real time data mashup

challenge

A telecommunications organization servicing more than 70,000 customer care calls per day had a high cancellation rate for customers that continued to experience a service outage 90 minutes after a calling customer care. Existing systems within the organization took days to report whether service was restored after calling customer care. As a result, the organization could not respond quickly to keep high-risk customers from leaving.

Most significant challenges included:

- **Data Access:** Different groups within the organization, each with its own policies, procedures, and technologies, controlled critical non-overlapping pieces of data.
- **Full Availability:** Due to high call volumes, bonding the system to the customer care workflow required a zero downtime
- **Real Time:** To be effective the solution needed to provide up to the minute information to the customer care representative.
- **Highly Responsive:** Customer care consultants could not be delayed by waiting for the system.

solution

A web-based solution was developed to meet all of the key challenges:

- **Data Access:** An extensible ETL framework was developed so that each data source could be integrated without changing the processes or technology of the owning group.
- **Full Availability:** System uptime is assured through fully redundant systems located at geographically dispersed sites. The sites are synchronized using a parallel load strategy.
- **Real Time:** Preemptive caching was used to collect and process data in anticipation of user requests.
- **Highly Responsive:** The average system response time was less than 200ms, including network latency.

benefit

Through the new web solution, the call center experienced a sharp reduction in cancellations, since customers were able to resolve issues as they were happening. With a call time reduction of 2 minutes per call, the resulting efficiency improvements saved the client tens of millions of dollars per year. The increased customer satisfaction scores were also validated through measurement by independent outside surveys.

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