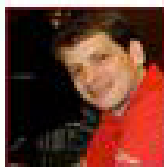


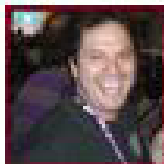
# **Questões relevantes sobre a espionagem americana**

**Rodrigo Assad**

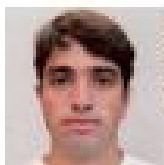
**[www.deinfo.ufrpe.br](http://www.deinfo.ufrpe.br)**



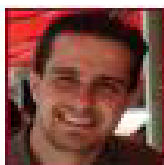
**Vinicius Cardoso Garcia, Ph.D. (Líder)**, Systems Director at Information Technology Center (NTI) of UFPE & Adjunct Professor, Centro de Informática (UFPE), [curriculum](#)



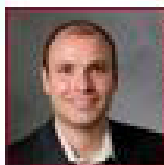
**Rodrigo Elia Assad, Ph.D.**, Innovation and Research Director of IKEWAI & Adjunct Professor, Universidade Federal Rural de Pernambuco (UFRPE), [curriculum](#)



**Frederico Araújo Durão, Ph.D.**, Adjunct Professor, Universidade Federal da Bahia (UFBA), [curriculum](#)



**Alexandre Alvaro, Ph.D.**, Adjunct Professor, Universidade Federal de São Carlos (UFSCar) - Campus Sorocaba, [curriculum](#)



**Daniel Lucrédio, Ph.D.**, Adjunct Professor, Departamento de Computação (UFSCar), Campus São Carlos, [curriculum](#).







2001:

3.000.000.000.000

2011:

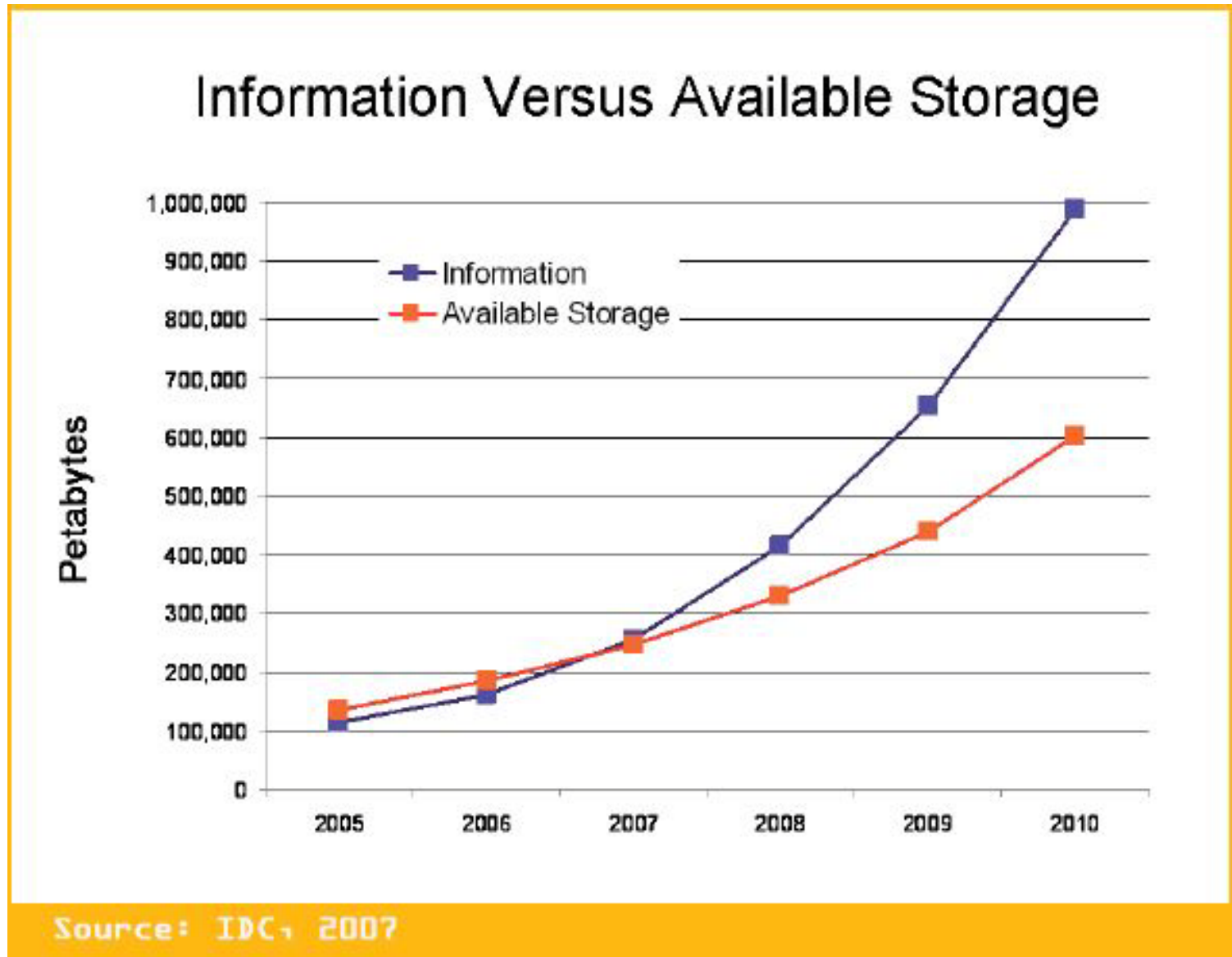
10 anos depois, foram

1.800.000.000.000.000.000.000

[zetta] [exa] [peta] [tera] [giga] [mega] [kilo]



# Há como armazenar tanta informação?



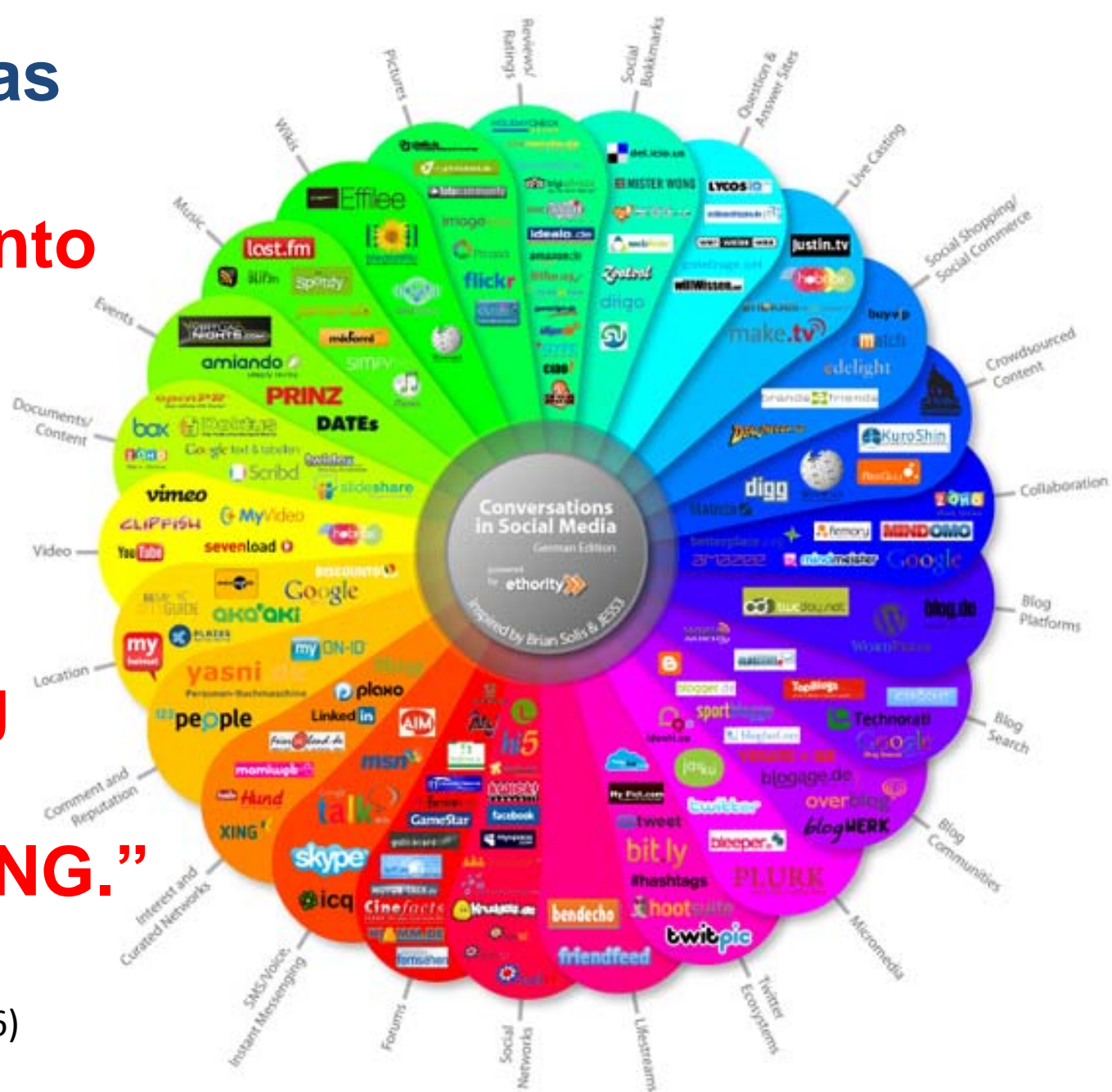
**Quais os  
impactos disso?**

# Mudanças nas formas de relacionamento

...

“Computing Means CONNECTING.”

Wade Roush (2006)







1 **NEW**  
DEFINITION  
IS ADDED ON  
urban

1,600+  
READS ON  
**Scribd.**

13,000+ HOURS  
**MUSIC**  
STREAMING ON  
PANDORA

12,000+  
NEW ADS  
POSTED ON  
craigslist

370,000+ MINUTES  
VOICE CALLS ON

98,000+  
TWEETS

skype

320+  
NEW  
twitter  
ACCOUNTS

100+  
NEW  
Linked in  
ACCOUNTS

1 associatedcontent  
NEW  
ARTICLE IS  
PUBLISHED

6,600+  
NEW  
PICTURES ARE  
UPLOADED ON  
flickr

50+  
WORDPRESS  
DOWNLOADS

695,000+  
facebook.  
STATUS  
UPDATES

125+  
PLUGIN  
DOWNLOADS

79,364  
WALL  
POSTS

510,040  
COMMENTS

Google

Google Search

168 MILLION  
EMAILS  
ARE SENT

694,445  
SEARCH  
QUERIES

60+  
NEW  
BLOGS

1,500+  
BLOG  
POSTS

70+  
DOMAINS  
REGISTERED

600+  
NEW  
VIDEOS



100+

40+

Answers.com

YAHOO! ANSWERS

QUESTIONS  
ASKED ON THE  
INTERNET...

25+ HOURS  
TOTAL  
DURATION



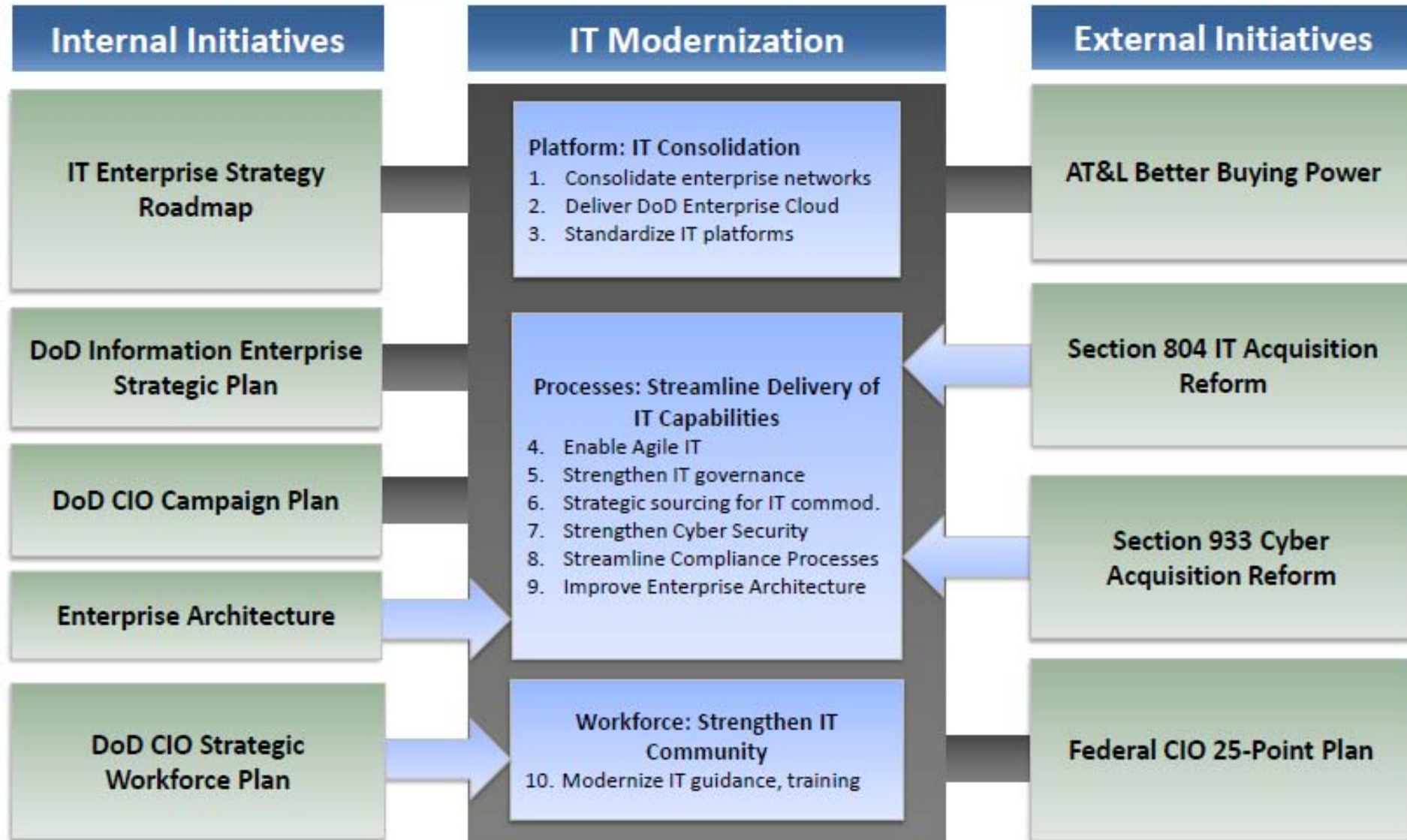
A close-up photograph of Barack Obama, dressed in a dark suit, white shirt, and a patterned tie. He is pointing his right index finger directly at the viewer with a serious, intense expression. He is wearing a gold ring on his ring finger and a watch on his left wrist. The background is dark and out of focus.

**I READ**

**YOUR EMAIL**



# Alignment with Other Initiatives





# DOD IT MODERNIZATION







## BENEFITS OF SUCCESSFUL IT MODERNIZATION

- ✓ Increase Mission Effectiveness
- ✓ Strengthen Cyber Security
- ✓ Improve Outcomes of IT Acquisition
- ✓ Faster Capability Deliveries
- ✓ Improve Interoperability
- ✓ Save Billions Through Cost Efficiencies


### ➤ CONSOLIDATE INFRASTRUCTURE

<b>1. Consolidate Enterprise Networks</b>  <ul style="list-style-type: none"><li>• Consolidate data centers and network operations</li><li>• Optimize to a joint enterprise architecture with secure access</li></ul>	<b>2. Deliver DoD Enterprise Cloud</b>  <ul style="list-style-type: none"><li>• Develop and execute a strategy and standards for a secure DoD cloud environment.</li><li>• Leverage commercial clouds that meet cyber security requirements</li></ul>	<b>3. Standardize IT Platforms</b>  <ul style="list-style-type: none"><li>• Minimize program-unique platforms</li><li>• Drive DoD use of standard platforms</li><li>• Design platforms that ensure a secure cyber environment</li></ul>
---	---	---

### ➤ STREAMLINE PROCESSES

<b>4. Enable Agile IT</b>  <ul style="list-style-type: none"><li>• Lead the development of an Agile IT development methodology</li><li>• Provide Guidance to DoD On Agile IT Best Practices</li></ul>	<b>5. Strengthen IT Governance</b>  <ul style="list-style-type: none"><li>• Restructure IT governance boards for enterprise view</li><li>• Improve DoD IT decisions, strategies, investments</li><li>• Streamline compliance processes</li></ul>	<b>6. Leverage Strategic Sourcing for IT Commodities</b>  <ul style="list-style-type: none"><li>• Implement an enterprise approach for the procurement of common IT H/W &amp; S/W</li><li>• Establish a DoD Commodity Council</li></ul>
<b>7. Strengthen Cybersecurity</b>  <ul style="list-style-type: none"><li>• Develop enterprise cyber situational awareness including authentication</li><li>• Leverage automated tools and continual assessments</li><li>• Streamline certification and reinforce reciprocity</li></ul>	<b>8. Strengthen IT Investments</b>  <ul style="list-style-type: none"><li>• Obtain transparency of IT investments</li><li>• Align IT Investments to DoD strategies</li><li>• Review performance of major investments</li></ul>	<b>9. Improve Enterprise Architecture Effectiveness</b>  <ul style="list-style-type: none"><li>• Transition document based process to decision support model</li><li>• Develop EA Implementation Plan and Instruction</li></ul>

### ➤ STRENGTHEN WORKFORCE

<b>10. Modernize IT Guidance and Training</b>  <ul style="list-style-type: none"><li>• Provide guidance to DoD on adoption of Agile IT best practices</li><li>• Leverage ongoing workforce initiatives</li><li>• Develop a robust IT acquisition community</li></ul>
--



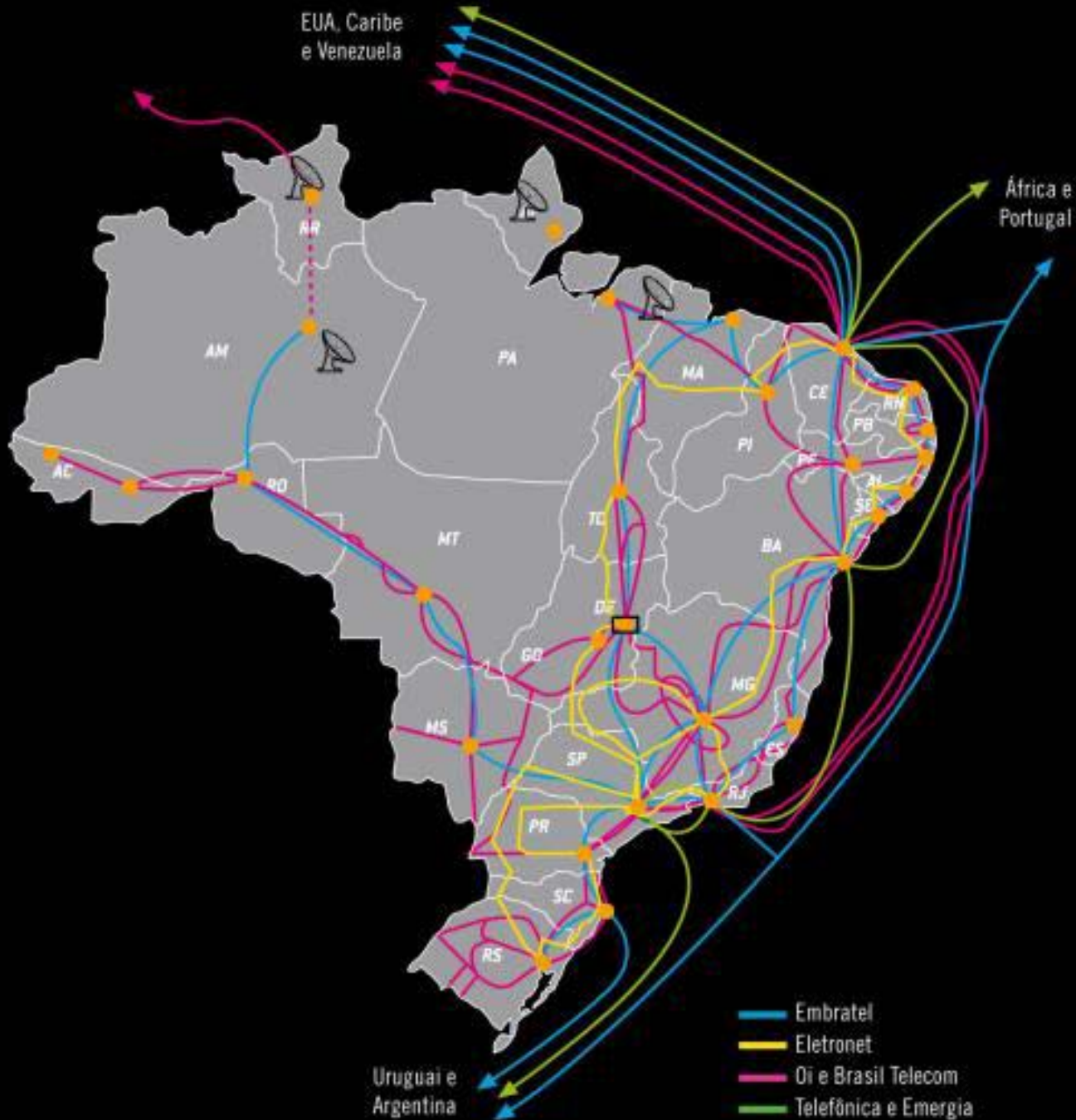
4

Lições

Glo

TeleGeogra

The Source for International Tele  
11225 Massachusetts Ave., N.W. • Suite 11  
Bellevue, WA 98004 • Tel: +1 206 467 0011 • Fax: +1 206 467 0012  
www.telegeography.com



# O MERCADO DAS VULNERABILIDADES

Os mais sofisticados estão no setor energético

ADOBE READER	\$5,000-\$30,000
MAC OSX	\$20,000-\$50,000
ANDROID	\$30,000-\$60,000
FLASH OR JAVA BROWSER PLUG-INS	\$40,000-\$100,000
MICROSOFT WORD	\$50,000-\$100,000
WINDOWS	\$60,000-\$120,000
FIREFOX OR SAFARI	\$60,000-\$150,000
CHROME OR INTERNET EXPLORER	\$80,000-\$200,000
IOS	

Even more importantly, the new market for security vulnerabilities results in a variety of government agencies around the world that have a strong interest in those vulnerabilities remaining unpatched. These range from law-enforcement agencies ([like the FBI](#) and the [German police](#) who are trying to build targeted Internet surveillance tools, to intelligence agencies like the NSA who are trying to build mass Internet surveillance tools, to military organizations who are trying to build [cyber-weapons](#).

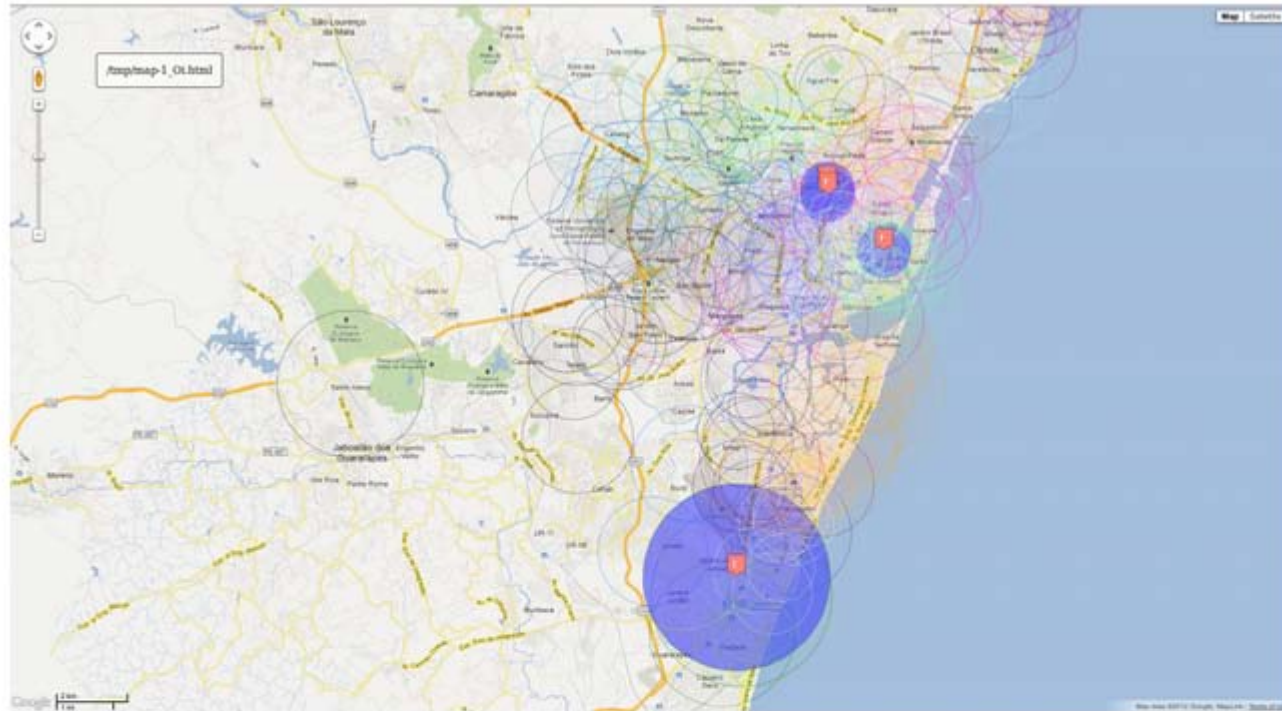
Who's paying these prices says the Grugq, who hints at the American and European ethical concerns, but also Russian mafia guaranteed money," he says, explaining that he has no contacts in the Russian government. "[Russia](#) is flooded with criminals. They monetize exploits in the most brutal and mediocre way possible, and they cheat each other heavily."

As for [China](#), he says that the country has too many hackers who sell only to the Chinese government, pushing down prices. "The market is very depressed," he says. Other regions like the Middle East and the rest of Asia can't match Western prices either.



# Mobilidade

Depending on your HLR provider, the information is illustrated in the example below.



```
[success] => 1
[status] => HLR_STATUS_OK
[number] => +55[redacted]
[imsi] => 72402
[mcc] => 724
[mnc] => 02
[msin] =>
[servingmsc] =>
[servinghlr] =>
[originalnetworkname] => Oi - TIM
[originalnetworkprefix] => 8187
[originalcountryname] => Brazil
[originalcountrycode] => BR
[originalcountryprefix] => +55
[roamingcountryname] =>
[roamingcountrycode] =>
[roamingcountryprefix] =>
[roamingnetworkname] =>
[portedenetworkname] => TIM Brasil
[isported] => 1
[isincorrect] => 1
[isroaming] =>
[charge] => 0.010
```

Operator	Number of tested cells	Smallest		Biggest		Mean coverage radius
		Coverage radius	CID	Coverage radius	CID	
Vivo	369	772m	22381	3476m	21502	1469.37669377m
Oi	290	774m	30712	2652m	33271	1350.62068966m
TIM	241	779m	811	2398m	212	1223.94537815m
Claro BR	208	771m	10436	4258m	40175	1188.98557692m
<b>Summary</b>	1108	771m	10436	4258m	40175	1338.8032491m

“Temos uma grande embaixada em Brasília e um consulado no Rio de Janeiro. A NSA opera nesses prédios. Antenas nas embaixadas podem interceptar sinais de micro-ondas e telefones celulares”, diz James Bramford.



## The CIA and other government agencies

For a brief moment several years ago, Backblaze sold Storage Pods. (We haven't since and don't now.) At the time, two government agencies bought Storage Pods from us with exactly this goal in mind: they wanted a few units to test, if they worked, they would build a team internally to manufacture their own Storage Pods based on the open source hardware specifications.

Neither of those agencies was going to use that storage for surveillance.

On September 8, 2011, however, we received an email titled, "Visit with the CIA". It stated:

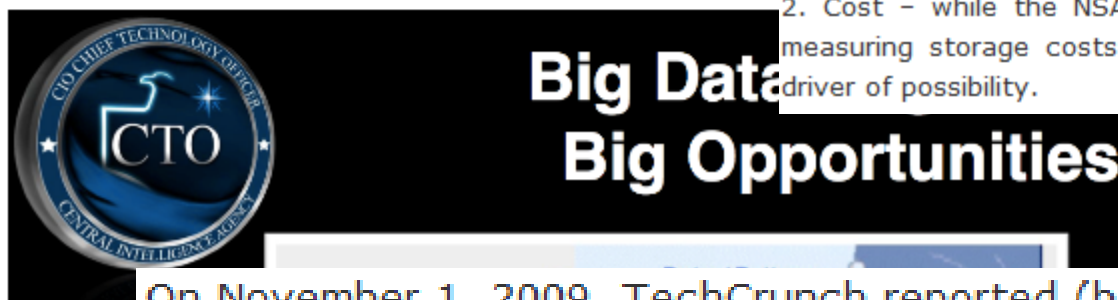
You also might be aware that the CIA has a new five year funded initiative to centralize data services into a large private cloud. I have information on that if you are interested. The project is in discovery mode, the Office of the CTO in becoming aware of all the potential might be deployed. I am organizing a technology team concentrating on infrastructure and security.

### So, why do we think the NSA may be using Backblaze Storage Pods?

With the goal of storing an outrageous amount of data, there would be several design goals:

1. Density – being able to fit as much of that data in as small a space as possible is critical in order to not require building state-sized data centers.
2. Cost – while the NSA is the largest spy-agency spender in the world, when measuring storage costs in billions and trillions, cost does become a significant driver of possibility.

A few days later they sent us a presentation:



On November 1, 2009, TechCrunch reported (based on a book review of *The Secret Sentry: The Untold History of the National Security Agency*) that the NSA intends to build a new \$2 billion Utah-based datacenter to store a yottabyte of surveillance data by the end of 2015.



Por

Onde

Começar

# LEGISLAÇÃO E REGULAÇÃO



PRESIDÊNCIA DA REPÚBLICA  
Gabinete de Segurança Institucional  
Departamento de Segurança da Informação  
e Comunicações

## ORIGEM

Departamento de Segurança da Informação e Comunicações

## REFERÊNCIA LEGAL, NORMATIVA E B

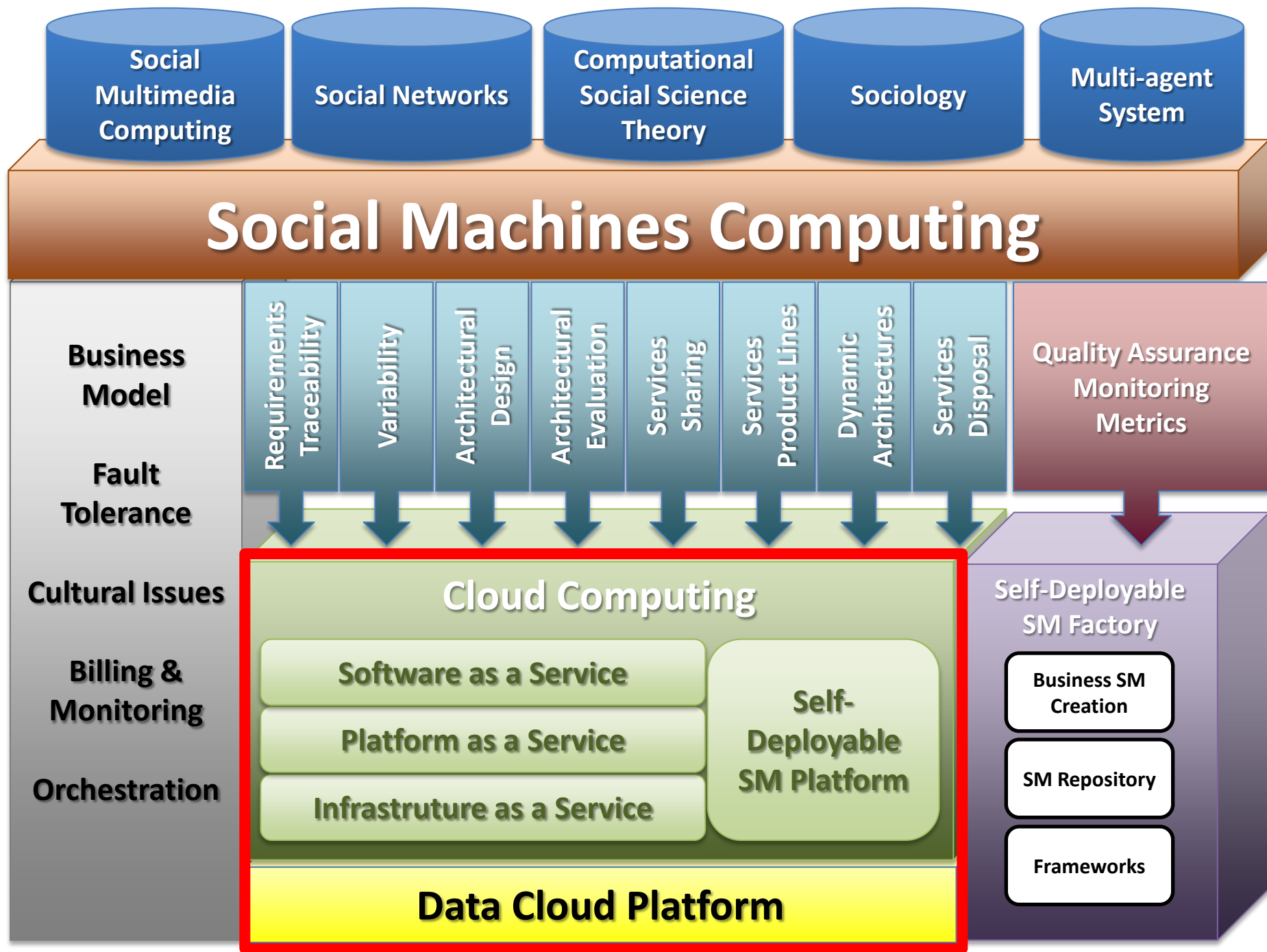
Decreto nº 3.505, de 13 de junho de 2000.  
ABNT NBR ISO/IEC 27002:2005 - Código de Boas Práticas  
Instrução Normativa GSI Nº 1, de 13 de junho de 2006

Número da Norma Complementar	Revisão	Emissão	Folha
14/IN01/DSIC/GSIPR	00	30/JAN/12	1/7

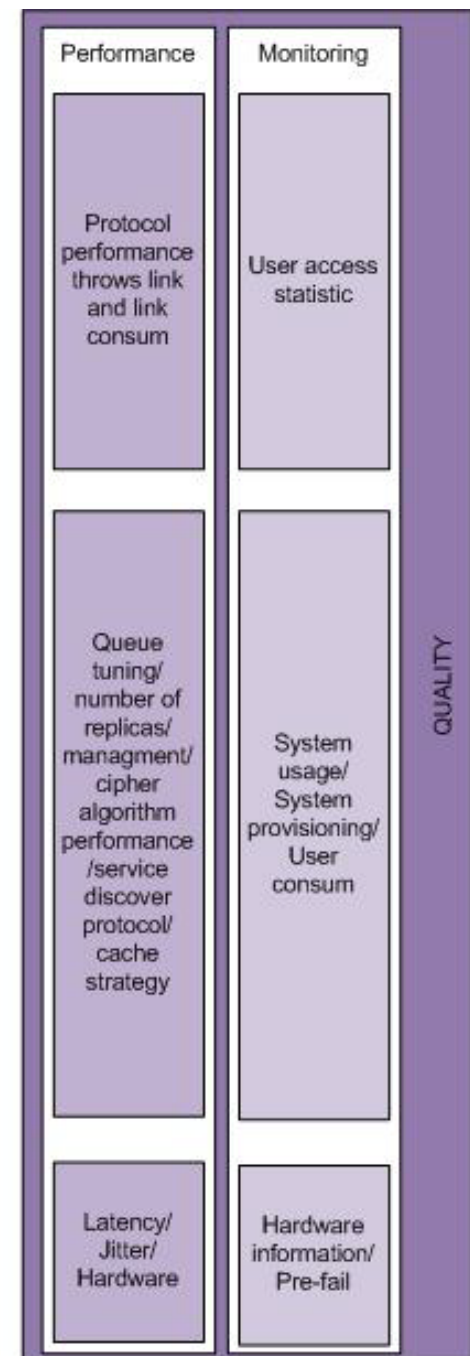
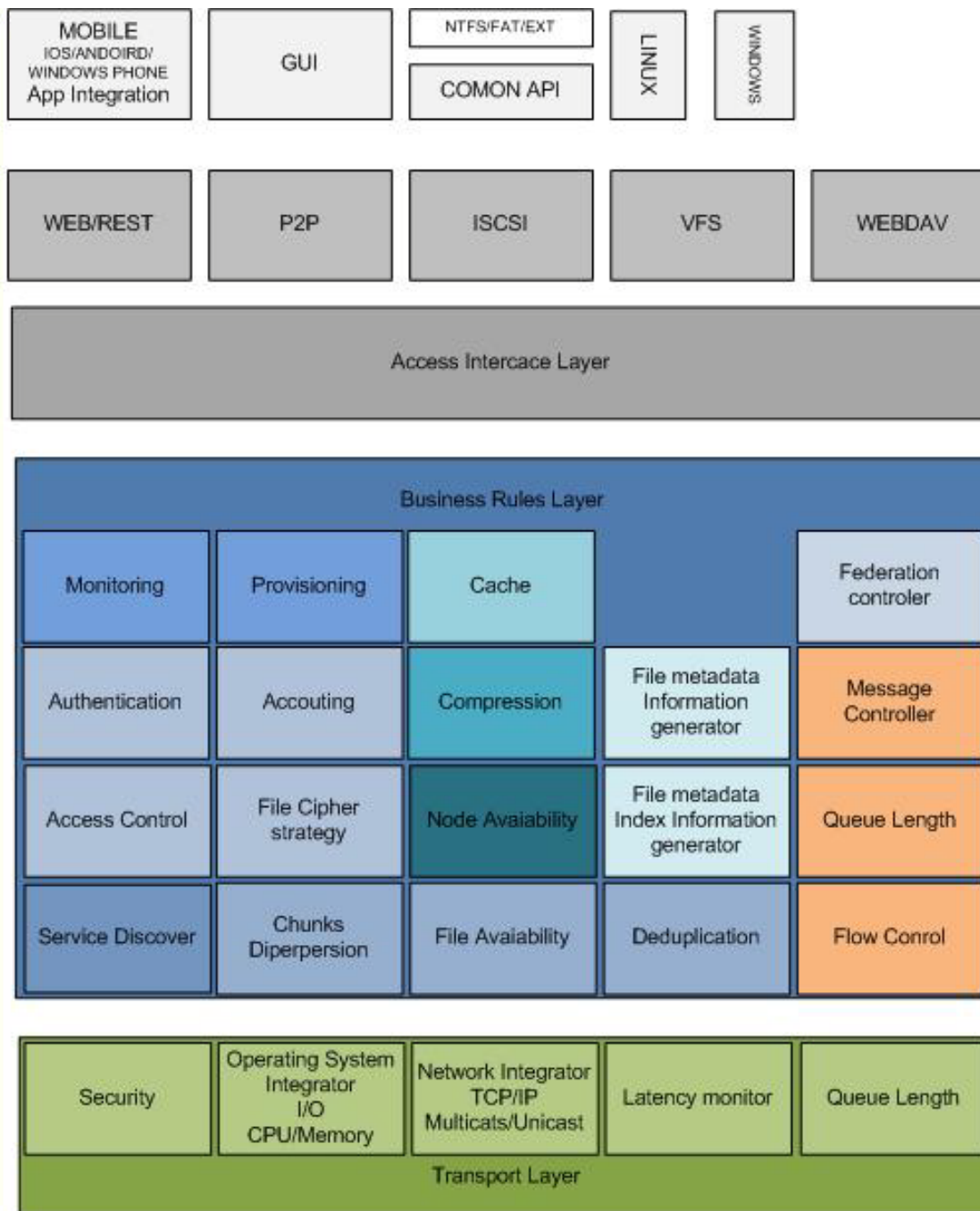
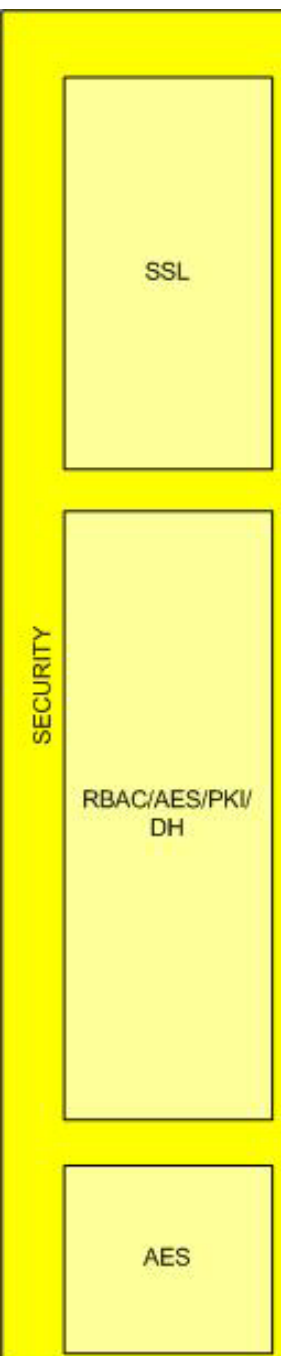
## DIRETRIZES RELACIONADAS À SEGURANÇA DA INFORMAÇÃO E COMPUTAÇÃO DA



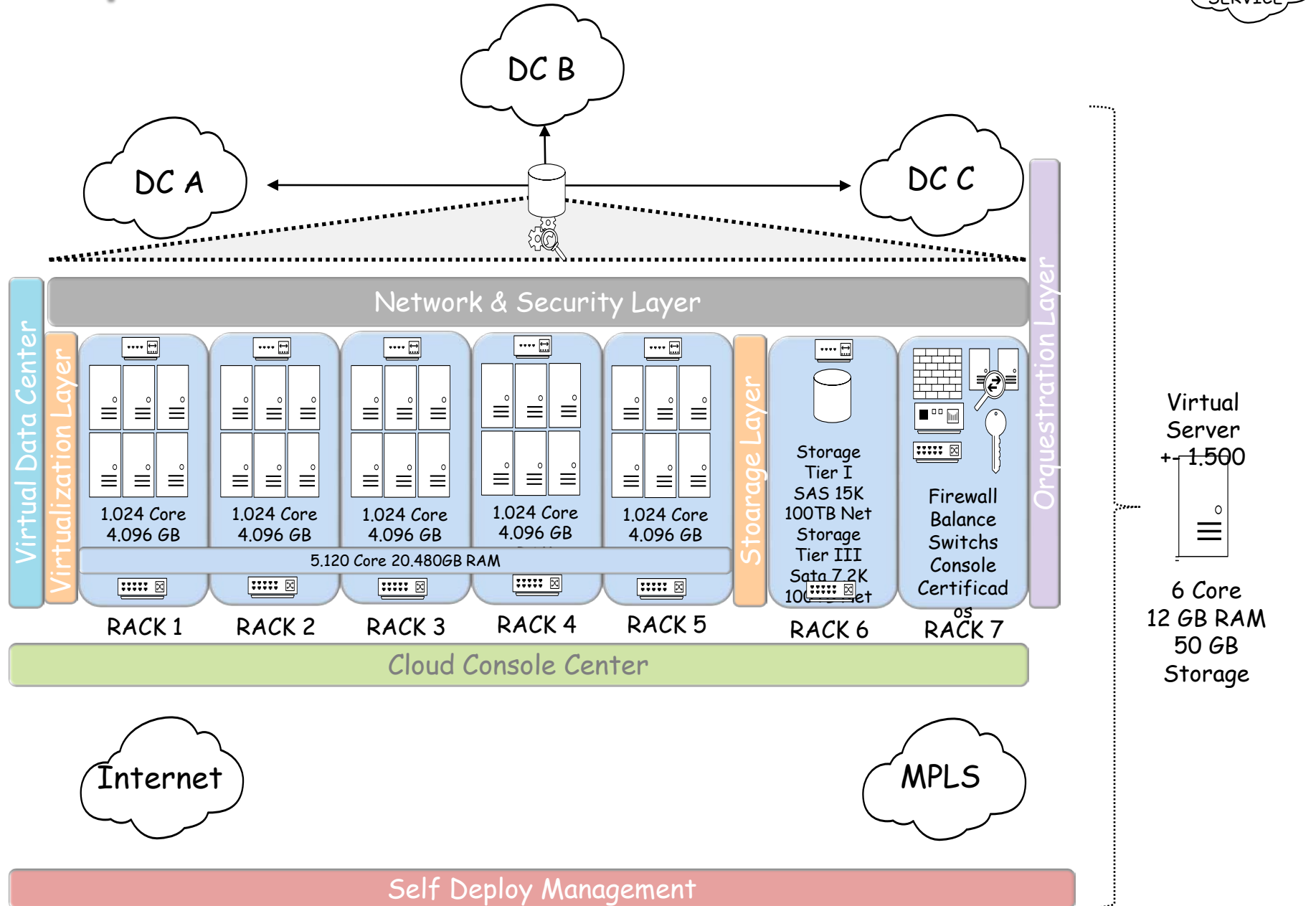
**Marco Civil da Internet**  
seus direitos e deveres em discussão







# Arquitetura da Plataforma



# Alguns pontos para reflexão

- Softwares de monitoramento do e perfil do uso da internet existem é são utilizados por empresas;
  - Ex.: Phorm
- Temos uma chance muito boa de utilizarmos os investimentos para a Copa e Olimpíadas;
  - Câmeras de monitoramento, sistemas de proteção e etc.
- Temos que classificar as nossas informações e salva-las sobre nosso domínio de forma segura;
- A normatização esta com o GSI, A defasa com o Exército, mas a Segurança da Informação ainda precisa definir quem deve cuidar;
- Definição sobre o uso de criptografia e utilização de algoritmos de estado;
- Apenas temos um problema de privacidade ou também de propriedade?



# **Questões relevantes sobre a espionagem americana**

**Rodrigo Assad**

**[www.deinfo.ufrpe.br](http://www.deinfo.ufrpe.br)**