Cloud Computing Technology

Framework for Application

As the government moves to a Cloud Computing environment, agencies will face a new form of technology over which they will only have indirect control—via a service-level agreement. Although much of the technology in the cloud is new, some aspects have roots in the 1960s with “virtual machines.” Some of the technologies will be transparent to the buyer community. Buyers will have some say over the products that are needed and why. Buyers will also have input on how current systems not migrating to the cloud and future systems not moving to the cloud will interface and interoperate with migrated and cloud-hosted systems. Cloud Computing creates a dynamic technological framework.

Booz Allen: utilizing cloud-based technological frameworks for customer success

Booz Allen Hamilton, a leading strategy and technology consulting firm, has long recognized the significant impact Cloud Computing would have on organizations providing services and “products” to customers and other stakeholders. This impact involves two primary types of technology that exist in the cloud. One type is the hardware and software technology used to create the virtual servers, storage, and computational resources used in the cloud to run applications. The second type comprises “enabling” technologies, which provide tools and other software platforms that support application development, application management, and basic-to-advanced data management. The cloud encompasses these technologies in a six-layer “stack”: clients, services, applications, platforms, storage, and infrastructure. This stack produces a variety of cloud services through virtual systems created for customers based on their needs and specifications.

Virtual systems, per se, are not new. In computing, platform virtualization is a virtualization of computers or operating systems that hides the physical characteristics of a computing platform from users. Cloud Computing is similar. Users care only about the service—compute cycles, data availability, integrity, and security. Users’ only concerns are that their applications can run in the cloud environment and that they can access their applications and data. The nature of the resources users ultimately consume is a function of what they move to the cloud and what they will do over time. The cloud is simply a path, not an endpoint, organizations can use to meet changing and enhanced mission needs.

Booz Allen’s expertise rests on a broad and deep pool of technical staff and extensive experience across the federal government and private industry. Booz Allen has proven
tools and approaches for requirements analysis, system design, system development, testing, implementation, and the overall management of the entire system development life cycle. The firm has enhanced these tools dramatically to reflect the complexities of a cloud-based computing environment transformation. Tailored implementation and use of these tools and functionally rich innovative processes allows Booz Allen to effectively help customers plan, manage resources, and ensure the timely and cost-effective achievement of client priorities and deliverables. Booz Allen assists with both basic migration to the cloud and advanced use of comprehensive services and capabilities.

Booz Allen’s approach: helping customers enjoy high cloud maturation levels

The firm’s Cloud Computing services span five key areas: IT infrastructure, information sharing, innovation, elastic rapid surge support, and massive ad-hoc analytics. Clouds have many important differences and are all supported by the basic Cloud Computing layers. Booz Allen believes the four primary types of clouds are private (serving a specific program or organization sub-group), internal (serving the majority or all of an organization), community (serving a total community of interest, such as defense or intelligence), and public (serving all users). Organizations’ use of the cloud to meet requirements and achieve the cloud’s benefits is an iterative evolutionary process, and they move to increasing levels of cloud functionality to meet expanding requirements.

Booz Allen’s Cloud Computing transition methodology spans a broad range of organizational and technical areas and skill sets to maximize the initial and life-cycle evolution of systems and applications. This evolution covers classic internal IT environments and full cloud utilization—or somewhere in between. Through cloud evolution, users achieve a new level of IT/operational maturation and enjoy greater Cloud Computing benefits and capabilities, such as value, stakeholder satisfaction, and operational satisfaction.

Booz Allen experience and expertise

The momentum behind the government’s adoption of Cloud Computing is significant and driven by multiple inter-related factors, such as mission; need for speed, flexibility, and agility in meeting stakeholder requirements; and cost. Booz Allen has achieved a position of thought and action leadership in the government’s adoption of Cloud Computing. From the firm’s earliest testing of Cloud Computing constructs and vendors, transition planning, and technological methodologies to the highly regarded Cloud Computing Summit hosted by Booz Allen in October 2008, the firm has been at the forefront in understanding and developing effective tools and methodologies and processes so government agencies can rapidly migrate to, and effectively use, this new technology.

Whether you’re managing today’s issues or looking beyond the horizon, count on us to help you be ready for what’s next.