Watchdata SIMachine (M2M Solution)

A Introduction to M2M

B Introduction to SIMachine™

C SIMachine™ Product Applications

For Security Reasons, Always Watchdata

Technology Evolution

~ 1950   ~ 1980   ~ 1995   ~ 1999

Internet of things

Mobile Communication network

Internet

Device	Network	Mobile Network	M2M
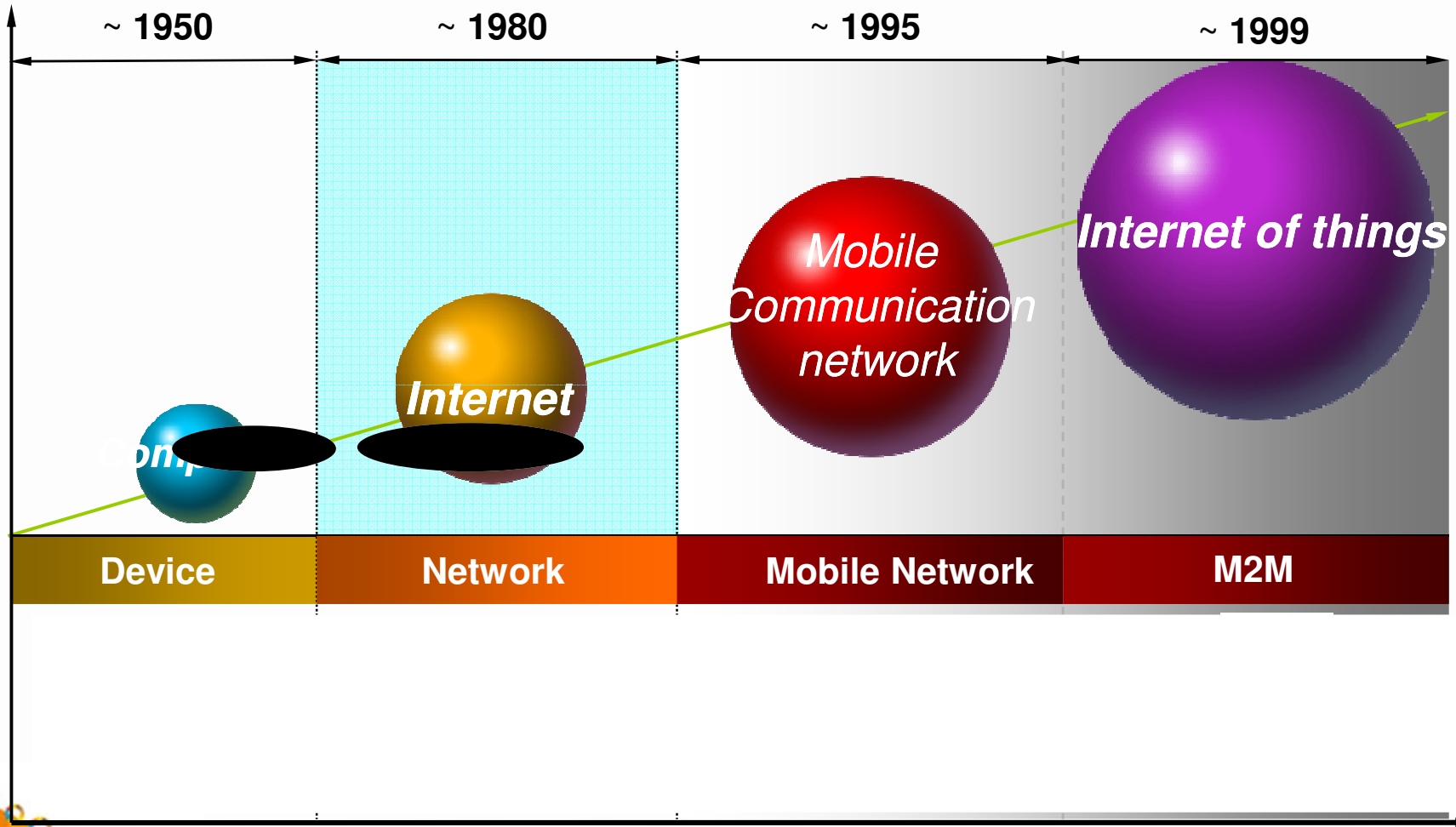
Internet of Things

Internet Of Things (IOT) refers to a huge network of sensors connecting everyday objects (RFID, Infrared, GPS, Laser scanner, etc….) for identification, security monitoring, control, data transfer.....
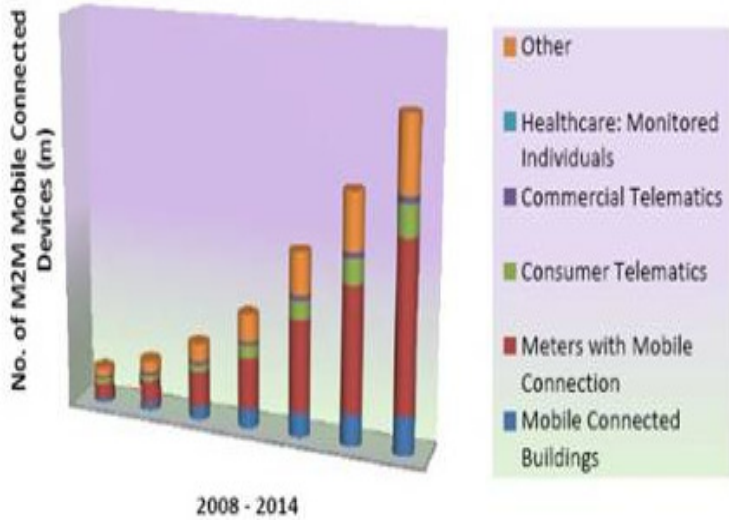
Smart cards projects can cater MILLION cards

Handsets projects can cater BILLION handsets

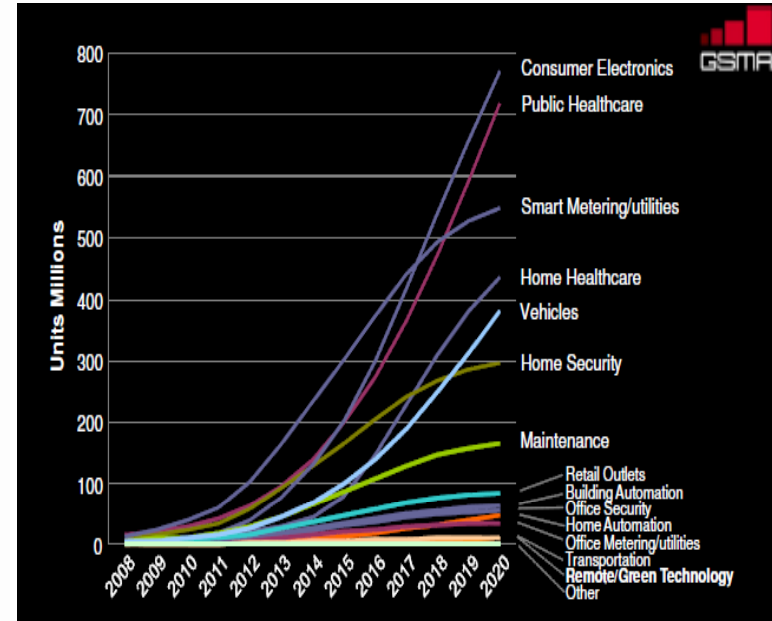IOT projects can cater 50 to 100 TRILLION objects

M2M stands for "machine to machine" communication, This system allows communications between two equipments without human intervention.

M2M - IOT Market evolution

No. of M2M Mobile Connected Devices (m)

- Other
- Healthcare: Monitored Individuals
- Commercial Telematics
- Consumer Telematics
- Meters with Mobile Connection
- Mobile Connected Buildings

2008 - 2014

Source: Juniper Research

It seems there is **NO LIMIT** in terms of :
- **Volume**
- **Revenue**
- All **industries** are concerned
- All **regions** will deploy

Domains of application

Automotive

City management

Electric power

Agriculture

Metering

Identification
Traffic signage
Alert
Stock control
Fleet management
Data collection
Control
Monitoring

Positioning
Quality control
Dispatching
Data collection
Monitoring
Security
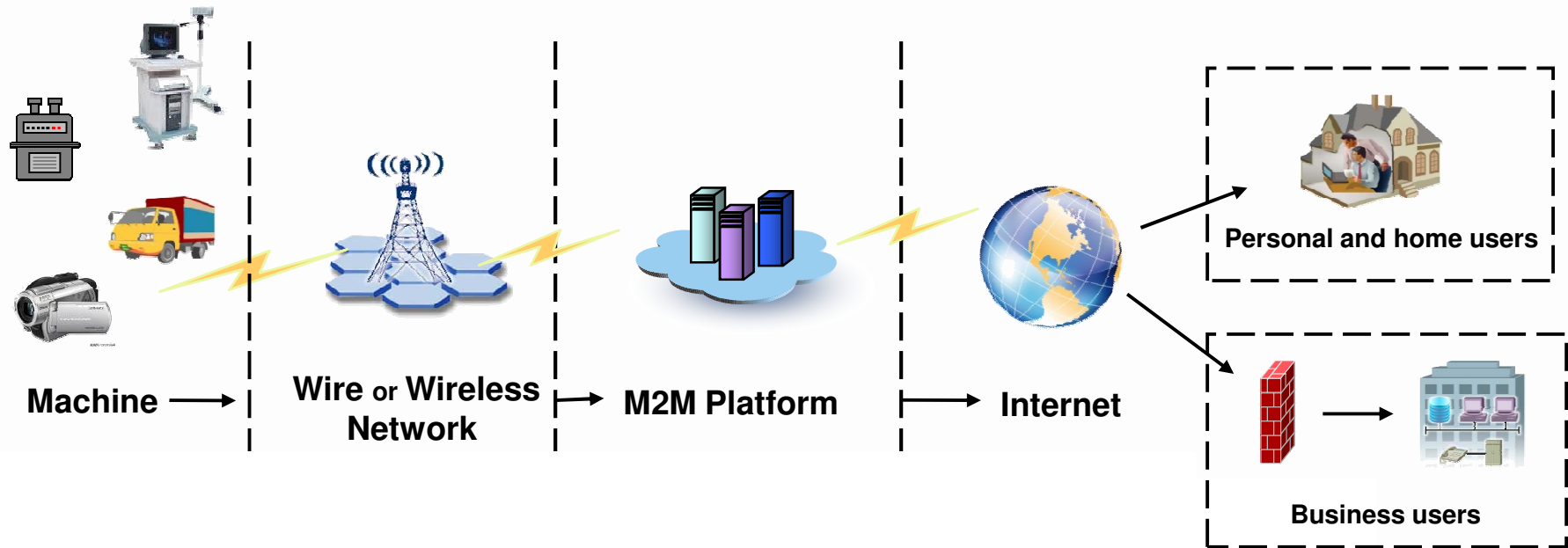Remote inspection
Flow rates control
Anti-cloning

Consumer electronics

Enterprises security

healthcare

Vending

Household

Building control

M2M Architecture (Value chain)

Machine → **Wire or Wireless Network** → **M2M Platform** → **Internet** → Personal and home users / Business users

This new market does not require new technologies.

- Miniaturization of devices, chips, sensors will be fully used
- It will use all existing networks (short distance - long distance)
- No need of "high speed" networks (data transfer only)

Key points to manage

- Administration of big volume of objects
- Real-time treatment
- **Security, reliability**

For Security Reasons, Always Watchdata

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Different form factors for different applications

Standard SIM
Normal package for
soft environment
Long Lifespan

Standard plug-in
with more robustness
Working temperature -40° / +105° C
500.000 write/erase cycles
humidity 85° C / 85%   1000 hours
Long Lifespan

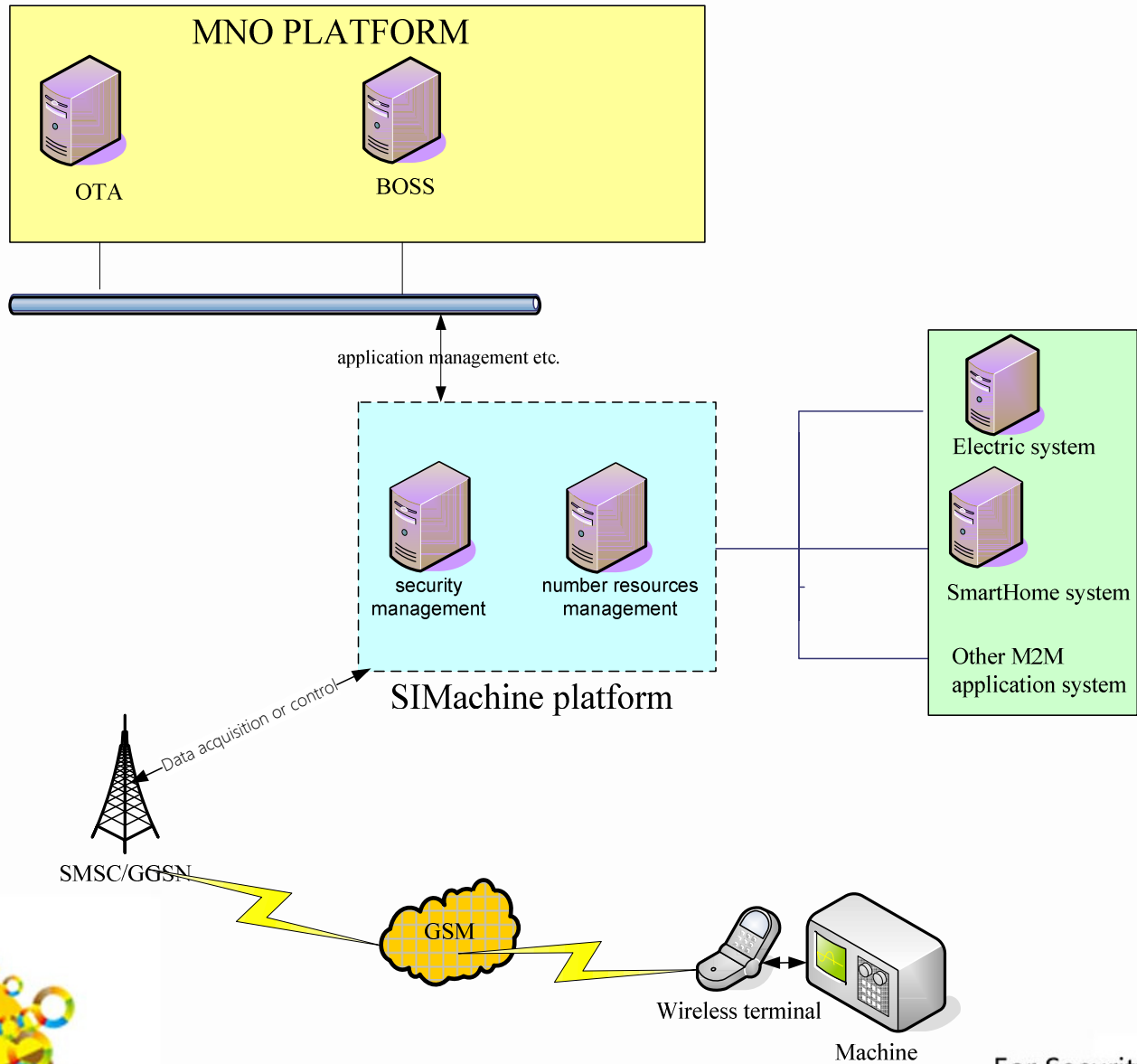**SIMachine "Standard"**

SIMachine "High"

Three Offers

Semiconductor packaging
(such as QFN8)
Working temperature :- 40° C   +105° C
500.000 write/erase cycles
Humidity 85° C / 85%   1000 hours
vibrations 20Hz to 2000Hz
Long Lifespan
welded and impossible to take off

SIMachine "Full"

SIMachine Platform

MNO PLATFORM

OTA

BOSS

application management etc.

security management

number resources management

SIMachine platform

Electric system

SmartHome system

Other M2M application system

Data acquisition or control

SMSC/GGSN

GSM

Wireless terminal

Machine

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SIMachine Benefits

- Open unlimited opportunities
  of business
- Easy to implement
- New source of revenue

- Automatic data transmission
- Suppression of maintenance costs
- Greatly reducing labor costs
- Reduce transcription errors
- Improved work efficiency
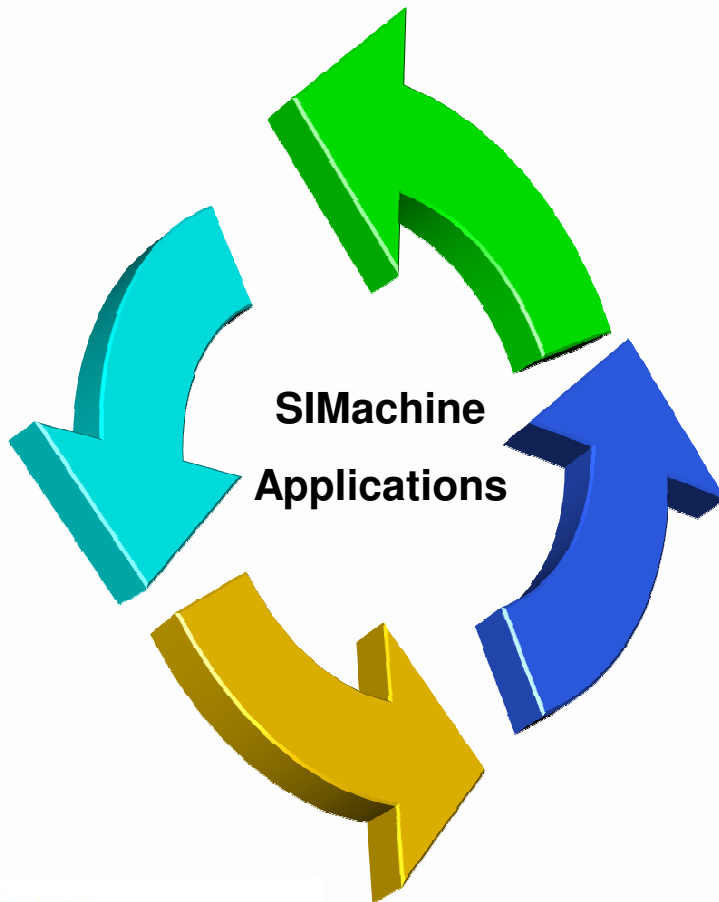- Increase security
- Robust

SIMachine Product applications

SIMachine

Applications

- **Electrical power meter**
  Successful deployment (3.6 million meters)
  High security ''Consumption Management''
  data collection, authentication, encryption, …

- **Car embedded applications**
  Successfully launched with :
  - China Unicom and the ROEWE 350
  - China Mobile with the NISSAN
  - China Telecom and the BMW
  Help desk, traffic management, stock market information, chat with friends, internet access, Weather condition, ….
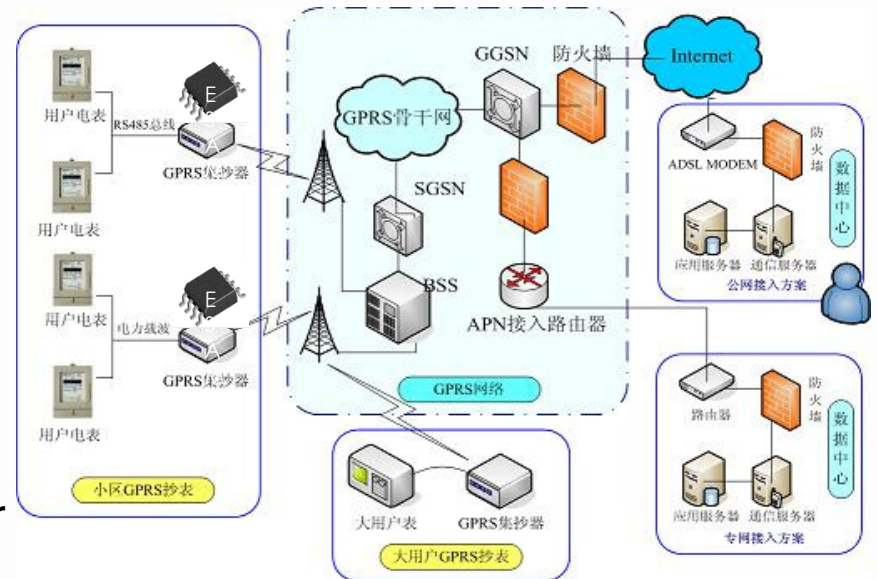
SIMachine.energy

The electricity/gas/water company no longer need to visit each household for reading of the electric meters.

SIMachine.vehicle

Help driver enjoy the 3G automobile telecommunication services.

SIMachine.map

- Locating

- Tracking

- Attendance management

Provides the location-based services by an applet in the SIM card, which can send location information to the service via SMS. We can check the location and tracking line on the server.

Thank you

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