BEETLEBOX

Announcement

Bring the power of the Cloud to devices themselves using FPGAs with the Beetlebox A-IoT Edge Solution

Decrease data centre costs

Bring the power of AI from the Cloud to devices. Process video and sensor data on the edge, lowering cloud processing and storage costs.

Decrease automated decision time

Meet tight timing requirements by enabling devices to process and react to sensor or video data in milliseconds, bypassing networking with the cloud.

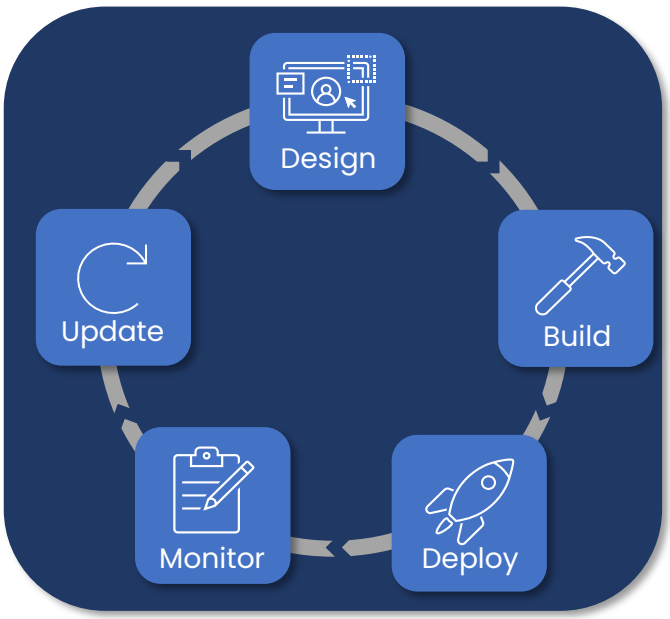
Increase privacy and security

Keep systems running offline and address privacy by filtering information before it ever reaches the Cloud.

Problem

As demands for ever more intelligent devices increases, developers have connected their devices to the cloud to power their AI and data analytics through the IoT. Terabytes of data from devices are now being sent through networks leading to large demands in bandwidth, scaling processing costs, large variability in "lag" and security and privacy concerns.

To overcome the issues associated with the cloud, developers have increasingly looked towards edge computing, which is when devices process data close to the source as part of the Artificial Intelligence IoT (A-IoT). The A-IoT reduces bandwidth usage, overcomes network latency, cuts cloud computing costs and increases data privacy. Edge computing though has two key challenges: providing the same functionality as what is possible on the Cloud with limited processing and power and being as easy to develop for as Cloud software.



The Beetlebox A-IoT Edge Solution

Our A-IoT Edge Solution is designed to meet these challenges by providing high performance per Watt and consistent low latency, whilst providing a familiar Continuous Integration environment complete with standard software development tools, so developers can achieve performance efficiently.

With our solution software developers can hit their performance goals through FPGA acceleration without the need for firmware or hardware expertise, by allowing them to use the tools and environments they are familiar with, whilst automating the difficult tasks associated with hardware acceleration. Our service also allows teams to work smarter through a shared build and test system, so developers collaborate better and have a smooth process from initial designs all the way through to release, monitoring and updating.

Our impact on the A-IoT Lifecycle

Design – Designing solutions for the A-IoT requires teams to co-ordinate and rapidly iterate. We streamline the development process through pre-set prototyping software environments and full Git integration.
Build and Test- Manage the entire build and test process through our Continuous Integration system built specifically for FPGA technology.
Deploy – Register devices with our A-IoT Edge solution and allow the Continuous Deployment of new applications and updates.
Monitor and Maintain – Send processed data back to the cloud with pre-set configurations designed to communicate with pre-existing cloud infrastructure.
Update – Ensure devices in the field are updated safely and securely with the latest software and firmware.

Get in contact to gain early access at beetlebox.org or contact us at contact@beetlebox.org