Monexa™

A Billing Guide for your IaaS Business

Prepared by MarketsandMarkets
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ABSTRACT

Infrastructure as a Service (IaaS) businesses that provide computing, storage, and security services on demand are based on usage-based principles. For example, the data center capacity provided to customers through storage services can be increased or decreased depending upon the demand to fulfill the Service Level Agreements (SLAs) in a cost effective manner. Also, customers may use multiple services concurrently during the same session. As a result, customers may be utilizing different pricing and bundling scenarios simultaneously.

To see the full margin potential of these IaaS services, new business models and new billing approaches are required. Deploying a billing solution to address the service provider’s challenges and suit their business models and processes is a key factor for success in a highly competitive IaaS market space.

The purpose of this white paper is to provide an understanding of the considerations surrounding deploying a cloud billing solution, including:

- What are the billing challenges for IaaS businesses?
- What business factors need to be considered when selecting and deploying a cloud billing solution?
- How can a cloud billing solution impact business performance and drive results?

Monexa’s goal is to help IaaS businesses grow and deliver services to customers seamlessly, quickly, and economically. If your business doesn’t have the answers to these questions, or you think that legacy billing systems are enough to monetize your innovative cloud infrastructure services, this guide is is for you.
INTRODUCTION

From a mere back-office function, billing is now a topic of boardroom discussions. Companies are experiencing and realizing the impact of billing processes on customer satisfaction, retention, and corporate sustainability. Specifically, billing systems are now recognized as a competitive differentiator giving companies that use agile billing systems an important strategic advantage over their competitors.

The cloud billing solution delivers beyond the operational functionalities because it leverages the economies of cloud technology in order to enable real-time usage metering, transaction transparency, and anytime access. This efficiency helps to streamline the billing process while reducing customer service costs.

In the midst of intense competition in the cloud services market, is your billing system giving you the opportunity to accelerate cash flow, increase business efficiency, nurture customer relationships, and enhance profitability? Furthermore, are you striving for recurring business from customers? Recurring business from existing customers is more cost-effective and creates a more lucrative supplier–customer relationship. This effort for retention has resulted in subscription-based business models with usage-based pricing scenarios. Although the subscription model helps companies anticipate revenue, revenue management is extremely complex at the enterprise level. This complexity is especially true when you take into account the revenue recognition approach, taxation, cross-border regulations, and an increasing number of compliance challenges. The cloud billing solution helps in billing customers for actual usage by tracking the utilization of resources. It also helps to create invoices on the basis of applicable charges, which are calculated with a dynamic rating engine and provides a highly transparent view of services incurred and costs back to the customer.

Over the last few years, the number of cloud service users has increased significantly; and regardless of whether you provide IaaS, Platform as a Service (PaaS), or Software as a Service (SaaS), you need tailored service plans to address customers’ varying demands. But, have you been able to tap this surge by creating a desired product catalog? Are your customers aware of what they have been paying for? Most importantly, are you being paid for the services you provide? The ‘just right’ cloud billing solution simplifies the introduction of new products and adoption of innovative revenue models.

A fundamental feature of IaaS businesses is services–sharing amongst customers, and billing for the resources utilized. For this reason, to reach their full revenue potential, IaaS providers need to consider providing a subscription-based business model that supports usage-based pricing models. But, is your current billing system capable of invoicing customer for their chosen plans and the resources they are using? If not, your business is leaving revenue on the table. An enterprise-class cloud billing solution may help as it supports sophisticated rating, dynamic price plans, and granular billing for varied billable units. Due to this level of accuracy, there is minimal revenue leakage because of under or over-charging customers.
Ultimately, your business is able to offer more personalized (and attractive) plans to your existing customers and attract new customers. This will help generate top-line business growth.

Going beyond the initial industry apprehensions, the adoption of IaaS is increasing at a rapid pace and enterprises are embracing cloud-based services in order to enhance business agility and leverage the service expertise IaaS vendors can deliver. However, has your business been able to anticipate the varying product and service demands from customers and develop pricing and bundling strategies that satisfy their needs? Is your IaaS business fully ready to capitalize on the revenue opportunity in the vibrant and competitive IaaS market?
CHALLENGES

LEGACY CHALLENGES

Service providers that offer or plan to offer IaaS may face challenges migrating to a cloud-based billing solution because of existing capital expenditure in the legacy billing system. However, these legacy systems are often incapable of handling high volumes of real-time usage data without costly and error-prone manual workarounds. Consequently, a rigid legacy billing system renders the business incapable of adapting to market changes or competing effectively. These businesses cannot cater to evolving market demands without massive increase in operational expenditures, and there is a pervasive threat of losing customers to the competition.

However, switching to a new system requires an adaptive company culture willing to invest in a strategic, long-term vision. If a company’s culture can align to this vision, it can efficiently transform its business processes to achieve the desired outcomes. However, resistance to change is always present and the organization’s people play a crucial role in its success. Educating both the corporate team and external customers about the need for an agile cloud billing system, including its operational and functional elements, will be integral to addressing any legacy challenges.
FUNCTIONAL CHALLENGES

IaaS providers need to design service delivery models based on their customers’ desired billing frequency, while providing them with access to detailed billing and payment information. In order to ensure that these operations are facilitated a billing platform with a flexible rating engine and scalable architecture that supports usage-based pricing and real-time resource monitoring is essential.

Has your business been able to offer different product/product packages designed around storage, compute and security services with special offers for a grouped audience to gain a competitive edge in the market? Your billing platform will help you offer a wide array of product selections, allowing customers to choose a product package best suited to their needs.

Customers employ different business models and require flexibility in payment options. As a result, your billing platform should be able to manage complexities of discounts, trial periods, promotional offers, renewals, and upgrades throughout the subscription life cycle in order to meet your customers’ current and future needs.

Additionally, as a result of the global nature of the enterprise, it is important that you are able to monitor data capacity as well as access to capacity resources such as network, server CPU, server cache, and disk. Thus, a scalable billing system is required to deal with data overload and bill large amounts of virtual resources accurately. This means an efficient metering and rating engine should be a prime component of your cloud solution.

OPERATIONAL CHALLENGES

Since different customers will opt for different service/service packages with different payment options, a flexible billing platform is required to bill the customers as they demand with specified rate of data collection (seconds, minutes, and hours). It must also accept multiple payment types and account for international requirements (multi-currency, global tax etc.).

Furthermore, your billing system needs to capture detailed information in order to better facilitate transparency and accountability to customers. If a customer wants to question or raise concerns about a potential billing error, the billing system should be able to capture appropriate data statistics and report it to customers; it should also allow changes to be easily incorporated in the invoices for re-billing purposes.

In short, in order to address the situations arising out of daily operations, the billing platform should be feature-rich to facilitate the smooth functioning of billing processes and increase customer transparency.
RESELLER CHALLENGES

The rapid adoption of cloud computing services has led to an intricate supply chain further complicating accounting and billing processes. How does your business provide IaaS to your customers – directly or through reseller partners? If both, you have increased the complexity of your billing processes, as two levels of billing – one for your direct customers and the other for resellers – is now required.

With different billing systems used by the parties involved, the appropriate monetization of services and discretion of commissions are harder to calculate. In order to monetize your IaaS offerings and differentiate your market position, a billing platform that allows you to bill for all your sales channels is crucial. Furthermore, it is important to be able to isolate the customer accounts of each reseller as well as ensure your delivery framework is able to maintain the product availability needs. A comprehensive billing solution that can be customized to accommodate your complex supply chain will help in the effective and efficient delivery of your IaaS services, as well as supporting the activities of multiple reseller operations.
INTERNATIONAL CHALLENGES

As IaaS continues to amass a big share of the cloud computing pie, IaaS providers offering cross-border services will be especially poised to prosper. But is your billing system competent enough to accommodate the essentials of globalization? Along with support for multi-currency, exchange rates, taxation, and payment considerations, the billing system needs to be capable of generating customized invoices as regional mandates may differ.

As there is no consolidated legislation or policy for regulating such cross-border services delivery, the SLA needs to be precise about data privacy and security concerns. A transparent billing system helps to deliver high availability SLA and provide critical insights into customer accounts.
KEY CONSIDERATIONS

Unlike traditional business models, the use cases of billing in today's subscription-based business models are highly complicated. Cloud service providers delivering storage, compute, and security services need to balance the tradeoffs, including competition, investments, technical architecture, business models, and operational transformation. Thus, IaaS providers are embarking on a strategy for appropriately monetizing usage-based infrastructure to maximize their business benefits. Hence, selecting a billing platform that quantifies and qualifies your functionality requirements is critical. Following are the key considerations that decision-makers should deem while evaluating a cloud billing solution.

TECHNICAL CONSIDERATIONS

- **Real-time metering and rating**: A real-time billing engine enables IaaS usage metering during service consumption, thereby preventing revenue leakage while accurately capturing the customer’s service session.

- **Integration**: Seamless integration of the billing solution with other modules of the Business Support System (BSS) reduces the deployment complexity and time-to-market for new product/pricing mix. It also allows business to extend their current technology investments, rather than the costly 'rip-and-replace' method.

- **Virtualization**: Virtualization hides the technological complexity from the user and enables enhanced flexibility including ease-of-use, infrastructure and location independence. A high degree of virtualization helps in realizing economies of scale and reducing the service delivery cost.
• **Multi-tenancy**: A billing solution that supports multiple tenant environments enables the management of all tenants (resellers, direct customers) through a single interface. Multi-tenancy delivers consistent user experience even with flexible resource allocation and isolation from other tenants.

• **Security**: The basic security capabilities of the billing solution help in dealing with potentially sensitive data and privacy concerns. Authorization, authentication of every connection attempt, information protection, and access acknowledgement are essential to avoid threats and vulnerabilities.

• **Product management**: A responsive billing solution that is flexible and scalable to suit changing trends, while managing customer and market demands, helps in increasing and retaining customers. The product catalogue that defines charging for a product should be capable of designing service packages, plans and prices to accommodate market demands.

**FINANCIAL CONSIDERATIONS**

• **Cost**: The cost parameter is of critical importance when choosing a billing solution. The cost involved in terms of money and time to deploy or reconstruct an existing billing solution should be considered. Additionally, deployment costs along with the solution configuration, reliability, scalability, flexibility, and time-to-market should be considered in order to determine the true cost of the billing solution. Look for a vendor who will work with your business to customize a fair pricing model.

• **Return on Investment (ROI)**: ROI is fundamental to determine the cost-effectiveness of any solution. The benefits of a billing solution must outweigh the IaaS provider’s effort and monetary investments to be commercially viable. This may entail direct (increase in revenue, increase in number of subscribers, cost savings) as well as indirect (increase in customer satisfaction, customer retention) returns. A billing vendor should be able to help your business build a compelling ROI model.

• **Capital and operational expenditure**: The actual cost–benefit (ROI) is not always guaranteed, thus it becomes necessary to minimize total costs. For monetizing IaaS, a huge sum, including capex and opex, is invested to build an internal billing solution. However, if a cloud-based billing solution is deployed, the service provider’s liability is reduced to operational expenditures for provisioning the required capabilities.
OPERATIONAL CONSIDERATIONS

- **Data management:** Monitoring, managing, and analyzing the business transactions is necessary for an effective service delivery environment. A billing solution should be scalable to manage the information on applications, services, and subscriptions in case of business expansion.

- **Solution monitoring:** A solution is expected to function within the desired service level parameters. The regular performance and security monitoring of a billing solution are requisites for adherence to service quality agreements.

- **Service quality:** Managing changes to product and packages within the solution environment without service interruptions is the key to enriching service quality. The solution’s integration and audit capabilities impact the provider–customer relationships.
BLUEPRINT FOR IaaS BILLING SUCCESS

IaaS providers are facing the burden of high investment to build usage-based billing infrastructure while aligning IT resources to manage subscriptions and payment. To add to these burdens, inefficient and complex billing procedures have made it difficult to retain customers and enhance brand loyalty. Customer retention efforts are driving the demand for an intelligent billing and subscription management platform that can seamlessly integrate with existing infrastructure in order to help service providers reach global customers cost-effectively. The prime objective of a cloud billing solution is to accurately bill complex pricing scenarios, thereby making service delivery transparent and agile. A cloud billing solution helps IaaS providers better cater to the changing customer demands with flexible, responsive, and real-time billing engine.

Cloud billing solutions are generally service-agnostic and highly scalable to suit the requirements of any cloud service provider. An IaaS provider needs to track multiple events such as CPU time, depending on server-type, storage device capacity and access, operating systems, disaster recovery services and availability to accurately bill the customer. A cloud billing solution facilitates simple and transparent billing processes with powerful data management in order to enrich the customer experience. It offers real-time metering and rating, flexibility for customization, and analytical tools to evaluate business performance. Apart from being cost-effective, it supports varied product lifecycles, advanced virtualization, and rapid provisioning.

An IaaS provider implements a billing solution with the following attributes in order to accurately monetize its infrastructure:

- Real-time rating and metering engine
- Pricing and invoicing flexibility
- Enterprise scalability
- Multi-tenancy
- Seamless integration
- Advanced virtualization
- Information security
- Rapid provisioning
- Multi-currency and taxation support
- Performance reporting
- Lower Total Cost of Ownership (TCO)
- Subscription management
- Re-billing
- Invoice reconciliation
- Granular usage monitoring
- Process automation
- Payment Card Industry (PCI) compliant
- Customer self-care portals
CLOUD BILLING BENEFITS

A cloud billing solution will support complex product and pricing structures as it is flexible, scalable, and can effectively manage events generated from IaaS delivery systems. These solutions support real-time, usage-based billing, and allow account access anywhere, anytime. This flexibility has a positive impact on your financials, customers, operations and makes your business more competitive.

- **FINANCIAL**
  - Increase Revenue
  - Increase in Cost Savings
  - Decrease in Capital Expenses

- **CONSUMER**
  - Increased Subscribers
  - Increased Satisfaction
  - Increased Account Transparency

- **COMPETITIVE**
  - Increased Competitive Advantage
  - Enhanced Business Agility
  - Swift Market Adaptability

- **OPERATIONS**
  - Decrease in Time-to-Market
  - Rapid Product Expansion
  - Business Intelligence Through Reporting Enhancements
EXPECTED RESULTS

CHALLENGES

Recognizing industry trends, an information and communication technology company decided to offer an automated, self-provisioned usage-based computing and storage solution to enterprises across three different markets. They offered this solution directly to customers as well as through different local partners/resellers to support the business. The company also had its own processes and Operations Support System (OSS)/Business Support System (BSS) architecture for hosted services portfolio, and thus needed seamless integration to manage the fragmented information across different operational environments. The introduction and efficient delivery of this IaaS required it to seek a billing solution that would:

- Shorten the time-to-market
- Be flexible and scalable
- Manage local and cross-country partners
- Unify the product portfolio along with ability to cater to customer-specific needs
- Increase precision for metering service delivery and tracking costs
- Provide detailed insights into customer accounts
- Reduce and proactively control IT costs

SOLUTION

An approach to enrich service provisioning and automation of product catalog was considered for two key reasons:

1. To improve service delivery processes and reduce time-to-market
2. To allow product managers to design new service and product packages quickly and easily

To support the service provider’s goals and business needs, a billing solution accommodating the following functionalities was implemented.

- Pre-integrated product and service catalogs, pre-built Application Programming Interface (APIs), and direct data access to BSS/OSS ecosystem, to swiftly align the technical and business aspects of the new offerings with existing business framework
• Flexible product/package creation and subscription lifecycle management to respond to changing trends, customers, and markets

• Real-time metering and rating engine providing granular information about the capacity and access usage for accurate storage accounting

• Automation of invoice reconciliation with support for multiple currencies, taxation, and invoice formats for greater financial transparency and cross-border servicing flexibility

• Consistent service delivery and management across the three countries with complete customer view to ensure assembly of business intelligence for partners as well as subscribers

• Other functionalities such as online sign-up, PCI compliance, real-time account view, daily usage rating, and usage warnings were also included to streamline the billing process

RETURN ON INVESTMENT

• 90% reduction in the cost of labour required for assisting business customers to use the service

• 25% reduction in IT resources and infrastructure related costs

• 20% increase in revenue margins on compute and storage services

• 15% additional customers secured and increase in the number of new subscribers

• Increased customer satisfaction and no revenue leakage with real-time monitoring and improved financial transparency

• In–depth business intelligence to monitor profits and direct strategic business and product decisions
ABOUT MONEXA:

Founded in 1998, Monexa Services Inc. helps organizations drive top and bottom line results through more innovative, timely, transparent and customer friendly billing solutions.

Monexa provides an agile, cloud-based billing management platform that lets our customers react quickly to market changes while reducing billing costs and complexity.

Transform your billing into a positive and innovative customer experience.

Get in touch with us at sales@monexa.com or call us at 1–877–604–7277.

ABOUT MARKETSANDMARKETS:

MarketsandMarkets is a global market research and consulting company based in the U.S. We publish strategically analyzed market research reports and serve as a business intelligence partner to Fortune 500 companies across the world. MarketsandMarkets also provides multi-client reports, company profiles, databases, and custom research services.

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