virtusa | **aws**

The faster way for CSPs to assemble and launch new services and revenue streams

Enabling CSPs and partners to collaborate and co-innovate future-ready solutions

You can argue that the communications industry moves faster than any other. The market is buzzing with innovations driven by customer appetite, intelligent networks, and competition from digital and OTT providers. With the iComms marketplace, Virtusa helps Communication Service Providers (CSPs) race ahead with an eye on the future while reimagining the present.

iComms

The rapid speed of innovation in the network space, including 5G, fiber, cable, DOCSIS, and edge, contrasts with the slow pace of service innovation. Limited skill sets and legacy technology have also made progress more arduous.

With billions of investments, telcos need to ensure they:

- Shift from reactive to predictive network management
- Move from static data to insight-driven customer interactions
- Deliver cross-channel integration and experiences
- Enhance customer self-service using emerging technologies

The Virtusa iComms marketplace offers an ecosystem for CSPs, technology partners, and industry forums to innovate faster and harvest unique solutions by leveraging Virtusa IP. It empowers service providers to quickly build and launch new services and capitalize on emerging trends to grow new revenue streams.

The Virtusa iComms architecture

iComms hosts pre-built solutions and accelerators that cater to customer-and-network-centric goals. Many of these solutions are built on emerging technologies and aim to deliver sustainable innovation at scale.

Our long-standing partnerships with leading global CSPs and technology partners, combined with our unique digital engineering processes, create a culture of rapid solutioning and accelerated time to market.

We have a passion for trying new ideas—and a rapid process to bring them to life. Whether it's Interactive Retail, Cognitive Network Decisioning, or Smart Field Force Management, we're investing, experimenting, tinkering, and hardening the technology that sets the pace in an ever-changing world.

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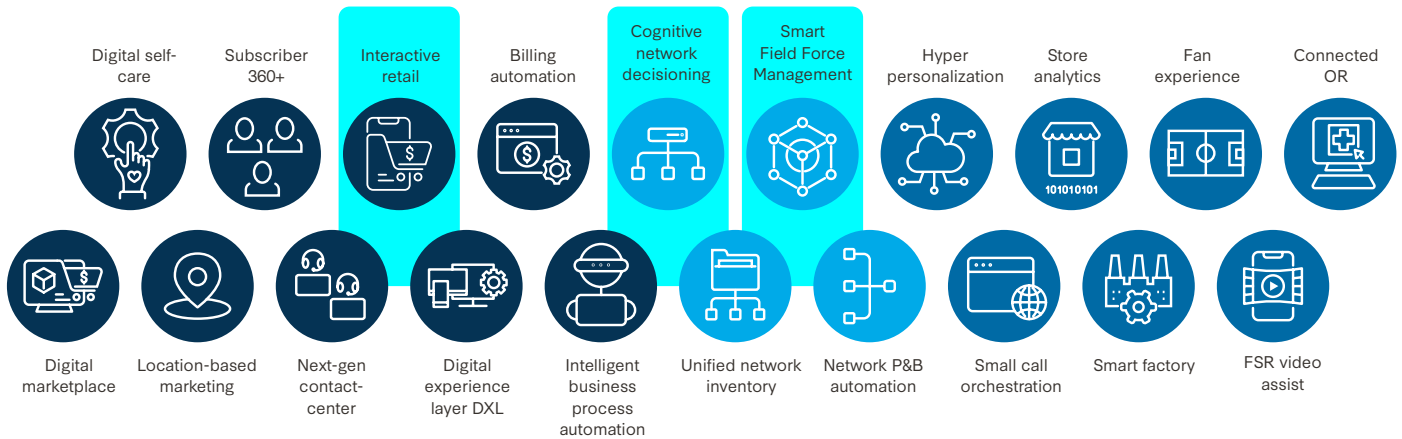
www.virtusa.com/solutions/icomms

iComms Solutions Overview

Solutions and accelerators that deliver value across the customer and network lifecycles

Customer-Centric Solutions   Network-Centric Solutions   5G-Centric Solutions

| Digital self-care | Subscriber 360+ | Interactive retail | Billing automation | Cognitive network decisioning | Smart Field Force Management | Hyper personalization | Store analytics | Fan experience | Connected OR |

| Digital marketplace | Location-based marketing | Next-gen contact-center | Digital experience layer DXL | Intelligent business process automation | Unified network inventory | Network P&B automation | Small call orchestration | Smart factory | FSR video assist |

Customer-centric Solutions

Cloud-native solutions help digitize operations and deliver a connected experience across customer touchpoints.

Interactive Retail: Reimagine the future of retail using an XR and AI-driven connected and differentiated total experience delivering an increased self-service adoption and customer engagement.

Network-centric Solutions

Solutions for dynamic, programmable, and ever-evolving on-demand network services delivery.

Cognitive Network Decisioning: Enhance network intelligence and achieve a single view of the network. Drive auto-decisioning through an overlay platform integrated with multiple network management systems.

Smart Field Force Management: Help field technicians identify the main fault location, recommend next steps, and analyze impact with AR and AI-powered remote test and diagnostic capabilities.

Solution Spotlight: Interactive Retail

Interactive retail is enhancing customer experience and transforming operations with the following innovative solutions:

The Virtual Reality Powered Retail Experience offers an in-store retail experience with an end-to-end, smart "endless aisle" that delivers an intuitive experience to boost customer engagement.

The Web VR-enabled solution, which recreates an in-store shopping experience, provides a more responsive and fun-filled solution, enabling customers to enjoy shopping from home.

The Augmented Reality (AR) Powered Retail Experience is an in-store experience that offers a more engaging and immersive retail experience designed to transform retail of the future. The solution provides an AR-driven gamified in-store experience with capabilities for "point and discover" and "try-before-you-buy" experiences.

Agentless Interactions or Digital Walls are AI-powered conversational digital walls that offer an immersive and conversational experience for improved "explore and buy" journeys at retail outlets.

Retail Store Analytics combine in-store metrics with real-time data-driven insights and actionable intelligence, delivering improvements in customer segmentation, shopper behavioral patterns, and the effectiveness of in-store promotions, helping to streamline operations.

Interactive Retail Key Benefits include:

- Improvement in customer satisfaction and NPS score
- Faster cycle time in making a buying decision
- Reduction in FTE cost at CSP retail stores

- Improvement in upselling and cross-selling opportunities
- Improvement in marketing campaign effectiveness
- Improvement in top-line growth

Solution Spotlight: Smart Field Force Management

With many technicians unable to access required information from the field, organizations look to Virtusa to arm them with every possible advantage. Most field engineers want a pre-visit view of service history and access to their knowledge base when off-site, but over half of organizations are still using manual methods for the bulk of field service tasks. Many also believe that their current tools are not fast enough; however, they see AR as a potential emerging technology that will assist them.

With Virtusa and AWS, companies are seeking improved field service effectiveness and efficiencies to deliver a better customer experience that includes a decrease in the number of visits, reduced truck rolls, and shorter handling times. In short, they are looking for a 15% reduction in the daily workload.

Smart Field Force Management Key Benefits include:

- Improved field service effectiveness and efficiency to deliver a better customer experience
- A drastic increase in the number of visits

- Half as many truck rolls and average handling times
- Greatly increased accuracy through guided resolutions
- A reduction in daily workload

Solution Spotlight: Cognitive Network Decisioning

Cognitive Network Decisioning enables network orchestration to integrate seamlessly with physical and virtual networks. It also provides cognitive models to predict anomalies that will have an impact on the network. With a built-in decisioning platform to automate the next best action, it can accurately identify main fault location with specifically designed algorithms. It features a business impact view of services, networks, operations, customers, and billing in the event of an incident and a self-learning AI-powered network knowledge hub for impact assessment, root cause analysis, and guided resolutions.

Cognitive Network Decisioning Key Benefits include:

- Drastic improvements in SLA adherence
- Significant reductions in service desk and technician dispatch (truck roll) cost

- Improvements in "Right First Time" and fault accuracy
- Reductions in cost to serve
- A consolidated view of global networks with customer-centric self-service capabilities

iComms Key Benefits

Domain Engineering

Pre-built solutions, accelerators across customers, operations, billing, and network-centric functions.

Tech Studio

Playground for CSPs to experiment, innovate, and bring ideas to life in improving time to market,using proven pre-built accelerators.

Industry-led Initiative

Industry-led collaboration and an ecosystem of CSPs, partners, SMEs, and forums to co-create solutions.

SUCCESS STORY

Major multinational telco experiences improved self service capabilities across multiple channels with Icomms Digital Experience Layer (DXL)

One of the world's leading health insurance companies turned to Virtusa and AWS when faced with a heavily manual, inefficient, error-prone data integration processes based on COTS ETL in its billing department. Growing data volume, as well as individual file sizes, had led to performance problems and required a new approach.

Virtusa re-architected their data integration layer with a parameterized, configurable opensource data transformation framework to manage end-to-end functionality and developed a new framework using Sqoop, PySpark, AWS Glue Data Catalog, and Amazon S3. Because of this, they were able to process a full data-load for 10 dimensions with a peak processing record count of 16 million records and load 90 GB of data in approximately 30 min in their new production environment.

Virtusa and AWS

Ten Years of Innovation

Virtusa has been a key AWS partner for more than ten years and has developed deep relationships and expertise. In 2021, Virtusa extended its Strategic Collaboration Agreement (SCA) with AWS to empower global organizations to unlock more value, efficiency, and profitability via cloud-based services. Virtusa was also named the 2021 AWS Industry Solution NSI Partner of the Year-U.S.

- AWS Premier Services partner since 2017
- 8 Competencies | 6 Partner Programs | 4 Service Validations
- 100+ AWS Customer Launches
- 2,100+ AWS Certifications
- AWS ProServe Strategic Partner
- Database Freedom Program Partner
- AWS ISV 'Workload Migration Program' partner for Pega

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