CREATING “SOE” FOR A SMART CITY

ATHENTA TECHNOLOGIES CREATING “SOE”

1. Layer of ICT over the city services is presumed to make a city smart

2. Sync all equipments, rendering services to the smart city

3. Human resources and these equipments to communicate on a common service bus

4. Service levels and priorities need to be discussed and defined

5. Standard Operating Environment need to be created for every smart city

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1. Assured electric supply
2. Adequate water supply
3. Sanitation
4. Solid waste management
5. Security and Safety
6. Citizens participation for good governance – Grievance and redressal

A backbone (intelligent layer) to carry information related to the above services

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1. An “App” to get information proactively where ever possible and else reactive information

2. Encouragement to participate in the overall plan

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WHAT DOES THE MUNICIPALITY/AUTHORITIES NEED

1. Ability to integrate multiple types of data originating from heterogeneous equipments, along with voice, video, data, and sensors communication interfaces.

2. “Single Portal” for all civic functions the authority is responsible for

3. Future proof - Capability to integrate new and innovative applications.

4. Platform with the ability to correlate various services to give the much needed assistance or resultant

5. Intelligent and Intuitive work-flow management.

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6. Advanced industrial grade cyber security features.

7. Advanced historical records management to make trend analysis.

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THE STANDARD OPERSTING ENVIRONMENT ARCHITECTURE

Smart City program

Integrated Operations Management Layer

CITY MANAGEMENT FROM OCC

- Customer Experience
- Converged logical and Physical Inventory
- Business & Operations View SLM
- Backbone Network Alerts and thresholds
- Water and Power Distt mgmt
- Workforce Mgmt TTO/TTR
- Emergency Response mgmt

Integrated Infrastructure Layer

Fiber backbone & Mux Mgmt	SNMP Modbus BACNET NO-NC IOT	Services Optimizations to enhance efficiencies	Displays & PA System	Reports & Dashboards
All Communication & Networking	Information from All equipments	Right usage of electricity and water resources	Proactive alerts & Necessary Instructions	Fire safety & Overall security

Key Value Adds

1. **Customer Experience Management**
   Backbone network, alerts and thresholds
2. **Converged Logical & Physical Inventory**
3. **Water & Power Distt management**
   Main Power supply, Backup and auxiliary power and its distribution
4. **Optimised workforce management**
   Business operations' view & SLA Management.
5. **Display and PA System integration**
6. **Fire Fighting capabilities**
   - Evacuation
   - Camera's manning fire zones

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BACKBONE NETWORK MANAGEMENT

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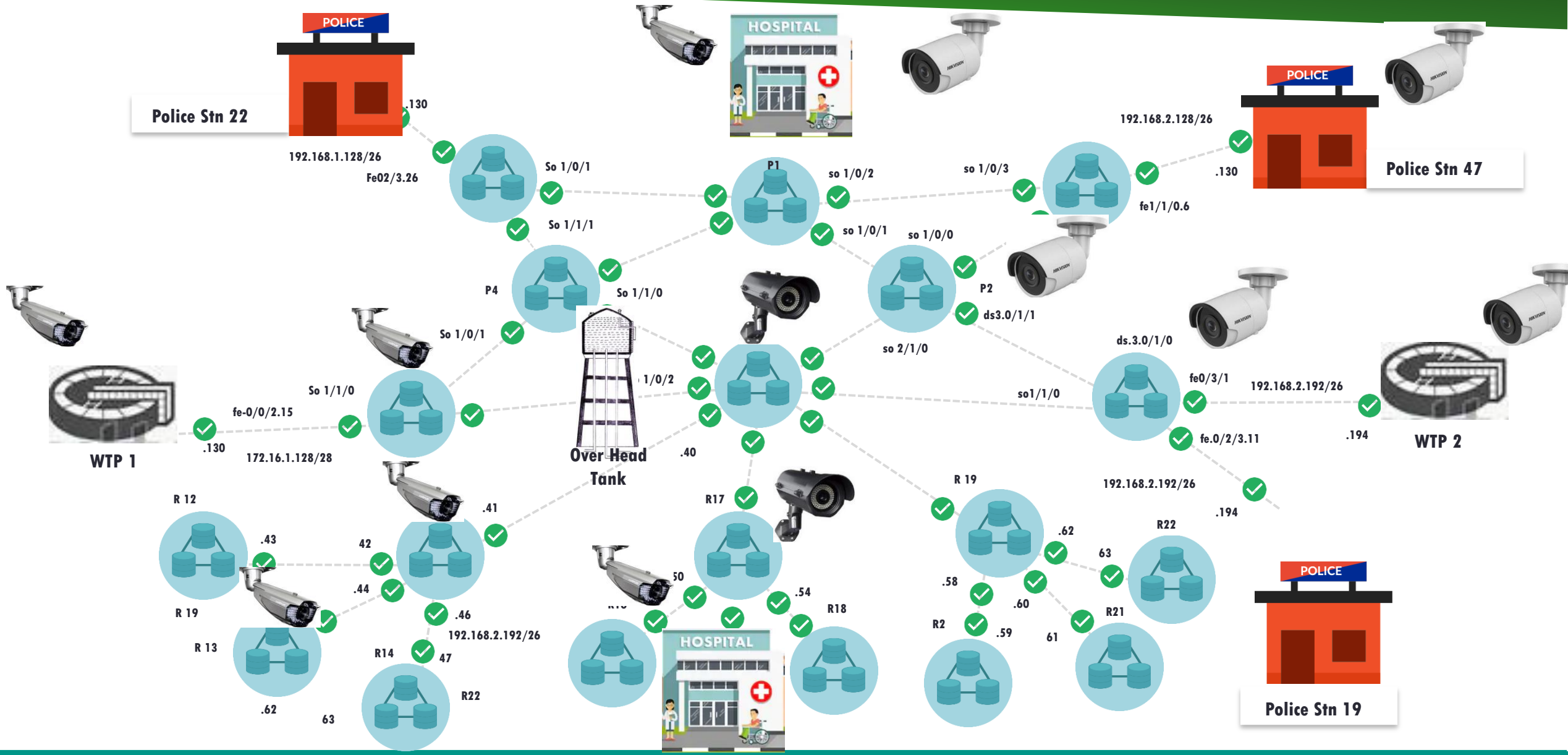
INFORMATION FROM THE BACKBONE NETWORK



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GETTING INFORMATION FROM THE BACKBONE NETWORK

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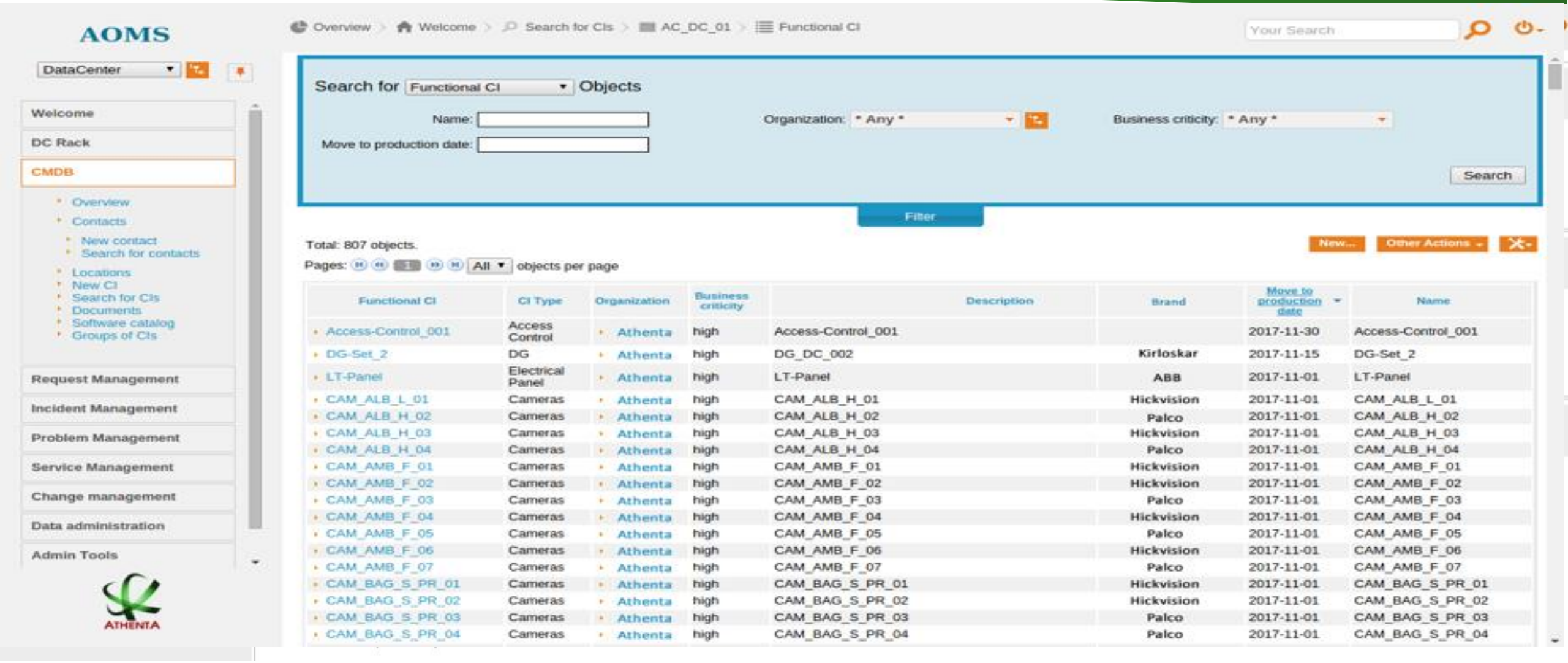
INFORMTION MANAGEMENT FROM THE FIELD



Functional CI	CI Type	Organization	Business criticity	Description	Brand	Move to production date	Name
Access-Control_001	Access Control	Athenta	high	Access-Control_001		2017-11-30	Access-Control_001
DG-Set_2	DG	Athenta	high	DG_DC_002	Kirloskar	2017-11-15	DG-Set_2
LT-Panel	Electrical Panel	Athenta	high	LT-Panel	ABB	2017-11-01	LT-Panel
CAM_ALB_L_01	Cameras	Athenta	high	CAM_ALB_H_01	Hickvision	2017-11-01	CAM_ALB_L_01
CAM_ALB_H_02	Cameras	Athenta	high	CAM_ALB_H_02	Palco	2017-11-01	CAM_ALB_H_02
CAM_ALB_H_03	Cameras	Athenta	high	CAM_ALB_H_03	Hickvision	2017-11-01	CAM_ALB_H_03
CAM_ALB_H_04	Cameras	Athenta	high	CAM_ALB_H_04	Palco	2017-11-01	CAM_ALB_H_04
CAM_AMB_F_01	Cameras	Athenta	high	CAM_AMB_F_01	Hickvision	2017-11-01	CAM_AMB_F_01
CAM_AMB_F_02	Cameras	Athenta	high	CAM_AMB_F_02	Hickvision	2017-11-01	CAM_AMB_F_02
CAM_AMB_F_03	Cameras	Athenta	high	CAM_AMB_F_03	Palco	2017-11-01	CAM_AMB_F_03
CAM_AMB_F_04	Cameras	Athenta	high	CAM_AMB_F_04	Hickvision	2017-11-01	CAM_AMB_F_04
CAM_AMB_F_05	Cameras	Athenta	high	CAM_AMB_F_05	Palco	2017-11-01	CAM_AMB_F_05
CAM_AMB_F_06	Cameras	Athenta	high	CAM_AMB_F_06	Hickvision	2017-11-01	CAM_AMB_F_06
CAM_AMB_F_07	Cameras	Athenta	high	CAM_AMB_F_07	Palco	2017-11-01	CAM_AMB_F_07
CAM_BAG_S_PR_01	Cameras	Athenta	high	CAM_BAG_S_PR_01	Hickvision	2017-11-01	CAM_BAG_S_PR_01
CAM_BAG_S_PR_02	Cameras	Athenta	high	CAM_BAG_S_PR_02	Hickvision	2017-11-01	CAM_BAG_S_PR_02
CAM_BAG_S_PR_03	Cameras	Athenta	high	CAM_BAG_S_PR_03	Palco	2017-11-01	CAM_BAG_S_PR_03
CAM_BAG_S_PR_04	Cameras	Athenta	high	CAM_BAG_S_PR_04	Palco	2017-11-01	CAM_BAG_S_PR_04

We close down on the location of the fault based on the information we collect initially and keep updating the same

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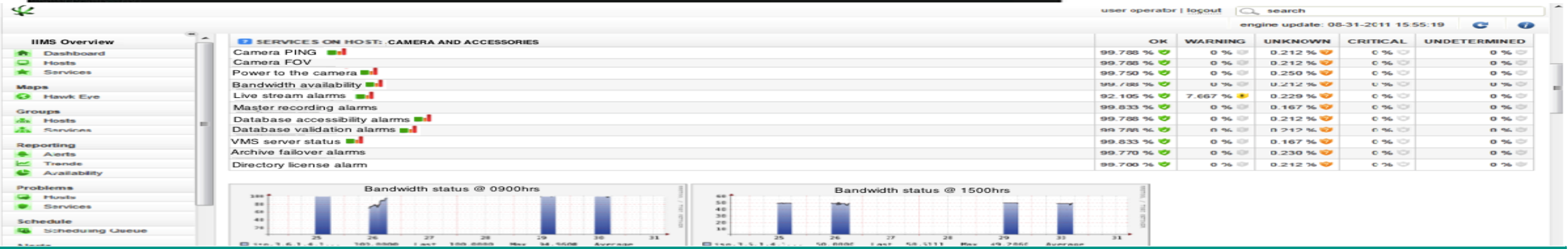
SCREEN SHOT OF SURVEILLANCE PROJECT

Surveillance cameras help citizens to stay safe while travelling in the city

However 24 x 7 check on each of these equipment's should be done to make sure the system is up and running.

Athenta's solution keeps the check on the same.



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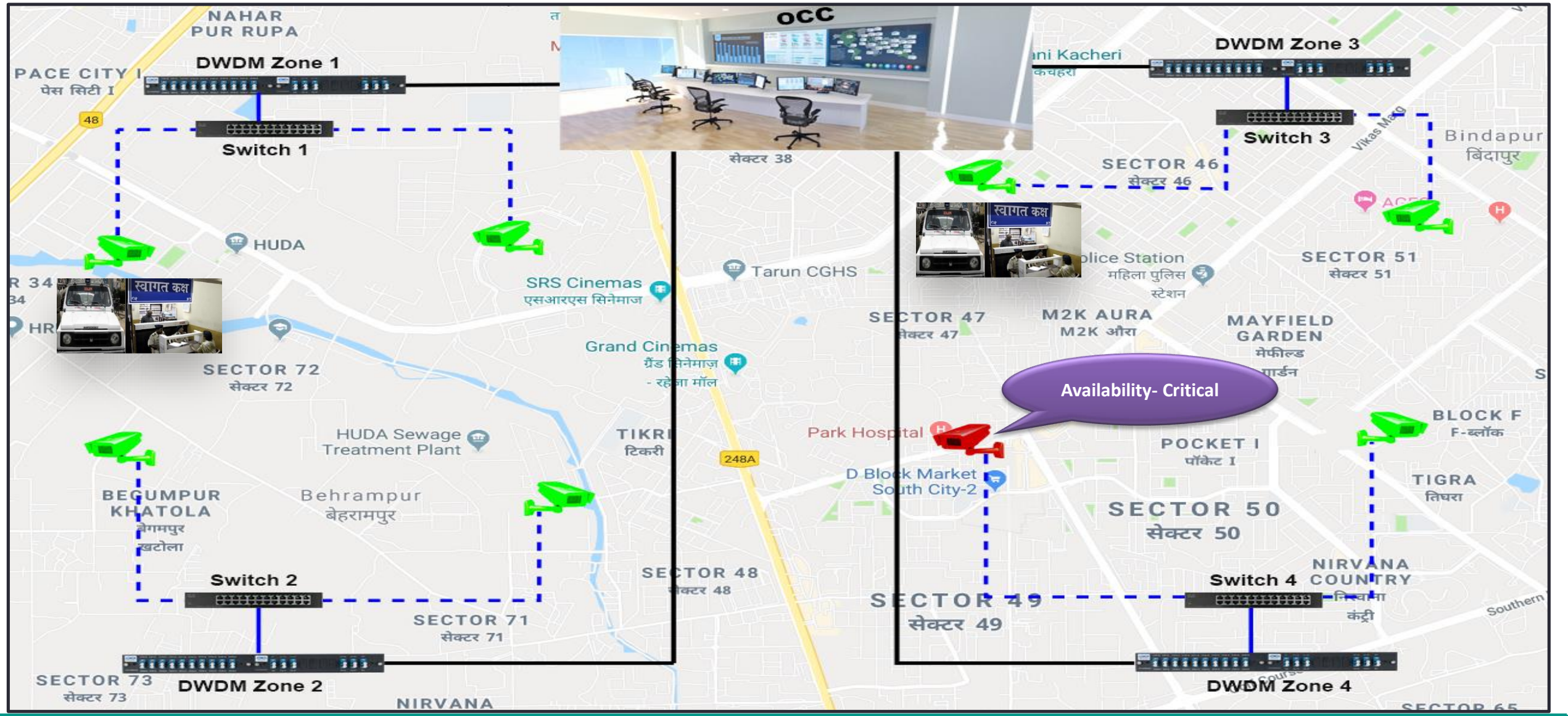
SURVEILLANCE NETWORK DISTRIBUTION ACROSS THE CITY



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IMPACT ANALYSIS

AOMS

All Organizations

- Dashboard
- CMDB
  - Overview
  - Contacts
    - New Contact
    - Search for Contacts
  - Locations
  - New CI
  - Search for CIs
  - Documents
  - Software Catalog
  - Groups of CIs
  - SOPDocument
- Request Management
- Incident Management
- Problem Management

Overview > Search for Contacts > Contact > Search for CIs > Functional CI > Network Device > Aggregation Switch > Aggregation Switch Impacts...

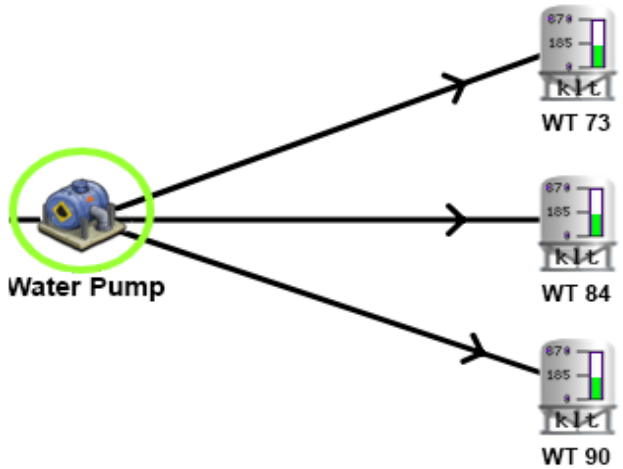
search

Graphical view | List | Groups

Filtering

Grouping threshold 5 | Additional context info: Open Incidents | Refresh | Zoom

Impact Analysis



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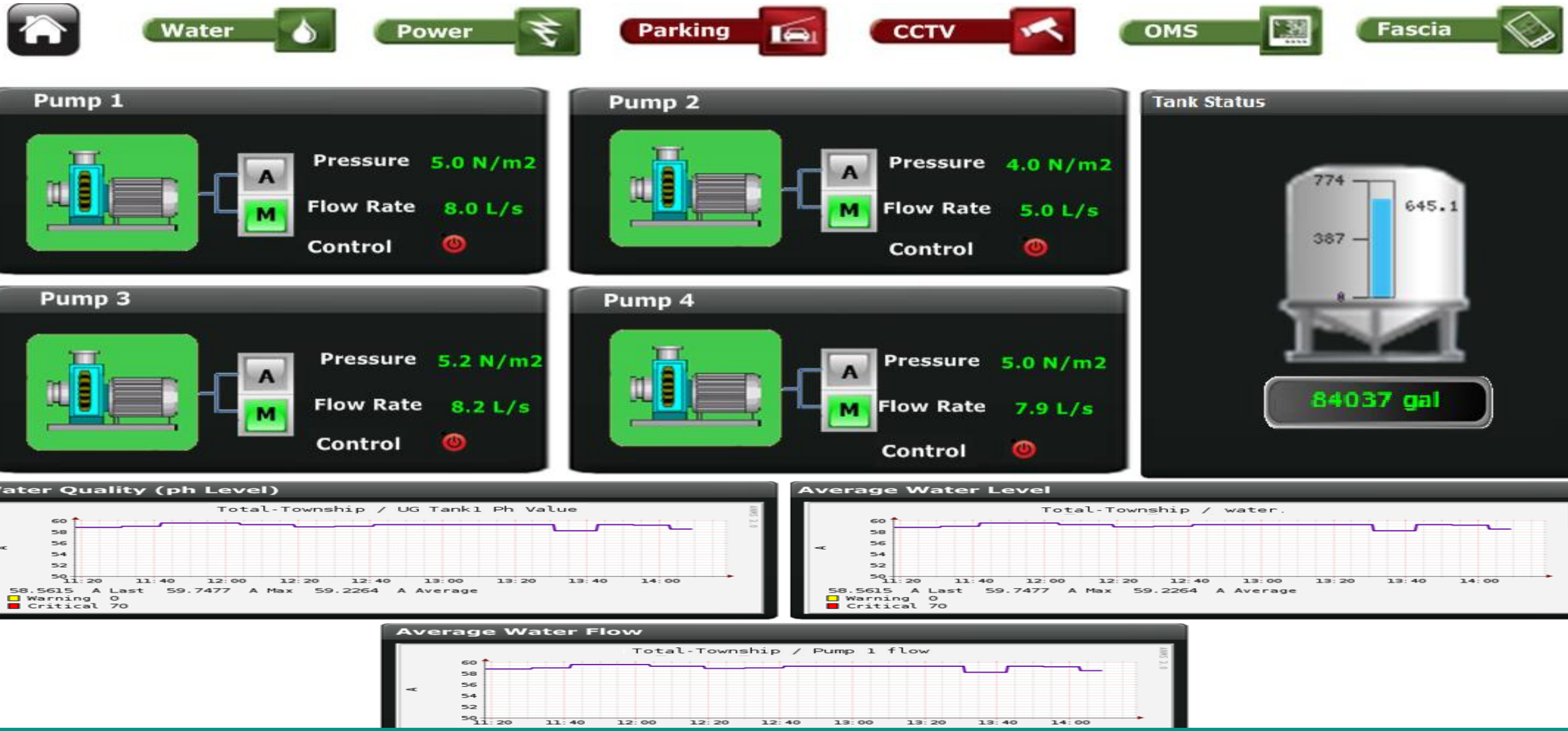
DISTRIBUTED WATER MANAGEMENT CONTD.



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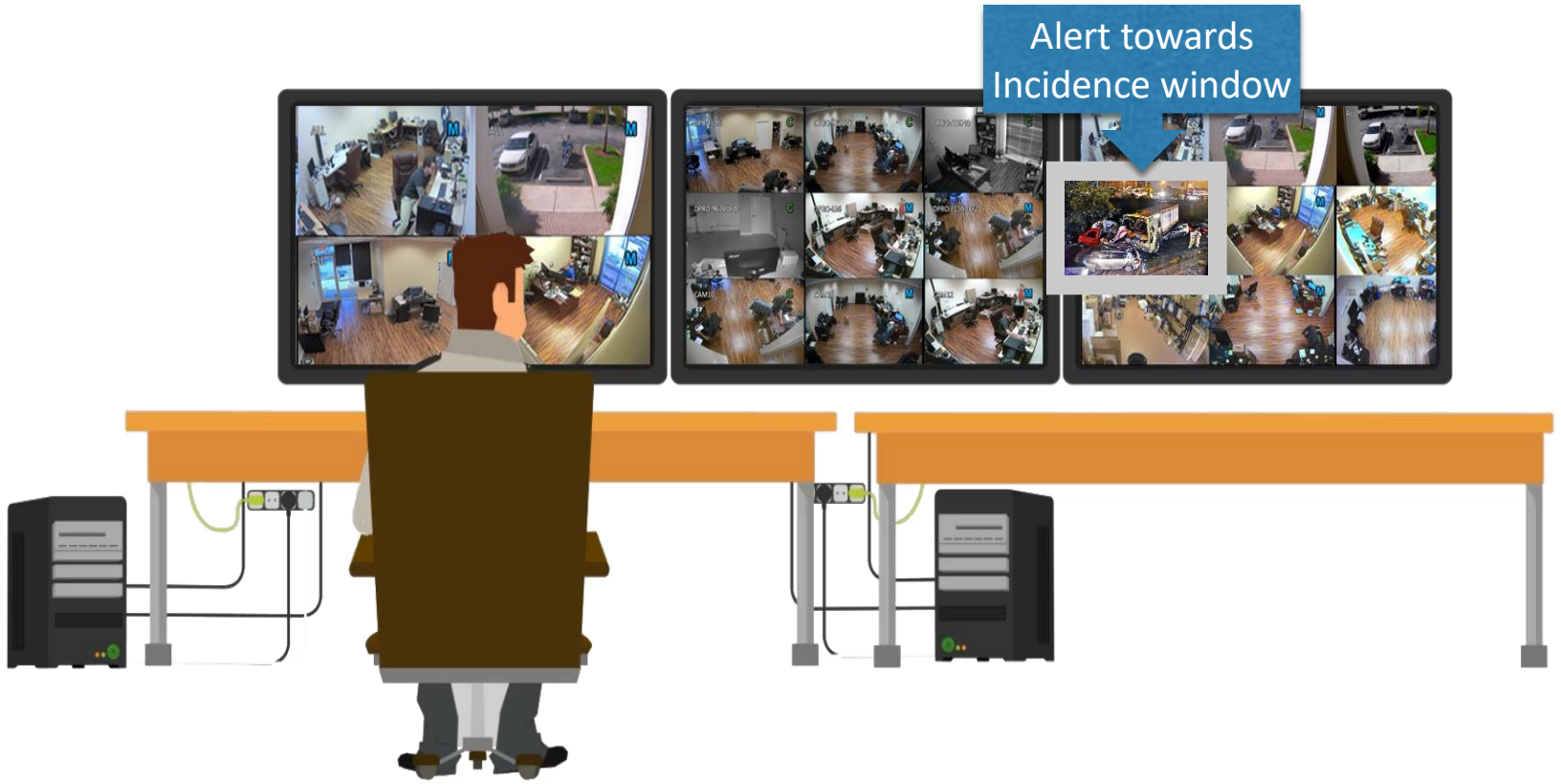

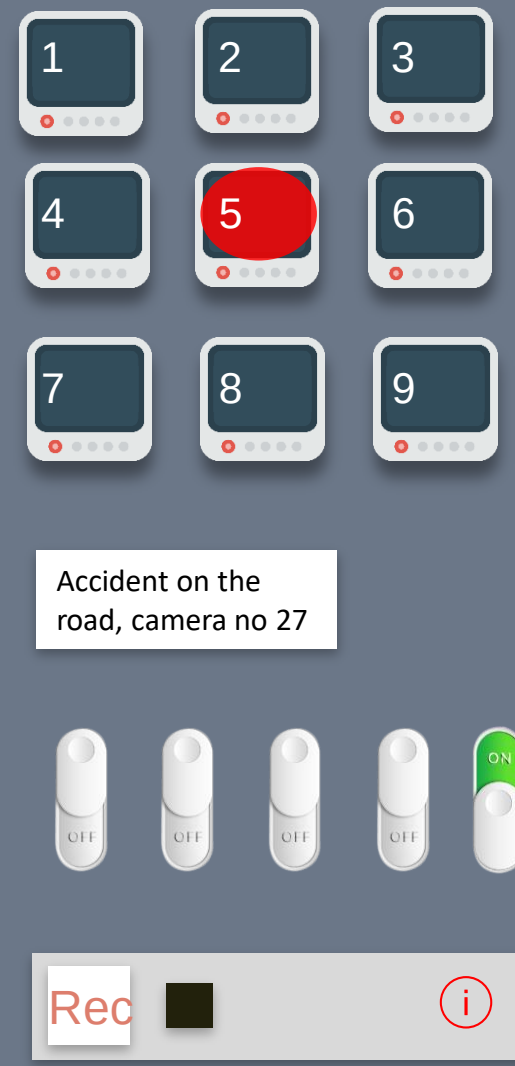

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INCIDENTS – ACROSS VARIOUS CITY INFRASTRUCTUTURE

- *The dashboard helps in singling out problems almost instantly*
- *Effectiveness of maintenance and operations*
- *Status of alerts and escalations if need be can be checked back at any moment*

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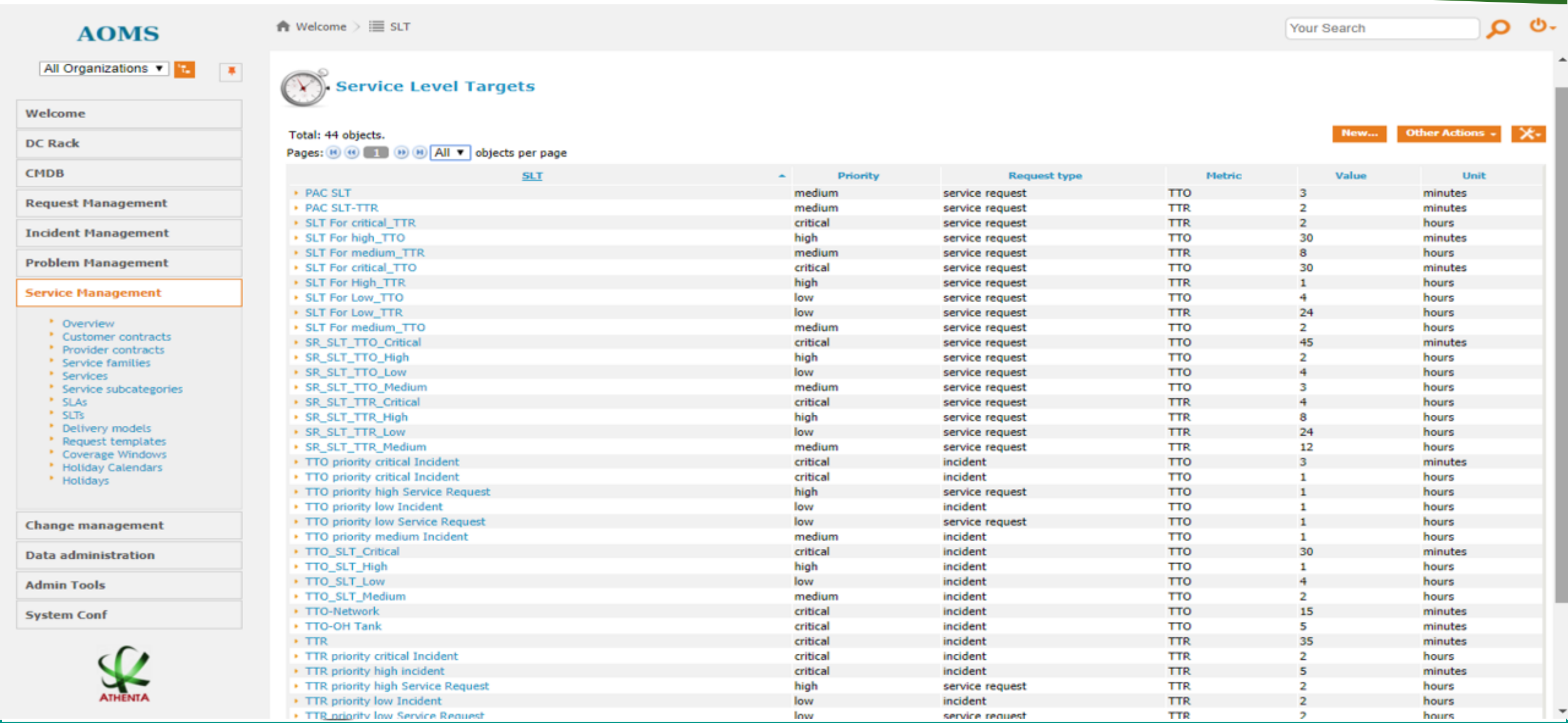
MACHINED SLA's SET ACROSS THE SMART CITY



SLT	Priority	Request type	Metric	Value	Unit
PAC SLT	medium	service request	TTO	3	minutes
PAC SLT-TTR	medium	service request	TTR	2	minutes
SLT For critical_TTR	critical	service request	TTR	2	hours
SLT For high_TTO	high	service request	TTO	30	minutes
SLT For medium_TTR	medium	service request	TTR	8	hours
SLT For critical_TTO	critical	service request	TTO	30	minutes
SLT For High_TTR	high	service request	TTR	1	hours
SLT For Low_TTO	low	service request	TTO	4	hours
SLT For Low_TTR	low	service request	TTR	24	hours
SLT For medium_TTO	medium	service request	TTO	2	hours
SR_SLT_TTO_Critical	critical	service request	TTO	45	minutes
SR_SLT_TTO_High	high	service request	TTO	2	hours
SR_SLT_TTO_Low	low	service request	TTO	4	hours
SR_SLT_TTO_Medium	medium	service request	TTO	3	hours
SR_SLT_TTR_Critical	critical	service request	TTR	4	hours
SR_SLT_TTR_High	high	service request	TTR	8	hours
SR_SLT_TTR_Low	low	service request	TTR	24	hours
SR_SLT_TTR_Medium	medium	service request	TTR	12	hours
TTO priority critical Incident	critical	incident	TTO	3	minutes
TTO priority critical Incident	critical	incident	TTO	1	hours
TTO priority high Service Request	high	service request	TTO	1	hours
TTO priority low Incident	low	incident	TTO	1	hours
TTO priority low Service Request	low	service request	TTO	1	hours
TTO priority medium Incident	medium	incident	TTO	1	hours
TTO_SLT_Critical	critical	incident	TTO	30	minutes
TTO_SLT_High	high	incident	TTO	1	hours
TTO_SLT_Low	low	incident	TTO	4	hours
TTO_SLT_Medium	medium	incident	TTO	2	hours
TTO-Network	critical	incident	TTO	15	minutes
TTO-OH Tank	critical	incident	TTO	5	minutes
TTR	critical	incident	TTR	35	minutes
TTR priority critical Incident	critical	incident	TTR	2	hours
TTR priority high incident	critical	incident	TTR	5	minutes
TTR priority high Service Request	high	service request	TTR	2	hours
TTR priority low Incident	low	incident	TTR	2	hours
TTR priority low Service Request	low	service request	TTR	2	hours

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SOLID WASTE MANAGEMENT

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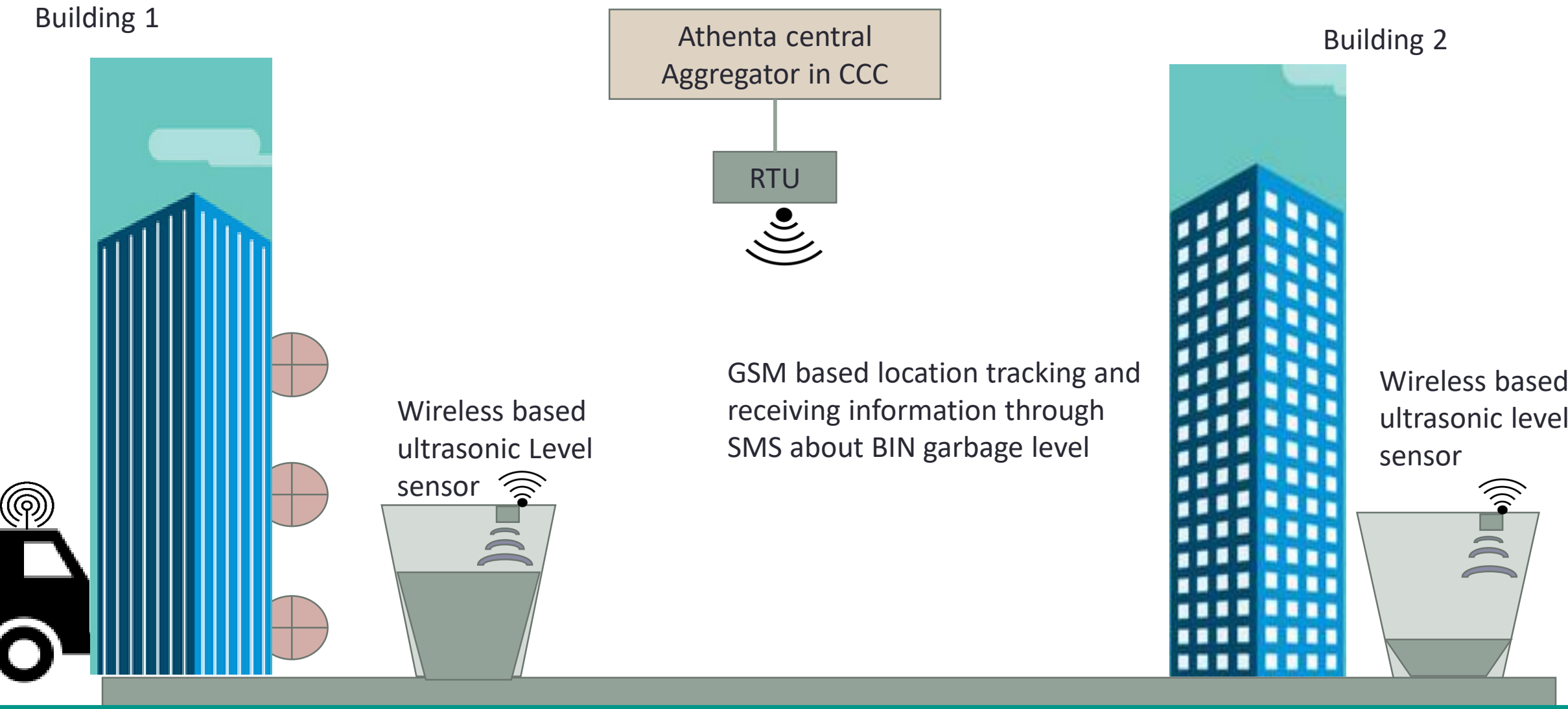
Athenta Waste Management Solution



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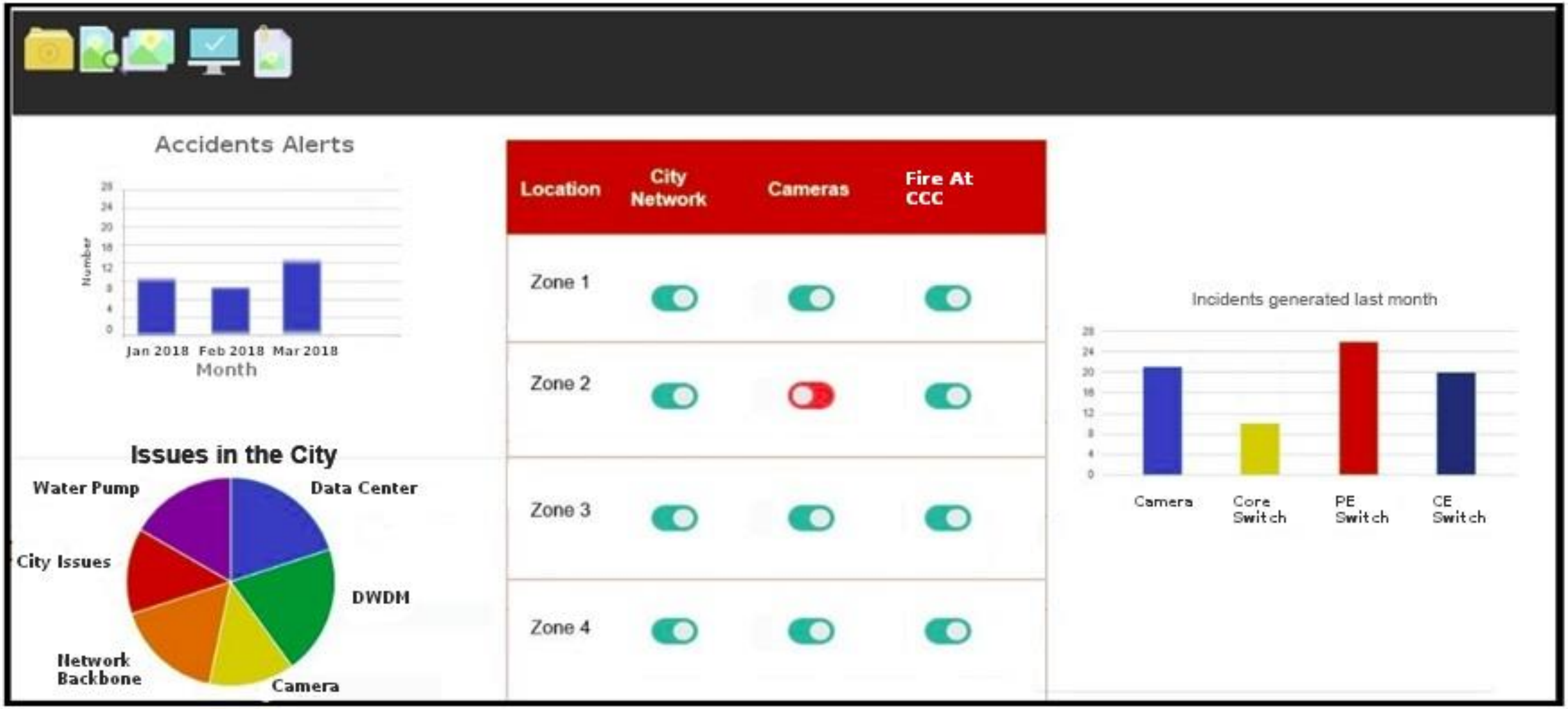
CCC DASHBOARD - Comprehensive picture of the city infrastructure



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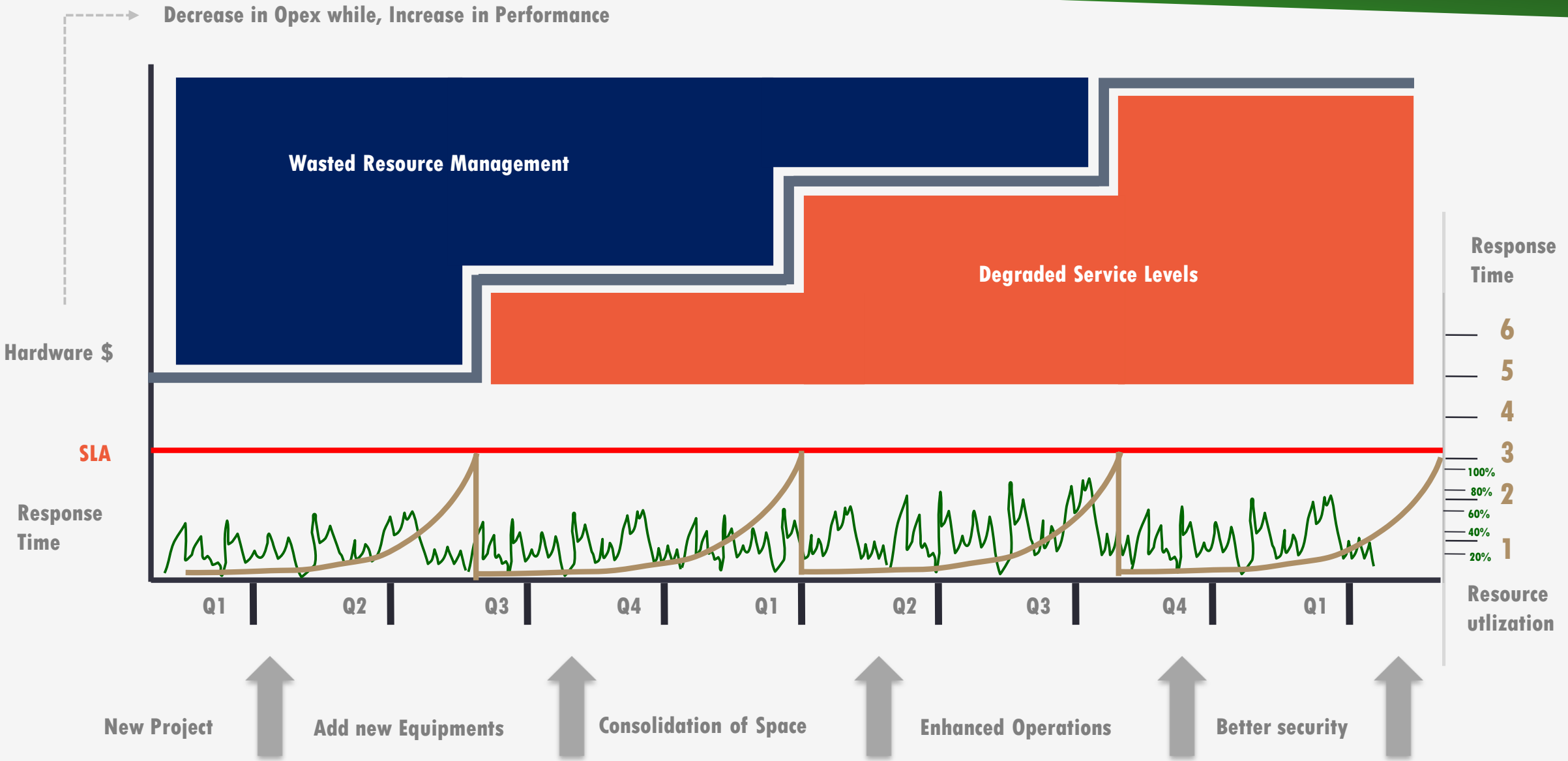
RESOURCE MANAGEMENT



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THANKS FOR LISTENING