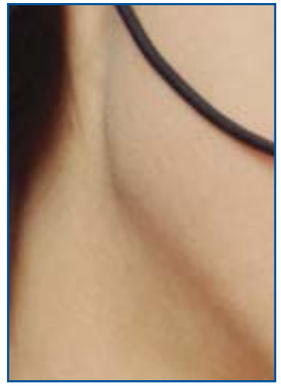
Shedding New Light on Network Test Call Systems.



Enhanced revenue is a key benefit of an automated network test call system. And helping to enable organizations to control costs better may be a hidden advantage.

By Carl Geppert, Global Margin Enhancement Partner in Charge, KPMG LLP

In an environment where a fine line often exists between profitability and loss, telecommunications companies need to make the most of their revenue streams. The billing processes used by most carriers depend heavily on accurate call detail records (CDRs)—and errors in these records can spell big revenue losses.

Revenue assurance is one of the primary benefits of an automated network test call system, which can pinpoint errors and help enable companies to increase revenue by as much as 15 percent annually. Network test call systems verify the accuracy of network switches, the first point at which revenue leakage can occur in the usage capture and billing process. By comparing records generated by the test call system with those logged by switches, a carrier can more accurately charge for network usage—and can improve bottom-line performance.

Comparing records generated by the test call system with those logged by switches—and correcting errors so that customers are charged appropriately—is a valuable way of optimizing revenue. But revenue assurance is only one benefit of a network test call system. Network *cost control* is another advantage of the network test call system—one that is often overlooked simply because test calling is traditionally focused on the revenue side along with customer growth.

But as revenue growth decreases, cost management inefficiencies become more obvious. Network costs can account for 40 percent to 45 percent of total operating costs for a carrier—often its single largest expense.

HOW IT WORKS

An automated test call system typically keeps an independent record of each test call's disposition. Companies then compare this independent record to CDRs from switches to ensure that all call activity is captured by the switch, so it can be sent to the billing system and charged to customers. This approach has been successfully used by telecom companies for many years, and is an effective way of capturing top-line revenue.

However, automated test call systems' "call-through" testing and automated message accounting (AMA) verification can also be valuable tools for managing network costs. Test call records can be used to determine if a company is:

- Paying too much for calls by incorrectly routing calls to interconnect partners, when the calls can be terminated within the carrier's own network
- Inappropriately paying interconnect partners for calls not completed on the carrier's network
- Routing calls within its own network in an inefficient manner.

"Unlike revenue assurance, network cost management is not as well defined in the test call system marketplace," says Sanjaya Krishna, senior manager for KPMG LLP's Risk Advisory Services practice. "However, cost management is a benefit that can make the business case for test call systems more alluring.

"Highly configurable switches and manually intensive switch configuration processes can lead to errors, such as CDRs not accurately reflecting revenue-generating activity," Krishna adds. "But these processes can also lead to other errors, such as calls being routed in ways that increase network cost. It's not surprising that the cost-side benefit is gaining recognition."

SWITCHES ARE AT THE EPICENTER

The switch records information about each call, including origination, termination, time of day, duration, and services used. As carriers add services, calling plans, and rate centers, this information becomes more complex. Testing, therefore, is crucial for ensuring that the company charges full revenue for each call—and the least cost is incurred.

Glenn Ross, director of revenue recovery services for The Board Room Inc., a manufacturer of automated network test call systems, says network test call systems form the foundation of telecom companies' revenue assurance processes. "Test call systems have a long and successful track record. They put you 'in the know' regarding all aspects of each call because they create a controlled test environment. Any deviation from that known result will be highlighted as an error."

This controlled environment is the reason why test call systems are the cornerstone of companies' ability to conduct detailed analyses and gain an accurate understanding of the documentation and billing processes. "If records are not created, how do you know if there is an error? Not all calls use the SS7 network for routing. Any system needs to be tested thoroughly, and that's what call-through testing and AMA verification do for many successful companies," Ross adds.

TRENDING HAS LIMITATIONS

Ross says that "trending"—high-level analysis of switch-generated CDR information—is useful for identifying errors, but it does not *locate* the actual errors. Trending should be used in conjunction with switch testing to locate problems as they occur, he says.

Moreover, trending is least accurate at the time when switches are most vulnerable to errors. When a new call is introduced into a switch, trending must "begin from scratch" on that type of call, which can result in faulty information, says Ross.

Simply put: The automated network test call system is one of the most reliable approaches to revenue optimization. But it also has tremendous potential for adding value to telecom companies' network cost control strategies.

Sanjaya Krishna of KPMG and Glenn Ross of The Board Room Inc. will lead a pre-conference tutorial, "Call-Through Testing and Its Impact on the Bottom Line" during the 2004 TeleStrategies Revenue Assurance Conference in Phoenix, Arizona, on September 27. The agenda and registration information can be found at www.telestrategies.com.

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