



GUIDELINES

FOR

ICT CABLING PRACTICES



Document Ref. 1152.1

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1 Executive Summary

Introduction

Information and Communications Technology (ICT) services and applications have now become a necessity for everyday life, just like water and electricity, it creates a platform where people can interact, share and download information, or conduct their everyday business remotely without a need for physical presentation. ICT services and applications have become a backbone for businesses, schools and other institutions which rely entirely on communications devices and infrastructures to communicate, exchange information and conduct business transactions.

About 80% of these ICT services and applications are delivered through a wired network; where we have internal LANs in Offices and buildings, external Local and backbone copper and fiber loops linking the residential homes to the local exchanges or main backbone links connecting buildings to buildings or buildings to main PSTN exchanges.

With the recent increase in business activities, growing popularity of internet, and the deployment of ICT services in schools, and the public demand for multimedia services has seen a greater need for reliable communication infrastructures. It is therefore vital that Cabling Licensees perform cabling work that is of acceptable quality and standard that will help the cabling infrastructure which can in time sustain and maintain its capacity, increased network lifespan and compliance to applicable standards.

ICT Cabling Overview

In the recent years, there has been a decline in the standard of ICT cabling in Papua New Guinea as observed by NICTA, and from numerous complaints received from the general public. The main causes in the decline level of cabling standards is due inexperience and unqualified persons carrying out cabling work, coupled with no clear procedures and technical standards in place, and finally importation and use of low quality cabling products and related accessories.

NICTA's Mandatory Obligation

NICTA in accordance with **Section 218 of the Act** has the mandatory obligation to make rules and guidelines that shall be used as a basis on which it can perform its technical regulatory functions and or by which users and or service providers can comply to, as appropriate.

To address this current Cabling status quo, NICTA has therefore develop this Instrument to provide the guiding principles for regulating ICT Cabling services in terms of supplying, installing, maintenance and maintaining of new and existing cabling network infrastructures with their associate accessories so that a high level of cabling standards can be achieved..

1.1 Scope

1.1.1 The guidelines in this Instrument apply to:

- a) Network Operators;
- b) External and Internal Cabling Licensees of ICT Cabling network and services;
- c) Suppliers of Cabling Products and accessories; and
- d) Cabling Licensees and Network Operator employees where required or necessary.

1.1.2 The provisions of this Instrument apply to all ICT Cabling system or network whether or not the ICT Cabling system/network is:

- a. in service or out of service;
- b. being constructed and has never been invoked or operated in some form; or
- c. being constructed on or near other utility infrastructure.

1.1.3 Unless otherwise expressly stated, this Instrument supersedes all previous policies and practices on external and internal cabling activities and practices.

1.1.4 Where applicable, cross-reference to other relevant documents is made to give more specific guidance. These documents are relevant to this Instrument but do not necessarily represent all the technical standards that may need to be consulted in meeting the requirements of these guidelines. The publication dates for these reference documents however should be checked before use to ensure that they are still the most appropriate version, and that all associated amendments are considered.

1.2 Objectives

1.2.1 The main objective of this Instrument is to provide the general guiding principles for the technical regulation of Cabling Licensees and their activities so that;

- a. a high standard of ICT cabling work is provided whether, coaxial, fibre optical, copper or any forms of internal and external ICT cabling. ;
- b. a safe and acceptable quality of operational cabling system is maintained for the users and customer as well as the equipment and networks to which the cabling system is connected; and
- c. external and internal cabling installations and requirements thereof are consistent with relevant provisions of the current and appropriate regulatory guidelines and technical cabling standards.

2 ICT Cabling Licensing Conditions

2.1 General Conditions

- 2.1.1 A number of Persons will be licensed and registered with NICTA to install and maintain cabling systems to all segments of the ICT network in PNG. That includes copper, coaxial, fibre, security or any form of internal or external ICT Cabling in customer premises and commercial buildings.
- 2.1.2 Only Persons that are licensed and registered with NICTA in accordance with the conditions outlined in this Instrument and the *NICT Act* shall be permitted to install or maintain ICT Cabling in PNG.
- 2.1.3 Cabling licensees will be subjected to relevant NICTA regulatory instruments.
- 2.1.4 Certified and registered Cabling Licensee(s) maybe engaged by building and/or engineering firms for consultancy service to design and oversee a major cabling project.
- 2.1.5 Unless otherwise stated, terminology used in this Instrument carry the meaning defined in the attached Schedule 1 (Definitions) of this Instrument.

2.2 Prohibition of Unauthorised Cabling Work

- 2.2.1 A person must not perform a particular type of cabling work unless:
 - a. the person is the holder of a appropriate NICTA ICT Cabling Licence that authorises the performance of that type of cabling work; or
 - b. the person performs the work under the supervision of the holder of a ICT Cabling Licence that authorises the performance of that type of cabling work.
- 2.2.2 A person(s) other than a cabling license holder, who intentionally or recklessly contravenes subsection 2.2.1 (a,b), will be subjected to Section 204 (*Offences Relating to Unlicensed Cabling Work*) of the Act.

2.3 Licensing of Cabling Licensees

2.3.1 ICT Cabling Licences

2.3.1.2 NICTA shall issue ICT Cabling Licence to persons for the supply, installation and maintenance of ICT Cabling in accordance with Section 201 (*Issue of Cabling Licences*) of the Act

under one of the following categories of licences:

a) **Restricted ICT Cabling Licence** - This will be issued to persons to perform cabling work where the network boundary is a simple socket or a network termination device. These settings are often found in domestic homes and small businesses, but not in large commercial buildings. However, the person may carryout work in multi-storey and campus-style premises given that the cabling is performed behind a compliant device.

b) **Open ICT Cabling Licence** - This is issued to persons to perform all types of ICT Cabling work from simple residential homes to complex structured cabling in buildings. However in order to qualify, person's must possess necessary qualifications and experiences in cabling work.

c.) **Lift Cabling License:** This license shall be insured to individuals to carryout ICT Cabling in lifts on high rise multi-storey buildings. A person applying for a Lift license must prove to NICTA that he has the relevant experience and qualification before he/she can be considered for the license.

2.4 Eligibility Criteria and Application

2.4.1 A license holder or interested person applying or wishing to upgrade his/her license for a particular form of cabling license, shall possess necessary qualification and experience requirements as outline below;

a) Restricted Cabling License

- i. possess an industry recognised cabling certification(s)
- ii. possess over 12 months on the job experience under supervision of a Cabling License holder

b) Open Cabling License

- i. possess industry recognised cabling certification(s) for voice, data, and video, fibre and/or alarm systems.
- ii. must have a minimum of 12 months experience under the direct supervision of a Cabling License holder.

c) Lift Cabling License

- i. possess relevant certifications
- ii. must have a minimum of 12 months experience in carrying out cabling installations in lifts under supervision of a Lift Cabling License holder.

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- 2.4.2 Interested person applying for an ICT Cabling license must provide the following;
- a) a CAB 100 application form completed with applicant details
 - b) a Copy of birth certificate or passport
 - c) ICT Cabling certifications from a NICTA recognised institution(s)
 - d) on the job-training or work experience references, in accordance with *clause 2.4 (a,; b,; c,)*
- 2.4.3 Foreigners or expatriates applying for a cabling license must provide the following;
- a) a CAB100 application form completed with details of the applicants
 - b) a copy of the passport
 - c) a copy of the work permit
 - d) a copy of holders license issued by the regulator at his/her country of origin
 - e) copies of relevant cabling certifications
- 2.4.4 An application shall be accompanied by a fixed fee as determined by NICTA (*see Schedule 3*)
- 2.4.5 Applicants will sit for an interview in order for NICTA to assess whether the applicant has sound knowledge of the cabling, appropriate to the license applied for. The NICTA interview panel will set time of interview for assessment of the applicant's knowledge of the ICT Cabling,
- 2.4.6 A Cabling Assessment Committee shall further deliberate on the application to ascertain the eligibility of the applicant.
- The Committee shall comprise of the following;
1. Principle Licensing Officer
 2. Principle ICT Inspector (Telecom)
 3. Principle ICT Engineer (ICTSP)
- 2.4.7 Issuance of cabling licences shall be done by the Licensing Division followed by the signing of the licence by the Director of the Licensing and Enforcement or a duly appointed officer of NICTA.

2.5 Renewal of Cabling Licence

- 2.5.1 Renewal of ICT Cabling licence shall be one (1) month prior to the expiry date of the cabling licence as stated on the licence.
- 2.5.2 Non –renewal of the licence one (1) month after the expiry date shall result in the cancellation of the licence.
- 2.5.3 Any request for renewal after the cancellation shall be taken as a new application for cabling licence, hence, all processes and procedures have to be followed.

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- 2.5.4 Any attempt by the applicant to bribe or interfere with the NICTA assessment staff shall be deemed as an offence under the relevant appropriate Laws and Policies which will result in criminal proceedings against the applicant.
 - 2.5.5 At the time of renewal, the applicant must provide to NICTA a record of activities engaged in during the previous authorisation period. This record(s) must be compiled on or attached to the compliance folder for record purposes.
 - 2.5.6 Further information is outlined in the Terms and Condition of cabling licence.

2.6 Further Information

- 2.6.1 NICTA reserves the right to request additional information from the applicant as and when required. .
- 2.6.2 NICTA may refuse to consider the application unless the applicant provides all the necessary information as required.

2.7 Notification of Application Refusal

- 2.7.1 NICTA has the right to refuse an application that does not comply to or satisfy the eligibility criteria set out in this Instrument and the NICT Act.
- 2.7.2 Unsuccessfully cabling applicants shall be notified by NICTA through a written notice within 30 working days.

2.8 Conditions of Licences

- 2.8.1 ICT Cabling Licence holders shall be registered in “The Register” as specified in Section 43 of the Act.
- 2.8.2 ICT Cabling Licence holders shall be required to observe all relevant and NICTA regulatory Instrument current at the time, related to ICT Cabling in PNG.
- 2.8.3 NICTA may impose, vary, and/or revoke certain terms and conditions to the licence as specified in Sections 201(*Issue of Cabling Licences*), 202(*Variation of Cabling Licences*) and 203(*Issue and Variation of Cabling Licences*) of the Act including but limited to the following:
 - a) that the holder of the licence shall comply with the provisions of the Act;
 - b) that the holder of the licence shall comply with any direction, determination or order that the Act provides for NICTA to give or make;
- 2.8.4 In addition to the above, the licensee shall also pay applicable prescribed fees where necessary as required by NICTA. .
- 2.8.5 Other terms and conditions shall be attached to the ICT Cabling Licence granted as and when NICTA deems necessary or otherwise.
- 2.8.6 As a condition of the licence, the licensee shall for the purpose of audits, create a compliance folder for NICTA to scrutinise at the time it is required.

2.9 Offence of Contravening License Conditions

- 2.9.1 NICTA may issue a formal warning if the holder of an ICT Cabling Licence contravenes a condition of his/her licence.
- 2.9.2 The holder of an ICT Cabling Licence must only perform a type of cabling works as specified in his/her license conditions.
- 2.9.3 The holder of an ICT Cabling Licence must take all reasonable steps to ensure that cabling work of that type performed under his or her supervision does not contravene the conditions of the licence.
- 2.9.4 A person who intentionally or recklessly contravenes subsections 2.9.2 and 2.9.3 will be subjected to Section 204 (*Offences Relating to Unlicensed Cabling Work*) of the Act.

2.10 Revocation of ICT Cabling Licences

- 2.10.1 Any form of network Cabling Licences granted to eligible applicants under Section 201 (Issue of Cabling Licences) of the Act may be revoked or suspended by NICTA in writing where:
- a) the holder of the licence so request;
 - b) in NICTA's judgement, the holder of the licence is about to cease or has ceased to meet the eligibility criteria.
 - c) the holder of the licence carries out a particular type of ICT Cabling work that is not satisfactory to the requirements of NICTA's regulatory Instruments and/or other recognised International standards ;
 - d) the holder of the licence fails to comply with the provisions of this Instrument and the Act and;
 - e) the holder of the cabling license is physically, mentally or medically seen by NICTA as unfit to perform any form of cabling work.
- 2.10.2 Should the holder of an ICT Cabling Licence fails to comply with any terms and conditions attached to the licence granted then NICTA may, in accordance with Section 207 (*Cancellation of Cabling Licences*) of the Act revoke or suspend the license.

2.11 Cabling Fees

- 2.11.1 All applicable fees, as per Schedule 3 must be paid to NICTA in the appropriate manner. These fees include:
- a) **ICT Cabling Licence Fee:** This cabling License fee is paid to NICTA by eligible persons or applicants in order to be accredited as registered /licensed Cabling Licensees. The applicable fees vary depending on the type of license the applicant is applying for. (See Schedule 3)
 - b) **Application Processing Fee:** This is a non-fundable processing fee payable when submitting a cabling license application to NICTA for processing.

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- c) **Inspection Fee:** This is the inspection fee that must be paid by Cabling Licensee(s) after the completion of the cabling work, so that NICTA ICT Inspectors can carry out inspections on the cabling work performed to ensure it complies with Cabling Standards and Guidelines.
 - d) Any other associated fees including penalties as deemed applicable.

2.11.2 The Cabling Fees shall be reviewed by NICTA as and when necessary.

2.11.3 A copy of the Cabling Fees Schedule can be obtained on request from the office of Licensing and Enforcement or it can be downloaded from the NICTA website.

2.12 Registration of ICT Cabling Licences

2.12.1 Pursuant to Section 43 of Act (*Public Register*), NICTA shall maintain a Register in that shall include:

- a. all ICT Cabling licence in force;
- b. all rejected, suspended and/or cancelled ICT Cabling Licences; and
- c. all conditions of such licences.

2.12.2 The “Register” shall be maintained in a manner and form deemed appropriate by NICTA whether it be by electronic or other means.

2.12.3 A person may access the NICTA website www.nicta.gov.pg :

- a. visit the “Register”; and
- b. make a copy of, or take extracts from, the “Register”.

3 Network Boundary

3.1 General Conditions

- 3.1.1 All internal or external cabling installations or maintenance carried out before and after the Network Boundary including connection to the Network Provider shall be subject to NICTA's regulatory requirements.
- 3.1.2 A Network Provider owns and provides the network lead-in cable(s) to the Network Boundary.
- 3.1.3 A Customer who owns any internal or external cabling systems or network beyond the Network Boundary shall be responsible for any particular type of internal or external cabling work within its premises.

3.2 Exceptional Conditions

The following three (3) clauses shall apply to miscellaneous Network Boundary situations arising from varying property infrastructure design considerations.

3.2.1 Single Residential Buildings:

- a. The demarcation point shall be the first Network Provider cable termination point in the building.
- b. The Network Provider cable may terminate at a terminal block or at the first telephone socket.
- c. The customer shall take responsibility beyond the point where the Network Provider cable terminates, whether it is at the terminal block, or the first equipment socket.

3.2.2 Compounds, Campus, Flats and Duplexes:

The demarcation point shall be defined as follows:

- a. Where no provision has been made for an MDF, the Network Provider shall recommend the provision of an external pit or pits within the property boundary. In such a situation, the demarcation point shall be at the first pit inside the property boundary. Network Provider's responsibility shall end at this point.
- b. Where provision for an MDF is available, sub clause 3.2.3 (below) shall apply.

3.2.3 Building wherein an MDF is provided:

- a) The demarcation point shall be where a Network Provider cable terminates on the MDF.
- b) The customer shall be responsible for accommodating the Network Provider cable between the Customer Premises boundary and the MDF as specified in the relevant Technical Standards and/or regulatory guidelines.
- c) The Network Provider will provide the necessary modules, or equivalent, for termination of the network cable pairs.

3.3 Approvals

- 3.3.1 A Cabling Licensee must submit a copy of the final cabling plan(s) to NICTA before commencement of the cabling work. The cabling plan must include details of the cabling floor plan, type of cabling and its specifications, name of client and the location of project.
- 3.3.2 NICTA may instruct the Cabling Licensee to adjust the cabling plan(s) if the plans and the other associated specifications submitted do not comply with applicable cabling standards and regulatory guidelines.
- 3.3.3 Copies of the cabling plans and the associated documents received will be kept in the 'Register' along with the files of the Cabling Licensee.

3.4 Inspection

- 3.4.1 Any form of cabling work that includes new installation and upgrades shall be subjected to inspection by NICTA for regulatory compliance and to ascertain if the initially submitted information on cabling plans and its specifications is correct in all aspects.
- 3.4.2 NICTA shall have the prerogative to decide the time of inspection whether it be before or after the completion of the project.
- 3.4.3 Any cost or access cost (travel, accommodation etc) incurred for the purposes of the said inspection shall be borne by the Cabling Licensee(s) or Network owner(s).

4 Equipment Certification, Registration and Type Approval

4.1 General

- 4.1.1 All Cabling Products offered for supply, installation and maintenance in PNG, must be certified by accredited test houses recognised by NICTA.
- 4.1.2 Proof of certification by an overseas Certifying Authority recognised by NICTA shall be proof of acceptance for connection of that Cabling Product to a Network facility.
- 4.1.3 All Cabling Product certifications shall be registered with NICTA.
- 4.1.4 NICTA shall charge a type approval fee for registration of certification, at rates approved by the NICTA as and when necessary.
- 4.1.5 NICTA will not approve Cabling Products that are not certified by a NICTA recognised accredited test house.

4.2 Interference and Hazardous Cabling Systems or Equipment

- 4.2.1 In the event that any equipment or cabling system configuration causes unacceptable interference and is a threat to the network facility and the safety of persons working or using network services, NICTA shall direct the customer or owner to rectify the problem at the customer's/owner's expenses.
- 4.2.2 Should the problem not rectified, NICTA may direct disconnection of the Network Provider from the affected equipment or cabling system in accordance with Section 211 (*Disconnection Etc., Of Customer Equipment Or Customer Cabling*) of the Act.

5 CABLING SYSTEMS

5.1 Upgrading of Existing Cabling Systems

- 5.1.1 Where the technical quality of cabling and hardware of an installation and maintenance is deemed to be a threat to safety of life or equipment and/or the integrity of the Network Provider, that installation or maintenance shall be upgraded or redone to rectify any defective hardware or cabling.
- 5.1.2 The standard of upgrading of any particular type of internal or external cabling work shall be done in accordance to the NICTA regulatory compliance and standards.
- 5.1.3 The cost of any upgrading of any particular type of internal or external cabling work shall be accordingly borne by the relevant owner(s).
- 5.1.4 NICTA will not arbitrate between the Cabling Licensee(s) and Customer(s) of the internal or external cabling systems and equipment regarding the payment of charges/fees for any cabling system upgrade.

5.2 Quality Assurance/Standards Compliance

- 5.2.1 After completion of a cabling work, the Cabling Licensee must issue a Quality Assurance Certificate to the Client to guarantee that the installation or upgrade carried out fully complies with the applicable regulatory standards and guidelines on technical quality, interference and safety of life and equipment. A copy of the Quality Assurance Certificate shall be forwarded to NICTA for record and reference purposes.
- 5.2.2 Only Cabling Licensees shall issue Quality Assurance Certificates. All Quality Assurance Certificates shall require the Cabling Licensee's letterhead and signed by the appropriate manager or senior officer.
- 5.2.3 After the issuing of the Quality Assurance Certificate it will be the responsibility of the owner of the building/premises or network to ensure the standard of cabling is maintained throughout the life of the building/premises or network.

5.3 Connection to the Operator Network

- 5.3.1 Connection of the network services to the newly installed or upgraded cabling infrastructure shall be the responsibility of the Network owner, Cabling Licensee or other interested parties.
- 5.3.2 However if the connection of the cabling infrastructure to the Network Operators facility involves a Controlled Customer Equipment than the parties involved must comply with the CCE regulatory guidelines and processes. (See CCE Guideline Document for details).

6 Regulatory Compliance and Standards

6.1 Regulatory Instruments

- 6.1.1 Pursuant to Part X1 of the Act, NICTA maintains the authority to issue, adopt, modify and/or authorise the use of regulatory instruments on ICT services and equipment, written by NICTA or other international standards organisations.
- 6.1.2 Regulatory Instruments shall be issued by NICTA to facilitate network connectivity, safe working practices and safety of life and equipment, and other general requirements as seen to be appropriate by NICTA.
- 6.1.3 All Cabling Licensees shall abide by those regulatory instruments to ensure that the technical quality of ICT services and equipment that connect either directly or indirectly to the Network Provider are maintained.
- 6.1.4

6.2 Standards

- 6.2.1 NICTA recognises the AS/CA S009:2013: Installation requirements for Customer Cabling (Wiring rules) as the technical guideline in which all Cabling Licensees shall abide by.
- 6.2.2 All cabling work must comply with practices outlined in AS/CA S009:2013 and the other NICTA recognised cabling standards as listed in **Schedule 2, reference documents**.
- 6.2.1 Where there is disagreement between NICTA recognised international standards to those issued by the manufacturer, or others, NICTA mandated regulatory instruments and standards will take precedence.

6.3 Bribery

- 6.3.1 Any attempt by an applicant to bribe or interfere with a NICTA staff in regard to the cabling license either new or renewal shall be deemed as an offence under the relevant Laws and Policies which will result in criminal proceedings against the applicant.
- 6.3.2 NICTA staffs that accept or receive a bribe from an applicant will be charged according to NICTA Code of Ethics.

7 DOCUMENT ADMINISTRATION

7.1 Date of Effect of the Instrument

- 7.1.1 This Instrument shall be in force and effective from the date endorsed by the NICTA Board and is subject to the appropriate provisions of the *Act*.

7.2 Minor Amendments to the Instrument

- 7.2.1 The Chief Executive officer of NICTA shall administer this Instrument and make amendments or modifications to this Instrument as may appear to be necessary to prevent anomalies. Any such amendments or modifications made by the Chief Executive Officer shall be deemed always to have had the same force and effect as if the Board has made them. The Board is to be advised through the CEO of any significant changes to this Instrument.
- 7.2.2 NICTA shall in due cause inform the industry on any such amendments to this Instrument through the relevant media sources.

7.3 Document Publication and/or Distribution

- 7.3.1 This Instrument shall be published on the NICTA website www.nicta.gov.pg for public information.

7.4 Complaints and Inquiries

- 7.4.1 Complaints or inquiries may be lodged in writing to the:
- Director Licensing and Enforcement,**
PO BOX 8227,
BOROKO, NCD.
Phone: 325 8633,
Facsimile: 3004829

8 SCHEDULES

SCHEDULE 1

Definitions

DEFINITIONS

Act means the National Information and Communications Technology Act 2009.

Acceptance Permit means a written document which is issued by NICTA to a Cabling Licensee giving him/her the permission to connect a cabling network to a licensed Network Provider's network or facility.

Carrier Network means telecommunications network consisting of cabling and ICT facilities, which is owned and operated by a licensed operator.

Cabling Licensee means a holder of an ICT Cabling Licence under the *Act*, registered with NICTA to supply, install and maintain Network or Customer cabling systems in Papua New Guinea.

Cabling Product means all forms of ICT cables and their accessories, which are used for the supply, installations, and maintenance of an ICT network.

Cabling Work means:

- (a) the installation of ICT Cabling for connection to an ICT network or to a facility; or
- (b) the connection of ICT Cabling to a ICT network or to a facility; or
- (c) the maintenance of ICT Cabling connected to a ICT network or to a facility.

Compliance folder means a form of small filing system or physical folder which a Cabling Licensee must create purposely for storage of any regulatory file which include copies of Cabling License, Connection Permits and list of cabling works carried out; which must be made readily available on NICTA's request.

Customer means a person, company, organisation or groups thereof that have rendered a service by registered/licensed Cabling Licensees.

External ICT Network means an aerial (aboveground) and/or underground ICT Network installed exterior to and beyond a building entry point.

Final Distribution Point (FDP) means those connection points where the floor distribution cables terminate and from which the facility cables are distributed.

Hazardous Service means a service that may cause permanent mechanical or electrical damage to ICT equipment, systems and network or cause injury to persons.

ICT Cabling Licence means a licence issued under **Section 201** of the *NICT Act* to perform ICT Cabling work.

Industry Standards means a standard determined under Division XI.7 of the *Act*.

Internal cabling refers to both indoor and outdoor cabling within a customer's premises.

Intermediate Distribution Frame (IDF) means that connection point further from the Main Distribution Frame (MDF) in the building or property where cables to the FDP and/or facility cables are terminated.

Interference means the process of impairing the fidelity or discernment of communications.

Cabling License Holder means the holder of the ICT Cabling License.

Main Distribution Frame (MDF) means that connection point where the Operator's Network Cables and the Premises cabling are terminated on a single or composite frame.

Network Boundary means the demarcation point where Operator's Network ownership ends and Customer network ownership begins.

Network Provider means the ICT network Operator or a mobile carrier.

NICTA means the National Information and Communications Technology Authority.

Premises mean any house, building or structure including the land associated with it.

Premises Cabling means an ICT infrastructure comprising of cabling system and facilities which is connected to a network boundary, and used or intended to be used, for direct or indirect connection to a an Operator network.

PSTN means Public Switched Telephone Network. That part of the public telecommunications network which enables any customer to call and communicate with any other customer either automatically or with operator assistance. The PSTN has a nominal transmission bandwidth of 3 kHz and employs signalling system type SS3 to SS7.

Quality Assurance Certificate (QAC) means a form of written notice which must be issued by the Cabling Licensee to the Network owner/Customer ensuring him/her that the cabling work carried out is of satisfactory quality and is compliant to the applicable standards.

Registration means enrolling of Cabling Licensees to “The Register” maintained by NICTA to be recognised as registered Cabling Licensees to perform any particular type of ICT Cabling work.

Registration Fee means the prescribe fee in Kina for enrolling on “The Register”.

Regulatory Instruments means approved NICTA rules, guidelines, industry standards and Technical standards.

Supervision means direct supervision by a cabling license holder to an unlicensed person carrying out cabling work, which must be maintain throughout the project duration.

SS7 means Signalling System Number 7, a signalling protocol that provides the ability to transfer information within networks or different networks, most commonly used in public switched networks.

SS3 means Signalling System Number 3, a signalling protocol, which is the earlier version to SS7.

Technical Standards means approved NICTA documents that outline technical specifications, practices, procedures, requirements, diagrams and circuits to be used in the cabling industry.

Technical Quality means characteristics and attributes that are essential to attain a certain degree of safety and satisfactory operation of equipment in service.

Technical Manuals means approved specifications by accredited test houses governing the implementation and performance of an ICT equipment.

Terms and Conditions means the terms and conditions impose by NICTA on a Cabling Licensee and its outlined in the Cabling License.

Test House means a laboratory recognised by NICTA to conduct conformance assessment procedures of cabling products and accessories against recognised technical standards and specifications.

The Register means the official record or list of licensed Cabling Licensees as well as revoked, cancelled or rejected Cabling Licensees.

SCHEDULE 2 Reference Documents

REFERENCE DOCUMENTS

This Instrument should be read in conjunction with the following *Acts, Regulations, Policies, and Guidelines, Technical Standards* and/or other *relevant documents*:

Acts

≈ *National Information Technology Act 2009*

Regulations

≈ *NICT Radio Spectrum Regulation, 2010*

≈ *NICT Operator Licensing Regulation, 2010*

TECHNICAL GUIDELINE

= **AS/CA S009:2013**: Installation requirements for customer cabling (Wiring rules)

STANDARDS

AS/NZ

= **AS/NZS ISO/IEC 14763.3:2007** Implementation and operation of customer premises cabling—Part 3: Testing of optical fibre cabling

= **AS/NZS ISO/IEC 15018:2005** Information technology—Generic cabling for homes

= **AS/NZS ISO/IEC 24702:2007** Telecommunications installations—Generic cabling—Industrial premises

= **AS/NZS 3080:2003** Telecommunications installations—Generic cabling for commercial premises (ISO/IEC 11801:2002, MOD)

= **AS/NZS 3084:2003** Telecommunications installations—Telecommunications pathways and spaces for commercial buildings (Incorporating Amendment 1:2007)

= **AS/NZS 3085.1:2004** Telecommunications installations—Administration of communications cabling systems—Basic requirements

= **AS/NZS IEC 61935.1:2006** Testing of balanced communication cabling in accordance with ISO/IEC 11801—installed cabling

= **AS/NZS IEC 61935.2:2006** Testing of balanced communication cabling in accordance with ISO/IEC 11801—Patch cords and work area cords

= **AS/ACIF S008:2006** Requirements for customer cabling products

INFORMATION SHEET

Cabling Flow Chart

1. Before commencement of any form of cabling work, the cabling licensee must submit a copy of the final cabling plans to NICTA. The plans shall consist of the following; cabling layouts, cabling specifications, name of the Client and the location of the project.

The copies of the plan(s) will be kept in the 'Register' along with the files of the cabling licensee for record and future reference purposes.

Note:

After submission of the cabling plans the cabling licensee can go ahead and carry out the cabling work without the need for approval from NICTA.

NICTA may only advise the cabling licensee during the project to adjust the plan(s) or to halt the project, if the cabling plan submitted does not comply with applicable regulatory standards and guidelines.

2. After completion of cabling work, the cabling licensee must issue a QAC to the owner assuring that the cabling work has been successfully completed and tested and it's compliant to all applicable cabling and building regulatory instruments.
3. A copy of the QAC, along with the cabling Test Results and the inspection fee shall be submitted to NICTA.

Note:

It is mandatory that inspection fees must be paid after the completion of the project.

4. NICTA may inspect the installation at its own timing. Installation in areas where the NICTA office is situated (POM, Lae, Hagen, and Kokopo) shall be done a day after the submissions by the Cabling Licensee is received. Except in other regions, inspection shall be done on an arranged schedule trip to the province.

CABLING INSPECTION FLOW CHART

