OpenSpace Platform: Private 5G

Enhanced local traffic, private cloud, edge computing

Remote enterprise and military sites served by satellite connectivity are increasingly leveraging the same digital applications as locations accessible by terrestrial networks. These applications are often mission-critical, with specific latency and availability requirements; for industries such as mining, oil and gas and defense, the inability to meet those service parameters can affect safety, mission success and operational efficiency. Traditional network architectures that route all traffic – even local communications – through centralized cores can impact latency, speed and performance, making them unsuitable for next-generation use cases such as industrial IoT, remote control of assets and automation.

Enabling network performance at the edge for digital applications and services

OpenSpace and Private 5G

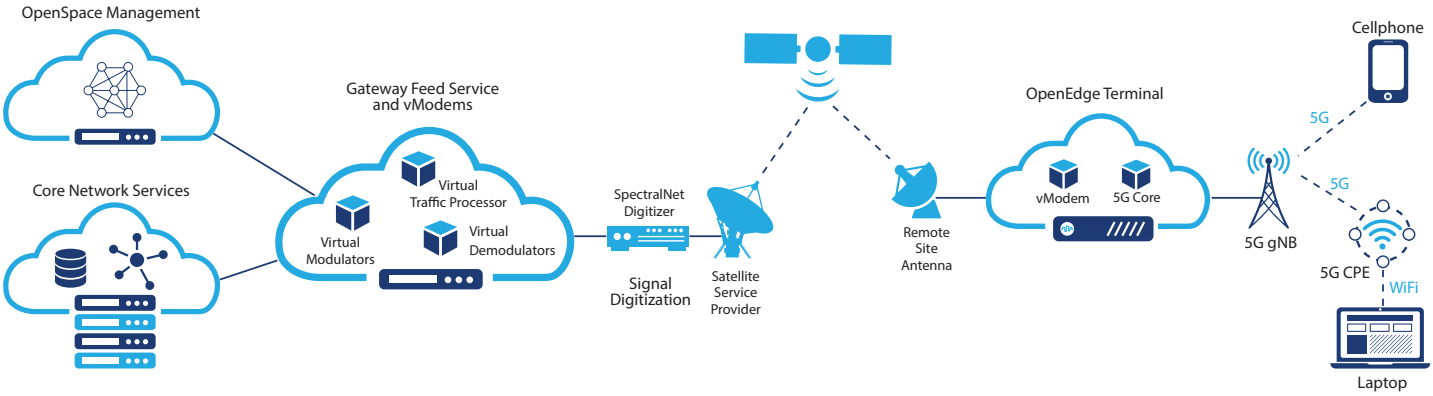
Private 5G provides enterprises and governments with the performance, latency and reliability afforded by 5G, combined with the control, security and customization of a dedicated network. By deploying a 5G core on an OpenEdge terminal and connecting it to a vendor-agnostic Remote Unit (RU) with an integrated gNodeB, organizations can establish a fully-functional private 5G network at the edge. This setup allows local traffic to remain on-site, ensuring uninterrupted communication independent of the satellite link. Processing data at the edge reduces backhaul bandwidth consumption, which lowers operational costs while improving performance and security, and enables autonomous, real-time decisions.

Designed to be flexible and vendor-agnostic, this solution supports various hardware and software configurations, ensuring adaptability for any operational environment that requires secure, resilient and response communications in remote locations.

Experience the benefits of an OpenSpace Private 5G network:

- Resilient communications: Continuity of critical on-site operations.
- Investment protection: Cloud native solution provides flexibility to scale and adapt infrastructure in response to business needs
- Increased network efficiency: Only necessary traffic is sent over the satellite link, reducing bandwidth consumption.

- Faster response times: Local data processing and reduced backhaul dependency improve the performance of latency-sensitive applications
- Multi-application support: Enables voice, video, IoT, and enterprise services in a unified system
- Open and Interoperable : Works with different RUs, core providers and applications to meet specific needs



Deployment of a Private 5G network on the OpenSpace platform

Private 5G services can be deployed in minutes by spinning up virtual modems on the OpenSpace platform at the gateway and on OpenEdge, a flexible software-defined terminal solution. Like the OpenSpace platform, OpenEdge uses standard Intel x86 CPUs in a small factor, with no FPGA or GPU acceleration required. Integrated into the OpenEdge terminal is a 5G core, and connected to the OpenEdge terminal is a 5G RU with an on-board gNodeB. From there you can connect 5G devices directly, or leverage a 5G CPE to transmit Wi-Fi.

For More Information

To learn more about the OpenSpace Platform please refer to these additional resources:

Website: www.KratosDefense.com/satcom

Videos: www.youtube.com/@DiscoverVirtualGround

Contact us: www. KratosDefense.com/contact-us