

Azilen Introduces IoT Center of Excellence Rooted in AlloT Engineering Principles for Scalable Connected Systems

Azilen unveils its IoT Center of Excellence and AlloT framework to help enterprises connect devices, data, and decisions with engineering precision.

IRVING, TX, UNITED STATES, June 19, 2025 /EINPresswire.com/ -- The IoT Center of Excellence is created as a focused environment to solve the growing demand for smarter edge devices, adaptive sensor ecosystems, and platform-integrated intelligence.



Azilen's engineering teams working out of this CoE are bringing together deep expertise in <u>loT</u> <u>development services</u>, embedded software development, edge AI, real-time data pipelines, and cloud-native architecture. The goal is to support enterprises, OEMs, and ISVs in building

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Our approach is designed for enterprises that are solving connected challenges with long-term scale and intelligence in mind"

> Naresh Prajapati, CEO of Azilen Technologies

connected systems that perform reliably at scale while aligning with modern data, security, and integration standards.

Combining AI and IoT opens up a new dimension in enterprise technology. IoT collects massive volumes of data from the physical world, while AI transforms that data into context, predictions, and actions. Together, they power systems that sense, interpret, and respond in real-time which results in smarter workflows, autonomous devices, and adaptive business models that evolve with every

interaction.

Azilen's engineering framework is backed by real-world outcomes. In one project, Azilen modernized a cloud platform for smart lighting orchestration to handle dynamic device fleets and optimize energy usage. In another instance, it delivered a remote monitoring solution for wearable health devices that streams vital statistics via ThingsBoard, delivering alerts and

analytics to support first responders. Azilen also engineered a cross-platform mobile app that bridges IoT devices and retail ecosystems using React Native, enabling seamless, real-time data exchange and intuitive user control.

The newly introduced AlloT framework represents Azilen's structured approach to IoT software development, embedding intelligence into every layer of a connected ecosystem. It is not a product or platform, but a proven methodology developed through years of experience in engineering systems across smart manufacturing, healthcare devices, connected appliances, retail, logistics, and infrastructure monitoring.

At a technical level, the framework brings together MQTT-based communication, secure OTA firmware pipelines, containerized ML runtimes, and platforms such as ThingsBoard, EdgeX Foundry, and AWS Greengrass. This architecture allows lightweight AI inference to run at the edge, while seamless data streaming flows into central platforms for deeper analytics, model training, and lifecycle management. Gateways play a vital role in protocol interoperability and decision handoffs, while cloud-native orchestration ensures elastic scaling, fault recovery, and continuous delivery of intelligent features across devices.



This framework defines how data moves, learns, and acts across environments – starting from sensors and microcontrollers, passing through gateways and edge nodes, and scaling into cloud-native data engines. It includes architectural patterns, orchestration principles, model deployment strategies, and runtime optimization techniques that guide teams in delivering real-

time intelligence through IoT.

Azilen's engineering framework is already being used to accelerate intelligent solutions across a range of applications – from IoT app development for smart kitchen appliances that respond to user preferences, to fleet systems that adjust routes based on real-time data, to industrial equipment that adapts maintenance schedules through machine learning models.

With the IoT CoE established, Azilen is enabling faster collaboration with product teams by providing <u>IoT consulting services</u> for architecture and system design, direct alignment with compliance and regulatory ecosystems, and rapid prototyping cycles tailored to market conditions. The company's teams in the CoE focus on critical areas such as secure firmware development, protocol interoperability, model compression at the edge, and seamless integration with platforms like Azure IoT, AWS IoT Core, and Google Cloud IoT.

Azilen's investment in this strategic initiative reflects a deeper belief: that the most valuable connected systems are those built through structured intelligence, not ad-hoc development. The framework gives shape to that belief, helping enterprises navigate complexity, reduce development time, and deliver real-world impact through systems that continue to learn and perform across varied conditions.

About Azilen Technologies

Azilen Technologies is a top <u>Enterprise AI development company</u> in USA. The company collaborates with organizations to propel their AI development journey from idea to implementation and all the way to AI success.

From data & AI to Generative AI & Agentic AI, and MLOps, Azilen engages with companies to build a competitive AI advantage with the right mix of technology skills, knowledge, and experience.

Domain expertise, agile methodologies, and cross-functional teams blended in a collaborative development approach are their vanguards of engineering, managing, monitoring, and controlling AI lifecycles for startups and enterprises.

Highly scalable and future-fit AI that too with faster-go-market is what Azilen delivers by letting in-house teams of product companies focus on core expansion & growth while the team Azilen manages and supports the AI in parallel.

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