

Artificial Intelligence at the Edge – Case Study

mtes Neural Networks (mtesNN)

mtesNN a VC funded IoT-AI start-up, develops low power AI enabled IoT edge devices that incorporate latest advances in semiconductor technology. Over the last year they have developed intelligent Structural Health Monitoring, AI camera for smart city surveillance, and other AI enabled devices. They also developed Apricot™, a firmware SDK that enables integration of technologies and services such as firmware to hardware mapping, cloud connectivity, AI engine and wireless networks increasing reusability and reducing time to market in developing IoT devices.

Problem

mtesNN were faced with an urgent need to rapidly develop an IoT-AI platform to fulfill their vision of delivering AI enabled IoT devices to market within a span of a year. mtesNN was looking for a software technology that could rapidly accommodate their need for multiple communication capabilities, device management & customized integrations to their hardware ecosystems.



Cognitive AI camera

Solution

Altiux identified and recommended the need for a device middleware that could accommodate mtesNN's need for a rapidly integrating their AI technology into different hardware platforms with unique communication and customer requirements.

Altiux was confident about solving mtesNN's need for a device and cloud platform using BoxPwr™ an IoT toolkit developed based on expertise and insights in delivering IoT solutions. BoxPwr offers ready to use frameworks that address radio abstraction, communication protocol integration, multi cloud platform connectivity, device management, edge AI/analytics engines, sensor fusion and support for multi-vendor device management protocols. In addition to BoxPwr, mtesNN chose to rely on Altiux as their extended engineering team to develop Apricot SDK based on BoxPwr, firmware development, and productize & integrate their AI algorithms.

Conclusion

mtesNN is a testament to a company that is playing at the very cutting edge of IoT and AI. They have achieved many a feat since their start in late 2018. Altiux with its Altiux BoxPwr IoT toolkit and an entire team of IoT engineering talent that understands IoT, Cloud and AI intimately helped deliver Apricot, SHM and AI camera to the Japan market with in 6 months.

BoxPwr – IoT Toolkit



BoxPwr Pico, Nano - device software

Sensor Integration
Mesh & Wireless Networks
Low-Power WANs
Legacy Connectivity

Connectivity and Translation



Cloud Applications
Data Analytics

BoxPwr Micro, Standard - device software

Edge Analytics Frameworks

Multi Cloud connectivity Framework
GUI Management
Device Management
MVIIF (Translate comms)
Security Customization
Network Stack Integration
Radio Adaptation Layer
Aggregation and Translation

metesNN's Apricot IoT-AI platform

apricot 利点 Benefits



*AI structural
health monitoring
solution*



altiux

Altium Innovations is a software & product engineering services organization focused on helping you accelerate development of your IoT solutions and products. We provide specialized Engineering services across the entire IoT development cycle from consulting, device engineering, cloud and mobility application development, data analytics, and support & maintenance.

Altium has developed an IoT Toolkit - BoxPwr™. BoxPwr is a production ready suite of software frameworks for sensor nodes & actuators, communication gateways, Edge computing & Cloud connectivity that helps accelerate IoT product & solution development.

At Altium, we offer multiple models for commercial engagement that can be tailored to meet your specific needs.

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