



SCF driving Open RAN in a Diverse Ecosystem

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Open RAN



The benefits and challenges of Open RAN are well understood in our industry by now.

Much work has been pioneered by 3GPP, O-RAN ALLIANCE and SCF in the past several years.

Various vendors have also developed components and products.

Several Research Establishments and Operators have implemented Open RAN solutions to different degrees.

Diversified Ecosystem



**MNOs (dedicated
and shared
networks)**

**MVNOs (shared
and opportunistic
networks)**

**Private/Enterprise
Network
Operators**

**Neutral-Host
Network & Service
Providers NHPs**

**Cloud-Assisted
Mobile Networks**

Overview of SCF's Drive



**Specifications for Open RAN
Interfaces (complementing
3GPP & O-RAN ALLIANCE
standards)**

**Comprehensive and Unbiased
Tools for Analysis of Open
RAN networks**

**Reference Designs for Open
RAN components & products**

**Reference Architectures and
Blueprints for
Private/Enterprise 5G-Small
Cell Networks**

**Fostering Neutral Host
Provider ecosystem – Value
Propositions, Sharing Models
and Best Practices**

**Driving Friendly and “Fit-for-
Purpose” Regulations for
Small Cell Networks**

Looking towards 6G

• SC Use Cases, Reqts, Architecture
Options

**Nurturing a vibrant
collaborative environment
with other industry
organizations**

SCF's Drive: Details



Standards for Open RAN Interfaces (complementing 3GPP & O-RAN ALLIANCE standards)

- 5G FAPI & Network FAPI Specs
 - Supports Small Cell and Macro applications (ex. MIMO)
- Management solutions for small cell products & networks
- Roadmap aligned with 3GPP Releases & New Features of O-RAN ALLIANCE Open-FH capabilities

Comprehensive and Unbiased Tools for Analysis of Open RAN networks

- Disaggregated RAN Analysis Tool - DART
 - Web-based Public Tool
 - Members-only Full-Featured Tool
- Flexible & Transparent (all formulas are exposed)
- Applicable to Small Cells, DAS & Neutral-Host/Shared environments



Open RAN components, products & network solutions

- RF Front End Reference Designs
- Disaggregated SC Product Specifications
- Small Cell & DAS Networks for Large Venues
 - Stadiums, Transportation Hubs

Private/Enterprise 5G-Small Cell Networks

- Blueprints for Private Networks
- Requirements and Architectures for Standardizing 5G-SCNs
- mmw-spectrum sharing frameworks

SCF's Drive: Details



Fostering Neutral Host Provider ecosystem

- Value Propositions
- Use Cases
- Architecture Options
- Best Practices
- Extra-mural Collaborations

Driving Friendly and Just-Right Regulations for Small Cell Networks

- Common Framework for SC Regulations
 - Spectrum – Deployment - Technical
- 3-pronged approach:
 - Overview of Global SC Regulations + Focused Regional SC Regulations + Engagement with Regional Regulators
- Close engagement with Regulators
 - UK (Ofcom), EU (EC, CEPT), ME (CST), India, US (FCC)

Common Framework for SC Regulations



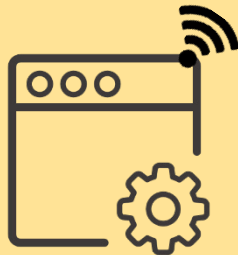
SPECTRUM



Shared spectrum access

- 600-700 MHz
- L-Band
- C-Band
- mmWave band

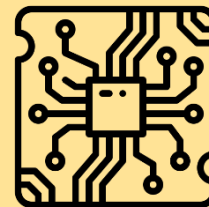
DEPLOYMENT



Administrative aspects

- Aesthetics
- Right of way
- Fees
- Approval Process

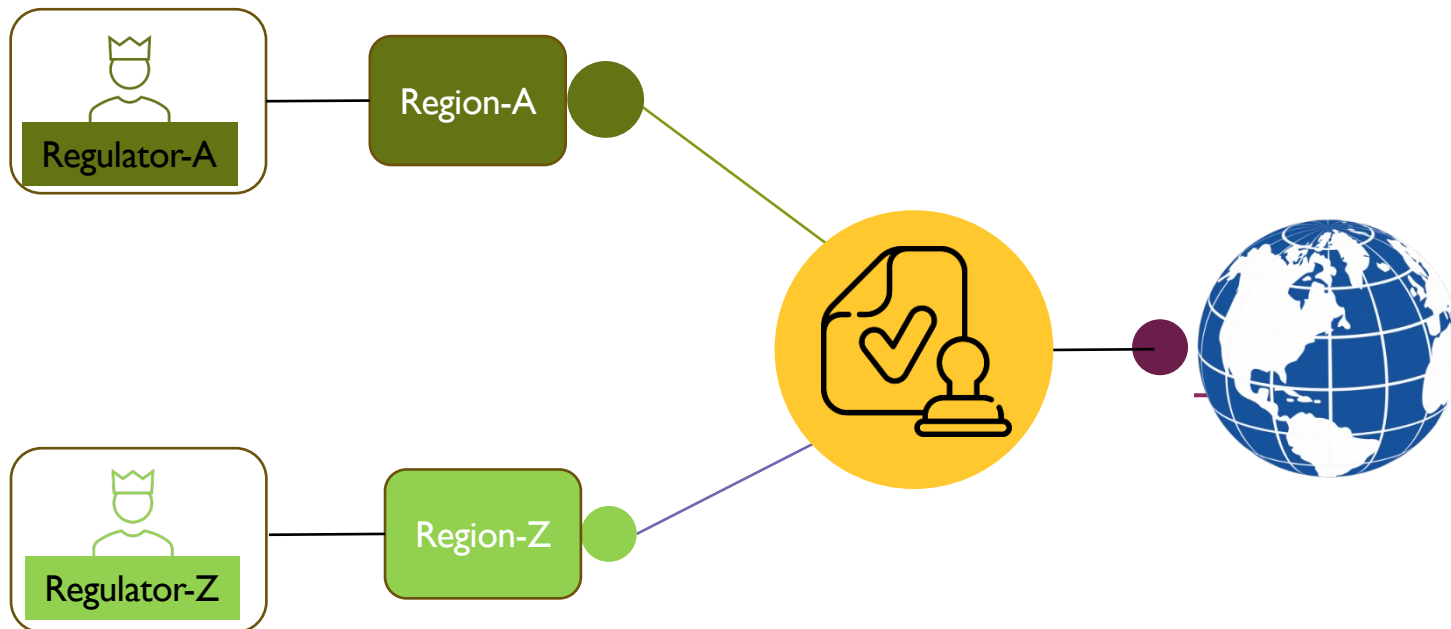
TECHNICAL



Small Cell Product

- Size
- Radiated power
- MIMO
- Safety measures

3-Pronged Approach to SC Regulations



SCF's Drive: Details



Looking towards 6G

- Small Cell focused Use Cases
- Reqts, Architecture Options
- Collaborate towards aligned positions

Nurturing a vibrant collaborative environment

- 3GPP
- O-RAN ALLIANCE
 - Joint Panel during this event
- Open Air Interface
- TowerExchange
- TEMA, India
- TSDSI, India (in progress)



*Please Join Us in this exciting
Open & Expansive Journey!*