



Portable 5G Private Network Solution : Digital Resilience

June 2022

Pegatron Introduction

PEGATRON 5G

Company Profile

Established on
June 27, 2007

Global Operation Sites
16

Total Number of Employees
185,000

Achievements

Listed on TWSE on
June, 2010

2021
Consolidated Revenue
US\$47.5B

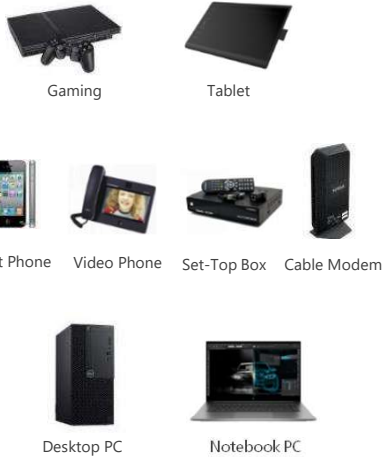
2021
FORTUNE GLOBAL 500
#235

Consumer Electronics /
Smart Home / AR VR

Communication
Networking

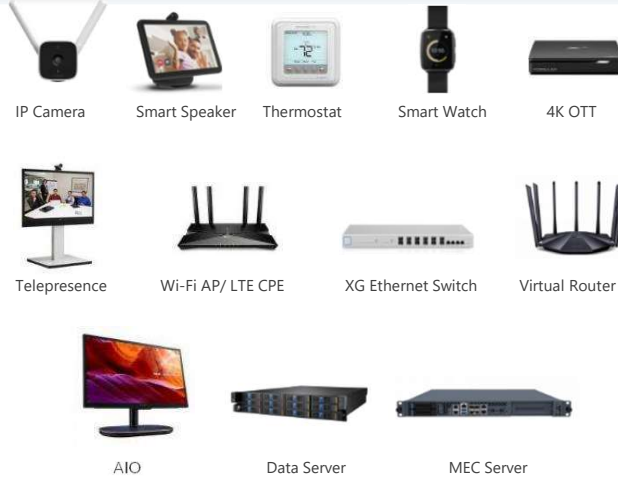
Computing

3G



2010

4G



2020

5G



O-RAN ALLIANCE



SAGEMCOM COMMSCOPE



Google

amazon

Meta



Panasonic

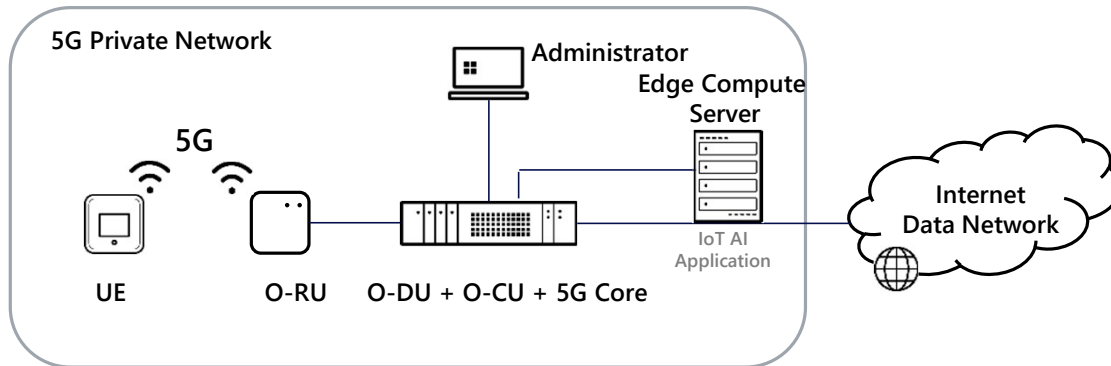
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Pegatron Portable 5G Private Network Solution : Digital Resilience

- Compliant with 3GPP and O-RAN structure by using x86 based server to compose 5G network system include 5G Core, gNB, and PTP L3 switch.
- Built-in Pegatron customized RAN software and Service Management and Orchestration system.

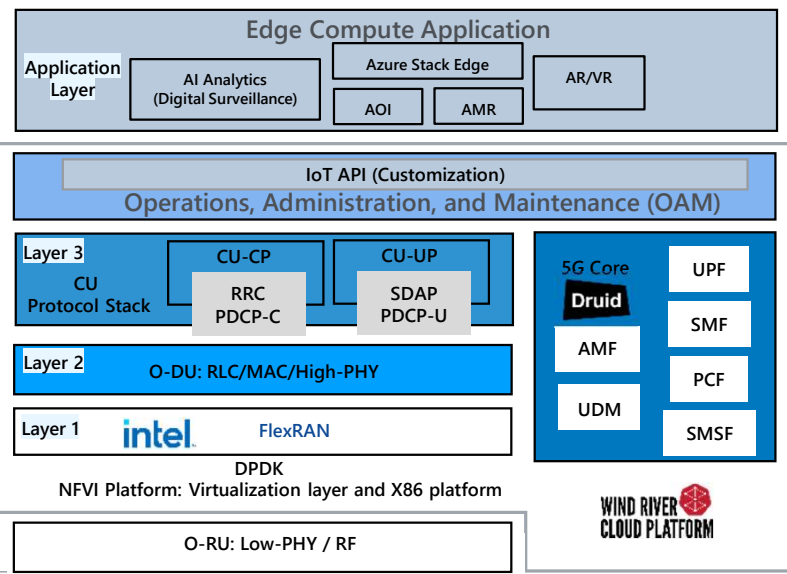
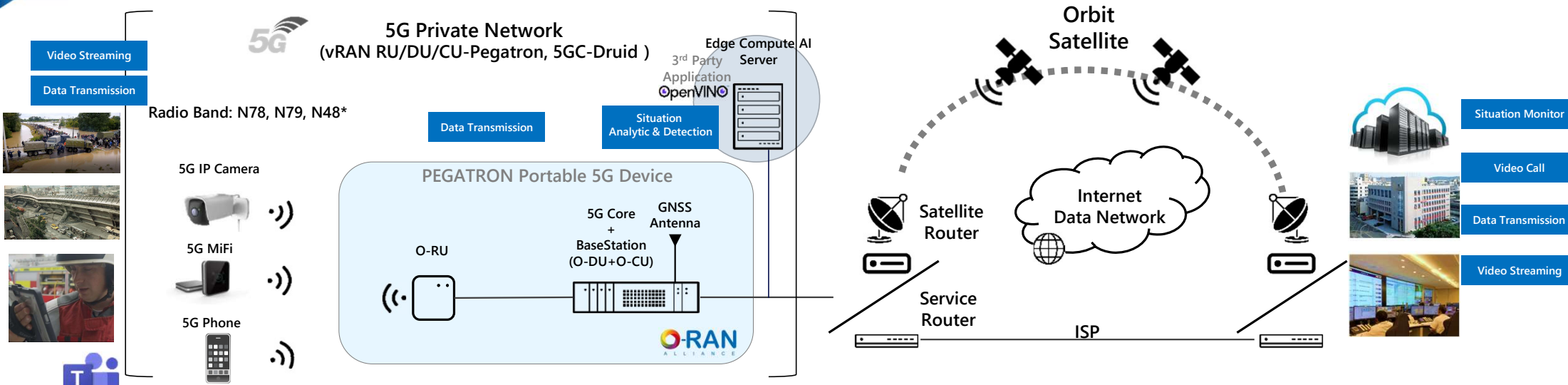
5G Private Network - Portable



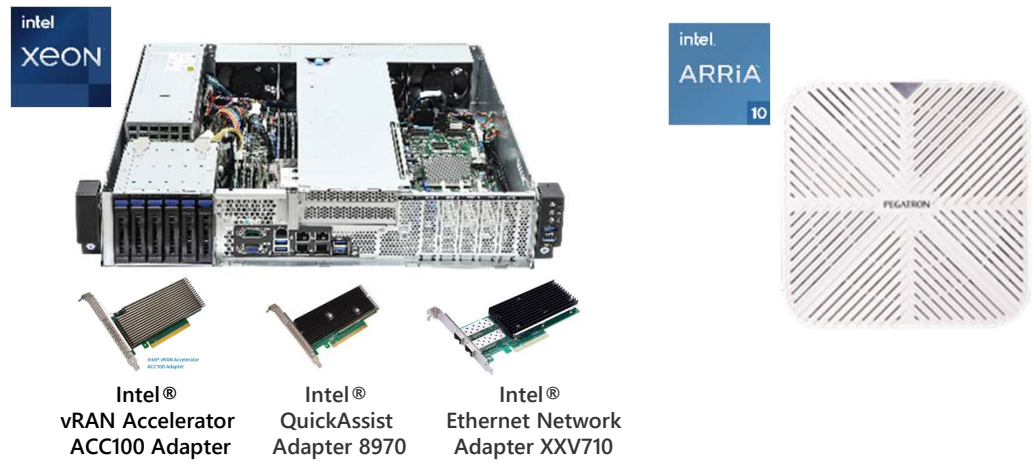
Product Description

| | |
|------------------|--|
| Max. UE | 32 Active (Support: 1Cell) |
| Band | FR1: N78, N79, N48* |
| Ant. MIMO | 4T4R, DL 4 Layers, UL 2 Layers |
| Profile | <ul style="list-style-type: none"> ■ DL Centric 7:3, 4:1 ■ UL Centric 2:3 |
| GPS Grand Master | <ul style="list-style-type: none"> ■ 1588v2 PTP protocol support ■ PTP to sync-E and sync-E to PTP conversion |
| OAM | <ol style="list-style-type: none"> 1. System Configuration 2. UE management including list usage and QoS profile 3. Network slicing management 4. Northbound interface for higher level management |
| 5G Core (Option) | Druid Raemis 5GC™ |

PEGATRON Portable 5G Private Network Solution with Edge Compute- Architecture PEGATRON 5G



Hardware Platform



Video Call

COF

PEGATRON Portable 5G Private Network Solution – Use Case Value Chain

5G Digital Resilience



Integrate 5G Private Network and orbital satellite communication to support first-line responder and public safety anytime and anywhere in Hsinchu City.

| | | | | |
|--|------------------------------------|---|---|-------------------------------|
| PEGATRON vRAN Solution (O-RU+O-DU+O-DU) | Wayne System Integration | Microsoft Affirmed 5G Core Azure- SD-WAN & Teams | 新竹市政府 HSINCHU CITY GOVERNMENT Customer | SES Orbit Satellite |
|--|------------------------------------|---|---|-------------------------------|

Pain Points

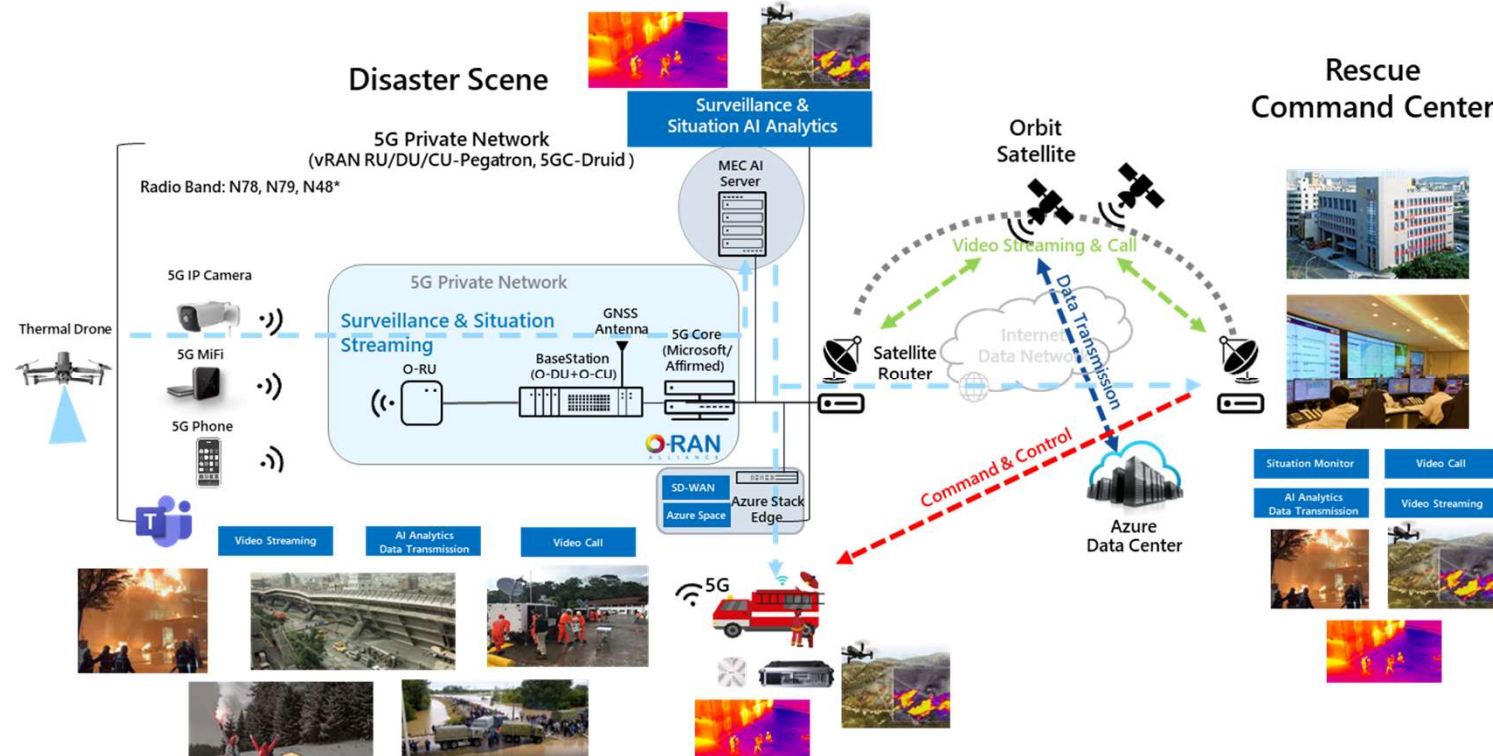
- Large-scale power, telecommunications, and sub-marine cable interruptions caused by devastating disasters or regional conflicts
- Firstline responders can not communicate or report the status to command center
- Traditional satellite phone can only provide voice communication, but not able to support video conversation, data transfer, real-time video transmission, and multi-person instant meeting

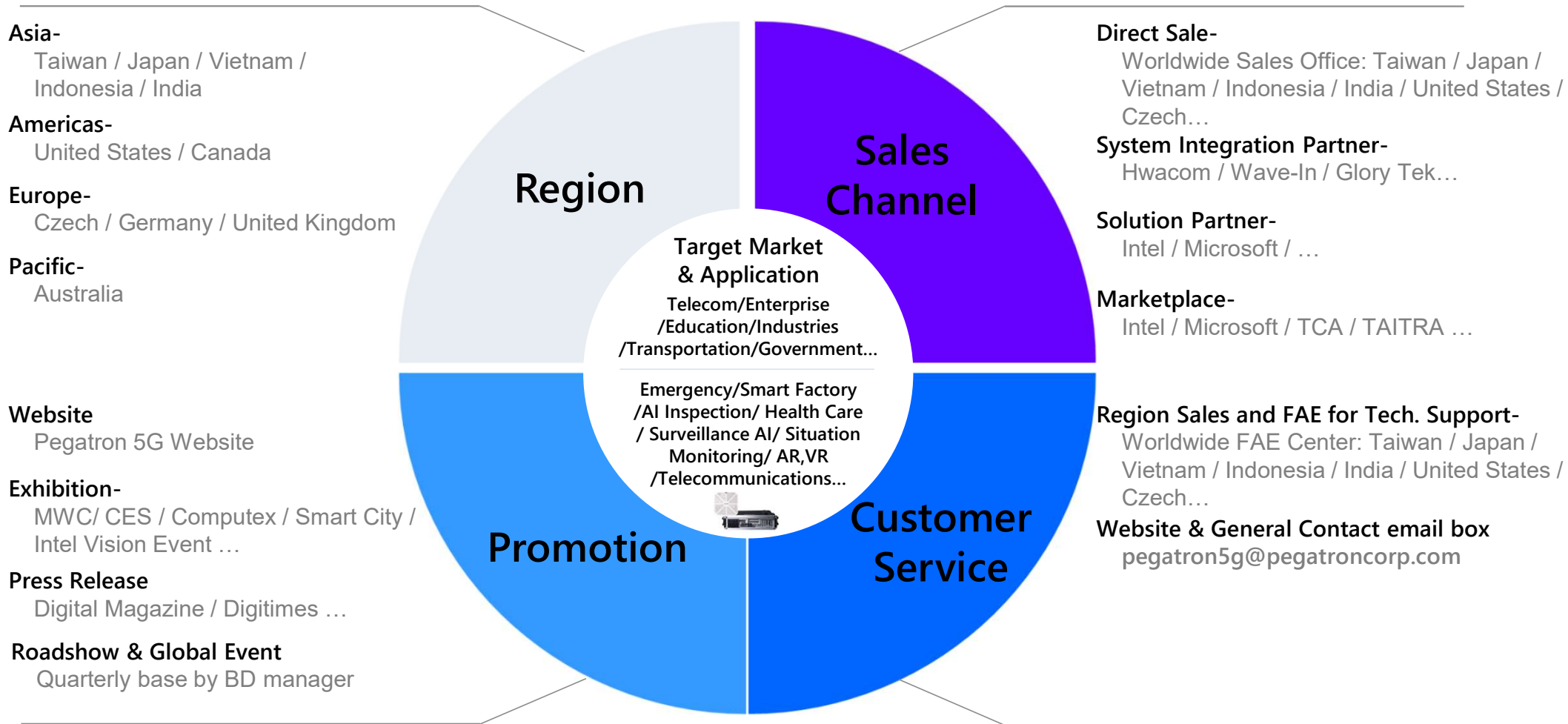
Solutions

- Integrate 5G ORAN base station and orbit satellite communication to provide
- Emergency contact for devastating disasters and regional conflicts
 - Non-interruption for IoT data link and disaster relief communications
 - Disaster response for semiconductor global core supply chain in Taiwan
 - Urgent messages delivery for government and national security

Pegatron Solution Value

- All-in-One Portable 5G Private Network Solution.
- Easy setup, On demand 5G Private Network Anywhere.
- Configurable profile to adjust UL/DL throughput depend on different use case.
- Build-in 5G Core Network, also can use other 5G core system. (IoT completed w/ Ericsson, Nokia, Cisco, Affirmed)
- Provide Northbound interface for higher level system integration.
- Backhaul connection can be integration with Orbital Satellite.





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Twelve Months Forecast for Intel Products

| Intel Products | Projected Quantity | Comments |
|--|--------------------|-------------|
| Intel® Xeon SP Gold | 40 | 6230R |
| Intel® QuickAssist Adapter | 20 | 8970 |
| 10gbe Intel® ethernet network adaptors | 40 | XXV710/E810 |
| Intel® vRAN Accelerator ACC100 Adapter | 20 | ACC100 |
| Intel® FlexRAN | 20 | |
| Intel® DPDK Data Plane Development Kit (for packet acceleration) | 20 | |

Total Intel Rev\$ \$120K USD

| Application | Count |
|------------------------------------|-------|
| School Lab / Demo / POB Field Test | 5 |
| Smart Transportation | 5 |
| Emergency | 10 |
| TOTAL | 20 |

Thanks



5G ORAN Brochure



5G User Equipment