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## OCCASION

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22528



latin american newsletters  
conferences



# the internet in latin america: investigating the boom

*11 and 12 October 2000*

*The Conference Forum, London E1 8DX, England*

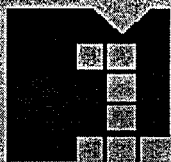
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**internet in brazil: background and trends**

paper presented by:

tadao takahashi

general co-ordinator, brazil information society programme,  
ministry of science and technology



Programa

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# **INTERNET IN BRAZIL: BACKGROUND AND TRENDS**

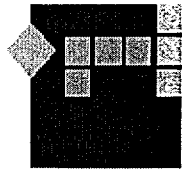
**(Prepared for The Internet in Latin America:  
Investigating the Boom)**

**London, 11 October 2000**

**TADAO TAKAHASHI**

**Chair**

**Task-Force of the  
Program for the Information Society,  
Brazil**



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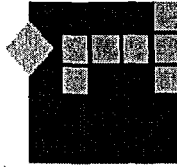
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### I. BACKGROUND

### II. CURRENT SITUATION

### III. TRENDS



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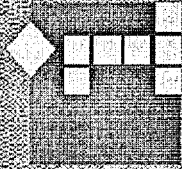
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## I. BACKGROUND

■ ORIGINS OF INTERNET IN BRAZIL

■ THE BIG SPLASH

■ THE RULES



## I. BACKGROUND

### ORIGINS OF INTERNET IN BRAZIL

- **ACADEMIC NETWORKING INITIATIVES (ca. 1987/88)**

- BITNET, USENET

- First TCP/IP links

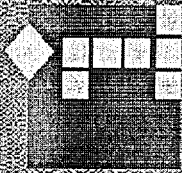
- Maryland

- ESI

- **BRAZILIAN RESEARCH NETWORK (1989-1995)**

- Sole operator of Internet Services in Brazil, for Education and Research only

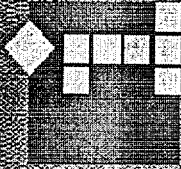
- In 1995, almost all Universities (~800) connected to a nationwide backbone at 2 Mbps



## I. BACKGROUND

### **THE BIG SPLASH (April - August 95)**

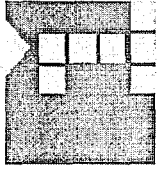
- In April 1995, regulation for Internet services in Brazil is issued by joint initiative of Ministry of Science and Technology and Ministry of Telecommunications.
- In August 1995, Steering Committee for Internet / Brazil is formed, with representatives from Government / Private Sector / Academia.



## I. BACKGROUND

### THE RULES (May 95)

- Anybody can set up Internet services in Brazil, without any a priori restrictions, except for...
  - ... TELCOS, which cannot offer dial up access services (but are strongly stimulated to provide backboning services).
- Regulatory aspects will be delegated to Steering Committee.

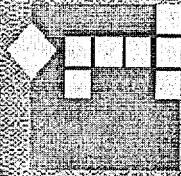


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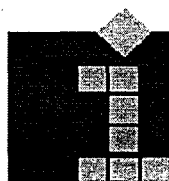
## II. CURRENT SITUATION



## II. CURRENT SITUATION

### BRAZIL: SOME DATA

- POPULATION: 160 million
- GNP: US\$ 557.538 million
- INFORMATION ECONOMY: ~ US\$ 46.3 billion / year
- INTERNET USERS: ~ 8 million people
- TELEVISION PENETRATION: ~ 86.20% (92.7% in urban areas)
- TELEPHONY PENETRATION: ~ 35 million wirelines in 2000  
~ 21,5 million wireless in 2000
- COMPUTER PENETRATION: ~ 12 million units



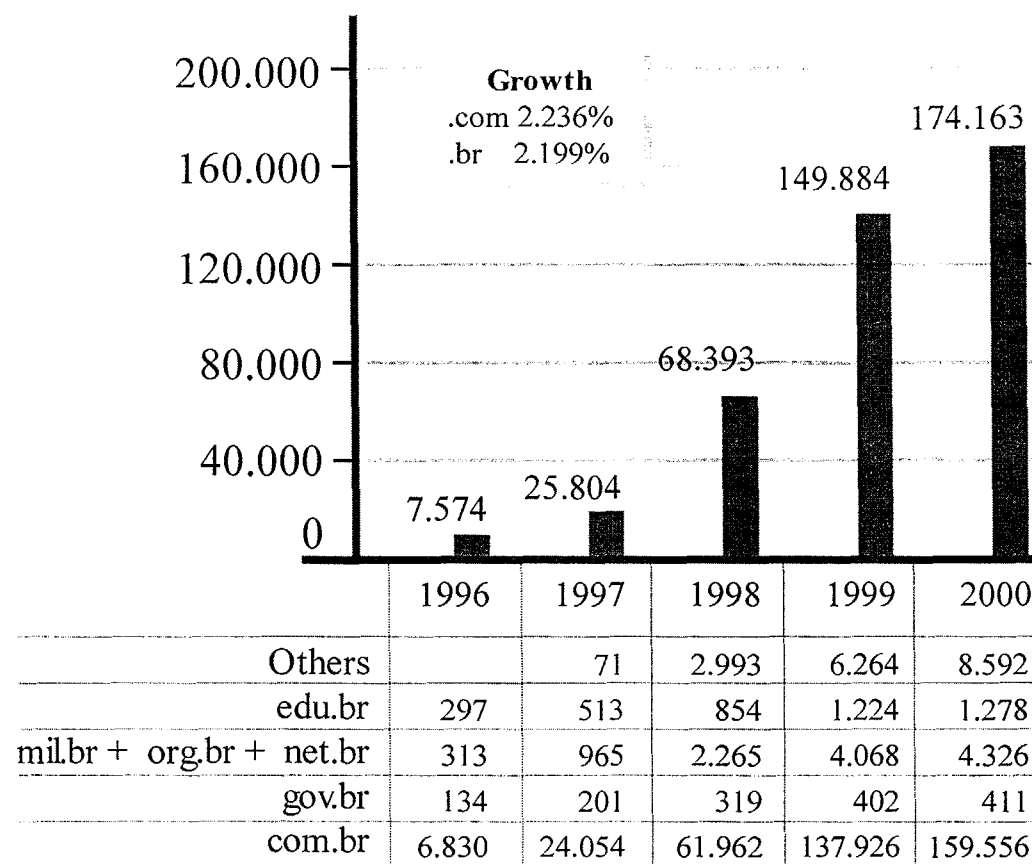
## II. CURRENT SITUATION

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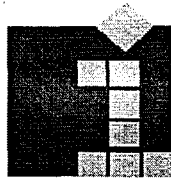
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### Internet Service in Brazil: Registered Domains / 2000



f10500ia.cdr

Source: Fapesp (registro.br/estatísticas.html), 02/17/2000



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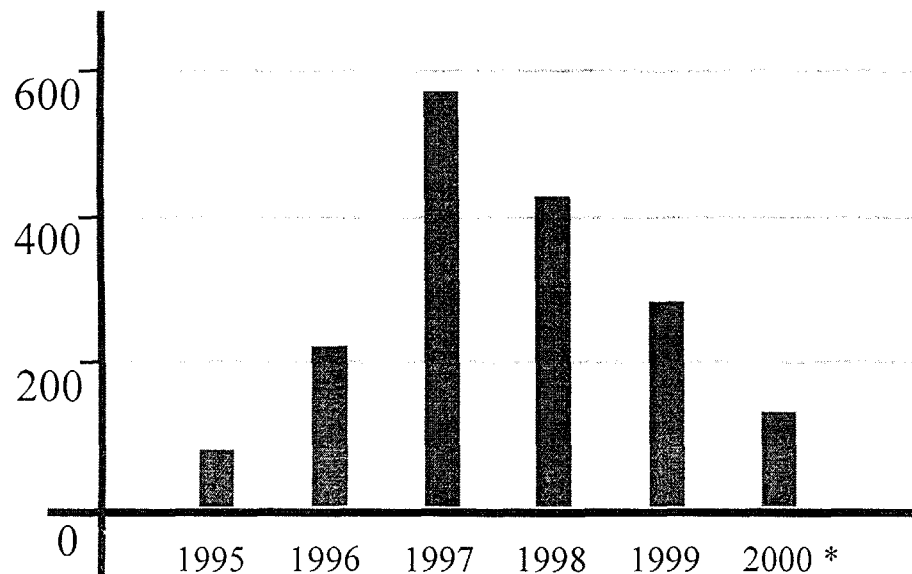
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## Internet Service Providers in Brazil

### II. CURRENT SITUATION

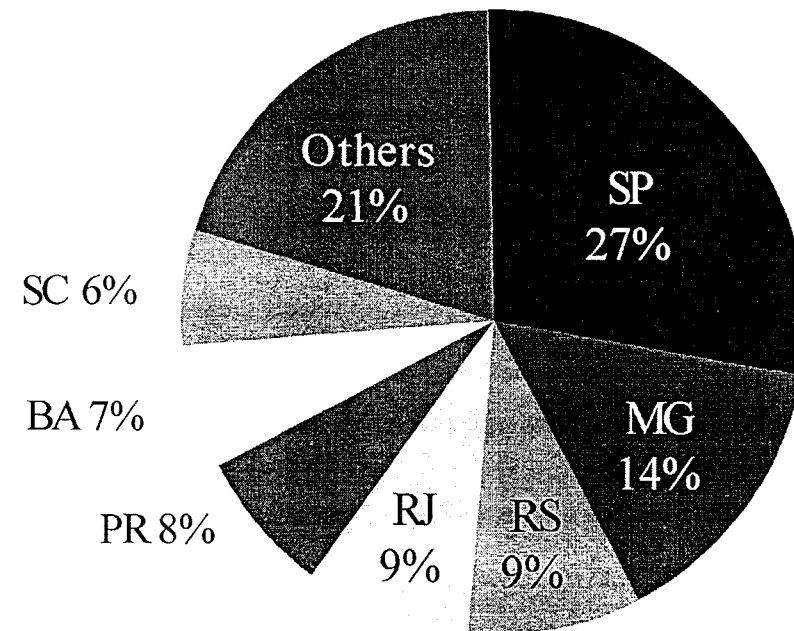
#### EVOLUTION OF ISP PLAYERS IN BRAZIL



f10400ia.cdr

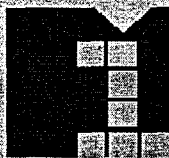
Source: Abranet - <http://www.abranet.gov.br>

#### REGIONAL DISTRIBUTION OF ISPs IN BRAZIL - 1999



f10300ia.cdr

Source: Abranet - <http://www.abranet.org.br>



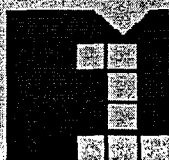
# BRAZIL PENETRATION PROJECTIONS

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|                                                    | 1997         | 1998         | 1999E        | 2000E        | 2001E         | 2002E         | 2003E         | 2004E         | 1999-20004E  |
|----------------------------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|--------------|
| <b>PC and Information Appliance Installed Base</b> |              |              |              |              |               |               |               |               |              |
| Home                                               | 946          | 1,264        | 2,060        | 3,123        | 3,913         | 4,544         | 5,190         | 5,852         | 23,2%        |
| Business                                           | 2,196        | 2,676        | 3,533        | 5,194        | 6,968         | 8,800         | 10,690        | 12,641        | 29,0%        |
| Educational/Government                             | 904          | 1,030        | 1,203        | 1,249        | 1,434         | 1,623         | 1,818         | 2,017         | 10,9%        |
| <b>Total</b>                                       | <b>4,046</b> | <b>4,970</b> | <b>6,796</b> | <b>9,566</b> | <b>12,316</b> | <b>14,967</b> | <b>17,698</b> | <b>20,510</b> | <b>24,7%</b> |
| <b>Internet-Using Devices</b>                      |              |              |              |              |               |               |               |               |              |
| Home                                               | 239          | 636          | 1,138        | 2,030        | 2,739         | 3,408         | 4,152         | 4,975         | 34,3%        |
| Business                                           | 223          | 528          | 797          | 1,818        | 3,136         | 4,576         | 6,414         | 8,216         | 59,5%        |
| Educational/Government                             | 109          | 241          | 329          | 437          | 545           | 649           | 763           | 887           | 21,9%        |
| <b>Total</b>                                       | <b>571</b>   | <b>1,405</b> | <b>2,264</b> | <b>4,285</b> | <b>6,420</b>  | <b>8,633</b>  | <b>11,330</b> | <b>14,078</b> | <b>44,1%</b> |
| <b>Internet Users per Access Device</b>            |              |              |              |              |               |               |               |               |              |
| Home                                               | 2.4          | 2.3          | 2.3          | 2.3          | 2.3           | 2.3           | 2.3           | 2.3           |              |
| Business                                           | 1.1          | 1            | 1            | 1            | 1             | 1             | 1             | 1             |              |
| Educational/Government                             | 3.3          | 3.2          | 3.1          | 3            | 3             | 3             | 3             | 3             |              |
| <b>Total</b>                                       | <b>2.1</b>   | <b>2.0</b>   | <b>2.0</b>   | <b>1.8</b>   | <b>1.7</b>    | <b>1.7</b>    | <b>1.6</b>    | <b>1.6</b>    |              |
| <b>Internet Users per Segment</b>                  |              |              |              |              |               |               |               |               |              |
| Home                                               | 574          | 1,462        | 2,618        | 4,669        | 6,301         | 7,838         | 9,550         | 11,441        | 34,3%        |
| Business                                           | 245          | 528          | 797          | 1,818        | 3,136         | 4,576         | 6,414         | 8,216         | 59,5%        |
| Educational/Government                             | 360          | 773          | 1,020        | 1,311        | 1,635         | 1,948         | 2,290         | 2,662         | 21,1%        |
| <b>Total</b>                                       | <b>1,179</b> | <b>2,763</b> | <b>4,435</b> | <b>7,798</b> | <b>11,071</b> | <b>14,362</b> | <b>18,254</b> | <b>22,320</b> | <b>38,2%</b> |



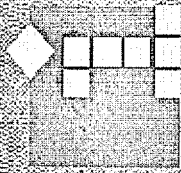
## FIFTY LARGEST WEB SITES IN BRAZIL

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| NAME               | URL                        | CATEGORY        | NAME            | URL                              | CATEGORY      |
|--------------------|----------------------------|-----------------|-----------------|----------------------------------|---------------|
| CORREIOS           | www.correiosonline.com.br  | Public Services | ONECLICK        | www.oneclick.com.br              | Search        |
| IBGE               | www.ibge.gov.br            | Public Services | YAHOO!          | www.yahoo.com.br                 | Search        |
| PLANTÃO ELETRÔNICO | www.seguranca.sp.gov.br    | Public Services | COMPARECOM      | www.comparecom.com.br            | Search        |
| RECEITA FEDERAL    | www.receita.fazenda.gov.br | Public Services | ARREIMATE       | www.arremate.com.br              | Auction       |
| AMERICA ONLINE     | www.americaonline.com.br   | Community       | LOKAU           | www.lokau.com.br                 | Auction       |
| ELEFANTE           | www.elefante.com.br        | Community       | GUIASP          | www.guiasp.com.br                | Leisure       |
| NETCARD            | www.netcard.com.br         | Community       | MASP            | www.uol.com.br/masp              | Leisure       |
| O SITE             | www.osite.com.br           | Community       | NOITE AO VIVO   | www.noiteaovivo.com.br           | Leisure       |
| UOL                | www.uol.com.br             | Portals         | TURMA DA MÔNICA | www.turmadamonica.com.br         | Leisure       |
| ZIP.NET            | www.zip.net                | Portals         | FULANO          | www.fulano.com.br                | Leisure       |
| TERRA              | www.terra.com.br           | Portals         | MTV             | www.mtv.com.br                   | Music         |
| ITAUTECSHOP        | www.itauteshop.com.br      | Retail          | RADIO 89 FM     | www.rockwave.com.br              | Music         |
| PONTO FRIO         | www.pontofrio.com.br       | Retail          | USINA DO SOM    | www.usinadosom.com.br            | Music         |
| SARAIVA            | www.saraiva.com.br         | Retail          | ECOVIAS         | www.ecovias.com.br               | Travel        |
| SUBMARINO          | www.submarino.com.br       | Retail          | EPONTE          | www.eponte.com.br                | Travel        |
| AMERICANAS.COM     | www.americanas.com.br      | Retail          | TURISMONET      | www.turismonet.com.br            | Travel        |
| EASY.CRED          | www.easyc Cred.com.br      | Finances        | CAMERASURF      | www.camerasurf.com.br            | Sport         |
| GAZETA MERCANTIL   | www.gazetamercantil.com.br | Finances        | LANCENET        | www.lancenet.com.br              | Sport         |
| INVESTSHOP         | www.investshop.com.br      | Finances        | CATHO ONLINE    | www.catho.com.br                 | Classified ad |
| ITAÚ               | www.itaui.com.br           | Finances        | ESTADÃO         | www.estadao.com.br/classificados | Classified ad |
| PATAGON            | www.patagon.com.br         | Finances        | NETCASA         | www.netcasa.com.br               | Classified ad |
| BRADERSCO          | www.braderesco.com.br      | Finances        | PLANETA VIDA    | www.planetavida.com.br           | Fitness       |
| MEDIACAST          | www.mediacast.com.br       | Broad band      | SPASITE         | www.spasite.com.br               | Fitness       |
| STARMEDIA          | www.starmedia.com.br       | Broad band      | FIAT            | www.fiat.com.br                  | Cars          |
| MINER              | www.miner.com.br           | Search          | GM CENTER       | www.gmcenter.com.br              | Cars          |
|                    |                            |                 | WEBMOTORS       | www.webmotors.com.br             | Cars          |



## II. CURRENT SITUATION

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### SOME FLAGSHIP APPLICATIONS

- **ELECTRONIC VOTING**

- 100% in 2002

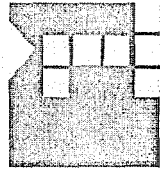
- **TAX INCOME DECLARATION**

- Possible through Internet since 1997

- ~80% of total in 2000

- **INTERNET BANKING**

- Bradesco is fourth in the world (in volume)



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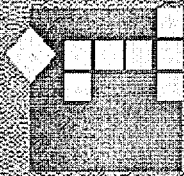
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### III. TRENDS

— TELECOMMUNICATIONS

— INFORMATICS

— THE INFORMATION SOCIETY  
PROGRAM



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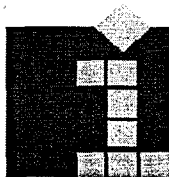
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### III. TRENDS

## TELECOMMUNICATIONS

- **WHOLE SYSTEM PRIVATIZED IN 1998**
- **EXPANSION IN WIRELINE / WIRELESS LINES**
- **WIRELESS - 2.5 AND 3G**



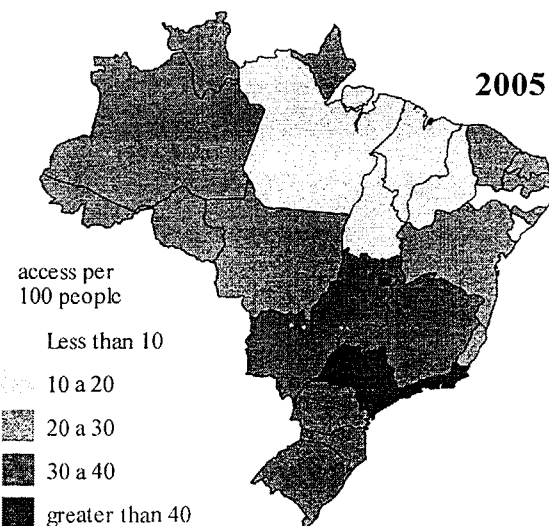
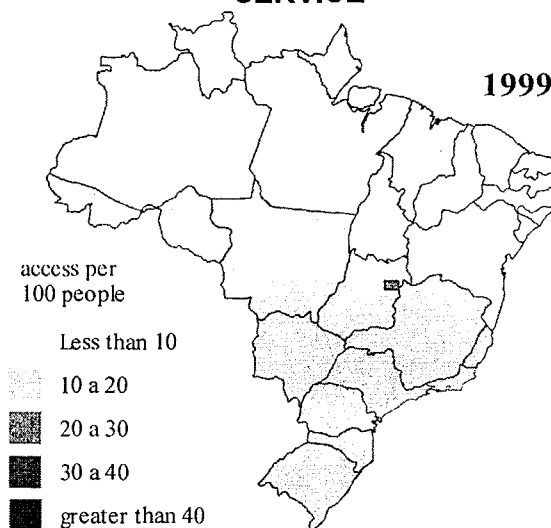
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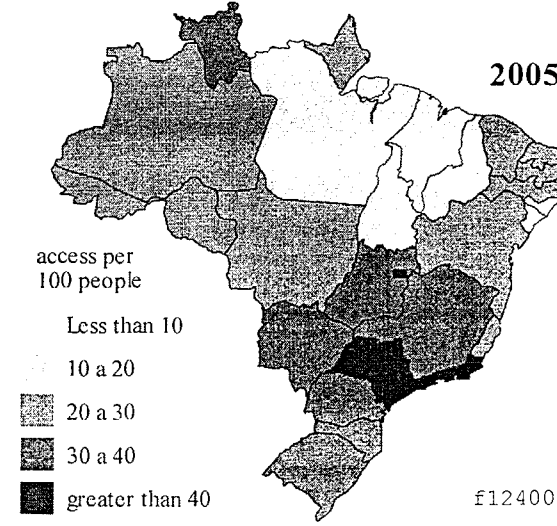
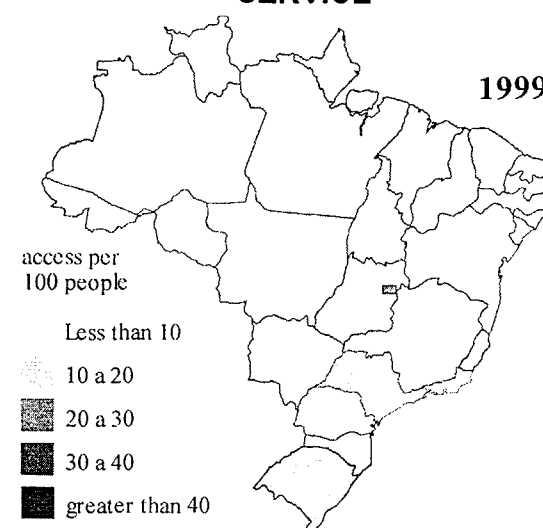
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### III. TRENDS

#### ACCESS RATE OF WIRELINE TELEPHONE SERVICE

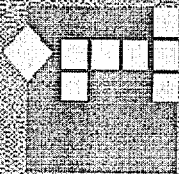


#### ACCESS RATE OF WIRELESS TELEPHONE SERVICE



f12400ia.cdr

Source: Anatel, Paste 2000



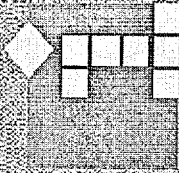
### III. TRENDS

## INFORMATICS

- **FISCAL INCENTIVES FOR MANUFACTURERS BASED IN BRAZIL TO CARRY OUT R&D**

- 1993 - 1999: US\$ 3.5 billion were applied in R&D by companies such as IBM, SIEMENS, MOTOROLA, etc.

- **NEW LAW:** pending in Congress



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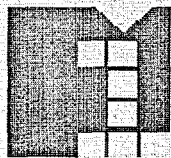
### III. TRENDS

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## MISSION

- NEW CYCLE OF INTERNET INFRA-STRUCTURE & SERVICES
- ARTICULATION OF ACTIONS IN PUBLIC/PRIVATE SECTOR
- FOSTERING IT ADVANCEMENT

FOR ECONOMICAL & SOCIAL DEVELOPMENT

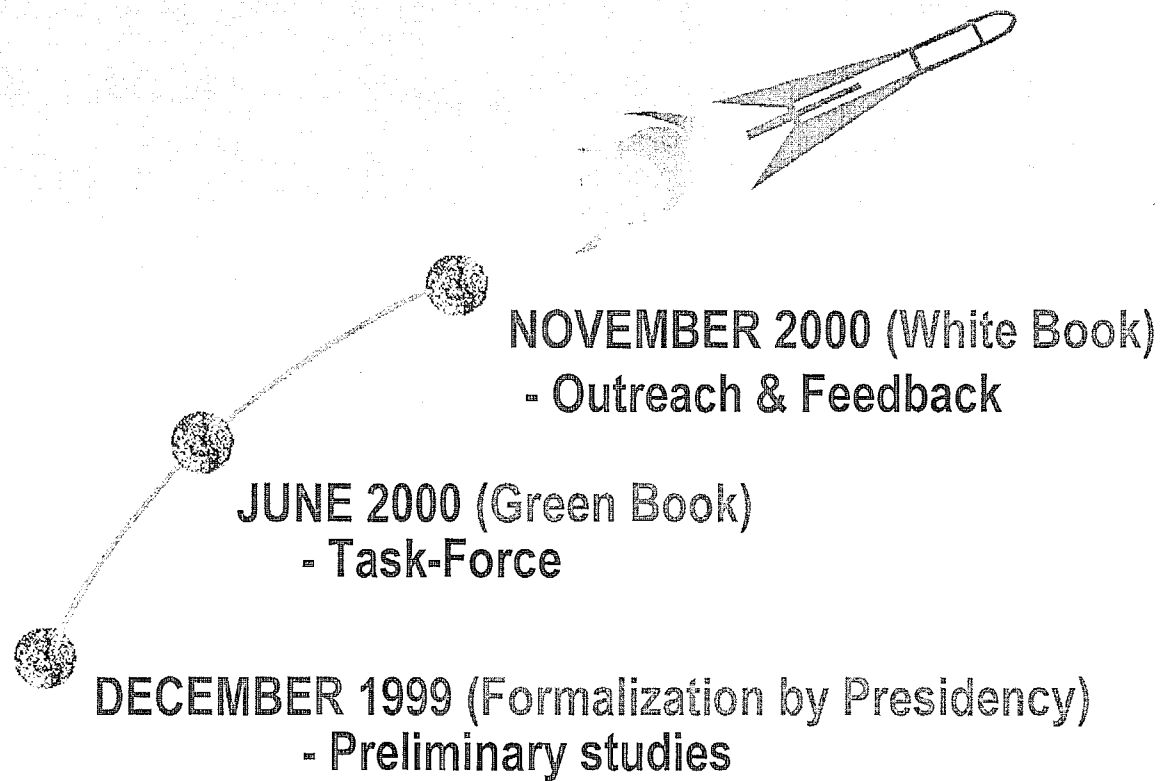


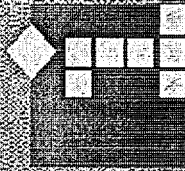
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## THREE-STAGE MODEL

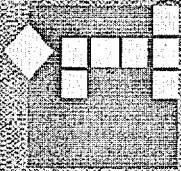




### III. TRENDS

#### LINES OF ACTION

- MARKET & JOBS
- UNIVERSALIZATION OF SERVICES
- HUMAN RESOURCES
- CONTENTS & CULTURAL IDENTITY
- "ON LINE" GOVERNMENT
- KEY-TECHNOLOGIES & APPLICATIONS
- ADVANCED INFRA-STRUCTURE



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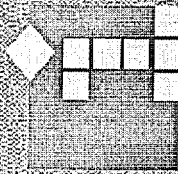
### III. TRENDS

## BUDGET

### FOR THE 2000-2003 PERIOD

**R\$ 3,4 BILLION**  
(approx. US\$ 1.7 bi)

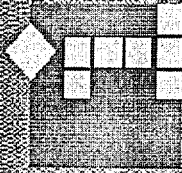
**WHERE ~20% TO DRAW DIRECTLY FROM  
GOVERNMENT EXPENDITURES**



### III. TRENDS

#### **SOME CONCRETE ACTIONS PROPOSED**

- Newstands, Convenience Stores, etc. as Virtual Merchants
- Connection of all Public Libraries in 2001/2002
- One Community Center per City
- Authenticated E-mail for each Citizen at Nearest Post Office
- Local Contents on the Internet
- Affordable Internet Access Equipments
- Foresight Initiative for ITC
- R&D Consortia in Selected Areas



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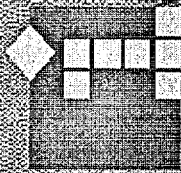
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### III. TRENDS

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## THE ROLE OF GOVERNMENT

- POLICY ISSUES
- KEY INITIATIVES
- EXEMPLARY USE OF IT
- TECHNOLOGICAL DEVELOPMENT



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### III. TRENDS

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## MORE INFORMATION

- PROGRAM FOR THE INFORMATION  
SOCIETY/BRAZIL

[www.socinfo.org.br](http://www.socinfo.org.br)

- TADAO TAKAHASHI
- [tadao@na-cp.mnp.br](mailto:tadao@na-cp.mnp.br)