# PULC Advertising

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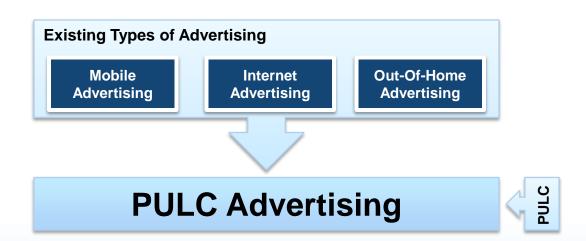


# PULC



### The Idea - PULC Advertising

- Personalized; Ubiquitous; Location Aware; Context Aware; -Advertising
- Utilize the technology in the area of Mobile and Internet
- Support Consumer to Consumer, Business to Consumer and Business to Business – advertising
- Both Push Pull options available
- Compliment the existing advertising types





### Stakeholders



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- Individuals
  - √ use the PULC portal and mobile app to buy, sell, get offers
- Business Owners
  - ✓ use the PULC portal and mobile app to advertise their
    products to interested audience only
- Mobile Operators
  - ✓ provide the needed infrastructure and network/mobile payments backbone
- Cognizant
  - maintain the PULC server, mobile app, portal and develop the needed capabilities



# **Enabling Technologies**



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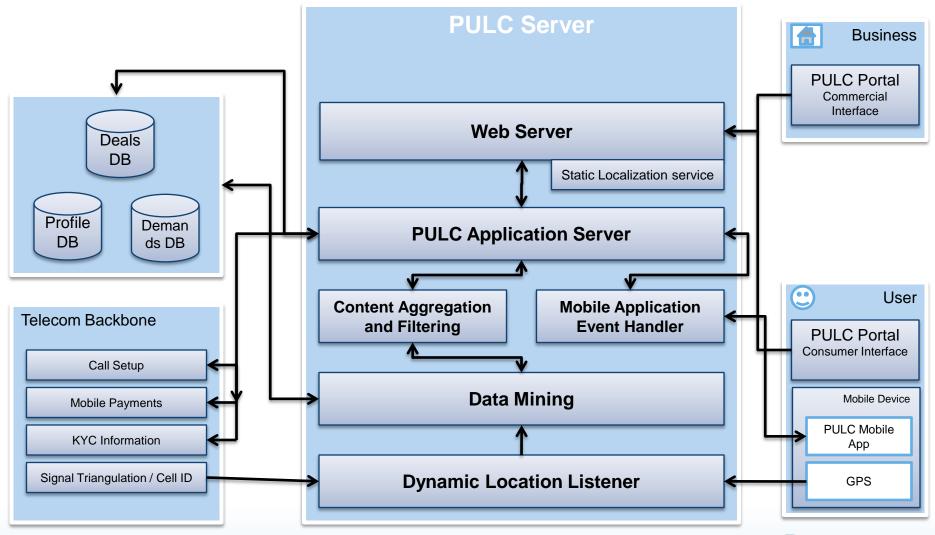
- Connectivity
  - 2G
  - 3G
  - GPRS
  - EDGE
  - Broadband/Dial-up
- Localization Technologies
  - GPS
  - Signal Triangulation
  - Cell ID
  - Address to Lat-long translation (vice-versa)
- Application Development
  - Mobile Apps
  - Web Apps/Portals
- Relational and Spatial Databases and Data Mining
- Mobile Payments
- Mobile Telecommunication Backbone



# Proposed Architecture



### **Proposed Architecture**



# Usage Scenarios



- Actor 1 Arnav
  - Arnav studies at the university of Pune and he wants to sell his old bike as he got himself a new car. He logs onto the Pune Telecom's PULC portal and enters the details
  - Pune Telecom's PULC portal takes the exact address for Arnav and maps it to a lat-long using localization API
  - PULC Portal shows the calculated location on a map and waits for Arnav's confirmation/needed corrections
  - Once satisfied with his entry and location Arnav sets the entry to "Open" (that means is ready for selling)
  - As soon as the deal is set to "Open" the PULC backend server takes it up and puts it into the deals-db



- Actor 2 Arun
  - Arun has just joined University of Pune
  - He has just settled in his hostel but feels the need of a bike for day-to-day use
  - Being a Pune Telecom customer Arun also has access to the PULC portal and he enters his requirement there
  - The location for Arun is calculated by PULC server and confirmed by Arun
  - After satisfaction Arun sets his listing to "Open"
  - The listing being "Open" is taken up by the PULC backend server and stored in demands-db



- Scenario 1
  - Arun is exploring the Shivaji Nagar area of Pune, this is where Arnav lives
  - As soon as Arun is in a 100m# radius of Arnav's home the PULC system triggers an alert to Arun and information regarding Arnav's bike is shown to him on his mobile
  - Arun seems interested and he uses the "Call" option to talk to Arnav
  - Things go smooth over phone and they decide to meet immediately at Arnav's place
  - Deal is closed\* and Arun happily rides back to his hostel on his new bike
  - Both Arun and Arnav set their deals to "Closed", indicating the backend server to remove them from the respective databases

<sup>#</sup>The application uses either the in-built GPS/ Signal triangulation to calculate the location of the user



<sup>\*</sup> Using Pune Telecom's mobile payment option

- Scenario 2
  - Arnav is visiting a friend who lives in the hostel building next to Arun's hostel
  - When Arnav reaches his friend's place and puts his bike at the stand he receives an alert regarding Arun being interested in buying a bike (Since he was in 100m# range)
  - Arnav calls Arun using the call option and they decide to meet at the bike stand after 2 hrs
  - Arun calls Arnav, who is still at his friends place, in 2 hrs and they meet. Arun likes the bike very much and the deal is closed\*
  - Arnav has to take ride back to home on the city bus, but he is happy since he wanted to sell his bike ASAP
  - Both Arun and Arnav set their deals to "Closed", indicating the backend server to remove them from the respective databases

<sup>#</sup>The application uses either the in-built GPS/ Signal triangulation to calculate the location of the user



<sup>\*</sup> Pune Telecom's mobile payment option

### Scenario 3

- Arun is in Shivaji Nagar doing some shopping. Arnav is on his way to Shivaji Nagar for meeting his friends
- Both have the PULC mobile app running on their phones and this app is keeping their location coordinates updated
- Arun being hungry takes a vada-pav and starts eating it sitting at the bench outside the Shivaji Nagar station
- Arnav in the meanwhile reaches the Shivaji Nagar station, hardly 100ms# from the where Arun is, and parks his bike at the stand
- The PULC mobile app calculates the distance between them and triggers an alert to both of them
- After a permission from both, the PULC mobile app shares the current coordinates of each with other. Both can see each other as a dot on the map and they move towards each other
- They meet and talk about their need and offer
- Things seem to go smooth and Arnav shows Arun the bike parked at the stand. Arun likes
  it and the deal is closed\*
- They use the option in the PULC mobile app to immediately set their deals to "Closed"

#The application uses either the in-built GPS/ Signal triangulation to calculate the location of the user



<sup>\*</sup> Pune Telecom's mobile payment option

### Use Case 2 – Arun gets a laptop (B2C)

- Actor 1 Arun
  - You know him already
  - These days he is looking for a laptop, to be of help in his studies
  - Because of his good experience with the bike he decides to put this requirement also on PULC portal
  - This time he has specified he is looking for a new laptop, no second hand deals
  - After doing all needed actions he sets his demand to "Open"
  - PULC Backend takes it over and puts it into the demands-db



### Use Case 2 – Arun gets a laptop (B2C)

- Actor 2 Mr. Datta
  - Mr. Datta owns one of the good, but small, electronics store "Elx Bazaar" in Pune Shivaji Nagar area
  - He is a commercial partner of Pune Telecom
  - Lately he has found it very difficult to make his offers visible due to the extensive "TV/Print/Internet/all-means" advertising campaigns by Electronics big-wigs like Croma and Vijay Sales
  - He is very stressed because the big players are all over the place and other than his old "loyal" customers he is not able to gain any new customers
  - He comes to know about the PULC Commercial Service from Pune Telecom and becomes a member of the same
  - He puts his offers in the PULC portal and sets them to "Open"
  - Backend server takes these and puts them into the deals-db, with a flag "commercial"



### Use Case 2 – Arun gets a laptop (B2C)

- Scenario 1
  - Arun is in Shivaji Nagar, looking for a great laptop deal, going from Croma to Vijay Sales (two big chains of electronics in Pune)
  - Suddenly his PULC mobile app alerts him that there is a great deal going on at "Elx Bazaar" (Mr. Datta's shop)
  - On the map he see's its just around the corner from where he was
  - He decides to walk in and have a look
  - Mr. Datta being a super salesman with super deals successfully sells a laptop to Arun
  - Arun is very happy, he has got himself one of the latest laptop for the cheapest possible price. And to add to this he was rewarded free talk-time by Pune Telecom
  - Arun sets his demand to "Closed" and goes home. Mr. Datta still has a lot of laptops in stock and continues with the "Open" status for his deal



# Advertising Spend



### **Advertising Market Spend**

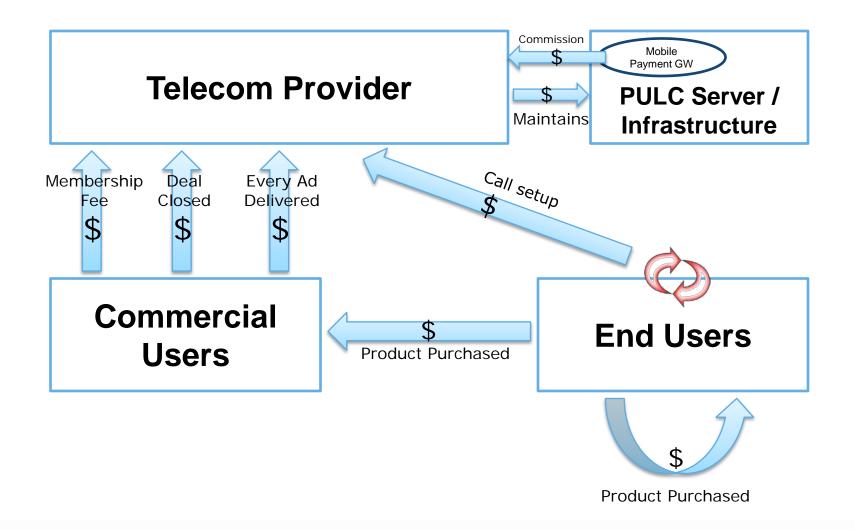
- As per MagnaGlobal, in 2011
  - Global Ad spend- \$412 Billion
  - Global Mobile Ad spend- \$2.7 Billion
    - Europe \$490 Million -> likely \$2 Billion by 2016
  - Global Out-of-home Ad spend- \$26.3 Billion
  - Global Internet Marketing Ad spend- \$70.9 Billion



### **Business Model**



### **Business Model**





### Revenue Streams

- I believe this idea will possibly add a new revenue stream and add to the current advertising spend
- This concept can provide revenue opportunities through following streams
  - Voice call being setup between the buyer and seller
  - Service being provided to a business owner
    - Every ad delivered
    - Every deal closed
    - Flat membership charges for the service
  - Commission from Mobile payments gateway
  - C2C and B2C purchases



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