syniverse®

Syniverse Universal Commerce for BCE

An innovative clearing and settlement solution that supports today's and tomorrow's emerging technology

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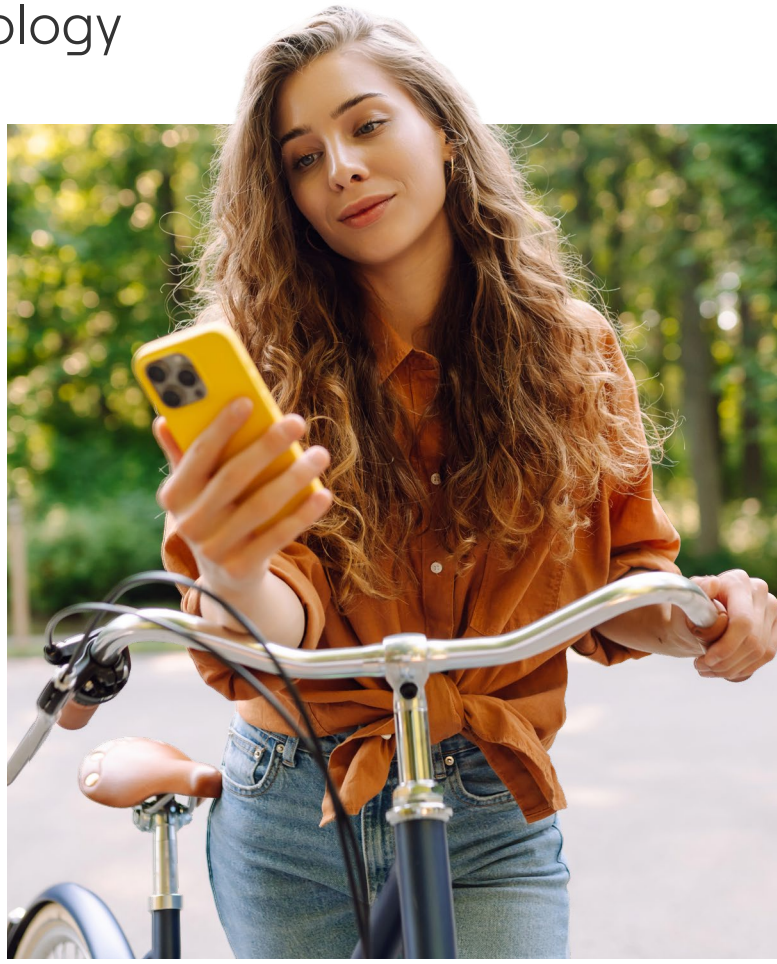


Market Problem

As mobile network operators (MNOs) move to embrace 5G technology, they also need to update their clearing and settlement technology. Billing and Charging Evolution (BCE) is a new standard developed upon request from MNOs who intend to launch and monetize 5G roaming and data-based, low-volume services.

The traditional form of clearing and settlement, Transferred Account Procedures (TAP), faces limitations that warrant its replacement by a more modern framework such as BCE.

Solution

Internet of things (IoT) and 5G standalone (5G SA) roaming will have a significant impact on MNOs from a network usage and monetization perspective. Syniverse Universal Commerce (UC) for BCE is a next-generation platform for clearing and settlement solutions designed to help MNOs streamline their business, to unlock new revenue streams and decrease costs.

Benefits

The Syniverse UC platform helps to monetize new 5G and IoT connectivity solutions with flexible charging models. It optimizes wholesale clearing and settlement activities for data roaming traffic through aggregated views, allowing a customer to automate much of the existing workflow process. This decreases operating costs while increasing efficiency, workflow automation speed, automated validation, and reconciliation functionality.

- Increases revenue and decreases costs with the industry's only solution built on a blockchain backbone.
- Offers enhanced security, greater transparency, and instant traceability.
- Utilizes a financial clearinghouse built into the BCE flow to reduce funding requirements by helping with cash flow.
- Standardizes the non-standard by taking in multiple feeds, standardizing them, and producing a different format used for clearing with multiple inputs, and multiple partners on the back end.
- Analyzes traffic utilizing intelligence as part of a monetization strategy, to securely validate and monetize any transaction, for any industry, across the mobile ecosystem.

Product Highlights

Decentralized Ledger
All traffic on UC is combined into a single ledger, ensuring that all amounts owed and due for each roaming instance, ensuring that no matter how small, as well as every transaction on the Syniverse payment hub, will be captured. This is ideal for financial teams, as it saves customer cash flow and ensures a faster path to settlement.

Blockchain Technology
UC reduces data discrepancies and replaces outdated validation processes with efficient blockchain technology, making it easier than ever to transact at the speed of business.

Complete Solution
UC combines all the features you need into one package. The solution embraces new BCE data format technology to provide:

- Mediation, validation, reconciliation, rating, and billing functions.
- A clear audit trail between multiple credentialed parties using blockchain technology.
- Transparent insights into your business through an easy-to-use portal.
- A manageable charging model that allows customers to acquire new revenue streams on existing traffic.

Product Features

Integrated TAP0 components
Ability to exchange NB-IoT and 5G SA in TAP through simplified TAP records without charging information, using existing fields with new values.

Omnichannel technology
Removes obstacles to revenue by embracing a new omnichannel technology that processes multiple formats.

Single look-up
Eliminates manual processes and validates all data with bulk file scrub and proactive monitoring.

Blockchain technology
Encrypts data with the highest levels of protection, enabling organizations to quickly implement new secure business models for more partners.

Audit trail
Supplies a clear and transparent view between multiple credentialed parties.

GSMA compliant
Fully compliant with GSMA's BCE standards.

Feature rich
Provides mediation, validation, reconciliation, rating, billing function, and workable charging functions.

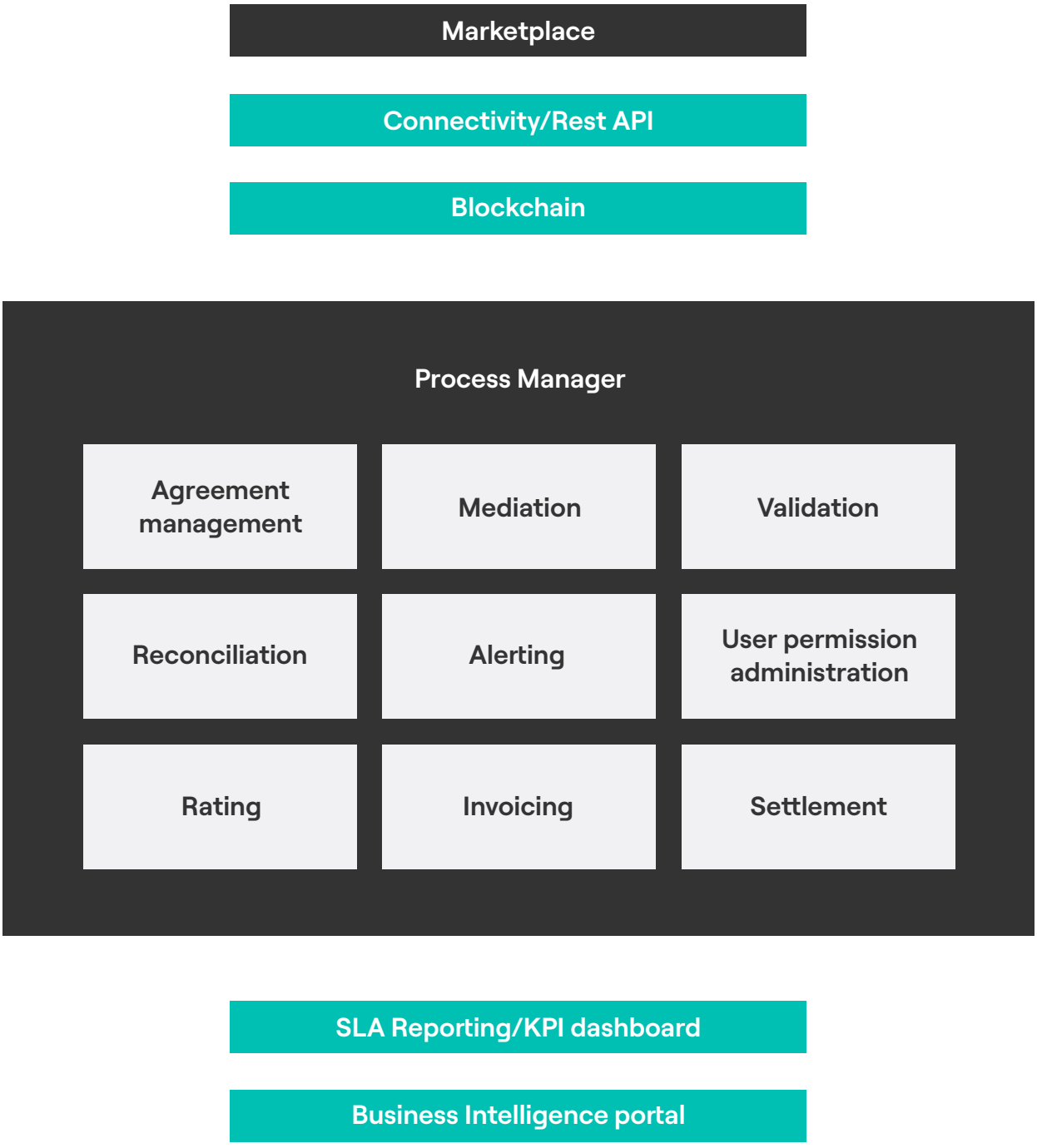
Business intelligence
Leverages the power of intelligence with optional Syniverse Total Visibility for both TAP and BCE billing. This allows MNOs to optimize their charging and clearing processes, reduce fraud losses, increase revenue, improve customer satisfaction, and gain a competitive edge in the market.

Consumer and IoT roaming data usage is expected to soar by 36% annually, reaching close to 5,000 Petabytes in 2024.

Kaleido Intelligence

Universal Commerce

Supports all generic clearing and settlement modules and offers the flexibility to adapt to markets.



Use Cases

NB-IoT
Narrowband IoT (NB-IoT), is a specialized communication standard designed for low-power, long-range IoT devices. NB-IoT efficiently transmits telemetry and control data, minimizing energy usage.

By example, NB-IoT can be used at a large farm that has deployed a network of IoT devices for precision agriculture. These devices, which include soil moisture sensors, weather stations, and crop health monitors, communicate using NB-IoT due to their low power consumption and wide area coverage.

UC can track data usage for each device. This is crucial for billing purposes and monitoring the health and efficiency of the network.

At the end of each billing cycle, UC calculated the total charges for each device (or group of devices owned by the same entity) and aggregates the usage, not only simplifying the clearing and settlement process, but ensuring traffic that crosses your network can be captured and billed.

EV Charging Stations with IoT Integration
A city has deployed a network of electric vehicle (EV) charging stations. These stations are equipped with IoT devices that communicate with each other and a central server using 5G communication. The IoT devices monitor the status of the charging stations, manage the charging process, and handle user authentication and payment.

When a user plugs their EV into a charging station, the IoT device at the station authenticates the user and authorizes the charging process. IoT devices manage this charging process, monitoring the amount of electricity used and the duration of the charging session. A clearing and settlement system is needed to track information for billing purposes.

At the end of the charging session, UC calculates the total cost of the transaction based on the amount of electricity used and the applicable pricing model. It then handles the payment process, either by charging the user's account or by processing a payment from the user. It also handles the clearing and settlement process, ensuring a correct accounting of all payments.

With IoT integration and UC for BCE, the city can efficiently manage its network of EV charging stations, providing a convenient and efficient service for EV users. The city can also accurately bill for the usage of the charging stations, creating a sustainable economic model for the EV charging network.

5G M2M Charging and Clearing

In this use case, a city has deployed a network of IoT devices across its infrastructure for various purposes — traffic management, waste management, energy usage monitoring, etc. These devices communicate with each other and with central servers using 5G Machine to Machine (M2M) communication. The sheer number of devices in a smart city can reach the millions, and with dynamic pricing and potentially varying pricing models for different types of data, the complexity can be high.

UC for BCE can help keep track of the data usage of each device. At the end of each billing cycle, it can calculate the total charges for each device (or group of devices owned by the same entity) and initiate the clearing and settlement process.

With a robust solution such as UC, a city can efficiently manage its smart infrastructure, ensuring optimal usage of resources, timely maintenance, and improved services for its residents. The city can also accurately bill entities for their usage of the city's infrastructure, creating a sustainable economic model for the smart city.

5G Network Slicing

With 5G network slicing, an MNO can have multiple virtual networks on a single 5G network. Each slice can be customized to meet the specific needs of different types of data traffic. For instance, one slice could be optimized for low latency for video conferencing, while another slice could be optimized for high bandwidth for large file transfers.

Network owners need the ability to measure the Quality of Service (QoS) within these slices to provide an appropriate level of service to their users. UC helps to collect and process these QoS measurements. It then turns them into easy-to-consume records that enable the network owner to properly monetize the traffic for their particular slice of the network.

With 5G network slicing and UC, an MNO can provide high-quality connectivity, ensuring a good user experience while accurately capturing usage of the network slice for billing, creating a sustainable business model.

BCE to enable 34% of Wholesale Roaming Settlement by 2028.

Kaleido Intelligence

Be Ready for the Future With Syniverse

As the world's most connected company®, Syniverse recognizes the many challenges MNOs will face as 5G matures. That's why we're actively developing key technologies, from global and interoperable connectivity, to partner management, to advanced clearing and settlement solutions. We won't stop until every MNO can play an active role in the 5G ecosystem and deliver the promise of a more connected world.

Contact us to learn more about how Syniverse UC can help redefine your wholesale billing and charging processes, to capitalize on the unprecedented growth of IoT and 5G.

To learn more visit Monetization | Syniverse

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