

Intelligent City Operations and Management Centre (ICOMC)

Bhubaneswar Smart City Limited (BSCL)

May 19, 2017



Outline

- 1 **Background – Pan City Solution**
- 2 **Master System Integrator - ICOMC**
- 3 **Project Milestones**
- 4 **Tender Brief**

Background

SMART CITY VISION

Bhubaneswar, through participatory decision-making, responsible governance and open access to information and technology, to be a:



Transit oriented city with a compact urban form that promotes active, connected and sustainable mobility choices



Livable city providing diverse range of housing, educational and recreational opportunities; while enhancing its heritage, arts and traditional communities



Child-friendly city providing accessible, safe, inclusive and vibrant public places



Eco-city co-existing in harmony with nature for nurturing a resilient, clean, green, and healthy environment



Regional Economic Centre attracting knowledge based enterprises and sustainable tourism activities by leveraging and empowering its institutions, local businesses and informal workforce

PROPOSED AREA BASED DEVELOPMENT



PROPOSED VISION FOR BTCD

RAILWAY STATION MULTIMODAL HUB

12-acres Redevelopment Project as BBSR's first smart public building and TOD mixed-use project including Railway Station terminal building redevelopment.

NBCC will take up the project. It is expected that project will generate cash inflow into CIDF for more than Rs. 200 Cr. on basis of land value capture.

SATYANAGAR INSTITUTIONAL CORE

Redevelopment of 40-acres of underutilized public land into an institutional space promoting commerce, business, and education hub (internationally certified courses offered by educational institutions, and multi-skill centre)

Private Investments shall be pro-actively promoted.

Central Plaza in the area

LAKE NEUTRAL- ECOLOGICAL & WATER CYCLE RESTORATION

30-acre project, as a fulcrum for integrated water management through rainwater harvesting, productive landscaping and green infrastructure.

To be developed as Eco-tourism project having Net Zero as the guiding principle.

JANPATH - PEOPLE'S SMART PATH

The area's 5-km long priority transit corridor, will be the first roadway that will undergo a redesign of the existing 60m RoW into a pedestrian friendly roadway. This will be achieved through road diets, no parking zones, mid-block crosswalks every 250m, shade trees/ arcades, street furniture, designated multi-use vending zones & active retail frontage. The costing is for civil works and ICT components.

JANPATH GOVT. HOUSING REDEVELOPMENT PROJECT

Redevelopment Projects to provide 3800 houses with an average 1000 sq. ft. carpet area and 1600 sq. ft. saleable area.

Houses to be created on 30 acres of government land.

Government to get its share of houses as per project structure.

MISSION ABAAS

4 Slum Redevelopment Projects - Bapuji Nagar Abaas Yojana, Kharavela Nagar Abaas Yojana, Shanti Nagar Abaas Yojana, Saheed Nagar Abaas Yojana with 6000 number of EWS units and 1200 number of HIG / MIG units for cross subsidisation

VGF @ Rs. 2.5 Lakh is expected to be quoted. For meeting the same Rs. 1 lakh will be paid from PMAY and Rs. 1.5 lakh beneficiary contribution.

PAN CITY PROPOSAL

Intelligent City Operations and Management Centre (ICOMC)

INTELLIGENT TRAFFIC MANAGEMENT:



PARKING MANAGEMENT:



TRANSIT OPERATIONS:



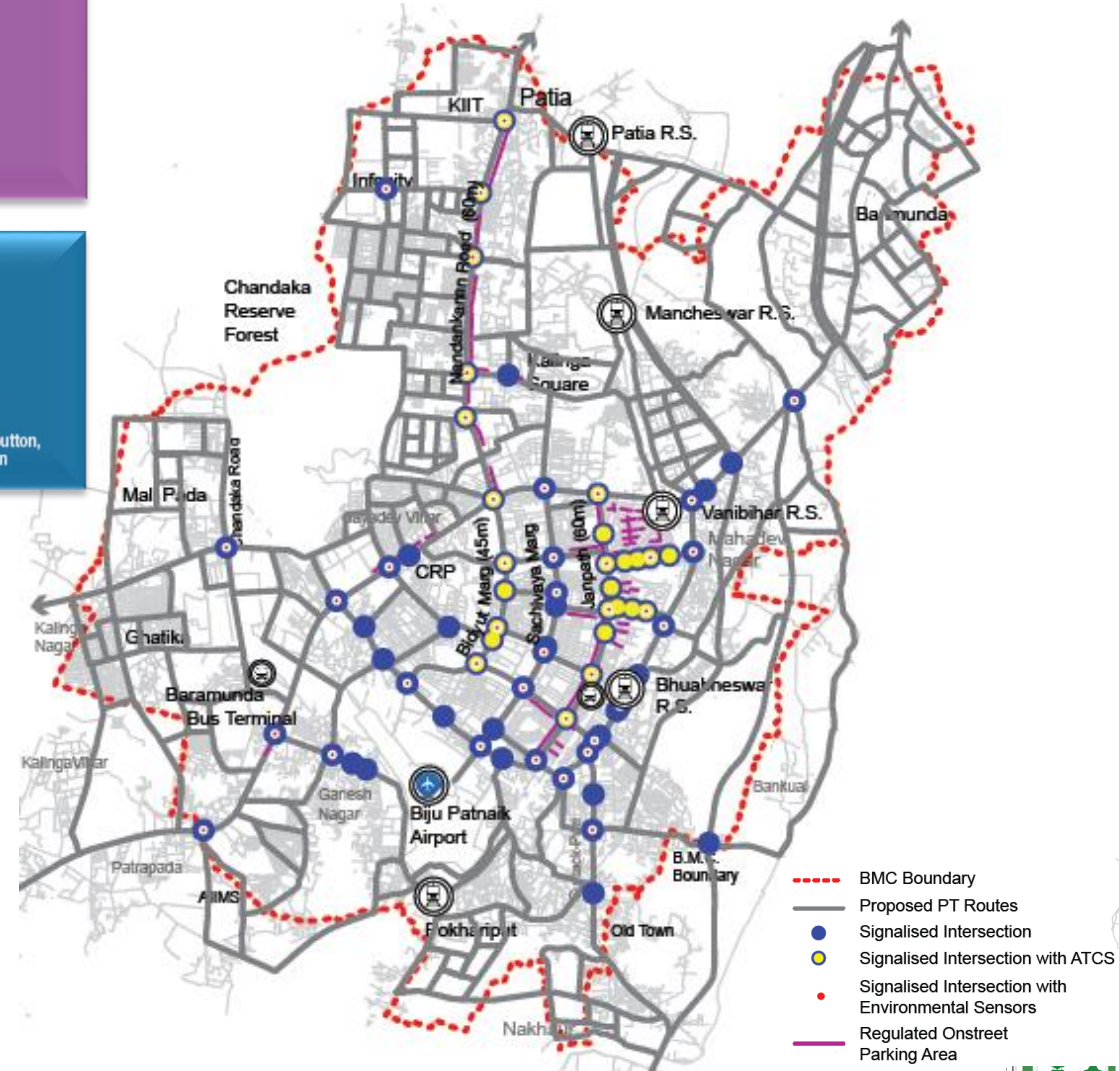
EMERGENCY RESPONSE AND INCIDENT MANAGEMENT:



COMMAND CONTROL CENTRE:

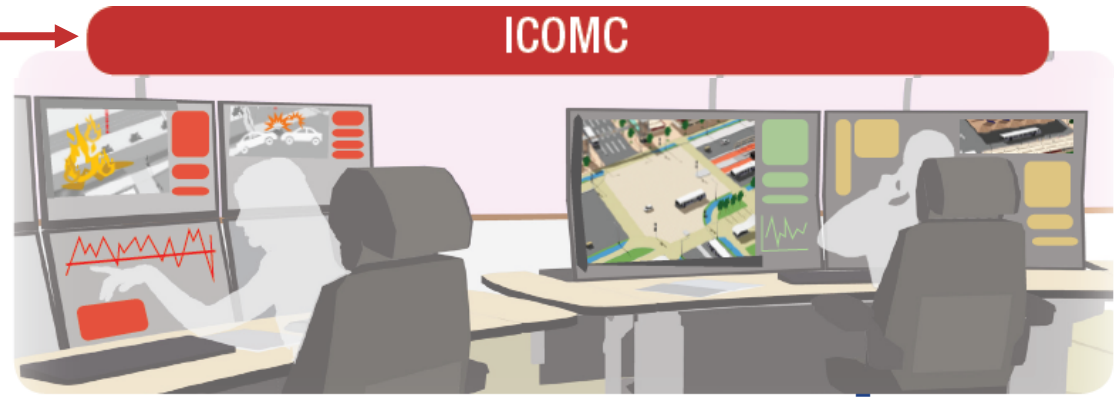
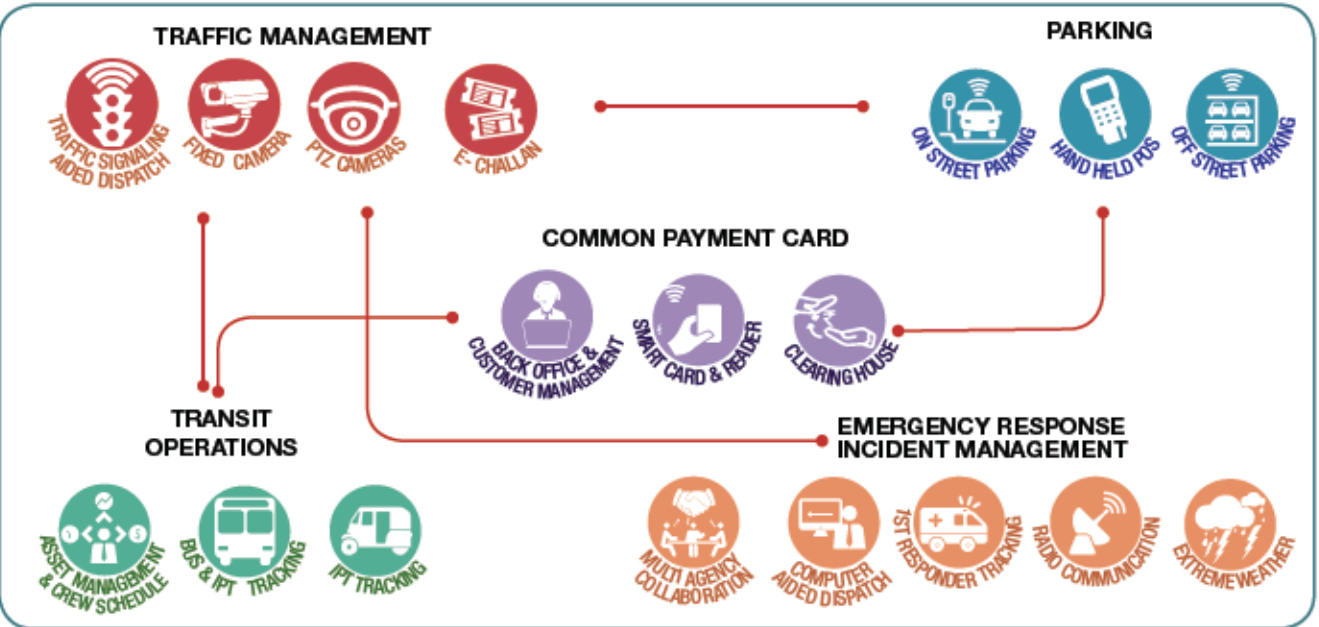


COMMON PAYMENTS CARDS:



- - - - BMC Boundary
- Proposed PT Routes
- Signalised Intersection
- Signalised Intersection with ATCS
- Signalised Intersection with Environmental Sensors
- Regulated Onstreet Parking Area

PAN CITY PROPOSAL- ICOMC ARCHITECTURE



Pan City Solution – Tender Packages

ICOMC Modules

Traffic Management

Transit Operations

Parking Management

Common Payment Card

Emergency & Response Management

Command Control Center

Tendering Packages

Automatic Traffic Signal System

Common Payment Card

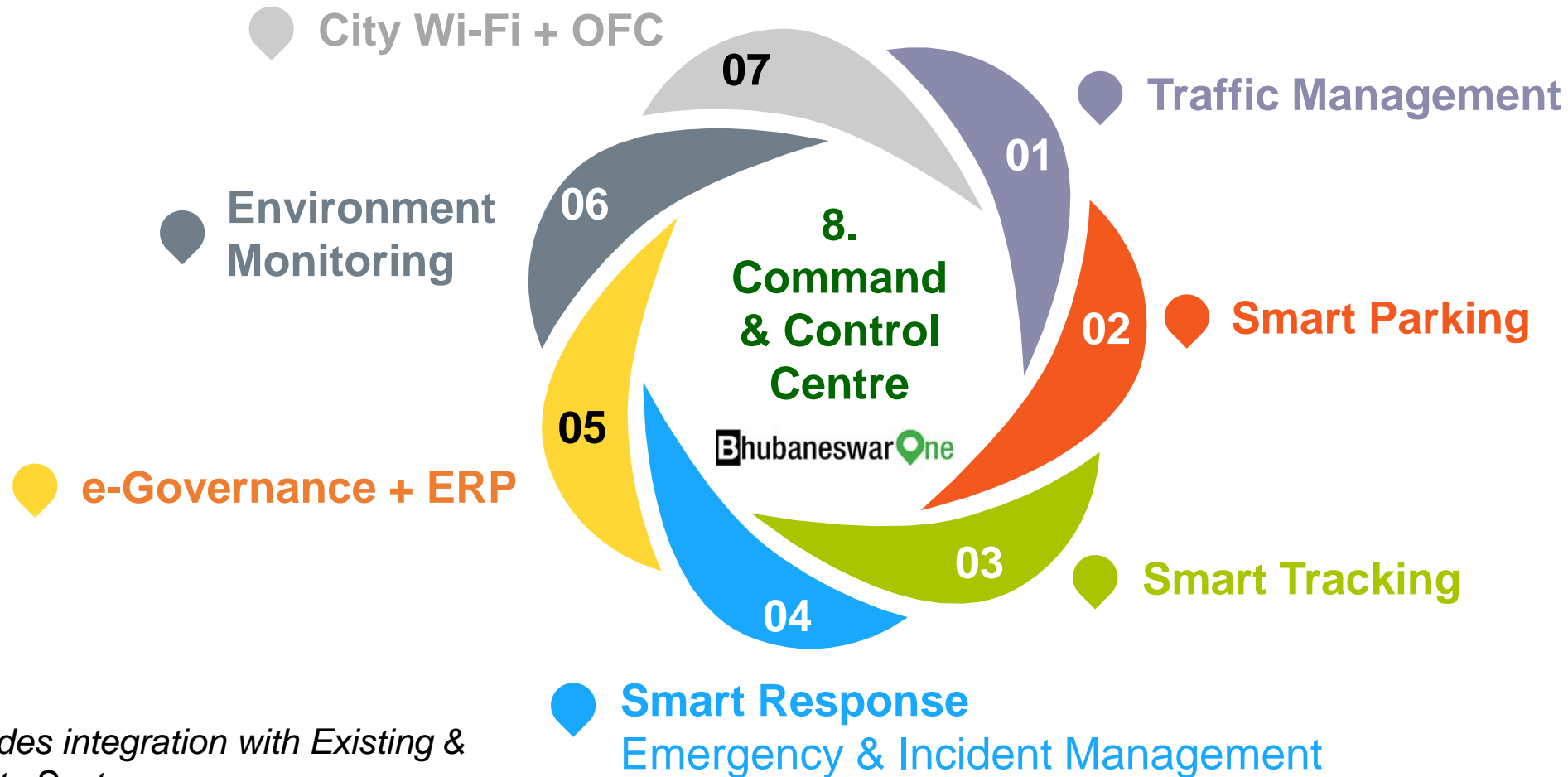
Master System Integrator

Current Status

- ✓ Tender Awarded to (M/S Envoys Electronics)
- ✓ Work in Progress – Commissioning of Pilot Intersection Completed
- ✓ Tender Being processed under PPP
- ✓ 3 bids received dated 18/05/17 from : - YES BANK | AXIS BANK | ICICI BANK
- ✓ Tender for Intelligent City Operations and Management Centre (ICOMC) – in process | **LAST DATE OF SUBMISSION IS 09/06/17**

MSI – RFP - SCOPE

Master System Integrator for Smart Solution



Includes integration with Existing & 3rd Party Systems

MSI RFP – SCOPE COMPONENTS



ICOMC – Agencies

Bhubaneswar Smart
City Limited (BSCL)

Bhubaneswar Municipal
Corporation (BMC)

100 - Bhubaneswar-
Cuttack Police
Commissionerate
(BCPC)

Bhubaneswar-Puri
Transport Services
Limited (BPTSL)

Bhubaneswar
Development Authority
(BDA)

101 - Directorate
General of Fire Service,
Home Guards & Civil
Defence

108/102 - Department
of Health & Family
Welfare, Government of
Odisha

112 – Home
Department

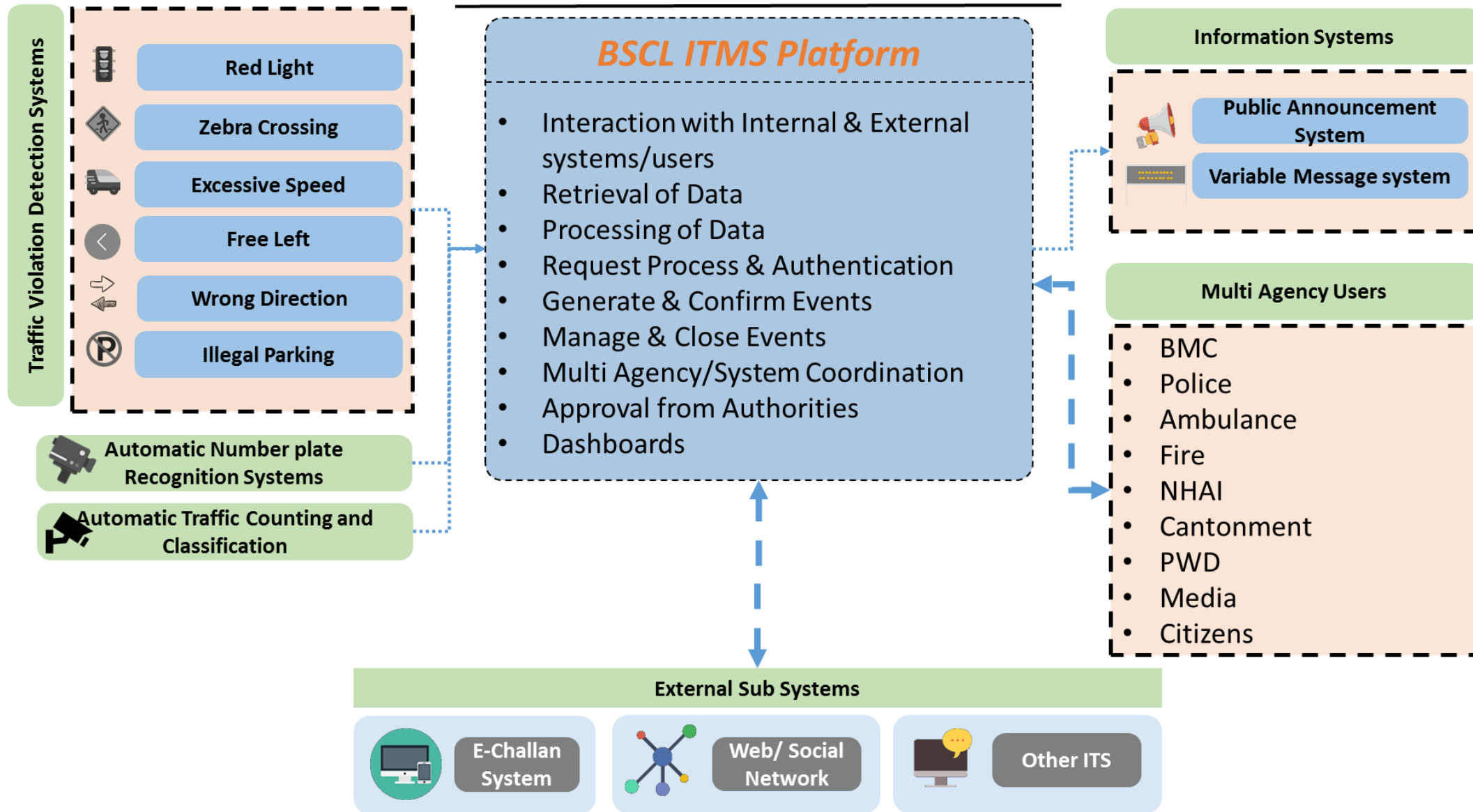
Software Technology
Parks of India (STPI) –
Department of
Electronics &
Information Technology

Indian Meteorological
Department (IMD)

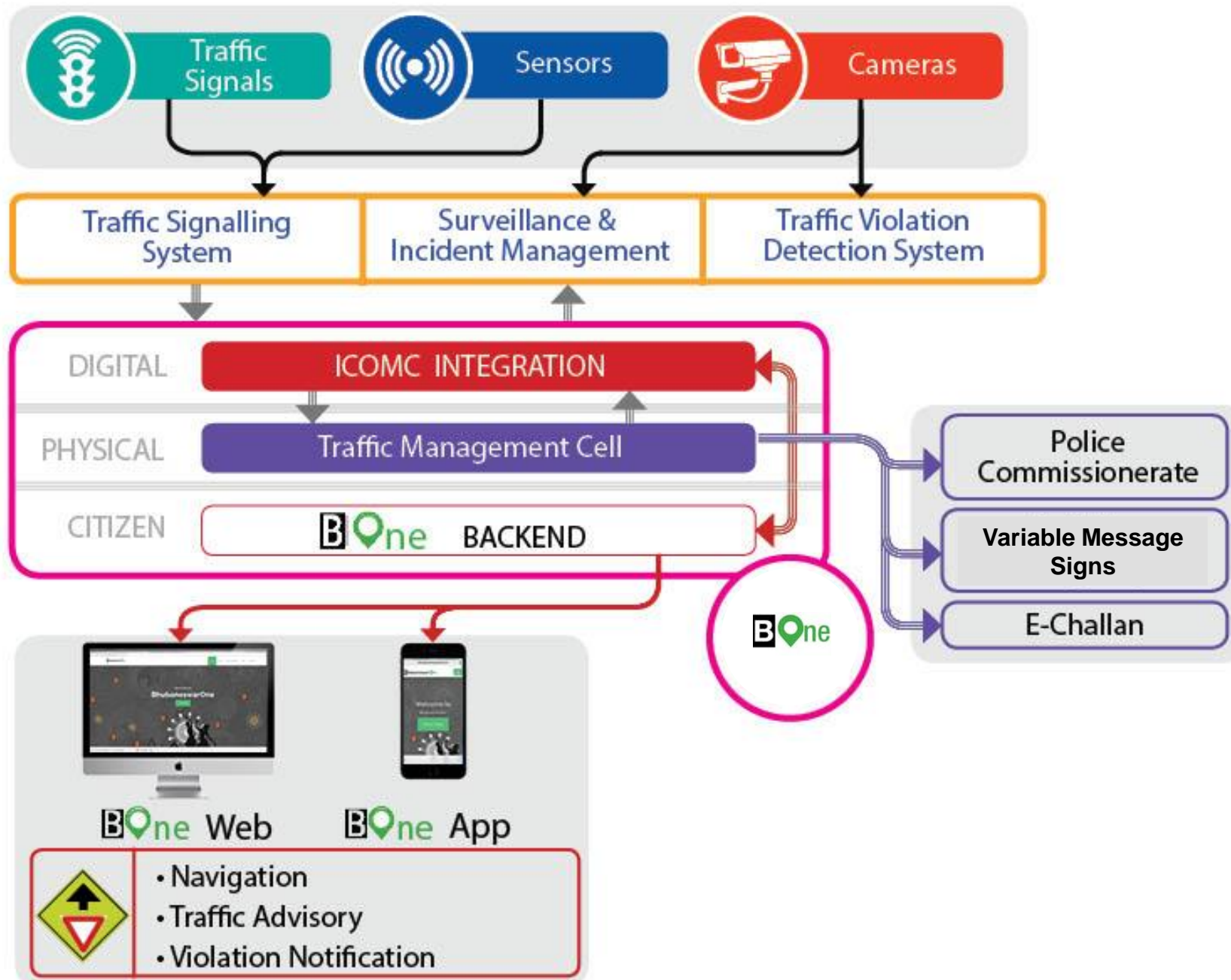
Central Electricity
Supply Utility of Odisha
(CESU)

Public Health
Engineering
Organization, Odisha
Water Supply &
Sewerage Board
(PHEO, OWSSB)

Smart Traffic Concept



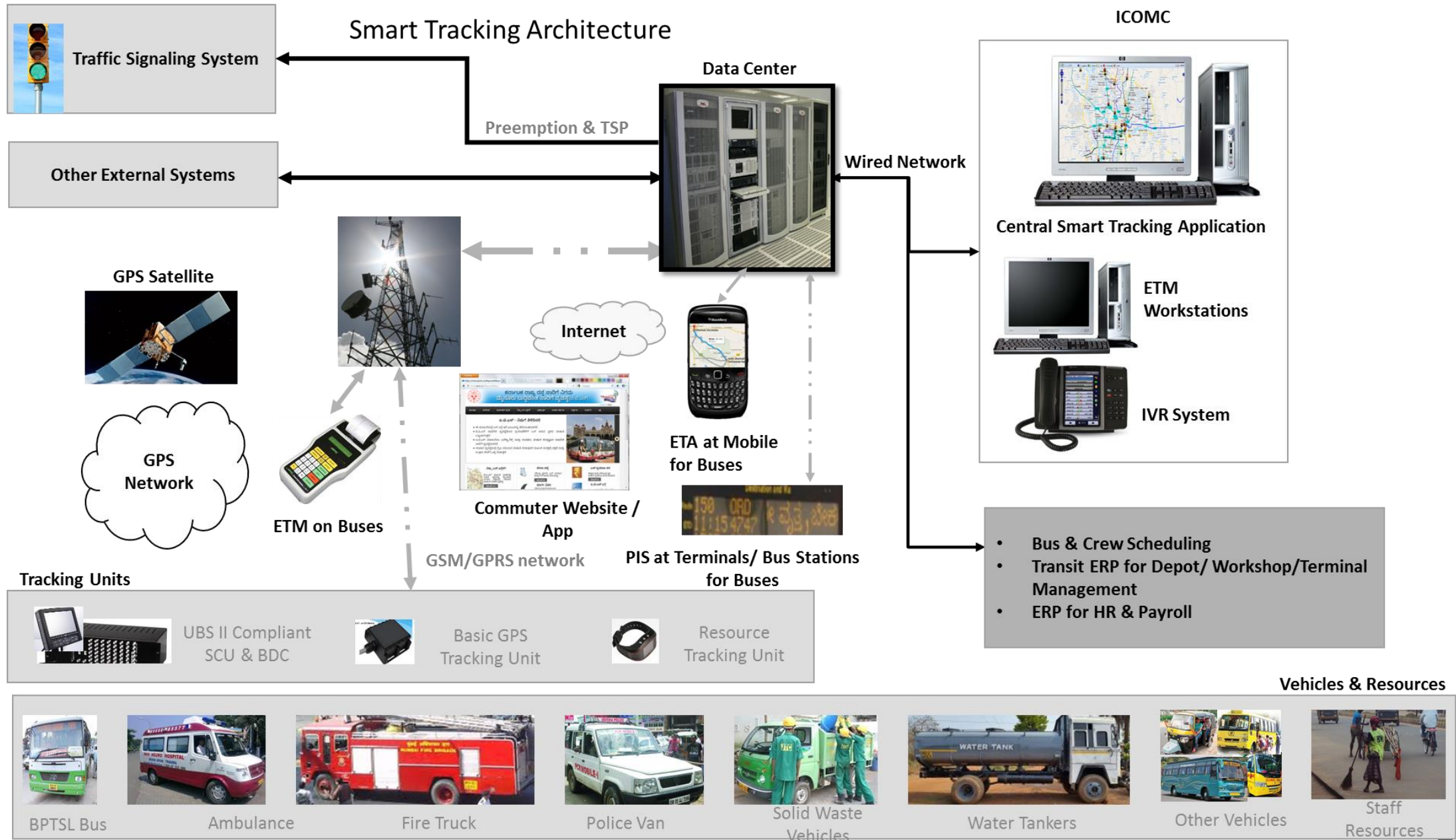
Traffic Management (Contd.)



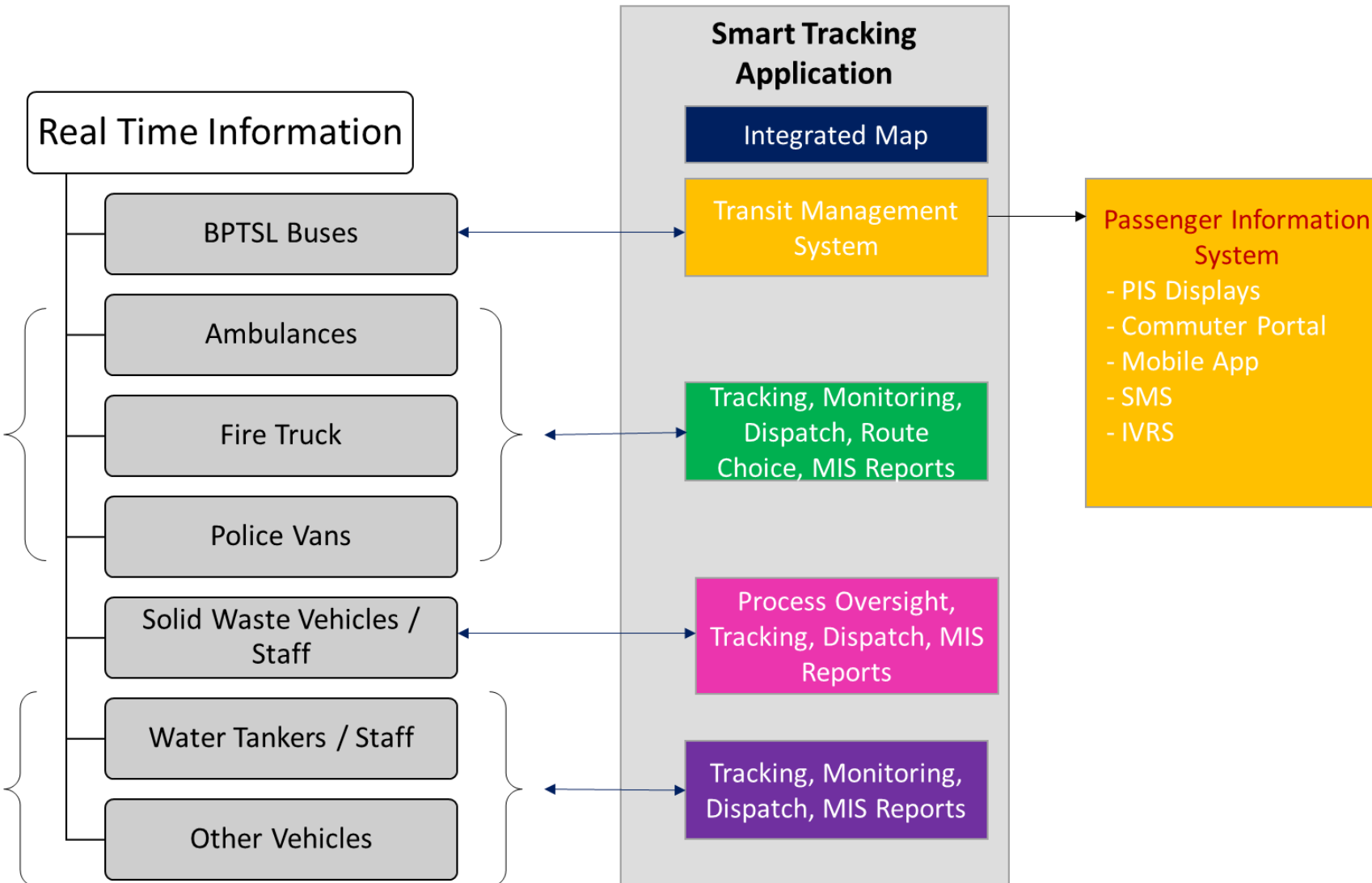
Scope

- Red Light Violation Detection & Automatic Number Plate Recognition – 20 Intersections
- Automatic Traffic counting and Classification & Public Address System – 20 Intersections
- Variable Message Signs – 20

Smart Transit Concept



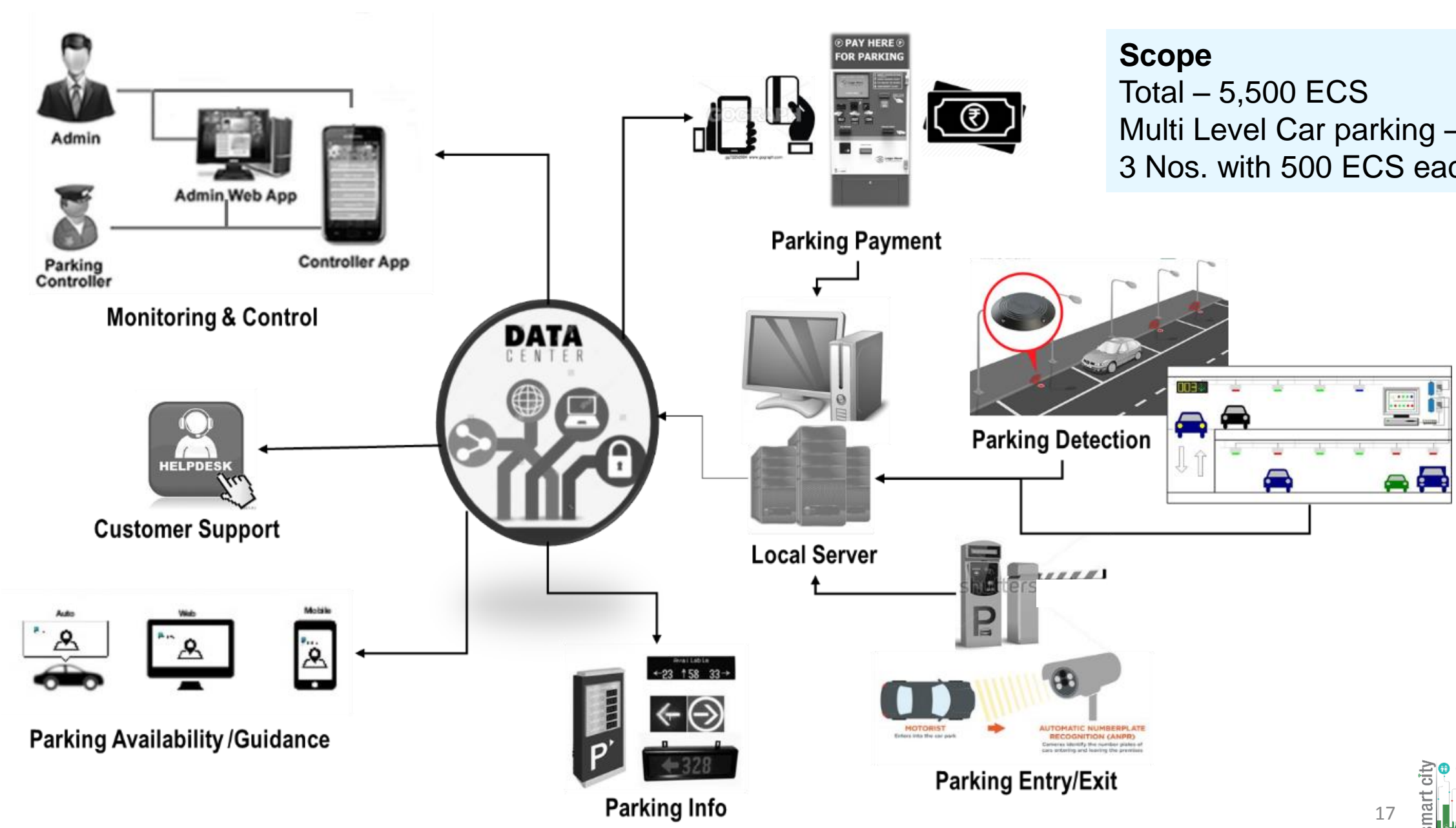
Smart Tracking - Scope



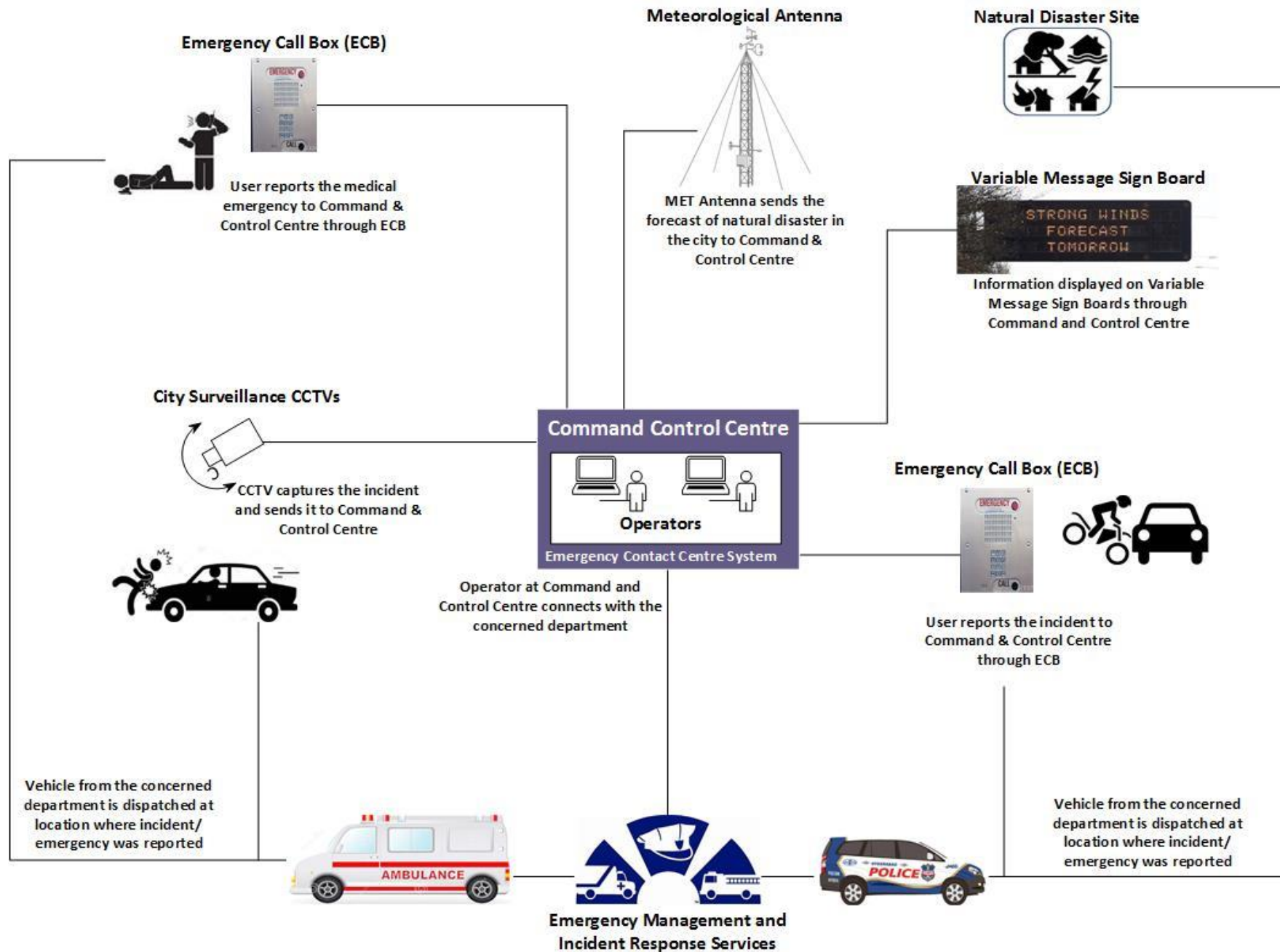
Types of Vehicles	Total Number
Buses	
Number of Buses with BPTSL in 2016	200
Emergency Vehicles	
Police Vehicles	40
PCR Vans	33
Fire Trucks	20
Government Ambulances	30
Municipal Vehicles	
Solid Waste Vehicles	150
Government Water Tankers	20

Smart Parking Concept

Scope
Total – 5,500 ECS
Multi Level Car parking –
3 Nos. with 500 ECS each



Smart Response

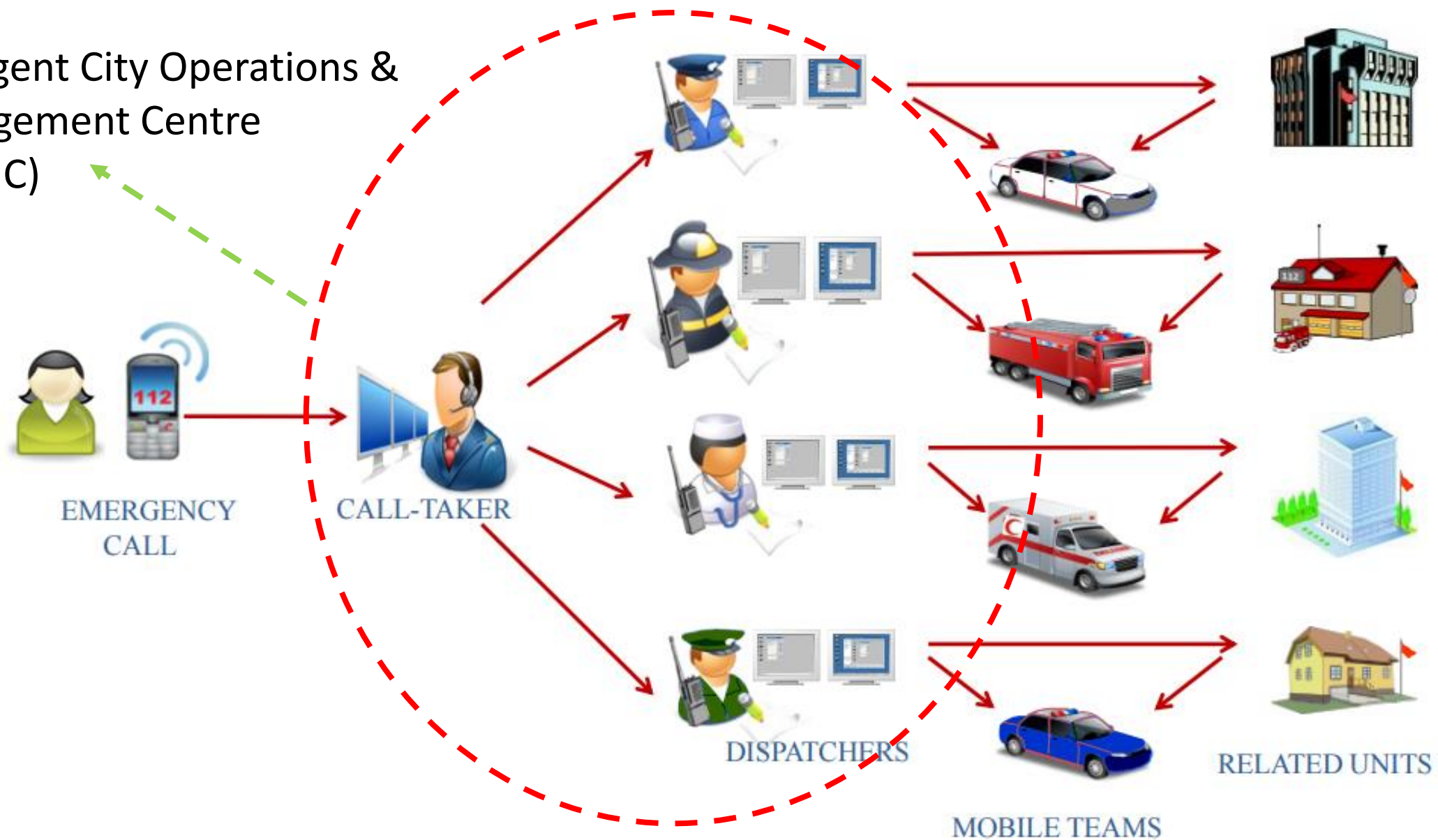


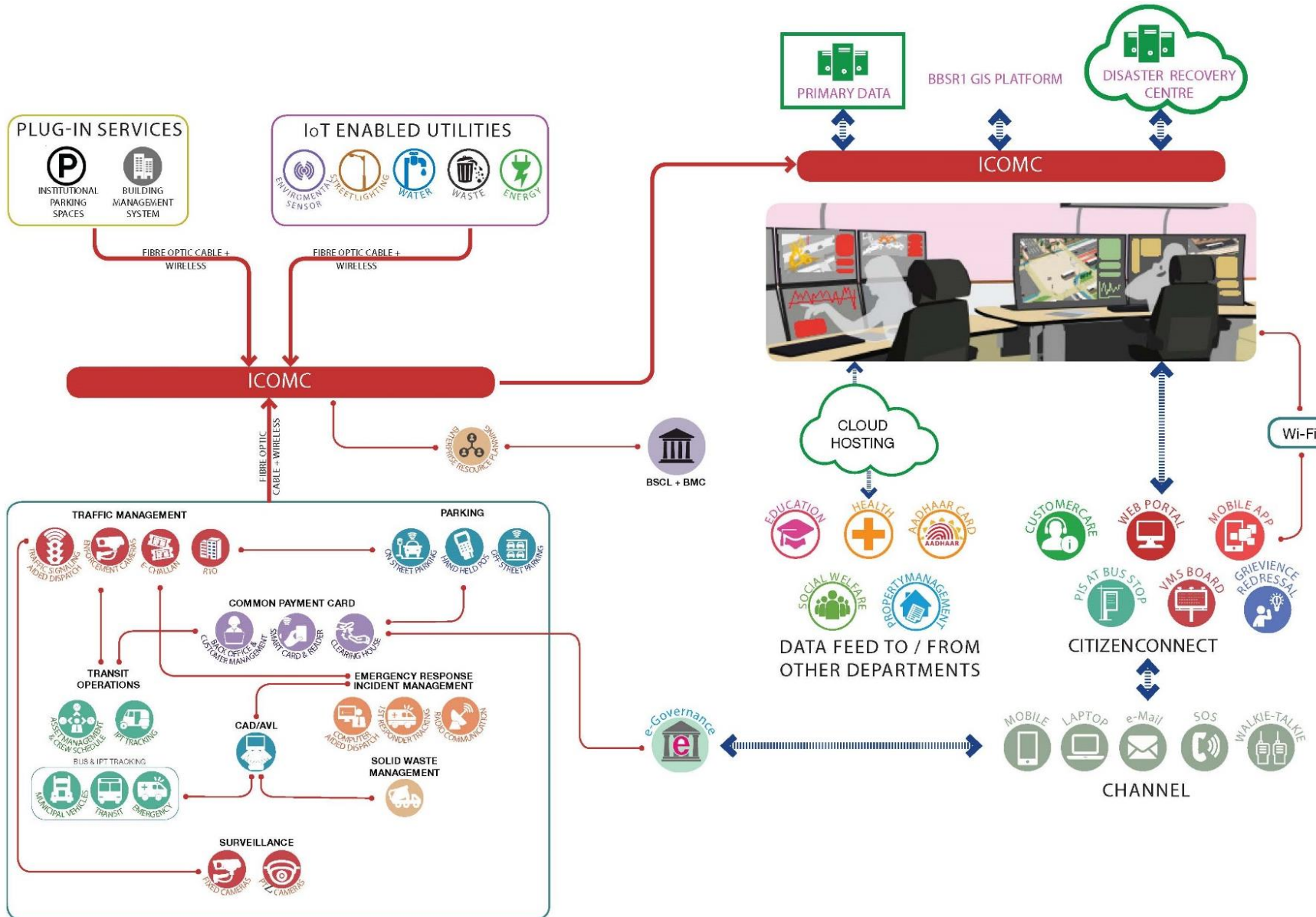
Scope

Fixed Cameras - 850
PTZ Cameras – 150
Emergency Call Boxes – 200
(Digital Kiosk)

Smart Response - Components

Intelligent City Operations & Management Centre (ICOMC)





Scope

ICOMC + Provision for 12 Agency Specific Operations Centre

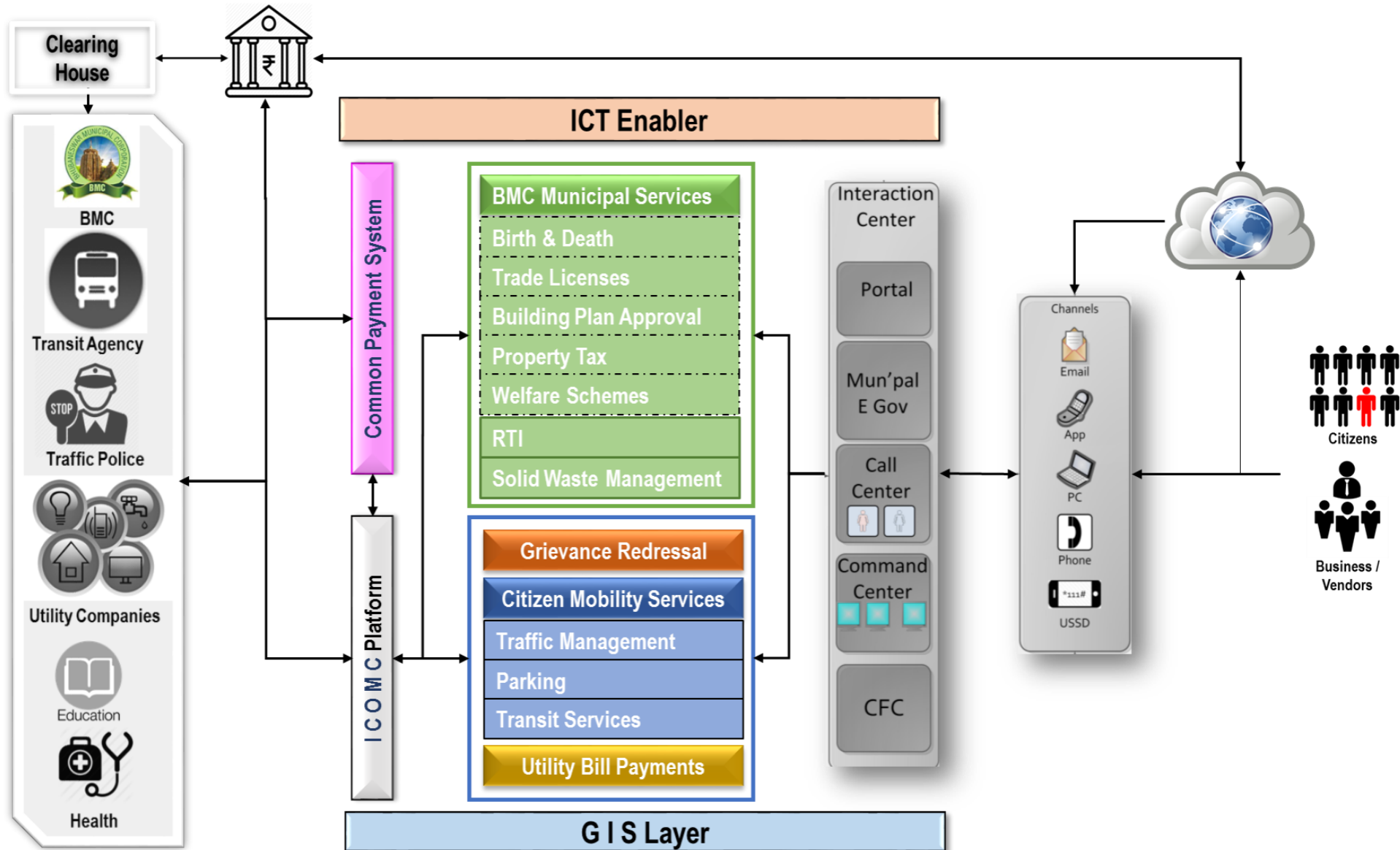
Video Walls

- ICOMC Video Wall – 15 x 4 Panels
- Three Agency Video Wall – 3 x 2 Panels

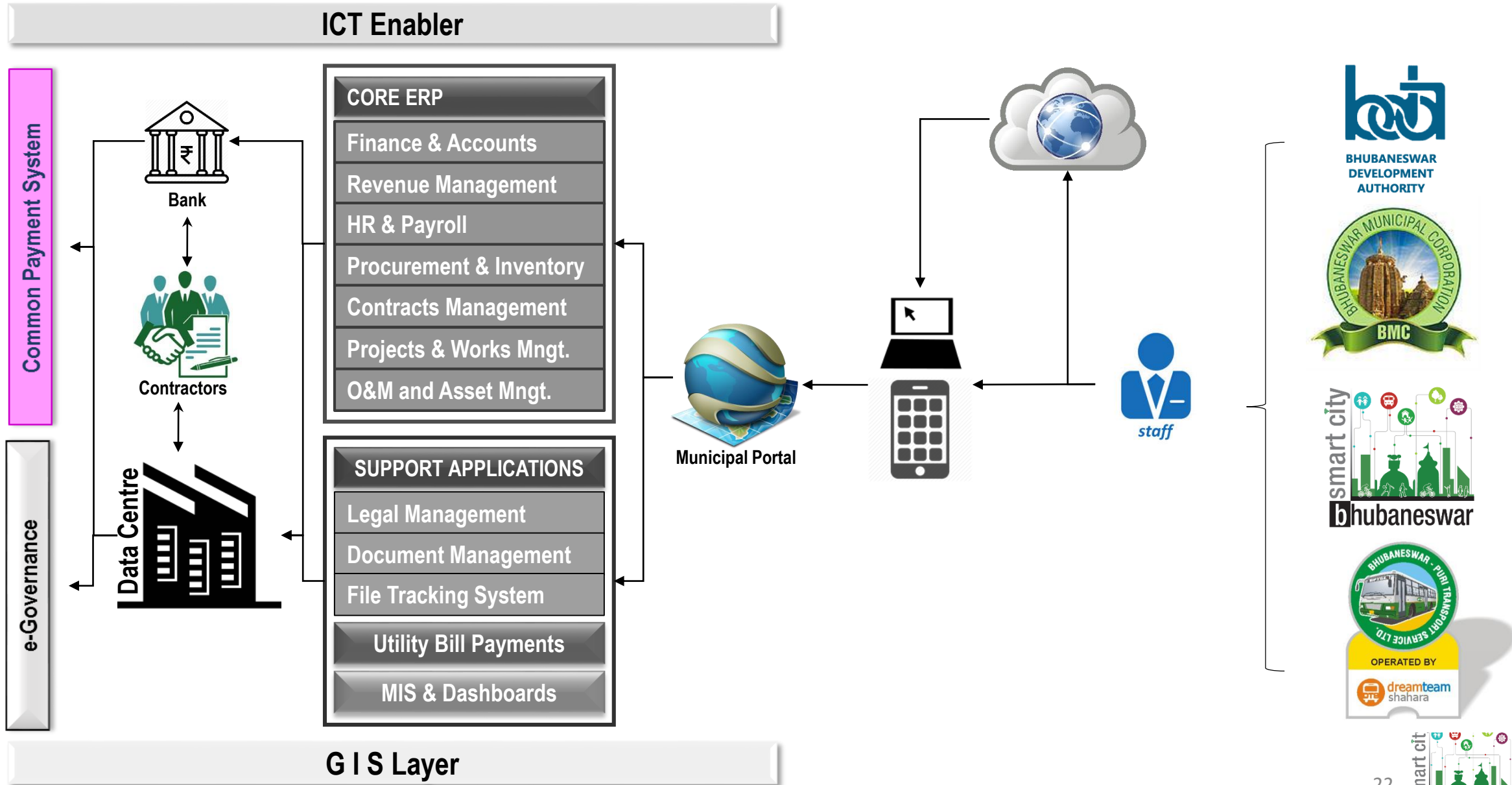
City ICOMC Platform
 Audio Video Systems
 Public Address System
 Rack Room
 Network Electronics

Alternate/Temp Control Centre

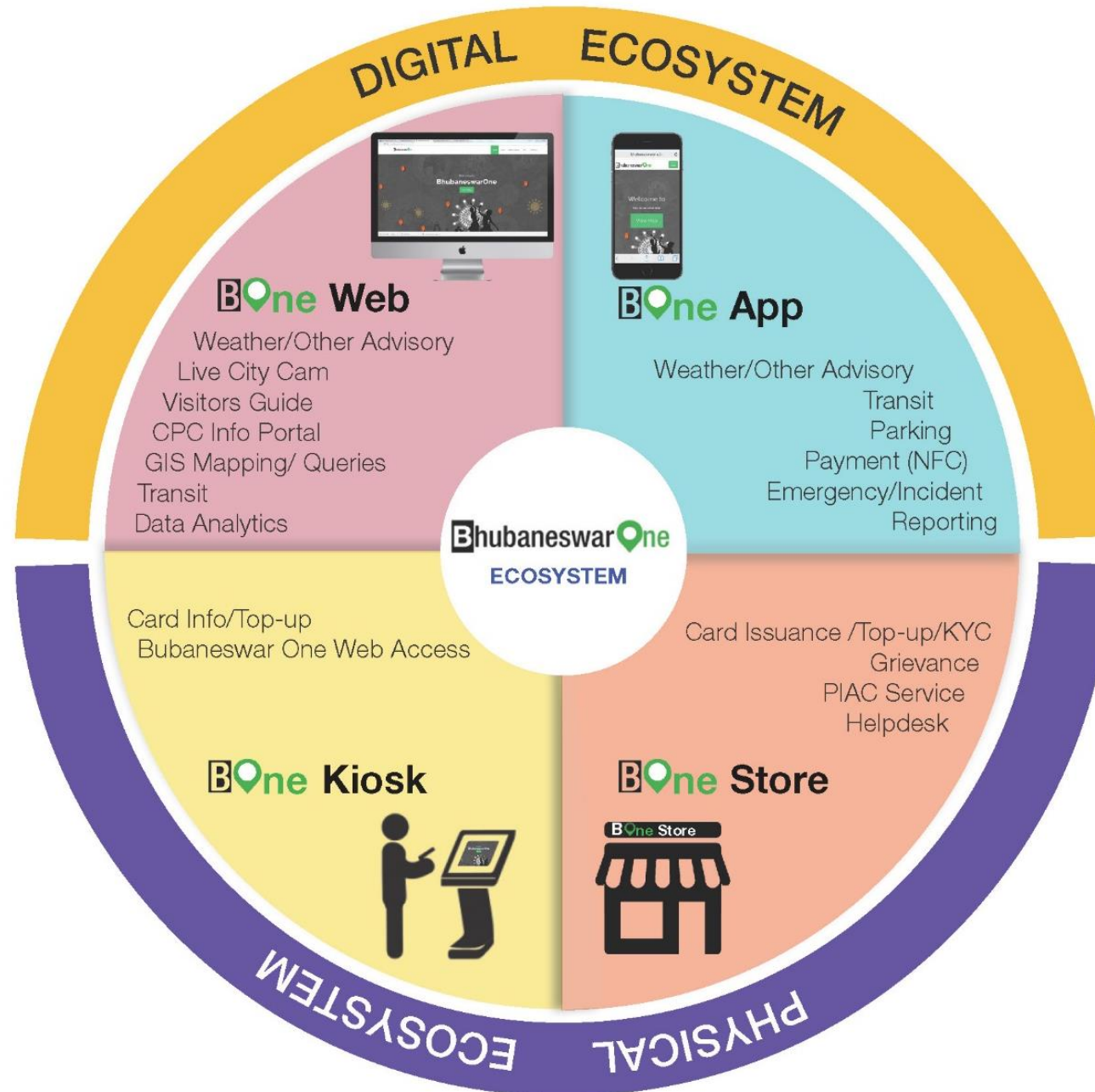
e-Governance System & Functionality



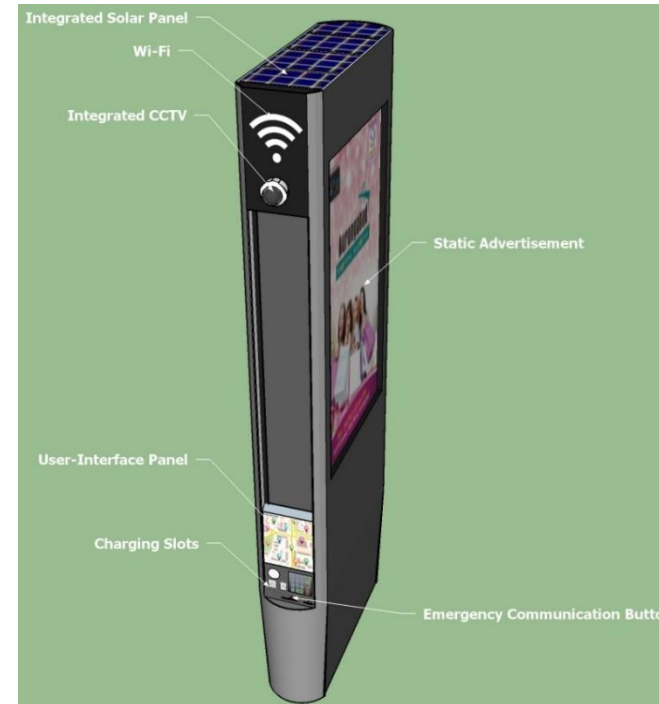
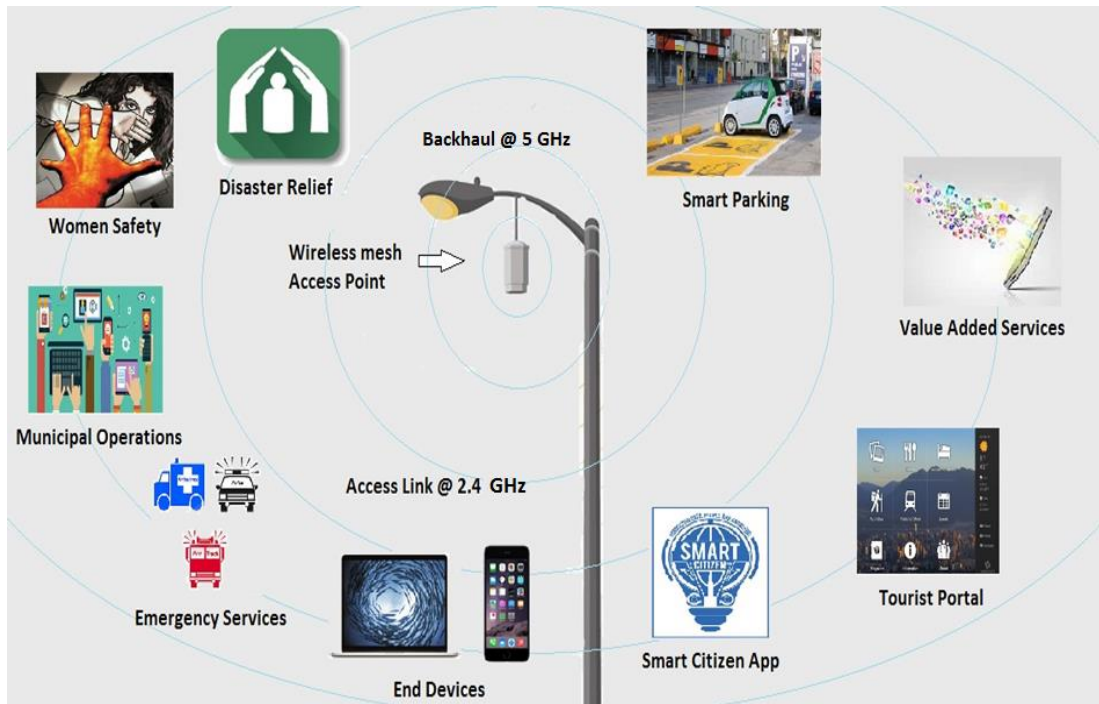
ERP System & Functionality



Citizen's Interface Eco System



Communication: Wi-Fi Network



Scope

1. Access Points: 1,800
2. Locations: 650
3. Digital Kiosk: 200
4. Smart Pole: 20

1. Basic Login Plan: 30 minutes or 100 MB per session
2. Monetization Rights Given to MSI for Project Period With Defined Functionality

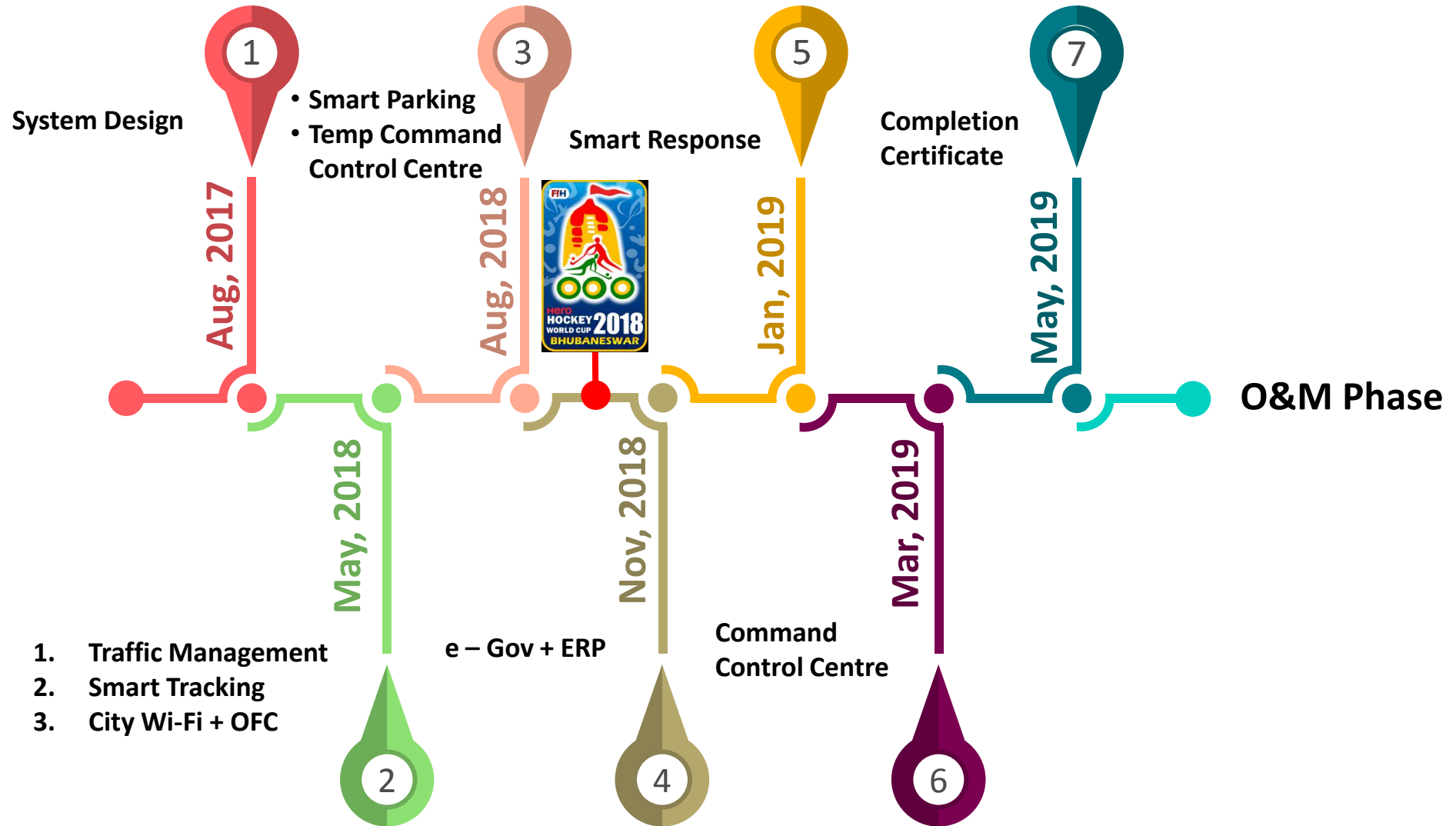
Communication: OFC Network



Scope

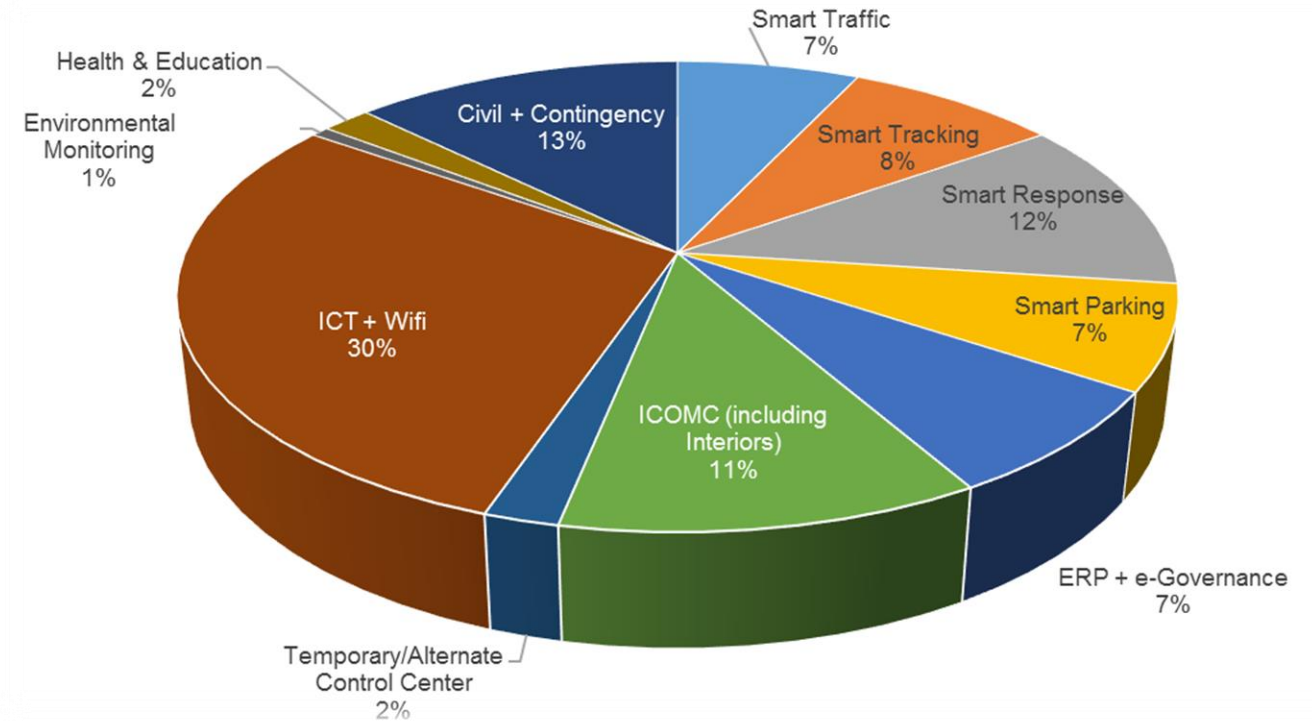
1. OFC Network: 500 Km
2. Leverage Existing TSP Fibre/Bandwidth or Deploy New Fibre to Meet Project Timelines
3. Deploy 500 KM of Fibre Over Contract period and Transfer to Purchaser
4. Rights given to MSI for contract period to put in extra duct & fibre for monetization.
5. BSCL to Monetize Some Fibre For Government/ Business Clients

Project Milestones



Project Budget Estimates - CAPEX

Sl. No.	Project Components	CAPEX (Rs. Cr)
1	Smart Traffic	₹ 24.60
2	Smart Tracking	₹ 28.80
3	Smart Response	₹ 41.40
4	Smart Parking	₹ 25.20
5	ERP + e-Governance	₹ 25.80
6	ICOMC (including Interiors)	₹ 40.20
7	Temporary/Alternate Control Centre	₹ 7.20
8	ICT + Wi Fi	₹ 103.20
9	Environmental Monitoring	₹ 2.40
10	Health & Education	₹ 6.60
11	Civil + Contingency	₹ 44.40
Grand Total		₹ 349.80



Project Budget Estimates - OPEX

Sl. No	Project Components	OPEX (in Cr.)						
		Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Total
1	Smart Traffic	₹ 2.12	₹ 2.33	₹ 2.57	₹ 2.82	₹ 3.10	₹ 3.41	₹ 16.36
2	Smart Tracking	₹ 2.49	₹ 2.74	₹ 3.01	₹ 3.31	₹ 3.65	₹ 4.01	₹ 19.21
3	Smart Response		₹ 4.52	₹ 4.97	₹ 5.47	₹ 6.02	₹ 6.62	₹ 27.60
4	Smart Parking	₹ 2.27	₹ 2.50	₹ 2.75	₹ 3.02	₹ 3.32	₹ 3.66	₹ 17.51
5	ERP + e-Governance	₹ 2.43	₹ 2.67	₹ 2.94	₹ 3.23	₹ 3.56	₹ 3.91	₹ 18.75
6	ICOMC (including Interiors)	₹ 0.80	₹ 5.04	₹ 5.54	₹ 6.10	₹ 6.71	₹ 7.38	₹ 30.77
7	ICT + Wifi	₹ 8.92	₹ 9.81	₹ 10.79	₹ 11.87	₹ 13.06	₹ 14.37	₹ 68.82
8	Environmental Monitoring		₹ 0.26	₹ 0.29	₹ 0.31	₹ 0.35	₹ 0.38	₹ 1.59
9	Health & Education		₹ 0.72	₹ 0.79	₹ 0.87	₹ 0.96	₹ 1.05	₹ 4.40
10	Civil + Contingency	₹ 1.00	₹ 4.68	₹ 5.15	₹ 5.66	₹ 6.23	₹ 6.85	₹ 29.57
	Grand Total	₹ 20.03	₹ 35.27	₹ 38.80	₹ 42.68	₹ 46.95	₹ 51.64	₹ 235.38

Monetization opportunity to MSI: -

- (i) Wi Fi and Fiber ~ Rs. 80 to 100 Crores
- (ii) Expected Bid Value for MSI RFP ~ Rs. 490 to Rs. 525 Cr.

Other increase in earnings to Government in the following form over 7 years: -

- i. Additional revenue from traffic violation penalty ~ Rs. 20 – 25 Crores
- ii. Parking Revenue to BMC ~ Rs. 75 – 80 Crores
- iii. Advertisement Revenue ~ Rs. 1.5 Crore approx
- iv. Savings on existing and future connectivity requirements related to agency projects – Rs. 8 to 10 Cr. per year (City surveillance, ITMS, Signalling, etc.)
- v. Other revenue potential
 - a. Big Data Monetisation
 - b. Inter Department Connectivity (Within city level) like video conference, e-Gov etc.

Tender Brief

“RFP FOR *Selection of System Integrator for Implementations of Bhubaneswar Smart City*” is categorized into following three (3) volumes:

- Volume I { • Instruction to Bidders
- Volume II { • Draft Agreement
- Volume III { • Scope of Work

REQUEST FOR PROPOSAL

RFP No.:

Date:

Project Name: Implementation of Smart City Projects under Smart City Mission in Bhubaneswar City

Name of Assignment: Selection of System Integrator for Implementations of Bhubaneswar Smart City Solutions

Volume I - Instructions to the Bidders



Bhubaneswar Smart City Limited,
2nd Floor, Block – 1, BMC Bhawani Office Complex,
Saheed Nagar, Bhubaneswar – 751 007,
Odisha



aneswar

Bid Evaluation

Qualification

- Bidder shall meet all the Criteria else shall be disqualified

EMD : 6 Crores

Technical Evaluation

- Bidder shall Score at least 70 Marks to be considered for financial proposal stage

Financial Proposal

- Bidder with highest Total Score as per QCBS weightage shall be declared as **Preferred Bidder**
QCBS 70:30

1. **Technical Score TS:** Bidders shall be given Score based on Technical Evaluation
2. **Financial Score FS:** Aggregate Financial Quote of the bidder shall sum of CAPEX and NPV of OPEX quoted for 7 Years discounted at 10%. Then Minimum Aggregate Financial Quote across all the bids will be used to convert respective quote of the bidder to a linear scale. This will become the FS for that bidder.
3. **Total Score = $w_1 * TS + w_2 * FS$** (as per QCBS weightage shall be adopted)

Project Implementation Timeline

Activities/Milestones/Deliverables	Timeline (T)
Inception Report	T + 1 Month
Detailed Design Report (All Phases)	T + 2 Months
Quick Wins	T + 3 Months
Operational Acceptance + Go-Live of Communications Network	T + 12 Months
Operational Acceptance + Go-Live of Smart Traffic Management System	T + 12 Months
Operational Acceptance + Go-Live of Smart Tracking System	T + 12 Months
Operational Acceptance + Go-Live of Smart Parking Management System	T + 15 Months
Operational Acceptance + Go-Live of Smart Governance and Smart Connect	T + 18 Months
Operational Acceptance + Go-Live of Smart Response and Incident Management System	T + 20 Months
Operational Acceptance + Go-Live of Intelligent City Operations and Management Centre (ICOMC)	T + 22 Months
End to End Handover (Completion of Burn-In Period) and Commencement of DLP & AMC Phase (7 Years)	T + 24 Months

Tentative Bid Schedule

Sl. No.	Task	Due Date
1.	Date of Issue of RFP	March 4, 2017
2.	Pre-Bid Meeting	March 21, 2017
3.	Last date of submission as per latest corrigendum	June 09, 2017

Total
Companies
Participated –

82 nos.

No. of
Participants –

> **150** nos.



THANK YOU

