



# JI Technology – Device & SIM Control

1<sup>st</sup> layer of security – TAC/IMEI/PLMN/IMEI checks

JITsvrEIR

## JI Technology

Founded in 2008 to provide solutions and business development for MNO, MVNO, System Integrators & Service Providers, these solutions include charging, messaging, gateway applications and service control solutions. Our current & past engagements include Prepaid, Loyalty, Multi Payment Channel service, IOT, SMS gateways, 4G/5G core for Private Networks/MNO/MVNO, Fintech consulting & others.



### PRIVATE 4G & 5G EPC

Complete 4G/5G EPC for Enterprise, integrators and service providers using a common core for both 4G and 5G radios



### DEVICE CONTROL

1st layer of security for Private Networks by controlling access using IMEI and IMSI



### BESPOKE SOLUTIONS

Competitive & agile. Presales through delivery



### HIGH AVAILABILITY

Monitor applications and handle multiple failure scenarios to support redundancy and disaster recovery

## UE/SIM security & Asset management for private 4G/5G networks

Ensures the use of authorized devices on the enterprise network by checking multiple attributes of the connecting devices including what & where, for example the IMEI-TAC, IMEI, IMSI & eNB-ID. This helps to restrict access to enterprise & department networks/slices for approved devices and users. Un-managed devices and users are security risks that can bring malware, viruses into a network and also unauthorized access to the enterprise.

### Why UE/SIM device control?

Private 4G & 5G allow devices to directly access and Enterprises must be cognizant about the potential threats on the horizon by controlling the devices that are connecting.

- Using a 5 tier UE/SIM security check, enterprises & institutions can now control which UE & SIM can be used to access to their private network. A Device can be blocked before it ever attached to the network successfully.
- Support for Asset management by knowing how often/if ever devices are being used or how long they have remained un-used
- Using TAC analysis, only allow certified devices to be able to attach to the private network.
- Security, detect all unauthorized access attempts
- Analytics: understand which devices are being used and why devices are failing to connect the private network

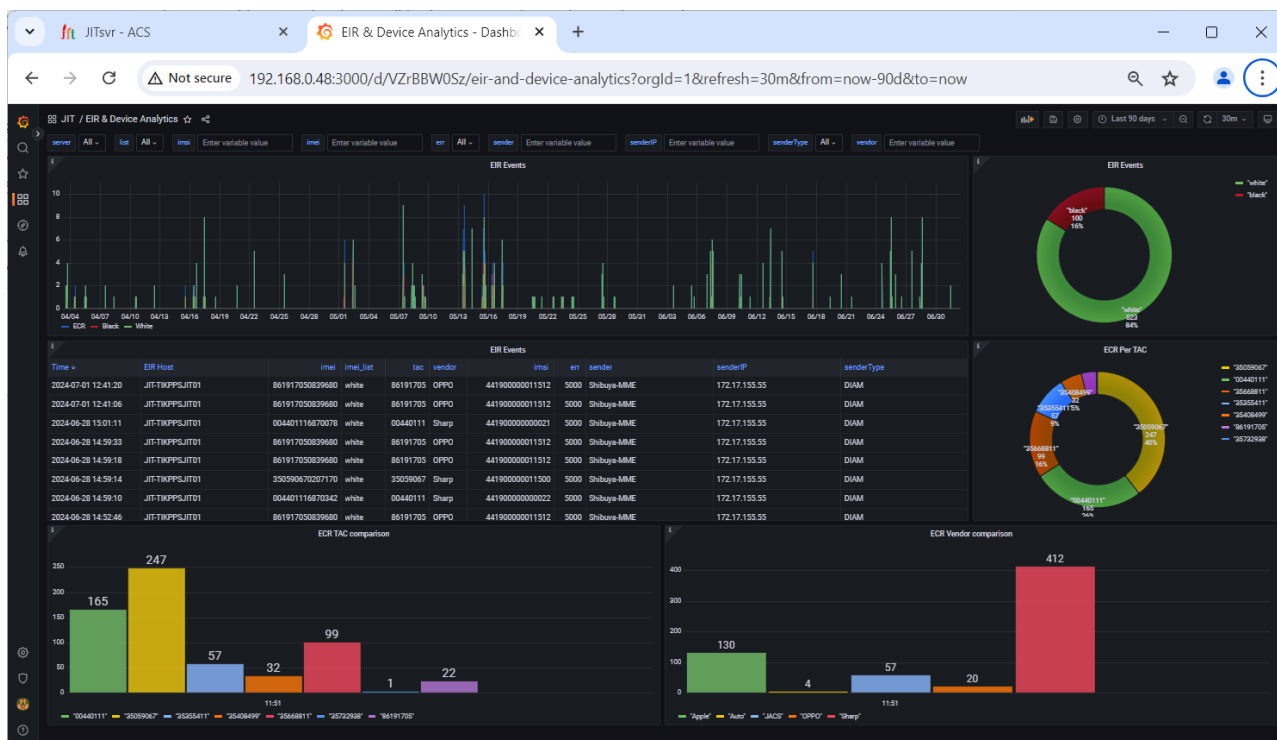




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## Access Control for “private 4G/5G”

The JIT EIRsec Server brings the 1<sup>st</sup> level of security check to the private enterprise network by using a 5 tier check process to ensure only the authorized UE Device & SIM can attach to the private 4G/5G network at the specified location. Based on and compliant with the GSMA EIR with S13/N17 support, The JIT EIRsec server has been designed with private networks in mind to satisfy the needs of organisations and facilities that need to tightly control access to their private networks and services in a defined area.

- Verified with the private 4G and 5G environment (4G/5G core, eNB/gNB UE, SIM)
- Ready for use in both 4G & 5G environments
- PCS-DSS compliant for information storage, access
- 5 Tier security check before the UE can attach to the network. Each Tier can be individually enabled/disabled
  1. UE TAC: Is the UE type and model allowed/certified?
  2. UE IMEI: Is the UE itself allowed or reported missing?
  3. UE IMEI + IMSI pairing: The UE is paired with an IMSI. If the matching pairing fails, then reject the device?
  4. Location check: Is the UE attaching from an approved location?
  5. User blocked or not: All other checks being successfully, is the UE/IMSI temporarily/permanently blocked?
- UE/SIM Analytics via real-time logging/GUI to see illegal & Valid device access requests
  - Device type profiles: Identify the various devices/models accessing the private network
  - Quickly identify UE/IMSI failing to access the private network due to security checks & illegal access attempts
  - Asset Management to identify UE that should be replaced
- S13/N17 Diameter & HTTP API from 4G/5G to JIT EIRsec
- TAC lookup table
- Auto TAC & IMEI & IMSI provisioning for new devices
- Supported in the JITsvrHA Highly Available / Redundant environment
- Integrates with JIT central EIR (cEIR) for sharing missing/stolen/fraudulent UE IMEI in private networks
- Visit us at <http://www.jitechnology.com>

