RETAIL: LOCATION-BASED MARKETING

For consumer marketers, one of the promises of having a customer base that is always connected on smart devices is the chance to directly target promotions to them while they are in an area where they can readily make purchases. Speed is of the essence to location-based marketing, as the effectiveness of promotions disappears if the consumer doesn't receive them until after they have left the neighborhood. Location-based marketing provides the opportunity to build new commerce ecosystems encompassing mobile carriers, retailers, entertainment venues, and location-focused social networks.

UTILITIES: SMART GRIDS

In many parts of the globe, public utilities often face the need for balancing limited sources of power with ratepayer demand. The challenge is compounded by the reality that adding new generating or transmission capacity is limited, both by capital and the availability of suitable locations. Innovative utilities are taking advantage of the availability of low-cost, smart sensors, and increasing bandwidth to build smart networks that can monitor and balance generation and transmission with demand. They can place devices along transmission grids to optimize the flow of power, or install smart meters across homes or businesses to provide customers economic incentives to manage their own consumption. Clearly, the effectiveness of smart grid technologies relies on the ability to sense and act in real time, balancing demand with supply, and reducing the cost and duration of outages.

SMARTNOW FAST DATA PLATFORM

SmartNow Fast Data, is a fully Event Processing Platform, designed to process large amount of fast events in a distributed, reliable, scalable Fast Data Architecture. The Platform provides a set of base components that allow the constructions of complex events and data processing solutions for Fast Data.

→ Building new services Ability to process highly-dynamic data efficiently provides broader insight into customers and allows companies to offer differentiated services or products that were not possible before.

→ Improving customer experience By leveraging the latest customer information-including most recent contacts across all customer touch-points, support issues, and operational data-companies can offer real-time personalized service at every customer interaction.

→ Increasing operational efficiencies: Ability to process highly-dynamic data in a rapid fashion brings advanced optimization opportunities across the business, such as in asset utilization, workforce management, or inventory management.

→ Developing higher quality in operations. Fast data expands the breadth of data analysis and delivers great predictability and visibility which enable higher quality in business operations.

All of these components run on a rich data tier environment which supports both: Big Data Hadoop/NoSQL, as well as SQL, and scales elastically on standards based Java platforms.

SmartNow®

HIGHLIGHTS

→ Event processing (also known as "Complex Event Processing") systems are typically utilized for automating response to highly complex patterns of occurrences that are not otherwise human perceptible, such as detecting patterns of fraud or identifying instances of risk to homeland security. Here, data is typically intercepted in memory, but not persisted because the requirements is to observe and take action; in some cases, selected data may be stripped off for populating a data warehouse that can be used for historical or predictive analytics.

→ In-memory data grids for more complex, dynamic scenarios involving highly distributed applications with volatile data that cannot tolerate latency. Examples include high-volume e-commerce or capital markets transactions. Highly volatile data is placed in large expanses of memory in the middle tier, which it is represented as data objects (usually Java data objects) that are accessed and manipulated programmatically.

→ In-memory (IMDB) or Flash (solid state disk) databases are scaling beyond their traditional role as front end caches to conventional databases. Thanks to declining memory and flash drive pricing, these systems can now be deployed as complete platforms that can be optimized for performing highly complex analytics in real time.

→ Advanced SQL engineered systems, which are specially optimized for analytics or transaction workloads, have emerged within recent years that exploit a number of optimizations to improve speed and scale. They include tuned multi-core processors, optimized clustering and workload management, direct-connected internal storage, linked through special high-speed interconnects (e.g., Infiniband) to deliver higher performance at scale. Because they can be designed for rapid response at scale, engineered systems can provide a logical path for supporting Fast Data applications.