The extensibility and modularity characteristics of Kubernetes ensure most edge-related customizations can be achieved without changing the core orchestration engine, while at the same time, maintaining API compatibility. Additional features such as fault tolerance, extensibility, and open ecosystem in K8s internal architecture make it highly suitable for Pelion Device Management Edge.

Pelion Device Management Edge offers a unique edge computing platform with the following features:

- **Open** – Based on open source components and open APIs. Pelion Device Management Edge integrates well with existing application management ecosystem and cloud-based DevOps toolchains.
- **Secure** – End-to-end security is enabled from secure gateway provisioning, to secret management, to application level security. Security for IoT devices is critical, from hardware through to connectivity and into the cloud. Pelion Device Management Edge provides a wide range of features that ensure chip-to-cloud security, regardless of the industry and market, allowing OEMs to design and deploy more robust IoT solutions easily.
- **Powerful** – Capable of remotely deploying and managing micro-services. Pelion Device Management Edge leverages years of advancements in cloud application management technologies such as rolling updates, containerization, micro-services, rollbacks, health monitoring, checkpointing, etc.
- **Flexible** – Based on Docker containers, but extensible to support multiple backends such as VMs, Unikernels, functions, etc. and to also deploy higher-level artefacts.
- **Unified** – Single control plane for orchestrating hybrid cloud-edge applications.

As edge computing enters the mainstream, the emergence of multiple edge computing platforms will become a common practice. Unfortunately, many of these systems are built around proprietary APIs and runtimes. Arm, on the other hand, has taken an approach of building on an existing open source-based cloud and edge ecosystem to bring years of server-side learning to the IoT edge computing.