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Like Clockwork:

NEW APPROACHES TO OSS/BSS INTEGRATION

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Billing is about managing complexity and responding to ever increasing demands to make things simple, transparent and easy to understand. Billing is an evolving sequence of IT and data tactics designed to reduce the number of connections, systems and structures necessary to operate telcos efficiently and aggregate and report critical data clearly and speedily.

Billing lies at the nexus of every telco operational system. Billing cues provisioning, informs CRM, authorizes service access, drives customer care, fuels finance, tax and forecasting and populates critical fields in every management dashboard. Billing has to communicate simultaneously with multiple systems within an enterprise and between enterprises and its partners and vendors. So it's no wonder that 80 percent of the time, energy and resources assigned to billing go into data integration.

Since many telcos have grown through mergers or acquisitions the problem has been compounded by the almost constant need to integrate and update disparate systems. Until recently there have been only two basic approaches for stitching together different systems -- point to point connections or installing/building one master system. But both have severe limitations which add new complications as they attempt to solve immediate problems.

The point-to-point tactic is straightforward. You connect systems together by mapping the relevant fields to each other. You can't really get a global view of things but you can move data across the enterprise. Typically, all of the applications involved in the integration get together and pound out a message standard that is agreed to by everyone. Any change to this standard must be agreed to and adhered to by everyone ---a process that quickly becomes unwieldy.

Each connection has to be tested with each transmission since there are no simulating tests in the design tools provided by integration technologies today. Meanwhile, the number of interfaces grows exponentially as each new system is added. Over time you end up with a ragged collection of connected systems that resemble a Rube Goldberg contraption that requires more and more energy, resources and time to update.

The master data warehouse approach has a certain logic and conceptual elegance to it. Rather than connect all the pipes, you run all the pipes into a single, new database where it's easier to sort everything out. The problem is that migrating operational and billing data into such a grand system takes forever to implement, costs a fortune, is rarely ever completed and even when finished is difficult to manage and difficult to change quickly in response to changing marketplace or regulatory needs. No sooner is the customer hub built then it has to be adapted to include yet another merger!

A third approach is beginning to capture the imagination of COOs and CIOs around the globe. It is rooted in the movement toward Service Oriented Architecture (SOA) and relies on the use of

data models which act like common business vocabularies to ensure that systems do not have to tightly connect to one another. These kinds of models eliminate the need for everyone to agree on everything.

In the telecommunications world, this model is called the Shared Information/Data Model (SID) developed under the aegis of the TeleManagement Forum. The SID promises integration and agility at the enterprise level and works naturally with SOA.

More than half (58.5%) of ninety telecommunication companies surveyed during a TMF-sponsored webinar are undertaking pilot projects or have major SOA projects underway as 2006 began. 47.7 % of the same companies are running pilot projects or mounting major SID projects.

By creating common vocabulary about and common relationships between the data, the SID acts like middleware and becomes the integration interface between multiple internal systems.

The difficulty with the SID has been its daunting, but necessary, comprehensiveness which can frustrate implementers whose daily tasks are typically more narrowly focused.

The latest thinking on the SID and standards-based approaches to integration is devoted to testing and applying a new set of tools that can make models like the SID more usable and useful. These tools allow the SID to be viewed from multiple perspectives allowing developers to create more task-appropriate views without introducing new, incompatible data definitions. Rather than focusing on the actual data connections, this emerging set of tools creates a neutral modeling environment and focuses on connecting data models. Connecting systems via modeling metadata reduces the time and cost of initial system integration and greatly facilitates future changes.

Using standards-based integration tools like the SID (for internal enterprise integration) and Multiple Technology Operating Systems Interface (MTOSI) (for connecting different systems within the network layer with another), promises to ultimately reduce the number and complexity of systems, provide faster, better data management and reduce the time and costs associated with OSS/BSS integration.

More and more telecommunications companies are considering a SID-based approach because it decreases the time-to-value, mitigates risk and provides an easy way to enforce data and semantic consistency across the enterprise. If you are not looking at these emerging tool sets, you may find yourself at a competitive disadvantage.