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The Evolution of Digital Channels: Powering Self-Service Innovation with Flexible B/OSS

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As the needs and expectations of users continue to change, communications services providers (CSPs) are on a continuous journey of evolving and upgrading their digital channels. Customers now expect seamless, personalized, omnichannel experiences, requiring CSPs to modernize both their back-end systems and their frontline digital touchpoints to keep pace.

However, many CSPs are constrained by their legacy BSS/OSS platforms and find it difficult to compose and deploy new digital experiences at speed. Agility remains a significant challenge for CSPs striving to support advanced digital strategies and manage exponential growth through digital sales, enhanced customer interaction, and digitalized transactions.

To overcome these challenges and future-proof their digital customer experiences, forward-thinking CSPs are embracing more agile, composable approaches to modernizing their BSS/OSS foundations.

Bringing the Digital Strategy to Life

CSPs require e-commerce and self-care journeys to be available across mobile and web applications so customers can manage all aspects of their account and services through digital channels without the need for phone calls or in-person visits. Customers are happy to use digital channels when:

- They can complete their tasks independently.
- Learning how to do what is required is intuitive and easy.
- The user journeys are reliable and flawless.

Providing these self-service capabilities empowers customers to take control, improving satisfaction and reducing the load on call centers and retail locations. It also enables CSPs to boost digital sales and transactions, which are more cost-effective than traditional channels.

However, each of these user journeys must be designed and crafted in detail. CSPs that try to cover too many use cases via their digital channels, often end up compromising on the user experience of them all. An engaging digital channel is characterized by its quality and ease of use, not by the ability to do everything. So, when launching a digital channel, focus on a limited number of high-value experiences and run the complete lifecycle of user-centric design, from research to user testing.

Registration and onboarding of new customers is particularly delicate, as CSPs have a unique opportunity to portray an image of trust, simplicity, and customer focus. A challenging onboarding experience is



likely to take a long time to fade from the customer's memory, so removing friction early on is crucial. It is always interesting to judge the quality of a product by the amount of time that a customer spends using it; users are willing to invest their time when something is useful and intuitive.

Divide and Conquer Measuring Your Digital Success

The ability to measure digital engagement is the base KPI required by CSPs to support a digital strategy. Having a simple measure of the number of customers that use a digital channel at least once a month gives a strong reference about their digital maturity and can be used as a starting point from which to grow their digital business by taking specific actions to increase the utilization of digital channels. Your digital engagement KPI is simply the number of customers that use digital channels at least once a month divided by your total number of customers.

Once a high level of digital engagement has been achieved, it's time to begin monetizing your digital strategy.

Measuring the revenue that comes from digital sales provides the next KPI. Your digital revenue equals your direct revenue from sales using digital channels divided by total revenue. Note that direct revenue from sales includes recurring revenues, so when a customer *subscribes* to a product that is paid via digital channels, it also contributes to this KPI. This is a strong indication of the ability to expand the business via digital marketing and sales, accommodating the growing digital-first culture of customers and efficiently monetizing CSPs' product offerings.

New BSS/OSS capabilities can further boost CSP profit margins and provide the ability to grow exponentially through fully digitalized transactions – customer tasks that are started and completed end-to-end via digital channels and process automation, making them cheap to run, easy to scale, and flawless. Your digitalized transactions KPI equals the number of fully automated transactions divided by the number of system transactions.

The Digitalized Transactions KPI is mostly influenced by event-driven architectures and advanced technologies including GenAI, supporting the BSS/OSS. Digital Engagement and Digital Revenue are more dependent on the ability of CSPs to compose and measure digital experiences and continuously improve their digital channels.

Experimentation and Agility

Digitally mature CSPs are commonly fuelled by internal innovation teams that are focused on digital domains, new technologies, and customer centricity. These teams are dedicated to the continuous improvement of [Horizon 1](#) (existing customers and existing markets), specializing in user-centric design, powered by an entrepreneurial, can-do mindset, and driven by evidence delivered through data insights. Technologies that support agility and measurement are critical for continuous improvement, and the ability to experiment and capture new evidence is key to achieving successful results for innovation teams. A/B testing becomes a day-to-day technique to measure customer experience and preferences, remove friction touchpoints, and deliver improvements to the sales funnel and overall customer satisfaction in digital channels.

Service Provider Strategies

CSPs face a dilemma between designing and building costly bespoke UI/UX applications, which over time can degrade agility and entrepreneurial spirit while increasing costs, and off-the-shelf products, although comprehensive, often prove difficult to adapt quickly to the ever-evolving demands of the digital business landscape.

In-house developments with dedicated teams benefit from tailored approaches that meet specific business needs, but these methods can become cumbersome and less responsive to change. Conversely, while off-the-shelf products are more cost-effective and quicker to implement, they still struggle with the continuous adaptation required to keep pace with digital evolution.

Emerging Solutions

To address these challenges, a combination of product-based solutions and new technologies is proving to be most effective, providing the means to deliver a comprehensive set of user journeys and features,

together with a wide range of tools to capture user behavior analytics and A/B testing that CSPs would otherwise have to develop and integrate in-house.

A new product-based approach with a highly configurable UI framework, combined with GenAI for design-to-code, design systems with tokenized styles and layouts, a headless content management system (CMS), and digital experience composition features, is already delivering desirable outcomes. These innovations provide the agility, flexibility, and speed to market that businesses need to stay competitive, as well as the supporting tools for CSPs and their innovation teams to continuously seek improvement of their digital KPIs.

A key aspect of these emerging solutions is the delivery of a decoupled UI/UX architecture that can still be easily integrated with external applications and other data sources. This ensures that digital channels are not only flexible and adaptable but also capable of delivering personalized and meaningful engagement.

Looking Ahead

Many CSPs are burdened by monolithic, inflexible BSS/OSS architectures that make it difficult to rapidly integrate new digital capabilities and roll out innovative offerings. A modern composable BSS/OSS solution based on cutting-edge technologies enables inexpensive and fast initial rollout, with full flexibility to adapt and evolve whilst staying on the product path.

As the digital landscape continues to evolve, CSPs must stay ahead by embracing these emerging trends and technologies. The integration of configurable UI frameworks and product-based solutions will be crucial in maintaining their agility and delivering exceptional digital experiences. Additionally, leveraging user behavior insights will help identify friction points, while running A/B testing supplies the ability to experiment and improve digital experiences. This flexibility allows CSPs to quickly roll out innovative offerings, experiment with new channels, and continuously enhance the customer experience, ultimately driving greater loyalty, operational efficiency, and revenue growth.