

**CONSUMER PROTECTION ASSOCIATION  
HIMMATNAGAR  
DIST. : SABARKANTHA  
GUJARAT**



**Comments**

**On  
Consultation Paper  
on  
'Regulation on  
Rating Framework for Digital Connectivity in Buildings  
or Areas'**

**Introduction :**

Regulation on the rating framework for digital connectivity in buildings or areas offers several significant benefits, contributing to the development of modern, connected communities. Here are some key advantages:

**1. Quality Assurance:**

**Standardization:** Regulations establish standardized criteria, ensuring consistent evaluation of digital connectivity quality across different buildings and areas.

**Reliability:** Users can rely on certified ratings to make informed decisions about the digital connectivity quality in a building, ensuring a predictable and reliable experience.

## **2. Improved Infrastructure:**

**Investment:** Regulations can encourage property owners to invest in high-quality digital infrastructure to meet certification standards, fostering technological development.

**Innovation:** Competition to meet and exceed standards can drive innovation in digital connectivity technologies and services.

## **3. Consumer Empowerment:**

**Informed Decisions:** Ratings empower consumers to make informed choices when selecting homes, offices, or public spaces, leading to improved user experiences.

**Market Transparency:** Publicly available ratings enhance market transparency, allowing consumers to compare digital connectivity options easily.

## **4. Economic Growth:**

**Attracting Businesses:** Areas or buildings with high digital connectivity ratings can attract businesses, contributing to economic growth and job creation.

**Tech Ecosystem:** A robust digital infrastructure can foster a thriving technology ecosystem, supporting startups and innovation.

## **5. Digital Inclusion:**

**Equality:** Regulations can address digital divides by ensuring that even underserved areas have access to quality digital connectivity, promoting social inclusion and bridging the digital gap.

**Access for All:** Public spaces and essential services are more likely to provide accessible digital services, catering to diverse needs and abilities.

## **6. Resilience and Disaster Preparedness:**

**Backup Systems:** Regulations can enforce the installation of backup systems, ensuring digital connectivity even during power outages or emergencies.

**Redundancy:** Redundant connectivity options can be mandated, ensuring continuous connectivity in the event of network failures.

## **7. Data Security and Privacy:**

**Compliance:** Regulations can enforce data security and privacy standards, protecting user data and ensuring compliance with legal requirements.

**Trust:** Users can trust that their digital activities and data are secure within certified buildings and areas.

## **8. Environmental Sustainability:**

**Efficiency:** Regulations can encourage the use of energy-efficient digital infrastructure, reducing the environmental impact of digital connectivity.

**Green Technologies:** Incentives for eco-friendly technologies promote sustainability in digital services.

## **9. Government Services and Smart Cities:**

**Integration:** High-rated buildings can seamlessly integrate with smart city initiatives, enabling efficient delivery of government services and utilities.

**Efficiency:** Efficient digital connectivity in government buildings enhances public service delivery and citizen engagement.

## **10. Global Competitiveness:**

**International Standards:** Regulations aligning with international standards enhance a country's global competitiveness, attracting businesses and skilled professionals.

By ensuring a regulated and standardized rating framework for digital connectivity, governments and regulatory bodies can create an environment where advanced technology, innovation, and equal access intersect, leading to smarter, more connected, and inclusive communities.

### **Issues for Consultation**

**Q.1- Do you agree with the broad classification of Buildings or Areas (also referred as Buildings) from Digital Connectivity perspectives provided in Section-3 of this chapter? If not, what could be other yardsticks to classify Buildings for provisions of near uniform Digital Connectivity Infrastructures in similar types of Buildings. Please justify your answer with suitable examples.**

**Comments :**

**Proposed provision in Consultation Paper :**

<b>S. No.</b>	<b>Category of Building</b>	<b>Example</b>
1.	Residential	Apartments, gated colony, etc.
2.	Public Areas	Airport, Bus Station, Railway Station, Hospitals, Educational Institutions, etc.
3.	Govt. Buildings	All buildings of Central Govt., State Govt., PSUs, Local Bodies, etc.
4.	Commercial Establishment	Commercial office complex, shopping malls, industrial estates, SEZs, multi-modal logistic park, etc.
5.	Transport corridors	Expressways, Highways, Railways routes, etc.

### **Suggested Modification and Justification :**

We are agree with the Broad classification of Building or Areas from Digital Connective Perspective.

We can add :

**Heritage Sites:** Evaluate connectivity in heritage sites and culturally significant areas. Consider the preservation of historical sites while implementing digital infrastructure.

**Q.2- How the Infrastructure Providers (IPs) and Digital Communication Infrastructure Providers (DCIPs) can play an instrumental role in the effective development and deployment of DCI in Buildings or**

**Area? Please provide your answers supporting the best practices followed internationally or national level in this regard.**

**Comments :**

Infrastructure Providers (IPs) and Digital Communication Infrastructure Providers (DCIPs) play pivotal roles in the effective development and deployment of Digital Communication Infrastructure (DCI) in buildings or areas. Here's how they can contribute significantly:

**1. Developing Robust Infrastructure:**

**IPs:** Infrastructure Providers can invest in and create robust physical infrastructure like fiber-optic cables, wireless networks, and data centers. They can establish the foundational network that DCIPs require to deploy their services effectively.

**DCIPs:** Digital Communication Infrastructure Providers can build on the existing physical infrastructure provided by IPs and focus on developing advanced digital communication technologies and services. This can include IoT devices, smart sensors, and high-speed broadband services.

**2. Collaborative Partnerships:**

**IPs and DCIPs:** Collaborative partnerships between IPs and DCIPs can lead to innovative solutions. By working together, they can create synergies that enhance the overall communication infrastructure. For instance, IPs

can provide the physical backbone, and DCIPs can provide the services and applications that run on top of it.

### **3. Data Security and Privacy:**

**DCIPs:** Digital Communication Infrastructure Providers must ensure that data transmitted over their networks are secure. Implementing robust encryption, regular security audits, and complying with data privacy regulations are crucial. DCIPs can also provide services like Virtual Private Networks (VPNs) and secure cloud storage to enhance data security.

**IPs:** Infrastructure Providers can assist by offering secure physical channels for data transmission. They can implement measures to prevent physical tampering or unauthorized access to network infrastructure.

### **4. Scalability and Flexibility:**

**IPs:** Building scalable and flexible physical infrastructure is essential. As the demand for digital communication services grows, IPs need to design networks that can easily scale to accommodate increased data traffic and new technologies.

**DCIPs:** Digital Communication Infrastructure Providers can develop scalable solutions that can adapt to changing needs. Whether it's upgrading hardware or optimizing software, flexibility is key to meeting the dynamic requirements of users.



## **5. Community Engagement and Education:**

**DCIPs:** Engaging with local communities and educating them about the benefits of digital communication services is essential. DCIPs can conduct workshops, seminars, and awareness campaigns to promote the use of digital technologies.

**IPs:** Infrastructure Providers can support these initiatives by offering resources and expertise. They can also collaborate with local governments and organizations to facilitate community engagement programs.

## **6. Regulatory Compliance:**

**IPs and DCIPs:** Both parties must comply with local and international regulations related to communication services. This includes spectrum licensing, data protection laws, and other regulations governing the deployment and operation of communication infrastructure.

## **7. Innovation and Research:**

**DCIPs:** Digital Communication Infrastructure Providers can invest in research and development to stay ahead in technology. Innovation in areas like 5G, IoT, and smart city solutions can significantly enhance the services they offer.

**IPs:** Infrastructure Providers can support innovation by providing access to research facilities, funding research projects, and collaborating with universities and technology institutions.

IPs and DCIPs can drive innovation in DCI technologies by investing in research and development. They can collaborate with tech companies and startups to create cutting-edge solutions for efficient communication infrastructures.

## **8. Standardization:**

Establishing international standards for DCI is vital. IPs and DCIPs can actively participate in standardization bodies, ensuring that protocols, hardware, and software are globally compatible. This promotes interoperability and seamless communication systems worldwide.

## **9. Infrastructure Investment:**

IPs can invest in the physical infrastructure required for DCI deployment, such as fiber-optic networks, data centers, and satellite systems. DCIPs can invest in the development of software-defined networks (SDN) and network function virtualization (NFV) technologies.

## **10. Public-Private Partnerships:**

Collaborations between IPs, DCIPs, and governments foster the development of smart cities and digital communities. Public-private partnerships can lead to joint investments in DCI, ensuring widespread coverage and accessibility.

### **11. Environmental Sustainability:**

IPs and DCIPs can invest in green technologies, such as energy-efficient data centers and sustainable networking solutions. Minimizing the environmental impact of DCI infrastructure is essential for long-term sustainability.

### **12. Global Connectivity:**

IPs and DCIPs can facilitate global connectivity by investing in undersea cables, satellite communication systems, and other cross-border infrastructure. This enhances international communication, trade, and cooperation.

### **13. Disaster Recovery and Resilience:**

Building resilient DCI systems that can withstand natural disasters and cyber-attacks is crucial. IPs and DCIPs can invest in redundant systems, backup solutions, and disaster recovery plans to ensure continuous communication services even in challenging situations.

### **14. Continuous Improvement:**

Regularly upgrading and improving DCI infrastructure is essential to keep up with evolving technologies and user demands. IPs and DCIPs should invest in research to identify areas of improvement and adapt their systems accordingly.

By actively engaging in these areas, IPs and DCIPs can contribute significantly to the effective development and deployment of Digital Communication Infrastructure at an international level, fostering global connectivity and digital inclusion.

In summary, the collaboration between Infrastructure Providers and Digital Communication Infrastructure Providers is essential for the successful development and deployment of Digital Communication Infrastructure. By combining their expertise, resources, and innovation, they can create a robust, secure, and scalable communication ecosystem that benefits communities, businesses, and governments alike.

**Q.3 What should be the key eligibility conditions including experience requirements for the Digital Connectivity Rating Agency (DCRA) proposed under the rating framework? Should there be any performance security for an agency to be DCRA and what should be criteria to evaluate their performances? Please also indicate broad scope of work covering additional aspects of Rating of Buildings for Digital Connectivity, if any, including area of**

**operations [Nation-wide, State(s)/Union Territories(UTs) or Combination of States/UTs] of a DCRA.**

**Comments :**

**Eligibility Criteria :**

**1-c – Net worth :** The applicant has a minimum net worth of Rs. Two Crore :

The net worth of a rating agency should ideally be substantial enough to ensure its financial stability, credibility, and ability to conduct thorough and unbiased assessments. A higher net worth can also inspire confidence among investors, businesses, and governments relying on the agency's ratings.

Factors that might influence the necessary net worth of a digital connectivity rating agency include:

**1. Scope of Operations:** Agencies operating on a global scale or covering extensive regions might need a higher net worth to manage the complexities of diverse markets.

**2. Regulatory Requirements:** Regulatory bodies in different countries may have specific capital adequacy requirements for rating agencies to ensure their stability and independence.

**3. Expertise and Research:** Maintaining a team of skilled professionals and conducting in-depth research to provide accurate ratings requires

financial resources. A higher net worth can support continuous research and development efforts.

**4. Liabilities and Risks:** Consideration of potential liabilities and risks associated with rating decisions and legal challenges is crucial. A higher net worth can act as a buffer against unforeseen circumstances.

**5. Technology and Infrastructure:** Investment in advanced technology infrastructure for data analysis, cybersecurity, and maintaining secure rating databases requires substantial funding.

**6. Market Perception:** The net worth of a rating agency can influence how it is perceived by the market, affecting its ability to attract clients and maintain a positive reputation.

It is essential for digital connectivity rating agencies to comply with the financial regulations and guidelines set forth by relevant authorities in the jurisdictions where they operate. These regulations often exist to maintain the integrity and stability of financial institutions, including rating agencies. As such, the specific minimum net worth requirement can vary and should be determined based on the prevailing regulatory framework in a particular jurisdiction.

**Experience :**

The experience required for eligibility as a Digital Connectivity Rating Agency can vary depending on the jurisdiction, the complexity of the market, and the specific focus of the agency. However, there are several key factors that are generally considered important for eligibility:

### **1. Industry Knowledge and Expertise:**

**a. Telecommunications and Technology:** Personnel within the agency should have a deep understanding of telecommunications technologies, digital infrastructure, and emerging technologies like 5G, IoT, and cloud computing.

**b. Regulatory Environment:** Familiarity with international, regional, and local regulations pertaining to digital communication and connectivity is crucial.

### **2. Analytical Capabilities:**

**a. Data Analysis:** Strong analytical skills are essential for evaluating data related to digital connectivity, internet speeds, network reliability, and other technical metrics.

**b. Trend Analysis:** Experience in identifying trends in the technology sector and understanding their implications for digital connectivity.

### **3. Research and Evaluation:**

**a. Market Research:** Experience in conducting market research to assess the demand for digital connectivity services and the competitive landscape.

**b. Evaluation Criteria:** Ability to develop and refine evaluation criteria for different aspects of digital connectivity, such as network coverage, speed, reliability, and cybersecurity measures.

#### **4. Integrity and Independence:**

**a. Independence:** Agencies must demonstrate independence from the entities they are rating to avoid conflicts of interest.

**b. Ethical Standards:** Adherence to ethical standards and codes of conduct to ensure unbiased and fair evaluations.

#### **5. Technical Proficiency:**

**a. IT Infrastructure:** Proficiency in information technology and the ability to assess the technical aspects of digital infrastructure.

**b. Cybersecurity:** Understanding of cybersecurity measures and their importance in digital connectivity.

#### **6. Communication Skills:**

**a. Reporting:** Ability to communicate complex technical information in a clear and understandable manner for clients and the general public.



**b. Stakeholder Engagement:** Experience in engaging with stakeholders including governments, businesses, and consumers to understand their digital connectivity needs and concerns.

## **7. Legal and Compliance Knowledge:**

**a. Legal Compliance:** Awareness of legal obligations and compliance requirements related to data protection and privacy laws.

**b. Intellectual Property:** Understanding of intellectual property rights related to digital technologies.

## **8. Operational Experience:**

**a. Project Management:** Experience in managing large-scale projects related to digital infrastructure development and deployment.

**b. Crisis Management:** Ability to handle crisis situations, such as network failures or cybersecurity breaches, effectively.

Digital Connectivity Rating Agencies should also have a track record of successful evaluations and ratings, demonstrating their expertise and reliability. Additionally, they should adapt and update their criteria and methodologies in response to evolving technologies and market demands. Regulatory bodies and stakeholders often assess these qualifications before granting eligibility to rating agencies to ensure the credibility and accuracy of their assessments.

## **Performance Security and Criteria for Evaluation :**

Becoming a Digital Connectivity Rating Agency (DCRA) requires demonstrating financial stability and reliability to ensure the credibility of the agency's ratings.

### **Performance Security:**

**Financial Stability:** The agency should demonstrate a stable financial position, including a minimum net worth requirement. This ensures that the agency has the financial capacity to carry out its rating activities effectively.

**Insurance:** Having liability insurance is essential to protect against legal claims arising from rating decisions. Adequate insurance coverage provides a safety net for the agency in case of legal challenges.

**Escrow Accounts:** Establishing escrow accounts or financial guarantees can serve as a form of security. These accounts can be used to compensate clients or investors in case of negligence or malpractice by the agency.

### **Evaluation Criteria for Performance:**

**Accuracy and Reliability:** The agency's ratings should be accurate and reliable, reflecting the true quality and risk associated with the digital connectivity services being rated.

**Independence and Objectivity:** The agency must maintain independence from the entities it rates to avoid conflicts of interest. Ratings should be free from undue influence from the entities being rated or any other external parties.

**Transparency:** The methodology used for evaluations and ratings should be transparent and well-documented. Transparency enhances the credibility of the agency's ratings and allows stakeholders to understand the basis of the ratings.

**Timeliness:** Ratings should be conducted and updated in a timely manner to provide relevant and up-to-date information to investors, businesses, and consumers.

**Compliance:** The agency should comply with regulatory requirements and industry standards related to rating agencies. This includes adherence to legal and ethical standards, as well as compliance with international data protection laws.

**Innovation:** The agency should demonstrate innovation in its rating methodologies and adaptability to evolving technologies and market trends. Innovation ensures that the agency's ratings remain relevant and valuable to stakeholders.

**Feedback Mechanism:** Establishing a feedback mechanism for users of the ratings can be valuable. This allows businesses and investors to

provide feedback on the usefulness and accuracy of the ratings, enabling the agency to make necessary improvements.

**Expertise:** The agency should have a team of experts with in-depth knowledge of digital connectivity technologies, regulations, and market dynamics. Expertise is crucial for conducting thorough evaluations.

**Market Acceptance:** The acceptance and trust of the agency's ratings within the market are important indicators of its performance. Positive feedback from users and a strong reputation in the industry are valuable assets.

**Data Security:** Ensuring the security of data used in evaluations is paramount. The agency should have robust cybersecurity measures in place to protect sensitive information from unauthorized access and breaches.

Regular evaluation and monitoring of the agency's performance against these criteria can be conducted by TRAI and stakeholders to ensure that the agency continues to meet the necessary standards for credibility and reliability.

### **Broad Scope of Work :**

Rating buildings for digital connectivity involves evaluating various aspects to ensure that the infrastructure and services meet certain

standards, offering reliable and efficient digital connectivity to occupants and users. Here's a broad scope of work covering additional aspects of rating buildings for digital connectivity:

### **1. Network Infrastructure:**

**Broadband Availability:** Assess the availability of high-speed internet connections such as fiber-optic, cable, or DSL.

**Redundancy:** Evaluate the redundancy and backup systems to ensure continuous connectivity in case of network failures.

**Network Security:** Assess security measures like firewalls, intrusion detection systems, and encryption protocols.

### **2. Wi-Fi Coverage and Quality:**

**Coverage:** Evaluate the coverage of Wi-Fi networks throughout the building, including common areas and individual units.

**Quality:** Assess the quality of the Wi-Fi signal, considering factors like speed, stability, and interference.

### **3. Mobile Network Connectivity:**

**Signal Strength:** Evaluate the strength and reliability of mobile network signals inside the building.

**Support for 5G:** Assess the support for 5G networks and their availability within the building.

#### 4. Smart Building Technologies:

**IoT Integration:** Evaluate the integration of IoT devices and sensors for smart building management.

**Automation:** Assess the level of automation for functions like lighting, HVAC, and security systems.

#### 5. Data Security and Privacy:

**Data Protection:** Ensure that digital connectivity systems have robust data protection measures to safeguard user privacy.

**Compliance:** Evaluate the building's compliance with data protection laws and regulations.

#### 6. Scalability and Future-Readiness:

**Scalability:** Assess the scalability of digital connectivity infrastructure to accommodate future technological advancements and increased demand.

**Upgrade Paths:** Evaluate the ease with which the existing infrastructure can be upgraded to support future technologies.

#### 7. User Experience:

**Usability:** Assess the ease of use of digital connectivity services and interfaces.

**Support Services:** Evaluate the availability and responsiveness of support services for digital connectivity issues.

## **8. Energy Efficiency:**

**Energy Consumption:** Evaluate the energy efficiency of digital connectivity devices and infrastructure.

**Green Technologies:** Assess the use of eco-friendly technologies in digital connectivity systems.

## **9. Disaster Recovery and Redundancy:**

**Backup Systems:** Evaluate backup power systems to ensure digital connectivity during power outages.

**Disaster Recovery Plans:** Assess the presence of disaster recovery plans for digital connectivity systems.

## **10. Accessibility and Inclusivity:**

**Accessibility:** Ensure that digital connectivity services are accessible to **people with disabilities**.

**Inclusivity:** Evaluate the inclusivity of digital connectivity services for all demographic groups.

## **11. Affordability and Affordability of Services:**

**Cost-Effectiveness:** Assess the cost-effectiveness of digital connectivity services for both building owners and occupants.

**Affordability:** Evaluate the affordability of digital connectivity services for different income groups.

## **12. Benchmarking and Reporting:**

**Benchmarking:** Compare the digital connectivity features of the building with industry standards and best practices.

**Reporting:** Provide detailed reports to building owners and occupants, outlining the ratings and areas for improvement.

By considering these aspects, a comprehensive rating system can be developed to evaluate buildings for digital connectivity, ensuring that occupants have access to reliable, secure, and efficient digital services. This comprehensive evaluation helps in creating smart, connected buildings that meet the needs of the modern digital age.

### **Operational Area :**

The operational area for a Digital Connectivity Rating Agency (DCRA) can vary based on the agency's resources, objectives, and the regulatory framework . There are advantages and considerations for different operational scopes:



## 1. Nationwide Operations:

### **Advantages:**

**Comprehensive Coverage:** Nationwide operations allow the agency to assess digital connectivity across the entire country, providing a comprehensive overview.

**Standardization:** A national scope enables the development of standardized criteria that can be applied uniformly across different regions.

**Influence:** National-level ratings can have a significant influence on policies and investment decisions at the governmental and corporate levels.

### **Considerations:**

**Resource Intensity:** Evaluating digital connectivity nationwide requires substantial resources, including manpower and infrastructure.

**Diversity:** Countries often have diverse landscapes, urban-rural divides, and varying regulatory environments, which require careful consideration in the rating process.

## 2. State/Union Territories (UTs) Operations:

### **Advantages:**

**Targeted Assessments:** Focusing on individual states or UTs allows for targeted assessments, addressing specific regional challenges and opportunities.

**Localized Solutions:** State-level operations enable the agency to propose localized solutions that align with the unique needs of each region.

**Regulatory Alignment:** State-level agencies can align their operations more closely with state-specific regulations and policies.

**Considerations:**

**Limited Scope:** Limited to a specific state or UT, the agency's influence might not extend as broadly as a nationwide agency.

**Standardization Challenges:** Varying standards and regulations between states may pose challenges in developing uniform rating criteria.

**3. Combination of Nationwide and State/UT Operations:**

**Advantages:**

**Holistic View:** A combination approach allows for a holistic view, combining the benefits of nationwide coverage with targeted, region-specific assessments.

**Adaptability:** The agency can adapt its methodologies and criteria to suit different regions while maintaining a standardized approach for national-level assessments.

**Strategic Impact:** The agency can strategically focus on states or regions where digital connectivity improvements are most needed while still addressing nationwide concerns.

**Considerations:**

**Operational Complexity:** Managing both nationwide and regional assessments can be operationally complex and require careful coordination.

**Resource Allocation:** Resource allocation needs to be optimized to balance the demands of nationwide and regional evaluations.

Ultimately, the choice of the operational area depends on the agency's capabilities, objectives, and the specific digital connectivity challenges faced by the country or region. A balanced approach that combines national and regional assessments can provide a nuanced understanding of digital connectivity, enabling targeted interventions and policy recommendations while ensuring a comprehensive overview of the entire country.

**Q.4- With reference to the rating criteria proposed in table at Section 6.2, kindly provide list of possible sub-criteria and corresponding sub-weightage against each criterion with justification? Please also indicate any other aspect which need to be included or modified in the proposed weightage criteria. Please provide your answer with suitable justifications.**

**Comments :**

We are agree with the proposed criteria and Sub-Criteria and Weightage narrated in the table at Section 6.2.

<b>Criteria No.</b>	<b>Main Criteria</b>	<b>Weightage</b>	<b>Sub-Criteria Name: sub-weightage</b>
1	Compliance to Model Building Bye Laws (MBBL) for digital connectivity	20	
2	Provision in civil infrastructure, over and above MBBL requirements, for ensuring robust digital connectivity	10	Protection measures for digital communication infrastructures against intrusions, floods and also measures for the safety of the users
3	Provision in power infrastructure, over and above MBBL requirements, for ensuring reliable digital connectivity	10	(i) Alternate power source (ii) UPS power availability (iii) Power backup availability (iv) Power backup (in Hrs.)

4	Digital Connectivity Infrastructure Resilience	10	(i) Alternate entry paths (ii) Non-flooding measures for telecom equipment room (iii) Alternate power path
5	Future Readiness of Digital Connectivity Infrastructure	10	Whether Digital Connectivity Infrastructure can accommodate future wireless and wireline technologies
6	Provision of Wired Connectivity infrastructure	10	(i) Fibre connectivity (ii) Ethernet connectivity
7	Provision of Wireless Connectivity infrastructure	10	(i) Mobile network (ii) Wi-Fi network
8	Availability of Service Providers	10	(i) No. of ISPs having integration with Digital Connectivity Infrastructure  (ii) No. of TSPs having integration with digital connectivity infrastructure
9	User Experience	10	(i) Subjective assessment i.e., user feedback (ii) Objective assessment i.e., network coverage, average latency and average data rates for wireline and wireless network

## **Sub-Criteria :**

### **Compliance to Model Building Bye Laws ( MBBL ) for Digital Connectivity :**

Compliance to model building bye-laws for Digital Connectivity involves ensuring that buildings are designed and constructed to support modern digital infrastructure and technology. Here are sub-criteria that can be considered for evaluating compliance to model building bye-laws related to digital connectivity:

#### **1. Infrastructure Design and Readiness:**

**Cabling Infrastructure:** Adequate provisions for structured cabling systems to support high-speed internet and networking capabilities.

**Conduit Space:** Sufficient conduit space for future cabling and wiring upgrades without significant structural modifications.

**Power Outlets:** Provision of power outlets for networking equipment, ensuring easy access to power sources.

**Server Rooms:** Designated spaces for server rooms equipped with cooling and power backup systems.

#### **2. Wireless Connectivity:**

**Wi-Fi Coverage:** Design considerations to ensure comprehensive Wi-Fi coverage in common areas and individual units.

**Interference Management:** Measures to mitigate interference from neighboring networks, electronic devices, and other sources.

**Capacity Planning:** Designing for high-density Wi-Fi usage, considering the number of users and devices.

### **3. Building Automation and IoT Integration:**

**IoT Compatibility:** Infrastructure designed to support IoT devices for smart building management and automation.

**Sensor Networks:** Provision for sensors and networks supporting environmental monitoring, occupancy sensing, and other IoT applications.

### **4. Data Security and Privacy:**

**Cybersecurity Measures:** Implementation of cybersecurity measures, including firewalls, intrusion detection systems, and encryption protocols.

**Privacy Safeguards:** Provisions ensuring the privacy of data transmitted within the building's digital infrastructure.

### **5. Disaster Recovery and Redundancy:**

**Backup Systems:** Implementation of backup power systems to ensure continuous operation during power outages.

**Redundant Connectivity:** Provision for redundant internet connections to prevent connectivity failures.

## **6. Accessibility and Inclusivity:**

**Accessibility:** Ensuring that digital connectivity services are accessible to people with disabilities, adhering to accessibility standards.

**Inclusivity:** Designing digital interfaces and services that are user-friendly for diverse demographic groups.

## **7. Compliance with Regulations:**

**Legal Compliance:** Adherence to national and local regulations regarding digital infrastructure, data protection, and telecommunications standards.

**Bye-laws Compliance:** Strict adherence to model building bye-laws and codes specific to digital infrastructure requirements.

## **8. Documentation and Reporting:**

**Comprehensive Documentation:** Detailed documentation outlining the digital infrastructure design and specifications.

**Compliance Reports:** Regular compliance reports to TRAI, demonstrating adherence to digital connectivity standards.

## **9. Future-Readiness:**



**Scalability:** Infrastructure designed to be easily scalable to accommodate future technological advancements and increased demand.

**Upgrade Compatibility:** Provision for easy upgrades and modifications to support future digital technologies.

## **10. Training and User Education:**

**Occupant Training:** Training programs for building occupants to effectively utilize digital services and troubleshoot common connectivity issues.

**User Manuals:** Providing user manuals and guides for digital connectivity systems and equipment.

## **11. Public-Private Partnerships:**

**Collaboration:** Collaboration with internet service providers and technology companies to ensure seamless integration and support for advanced digital services.

Evaluating buildings based on these sub-criteria ensures that they not only meet the basic requirements of model building bye-laws but also provide a robust, secure, and future-ready digital connectivity infrastructure for their occupants. Compliance in these areas fosters smart, connected communities and buildings that can adapt to the evolving digital landscape.

**Q.5- What should be the template and minimum score for award of ratings i.e., star-based ratings or any other template like Platinum, Gold, Silver, and Bronze? Please justify your suggestions.**

**Comments :**

The template and minimum score for awarding ratings, whether star-based or using other designations like Platinum, Gold, Silver, etc., have a commonly used approach for star-based ratings or other designations involves defining clear criteria for each rating level and assigning a minimum score that a building or infrastructure project must achieve to qualify for that particular rating. Here's a generalized template for a star-based rating system:

**Star-Based Rating System:**

**Agree with the Score Threshold for Award of Rating.**

**1 Star (Basic Connectivity):**

Basic digital connectivity with limited coverage and basic infrastructure. Limited support for modern digital services.

**2 Stars (Intermediate Connectivity):**

Better digital infrastructure with improved coverage and reliability. Support for common digital services and technologies.

### **3 Stars (Good Connectivity):**

Good digital infrastructure with comprehensive coverage and reliability. Support for a wide range of digital services and technologies.

### **4 Stars (Excellent Connectivity):**

Excellent digital infrastructure with seamless coverage, high reliability, and advanced technology support. Comprehensive digital services and technologies available.

### **5 Stars (Outstanding Connectivity):**

Exceptional digital infrastructure with flawless coverage, superior reliability, and cutting-edge technology support. Comprehensive, innovative, and diverse digital services available.

It's important to note that these scores and designations are hypothetical and can be adjusted based on the specific criteria, goals, and standards set by the TRAI. The minimum score for each rating level and the criteria for scoring points (such as network reliability, coverage, data security, etc.) should be clearly defined and communicated to building owners, developers, and the public. Regular assessments and updates to the rating criteria are essential to keep pace with evolving technologies and user expectations.

**Q.6- The proposed workflow and process of Rating of Buildings for digital connectivity is given in Section-8 of this Chapter. Kindly provide your comments or suggestion for improvement of the proposed workflow and process of rating with justification, if any.**

**Comments :**

**Agree with the proposed workflow and process of Rating of Building for Digital Connectivity.**

**Q.7. Do you agree with the eligibility conditions for registration of DCRA, proposed in regulation 4? If no, what additional eligibility conditions for registration of DCRA may be incorporated, considering the present rating ecosystem in other domains in the country, with suitable justifications?**

**Comments :            Yes.            Mentioned above.**

**Q.8- Do you agree with the process of registrations of DCRA proposed under regulation 7? If not, kindly suggest proposed changes with justifications.**

**Comments :            Yes.**

**Q.9- Please suggest code of conduct for DCRA's proposed to be included under regulation 8 including the criteria for fees to be**

**charged by DCRA's from Property Managers for different types of Buildings.**

**Comments :**

Establishing a code of conduct for Digital Connectivity Rating Agencies (DCRA's) is crucial to ensure transparency, fairness, and ethical practices in the industry. Here's a general outline of the code of conduct for DCRA's, including criteria for fees charged from property managers for different types of buildings:

**Code of Conduct for DCRA's:**

**1. Transparency and Integrity:**

DCRA's must operate with transparency, providing clear and accurate information to clients and the public.

Avoid conflicts of interest and ensure independence and objectivity in ratings and assessments.

**2. Professionalism:**

DCRA's should maintain high professional standards in all interactions with clients, stakeholders, and the public.

Uphold confidentiality and protect sensitive client information.

**3. Accuracy and Accountability:**

Ensure the accuracy and reliability of digital connectivity assessments and ratings.

Take responsibility for the ratings provided and rectify any inaccuracies promptly.

#### **4. Compliance with Regulations:**

Adhere to all relevant national and local regulations and standards related to digital connectivity assessments and rating services.

Cooperate with regulatory bodies and provide necessary information for compliance audits.

#### **5. Data Security and Privacy:**

Implement robust data security measures to protect client data and sensitive information.

Respect user privacy and comply with data protection laws and regulations.

#### **6. Continuous Improvement:**

Continuously update methodologies and criteria to reflect advancements in digital technologies and user expectations.

Invest in research and development to enhance the accuracy and relevance of assessments.

## **7. Stakeholder Engagement:**

Engage with stakeholders, including property managers, building owners, and government authorities, to understand their needs and concerns.

Provide clear communication channels for addressing client inquiries and feedback.

## **8. Ethical Marketing and Advertising:**

Market services honestly and accurately, avoiding misleading claims or misrepresentation of capabilities.

Maintain ethical advertising practices and avoid deceptive marketing tactics.

## **9. Dispute Resolution:**

Establish a clear process for resolving disputes and complaints from clients and stakeholders.

Provide a mechanism for clients to challenge ratings and assessments, ensuring a fair and impartial resolution process.

## **Criteria for Fees Charged by DCRA's:**

Fees charged by DCRAAs can vary based on the complexity of the assessment, the type of building, and the scope of services provided.

Criteria for determining fees may include:

### **1. Building Size and Complexity:**

Larger and more complex buildings, such as commercial complexes or industrial facilities, may require a higher fee due to the intricacy of the assessment.

### **2. Scope of Services:**

Fees can be tiered based on the depth of the assessment. Basic assessments might have lower fees, while comprehensive assessments covering multiple digital connectivity aspects could have higher fees.

Establishing a clear fee structure and communicating it transparently to clients ensures fairness and avoids misunderstandings. DCRAAs should be open to discussing fees with property managers, providing detailed explanations of the services offered for the specified price. Regular reviews of fee structures allow DCRAAs to adjust their pricing strategies based on market demands and industry standards.



**Q.10- Do you agree with the general obligations of DCRA provided in Section III of the draft regulations? If not, please provide suggested changes with justifications.**

**Comments :**                      **Yes.              Mentioned above.**

**Q.11- What should be the terms & conditions for the Property Managers to ensure use of ratings awarded to their buildings, in legalized manner?**

**Comments :**

Ensuring the proper use of ratings awarded to buildings by property managers is essential for maintaining the integrity and credibility of the Digital Connectivity Rating Agency (DCRA) and its assessments. property managers should adhere to following terms and conditions:

**1. Authorized Usage:**

**Usage Restriction:** The rating should be for internal and promotional use only and should not be misrepresented, altered, or used in any way that could mislead the public.

**Non-Transferable:** The rating should be non-transferable and can only be used for the specific building or project it was awarded to.

**2. Promotional Material:**

**Accurate Representation:** Property managers must accurately represent the rating in promotional materials, ensuring it is used in a manner consistent with the TRAI and DCRA's guidelines.

**Clear Attribution:** Clearly attribute the rating to the DCRA in all promotional materials, mentioning the agency's name and logo where applicable.

### **3. Verification and Documentation:**

**Verification:** Property managers must be able to provide verification of the rating upon request from clients, tenants, regulatory bodies, or other stakeholders.

**Documentation:** Maintain official documentation provided by the DCRA, indicating the awarded rating, for legal and verification purposes.

### **4. Compliance with Regulations:**

**Legal Compliance:** Ensure that the usage of the rating complies with all national and local regulations, including advertising and marketing laws.

**Avoid Misrepresentation:** Property managers must not use the rating in a way that could be construed as false advertising or misrepresentation of services.

### **5. Third-Party Usage:**

**Vendor Partners:** If property managers work with vendors or service providers, they should ensure that the vendors do not misuse the rating and adhere to the TRAI's and DCRA's guidelines.

**Tenant Communication:** When communicating the rating to tenants or residents, ensure transparency about what the rating represents and its implications for their digital connectivity experience.

## **6. Renewal and Updates:**

**Renewal:** If the rating has an expiration date, property managers must renew it to ensure that the information provided is up-to-date and accurate.

**Updates:** Property managers should inform the DCRA of any changes in the building's digital infrastructure that could impact the rating. This ensures that the rating remains relevant and reflects the current state of digital connectivity.

## **7. Penalties for Misuse:**

**Violation Penalties:** Clearly outline penalties for misuse of the rating, including potential legal action, fines, or revocation of the right to use the rating in case of serious violations.

## **8. Dispute Resolution:**

**Mediation:** Establish a dispute resolution mechanism, such as mediation, to address any disputes arising from the use or misuse of the rating.

## **9. Education and Training:**

**Training Programs:** Property managers should educate their staff about the proper use of the rating and provide training programs to ensure compliance.

**Tenant Education:** Communicate the significance of the rating to tenants, educating them about the benefits of digital connectivity in the building.

## **10. Annual Reporting:**

**Reporting Obligations:** Property managers should have obligations to report to the TRAI and DCRA annually, providing updates on how the rating has been utilized and any changes in the building's digital infrastructure.

By adhering to these terms and conditions, property managers can legally and ethically utilize the ratings awarded to their buildings, ensuring accurate representation, transparency, and compliance with all relevant regulations and guidelines.

**Q.12- Please suggest changes, if any, in the general obligations of Property Managers, provided under Section IV of draft regulations, with justifications.**

**Comments :** Agree with the General Obligations of Property Managers.

**Q.13-** Draft regulation 25 provides broad rating criteria and distribution of weightage out of total rating score at a scale of 100. Please suggest new criteria or changes in proposed criteria if any, and relevant sub-criteria for each criterion and their sub-weightage against respective main criteria with suitable justifications in context of rating of buildings for digital connectivity.

**Comments :** Agree with the rating criteria and distribution of weightage.

**Q.14-** The score threshold for ratings is provided in draft regulation 26. Do you agree with the proposed thresholds? If no, please suggest changes with justification and global references, if any.

**Comment :** Yes.

Thanks.

Yours faithfully,

( Dr. Kashyapnath )  
President

Member Organization : TRAI