JI Technology – Access Control
Device & SIM Check/Authentication

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, EPC for sXGP/private networks/EDGE, Fintech consulting & others.

INTERNET OF THINGS
We are mapping out IOT value for those who are ready to act

PRIVATE EPC
Complete solutions for the enterprise, integrators, for service providers

SXGP
Reducing the cost of telecommunications services and improving the stability of wireless communication services

BESPOKE SOLUTIONS
Competitive & agile. Presales through delivery
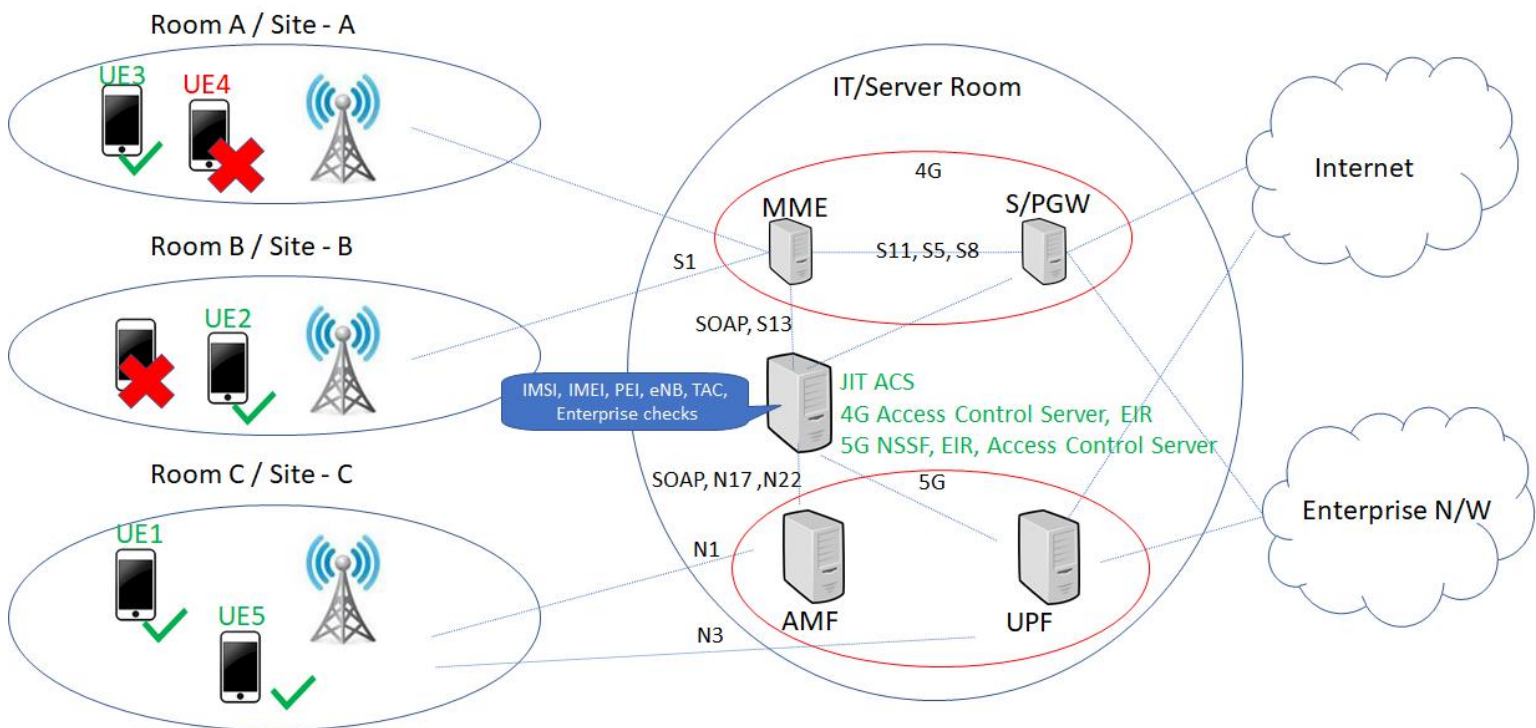
Access Control for sXGP/uLTE & 5G enterprises

Access control ensures use of authorized devices on the enterprise network by checking multiple attributes of the connecting devices including what & where, for example the IMSI, IMEI, eNB-ID & TAC. 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 access management?

Private/Local LTE & 5G allows devices to directly access an Enterprise network and Enterprises must be cognizant about the potential threats on the horizon. Typically, enterprises are unable to enforce a BYOD policy due to the devices being managed by public operators, but this dynamic changes with private LTE.

- Using JIT ACS, enterprises & institutions can now block BYOD by controlling UE & SIM that can be used to access to their private network

- Slice & eNB restrictions: the Access Control server enables a type of subscriber group management per eNB. For a closed eNB, only allowed members may attached via the eNB.

Room A / Site - A

UE3   UE4

Room B / Site - B

UE2

Room C / Site - C

UE1

UE5

IT/Server Room

4G

MME   S/PGW

S1   S11, S5, S8

SOAP, S13

IMSI, IMEI, PEI, eNB, TAC, Enterprise checks

JIT ACS
4G Access Control Server, EIR
5G NSSF, EIR, Access Control Server

SOAP, N17 ,N22   5G

N1

AMF   UPF

N3

Internet

Enterprise N/W

Access Control for "private LTE/uLTE/sXGP/Multefire/5G"

The JIT Access Control Server brings the 1st level of security check to the private enterprise network by ensuring only the authorized uLTE Device & SIM can attach to the enterprise network at the specified location. This happens even before the IMSI authentication with the HSS / devices attaches to the network. The Access control server has been designed to satisfy the needs of organisations and facilities that need to tightly control access to mobile networks and services in a defined area.

- Verified with the sXGP environment (EPC, eNB, UE, SIM)
- Supports network planning and monitoring
- Multiple MME per Access Control Server
- Ready for use in both 4G & 5G environments
    - Support for NSSF/N22 & 5G EIR/N17
- PCS-DSS compliant for information storage, access
- Checks IMEI,IMSI,eNodeB,TAC,IMSI|Enterprise mapping before HSS authentication
- Enables multiple sXGP/uLTE networks to operate in similar area
- Welcome/Onboarding SMS: detects 1st time access for a user and sends pre-defined SMS
- Broadcast SMS to all UE actively attached to specified eNodeB
- Different Cause Codes per IMSI/IMEI
- Per MNCMCC cause code return
- Create Closed, Hybrid, Open enodeb/Access Points for subscriber groups & area controlled access
    - Assign allowed IMSI to each Access Point ID
    - Broadcast SMS to all UE in a subscriber group
- Analytics via real-time logging/GUI to see illegal & Valid device access requests
- Visit us at http://www.jitechnology.com