

SIM in M2M

China Mobile
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Content



- SIM in M2M
- Variety of Embedded SIM
- **Embedded SIM management**
- Looking ahead

SIM usage in M2M applications











Tracking: GPS+LBS
Indoor location coverage
Outdoor data transmission

Smart MeteringData periodic upload

Wireless POS
Easy to carry, ubiquitous network access











TelematicsLocation、High-bandwidth data transmission (diagnostic, maintenance)

Video Session Video surveillance Video conference

Wearable Devices
Location data
transmission

Variety of Embedded SIM

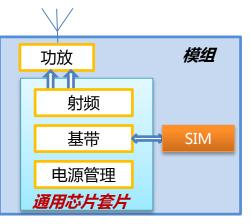




Surface Mount Technology SIM (MS0, MS1)



M2M dedicated module

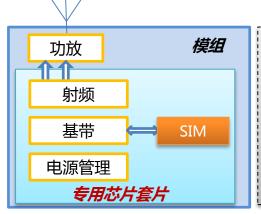


Unified Modem Module solution base on generic chipset:

Integrated SIM with Modem Module



M2M dedicated chipset





Special Chipset solution:

Integrate SIM with BBU chipset

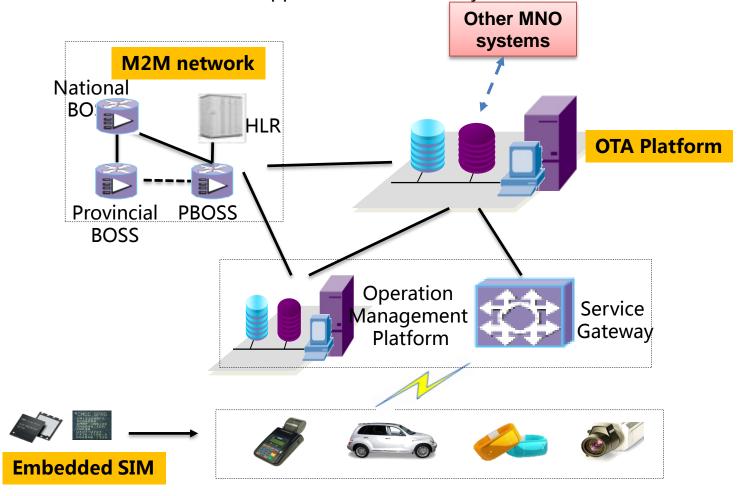
To meet the special requirement for M2M applications, highly integrated Embedded SIM with modem or chipset will increase SIM card adaptability and reduce the cost

Embedded SIM management



- China Mobile has built a dedicated M2M network, to provide selected network performance and communication service for M2M applications.
- > Build OTA remote provisioning platform for SIM card remote management: profile management, status inquiry, number modification, activation/cancellation

All SIM card used in M2M should support OTA functionality



Remote Provisioning OTA



Remote Provisioning Process

- Pre-configured a temporary # during manufacturing. Modify with local # subject to the sales and usage requirement, to release the permanent roaming pressure.
- When device ownership changes, remote provision with new # due to meet service requirement
- During empty card subscription, the sales office can unified the SIM card distribution & modification into one process, simplify the SIM card type and reduce the multiple order cost incurred.

> Remote Provisioning management

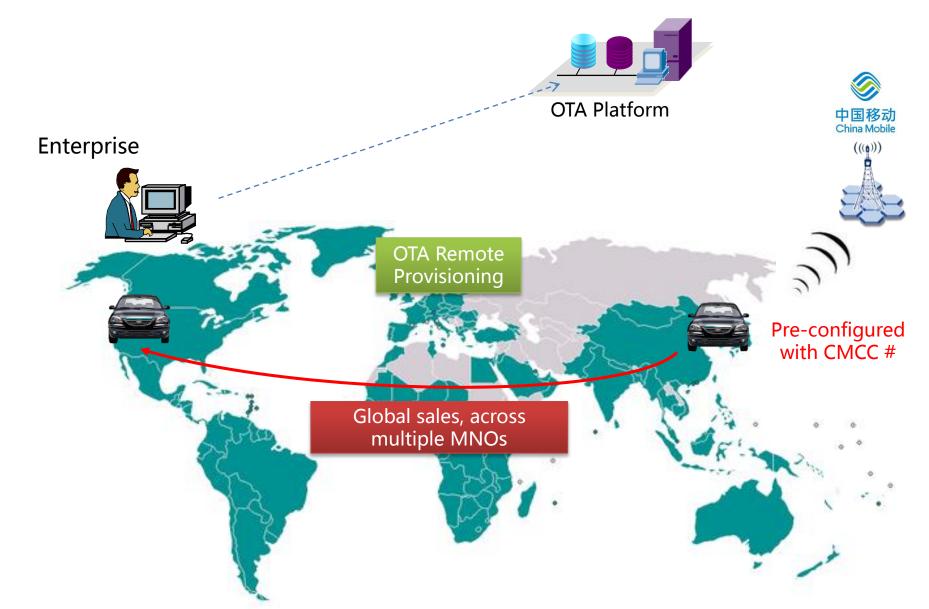
- Status inquiry before/after the provisioning
- When shut down, periodically check network attachment status of the equipment,
 will auto trigger the OTA process once power on and attach to the network
- If provision failed, synchronize the status between SIM card and backend system, resume and update network side status.

Looking Ahead (1)

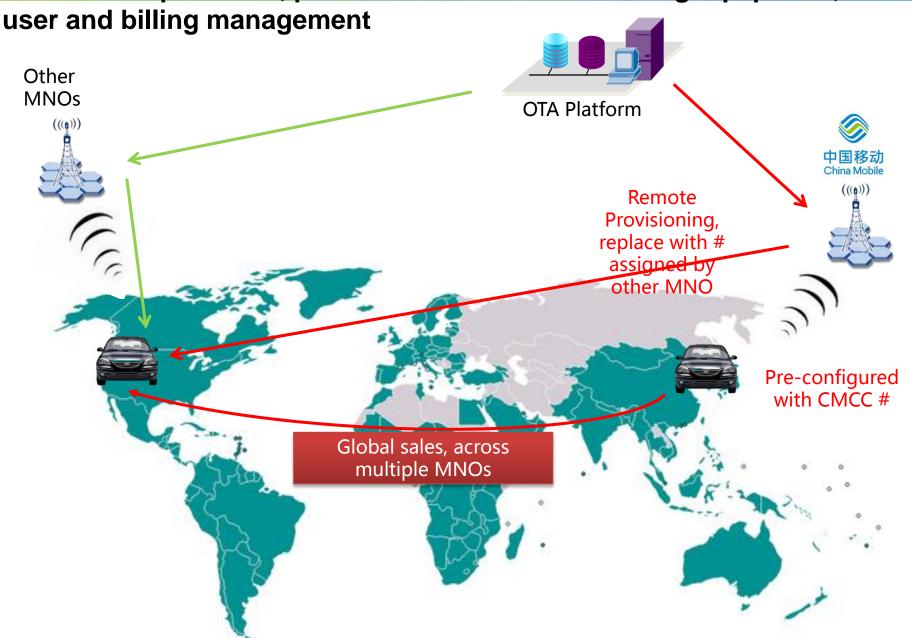


- > Support GSMA eSIM architecture and technical specification
- Open remote provisioning and operation management system capabilities, Support remote provisioning across operators. Provide device management solution for enterprise customers.
- Provide profile management and remote provisioning for those CMCC issued SIM card for M2M applications.

Support inter-operability across Operators to meet international pusiness requirement, provide total solution including equipment, user and billing management



Support inter-operability across Operators to meet international 中国移动business requirement, provide total solution including equipment,



Looking Ahead (2)



 Base on network subscriber identify, extend SIM card functionality into – unified and integrated identity carrier

Subscriber identity and authentication

Equipment authentication

Group authentication

Multiple application carrier



Thank You!

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