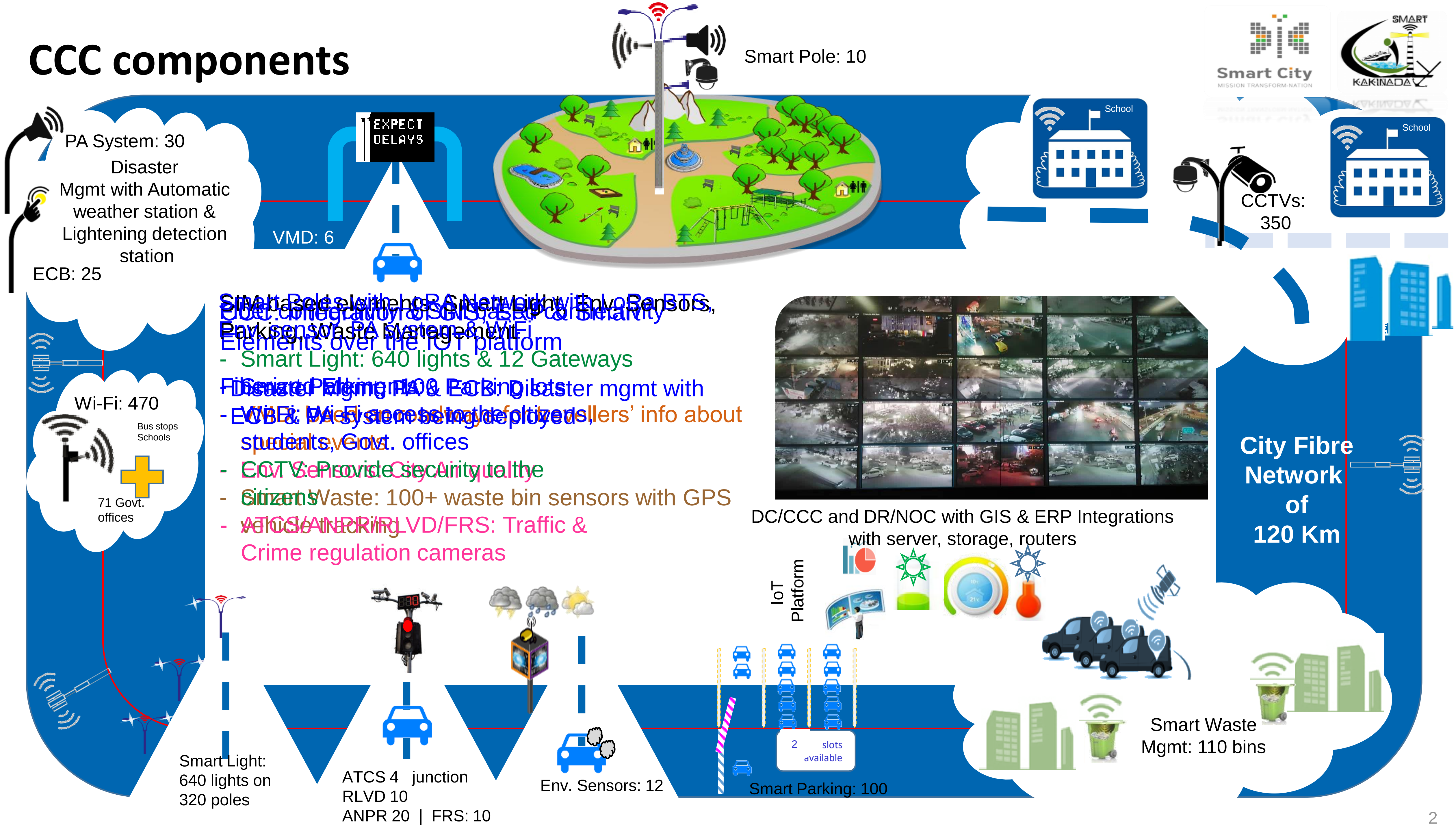
Kakinada Smart City Corporation Limited (KSCCL)

Review meeting on Implementation of Integrated Command & Control Centre in Smart Cities – Kakinada

Presentation to
The Secretary, MoUD, GoI
Dt. 19-05-2017

CCC components



Smart Pole: 10

PA System: 30

Disaster Mgmt with Automatic weather station & Lightening detection station

ECB: 25

VMD: 6

CCTVs: 350

Wi-Fi: 470

Bus stops
Schools

71 Govt. offices

SIM based elements: Smart Light, Env. Sensors, Parking, Waste Management

Smart Poles with LoRA Network with LoRa BTS, Env. sensor, PA system & WiFi

Other: Integration of GIS, ERP & Smart City Elements over the IOT platform

- Smart Light: 640 lights & 12 Gateways

Fiberized Elements

Smart Parking: 100 Parking lots

- Disaster Mgmt PA & ECB: Disaster mgmt with ECB & PA system being deployed

- VMD: Used as ways for travellers' info about special events

- WiFi: Wi-Fi access to the citizens, students, Govt. offices

- Env Sensors: City Air quality

- CCTV: Provide security to the citizens

- Smart Waste: 100+ waste bin sensors with GPS vehicle tracking

- ATCS/ANPR/RLVD/FRS: Traffic & Crime regulation cameras

DC/CCC and DR/NOC with GIS & ERP Integrations with server, storage, routers

City Fibre Network of 120 Km

IoT Platform

Smart Light: 640 lights on 320 poles

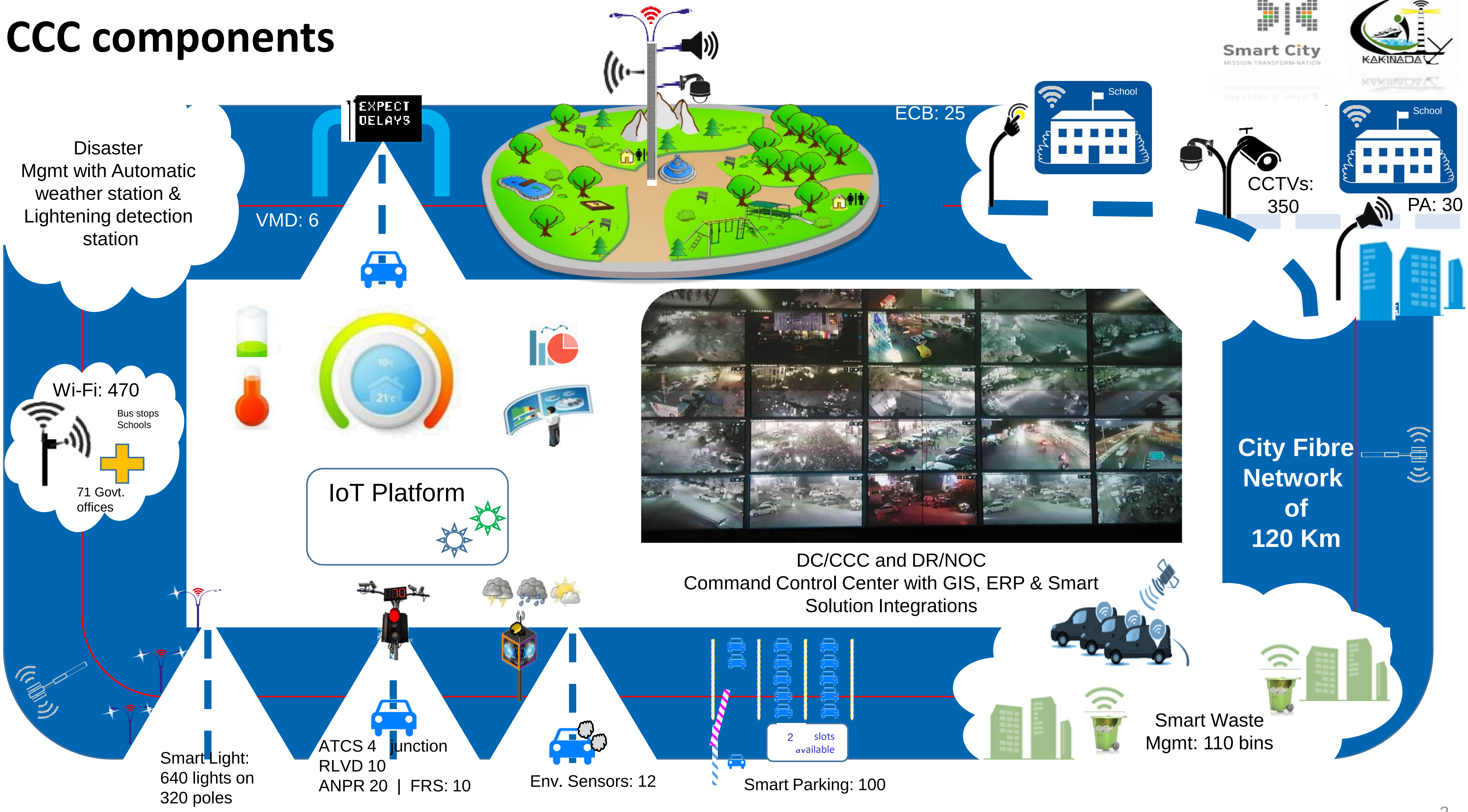
ATCS 4 junction
RLVD 10
ANPR 20 | FRS: 10

Env. Sensors: 12

Smart Parking: 100

Smart Waste Mgmt: 110 bins

CCC components



Disaster Mgmt with Automatic weather station & Lightening detection station

VMD: 6

ECB: 25

CCTVs: 350

PA: 30

Wi-Fi: 470

Bus stops
Schools

71 Govt. offices

IoT Platform

City Fibre Network of 120 Km

DC/CCC and DR/NOC
Command Control Center with GIS, ERP & Smart Solution Integrations

Smart Light:
640 lights on
320 poles

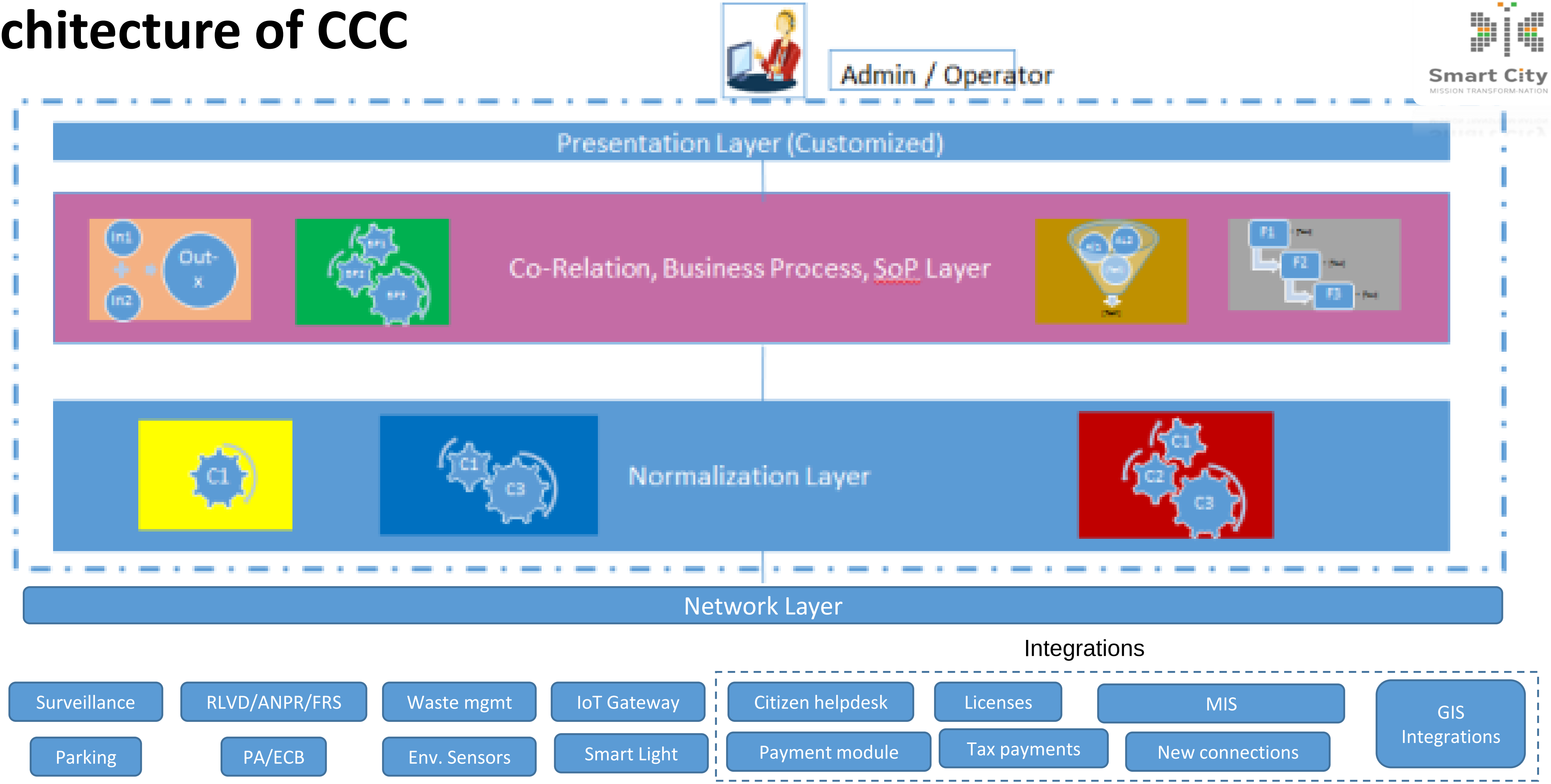
ATCS 4 junction
RLVD 10
ANPR 20 | FRS: 10

Env. Sensors: 12

Smart Parking: 100

Smart Waste Mgmt: 110 bins

Architecture of CCC



Admin / Operator

Presentation Layer (Customized)

Co-Relation, Business Process, SoP Layer

Normalization Layer

Network Layer

Integrations

Surveillance

RLVD/ANPR/FRS

Waste mgmt

IoT Gateway

Citizen helpdesk

Licenses

MIS

GIS Integrations

Parking

PA/ECB

Env. Sensors

Smart Light

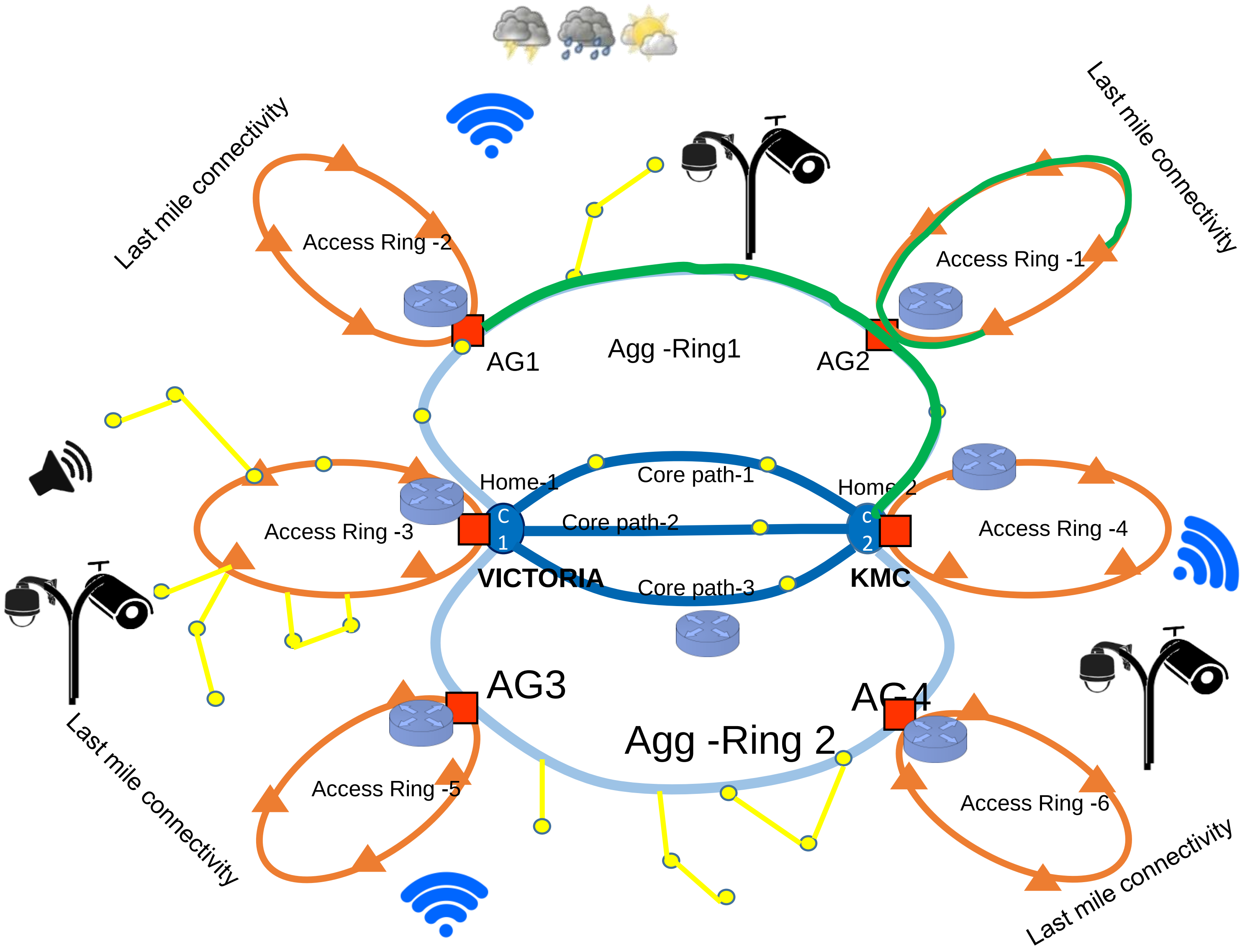
Payment module

Tax payments

New connections

- The CCC Application would integrate all the elements
- Applications would get aggregated on the IoT Platform and be presented on a common dashboard on the CCC
- The ERP modules already developed and currently being developed will be aggregated on a single dashboard on the CCC

Citywide network connectivity



Core & Aggregation layers:

Routers running on IP/MPLS protocols, with capacity in multiple of 10G (2 Core and 4 Aggression routers)

Access Layer:

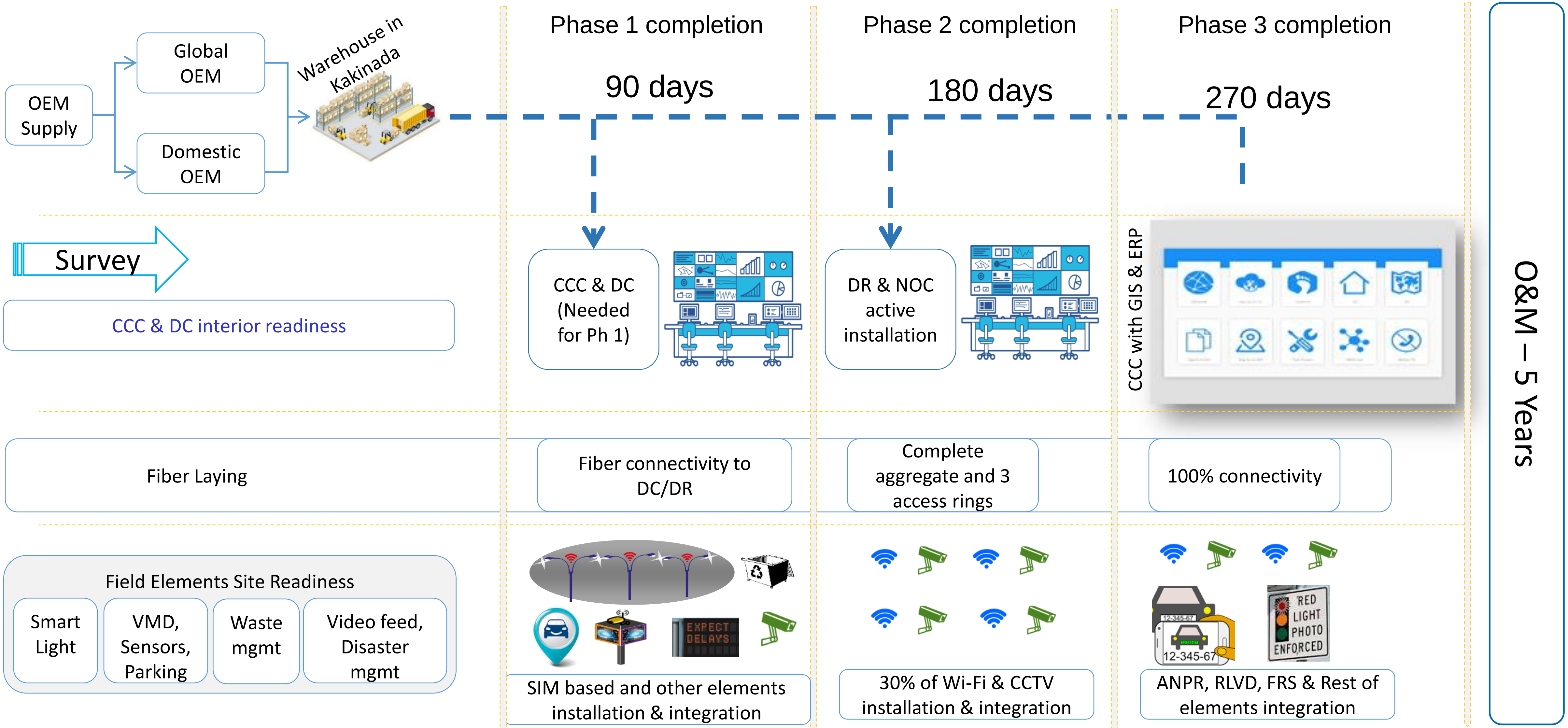
Modular temperature hardened Chassis running IP/MPLS based transport with capacity of 10G (24 Access routers)

Street layer:

Street layer switches will be connected to pre Aggregation layer with 1G capacity. (Around 200 Switches)

All wired Smart Elements like Camera, WiFi, ANPR, RLVD, ECB, IP PA, FRS, ATCS, LoRa BTS

Implementation timelines



OEM Supply

Global OEM

Domestic OEM

Warehouse in Kakinada

Phase 1 completion

90 days

Phase 2 completion

180 days

Phase 3 completion

270 days

O&M – 5 Years

Survey

CCC & DC interior readiness

CCC & DC (Needed for Ph 1)

DR & NOC active installation

CCC with GIS & ERP

Fiber Laying

Fiber connectivity to DC/DR

Complete aggregate and 3 access rings

100% connectivity

Field Elements Site Readiness

- Smart Light
- VMD, Sensors, Parking
- Waste mgmt
- Video feed, Disaster mgmt

SIM based and other elements installation & integration

30% of Wi-Fi & CCTV installation & integration

ANPR, RLVD, FRS & Rest of elements integration

Delivery plan for 25th June

OEM Supply

Global OEM

Domestic OEM

Warehouse in Kakinada

Active supply to sites

CCC & DC interior readiness

Field Elements Site Readiness

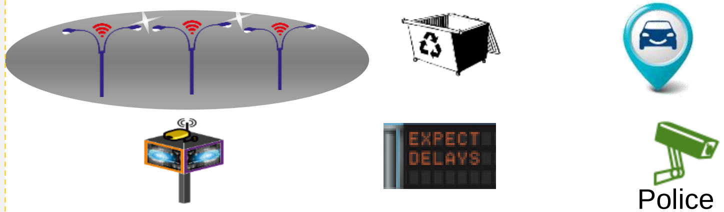
Smart Light, VMD

Waste mgmt, Sensors, Parking

Video feed, Disaster mgmt

Phase 1 Plan

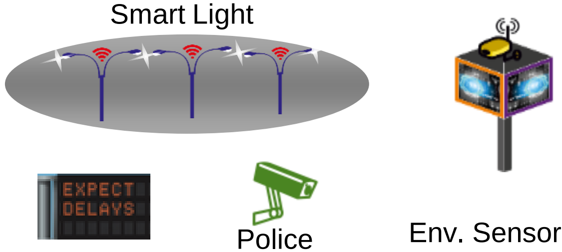
CCC & DC active installation



SIM & LoRA based installation & integration with Police feed and Disaster mgmt

Integration by 25th June

CCC & DC interior readiness, active & video wall installation



Active
Video wall
Switch
Server

Disaster Management

40 Km Fibre

Thank you