

E4-E5 (CM)

Data Cards for GSM,CDMA and 3G

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WELCOME



- This is a presentation for the E4-E5 CM Module for the Topic: **`Data Cards for GSM, CDMA and 3G'.**
- Eligibility: Those who have got the Upgradation to from E5 to E6.
- This presentation is last updated on 02-4-2011.
- You can also visit the Digital library of BSNL to see this topic.

AGENDA



- Introduction of BSNL Broadband service.
- Data services through CDMA.
- NIC and EVDO cards.
- 3G data cards.





Introduction

- BSNL is India's no. 1 Internet service provider with more than 17 lakh subscribers, providing Internet service throughout the entire country (except in New Delhi and Mumbai) under the brand name of "<u>Sancharnet</u>".
- Sancharnet provides free all India roaming and enables it's users to access their accounts, using the same access code (172233) and user ID from any where in the Country.



- In order to make Internet available through out the length and breadth of the Country Internet Dhabas are being commissioned at all the Block Headquarters.
- BSNL is also providing Internet on mobile via various mobile technologies like GPRS, EDGE ,CDMA 2000 1X , EVDO , 3G and HSDPA.

Data Services through CDMA



 BSNL has launched its Data Services on CDMA 2000 IX by using BSNL Internet Connect Card (ICC). The CDMA IX ICC provides Internet Service @144kbps to computer users on their laptops as well as on desktops. This service will be available in all those locations wherever CDMA IX MSC based coverage is there.

Data Services through CDMA



 All other service providers ask subscriber to purchase the data card and subscriber do not have any alternatives if he wishes to discontinue. There is no way subscriber can return the data card to get his money. But for BSNL subscriber can give the data card back after the minimum rental period and you will get the security deposit back.



The following two types of data Cards will be available for BSNL customers:

- (A) Network Interface Card (NIC) : For internet speed up to 144 Kbps.
- (B) EVDO Card : Internet speed up to 2.4 Mbps.



Now, BSNL is also offering roaming facility on these cards.

The charges of unlimited internet usage through these NIC

and EVDO Cards are as under :

| S. No. | Particulars | Tariff of NIC Card (Unlimited) in Rs. | Tariff of EVDO Card (Unlimited) in Rs. | | | | | |
|--------|---------------------------------------|---------------------------------------|--|--|--|--|--|--|
| 1. | Activation charges | 250 | 500 | | | | | |
| 2. | Charges for Cards | | | | | | | |
| | i Sale Price of ICC Card in Rs.* | 2000 | 2500 | | | | | |
| | ii Alternate to purchase of ICC : | | | | | | | |
| | ii (a) Fixed monthly charges for card | 150 | 200 | | | | | |
| | ii (b) Security Deposit (refundable) | 1000 | 1000 | | | | | |



BSNL is providing NIC and EVDO cards on rent basis and also through permanent sale basis. However the facility to covert rent based plan to sale of card is also available and discount is also allowed for the transaction.



Discount Structure for conversion from Rent Based Plan to

Sale of NIC/EVDO Data Card

| Months (for which rent is paid) | Discount Allowed on sale price | | |
|---------------------------------|--------------------------------|------|--|
| | NIC | EVDO | |
| 1 to 3 Months | NIL | NIL | |
| 4 to 6 Months | 20% | 20% | |
| 7 to 12 Months | 40% | 40% | |
| 13 Months and above | 50% | 60% | |



With the launching of 3G / HSDPA services by BSNL, the facility of fast internet on mobile / laptop can be availed by using these technologies.

Like CDMA 2000 1X and EVDO the internet connectivity through 3G / HSDPA is possible by using USB and PCMCIA based 3G data cards.



3G Data cards are meant for accessing internet and emails at anytime and from anywhere. Thus 3G Data Cards help us to work on the move with full email and web access.

It provides Simple and instant internet access at mega fast speeds up to 3.6 Mbps. 3G data cards make us free from messy wires, Fixed Line Requirement, No Need of Cyber Cafe / Hot Spot to Access Internet. Thus your Lap top become truly mobile.



You have to Plug in 3G Data Card into your laptop and can get the fastest available connection. Its neat, compact design makes it easy to use; you can easily swap it between laptops for use at work, home or on the move.

Laptops have a PC Card slot (also known as a PCMCIA slot), or an Express Card slot. There is PCMCIA to Express Card Converter For using 3G broadband, you need 3G Data card, network SIM card, software, user guide.



BSNL is providing USB type 3G data card of M/s. TERACOM LTD make and PCMCIA type 3G data card of M/s. Capitel Wireless Pvt. Ltd make. The details of USB and PCMCIA 3G data cards are given below:-

| S. No | Vendor (Type) | Make/ Model | Data Speed | Frequency Band | MRP (Rs.) (Incl. of all taxes) (Maha.& M.P.) | MRP (Rs.) (Incl. of all taxes) (Other Circles) |
|-------|---------------------------|-------------------------------------|---------------|-------------------|--|--|
| 1 | Teracom Ltd. | Linktop / LW272 | 3.6 MBPS | Single Band | 2200 | 2000 |
| 2 | (USB Type) | Linktop / LW273 | 7.2 MBPS | Tri Band | 2600 | 2500 |
| 3 | Capitel Wireless | Option / GTMAX having Qualcom | 3.6 MBPS | Single Band | 4000 | 4000 |
| 4 | Pvt. Ltd (PCMCIA Type) | chipset 7200 Globe Trotter HSUPA | 7.2 MBPS | Tri Band | 4500 | 4500 |



BSNL 3G data services are available in both post paid and pre-paid schemes.

Activation of Data Plans: SIM and Activation charges as applicable to 3G Postpaid & Prepaid voice plan will also be applicable for 3G data services.

In place of existing FRC 120 for activation of 3G data plan, the following new FRCs for activation of data plan are introduced.



| Particulars | FRC 51 |
|-----------------------------|--|
| MRP of FRC (Incl. of S.Tax) | Rs.51 |
| Free usage value in Rs. | Nil |
| Validity | 180 days |
| Free Data usage | 1 GB per Month for 2 months |
| Availability | Through C-Topup |
| Applicability | Any data plan with sale of BSNL data card or any of the BSNL bundled data card |
| Base Voice Tariff plan | As per prepaid General 120 plan |



3G Postpaid Data Plans

| Fixed Monthly Charge in Rs. (Srv.Tax Extra) | Day/Any time usage in GB | Night * usage in GB | Total bundled free Usage in GB | Data Charges in Rs./10 KB*** (except APN 'bsnlstream') | Data Charges in Rs./MB***(For APN bsnlstream) |
|---|-----------------------------|---------------------------|---|---|---|
| 249 | 0.50 | | 0.50 | 0.02 | 0.25 |
| 399 | 1 | | 1 | 0.02 | 0.25 |
| 549 | 1 | 5 | 6 | 0.02 | 0.25 |
| 649 | 2 | | 2 | 0.02 | 0.25 |
| 999 | 10 | | 10 | 0.02 | 0.25 |
| 1359 | 15 | | 15 | 0.02 | 0.25 |
| 2720 | 35 | | 35 | 0.02 | 0.25 |



Short term validity data recharge vouchers for 3G prepaid services

| MRP of RCV in Rs. (Incl. of Srv. Tax) | Service Tax in Rs. | Cost of RCV in Rs. | Free data usage in MB | Validity in days |
|--|-----------------------|-----------------------|--------------------------|---------------------|
| 10 | 0.93 | 9.07 | 20 | 1 |
| 25 | 2.33 | 22.67 | 50 | 3 |
| 50 | 4.67 | 45.33 | 100 | 7 |



3G Prepaid Data Plans

| Data RCV in Rs.(Inclusive Service Tax) | | Night * usage in GB | Total bundled free Usage in GB | Validity (days)** | Data Charges in Rs./10KB*** (except APN 'bsnIstream') | Data Charges in Rs./MB***(For APN bsnlstream) |
|--|------|---------------------------|---|----------------------|---|--|
| 275 | 0.50 | | 0.50 | 30 | 0.02 | 0.25 |
| 440 | 1 | | 1 | 30 | 0.02 | 0.25 |
| 606 | 1 | 5 | 6 | 30 | 0.02 | 0.25 |
| 716 | 2 | | 2 | 30 | 0.02 | 0.25 |
| 1102 | 10 | | 10 | 30 | 0.02 | 0.25 |
| 1500 | 15 | | 15 | 30 | 0.02 | 0.25 |
| 3000 | 35 | | 35 | 30 | 0.02 | 0.25 |

* 11.00 PM to 07.00 AM

** This will increase the validity of main and dedicated accounts both.

*** Data charges beyond free usage shall be deducted from the available balance in his main account. Free data usage is available both from home LSA and while roaming.



3G Data Top-up Voucher

| Type of Voucher | MRP (Incl. of S. Tax) | Free Usage in MB | Validity |
|-----------------|-----------------------|------------------|----------|
| 3G Data Top-up | Rs.197 | 500 MB | Nil |

Trial Pack : (Inclusive of Service Tax)

| 1 | MRP of Trial pack in Rs. (Incl. of S. Tax) | Rs.121 |
|---|--|---------|
| 2 | Free usage in MB | 300 MB |
| 3 | Validity in days* | 15 days |

Some Important Terms



- GSM Global System For Mobile Communication.
- GPRS General Packet Radio Service.
- EDGE Enhance Data Rate for GSM Evolution.
- UMTS Universal Mobile Telecommunications System.
- CDMA Code Division Multiple Access.
- EVDO Evolution for Data Only.
- HSDPA High Speed Downlink Packet Access.
- NIC Network Interface Card.
- PCMCIA Personal Computer Memory Card International Association.
- FRC First Recharge Coupon.
- RCV Recharge Coupon Voucher.
- APN Access Point Name.





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