



Pakistan Telecommunication Authority

## Consultation Paper On Standardization of Active Subscriber Definition

The stakeholders are requested to respond to the issue and specific questions raised in this consultation paper. Your response may be sent on or before August, 2009 preferably through an email;

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## 1. Introduction

Telecom industry in general and the wireless segment in particular are continuously changing and moving towards extreme competition. Resultantly, new companies are emerging due to consolidations and new value added and other services are coming up due to innovation and technology advancements. The telecom indicators data thus coming out due to these rapid changes is becoming complex with every passing day.

The companies do their best to report the subscribers' data as accurately as possible and some have come up with intelligent solutions and comprehensive logical definition as to how and what to calculate while submitting the subscribers' data. There are companies that are still confused about how to report the data correctly. <sup>1</sup>According to an estimate numbers are often reported inaccurately as much as 5% to 20%. Therefore a standard definition is required for the industry after which operators shall be bound to provide their active subscribers number on the basis of that specific standard definition.

There are number of reasons why accurate Active Subscriber data is required by all stakeholders.

### **Operators need to devise business strategy**

The mobile operators have been grappling with the issue of data management for quite some time now and very few have become successful in streamlining data required for different purposes. A lot of efforts are gone into making sense of the data that is coming out against number of indicators which at the summery level seems alright but the underlying details are either not accurate or are difficult to produce. It is noted that at many occasions different departments of the same operators end up with different numbers against same indicator. Therefore, management of this data base and updating it regularly is required in order to have accurate picture of subscriber status (Active, Inactive, high/low activity) for making business decisions including investments, marketing techniques and overcoming week areas etc.

### **Public Policy & Future Planning**

Operators report regulator, number of indicators that are calculated on various basis following independent methodologies. The data thus received is inconsistent and incoherent. Similarly the operators need to report the subscribers' number to the regulator who needs to show a consolidated figure depicting the growth of sector and the room left for more growth. The regulators make recommendations to the Ministries on the basis of subscriber numbers, for highlighting the areas of attention while revisiting the current policy and devising new policies. The government also devise its strategy for making conducive environment in related areas for the sector to grow this includes the overall investment policy of the government, tax regime and assisting the foreign companies in settling any other related issues. In case the data is inaccurate it would

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<sup>1</sup> Maximizing Telecom Analytics: Achieve the Elusive Single Version of Truth, Scorecard Systems Inc.

result in erroneous future planning and misconceptions about the current situation of the sector.

### **Spectrum Efficiency**

While looking at the data in case of getting the active subscribers number from the spectrum efficiency point of view, if the number is inflated or vice versa, the spectrum allocated might be underutilized or is going above efficient level causing quality of service issues. Therefore in order to have optimal utilization of allotted spectrum the numbers reported should be correct. In case of India if the spectrum awarded to operator is underutilized and the operator does not have enough subscribers to fully utilize the spectrum then the idle spectrum is to be returned to Department of Telecom in India<sup>2</sup>.

### **Putting the ARPUs Right**

Across the globe countries are taking ARPU as one of the main parameter while measuring telecom growth in the country. The regulator while calculating the Average Revenue per User (ARPU) makes Active subscriber as the basis. In case the active subscribers provided by the operators are calculated by different definitions then the industry ARPU given by the regulator is incorrect. In case the active subscriber base is reported higher than the actual then ARPU's are diluted which has negative impact on the sector from the new investment point of view.

### **Mismanagement Of Numbering Resource**

With incorrect reporting of active subscription there is a higher possibility of miss management of scarce numbering resource. If operators would not report the correct active subscribers they would keep on asking for more access codes and in this way exhausting the series earlier than actual time period. The number may be put for recycling for which number and how it should do it should be left on companies discretion.

All across the world the countries' Telecom Regulatory Authority's are addressing the issue of harmonizing definitions against indicators. correspondingly, global telecom organizations like ITU, Lirne Asia etc. have given generic definitions of number of indicators which are being followed all over the world. However, the market dynamics and regulatory environments are different in every country, therefore a need arises for having specific indicator definition according to the country's own situation and also to collect the data from all the operators against a uniform calculation method. The requirement thus to laid down one single comprehensive definition for subscriber calculation is therefore a requirement for our local sector as well.

## **2. Subscriber Types**

The word subscriber is an eclectic term having a general common definition yet described differently by countries, regulators, operators and telecom organizations. However, generally the term includes both customers who pay a monthly bill, i.e. who have a

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<sup>2</sup> <http://www.financialexpress.com/news/GSM-operators-have-to-return-idle-spectrum/236129/>

subscription (Postpaid), and more transient and quasi-anonymous pre-paid customers. The counting of Postpaid subscriber is not very difficult except for few limitation at the system's end. However, it is the prepaid subscriptions that are difficult to count for any time period. The prepaid subscribers buy credit intermittently and make calls as they wish, so it gives them great flexibility while using the mobile services. They may have several SIM cards for different networks or several users using one SIM card thus having such flexibility makes it so difficult to convert SIM cards into individual customers in a way that gives clear and unambiguous results. As far as the SIM is in use there is no issue but the best known problem concerns determining when a SIM card ceases to be active. If no outgoing calls have been made or text messages sent from a number for several months, whether it is three, six, nine or twelve, it would appear reasonable to consider it to be inactive. However, especially for less developed countries, a pattern of inbound calls may justify a SIM being considered active, because there is revenue from the termination of those calls. For example, children working in a city or in another country may keep in contact with parents in rural areas by calling them, but without the parents making any or only very few calls. One reason operators threaten to deactivate a SIM card is to encourage the customer to buy more credit, but for the under privileged this will not work and any incoming revenues would be lost.

In case the definitions are consistent among operators and over time in a country, then the details are less important. With consistent data it is possible to arrive at a sufficiently accurate understanding of market shares and of churn rates. The market shares must also be checked by comparing customer numbers with traffic volumes and with revenues.

Following are possible types of subscribers;

## 2.1 Prepaid Subscribers

Prepaid Subscription commonly referred to as **pay-as-you-go** or **prepaid wireless** is a mobile connection for which service is purchased in advance of use. By purchasing credit to use on a mobile phone network, a user can access a mobile phone network without ongoing billing. Users can then use the mobile phone network until they run out of credit. While defining Prepaid subscribers there are two main types of it.

### 2.1.1 Active Subscriber

All prepaid subscribers that have had any activity i.e. originate or terminate a call, within prescribed time period, as defined by the company (generally its 90 days).

### 2.1.2 Inactive Subscriber

Any prepaid Subscriber which does not perform a revenue generating activity i.e. originate or terminate call within prescribed time period.

## 2.2 Post Paid Subscriber

A Subscriber that gets into a contract with the mobile operator and pays a monthly bill, i.e. who have a subscription (Postpaid) on monthly basis. The Postpaid

subscribers sometimes get status of being barred as and when required by the operator.

### 2.3 Ported Subscribers

All those subscriptions which are ported-in from other operators on the same number including the access code are termed as ported subscriber.

## 3. Case Studies

All across the world countries are defining active subscribers, considering different parameters. The regulator requires to define active subscribers for different purposes and in this regard they have adopted different courses of action to reach a definition that is most comprehensive according to local sector's requirements and accepted by all operators. Some countries have gone into public consultations and issued interim guidelines while others have decided to adopt generic definitions which organizations like ITU have defined the term after much research and analysis. In spite of the fact that defining active subscribers have become so important there remain a large number of countries which have not defined anything of the sort. The countries like Hong Kong or European countries have a higher percentage of postpaid subscribers therefore keeping the record of their active subscribers is not very difficult. The operators around the world, for their own record, and best business decision making also have specific active subscriber definitions. These definitions are according to their own requirements.

### 3.1 Countries

#### *India*

The mobile sector of India is growing at a very fast pace. In order to keep a track of their active subscribers the Department of Telecommunication in India have given guidelines. The Telecom Regulatory Authority of India, or TRAI, seeks subscriber numbers from all telecom operators in the country. But this information is not open to independent audit. The DoT has laid down guidelines for operators for reporting subscriber numbers. It instructs telecom operators to discount subscribers added via SIM (subscriber identity module) cards distributed for testing, channel sales and employees for free from their registered user base. DoT adds that an operator should stop counting a prepaid subscriber as its own after a period of 90 days or the expiration of the validity period and the duration for which Unused talk is carried forward, whichever is less. For postpaid subscribers the department insists that an operator discount a subscriber after waiting for 90 days of non-payment of dues.<sup>3</sup>

#### *Kingdom of Saudi Arabia*

The telecom regulator of Kingdom of Saudi Arabia has issued a decision as follows;  
<sup>4</sup>Active subscriber (applicable to prepaid and post-paid) in the mobile segment is as follows:

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<sup>3</sup> [www.dot.gov.in](http://www.dot.gov.in)

<sup>4</sup> [www.citc.gov.sa/citcportal/decisionsdetails](http://www.citc.gov.sa/citcportal/decisionsdetails)

*The subscriber who is registered in the internal subscriber system of mobile service provider (i.e HLR). The subscriber has to make at least one or more of the following revenue generating actions in the last ninety (90) days since registration or since last bill payment. These activities are; Creating voice calls or video calls, Sending SMS or MMS, Sending or receiving during international roaming , data Transfer , including internet access.*

## **Slovenia**

The Post and Electronic Communications Agency of the Republic of Slovenia APEK is a national regulator for telecommunication. In this regard APEK collects data from operators for market analysis. The APEK started collecting data in 2004 and when analyzed it was realized that all operators have presented sold SIM cards on different manner. Most common manner was that the number of active mobile users, no matter prepaid or post paid, was the number of SIM cards ever sold. The number of active mobile subscribers was much above the reality.

<sup>5</sup>The changing methodology procedure was developed through gathering descriptions of active mobile subscribers counting from operators presenting their methodology, opinion on how it should be and there was wider debate on the subject. APEK gave the proposition of new methodology and On June 2005 after public consideration the conclusion was the definition as follows:

- *Mobile User is every resident or corporation, included in subscribers or SIM register of the operator, and is:*
- *Pre-paid user of mobile network, that is every resident or corporation which uses prepaid SIM card from the operator.*
- *Active Mobile User is every user of mobile network (subscriber or pre-paid) with the possibility of use of services and is:*
- *Active subscriber: each user - subscriber of mobile network, who paid the subscription fee at least once in the last 90 days or did use any service in mobile network.*
- *Active user – pre-paid: each user- prepaid of mobile network, which used at least one payable service in last 90 days with his SIM card.*

## **Ecuador**

Ecuador's telecoms regulator, Conatel has issued a directive to the local operators clarifying how they are to calculate which of its subscribers are classified as active. The regulator says that active subscribers are to be classified as those who make at least

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<sup>5</sup> 5TH WORLD TELECOMMUNICATION/ICT INDICATORS MEETING, GENEVA, 11-13 OCTOBER 2006  
Change in Definition of Active Mobile Subscribers – The Experience of APEK

one billable action within 90 days or having received a phone call. The regulator is trying to standardise the calculation of the subscriber base as each operator had their own method for calculating its active user base.

## 3.2 Telecom Organizations

### ***International Telecommunication Union (ITU)***

The International Telecommunication Union has given a brief definition of Mobile Subscriber as follows <sup>6</sup> “mobile cellular telephone subscriber refers to the use of portable telephones subscribing to a public mobile telephone service and provides access to Public Switched Telephone Network (PSTN) using cellular technology. Similarly due to its complexity prepaid subscriber is defined as the Total number of mobile cellular subscribers using prepaid cards. These are subscribers that rather than paying a fixed monthly subscription fee, choose to purchase blocks of usage time. Only active prepaid subscribers that have used the system within a reasonable period of time should be included. This period (e.g., 3 months) should be indicated in a note. For post paid subscription ITU defines it as The total number of mobile cellular subscribers who have entered a binding contract with an operator for the provision of a particular service based on a fixed monthly or annual subscription fee.

### ***Lirne Asia***

The Sri Lankan based telecom research organization “ Lirne Asia” is working on defining telecom indicators in this regard a draft “Telecommunication & ICT Sector Performance Indicators, A Handbook for National Regulatory Authorities” has been Compiled by Lirne Asia. The organization has taken ITU telecom indicators definitions as benchmark and is deliberating on the same. Further to the above mentioned ITU definition of Mobile subscriber, the organization has suggested that the term “Active” Only” be considered while counting the Subscription or for that matter SIM; According to Lirne Asia “Differentiating between all SIM card subscribers (i.e. counting all SIM cards ever issued by an operator) and active subscribers (those who have used a service at least once over a specified period) is necessary in order to avoid over or undercounting the subscriber base. Defining the term “active” first requires agreement on the time period during which a SIM card has been used. Initial inquiries from regional operators indicate that they have the capability to count SIMs that have been used within a given period of time. It is therefore suggested, that SIMs that have been used in the past 3 months be considered when computing this indicator. However, defining the term “active” also requires agreement on the type of services – are SIMs that use any service within the defined time period counted as active, or is it only SIMs that use a fee-paying service within the defined period that count as active.

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<sup>6</sup> DEFINITIONS OF WORLD TELECOMMUNICATION/ICT INDICATORS Final Version (April 2007)

<sup>7</sup> Draft Telecommunication & ICT Sector Performance Indicators, A Handbook for National Regulatory Authorities Compiled by <http://www.lirneasia.net>

### 3.3 Operators

The operators across the globe have different reporting requirement both in-house and giving the numbers outside the company to regulator, group and parent company etc. Therefore

**Orange** is the second largest operator in the United Kingdom, while defining customer numbers Orange excludes "any customer who does not make at least one outgoing call or receive fewer than four incoming calls in a quarter.

**Vodafone** the largest mobile operator in United Kingdom defines active customers as those "who have made or received a chargeable event in the last three months."

**Vimplecom** is one of the largest operator in Russia. The company also defines Active subscribers as follows "A subscriber is considered active if the subscribers' activity resulted in income to the Company during the most recent three months". Such activity includes all incoming and outgoing calls, all subscriber fee accruals, debits related to service, outgoing SMS and MMS, and data transmission and receipt sessions. Such activity does not include incoming SMS and MMS sent by the Company, as well as abandoned calls".

**Bharti** Telecom a major Indian mobile operator also agrees that uniform regulations are needed. The company however, defines Active Subscriber as " As any mobile number that receives or makes one voice call a month".

**Du**, the second mobile operator of UAE, DU follows the international standards while defining active subscriber which says "an active subscriber, which is basically an individual is the one who makes at least one call over a period of 90 days"

### 4. Practice in Pakistan

The operators have their own reporting needs and requirements tailored according to the requirements of the company itself for business planning and strategy and for the purpose of reporting business progress to the parent company. Similarly regulator also collects data from the operators not only for the purpose of giving the sector growth in terms of subscriber but also for other purposes. In case of PTA the operator provides data to the Economic Affairs Section for calculating the growth, Licensing Division for the purpose of analysis in terms of spectrum management and BTS approvals, License Enforcement Division, for cross checking the SIM verification systems and other vigilance purposes.

All operators working in the sector report their total subscriber base (before Churn, after Churn) to the regulator on regular and requirement basis as per the license conditions. These operators have their independent "Active Subscribers" definitions while they report it to the regulator. Since the regulator has to measure growth of the sector, so the numbers coming from operators are very important. Following are the definitions provided by operators.

#### 4.1 Mobilink

Under the new unlimited validity regime a subscriber is considered active who has made any traffic generating activity (less incoming SMS) in last 90 days. However, those subscribers who have not yet joined this regime (by reloading after announcement of the new scheme) are still considered active due to validity period of their last reload. Transition from limited to unlimited validity will be completed in next about 11 months.

#### 4.2 Telenor

All subscribers that have made any activity in last 90 days i.e. receive or made a call is considered active and total count is termed as Active subscribers base". In case the subscriber does not do any activity i.e. make or receive a call in the period of 90 days, the subscribers is discounted from financial and accounting records and is termed as Churned Subscriber. This does not necessarily means deactivating the account. However, the churned subscribers are subtracted from the total amount for the same period. In case the churned subscriber joins in after 90 days it is reported and booked as new subscriber.

#### 4.3 Zong

A customer is considered active if he/she has balance irrespective of his last activity date. However, if a customer does not have balance in his account, he is counted as active ONLY if he has a revenue generating activity in the last 60 days. By revenue generating it means Outgoing Call, Outgoing SMS or any revenue generating VAS and Incoming Call (both on-net and off-net)

#### 4.4 Warid

SIM activated by subscriber by doing at least one network activity.

### 5. PTA's Viewpoint

Most of the times inconsistencies are observed in data of the same operators reported to different sections/division of the Authority. Although these inconsistencies are not an offence so far but it is just how the operators manage their own customer base. Similarly, in our opinion, these inconsistencies and inaccuracies in the data lead to number of complications resulting in deceptive picture of the current telecom scenario in the country.

In order to have a standard definition of active subscribers for all operators, Following definition is recommended to be taken as Active Subscription.

#### 5.1 Recommended Active Subscription Definition

*"A Subscription would be counted as "Active Subscription" if the subscription that is registered in the internal subscriber system of mobile service provider (i.e HLR) makes any revenue generating activity during last 90 days. In case of no activity the subscription would be counted off from the billing system. The total active subscription of any operator would be Inactive subscription minus gross subscriptions."*

*Explanation*

Generally operators are taking 90 days or 3 months as a cutoff period in which the subscriber has to show a revenue generating activity to be considered as active. This period varies operator wise as well as regulator wise. However a reasonable time is suppose to be three months at least. So in case of With the expiry of 90 days the SIM would be inactive on billing system, however it would remain on the network with any unused credit intact.

Revenue Generating Activity includes any outgoing call or SMS and any incoming call only in addition to data transfer and roaming services. Total Gross Subscription of the company would include Total Subscription – Inactive Subscriptions + New Subscription.

## 6. Questions

In addition to above definition you are requested to respond to following questions.

1. Do we require standard definition for active subscribers for Pakistan mobile market? If yes do you agree with the recommended definition?
2. Do we consider balance/credit in the account of an operator to consider him active?
3. Which of the activities in your opinion should be considered which makes a subscriber active?
4. What should be the time frame (e.g. 3 months) to determine the activity of the subscriber?
5. How do you define a churn? And do you agree that active subscriber count should be minus churned subscribers?
6. What is your point of view on unused balance of an inactive subscriber? And do we need a standard policy on this issue?
7. What is your opinion about the unused balance of ported subscriber? And do we need a standard policy on this issue?
8. What is the number recycling policy followed by you? And do we need to have standard policy on number recycling?