

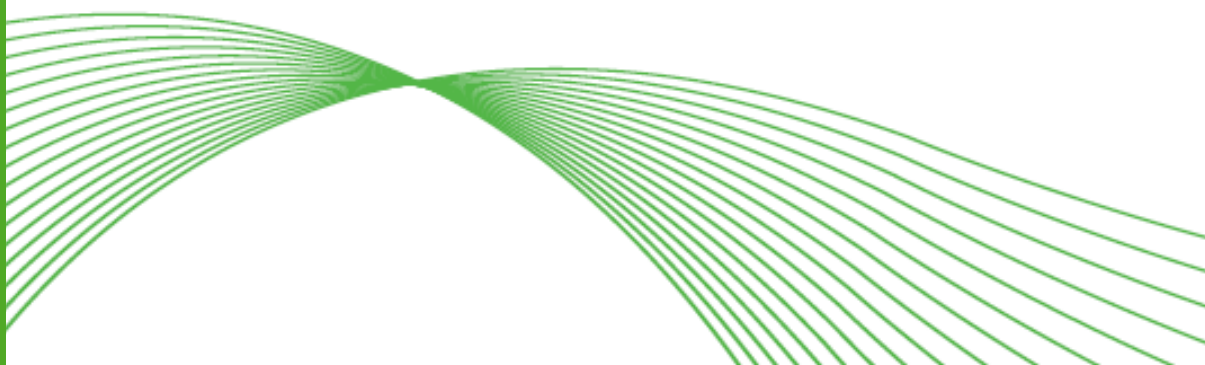


Extreme Performance for Charging

The telecom landscape has evolved into an extremely complex and "converged" world. Competitive pressure, escalating customer expectations, and service provider business realities compel carriers to deliver services that can be combined interactively, flexibly bundled and priced and brought rapidly to market. Ubiquitous access, higher bandwidth services like broadband, IPTV, and triple/quad play, and a broad set of multimedia devices have created new opportunities for Telecoms to offer diverse and attractive services to their customers. As top-line growth slows and each new service contributes incrementally less revenue, rapid and effective delivery and accurate billing for new offers become even more essential to profitability.

CONSEQUENCES ON CAPACITY

Additionally, a new generation of convergent services creates a second vulnerability. The technologies and architectures providers must use to create and charge for these more complex services spawn a dangerous operational risk. That risk is a vulnerability to the exponential increases in the volume of transaction data. Organic growth and the complexity of the new services will spawn a tidal wave of transaction data that must be captured from the network, manipulated and acted upon, often in real-time. Many systems today are not well positioned to handle the rapidly growing volumes of transaction data. An inability to act appropriately on this data compromises pricing models, and delays the delivery of new services.



CHARGING UNDER A NEW CONVERGENT TRANSACTION MODEL

The need to charge for these new, more complex and integrated services creates a real challenge for telecom providers. Systems designed for traditional voice and data offerings were optimized for connectivity and transport, guaranteeing dial tone but providing few additional service options for telecoms to offer. Pricing was generally based on simple combinations of flat-rate and metered models, so charging was relatively straightforward and could be processed well after services were delivered.

Today's delivery model must manage many diverse elements including connectivity, transport, service, network, device, content, location, and complex inter-billing arrangements. Moreover, charging now must accommodate a multitude of parameters including flat-rated, metered time, bandwidth usage, event-based and pre-paid balance models, and may include bonus and loyalty programs as well.

A NEW APPROACH

Charging for trillions of packets a day requires a new approach, one that is based on the "transaction" model. In the transaction model, huge volumes of charging data must be rapidly and reliably aggregated and processed. This transaction model begins with the assumption of availability but goes much further, assuring guaranteed delivery of service, and the capability to determine delivery characteristics based on subscriber profile, quality of service, type of service, or policies. Simple pricing becomes elegant pricing...the need for basic, standalone charging processes are now replaced with the need to manage and process charging information through more complicated, computationally-intensive algorithms and rules across multiple services and parties.

Unfortunately, providers have historically built their networks and charging systems autonomously - building silos of systems and services. The competitive landscape changed, driving demand for integrated service offerings and their associated integrated charging solutions. Too often, providers opted to attach narrow, focused charging applications onto these incumbent charging systems to temporarily

solve the problem. The resulting solutions "interconnected" the existing charging technologies, but did not provide true integration of data management and processing capability. Instead of providing real convergent charging capability, loosely connected areas of "Silo-ed Convergence" have developed. Point solutions dominate where a broader, truly unified approach is actually required.

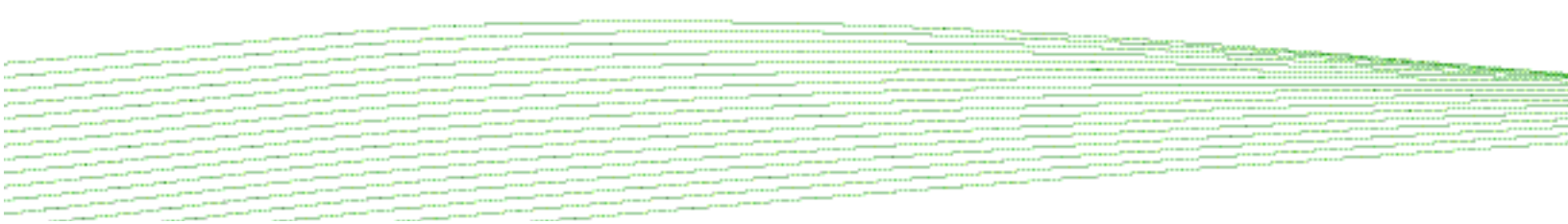
A TRUE CONVERGENT CHARGING SYSTEM - KABIRA CONVERGENT CHARGING™

To address this gap, Kabira Technologies developed Kabira Convergent Charging (KCC). This architecture provides a unified framework to enable scalable telecom charging solutions that can be quickly, reliably and flexibly built. It was designed with the architectural vision to support industry evolution yet, provides real solutions for today's convergent charging challenges.

While "silo-ed" convergence charging solutions have gaps in their ability to handle the complex processing and scale challenges today's transaction volumes create, the Kabira Convergent Charging Solutions plugs those gaps by delivering unmatched speed, scalability, and extensibility. Moreover, Kabira solutions integrate with legacy systems so they leverage and extend existing investment value. Because of this, KCC is uniquely able to deliver the integration, performance, speed and scalability needed to address telecom converged service operational challenges.

KCC provides an evolutionary path for convergent charging unmatched by any alternative. And, it delivers the same core values of all Kabira Technology products: extreme availability, extreme performance and five-9s reliability. KCC customers are able to rapidly and efficiently address a broad range of challenges integrating their IP convergent charging, wireless, and wire line applications.

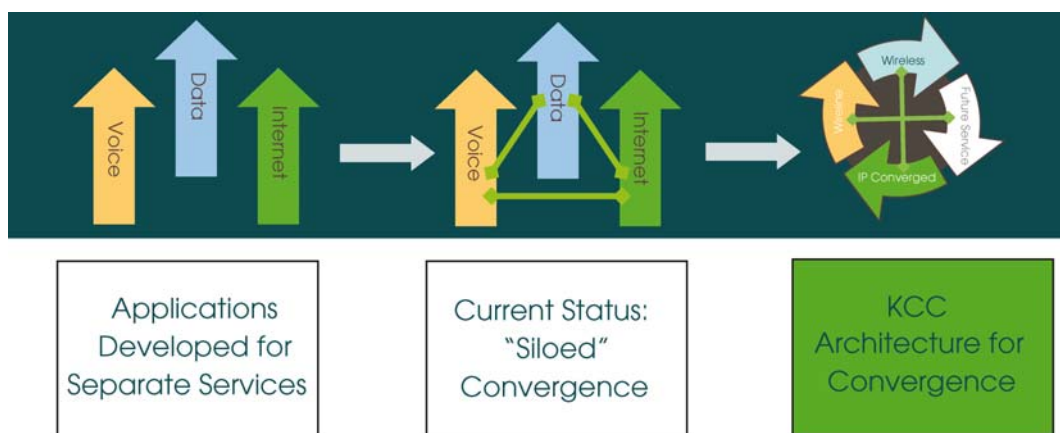
Kabira Convergent Charging is a powerful charging architecture that integrates and supports diverse voice, packet, and content services with leading OSS/BSS applications. By integrating convergent networks, applications and services within Kabira



Convergent Charging's memory-resident platform, providers can readily and reliably charge for any combination of services in real-time or batch. These can include access, enhanced, real-time, multimedia, or mobile services, including rich voice, VoIP, data, Triple Play, messaging, conferencing, IPTV and 3G services. Kabira technology is designed to support IMS and next-generation network functionality, allowing providers to introduce new services today and scale for the more demanding services of tomorrow.

ARCHITECTED FOR AGILITY

Kabira Convergent Charging is designed on a "high-availability" architecture that enables strategic charging solutions to be quickly, reliably and flexibly built. It gives carriers the agility needed to deliver solutions that meet today's convergent charging challenges but is also designed with the architectural vision to support ongoing industry evolution. KCC's architecture expedites service delivery and improves cost efficiency through reusable elements that providers may choose to incorporate as required for



Kabira Convergent Charging gives providers a real competitive advantage. It provides a system that readily handles interactive and tiered services, new pricing models and can mediate revenue and risk sharing between partners. It enables providers to add software capabilities for distributing these new services in a multi-vendor environment, eliminating the barriers to expansion and integration with third-party partners. Examples of Kabira Convergent Charging deployments and use cases include:

- Service-aware Charging for IP and wireless networks
- Massively Scalable Charging that can dramatically increase transaction processing to match current and future needs
- Convergent Charging for 2.5G, 3G, and 4G networks
- Policy Management implementing policy & charging rules that direct service delivery and charging

current or future applications. These elements allow for a more seamless approach to the addition of new services. Furthermore, this change need not be disruptive, since Kabira can integrate with legacy systems to leverage and extend existing investment value.

Of course, Kabira Convergent Charging delivers the same core capabilities that all Kabira products are known for: extreme performance and reliability in a system that is "always on." Kabira Convergent Charging is uniquely able to deliver the integration, performance, speed and scalability needed to address telecom business and technological challenge.



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Deployments and Use Cases	Approach	Business Benefit
<p><i>Service-Aware Charging</i></p> <p>Purpose: to enable providers to control, price, and charge for unique new services</p>	<p>Fine grain charging for IP traffic with a Content Services Gateway</p> <p>Offload legacy systems, adding "headroom" for growth</p> <p>Deliver new offers based on subscriber usage data including service, bandwidth, and QoS data</p>	<p>Increased total revenue</p> <p>Enable targeted and differentiated packaging and pricing</p> <p>Flexibly support future real-time services</p>
<p><i>Massively Scalable Charging</i></p> <p>Purpose: to enable providers to scale their charging capabilities to meet overwhelming growth in data charging events</p>	<p>Offload high performance tasks from legacy systems</p> <p>Add far fewer charging servers</p> <p>Have long-term plan for growth</p>	<p>Extend legacy charging system investment</p> <p>Provides scalable plan for rapidly growing data charging requirements</p> <p>Minimize hardware footprint</p>
<p><i>Convergent Charging</i></p> <p>Purpose: to enable providers to consolidate and/or significantly add performance to their on-line charging resources</p>	<p>Extensive balance management capabilities</p> <p>Comprehensive subscriber management and configurable business and charging capabilities</p>	<p>More flexible pricing models and offers</p> <p>Personalization, allowing subscriber self-service and more targeted offers</p>
<p><i>Policy Management</i></p> <p>Purpose: to enable providers to better manage subscriber, network, and service for more effective charging and resource usage</p>	<p>Flexible network, service access, and delivery rules management and administration</p> <p>Extremely high performance and scalability</p> <p>Very efficient use of industry standard servers</p>	<p>Offer optimal pricing that readily adapts to new services and launches</p> <p>Centralize policy management now and into the future</p> <p>Keeps costs down</p>

ABOUT KABIRA

Kabira Technologies, Inc. ("Kabira") provides high performance transaction processing software for global enterprises in Financial Services and Telecommunications. Kabira products are designed to meet the needs of highly available systems performing mission-critical business services. Kabira products can be implemented more quickly, with significantly higher performance and at substantially less cost than legacy transaction processing systems Kabira has been adopted by 70 organizations in 30 countries. Companies such as VISA, AT&T, France Telecom, Bank of America, Vodafone and Alcatel rely on Kabira high-performance transaction processing to support real-time product and service offerings. The company is privately held.