

Machine Learning in the Edge-Cloud

SITUATION: The modern computing landscape is a Cloud-Edge Continuum, distributing resources from the central cloud to individual devices. This generates massive, real-time data at the edge, demanding immediate action and strict data privacy.

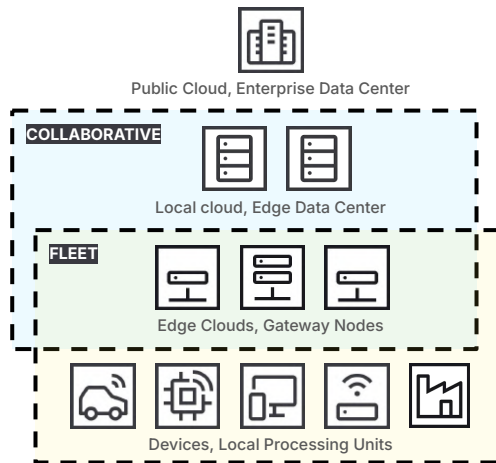
CHALLENGES: Conventional machine learning, designed for centralized processing, struggles with edge computing requirements:

- **Data Overload & Transfer:** Edge data volume creates costly network bottlenecks when sent to central servers.
- **Latency & Reliability:** Cloud models are slow for real-time needs and require constant connectivity.
- **Data Privacy & Control:** Centralizing data violates privacy rules and hinders collaboration.



Scaleout EdgeAI

SOLUTION: Federated Learning connects cloud and edge, enabling secure, collaborative AI where models are trained on data at its source. This facilitates Collaborative Learning between organizations and Fleet Learning across devices for enhanced privacy, real-time insights, and resource efficiency.



VALUE PROPOSITION: Scaleout offers an enterprise-ready platform for scaling federated learning from R&D to production, leveraging our academic research, cross-industry expertise, and full-stack solution for seamless collaboration across boundaries.



COMPANY: Scaleout is a tech company from Uppsala University focused on distributed systems and machine learning. Our team includes data scientists, machine learning engineers, and entrepreneurs with experience from Google, SAAB, BCG, Autodesk, and more. We aim to make AI secure and accessible for all, with a mission to enable intelligence on every device while ensuring data safety and privacy.



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CUSTOMERS: We support diverse machine learning initiatives with partners including SAAB, NATO DIANA, Scania, Eurocontrol, FMV (Swedish Defence Materiel Administration), and other organizations.



SAAB



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