

Spatial Location Based Services

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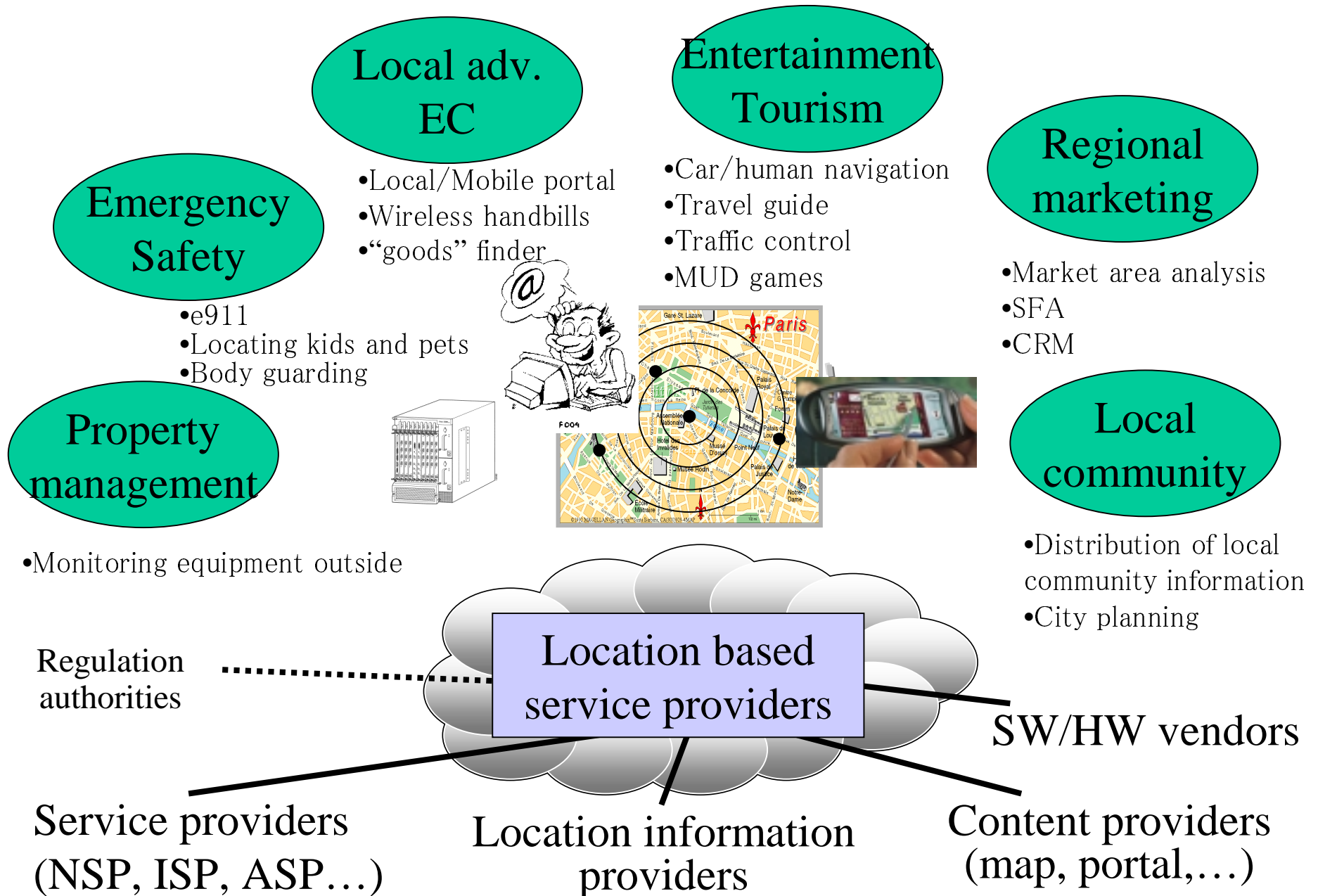
NTT

Introduction

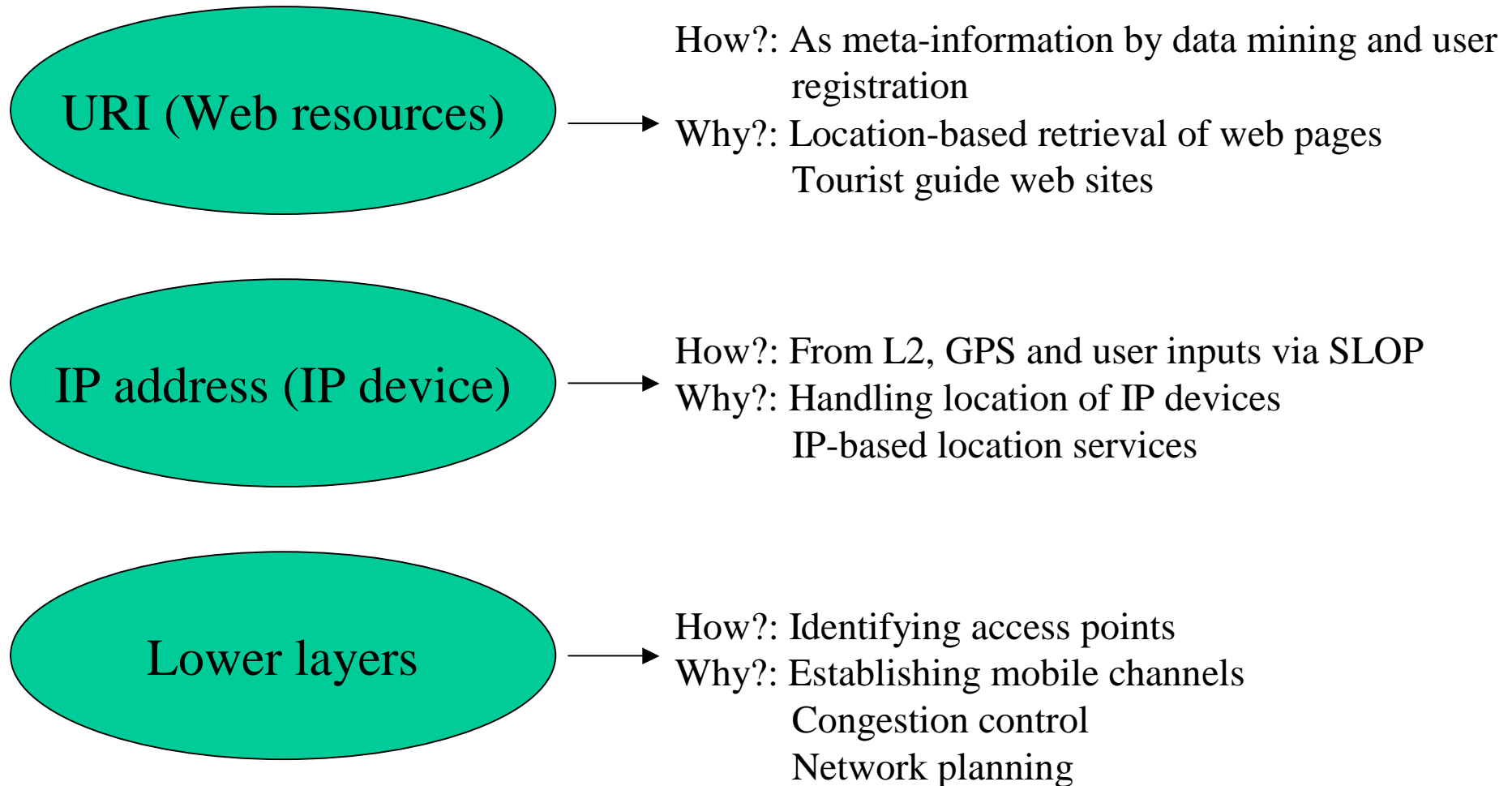
- Location based services market is about to take off.
 - Services for PCS phones are already on market
 - e.g., NTT DoCoMo, DDI, and ASTEL
 - Industries are actively discussing next generation platform (e.g. DoCoMo Location Platform)
 - A variety of commercial offerings:
 - PDAs with differential GPS (e.g. DoCoMo Naviewn, EPSON Locatio)
 - Location-based information delivery (e.g. NTT Mobile InfoSearch)
 - Car navigation systems with i-mode
 - Market size of online local advertisement:
 - US\$0.5 billion in 1999, US\$2.7 billions in 2003 (source: Jupiter Comms. 1999)



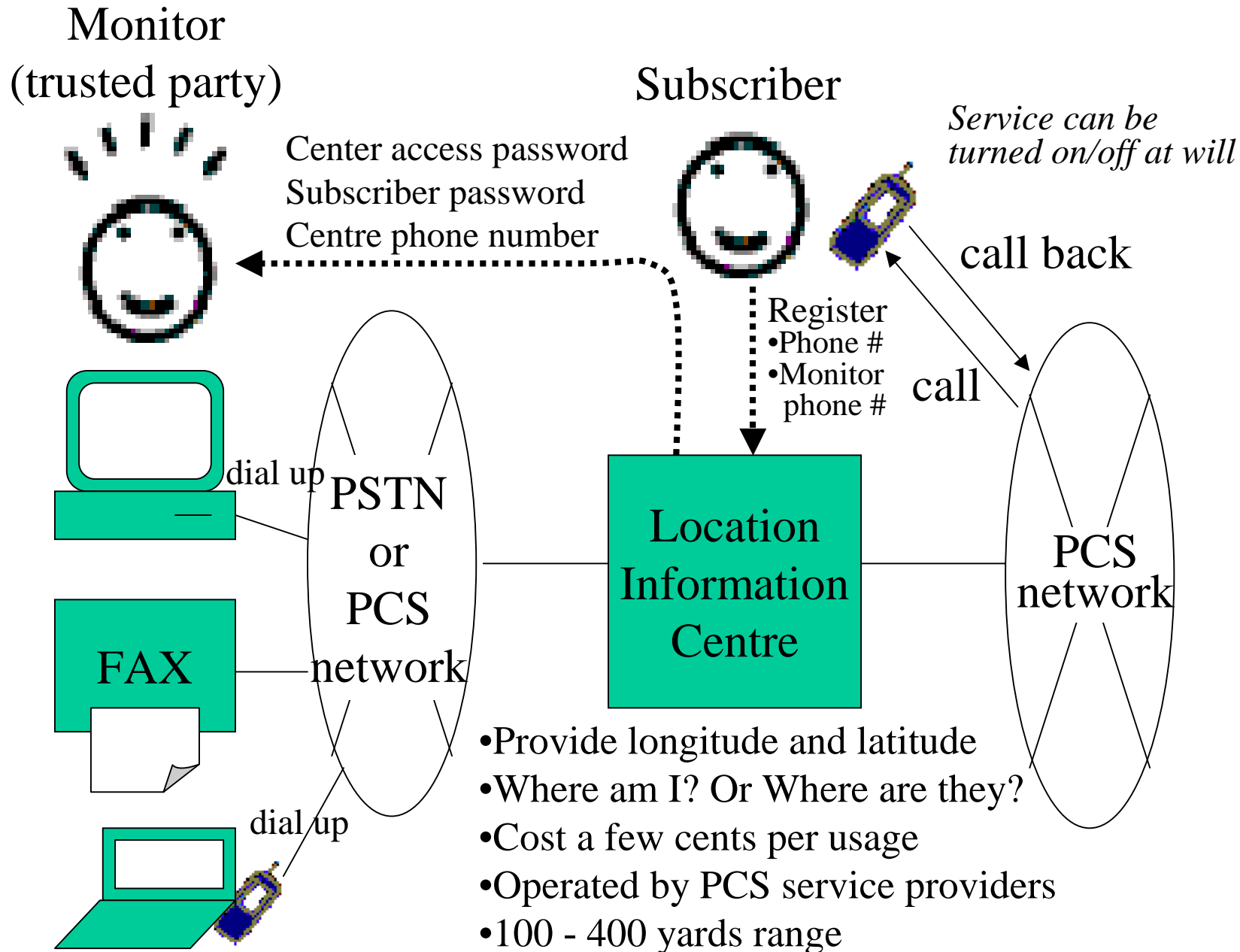
Location based services



Opportunities for use of location information

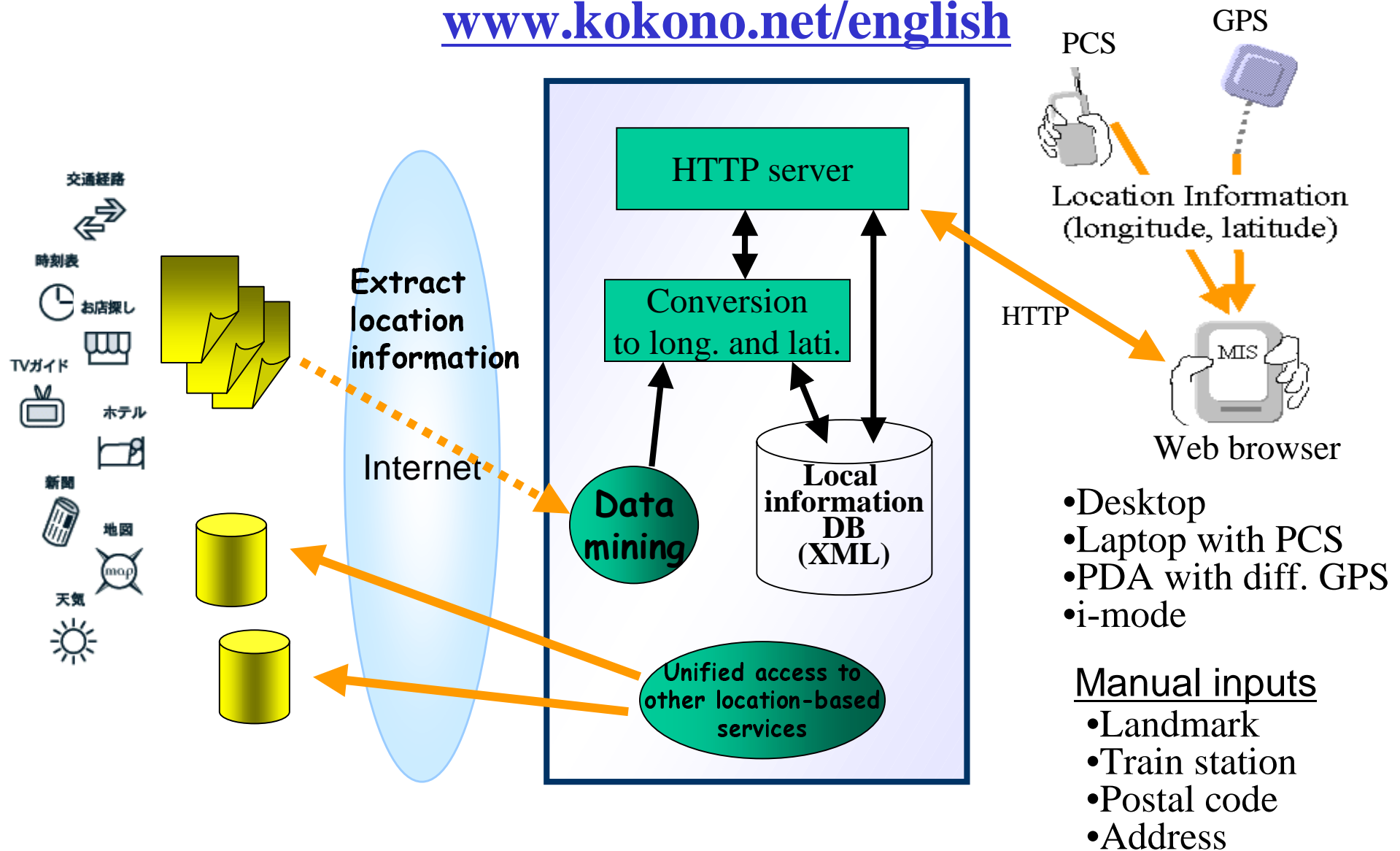


L2 based location service scenario



Mobile Info Search: A Location-based Search Service

www.kokono.net/english



Issues

- Current L2 based approach has the following limitations:
 - Scalability
 - A center has and processes all the information
 - Closed architecture
 - The services are possible because L2 carriers have all the information about subscribers and network status
 - Sharing location information with third parties may not be allowed by laws and business confidentiality
 - Flexibility
 - Monitors should be registered off-line and can use only registered subscriber lines
 - Users can not be located while calling.
 - Do you want to dial up each time you are going to get the location information?