



Wire Line Intelligent Network Services

Product Information Booklet

BSNL's Intelligent Network services are for those organizations who don't think customer services as another department. It offers integrated network solutions for fixed lines and wireless. These services not only revolutionizes the way Business interact with their customers but also optimizes the cost of providing customers support services.



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Implementation

BSNL's Intelligent Network is deployed to provide services for telecom networks more conveniently, effectively, rapidly and economically. It offers integrated network solutions for fixed lines and wireless. BSNL also has a dedicated Mass calling IN platform with high traffic handling capacity for Televote service.

Summary

Recognizing the rising expectations and requirements of the customers, BSNL endeavors to harness the rewards of telecom revolution. Towards this, we have redefined the term 'telecom service' by introducing value added services in the form of intelligent network.

This technology makes possible, time and cost effective services, optimized solutions, meeting the exact needs of the customers and help in acquiring additional business.

BSNL IN services has been designed from ground up, keeping in view the specific requirements of Retail and Enterprise Customers.

Services

- ◆ **TOLL FREE NUMBER SERVICE (TFS)**
- ◆ **UNIVERSAL ACCESS NUMBER (UAN)**
- ◆ **VIRTUAL PRIVATE NETWORK (VPN)**
- ◆ **TELEVOTING (VOT)**
- ◆ **UNIVERSAL PERSONAL NUMBER (UPN)**
- ◆ **ACCOUNT CALLING CARD (ACC)**
- ◆ **PREMIUM RATE SERVICES (PRM)**
- ◆ **UNIVERSAL INDIA TELEPHONE CARD (UITC)**



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Toll Free Service

What is Toll Free phone service?

This service uses the new function in charging, a call to a service subscriber will be paid by the called party. All charges are levied on the service subscriber. For the calling user the service is free of charge. Ideal for hotels and the whole business community in general who want their customer to call them free of cost. Also known as the "Free Phone Service" this service is ideal for customer oriented organizations that can provide information about their products, allow customer to place orders and even register complaints. They need to advertise only one logical number which is accessible from all over India (BSNL/ MTNL /private telecom operators). 11 digit number 1800-XYZ-ABCD

How it Works?

Callers dial the 11 digit TFS number. This number is analyzed in the IN system. One can define upto 8 Fixed or Mobile numbers against the TFS number. IN system translate the TFS number to the attached fixed or Mobile number and route the call as per predefined criteria.

Who can subscribe for Toll Free phone service?

- Enterprises or organizations with large customer base or having call centers.
- Retail products and services Industry.
- Ideal for hotels and restaurants.
- Companies providing after sales support as customers associate a Free phone number with the quality of the business products or services
- Whole business community in general

Convenient for the subscriber who has multiple offices in multiple cities or localities. The subscriber can retain the TFS number even after the office location changes. Thus this service is an ideal business promotion tool for business communities who want their customers to call them without any hassle. They need to advertise only this logical number which is accessible from all over India (BSNL/ MTNL /private operators).



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What BSNL Offers to Toll Free Phone subscribers?

Our advanced features offers a cluster of solutions that can help business organization track calls, route calls based on customer's organization's needs, and safeguard their traffic against long-term service interruptions. Moreover these also help in reducing their overall expenditure significantly on Customer Support Services.

SINGLE ALL INDIA NUMBER - A single 11 digit number accessible throughout India including other operator's network. No STD facility required to access the service. Multiple Call Centres can operate and handle the customer calls based on user defined criteria such geographical location, time of the call, day of the call etc.

OTHER FEATURES: In addition to the basic functionality i.e. Single All India Number and Reverse Charging there are host of add on features available that not only revolutionizes the traditional methods of interacting with customers but also helps in optimizing the cost of providing customer support.

TIME DEPENDANT ROUTING (TDR) - allows organizations to route the calls to different locations, depending on the time of day. For example, if a particular customer service department is closed at night, calls can be routed to alternate location. This helps the business organisations in maintaining 24x7 customer supports with minimal investment.

DAY OF THE WEEK ROUTING –Calls can be routed not only as per the Time of the day but also as per the type of day.

ORIGIN DEPENDENT ROUTING - Calls can be routed to set of destinations based on the location of the origin of the call i.e. Call Centers can be established on Zone Basis.

CALL DISTRIBUTION - allows the organization to route calls based on staffing levels. The call split is based on a percentage distribution that user designate. If a user has three Call centers having the Staff strength of 20, 30 and 50, calls can be routed to these Call Centers in ratio of 2:3:5 i.e. out of ten calls, two calls will be routed to first Call center, three to second Call center and five to third Call centre.

LINE HUNTING – Along with multiple call centers, multiple numbers (locations, landline or mobile) can be added.

CALL LIMITER – Restricts maximum number of simultaneous calls and this helps organization to dimension resources. Number of calls in a specific duration, time limit per call is also possible.

CALL QUEUING – enables calls meeting busy condition or reaching call limiter to be placed in a queue and as soon as free condition is detected the call is answered

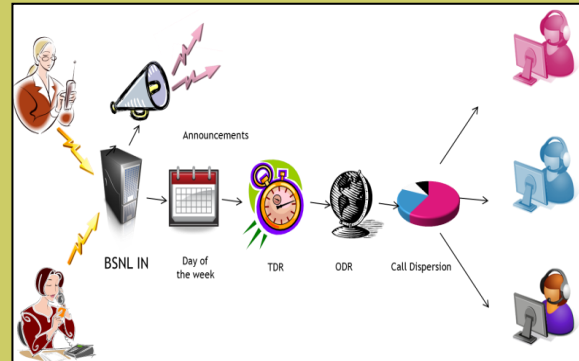
CONDITION BASED ROUTING - Calls at the destination can be rerouted to a different destination number in following conditions (1) Busy (2) No Answer (3) Reached call limiter (4) Line Fault

INTERACTIVE VOICE RESPONSE - The IVR routes calls to the appropriate person or department based on keypad inputs selected from the menu options as defined by the service subscriber e.g. if a business organisation has three different product divisions handling three different products such as Desktop, Laptop and printers, then a customer will be asked to dial 0 for desktop, 1 for Laptop and 2 for Printers and calls are routed based on user input.

BLACK & WHITE LIST - allows organization to selectively block incoming calls from specific originating areas. In this way, area of coverage can be shaped to match the requirements and also save on the cost of handling unnecessary calls.

INCOMING GREY LIST - When a calling line is added in the grey list, a PIN is associated with it. When a caller from grey list access the service, a PIN is asked for authentication.

DETAILED BILL - Details of calls received is provided. This helps organization in marketing and business planning.



Universal Access Number (UAN)

What is Universal Access Number service?

A Single 11 digit number accessible throughout India including other operator's network. No STD facility required to access the service.

- There are two types of UAN services, UAN Full Charge and UAN split Charge. In UAN full charge full call charges are paid by callers whereas in UAN split charge callers pay the local calls and STD charges are paid by Called Party.
- Service is accessible from networks of other Operators also

11 digit number 1860-XYZ-ABCD

How it Works?

Same as TFS.



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Who can subscribe for Universal Access Number service?

- The service is an ideal business promotion tool for business communities who want the people to call them without any hassle .
- Hospitals, Educational institutes, NGO, Law firms
- Medium and small firms
- Convenient for the subscriber who has multiple offices in multiple cities or localities. The subscriber can retain the UAN number even after the office location changes. Thus this service is an ideal business promotion tool for business communities who want their customers to call them without any hassle. They need to advertise only this logical number which is accessible from all over India (BSNL/ MTNL /private operators).

What BSNL Offers to Universal Access Number subscribers?

Our advanced features offers a bundled solution that can help your organization track calls, route calls based on your organization's needs, and safeguard your traffic against long-term service interruptions. Moreover these also help in reducing your overall expenditure significantly on Customer Support Services.

OTHER FEATURES: Same as TFS

Virtual Private Network (VPN)

What is Voice Virtual Private Network service (voice VPN)?

Voice VPN is a service for providing a private network for institutions, businesses and communities using public network resources. The subscriber's lines, connected to different network switches, constitute a virtual PABX. The numbers within VPN can be accessed by dialing # followed by a short code (pnp).

How it is different from CENTREX and EPABX?

EPBAX allows customers to terminate large number of extensions at the same location by having smaller number of Direct Exchange Lines from Telco's, whereas CENTREX is central office based communication service which integrates all multi located Telephone lines (Existing and New) into a single highly functional communication group (read Virtual EPBAX) with more distinctive features and without any additional equipment (like EXABX) at the premises. Both of the solutions have their own limitations of not supporting mix of fixed and mobile lines and their capabilities are limited by Landline/ Mobile switches with which they are connected with.



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On the other hand Combined voice VPN can be provided for fixed line telephones as well as mobile with no geographical limitation (with in India) and also its capabilities and features are not limited by connected switching nodes.

Who can subscribe for Virtual Private Network service?

Voice VPN Service has been designed specifically for business communities who have their Offices situated at different physical locations and need to make frequent and long duration intra-organization calls. With Voice VPN Service, dialing becomes simple as only few digits need to be dialed to make calls and call charges are also cheaper as compared to normal tariff.

Additional benefits of Voice VPN Service :

- Prevents unauthorized STD usage and abuse. In other words one can bar the STD/ISD facility of a phone without restricting the ability of the phone to call other VPN members located at other STD locations.
- Improves security and cost control.
- Abbreviated dialing give users shorter numbers to memorize.

- Workload can be distributed between teams located at different site without bothering about cost of Communication.

In a nutshell the control of network is handed over to user. Telco only provides the resources.

Is it possible to create a single VPN for telephone numbers located at different physical sites?

Yes, VPN Service can bring telephones at different sites located at different physical location anywhere in India under one single Network.

What is VPN Call?

All calls made within VPN Group are VPN Calls and are termed as 'ON NET' calls. These calls are billed according to VPN Tariff plan which is different from normal tariff.

What is the dialing plan for VPN calls?

All the VPN Calls are made by dialing #PNP or in some cases by dialing Service Access Code 1801 XYZ followed by PNP. BSNL unit at the time of registration shall inform you about the dialing procedure from each number.



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What is PNP?

PNP stands for Private Numbering Plan. The telephone numbers which have to be in a VPN are given a 3 or 4 digit short code for ease of dialing, which is called PNP number.

Can a short code be given to other telephone numbers which are not part of VPN.

Yes, public directory numbers which are not part of VPN Network can be given a short code which is defined at Company level. It provides ease of dialing for the numbers which are frequently dialed but the billing for such calls shall be as per normal tariff.

Can BSNL provide department - wise bills?

Yes, VPN Service allows the company users of a given VPN group to mark their calls according to business so that subscribing companies receive a bill, which details the cost of communication according to the company activities and the company organization. This facility shall be requested at the time of registration.

Does VPN Service provide Call forwarding feature?

Yes, call forwarding feature is provided in VPN Service. Calls coming to one VPN number i.e. PNP can be forwarded to another PNP.

How to make calls outside VPN?

Non-VPN calls can be made by directly dialing the destination number i.e. dialing the destination number by prefixing STD Code or local number. These calls are billed by local exchange against the local number as per prevailing tariff and indicated in the local telephone bill in the normal way.

Can the business and personal calls of a VPN Member be separated?

Yes, a dual invoicing ability is there which can be used to bill calls made by a given company member either on the corporate account or on the VPN member personal account.

What are other attractive features of VPN Service?

Date & Time Screening - The calls can be routed to a particular destination number or

a. announcement depending on date and time at which call are made.

b. **Hunting List** - A series of numbers may be defined in hunting list for incoming calls per PNP so that call comes to first number and in case of busy/ no reply it goes to next number in hunting list. Maximum 6 such numbers can be provided in hunting list.



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Preferred External Destination (PED) :

A company can integrate non-VPN lines (e.g. partners, suppliers, customers) by defining a PNP at site level as the extensions for VPN users. A call to these PED is qualified as an on-net call.

What is the difference between Short Code and Preferred External Destination?

Short Code are defined at company level and Preferred External Destination are defined at site level. Normal tariff is charged for these type of calls. Therefore short code is like PED which is common to all sites.

What types of VPN are available in BSNL Network?

Presently there are two types.

- Circle VPN – The VPN group constitutes telephone numbers of one state only.
- All India VPN - VPN group constitutes of telephone numbers across the country.

Televoting

What is Televoting service?

Televoting or televote is the term used to describe the telephone voting in which broadcasters provide the audience with different telephone numbers associated with contestants participating and the outcome is decided by the number of calls to each line. Music contests such as the Eurovision Song Contest, as well as for World Idol, American Idol and similar use this method. Televoting is the sole voting avenue in the Eurovision. From 1997, the European Broadcasting Union, organiser of the Eurovision Song Contest, introduced telephonic and SMS voting for competing entries in place of national juries. This way the voice of the television audience became crucial to choose the winning song. Reality television contests around the world such as Big Brother can use televoting to choose a winner or to eliminate a contestant from the contest.

- Televoting is unique service used in collecting public opinion.
- A user who wishes to vote, can dial the specific voting number to register his vote of choice.
- Televoting is possible from STD barred phones also.
- Televoting is a more cost-effective method of democratic deliberation as it does not require the participants/voter to meet in person.



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Televoting numbers are of 13 digits :

- 1803-424-ABCD-XY (no charge to voter, service subscriber has to pay)
- 1861-424-ABCD-XY (unit pulse charge to voter)
- 1862-424-ABCD-XY (two pulse charge to voter)

Who can subscribe for Televoting service?

- Media like TV and Press.
- Policy making bodies, political party/ activities
- Quiz shows, contests, events, product choices, concepts, programmes, song and beauty contests etc.

What BSNL Offers to Televoting subscribers?

- For each completed call to the dialed VOT number, the chosen vote number increases a counter related to that choice.
- Validity Period/Time band for allowing voting
- Partial results can be given to the service subscriber while Televoting is in progress, if desired.
- Online viewing of results possible at customer premises
- Specified nth winner's call routing possible to a number in studio
- Service Provider (Subscriber) control of activation/ deactivation possible
- Certain telephone numbers may be put in Black List/ Grey list
- Origin Dependent Handling
- Revenue sharing between the service provider (Subscribers) & network provider (BSNL).



Universal Personal Number

What is Universal Personal Number (UPN) Service?

By dialing the UPN number a service subscriber can be reached in the telephone network nationwide. He can also make calls using his Universal Personal Number from any BSNL Landline, but he will be billed on his UPN. All the calls made by subscriber using his UPN will be billed at his UPN by the IN Platform. The subscriber will be given a management code and password using which he can designate any BSNL/MTNL phone/mobile on which his UPN Calls can be sent by the IN System. This service has the potential to shift calls from mobiles (of other operators) to landline of BSNL.

What are its advantages?

It is convenient for the user who is mobile between offices or different cities but do not want all calls to come on his mobile. The subscriber can retain the UPN number even after the office location changes. Thus this service can be positioned between landline and mobile. Since mobile number has become a very personal number; Senior, Middle management and specially women workers may be reluctant to reveal their mobile number, UPN takes advantage of

this fact as call coming on UPN can be mapped on any landline or mobile based on his/her convenience. Thus they can avoid giving mobile phone number to everyone.

How this service is used?

The subscriber to this service will be given a logical number 1868 XYZ ABCD, which shall be called his UPN number. (XYZ - 345/ 233/ 180/ 425 depending upon the location from where the service is applied). With a management code 1808XYZ the destination number of the UPN can be changed to any BSNL fixed or wireless phone. Using the management code PIN also can be modified.

What are the advantages of UPN Service vis-a-vis mobile number?

UPN Number service is a service which fills the gap between landline and mobile. While landline is totally fixed, mobile number becomes a very personal number and every caller disturbs the holder. The UPN Service will allow the user more freedom, wherein he can decide when the call should reach his mobile or when the call should reach his land line or his PA's landline/ mobile. With UPN number one need not write Office/ residence & mobile number on the visiting cards and mobile number can be revealed only to few selected people.



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What is the dialing plan of UPN Service?

To call a UPN Subscriber only the logical number needs to be dialed just like any dictionary number. e.g If UPN Number 1868-345-1000 is allotted to a customer having DEL Number 011-2222-1234 then any user who wants to reach this person will dial 1868 345 1000 only, the call will land on 011-2222-1234 and charge will be as per charging plan.

What can be done using Management Menu?

Management of UPN can be done by dialing management SAC 1808-XYZ. On getting announcement "Pl. dial your UPN no." the last 4 digits of UPN no. (e.g.1000) is to be dialed. On getting announcement "Pl. dial your PIN", PIN 1234 (assumed PIN) is to be dialed.

Following Menu options are available:

- 1) "Dial 1 to register a new default destination"
- 2) "Dial 2 to deregister default destination"
- 3) "Dial 3 to modify your PIN"
- 4) "Dial 4 to make an outgoing call"

How a new number can be registered as new destination?

This feature is used to define a new number where UPN calls are to be routed. In the above case, when calls for UPN no. 1868 345 1000 are to be routed from no. 011-2222-1234 to 011-2337-2424, digit 1 is to be dialed followed by 2337-2424 (without STD code for local number) as new destination. But when destination no. is 080-2448-4845 (STD number) then 080-2448-4845 (with STD code) is to be dialed.

How to register and deregister to new default destination?

In the above case if the UPN user wants to revert back routing of UPN calls to original 011-2222-1234, then (through option 2 of main menu) this feature can be used.

How the PIN can be modified?

PIN (4 digits) for UPN management can be modified through option 3 from the main menu. The subscriber is requested to change the PIN after every few weeks.

How to make outgoing call through UPN?

Option 4 from the main menu can be used for making outgoing calls through UPN.

What is the tariff for UPN?

To know the latest UPN tariff please visit BSNL website <http://www.bsnl.co.in/index.html>



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Account Calling Card (ACC)

Account Card Calling:

This service allows the user to make a phone call from any normal phone to any destination number and have the cost of these calls charged to the account specified by the Account calling card. This card is ideal for corporate and executives. Economical and convenient, customer need not worry about consumption out of budget and helps executives to control their calls. It can be availed from BSNL offices.

Features:

- Eight simultaneous calls possible from same Account Card. Local, National and International dialing possible.
- National, International call restriction.
- Call restriction also possible according to origin & destination
- Multiple Language choices
- Detailed bill facility available on demand at cost.
- Account balance announcement with Real Time Credit Supervision
- Minimum credit to use the service with Warning Tone when credit reaches optimum level
- Follow On Calling – In case of Called Party On Hook, Called Party No Reply & Called Party Busy, the user can make a second call without entering the secret code number
- Provider Incoming /Outgoing Black List

Premium Rate Service (PRM)

In an information society, acquisition of plenty of information affects our life greatly, from daily life to financial investment, from shopping to traveling.

The PRM service enables service subscribers to provide such information at a premium calling rate to users. For users it is a quick and accurate way to get the latest information - anytime...anywhere.

The service subscriber can be reached through a PRM number and all calls are routed to the destination he registered. The service subscriber may have incoming calls routed to his installation or rejected according to a set of features.

PRM Service can be accessed with code 1867-XYZ XXXX . (XYZ : 233, 345, 180, 425)

Features:

- Revenue sharing between the service provider & network provider (BSNL).
- PRM service accessible through pre-paid mobile of BSNL.
- Service is made available from Telephones who wish to avail this service.
- For other features refer the features of TFS and UAN.



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Universal India Telephone Card (UITC)

This convenient prepaid card gives the customer the freedom to make local, STD, or ISD calls even from a STD or ISD barred phone. Simply the customer can dial the access code and 16 digit secret code from any telephone set, nearby, to make calls without paying the call fee on site.

Universal India Telephone cards are available at all customer service centers of BSNL and its franchises. UITC card purchased in one city can be used in any other city. Some UITC meant to be used in particular area viz. J&K will be printed with such message and can only be used in that area.

Features :

- UITC cards available in various denominations to suit a customer's need & pocket.
- Validity period 18 months from the date of printing and Activity period of 3 - 9 months to suit the customer convenience and usage.
- Detailed bill facility available on demand, at cost.
- Account balance announcement with Real Time Credit Supervision

- Minimum credit to use the service with Warning Tone when credit reaches optimum level.
- Follow On Calling – In case of Called Party On Hook, Called Party No Reply & Called Party Busy, the user can go and make a second call without entering the secret code number
- UITC cards can be used to make calls from BSNL mobiles also.

Activation and Tariff :

- Card is activated on first use or on checking the balance.
- All calls are preceded by the code 1802 XYZ (XYZ = 345/425/180/233)
- Applicable service tax included in cost of card.
- Cards available in various denominations.
- Volume based discount on sale of cards and PINs to BSNL Franchisees.
- Electronic PINs available for sale for different denominations in addition to cards.
- For latest update please visit BSNL website <http://www.bsnl.co.in>.