Central Depository Services (India) Limited

Mobile Applications in CSDs

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Association of Eurasian Central Securities Depositories

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CDSL

Presentation Overview

- About CDSL and group companies
- Indian CSD operations in comparison to other geographies
- Internet and Mobile Statistics in India
- Maturity of CSDs in mobile adoption
- CDSL mobile initiatives for investors
- Awards and recognition
- Certifications

About CDSL

- CDSL commenced operations as a CSD in March 1999
- CDSL has a total of 582 Depository Participants (DPs) and 11.3 million demat accounts of investors across 9367 issuing companies and covering 93% Indian PIN codes.
- CDSL has a wide network of DPs, operating from nearly 13000 service locations across the country, offering convenience for an investor to select a DP based on his location.
- All leading banks, custodians, NBFCs, clearing members, clearing corporations and RTAs are DPs.
- Offers depository services for dematerialised holding of financial instruments including
  - Equity
  - Debentures
  - Bonds
  - Mutual Funds
  - Commercial Paper
  - Certificate of Deposits
  - Government Securities

CDSL Group

Central Depository Services (India) Limited	• Depository Services • e-Voting Services • National Academic Depository • Go Green Services
CDSL Ventures Limited	• Wholly owned subsidiary of CDSL • KYC Registration Agency across SEBI products • 1st and largest KRA with over 14.5 million KYCs • Holding 70% of the total PAN based KYC
CDSL Insurance Repository Limited	• Promoted by CDSL (51%) and ten Insurance companies (49%) • Facilitates policyholders to hold insurance policies in electronic form • Holding 60% of total eIA accounts

Indian CSD operations in comparison to other geographies

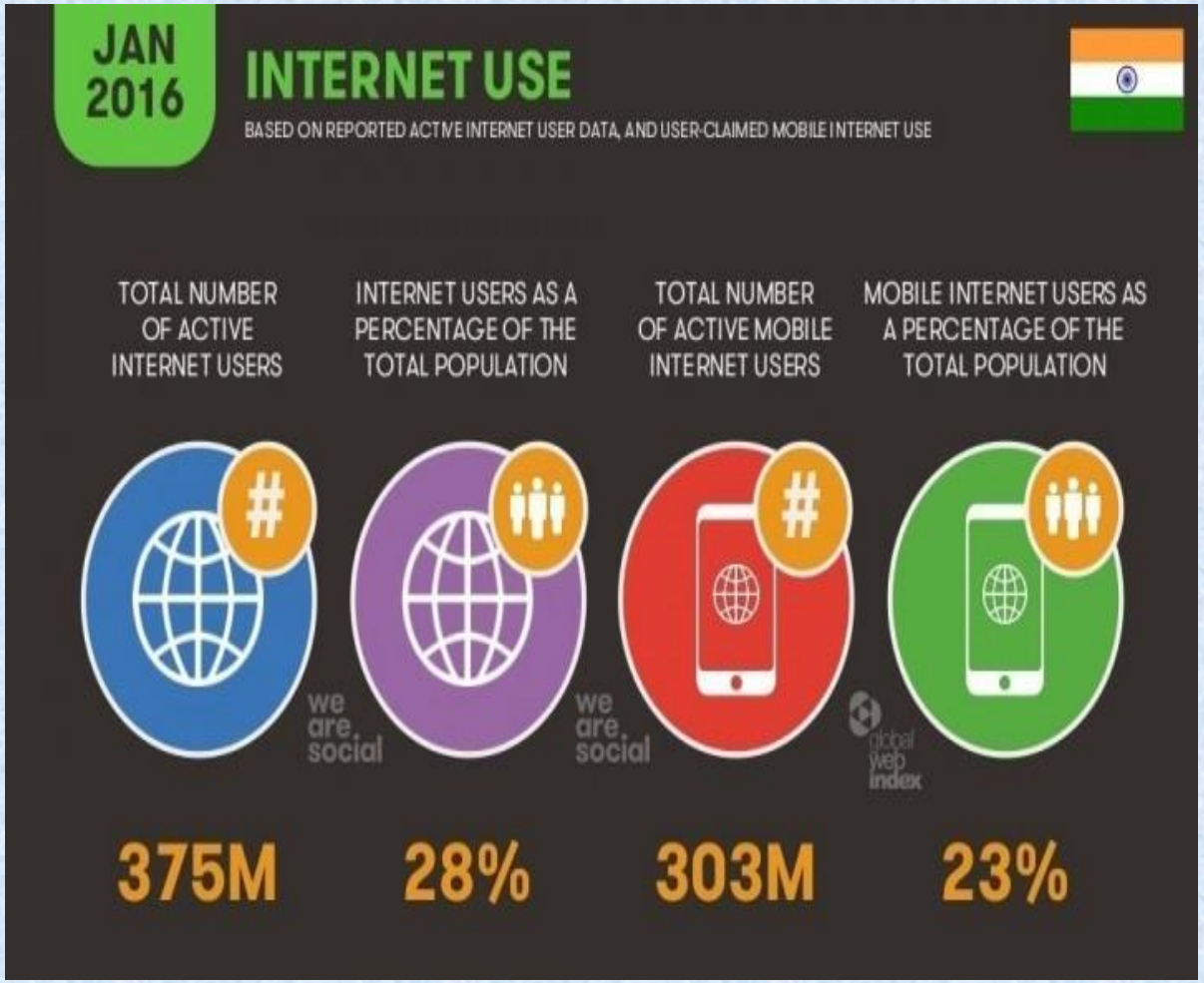
- Stock Exchange, Clearing Corporation and Depositories are separate entities in India
- In some countries the function of all three entities are done by the same entity
- In some other countries stock exchange is one entity, while the clearing corporation and depository are together another entity

- As per Indian regulation, foreign investors can participate in Indian market through custodians and Indian clearing members

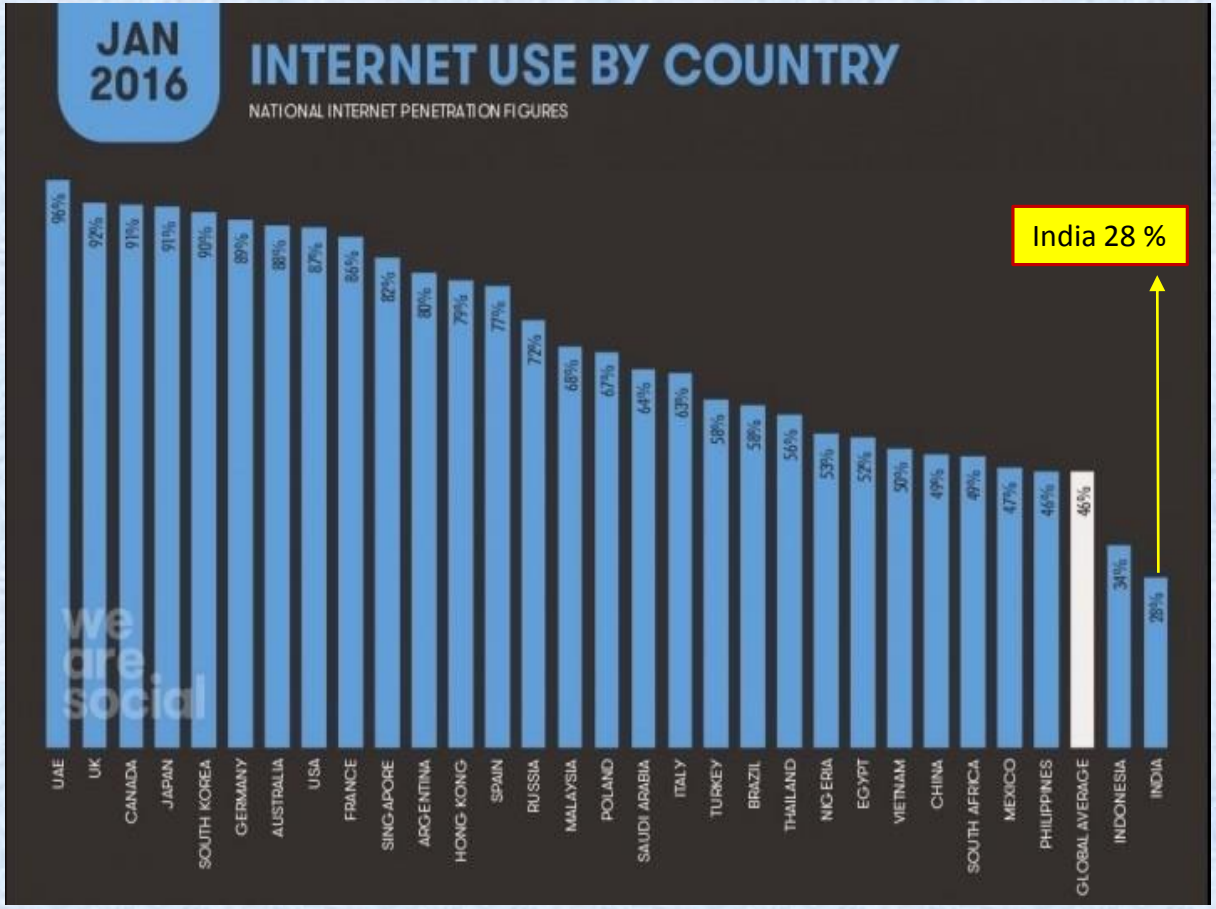
- In India accounts are held in the name of the beneficiary owner
- In most other geographies,
  - nominee level accounts are held
  - the beneficial owner details are not available in the depository

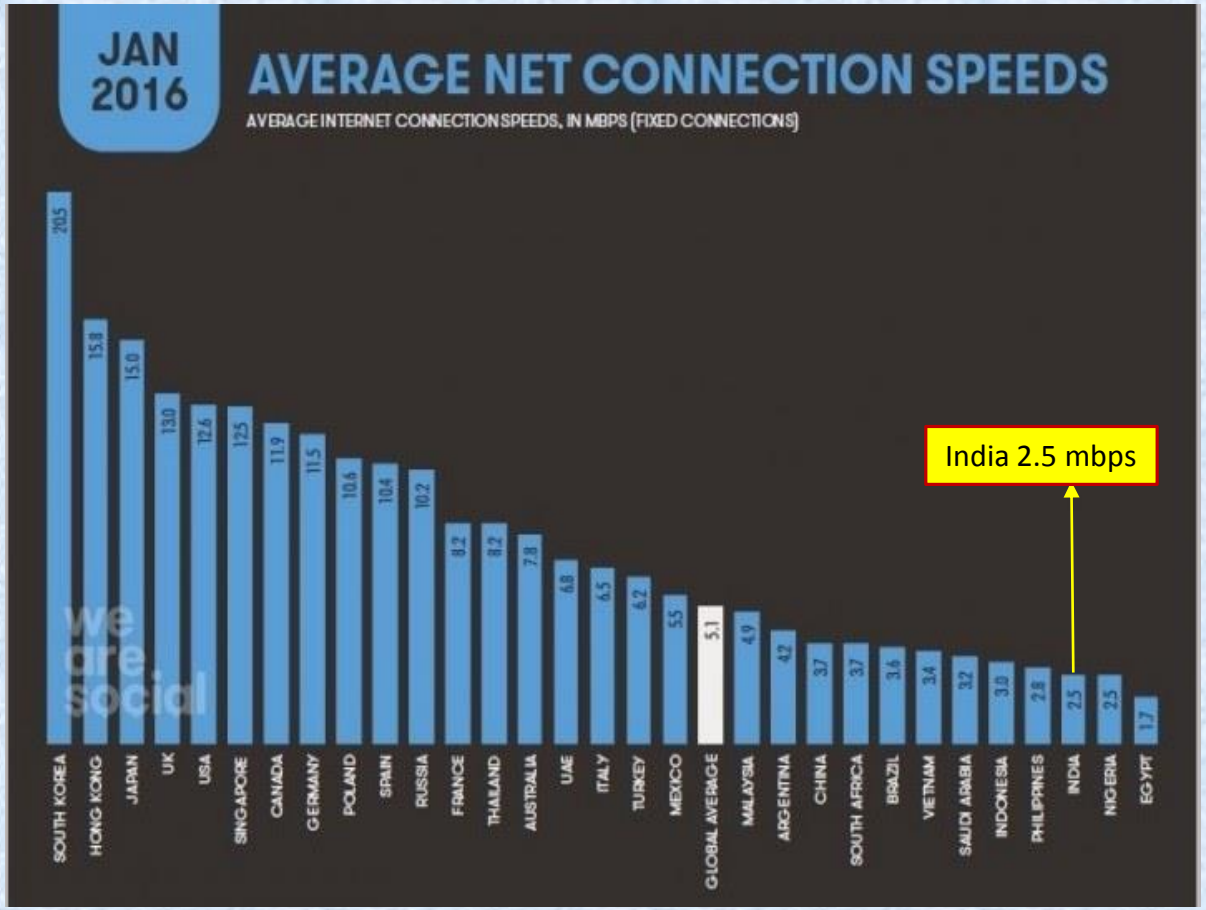
Digital and Internet statistics for India





Internet Adoption and Speeds in India

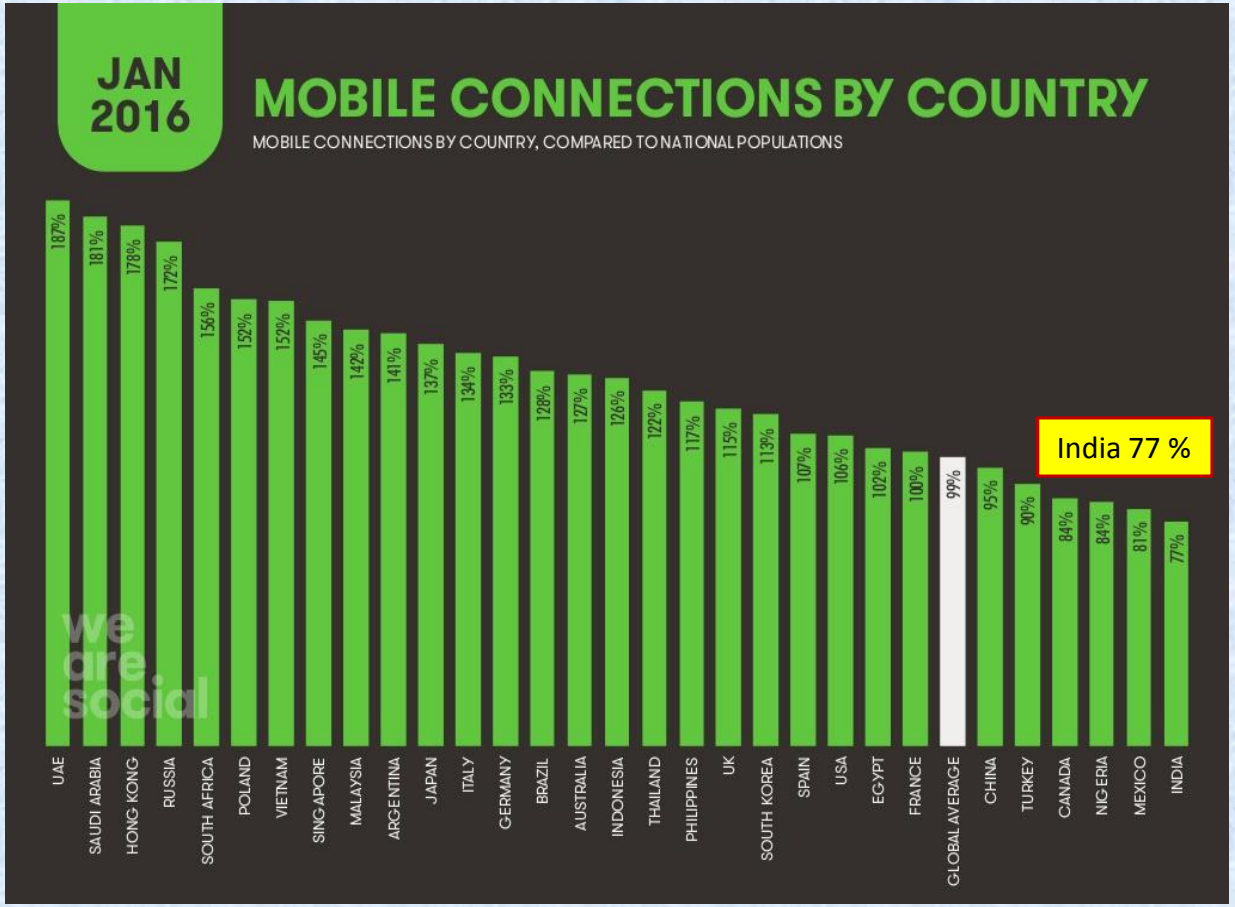


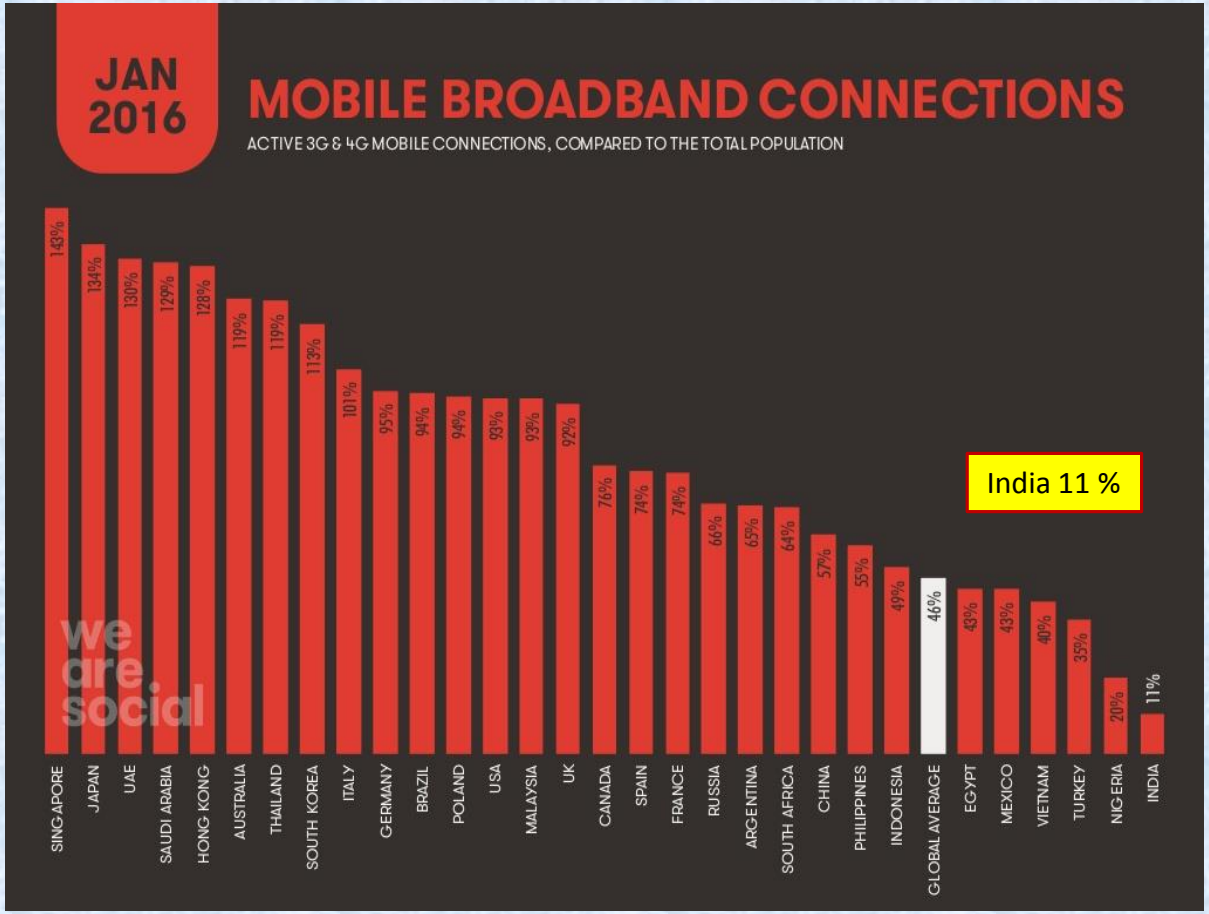


Only a little over a quarter of India's 1.32 billion people (33% urban / 67% rural) are connected to internet, compared to nearly half of China's 1.38 billion people. There's more headroom for growth. Over 70 percent of the population is yet to come online.

The average internet connection speed in India is a mere 2.5 mbps, which is half of the global average. Connection speeds are five times faster in Singapore, six times faster in Japan, and eight times faster in South Korea.

Mobility adoption in India

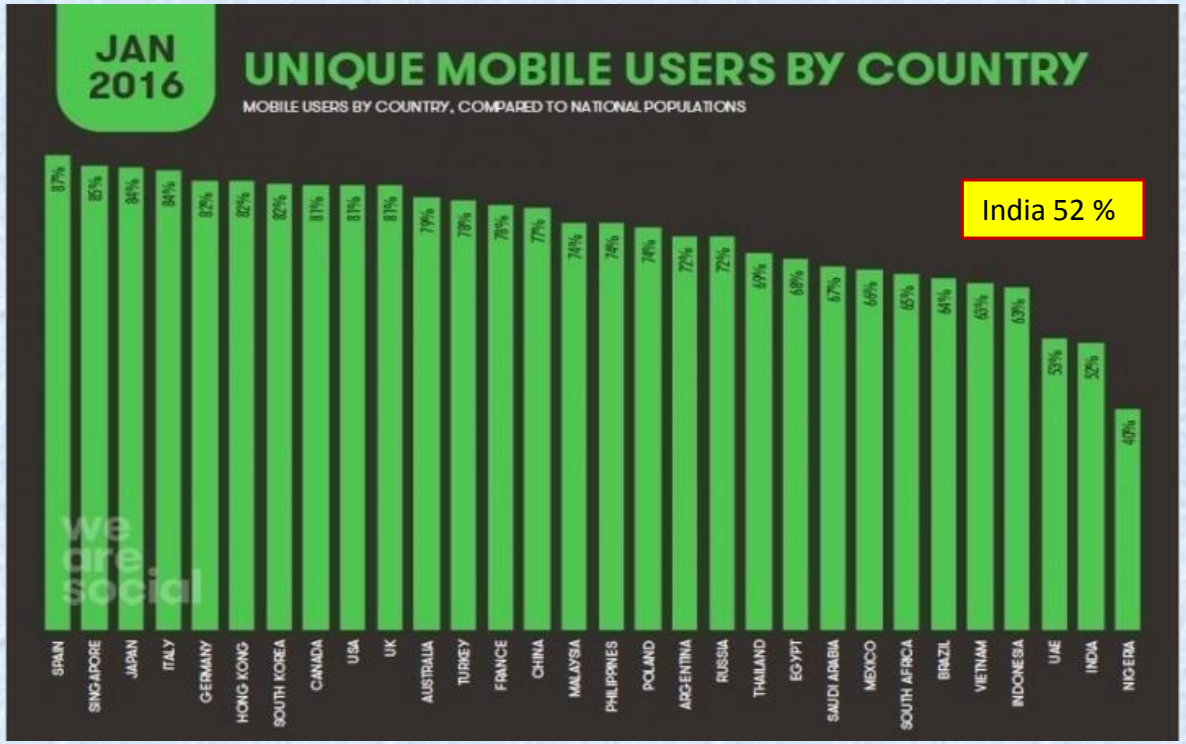


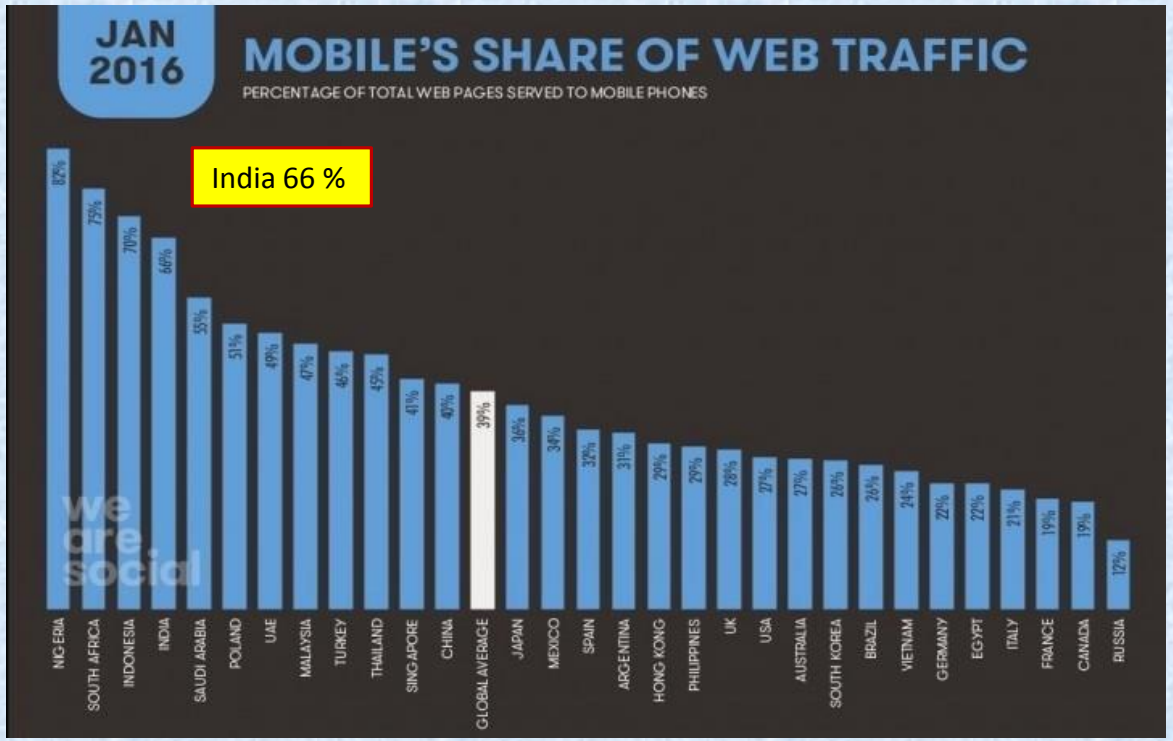


Low mobile connections compared to population.

Low broadband mobile (3G/4G) penetration.

Mobility adoption in India





Huge potential for incremental mobile phone sales. The number of unique mobile users is only 691 million slightly over half of the 1.3 billion people. Of these only one-third have smartphones. Roughly 1 in 7 people in India live in areas which do not have cellular phone reception.

One of the highest in adoption of mobile, two-thirds of the online traffic in India is mobile, way more than the global average of 39 percent.

Factors helping rapid mobile and internet adoption in India

- Huge improvement in telecom infrastructure with 3G and now 4G data services
- Huge opportunity in increasing mobile broadband penetration (only 11% now)
- Availability in urban, semi urban and even rural areas at affordable prices
- Proliferation of smartphones and feature rich phones at affordable cost (only 1/3rd have now)
- Initiative of government to improve telecom in remote areas and push for greater financial inclusion
- Digital India initiative by the government to offer many products and services over online and mobile
- Free Wi-Fi services being introduced in busy areas like airports, railway stations, shopping malls, etc.
- Many organizations adopting mobile first and mobile only strategy for B2C applications

Various sources



CDSL

Mobile Web vs Mobile App considerations

The use of mobile is overtaking usage of desktop at an ever-increasing rate.
Usage of Smartphones and tablets will eventually replace our laptops and desktops.

In addition to having a Desktop Web presence, companies are following one of three mobile presence approaches –
(1) Mobile Web only
(2) Mobile App only
(3) Mobile Web + Mobile App



Mobile Web can be implemented using one of two approaches –

- Developing a separate mobile site (usually **m**.company.com) which take more effort to build and maintain
- Alternately responsive pages can be developed for the desktop website which render on all device sizes including mobiles and tablets agnostic to the browser being used



Mobile App development can be in of two approaches –

- Native app for each of popular mobile OS – Android, IOS, Windows – more time to develop
- Developed using HTML5 - ease and speed in building and updating the apps, using a single codebase and deploying on all the mobile OS.

Mobile Applications in Indian CSD context

Worldwide, the adoption of mobile technology for investor facing applications in CSDs is very low

This is due to most depositories having nominee level accounting

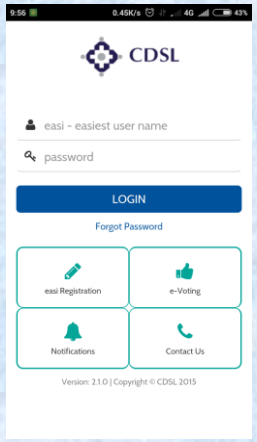
Since we have beneficiary level accounting and high level of mobile adoption in India, CDSL has introduced a mobile application for investors

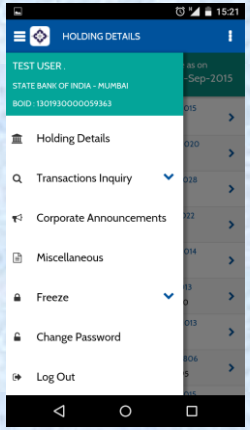
CDSL has also introduced a mobile application for shareholders voting in company resolutions

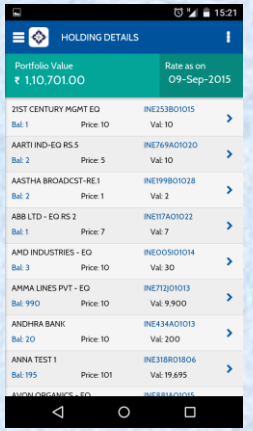
Since most depository participants (banks / brokers) also have their own mobile application for customers, the use of the CSD mobile application would be mostly for investors coming through smaller Depository Participants

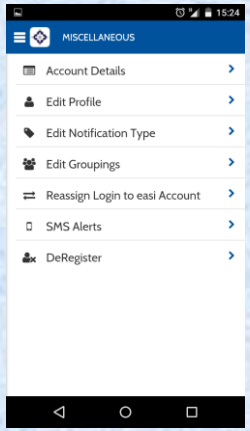
Mobile Applications in CDSL - MyEasi

- **easi** - electronic access to securities information
- **easiest** - electronic access to securities information and execution of secured transactions
- Mobile Application which will allow investors having easi – easiest facility on desktop web application to use the same credentials on mobile application.
- Ability to view their holding details with valuations, transaction details and execute transactions in trusted mode.
- Monitor corporate announcements for held securities. Monitor additional 25 additional ISINs of their choice.
- View and freeze/unfreeze transactions
- Edit profile, download holdings in PDF, etc



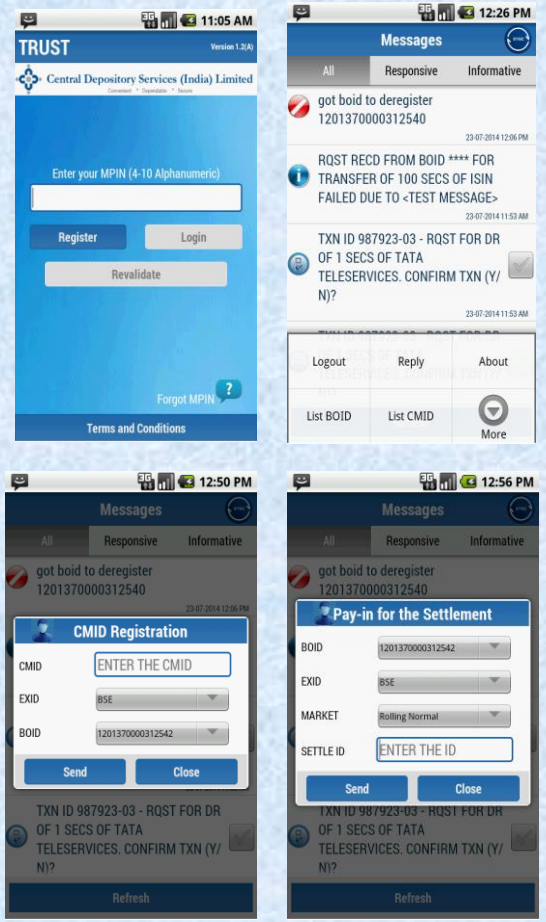






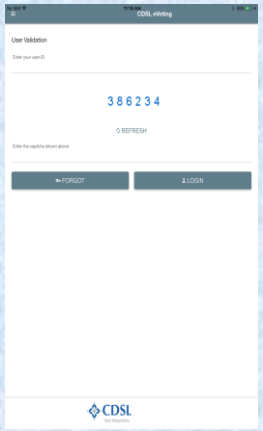
Mobile Applications in CDSL - TRUST

- This application is for TRansactions Using Secured Texting for trades done on the stock exchange
- Pay-in instructions and response using encrypted SMS to / from registered mobile
- No need to submit delivery instruction slip (DIS)
- No internet connection required since transaction is SMS based,
- TRUST also available through GPRS

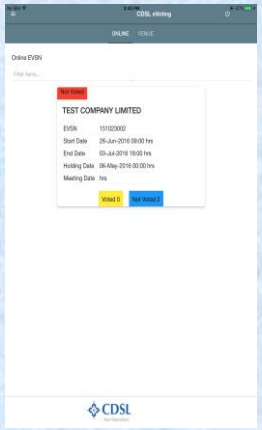


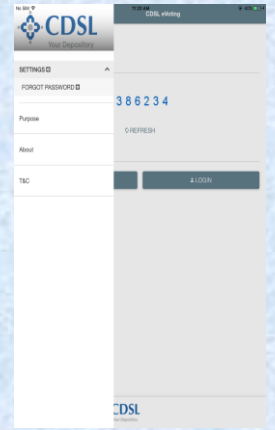
Mobile Applications in CDSL – m-Voting

- Mobile application for Shareholder / Demat Account holder to conduct e-Voting for company resolutions.
- Facility which enables shareholders to vote either remotely or at venue during general meetings
- Same web user credentials used in mobile app also.
- Camera can be used to read encrypted password on barcode given by company at the venue
- Election voting also on mobile for clubs and association









Recent Awards and Recognition

Award	Category	Year
Express Security Strategist Awards	Information Security	2016
Innovative CIO Award	CIO	2015, 2016
IDG's CIO100 Award	CIO	2015
IDG's Security Supremo Special Award	Security, risk, governance & compliance	2015
Dataquest Business Technology Award	Datacenter / Networking	2015
	Enterprise Security	2015
	Enterprise Application	2015
	Storage / BCP / DR	2015
Infosec Maestros Award	Information Security	2015
NetApp Innovation Award	Enterprise Mobility	2015
IDC Insights Award	CIO	2014, 2015
EMC Transformers Award	Best use of IT to transform business	2014, 2015

Certifications

ISO 27001 (Information Security Management System)

Started with BS7799 in 2006
Currently ISO 27001:2013

ISO 22301 (Business Continuity Management System)

Started with BS25999-2:2007 in 2012
Currently ISO 22301:2012

ISO 9001 (Business Process)

Started with ISO 9001:2008 certification for eVoting process since 2013
Currently ISO 9001:2015

STQC

Since 2012

Thank You