

An Overview of the Public Security Industry

Wanding Mao

wmao@cisco.com

01065267777 ext 5034

Agenda

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- 1. Organizational Setup**
- 2. Public Security Operations and Police Affairs Reform**
- 3. The Current State of Information Communications**
- 4. Golden Shield Project**
- 5. Challenges for the Industry**

Ministry of Public Security (MPS)

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Bureau 1 (Bureau of *Internal Security Protection); Bureau 2 (Economic Crime Investigation Department); Bureau 3 (Bureau of Security Management); Bureau 4 (**Bureau of Border Authority**); Bureau 5 (Bureau of Criminal Investigation); Bureau 6 (**Bureau of Exit and Entry Administration**); Bureau 7 (**Bureau of Fire Fighting**); Bureau 8 (Bureau of Security Guard); Bureau 9 (Bureau of Security Guard for General Office of CCCCP^[1]); Bureau 10 (**PSB ^[2] for Ministry of Railways**); Bureau 11 (**Bureau of Public Information Network Security Supervision**); Bureau 12 (**Bureau of Operation Technologies**); Bureau 13 (Bureau of Prison Administration); Bureau 14 (**PSB for Ministry of Transport**); Bureau 15 (PSB for Civil Aviation Administration); Bureau 16 (**PSB for State Forestry Administration**); Bureau 17 (**Bureau of Traffic Administration**); Bureau 18 (Bureau of Legal Affairs); Bureau 19 (Bureau of Foreign Affairs); Bureau 20 (Bureau of Equipment & Finance); Bureau 21 (Narcotics Control Bureau); Bureau 22 (Bureau of Science & Technology); Bureau 23 (Bureau of Information Communications); Bureau 24 (**Bureau of Smuggling Crime Investigation**); Bureau 26

The MPS has agencies at the bureau level such as the **General Office, Police Supervision, Personnel Training, Propaganda, *Internal Security Protection, Economic Crime Investigation, Security Management, Border Authority, Criminal Investigation, Exit and Entry Administration, Fire Fighting, Security Guard, Public Information Network Security Supervision, Prison Administration, Traffic Administration, Legal Affairs, Foreign Affairs, Equipment & Finance, Narcotics Control, Science & Technology, and Information Communications.**

PSB's for Ministry of Railways, Ministry of Transport, Civil Aviation Administration, State Forestry Administration, and Bureau of Smuggling Crime Investigation belong to the system of MPS. They are subject to dual leadership of the relevant authority and MPS.

Beijing Municipal Public Security Bureau

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1. Criminal Investigation Department (CID)
 2. Fire Fighting Department
 3. Domestic Security Department
 4. Public Order Department
 5. Population Management Division
 6. Operation Technology Division
 7. Technology Protection Office
 8. Cultural Protection Division
 9. Patrol Department
 10. Public Transportation District Bureau
 11. Security Guard Department
 12. Security Protection Division
 13. Domestic Safety Department
 14. Exit & Entry Administration
 15. Economic Crime Investigation Department
 16. Security Inspection and Explosive Ordnance Disposal Division
 17. Traffic Management
 18. Regulation Division
 19. Bureau Agency Compound
 20. Information Center
 21. Surveillance Center
 22. Command Center
 23. Ankang Hospital
 24. Public Security Hospital
 25. Police Academy
 26. Second Police Academy
- Special Police Division under CID
CID: reconstructed upon original Criminal Investigation Division, Pre-Trial Division, and Special Police Division

Beijing Traffic Management Bureau (BTMB)

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Subject to the Beijing Municipal Public Security Bureau

22 Operational Divisions and Police Stations

Traffic Management Branches and Divisions in 18 districts and counties, Beijing Capital International Airport, and Yizhuang Special Economic Development Zone

Beijing Fire Fighting Bureau (BFFB)

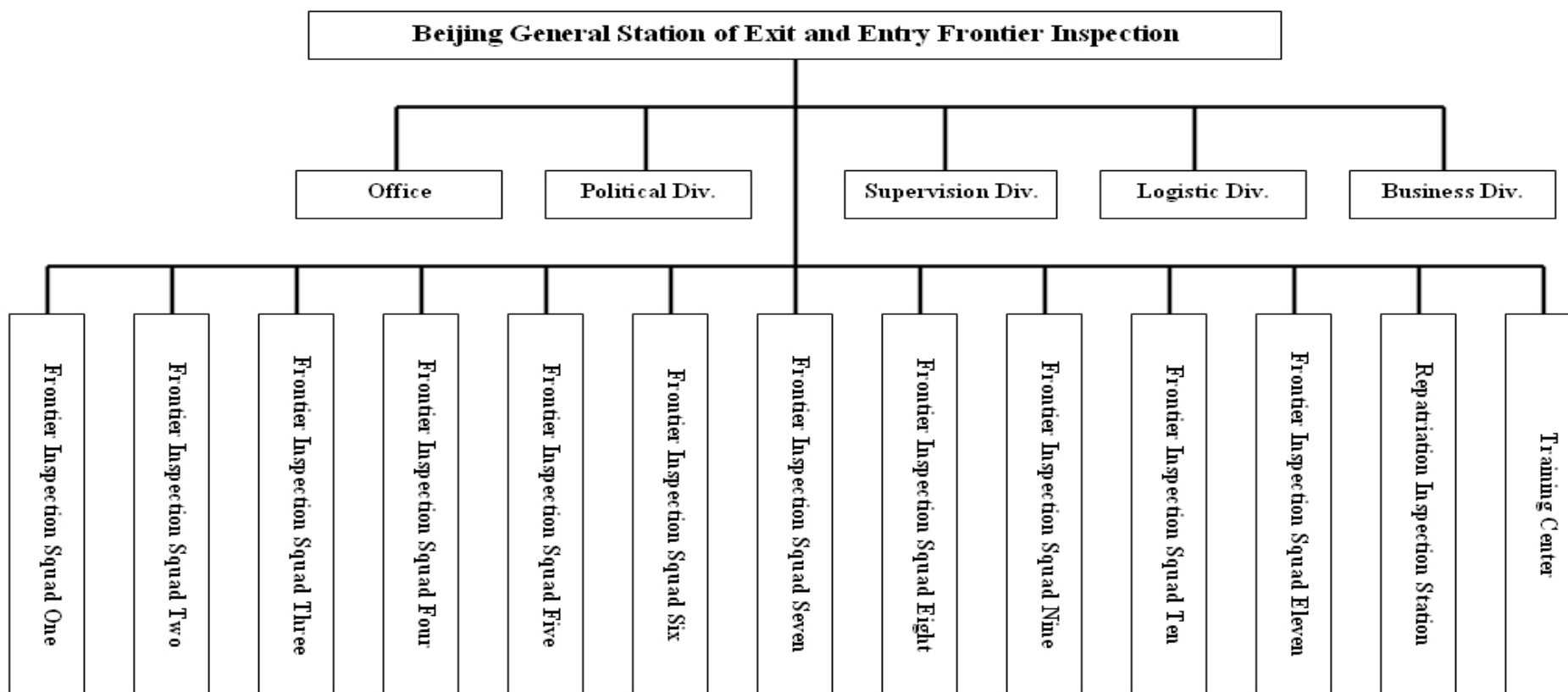
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**Beijing Municipal Fire Fighting Bureau
Beijing Municipal General Fire Fighting Division under
the People's Armed Police
Beijing Municipal Public Security General Fire Fighting
Division**

**Command Center, Political Division, Logistic Division,
and Fire Prevention Division under BFFB
29 Operational Offices, 3 Units under Direct Jurisdiction
of BFFB
Including Training Group, Hospital, and Training Center
(not formally established yet)
44 Squadrons across the City**

Beijing General Station of Exit and Entry Frontier Inspection (BGSEEFI)

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In May 1988, Beijing Municipal Frontier Inspection Station (BMFIS) and Border Defense Department (BDD) under Beijing Municipal Public Security Bureau (BMPSB) merged into one integrated bureau/station agency. Internally, it is called the BDD of BMPSB, to the outside, it is called BMFIS.

On January 1, 1998, BGSEEFI was established according to the *State Council's Review on Reform Plan for Professional Border Inspection of Nine Cities incl. Beijing*. The predecessor of BGSEEFI, currently under vertical leadership from **Bureau of Exit and Entry Administration under MPS**, is BDD of BMPSB.

Tianjin Coastal General Armed Police Force for Public Security and Border Defense

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**Zhanggui Village, Tanggu, Nanjiang, and
Donggang Frontier Inspection Stations
Marine Police Division
Training Group
Border Defense Division**

Starting from 1998, the work of Border Defense Corps has switched from border inspection to strikes on smuggling, illegal arms trading, drug trafficking, and other cross-border criminal activities.

All Units

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Basic Level Public Security Organizations

Police Station, Criminal Police Squadron, Police Offices, Fire Squadron
Traffic Police Group, Vehicle Administration, Police Patrol, Security Civil Police, Urban Security & Protection Team, Rural Security & Defense group, Security and Safety Inspection Station, Border Inspection Station

Police Station (PS): Public Security PS/Household Registration PS (with a function of public Security)/Border Defense PS (population, public security)
Community Police Affairs: Community Police, Security Police, Service Police
Police Station: 30,000 with **2500** in Jiangsu Province

Border Defense Corps, Squadrons, Border Defense Inspection Stations, Border Defense Office, and Border Defense Police Station.

Corps (Fire Fighting, Traffic Police, Police Patrol, Criminal Police, Security, Anti-Drug, Economic Crime Investigation, Operation Technology)/Divisions/Groups or Squadrons
Detention Center, Detention House (**1-6 months**), Public Security Detention Center, Drug Rehabilitation Center, reeducation center, Ankang Hospital

Judicial: Prison (**0.5 – 20 years**), Labor Camp (**1-3 years**)
Civil: Penitentiary

Specialized Public Security Forces

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- **Railway**
- **Transport**
- **Civil Aviation**
- **Forestry**
- **Bureau of Smuggling Crime Investigation**

Political and Judicial Committee (PJC)

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- Political and Judicial Committee (Comprehensive Management Office, Population Control Office, Office for Combating Smuggling, Anti-Drug Office)
- Agencies of Public Security, Procuratorate, Court, Justice, and State Security
- PJC oversees five judicial units include Court, Procuratorate, Public Security Bureau, Bureau of Justice, and Bureau of Civil Affairs
- Public Security Bureau, Procuratorate, Court, Justice, State Security, and Armed Police

Special Police Forces of Public Security

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1. Public Security Police
2. Household Registration Police
3. Criminal Police
4. Traffic Police
5. Foreign Affairs Police
6. Economic Criminal Investigation Police
7. Anti-Drug Police
8. Internet Police
9. Anti-riot Police
10. Judicial Police
11. Prison Police

1. Armed Police
2. Border Defense Police
3. Fire Fighting Police
4. Security Guard Police
5. Railway Police
6. Anti-smuggling Police
7. Air Transport Police
8. Civil Aviation Police
9. Forestry Police

1. Special Police
2. Marine Police
3. Traffic & Patrol Police
4. Air Force Police

Three Categories/Eight Forces within the People's Armed Police (PAP)

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Category One *Internal Security Protection Forces: Under Direct Leadership of the Headquarters of the PAP

14 mobile divisions: 8610、8620、8630、8640、8650、8660、8670、8680、8690、8710、8720、8730、8740、8750部队。

Category Two, under dual leadership of relevant State Council agencies and Headquarters of the PAP

Golden Mine Forces, Water and Electricity Forces, Transportation Forces, and Forestry Forces

Category Three, under the leadership of Public Security agencies

Border Defense Forces: Management of Border Defense Bureau, Border Inspection & Patrol, and Combating Marine Smuggling

Fire Fighting Forces: Management of Fire Fighting Bureau, Fire Prevention and Fire Fighting

Security Guard Forces: Management of Security Guard Bureau, Safeguard Key Central and Provincial Party and State Leaders, and Important Foreign Visitors

Overview of the Country's Civil Police

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1.6 million Civil Police, **0.1086%** of Total Population,
Compared with a ratio of **0.0035%** for Developed Countries

Police Station: **380,000**

Traffic Police: **200,000+ 1.2 TP per highway kilometer**

Criminal Police: **150,000**

Fire Fighting Police (Armed Police): 120,000

Riot Squadron of Patrol Police: **80,000** 110 Suppress Riots
or Carry Out Patrol Tasks

Communication Police: **160,000**

Confidential Agents: **10,000**

Guangdong Province: **120,000** Jiangsu Province: 70,000

Beijing: 30,000

Overview of the Country's Civil Police

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Over the past **20** years, more than **6,000** civil police sacrificed their lives on duty, and more than **100,000** were injured.

“Bloodshed every minute, sacrifice everyday”

Our frontline civil police averages an 11-15 hour workday

In **2001**, 450+ civil police sacrificed their lives, while in the entire year of 2001, in Japan only 2 policemen died in the line of duty.

Of the 458 deaths in 2001,
148 or 33.4% died while on duty,
68 died from violent attacks;
204 or 46% died from traffic accidents;
38 died while carrying out investigations or arrests.

China's People's Police has the smallest relative staff size, lowest salary, and heaviest workload.

Opportunities for Cisco: Network Tier 1, 2, 3, 4

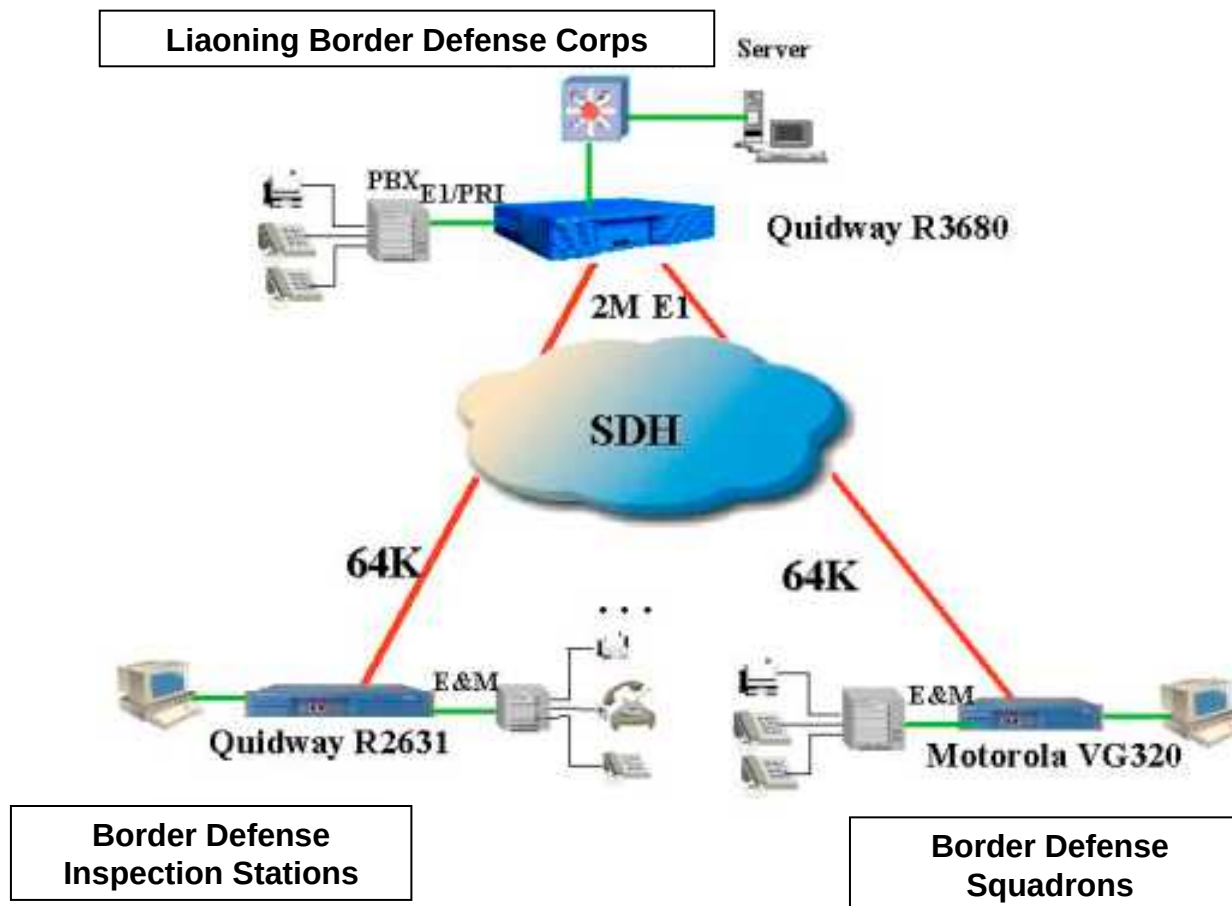
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- **Traffic Administration**
- **Fire Fighting**
- **Border Defense**
- **Political and Judicial Network**

Border Defense of Liaoning Province

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Liaoning Border Defense Network Chart



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Public Security Operations

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1. **Public Security Management**
2. **Household Registration Management**
3. **Traffic Management**
4. **Legal Affairs**
5. **Economic Crime Investigation**
6. **Criminal Investigation**
7. **Border Defense Management**
8. **Fire Fighting Management**
9. **110 Police Patrol**
10. **Combating Drugs**
11. **Police Supervision**
12. **Anti-smuggling Police**
13. **External Affairs Management**
14. **Security of Science & Technology**
15. **Border Exit and Entry**
16. **Complaints and Petitions**
17. **Internet Surveillance**

Jia Chunwang, Nov. 20

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- Place Maintaining **Stability** as the Top Priority
Further Improve and Strengthen the Work of Internal Security Protection
- Uphold the Principle of **Striking Hard**
Solidly Improve the Capacity and Standard of Striking Against Illegal Activities
- Stress the Construction of **Social Safety Defense and Control System**
Organically Integrate **Hard Strike, Hard Management, Hard Prevention, and Hard Punishment**
- Further Reform and Strengthen **Public Security Administrative Management**
- Abide by the Principle of Simplicity, Unity, and Efficiency
Reform the **Public Security Management System and Police Affairs Security Mechanism**
- Building up of the Party in the Public Security Agencies and **building up of the Public Security Forces**

Four Guidelines for Police Affairs

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- **Build up the Police Force Politically**
- **Govern the Police Force by Law**
- **Strengthen the Police Force with Science & Technology: Information, Crimes, Actions**
- **Educate the Police Force with Culture**

Features of Public Security Operations: Law Enforcement Goals

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- **Unified Command**
- **Rapid Response**
- **Coordinated Operations**

Three Major Strategies of Police Stations

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- **A Strategy of Information**
- **A Strategy of Community Policing**
- **A Strategy of Standardization**

Model Public Security Units

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- **Jinan Traffic Police: The Standard for the National Public Security Industry**
“Enforces the law rigorously, provides service enthusiastically”
– Jiang Zemin
- **Zhangzhou 110:**
Alarm Command Scheduling System
- **Benxi Municipal PSB**
Internal Reform, Improve the Quality and Combat Effectiveness of the Police Force

**The Fifth Traffic and Patrol Police Squadron of Yangpu District was
Awarded “Xiao Yuquan Squadron” by the Shanghai PSB
Love and Respect the Job, the Heart for the People**

Police Affairs Reform

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- 1. Criminal Investigation**
- 2. Traffic & Patrol Police**
- 3. Reform Administrative Management**
- 4. Promote Community Policing**

Criminal Investigation Reform

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On June 9, 2007, MPS convened a national working meeting on criminal investigation in Shijiazhuang City, Hebei Province. A major decision was made to launch criminal investigation reform in the nationwide public security system.

**Based on Criminal Police Squadron
Unify Investigation and Trial
Responsibility System for Investigation and Case Solving
New Working Mechanism for Combating Crimes
Information System on Criminal Investigation
Training of Criminal Police**

**Strengthen the Awareness of Science & Technology and
Actively Promote the Informationalization and Modernization
of Criminal Investigation**

Traffic and Patrol Police Reform

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In the past, each police force's operations were singular, resulting in redundant intermediate links in law enforcement and waste of police forces.

“Cut down Agencies, substantiate the basic level, improve efficiency, and multiply functions for a single police force.”

The emergence of new traffic & patrol police turned singular law enforcement to composite law enforcement and turned around a low efficiency situation.

**Shanghai City
Tieling, Liaoning Province**

Administrative Management Reform

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- **Transparent Police Affairs, “Sunshine Operation”**
- **Simplify Working Procedures**
- **Decrease Intermediate Links**
- **Shorten the Time Frame**
- **Improve Efficiency**

Four Police Affairs Revolutions

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Specialization: Symbol of the First Police Affairs Reform

Characterized by the Emergence of UK's London Metropolitan Police as a Profession in 1829

Professionalism: Key of the Second Police Affairs Reform

Characterized by the Professionalization of American Police at the end of 1900's and early 2000's.

Modern Equipment: Feature of the Third Police Affairs Reform

Characterized by modern equipment, rapid increase in the police force, and rapid response in U.S. and European nations from 1930's to 1970's

Community Police Affairs: Cornerstone of the Fourth Police Affairs Reform

The slogan of American Community Police "Let's Create Miracles Together" since the 1970's until now

Community Police Affairs: General Direction of World Police Affairs Reform

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1997 Suzhou, Shijiazhuang Conferences Promote
2002.3 Hongzhou PSB Police Station Conference Three Major Strategies
By the End of 2004 in Major and Medium Sized Cities
One Civil Policeman Responsible for 1,000 Households or 3,000 People
Implement “One Policeman for a District” or “Multiple Policemen for a District”
A Prevention Oriented Police Strategy Focusing on Eliminating the Root Cause

Goals:

Lower Case Occurrence, Good Order, Stable Society, and the Masses are Satisfied

Finally to Realize the Transition of Police Affairs
from the Mode of Strike to Prevention
from the Mode of Being Passive to Being Preemptive
from the Mode of Managing to Service Oriented

Luo Feng, Vice Minister of Public Security Nov. 25 Nanjing International Forum
In the future, MPS will further strengthen the reform of community police affairs.
Rely on the Community, Serve the Community, and Optimize the Deployment of Police Forces

Standardize the Operation of Police Affairs, Gradually Establish Operating Mechanism of Community Police Affairs Compatible with New Community Management System

All-weather Police Service

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- **Patrol Cars, Fixed Stations, Mobile Stations**
- **Point (Police Pavilion, Police Office)**
- **Line (Patrol Routes)**
- **Plane (Community)**

Opportunities for Cisco

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- **Grasp the Trend**
- **Industry Hot Spots**
- **Business Protection
(BW,QoS/security)**

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Current State of Information Systems: Telephone Cable Communication Network (1)

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Ministries Level: Siemens 350, Four E1 Relays and 150 E&M Relays, Satellite Circuit Telephone Network as a Backup Circuit

- **Tier One Network: 3-6 networks**
- **Tier Two Network: 1-4 networks**
- **Tier Three Network: 1-3 networks**
- **Long Distance Telephone, Tele-conference, Fax, Photo Fax, Encrypted Telegraph**

Current State of Information Systems: Telephone Cable Communication Network (2)

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**Mainly to rent Digital circuits from China Telecom
and (Military) General Staff Communication and
Economic Development Support Office**

**Some with Public Security Specialized Satellite
Channel**

Tier One Network: $N*2M$ ($1 \leq N \leq 3$)

Ministry Level Information Center: Two CISCO 7507

Current State of Information Systems: Confidential Communications (3)

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Public Security Ministry Encryption Working Leadership Office (**Office of Confidential Communication**)

All cities on or above prefectural level

All county levels other than Tibet

Tier 1 and 2 network: **strictly confidential fax**, encrypted telecommunication network

Tier 3 network: **confidential fax**, encrypted telecommunication network

Ministry and province (autonomous district and cities directly under central gov.) and two offices

Internal security, border security, border control, guards

Encrypted communication: lifeline, security- and command-lines

Millions of encrypted telegraphs and information per year

Current State of Information Systems: Wireless, Mobile Communications (4)

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Distributed mobile network: 30KM fixed link network emergency command network 100KM

Reserved frequency bands for public security:

VHF-D、S: 150 MHz band for network deployment

UHF-P: 360 MHz band for network deployment

UHF-E: 460 MHz for links; backup band for network deployment

UHF: 800 MHz band for network deployment

- Police basic frequency band: 150 MHz, severe interference from pagers, still used in small cities and rural areas

Remote areas: Shortwave network; Pager system: used by some units

- Police functional level frequency band: 360 MHz, used in guard, traffic, reconnaissance; limited use in networks
- Police automatic level frequency band: GA176 (improved from MPT-1327) 360MHz base station: 300+ base stations, 2000+ channels, 80K+ mobile equipment

Shanghai: TETRA digital cluster

CDPD, GPRS

Problem: mobile data transmission and network interconnection

Current State of Information Systems: Graphic Communications (5)

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Video Surveillance System:

Video Cameras in Beijing: 4000, in b/w: 16-way switch

Public Security: 500 Traffic police: 1000

Airport: 2000, West Train Station: 200, Beijing Railway Station: 200

One-core Optical Fiber, Eight-way Signal

Video / Telephone Conference System:

H.320 Manufactured by ZTE Corporation

**Using Public Security Satellite Communication and Transmission
Platform**

Shandong Province: VTEL H.320

Current State of Information Systems: Satellite Communications (6)

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**MPS, Ministry of State Security Joint Satellite
Communication Network:**

Ku Band

Transponder Bandwidth 27 M

Support 16k voice, 9.6k fax and Band Data

9.6-64k Point-to-point Data Transparent Transmission

Above 2M Broadcasting and Image Transmission

Current State of Information Systems: Microwave, Short Wave Communications (7)

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**Microwave Communication:
Guangdong: Ericsson 800M
Jiangsu / Henan: Harris 2G**

**Shortwave Communication:
Remote Mountain Area**

CURRENT STATE OF INFORMATION SYSTEMS. 110 Police Command Scheduling Communications (8)

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Police Alarm System Network:

110,119,122

Important Locations

Arranged in important spots

Urban Residential Areas

Command and Communications Dispatch System:

Wired, Wireless, Satellite, Computer etc.

Current State of Information Systems: Emergency Communications (9)

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Communication Support during Unexpected Tasks

Provisional Network (Wireless)

**Transponder Post, Mobile Communications
Vehicles (with GPS)**

**Automotive, Aviation and Shipping, to Establish
Combat Zone Command Posts**

Diversified Interface: E&M,E1,RJ11,RJ45,V.35

**Regular (150M), Cluster(360M),VSAT, Integrated
Communications**

Current State of Information Systems: Application System

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Level of use relatively higher in public security, criminal Investigation, traffic control and exit-entry administration.

Up until 2001:

Over 30K police stations use computers to manage population information

Close to 1.1 billion people registered on computer system

Information of .6 billion people in 255 cities searchable in police computer system

“On-line Chasing” in 1999 resulted in capture of 170 thousand wanted criminals

On exit-entry administration, all ports of border and registration points have been computerized in information management

On traffic control, 3000 vehicles and about 7000 drivers' information are on-line and searchable nationwide

Current State of Information Systems: Application System

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1. Foreign Information Management System
2. Taiwan Immigration Information Management System
3. Criminal Information Management System
4. Population Information Management System
5. Political Security Information Management System
6. Computerized Facial Composite System
7. Fire Statistical Information System
8. Traffic Accidents Information System

Current State of Information Systems: CCIC

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Crime Information Center
Three Levels: Ministry, Province and City
Stolen Autos
Criminals Wanted
Stolen or Lost Guns

Current State of Information Systems: Online Applications

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- **On-line Detecting of Fugitives**
- **On-line Anti-Human Trafficking**
- **Remote Fingerprint Comparison**
- **Ballistics Testing**
- **Face Recognition**
- **DNA Testing**

Opportunities for Cisco

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- **Compatibility**
- **Development**
- **Guarantee**

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National Public Security Working Meeting of Office Directors for “Golden Shield Project” (GSP)

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July 16

Jia Chunwang & Zhu Entao:

treat police information management as a **strategic** and **overall** project

Promote **high starting point** and **high quality requirement** for GSP

Strengthen high level technology **science and technology personnel team building** and

skill training of police information system application

(Li Runsen)

Industry Characteristics of public security: GSP

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- Unified Leadership, Unified Planning, Unified Standard and Implementation by Steps
- First Stage of the Project (2001-03), Second Stage of the Project (2004-05)
 1. **Special Efforts in “Implementation” and “Efficiency”**
 2. Priority should be given to foundational and basic level work
 3. Insist on **Innovation**

Application Is the Soul, Network Is the Base

Digitalization and Network Represent the Future Direction of Security Products

Industry Characteristics of Public Security: GSP

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- 1. Information network**
- 2. Application system**
- 3. Standard system**
- 4. Security system**
- 5. Operation management system**
- 6. Public internet information security surveillance system**

Golden Shield Project: Information network

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- **Stage 1: all public security bodies above prefectural level, 50% of county level and 10% at basic level (stations), and 40% basic level offices can get on line through dial-up**
- **Stage 2: 98% of public security bodies and 40% public security bodies on the basic level can get on-line through specialized lines, and 2% of public security bodies at the prefectural level and 60% basic level offices can get on line through dial-up**

Golden Shield Project: Application system

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- **Project Stage 1:**
 - Population Management Information System**
 - Criminal Information System**
 - Immigration Management Information System**
 - Surveillance Information system**
 - Traffic Information system**
 - Traffic Management Information System**
 - Anti-drug Information system**
 - Office Management Information system**
 - National Public Security Rapid Search Comprehensive Information System**
(including the National Crime Information Center CCIC)
 - The public security command center**
 - Mobil communication** command system
with gradual use of **mobile terminals**
 - Confidential video conference and coordination conference for major cases**
 - Remote public security business training and teaching system**
 - National Public Information Network Security Monitoring Center**
- **Project Stage 2:** other business applications for public security,
and realize information sharing for public security organs' nationwide operations

Golden Shield Project: Standardized system

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- **Coding standard for terminology and words**
- **Information processing and exchange standard**
- **Data communications network standards**
- **Reliability and maintenance standards**
- **Safety and electromagnetic compatibility standards**
- **Engineering and quality management standards**
- **Public Order operational processes**
- **Response time for login**

A total of 1272 items

Golden Shield Project: security system

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- **Stage 1: set up "model of security architecture"**
- **Consider factors such as security, performance, convenience and practical management and simplicity**
- **Reliability, fault-tolerance and fault recovery, disaster-tolerance and disaster recovery**
- **Network security and system security**
- **System security, network security management, internal network resources protection,**
- **Interconnection with the users access, manage and monitor security, etc.**
- **Computer system security, PKI, CA Certification**

Golden Shield Project: Operation and management system

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- **Operational Mechanisms**
- **Management Model**
- **Regulations**
- **Technical Standards and Norms**
- **Personnel Training**
- **Related Technology Systems**

Golden Shield Project: Monitoring and Control System for Public Internet Information Security

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- **Crack Down on Internet Crimes**
- **Ensure Security and Services of Public Internet**
- **Combat 'Falun Gong' Evil Cult and Other Hostile Elements**

Cisco Opportunity

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- **High Start-point Planning**
- **High Standard Construction**
- **Technical Training**
- **Security and Operation Maintenance**

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Challenges faced by Public Security System

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- 1. The Challenges of the New Economic Era**
- 2. The Challenges of System Restructuring and Social Transformation**
- 3. Challenges Brought by WTO**
- 4. "Westernization" and the Challenges of "Split"**
- 5. The Challenge of Transition from the Rule of Man to the Rule of Law**
- 6. The Challenges of the Worldwide Police Revolution**
- 7. The Challenges of China's Fourth Peak of Crime**
- 8. The Challenges of Police's Public Relations**

Challenges Facing Public Security Organ

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- **Insufficient Police Force**
- **Increase of Migrant and Unemployed Population**
- **High Tech Crimes**
- **Challenge of WTO**

Challenges Facing Public Security Agencies: Insufficient Police Force

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**1.60 Million police, 11 per ten thousand
Developed Countries 35 per ten thousand**

Police force in Agency level: 66.5%

Police force in Basic level: 33.5%

- 1. Obtain Police Force through Science And Technology**
- 2. Obtain Police Force through Quality [Enhancement]**
- 3. Obtain Police Force from Management**
- 4. Obtain Police Force through Reform**

Obtain Police Force through Science & Technology: Challenges to the Information and Communications

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- Various Departments Are Fragmented
- **Mobile Case Processing**
- Public Safety Issue Prevention and Control System
- Community Police Affairs
- **Municipal Emergency Centers**

Mobile Case Processing

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- **Police car of Division 110, “110”
Emergency Police management car**
- **Patrol Vehicle (110,122)**
- **Accident Handling Vehicle**
- **Emergency communication vehicle**
- **Command and dispatch vehicle**



CDPD

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- **Beijing, Shanghai, Guangzhou, Shenzhen, Changsha, Xiamen**
- **CDPD Has Three parts: Equipment from Lucent**

MDBS (Mobile Data Base Station)

MDIS (Mobile Data Intermediate System)

MES (Mobile End System)

Based on TCP/IP protocol

19.2K, actual transmission speed at around 10k

Supports [moving] speed of above 100km/h

Enters air link through DSMA/CD

Terminal interface: RS232, PCMCIA

Permanent residents, Temporary residents, lost people

Drivers, vehicles, lost vehicles, Fugitives

Beijing: iPAQ: more than 400 [units], each [costing] 10K:

6000+4000(Card)

GPRS

SGSN: Serving GPRS support node
GGSN: Gateway GPRS support node
PCU: Packet Control Units

Speed: 150Kbps, 15 times faster than the 9.6Kbps of GSM
Actual speed: around 40K

GPRS public security system application——“GPRS JingWuTong” [GPRS Portable Device for Police]
Police can search for various information conveniently with the portable device.
This also increases the efficiency.

Beijing: Patrols can use the M388 cell phone or PDA while they investigate suspicious people. Patrols can connect to the public security network through the GPRS network and retrieve the information of suspicious people on the scene. Traffic police can connect to the specialized network through cell phone or hand-held device through GPRS network. They can enter license plate numbers, engine numbers, driver's license numbers to find out whether the vehicle is under illegal operation. They can also query the driving record of the driver and issue tickets on the scene to those who have violations

3G: 384K Dynamic, 2M static

CDMA 1X(1 time Spread Spectral)

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Data transmission speed: 150K twice as fast as GPRS

Data transmission security: military technology, encryption algorithm

Data transmission cost: Spectrum utilization efficiency 6 times more than GPRS; base station signal coverage 3 to 4 times larger than GPRS

On demand video or location service with accuracy of 5-10 meters

Cluster System: TETRA & Mobile Data

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**Shanghai TETRA: 7.2 K, net rate: 3K
16 base stations, expanded by 8, covers
suburban**

**Beijing:
350M mobile communication system
800M analog cluster system
Mobile Data: No hand held station
Over the air: 19.2K, vehicle station:
9.6K(RS232)**

City Emergency Center

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- **110,119,122**
- **120,999**
- **Water, electricity, and gas repair**
- **Emergency relief**
- **Mayor's hotline**

Cisco's Opportunity

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- **MPLS VPN**
- **WLAN/Mobile Router**
- **IPT/IPCC**
- **IP Video (Multicast/QoS)**
- **E-Learning**

Intelligent Transportation Systems (ITS)

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- **Transportation Management System**
- **Transportation Guidance System for Drivers**
- **Vehicle Control System**

- **Public Transportation System**
- **Highway Transportation System**
- **Commercial Vehicle Operations System**

- **Guangzhou**
- **Shenzhen**
- **Qingdao**
- **Jinan**
- **Shanghai**
- **Beijing**
- **Zhongshan**

- **Safety Aspects: Reduce Transportation Accidents and Loss Of Property**
- **Economic Gains: Guarantee the Accuracy Of Travel Time**
- **Environment Protection and Energy Consumption Reduction**

Beijing: Traffic Management Information System

Cisco.com

Three networks: wired, wireless, computer communications networks
Interconnected at the communications center

Wired Network:

Television monitoring system along the 2nd and 3rd beltways, signal control system, comprehensive data communications system, 2000 unit PBX switching system, “122” reporting system. A total of 2100 km of fiber optic pairs;

Wireless Network:

28 channels over the 450 MHz and 800 MHz wireless cluster communication system, which covers Beijing as well as the suburban plain areas. Network terminals include several thousand radio stations, 60 vehicle carried computers and 300 police vehicles with GPS.

Computer Network:

Covers 18 districts and counties of the city. Has 186 network nodes, 1326+ networked computers and 3214 fixed and hand held card readers. The information center, traffic unit, unit on duty can communicate through fiber optic, DDN, and ISDN/PSTN, depends on the volume of data.

Beijing: Road Traffic Status Information Collection

Cisco.com

Detection coils, television monitoring, microwave detection, and video detection

1400 circular coil detectors deployed at 240 street corners in Beijing, for detection of number and speed of vehicles;

155 units of microwave detection equipment deployed on the 2nd and 3rd beltways, able to detect the traffic data (volume of traffic, road occupancy, vehicle speed, travel time, and delay) at 105 locations;

160+ television monitoring systems within the 4th beltway around the city, taking real time videos of the road conditions.

Whenever there are any emergencies, such as traffic congestion, traffic accident, vehicle failure, or security incidents, there would be at least 5 channels for communicating to the command center: 1. traffic control signal system; 2. television monitoring cameras; 3. microwave detectors; 4. patrols; 5. reported by the public through the "122" system.

Public security road traffic command center of Xiangfan city

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- Traffic Command System
- Traffic Television Monitoring System
- Traffic Violations Automatic Camera System
- Traffic Signal Control System
- Traffic Guidance System
- Traffic Information Enquiry System
- Traffic Communications System
- Driver IC Card Management System

Wireless 350mhz Walkie-talkie

Traffic Management Information System

Cisco.com

- **Violation [Management] System**
- **Law Enforcement System (Law Enforcement Stations)**
- **Annual Examination System**
- **Parking System**
- **Off-site Punishment System**
- **Vehicle Management System (By The Vehicle Management Unit)**

Traffic Police

Cisco.com

- 1. Urban Road Police on Duty**
- 2. Highway Patrol**
- 3. Traffic Accident Processing Police**
- 4. Vehicle Management Police**

Road Traffic Guards

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**Special Service (Special Traffic
Management Service)**

**Route Traffic Guards
Event Scene Traffic Guards
Residence Traffic Guards**

Highway Patrol

Cisco.com

Highway Patrol Squadron, 30km [Range], >10 People

Express Highway Traffic Police Battalion, 40-60km [Range], >40 People

Traffic Signal Control Technology

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- **Isolated Intersection Control:
Pre-timed Control, Vehicle Actuated
Control**
- **Arterial Intersection Control: Green Wave
Control**
- **Area-wide Control: Network Coordinated
Control**

Traffic Management Technology

Cisco.com

- **Radar Speed Detector :**
 - Radar speed detection photograph system
 - Hand-held Radar speed detection gun
- **Alcohol Detection**
- **Red light running photograph System: Electronic Police**
- **Vehicle Monitor System**
 - Speeding Vehicle
 - Vehicle pass major intersections
- **Accident scene distance measuring and photograph**

Roadway Video Monitoring

Cisco.com

- **Analog**
- **Digital**
- **Professional Video Quality: 3M, 25 frame/second, 720x576 (Large Screen)**
- **Desktop Video Quality: 1.5M, 25 frame/second, 720x288 (Internal Request)**

Law Enforcement Information

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1. Reconnaissance
2. Security Guard
3. Border Security
4. Public Security Management
5. City Public Security
6. Public Security Organization
7. Preliminary Hearing
8. Fire Protection Supervise
9. Public Security Propaganda
10. Public Security Trade
11. Leadership Building
12. Public Security Research
13. Info Technology Research
14. Public Security Education
15. Work Safety
16. Other

Border, Customs, Special Inspection

Cisco.com

“Border Inspection”: Entry and exit border inspection, port of entry, airport, station inspection (called “front line”).

Main task is to “control people”, inspect arrival-departure personnel’s passport, document, visa. Monitor transport, inspect transport and luggage when needed

Concrete task is carried out by port of entry inspection station.

“Customs”: “Control Material”, Custom is setup in every port of entry.

Border Defense Squadrons, Border Inspection Station, Border Defense Working Station, and **Border Defense Police Station**.

Border Inspection and Customs works at same port of entry. If there is a Border Inspection, then there is Customs, vice versa.

“Special Inspection”: Special Economic Region Inspection (called “Secondary line”).

<<People’s Republic Border Control Pass>> (Border Pass)

Concrete task is carried out by border station at special economic region (Shenzhen Special Economic Region and Zhuhai Special Economic Region Border Station)

“Shenzhen port of entry inspection central station” controls Luohu, Huanggang, Sherkou, Menfuidu, Airport, Yantian, Shadoujiao, Sungang eight port of entries and is supervised by the Ministry of Public Security.

All Personnel Change to Professional Police.

Shenzhen Special Economic Region Border Station keep current active duty, is under Guangdong Province’s Border Defense Division under Public Security Bureau.

Shenzhen Border Inspector wear police uniform, Special Inspector wear Armed Police uniform.

Criminal Investigation Technique

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- **Trace Exam: finger print, foot print, tool and bullet mark**
- **Document Exam**
- **Microscope Evidence**
- **Medical Examiner**
- **Toxic and Drug Exam**
- **Investigation Photograph Technique**
- **Video and Audio Exam**
- **Police Dog Technique**
- **Criminal Intelligence**
- **Computer Crime Identify and Prevention**
- **Mental Evaluation**
- **Judicial Accounting Exam**
- **Other: Psychology Exam, Hypnosis**

“Networked” Prisons and Detention Centers

Cisco.com

August 15, 2002

The Supreme People’s Procuratorate, The Ministry of Public Security, The Ministry of Justice jointly host meeting for nationwide prison networked management and real-time monitoring system.

Currently Beijing, ZheJiang, HeiLongJiang, JiangSu provinces have been pushing forward prison networked management and real-time monitoring system.

Procuratorial organ can monitor in real time via prison networked management system. It can check the detain length of a person in custody, inform other agencies, prevent and correct over detention.

Next step is pushing forward prison networked management and real-time monitoring system among all prisons and detention centers. Try to achieve nationwide networked prison and detention center management in a short time.

“Networked” Prisons and Detention Centers

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When criminal suspect transferred to detention center, his information is transferred to detention center's information system in real time. After police input suspect's identification number, system automatically retrieve relate personal and case information from population information system and criminal investigation information system. It compare with ministry of public security's wanted list. If he is on the list, system will send alert. System keep tracks suspect's transfer and every activity. When criminal investigation finish, system automatically transfer suspect's information, such as release information, to his local police station.

This way, the complete cycle from suspect's entry to his exit is managed online in real time. Legal paper is automatically generated. Content is automatically updated and stored.

Migrant Population Management

Cisco.com

- **Beijing Criminal Population: 60% & Above are Migrant**
- **Hotel, Guest House, Rental Housing**

Nationwide Meeting of Personnel in Charge of Surveillance

Cisco.com

Bai Jingfu
August 15

**Information Surveillance System
Work Hard to Implement Nationwide
Network of Prison Information System in
Two to Three years**

**Realize the Sharing of Prisoners' information
Across Regions and Police Forces**