



دبي الذكية
SMART DUBAI

لحياة أسعد HAPPY LIVING



كلية محمد بن راشد
للإدارة الحكومية
MOHAMMED BIN RASHID
SCHOOL OF GOVERNMENT



Dubai Smart Cities Forum Series

Session 4: Enabling Smart Services
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Key Themes:

Smart Cities, Big Data, the Internet of Things, Digital Infrastructure, Collaboration between Government Departments.

Introduction:

Dubai is in the process of investing heavily in technology to enhance its infrastructure. This is part of the city's ongoing effort to be at the forefront of an approach - shared by many cities globally - to use technology to help it transition into a 'smart' city.

This was the fourth installment of the 'Dubai Smart Cities Forum', a series of ongoing events hosted by the Mohammed bin Rashid School of Government, that serve as a platform for a host of institutions (ranging from private sector vendors to government entities) to discuss the most pertinent issues regarding the current 'smart' city movement.

This session, titled 'Enabling Smart Services' aimed to discuss the importance of developing a strong digital infrastructure, which, in turn, provides a solid foundation upon which citizen-centric smart services can be based. A holistic approach needs to be taken in order to develop this infrastructure. To do so, a range of government departments are making a sustained effort to collaborate with one another so that Dubai can evolve into one of the 'smartest' cities in the world.

Presentations:

1. INTRODUCTION TO SESSION: DR BASSEM YOUNES

Dr Bassem Younes opened the day's proceedings by stating the overall intentions of the Dubai Smart Cities Forum and by providing an overview of the three events in this series that preceded this one.

Dr Bassem stated that Dubai's Smart City approach should consist of four central 'pillars': 1. 'Leadership', 2. 'Readiness', 3.

'Smart phone usage', and 4. 'Availability of Infrastructure.' Further, it should also take into account the following six 'dimensions': 1. 'Transport', 2. 'Communication', 3. 'Infrastructure', 4. 'Electricity', 5. 'Economic Services', and 6. 'Urban Planning'.

The first three sessions focused on the relevance of 'Smart Cities', the emergence of 'Big Data', and the 'Internet of Things' respectively. This session was centered on how to facilitate an environment which would enable all of these components to successfully gel with one another. The key to this is to build a solid foundation, in particular, having a strong digital infrastructure.

2. SMARTEST CITY, HAPPIEST PEOPLE: OSMAN SULTAN (DU)

The key purpose that the digital infrastructure for a smart city should serve is to provide a platform that 'enables services'.

Contrary to common belief, discussions about 'enabling services' should not focus solely on technology; they should be discussions about developing a 'multi-service system'. This is dependent on there being a political willingness to fully embrace smart cities. This is not a problem as it aligns perfectly with the government's aim to make Dubai one of the leaders in implementing smart city technology, and with HH Sheikh Mohammed Bin Rashid Al Maktoum's vision "to make Dubai the happiest city on earth."

Once this willingness is recognized, it is fundamental to establish a governmental body that can work specifically towards translating this vision into reality. In Dubai, this has taken shape in the form of the Higher Committee for Dubai Smart City. This entity looks at how technology can be used to enhance issues like the economy, governance, quality of life, mobility and sustainability.

Dubai has already made significant progress in its efforts to be 'smart'. This is evidenced by

Session 4: Enabling Smart Services

the presence of multiple 'smart applications' that citizens can use to interact directly with government departments such as the RTA, DEWA and Dubai Police. In order to progress into becoming one of the smartest cities in the world in the future, Dubai needs to embrace a holistic Smart City infrastructure. Such an infrastructure should take into account the following steps:

1. Connectivity Infrastructure
2. Digital Master Planning
3. Digital Infrastructure
4. Smart Departments
5. Data
6. Governance
7. Operations
8. Enabling Applications and Services

Implementing this infrastructure will not be easy as it will require multiple entities – consisting of both private vendors and government departments – to collaborate with one another. However, Dubai has taken the necessary steps to enable an environment that encourages this collaboration.

Ultimately, it is important to acknowledge that governance should play a significant role in securing Dubai's status as one of the smartest cities in the world, as it is central to the smart city conversation.

3. ENABLING SMART CITIES: SCOTT CAIN AND PETER REYNOLDS (CATAPULT)

Enabling smart services is vital to enabling a smart city. It is useful to look at successfully developing these services by considering the following approach:

1. Having the Necessary Vision

Having the necessary vision is vital to setting up the right infrastructure for smart city development. Central to this, is to make sure that smart cities are adequately modelled.

This modelling can take shape using the following tools:

- Dashboards
- 3D Visualization
- City Models
- Multi-System Simulators

2. Enabling Services

Enabling services is all about bringing services together. This is best illustrated by looking at the concept of a 'Digital ID', an initiative that was recently introduced in the UK: Having a digital ID does not have to mean having a single provider. What it does is provide a service which allows an individual to be connected to multiple providers by using one easy, well-structured system. This kind of service would require a good degree of 'data orchestration': the automated arrangement, coordination, and management of complex computer systems, middleware, and services. This is an example of the kind of services that Dubai needs to provide which should underpin the City's digital infrastructure.

3. Security

A city that incorporates computing and communications intelligence unfortunately presents potential attackers with many new opportunities. It is vital that considerable attention is paid towards cyber security to minimize the risk of this happening.

4. Delivering Services

Establishing a set of services that are based on an underpinning map should, in theory, make it very easy and cost effective to enable services that will genuinely improve the quality of living of citizens.

Policy Recommendations

The following policy recommendations have been derived from the key themes discussed during the Fourth Dubai Smart Cities Forum. They serve to further inform entities in both the private and public sectors that wish to actively contribute towards Dubai's 'smart' city goals:

- 1. Making Digital Infrastructure Development a Priority:** It is vital that time and financial resources are invested into adequately developing a city's digital infrastructure as it acts as a foundation upon which smart services can be produced.
- 2. Further Collaboration Amongst Government Entities:** Government entities in Dubai have already adapted to collaborate with one another. However, greater levels of collaboration between government entities will allow for the production of more substantial smart services that can capitalize fully on multiple resources simultaneously.
- 3. Greater Private Public Interaction:** The government would benefit from the significant technological resources and insights that private sector vendors could provide toward developing the city's infrastructure.

Speakers

Dr Bassem Younes is the Director of Strategic Alliances and Business Development at the Mohammed Bin Rashid School of Government. He has an educational background in Civil Engineering, which consists of a PhD and DIC from Imperial College of London. Dr Younes has a wealth of experience in academia. He has contributed to several international academic events and publications.

Osman Sultan is the CEO of the Emirates Integrated Telecommunications Company PJSC (du). He has held this position since January 2006. Having joined the industry in 1983, he has held positions in sales, marketing, and customer services, as well as leadership roles in three of the world's largest telecommunications companies.

Scott Cain is Executive Director of Strategy, Business Development and Communications at the Future Cities Catapult. He developed the Technology 'Strategy Board's' investment case and led the £34.5m Future Cities Demonstrator programme. Previously, Scott co-founded and chaired Global Entrepreneurship Week and was CEO at Enterprise UK. Scott is also the founding partner of The Long Run Venture.

Peter Reynolds is Executive Director of Innovation and the Cities Lab for the Future Cities Catapult. Previously, Peter worked as a Research Scientist at the Massachusetts Institute of Technology Sloan Centre for Information Systems and has held senior executive roles in industry including five years as CTO for the Commonwealth Bank of Australia.

About DSCF

The Dubai Smart Cities forum brings together industry experts and organization leaders to share expertise, discuss challenges, and review best practices as part of joint efforts towards realizing the Dubai Smart City Initiative. The sessions are designed to update government officials and decision makers with the latest developments in smart city projects.

About MBRSG

The Mohammed Bin Rashid School of Government is committed to promoting good governance through enhancing the region's capacity for effective public policy.

The School uses a four-pronged approach, which includes applied research in public policy and management, academic programs in public policy and administration, executive education programs and knowledge forums for scholars and policy makers.

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