## **National Water and Sanitation Summit**



### 18 – 19 February 2022



# What if this was the last 🌒 ? "In the future WARS will be fought over WATER and NOT OIL." "Saving WATER is NOT an event buga EFESTYLE."



**Economy** 

People

**Mobility** 

Living

Governance

Environment

## **SMART CITY DIMENSIONS**

#### **Smart Economy**

Drive innovation through partnerships between businesses, creation of innovation teams, and involving research units and citizens;

#### **Smart People**

Co-create and utilise smart solutions through highly intellectual, highly qualified, innovative and willing residents of the city;

#### **Smart Governance**

Ensure transparency, and to improve citizens' involvement through improved governance systems and engaged stakeholders;

#### **Smart Mobility**

Ensure easy "mobility of people in cities – by developing clean public transport, technology-supported fuels and propulsion systems and citizens' proactive behaviour";

#### **Smart Environment**

Promote a sustainable and green economy, and efficient resource management;

#### Smart Living

Improve the citizens quality of life (such as cultural, educational and tourism events) and to provide a quality healthcare system.



**SMART CITY DRIVERS** Author : G Kolandaisami (CTO – Analog)

#### **Smart City Drivers**

- 1. Efficient service delivery
- 2. Improved citizens quality of life
- 3. Cost reduction
- 4. Sustainability
- 5. Attract foreign investment
- 6. Resource savings
- 7. Ease of use for millennials
- 8. Efficient citizen management
- 9. Infrastructure improvement
- 10. Spatial planning
- 11. Need for municipal departments interconnectedness
- 12. Economic competitiveness
- 13. Efficient municipal operations



#### **SMART CITY BARRIERS** Author : G Kolandaisami (CTO – Analog)





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Organisational barriers		Economic barriers		
1.	Municipal departments work in silos	1. T	The lack of funding	
2. 3.	Policy makers / leadership's unwillingness to see the intangible benefits of IT systems The lack of a smart city vision or mission statement	2. H 3. N n	High costs associated with smart city technologies / products Aunicipalities poor revenue generation capability / inability of nunicipalities to generate revenue	
4.	Smart city projects are identified as lower priority			
5.	ICT department is not seen as an enabler of service delivery			
Skills and Competency barriers		Governance barriers		
1.	Leadership's lack of understanding and connection to the smart city concept	1. C 2. F	Corruption Poor alignment between national, provincial, and local	
2.	Lack of smart city specific skills within the municipality	g	overnments	
3.	Lack of human capital with technology skills within the municipality	3. N ti	Aunicipal management / officials' unwillingness to be ransparent about spending	
4.	Technology readiness of senior management and executives	4. L	Lengthy supply chain processes for agile (fast moving) echnologies	
		5. N	Aismanagement in municipal supply chain processes	



#### **SMART CITY BARRIERS** Author : G Kolandaisami (CTO – Analog)

Socio-economic barriers		Technological barriers			
1.	Lack of infrastructure / ageing infrastructure	1.	Lack of integration between systems		
2.	High income inequality	2.	Multiple competing systems		
3.	Theft of resources	3.	Lack of access to data		
4.	High unemployment levels	4.	Slow uptake of technology		
5.	Lack of access to basic services	5.	Inconsistent data		
6.	Poverty				
Pol	Political barriers		Socio-cultural barriers		
1.	Lack of political buy-in	1.	Citizens unwillingness to pay for municipal services		
2.	Lack of continuity due to constant change of	2.	Vandalism		
	administration and the five year tenure of officials	3.	Citizens resistance to change		
Psy	Psychological barriers		I agal and athical harriars		
1	Leaders resistance to change	1	Municipal Finance Management Act (MFMA)		
1.		1.	regulations and legislations		
2.	Municipal staff's fear of losing their job				



#### **DBRB FRAMEWORK** Author : G Kolandaisami (CTO – Analog)





### **PUBLIC SECTOR GOALS**

- Effectively manage non-revenue water (NRW) through quicker response to bursts and leaks.
- Improve service delivery by empowering the workforce
- Provide timeous an accurate feedback to citizens Batho Pele
- Effective decision support tools for the executive and senior management
- > Effectively and efficiently plan across all internal and external departments
- Effectively manage and control operations (online dashboard and customised reports)
- Monitor water tankers, TLBs, etc.



### **PUBLIC SECTOR GOALS**

- > Efficiently manage overtime
- Integrated asset maintenance and bulk infrastructure management
- Job costing (integration with stores material management)
- Efficiently and effectively manage field staff
- Receive management reports direct from the system (without manipulation of data)
- Technical System Integration (Smart Meters, SCADA, Telemetry, Vehicle tracking and billing system)
- Escalation of jobs as per customer charter (Customer SLA's)



#### SERVICE DELIVERY CHALLENGES

- Service Delivery Citizen Satisfaction
- Excessive Overtime costs / Workforce productivity
- AG Compliance / Good Corporate Governance
- Integrated Planning across Departments
- Real-time and Effective Management decision making tools due to disparate systems
- Driving Efficiency and Productivity

Infrastructure Management – Business intelligence data



#### SERVICE DELIVERY CHALLENGES





#### HIGH-LEVEL GOALS AND SD CHALLENGES



## ANALOG HOW TECHNOLOGY ADDRESSES





#### **TECHNOLOGY OVERVIEW**

- > Holistic Integrated Service Delivery Management
  - Customer Care
  - End- to-End Operations Management
  - Workforce efficiency and productivity
- Provides a single view of incidents
- Facilitates communication between the municipality and other stakeholders.
- Executive Management and Decision-Support Tool
- Smart Data Analytics
  - > Real-Time Monitoring
  - Business Intelligence







#### Citizen engagement tool – Integrated customer care system

- CitiConnect (Voice, Email, SMS, Social Media)
- Mobile app citizen app

#### Real-time Service Delivery & Operations Monitoring tool

- End-to-End holistic operations management tool across departments
- Improves efficiency and productivity through real-time collaboration

#### Executive Decision Support Tool

- Business Intelligence Smart Analytics
- Management Dashboard real-time operations

#### AG Compliance

- Business Analysis Standardised Business Processes
- Standard Operating Procedures



#### **CITI-OS ENTERPRISE SUITE**





#### **DATA ANALYTICS**









#### Customisable for each Municipality

ANALOG Simplifying the digital world

## CitiZen App – Menu







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Application Menu

## ANALOG CitiZen App – Account Balance

Account 1 - 50156474	·
Your account balance is <b>R747,69</b> .	
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## ANALOG SMART CITY – BUILDING BLOCKS





### **TECHNOLOGY BENEFITS**

- Find the optimum balance between customer care, operations and maintenance and decision support
- Ensure Good Corporate Governance and AG compliance
- Effectively and Efficiently drives Service Delivery
- Effective Management planning via real-time info sharing
- Empower workforce improves staff efficiency and productivity
- > Quicker response to customer queries enhances citizen satisfaction.



#### **COST SAVING MODEL**





#### CUSTOMER CASE STUDY – UGU DISTRICT MUNICIPALITY





#### UGU DISTRICT MUNICIPALITY CONTROL ROOM



## What can we as citizens do?

- Take an active interest in the governance and management of your city.
- Advocate for the kind of city you believe you need.
- Develop a vision for your building, street, and neighborhood, and act on that vision.
  - What's the water quality like?
  - The better the conditions you create in your community, the greater the effect on quality of life.



#### **THANK YOU**

#### Logan Reddy

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