



Futureproofing Your Billing System for Emerging Telecom Services



5G/6G Change is Innovation

In any industry change is inevitable, and in telecommunications that change often comes in the form of new technology that enables new business opportunities. Innovation is a constant, and new platforms such as 5G and 6G wireless, the Internet of Things (IoT), streaming and over-the-top (OTT) services, and augmented and virtual reality are transforming telecommunications for the better.

While disruptive technologies are driving innovation in telecommunications are enabling new business models, innovation helps has no value without a monetization strategy. Turning innovation into revenue is a continuous challenge, and it needs to be enabled by a solid billing and financial foundation. New business and new opportunities require new revenue models.

Traditionally, telecommunication has adopted a pay-as-you-go model, charging consumers for system usage based on call duration, calling distance, time of day, and other factors. The old billing models don't tend to adapt well to emerging technologies. You need new subscription- and consumption-based models to accommodate new services. For example, new revenue strategies need to be adopted for services such as IoT and wireless networking, and consumers are demanding all-you-can-eat pricing and bundled services for OTT and streaming services.

To adapt to changes in the telecom market, communications service providers (CSPs), unified communications providers, and other telcos need new financial strategies, including new billing infrastructures to support them. They need the billing versatility to adapt to today's new business models, with the flexibility to support whatever emerging opportunities may present themselves.

What is the current state of the Telecom Market?

Current State of the Telecom Market

The COVID-19 pandemic has accelerated innovation and adoption of new communications business models. Even before the pandemic, telcos had already been dealing with new market disruptions and a new kind of consumer. Digital natives have come to expect a new customer experience. Companies like Uber and Netflix have demonstrated what the consumer digital experience can be, and consumers are expecting the same seamless interaction with telecom vendors as well as more subscription and service options.

New technologies are having an impact on the consumer experience as well. Big data, IoT, and artificial intelligence are redefining service models, harnessing more data to deliver an even more personalized consumer experience. Telcos also have started to see new competitors and competition in the form of SaaS providers and OTT services, and technology provides such as software-defined networking (SD-WAN) that affect the value chain.

To stay competitive, telcos must become leaner and more agile. Introducing operational efficiencies improves productivity while implementing infrastructure changes such as network sharing increases service agility. As STL Partners explains it, we are now moving into what they call the Coordination Age. Innovation started with the Communications Age in 1850, when the focus shifted to faster remote communications to connect people. The Information Age followed around 1990, with a focus on providing universal data access and connecting computers and machines. Now that we are entering the Coordination Age, the focus has shifted again to connect people, computers, and things by making resources more readily available and more efficient. Collaboration is what powers the Coordination Age. Telcos have been expanding into new industries such as television and information and communications technology (ICT). The value model of the Information Age is reaching maturity, and telcos need to start offering custom services to enable machine-to-machine communications. Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), and Network-as-a-Service (NaaS) are driving the adoption of new solutions such as 5G, 6G, WiFi-6, cloud computing, and edge computing. What all these platforms have in common is the need for infrastructure. Telecommunications companies control the infrastructure and are collaborating with other vendors to deliver services over that infrastructure. Telcos are now at the center of interactions between people, computers, and things.



6G

What is clear is that operators need to reimagine their business operations post-pandemic. Expect to see various trends:

1. Telco will move from just sellin services to selling outcomes.

Enterprise networking and hybrid cloud systems are changing the nature of service and how telcos bill for those assets. Rather than just selling access, telcos will start selling outcomes in the form of cloud performance, system security, and infrastructure resilience.

2. Analytics will drive growth.

As telcos start to refocus their efforts to service digital natives, they will become more focused on customer experience. They will rethink their approach to increase customer satisfaction. Success will be driven by data. Advanced analytics, AI, and automation are going to improve performance, enhance the customer experience, and change the economics of telco operations.

3. Service bundles will become more appealing.

Wireless services will become faster and more efficient. To improve monetization, service providers will package wireless and other services to make them more competitive and more profitable.

“MarketersMedia expects the global telecommunications market to be valued at \$29B by 2026”¹

To enable new business models and new revenue streams, [McKinsey has identified three archetypes](#) that promise to provide competitive operating models for telcos:

1. Infrastructure Excellence. This is an extension of the classic telco operating model that captures the value of data while lowering the total cost of ownership (TCO) to provide highly reliable services. This model supports commodity telecom services and are driven by operating costs. Some vendors can win by offering lower rates for basic services. The same model works with a technological leadership approach, requiring operators to invest in new infrastructures such as 5G wireless and fiber to improve capacity and capabilities.

2. Service-Centric Operations. Designed to meet the expectations of digital natives, this model requires delivering an outstanding digital experience and superior customer care. This requires operators to overdeliver and/or target the market in a unique way. For example, operators can differentiate themselves by focusing on offering service as part of an IoT-driven home-connected network.

3. Ecosystem Provider. This model requires the telco to develop a portfolio of digital services, which probably means partnerships with players in industries such as energy, financial services, and professional services. This may appeal to some operators since it provides a way to combat revenue pressure by leveraging third-party services. This approach also can create additional pressures to command market share within a chosen niche due to stiff competition.

In each of these scenarios, revenue models and billing strategies present their own set of challenges. To monetize operations with maximum efficiency requires a billing platform that is accurate, agile, and adaptable to whatever new business opportunities arise.

“The next generation of telcos will be defined by leaders who act now, risking short-term advantages to seize untapped growth with a holistic approach to transformation.” McKinsey

Billing as a Foundation for Innovation

With the advent of new business models, traditional telecommunications billing methods have become outdated. Metered billing based on the nature of service, time of use, and other variables don't offer the flexibility and extensibility needed for new business opportunities such as streaming and device monitoring. Consumers demand more predictable and transparent billing for new services.

Service billing also needs to be restructured to accommodate the new reality of telecom services. There are several market drivers, including:

1. Portfolio Diversification. As telcos add new services, they need to be sensitive to customer expectations. Diversification can't interfere with the user experience. New services need to be simple to access and use, and billing must be simple as well. New services also need to be integrated into the existing service offering, and that means taking advantage of automation and applying standardized processes.

2. More Service Partners. An inevitable byproduct of diversification is partnering with more third parties, which means revenue sharing. Customers expect a single source for their service needs, especially from ecosystem providers, so telcos will have to incorporate solutions from partners that operate at different billing rates and fee structures. Services must be consolidated and offered across complex B2B2X infrastructures, rates and fees calculated, and billed to customers, and revenues split with service providers. Data capture also had to be normalized. Different service providers track user and performance data in different ways but ultimately, it's the telco that has responsibility for tracking usage and performance and ensuring accurate billing.

3. Real-time Service. Telcos also will move away from end-of-cycle billing. Customers and partners want access to access their bills when they need to, including usage stats to predict charges. Enterprise users may need services broken down even further to evaluate spending or allocate costs to departments and other cost centers. "Right-time" billing provides a new level of transparency to customers and gives telcos another competitive differentiator, especially with B2B2X customers.

4. Customized Services and Configurations. With new customizable services and an adaptable infrastructure comes the problem of billing for dynamic custom services. One-size-fits-all service billing is outdated. For example, streaming data capacity will require different SLAs depending on whether you are supporting home entertainment or a business-critical service like teleconferencing and should be billed accordingly.

5. Self Service. Customers also want more self-service options, and telcos need to be prepared to offer different services at different rates so customers can choose what they want and create their own offerings. This is going to require additional automation capabilities to power digital portals, including aligning billing and bundled pricing with service selections.

6. Rating and Charging for Next-Generation Services. Emerging technologies such as 5G offer new capabilities such as network slicing to create isolated network connections. Slicing can be invaluable for applications such as augmented and virtual reality (AR/VR), but how do you charge for such services? Do you bundle them, charge for data consumption, or charge as an SLA tier? Standards are still being considered and billing methodologies and revenue sharing models still must be developed.

7. Omnichannel Services. Both consumer and business customers want more of an omnichannel experience. For example, digital natives are looking for an end-to-end digital experience, while others demand a hybrid experience. Some customers need to talk to an agent about support and products they are purchasing. As a result, telcos must maintain both human-assisted and digital services. To support an omnichannel experience, service operators will likely start to launch digital brands to complement existing services, encouraging customers to embrace self-service for faster and better service. Billing for omnichannel support will adapt to accommodate the changing omnichannel experience.

These are just some of the forces driving telecommunications transformation. Managing revenue will be the product of a new class of intelligent billing platform that can readily adapt to changing requirements.

"As new technologies and market innovations continue to shape telecommunications, billing will continue to serve as a focal point for new business models. To stay competitive, telecommunications providers will need to invest in new billing systems that are agile, open, and scalable." James Messer, CEO

The Need for Automation Services

As services become more diversified and complex, the only way to handle billing is with automation. Subscription and consumption-based billing models need to be able to handle tiers, bundles, discounts, renewals, add-ons, and other value-added features. Managing subscriptions and all the variables is complex and giving customers self-service portals makes it even more complicated. The process cannot be handled manually.

With automation, the billing infrastructure is adaptable and scalable. Everything from the initial service quote to invoicing, handling renewals, collections, and revenue recognition are incorporated into a workflow that is efficient, accurate, and requires minimal manual intervention.

Automation also enables more service flexibility. Today's customers are concerned with how they pay for services as well as how much they pay, which is why self-service continues to grow in popularity. Offering product-as-a-service subscriptions appeals to consumers looking for cost savings and simple service bundles, but it also gives service providers more flexibility. Automation makes it easy to provide multiple ways to subscribe, renew, and change subscription options on the fly, which is an advantage in a market where vendors are competing based on customer experience.

Combining automation with cloud-computing technology enables even greater scalability. Businesses tend to be cyclical, experiencing seasonal ups and downs or experiencing huge growth spurts. The billing system must empower scalability. Adopting a cloud platform provides the elasticity and scalable computing power required and automated billing scales revenue management capacity. Business expansion also means adding more staff, and automated billing minimized the need for additional manual support, providing more room for growth.

Automation also supports governance. Managing subscription revenue requires additional vigilance for regulatory compliance and revenue recognition. When you have different customers on different subscription tiers, service bundles, renewal cycles, payment methods, etc., it's easy to get lost in the details. Without automation to keep the accounts straight you risk compliance violations or worse, angry customers.

And automation promotes transparency and facilitates data capture for analytics. The ability to handle large volumes of transactional data in near real-time provides insight into new opportunities as well as current operations. Real-time insight can help prevent costly errors, identify oversights, accurately project revenue, and help streamline operations.



Billing Metrics to Determine Performance

To assess the effectiveness of the automated billing system, you need to apply the right analytics. There are **10 critical metrics** that you can extract from billing data that will tell you how your business is performing

1. Monthly Recurring Revenue. This is the gross revenue received each month. Although the actual calculation of receivables is simple, there are different ways to assess the data. For example, you may use recurring revenue to track the number of new customers each month, or to see how much contracted recurring revenue is obligated (e.g., new customers committed for a trial period) as opposed to simply committed..

2. Annual Recurring Revenue (ARR). ARR is MRR multiplied by 12. While MRR is good for short-term tracking ARR offers the bigger picture needed for forecasting.

3. Annual Revenue Per User (ARPU). ARPU offers an estimate of revenue from each new customer. For subscription-based services, the goal is to increase ARPU by moving customers from basic to premium services.

4. Churn Rate. Customer turnover is inevitable, but ideally, you want to attract more customers than you lose. If your churn rate starts to exceed 4%, then it's time to take a closer look to see why customers are leaving.

5. Renewal Rate. Renewal rates are the opposite of churn rate and can show the number of current customers or the increased value of customer renewals. Higher renewal rates are an indicator of strong customer retention.

6. Days Sales Outstanding. While subscriptions are designed to provide a steady revenue stream, some customers don't pay on time. An increase in DSO could mean anything from an expired credit card on file to the pending loss of a customer. Collections and dunning should be part of the automated billing system to minimize DSO.

“Grand View Research estimates that the UC market will be worth \$167B by 2025”²

7. Conversion Rate Moving from sales lead to customer is an indication of the health of your sales pipeline. In a subscription business, it also can be an indication of the number of subscribers moving from trial to paid. Conversion rate is an indicator of the health of the sales channel and future growth.

8. Customer Aquisition (CAC). New customers can't cost more to acquire than they spend. To determine CAC, divide the money spent to acquire new customers by the number of new customers. CAC helps identify the most effective marketing programs.

9. Customer Lifetime Value (CLV). This is an important metric for any business and represents the total amount the customer will spend during their relationship with your business. You want to ensure the CLV is substantially higher than the CAC.

10. Earned Revenue. Revenue is "earned" when services are delivered and recorded, regardless of when they are paid for. This is unique to subscription businesses that accept payments before and/or after services are provided.

In a subscription or consumption-based revenue model, each of these metrics is unique. Your automated billing system should be able to provide full transparency and real-time insight around each one, no matter what the volume of billing data.

Using these 10 metrics you can develop customer profiles to identify new potential customers and reduce churn. These will also shed light on third-party relationships and support partner management.

Industry Marketplace for Telecommunications

Expect to see more industry marketplaces dedicated to offering telecommunications services. Telecommunications providers want to capitalize on the same model for success as Amazon, Facebook, Overstock, and other B2C marketplaces. Online markets have been attracting consumers for years, and as more B2B buyers gravitate to self-service sourcing new telecom B2B2X markets will emerge.

Vertical marketplaces connect buyers and sellers, giving vendors ready access to a broader pool of customers and giving buyers access to a larger spectrum of goods and services. A vertical marketplace not only makes it easier to find what you want but also makes it easier to check inventory availability and negotiate a price. According to Gartner, digital commerce platforms now account for 45% of vendor revenue, up from 36% in 2019.

Vertical marketplaces also offer more opportunities to build customer relationships and upsell and cross-sell. The TM Forum Catalyst program recently hosted a proof of concept for a B2B2X marketplace for 5G services and resources, providing a forum for CSPs to partner with third parties to build digital ecosystems. The project was jointly sponsored by Salesforce, Verizon, M1 Limited, Matrixx, Mirakl, and go transverse to demonstrate how vendors can come together to offer a catalog of 5G-based products and services.

Dynamic pricing is part of what drives the B2B2X marketplace model. Technology enables these marketplaces to be more sophisticated so they can handle custom orders and complex RFQs. Mimicking the consumer's online shopping experience, B2B buyers can shop for special features at the best price.

Different types of B2B marketplaces will offer digitally sourced telecommunications goods and services delivered via self-service:

- Product marketplaces will offer supplies, equipment, hardware, and other goods.
- Time-and-materials marketplaces will offer services such as specialized labor, and facilities management.
- Scope-of-work marketplaces will offer custom telecommunications services.
- Extended catalogs where telcos and service providers will create spinoff marketplaces and extend their online offering to create a larger supply network, either handling fulfillment directly or through CSPs, cloud service providers, collocation services, and other partners.

Embracing a B2B2X marketplace sales model creates new market opportunities for telcos, CSPs, and other providers, and offers customers more options, including:

- Breadth of offering - A vertical marketplace provides one-stop-shopping for buyers and gives sellers access to more customers seeking telecom goods and services.
- Transparent and dynamic pricing - A marketplace is structured to be competitive, attracting customers seeking the best deals and forcing vendors to be transparent with pricing and terms.

- Better customer experience - Customers also get a better buying experience with a vertical marketplace. Fulfillment must be as transparent as pricing and customer ratings rank vendors that offer a better experience.
- Financing - A marketplace also creates an opportunity for vendors to offer terms for buyers. They also can rely on the marketplace to assist with the transaction, handling sales tax and other transactional issues.
- Payment options - Using a marketplace to handle transactions also means you can offer different payment options, such as a purchase order or payment in local currency.
- Shipping, returns, and refunds - The marketplace also assumes responsibility for fulfillment, including refunds and returns.

Quality service, expedited delivery, and, of course, competitive pricing attracts customers to an industry marketplace. Dynamic pricing allows vendors to reset fees at any time to stay competitive. Dynamic pricing for services is usually managed by algorithms that adjust fees based on the competition, supply and demand, and other variables. And the vertical marketplace model allows vendors to apply different pricing models, such as competitor-based pricing, value-based pricing, time-based pricing, cost-plus pricing, and so on.

As new technologies and market innovations continue to shape telecommunications, billing will continue to serve as a focal point for new business models. To stay competitive, telecommunications providers will need to invest in new billing systems that are agile, open, and scalable.

The future of telecommunications remains uncertain. The only way to futureproof operations to accommodate a dynamic and rapidly changing marketplace is by adopting a billing platform that can rapidly accommodate those changes. Having an agile billing platform not only enables companies to rapidly adapt to meet new requirements, but it also provides the foundation for proactive revenue management and governance.

“While 89% of consumers would like to use messaging to communicate with businesses, only 48% are equipped to connect with customers through a message.”³

References:

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Communications Billing Gurus

Gotransverse provides a cost-effective solution for your flexible pricing and intelligent billing needs, transforming your pricing and billing strategy into a competitive advantage. Founded by billing gurus with hundreds of years of collective experience in communications billing, we enable forward thinking companies to adopt one-time, subscription and/or consumption-based pricing to capitalize on the potential revenue from limitless monetization models. Smart, modern businesses count on our domain expertise, global scale and dependability to continually connect and engage with customers in real-time.

The Gotransverse platform was natively built within the cloud, scaling to meet the needs of today's growing businesses and future businesses with true elasticity and lowering the cost to serve. You can stay up to date with the latest technologies with our configurable SaaS platform. You can also easily map your data from other platforms to ours with our connector service that provides out-of-the-box connectors, making it easy to get sophisticated pricing and billing without the hassle of difficult integration work.

Gotransverse simplifies the process of quickly launching new products and services to market, offering flexible pricing scenarios ranging from simple recurring to consumption-based tiers, tapers, pooling, thresholds and beyond. Ensure that your new offerings are aligned with existing business practices by easily adding the standard business rules, additional fees and more to complete your offering.

Together we grow with you to deliver incremental value to your top-line, while realizing bottom-line operational savings with the strongest communications billing team in the market.

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