

In exercise of powers conferred under clauses (g) and (o) of sub-section (2) of Section 5 read with sub-section (3) of Section 29 of the Pakistan Telecommunication (Re-organization) Act, 1996, the Pakistan Telecommunication Authority is pleased to make the following regulations:

## PART – I

### PRELIMINARY

**1. Short title and commencement.** (1) These Regulations shall be called “*Telecommunication Installer Regulations, 2011*”.

(2) These Regulations shall come into force from the date of gazette notification and shall apply to all new telecom equipment installations after this gazette notification.

**2. Definitions.** (1) In these Regulations, unless there is anything repugnant in the subject or context: -

- (a) “TI”:\_ Telecommunication Installer. A person whose trade or occupation requires or performs any telecommunication Installation work.
- (b) “Person”:\_ A person, class of persons, company or cooperation.
- (c) “ATI”:\_ Approved Telecommunication Installer. A TI has to acquire a Telecom Installer No objection Certificate (TI-NoC) from the Authority to be an ATI.
- (d) “Premise”:\_ Class 5 Central Office or equivalent, commercial building(s) with more than three storeys above ground along with terminating access network.
- (e) “TEVTA”:\_ Technical and Vocational Training Authority.
- (f) “TI-NOC”:\_ Telecommunication Installer No Objection Certificate.
- (g) “TIC”:\_ Telecommunication Installer Course.
- (h) “TMA”:\_ Town Municipal Authorities.
- (i) “GoP”:\_ Government of Pakistan.
- (j) “VoTI”:\_ Vocational Training Institutes.
- (k) “NTP”:\_ Network Termination Point. It is the demarcation point at which the licensed telecom network ends, and connects with the wiring or Fixed wireless access (FWA) at customer premises.

(2) Words and expressions used herein but not defined shall have the same meaning assigned to them in the Act, Rules, and other Regulations.

### **3. Scope and Applicability –**

- (a) The objective of these regulations is to register and ensure a minimum standard of qualifications possessed by the “Telecommunication Installer” to install quality telecom equipment and premise Telecommunication wiring which enables the occupiers with uninterrupted access to multi-play telecom services or broadband using latest technologies.

All Premise Telecommunication Installations (both wired and wireless) has to be laid through an Approved Telecommunication Installer (ATI).

(b) The Authority may initiate action against installations not made in accordance with these regulations by directing all its licensees to suspend services at such premises.

(c) The Regulations shall be applicable to:

- i. Access Networks consisting of wireless, wire/cable (Coax, Copper, Fiber) and telecommunication equipment connecting essentials laying within the premise, other than plug into socket, including but not limited to NTP at a premise.

Note: PTA “Guidelines on In-house Telecom Wiring” may be referred, where applicable.

## **PART – II**

### **Licensed Telecom Operator Obligation**

4. PTA licensee shall not terminate any wireless/ wire-line connection at any Premise, as defined within this document, if the installer is not certified by PTA through TI-NoC.
5. All LL(FLL &WLL) licensed telecom operators shall have to obtain a ATI-NoC.
6. Network termination point shall have a termination box fixed securely at the closest customer premise from the outside plant. If the terminal equipment is provided by the telco, NTP shall be extended upto the terminal box.
  - a. The licensed operators shall maintain all NTP termination and installation records for the duration of the service.

## **PART – III**

### **Premise Owner Obligation**

7. Premise Telecommunication Installations shall be the responsibility of the premise owner and shall maintain records as per the regulations.
8. For old installations, the premise owner shall get the premise evaluated by an ATI, and maintain records as per these regulations.

## **PART – IV**

### **Telecommunication Installer Obligations**

9. The Installer shall be responsible for following, as and where applicable:
  - a. Wiring should be as per international standards, mentioned at Part VIII.
  - b. Wiring should be properly terminated at network termination point.
  - c. When a telecom cabling is placed alongside an AC electrical power cable inside a wall space or in the ceiling space, it may have a minimum separation of 50.4mm (2in), or shall be passed through a separate PVC pipe.
  - d. When there is a requirement for the telecom cable for voice, data and video to cross the power cable it shall always cross at right angle.

- e. There should be a clear separation of 2 inches between:
  - i. Separation from power conduits.
  - ii. Separation and barriers within raceways; and
  - iii. Separation within outlet boxes or compartments.
- f. The voltage should not be injurious to occupants, it should be safe and secure from normal electrical power.
- g. Should verify that the attenuation and signal losses are minimum.
- h. That the Telecom room (TR) and building entrance facility (BEF) have enough accommodation for cabling and equipment. Plus additional space is available for growth. Passive equipments like patch panels should have 50 percent free ports.
- i. General environment requirements should've been met, for instance sufficient power requirements, power backup, humidity, ventilation and HVAC etc.
- j. Conformity with the provisions of the Act, rules, these Regulations and any instructions issued by the Authority under the Act.
- k. The ATI shall sign an agreement with the owner after completion of the installation work, which would indicate satisfactory completion of the telecom installation work. A copy of the agreement has to be retained by the ATI as well as the owner.

## PART – V

### Telecommunication Installer Requirements

- 10. The Authority shall grant the “*Telecommunication Installer NoC (TI-NoC)*” to a person for telecommunication installations work. After the successful grant of NoC the person shall be a “*Approved Telecommunication Installer (ATI)*”.
- 11. ATI should be aware of the government regulations, both state and local, related to the installation and operation of the telecommunications systems.
- 12. ATI must possess the basic technical knowledge of application, design, laying, maintenance/ installations, operation and testing of all relevant telecommunication equipment systems.
- 13. ATI should be able to install the Telecommunication equipment, subsequently modify thereof and furthermore undertake inspection to determine if they are complying with government standards, rules and regulations.

14. ATI must possess the capability to understand and implement technical installation plans, and should possess understanding of corrective and preventative maintenance standards.
15. ATI should have in-depth knowledge of connectors, appropriate cable, jointing material, computers and electronic equipment like processors, chips, hardware/software and circuit boards. Basic understanding of transmission, operation and control of telecommunications systems is also necessary.
16. The ATI is required to possess one or more of the following:
  - a) “Telecommunication Installer Course (TIC) by TEVTA, Vocational Training Institute (VoTI) or any other private institute approved by the GoP, provided that such institutes offer Installer courses inline with Authority approved guidelines.
    - i. A certificate of clearance duly verified by TEVTA/ VoTI/ Private Institute shall be submitted to the Authority at the time of submission of application for the purpose of acquiring TI-NoC for Approved Telecommunication Installer (ATI) by the Authority.
    - ii. The relevant course work of TEVTA/VoTI/Private Institute(s) shall be approved by the Authority.
    - iii. Atleast one year field experience shall be considered mandatory.
  - b) Atleast 4 working years with major Telco’s, or has proven experience of installation services at major telecom and private branch exchanges(PABX) with 200 lines or more, or has been employed for major installations in multistory buildings in particular 4 stories (or more).
  - c) Has acted in a supervisory role in the telecommunications field for 6 or more years whereby the person has planned, assigned and directed the employees who are engaged in construction, installation, maintenance and operation of different telecommunications systems and support items. Employer experience certificate is mandatory.
  - d) Possesses the Nationwide experience of working in High–Rise Buildings with approved Pakistan Engineering Council (PEC) contractors. 6 years experience with relevant employer experience certificate is mandatory.
17. The Authority will scrutinize the application based on the details of the qualifications submitted by TI as mentioned above.
18. PTA will apprise all the TMA’s and cantonment(s) about “Telecom Installer Regulations” through mass media and its website (*www.pta.gov.pk*).

## PART – VI

### Telecommunication Installers NoC (TI-NoC) Application Procedure/ Fee/ Duration of TI-NoC

19. The TI-NoC shall be applicable for a period of 5 years.
20. TI-NoC applicant may apply as follows:
  - (a) Fax or surface mail at trailing address:  
Address: “Telecom Installer”, PTA HQ, F-5/1, Islamabad.
  - (b) PTA’s online application portal residing at PTA’s website (www.pta.gov.pk). Completely filled application form along with attested scanned copy of all certificates in PDF format are mandatory
  - (c) Mode of communication shall be as per the information provided by applicant in the application.
21. The Authority upon receiving the application shall scrutinize the request based on above mentioned criterion of experience and course contents that the applicant has submitted to the Authority. The Authority shall issue TI-NoC within 20 working days subject to the fulfillment of all the pre requisites.
22. The grant of a TI-NoC is at the sole discretion of PTA. PTA reserves the right not to accept any application submitted, but only after recording such reasons leading to denial. PTA will undertake to explain to the applicant concerned, on the applicant’s request, why the applicant is unsuccessful in its application for TI-NoC.
  - a) If the application is found incomplete the applicant shall be notified within 10 working days. The applicant shall respond to PTA queries within 20 working days; otherwise:
  - b) PTA shall initiate cancellation of application and forfeit the processing fee after 10 working days of due date and inform the applicant.
  - c) The applicant shall be allowed to withdraw its application; however the application fee shall be non refundable.
  - d) No annual installer fee shall be applicable.
23. A fresh renewal with the Authority shall be required after expiry of the TI-NoC.
24. Application fee or subsequent renewal fee for TI-NoC shall be Rs.1000/- for 5 years paid at the time of processing.
  - a) PTA shall issue a unique TI-NoC number to each ATI.
  - b) TI-NoC No. shall indicate the month/year of issuance along with other details, as desired by the Authority.
25. PTA reserves the right to disclose the identities of parties who have submitted applications.

26. The TI-NoC shall be revoked in case the person:
- a) is found guilty of providing any fabricated information or
  - b) is reported in instances where he is unable to exhibit skilled workmanship defined herewith or in “In-house Telecom Wiring guidelines”, or
  - c) is found guilty of mishandling the certificate seeker, and at least three consecutive complaints against the ATI have been registered with the Authority.

## **PART-VII**

### **Telecommunication Installer Rights**

27. No person, other than the holder of a Telecommunication Installer No Objection Certificate (TI-NoC) shall:
- (a) Advertise or otherwise claim as a PTA authorized telecommunication installer or competent or qualified to perform or carry out telecommunication Installation work.
28. A licensee may, with the approval of the Authority, cease or refuse to perform or carry out any telecommunication wiring work for any user if:—
- (b) the user's internal telecommunication wiring is not in accordance with these regulations; or
  - (c) such telecommunication wiring work is likely to threaten the safety or proper functioning of any telecommunication system of a telecommunication licensee.

## **PART – VIII**

### **Telecommunication Installer Requirement Specifications**

29. The Installer is required to possess the following relevant skill set:
- (a) Should be aware of International standards for:
    - a. Residential telecommunication Infrastructure (e.g. EIA/TIA 570B etc)
    - b. Commercial Building for
      - i. Telecommunication Pathways and Spaces (e.g. TIA 569B etc) and,
      - ii. Telecommunication Wiring Standard (e.g. EIA/ TIA 568).
    - c. Telco on-premise wiring.
    - d. Public Network OSP Cabling.
  - (b) Should have good knowledge of the network topologies.
  - (c) Should be aware of the latest wired and wireless Access layer technologies, for instance LAN CAT & Fiber optic terminations, WiFi, RFIDs.

- (d) Should have a sound knowledge of the Earthing requirements.
  - (e) Aware of high voltage telecom equipment safety requirements.
  - (f) Aware of exposure to hazardous wireless equipment.
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