3GPP TSG RAN Rel-18 workshop
Electronic Meeting, June 28 - July 2, 2021

RWS-210494

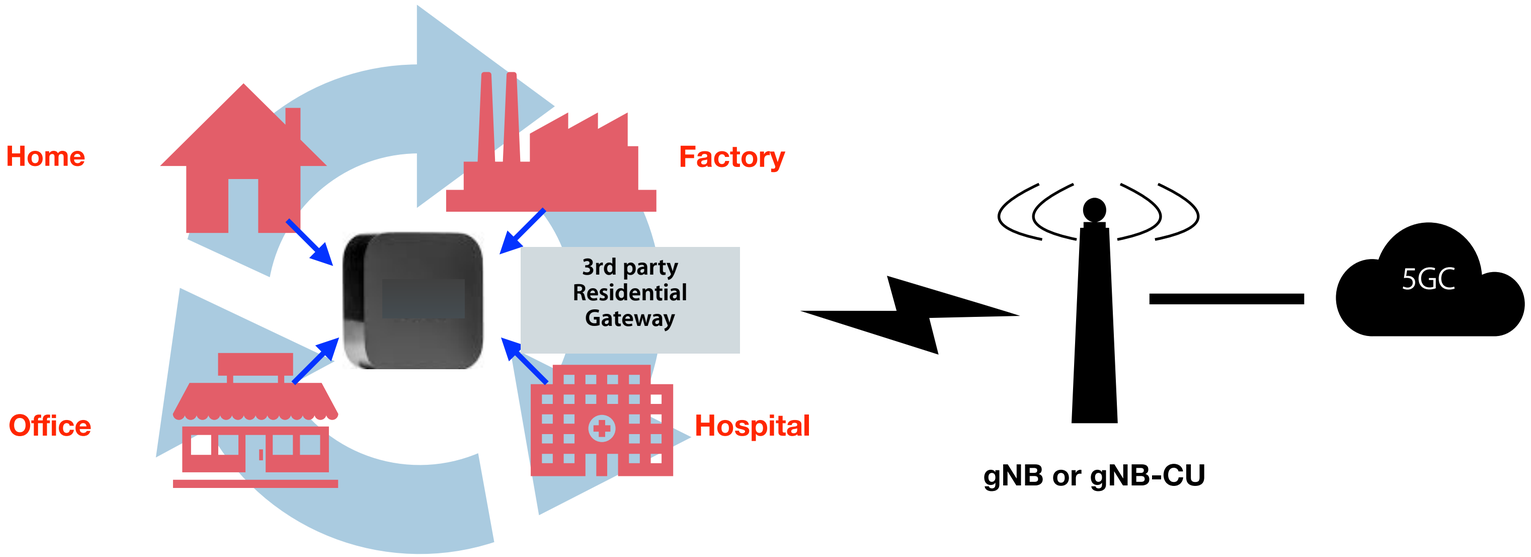
Local Service Hosting Using Residential Gateways

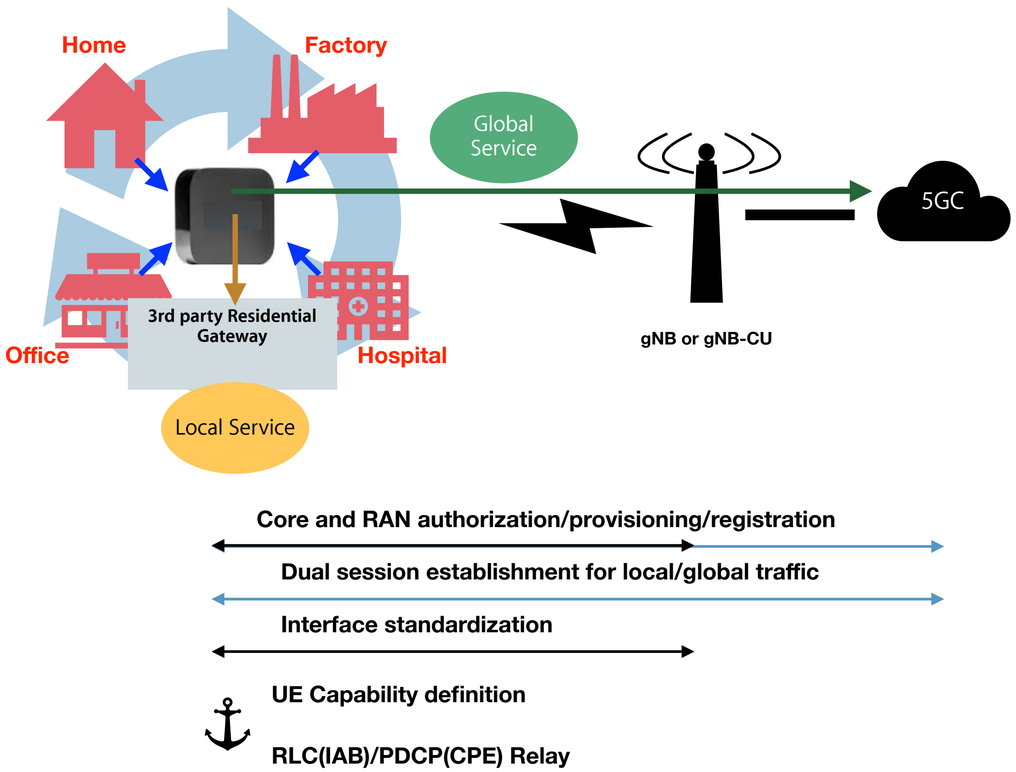
Apple Inc.

Apple Confidential

Residential 5G | Local Service Hosting with Residential Gateways

- **Justifications**
  - Approved in SA1-92e with details in 22.858/22.859
  - Enable third party companies to provide residential gateways to connect directly to Carrier Core
  - Reduce latency impact for UE services esp. those needing QoS by hosting service close to the UE
  - Provide additional processing and storage capabilities



Residential 5G | Local Service Hosting with Residential Gateways

- **Standardization Needs and Proposals**
  - **SA2**
    - Authorization and Remote Provisioning for 3rd party residential gateways
    - 3rd party Residential Gateway Authentication and Registration with AMF
    - Dual UPF Registration and configuration for global and local traffic routing
      - For same PDU Session
  - **RAN3**
    - 3rd party residential Gateway Authentication and Registration with CU
      - in split CU-DU architecture cases
    - Standardization of F1 interfaces
      - to accommodate 3rd party residential gateway
    - PDCP/SDAP Session establishments
  - **RAN2**
    - 3rd party Residential gateway Capability definitions
      - Minimum set of parameters viable for 3rd party residential gateways
    - Impact analysis/benefits analysis of RLC Relays and PDCP Relays