THE SMART CITY OF THE FUTURE

Lusail City
CONTENTS

- Introduction
- Lusail Smart City Vision
- Lusail Master Plan
- Focus on Improved Sustainable Living
- Lusail Smart City Pillars
- Lusail Smart City – Fiber Optic Network
- Lusail Smart City Strategy
- Smart City Services & Systems
- Smart City Command and Control Centers
- Integrated Public Transport Strategy
- Sustainable Utilities
- Example of Smart Home Automation
- Smart Construction Management System
- Smart City Benefits (Qatar Vision 2030)
• Lusail City extends across an area of 38 square kms and includes four exclusive islands and 19 multi-purpose residential, mixed use, entertainment and commercial districts.

• The total estimated population of Lusail will eventually reach 450,000 people. The city also includes numerous residential units, office buildings of various sizes and 22 hotels with different international star ratings, making it an element of attraction for investment in Qatar.
The vision for Lusail City is to create a modern, smart and sustainable 21st Century City in the Gulf Region, a destination of choice for visitors, residents and businesses. It will be a regional and international example for the cultural and natural qualities of Qatar and the Gulf Region.
Lusail City: Current Master plan

Districts:
- Commercial Boulevard District.
- The Commercial Waterfront District.
- Waterfront residential.
- Northern Villas District.
- Education / Hospital District.
- Boulevard Towers.
- Entertainment District.
- Entertainment Island.
- Energy City 1&2.
- Golf District.
- Fox hills
- Marina District.
- Qetaifan Islands.
- Al Khareej Towers.
- Media City (Future Development)
- Al Erkya District.
Lusail Smart City Pillars

- Smart Construction
- Smart Operation
- Smart People
- Smart Economy
- Smart Environment
- Smart Mobility
- Smart Living
- Smart Governance
Lusail Smart City will use a common network infrastructure to integrate various Services and systems and control them from a Command and Control Center.
THE SMART CITY SYSTEMS
# Lusail’s Smart City: Smart City Services & Systems

<table>
<thead>
<tr>
<th>Telecom Services</th>
<th>Non-Telecom Services</th>
<th>Value Added Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Residential Services</strong></td>
<td><strong>Intelligent Traffic System (ITS)</strong></td>
<td>Smart Home</td>
</tr>
<tr>
<td>Fixed (Triple Play)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile (2/3/4G)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Public Car Parks</strong></td>
<td><strong>Real-Time Traffic Signal Control</strong></td>
<td>Smart Education</td>
</tr>
<tr>
<td>Car Park Management</td>
<td><strong>Public Car Parks</strong></td>
<td>Smart Health</td>
</tr>
<tr>
<td>Car Park Guidance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility Tunnel Management</td>
<td><strong>Waste Management</strong> (Includes PWC system and CDM)</td>
<td>Event Technologies</td>
</tr>
<tr>
<td>Waste Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Management</strong></td>
<td><strong>Climate Management</strong> (IR, FS, PW &amp; SW)</td>
<td>Building Management Systems (BMS)</td>
</tr>
<tr>
<td>Smart Grid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Metering</td>
<td><strong>Gas Distribution Network</strong></td>
<td>Digital Advertising Signage</td>
</tr>
<tr>
<td>Cooling Management (DC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Distribution Network</td>
<td><strong>Street Lighting &amp; Landscape Lighting</strong></td>
<td>ICT services for Hospitality</td>
</tr>
<tr>
<td>Street Lighting &amp; Landscape Lighting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nightscape Control</td>
<td><strong>Water Features</strong></td>
<td>Smart Card</td>
</tr>
<tr>
<td>Water Features</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Address</td>
<td><strong>Video Surveillance (MOI)</strong></td>
<td>City information for Resident &amp; Visitor(Portal/App)</td>
</tr>
<tr>
<td>Video Surveillance (MOI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Road Tunnel Management</td>
<td><strong>Wi-Fi hotspot access in public, business, restaurant etc</strong></td>
<td></td>
</tr>
<tr>
<td>Irrigation Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LCCC</strong></td>
<td><strong>Data Communication – Business point</strong></td>
<td></td>
</tr>
<tr>
<td>Integrated ICT Platform</td>
<td><strong>IPTV or Fiber TV channels to home or Business Entertainment related services</strong></td>
<td></td>
</tr>
<tr>
<td>Asset Management</td>
<td><strong>Access Control</strong></td>
<td></td>
</tr>
<tr>
<td>Data Management System</td>
<td><strong>Access Control</strong></td>
<td></td>
</tr>
<tr>
<td>Real-Time Field Maintenance Support System</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intelligent Traffic System (ITS)</strong>(Information System)</td>
<td><strong>Data Centre</strong></td>
<td></td>
</tr>
<tr>
<td>Traffic Information System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Rail Transport Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buses &amp; Water Taxi Information System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Digital Signage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video Surveillance (Commercial/ Residential)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Control (Commercial/ Residential)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marina Management &amp; Security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Detection &amp; Fighting Integrated QCD/Fire Stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SMART CITY
LUSAIL COMMAND & CONTROL CENTER (LCCC)
WHERE EVERYTHING COMES TOGETHER.....
VIP UTILITY TUNNEL ACCESS BUILDING AND COMMAND & CONTROL CENTER (DISASTER RECOVERY CONTROL CENTER)
Integrated Public Transport Strategy

- Integrated with Future Highway Network Development
- Introduce & promote Public transportation systems
  - Bus
  - Train
  - Water Taxi
  - Pedestrian Network
  - Bicycle ways
Underground Station Design
Lusail City: Sustainable Utilities

District Cooling, Pneumatic Waste Collection and Gas Network
Example of Smart Home Automation

- **Moods**: eHome can create your entertainment atmosphere
- **Curtains**: eHome can open your curtain
- **CAM**: eHome gives you access to cameras over the internet
- **Security**: eHome can link to your security system
- **HVAC**: eHome can turn on/off your heating, ventilation and air conditioning
- **Garage**: eHome can open your garage
- **Sprinklers**: eHome can water your garden
- **Lighting**: eHome can create lighting effects
- **Shutters**: eHome can close your shutters
- **Appliances**: eHome can time clock your appliances
Lusail City: Smart Construction Management System

- Smart Construction Management System includes:
  - Geographical Information System
  - Schedule Management
  - Building Information Modeling
  - Impact Analysis
  - Guidelines for all types of buildings
  - Building the city Digitally First
  - Clash detection
  - Design Coordination
Smart City Benefits

• Reduced City operation and maintenance costs (economy of scale)

• Inline with Qatar’s 2030 National vision, Kyoto protocol (signed by Qatar Dec 2012) regarding the reduction of the carbon footprint

• Reputation and branding - World wide recognition for the City

• Facilitates and saves times on daily tasks with integrated technology

• By 2030, Qatar aims to be an advanced society capable of sustaining its development and providing a high standard of living for all of its people
Thank You