NetNumber ALL-G™ Private Network Solutions
PLTE Core Software Bundle

Private LTE are dedicated, fixed-cost networks for mobile and IoT device communications enabling enhanced information security, improved network performance and lower network costs. Private Networks are an alternative LAN option when public wireless networks or WiFi are not adequate.

NetNumber offers Custom Private LTE Network Solutions designed to support a multitude of vertical markets and use cases, environmental scenarios and time durations, scaling from hundreds to thousands of subscribers.

Custom Built PLTE on x86 COTS
bare metal, Virtualized or containerized
Integration specific sizing
vmware · KVM · PROXMOX · docker

Foundational to NetNumber Custom Networks is TITAN'S award-winning signaling software. Compatible with any standard x86 COTS hardware and size of x86 compute, TITAN has the flexibility to be implemented on bare metal, hypervisor, or containers. TITAN is an ideal platform for a robust Private LTE network making NetNumber's Custom Private LTE solutions an optimal wireless deployment and future proof investment decision.

NetNumber TITAN: Foundation Software for PLTE Networks

Critical to all of NetNumber's ALL-G Private Network Solutions, the NetNumber TITAN Master-Edge architecture delivers carrier-grade functionality and performance while lowering OPEX and CAPEX costs for private network owners and managed service providers. The optional TITAN master facilitates centralized, simultaneous subscriber provisioning throughout all TITAN edge nodes including large-scale OTG100-based network deployments. The TITAN master can operate from a private datacenter or public cloud and the OTG100 can serve as an extensible edge to any TITAN master.

NetNumber TITAN Master-Edge Architecture for PLTE
API
Portal Access
Deploy in public AWS Cloud/ Customer Datacenter
MASTER
TITAN Master provides centralized subscriber and configuration mgmt to hundreds of remote TITAN Edge nodes – portable, fixed, or temporary
Wireline backhaul (IP)
Satellite backhaul (IP)
CUSTOM PLTE EDGE NODE
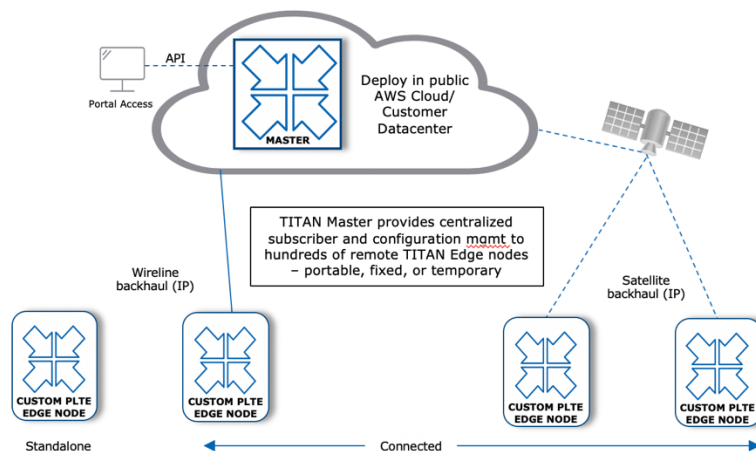Standalone
Connected

Standalone or Connected

In situations when backhaul is not available, the TITAN edge node continues to provide local communications services while in standalone mode. When connected, and backhaul connectivity is present, the TITAN edge node dynamically interconnects with other edge nodes to leverage the benefits of the TITAN master-edge architecture facilitating centralized management and inter edge node communications.

Use cases

Custom private LTE networks span multiple use cases across many industries and verticals including Defense, Mining, Public Safety, Rural Broadband, Maritime, Smart Buildings, Smart Cities, Manufacturing, Remote Education, Transportation, Energy, and Healthcare. The following are a few use case examples:

Smart Buildings: The NetNumber TITAN distributed architecture is ideal for the large number of IoT sensor registrations necessary in smart buildings. NetNumber's PLTE solution can be integrated or combined in a distributed architecture while the TITAN Master enables central provisioning to reduce opex of large IOT networks. Traditional LMR networks for PTT and employee communications (VoIP) can also be consolidated on to a common PLTE network.

Manufacturing: The NetNumber ALL-G custom PLTE solution addresses key requirements necessary to support the manufacturing floor devices and IOT sensors that they require to be more agile with wireless LTE connectivity.

Defense and Public Safety: NetNumber TITAN has a proven history of providing temporary tactical bubble solutions to military and police for sporting and situational events. This use case can also be used for more stationary network requirements such as remote office and research – exploratory projects.
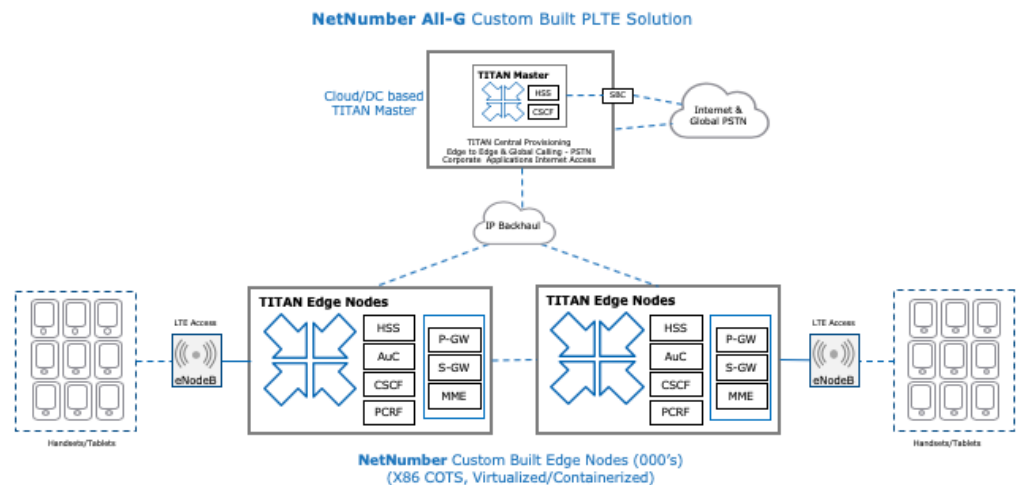
Public Safety Events: NetNumber's custom designed PLTE networks are ideally suited for international sporting events and other large-scale productions where government tactical response units and emergency response teams are enabled to operate as an integrated group. This group must rely on interoperable and secure communications in order to effectively and efficiently coordinate efforts.

Mining: Autonomous vehicles and other operational assets can be powered by a PLTE network enabling proprietary work flows and production results to remain secure and independent of the pubic network.

PLTE Core Software Bundle Features

Software and Licensing

- NetNumber TITAN Edge with HSS, SDM, AUC, CSCF, ENUM-DNS

- NetNumber TITAN Master (optional)

- Sirran Communications EPC: MME, SGW, PGW (optional)

NetNumber All-G Custom Built PLTE Solution

Professional Services Options
Architecture and Design Services
Configuration Services
Deployment Support
Training Services
RAN Procurement, Supply, Consulting
SIM Card Supply, Consulting
Carrier Network Interconnect Services

Warranty
90 Day Hardware Warranty and a 3 year software operating license included for updates .

About NetNumber

NetNumber, Inc. brings 18 years of experience delivering innovative signaling control solutions that enable carriers to accelerate implementation of new services across multiple generations of networks, while dramatically simplifying the core network and reducing operating costs. Today, we are the leading provider of Centralized Signaling and Routing Control (CSRC) solutions to the global communications industry.

Please visit www.netnumber.com for product or solution information. For configuration and pricing details, please contact your local account representative via sales@netnumber.com.

NetNumber ALL-G™ Private Network Solutions
Private LTE OTG100

Welcome to the progressive world of portable, secure, and private LTE Networks!

NetNumber's ALL-G™ OTG100, the first offering in its ALL-G Private Network Solutions portfolio, delivers unprecedented performance, reliability, and security for mobile or fixed device connectivity supporting Enterprise, Government, and Utility markets.

The OTG100 is a carry-on size, battery-powered private LTE solution on wheels, providing mission critical IP voice, video, and data communications for up to 100 subscribers in under 5 minutes of set up time – at any location in the world your team or operations need to be. The OTG100 is ideal for public safety, emergency and tactical response, and production-critical environments with coverage for up to a few hundred meters and optional external solutions enabling coverage up to 4.5km or more, depending on environmental conditions.
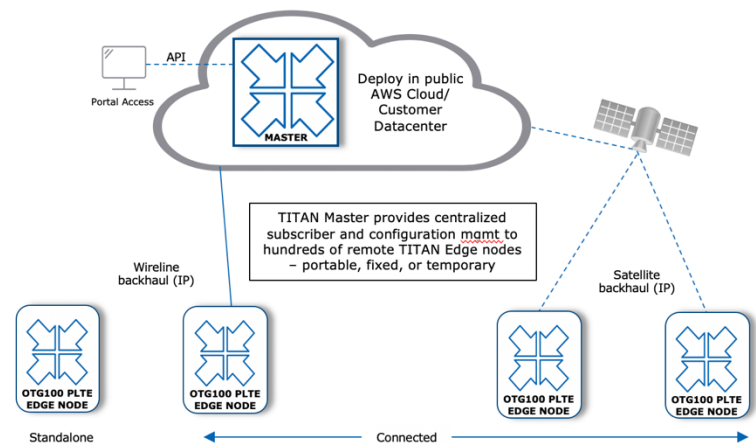
NetNumber TITAN: Foundation Software for PLTE Networks

Critical to all of NetNumber's ALL-G Private Network Solutions, the NetNumber TITAN Master-Edge architecture delivers carrier-grade functionality and performance while lowering OPEX and CAPEX costs for private network owners and managed service providers. The optional TITAN master facilitates centralized, simultaneous subscriber provisioning throughout all TITAN edge nodes including large-scale OTG100-based network deployments. The TITAN master can operate from a private datacenter or public cloud and the OTG100 can serve as an extensible edge to any TITAN master.

NetNumber TITAN Master-Edge Architecture for PLTE

Standalone or Connected

In situations when backhaul is not available, the OTG100 continues to provide local communications services while in standalone mode. When connected and backhaul connectivity is present, the OTG100 dynamically interconnects with other edge nodes to leverage the benefits of the TITAN Master-edge architecture. This facilitates centralized management and inter-OTG100 communications.

Rugged, Flexible, and Carry-on Ready

The OTG100 is suited for a variety of scenarios:

Disaster Response: Quickly and easily deployable, the OTG100 provides vital communications to first responder teams dispatched to crisis situations. The OTG100s can be networked together to enable communications between multiple first responder groups spread across broad disaster zones.

Emergency Backup Services: The OTG100 can be ready on a moments notice to provide backup mobile connectivity in cell outage scenarios or where public cell coverage is not available. The OTG100 provides ideal backup systems for law enforcement, fire, EMS and other emergency response teams.

Defense and Event Safety: Ideal in supporting military tactical bubble communications and real-time situational awareness needed by police units to ensure safety at sporting and other public events.

Mobile Operators: MNOs can augment their public LTE infrastructure by offering the OTG100 as a standalone solution to enterprises seeking on-prem private networks.

OTG100 Features

Package Components:

- Ruggedized, carry-on sized travel case
- Built-in battery pack for 5-8 hours autonomous power
- 110/240VAC input, 12-28VDC output
- Internal multiband LTE Picocell eNodeB
- Rubber duck antennas
- Expansion ports for additional external eNodeBs
- WAN port to connect to any IP Backhaul service
- Storage compartments in lid
- Approximately 35lbs total weight
- Exterior dimensions (L X W X D)
  18.50" x 14.06" x 6.93" (47 x 35.7 x 17.6 cm)

External Interfaces

- External facing ethernet ports enable external LTE radio attachment (optional)
- 4 external interfaces provided for external radio connections
- 4 ethernet ports, 2 USB ports

Integrated Software and Licensing

- ALL-G TITAN Foundation Software
- Includes 2 eNodeB activation licenses
- Includes 100 subscriber license
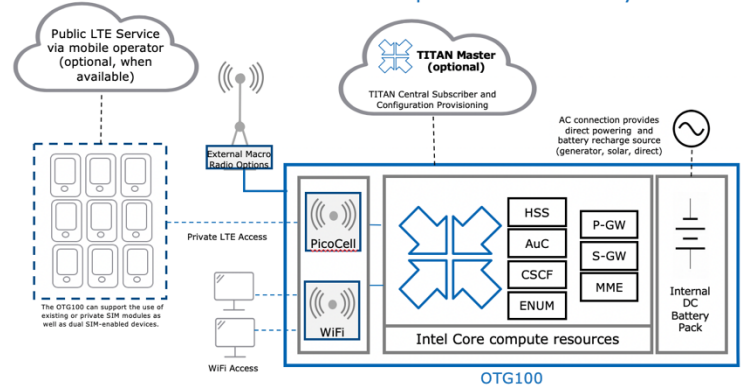- Additional eNodeB and subscriber quantities optional

Warranty

- 90-day hardware warranty
- 3-year software operating license included for updates

All Major Hansets and Tablets Supported

Professional Service Options

- Network Design Consultation
- Interoperability Consultation
- RAN Procurement and Supply, Consulting
- Subscriber Provisioning
- Remote Assistance Certification

NetNumber OTG100 Components & Connectivity

OTG100 Options

Internal/External LTE Radio Options

- OTG100-1: OTG100 Base System + LTE Single Pico Internal Multiband eNB (Includes 3 Year Operation License)
- OTG100-2: OTG100 Base System + 2X LTE (1 external Multiband Pico eNB for indoor use, 1 Internal multiband Pico eNB) (Includes 3 Year SW Operational License)
- OTG100-3: OTG100 Base System + 3x LTE (1 internal Pico eNB plus 2 external; of which one indoor multiband Pico and one 128 user outdoor macro (mast for mounting and cabling not included)(Includes 3 Year SW Operational License)
- OTG100-3-OD: OTG100 Base System+3x LTE (1 internal Pico eNB plus 2 external 128 user outdoor macros (mast for mounting and cabling not included(Includes 3 Year SW Operational License)
- OTG100-4-OD: OTG100 Base System +4 LTE 4 LTE (1 internal, 3 external, three of which are 128 user outdoor macro size, (mast for mounting and cabling not included)(Includes 3 Year SW Operational License)
- CBRS and Band14 internal/external radio options on roadmap

SIM Cards Available

- The handsets use private SIM cards that are encrypted to the customer's specifications and locked to the client network.
- SIM cards are available in packs of 10, 50 and 100 and can be customized at time of order for (Home PLMN, IMSI range, KI)

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