

Verizon Case Study



Web application streamlined lending and online banking processes and became nationally marketed software.

Overview

Verizon Global Networks Inc. (VGNI) is a wholly owned subsidiary of Verizon Communications Inc. VGNI serves the domestic inter-LATA network needs of certain Verizon subsidiaries including Verizon Long Distance, Verizon Select Services Inc., Verizon On-Line Services and Verizon Global Solutions Inc. Its staff needed the ability to quickly identify the root cause of a service outage when the data was stored in numerous switches throughout its network.

Challenge

VGNI sought Quest to develop a scalable system to ultimately support a volume of two billion call details per month, with new calls available for inquiry within ten minutes of data file arrival from a network switch. With a target workload of 75 million call records per day and the need for 24-hour online access, the system had to be available via the Intranet, accessible from any browser, and easy to use.

Quest and Verizon decided a new web-based system that would combine the data from these switches into one common database to allow staff to easily view all of the call detail information and quickly isolate the potential problem area for call dispatching was needed.

Solution

Quest originally designed and developed the CDRSS application and database for an initial deployment on a smaller-scale system to meet lower volumes. Later, VGNI's business grew, projections indicated the need for a significantly larger capacity system. Quest responded with a system upgrade by assessing the impact of the increased volume projections on the physical systems and network architecture, as well as the software and database architecture.

The CDRSS application includes web-based queries of call detail records, database loading, and data conversion from four different types of Long Distance Call Switches. The data is fed from 19 switches around the country. The majority of data arrives at five to fifteen minute intervals over a 12-hour period of peak activity.

When a "call" is placed from a source phone number to a destination phone number and is handled by one or more switches along its route, each switch tracks call details which are periodically uploaded. The CDRSS continuously reads and translates these call detail record files from all switches and loads this data into a database where a consolidated view of calls is assembled. Call data is available for inquiry within ten minutes of a file being uploaded to CDRSS. This particular database supports a volume of two billion call details per month.

Results

Quest a highly scalable, multi-tier, comprehensive application to ensure adequate service levels and retention of clientele visiting the site. The new system quickly provides staff with the data needed to find network faults and then create trouble tickets for problem resolution when a customer has encountered a problem.