Prodapt
CONSULTING
powering global telecom

Billing
Invoice 2.0

Introduction

Web 2.0 has been in use for some time. You can see good examples of the use of Web 2.0 techniques in the *iPhone* and the use of *iTunes. iTunes* not only concerns itself with delivering content, but also with analyzing the use and advising the customer. But what happens to the bill? Nothing! It remains a summary of data[1]. A summary of page after page of all the little data sessions with no coherence. So what has happened to Invoice 2.0? What can we actually do with the bill? A new generation of invoicing could be started by delving into the structure and paying serious attention to customer value.

In this white paper, we ask ourselves what would be needed to give shape to invoice 2.0.

Invoice 2.0 is an invoice which explains what has happened in a way relevant to the customer and which helps the customer with payment. In this white paper, Prodapt Consulting examines the possibilities and demonstrates that Invoice 2.0 is not far off.

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This is invoice 2.0

The solution consists of an informative display, in which the most important topics for the customer are displayed <u>in their context</u>, based on an invoice. This information is supplied by the service provider and supports the customer with task-specific information. A customer may ask himself: is this bill OK? A trend chart for the last six months will help here. Buttons offering the possibility to see more, and also buttons for other types of comparison with other price plans. And of course a button to pay immediately or to resubmit a failed payment attempt.

Besides this, usage must be displayed in a concise fashion. The user can see more on how the phone has been used in a list of "sessions". The sessions here must not only show data relevant to the price plan, but also context-relevant information, rather than, as is usual, how many bits have been sent. Context may comprise: internet sites, micro payments, chat sessions, etc.

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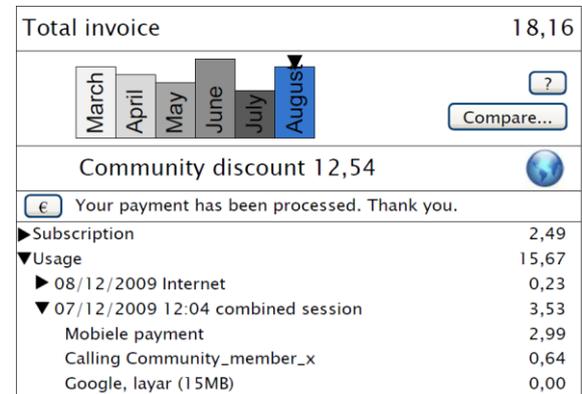
The operator could possibly also make an App to show the costs in detail on the mobile phone. In this case, the last thirty days could be compared with previous periods. This would immediately form an expectation for the next bill.
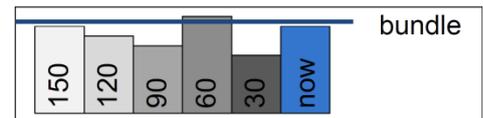
The combination and particularly the context of all this information is more relevant to the customer than a straightforward summary on a static document.

What do we need to bear in mind?

Such solutions seem self-evident, but must fit in with a number of developments. Before we present the billing possibilities (and impossibilities), we will first consider the commercial aspects.

- ◄ Is the customer eager for this?
- ◄ What does the operator / service provider think?

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[1] Visit www.youtube.com and search for "iphone bill".

◥ Does this fit into current trends?
◥ The billing possibilities and impossibilities.

The customer is already familiar with Web 2.0. The customer is used to going to a website for customer service support. A survey demonstrated that the greater part of customer perception was formed by customer service. For billing, the customer wants adequate information, just as for other customer service aspects. In billing, the customer looks at the total amount and puts this in the context of the past month. The information on the web is unfortunately not yet organized to show this information concisely and to the point. The customer would be happiest with a flat fee for usage. That would make life simple, clear – understandable.

The service provider has been confronted in the last ten years with an increasing pressure on costs, while income from traditional services like telephony has been decreasing. The supply of content continues to become more important. To make this possible, there are agreements about content rights and who must pay what. The different access techniques have also been expanded. A film may be watched via cable, set-top box, via internet or on a mobile phone. Each access type has its own quality and price. From all this, the service provider must make a coherent offer which appeals to the customer. Then service provider may use the products with a high margin. To see what the customer is keen to buy and what the associated costs are, it is necessary to combine data in a *Data warehouse.* Analysis of bundled information can provide a great deal to a service provider. It is predicted that there will be a boom in *Business intelligence*.

By bundling information, not only the service provider and customer will be better off. The content provider and operator must provide the data with the necessary meta-data and forward this to the service provider. But because the data has a higher value for the service provider, the operator and content provider can impose higher wholesale tariffs.

Trends

As if this was not a sufficient challenge in itself, trends can also be detected. Apart from content delivery, the social networks are also appearing more and more on mobile phones. These phones transformed into a multifunctional device which coincidentally can also make calls.

Phoning itself is seen more and more as a common commodity, although it is not economized on in a recession. So a lifeline for the service provider too.

The mobile phone now makes it possible to view its use no longer as separate activities (phoning, internet), but much more as an integrated whole with the aid of *Location Based Services.* As an example it may happen that, during a mobile call, a user consults the internet looking for a cold drink and a little later pays for it by micro-payment. All this information has a significant context for the user, and the business which can bill all this information correctly and present it clearly will create customer loyalty.

All this of course providing the customer obtains all his services from one service provider. The more a customer obtains from one service provider and the more ease of use he experiences, the greater the chance that he will remain loyal.

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Communities

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An additional solution may exist in price plans which place the emphasis on *communities.* For example a price plan in which a number of people share a pool of a number of minutes/GB in a (call) bundle. T-mobile launched this as *T-mobile family*, aimed at not more than six people. But we could go a stage further with an offer which reinforces the mutual cohesion: clients could receive more discount if more "friends" are connected. The longer you are a member, the more discount you receive. This could reinforce the modern community trend. Because each person who joins or leaves affects every member.

Billing has evolved, and more and more suppliers offer the possibility to have rating processed in real time by a billing engine. The billing between different parties (for content for example) is also crystallizing. Billing technology is less of a challenge. The real challenge lies in the combination of information. The solution for invoice 2.0 thus lies in the correct and timely combination of data into an information context which is relevant to the customer.
This is therefore a combination of subscription, usage trends and a community to share these.

What is needed for invoice 2.0?
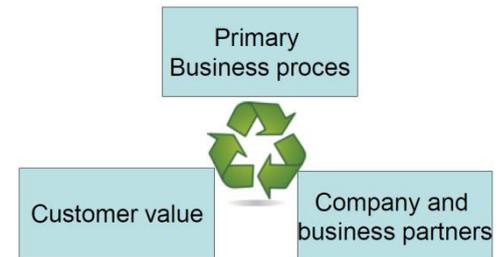
To arrive at such a solution, an approach is required with research in three directions: customer value, business operations and partners.
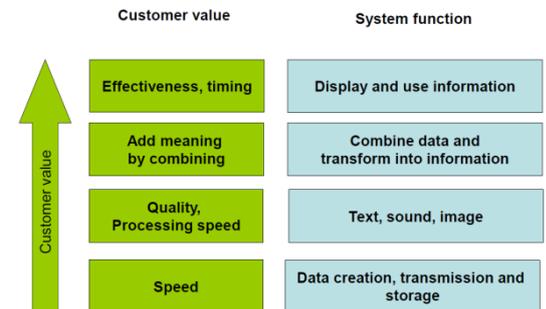
▼ The customer value sets the priorities, and may also make clear when each functionality will be offered. Thus, in this example, the value for the combination of information is higher than for the separate elements, but it would be even better if the company could make suggestions based on the information.

▼ In the business operations, the Total Cost of Ownership for IT must also be considered. Certainly in complex cases. It is often clear that strategic investments to replace old architecture will be rewarding, because much is saved in the longer term (three-four years). Making increasing use of SOA and IMS will simplify the architecture and thus allow more attention to be paid to the combining of information.
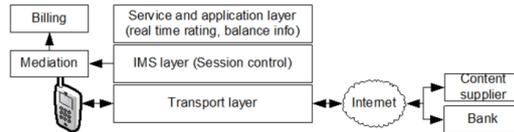
In business processes, explicit attention should also be paid to the business model. This is important, because a bigger margin can be achieved from services which lie closer to customer value.
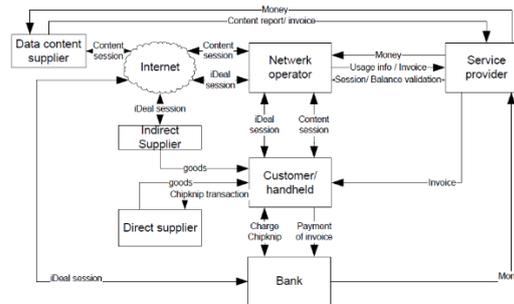
> Businesses such as Google know what a customer is interested in from search terms and web applications. The service provider must see the opportunity to also recognize content at top level and use the connections to help the customer. As in this example: linking a micro-payment to a search action for a cold drink.
> Partners in this case can do business not only as content providers but also by forwarding extra usage data which are relevant to establish combinations. This is therefore a modification in the wholesale relationship.

Making connections is not only a technical challenge; care must also be taken here of judicial aspects. European legislation recognizes the concepts processor and controller. The controller is the owner and indicates what may happen to the information. The processor is the party which actually processes the information,

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stores it, etc. The telecom operator clearly functions as the processor here and may not therefore use the information independently, for example to approach a customer. But there is also a clear division within the service provider. The billing department may, as part of the primary business process, combine the information to help the customer when paying. But the marketing department is not the owner of the information and may not use it without the customer's permission. The last hurdle may well be the customer himself: does the customer want to see what information has been searched for?

None of these techniques remains far away from us. In the past, convergence of billing systems for all products was a buzzword. We have in fact been waiting for convergence for ten years. Even now it may take longer than anyone thinks – it is not straightforward to link all the information.

Flat fee?

A few years ago, billing as a technique was still static. It appeared that it would be based on the use of a flat fee. That was then the end of complex billing. But now, more services are appearing on various carriers, and the services themselves are also more interactive (certainly on mobile handsets). This makes the billing more challenging. Some experts in the billing world are replacing the word billing by "revenue management[2]" to indicate that this concerns revenue and not just a phone bill.

One risk is that flat fee will be used because a service cannot be implemented in good time in the billing path. Flat fee makes the bill predictable for the customer. But on the other hand, the operator no longer has an

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[2] Revenue management was originally the art of maximising income using limited and

volatile capacity. Think of aircraft seats and hotel rooms.

instrument with which to direct the network capacity. This instrument is called *pricing*.

A well-known phenomenon is that a small group of users generates the most load on the network. The average user experiences a degradation of service. An upgrade of the network is not always an option for the operator – the costs are high and not matched by any extra income.

Flat fee may be employed for services with a relatively low value. If a customer wants more, he can switch to a service with guarantees and pay more for this. Account must be taken for invoice 2.0 of:

◤ Real time rating
◤ Micro payment relationship via chipknip or iDeal.
◤ Having meta information made available from suppliers.

This could result in a functional solution as:

◤ Basic services are supplied on a flat fee (subscription) basis, with a limited scope of type of usage.
◤ Extraordinary or expensive services are prepaid/direct paid. This might also be the services which have more value due to their context. (E.g. parking space information via internet if it is clear from your mobile phone that you are stationary in a city.)

Prodapt Consulting

In order to create invoice 2.0, which is relevant to the customer, the IT architecture must be able to link multiple sources and the added value for the customer must also be considered. A key element in this is the other information streams. Contactl us to become better acquainted and to obtain comprehensive information about our experience and references.

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