



## **Executive Summary**

### **1. Background**

In the post deregulation era it was felt that the simplification of Class Value Added Services has become essential. Internationally, several regimes exist – from extremely liberal to the other extreme. In Pakistan, in the past we had been following the pattern of issuing a license for every value added service. On the other hand there existed some services that had gone un-noticed.

### **2. Analysis**

Internationally, the world is now moving towards convergence. It means convergence of Technologies, Convergence of Services and Convergence of Regulations. It was felt that the simplification and bundling of VALUE ADDED SERVICES will make the life easier for the consumers, the Service Providers and for the Regulator. Simplification of Value Added Services will assist in lowering of the bundled services' cost. This in turn can have a rippling effect on the proliferation of Broadband in Pakistan. It was felt that the spread of Broadband would not happen until the regulator paves the way for more services under a single umbrella. This will in turn enable more bandwidth requirements by the consumers, more bandwidth provisioning by the Service providers and more opportunities for the incumbent and new Infrastructure providers.

All class value added licensed and registered services can only be provided through mutual interconnects and marketing agreements with Local Loop Operators, Long



Distance and International Operators, Infrastructure operators and Cellular Operators, with PTCL included.

**The Highlights of the new regime, which is targeting the Value Added Services, are:**

- i). **Class Value Added Licensed Service (CVALS)** regime consists of only two types of licenses i.e. A **Data** type and a **Voice** type.
  - a. A ‘Data’ CVALS provider may provide any one or more service types allowed to its customers e.g. Vehicle Tracking, Data Service, Internet Service, or as added by the Authority from time to time.
  - b. A ‘Voice’ CVALS provider may provide Card Payphone service and Premium Rate Services or as added by the Authority from time to time.
  - c. CVALS licenses shall be valid for a period of fifteen (15) years.
  - d. Fees, definitions and general conditions have been prepared but are not part of the license document. These are attached to show the complete CVALS roadmap and shall be converted into PTA CVAS regulations.
  - e. Under **Class License**, the Initial License Fee (ILF) is Rs.100,000 per province, with a further
    - i. 50% reduction for Baluchistan,
    - ii. Nationwide CVALS ILF is Rs. 300,000 only,
  - f. Annual License fee is only 0.5% of the Annual Gross Revenue (AGR), see details in “CVALS fee (1.0) doc-E” attached,
  - g. For **Not-for-profit** entities ILF is 50% of the general Class License, and



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- i. Annual License fee is Rs. 5000 only.
- ii). A new regime for Class Value Added **Registration** Services (CVARS) has been introduced for some applications and services e.g. Voice Mail, SMS Aggregator , Content Service Provider Video Conferencing, etc. More may be added by the Authority from time to time.
  - a. CVARS applicants have to only pay Rs. 10,000 as processing fee,
  - b. No Initial License Fee (ILF) or annual fee applies for the period of the registration,
  - c. Registration is valid for a period of five (5) years only. At the expiry of the registration a fresh registration will be required.
- iii). With the introduction of this new scheme the entire process of issuing Value Added Licenses will become simple and convenient for the industry.
  - a. More than 10 possible individual licenses will now shrink into just:
    - i. Two license categories and
    - ii. A simple to use registration regime.
- iv). In order to **encourage** existing Value Added Service licensees to opt for the new regime it is recommended that:
  - a. **No more concessions for VAS licensees as long as they remain in the old regime**
  - b. For those who opt to roll-over into the new regime, they may be asked to:
    - Surrender all relevant existing VAS licenses;



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- Request any one (1) existing VAS license of the relevant category (voice/ data) for conversion into CVALS;
- Conversion allowed for the remaining period of that VAS license;
- Should pay the difference in ILF;
- Nationwide license eligible for nationwide CVALS conversion;
- Provincial or lower VAS license eligible for a Provincial CVALS
- Existing VAS license transferred to another owner shall not be eligible for such roll-over concessions;
- No charges for roll-over from a VAS license to CVARS
- No reimbursement;

v). **Details of the attached documents:**

This entire roadmap document has four parts i.e

a. **Main Part:** It consists of:

- i. A Class Registration template and
- ii. A Class License template.

Among other things the license template consists of:

1. Tariff Framework (f/F),
2. Reporting and Information Provisioning (f/J),
3. Quality of Service Parameters and thresholds (f/N),
4. National Security,



5. Restrictions for anticompetitive behavior.

- b. **'Application Form' Part:** It consists of all those forms, which shall be part of the application. The forms are:
- i. Application Form "CVALS apl (1.0) FORM-C"
  - ii. Check List Form "CVALS cklt (1.0) FORM-A"
  - iii. Form for selecting the license category & its jurisdiction "CVALS cat (1.0) FORM-B"
  - iv. Applicant's profile Form "CVALS pfl (1.0) FORM-D"
- c. **Proposed Regulations Part:** All those documents which will become part of the CVALS regulations e.g.
- i. General Conditions "CVALS gc (1.0) doc-K",
  - ii. Definitions "CVALS def (1.0) doc-M",
  - iii. Fees "CVALS fee (1.0) doc-E", and
  - iv. Existing regulations of PTA (not included in this suite of documents),
- d. **Guidelines:**
- i. SLA guidelines "CVALS sla (1.0) gl-I";
  - ii. Spectrum Framework "CVALS spm (1.0) gl-H" referring to PTA/ FAB guidelines (not included in this suite of documents);



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- iii. Interconnection Framework described in existing PTA  
“Interconnection Guidelines” & “Pakistan Telecom Rules 2000”  
chapter IV (not included in this suite of documents);



Registration No. \_\_\_\_\_

Date: \_\_\_\_\_

## Registration of Class Value Added Services

The Pakistan Telecommunication Authority is pleased to register M/S <\_\_name\_\_> of <\_\_\_\_\_address\_\_\_\_\_> for providing Class Value Added Registered service e.g. Voice Mail, SMS Aggregator, Content Service Provision, Video Conferencing and those announced by the Authority from time to time to:

- a. Extend services to all, in a non-exclusive manner, free of all discriminations;
- b. Abstain from providing any telecom service without obtaining prior license;
- c. Promptly provide all information, as and when desired by the Authority, which helps it to quantify proliferation of the technologies or services whether technical, regulatory or financial in nature;
2. This registration is valid for a maximum period of five (5) years from its last registration. One (1) month prior notice is required for registration renewal.
3. M/S <\_\_name\_\_> shall be governed by the laws of the country for dealing with national security, lawful interception, default of money or any other issues.
4. M/S <\_\_name\_\_> shall, in the course of provision of its services in the country, comply with the provisions of the Pakistan Telecommunication (Re-organization) Act 1996, the Rules/ Regulations and directions of the Authority, which may be issued from time to time. In case of any contravention/violation of any provision of the Act or the Rules/Regulations made thereunder or any term or condition of this registration, the Authority may initiate action as per the provision of the Pakistan Telecomm nation (Re-organization) Act 1996.
5. No suit, prosecution or other legal proceedings shall lie against the Authority, or any member or employee of the Authority in respect of any matter arising out of this permission or incidental there-to.
6. Where the provisions of this permission are silent or ambiguous, on any issue irrespective of its nature, the Authority's decision shall be final and binding.

<\_\_Applicants name\_\_>  
 <\_\_Applicants title\_\_>  
 <\_\_Applicants address\_\_>

*(for & on behalf of the Authority)*  
 <\_\_Name of the Director\_\_>  
**Director <Wireline>**  
 P.T.A. Headquarters



License No. <\_\_\_\_\_>

Dated: <\_\_\_\_\_>

**LICENCE TO ESTABLISH, MAINTAIN AND OPERATE TYPE <\_, Voice or Data> CLASS VALUE ADDED SERVICES**

In exercise of the powers conferred by section 5 of Pakistan Telecommunication (Reorganization) Act, 1996 (hereinafter called the "Act"), the Pakistan Telecommunication Authority (hereinafter called Authority), hereby, grants non-exclusive license to **M/S** < **name** \_\_\_\_\_ > < \_\_\_\_\_ Address \_\_\_\_\_ > (hereinafter called the "Licensee") to establish, maintain and operate Class Value Added Services, as mentioned above , on terms and conditions contained in Annexure - I and II, the PTA/ FAB provisions of existing enactments, including rules and regulations made thereunder and Amendments/modifications made thereto together with new enactment as may be considered expedient and necessary from time to time.

This License shall come into force on the date of issuance and shall be valid for the period of fifteen years duration subject to payment of such fee(s) as the Authority may specify from time to time.

This license may be renewed for another term(s) beyond fifteen years on three months prior written request of the licensee before expiry of the existing term of the license subject to the terms and conditions applicable at that time.

< **Applicants name** \_\_\_\_\_ >  
 < Applicants title \_\_\_\_\_ >  
 < Applicants address \_\_\_\_\_ >

(For and on behalf of the Authority)  
 < **Name of the Director** \_\_\_\_\_ >  
**Director <Wireline>**  
**P.T.A. Headquarters, Islamabad**



**Annexure - I**

**1. Interconnection Framework**

1.1 Interconnection between the Telecommunication System of the Licensee and the Telecommunication Systems of other Operators shall be governed by the "Pakistan Telecom Rules, 2000" and "PTA Interconnection Guidelines", provided that the Telecommunication System of the Licensee is deemed to be a Connectable System for the purposes of the Rules and Interconnection Guidelines.

**2. Tariff Framework**

**2.1 General - No Regulation of Prices:**

2.1.1 Except as otherwise provided in this License and Fixed Line Tariff Regulations, 2004, the premium rate services, payphones, the Licensee is free to set prices for the Licensed Services as it may deem fit.

2.1.2 If the Authority determines that the Licensee's prices for any Licensed Services are unfair and unreasonable, the Authority may regulate Licensee's prices, terms and conditions for those Licensed Services. The Licensee shall comply with the Authority's orders and determination relating to the Licensee's prices, terms and conditions for those Licensed Services.

**2.2 SMP Service Provider:**

2.2.1 If the Authority determines that the Licensee possess an SMP status in a relevant market, the Authority may regulate Licensee's prices, terms & conditions for the licensed service and other services incidental thereto as maybe determined by the Authority, where the Licensee possess SMP status.

2.2.2 Regulation methodology shall be determined by the Authority, subject to compliance with any applicable provisions of the Rules & Regulations. It may include prior Authority approval for any price, terms and conditions, maximum or minimum or both prices, for the Licensed Services.



### **3. Reporting & Information Provisioning**

The licensee shall maintain financial records and books of accounts in accordance with the laws of Pakistan. The licensee shall submit audited financial statements and summary of accounts to the Authority within three months of the closing date of financial year of the licensee. The financial statements and notes therein shall show, apart from other, following information about the licensed service/business:

- 3.1 Gross revenue (total amount accrued and billed/ invoiced to the customers),
- 3.2 Description and amount of each cost element or item,
- 3.3 Gross profit, operating profit, profit before and after tax, profit/ (loss) carried forward,
- 3.4 Description and amount of each type of tax, duty, levy paid and payable to the Government of Pakistan,
- 3.5 Details of fee due to the Authority and amount paid,
- 3.6 Number of subscribers at the end of each month,
- 3.7 Number of Persons employed by the licensee,
- 3.8 Number of E1's per each identified Point of Interface,
- 3.9 Intercity leased Bandwidth with identification of terminal points,
- 3.10 Quality of Service reports desired in this license and relevant PTA/ FAB Regulations,
- 3.11 Any other regulatory reports or information, as desired by the Authority, from time to time.

### **4 Common Short Codes (CSC)**

- 4.1 "Number Allocation & Administration Regulations, 2005" shall apply including amendments/modifications made thereto, by the Authority, from time to time.

### **5 Spectrum**

- 5.1 The provisions of Pakistan Telecom (Re-org) Act, 1996, the Rules, the Regulations, PTA/ FAB guidelines and policies on allocation of frequency shall apply.



**6 Service Level Agreements**

- 6.1 The licensee shall get their code of practice for consumer affairs approved by the Authority as per the Rules.
- 6.2 Inter-operator SLAs will be sent to the Authority for information.

**7 National Security**

- 7.1 Section 54 of the Act shall apply.
- 7.2 All equipment shall be “Legal Interception” (LI) compliant.

**8 Anti-Competitive Behaviour**

- 8.1 The licensee shall refrain from anti-competitive conduct and abide by the anti-competitive laws of the country and all applicable rules & regulations.



### **Quality of Service (QoS) Parameters**

#### **1. Scope**

- 1.1 The Licensee shall at all times meet or exceed the quality of service standards described in this document, as shown in Table-1, and such other quality of service standards as the Authority may determine from time to time. The Licensee shall maintain records of its performance to keep track of its service quality. These shall be submitted to the Authority on a quarterly basis in such a format as the Authority may determine from time to time. The Licensee shall maintain records for inspection and any type of audit by the Authority at all times. The Licensee shall maintain all such records for a period of two years.

#### **2. Objective**

- 2.1 The licensee shall meet the QoS obligations at all times with an objective to satisfy the greater number of its customers and comply with the Act, Rules, Regulations and the conditions of the license issued thereunder.



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**Table-1**

Parameters	General Thresholds	
	Type A	Type C
<b>Network/ CPE Elements</b>		
Network Accessibility for access-ready areas	95%	99%
CPE Installation time (days)	3	1
<b>Service Quality</b>		
Session Initiation Success Ratio (SISR)	0.98	0.99
Session Completion Success Ratio (SCSR)	0.97	0.98
Service Activation Time (SAT) in hours - post installation	8	8
Maximum packet loss (IPLC or DPLC)	< 3%	N/A
Service Transfer Time (STT, hours) - with clear accounts	4	48
Mean Time To Restore (MTTR) faults- in hours (minor)	½	8
Reconnection Time (hours) After Clearing Arrears (RTACA)	1/2	1
Planned redundancy in Network Elements for 50% capacity	90%	Service Specific
End-to-end Network capacity Maximum Loading Factor	80%	N/A
Round Trip (RT) End-to-End latency (ms) [worst case around the world, e.g. Karachi to New York to Karachi, applicable for fiber-optic connectivity]	350	500
Round Trip (RT) End-to-End latency (ms) [worst case between any two points within Pakistan, applicable for fiber-optic connectivity]	90	100
Maximum cumulative down time in any calendar month on (IPLC or DPLC) traffic	< 5 hours	Service Specific
<b>Customer Service</b>		
Unplanned Outage Automated Notice (minutes)	15	N/A
Planned Automated Outage Notice (days)	2	1
Response to Assistance Request within 30 seconds (%)	98%	98%
Automated ticketing system for complaints	Yes	Yes
<b>Billing Complaints</b>		
Billing Complaints (%) Resolved within 24 hrs.	95%	90%
Billing Complaints (%) Resolved Within 48 hrs.	99%	95%
Billing Accuracy in Seconds	Yes	Yes
<b>Service Complaints</b>		
Service Provisioning Resolved within 24 hours	97%	95%
Response to a Complaint within 30 seconds (%)	98%	98%
<b>Network Management &amp; Security</b>		
Mandatory Personal Information Security	Yes	Yes
Provisioning of Network Management System (NMS)	Yes	Yes
Provisioning of Computerized Customer Complaint Database	Yes	Yes
Network Security	Yes	N/A
Probability of Fraud on User's Account	0.0001	0.0001

**Legend:**

N/A: Not applicable;      ms: Milliseconds;

**CHECK LIST FORM**  
**(TO BE SUBMITTED WITH THE CVAS APPLICATION)**

S.No.	Items	Check (✓) if attached	No. of Pages	PTA use only
1.	<b>Covering letter addressed to DG (Licensing), PTA HQs-F-5/1, Islamabad.</b>			
2.	<b>Forms:-</b>			
	a. Authorization Letter on Covering Letter in favor of contact person/ director/ member/ BoD etc for correspondence with PTA.			
	b. Applicant Profile Form			
	c. Category Selection Form			
	d. Detail of all directors/ members/ BoDs etc showing names, designations, mailing addresses, contact numbers, emails and directorship in other companies (if any).			
3.	<b>Application Processing/ Registration Fee</b>			
4.	<b>True Copies of Legal Documents (by SECP)</b>			
	i. Certificate of Incorporation			
	ii. Memorandum & Article of Association			
	iii. Form-29			
5.	<b>Documents Issued By Organizations Other Than SECP (where Applicable)</b>			
	<b>a. Firms</b>			
	i. Form-C (issued by Registrar of Firms)			
	ii. Partnership deed			
	<b>b. Trust</b>			
	i. Trust Deed registered			
	ii. Detail of trustees			
	<b>c. NGOs</b>			
	i. Certificate of registration issued by concerned authority duly attested			
	ii. Memorandum & articles of association, bye-laws etc			
<b>d. Govt. Departments</b>				
i. Application signed/ authorized by Head of department				

	ii. Contact person on behalf of the department			
	iii. Copy of mandate/scope/charter under which the proposed services will be provided.			
	<b>e. Individual</b> i. Proof of Identity			
6.	a. Attested Copies of Computerized National Identity Card for Pakistani national shareholder directors/board of directors/trustees/members etc. b. Attested copies of Passports of foreign nationals duly attested by MoFA after security clearance.			
7.	<b>Undertaking on duly notarized stamp paper:</b> a. That neither the applicant Company nor its shareholder directors are defaulter(s) of PTA and any bank in Pakistan. b. In the case of NGO and trusts members of the Board have never been declared insolvent or convicted by a court of law.			
8.	Bio-data of key management personnel (CEO/CTO/Directors /Board/members etc)			
9.	<b>(For CVAS License Applicants Only)</b> Brief Description of the Applicant's Business Plan Including Bank statement in the name of the applicant, 3 to 5 years business plan (projected balance sheet, profit and loss account, cash flow statement, project cost).			
10.	<b>Network Plan showing:</b> a. Type of Services b. Purpose c. Mechanism for provision of services d. Subscription procedure and promotion campaign details ( <b>For CVAS Registration applicants</b> )			
11.	Copy of Service Level Agreement(s) with operator(s) for SMS Aggregator Services ( <b>For CVAS Registration Applicants</b> ).			

**Notes:**

- \* A Defaulter of PTA can't apply for any license. The shareholders/members of the defaulter company/trust/NGO etc cannot have ownership of any amount in the new company/trust/NGO applying for any telecom service.
- \* The Authority reserves the rights to require any other documents/information from the applicant. Mere submission of documents does not make the applicant eligible for license
- \* Submission of all above documents/information is mandatory for evaluation of license application.



Application No. (to be filled by PTA)

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### Category Selection Form

(Please fill items I through III below & submit with the application)

I. Commercial  or Not-For-Profit

### II. Type of License or Registration *(choose any one)*

**Data Class Value Added License Service**  
 [Data rate: ANY]  
 [Services: Any number of service types<sup>1</sup>, through PTA licensed operators, may be chosen. In future, relevant additions to the services may be made by the Authority from time to time]

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**Voice Class Value Added License Service**  
 [Voice only services<sup>2</sup>, through PTA licensed operators]

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**Class Value Added Registered Service<sup>3</sup>**

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### III. Province(s) selected<sup>4</sup> *(check as many as desired)*

Baluchistan	<input type="checkbox"/>	NWFP	<input type="checkbox"/>
Sindh	<input type="checkbox"/>	Punjab	<input type="checkbox"/>

Or

Nationwide

<sup>1</sup> Vehicle Tracking, Data Service, Internet Service or as added by the Authority from time to time.

<sup>2</sup> Payphone and Premium Rate Services or any other related service which may be added by the Authority from time to time.

<sup>3</sup> Registered Services include: Video Conferencing; Voice Mail; SMS Aggregator; Content Service Provider; or any other related service as added by the Authority from time to time.

<sup>4</sup> Selection desired for licensed value added services only. All registrations are for nationwide services.







## License Fee<sup>6</sup> Framework

License Processing Fee (non-refundable): Rs. 5,500.00

CVALS Types	Initial License Fee (ILF)	
	General <sup>7</sup> (Rs)	Not-for-Profit Organization <sup>8</sup> (Rs)
CVALS per Province	100,000	50,000
CVALS (Nationwide)	300,000	150,000

Registration	Registration Fee
(For 5 years only) <sup>1</sup>	10,000

<sup>6</sup> All Bank Drafts to be deposited at National Bank of Pakistan, Marriott Hotel Branch, Islamabad, in the name of 'Pakistan Telecommunication Authority Fund' A/C No. NIDA-11.

<sup>7</sup> General includes both the Service Providers and Corporate Entities (excluding Not-for-Profit Organization).

Annual License Fee for General - Service Providers & Corporate Entities will be 0.5% of Annual Gross Revenue (AGR). Inter-operator leased line or interconnection charges shall be subtracted from AGR for only those licensees which do not have a Local-Loop/ Long Distance International / Cellular or Infra-structure license of their own or its subsidiary or parent holding company.

ILF shall be 50% for Baluchistan.

<sup>8</sup> Annual License Fee for Not-for-Profit Organizations will be Rs. 5000 per annum.



## 1. Fees

### a) Initial License Fee

The Licensee shall pay the initial license fee to the Authority for the as given in the table on page (1) of this document) prior to the Effective Date or as modified through regulations from time to time by the Authority.

### b) Annual Fees

- i) The Licensee shall pay the annual license fee to the Authority, calculated on the basis of 0.5% of the Licensee's Annual Gross Revenue (AGR) from Licensed Services for the most recently completed Financial Year.
- ii) Inter-operator leased line or interconnection charges shall be subtracted from AGR for only those licensees which do not have a Local-Loop/ Long Distance International / Cellular or Infra-structure license of their own or its subsidiary or parent holding company.
- iii) In case the Licensee is a 'Not-For-Profit' organization, it shall pay Rs. 5000 per annum as the annual license fee to the Authority.
- iv) All CVARS registrants will avail an annual license fee waiver for a five (5) year term or as decided by the Authority.
- v) The Licensee shall pay the annual fee to the Authority within 120 days of the end of the Financial Year to which such fee relate and shall submit the audited financial statements in support of its calculations of annual fee and contributions payable pursuant to this document. The Authority shall have the right to audit such statements at any time.
- vi) In addition to any other remedies available to the Authority, late payment fee shall incur an additional fee calculated at the rate of 2% per month on the outstanding amount, for every day or part thereof from the due date until paid.

### c) Other

In addition to the fees payable hereunder, the Licensee shall pay to the Authority all fees required to be paid under the Act, Rules and Regulations.

## 2) Payment Mode

- a) The fee(s) may be deposited in the PTA Collection Account maintained with National Bank of Pakistan, Islamabad.
- b) The Licensee may also pay through crossed Cheque, Pay order or Bank draft drawn in favor of Pakistan Telecommunication Authority.



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- c) The Fee(s) may also be remitted through Telegraphic Transfer or any other electronic mode under intimation to Director Licensing.

**3) Common Short Code Fees**

- a) Refer to PTA document “Number Allocation & Administration Regulations, 2005” for details and charges.



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# General Conditions

Class Value Added Licensed Services

(CVALS)



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## 1 Scope of License

- 1.1 Class Value Added license authorizes the licensee:
  - 1.1.1 To provide Class Value Added Licensed Services (CVALS) subject to their inclusion in PTA's document: 'CVALS cat (1.0) FORM-B';
  - 1.1.2 Such other ICT services as the Authority may, by regulation, approve from time to time and add to the document 'CVALS cat (1.0) FORM-B'.
- 1.2 The licensee shall provide authorized services to the end users through the access provided by Access Providers (APs) or infrastructure obtained from Infrastructure Licensees (IL) while conforming to all the license conditions and Rules & Regulations.
- 1.3 The licensee shall install his equipment in his own building and premises unless a mutually agreeable arrangement can be settled between the licensee and an AP or an IL.
- 1.4 **This license does not authorize the licensee:**
  - 1.4.1 To establish, operate or maintain a public telecommunication network, or telecommunication infrastructure;
  - 1.4.2 The origination, transportation and/or termination of voice if the license is for 'data only' services ;
  - 1.4.3 'Connection Oriented Switching' through data only licenses without specific approvals from PTA;
  - 1.4.4 'Connctionless Switching' for voice license;
  - 1.4.5 To provide Telecommunication services or networking outside the licensed region;
  - 1.4.6 To provide services which are neither mentioned in section 1.1 or its sub-paras above, nor in PTA document 'CVALS cat (1.0) FORM-B', nor



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those services which otherwise are allowed to Access Provider licensees;

- 1.4.7 To fan religious, racial, sectarian, parochial, linguistic, gender, class or regional hatred.
- 1.4.8 To such acts which may jeopardize the security, beliefs and heritage of Pakistan and its relationship with its allies around the world.
- 1.4.9 Any kind of telecommunication service outside the scope of this license or restricted by the authority from time to time.

**1.5 This license makes it mandatory for the licensee to establish:**

- 1.5.1 Inter-operator 'Service Level Agreements' (I-SLAs) between Access Providers and/or Infrastructure Providers on one hand and itself (the licensee) on the other hand for offering CVALS e.g. Internet, Data, Payphone, Premium rate, MMS, Call Center connectivity and such other services outlined by the Authority from time to time in 'CVALS(0605)1.0 cat-B', for last mile connectivity or backhaul links. For guidance refer to 'CVALS sla (1.0) gl-I'. I-SLAs will require prior PTA approval.
- 1.5.2 Customer Service Level Agreements (C-SLA) i.e. Code of Commercial Conduct between itself (the licensee) on one hand and its customers (private or public) on the other hand. For guidance refer to 'CVALS sla (1.0) gl-I'. It will require prior PTA approval.
- 1.5.3 **Quality of Service:** The provisions of the Pakistan Telecommunication ( re-organization) Act,1996, Pakistan Telecommunication Rules, 2000' and Regulation 15 of 'Pakistan Telecommunication Authority (Functions and Powers) Regulations, 2004' shall apply.



## **2 License Term**

- 2.1 This license shall come into force immediately on the date the license is issued and shall be valid for a term of 15 (fifteen) years.
- 2.2 If the licensee wishes to renew the license at the expiry of the initial term, it shall submit to the Authority a written renewal request at least 90 days prior to the expiry of the initial term.

## **3 Spectrum**

- 3.1 The provisions of the Pakistan Telecommunication ( re-organization) Act,1996, Pakistan Telecommunication Rules, 2000' and 'Pakistan Telecommunication Authority ( Functions and Powers) Regulations, 2004' shall apply (reference shall be made to the spectrum guide for Class Value Added Licensed Services, see 'CVALS spm (1.0) gl-H').

## **4 Interoperability**

- 4.1 The licensee will ensure that its network, systems and interfaces conform to the requirements of the other operators or Access Providers or Infrastructure Providers, ensuring security of all public and private networks.
- 4.2 All unresolved interoperability disputes or differences between the licensee and the AP or between the licensee and the Infrastructure Provider shall be referred to the Authority. Authority's decision shall be final and binding on both the parties.

## **5 Fee, Tariff, Interconnection, Accounting and Auditing**

- 5.1 The licensee shall pay all fees (initial application/processing, Common Short Codes, Renewal etc) to the Pakistan Telecommunication Authority, promptly within the due date, as per the PTA document 'CVALS fee (1.0) doc-E' subject to changes made by the Authority from time to time.



- 5.2 The Licensee shall provide access to the Authority to any of its premise, equipment and information generated there-of for:
- 5.2.1 Financial,
  - 5.2.2 Technical and
  - 5.2.3 Regulatory Audits.
- 5.3 The licensee shall maintain financial records and books of accounts for its last three years of service.
- 5.4 The licensee shall meet the requirements set in the following Authority approved PTA documents:
- 5.4.1 For fee framework: 'CVALS fee (1.0) doc-E'
  - 5.4.2 For interconnect: 'CVALS itn (1.0) gl-G'
- 5.5 The Licensee shall provide suitable equipment and assistance, at its own cost at the premises designated by the Authority, to measure and traffic record and billing verification, in a manner specified by the Authority.

## 6 National Security

- 6.1 The licensee shall take measures to ensure highest level of security of Pakistan, comply with the requirements of 'Section 54' of the Act and fulfil any other national security requirements under any other Pakistani law.
- 6.2 If desired by PTA, the licensee and/ or the service provider will have to provide "Lawful Interception" (LI) equipment to the nationally authorized security organizations, at the licensee's own expense. PTA will approve the vendor
- 6.3 It is mandatory for the licensee to submit No Objection Certificates (NOCs) from Ministry of Foreign Affairs for all foreign experts working for it, its subsidiaries, contractor or sub-contractors, in Pakistan. The number of such foreign experts shall reduce gradually.]



## **7 Audit by the Authority**

7.1 The Authority is empowered by law to commence an audit or investigation, at licensee's expense, concerning the licensee's performance when there is a failure to comply with any requirement outlined in the documents referred by:

- 7.1.1 'Pakistan Telecommunication Rules, 2000' ,
- 7.1.2 'Pakistan Telecommunication Authority (Functions and Powers) Regulations, 2004' and
- 7.1.3 Regulations 12 of Non-voice Communication Network Service Regulations, 2004 .
- 7.1.4 Card Payphone Regulations, 2004.

## **8 Termination of the License**

8.1 The following will apply:

- 8.1.1 The provisions of the Pakistan Telecommunication ( re-organization) Act, 1996,
- 8.1.2 Pakistan Telecommunication Rules, 2000' and
- 8.1.3 'Pakistan Telecommunication Authority (Functions and Powers) Regulations, 2004'.

8.2 Reference shall also be made to the relevant provisions of Regulations.

## **9 Sanctions & Penalties**

9.1 The following will apply:

- 9.1.1 The provisions of the Pakistan Telecommunication ( re-organization) Act, 1996,
- 9.1.2 Pakistan Telecommunication Rules, 2000' and
- 9.1.3 Regulation 20 of 'Pakistan Telecommunication Authority (Functions and Powers) Regulations, 2004'.



9.2 Reference shall be made to the relevant provisions of Regulations.

## 10 Force Majeure

10.1 Regulations 32 of Non-voice Communication Network Service Regulations, 2004 shall apply.

10.2 Force Majeure clause of the relevant PTA Regulations shall apply.

## 11 Miscellaneous

11.1 **Assignment of Rights:** Rule 11 of Pakistan Telecommunication Rules, 2000' and Regulation 14 of 'Pakistan Telecommunication Authority (Functions and Powers) Regulations, 2004' shall apply.

11.2 If any information provided by the licensee at the time of the issuance of the license changes later on, it will be mandatory for the licensee to provide updated information 30 days prior to such a change.

11.3 The licensee shall ensure that the services established by him do not cause any damage or interference to any person, system or network of any Access Provider, Infrastructure Provider or any other telecommunication system or any public or private property. The licensee shall also ensure that the circuits established by him operate strictly according to the recommendations laid down by the ITU or other similar recognized relevant international bodies. In case of failure on the part of the licensee to comply with these conditions, the Authority may invoke section 23 of the Act which apart from other powers, gives right to the Authority to suspend or terminate the license.

11.4 The licensee shall not enter into any agreement or arrangements, which shall in any way, prevent or restrict competition in relation to the operation of any telecommunication service licensed by the Authority.

11.5 The Service Provider shall not discontinue, terminate or wind-up its service, in part or full without prior approval of the Authority and



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settlement of all claims / obligations / accounts with other licensed operators, Access Providers, Infrastructure Provider, its customers and the Authority.

- 11.6 The service shall not fan religious, racial, sectarian, parochial, linguistic, class or regional hatred.



## Key Definitions

**Definitions: (1)** In these Regulations unless the Context or Subject otherwise requires the words and expressions used but not defined herein, shall bear the same meaning as given in the Act or the Rules.

- 1) **"Access Infrastructure" (AI)** means wires, cables (any sort), optical or wireless equipment or its peripherals which enable its provider to provide access to a home, building, any networking and ICT equipment, or any other electronic inter-connectable equipment.
- 2) **"Access Provider" (AP)** means a provider of 'local-loop' access through its Local-Loop License or provider of 'long distance or international' access through its LDI License.
- 3) **"Act"** means the Pakistan Telecommunication (Re-organization) Act, 1996 (XVII of 1996);
- 4) **"Authority"** means the Pakistan Telecommunication Authority established under section 3;
- 5) **"basic telephone service"** means the provision of any telecommunication service which consists of—
  - a) two-way live voice telephone service, in digital form or otherwise, over any public fixed switched network or between base stations or switches or modes of any public mobile switched network;
  - b) real-time transmission or reception of facsimile images over a public fixed switched network;
  - c) international telephony service; and
  - d) the lease of circuits for the provision of the services specified in sub-clauses (i),



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(ii) and (iii);

- 6) **“Audio”** means non-real time audible sound-waves entering a microphone or emitting from a loud-speaker which when strike human ear can easily be recognized as sound which may or may not have any meaning. It as a non-interactive communication between two or more human beings, and where the end-to-end network transport delay in one direction is more than **five minutes (300,000 milliseconds)**. However a non-interactive one way (simplex) only multimedia broadcast communication, which is available publicly to as many subscribers as may opt for, may be allowed **without any limits set on transmission delays. For such non-interactive broadcast audio services, transmission in the other direction may shall be allowed with a waiting delay of five minutes (300,000 milliseconds)**.
- 7) **“Broadband”** means and includes a high speed, always-on Internet connection at speeds greater than or equal to 128 kbps.
- 8) **“Backhaul”** means Transmission of content from the content source to the local loop aggregation point such as the exchange, Point-of-Presence (PoP), Point-of-Interface (POI), etc.
- 9) **“Board”** means the Frequency Allocation Board established under section 42;
- 10) **“Broadband Wireless Access”** (BWA) means a wireless delivery mechanism to the customer such that the subscribed data rates are at least 128 kbps.
- 11) **“Bandwidth”** means the range of frequencies available to be occupied by signals. In analogue systems it is measured in terms of Hertz (Hz) and in digital systems in bits per second (bit/s). The higher the bandwidth, the greater the amount of information that can be transmitted in a given time. High bandwidth channels are referred to as *broadband* which typically means at least 128 kbps.
- 12) **“Burglar Alarm Service”** means a central monitoring station, which shall receive



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alarm information from an entity which is intended to be protected, in case of an intrusion or an attempted intrusion. The protected entity of a subscribed customer shall be equipped with alarm system, that shall include the sensing devices that can detect break-ins of those entities under detection & then notify the control panel, alarm monitoring station and protective agencies for appropriate legal action;

- 13) **“Carrier Access Provider”** (CAP) means any licensed provider of telecommunication access Infrastructure providing connectivity between two or more telecom regions, two different local calling regions, or internationally whether in the form of wires, cables (any sort), optical, satellite or wireless transport media and external to any private premises which crosses or runs alongside - public roads, highways, motorways, expressways, causeways, bridges, overpass, underpass, desserts, rivers, railroads, public or commercial buildings airwaves, space etc. A Carrier Access Provider can only be a licensed LDI, GMPCS, Cellular or PTCL service provider who can also provide switching.
- 14) **“Call center”** means a centralized and usually remote telecommunication terminating or originating office, but not both, staffed by telemarketing, telesales, or technical support staff of a company with limited telecommunication networking, without the switching or retransmitting capability. Such services are limited to calls made in one direction only. Switching can only be provided by a licensed public switch network operator.
- a) **Call centers** are ‘Customer Services Centers’ utilizing ICT to automate only inbound or outbound telephone activities and services using the infrastructure of an Access Provider.
- 15) **“Card Pay Phone service”** means a communication network established through the **AI provided by an AP** that is used by the general public against instant or pre-payment through indoor and outdoor Public Call Offices for local, long distance or International calls.



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- 16) **“Content”** means Information in an electronic format e.g, Audio, text, image, symbol etc which occupies bandwidth when transmitted through ICT transport media.
- 17) **“Customer Premises Equipment”(CPE)** means an equipment terminating at the user’s premises that allows the user at the terminating receiving end to convert the received electronic information in a format that is easy to interpret by humans e.g. a PC, TV, PDA, modem, PBX, telephone, etc.
- 18) **“Calling Party Pays” (CPP)** means billing option whereby the person making the call is charged. This is in contrast to billing the recipient of the call.
- 19) **“Competitive services”** means similar telecommunication services that may be provided by two or more licensees.
- 20) **“Data communication network”** means a communication network over which a number of data devices can be inter-connected for exchange of information at varying speeds, formats and protocols but conforming to PTA approved standards based on digital data, exchanged between two computers in an agreed format over a data communication network;
- 21) **“Data communication”** means transfer of information based on digital data, exchanged between two terminal equipment in an agreed format over any authorized telecommunication network;
- 22) **“Data service”** means a service that involves electronic transfer of non-voice content.
- 23) **“Dial up”** means a method of connecting to the a telecommunication switched network, where the user has to dial a telephone number over an analogue or digital line and allow the system to establish a communication link with another terminal at the terminating end.
- 24) **“Direct To Home” (DTH)** means a link that allows the receiving of broadcast TV



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channels by its terminal end-user over Satellite directly through a customer-premise mounted satellite dish.

- 25) **“Digital Subscriber Loop” (DSL)** means a technology that is capable of transforming ordinary POTS phone lines into high speed digital lines capable of supporting data rates between 128Kbps and 54Mbps or more by virtue of digital modems and DSLAMs.
- 26) **“Exchange”** means Point of Presence of a telephone operator that allows connectivity and public switching between telephone users.
- 27) **“Infrastructure Provider” (InP)** means entities licensed by the Authority to provide Infrastructure, for transmission of information outside a private premise, but that license does not allow them to provide switching services. InPs licensees are not allowed to provide services directly to end customers and consumers of the service.
- 28) **“Gross revenue”** means turnover or gross income exclusive of trade discount, shown on invoice of bills, derived from sale of goods or from rendering, giving or supplying services or benefits or from execution of contracts, for the licensed services or business;
- 29) **“Hybrid Fiber and Coaxial cable” (HFC)** means a communication network that comprises of primary fiber optic cable with an extension of a coaxial cable terminating at the users’ premises.
- 30) **“Internet Services”** means services to provide and manage public Internet and Email content while taking care of national security concerns.
- 31) **“Internet Service Provider” (ISP)** means an ISP which provides Internet Services through networking by acquiring Access through Access Providers and Infrastructure Providers. ISPs may also offer their own proprietary content and access to online services such as E-mail.



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- 32) "**Interconnection**" means the physical and logical connection of two operator's connectable systems thereby allowing customers of one system to connect with customers of the other system, or to access telecommunication services provided from the other system;
- 33) "**Interconnection agreement**" means an agreement between two operators relating to interconnection services;
- 34) "**Interconnection services**" means telecommunication services for the purpose of the conveyance of intelligence between two connectable systems and including any ancillary services which an operator has requested from another operator and in respect of which that other operator is obliged to enter into an agreement with the operator to provide in accordance with Part III of these rules;
- 35) "**Internet**" means networks consisting of several thousand publicly interconnected networks around the globe that use Internet Protocols (IP).
- 36) "**ISDN**" means *Integrated Services Digital Network*. A standard ITU recommended method of providing integrated services through digital networks and associated interfaces that provide digital connections between user-termination-point (UTP) and network termination point interfaces.
- 37) "**ICT**" means (Information and Communication Technologies)- A term ubiquitously used to represent services and networks that are driven by computer, Internet and Telecommunication Technologies.
- 38) "**International telecommunication services**" means the telecommunication services provided between Pakistan and any other country through the Carrier Access Infrastructure provided by PTCL, LDIs or other authorized InPs;
- 39) "**LDI**" means Long Distance and International operator / service provider. It includes end to end communication and switching between points that are located



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within Pakistan with points that are located outside of Pakistan. An LDI is a CAP by default;

- 40) **“Local Access Provider” (LAP)** means any licensed provider of information technology and telecommunication Access Infrastructure for last mile connectivity, whether in the form of wires, cables (any sort), optical or wireless transport media and external to any private premises which crosses or runs alongside - public roads, highways, motorways, expressways, causeways, bridges, overpass, underpass, desserts, rivers, railroads, public or commercial buildings airwaves, space etc. A Local Access Provider can only be a licensed LL, GMPCS, Cellular or PTCL service provider who can also provide switching.
- 41) **“Local Loop”** means an authorized LAP and a service provider which offers communication channels, with or without switching to an end user’s terminal equipment;
- 42) **“Multimedia”** means a service which may comprise of one or more components from among (a) Audio, (b) image (still or moving) or (c) Text, with continuous communication in only one direction, but is not interactive;
- 43) **“Multimedia Messaging Services”** means Multi-media Messaging Service (MMS)” means a non-interactive, non-real time multimedia information processing service through a telecom network. This system can store a multimedia message from an originator for later retrieval by the destination party;
- 44) **“Licensee”** means the grantee or holder of a license;
- 45) **“National Internet Exchanges” (NIEs)** means, a national point of interconnect and exchange of data, for non-voice and Internet service providers.
- 46) **“Person”** means any individual, partnership, association, Joint Stock Company, joint venture, trust or corporation;
- 47) **“Public switched telecommunication network”** means a telecommunication



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- system, which allows intelligence to be switched between members of the public;
- 48) "**Public data network**" means a network established and operated for the purpose of providing electronic data transmission services to the public depending on regulations and with PTA approval may carry traffic of other services;
- 49) "**Public Data Transmission Service**" means a data transmission services established and operated by means of a separately licensed public data network, excluding Basic Telephone Service;
- 50) "**Private Circuit**" means a telecommunication facility which provides for transmission capacity between fixed points within a telecommunication system and does not enable the customer to control the switching functions.
- 51) "**Public Switched Network**" means a telecommunication system which allows intelligence to be switched between members of the public;
- 52) "**Pakistan Internet Exchange**" (PIE) means PTCL's owned IP based data switching network that allows the Internet and data traffic to route to locations either within the country or in and out of Pakistan.
- 53) "**Point of Presence**" (PoP) means a physical traffic aggregation/ distribution hub for a telecommunications service provider. At times it may be substituted for Point-of-Interface (PoI).
- 54) "**Premium Rate Service**" (PRS) means a pre-approved service, morally accepted by all factions of the society, to end-users through pre-negotiated revenue sharing arrangements with one or more APs e.g. 09xx charged services. Tariffs for such services have to be approved by the Authority.
- 55) "**Real Time**" means live, interactive, bi-directional telecommunication information exchange where the one direction (simplex) end-to-end delay is of less than or equal to 300,000 milliseconds.



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- 56) **“Regulation”** means the regulations made under the Act;
- 57) **“Rules”** means all or any rules issued from time to time by the Federal Government under Sections 57 of the Act.
- 58) **“Telecommunication Equipment”** means switches, equipment, wires, cables, apparatus, poles, structures, ducts, man-holes and other tangible property, software and data, other than terminal equipment, comprising any telecommunication system or used in connection with any telecommunication service;
- 59) **“Terminal Equipment”** means any apparatus directly or indirectly connected to any network termination point and used for sending, processing or receiving intelligence;
- 60) **“Telecommunication system”** means any electrical, electro-magnetic, electronic, optical or opto-electronic system for the emission, conveyance, switching or reception of any intelligence within, or into, or from, Pakistan, whether or not that intelligence is subjected to re-arrangement, computation or any other process in the course of operation of the system, and includes a cable transmission system, a cable television transmission system and terminal equipment;
- 61) **“Telecommunication service”** means a service consisting in the emission, conveyance, switching or reception of any intelligence within, or into, or from, Pakistan by any electrical, electro-magnetic, electronic, optical or opto-electronic system, whether or not the intelligence is subjected to re-arrangement, computation or any other process in the course of the service;
- 62) **“Trunk Radio Service”** means the service provided over a public access mobile group radio system in which the communications traffic passes through any one of the group of channels selected automatically by the system.
- 63) **“Type-A Data Class Value Added License”** means provision of a value added



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licensed service, identified by PTA, at speeds upto but not including 128 kbps but which is incapable of providing voice services, Access infrastructure or Switching services unless through an Access Provider's agreement.

- 64) **"Type-B Data Class Value Added License"** means provision of a value added licensed service, identified by PTA, at any data rates which is incapable of providing voice services, Access infrastructure or Switching services unless through an Access Provider's agreement.
- 65) **"Type-C Voice Class Value Added License"** means provision of a value added licensed service, identified by PTA, and limited to Public Payphones, Premium Rate Service and Trunk Radio Service.
- 66) **"Type-D Registration"** means provision of a value added registered service, identified by PTA, and limited to only those IT enabled services identified by PTA from time to time.
- 67) **"video"** means any visual images which are such that sequences of them may be seen as moving images;
- 68) **"Video Conferencing"** means simultaneous transmission of audio, image (still or moving) and text, at least any two from among them. Such service shall be limited for corporate usage for a closed user group within the same organization through managed services within Pakistan for which connectivity shall be obtained through APs.
- 69) **"Virtual Private Network" (VPN)** means a secure and encrypted communication network that links two pre-defined and distant telecommunication terminals between two locations having fixed caller and called party identification. VPN is an intelligent Network IN service which allows predefined point-to-point communication between two terminals of the same organization to establish a private link (nation wide) through APs. Such a service will not be used for any type of voice communication, whether private or public.



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- 70) **“Vehicle tracking service”** means a telecommunication service used for locating a vehicle by installing terminal equipment in the vehicle and tracked through terrestrial wireless or satellite communication.
- 71) **“Voice”** means an interactive and live two-way (at least) speech between two or more human beings through a telecommunication system through any medium but having a simplex (one-way) transmission delay of less than or equal to 500 milliseconds.
- 72) **“VSAT”** (Very Small Aperture Antenna) means an earthbound station used in satellite communication of data, audio, voice and video signals, excluding broadcast television.
- 73) **“WiFi”** (Wireless Fidelity) means a standards based wireless LAN technology enabling the delivery of broadband access over short distances radiating low EIRP, e.g. IEEE 802.11b and its variations;
- 74) **“WiMax”** (Wireless Microwave Access) means a standards based wireless technology enabling the delivery data for last mile wireless broadband access over relatively longer distances e.g. IEEE 802.16.
- 75) **“Wireless Application Protocol” (WAP)** stands is a GSM protocol for enabling low data rate wireless communication through a GSM network for surfing Internet from a GSM mobile station.



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## **Allocation of Common-Short-Codes (CSC) & Identification Number**

Refer to PTA document “Number Allocation & Administration Regulations, 2005” for details and charges.



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# Guidelines



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## **Interconnection Framework Guidelines**

### **1) General**

- a) Interconnection between the Telecommunication System of the Licensee and the Telecommunication Systems of other Operators shall be governed by the “Pakistan Telecom Rules 2000” (chapter IV) and “Interconnection Guidelines” issued by the Authority.
- b) The Telecommunication System of the Licensee is deemed to be a Connectable System for the purposes of the Rules and Interconnection Guidelines.



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## **Spectrum Guide and Obligations of Value Added Services** **Class Licensee**

The licensee shall follow the provisions of Pakistan Telecom (Re-org) Act, 1996, Rules, Regulations, and Terms & Conditions of the Licenses issued thereunder. Moreover, PTA/ FAB guidelines and policies on allocation of frequency shall apply.



## SLA Guidelines

### 1) INTRODUCTION

- a) Class Value Added Licensed-Service (CVALS) will be backed by a Service Level Agreement (SLA) that guarantees timely installation, continuous network uptime and excellent customer support. Each SLA will address metrics, of which some essential ones are mentioned below, for their services located within the jurisdiction of the authorized Telecom Regions throughout Pakistan:
  - i) **Network Availability**
  - ii) **Mean Time To Restore (MTTR)**
  - iii) **Automated Outage Notification**
  - iv) **Installation Interval**
- b) These SLAs are measured from the Licensees' Network Operations Center (NOC) to each Customer's site, including where applicable, across the authorized Access Providers' networks and "last-mile" local loops for a complete measurement of network availability. At the Customer's site, the SLA measurements are up to the Network Interface Device (NID) at the Minimum Point of Entry (MPoE). Customer Premise Equipment (CPE) is included in these measurements, only if the equipment is also provided by the licensee, it's sister organization or one of it's affiliate otherwise it is not included in the SLA measurements, unless otherwise noted.
- c) Each SLA will include details of Service Provider commitments and Customers' obligations on a monthly or any other suitable periodic basis. Just a few are discussed here for convenience. There may be certain mutual modifications made by the agreeing parties.

### 2) Network Availability SLA

- a) The Service provider strives to maintain maximum network availability and backs this commitment with the above Network Availability SLA metrics. SLA for Network Availability is measured in minutes of uptime over the calendar month, during which the Service Provider's circuit remained either useful or failed to communicate or transport packets to the customer.

<b>Network</b>	=	<b>(Total Minutes in Month) - ( Total Minutes of Unavailability in Month</b>
<b>Availability</b>		<b>Total Minutes in Month</b>

- b) **Definition:** The Network Availability SLA measurement includes all network elements between the provider's NOC and NID at the Customer's site of MPOE, as defined above. Failover



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(Redundant) connections must be professionally installed by the service provider and maintained in accordance with its “*Failover Installation & Maintenance Standards*”, and be used exclusively for this purpose; otherwise, the Network Availability SLA without Failover (Redundant) connection will apply.

- c) **Measurement:** Network Availability is measured ‘24 x 7 x 365’ from the NOC using the methodology presented by the service provider. The SLA shall make distinctive arrangements for *Residential* and *Non-residential* customers, if applicable.
- i) The ‘Quality of Service’ sampling frequency from the Network Management System (NMS) shall increase whenever a failure of the service is detected until such time that the service is restored.
  - ii) The service provider will open a trouble ticket if the Customer or End User contacts the service provider’s NOC to inform them of a service-related issue.
  - iii) The period of Unavailability begins with the outage start time and ends when the network senses a successful response.
  - iv) Network unavailability does not include periods of service degradation, such as slow data transmission.
  - v) The Network Availability SLA takes effect on a connection-by-connection basis beginning on the 1st calendar day of the first full month after each circuit has been installed and activated.
- d) **Remedy:** If the Customer suspects that their Network Availability SLA has not been met, the Customer must request an SLA review by sending an email to *service Provider’s Customer Service Number or its Email* listing the affected circuit(s) and associated outage period(s) within 15 calendar days of the end of the month in which the suspected SLA violation occurred.
- i) Upon receiving the email, the service provider will acknowledge its receipt and provide regular updates as it researches and calculates the Customer's Network Availability SLA metrics for the previous calendar month.
  - ii) If the service provider determines that the Network Availability SLA is not met, ***a credit will be applied against the charges for the affected circuit*** during the subsequent billing cycle based on a ***pre-approved CREDIT schedule***.

### 3) Mean Time To Restore (MTTR) SLA

- a) The service provider is committed to quickly and effectively resolve any service related issues that the Customer may experience.
- i) The service provider would stand behind its commitment with the above ‘Mean Time To Restore’ (MTTR) SLA metrics.
  - ii) The service provider’s MTTR SLA is measured as ***the average time it takes to restore all outages for all Customer sites with similar circuit types during a calendar month***.



<b>MTTR</b>	=	<b><math>\Sigma(\text{Time Trouble Ticket is Closed}) - (\text{Time Trouble Ticket is Opened})</math></b>
<b>(for Circuit type)</b>		<b><math>\Sigma(\text{Trouble Tickets})</math></b>

- b) **Definition:** Mean Time To Restore ("MTTR") *is the period of time beginning when either the service provider or the Customer opens an outage-related trouble ticket indicating that a circuit is unavailable to transport packets or other information, as described in the Network Availability SLA above, and ending when service is restored and the trouble ticket is closed.*
  - i) The MTTR SLA takes effect on the *1st calendar day of the first full month after the initial order* of circuits has been installed and activated.
- c) **Measurement:** MTTR is calculated as *the statistical mean of the open/close intervals of all outage-related trouble tickets for a particular circuit type category, as categorized in the SLA Metrics Table above, within a calendar month.*
- d) **Remedy:** If the Customer suspects that the MTTR SLA has not been met:
  - i) the Customer must request an SLA review by sending an email to *service Provider's Customer Service Number or Email* listing the affected circuit(s) and associated outage period(s) within 15 calendar days of the end of the month in which the suspected MTTR SLA violation occurred.
  - ii) Upon receiving this email, the service provider will acknowledge its receipt and provide regular updates as it researches and calculates the Customer's MTTR SLA metrics for the previous calendar month.
  - iii) If the service provider determines that the SLA objective was not met, a credit of 10% of the MONTHLY AVERAGE BILL (MAB) for each circuit that experienced an outage (as documented in the service provider's Trouble Ticketing System) will be applied to the charges for those circuits during the subsequent billing cycle.

**4) Automated Outage Notification SLA**

- a) The Service Provider is committed to quickly notifying Customers of any service outages that they may experience.
  - i) The Service Provider stands behind its commitment with the above "Automated Outage Notification" SLA.
  - ii) The Service Provider Automated Outage Notification is measured as the time it takes to notify the Customer's primary contact via an *automated email of outages* that occur during a calendar month.

<b>Outage</b>	=	<b><math>\Sigma(\text{Time Outage Notification Email is Sent}) - (\text{Time outage Occurred})</math></b>
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Notification

(Total Number of Outages)

- b) **Definition:** Automated Outage Notification is defined as *the beginning of the time period when either the service provider or the Customer opens an outage-related trouble ticket indicating a circuit is unavailable to transport IP packets or other information, and ending when an email has been sent notifying the Customer's primary contact of the outage.*
- Outages are defined as periods of circuit unavailability, as described in the Network Availability SLA above.
  - If a period of unavailability is detected, the service provider will open a trouble ticket to record the event, *triggering the automated email notification.*
  - The Customer must opt for email outage notification* and provide the email address of a primary contact in their "Customer Support Procedures Document" to be eligible for this SLA.
- c) **Measurement:** "The Automated Outage Notification" SLA is calculated based on the *number of circuits with outage-related trouble tickets* for which the Customer was not notified within the "stated SLA time period".
- Outages caused by CPE are included provided, that the Customer has purchased the CPE through the service provider.
- d) **Remedy:** If the Customer suspects that the Automated Outage Notification SLA has not been met, the Customer must request an SLA review by sending an email to service Provider's Customer Service Number or Email listing the affected circuit(s) and the time of the outage(s) within 15 calendar days of the date that the suspected SLA violation occurred.
- Upon receiving this email, the service provider will acknowledge its receipt and provide regular updates as it researches the Automated Outage Notification records for the specified incident.
  - If the service provider determines that the Automated Outage Notification SLA objective was not met, a credit will be issued for each circuit that experienced an outage-related issue, as documented in the service provider "Trouble Ticketing System", during the subsequent billing cycle based on a predefined schedule.

## 5) Installation Interval SLA

- The service provider utilizes advanced systems and a skilled team of provisioning experts to ensure that Customer circuits are installed as quickly as possible. The service provider stands behind this commitment with the above "Installation Interval" SLA metrics.
- Definition:** The Installation Interval is *the period of time beginning when a complete and accurate circuit Enrolment Form has been submitted by the Customer or End User and ending when the circuit is activated and available to transport IP packets.*
  - Enrolment Forms that are rejected by the access provider are not included; if such Enrolment Forms are re-submitted, the new submission date applies.



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- c) **Measurement:** The Installation Interval calculation is subject to the following conditions:
- i) The Customer shall cooperate with the Service Provider in the installation process, including accurate completion of an Enrollment Form containing detailed demarcation information and contact information of **onsite** personnel.
  - ii) Changes in an order made by or on behalf of the Customer, or the occurrence of events outside the control of the Service Provider, such as Force Majeure, may result in delays that will be excluded from the “Installation Interval” SLA calculation.
  - iii) The End User or its representative **must be physically present** onsite at the time of installation and must provide access to the designated building's phone closet(s) on the date(s) agreed to by the Service Provider Provisioning department.
  - iv) Such building access and escort must also be provided to the local telecom provider to perform its tasks necessary for installation of the circuit.
  - v) All circuits (including local loops, splitters, amplifiers, signal conditioning circuits, cross-connects and end-link circuits etc) must be:
    - (1) ordered by the Service Provider and
    - (2) all equipment must be provided Service Provider and
    - (3) configured by the Service Provider.
  - vi) With the exception of *residential xDSL*, all broadband services must be installed by a technician of the Service Provider.
  - vii) SLA only applies to standard configurations, as defined in the “Customer Implementation Plan” and the “Customer Support Procedures” document.
  - viii) After the Service Provider’s Installation process has completed, the “Installation Interval” does not include the time between when the CPE is delivered to the Customer site and when the Customer, End User or Customer technician connects its equipment to the circuit, plugs it into a power source and turns it on, and notifies the service Provider’s NOC that it is ready for service activation.
  - ix) Installation will be deemed complete when the Service Provider **can** successfully sense the communications device located at the Customer premise.
- d) **Remedy:** If the Customer suspects that the Installation Interval SLA has not been met, the Customer must request an SLA review by sending an email to ***service Provider’s Customer Service Number or Email*** listing:
- i) the affected site(s) and associated activation dates within 15 calendar days of the date the circuit was activated.
  - ii) upon receiving this email, the Service Provider will acknowledge its receipt and provide regular updates as it researches the notes and activity logs within the Service Provider’s Provisioning System.
  - iii) If Service Provider determines that the “Installation Interval” SLA was not met, a credit will be applied to the charges for the affected circuit during the subsequent billing cycle based on a predefined schedule.
  - iv) Even in the event of a delay in installation that entitles the Customer to an Installation Interval SLA credit, Customer ***shall still be liable for the local loop charges associated with the affected circuit***, if applicable, beginning on the actual installation date of the local loop.



## 6) General Terms & Conditions

- a) The Customer must qualify for the SLA by subscribing to either a class-A, B or C Service as part of either the Service Provider's single or multi-service termination plan.
  - i) The Customer account must be current and in good standing, otherwise no SLA credits will be issued.
  - ii) This SLA only applies to circuits originating and terminating in the contiguous PAKISTAN that the Service Provider has provisioned itself indirectly or through one of its Certified Access Providers, and that have met the Service Provider's circuit quality acceptance criteria.
  
- b) The Customer must opt for **Customer Support Notifications**, as specified in their "Customer Support Procedures Document". The Service Provider will be relieved of its obligations pertaining to the SLAs if the **Customer contact information** in the "Customer Support Procedures Document" is out of date or inaccurate due to the Customer's action or omission, or if the Customer does not abide by the procedures agreed upon in the "Customer Implementation Plan" and the "Customer Support Procedures Document".
  
- c) **For circuits installed at a business location**, either a Service Provider's or Customer designated technician must perform the installation in order for this SLA to apply.
  - i) If the Service Provider determines that the Customer's technician has not properly performed the installation and this has caused or contributed to the SLA violation, no SLA credits will apply.
  - ii) No SLA credits will apply for SLA violations caused by inside wiring.
  
- d) No SLA credits will be granted to the Customer for any SLA violations that are caused by or contributed to:
  - i) Customer or End User,
  - ii) any third party or person that is not a provider of telecom services to the Service Provider,
  - iii) router or firewall configuration changes requested by the Customer or in response to security threats, breaches, or attacks or
  - iv) a Force Majeure event.
  
- e) Service Provider scheduled outages and maintenance, emergency maintenance, and Customer or End User caused outages or support delays will not be included in the 'Minutes of Unavailability



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for the Network Availability' and 'MTTR SLA' calculations, and are not applicable to the 'Automated Outage Notification' SLA.

- f) All Service Provider SLAs require that the End User or his authorized representative be available and assist in performing diagnostic testing to verify and resolve the problem.
- g) The Customer must initiate requests for SLA credits as specified herein.
  - i) Claims can only be made by and credits issued to the subscriber.
  - ii) All claims for credits are subject to Service Provider's review and verification.
  - iii) Credits are exclusive of any applicable taxes charged to the Customer or collected by the Service Provider.
  - iv) Credits provided by Service Provider shall not be - cumulative or consist of multiple SLA credits for any single failure or in any case be greater than 100% of the MONTHLY AVERAGE BILL (MAB) for an affected Circuit within any given month.
  - v) Credits may not be 'carried over' into subsequent months, but apply only to the month in which they are issued, regardless of balance owed.

**7) Miscellaneous**

- A) SERVICE LEVEL AGREEMENTS WILL BE SIGNED BETWEEN ANY TWO ENTITIES AS LONG AS ONE IS PROVIDING THE SERVICE TO THE OTHER.
- B) SERVICE LEVEL AGREEMENTS WILL ALSO BE SIGNED BETWEEN THE WHOLESALE SERVICE PROVIDER AND THE RETAIL SERVICE PROVIDER.
- C) IN CASE THE SERVICE PROVIDER CONVINCES THE REGULATOR THAT EITHER THE *ACCESS PROVIDER OR THE INFRASTRUCTURE PROVIDER* HAVE BEEN UNABLE TO PROVIDE IT APPROPRIATE INFRASTRUCTURE FOR A REGION OR SUB-REGION FOR WHICH THE AUTHORITY HAS DECLARED SUCH SERVICES ESSENTIAL, DESPITE SERVICE PROVIDER'S WRITTEN REPEATED REQUEST FOR A PERIOD EXCEEDING THREE MONTHS, THE SERVICE PROVIDER (EITHER RETAIL OR WHOLESALE), CAN LAY DOWN THEIR OWN PURPOSE-SPECIFIC TRANSPORT/ LOCAL-LOOP INFRASTRUCTURE.
  - I) SUCH INFRASTRUCTURE WILL BE USED SOLELY FOR THE PURPOSE OF PROVIDING 'NON-VOICE DATA ONLY' SERVICES, PROVIDED IT MEETS ALL THE REGULATORY AND RIGHT OF WAY (ROW) REQUIREMENTS OF ALL LOCAL, PROVINCIAL, PRIVATE, PUBLIC, FEDERAL AGENCIES, ORGANIZATIONS AND /OR AUTHORITIES.