Innovative hybrid Agile/Waterfall approach provides secure IT Integration for Smart City environments and the IoT.

Arcarithm provides a multi-discipline, systems-oriented approach for Smart City Information Technology (IT) integration. Based on cutting-edge Agile processes, our approach improves both flexibility and risk reduction. Greater flexibility is achieved through a tool- and language-agnostic model-based systems engineering and integrated logistics approach. Risk reduction is accomplished through our hybrid Agile/Waterfall approach employing Arcarithm's certified Scaled Agile Framework (SAFe®). We also reduce risk through systems-oriented holistic facility design. Our unique interface methodology allows Arcarithm to accommodate changing and emergent requirements, and effectively manage both Agile and Waterfall schedules using a risk-oriented, long-lead reverse-scheduling method. Our method incorporates DevSecOps as a way of approaching IT, security, schedule and reviews with an "everyone is responsible" mindset.
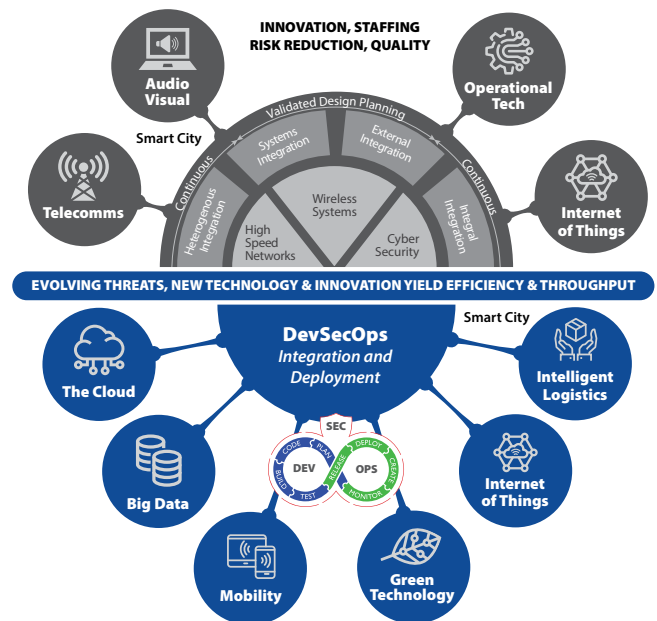
What is Arcarithm's IT Smart City Integration Methodology?

We integrate our methodology into the organization's DevOps pipeline, with the goal to incorporate schedule, reviews and security into all stages of the IT framework and software development workflow. Agile methodologies deliver products in small, frequent releases. We run automated tests whenever possible, empower developers to suggest critical changes, maintain a continuous state of compliance, maintain awareness of evolving and changing threats, and consider advanced training as an improvement option. Our approach incorporates:

1. *Collective Responsibility*
2. *Collaboration & Integration*
3. *Program Implementation*
4. *Bridging Compliance & Development*
5. *Automation*
6. *Measure, Monitor, Report and Action*

(continued on reverse)

Arcarithm's Solution for IoT and Smart City Integration

Arcarithm's Methodology *(continued)*

Arcarithm's IT integration solution is based on the concept that a Smart City is a technologically advanced area that deploys a variety of methods and devices that work together to collect data which is used to manage resources and services efficiently via an Internet of Things (IoT) network. Leveraging the IoT enhances the Smart City to better respond to challenges in meeting community needs.

How Arcarithm Integrates and Safeguards the IoT.

- *Use tailored Waterfall, Agile Iterative DevOps-based methodology to achieve:*
  - *All Phases/Sprints of IT Integration*
  - *Validation of Designs, Testing and Accreditation*
  - *Provide "future proof" of design validation*
  - *Provide host Lab environment and resources*
  - *Maintain CMMI Level 3*

- *Implement advanced IT, A/V and IoT systems to create a state-of-the-art Smart City*
  - *Smart City Design and Integration for all facilities and locations (local and remote)*
  - *Validation of customer CONOPS for Smart City Operations*
  - *Technical refresh planning of Smart City designs*

- *Design Validation*
- *Design Implementation*
- *Design Integration*
- *Other Technical Support and O&M Services*

Another Arcarithm Advantage: Continuous Improvement.

Arcarithm's Continuous Improvement Process (CIP) across the OSI layers (Applications, Presentation, Session, Transport, Network, Data Link and Physical Layers) includes:

- *Identify Improvement Opportunity*
- *Analyze*
- *Take Action*
- *Study Results*
- *Standardize Solution*
- *Plan for the Future*

Our CIP incorporates tools such as Benchmarking, Force Field Analysis, Flowcharts, Control Charts, Pareto Charts and Affinity Diagrams. These tools enable continuous technology scouting and regular refresh plans to maintain compliance with critical security restrictions while integrating state-of-the-world technologies.

Current Prime Contractor for the FBI's IT Integrator Contract

ABOUT ARCARITHM

Arcarithm delivers innovative solutions for the hardest problems. Competing on the same level as multinational corporations, we provide Artificial Intelligence-based solutions, proven Command and Control expertise and advanced Technical Services and IT support. Our commitment to quality and close working relationships with customers allow us to produce solutions quickly, with the highest levels of reliability and accessibility. Based on our Agile development processes and our quality management system, Arcarithm offers a unique approach to the systems engineering process. The result is greater mission success with higher quality solutions at a lower risk.

 ARCARITHM

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