Cloud Computing

A Path to Rapid Modernization and Development

*Agencies have critical missions* that require their undivided attention, as well as the ability to nimbly adjust strategies and tactics as program needs evolve. Cloud computing can eliminate the distraction of managing complex data centers and associated costs, while improving flexibility, scalability, and agility. In addition, cloud provides a fast track to digital transformation, enabling rapid modernization and development of infrastructure as well as application portfolios.
Mapping a Clear Course to the Cloud

Designing and implementing a cloud strategy is a complex undertaking. It requires a solid understanding of IT service delivery needs, internal processes impacted, and desired business outcomes. Attain offers clients the strategic perspective, proven capabilities, and unique approaches needed to develop the right cloud strategy.

We help clients answer the initial strategic questions, and then guide them through the process of developing cloud strategies and capabilities using a proven methodology. Technology agnostic, our trusted professionals provide insights into the pros and cons of specific options and tailor the best fit solution leveraging our robust technology partner ecosystem.

A Strategic Approach

We begin by conducting utilization, capacity, and migration analyses to decide which functions and resources make the most sense to move to the cloud. It’s important to be able to assess the suitability of systems for migration, as not every architecture lends itself to the cloud. Once suitability has been assessed, applications and systems must be prioritized based on a variety of factors (ease of migration, return on investment, resource requirements, risk, and others). Finally, the migration approach to each system or application must be developed, since the maximum benefit from cloud migration typically involves re-architecture, re-platforming, or some other modernization, rather than a wholesale “lift-and-shift” of the as-is state into a cloud environment.

We then develop a Cloud Migration Plan and Road Map to help align functional areas, streamline adoption, integrate processes/systems, and maximize savings. Through our Identification and Access Management, we implement a consistent user authentication and access management framework.

Our change management and cloud implementation services guide users and stakeholders throughout the process to ensure a seamless transition to the cloud.
Accelerating Digital Transformation

Cloud computing provides agencies the agility and flexibility to keep pace with the accelerating rate of innovation, including supporting a shift to more rapid modernization through containerization and microservices and rapid development cycles through DevSecOps, as well as automated provisioning, testing, and deployment.

Enhancing agility and scalability with microservices

Merely replicating the same architectures within the cloud fails to realize its true potential. While monolithic architectures may be the norm for most applications running in production today, they are a suboptimal architecture for the cloud. Attain can help agencies maximize the benefits of moving to the cloud by harnessing microservices for improved agility, scalability, and speed of development.

Improving portability, flexibility, and speed with containers

Because containers create an isolation boundary at the application level as opposed to the server level, they can prevent compatibility problems between applications running on the same operating system, isolate issues, and greatly improve portability. Attain can help agencies leverage the power of containers to minimize resource needs, quickly create development, test, integration, and live environments, and support DevSecOps approaches.

Driving continuous deployment with DevSecOps

To maximize the benefits of cloud computing and drive continuous deployment, Attain employs rigorous DevSecOps approaches, including Attain Test Driven Management™, which incorporates automation to drive cost savings, reduce developer workload, and minimize rework. In addition, we leverage proven metrics along with trend analysis and reporting to illustrate the level of continuous improvement.

Elevating results in the cloud

- Reduce infrastructure costs and spikes as computing needs expand
- Improve scalability, reliability, and agility
- Accelerate application development and deployment
- Improve predictability/reliability of budget forecasts
- Keep pace with accelerating rate of technology innovation
- Facilitate disaster recovery
- Drive digital transformation

Case Study

Accelerating migration to cloud

Leveraging an application migration assessment methodology and toolkit, Attain helped a civilian agency transition applications to a cloud environment in an accelerated manner. Application assessments were performed on a portfolio of 150 applications to determine what could and should be moved to the cloud and associated priorities. An open source centric approach was adopted to support the migration, and Attain’s unique DevSecOps methodologies were employed aligned with CMMI DEV Maturity Level 5 to drive cost savings, minimize rework, and support continuous deployment.

Using microservices on the Red Hat Open Shift Platform, Attain employed a unique cloud migration strategy to enable the agency to evolve its technology stack and set a solid IT future road map. Going beyond mere lift and shift of existing infrastructure, the approach modernized the agency’s application architecture. Applications were re-architected as a collection of loosely coupled services to deliver business capabilities, while the microservices architecture enabled the continuous delivery/deployment of large, complex applications. As a result, the agency was able to reap the following benefits:

- Resolving over 95% of existing security vulnerabilities related to its infrastructure and application software.
- Decoupling application components to enable modularization using microservices.
- Incorporating a dynamic scalability approach to infrastructure management to better handle peak loads and surges.
- Enabling rapid environment (machine) provisioning using Open Shift containers.
- Improving the timeline for “hot-fixes” and reducing disaster recovery turnaround.
- Reducing the software deployment timeline thereby enabling shorter software release cycles.
- Realizing significant cost savings.
Proven Performance. Forward Thinking.

Based in McLean, Va., Attain is a management, technology, and strategy consulting firm comprised of innovative problem solvers who disrupt the status quo to change the world and improve the lives of those we touch.

From strategy and digital transformation—including user-centric design, agile development, DevSecOps, and continuous deployment—to cyber security, cloud services, business intelligence and analytics, infrastructure management, as well as industry-specific operational expertise, Attain brings proven performance and forward thinking to advance our clients’ missions across the government, education, healthcare, and nonprofit landscapes.

To learn more, please visit attain.com. Contact us at info@attain.com or 703.857.2200.