Rapid.Space EdgeMaster

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Scenario:

Industrial Edge

- Edge operator in a box
- Configure 1000s servers
- Configure 1000s couplers
- Configure 1000s drones
- Provision edge services
- Detect faults
- Monitor performance
- Low-latency TSN mesh
- 3D swarm simulation (beta)

Building block for cost-efficient Edge infrastructure.

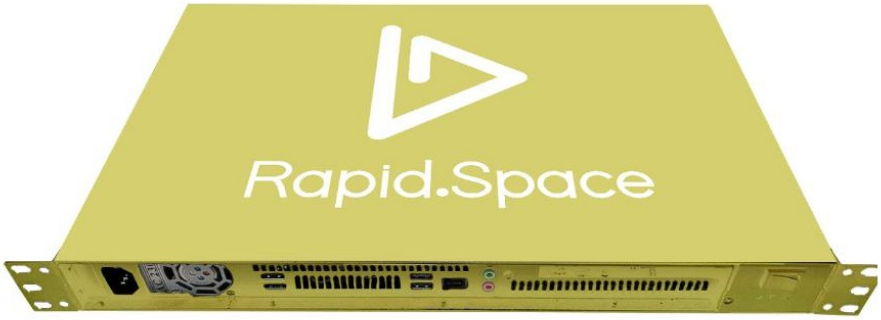
Scenario:

vRAN

- Telecom operator in a box
- Configure 1000s BBUs
- Provision edge services
- Provision SIM cards
- Collect operation data
- Detect faults
- Monitor performance
- Enforce anti-tampering
- Optimise radio (planned)
- End-to-end testing

Compact 1U edge controller

Compact 1U edge controller with 8-core CPU (Hygon, NXP) or 16-core (AMD) and front-facing connectors for power and LAN. 280 mm depth ideal for rack cabinets used in factories, offices, telecom or outdoor. Key applications include edge cloud, vRAN, industrial automation, swarms of drones.



Rapid.Space EdgeMaster

Plug-and-play operation management

Rapid.Space EdgeMaster automates the management of large fleets of Rapid.Space EdgePOD, EdgePacer, Open Radio Station (ORS), Radio Unit (RU) and 3rd party hardware. It is an integrated solution for both operation management and end-to-end testing. Its architecture combines the advantages of a compact, open source code base with advanced technologies for high availability, scalability and live upgrade. All features can be controlled through REST API or through built-in HTML5 progressive web application (PWA).

Scalable and secure OSS

Rapid.Space EdgeMaster integrates an OSS already adopted by tier-1 vRAN operators and cloud operators. It derives from ERP5, an open source ERP used at SANEF highways to handle the billing of 2 million subscribers and Airbus Defence in partnership with the German space agency (DLR).

Lifecycle automation

Rapid.Space EdgeMaster automates the lifecycle of edge nodes: system setup and upgrade, backhaul network, routing, software setup and upgrade, configuration of services, resource clustering, resource sharing, accounting, service orchestration, monitoring, self-healing, disaster recovery, big data processing of logs, end-to-end testing, etc.

Key Benefits

- Plug-and-play OSS
- Compact form factor
- AMD / Hygon / NXP CPU
- Integrated platform
- Proven scalability
- Zero data migration
- Live upgrade
- Big Data AI
- Edge native
- Open Source

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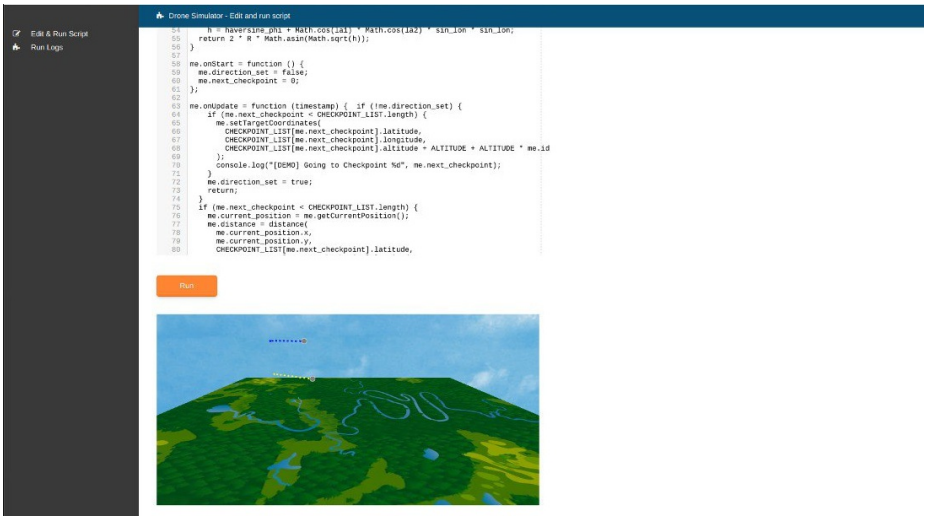
3D swarm simulator

With built-in 3D swarm simulator, it is possible to test and deploy in Javascript the behaviour of autonomous drones involved in an edge infrastructure: manufacturing, warehouse, radio planning, logistic, search & rescue, etc.



3D swarm simulator

Flexible hardware support

Rapid.Space EdgeMaster supports most x86 based platforms (OCP, SBC, etc.) as well as an ever growing range of IoTs (Olimex, Raspberry Pi, Wago), network elements (Edge-core, Teltonika), radio units (Lopcomm, AW2S, VHT, etc.), drones (C-Astral, Squadrone), etc.

Success cases & services

Software components at the core of Rapid.Space EdgeMaster platform are successfully used in cloud industry (Teralab, Rapid.Space), automotive (PSA, Toyota, SANEF), aerospace (Airbus Defence and Space) and wind energy in Germany (Nordex, RWE). Integration services for the Rapid.Space EdgeMaster cover custom configuration of monitoring, operation management rules, billing rules, networking and support of third-party servers, IoTs, radio units, network elements or drones.

Fully Open

All software of EdgeMaster is open source including Rapid.Space operation management panel and operation procedures. EdgeMaster rack chassis is open hardware. Anyone can copy Rapid.Space EdgeMaster and run their own edge infrastructure and edge controller.