KT CORPORATION POWERS IoT SERVICES WITH EDB POSTGRES

GOALS
- Replace costly legacy vendors with low-cost open source-based technology.
- Support new products with high performance, mission-critical workloads.
- Gain greater flexibility in deployment of wide range of new Internet of Things services.

A successful proof of concept for one application led to the widespread deployment of the EDB Postgres™ Platform at KT Corporation, South Korea’s largest telephone services and broadband provider. EDB Postgres processed 30,000 orders for a new iPhone in the first 60 seconds. Based on that outcome and others that followed, KT Corporation went on to deploy EDB Postgres on what are now 130 high performance, mission-critical systems. That includes several new Internet of Things (IoT) services that KT Corporation has rolled out as it takes a leadership role in the region’s delivery of such new technologies.

Major infrastructure upgrades and new service rollouts underway at KT Corporation provided opportunities for the company to take advantage of EDB Postgres for its database, as well as adopt open source software for the operating system and middleware across its infrastructure. KT Corporation has reduced its software costs by 80% over the past five years by using open source or open source based solutions like EDB Postgres in lieu of traditional vendors.

KT Corporation is accustomed to taking a leadership role in advancing Korea’s digital communication technologies, having built out the first advanced broadband network in Asia. The company sells wired and wireless phone services, high-speed Internet services, Internet Protocol Television (IPTV), voice over Internet Protocol (VoIP) and wireless broadband services. It is also a significant services provider, including consulting and systems integration.

KT Corporation recently has begun to diversify its business offerings as technology has advanced. It has been upgrading its legacy telecommunication infrastructures to support much higher data speeds over wireless networks. By combining LTE base...
stations and localized wireless stations to create a new GiGA system, the company has been able to deliver data speeds of over 1 Gbps to consumers. KT Corporation also leveraged its newly upgraded infrastructure to provide customers with cloud and big data solutions for five areas: (1) smart energy, (2) security, (3) media, (4) healthcare, and (5) intelligent traffic control.

**Internet of Things Services**

KT Corporation’s new enterprise services subsidiary, KTDS, has been especially aggressive in utilizing open source software to implement new systems. Through this subsidiary, KT Corporation has introduced several new IoT services powered by EDB Postgres, such as:

- **GiGA IoT Home**: Enables customers to monitor and control home devices or connect to a mobile application. Using EDB Postgres helps keep KT Corporation’s internal costs low even as the number of users expands with the popularity of the service.

- **KT Open IoT Infrastructure Business**: Helps small businesses utilize signal beacons in core market areas. With the right technology, such beacons help businesses provide promotional materials based on customer locations or preferences.

- **KT GiGA IoT Health**: Collects biometric data through embedded sensors in multiple health care-related devices as well as provides services through virtual imagery that encourages exercise or provides entertainment. In addition, this data is carried on KT Corporation’s IPTV so that users can conveniently monitor and manage their health conditions.

- **KT GiGA IoT**: A full-duplex service for mobile applications and IoT devices. KT GiGA IoT won the IoT Innovation Award 2016, an award hosted by the Korea Internet Professionals Association (KIPFA), a major organization of technology professionals in Korea.

Other KT Corporation IoT services successfully using EDB Postgres include child care-related, health, security, and location-based marketing.

"In the past, the primary purpose of using EDB Postgres was only to reduce IT cost. Because the performance and stability of EDB Postgres has been proven with successful, mission critical deployments, the goal has changed. We are now expanding our use of EDB Postgres in future core services as widely as possible across KT Corporation," said Junghyun Lee, a team leader at KT Corporation.

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