Smarter Nation

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Smarter Nation

Touches all aspects of life

E-Government  Safe City  Hospital  Factory  Community  Enterprise  Education  Transport

Smart Applications connected by National Broadband Network

10%↑ ICT penetration rate

GDP 1.3%  +  Productivity 5 - 10%  +  Employment rate 2 - 3%  +  Innovation efficiency 15%  +  Pollution emission 5%

Source: Impact of broadband on the economy, ITU
How to make Smarter and Elastic?

Smart Nation likes a Body

A Smarter Nation consists of multiple agencies & enterprises who collect & share information to make informed decisions and ensure the citizens are informed and aware.
Smart Nation TOP-DOWN Design

Connection: Sensors, Networks, Cloud Data Center
Connecting everything

Integration: Collect, Categories, Integration.

Open: Deploy new application any time anywhere
Smart Nation Logical Infrastructure

Smart Data Collection

Smart Decision Making

Geographic
Entity
Population
Economical

Transport
E-Govern
Industry
Energy
Others

Education
Apps
Others

Health
Logistics
Safety

Job

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Security, Make Smart Nation Possible

Smart City

PROCESS SECURITY

TECHNOLOGY SECURITY

ORGNAZITION SECURITY

Security Management
- Professional Security Assessment
- Emergency Response System
- Risk Management System

Information Security System
- Communication security
  - Encrypted Communication
  - Encrypted Transmission
- Anti Intrusion of Core Facility
  - Defense against Advance Threat
  - Datacenter Security
- Network Information Management
  - Information Collection
  - Bigdata Security Analysis

Security Ability
- Security Defensive Ability
- Personnel Safety awareness
- Electronic forensics
Operation and Management Center

- Environment Protection
- Emergency Response
- Transportation Management
- Intelligent Surveillance
- ICT Systems Operation
- Logistic Management
Safe City: Manage the uncertain threats

Before the incident
Smart Sensing
Omni Protection
- Video Prevention
- Intelligent Early Warning

During the incident
Smart Decision-Making
Rapid Response
- Multi-Agency Collaboration
- Empower the Field

After the incident
Smart Clue Analysing
Efficient Case-Solving
- Multi-dimensional intelligence
- Intelligent Analysis

Flood
Law case/Riot
Fire disaster
Traffic Disaster
Border clash

Safe city
Disaster warning
Safe special area

Command center (CAD+GIS+CCTV)
Telepresence collaboration (Video conference +CCTV)
Case Video Analysis (HD videos +Business intelligent)

Wired & Wireless
1st Visible Trunking
Cloud Data Center
Big Data Platform

Law case/Riot
Border clash

1st Visible Trunking
Cloud Data Center
Big Data Platform
E-ID: One Card for Everything

Information Query
Identity Check
Population Manager
Others
Strategic Analysis
Web service for Data Sharing
E-ID
CPU
Identity verification
Self-clearance & Self check-in
Real-name registration
Social welfare
Content:
- Information Query
- Identity Check
- Population Manager
- Others
- Strategic Analysis
- Web service for Data Sharing
- E-ID
- CPU
- Identity verification
- Self-clearance & Self check-in
- Real-name registration
- Social welfare

Applications:
- Citizen
- e-School
- e-Hospital
- e-Bank
- e-Hotel
- e-Business
- e-Government
- e-Traffic
- e-Communication & amusement

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LEADING NEW ICT

HUAWEI
Smart Education: High Quality, Available for Everyone

Sharing
Sharing all advanced resources all over the country

Innovation
transform from traditional teaching process to interactive teaching

Collaboration
Improve learning efficiency

1 Basic Infrastructure
- Agile Campus Network Solution
- School Interconnection Network Solution
- Safe Campus Solution

2 Cloud platform
- Resource Sharing platform
  - Digital Library
  - Online Learning
- Education Management platform
  - e-Management

3 Smart classroom
- Interactive Teaching Solution
- Telepresence Live Classroom
- Solar integrated Classroom

Scenes
- Live Classroom
- Remote Classroom
- Interactive Classroom
- Multi-Media Classroom

LMS Cloud
- Resource Cloud
- Collaboration Cloud

Internet

School 1 School n Home Training Center

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Public WiFi Service for all the people

Network Structure
- Metro

Centralized Operation
- Captive Portal Pages
- Data Analysis
- Advertising Push

Application Servers
- RADIUS
- Billing
- Information
- Analysis

Wi-Fi Coverage
- Airport
- Public venue
- Retail
- Scenic spot
- Hotel

Application Servers
- AC

Network Structure
- AP

Wi-Fi Coverage
- AC
Smart healthcare: Better Service for Everyone

Regional Health

- HER Platform
- Medicine Management
- Telemedicine
- Primary Health
- Collaborative office
- Disease Network report
- Public Health Emergency Command

Regional Health Data Center

E-Hospital

- HIS/EMR
- LIS,PACS/RIS
- Mobile Health

Hospital Agile Campus Network

Commercial Broadband

Mobile Ambulance

Hospital 1

District Hospital

Health Center
Summary of Smart Nation

National Broadband Across the Nation connecting Everything

Sensing… Sea, Traffic, Lighting, Buildings, Environmental

Smart Nation Management

Smart Data Integration and Collaboration, for all the Applications

Utility
Police
Healthcare
Traffic
Education
Enterprises
Transport

Smart Applications Benefit to all People, Enterprises and Government Agencies

Summary of Smart Nation
Expectations for Smart Nation

On the Way

1. Key Applications, ICT Foundations
2. Collaborated APPs, Better Life
3. Complete Ecosystem, Sharing Experience

Ecosystem

Applications

Data Platform

ICT Infrastructure

People

Government

Enterprise

Connection Indicator

2016  2020  2025  2030
9%    47%    78%    92%

Key Applications:
- Smart Education
- Smart Tourism

Collaborated APPs:
- E-ID
- Safe Nation
- Mobil Office
- E-Government

Complete Ecosystem:
- Smart Healthcare
- Social Security
- Smart Transportation
- Smart Electricity

Connection Indicator:
- mobil office
- safe nation
- e-government
Huawei Smart City serve 400M people in 100+ cities across 30+ countries.
THANK YOU
Trinidad and Tobago – Emergency Command Project

**Huawei Solution**

- **Comprehensive** emergency management platform and integrate all the current emergent system to bring smart;
- **Streamline** cases management, advanced crisis management workflow, quick response.
- **Visualize command**, iMax command system, decision-making assistant;
- **Unified communication** system, integrating mobile phone, fixed phone, existing trunking system, easy communication, high efficiency
- **Mobile command** centers for special cases in case of big disasters or need command on site
- **Mobile application** for site policeman to reduce workload and increase efficiency
Colombia ITS: PPP Mode, authorize FCM to build and Operate for all small and medium municipalities over the country

- Authorization from Gov.: To FCM for nation wide S&M municipalities for traffic management, Traffic Violation Penalty is the key
- Politic Appeal: Rule driving behavior, relieve traffic congestion, reduce traffic accidents and pollution
- Introduce operators for JVC thru bidding process
  - Review and correct violation
  - Capture violation on road
  - Violation complain and appeal
    Note: Violation ticket is final approved by TA
- Construction unified, Operation together: Create a new company, SmartCloud, for unified construction:
  - Rent facilities to SPVs

- Smart Cloud is an IT SaaS operator like entity
- Exclusive agreement with FCM
- Key control point to FCM directly for the project all over the country