

Chapter 18

Topic : Latest BSNL Services

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LATEST BSNL SERVICES

Introduction

Telecom industry is witnessing huge growth as compared to other sectors in India. Tariff for telecom services is reducing day by day and telecom operators are facing problem of lesser ARPU. Hence Telecom operators are searching new ways to increase revenues. BSNL has introduced / going to introduce new services for getting more revenue from the existing setup.

Fixed Line Prepaid (FLPP)

The aim of this service is to give the pre-paid experience to our fixed line customers. This would also enable BSNL to reduce the bad debts. FLPP (Fixed Line Pre-Paid) Services is being provided through the IN platforms at Kolkata (SCP_code 345)& Ahmedabad (SCP_code 233). The two IN platforms have a total capacity for handling 8 million FLPP Accounts (4million/platform) & 96 million recharge coupons.

A centralized Voucher Database Management System (VOMS - where voucher information resides) has been installed at Kolkata, which shall be accessible, by the IN Platforms at Ahmedabad & Kolkata on MPLS VPN links for the purpose of Voucher management/recharging the Accounts.

General features of FLPP service

FLPP Service enables a subscriber to make calls from a prepaid account, which is linked, to his telephone number. Unlike the ITC Service, where the authentication is done through a 16-digit PIN (which may not be user friendly), the authentication of FLPP is implicitly linked to his CLI & the user is therefore not required to dial the Account number/ PIN for authentication. It shall be possible to use FLPP service from fixed and WLL networks.

The various features of FLPP Service are:

- Conversion of fixed line to Pre Paid
- Easy de-linking when prepaid not required on any number
- Authentication of FLPP linked to your CLI
- No need to dial Account number/ PIN every time you make a call.
- Easy availability
- STD/ISD Facility
- Any time recharge facility
- On Line balance enquiry
- ‘Follow on feature’ on no reply, busy and called party release to dial another number for subscribers other than PCO.
- Recharge as much as you want to spend
- Keep recharging and no problem of bills

- Free Level 1 service like 100, 101, 102 etc. available.
- Free Level 1 IN services which are free to end-customers like Free Phone etc. are available

Types of FLPP services to be introduced in BSNL :

There are three types of FLPP Accounts to be offered to BSNL Customers. Please check which type of account you have purchased.

1) UNIVERSAL PCO FLPP Account - offering only Prepaid Services (for Local +STD+ISD) :

- This Account will be provided to PCO owners only.
- The prepaid account will be directly linked to the PCO's telephone line.
- The customer line shall be suitably configured from the local exchange so that you can dial the destination number by lifting the phone.
- Home metering shall be provided so that you can charge your customer.
- Remote login facility is provided only to attach/detach line.
- PIN option can be enabled for fraud control purpose only. PIN is not mandatory to access menu, PIN can be enabled only to prevent fraud from direct line.
- Menu management shall be provided through access code of '1284#'.
- Only PCO line can be attached to FLPP account.
- Only one call possible at a time.

2) General FLPP Account - offering both Prepaid & Postpaid services :

- This service can be provided to all wire-line customers other than PCOs i.e. to both residential as well as commercial customers. The customer has the option of making both prepaid calls through his FLPP account as well as postpaid calls.

The customer is required to dial 1805 345 followed by destination number for making prepaid calls. Postpaid calls can be made directly.

- No configuration required to be done at the local exchange for the telephone line.
- Remote login facility is available.
- Redial & Follow-on facilities are available.
- PIN is not mandatory to access menu, PIN can be enabled only to prevent fraud from direct line.
- One FLPP account can be attached to only one CLI at a time and one CLI can be attached to single FLPP account at a time.
- Eight simultaneous calls possible from one Account at a time. One FLPP account can be attached to only one CLI at a time and one CLI can be attached to single FLPP account.

3) General FLPP Account offering only Prepaid services :

- This service can be provided to all wire-line customers, WLL other than PCOs i.e. to both residential as well as commercial customers.
- The customer can make only prepaid calls through his FLPP Account.
- The customer line will be configured from the exchange. The customer dials the desired number directly and the call is charged to his FLPP account.
- Remote login facility is available.
- Redial & Follow-on facilities are available.
- If PIN option is enabled for control purpose it will be mandatory to dial the PIN every time after dialing the destination no. (PIN is not mandatory to access menu, PIN can be enabled only to prevent fraud from direct line).
- One FLPP account can be attached to only one CLI at a time and one CLI can be attached to single FLPP account at a time.
- Eight simultaneous calls possible from one Account at a time.

IPTV (Internet Protocol Definition)

Definition:

IPTV is a system used to deliver digital television services to the consumers who are registered subscribers for this system. This delivery of digital television is made possible by using Internet Protocol over a broadband connection, usually in a managed network rather than the public Internet to preserve quality of service guarantees. Often, this service is provided together with Video facility on demand

Potential IPTV Features:

Because IPTV represents an all-digital service that can have its video presentation scaled to different types of monitors, it has the ability to provide features beyond the capability of other television distribution mechanisms. For example, IPTV set-top boxes via software could enable the simultaneous placement of four pictures on the screen that represent four customer channel requests. In addition, incoming telephone Short Message Service (SMS) messages, e-mail, and caller ID could be displayed on a customer's television at a predefined location. Combine this with the ability to enable customers to select the viewing of video rentals and a virtually unlimited number of high-definition content and IPTV could represent a quantum leap over existing television delivered via over-the-air broadcast stations and cable and satellite operators.

IPTV Applications:

Although there are many "flavors" of IPTV, we can view the technology as a mechanism for delivering high-quality digital video content over public and private IP-based networks. Because IP-based networks have a bi directional communications capability, developers can create IPTV technology that enables customers to select what they want to watch as well as when they want to watch it. With the preceding in mind, let's turn

our attention to a few of the potential applications that IPTV can support.

- **Homeowner Entertainment**

First and foremost, IPTV represents a technology that will enable telephone companies to compete with standard over-the-air television, cable television, and satellite operators for the entertainment budget of homeowners. Although homeowner entertainment is expected to represent the largest application of IPTV in terms of both subscribers and revenue, it is just one of a series of applications that can be supported by the technology.

- **Digital Television**

As previously discussed in this chapter, IPTV can be considered to represent a pull-push technology whereby a subscriber makes a request to a service provider for a particular video stream. Because digitized television is both a very popular entertainment provider as well as very suitable for being compressed and carried via IPTV, it represents the primary application for the technology. In addition, because a service provider may have to transmit only what is requested, unlike cable and satellite, IPTV could theoretically provide an unlimited number of viewing channels, which would enable the service provider to offer a more diverse content than conventional competitors that simultaneously broadcast every channel regardless of whether anyone is watching them. Thus, the architectural difference between IPTV and broadcast television enables the former to offer a more diverse content, assuming the service provider can acquire significant content to match subscriber requirements.

- **On-Demand Video**

Although subscribers to cable and satellite television have been able for many years to obtain pay-per-view movies and sporting events, that capability pales in comparison to on-demand video that can be provided through IPTV technology. The key reason why IPTV on-demand video can be considered far superior to pay-per-view resides in the fact that the former can provide virtually unlimited program content whereas the latter is restricted to a handful of broadcast channels.

- **Business TV to Desktop**

Although the primary market for IPTV is the individual consumer and household, the technology is also well suited for business applications. One such application is streaming business television to the desktop. In a business environment, each LAN workstation can be assigned a distinct IP address. Doing so makes it possible for different video streams to be directed to different employees. For example, some employees might require instant access to Business Channel whereas other employees could require access to social or sports program. Because IPTV can be scaled on a screen, it also becomes possible for employees to view the requested business channel or channels while performing other computer operations using a different portion of their PC screen.

- **Distance Learning**

In an academic environment it is possible to be in two places at the same time through the power of distance learning facilities. Although distance learning can be accomplished through the use of conventional teleconferencing equipment, when performed through the use of IPTV the efficiency associated with reaching students at distant locations can significantly increase. This is because conventional distance learning that is based on the use of teleconferencing equipment results in a central monitor at distant locations. Not only do all students have to focus their attention on a single monitor, but in addition, a microphone has to be passed around by a proctor at each distant location to the students who wish to talk to the instructor giving the lecture. In comparison, the use of IPTV can significantly improve distance learning because the image of the distant instructor can be directed onto the PC monitor of each student work station while a microphone connected to each computer enables students to converse with the instructor without having to wait for a microphone to be passed through the classroom. Another significant advantage of IPTV within a distance learning environment is the fact that, similar to the previous discussion about business TV to the desktop, it can be scaled on a PC screen. This would allow distance learning courses on programming and other topics to have students both view and hear the instructor while they perform different exercises. Because software can be developed to enable an instructor to view student activities, it's possible for a student's work to be viewed by the instructor. Similarly, with appropriate programming, the instructor could display the efforts of one student on a designated portion of each student's PC screen, which would significantly enhance instructor-student interaction.

- **Corporate Communications**

In most organizations, the president or a corporate officer often needs to address employees. In a conventional environment this requirement is commonly satisfied by scheduling the use of one or several auditorium sessions during which the corporate officer explains the reason why earnings went up or down, the effect of a new product line, changes to the employee benefit plan, or another subject that needs to be disseminated to a broad range of employees. The conventional use of an auditorium to announce a new policy or shed light on a recent event can require a significant amount of time and effort. If the auditorium was previously scheduled for another event, then the logistics of moving that event to a different time and venue could be considerable. In addition, there can be a considerable loss of employee productivity because the use of an auditorium requires time for employees to arrive and depart from the site as well as time for employees to move through the facility to a seat. In comparison, the use of IPTV can result in corporate communications being only a mouse-click away from any employee. That is, a corporate officer can tape a message that becomes available for downloading via IPTV. Employees could then be alerted to the availability of the newly created video via an e-mail containing a URL to click. Then, employees could view the video at their leisure, with no need to stop what they are

working on to visit the auditorium or a conference room. Thus, the use of IPTV for corporate communications can significantly enhance employee productivity.

- **Mobile Phone Television**

Currently, mobile phone television is being developed to allow reception of broadcast television. This means that the first generation of mobile phones with a television viewing capability will be limited to viewing over-the-air broadcast television offerings. Thus, users with that type of phone will be limited with respect to the content they can watch. As mobile phones with television viewing capability evolve, we can reasonably expect the addition of higher capacity secure digital cards, perhaps miniature disk drives, WiFi, and other communications capabilities to the product. As this action occurs, mobile phones can be expected to be used in hot zones at airports, Starbucks, hotels, motels, and other locations where mobile phone operators can connect to the Internet. This capability will enable mobile phone users to obtain access to significantly increased content. In addition, through the inclusion of either a secure digital card slot or a miniature disk drive, it becomes possible for users to download video content into their phone. Then, they could view the content at their leisure.

- **Video Chat**

One of the more popular features associated with the use of the Internet is chat rooms, commonly hosted by different Internet Service Providers (ISPs) and Web portals. Chat rooms are used primarily to discuss a variety of topics. Although people usually enter a chat room anonymously, this is not always true, especially when the chat facility requires individuals to provide identification prior to being able to access the facility. Once a person joins a chat room they can observe the identifiers of the other members currently in the room as well as what they are saying in the form of typed text. Although chat rooms are a popular mechanism for exchanging ideas and political views, the need to type responses significantly delays the interaction between people. Through the use of IPTV it becomes possible to develop a video chat facility; each person could mount a camera with a built-in microphone on their monitor that would transmit audio and video to the video chat room operator. Through applicable software, a user's screen could be subdivided to display a number of chat room participants, allowing each user to scroll through the screen to view other members of the chat room as well as to click on the image of a person to display that person's image on the full screen. A variation of video chat can be expected to result in a change in the commonly used "messenger" programs offered by Yahoo and other Web portals. Using a messenger program, a person creates a "buddy" or "friends" list, which allows certain other people to communicate with that person via text messages. Similar to current chat programs, messenger programs depend on the skill of the people typing queries and responses and could be significantly enhanced through the use of a video capability.

Mobile commerce

History of Mobile Commerce (World-wide)

Mobile commerce was born in 1997 when the first two mobile phone enabled Coca Cola vending machines were installed in the Helsinki area in Finland. They used SMS text messages to send the payment to the vending machines. In 1997 also the first mobile phone based banking service was launched by Merita bank of Finland also using SMS.

In 1998, the first digital content sales were made possible as downloads to mobile phones when the first commercial downloadable ringing tones were launched in Finland by Radionlinja (now part of Elisa)

In 1999, two major national commercial platforms for m-commerce were launched with the introduction of a national m-payments system by Smart as Smart Money in the Philippines and the launch of the first mobile internet platform by NTT DoCoMo in Japan, called i-Mode. i-Mode was revolutionary also in offering a revenue-sharing deal where NTT DoCoMo only kept 9% of the content payment and returned 91% to the content owner.

Mobile commerce related services spread rapidly in early 2000 from Norway launching mobile parking, Austria offering mobile tickets to trains, and Japan offering mobile purchases of airline tickets. PDAs and cellular phones have become so popular that many businesses are beginning to use m-commerce as a more efficient method of reaching and communicating with their customers. Although technological trends and advances are concentrated in Asia and in Europe, Canada and the United States are also beginning to experiment with early-stage m-commerce.

The less price sensitive early adopters from the 13-25 age group could drive the initial growth.

Growth in mobile products such as ringtones, games, and graphics may displace spending on many traditional youth products such as music, clothing, and movies. This would radically change the dynamics of all visual entertainment and product-service distribution worldwide so marketers could target end-users with diverse youth mind sets. The youth market has historically shown rapid viral growth which later gains acceptance in the mass market. While emerging markets are proving to be the ideal solution for sustaining revenues in the face of falling ARPU, analysts say the rapid commercialization of 3G services is likely to open up new opportunities in developed markets.

In order to exploit the m-commerce market potential, handset manufacturers such as Nokia, Ericsson, Motorola, and Qualcomm are working with carriers such as AT&T Wireless and Sprint to develop WAP-enabled smart phones and ways to reach them. Using Bluetooth technology, smart phones offer fax, e-mail, and phone capabilities.

Products and services available:

- **Mobile ticketing**

Tickets can be sent to mobile phones using a variety of technologies. Users are then able to use their tickets immediately by presenting their phones at the venue.

Tickets can be booked and cancelled on the mobile with the help of simple application downloads or by accessing WAP portals of various Travel agents or direct service providers.

- **Content purchase and delivery**

Currently, mobile content purchase and delivery mainly consists of the sale of ringtones, wallpapers, and games for mobile phones. The convergence of mobile phones, mp3 players and video players into a single device will result in an increase in the purchase and delivery of full length music tracks and video. Download speeds, if increased to 4G levels, will make it possible to buy a movie on a mobile device in a couple of seconds, while on the go.

- **Location-based services**

Unlike a home PC, the location of the mobile phone user is an important piece of information used during mobile commerce transactions. Knowing the location of the user allows for location based services such as:

Local maps

Local offers

Local weather

People tracking and monitoring

- **Information services**

A wide variety of information services can be delivered to mobile phone users in much the same way as it is delivered to PCs. These services include:

News services

Stock data

Sports results

Financial records

Traffic data and information

Particularly, more customized traffic information, based on users' travel patterns, will be multicast on a differentiated basis, instead of broadcasting the same news and data to all Users. This type of multicasting will be suited for more bandwidth-intensive mobile equipment.

- **Mobile banking**

Banks and other financial institutions are exploring the use of mobile commerce to allow

their customers to not only access account information, but also make transactions, e.g. purchasing stocks, remitting money, via mobile phones and other mobile equipment. This service is often referred to as Mobile Banking or M-Banking.

- **Mobile brokerage**

Stock market services offered via mobile devices have also become more popular and are known as Mobile Brokerage. They allow the subscriber to react to market developments in a timely fashion and irrespective of their physical location.

- **Auctions**

Over the past three years mobile reverse auction solutions have grown in popularity. Unlike traditional auctions, the reverse auction (or low-bid auction) bills the consumer's phone each time they place a bid. Many mobile PSMS commerce solutions rely on a one-time purchase or one-time subscription; however, reverse auctions are high return applications as they allow the consumer to transact over a long period of time.

- **Mobile purchase**

Mobile purchase allows customers to shop online at any time in any location. Customers can browse and order products while using a cheap, secure payment method. Instead of using paper catalogues, retailers can send customers a list of products that the customer would be interested in, directly to their mobile device or consumers can visit a mobile version of a retailers ecommerce site. Additionally, retailers will also be able to track customers at all times and notify them of discounts at local stores that the customer would be interested in.

- **Mobile marketing and advertising**

Mobile marketing is an emerging concept, but the speed with which it's growing its roots is remarkable. Mobile marketing is highly responsive sort of marketing campaign, especially from brands' experience point of view. And almost all brands are getting higher campaign response rates . Corporations are now using m-commerce to expand everything from services to marketing and advertisement. Although there are currently very few regulations on the use and abuses of mobile commerce, this will change in the next few years. With the increased use of m-commerce comes increased security. Cell phone companies are now spending more money to protect their customers and their information from online intrusions and hackers.

Questions:-

1. Mention three features of FLPP

2. What are the types of FLPP
3. What are the features of IP TV
4. What are the applications of IP TV
5. Write down the various services under LBS

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