

Multi-Access Edge Computing (MEC) and 5G

Challenge

With 5G networks expected to see broad deployment in the near term, telecommunications providers and mobile network operators are looking forward to a new generation of opportunities and revenues. With speeds up to 120 times faster than today's 4G networks and significantly lower latencies between mobile devices and base stations, 5G promises to deliver a level of performance that far surpasses 4G.

When combined with Multi-Access Edge Computing (MEC), 5G/MEC promises to deliver a unique combination of compute and network performance that can power a broad set of current and future use cases. Telcos can monetize their network and compute investments by making their 5G/MEC infrastructure available for cloud gaming, real-time location tracking, video content optimization, IoT processing, augmented/virtual reality (AR/VR), connected vehicles and more.

Having the network and compute infrastructure available in all the right places (i.e. close to end users) is only half the solution. Telcos also need to deliver easy-to-use interfaces for developers to deploy low-latency applications across the infrastructure. Without an Edge Platform-as-a-Service (PaaS) that enables developers to automate the distribution, orchestration, and operations of latency-sensitive microservices, 5G/MEC investments will fail.

Solution

For the combination of 5G and Multi-Access Edge Computing to be truly useful, Edge infrastructure must be easily consumable by developers - the Edge needs to be Programmable.

Rafay's platform is the world's first implementation of a developer-friendly Programmable Edge™. The platform simplifies the deployment, orchestration and ongoing operations of latency-sensitive, containerized microservices closer to end users and endpoints. By leveraging Rafay's platform, operators can empower developers to deliver rich, interactive experiences to end users without the burden, time, cost and complexity of building and maintaining a custom platform across distributed compute resources.

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Rafay's platform can be deployed across telecommunications and service providers networks, Internet-exchange points, colocation and data center environments, and public clouds. Rafay's platform is the fastest path for operators to deliver Programmable Edge offerings to developers, driving net-new revenue streams.

Rafay's platform is built around a number of foundational elements that collectively provide the ideal abstraction layer that can span disparate edge infrastructure within and across operator networks. Rafay's platform makes it easy for developers to:

- Automatically run and scale containerized microservices closer to users and endpoints
- Manage application traffic globally to ensure low application response times
- Make dynamic, policy-driven decisions for application placement across the all available Edges
- Achieve regional or global scale without having to build and operate a complex platform that spans multiple provider networks



Benefits

- **Distributed Container Platform** - Effortlessly scale, automate and operate container-based workloads anywhere without having to manage multiple container clusters and infrastructure providers across geographies.
- **Global Traffic Management** - Easily automate all traffic management and steering decisions to ensure latency-sensitive apps execute close to their users.
- **Intent-based Workload Placement** - Seamlessly orchestrate and automate workload placement based on the application owner's stated intent or configured policies.
- **Data Distributions and Synchronization** - Developers can leverage multi-purpose data pipelines provided by the platform via easy-to-use APIs to distribute configuration data, user profile information, policy messages, etc.
- **Global Footprint** - Effortlessly scale apps across telco and public cloud compute environments in order to ensure apps are executed close to users.