The healthcare industry is being dramatically impacted by the ongoing digital revolution. From the trillions of bytes of information created by electronic health records, to the patient’s desire to have ready access to that information, healthcare is rapidly moving towards a digital-first environment where personalized medicine and the empowered patient is the norm.

This move is placing unprecedented demands on healthcare IT departments and their ability to deliver stable services while fueling innovation. A number of trends in healthcare present challenges to a traditional IT approach as well as opportunities to embrace innovation to transform service delivery.

Patients are demanding better access to their healthcare information. As a result, providers are deploying online portals that allow patients to manage appointments, securely access health records, and correspond with clinicians. Additionally, mobile apps provide ready access to a wealth of information, from hospital directions, to patient support groups, to the menu in the hospital cafeteria.

**IT CHALLENGES:**
- Provision development and production environments faster
- Deploy digital services and applications to patients faster

**SOLUTIONS FOR DEVELOPMENT AND DEPLOYMENT:**
- **Release Lifecycle Management** provides agile application release automation that deploys application changes faster, at lower cost, and with fewer errors.
- **Cloud Lifecycle Management** orchestrates the agile delivery and ongoing management of secure and compliant IT services across private and public clouds, as well as legacy data center infrastructures.

By 2020 the healthcare industry is projected to generate almost 25,000 petabytes of data. As providers and insurers retrieve, analyze, and share information, efficiently managing big data will be critical, ultimately leading to better healthcare practices and improved patient outcomes.

**MEDICAL RECORDS AND BIG DATA**

**IT CHALLENGES:**
- Effectively manage Hadoop big data environments
- Simplify batch processing
**SOLUTIONS FOR BIG DATA MANAGEMENT:**
- **Control-M for Hadoop** simplifies and automates Hadoop application processing for faster batch-job implementation and more accurate analytics.

**COST-EFFECTIVE SERVICE DELIVERY**
Healthcare IT organizations are expected to contain costs while delivering services 24x7x365. In spite of the disruptive changes taking place, healthcare IT organizations are still expected to contain costs while delivering services that are reliable, scalable, and highly available.

**IT CHALLENGE:**
- Optimize resource usage without compromising care

**SOLUTIONS FOR COST-EFFECTIVE SERVICE DELIVERY:**
- **Data Management Solutions for DB2® on z/OS®** enable “zero outage” availability, support new unstructured data, and reduce DB2 operating costs by redefining the way you perform DB2 database management.
- **TrueSight Capacity Optimization** aligns IT resources to business demand. It provides capacity and cost visibility, supports effective decision-making on IT investments, and enables IT agility.

**SECURITY AND COMPLIANCE**
Almost half of all security breaches in 2014 occurred in healthcare. With the increasing digitization of patient and clinical information, IT departments must remain vigilant to ensure systems are in compliance with security standards and policies.

**IT CHALLENGES:**
- Compliance with mandates such as HIPAA
- Preventing unauthorized access to patient data

**SOLUTIONS FOR COMPLIANCE:**
- **BladeLogic Server Automation** helps IT rapidly remediate known vulnerabilities, and automate compliance checks for regulatory requirements such as PCI-DSS or security standards like DISA.

**FOR MORE INFORMATION**
To learn more about how BMC technology drives digital innovation for your industry, please visit [bmc.com/customers](http://bmc.com/customers).

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