# Discover Dynamic Ground with OpenEdge™
## Bring Flexibility and Power to the Network Edge

**OpenEdge** – take software-defined tactical operations to the edge of the network with increased processing power and faster response time.

**Reconstitute on demand** using software, enabling agile response to threats and increased capabilities for dynamic missions.

Improve operational efficiency with **zero-touch provisioning**, reducing manual intervention with network assets.

Support **proliferated constellations** and multiple bandwidths with a responsive ground, improving mission resilience across the battlespace network.

**Share intelligence** in real-time with a high-capacity communication supporting edge-to-edge, tactical or strategic operation.

OpenEdge is part of the OpenSpace platform family of solutions. Learn more at www.KratosDefense.com/OpenEdge

## OpenEdge

### Adapt With the Battlespace
- **Proliferate**
- **Reconstitute**
- **Respond**

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# Digitally Transform the Ground to Maximize Freedom of Action in Space

Today's landscape requires ubiquitous communication between LEO, MEO and GEO. Shifting from closed, proprietary hardware to a virtualized, standards-based software-defined ground infrastructure allows automatic synchronization with digital assets both on the ground and in space. The OpenSpace Platform is an enterprise-level solution that delivers the ability to re-provision hundreds of satellites, thousands of beams, millions of services and ground-based assets (e.g., ground antennas, electronic warfare components) in response to changes in demand, interference and threat. It is a COTS solution that addresses multi-missions, multi-orbits and multi-waveforms.

## Commercially Available

The OpenSpace Platform is an enterprise level, software-defined solution with advanced networking capabilities designed for satellite ground network operations and infrastructure. Features available through the platform increase security, offer just-in-time deployments, reduce hardware footprints, and enable cloud-based solutions.

## Common Standards for Interoperability Supporting JADC2

The OpenSpace Platform offers common digital ground infrastructure elements supporting military and commercial satellite partners on the ground. Driven by data and interoperability standards, it is a bridge for warfighters, allowing them to seamlessly switch between military and commercial partners. Universal and continuous data is provided with scaled information decided at the enterprise level.

With a common digital ground infrastructure, core capabilities can connect a broad span of functions and processes, removing the need for siloed operations. The predominantly software-based enterprise architecture can support dynamic communication path deployment.  This enables transition from current networks and terminals to alternate communications resources with little or no disruption.

## Scalable, Agile and Efficient

With OpenSpace, racks of analog hardware like splitters, combiners and recorders are replaced with virtualized equivalents that operate in multiple racks of virtual machines or generic x86 servers. The Virtual Network Functions (VNFs) can be sequenced and automated into virtual service chains that are managed by a controller. Operators can create and maintain a library of service chains for use by the controller. Virtualized processes remove dependence on proprietary and expensive hardware while increasing scalability and agility as well as enabling better use of resources.

## Secure and Resilient

Virtual service chains are provisioned dynamically to support mission-unique conditions on-demand. Virtual instances can be shutdown post-operation, minimizing detection from external scans and potential attack surfaces.  This provides a smaller cyberattack surface since the service chains only exist when needed.

The OpenSpace platform is built on a zero-trust architecture framework. As most of the system is virtual, security updates can be made in real-time on-prem or through the cloud. All interfaces with hardware items are based on open industry standards to enable vendor interoperability, including accessibility to crypto units and other cross-domain solutions including guards.

## Dynamic Orchestration Capabilities Support Multiple Missions, Multiple Orbits

The OpenSpace platform enables a configurable infrastructure to service, deploy, and orchestrate diverse communications paths while monitoring, managing, and automating operational workflows in both nominal and contested/wartime environments.  It can adapt as the battlespace changes.  Provisions are included for custom VNFs that are unique to defense missions, such as PTW modems, physical layer authentication, or Specific Emitter Identification (SEI).

## Data at the Speed of Relevance

OpenSpace's Platform policy engine ingests a mission-defined hierarchal structure associated with QoS and assign priority access to different data streams while enabling queuing of lower priority streams until nominal conditions are restored. Essentially, OpenSpace can shorten the sensor-to-shooter timeline while improving resiliency and responsiveness in a contested environment.

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OpenSpace™
The Dynamic Ground System

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