



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



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



1. An “App” to get information proactively where ever possible and else reactive information
2. Encouragement to participate in the overall plan



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.



6. Advanced industrial grade cyber security features.
7. Advanced historical records management to make trend analysis.



Integrated Operations Management Layer

Smart City program

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

All Communication & Networking

SNMP Modbus BACNET NO-NC IOT

Information from All equipments

Services Optimizations to enhance efficiencies

Right usage of electricity and water resources

Displays & PA System

Proactive alerts & Necessary Instructions

Reports & Dashboards

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



BACKBONE NETWORK MANAGEMENT



GETTING INFORMATION FROM THE BACKBONE NETWORK

ATHENTA

- Home
- Configuration
- Objects
- Reports
- AOMS
- Admin Console
- Fascia

- City Network
- Electrical Network
- Water Pipeline
- Street Lights
- Waste Mgmt.
- Traffic Mgmt.
- CCTV
- Hospitals
- Police Station

Zone 1 ●

Power

12.88 MW

Water

3188.99 KL

City Map

Map application created by the City of San Diego. Copyright © SanGIS. Not for underground loading.

Zone Based View

Layers

Make on Map	Active for Details	Layer Name
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Wired Buildings
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fiber Network
<input type="checkbox"/>	<input type="checkbox"/>	Service Provider
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Freeways
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Roads
<input checked="" type="checkbox"/>	<input type="checkbox"/>	City Boundary
<input type="checkbox"/>	<input type="checkbox"/>	Property Boundaries
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Parks
<input type="checkbox"/>	<input type="checkbox"/>	Corporation Area

- Zone 2** ●
- Zone 3** ●
- Zone 4** ●
- Zone 5** ●
- Zone 6** ●

Power Device Status

Monitored Devices		Services	
UP	6	OK	5
Down	0	Critical	0
Total	6	Warning	0

Water Device Status

Monitored Devices		Services	
UP	14	OK	67
Down	0	Critical	0
Total	14	Warning	0

Surveillance

	UP	Down		UP	Down		UP	Down
CCTV	334	0	Access Control	43	0	Boom Barrier	24	0

Facilities

	Empty	Full		UP	Down		UP	Down
Waste Bins	18	32	Street Lights	175	0	Parking	95	0





AOMS Overview > Welcome > Search for CIs > AC_DC_01 > Functional CI

Your Search

DataCenter

Welcome

DC Rack

CMDB

- Overview
- Contacts
 - New contact
 - Search for contacts
- Locations
 - New CI
 - Search for CIs
 - Documents
 - Software catalog
 - Groups of CIs

Request Management

Incident Management

Problem Management

Service Management

Change management

Data administration

Admin Tools

ATHENTA

Search for **Functional CI** Objects

Name: Organization: * Any * Business criticality: * Any *

Move to production date:

Search

Filter

Total: 807 objects.

Pages: objects per page

Functional CI	CI Type	Organization	Business criticality	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

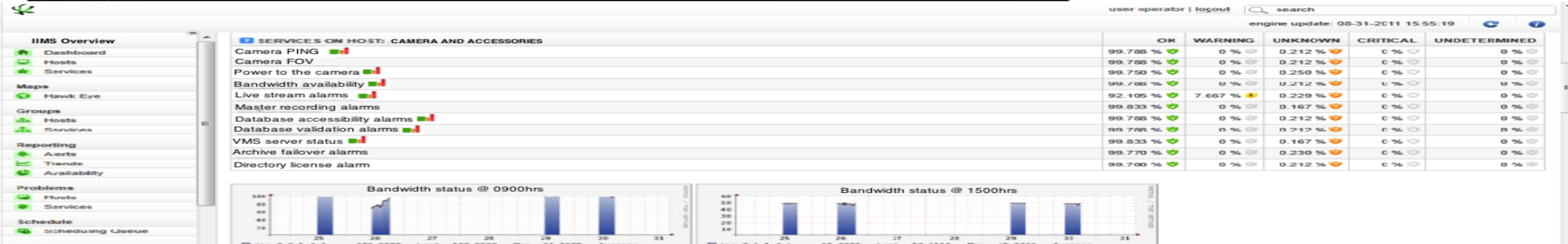
We close down on the location of the fault based on the information we collect initially and keep updating the same

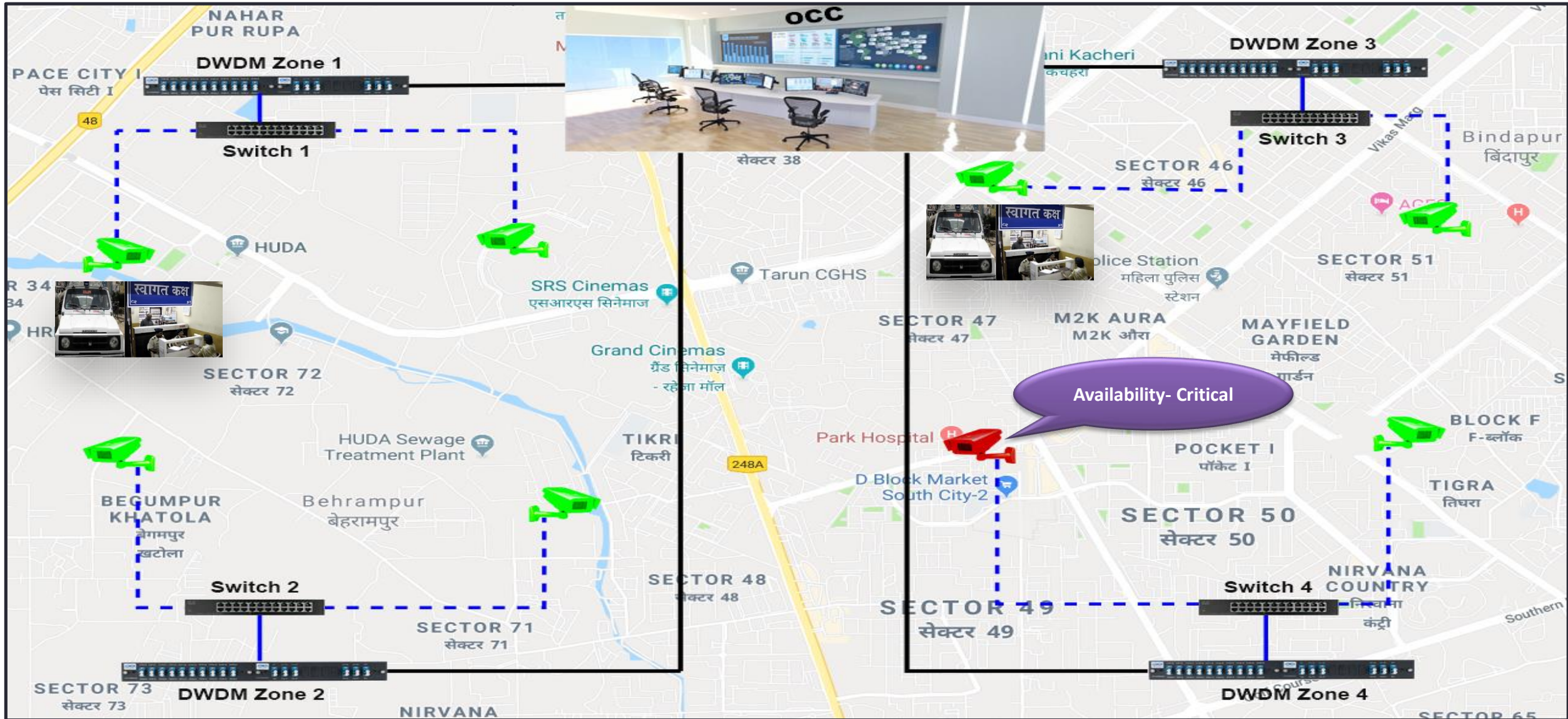


Surveillance cameras help citizens to stay safe while travelling in the city

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.





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

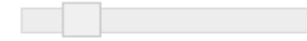
Filtering

Grouping threshold 5

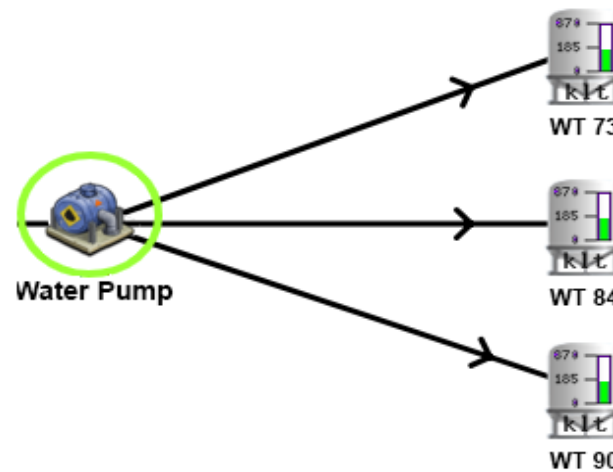
Additional context info Open Incidents ▾

Refresh

Zoom



Impact Analysis





Pump 1

Pressure 5.0 N/m²
Flow Rate 8.0 L/s
Control

Pump 2

Pressure 4.0 N/m²
Flow Rate 5.0 L/s
Control

Pump 3

Pressure 5.2 N/m²
Flow Rate 8.2 L/s
Control

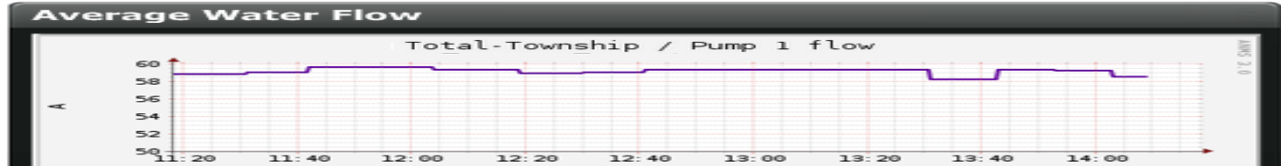
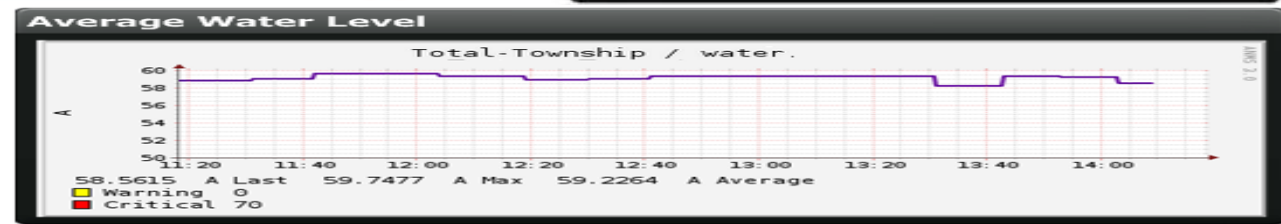
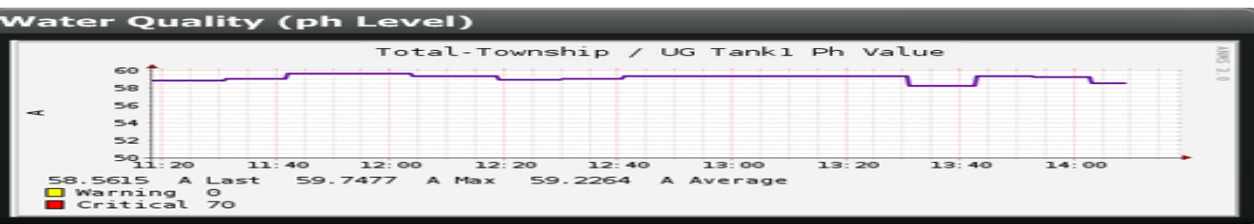
Pump 4

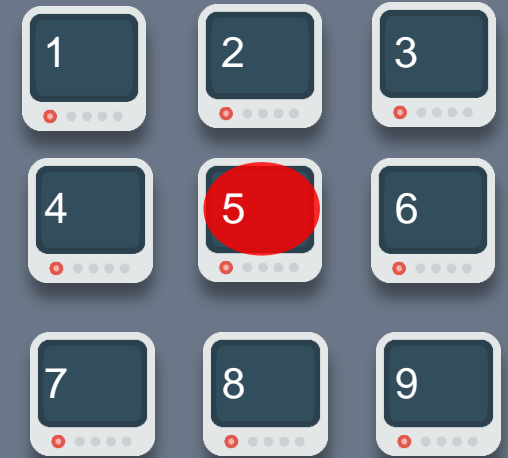
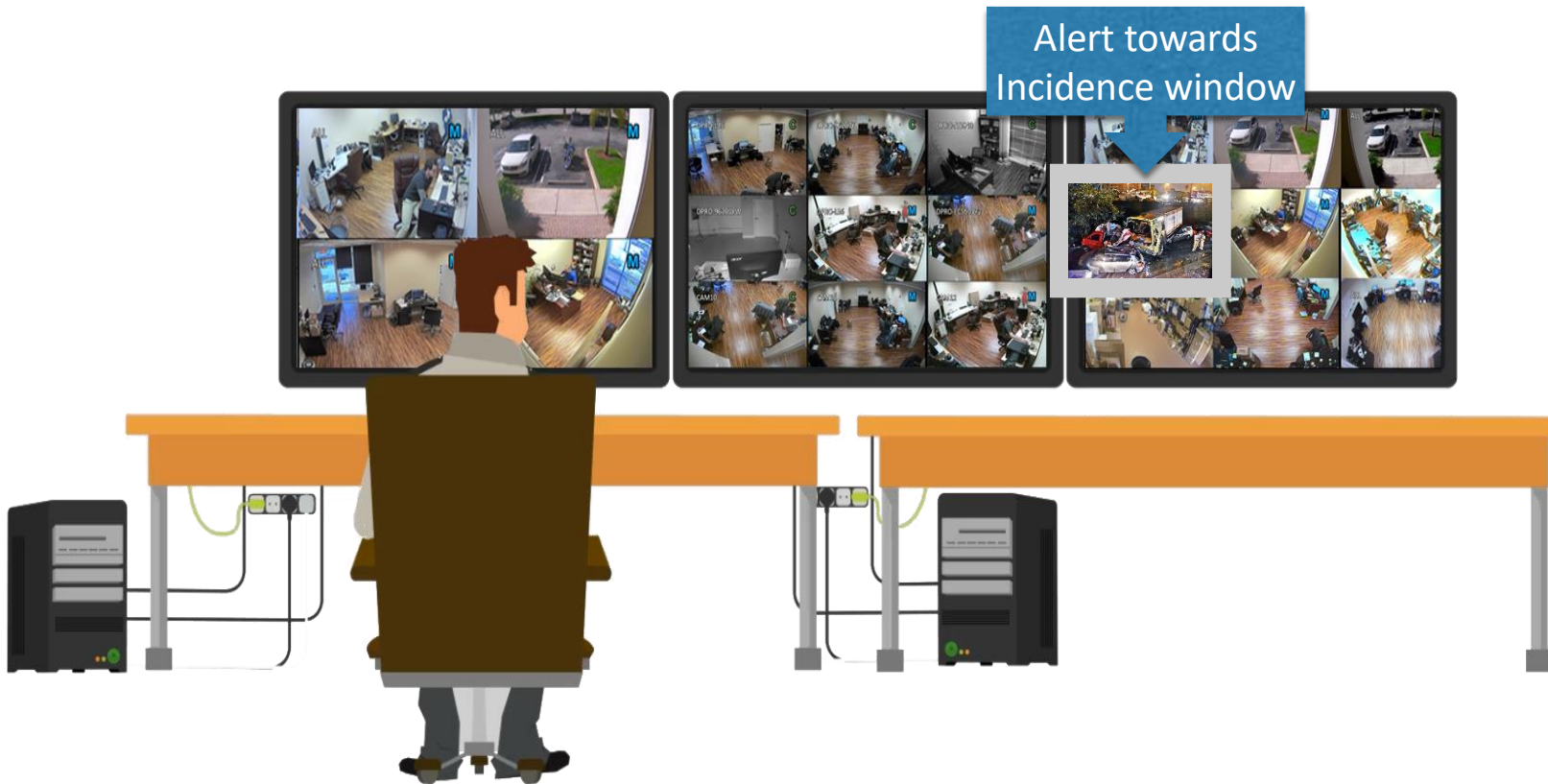
Pressure 5.0 N/m²
Flow Rate 7.9 L/s
Control

Tank Status

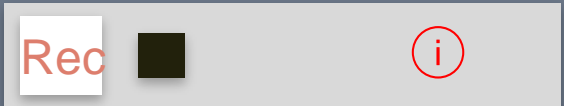
774
645.1
387

84037 gal





Accident on the
road, camera no 27





Common Services

Network	Total	100
	Up	100
	Down	00
CCTV	Total	225
	Up	223
	Down	02
Water Tank	Total	90
	Adequate	76
	Low	14
Fire	Total	45
	Up	44
	Down	01



- The dashboard helps in singling out problems almost instantly

- Effectiveness of maintenance and operations

Diesel Generator

Fuel Level: 76%

Running Status: ON

Time	Event	Element
11:30:24	Tracked by CCTV034	Information Sent
11:31:02	Tracked by CCTV045	Information Sent
11:33:08	Visitor Access Control	Visitor R-000024
11:34:15	Tracked by CCTV065	Information Sent
11:34:16	Tracked by CCTV096	Information Sent

Access Control

CITY PROBLEMS

PROBLEMS HANDLED

Ref Id	People Visited	Time they came in
R-000025	Shyam Singh	10-11-2015 11:15:26
R-000026	Anko Haldar	10-11-2015 11:20:27
R-000028	Col Ravi Deb	10-11-2015 11:35:14
R-000029	Raj Purohit	10-11-2015 11:55:23
R-000030	Col Ravi Bedi	10-11-2015 12:15:18

EMR

UP/OT

OTHER

PWR

WTR

CCTV

ACC

BMB

ELVTR

LGHT

PRKG

- Status of alerts and escalations if need be can be checked back at any moment



All Organizations

- Welcome
- DC Rack
- CMDB
- Request Management
- Incident Management
- Problem Management
- Service Management
 - Overview
 - Customer contracts
 - Provider contracts
 - Service families
 - Services
 - Service subcategories
 - SLAs
 - SLTs
 - Delivery models
 - Request templates
 - Coverage Windows
 - Holiday Calendars
 - Holidays
- Change management
- Data administration
- Admin Tools
- System Conf

Service Level Targets

Total: 44 objects.

Pages: objects per page

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

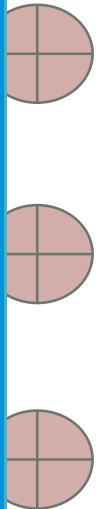
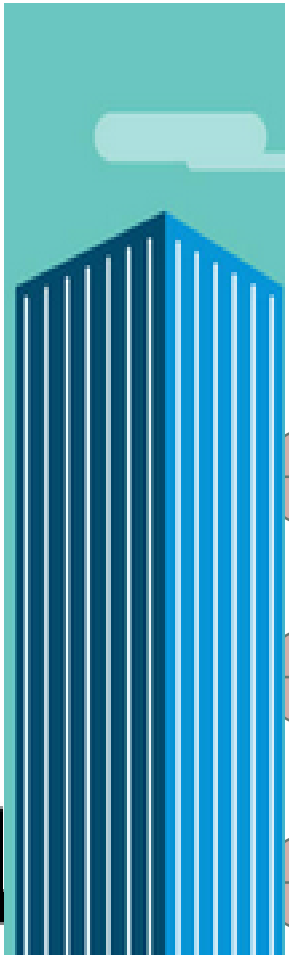




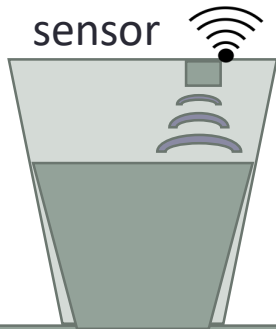
SOLID WASTE MANAGEMENT

Athenta Waste Management Solution

Building 1



Wireless based ultrasonic Level sensor



Athenta central
Aggregator in CCC

RTU

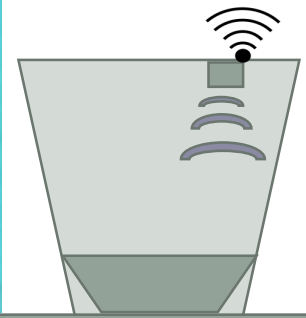


GSM based location tracking and receiving information through SMS about BIN garbage level

Building 2

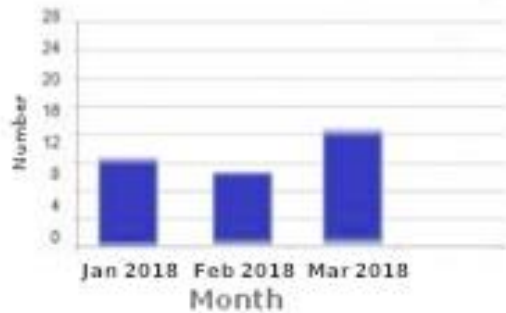


Wireless based ultrasonic level sensor

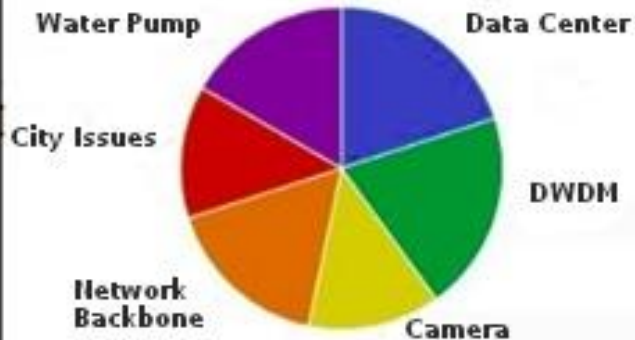




Accidents Alerts

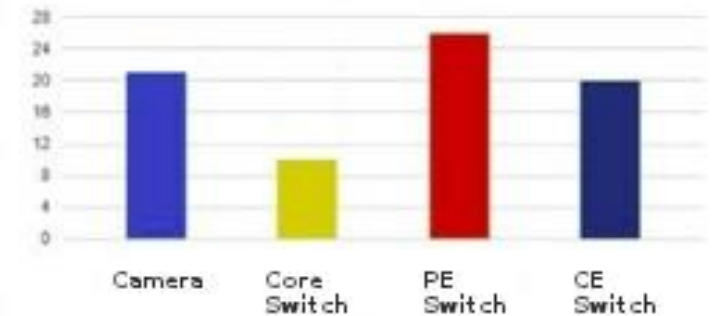


Issues in the City



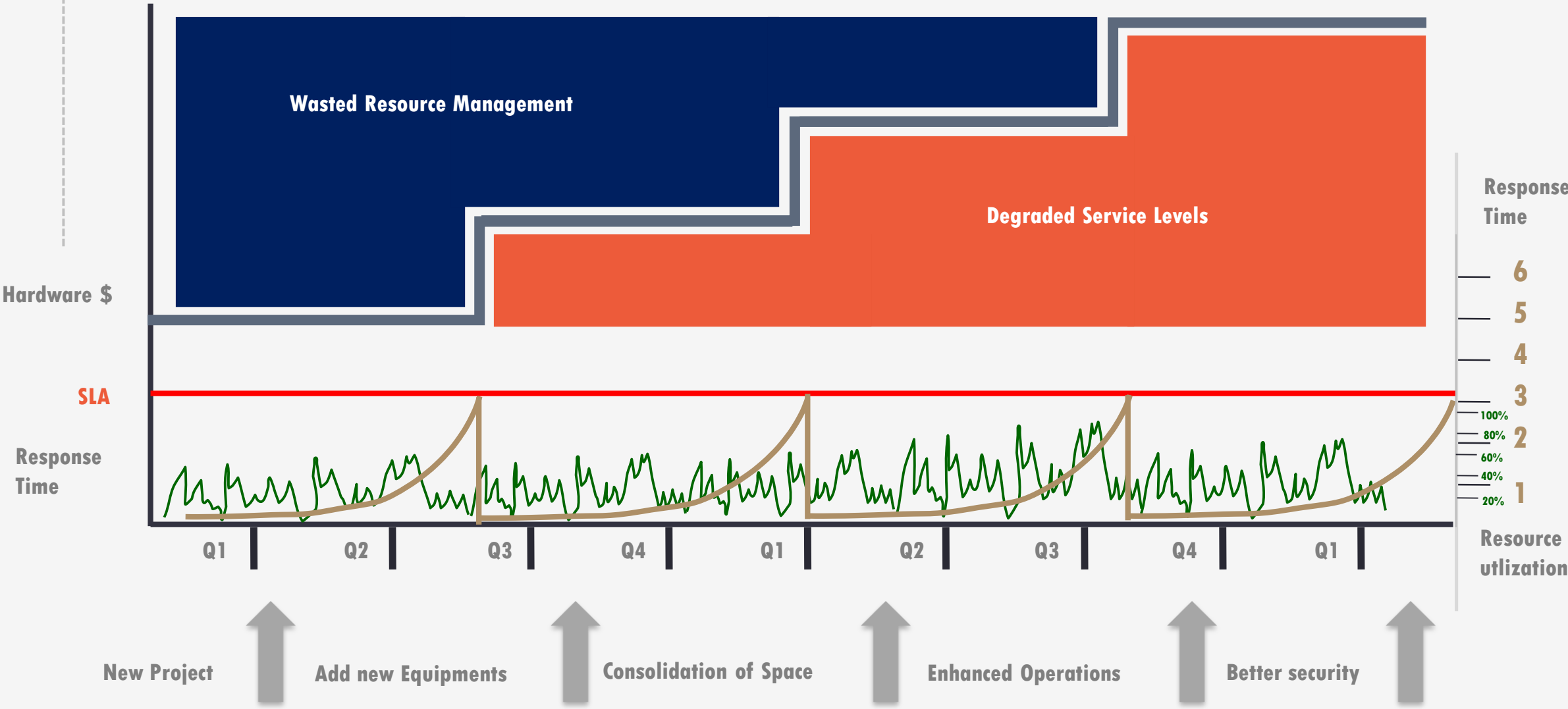
Location	City Network	Cameras	Fire At CCC
Zone 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Zone 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Zone 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Zone 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Incidents generated last month





Decrease in Opex while, Increase in Performance





THANKS FOR LISTENING