drive context about user availability, location, preferences, etc.), hence creating a real strategic competitive advantage in how people network, communicate, and collaborate.
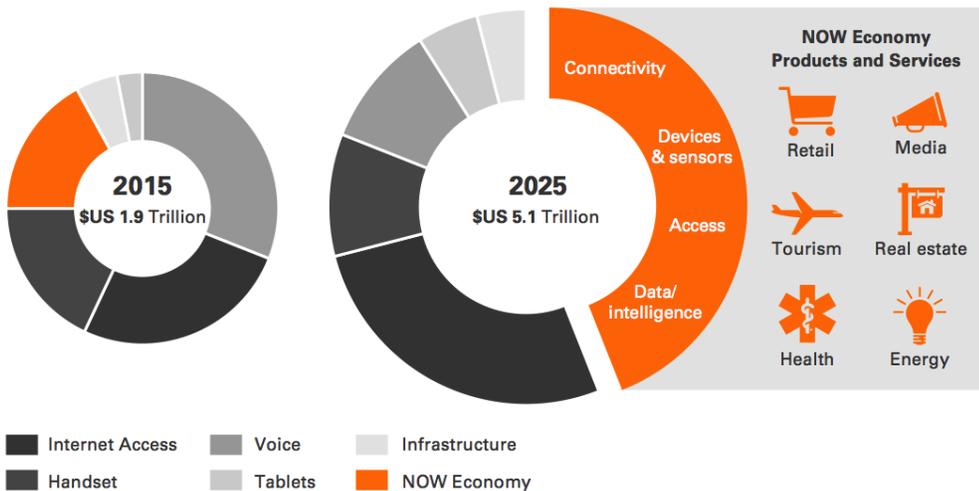

Figure 2. Communications will permeate every industry as people demand more intelligence from devices, objects and sensors.

Enterprises will increasingly invest in unified communications (UC), web communications and other communications that bring customers (internal and external) the type of on-demand control they want over the service experience. Businesses need customer-configured policies and point-and-click provisioning and deployment to help customers achieve in minutes or even instantly what used to take days or weeks. With communications integral to the overall

experience, there can be seamless integration of voice, video and screen sharing into chat and online customer service capabilities. Ultimately, all of these capabilities become part of a service cloud, where policy will be instantly implemented and provisioning will instantly spin services up or down according to need and demand.

Already, digital business (communications-enablement across the enterprise) is taking root: the network infrastructure that powers communications across all enterprise constituents; the collaboration tools that are critical for employee productivity and innovation; the customer experience that defines a brand; the services that power digital business.
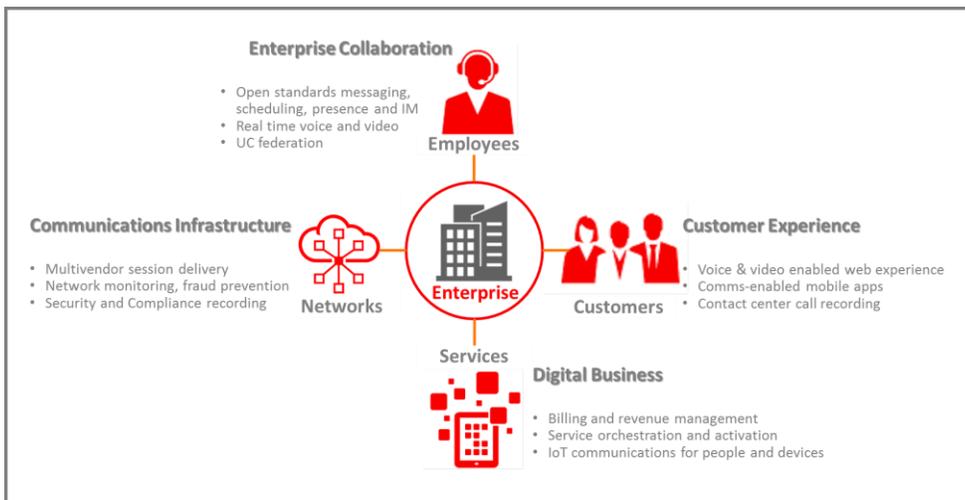

Figure 3. Communications-enablement across the enterprise will transform the business.

As digital business continues to evolve, it will become the norm for communications functions to be infused directly into the apps and software running day-to-day business. Communications infrastructure will:

» Enable real-time voice and video communications across multivendor networks;
» Monitor networks to ensure user satisfaction
» Protect against security threats and fraud
» Ensure compliance with regulatory and industry standards

Within communications requirements, enterprises will need tools and solutions that offer reliable and scalable collaboration, including messaging, scheduling, presence and instant messaging. They will leverage real-time communications for voice and video and work to bring together currently disparate UC VoIP systems (including IM and presence federation).

In addition, voice and video-enabled web experiences will help extend communications capabilities to mobile apps.

The point here is the ability to integrate communications into CX applications will become essential to the rapid design, implementation, activation, orchestration, billing and revenue management of NOW Economy business models and services (such as those related to IoT and other burgeoning phenomena).

Consider what comprehensive communications-enablement could do to the customer experience during a complex business transaction, such as a mortgage application. All of the processes, functions and steps necessary to pass a

mortgage app to an underwriter, to a researcher for credit checks, to a loan officer, to an attorney, to a bank, become too numerous and complicated for even the savviest of home buyers.

The complexity and duration of a currently arduous process can be greatly reduced just by embedding communications into the process and software used by the mortgage company. One-click connections among key contacts in the process (loan originator, underwriters, attorneys, accountants, etc.), and instant chat and messaging could drastically reduce the number of phone calls necessary or the amount of in-person visits required. Overall, it could greatly accelerate the process and enhance the CX.

Whether mortgages, financial services, health care, utilities, energy, retail, food, goods or services, the same type of communications-powered revolution could greatly enhance the customer experience and the efficiency with which businesses serve their customers and constituents in all industries.

III. Seize the Opportunity Through 'Four Pillars' of Investment

As CSPs and the enterprises they communications-enable dedicate more spend to innovation, it will be virtualized, orchestrated, software-driven and cloud-enabled infrastructure that will firmly embed communications as a strategic competitive advantage.

In the NOW Economy, COTS will take the place of certain types of Inflexible hardware. There will be dynamic software layers that decompose desired functionality into micro-modules of software that can be more readily deployed, reconfigured, scaled and billed for through subscription models. It is through this highly configurable, software-driven environment that CSPs and enterprises will migrate functions into data centers and that more efficient IaaS, Paas, Saas, and DaaS business models will emerge. This will revolutionize how CSPs and enterprises provision, assure, bill and monetize, as they will no longer incur the hit of an 18-month to two-year innovation cycle, or the exorbitant customization costs that go with it.

In the same way leading NOW-Economy players have leveraged the Internet, cloud and communications, it is now time for CSPs, the enterprises they serve and the digital-services providers they partner with or enable to do the same.

To focus on innovation and drastically shrink OpEx, there should be a focus on the four pillars of NOW-Economy investment.

Four Pillars of NOW Economy

VIRTUALIZED/ ORCHESTRATED

CLOUD-RESIDENT

EMBEDDED OBJECTS

ENABLE DIGITAL BUSINESS

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These four pillars move companies toward the agility and flexibility, and the ubiquitous comms-enablement, that are becoming the mainstay of the NOW Economy:

» Virtualization/Orchestration;
» Cloud Resident
» Embedded Objects (Communications enablement of humans, applications and inanimate objects and sensors)
» Enable Digital Business (communications enablement across the enterprise)

Virtualization/Orchestration

While virtualization can move companies beyond the limitations of proprietary hardware and platform capabilities, it is not enough on its own. Orchestrating the interactions that take place between virtual network functions (VNFs) and physical network functions (PNFs) will be just as important: coordination of service design all the way through to data center operation will be the only way to optimize the effectiveness of virtualization—the purpose of which is dynamic configuration of resources through finely controlled, quick-assembly service delivery that helps companies experiment with new services and test network or customer segments.

In the area of orchestration, there are three critical areas to consider:

» Network service orchestration, which manages all capacity and virtualization coordination for both VNFs and PNFs.
» Application orchestration, which must manage the lifecycle of network functions.
» NFV infrastructure (NFVI), the data center resources that are managed using virtual infrastructure managers (VIMs).

Intelligent orchestration will be fueled by the sophistication of Diameter infrastructure and its communication with policy servers, online charging systems, mobility gateways, and other BSS/OSS components that have to adapt to the parameters and variables important to dynamic Now-Economy services.

Cloud Resident.

Communications cloud or communications-as-a-service moves everything to the cloud, establishing a Dev/Ops type of environment that can be used to rapidly develop, test and deploy service provider and enterprise network signaling and applications solutions.

The Communications Cloud provides a COTS-engineered system for cloud-optimized communications products. It delivers the performance, security and reliability once possible only through operator networks, but with the added benefit of a software-controlled environment and affordable industry standard platform that gives enterprises a way to more readily migrate their business to the data center, employing IaaS, Paas, SaaS and DaaS for all functions.

» Software-as-a-service (SaaS): modern cloud applications that connect business processes across the enterprise, covering everything from customer experience to enterprise resource planning, human capital management, and more.
» Platform-as-a-service (PaaS): Combining powerful databases with robust application servers to provide an elastically scalable platform for consolidation of new and existing applications.
» Infrastructure-as-a-service (IaaS): Brings a comprehensive set of infrastructure services including elastic compute and storage, allowing businesses to run any workload in the cloud, and in fully integrated environment optimized for the cloud.
» Data-as-a-Service (DaaS) fosters Customer Intelligence by extracting valuable signals from social and enterprise data to understand consumer needs.

Embedded Objects.

As momentum builds for the Internet of Things and 5G mobile networks, monetization becomes possible for application areas that deliver personalized, context-driven services. These services will recognize the dynamic interplay among people, devices, machines, services, applications and networks — all of which must become communications-enabled, as well as controllable and programmable. As device volumes extend into the trillions, there will be a need for ultra-scale fulfillment and activation capability as well as automated IT/Network interoperation.

Insights and controls will be gathered through real-time monitoring and transmission of the data generated by different devices and machines. As these trends take shape, businesses, governments and people will be able to extend the life of assets, improve safety and security, and work to enhance life and work experiences through higher degrees of personalization. This is where business models are revolutionized, as business and CSPs will be able to compete on innovation, value and CX as opposed to price.

Enable Digital Business.

To continuously remove friction between business models, systems, applications and service — and to foster communication and collaboration across the entire enterprise — there will have to be a greater focus on IT and network convergence, and on cloud services that minimize costs and optimize performance, customer experience and revenues. This will be increasingly important as value chains become more intricate and as the landscape of players and business models becomes more diverse.

As described in Section II of this paper, communications will no longer be a standalone function served by hardware-based PBXs and desk phones. In the NOW Economy, enterprises will have to harness the combined power of IT and Networking in a converged, fluid communications environment.

Increasingly, enterprise applications will be integrated with messaging, voice, mail and video conversations, such that these applications — and the processes they automate — will become fully communications-enabled.

As communications is driven into all applications, including enterprise-grade applications (ERP, HCM, CRM, etc.), the business will improve: applications will communicate across and between enterprises, time delays will shrink; decisions will be be made faster; transactions will be fueled by facts; and the customer experience will improve.

Additionally, enterprises will connect more readily to their customers, suppliers, partners, and even each other. Real-time services for the digital lifestyle will emerge.

To summarize, these four pillars will enable enterprises and service providers to optimize the performance, security, reliability they expect from their communications networks, and to maximize customer insight and overall customer experience analogous with the desires of the NOW Economy audiences they serve — whether internal or external.

V. Conclusion

As business leaders and the service providers enabling them look outside of today's business models, it becomes possible to honor and monetize the individualism that is driving the NOW Economy.

By implementing the Four Pillars outlined here, and elevating communications to a strategic level, business executives better equip their companies for service velocity — enabling the rapid reassembly and modification necessary to move from novelty to innovation and from ideation to revenue quickly.

There is no doubt that NOW Economy investments will change how business leaders transact business and how people conduct themselves as individuals and as members of a greater whole, whether in their personal lives or professional lives. The goal is to remove friction from existing business models, systems, applications and services so as to improve overall quality of experience, and to even bring to fruition the possible net-positives to individuals, businesses and even economies and societies as the NOW Economy evolves.

The mandate to leaders in all industries is to determine how to best leverage the innovations that already define the still-nascent NOW Economy so they can shift spend from OpEx to innovation, accelerating service velocity and establishing sustainable business models that meet customers on their terms, their devices, their preferences.

In an economy driven by the individual, it is no longer sustainable to take hours, days, and weeks to deliver services or to provision services across networks, devices, services and apps end-to-end. Businesses must bring products and supporting capabilities to market at Now-Economy speed. They must become software driven to establish optimal cloud services delivery. Software will be essential to tying together disparate domains, vendors, networks, technologies, business models. With this unification, everything begins to communicate—humans, devices, sensors, objects, improving quality of life and allowing businesses to compete on value rather than price.

The time to act is now. Businesses must move toward highly individualized customer and employee experiences if they are to compete with, or enable, NOW Economy players. Considering the revenue shift that is already occurring with companies such as Uber and AirBnB, it is clear the opportunity is substantial.

Much of the legwork is already underway with virtualization and cloud initiatives, and communications-enablement is a natural next step that provides a key competitive advantage in the NOW Economy.

In the same way leading NOW Economy players have leveraged the Internet, cloud and communications, it is now time for CSPs, the enterprises they serve and the digital-services providers they partner with or enable to do the same.

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