



VIRTUALIZED, CLOUD-BASED INFRASTRUCTURE

SCALE SERVICES QUICKLY FOR THE FASTEST RETURN ON INVESTMENT



As a network provider, you want to grow your revenue streams by providing better, faster, more secure service offerings. But with traditional ground-based infrastructures, building out the massive networks you need to do so is a challenge.

What you need is the flexibility to deploy your ground segment in public or private cloud. Scale up and down, reduce upfront costs, and improve your service by accelerating your path to virtualization.

HOW CAN VIRTUALIZED INFRASTRUCTURE HELP YOU ACHIEVE FASTER ROI AND TIME TO REVENUE?

We are virtualizing and digitalizing our networking infrastructure to allow for private and public cloud-based deployments so you can scale services quickly for the fastest time to market and revenue. Our advanced networking ground system, Intuition will be built on:

Virtualized Baseband and Network Processing Infrastructure

Intuition will use virtualized Network Processing Functions to leverage the Cloud Service Provider's (CSP) infrastructure, with flexible deployment options to increase scale and agility. Virtualizing this infrastructure allows the operators to leverage commercial off the shelf (COTS) infrastructure in private or public cloud, achieving increased flexibility and new business models where expenses are incurred gradually over the duration of the service or products' usage.

Digitalizing the Infrastructure Interfaces

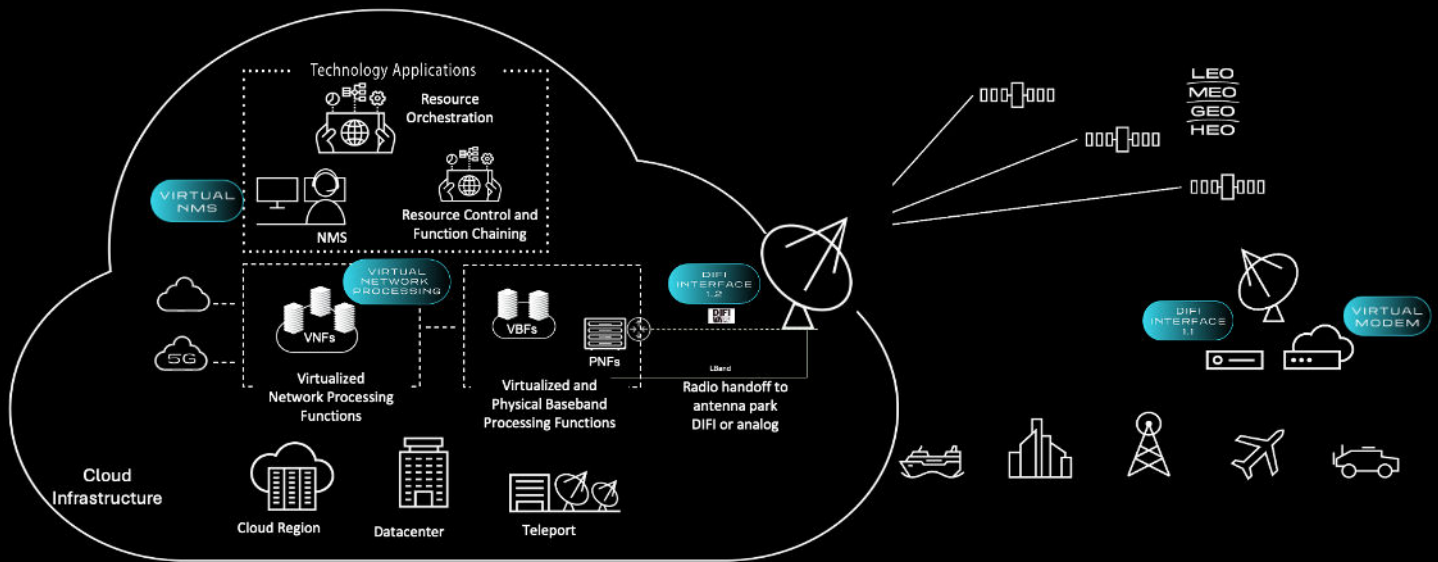
The use of a digital interface (DIFI) ensures higher flexibility by using radio over IP. Leveraging the DIFI standard, the management of the radio signals at the teleport will be simplified and introduce improved flexibility.

Virtualized Modems and Edge-Cloud Functionality

Intuitions' modem portfolio will also include software-defined, virtualized modems. Abstracting software functionality from the hardware allows the deployment of modem functionality on COTS or edge cloud compute infrastructure.

Cloud-Based Network Management System

Intuition NMS will be the single multi-tool to manage your network of networks in the future. It has been developed in a cloud environment using cloud-native standards and industry-standard technologies, allowing easy scalability.



OUR KEY DEVELOPMENTS

In several proof of concepts, we set out to virtualize key aspects of our modem and hub technology to enable our satcom solutions to run in an Azure cloud.

We abstracted the modem software functionality from the hardware and ported our Modem Baseband Functions—namely, modulation and demodulation—to a COTS compute infrastructure provided by Microsoft Azure. We also leveraged Azure to orchestrate these functions onto the cloud infrastructure.

Our on-premise Private Stack has already been built on cloud architecture. Next, we deployed our virtualized network processing functions on Azure Cloud Infrastructure. We proved that satellite network architectures can be built from orchestrated Software Defined Network Functions with deploy-ability in cloud regions—all using commercial, off-the-shelf components. Here the VNFs and VBFs are being controlled by the necessary orchestration (Resource Control and Function Chaining) to deploy these functions both on premise and in cloud. We also demonstrated how Intuition NMS is running in an AWS cloud environment.

We've worked with DIFI consortium members on the digitization of the IF signals by demonstrating the interoperability. We undertook several demos with Wavestream and ETL and participated in the DIFI Plug-fest to showcase the conversion of analog signals to digital signals, using the DIFI 1.1 and 1.2 Standard.

ACCELERATE YOUR PATH TO VIRTUALIZATION

What are your plans for taking part in the satcom cloudification transformation? By choosing the right ground segment provider you can accelerate your path to virtualization and digitalization. You will benefit from more flexibility when it comes to deploying your ground segment system whether it's in private or public cloud, taking advantage of scaling your operation and growing your revenue streams like never before.