

Project: case study survey edge - SELECTIVE CODING ITERATION 1 (master)

Report created by Jessica Diaz on 25/06/2021

Code Report

All (38) codes

- **B01 better user experience**
- **B02 less response time**
- **B03 greater efficiency**
- **B04 save energy**
- **B05 better performance**
- **B06 business needs**
- **B07 less cloud overhead (better bandwidth throughput and lower latency)**

Comment: by Jessica Diaz

Processing data on the edge results on less cloud overhead (or equivalent centralized system), better bandwidth performance (less network traffic), and lower latency and disk usage

- **B08 customers has the control of their data**
- **C01 (physical/virtual) device characterization: intelligence, status, load**

- **C02 device capability (limited/restricted computational capabilities)**

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| *e.g. poor connectivity*

- **C03 sensors, actuators, constrained devices, gateways, micro-controllers, miniPCs**

- **C04 medical devices**

- **C05 servers, mini-datacenters**

- **C06 IoT SIM cards**

- **C07 distributed architecture**

- **C08 modular architecture**

- **C09 disconnected mode**

- **F01 local processing (computation) in device**

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| *bringing infrastructure closer to the consumer (source or data) on-premise processing
enhanced capabilities over small devices*

- **F03 devices take over part of the data center/cloud workload**

- **F04 data collection and processing**

- **F05 data aggregation, filtering, storage and analytics**

● **F06 video processing, virtual (augmented) reality, artificial intelligence, and control logic**

● **F07 data exchange & connectivity**

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| *communication with other devices*

● **F08 decision making**

● **F09 cloud shadowing**

● **F10 protocol transformation**

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| *local mqtt / amqp capabilities modbus protocol (pull/response) to IoT-based protocol (push)*

● **F11 serverless**

● **R01 time to market**

● **R02 speed up delivery**

● **R03 supervision and management, certifications**

● **R04 deployment time**

● **R05 scalability**

● **R06 security and privacy**

● **R07 vendor lock-in**

- **R08 (maintenance) cost**

- **R10 reliability**

- **R11 latency**

- **R12 complexity**