China Telecom Provides Boost to mHealth Industry

China Telecommunications Corporation
Contents

- China Telecom’s exploration in mHealth
- China Telecom supports the development of mHealth industry
China Telecom has participated fully in the construction of healthcare IT facilities

- It has participated in the construction of healthcare IT facilities since 2009, involving the overall solutions ranging from network to applications;
- Its 31 provincial subsidiaries all have set up digital healthcare teams, responsible for promoting healthcare IT projects; specialized support teams have been established by the specialized companies within China Telecom to provide supports in product development and other IT-related aspects.
Oriented to level 2 and 3 hospitals, the in-hospital information systems have been moved to mobile terminals such as handsets and PDA via mobile Internet, providing the hospital officials and doctors with support in access to healthcare information, planning and performing medical tasks.

Effectively enhanced hospitals’ efficiency, reduced the probability of medical incidents and improved management efficiency.

✔ Has covered 20 provinces, serving 68,000 physician users.
Exploration in mHealth - Public health-oriented wireless community applications

- **Door-to-door medical services\real-time collection of visit data**
  - with 3G terminals, users can inquire about residents’ health information and acquire related visit data in a real-time manner

- **Strengthen regulation over community services, gradually improve service standardization**
  - extract management data from community health service data, using real-time data to reflect the performance of service management

- **Enhance the scientificalness and timeliness of policymaking**
  - Data inquiries performed on wireless terminals can enable the community administrators to make timely and accurate decision and analysis, diversifying their management tools

- **2800 GP doctors serving community healthcare centers in 4 provinces**
Exploration in mHealth - Administration department-oriented supervision and law enforcement applications

Realized management of health supervision license, health certificate, supervision charges, health supervision & law enforcement, weekly work reports and systems

Health supervision and law enforcement

With China Telecom’s network resources and technology advantages, an array of flexible and diversified IT solutions on internal management and mobile law enforcement and supervision has been provided through integrating SMS, MMS, 3G enterprise access and other IT products.

Health Administration

Law enforcement inquiries
Law enforcement entry
On-site evidence collecting
On-site file printing

On-site law enforcement officers
In-house office staff
CDMA/EVDO

Health supervision platform

Internet

Municipal health authorities
Remote health management systems are deployed on the basis of cloud computing

7*24 hours of feedback, health guidance, advices, reminders, health reports on individual physical signs (such as ECG, blood pressure, blood sugar, etc.)
Exploration in mHealth – Esurfing Yixintong (an healthcare information platform)

With Esurfing Yixintong products, patients can access to a variety of hospital services on their mobile phones, which include guide to medical treatment and clinic, consultation, appointments, personal files, and health management; hospital can use this platform to track the service processes and improve patient satisfaction.

Needs of patients
- Appointment & registration
- Cases & medication records
- Info about departments and doctors

Needs of medical institutions
- Service process tracking
- Patient satisfaction survey
- Information release
Exploration in mHealth - Community health private cloud applications based on cloud computing

**Application environment**
- Build a unified HIS medical union platform for small and medium-sized hospitals;
- These hospitals access the platform via CDMA VPDN or dedicated fixed lines;
- SOA architecture is adopted, and community hospital applications are deployed according to their needs.

**Features**
- The cloud data center has integrated shared IT management needs, providing unified interfaces for clinical practice IT facilities;
- Electronic service processes of small and medium-sized hospitals, such as outpatient registration, pricing/charging, drug dispensing, drug storage, pharmacy and inquiries from the management, can be realized with low costs and threshold;
- Systems are able to run stably on a 7 days per week and 24 hours a day basis; some counter services (for example, clinic pricing/charging, drug dispensing, etc.) are required to be operating in a uninterrupted, real-time manner;
- Bundled with carrier-grade service system, these applications are able to provide quality services featured fast run, security isolation and low-cost maintenance;
- Cloud computing resources are deployed with flexibility, and the platform is scalable.
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Brief Introduction of China Telecom

- Being a large state-owned communication enterprise, the company has a registered capital of 158 billion RMB. The revenue in 2012 was 283.073 billion Yuan with a growth rate of 15.5% and a profit of 14.9 billion.
- As an integrated information service provider, it has 170.19 million mobile subscribers, 94.15 million fixed line broadband users and 161.03 million fixed line users.
- There are 31 provincial branches, one overseas branch and many R&D institutions as well as ICT subsidiaries.
- Being the holding company of two listed companies abroad: China Telecom Corporation Limited (listed in HK and New York), China Communications Service Corporation Limited (listed in HK).

China Telecommunications Corporation

China Telecom Co. Ltd.

China Communications Service Co. Ltd.

Branches and share holding companies

- Beijing Research Institute
- Shanghai Research Institute
- Guangzhou Research Institute
- China Satcom Guomai Communications Co., Ltd.
- Best Tone Information Service Co., Ltd.
- China Telecom System Integration Co., Ltd.

Provincial branches

Overseas branches

Prefecture or city-level branches

Prefecture or city-level branches

Professional subsidiaries

Professional subsidiaries
The Advantages of China Telecom in Providing Support to mHealth Industry

- China Telecom has established an integrated communication network which can provide space, over-the-air and terrestrial services, boasting a comprehensive communication transmission network which is all-inclusive, high rate, reliable and can offer big capacity service via multiple means. The network is mainly composed of fiber cable and 3G mobile network supplemented by satellite and data microwave service.
The Advantages of China Telecom’s Nationwide Service System

The industry solution team of China Telecom
Customize integrated solution for the industries, targeting at their segmented markets

Virtual service team

County-level government and enterprise service department of China Telecom
Local one-to-one service

Prefecture-level government and enterprise service department of China Telecom
Cross-county service

Provincial-level government and enterprise service department of China Telecom
Cross-city customer service for government and enterprises

One contact point for all services
Thirty thousand customer managers
Three layers
One platform

Horizontal: Service team composed of provincial and city-level customer managers and local network managers
Vertical: customer manager, technical manager, product manager, service operation manager (project coordination), background engineering and maintenance staff all participated in the provision of overall support
Security Guarantee System of China Telecom for Mobile Medical Service

- CDMA network which serves the military radio communication
- Private carrier network for corporate customers-CN2
- Wireless VPDN which passed national security verification
- Radio encryption solution which complies with national security encryption standard and has been verified by practical applications.
- End-to-end security encryption
- Network system
- Carrier network
- Network security
- Application safety

Security protection in the application layer, CA authentication, authorization control and security policies.

Wireless VPDN which passed national security verification

Radio encryption solution which complies with national security encryption standard and has been verified by practical applications.
China Telecom Forges an Open Platform which Attracts the Elites of the Industry

Unify the management of service and contents, while shielding the ground layer network by means of its capacity in telecom services

Realize three unifications: unify service access, service portal and authentication billing

Set up partner management, billing interface and authentication interface

Unify O&M and provide dedicated network management.

Improve service quality by complementing the advantages of one with those of the others, cooperation and integration of the industrial chain
Thanks!