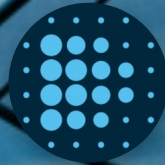


# DataWeave's Telecom Recharge Plans API

4th Aug, 2015



BY DATAWEAVE

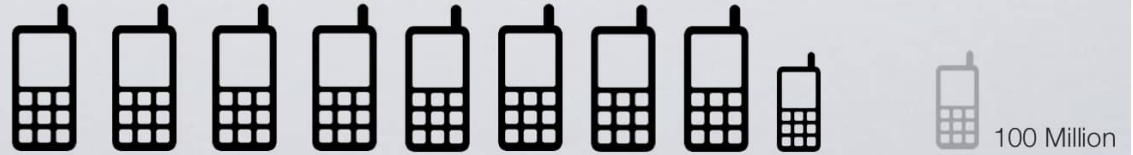
Several months ago we released our [Telecom recharge plans API](#). It soon turned out to be one of our more popular APIs, with some of the leading online recharge portals using it extensively. (So, the next time you recharge your phone, remember us :))

In this post, we'll talk in detail about the genesis of this API and the problem it is solving.

Before that — -and since we are into the business of building data products — some data points.

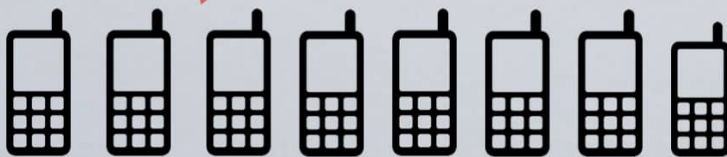
# The Phone Numbers

As per a report published by Telecom Regulatory Authority (TRAI) India has about 868 million mobile phone subscribers



868 Million

Of these about 794 million are GSM subscribers, with only about 74 million CDMA subscribers.



794 Million GSM



74 Million CDMA

More than 525 million, about 60 per cent, of India's subscribers are in cities and towns



525 Million

in Cities and Towns



269 Million

in Other Areas

140.76  
Urban India

Mobile devices Teledensity  
(# connections per 100 users in a given area)

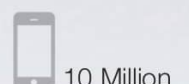
70.85  
Rural India

Number of subscribers who access internet through mobile phones is about 143 million



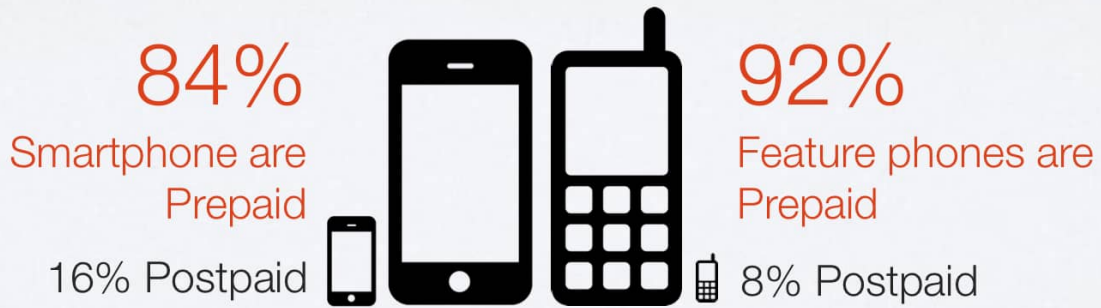
143 Million

Access Internet on Phone



Rs. 54,284 Crore

The cumulative revenue of telecom service providers was Rs 54,284 Crore in the January-March quarter as per TRAI data.



84% of all smartphone owners and 92% of feature phone owners in India have prepaid connections, according to global information and measurement company Nielsen <http://trak.in/mobiles/prepaid-mobile-users-india-global-comparison/>



As you can see, most mobile phones in India are prepaid. That is to say, there is a huge prepaid mobile recharge market. Just how big is this market?

# The Recharge

There are three channels through which online recharge can be done



Prepaid Average Revenue Per User (ARPU): Rs. 80/month

Rs 80 / Month

Estimated throughput of the prepaid recharge industry:  
Rs. 791 billion

Rs. 791 billion

Potential for digital recharge industry (online + mobile):  
Rs. 137 billion

Rs. 137 billion

Telcos offer a commission of approximately 3% to third party recharge portals. It means there is an opportunity worth about 4 billion as of today.



Population

11%

Percentage of people in India with Internet Connection



1% Online recharge

99% Offline Recharge





The above infographic is based on [a recent report](#) by Avendus [pdf]. Let's focus on the online prepaid recharge market. Some facts:

- There are around 11 companies that provide an online prepaid recharge service. Here's the list: mobikwik, rechargeitnow, paytm, freecharge, justrechargeit, easymobilerecharge, indiamobilerecharge, rechargeguru, onestoprecharge, ezrecharge, anytimerecharge
- RechargeItNow seems to be the biggest player. As of August 2013, **they claimed** an annual transactions worth INR 6 billion, with over 100000 recharges per day pan India.
- PayTM, Freecharge, and Mobikwik seem to be the other big players. Freecharge claimed recharge volumes of 40000/day in June 2012 (~ INR 2 billion worth of transactions), and they have been growing steadily.
- Telcos offer a commission of approximately 3% to third party recharge portals. So, it means there is an opportunity worth about 4 bn as of today.
- Despite the Internet penetration in India being around 11%, only about 1% of mobile prepaid recharges happen online. This goes to show the huge opportunity that lies untapped!
- It also goes to show why there are so many players entering this space. It's only going to get crowded more.

What does all this have to do with DataWeave? Let's talk about the scale of the "data problem" that we are dealing with here. Some numbers that give an estimate on this.

There are 13 cellular service providers in India. Here's the list: Aircel Cellular Ltd, Aircel Limited, Bharti Airtel, BSNL, Dishnet Wireless, IDEA (operates as Idea ABTL & Spice in different states), Loop Mobile, MTNL, Reliable Internet, Reliance Telecom, Uninor, Videocon, and Vodafone. There are 22 circles in India. (Not every service provider has operations in every circle.)

Find below the number of recharge plans we have in our database for various operators.

8/10/2013		16/10/2013	
Aircel	922	Aircel	947
Airtel	2428	Airtel	2451
BSNL	2310	BSNL	2380
Idea	2246	Idea	2274
MTNL	109	MTNL	109
Reliance	7	Reliance	7
Reliance CDMA	904	Reliance CDMA	919
Reliance GSM	1278	Reliance GSM	1279
Tata DOCOMO	1356	Tata DOCOMO	1382
Uninor	412	Uninor	423
Vodafone	27177	Vodafone	27205
		Loop	73
<b>Total</b>	<b>39149</b>	<b>Total</b>	<b>39449</b>

In fact, you can see that between the last week and today, we have added about 300 new plans (including plans for a new operator).

The number of plans varies across operators. Vodafone, for instance, gives its users a huge number of options.

Vodafone	
Andhra Pradesh	97
Assam	3064
Bihar & Jharkhand	357
Chennai	93
Delhi & NCR	133
Gujarat	431
Haryana	3467
Himachal Pradesh	99
Jammu & Kashmir	244
Karnataka	4152
Kerala	102
Kolkata	2897
Madhya Pradesh & Chhattisgarh	82
Maharashtra and Goa (except Mumbai)	126
Mumbai	6494
North East	763
Odisha	50
Punjab	114
Rajasthan	569
Tamil Nadu (except Chennai)	101
UP(E)	238
UP(W)	86
West Bengal (except Kolkata)	3418

The plans vary based on factors such as: denomination, recharge value, recharge talktime, recharge validity, plan type (voice/data), and of course, circle as well as the operator.

For a third party recharge service provider, the below are a daily pain point:

- plans become invalid on a regular basis
- new plans are added on a regular basis
- the features associated with a plan change (e.g, a 'xx mins free talk time' plan becomes 'unlimited validity' or something else)

We see that 10s of plans become invalid (and new ones introduced) every day. All third party recharge portals lose significant amount of money on a daily basis because: they might not have information about all the plans and they might be displaying invalid plans.

DataWeave's [Telecom Recharge Plans](#) API solves this problem. This is how you use the API.

### Sample API Request

```
http://api.dataweave.in/v1/telecom_data/listByCircle/?
api_key=b20a79e582ee4953ceccf41ac28aa08d&operator=Airtel&circle=Kar
nataka&page=1&per_page=10
```

### Sample API Output

```
{
  "status_code": 200,
  "status_text": "Success",
  "count": 99,
  "data": [
    {
      "id": "45110",
      "recharge_value": "7",
      "recharge_talktime": "0",
      "recharge_validity": "1 Days",
      "recharge_short_description": "2G Pack",
      "recharge_description": "2G DATA_7",
      "recharge_description_more": "",
      "product_type": "",
      "circle_master": "Karnataka",
      "operator_master": "BSNL",
      "recharge_master": "Data",
      "is_prepaid": "1"
    }
  ],
}
```

We aggregate plans from the various cellular service providers across all circles in India on a daily basis. One of our customers once mentioned that earlier they used to aggregate this data manually, and it used to take them about a month to do this. With our API, we have reduced the refresh cycle to one day.

In addition, now that this process is automated, they can be confident that the data they present to their customers is almost always complete as well as accurate.

Want to try it out for your business? Talk to us! If you are a developer who wants to use this or any other APIs, we let you use them for free. Just sign up and get your API key.

**DataWeave** helps businesses make data-driven decisions by providing relevant actionable data. The company aggregates and organizes data from the web, such that businesses can access millions of data points through APIs, dashboards, and visualizations.

Originally published at [blog.dataweave.in](http://blog.dataweave.in).

- **DataWeave Marketing**

4th Aug, 2015

API

