



Function v/s Technology

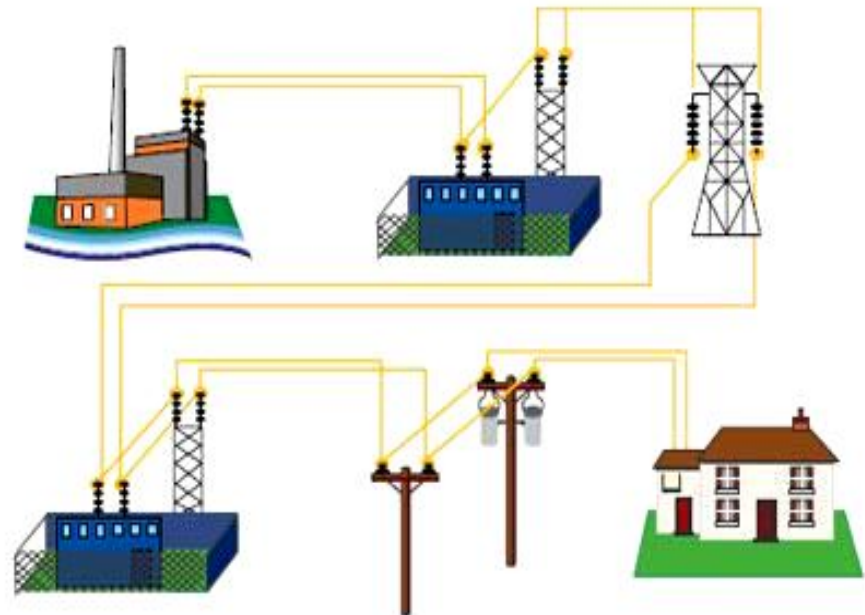
Telecom Technology

DISCOM Functions

DISCOM

Basic structure of a DISCOM

- Geographical spread (operations)
- Offices (numbers, functional type, customer touchpoints)
- Consumer base
- Network spread
- Manpower spread
- Assets (numbers and installations)
- Multiple functional applications



Challenges

- ❑ A key challenges for an efficient service
 - Aggressive and demanding consumers
 - Need for improved customer responsiveness
 - To provide quality power
 - Enhancing Revenue Generation
 - Adhering to Regulatory guidelines
 - Coordination with different stakeholders like generator, transmitter, SLDC
 - Increasing complexities and multiplying applications and communications
 - Integration, convergence, unification of functions

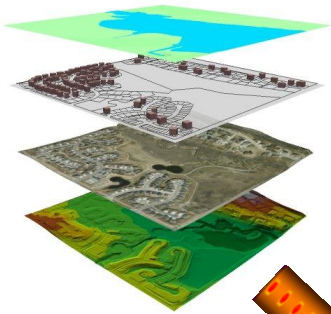
Challenge is to realize the business value offered, while leveraging existing applications as well as infrastructure investments

Solutions

An Organisation growth of a right kind is driven by the need of employees to communicate more efficiently for better customer services and/or efficient operations

- As our industry is getting increasingly competitive & consumer centric, communication has become a key differentiating factor
- We are looking towards smart / intelligent communications to help transform our business
- Usage of IP soft-phones wherein calls landing on these desk-phones can be viewed on the PC
- Adoption of converged networks for voice, data, video leading to unified communication
- Surveillance
- Operations information integration

Ops Info. Integration



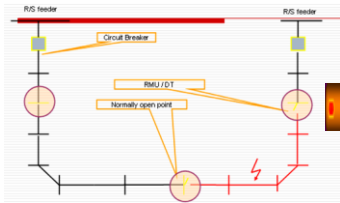
GIS



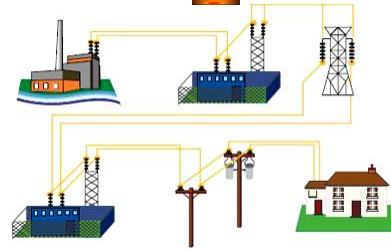
SCADA



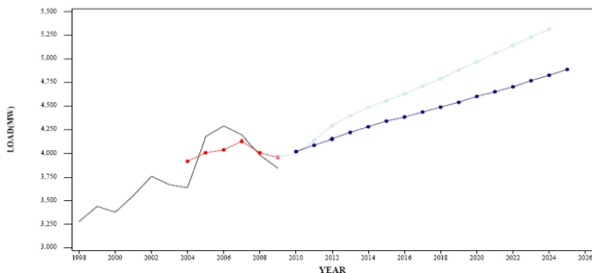
AMR



DMS/OMS



Power Distribution Utility



Load/Demand Forecasting



Corporate Dashboard



ERP

Telecommunication requirement

- Commercial offices
- Operation and maintenance offices
- Complaint centers
- SCADA
- OMS
- Grids
- Mobile workforce
- Other offices (GIS, enforcement, Metering, Energy Audit, etc.)

Communication and Convergence

The world is flat

The world may not literally be flat, but it is smaller than ever because of convergence of social, business and technology

- Inexpensive Telecommunication
- Global Trade
- Open Standards
- Internet Technologies

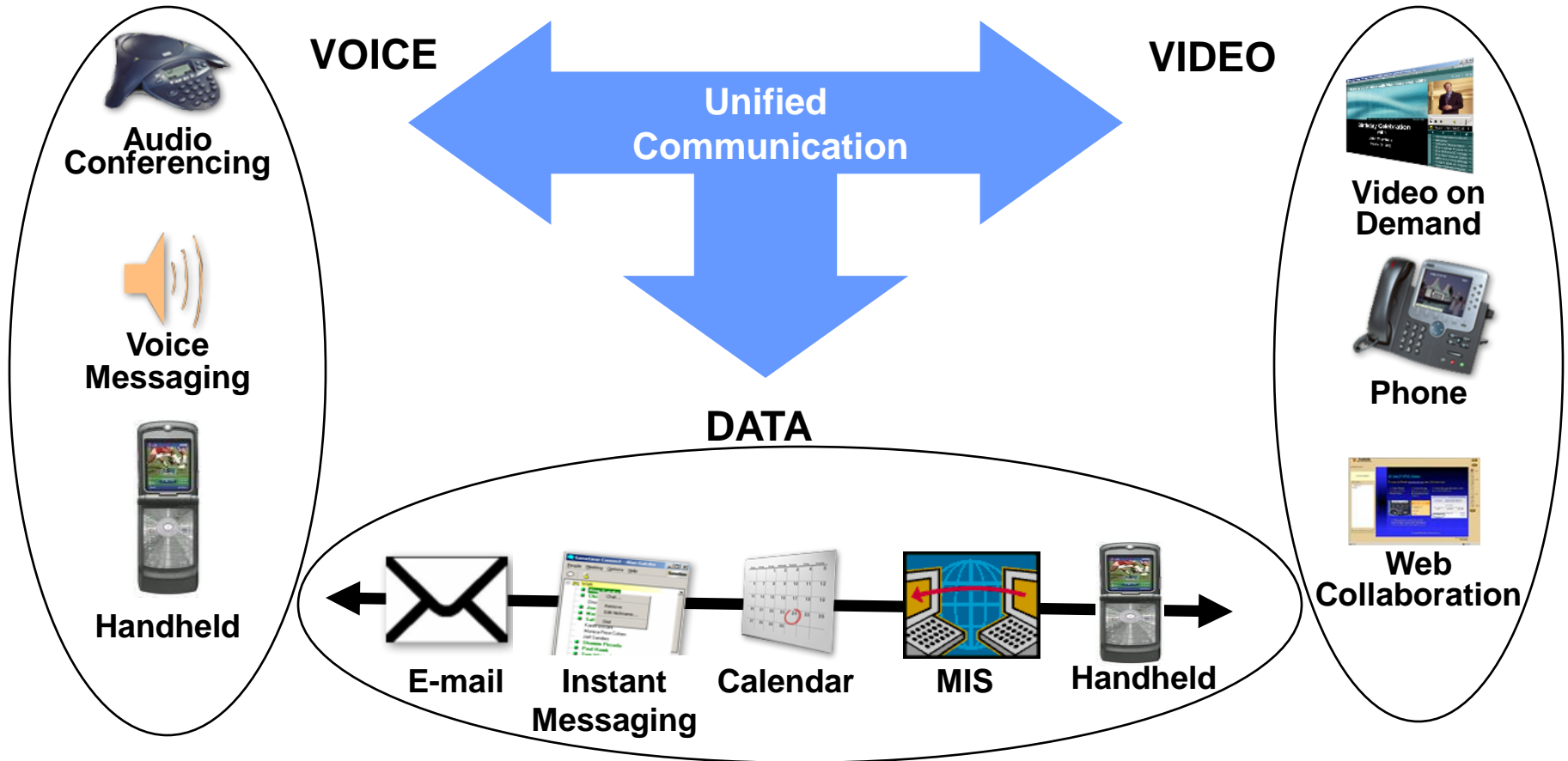


BSES Communication Convergence

Aiming convergence of organizational needs:

- Telephony
- Email
- Voice messaging
- Video & web Conferencing
- Collaboration
- Mobility & soft phones
- Instant messaging & contact centers
- Wi-Fi Facility

Unified Communication plan @ BSES



Telecommunication @ BSES

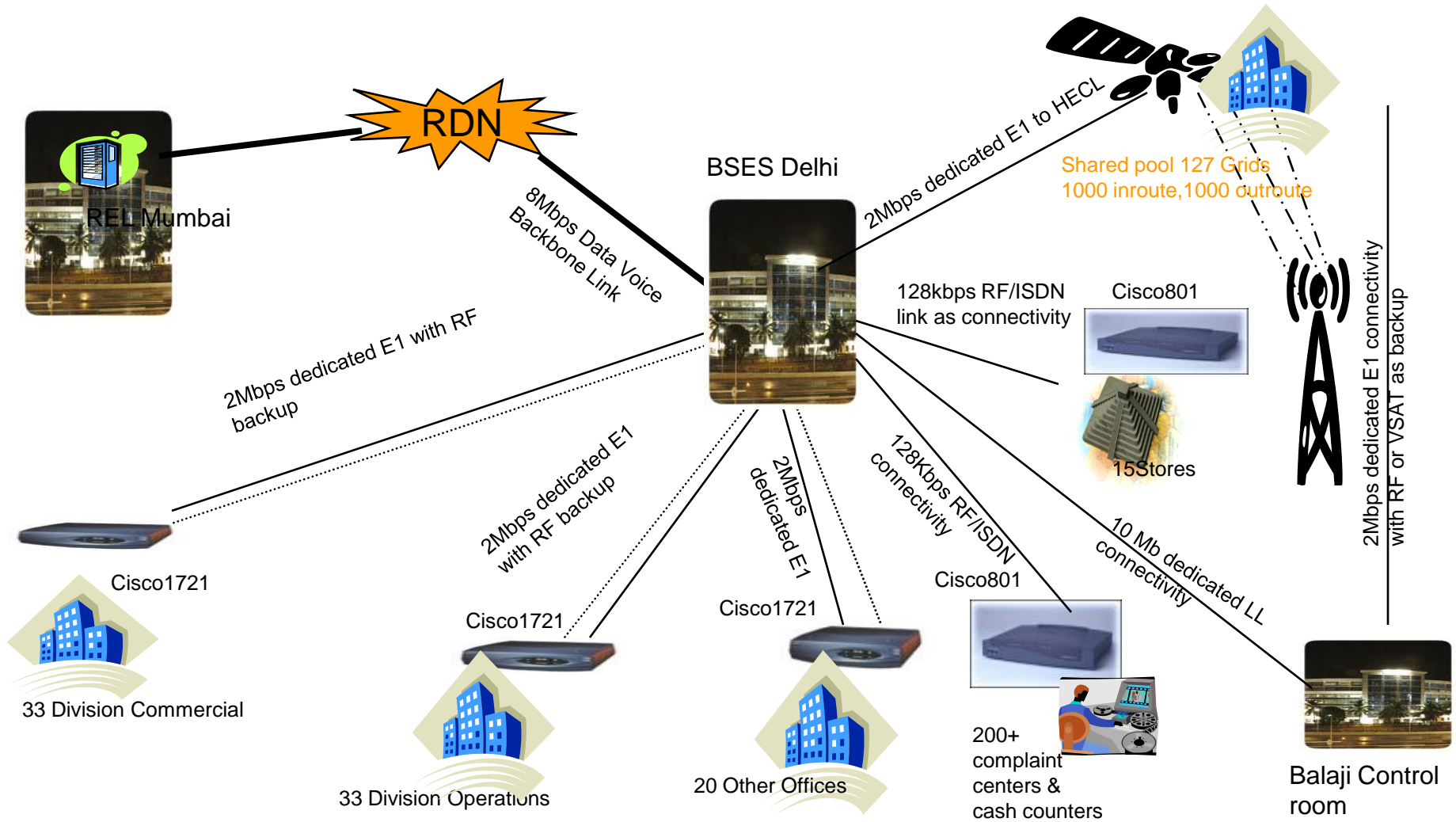
At BSES we support 434 offices and 566 mobile workforce

- Commercial offices : 33
- Operation and maintenance offices: 33
- Complaint centers, cash counters and stores: 230
- SCADA: 1
- Grids: 117
- Mobile workforce: 66 vans, 500(approx.)
- Other offices (GIS, enforcement, Metering, Energy Audit, etc.): 20

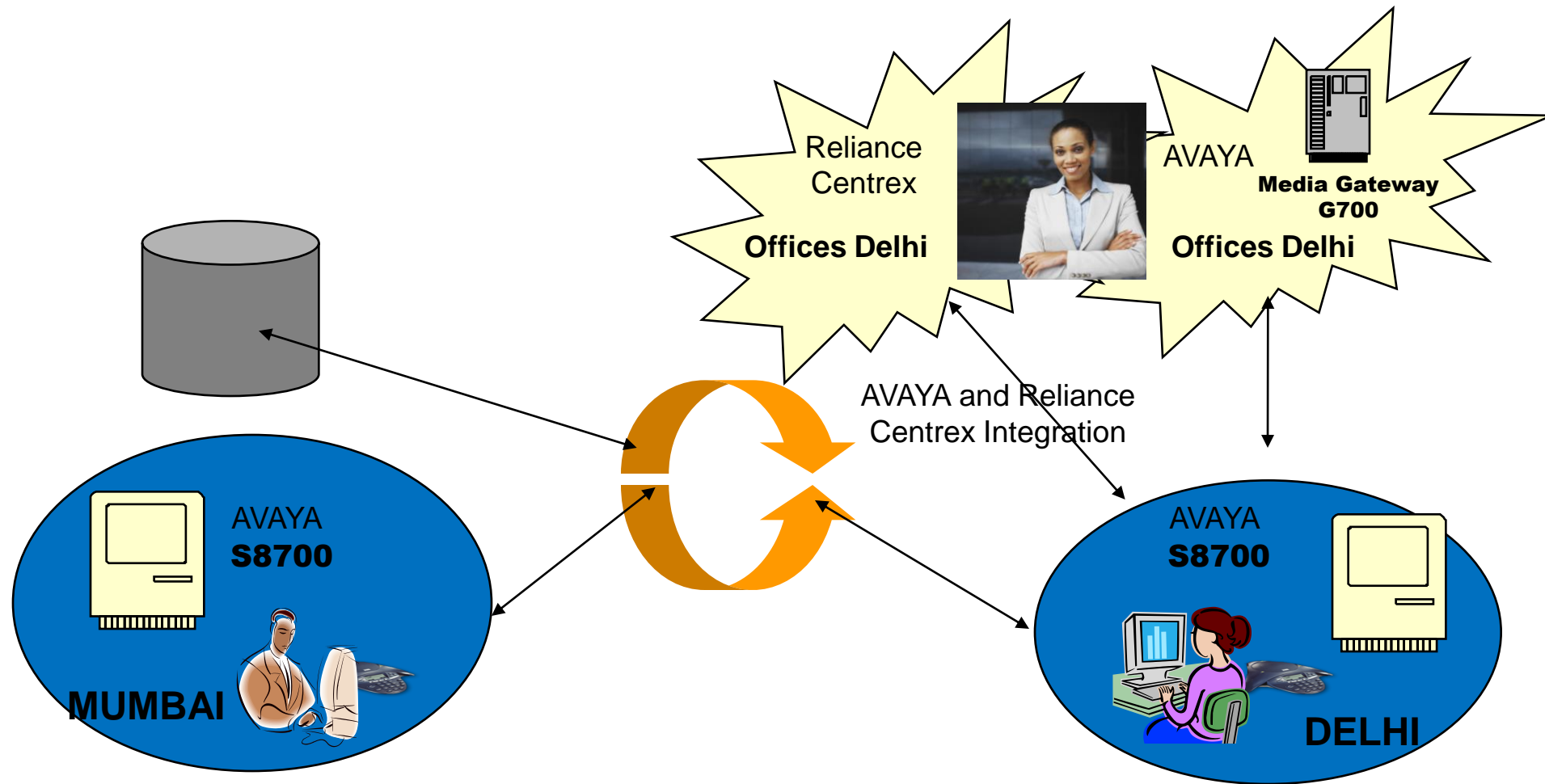
Telecom infrastructure @ BSES

- Avaya exchange for landline facility to 1300 users
- Centrex facility to 350 users
- Backend integration of Avaya with Centrex
- Commercial offices & O&M offices: 66
 - 2MB LL as primary link and 512KB backup on RF
- Complaint centers, cash counters and stores: 230
 - 128 KB RF as primary link and 3G datacard MPLS as backup
- SCADA: 1
 - 10MB point to point link connecting SCADA to main data center
- Grids: 117
 - 2MB LL as primary link and 128KB backup on RF or VSAT
- Mobile workforce: 66 vans, 500(approx.)
 - Data card, Blackberry services,
- Other offices (GIS, enforcement, Metering, Energy Audit, etc.): 20
 - 2MB LL as primary link and 128KB backup on RF or VSAT
- IP phones for 50 users
- Softphone installed for 30 users
- Wifi Facility at Corporate office
- Audio bridge: 50 party, 20 party, 10 party, 6 party
- Video conferencing facility 4 locations and 4 soft VC
- Web conferencing facilities for 25 concurrent users

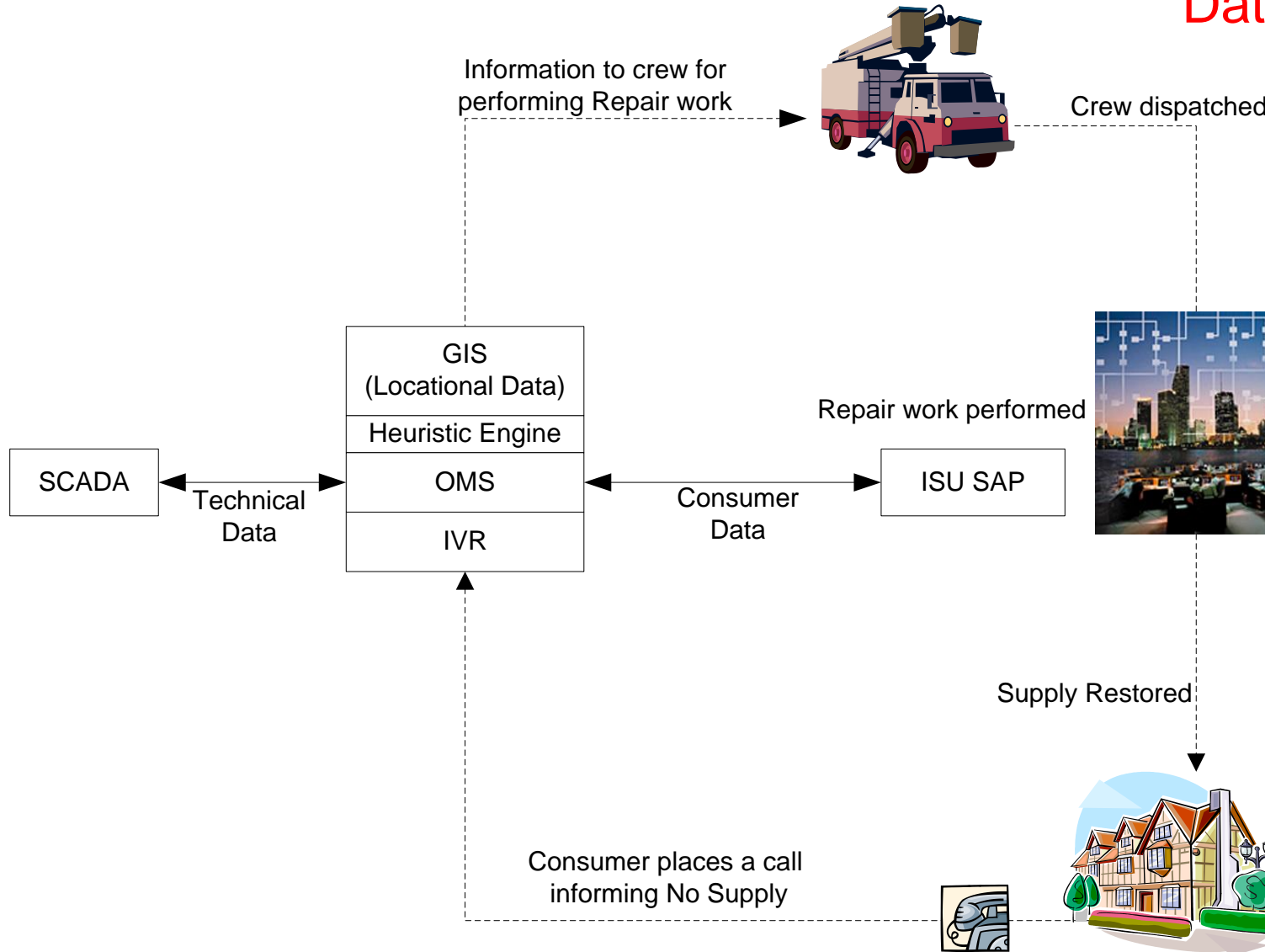
EXISTING INFRA



Voice integration @BSES



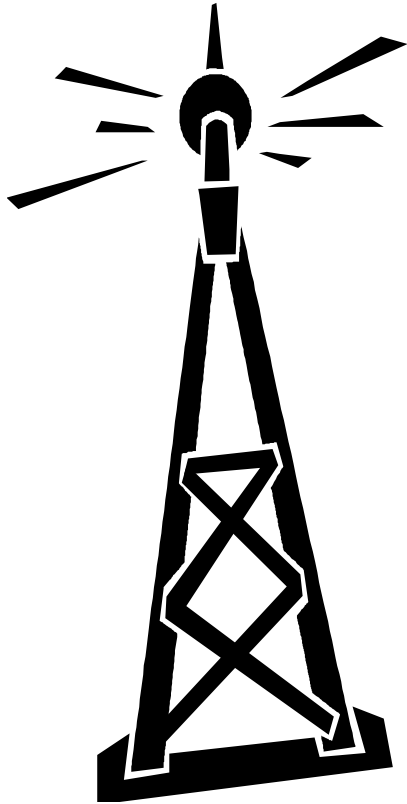
Data/Voice flow



Path Ahead

- ❑ GPRS (Handheld and fixed modem solutions)
- ❑ Grid surveillance





THANK YOU