

9. CONCLUSIONS: CRITICAL SUCCESS FACTORS FOR BILLING

This report starts from the principle that applications and services will be the main competitive differentiators and sources of increased revenue for operators and service providers. Typically, organisations will incorporate one or more business roles, such as Network Operator, Content Aggregator and Content Provider. Three business models, which use these roles in different ways, have been identified and discussed within the report.

There is general agreement within the industry that with a diversification in services offered, it will be a requirement on service providers to support multiple and diverse payment methods. The currently dominating split into pre-paid and post-paid services is likely to merge, while the end-user will want to pay for services in the way it for the time being suits him or her.

Given that the separation between prepaid and postpaid services will disappear then service transactions will have to be managed in real time or near real time, in order to control expenditure and eliminate credit risk. This not least for roaming scenarios, but also for valuable m-commerce services. Billing and collections will ultimately become a single role within the business environment, handling the account balance for end customers regardless of whether the account happens to be prepaid or postpaid.

Network operators and content providers need to embrace new partners within alliances that provide value and convenience to customers. However, these “next generation” partners produce a new set of complexities and challenges for the settlement process. These issues need to be addressed.

Users will expect to access all services while roaming as well as at home, including services both in the home network and in the roaming network. This imposes completely new demands on service access and roaming capability. Mechanisms to prevent fraud in roaming networks must be put in place, especially as more valuable services and content increase the risk exposure for service providers. Security for end users and system transparency is important to generate the trust required when buying expensive content.

Analysis of revenue streams within the different business scenarios has determined areas where standards and open interfaces are required to overcome vendor-specific solutions, to prevent interoperability problems and to open up fair competition between vendors.

Whilst there are few reasons for ever trying to standardise 3G business models, this report highlights the interfaces between the major entities that should be the subject for standardization. Standardising these interfaces will create an open business environment which will enable organisations to be created quickly and to build integrations with numerous business partners rapidly and cost-effectively. This will result in cost and service benefits to the whole industry, including the end-user's.

Specific areas that are candidates for standardisation include:

- Interfaces between content providers and service providers, for example to exchange relevant charging information.
- The usage of a charging protocol or similar for the availability and exchange of real time (rather than batch oriented) charging and authorisation information. This is a minimum requirement for roaming scenarios. Charging information has to be available from the network elements or from the application servers through to the billing system. Any possibility is to define the interface standards and develop industry buy-in (or vice versa - i.e. get buy-in and then develop standards to meet the agreements).

Other critical success factors include:

- Identify the interfaces noted in the report that are critical to supporting an effective open business model and which have a lower importance.
- Players have to find their position in the value chain, for example service providers and content providers have to agree on their respective roles for each of the business models.
- Trust, from both provider and end user, is key to success or failure. If trust is missing the result will be lack of content and in all cases a lack of use, so the design of the authorisation and payment infrastructure are critical.
- Quality of service – what will the customer accept? Quality of service must meet customers' expectations or services will fail to be taken up. Note that QoS measurements will not initially be available in 3G networks.

As for the retail Charging, Billing and Payments aspects that have been analysed in this report, Settlements will also undergo a range of changes. It has been decided to produce a dedicated UMTS Forum report to highlight the Settlements related issues.