

OPENING NEW HORIZONS

由我天地宽

CNC 中国网通
China Netcom

March 6 2001

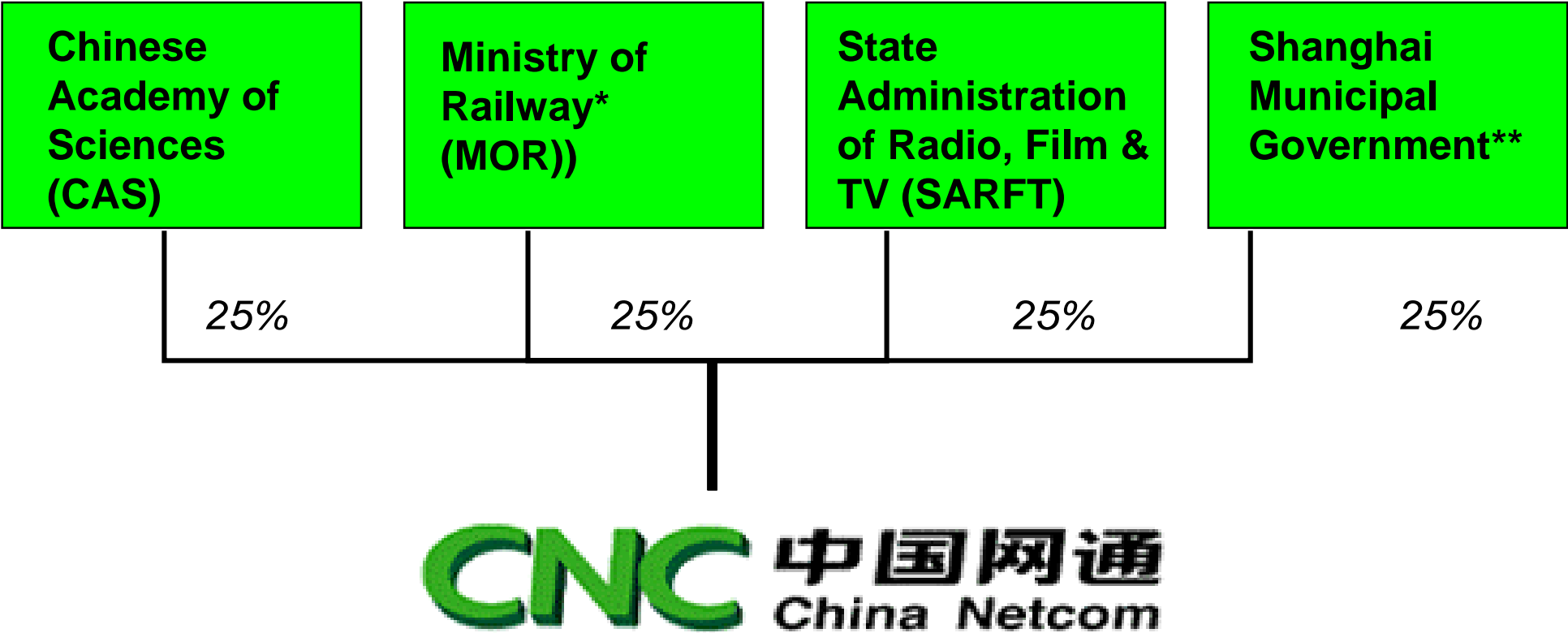
COMPANY MISSION

- **Establish CNC as a model of new generation telecommunication operator in China by combining modern management approaches with innovative technology**
- **Dedicate CNC to China's state-owned enterprise reform, telecommunication system reform, and technical innovation**

STATE MANDATE

- In February 1999, the State Council named China Broadband Internet Pilot Project approved by the State Development and Planning Commission as a key national development project
- In August 1999, CNC was incorporated as a commercial entity to implement the project to build an all fiber-optic, IP/DWDM backbone network —known as CNCnet, and to provide commercial services

STRONG SHAREHOLDERS



* Through China Railway Telecommunication Center (CRTC)

** Through investment arm — Shanghai Alliance Investment Ltd. (SAIL)

E-FRASTRUCTURE

- ▶ **Upgradeable end to end fiber network: International Marine Cable , Land Cable Backbone , FTTB;**
- ▶ **Open network architecture : IP/DWDM**
- ▶ **Centralized and web based billing, OSS and customer care system;**
- ▶ **Networked IDC (Internet Data Center)**



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NETWORK CONSTRUCTION PLAN

	June 2000	Phase I Year End 2000	Phase II Year End 2001	Phase III Year End 2002
Domestic Backbone				
Total route	1,731 km (1,076 miles) ⁽¹⁾	9,376 km (5,826 miles)	19,528 km (12,135 miles)	36,518 km (22,692 miles)
Total cities covered	7 cities	17 cities	70 cities	120 cities
Total capacity	96 cores	108 cores	108 cores	108 cores
Local Access				
MAN ⁽²⁾	Beijing, Shanghai, Guangzhou, Shenzhen	Beijing, Shanghai, Guangzhou, Shenzhen	Beijing, Shanghai, Guangzhou, Shenzhen	Beijing, Shanghai, Guangzhou, Shenzhen
Total route	14 km (9 miles)	280 km (174 miles)	580 km (360 miles)	880 km (547 miles)
JV/LMDS	1 city	6 cities	20 cities	> 20 cities
International ⁽³⁾				
China – U.S. route	314 Mbps	422 Mbps	422 Mbps	422 Mbps
Asia/Other	30 Mbps	40 Mbps	1.2 Gbps	1.2 Gbps

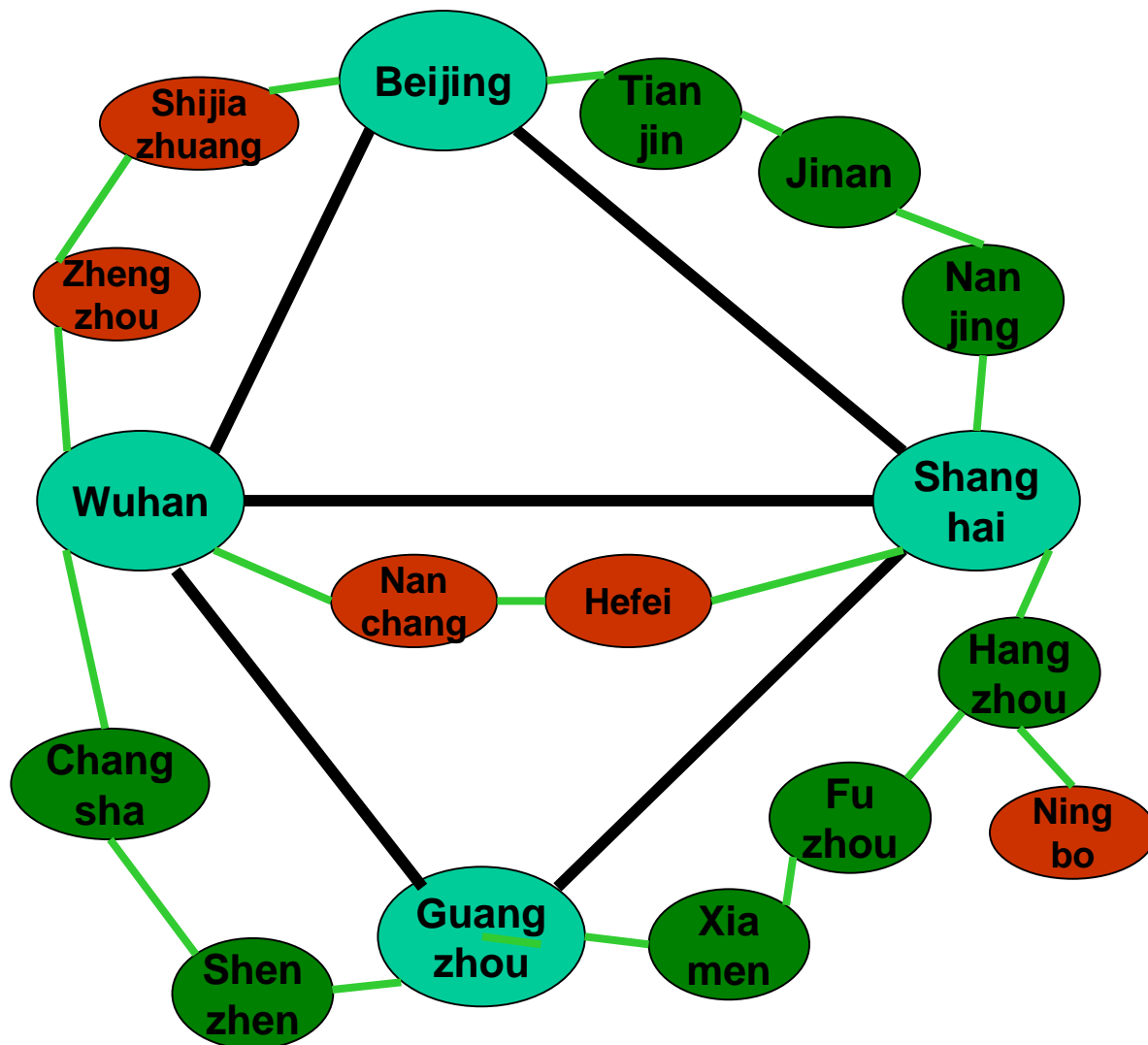
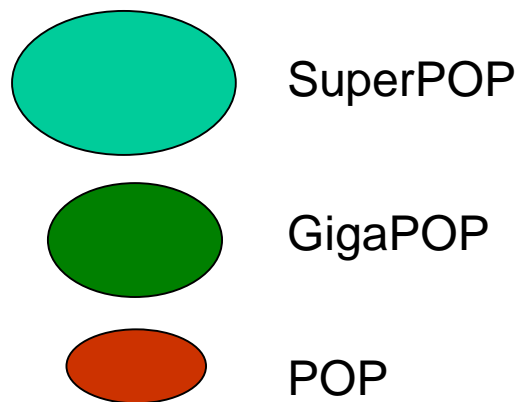
Notes: ⁽¹⁾ Excludes two fiber strands totaling 5,131 kilometers (3,188 miles) from two shareholders

⁽²⁾ Metropolitan Access Network

⁽³⁾ China-to-Europe route currently under negotiation

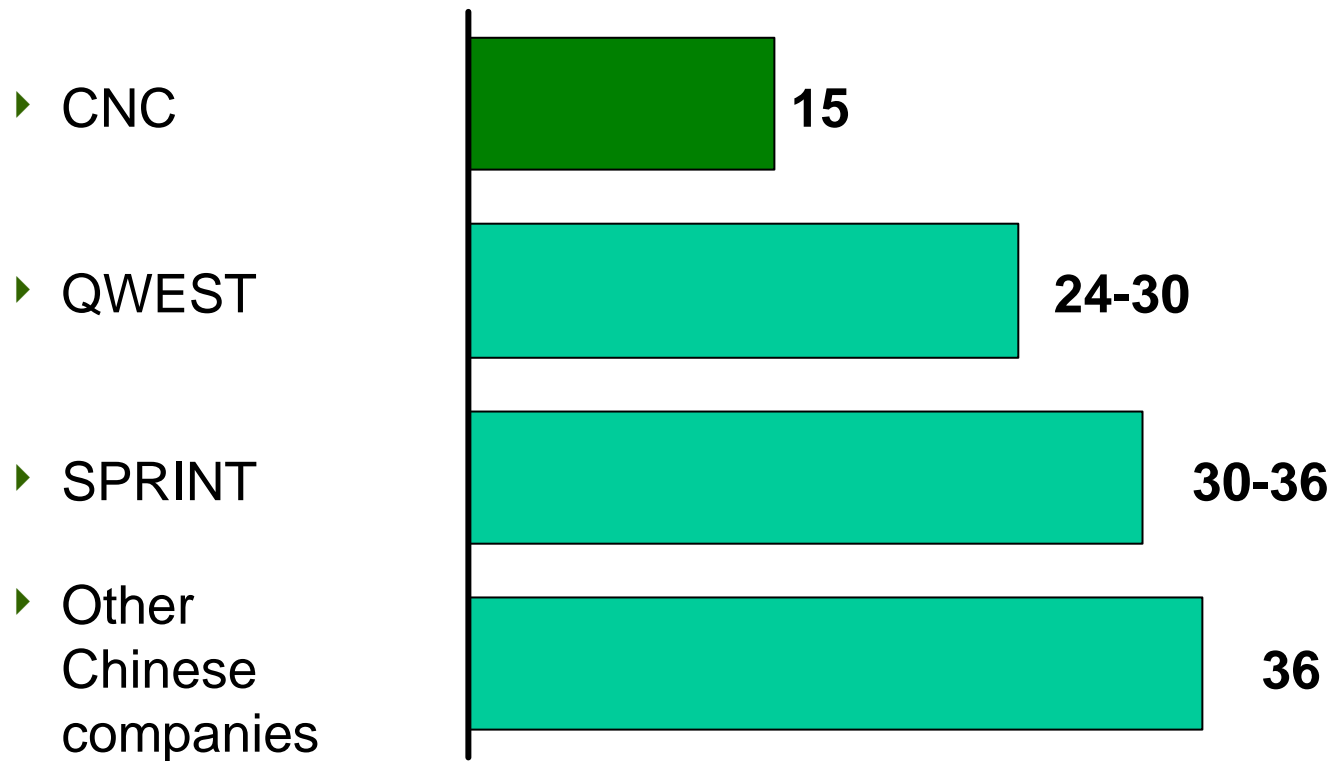
PHASE ONE NATIONAL BACKBONE NETWORK

- **Total route:** 8,490 KM
- **Bandwidth:** 40G
- **Stations:** 106, including 89 relay stations and 17 POPs



CNC NETWORK CONSTRUCTION SPEED IS ONE OF THE FASTEST IN THE WORLD

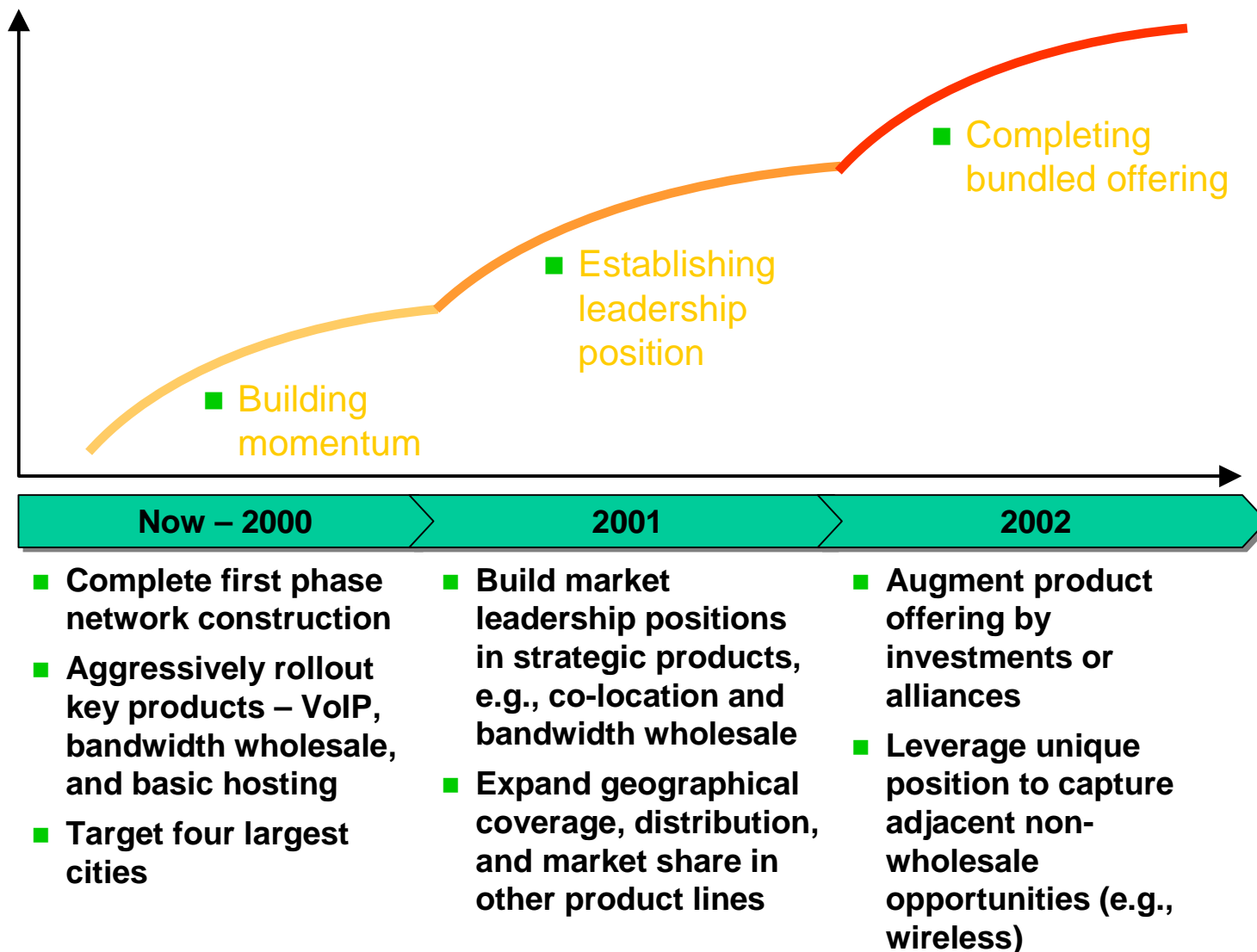
▶ Nationwide backbone network construction speed Month



CNCNET HAS “BEST-OF-BREED” PERFORMANCE

Network	Performance indicator-- Latency
CNCNet	$\leq 80\text{ms}$
UUNet	$\geq 85\text{ms}$

PHASED STRATEGY TO OFFER BUNDLED SERVICES AND ACHIEVE MARKET LEADERSHIP



OUTLOOK: POLITICAL

- **Stable political system with a strong central government committed to reform**
- **China's joining the WTO is imminent, followed by opening up the market for foreign participation**
 - **Joint Venture**
 - **Direct equity investment**

OUTLOOK: REGULATORY

- **Pace of “de-regulation” will be faster than most countries**
- **More licenses will be issued to new & existing operators, e.g.**
 - **Fixed national networks**
 - **Mobile networks**
 - **Regional networks**
 - **Metropolitan networks**
- **Regulations governing network inter-connection will be more comprehensive & enforceable**

MARKET OUTLOOK & OPPORTUNITIES

- Internet will continue to be a major driving force for market growth

- International ISP/ICP
- E-commerce services & application providers
- IP/International based services & applications providers

- Co-location with a major Chinese operate to provide immediate coverage & bandwidth at minimal initial investment

MARKET OUTLOOK & OPPORTUNITIES

- **Very competitive market for basic services with sufficient & affordable domestic bandwidth**

- **Value-added services providers with heavy demand for bandwidth**

- **Foreign investment in basic infrastructure may not generate high return of investment**
- **Strategic alliance with a national bandwidth provider to provide coverage**

MARKET OUTLOOK & OPPORTUNITIES

- Significant growth of international traffic from major Chinese cities & Hong Kong (transit)

- International carriers
- Consortium for new international cables

- Joint investment with a Chinese operator requiring international bandwidth

MARKET OUTLOOK & OPPORTUNITIES

- **Services quality will become more important**

- **Network management applications providers**
- **Billing applications providers**
- **Call centers application & Services providers**

- **A huge market to be explored**
- **The IP telephony market is becoming more competitive and generates more opportunities**

