



BILLING MEDIATION

**NEXT-GENERATION NETWORKS NEED
NEXT-GENERATION MEDIATION**



The largest and fastest-growing operators in the world rely on CSG to consolidate and replace their multiple legacy mediation systems to support the latest network technologies, like NFV and the evolution to 5G, in parallel with existing circuit-switched services.

With hundreds of global installations, CSG is one of the most trusted offline and online mediation solutions in the world, processing over 41 trillion EDRs per year for our largest client alone.

The CSG solution is designed to work with both traditional and next-generation networks. It captures and processes customer usage events of all kinds from any service delivery network for industry leaders in telecom, finance, logistics, and government.

Clients have deployed the solution in under three months to enable fast rollout of innovative new services. Plus pre-defined, reusable tools and processes simplify the support of ongoing changes.

Any kind of service delivery interaction can be implemented with the reliability and security needed for revenue management and enhancing business-critical applications. This allows you to cost-effectively process vast transaction volumes and adapt to evolving business requirements.

All of the features necessary to support mediation across domains, such as mobile, fixed and broadband, are provided. This enables consolidation of platforms and substantial cost savings from a single platform and technology.

AGILITY, SPEED, QUALITY

These attributes are among the most valued characteristics by users of any communications service. CSPs around the globe are responding in kind with investment in network upgrades. Hundreds of wireless service providers are in the midst of VoLTE deployments; terrestrial and submarine fiber rollouts are being accelerated in no small part due to increasing government investment in national broadband networks; and cable operators worldwide are upgrading to the next-generation speeds with national digital upgrades. All of these investments are required to enable the next-generation services that consumers demand.



IT ALL STARTS WITH THE NETWORK...

Simultaneously, we see the development of next-generation services driving new business models across industries such as cloud services and Internet of Things (IoT) services. And these new services, combined with the explosion of digital content, generate data records in volumes orders of magnitude greater than the past, for instance IMS can generate five times the number of events compared to legacy networks. Each of these developments—network evolution, cloud services, Internet of Things and big data—are transformative in and of themselves. Collectively, they're altering the industry beyond network technology, and affecting analytics and data management, service delivery, charging and billing and settlements with partners.

...BUT IT ENDS WITH THE CUSTOMER

The provision of next-generation network technologies is table stakes for the service provider. They must seize emerging opportunities, grasp and retain market share in increasingly competitive environments, and rapidly deploy new services. Monetization of new services is a mandate to recover the huge investments being made. But monetization is different in the new world of all digital, high-speed networks connecting things more than users. It is less about associating value at the individual transaction level, and more about deriving insights and value at the collective level. These insights allow CSPs to see more deeply into subscriber behavior, market trends, and partner performance, which results in process efficiencies and margin growth. The greatest understandings are derived from the most timely, accurate and complete set of transactional data. While a single record may not have a charge, its value is as part of the collective and must be collected, processed and stored with as much attention and efficiency as ever before.

AGILITY AND REVENUE MANAGEMENT

Service providers benefit from these developments on multiple fronts. They gain by providing higher bandwidth connectivity and delivering digital services that customers demand. That means they can support a greater number of devices and connections across a growing number of industry use cases and extend their traditional connectivity-based offers to be an enabler for and provider of bundled cloud solutions. CSPs possess a unique advantage to provide cloud computing because of their technical credibility, command of the network, position of trust, and preexisting relationships with large and small enterprises.

Technology introductions are faster, product lifecycles are shorter, and mass adoption has accelerated. CSPs need to be more agile to take advantage of new opportunities, more diligent to optimize revenue and employ effectual business models to pull it all together.

At the CSP's heart, a flexible BSS solution can be a revenue driver by improving business elasticity to adapt to new technologies, applications, devices and usage paradigms. For instance fast deployment of services such as Wi-Fi calling or introduction of new SIP connection partners. In a challenging competitive and economic climate, there is an even greater focus on managing costs, but there is also opportunity and growth. Fast-moving operators have a distinct competitive advantage to win early market share.



But these advantages come with data mediation challenges:

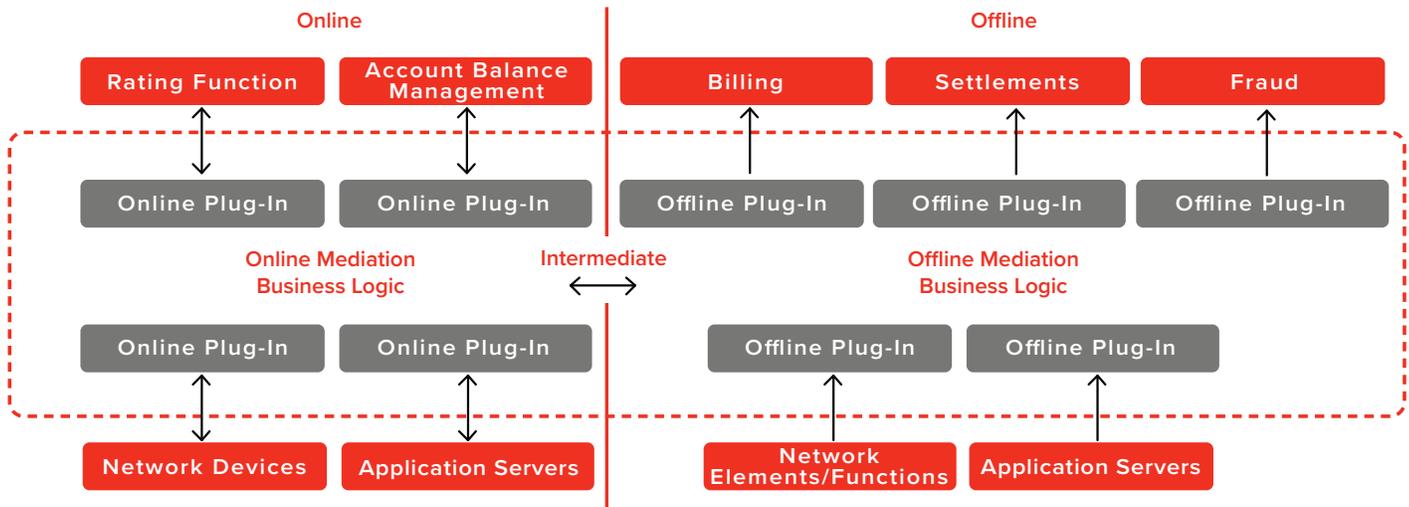
- **Revenue opportunities**—capitalizing on new opportunities and launching new services more quickly than competitors
- **Revenue leakage**—ensuring seamless integration among mediation platforms, network elements and varied service types to eliminate redundancy (systems and processes) and revenue loss
- **Manage and reduce costs**—predictably managing the initial costs of supporting new networks and services, while streamlining the operational costs of coexisting legacy networks

SOLUTION FEATURES

CSG Billing Mediation combines horizontal (offline and online) and convergent (wireline, wireless, 3/4/5G) mediation onto a single platform to deliver:

- Easy configuration with a library of off-the-shelf plugins supporting network functions and business systems. The extensive library includes plugins for all key network vendors and legacy protocols (X.25, etc.) and industry standards (Diameter, IPFIX, Kafka, etc.)
- Fast configuration—drag-and-drop plan management for configuring online and offline mediation workflows
- Flexible business logic—quickly implement mediation rules for transaction validation, correlation, de-duplication filtering and routing rules with powerful scripting
- Centralized operations—manage and monitor distributed mediation nodes in a single dashboard
- High-performance correlation engine
- Revenue assurance features including management of record errors, audit and reporting
- Configurable KPIs for monitoring traffic and dashboard reporting
- Unparalleled performance and ultra-low latency—exceeds transaction throughput of legacy systems by a factor of ten, thus requiring fewer platform resources whether virtualized and/or physical
- No third-party products—eliminates the need for expensive commercial databases or in-memory caching software
- Proven low-cost, high availability—highly reliable architecture, supporting HA across bare metal, virtual and cloud platforms

THE CSG MEDIATION SOLUTION PROCESSES OVER 41 TRILLION EVENT DETAIL RECORDS PER YEAR FOR OUR LARGEST CLIENT ALONE.



SOLUTION BENEFITS

BUSINESS ELASTICITY

CSG Billing Mediation provides the basis for an agile BSS platform, designed to integrate with diverse network elements, support a multitude of usage records and adapt to evolving revenue models.

UNPARALLELED APPLICATION PERFORMANCE

The solution provides cost-effective scalability and the raw power to exceed the demands caused by an upsurge in data volume, variety and velocity requirements.

REVENUE ASSURANCE

Protect revenue as networks evolve and volumes magnify—eliminating gaps among networks and supporting systems.

LOWER TOTAL COST OF OWNERSHIP

Integrated online and offline mediation and consolidating multiple legacy systems leads to lower operating costs.

ACCELERATED TIME TO MARKET AND ROI

Unique configuration and testing tools to enable fast time to market for new services, with agile integration with plugin support for new network elements.

PROVEN MEDIATION SOLUTIONS

Business is uncertain, but the solution instills confidence as it is a carrier-grade and has excelled and surpassed the competition in the most demanding network operations.



INDUSTRIAL STRENGTH

With over 35 years of experience, CSG has established technical credibility and industry expertise while accumulating impressive performance statistics. CSG created its Billionaire Club to recognize the outstanding accomplishments of its customers; we process over 41 trillion EDRs per year for our largest client alone. The following are highlights of Intermediate deployments:

- > Proven to capture and process customer usage events of all kinds from any service delivery network
- > CSG's 10 largest customers support over 620 million subscribers
- > Largest Intermediate deployment supports over 89 million subscribers in a single instance
- > Complex deployment integrated with over a thousand network elements and devices

MEETING TOMORROW'S CHALLENGES—TODAY

CSG customers around the globe have already witnessed a huge increase in charging event volumes generated by the explosion of mobile broadband services, the rollout of 5G, the provision of cloud services and the adoption of IoT use cases. CSG Intermediate keeps pace with the transaction volume growth of some of the world's largest operators today, in a cost-effective manner and with the flexibility to enable what comes next.

ABOUT CSG

For more than 35 years, CSG has simplified the complexity of business, delivering innovative customer engagement solutions that help companies acquire, monetize, engage and retain customers. Operating across more than 120 countries worldwide, CSG manages billions of critical customer interactions annually, and its award-winning suite of software and services allow companies across dozens of industries to tackle their biggest business challenges and thrive in an ever-changing marketplace. CSG is the trusted partner for driving digital innovation for hundreds of leading global brands, including AT&T, Charter Communications, Comcast, DISH, Eastlink, Formula One, Maximus, MTN and Telstra.

To learn more, visit our website at [csgi.com](https://www.csgi.com) and connect with us on [LinkedIn](#) and [Twitter](#).