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Management Discussion

International Business Machines Corporation and Subsidiary Companies

Cloud & Cognitive Software

Cloud & Cognitive Software brings together IBM's software platforms and solutions, enabling us to help clients predict, automate, secure and modernize, on a secure hybrid cloud. It includes all software, except operating system software reported in the Systems segment.

Cloud & Cognitive Software comprises three business areas—Cognitive Applications, Cloud & Data Platforms and Transaction Processing Platforms, which have the following capabilities:

Cognitive Applications: includes software that address vertical and domain-specific solutions, increasingly infused with AI, enabled by IBM's Watson technology. Application areas such as health, financial services, supply chain, asset management, weather and security software and services are among the offerings.

Cloud & Data Platforms: includes the company's distributed middleware and data platform software, including Red Hat, which enables the operation of clients' hybrid cloud environments, whether on-premise or in public and private clouds. Included are IBM Cloud Paks, which are pre-integrated enterprise grade solutions built on Red Hat OpenShift and a combination of containerized IBM and Red Hat software and services. It also includes product areas such as WebSphere distributed, analytics platform software such as DB2 distributed, information integration, and enterprise content management, as well as blockchain and AI/Watson platforms.

As clients increasingly move more of their mission-critical workloads to the cloud, their multi-cloud environments will be based on a foundation of Linux, with Kubernetes open source software to deploy, manage and scale container-based applications. Red Hat, which provides the leading Linux operating system—Red Hat Enterprise Linux (RHEL)—and the leading hybrid cloud platform—Red Hat OpenShift—is at the center of this transformational shift among clients.

Transaction Processing Platforms: the software that supports client mission critical on-premise workloads in industries such as banking, airlines and retail. This includes transaction processing software such as Customer Information Control System and storage software, as well as the analytics and integration software running on IBM operating systems (e.g., DB2 and WebSphere running on z/OS).

Global Business Services

Global Business Services provides clients with consulting, business process and application management services, focused on implementing AI-enabled intelligent workflows and modernizing application suites, optimized for hybrid cloud environments. These professional services deliver value and innovation to clients through solutions which leverage industry, technology and business strategy and process expertise. GBS is the digital reinvention partner for IBM clients, combining industry knowledge, functional expertise, and applications with the power of business design and cognitive and cloud technologies. The full portfolio of GBS services is backed by its globally integrated delivery network and integration with technologies, solutions and services across IBM.

GBS assists clients in their digital transformations, helping them build business platform strategies and experiences, transform processes to intelligent workflows using AI and other exponential technologies, and build hybrid, open cloud infrastructures.

Global Business Services comprises three business areas—Consulting, Application Management and Global Process Services, which have the following capabilities:

Consulting: provides business consulting services focused on bringing to market solutions that help clients shape their digital blueprints and customer experiences, modernize their applications, define their cognitive operating models, unlock the potential in all data to improve decision-making, set their next-generation talent strategies and create new technology architectures in a cloud-centric world.

Application Management: delivers system integration, application management, maintenance and support services for packaged software, as well as custom and traditional applications. Value is delivered through advanced capabilities in areas such as security and privacy, application testing and modernization, cloud application migration and automation.