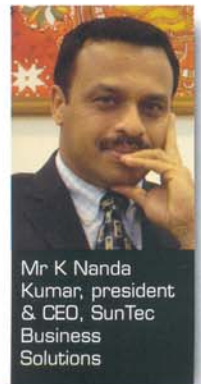


## 'Seamless interface' with external systems

Simply put, seamless integration in the telecom billing space has two paradigms. One is the ability of systems that handle functions like mediation, rating, billing, and settlement, to act independently of one another, on one end and seamlessly interface with each other on the other. The second paradigm, according to **Mr K Nanda Kumar, president & CEO, SunTec Business Solutions**, is the ability of multiple vendor systems to work independently and together at the same time.



Mr K Nanda Kumar, president & CEO, SunTec Business Solutions

With mergers and acquisitions and existing legacy systems an operator has to deal with a lot of network elements, software applications, and technology platforms. The options are two for an operator. One is to do a fork-lift and replace all existing systems with new. The other is to have a solution that can seamlessly integrate with the existing systems and deliver value. Needless to say the second option is realistic, hence, the importance of a 'seamless interface'.

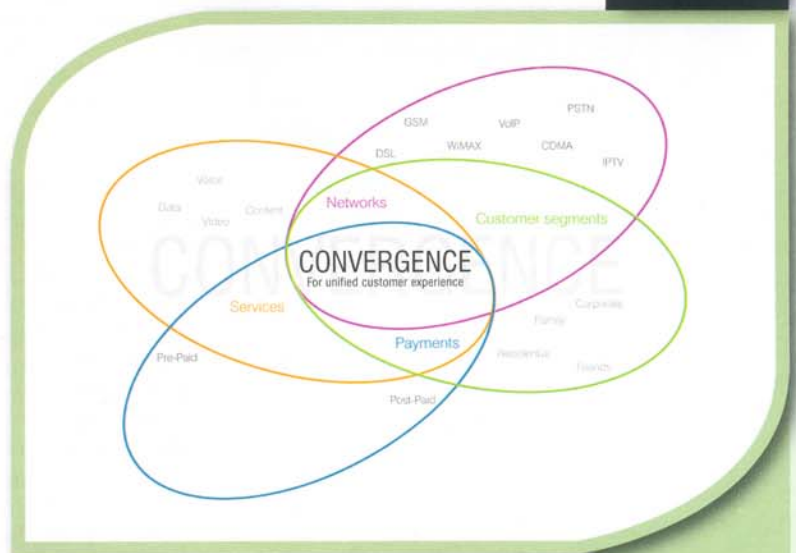
To attain a seamless interface, there needs to be a rule-based data integration layer that can impeccably interact with the various service applications – be they rating, billing, settlement, or systems like middleware, AAA servers, payment gateways, WiMax equipment and so on.

When I say seamless, I presuppose the data integration layer to be self-driven. It should have necessary intelligence built in, by which it can adapt to any network and IT environment, interface and read in any information record in any format, do data enrichment, validation and other necessary processing.

### Managing content, context and value-based pricing

Pricing was always seen as a way to determine what best a customer could pay for a product or service. With value added services being chipped in and products and services being commoditised, pricing today is a differentiator and a strategic tool that has the power to promote business and relationships with customers.

The context of differential pricing makes even more sense, especially with NGN services like triple/quadruple play where many value added features and content are being offered. This kind of differential pricing is possible only with

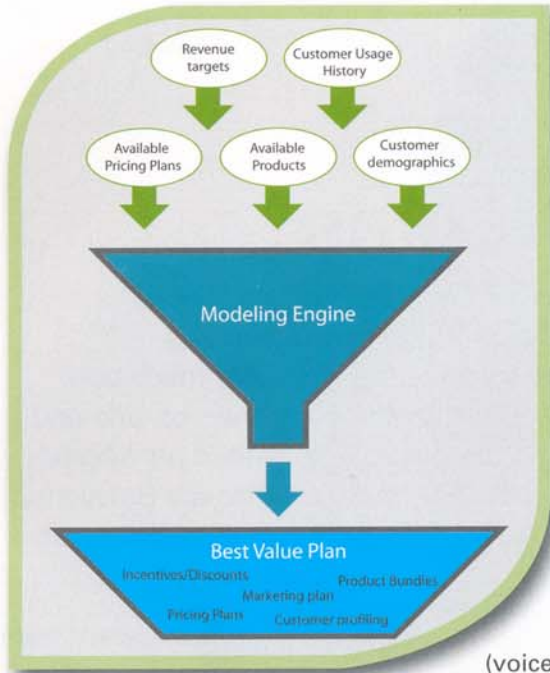


a flexible rule-based rating engine, which could rate transactions based on their content, context and value. The charge attached to a transaction differs – with the content it carries (a movie or news clipping for instance), the context where the content appears (off-peak, seasonal pricing, etc.) and also with the transaction value like differential pricing for transaction from a high profile customer, or for a transaction having a higher duration/volume/price.

### Differing roles of real-time and batch mode processing

Whether pre-paid or post-paid, the flexibility of real-time billing does come at the cost of complexity. Real-time billing gives service providers many more criteria by which to price their services – distance, quality of service, cost of service, peak hours, bytes transferred, and so on.

Pre-paid demands real-time pricing. This requires real-time mediation of the transactions ▶



(voice, video and

data), and real-time attachment of charges depending on the customer profile.

Also there is a question of how much real-time should be real-time. This depends on the application. For example, while reports on available balance need not be to the dot 'real-time'; call activation, predictive rating, balance update, and message for disconnection need to be dealt with in real-time. The most common problem with not being real-time is revenue leakage, because of the system's inability to report billing errors and fraud, days or even weeks after the incident.

The communications industry is evolving to achieve pre-paid/post-paid convergence. This demands equal consideration for the pre-paid and post-paid customers. The rating and billing system needs to operate in dual mode, switching between them for handling suitable functions. SMS, for example, where it is a flat rate per message sent or received, can be handled by batch systems. But the high risk services, like service disconnection or suspension where revenue leakage is a potential, need to be handled by a real-time billing platform.

**Advanced tariff modelling**

Wouldn't it be splendid if an operator could tell his customer or prospect what kind of pricing bracket he would fall under based on exploratory data on his usage of voice, video, content, etc? And if the operator could also move the customer from, say, tier 2 to 1 or tier 2 to 3 in real time based on the customer's usage.

Additional benefits of modelling include the ability to flexibly create attractive cross product/service marketing plans and analyse its

profitability before the bundle or service hits the market.

An effective billing system has built-in modelling capabilities that give the service provider the means to simulate their marketing plans across their customer bases. This gives them an estimation of their profitability and ensures a smooth running when the package is made live. There could be many parameters which could be included in tariff modelling like customer demographics, internal cost drivers, and revenue targets, to name a few.

Today, all forward looking telcos have started using these advanced tariff modelling engines and what-if analysis tools to run simulated pricing plans against both historical and exploratory data. This is in order to optimise profitability across the customer and business units.

**Simple configuration screens**

When it comes to user-facing screens the rule is to keep it simple yet exploitable.

Needless to say, in today's market, operators need to introduce new products, package schemes and pricing plans on the fly to stay ahead of the curve and retain customers. This is possible only if they have highly flexible rule-based pricing and billing systems to support them at the back end. On the front end these billing systems should have simple configuration screens that operators themselves can use to reflect the changes in business rules, without depending on technical support from the billing vendor.

**Manage network scalability and customer change**

Unlike traditional voice usage records, data records carried over the new generation IP networks are huge in volume and rich in usage information. Thus scalability is fast becoming an imperative feature of efficient billing systems. The systems should be capable of scaling up to handle increasing volumes of customers and transaction records on their own with minimal hardware changes.

Especially with IMS coming up, the same network will be able to carry a wide array of services and, therefore, huge volumes of transaction data can come in at the same time. Scalability in this context can make or break a billing system.

Scalability and flexibility, both horizontal (when existing customers add more services and features) and vertical (ever increasing billing volume), in a billing system are imperative. Any deficiency in these capabilities and the telco has on hand a grave problem – revenue leakage! \$

The author, Nanda Kumar is the founder, president and CEO of SunTec Business Solutions, said to be the first SEI CMM Level 5 billing software company in the world.