



## Converged Billing for Local Loop Operators



*Plan for convergence.*

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## 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.

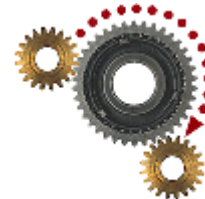
Time and technology is now just ripe for all Internet service providers and new local loop operators to provide VoIP to their customers in addition to basic Internet or telephony access.

World telecom markets are opening up and national monopoly telcos are allowing competing telcos to offer all types of services and this includes the local loop basic telephony services.

Most local loop operators are now also allowed to utilize alternate technologies and operate to deliver their long distance and international traffic. “Soft” devices like softswitches and wireless local loops are quickly replacing the conventional hardware based switches and copper based wires bringing the cost of telecom services to record lows.

This requires local loop operators to have billing for:

1. Basic class 4 and class 5 telephony services
2. Long distance and international traffic



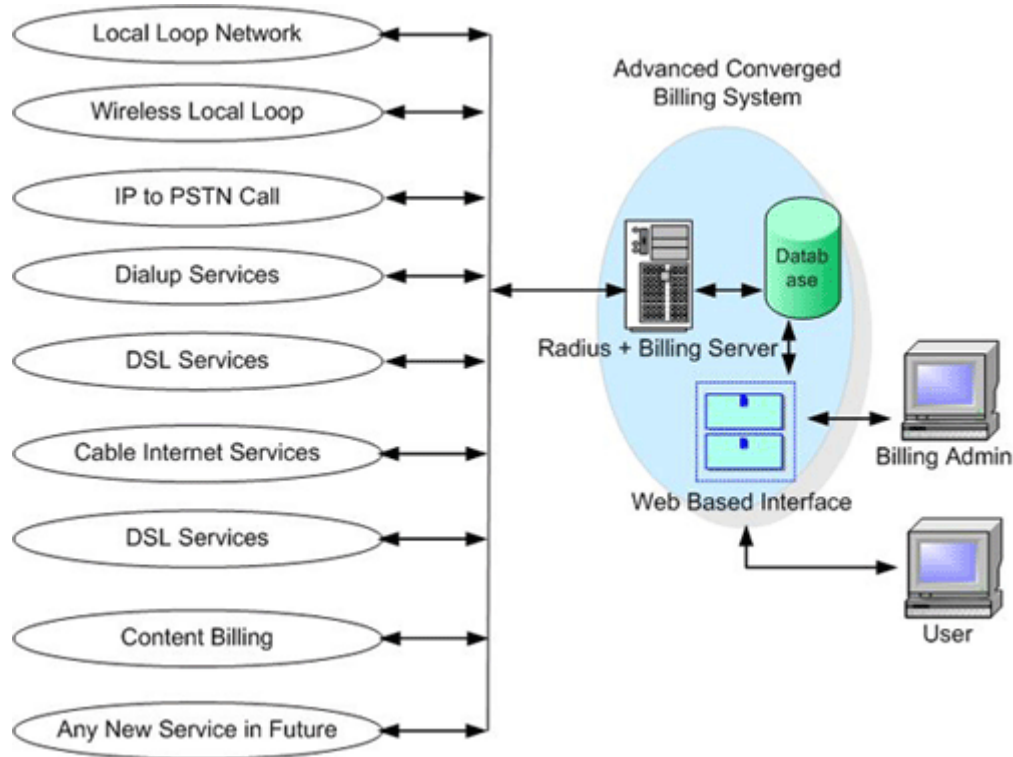
AdvancedVoIP.com provides the full solution for converged billing of these two classes.

Local loop operators intend to offer a single account to a subscriber for both their class 4 and class 5 basic telephony services and long distance and international traffic. This is called a “converged solution” and has special requirements for its billing.

Our converged solution billing has the following products in it:

1. VoIP billing standard or enterprise edition
2. Local Loop Billing
3. Radius
4. GnuGk or any other gatekeeper

All of them together provide all the required functionalities for a local loop operator to start providing VoIP to their customers as well. The following figure illustrates a scenario for the converged billing solution provided by [AdvancedVoIP.com](http://www.advancedvoip.com):



**PREPAID BEATS POSTPAID**

Time is now turning quickly in favor of prepaid and replacing postpaid services. 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 of customers running out of credit but it is still no match for pure real time prepaid billing.

Recently national telcos worldwide have also started offering prepaid basic telephony services. Prepaid has a huge market potential and even the biggest monopolies have to accept this fact.

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 system as it needs real time billing for all customers. But the extra investment in billing hardware and software is justified considering the inherent benefits of prepaid solution.