VIASAT NETAGILITY™ NVR-1000

## Virtual mobile SD-WAN /SD-LAN networking platform

Stay connected virtually anytime, anywhere using any network

The Viasat NetAgility™ NVR-1000 is a flexible, virtual software-defined networking (vSDN) platform that bridges disparate networks and distributed cloud resources to enable robust and resilient connectivity across the battlespace, even in DIL environments. Beyond the traditional PACE approach, the NVR-1000 simultaneously routes or bonds packets over all available communications links, providing a powerful, responsive solution for hub-and-spoke topologies. In addition to hub-and-spoke topologies shown in Figure 2, the same NetAgility vSDN router platform also enables automated failover mesh networking across disparate edge networks as shown in Figure 1.

Featuring an intuitive setup and software-based, hardware-agnostic deployment, the NVR-1000 can run on modern and legacy platforms platforms and supports virtualized and cloud environments. This enables deployment across various platforms such as VMwareand KVM across standard x86 platforms, bare metal installation on Single Board Computers (SBC) and System on Chip (SoC) ARM-based host systems, and Cloud deployments such as Amazon Web Services, Microsoft Azure, Google Cloud, Oracle, and others. This enables the NVR-1000 to extend from edge to cloud across existing fielded platforms, as well as smaller edge compute platforms, such as solider wearables and IoT low SWaP devices.

Designed for the tactical edge and mobile communication networks, the NVR-1000 also features cyber sensors embedded within the router to provide network analytics, radio status, and environmental awareness that inform the router how to set up and move data and block nefarious traffic.

Management of devices can be conducted locally or through Viasat's NetAgility Orchestration Portal NVO-1000, which supports remote configuration and monitoring of all NetAgility devices.
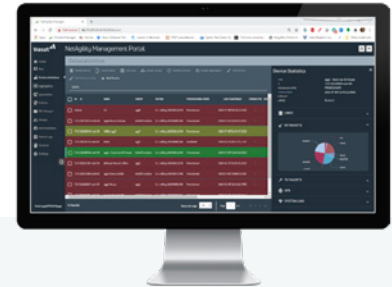
Viasat NetAgility™ NVR-1000 At-a-Glance

› Mission applications across airspace management, ISR, maneuver, FIRES, unified communications, and PLI

› Multiple communications paths for transport agnostic seamless connectivity across Satcom, wireless, DLOS, MANET, LOS, and tactical radio

› Centralized Orchestrator for unified management

› Virtualized and open interfaces for rapid integration onto existing platforms

› SD-WAN/SD-LAN operations in both Lower and Upper Tactical Network Environments with disconnected operations

› Radio, EW, Cyber, Network environmental-aware management and routing; distributed cloud for disconnected ops; AI/ML for touchless operations
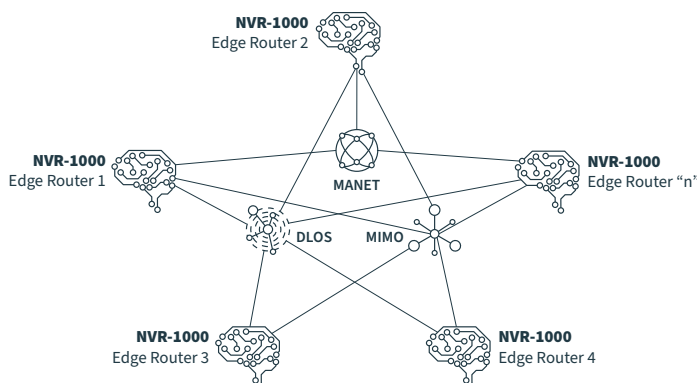
Figure 1: NetAgility automated failover intelligent Mesh for situational awareness and comms in distributed environments of mix LOS networks.

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VIRTUAL PLATFORM SPECIFICATIONS

Platform	Operating Environment
x86	ESXi VMWare; KVM; Container*
ARM	Bare Metal; Container*
Cloud	AWS, Azure, Google*, OpenStack

MINIMUM PROCESSING REQUIREMENTS

vCPU	2
RAM	4 GB
Storage	10 GB SSD

SUPPORTED NETWORKING AND PROTOCOLS

TCP/IP	OSPF
BGP	DHCP
DNS	Commercial VPN Tunnels

TACTICALLY SPECIFIC PROTOCOLS/FEATURES

Radio Aware Routing	GPS/CoT location
UDP/ESP Packet Mgmt	Mesh VPN
Type-1 Crypto Routing	SATCOM Acceleration

MANAGEMENT INTERFACES

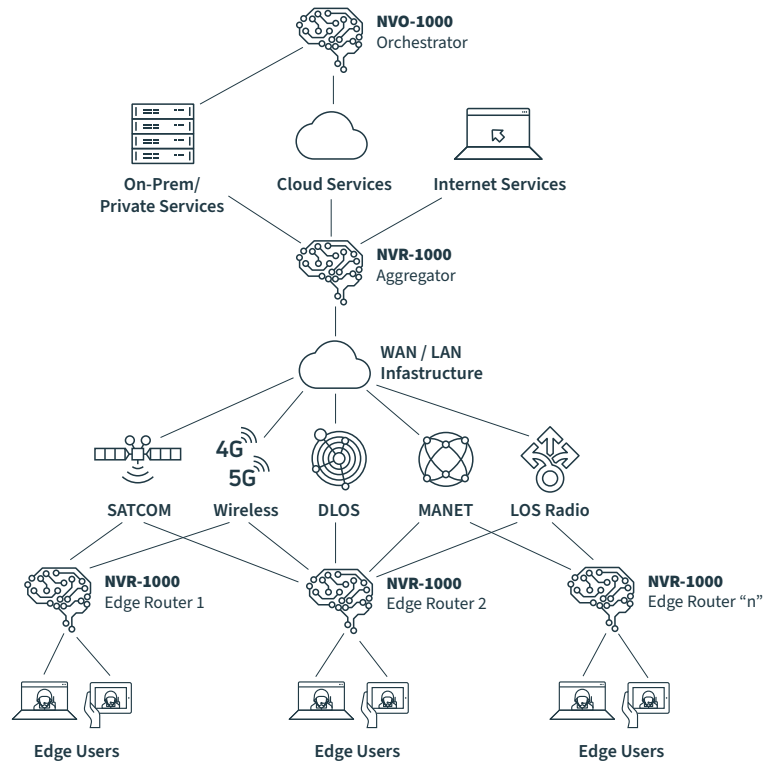|	
SNMPv3	Northbound APIs for SIEM integration*
Log Mgmt	Alerting
Status/Health Mon	Router Mgmt

Figure 2: NetAgility multi-transport, multi-platform, and multi-cloud resilient bonded networks for optimized data sharing and services access.

ORDERING INFORMATION

Part Number	Description
1350874	NVR-1000 (Router SW)

NETAGILITY SCALING (NODES, BANDWIDTH) VS. COMPUTE RESOURCE REQUIREMENTS

Routing Bandwidth	100 Mbps	200 Mbps	1 Gbps	5 Gbps
vCPUs	2	4	6	8
RAM (GBs)	4	4	8	16
Storage (GBs)	10	20	30	30