# Resolution 101( xxx)  – Standardization of Rating of Digital Connectivity Infrastructure (DCI) In-buildings for global ICT development

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# Digital Connectivity Infrastructure (DCI) in Buildings

- **Why focus on in-building for connectivity?**
- **Why DCI rating in buildings?**
- **Why global rating for DCI?**

# Introduction

# Digital Connectivity Infrastructure (DCI) in Buildings

- DCI in Buildings refers to network infrastructure that enables seamless digital connectivity within buildings.

- Enables High-speed internet access, smart building solutions, and improved communication and collaboration.

A robust DCI contributes significantly to economic development by increasing productivity & by providing amenities to enhance quality of life.

# Significance of Rating of DCI In Buildings

- Rating buildings for digital connectivity infrastructure has become increasingly important in today's digital age because <u>80% of the traffic</u> is generated inside buildings

- Underline need of benchmarking quality of service available in a particular building or area.

- A well-connected building enhance Quality of Experience (QoE) of users and productivity by facilitating efficient communication, reducing downtime, and enhancing collaboration.

- Data/Broadband Internet Connectivity is Global nature

- Markets are integrating, with globalization of market

- People are going around the world for business, setting up their units

- Uniformity in standard is needed for net connectivity

**80% - Nokia and CISCO**
https://www.nokia.com/networks/mobile-networks/small-cells/#:~:text=As%20much%20as%2080%25%20of,with%20previous%20radio%20network%20generations

# Significance of Rating of DCI In Buildings

- ## Focus on providing comprehensive indoor coverage, considering

  - Factors like floor-to-floor connectivity,

  - Vertical coverage, and

  - The capacity to handle a high number of simultaneous connections within confined spaces, such as conference rooms or auditoriums.

# Intelligent Building Management Solutions (iBMS)

- An Intelligent/ Smart Building Management System automates and optimizes the performance of a building's mechanical and electrical systems.

- Provide end users or occupants multiple services from entertainment, security surveillance, iBMS, IoT, iTES, and other non-telco services.

iTES- Intelligent Energy Systems

Intelligent Building Management System, or BMS, gives full control of the building.

# Resolution- Salient points

- Telecommunications Industry Association (TIA) emphasise the need for rating of connectivity and cybersecurity in buildings.

- BREEAM focuses on digital infrastructure and connectivity in buildings in addition to other parameters.

- LEED, assessment criteria developed by the U.S. Green Building Council also includes telecommunication technology and connectivity.

- Telecom Regulatory Authority of India (TRAI) has recently released a Consultation Paper on 'Regulation on Rating Framework for Digital Connectivity in Buildings or Areas '

  - with objective of bringing framework for buildings or areas, for digital connectivity to improve QoS inside buildings for seamless consumer expérience.

- **the assessment and rating of Digital Connectivity Infrastructure (DCI) in buildings is crucial for communication and efficiency**
    - because of lack of consistency in the current approach being adopted by a few countries
    - decision-making and confidence among consumers in making choice and préférences for résidences and work places
    - for benchmarking for quality of service.

# Rationale for Standardization

- **Establishing standardized criteria for rating buildings:**
  - the rise of telecommuting and remote work underscores the significance of robust digital connectivity in buildings
  - Ensures consistency and comparability of QoS and QoE
  - Benchmarks QoE to users
  - Predictability of QoS in the building

- **Standardization encourages investments in digital infrastructure by providing a clear framework for assessment.**

- **Enhancing the quality of digital connectivity improves the overall user experience for residents, businesses, and visitors.**

# Benefits of Standardization

- **Standardizing building ratings for digital connectivity offers consumers a universally understood, transparent and clear metric for broadband infrastructure quality, enabling -**
  - informed decisions and confidence in making choice and preference for residences and workplaces, and
  - promoting consistent internet service reliability, resulting in a seamless internet, online experience.
- **Facilitating the creation of smarter and more connected building environments leads to Smart Building and Smart City Development**
- **Global standards promote collaboration and knowledge sharing on rating of DCI in buildings, and innovative solutions, among professionals, researchers, and policymakers, addressing common challenges and accelerating sustainable building practices adoption.**
- **Supporting economic growth through increased digital infrastructure**

# Way Forward

- Propose the formation of a Study/working group within the ITU to develop the framework and global standard on rating of DCI in buildings.

- Emphasize the need for global cooperation to ensure the standardization is applicable across borders.

- To carry out a pilot projects in urban areas/cities in collaboration with Member States and cities

# Thank You