



 REVENUE ASSURANCE


Anandan Jayaraman, Connectiva Systems: Data consistency is vital



Elias Chachak, cVidya Networks: Beware silent subscribers



Adrian Harris, Neural Technologies: Missing data is an indicator

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Plugging the leaks

With margins incredibly tight for communications service providers, preventing revenue leakage has become a key issue. Steve Rogerson looks at where the leaks are occurring and how they can be stopped.

With the growth of communication services, network operators are not only having a headache integrating them into existing systems but need to do so in such a way as to prevent revenue leakage. On top of that, the spread of mobile services to new regions is also causing billing headaches as operators try to extract the correct amounts of money owed. And then there is the thorny issue of making sure all the roaming charges owed are correctly identified and paid (see articles on pages 46-49).

Some are solving this by ripping out their existing data and billing management systems, and installing new kit designed from the outset to handle the multiple revenue streams. Others are working more piecemeal and bringing in experts and specialist software to identify the main leakage points and then trying to plug the holes.

Balancing act

The problems can start the second a potential customer walks into a high street shop to buy a mobile phone. Many operators now run credit checks on such customers but there is a delicate balancing act to play between stopping bad debtors joining the network and not turning away new customers who could end up being a long-term source of revenue.

Once, this was not too big a worry as there were relatively few bad debtors because people liked to keep hold of their phone. But the recent financial crisis has increased the problem to one that is more serious.

"The phone used to be the last thing that people didn't pay," said Tim Barber, Telecoms Marketing Director at **Experian**. "It was important to their network. They would not pay the mortgage rather than not pay their phone bill. But in the past 18 months there has been a rising problem with bad debt."

He said that one operator in southern Europe has half of its customers more than 30 days in arrears and a fifth are more than 90 days in arrears. Because the problem was not previously that serious, operators did not have the systems in place to deal with it effectively.

The quandary they have is that if they cut these people off then they are losing a potential source of future revenue. If they then sell the debt to a debt collector they are only likely to realise a small percentage of what they are owed, and it might not be worth it.

Identify risky customers

There is specialist software that can help in this by identifying which customers are most likely to pay without any interference by the operator. ►



those who will need a gentle nudge such as a text message, and those who are likely to default unless more stringent methods are applied.

The other aspect of this are customers who deliberately try to consume services without paying for them. These can account typically for between five and six percent of revenue but can be well into double figures if preventative action is not taken.

"It makes sense to try to lower the number into the two per cent range," said Eric Nelson, Managing Principal at **Synaptitude Consulting**. "The investment to get it even lower often just doesn't pay off as it costs more to implement the technology than what is being lost."

The range of fraudulent activities is wide, including those who give false names and addresses when applying for phones, or even using stolen identities, but software can pinpoint some of these at the time of application.

"Inconsistent or missing data is often an indicator," said Adrian Harris, Senior Consultant at **Neural Technologies**. "Age, profession and salary could be inconsistent, for example. There are patterns in these that have been associated with fraud. Even someone's name could be an indicator as fraudsters go for names that sound comfortable."

The goal with software here is to look for a number of indicators that build up a picture of a potential fraudster. By just going for one or two indicators you could end up with a system that rejects too many good people, but needing a match for lots of indicators may let too many fraudsters onto the network.

"The answer may be to let more people on but watch those who look suspicious more closely once they are on the network," said Harris.

Dealer fraud too

And it is not just the customer that needs watching but the dealer as well, as there have been cases of dealers cheating on the way they do customer upgrades to gain more commission. For example, a dealer may get commission every time a customer upgrades, but some customers do not upgrade each time a better option comes along. So a customer may want to upgrade to the latest model or plan but the dealer could put that in a series of upgrades to earn more commission.

"You also get silent subscribers," said Elias Chachak, Vice President of Strategic Marketing and Business Development at **cVidya Networks**. "The dealer gets commission but there is no use on the phone. They could be friends or neighbours or people using false IDs. Some dealers also work for a number of operators and can use the churn system to move customers and pick up commissions."

Internal fraud is also an issue where employees will use their knowledge of the system to top up credits for friends and relatives. They may even

take relatives off the billing system so they receive services without having to pay for them.

The other major area of concern is matching the different infrastructures between carriers for working out charging for roaming and other shared services. There can even be problems with leased lines with the timing of the billing not matching the time of the actual service.

"I don't think this is normally fraud here but problems with provisioning and processing," said Chachak. "But in some countries there is fraud between operators. They are doing it deliberately."

The amount of losses for operators because of both inconsistencies and fraudulent behaviour can range from three percent of revenue to as high as a quarter of revenues.

"This can have a huge impact on the bottom line," said Anandan Jayaraman, Chief Product and Marketing Officer at **Connectiva Systems**. "That is why there have been significant investments in solutions to this."

Problems can also arise within the different systems in one operator as the data about calls made are transferred from the switch to the mediation systems to the billing platform. "Not all calls may be recorded properly because of data transfer issues," said Jayaraman. "There can be a lack of consistency in how calls are rounded up or down. There can be issues with having the incorrect rate plan. There are a lot of plans and not enough time to check them. This is one of the major sources of leakage."

Part of the reason is that the operators are using legacy systems onto which new services have been bolted.

"A surprising number of our customers still have home grown mediation solutions or old legacy systems," said David Heaps, Chief Product and Strategy Officer for **Intec**. "There will be things that these just can't handle. If you are running a modern system, it shouldn't be a problem keeping it up to date."

To check how well a system is handling the services and billing, companies can run reporting software. "These (systems) will predict how much revenue you should be getting compared with what you are getting," said Heaps. "Or you can do manual checks on a subset of the data and extrapolate from there."

Brian Pawlus, director of product solutions at **Oracle**, added: "The typical telco environment is fragmented and integrating all the systems can cause a lot of problems. The more systems you have, the more opportunities there are for problems."

He said the answer was to rip them all out and install a unified platform across all the services. "That would make it a lot easier for the operator to control the processes and reduce errors," he concluded. \$



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