



Converged Billing for ISPs

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Executive Summary

ISP stands for Internet Service Provider. Till now they are renowned for providing only internet access to the subscribers but the decade of 2000 is seeing growth of local loop telephony companies providing the basic telephony services to their subscribers over new technologies and competing with the national Telcos.

This whitepaper discusses the market opportunities for VoIP providers and few constraints to their success. It also gives a brief introduction of "Soft Phones (also called Dialer)".

Finally, whitepaper precisely explains the difference between two business models i.e. "Prepaid" and "Postpaid".

Introduction

The decade of 1990s saw an enormous growth of Internet worldwide. This growth was fueled by thousands of Internet service providers providing Internet access to the customers. Originally Internet access was mostly based on dial up connections through normal phone lines. Later part of the decade saw the coming of broadband including DSL and cable based access providing.

The new century saw the dawn of Wireless ISPs and hot spots. All of these ISPs in general did one thing; provide Internet access to the customers. The decade of 2000 is seeing growth of local loop telephony companies providing the basic telephony services to their subscribers over new technologies and competing with the national Telcos.

The new century also saw an exciting development. That was the possibility of carrying voice over Internet. There were huge savings in adopting this new technology so the world turned its attention towards this new fortune and VoIP is now taking bulk of long distance and international traffic off the conventional TDM based switches.

Time and technology is now just ripe for all Internet service providers and new local loop operators to provide VoIP to their customers in addition to basic Internet or telephony access.

ISPs are just at the right place and right time to benefit from this new revenue source. There are two main constraints to the success of a VoIP provider:

1. How to provide Internet access to their customers
2. How to charge the money from so many people

Existing ISPs have both these problems solved. They are already providing Internet access to their customers and are already charging them somehow for the access they are providing.

All they now need is a "Soft Phone" also called "Dialer" for their customers and a billing solution to keep track of the money that needs to be charged and paid.

[AdvancedDialer](#) is a soft phone or dialer which is available for all such ISPs. It is quickly private labeled for your brand name and provides excellent voice quality even on low bandwidth dial up accounts. Following figure depicts a dialer



Figure 01: A Dialer (Product of AdvOSS)

Once the ISP decides to offer the VoIP services to their customers as well, they need a basic VoIP billing setup. Please read the "Basics of VoIP origination: Pc to phone calls" whitepaper to get the details.

Should the ISP decide to offer a single account with a single password to all of their customers, this needs the VoIP billing to be integrated with the ISP billing account they already have. This is called a "converged solution" and has special requirements for its billing.

Our converged solution billing for ISPs has the following products in it:

1. VoIP billing standard or enterprise edition
2. ISP Billing
3. Radius
4. GnuGk gatekeeper
5. AdvancedDialer

All of these, together, provide all the required functionalities for an ISP to start providing VoIP to their customers as well.

Prepaid beats postpaid

Time is now turning quickly in favor of prepaid and replacing postpaid services quickly. This is because of two inherent risks in postpaid services which can never be eliminated:

1. Postpaid requires an initial deposit from the customer before the service can be turned on. The initial deposit should be enough to cover more than one accounting period for the heaviest consumer or else the company takes the risk of running bad debts.
2. Bad debts still cannot be avoided. When the bill is sent after the billing period is over, there is always a small uncollected debt on each billing cycle.

Interim billing tries to improve the situation by disconnecting and pausing service to customers running out of credit, but it is still no match for pure real time prepaid billing.

In prepaid, the service can be turned on with minimal initial deposit and the operator still doesn't run any risk of bad debts and debt collection charges. It's a worldwide phenomenon that in fully competing markets, prepaid is quickly replacing postpaid services in all sectors. Prepaid is more taxing on the billing solution as it needs real time billing for all customers. But the extra investment in billing hardware and software is highly justified considering the attached benefits of prepaid.

Summary

Originally Internet access was mostly based on dial up connections through normal phone lines. Later part of the decade saw the coming of broadband including DSL and cable based access providing. There are two main constraints to the success of a VoIP provider:

- Ø How to provide Internet access to their customers
- Ø How to charge the money from so many people

ISPs need a "Soft Phone" also called "Dialer" for their customers like [Advanced Dialer](#) and a billing solution to keep track of the money that needs to be charged and paid like [Advanced ISP Billing](#).

Contact Information

In case of any ambiguity regarding the concept, explained in the whitepaper, please feel free to contact us at support@AdvOSS.com or please, visit http://www.AdvOSS.com/voip_contact.html

For further information please, visit www.AdvOSS.com

We welcome your suggestions

Thank You for reading this whitepaper. We will be pleased to receive your response and suggestions.