Oceus Networks® ONcast

VIRTUAL NETWORK ARCHITECTURE SOLUTION WITH SECURE CRYPTOGRAPHY ENDPOINTS

ONcast will change the way you architect your secure virtual network. ONcast differs from traditional VPN's in that it does not require a dedicated trusted VPN gateway server; rather, the system provides for encrypting data peer-to-peer.

ONcast is a software package for configuring, managing, and deploying secure virtual networks. ONcast allows network servers and clients to communicate via the internet protocol (IP) as if though they are physically connected on the same network via a virtual Layer 2 across Layer 3 networks.

The ONcast network architecture also allows for traditional Multicast traffic to run over networks that traditionally don't support Multicast, for example cellular networks, and enables traditional Multicast applications to run across cellular networks without any modifications to the applications.

OCEUS NETWORKS IS A DESIGNATED NSA COMMERCIAL SOLUTIONS FOR CLASSIFIED (CSFC) TRUSTED INTEGRATOR

KEY BENEFITS

ONcast implements an encrypted virtualized Ethernet layer on top of a routed end to end network.

Operates as a secure virtualized switch, allowing clients and servers located anywhere on the routed IP network to operate as if they are directly connected while potentially physically being located anywhere in the world.

EASE OF USE

Highly Customizable: Advanced Routing Rules allows you to customize data flow within your network

Fast Access: adding a user or sharing access to other networks is easy.

Intuitive Design: Viewing all available network controllers is available through the web portal and allows for monitoring system up time and license status.
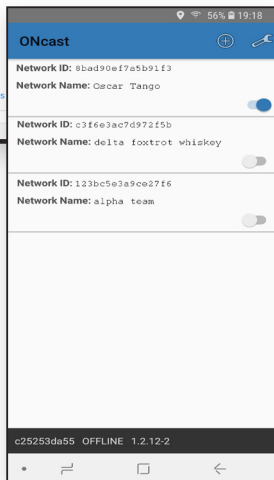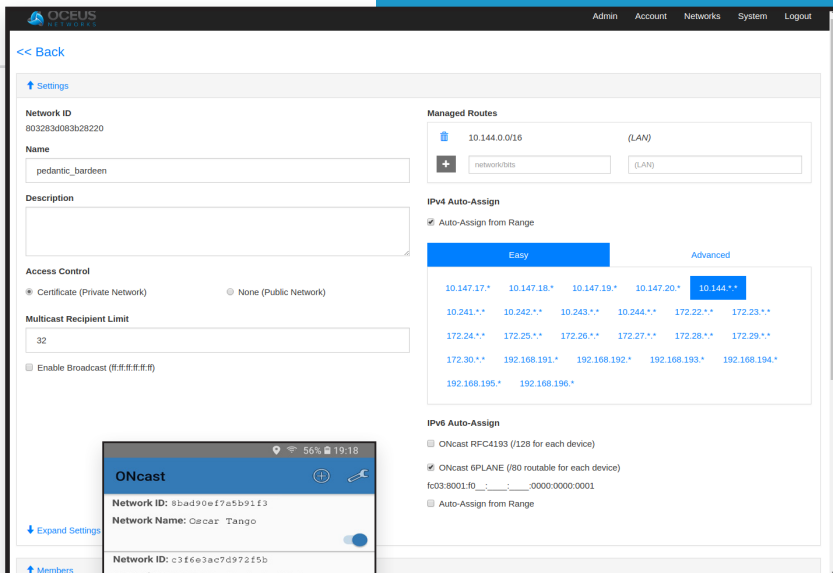
ONcast Client ▶
Gives users a simplified network switching connection from their mobile device or tablet.

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ONcast Configuration Management: Viewing all available network controllers is available through the web portal and allows for monitoring system up time and license status.

ONCAST FIGURES & FACTS

KEY COMPONENTS

ONCAST CLIENT	Used to connect devices to one or more of the ONcast encrypted networks
ROOT SERVERS	Simple end-point mappers for the Client ID to the real routable IP address
CONTROLLERS	Manages access to the network, authorizes certificates, assigns device IP addresses
CENTRAL	Web-based management interface that sends commands to the controller

SUPPORTED SOFTWARE

Android 5 and higher, Linux RPM Distributions, Windows 7 and Windows Server 2012 or higher for the ONcast Client

Linux system for running server software

ENCRYPTION/AUTHENTICATION

Uses asymmetric public key encryption Curve 25519/Ed25519, a 256 elliptic curve variant (NIST whitelist).

Packets encrypted end to end using 256-bit Salsa 20 and authenticated using the Poly1305 MAC algorithm.

ABOUT OCEUS

Oceus Networks is a 5G private cellular network management provider offering ultra high reliability, highly secured advanced communications network solutions. We are private-equity backed with a proud legacy of addressing the communications requirements of demanding, sophisticated United States Government (DoD) customers with a technology-rich portfolio of proprietary software tools supporting our network management platform. Our network management platform makes complex tasks simple leveraging these proprietary tools, an experienced development team, and a heritage of engineering excellence delivering elegant solutions to address business-critical pain points.