

Cloud Design, Engineering, and Operations

More than just a head in the clouds



LATCH supports agencies such as Army PM Biometrics and the United States Patent and Trademark Office in cloud design, engineering, and operations. When developing a cloud migration strategy, we emphasize cost savings while providing system, network, architectural, and operational services.

We provide cloud-native services, automation, data analytics, and engineering services. We work to tailor solutions, promote high levels of visibility and transparency, and focus on the needs of our clients.

Near Real Time Identity Operations

- Establish a secure, scalable, and cost saving migration strategy.
- Develop, monitor, and report on the cloud migration financial plan.
- Develop budget for to-be architecture, work with AWS to obtain Savings Plan pricing, tracked licenses, and determined the cost of all AWS cloud services.
- Construct system, network, infrastructure, and mission operations tests to be performed during functional, regression, and operational testing.
- Maintain and sustain cloud infrastructure while ensuring maximum efficiencies in cost and management.
- Support automation efforts of releasing and monitoring within the NRTIO cloud infrastructure.
- Manage key performance indicators (KPIs) that provided in-depth visibility and transparency into system health.

SDAP, Service Catalog, OpsBots

- Provide application of cloud-native services, cognitive automation, data analytics, and process re-engineering.
- Support the implementation and assessment of cloud services and tools.
- Evaluate migration options based on technical roadmaps to enable data sharing, integrating with Azure services, incorporating OpsBots and ChatBots, and refactoring to take advantage of cloud-native services
- Suggest new combinations to virtual agents that communicate with service requestors to assist in selecting the right combination of cloud services and recommend solutions.
- Refine Service Catalog dashboards based on request types, reference architecture or design pattern usage, cloud service usage, delays in service, and customer surveys.
- Developed OpsBot architectures which are enhanced by and integrated with cloud-native technologies and collaborative tools.

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LATCH's architects and engineers participated in the evolution of distributed computing, infrastructure virtualization, and multi-tenancy architecture that became features of modern-day cloud computing. We understand the opportunities, challenges, and risks in migrating and operating in a cloud environment. As Federal agencies transform their IT missions through cloud services, our expertise in cloud design, engineering, and operations can simplify complex processes.

FINANCIAL PLANNING

LATCH collaborates with clients to analyze current architecture's operating expenses, capital expenses, and events on the financial and technical roadmap, such as a major hardware refresh. When designing a target architecture in a cloud environment, we consider multiple variables, including the changes in the total cost of ownership (TCO), the one-time cost of migration, ongoing monthly or annual costs, savings plans, and how the reduction in capital expenses gives rise to a higher risk tolerance for innovation.

READINESS ASSESSMENT

LATCH conducts readiness assessments in which we identify opportunities and challenges to achieve a seamless migration. We begin with a gap analysis to assess each sub-system, component, and data repository. We examine current state architecture and requirements for a system to succeed. Our analysis includes a detailed list of constraints, risks, and limitations that will influence the target architecture. Our analysis includes commercial and government offerings from top cloud providers.

MIGRATION

LATCH aligns with customer goals and objectives to emphasize a no-impact approach. We design a cloud-based target architecture which includes a list of cloud services, application servers, logical tiers/subnets, and security groups/controls. Our cloud experts evaluate multiple cloud migration strategies and apply appropriate yet complimentary strategies to each part of the system. We determine the migration strategy for each sub-system, component, and data repository within the context of the cloud target architecture.

OPERATIONS AND MAINTENANCE

LATCH operates, maintains, and manages day-to-day operations and deployment of cloud services. We support Microsoft Azure for Government and Amazon Web Services GovCloud, including basic operations and maintenance services, network security engineering, infrastructure as code, and DevSecOps practices. We address common types of O&M, including proactive, reactive, preventive, and predictive, and then adjust them for the challenges, opportunities, and threats in a commercial cloud environment.