HOW CSPS SOLVE DATA CHALLENGES TO DRIVE BUSINESS PERFORMANCE



In a mature marketplace, communications service providers (CSPs) are under constant pressure to retain existing consumer and business customers, attract defectors from the competition and drive new use cases with innovative IOT/5G and edge service. After all, there are only so many existing customers to go around—and if you can't meet the needs of your current subscribers, they'll be quick to go elsewhere. That makes it critical to take a data-driven approach to your business.

Telecommunications networks and business systems hold vast information about customers and connected devices; service consumption, app utilization and performance, payments, requirements, and preferences—virtually every aspect of their relationship with your business. All you need to do is find accurate, efficient ways to put it to work on their behalf while lowering costs.

Does that sound more easily said than done? In the past, CSPs have struggled to make optimal use of operations support system (OSS) and business support system (BSS) data to drive business value. Outdated systems have made it difficult to execute the data workflows needed to respond to customer requests. Increasingly complex service packages have led to billing breakdowns that annoy and alienate subscribers. As new innovations and business opportunities appear on the horizon, business leaders are unable to capture actionable insights to create the right services at the right prices to delight current customers and win new ones. And throughout the organization, data friction undermines optimization efforts, leaving cost and inefficiency at unacceptable levels.

But that picture is changing fast. Today's CSPs are finding new ways to get the right data to the right people and places at the right time—and discovering new opportunities to build customer satisfaction and competitive advantage. Consider a few common CSP data use cases.

Data pipeline management—With mobile markets nearing 100 percent penetration in many countries, CSPs need to offer the most appropriate and timely services to retain existing customers and attract new ones. There's a truly vast amount of data available to guide these business decisions, including social media data, machine-generated communications, and transactional activity, but how can you exploit this asset? It's not enough to simply capture data; you've also got to be able to extract actionable insights to drive customer loyalty, increase operational efficiency, develop new business models, and provide revenue protection.

Data and workflow orchestration play a central role in the creation and management of modern data pipelines across virtually every industry, and telecommunications is no different. CSPs are increasingly building automated, end-to-end data workflows that can be managed simply as business services. DevOps and DataOps teams can code data workflows directly into business applications, while business users can monitor and manage their own workflows to keep data flowing smoothly from diverse sources into consolidated systems to deliver business insights, leverage AI/ML for optimization, and unlock the full power of big data for competitive advantage.

Rating and billing—In complex BSS environments that have evolved incrementally over time, CSPs face significant challenges moving and processing call detail records (CDRs) across different systems for mediation, rating/billing, and invoicing while maintaining data integrity, accuracy, and auditability.

Legacy file transfer tools make it difficult to ensure that all the CDRs generated by network switches are correctly received and processed by downstream systems, which can increase the risk of billing problems.

Leading CSPs are now solving this problem by integrating, automating, and orchestrating CDR movements in end-to-end workflows, alongside related processes such as batch billing, ad-hoc rating, and scheduled or on-demand invoicing, across the entire system. With centralized visibility into workflow progress, CSPs can catch and correct delays or errors before they affect customers while also simplifying auditing and compliance. The historical data captured can yield immense value in a broad range of areas from system optimization and capacity planning to data-driven customer profiling and targeted promotions.

Porting authorization code (PAC)—CSPs receive millions of mobile number portability (MNP) requests every month from subscribers who want to change their service provider without changing their mobile number. Regulatory mandates call for these requests to be fulfilled within demanding service level agreements (SLAs)—often just a few hours. Traditional methods like scripting and service requests are too slow and error-prone to reliably hit the target, exposing the CSP to punitive compliance fines and disgruntled customers.

Data and application workflow orchestration offers a better solution. With a single view to define, schedule, manage, and monitor porting service application workflows; identify and remediate issues when they occur; and proactively predict and manage possible SLA violations, CSPs can meet the demanding requirements of both regulators and customers every time.

How BMC is driving data innovation

Long a mainstay of technology operations for CSPs, BMC is now helping service providers solve a new generation of data challenges. The Control-M SaaS data and application workflow orchestration solution makes it possible to automate the processes that connect existing data sources and

systems and deliver the timely, accurate data needed for reporting, insights, and optimization. Automated workflow management and data integration replace manual scripting to speed the implementation of big data projects and deliver timely insights enabling successful business decisions. End-to-end visibility into data pipelines at every stage helps CSPs meet SLAs and resolve critical issues before deadlines are missed.

Telefónica Tech, Telefónica's digital business unit, is now integrating its blockchain-powered TrustOS module with Control-M Saas to enable end-to-end traceability, immutability, and time verification for files across key business workflows. By connecting existing IT solutions to blockchain capabilities, the solution spares CSPs the time and resources required to manually train employees on how to use blockchain. You can learn more about the Telefónica Tech integration here.