# Embracing Digital Billing for Seamless Operations

To stay competitive, companies must innovate in monetization by merging online charging with traditional billing into a truly convergent charging and billing system. This solution provides real-time access to data, real-time billing capabilities, reduces redundancies, simplifies operations, and enhances business flexibility. It accelerates the launch of new offers, improves market responsiveness, and meets demands for efficiency and customer satisfaction through automation and transparency.
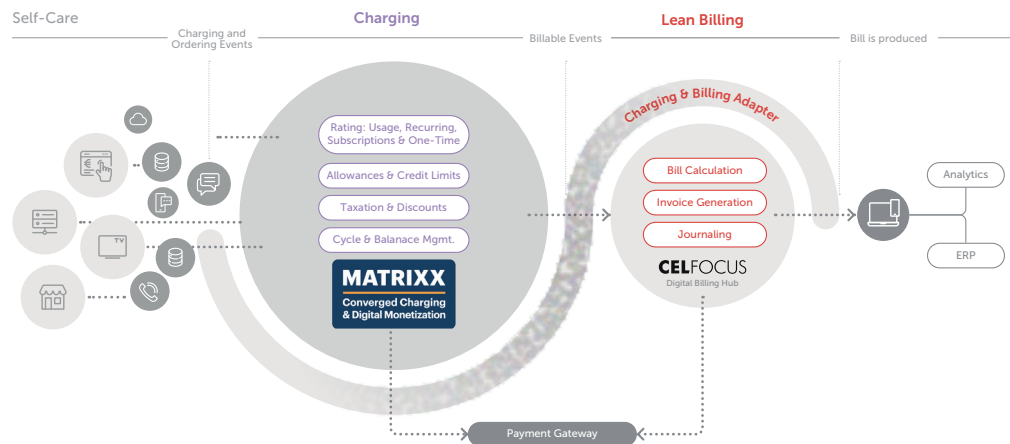


## CHALLENGE

Transitioning from static, complex legacy billing systems to real-time solutions is essential. Traditional systems hinder innovation, scalability, and transparency, causing inefficiencies and poor customer experiences. They struggle with modern demands, leading to functional overlaps, operational complexity, and integration issues. An agile, real-time billing system is crucial to meet telecom market needs.

## SOLUTION

Celfocus and MATRIXX offer an integrated digital billing and monetization solution that follows a cloud-native, modular architecture. This solution supports real-time monetization, lean billing, and a single wallet strategy across various business models. It complies with TMForum OpenAPI standards, enhancing flexibility and scalability while ensuring seamless integration and efficient, transparent operations for telecom operators.

## BENEFITS

- Faster Time-to-Market
- Operational and cost Efficiency
- Personalised Experiences
- Real-time Charging and Billing
- Accelerated Cash Collection
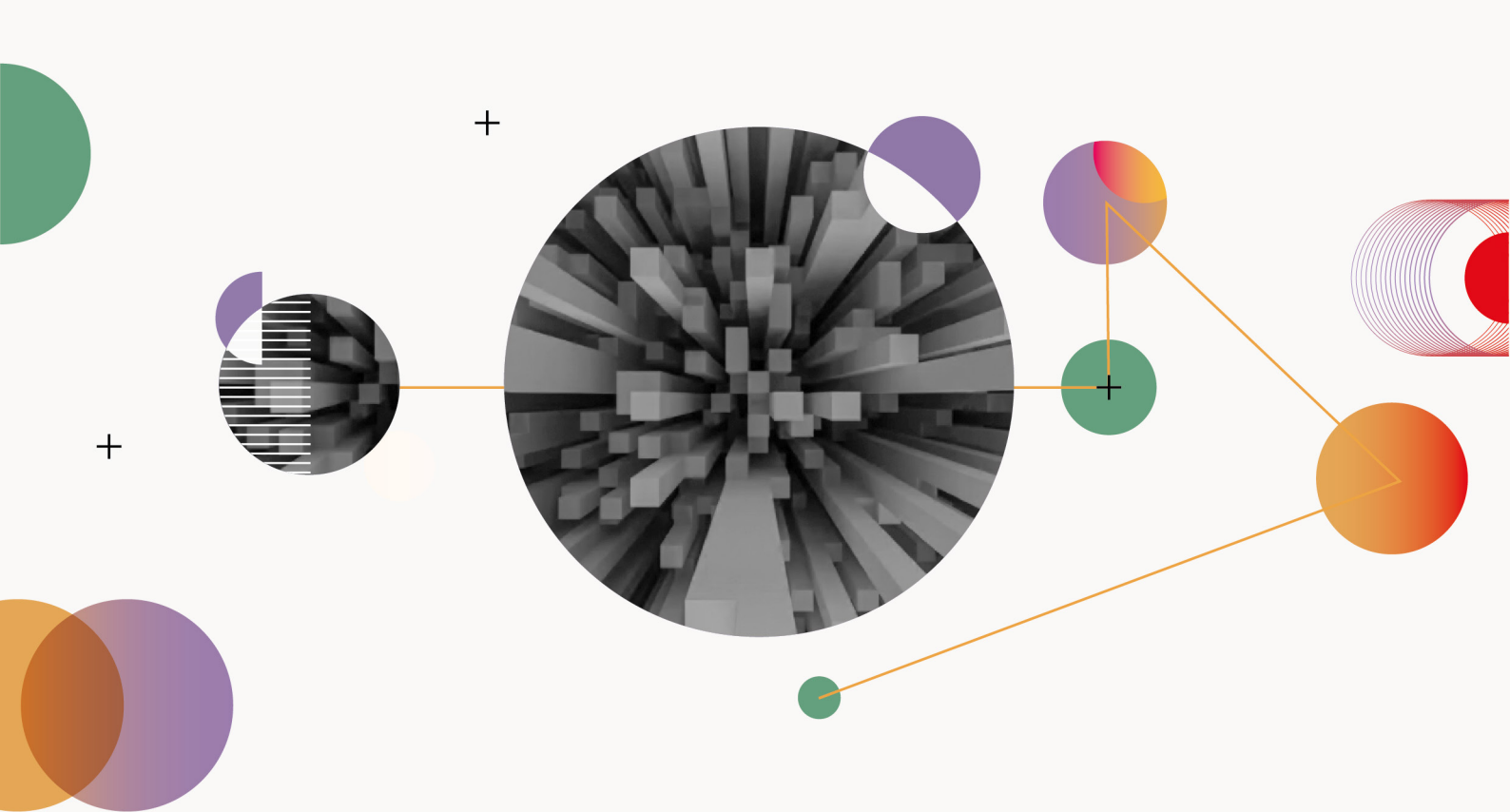- Monetisation of Innovative Services
- Scalability and High Availability

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Keep reading to **know more about the solution and the different use cases**   >

USE CASE

# Embracing Digital Billing for Seamless Operations
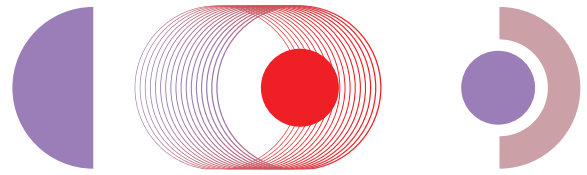
**MATRIXX®**
**SOFTWARE**

Exploring a new frontier in monetisation with an innovative approach has become crucial for companies.
However, to achieve this, it is necessary to transcend the traditional demarcation between billing and online charging.

By consolidating online charging with digital monetization and billing functions traditionally done offline by legacy billing systems within a convergent charging system, companies gain access to a **new dimension of real-time charging and billing data, eliminating functional redundancies, simplifying operations significantly, and drastically improving business flexibility.** This streamlined approach expedites the introduction of new offers and features in the charging realm, drastically reducing time to market, and endowing companies with the tools to stay ahead of the competition.

Essentially, this groundbreaking approach is fuelled by the business demand for agility and speed to stay ahead in the market, the need for operational efficiency achieved through strategic automation, and the commitment to exceeding customer expectations by providing full transparency, as well as innovative and personalised experiences and offers.

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# Celfocus and MATRIXX Digital Billing Monetization

**MATRIXX** | Converged Charging & Digital Monetization

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| | | |
|---|---|---|
| Standards based approach combined with OOTB product design, accelerating time to integration and operation | **Pre-Integrated Digital Billing Monetization solution compliant with TMForum OpenAPI** | Provides an abstraction layer that empowers the billing and charging capabilities' integration and exposure |
| Support for a single wallet strategy in B2C, B2B and wholesale plus prepaid, postpaid and pay now business models | **Highly Flexible Market Segment / Business Model Support** | Comprises a set of features that streamline revenue collection of innovative offers and new partnerships |
| Over 30 telco deployments worldwide, transacting billions $ of revenue annually, full follow the sun global support model | **Supporting Customers Worldwide** | Serving Clients in 25+ countries, Celfocus helps organizations transform their business |

Celfocus and MATRIXX partnered to deliver a best-of-breed, fully integrated, out-of-the-box digital monetization and billing solution. An approach that breaks the stranglehold of legacy billing solutions through a unique combination of real-time monetization and 'lean billing', moving on from classic batch-oriented and highly complex billing systems to a real-time, leaner, billing solution.

The Digital Billing Monetization solution is composed of **Celfocus Digital Billing Hub (DBH)** and **MATRIXX's digital mone-tization solution.** The modular architecture of Celfocus Digital Billing Hub enables a Lean Billing implementation with only the necessary Billing functions for each case. Furthermore, the solution takes full advantage of MATRIXX digital monetization features to perform all the charging requi-rements and not exclusively online usage rating. Offline rating, recurring and non-recurring charging, taxation and discounts functions are performed in  MATRIXX, for all types of services offered by the organisation.

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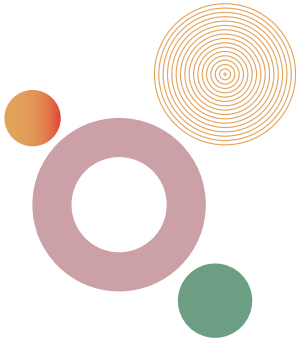
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# Celfocus Digital Billing Hub

Traditional billing solutions were designed to perform in a static, batch-oriented manner, often struggling to keep up with the dynamic demands of the modern telecommunications landscape, ending up being an impediment to business innovation and lacking the information needed to provide a clear, transparent, and real-time billing vision to customers.

These legacy systems not only proved to be complicated but also presented challenges in terms of scalability and real-time decision-making. In today's fast-paced digital era, telecom operators need to **adopt new ways of handling billing features and leverage the vast volumes of data produced daily.**

Furthermore, most of the billing functions traditionally done by these systems are now being covered by the Convergent Charging Systems, as the need for instant access to information grows along with the advances in technology. This causes a significant overlap in the capabilities offered by billing and charging systems, as traditional billing solutions are not modular and are unable to function without performing all billing functions, causing an increase in the complexity of the overall solution, duplication of responsibilities, difficult integrations, and more, which leads to inefficient operations, low business flexibility, and, consequently, a poor customer experience.

The Celfocus Digital Billing Hub (DBH) is an innovative cloud-native billing solution designed to tackle these issues, replacing traditional billing solutions with real-time lean billing that complements Convergent Charging System (CCS) products, particularly MATRIXX, by providing just the necessary functionality and needed flexibility to adapt to the ever-changing telecom market, preventing data and functional duplication across systems, and offering real-time access to the billing information.

It adheres to **industry standards defined by TMForum by following the ODA architecture blueprint and the OpenAPI initiative,** ensuring interoperability and smooth integration with other telecommunication systems, and promoting seamless and continuous digital evolution, leveraging standardisation and decoupling. Its cloud-native architecture offers **scalability, high availability, and cost optimisation,** making it ideal for businesses with varied workloads and demanding processes. **It simplifies billing operations through automation and data transparency, reducing errors and operational costs.**

Additionally, its modular, customisable design allows clients to choose and integrate only the components necessary to address their needs, ensuring minimal data replication and no functional overlap, not forcing them to implement a fully--fledged solution from scratch, but **supporting agile and incremental functional expansion and coverage by leveraging the adaptability and extensibility of the solution,** potentiating innovation and evolution.
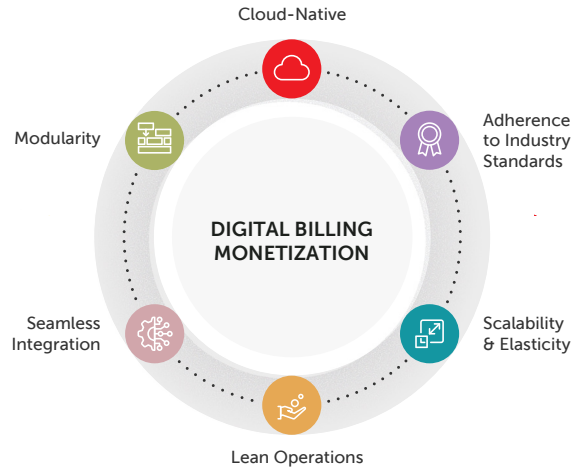
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# MATRIXX Digital Monetization Solution
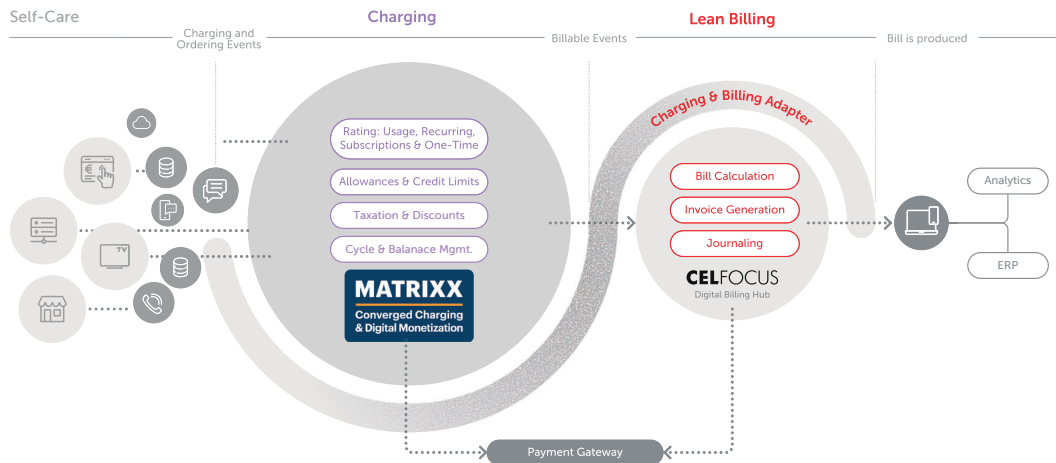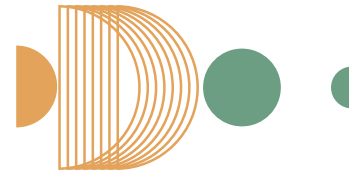


MATRIXX delivers a digital monetization solution that combines 3GPP-compliant converged charging with digital monetization capabilities not typically found in a charging system, for customer engagement, subscriptions, promotions, payments, and partners.

All customer and partner charges are generated in real-time including usage, one-time, recurring and subscription across all lines of an operator's business. This gives all customers a digital-first customer experience with always available and accurate service and balance information, including visibility of their complete unbilled spend position be they B2C, B2B, or B2B2X customers or partners. MATRIXX provides a **real-time software solution that transforms telecommunications services and digital monetization offerings by providing operators with a next-generation digital platform.** When combined with a digital frontend, it streamlines product management, customer engagement, service delivery, and monetisation, creating a **seamless real-time digital experience.** This platform enables personalisation, cross-selling, and upselling, leading to cost reduction, improved customer retention, and increased revenue. It also shifts the telecom industry away from traditional subscription models towards more **customer-centric and flexible offerings.** To achieve this, it challenges the limitations of existing Business Support Systems (BSS) and focuses on modern digital engagement and digital monetization capabilities that are agile, cost-effective, and scalable.

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# The Celfocus and MATRIXX Digital Billing Monetisation is based on the following 3 drivers:

Cloud-Native

Modularity

**DIGITAL BILLING MONETIZATION**

Adherence to Industry Standards

Seamless Integration

Scalability & Elasticity

Lean Operations

## Simplification

- A single wallet strategy driven by Convergent Monetisation.

- Digital Customer Experience – accuracy, transparency, and real-time spend position, as charges are no longer hidden until invoice time.

- Massive reduction in billing complaints and call centre costs.

- Improvements in NPS.

- Massive simplification of the BSS stack as well as operations, by removing system duplication.
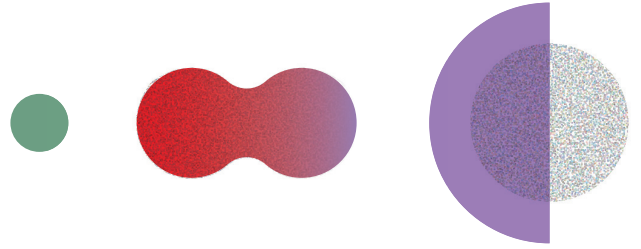
## Acceleration

- Ending postpaid billing cycle restrictions.

- 'Anypaid' (prepaid, postpaid, pay now) payment model, giving customer choice and flexibility.

- Accelerated cash collection.

- Faster time to market for new offers and functionality, potentiating personalised experiences for each customer.

## Efficiency

- Extending MATRIXX footprint for all charging – effective, scalable, ROI and value improvements.

- Lesser footprint for the Billing function.

- Eradicates billing delays and costs from order management and change programs.

- High availability, resilience, elasticity, and scalability for each individual module, inherent from its cloud native, modular architecture.

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# Use Cases

## Digital Operators

The Digital Billing Monetization solution enables an enhanced charging and billing experience for customers with real-time converged wallet information for prepaid and postpaid. It accelerates cash collections with virtually no time between the end of the cycle and the invoice generation. Each customer can have their own Bill Cycle.

## Data-centric Organisations

The Digital Billing Monetization solution is an accelerator to monetise data and APIs, providing seamless billing and charging processes so companies can extract value from data.

## Customer centricity

The Digital Billing Monetization solution enables and provides meaningful and personalised experiences making the best use of data.

## Efficient & Agile Organisations

The Digital Billing Monetization solution provides a platform to efficiently monetise services. It empowers agility, enabling streamlined operations and optimising costs.

## 5G Convergent Charging

Leveraging MATRIXX and Celfocus Digital Billing Hub for 5G convergent charging is essential as it enables a unified and adaptable solution for all upcoming 5G services, simplifying operations, increasing efficiency, and providing a competitive advantage in delivering advanced telecommunications services across the evolving 5G landscape.

# Next Steps
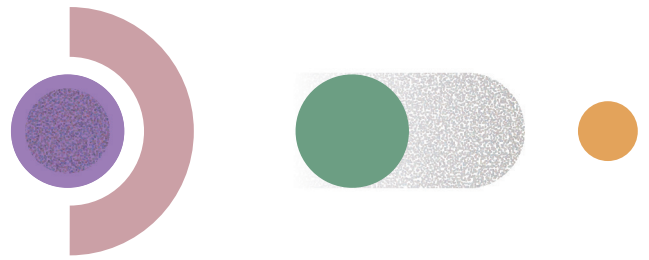
The next pivotal step in Celfocus and MATRIXX's journey to modernise the digital billing and monetization systems involves the integration of AI capabilities.

This strategic move aims to explore the wealth of data generated in real-time, leveraging it to extract valuable and fundamental insights for billing and charging processes.

By harnessing AI, it becomes possible to make usage and top-up predictions, wallet optimisations, forecast billing trends, predict customer churn, and automate billing and charging operations efficiently, among others. This technological advancement aligns with the companies' commitment to meeting customer needs by delivering a more intuitive, predictive, and responsive digital billing and monetization solution.

Ensuring alignment with market and industry standards is a crucial aspect of the future trajectory. Celfocus and MATRIXX are committed to **evolving in sync with industry benchmarks, particularly focusing on compliance with TMForum ODA, OpenAPI,** and other relevant industry standards. This alignment not only ensures adherence to best practices, but also reinforces the ability to cater to the evolving needs of customers.

As the project advances, an emphasis on architecture evolution is key, recognising the importance of staying up to date with technological advancements. Therefore, the next steps involve exploring facets such as new cloud and microservices technological trends, heightened security measures, and increased automation. These explorations are geared towards fortifying the billing system, **ensuring it is not only future-proof but also capable of meeting the dynamic demands of the industry.**

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## About Celfocus

Celfocus is a European high-tech system integrator, providing professional services focused on creating business value through Analytics and Cognitive solutions – addressing Telecommunications, Energy & Utilities, Financial Services and other markets' strategic opportunities. As a highly specialised technology company, Celfocus helps clients undergo their innovation path, providing technological solutions to extract value from data for successful business evolution.

Serving Clients in 25+ countries, Celfocus delivers solutions such as accelerating digital network transformation in Autonomous Networks, elevating and monetising business services in B2B2x ecosystems, and providing highly relevant customer experiences through Hyper--personalisation solutions.

Founded in 2000, Celfocus started as a joint venture between Novabase and Vodafone Portugal and is now entirely owned by Novabase. The company is listed on the Euronext Lisbon Stock Exchange.

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## About MATRIXX Software

MATRIXX Software delivers a modern converged charging and digital monetization solution proven at scale. Global operators like Telefónica and Telstra, IoT providers like Tata Communications and network-as-a-service (NaaS) providers like DISH rely on the platform to overcome the limitations of traditional Business Support Systems (BSS). With MATRIXX, service providers can rapidly configure, deploy and monetize personalized, innovative offerings. Its cloud native platform delivers accurate, real-time information that improves customer engagement. MATRIXX enables commercial innovation and real-time customer experiences that drive revenue and growth opportunities across multiple markets.

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