NSC3™

A MEDIA BROADCASTING AND MANAGEMENT SOLUTION FOR SITUATIONAL AWARENESS

SCALABLE & SECURED

Product Guide 2021 Rev.2.1
NSC3 v. 2.5, NSC-Mobile v. 2.5
NSC WebApp v. 2.5, NSC Drone v. 2.5

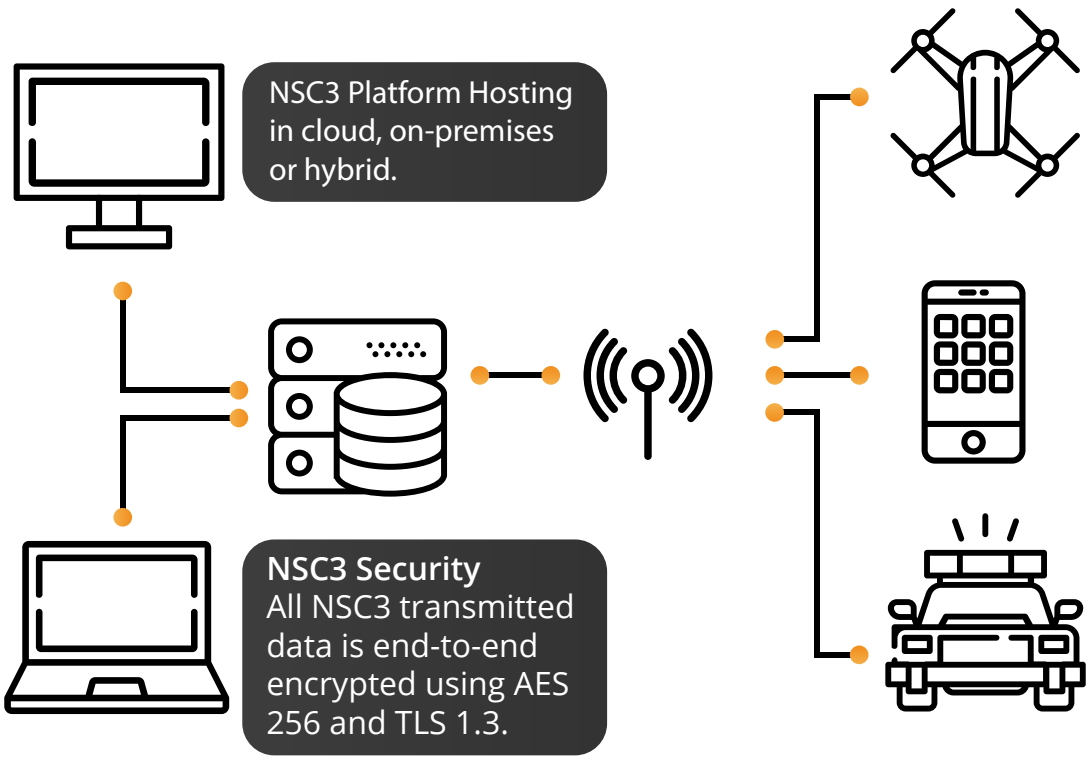
NSION

Summary

NSION Technologies Inc. has developed a scalable and highly customizable media broadcasting solution: NSC3™. It includes the entire platform and software components for a wide range of mobile, wearable devices, drones and vehicles.

NSC3™ has been tailored for agencies, mission critical technology integrators and end user organizations, fully abiding the safety, reliability, and performance requirements of large scale security and emergency services.

NSC3™ is a rapid deployment, ready to use service, mindful of critical situations - when every second is a lifetime.



The NSC3™ Solution

NSC WEBAPP™

For mission control and operational command centers.

- Device video, audio & location
- Remote command
- Voice channel for users
- Instant or frame by frame replay
- Groups / device administration
- Video storage management

NSC MOBILE™, Android & iOS

For individual operational broadcasting.

- Group & user broadcast,
- Push-to-Talk, automatic duplex
- Chat - Messages
- Support for external USB video-camera from phone, android
- iOS Screen sharing any application

NSC DRONE™, Android & iOS

Mission control for remote controlled units operations.

- Drone video live streaming and flight control - DJI
- Push-to-Talk, automatic duplex
- Chat - Messages
- Flight logs, drone activity and flight plans / paths

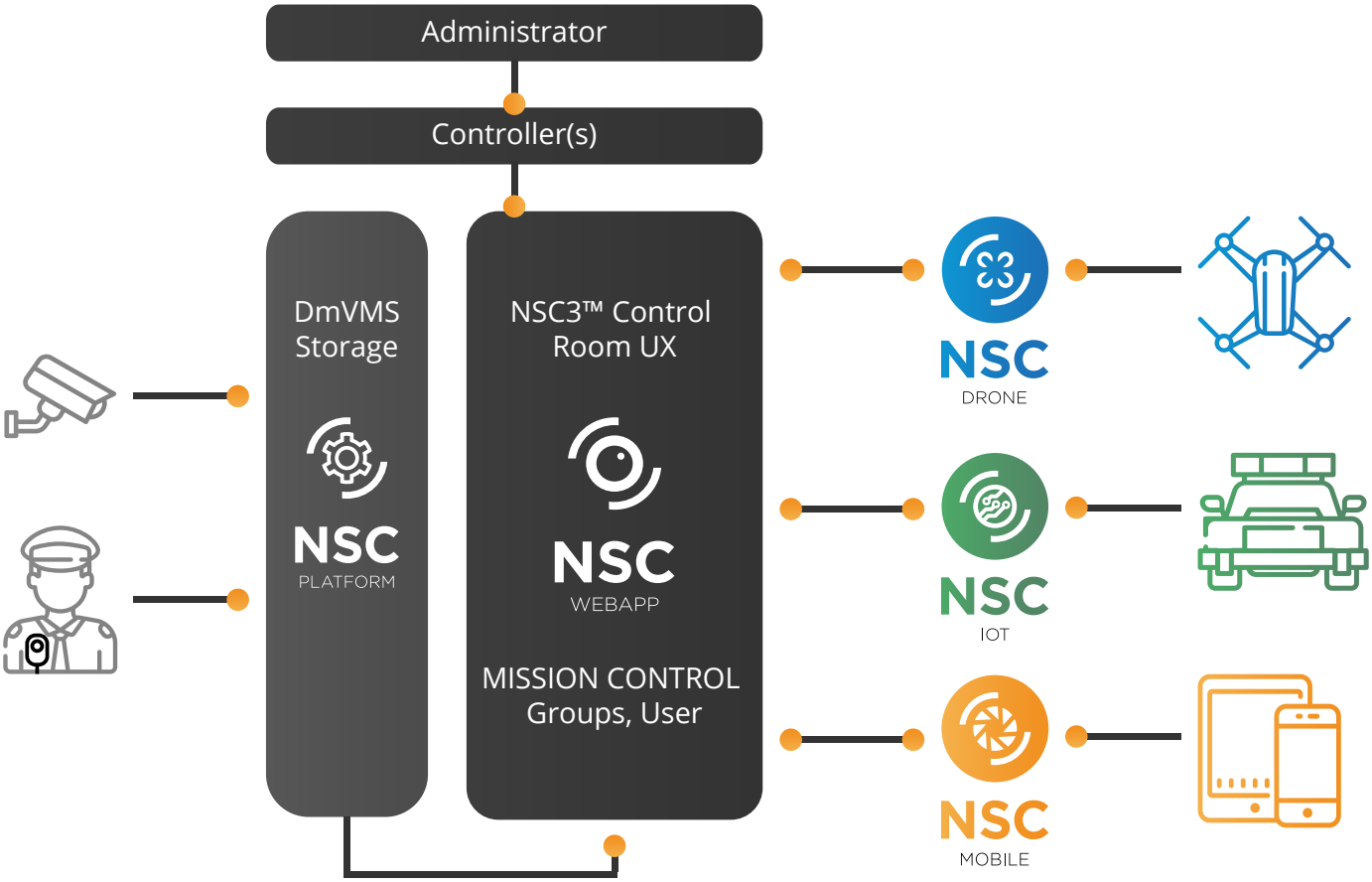
NSC IOT™, Win, Linux, ARM

Connects cars, planes, boats and vessels with devices to NSC3™ for broadcasting.

- Device live video & data
- Remote control for video nodes
- AI integration for live analytics

NSC3™ Platform

The NSC3™ Platform is the server-side architecture required to run NSC3. It provides the data storage for sensor data streams and connects to the Mission Control.



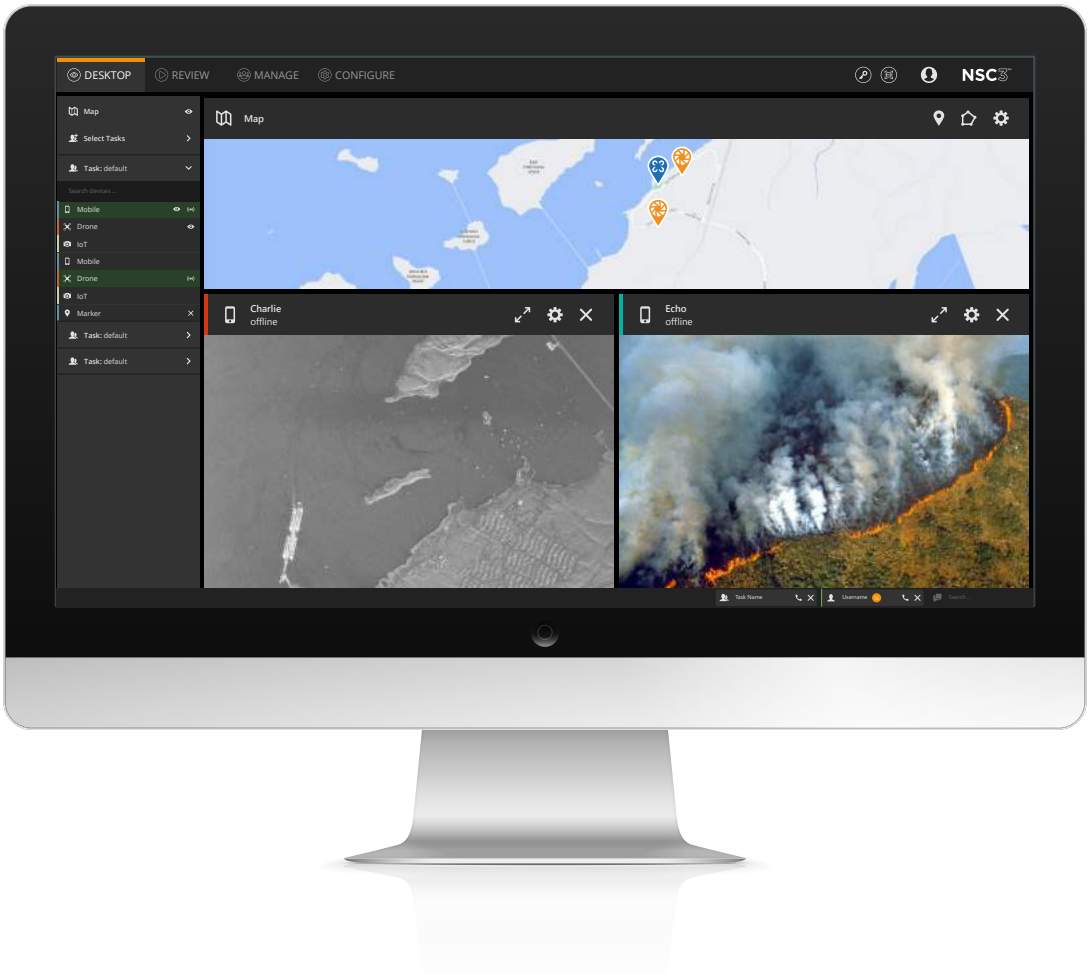
Devices
Private or Public Cloud Service / Server (PaaS, LaaS, SaaS and on-premises)

Supported and recommended technology and configurations
Recommended OS: Ubuntu 18.04 LTS. CPU, RAM, Disk according to usage.

Multiple licensing models are supported.

NSC WebApp™

The NSC WebApp™ is the main body and the communications hub from which NSC3™ operates. It is accessible with any web browser and consists of several functions designed to plan and execute tactical level operations. It provides Mission Control with its own organizational structure.



System requirements

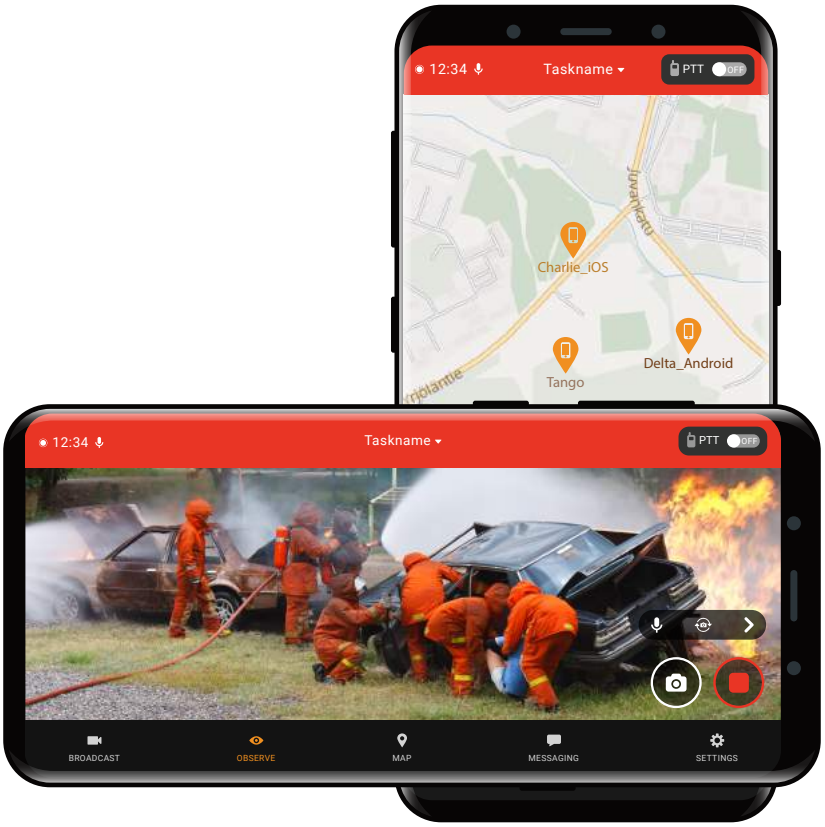
Internet, Browser

Devices

Browser Interface (Chrome, Firefox, MS Edge, Safari 14.0) Supported and recommended technology and configurations iOS, Android, Windows.

NSC Mobile™

NSC Mobile™ is the individual level sensor and data source client, designed to be used in mobile phones, wearable cameras and other handheld devices and accessories.



System requirements

Operating system: iOS (6S+ latest version), Android (version. 6.0+)

Devices

Mobile phones, Tablets, Body worn wearable cameras (Android), Apple OS Air, 13" MacBook Pro and Mini devices.

NSC Drone™

NSC Drone™ is a UAV client for airborne operations and flight control. It is designed to provide the pilot with all the necessary information for operational and situational awareness.

NSC Drone™ combines the tools for flying the drone as well as operating its sensors. Pre-flight settings can be adjusted for specific circumstances or operations.

System requirements

Internet connected device compatible with manufacturer technology (SDK etc.)

Devices

iOS and Android supported.

Supported and recommended technology and configurations

All DJI-drones, MAVIC MINI, MAVIC 2, MAVIC PRO series, MATRICE 100, MATRICE 200 series, MATRICE 600 PRO, other drone platforms 2021 and per request.

DJI Smartcontroller, Crystal Sky display/tablet, DJI Model RC1A

NSC IoT™

NSC3 IoT™ is a sensor and data client mainly for vehicles, boats and vessels operated and mounted, as well from static sources.

*Reference device

System requirements

IP or PoE camera and sensors, USB & embedded cameras, Analogue CCTV and Secured Screen Sharing

Devices

Vehicle cameras, fixed or mounted sensor data sources with operating system support.

Supported OS and recommended technology and configurations

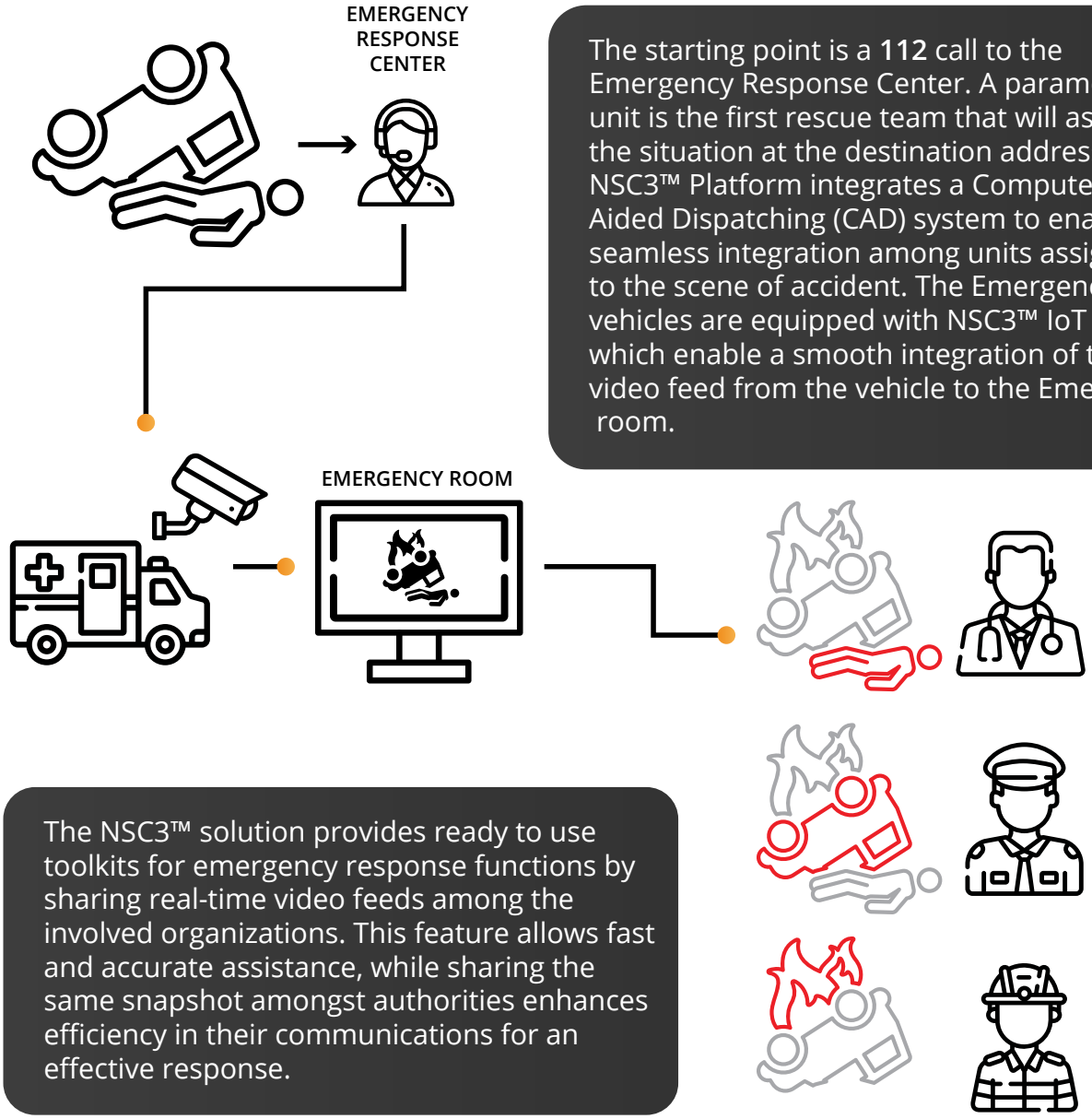
Windows, Linux, Apple, RasperyPi, ARM

Support for Dahau, Niceview, Milestone, Bosch, Ernitec, Canon + most major camera manufacturers

Use case:

Rescue Operation

NSC3™ strengthens the response of Police, 112 professionals, first responders and rescue services. The use case below illustrates the workflow of a rescue operation after a car accident. NSC3™ as a system accelerates communications throughout the response and rescue chain.



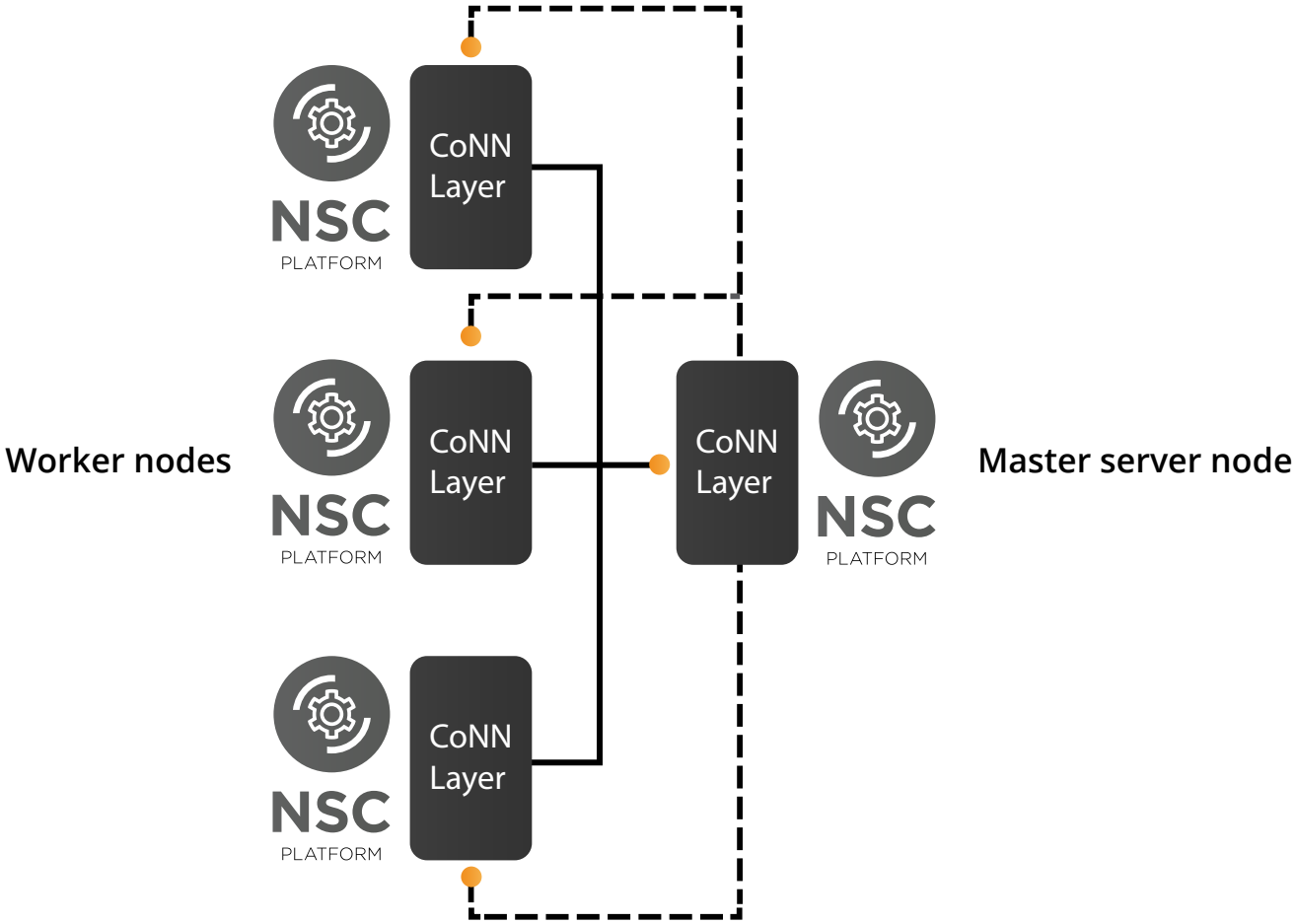
The starting point is a **112** call to the Emergency Response Center. A paramedics unit is the first rescue team that will assess the situation at the destination address. The NSC3™ Platform integrates a Computer Aided Dispatching (CAD) system to enable a seamless integration among units assigned to the scene of accident. The Emergency vehicles are equipped with NSC3™ IoT which enable a smooth integration of the video feed from the vehicle to the Emergency room.

The NSC3™ solution provides ready to use toolkits for emergency response functions by sharing real-time video feeds among the involved organizations. This feature allows fast and accurate assistance, while sharing the same snapshot amongst authorities enhances efficiency in their communications for an effective response.

Technical specifications

Overview of the NSC3™ Cluster

The NSC3™ Cluster Solution provides capabilities for vertical and horizontal scalability, high availability features, and support to continuous delivery models.



Worker Nodes, system requirements	
Network	1GB/1GB
CPU	8vCPU
RAM	16GB
Disk	100GB + 100GB allocations SSD grade
Operating System	Ubuntu 18.04 LTS

Master Node, system requirements	
Network	1GB/1GB
CPU	16vCPU cores/ dedicated 16 core processor
RAM	16GB
Disk	10TB + 1TB allocations SSD grade
Operating System	Ubuntu 18.04 LTS

Security

All communications between NSC3™ SDKs and NSC3™ back-end are encrypted, broadcasting devices from sockets between terminals and back-end. The communication inside the socket is secured on application level using AES-256 encryption.

TLS / HTTPS connections are terminated on back-end gateway, making certificate change an easy operation. Headers specified in detail at Stream-In TCP Sockets.

Communication inside web-socket is secured using TLS1.3 / HTTPS. In order for terminal to open a web-socket, you must have the proper access token from NSC Auth Service. Access is checked with each request inside the socket against provided access token. Connections with invalid access token are terminated. Communication over REST APIs with server and HTTP requests are transferred over TLS1.3 / HTTPS. Each request must have valid access token from NSC Auth Service. Platform gateway forwards requests to appropriate services, denying all requests to undetermined locations.

NSION

TECHNOLOGIES

NSION is a major technology innovator in the growing market of high security video and data management. NSION optimizes data security and speeds in video data transferring in complex, life critical and field operations. NSION provides a unique, throughput platform which enables the modular integration of command and control systems from multiple media streaming technologies.

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