EVERYWHERE

The Global Network:
Call Completion and Dropped Call Rates

Snapshot: Iridium achieves successful first attempt call success rates of generally better than 98.5%, while dropped call rates are less than 1%.

Iridium's network operators use various tools to monitor and measure key performance indicators for the company's satellite constellation and ground infrastructure. They use this data to analyze Quality of Service (QoS) metrics to optimize service reliability.

In this report, we examine two key QoS indicators—call-completion rates and dropped-call rates for voice telephony through the Iridium network. We will look at QoS metrics for data traffic in another report.

Measurement

Iridium has established autodialers at various locations to monitor connect and disconnect rates under controlled conditions. An autodialer is basically an Iridium transceiver connected to an antenna with a clear view of the sky. Under computer control, the autodialer dials a preprogrammed telephone number that allows the call to traverse the Iridium system network. The call is held for a predetermined period of time, then disconnects and dials again. The process is repeated around the clock, 24/7. The computer records the number of calls attempted, the number of calls terminated normally, the number of calls that failed to connect, and the number of calls that disconnected before completion. This process generates a wealth of data for Iridium's engineering teams to analyze, monitor for anomalies and improve network reliability.

In addition to the autodialers, Iridium network operators constantly monitor the QoS performance indicators for voice and data traffic through the network. While the data fluctuate from hour to hour and day to day, trends emerge over time.

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Everywhere

Call Connection Rates

· **Current autodialer statistics show the first attempt call success rate for voice calls to be consistently around 98.5 percent**, which also tells us that Iridium's call connection rates have remained reliable and consistent over time.

· **Similar results were reported in a pair of studies conducted by Frost & Sullivan in 2007 and 2008**, which found that Iridium's first-time call-connection rates ranged from 97.5 to 99.2 percent.

· **Traffic analysis reveals that more than half of failed call connections are attributable to dialing errors.** The most common cause of misdials is user unfamiliarity with the international dialing protocols for a satellite phone.

Dropped Call Rates

· **Autodialer dropped-call rates (calls that were terminated prematurely) are extremely low**, under 0.5 percent for 45-second duration calls.

· **The 2007 and 2008 Frost & Sullivan studies found the dropped-call rates to be 1.1 to 1.4 percent for three-minute calls**, a very low rate of failure for any global telecommunications network.

Only one communications company connects the entire globe

Iridium is the world's only truly global mobile communications company, with coverage of the entire Earth, including oceans, airways and Polar Regions. Iridium voice and data products provide communications solutions that allow global companies, government agencies and individuals to stay connected, everywhere. The unique Iridium constellation of 66 Low Earth Orbiting (LEO) cross-linked satellites routes communications traffic through space and around the world, creating highly efficient and reliable connections.

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