

Enabling LEO Satellite Vertical Handover for Massive 6G IoT Random Access

Luis Tello-Oquendo^{*†}, Faisal Ahmed^{*}, Chia-Hung Lin^{*}, Shih-Chun Lin^{*}, Myungjin Lee[‡]

^{*}Intelligent Wireless Networking (iWN) Laboratory, Dept. of ECE, North Carolina State University,
Raleigh NC, USA

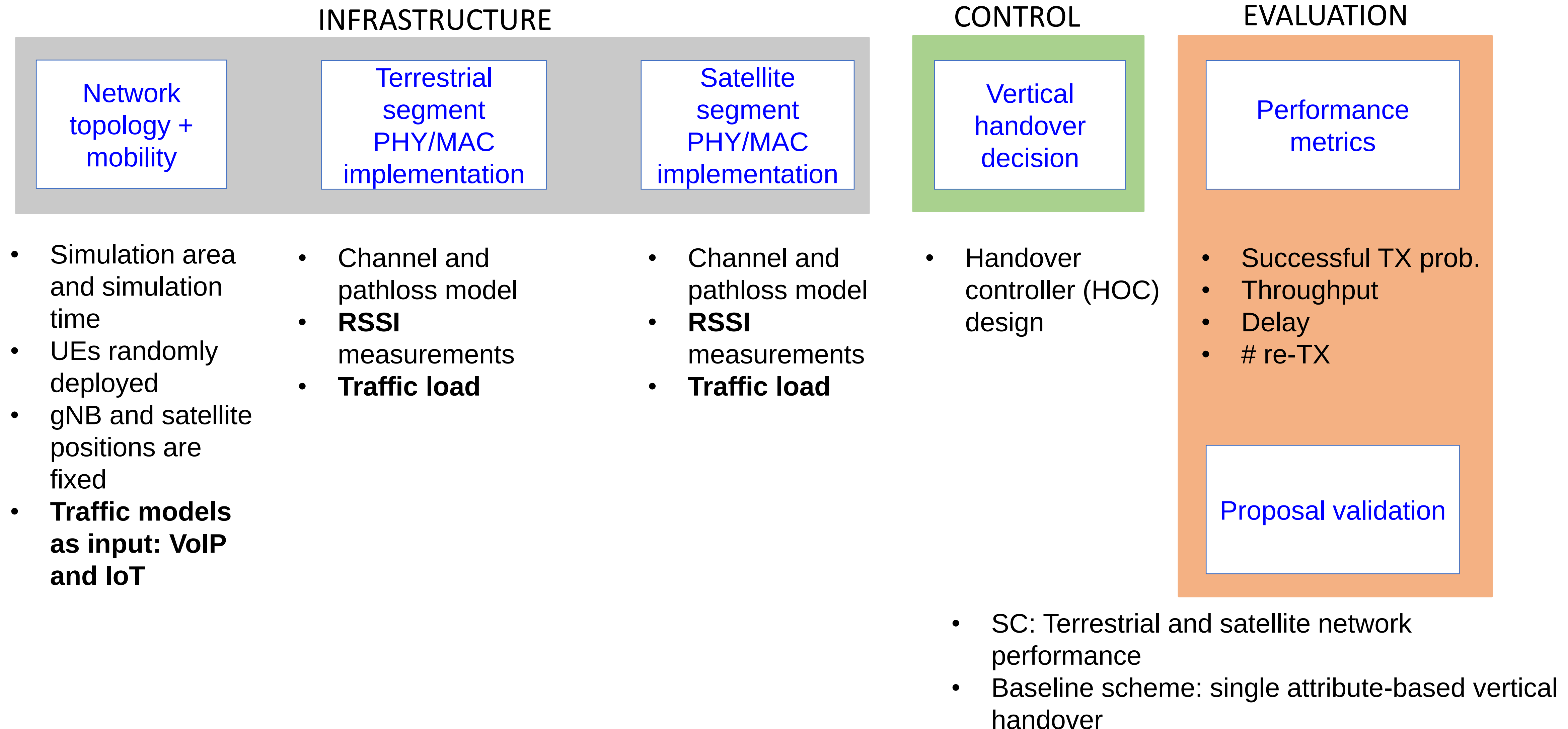
[†]College of Engineering, Universidad Nacional de Chimborazo, Riobamba 060108, Ecuador

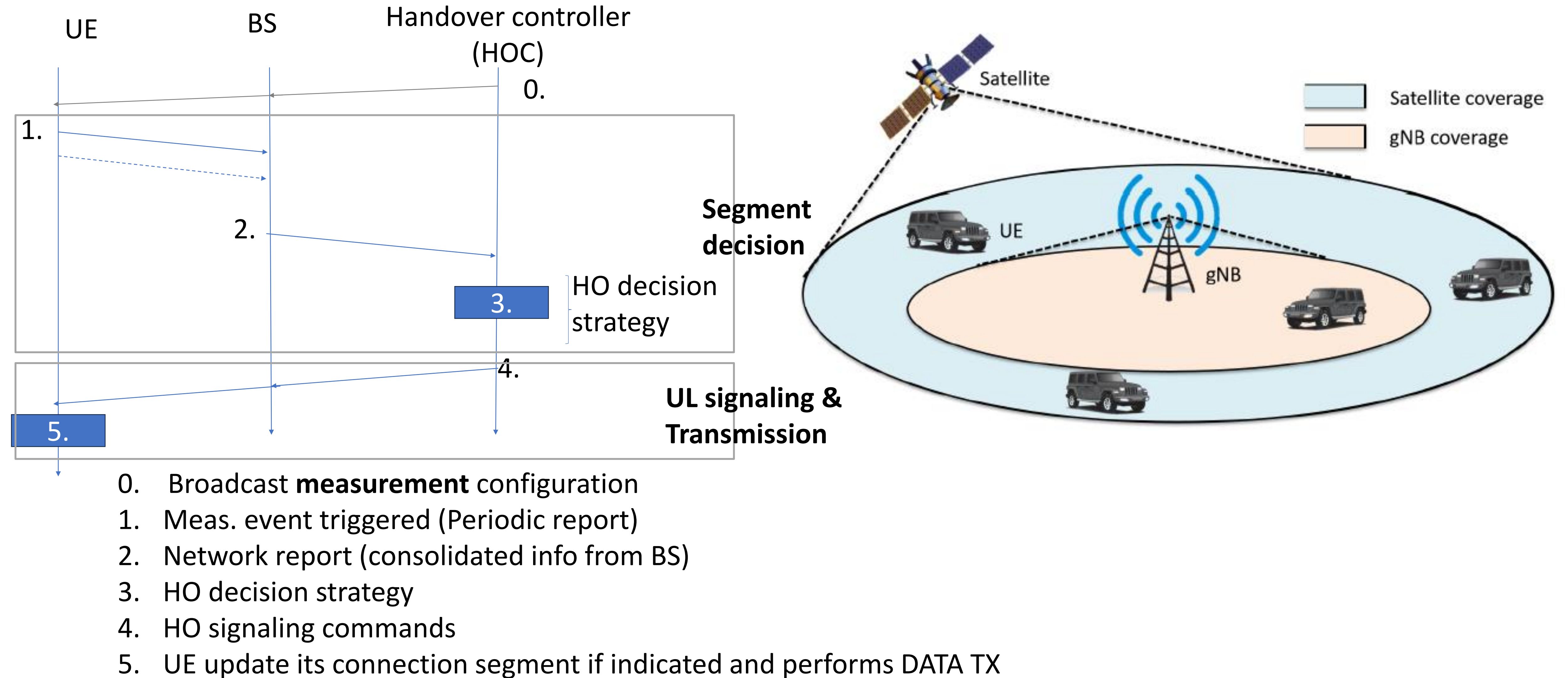
[‡]Cisco Research, San Jose CA, US

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Simulation framework

Single-attribute decision strategy





Terrestrial Segment

- The **pathloss** can be calculated as,

$$L_T = K - 10 \gamma \log_{10}(d/d_0)$$

K = Unitless constant
 γ = Pathloss exponent
 d = Distance from UE to gNB
 d_0 = Reference distance

- UE's uplink data rate can be calculated as,

$$R_n = B_n \log_2(1 + \text{SINR}_n)$$

R_n = Data rate of UE n
 B_n = Bandwidth of UE n

- **RSSI = UE TX power - PL**