

Brazil Telecom Market Presentation

Huawei do Brazil



Technology changes. Communication lasts.

CONTENT



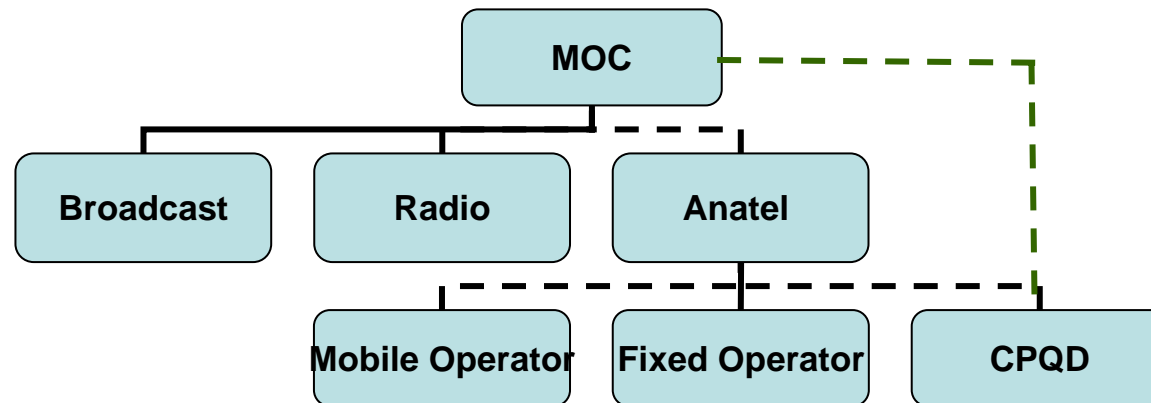
Enrich Life Through Communication

- ❑ **Brazil Telecom Macro Environment**
- ❑ **Huawei Global and Huawei in Brazil**

Telecom Industry Structure



Enrich Life Through Communication



Ministry of Communication (MOC): Responsible for macro telecom policy , such as telecom law, the new license

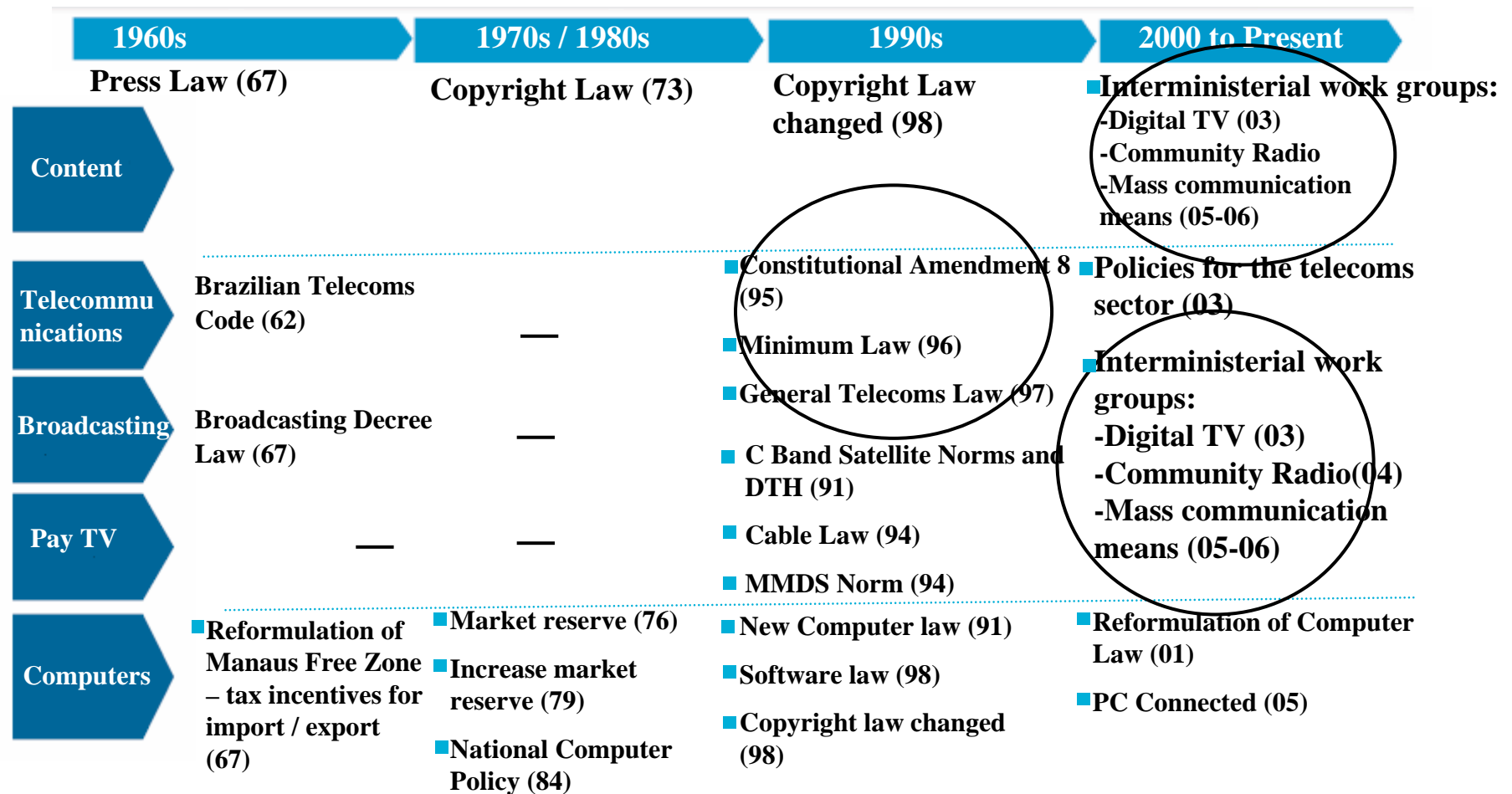
Anatel: The independent organization established in 1997 to support privatization and implement the specific policy ,

CPQD: Provide the consultant service for Ministry of Communication and Anatel

The Brazilian Telecom Milestone



Enrich Life Through Communication



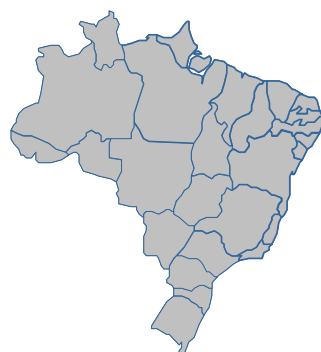
The History of Brazil Telecom Market



Enrich Life Through Communication

From State Monopoly to Privatization and Competition

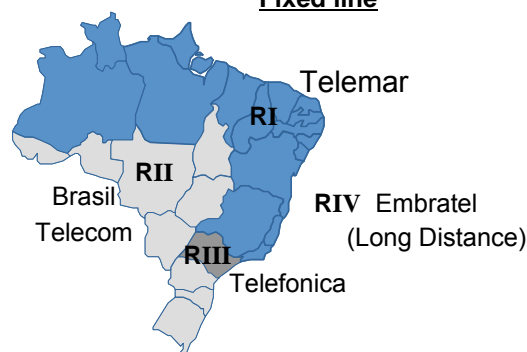
Up to 1998
(State Monopoly)



- One Holding Company
- 26 state companies (fixed/mobile)

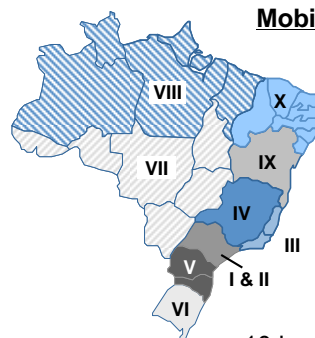
1998
(Duopoly)

Fixed line



- 4 incumbents
- 4 Mirror Co's.

Mobile



- 10 incumbents
- 10 Mirror Co's

2004
(Competition)

Major Players

	Local	LD	Mobile	Data
Telemar	✓	✓	✓	✓
Telefonica	✓	✓		✓
Brasil Telecom	✓	✓	✓	✓
Telmex/AMX	✓	✓	✓	✓
TIM		✓	✓	
Vivo			✓	

Degree of Competition
(per service)

Local Fixed line : Low
 Long Distance : Medium-High
 Broadband : Low-Medium
 Mobile : High
 Data (Corporate) : High

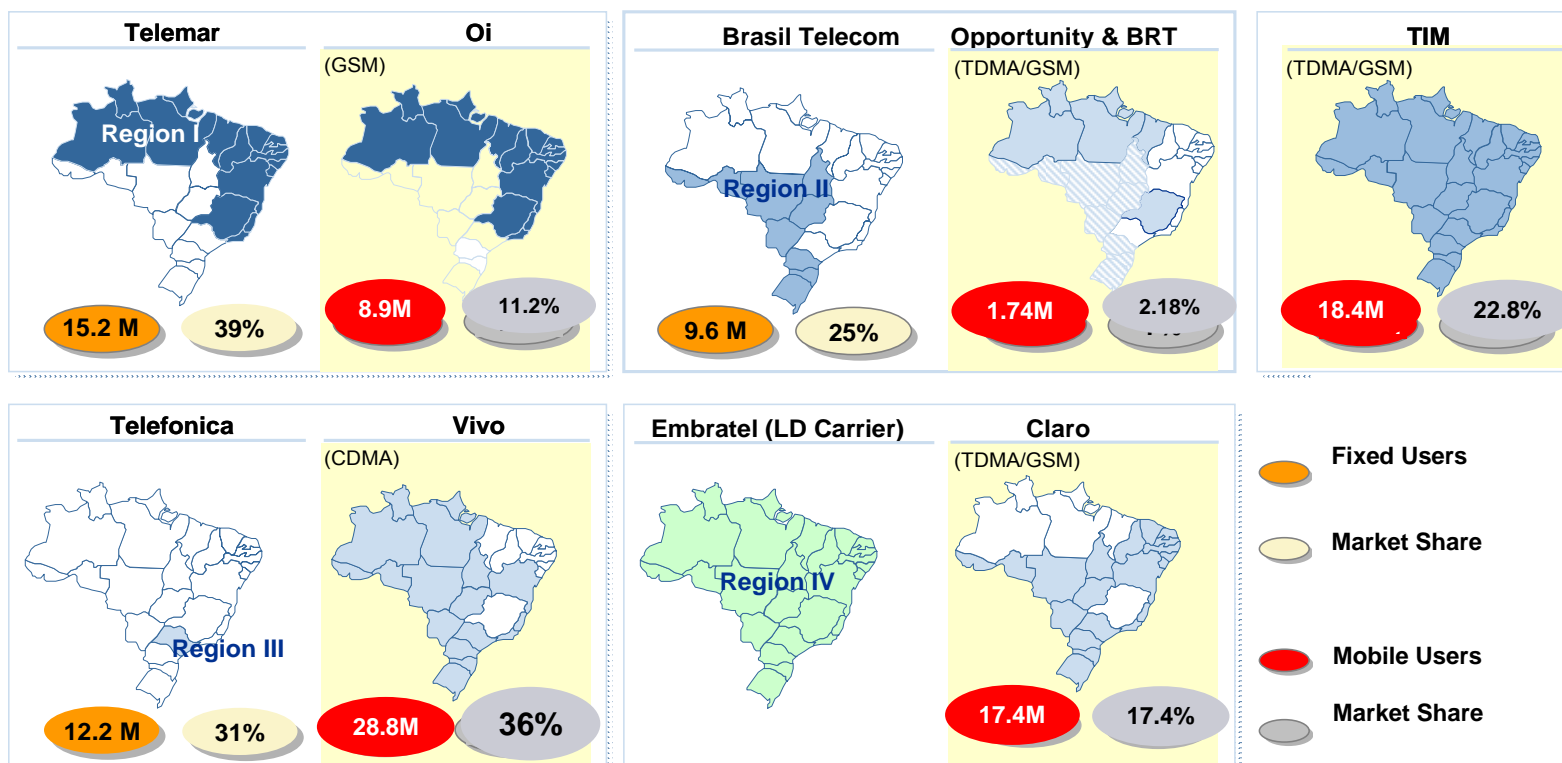
Telecom Competition Environment



Enrich Life Through Communication

Brazil Telemar Group

TI Group



Telefonica Group

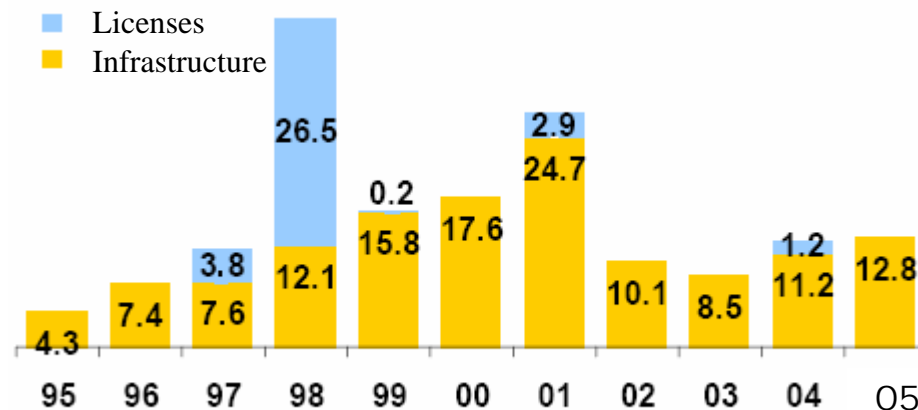
Telemex Group Amercian Molive Mexico Carlos Group

Telecom Industry Investment



Enrich Life Through Communication

Investment in Telecommunication
(R\$ billions)



Panorama of the competition
(2005)

- Cellular: **High**
(highest share 40%)
- Long distance: **High**
(highest share 25%)
- Local fixed line: **Low**
(highest share 97%)

How do you consolidate a healthy competitive market in a converging environment, while maintaining investments and ensuring an adequate return?

Note: (1) Estimate based on financial statements published for the 1st half of 2005 by the following groups: Telesp, TeleNorteLeste, Brasil Telecom, Embratel, Vivo, TIM and Telemig Celular.

Source: Anatel – Exhibit of LGT's Motives (1996); Anatel – Presentation of Universalization Bureau (Dec 2002); Anatel – Presentation to INFOCON SUCESU 2003 – Regulation of the Telecommunication Market (Oct 2003), Anatel – Telecommunications lecture – A new leap toward the future (2004); financial reports from companies, Accenture and GT analysis

The Target Customer of the Operators



Enrich Life Through Communication

Income Levels (in R\$/month)	Class	# Households	Potential Penetration	# Target Households	Part. %
+ 6,000	Class A+	2,580	90%	2,322	26%
4,001 - 6,000	Class A	2,339	75%	1,754	20%
3,001 - 4,000	Class B+	2,527	60%	1,516	17%
2,001 - 3,000	Class B	4,780	40%	1,912	21%
1,601 - 2,000	Class C+	3,502	20%	700	8%
1,201 - 1,600	Class C	5,319	10%	532	6%
1,001 - 1,200	Class D+	3,690	5%	185	-
601 - 1,000	Class D	10,647	0%	-	-
401 - 600	Class E+	7,056	0%	-	-
up to 400	Class E	8,313	0%	-	-
Total Brazil		50,753	18%	8,921	98%

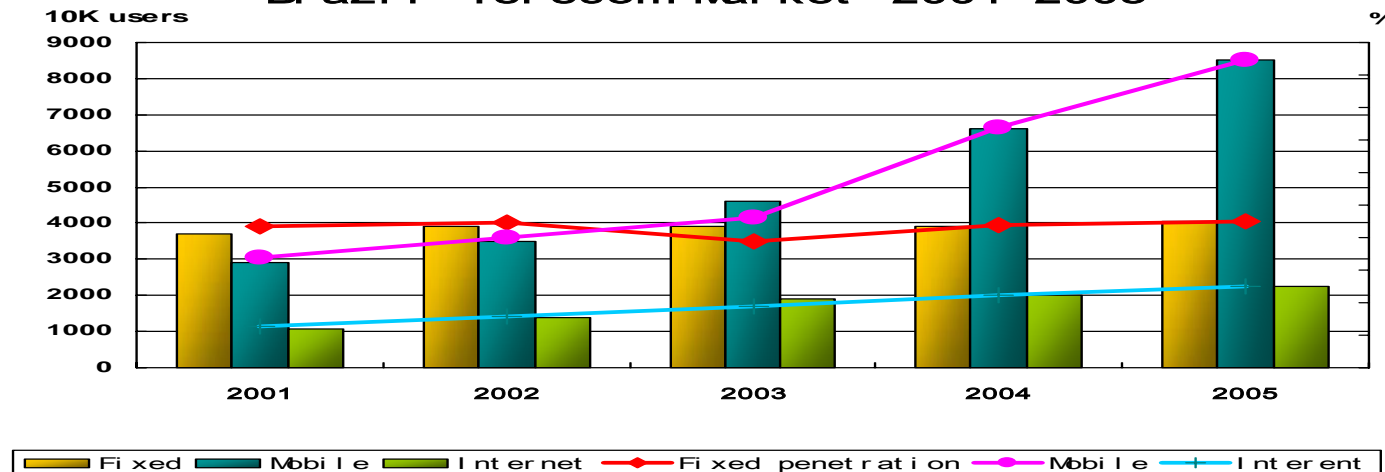
Sources: IBGE and Pactual Research

Telecom Comparison between China and Brazil



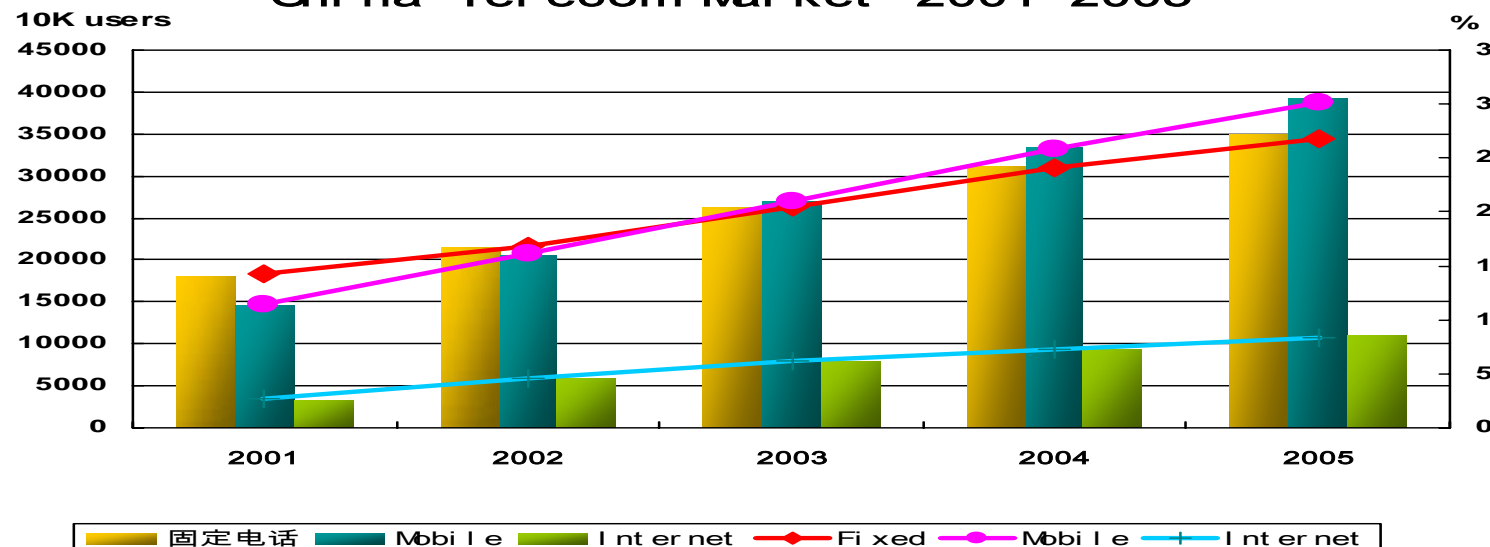
Enrich Life Through Communication

Brazil Telecom Market 2001-2005



Brazil and China Telecom market develop very fast, and play an important role in global telecom market

China Telecom Market 2001-2005



CONTENT



Enrich Life Through Communication

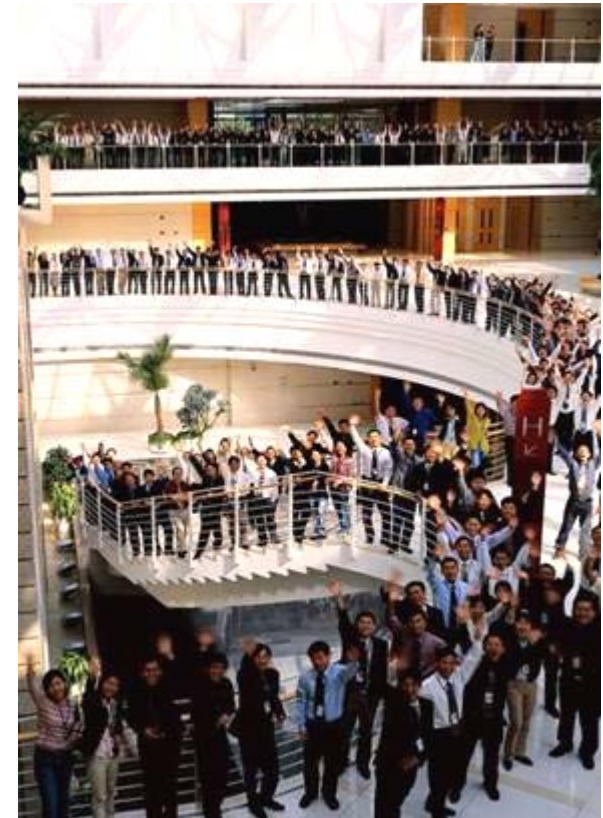
- ❑ **Brazil Telecom Macro Environment**
- ❑ **Huawei Global and Huawei in Brazil**

Huawei at a Glance



Enrich Life Through Communication

- **Contract sales of 8.2 billion USD in 2005, 58% from international markets**
- **Products deployed in over 100 countries**
- **Serving 28 of the world's top 50 operators.**
- **Strategic partner of British Telecom, Vodafone, Telefonica, etc.**
- **Over 35,000 staff members , 48% engaged in R&D**

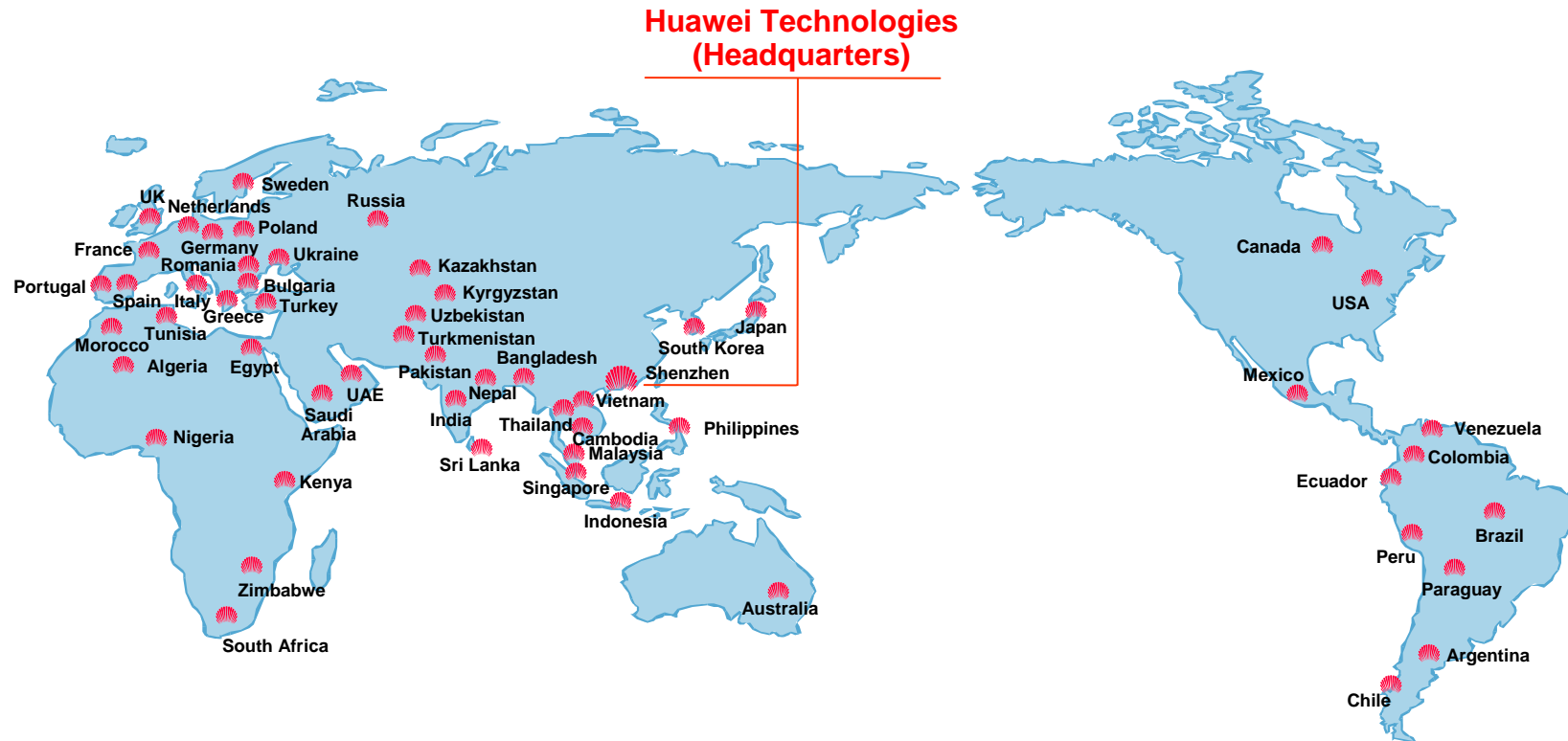


www.huawei.com

Global Presence



Enrich Life Through Communication



- 8 regional headquarters, over 85 branch offices outside China
- 3-level customer service system (HQ, regional, local)

Huawei in Latin America



unication



- Huawei entered LA market since 1997, and has branch offices in 10 Countries;
- Regional Headquarter locates in Brazil;

Huawei do Brasil



Enrich Life Through Communication



- Founded in 1999, with offices in RJ, SP, DF
- Investment accumulated up to 100M USD by the end of 2005
- Campinas facility:
 - ✓ Manufacturing Management Center
 - ✓ Technical Support Center
 - ✓ Training Center
 - ✓ Spare Parts & Logistics Center
- 400 staffs by the end of 2005, 75% local employees

Huawei Strategy in Brazil Market



Enrich Life Through Communication

Innovation	Partnership	Localization
<ul style="list-style-type: none">● Next-Generation technology: UMTS/GSM, CDMA, NGN, IP DSLAM, NG-SDH● More creative services: Voice, Data, Multimedia● Customized solution: Full understanding of requirements from developing countries	<ul style="list-style-type: none">● Long-term partnership with customers● Partner programs in logistics, engineering and support● Strategic alliances with industry leaders	<ul style="list-style-type: none">● Local entities and investment● Local staff● Local partners● Local logistics & support infrastructure● Cross-cultural communication

- **Brazil -- One of the Most Important Markets for the Implementation of Huawei Internationalization Strategy**

Successive Investment in Brazil



Enrich Life Through Communication

Brazil Call Center



0800 883 0808
br-support@huawei.com
7 x 24 (365 days/year)



Brazil Training Center in Brazil



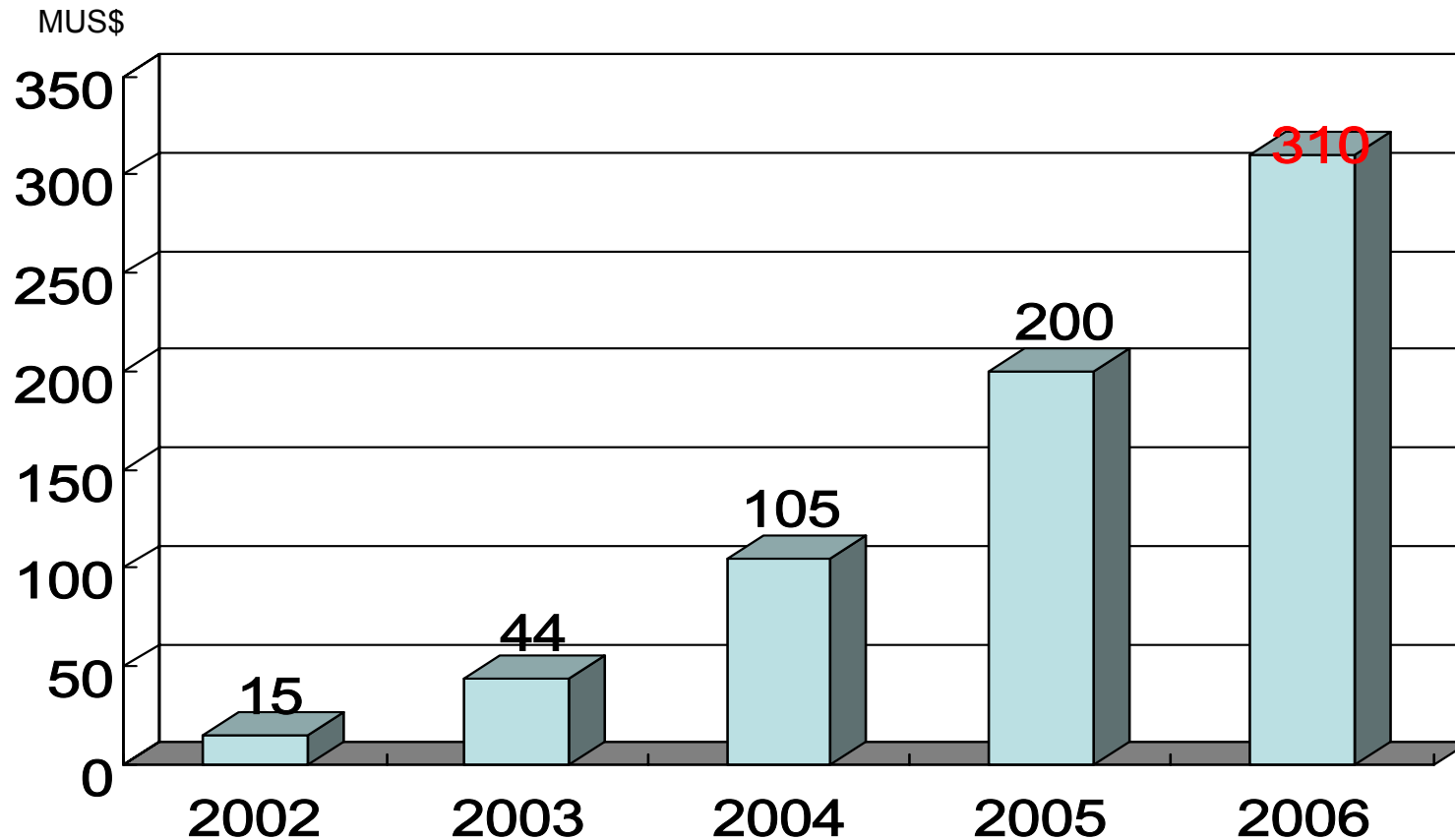
Training Center Facilities

- Covering **17000** sq. ft
- Labs over **4500** sq. ft
- **11** classrooms (**7** labs with equipment)
- **132** trainees at the same time

Huawei Achievements in Brazil



Enrich Life Through Communication



- Year 2004: sales mounted to 105M USD, increased 239% compared with 2003;
- Year 2005: accomplished 200M USD;
- Year 2006: **310M USD (forecast)**

Cooperation with Brazil Leading Operators



Enrich Life Through Communication

Operator	Opt.	Data	Fixed	Mobile	A&S
Telemar/Oi					
Brasil Telecom				n.a.	
Telefônica				n.a.	
Embratel				n.a.	
VIVO					
Claro			n.a.		
TIM			n.a.	Trial	
Intelig				n.a.	
CTBC					
Telemig			n.a.		
GVT				n.a.	

Application

New Technology Introduction to Brazil



Enrich Life Through Communication

➤ **Broadband development**

- From 2004, Huawei DSLAM started ranking No.1 in Brazil; and then the market share expanded to 50% in 2005(i.e. one of every 2 users is using Huawei equipment), 1M subscribers are enjoying Huawei Broadband Services accumulatively;
- ADSL2+ has been widely applied in Brazil, the bandwidth of which can reach 12M, and it is the base of deploying IPTV service.

➤ **3G Pilot and Mobile IP Core Network**

- Cooperated with CTBC in Brazil to establish the first 3G trial office;
- Provided the total solution for CTBC, Telemig and Telemar/OI, including IP core network, which can evolve to 3G smoothly.

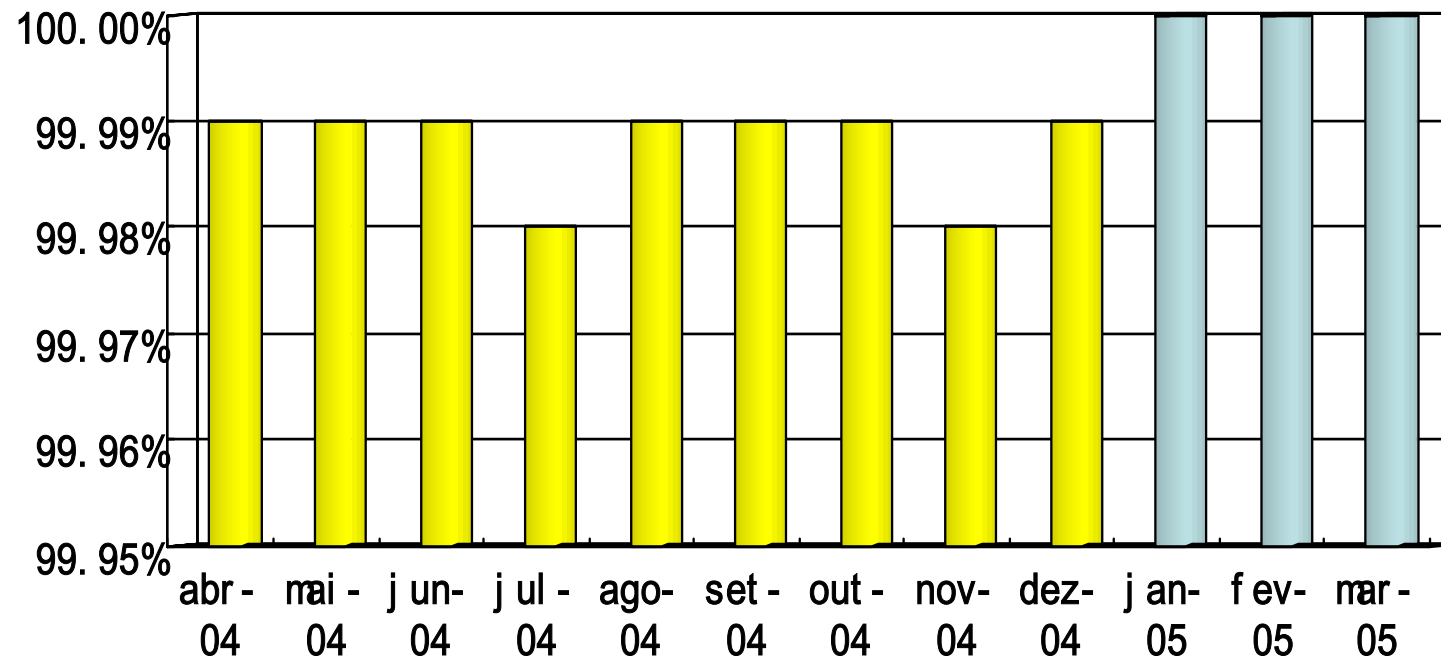
Reliability Statistic after Deploying Huawei ASON



Enrich Life Through Communication

Extracted from Telemar Presentation (Touching Intelligence Seminar – May, 3rd)

100% !



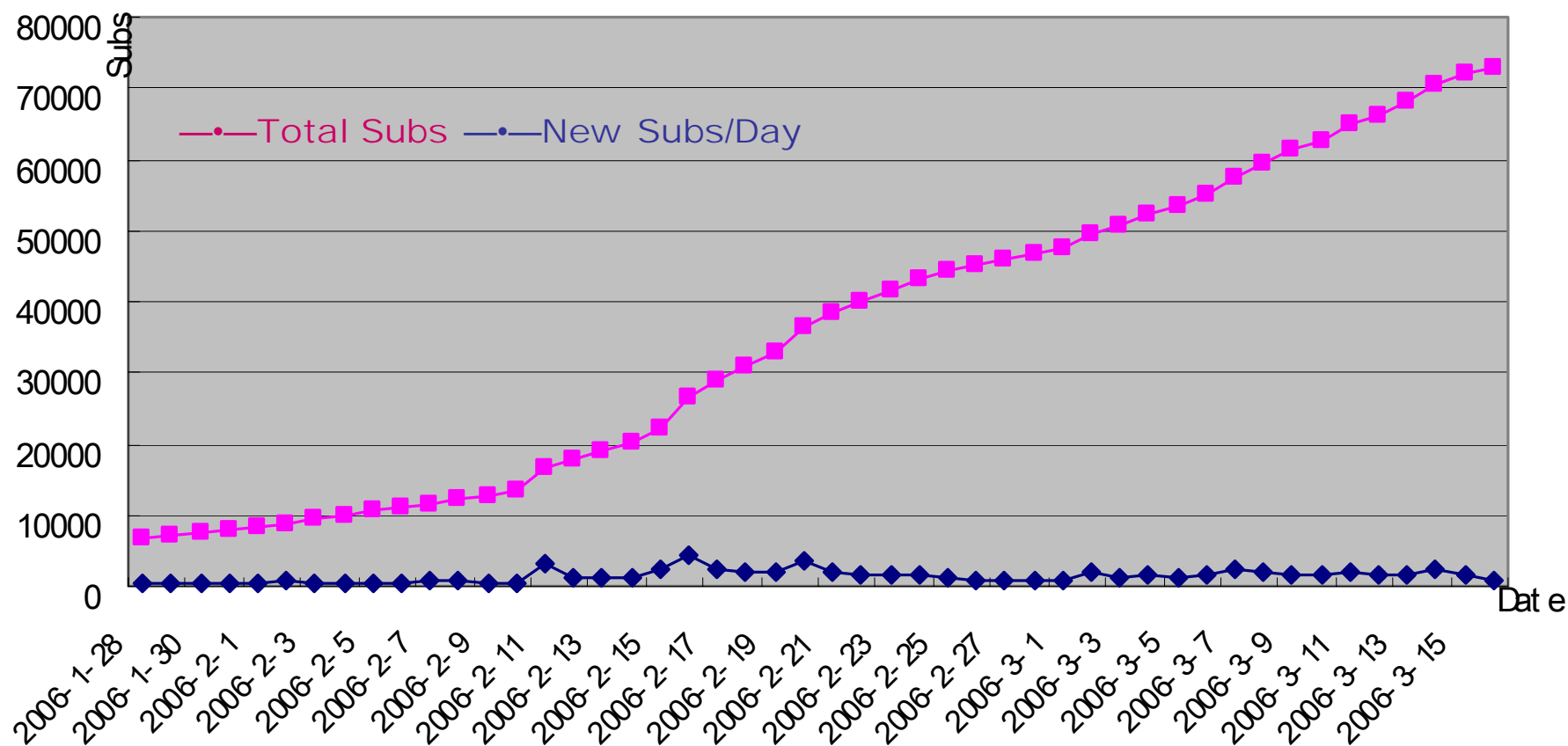
The reliability of Telemar's most important customers by using Huawei's ASON Network is 100% guaranteed.



Telemar/Oi CRBT User Development Crazy



Enrich Life Through Communication



◆ Experts Exchange Program

➤ Experts from China will present advanced technology to Brazil, who need more support to facilitate the application for Business Visa to Brazil;

◆ Carrier Experience Sharing

➤ Chinese carriers already provided diversified services to local consumers, which can be shared with Brazilian operators;

➤ Most Brazilian operators are originated from Europe and Mexico with advanced industrial standard, therefore Chinese vendors can obtain the latest requirements accordingly.

◆ Market Environment

- Brazil telecom market competition is much higher than China, and it will help Chinese operators to learn from it;
- Chinese telecom market is expanding rapidly and can be beneficial for Brazil as well;
- Since Brazil and China have similar telecom subscriber basis and economic situation, the cooperation between Brazil and China will improve the two countries telecom development.

The Latest and Advanced Technology Introduced to Brazil



Enrich Life Through Communication

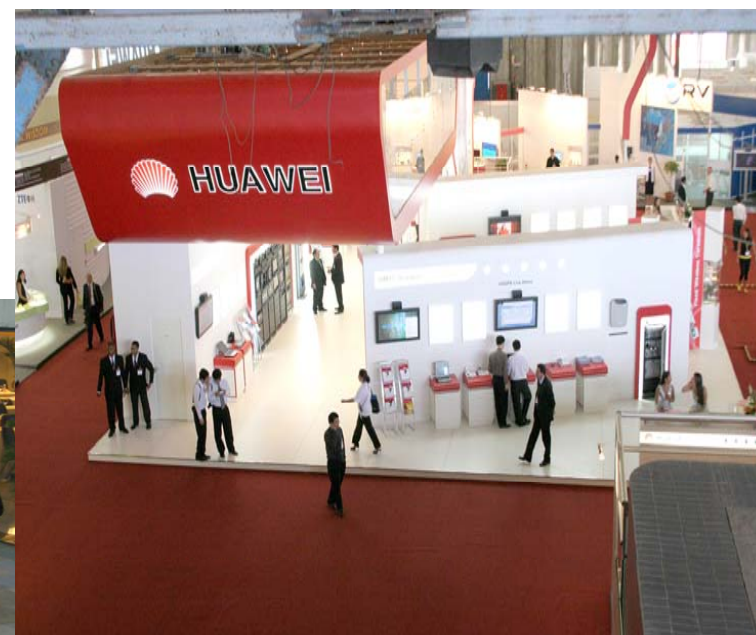
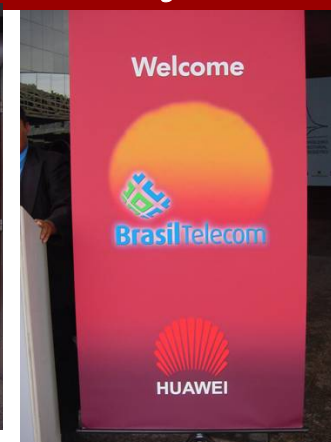
- From Oct. 3rd to Nov. 29th Huawei Orient Express Fixed Network and 3G network Solutions Road Show held in Brazil.
- Road Show in Brazil
 - 🎵 Salvador (ITUT)
 - 🎵 Rio
 - 🎵 Florianopolis(Futurecom)
 - 🎵 Sao Paulo
 - 🎵 Brasilia
- More than 3,000 Engineers visited the Truck Road show



Global and Local Seminar with Brazil



Enrich Life Through Communication



Communication and Cooperation



Enrich Life Through Communication



Both China and Brazil telecom industry would benefit from Good Communication!