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PARLEMENT EUROPÉEN PARLAMENTO EUROPEO EIROPAS PARLAMENTS
EUROPOS PARLAMENTAS EURÓPAI PARLAMENT IL-PARLAMENT EWROPEW EUROPEES PARLEMENT
PARLAMENT EUROPEJSKI PARLAMENTO EUROPEU EURÓPSKY PARLAMENT
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DG INTERNAL POLICIES OF THE UNION
- Directorate A -
ECONOMIC AND SCIENTIFIC POLICY
POLICY DEPARTMENT

ITRE WORKSHOP

INTERNET GOVERNANCE FORUM 2008: A EUROPEAN PERSPECTIVE

Date: 20 November 2008, 09.00 – 12.00

Venue: European Parliament - Strasbourg - Room **Louise Weiss N1.3**

BACKGROUND AND OBJECTIVES

With over a billion users world-wide, the Internet is the most important infrastructure of the information age which influences society, business and technology on the global as well as on the local level. The Internet Governance Forum, one of the main outcomes of the UN World Summit on the Information Society (WSIS), is a multi-stakeholder forum for policy dialogue on issues of internet governance and will have its third meeting in Hyderabad/India in December 2008.

The workshop is intended to stimulate efficient and effective discussion among experts on key topics and to provide expert advice and recommendations to the EP *ad hoc* delegation in order to prepare its input and position vis-à-vis the third IGF meeting. The workshop will provide a forum for invited independent experts and participants to exchange views, analytical research and visions on the political, economic, social and legal issues of Internet governance. The crucial aim is to examine how global governance arrangements are being defined around specific Internet policy issues.

Faced with the convergence of telecommunication, broadcasting and information technologies the workshop looks toward analysing the Internet governance issues within the broader perspective of past development, present trends, and future prospects. All discussions and results from the workshop will be compiled into a report and communicated to all interested MEPs and participants at the workshop.

Workshop Programme

09:00 Welcoming address and opening remarks - MEP Catherine Trautmann, head of the EP *ad hoc* delegation to the third IGF meeting.

SESSION 1: INTERNET GOVERNANCE & DOMAIN NAMES: THE WAY FORWARD

The process of introduction of new generic Top Level Domains (TLDs) and Internationalized Domain Names (IDNs) will open up the Internet turning it into a truly global and multilingual tool, bringing new opportunities for Internet users and providers to develop new services as well as new challenges for existing registries, registrars and ISPs. After years of debate, ICANN reform has made significant progress, but that some key areas need to be further improved in order to complete the transition to an agreed model of multi-stakeholder coordination of the Internet's unique identifiers. This session aims to analyse important aspects of the current debate and to explore different alternatives for managing the DNS namespace.

09:10 Presentation by **Prof. Wolfgang Kleinwächter**

Professor for International Communication Policy and Regulation at the Department for Media and Information Sciences of the University of Aarhus, a former member of the UN Working Group on Internet Governance, a former member of the UN Working Group on Internet Governance (WGIG).

- How the Domain Name System is evolving? Who are the potential actors for the global governance - an extended ICANN, ITU, etc...?
- What are the legal, operational, business and political issues of the ongoing reform? What is the EU position on the three question areas identified in the transition action plan? What is the future of ICANN with the completion of the Joint Project Agreement (JPA)?
- How to achieve broad representation of global Internet communities? How to promote cultural and linguistic diversity on the internet? What are the benefits and new challenges resulting from the creation of new and multilingual top-level domains (TLDs)?
- How to ensure that the security, stability and interoperability of the DNS is maintained? How to minimize the risks of domain name testing, cybersquatting, and consumer confusion?

09:30 Questions and answers session

SESSION 2: TRANSITION FROM IPV4 TO IPV6: SUCCESS & CHALLENGES

IPv6 (Internet Protocol, version 6) is the next version of the Internet Protocol, capable of eliminating the risks and limitations associated with the current version of the IPv4 protocol and better addressing the emerging needs of the information society characterised by a proliferation of new networked devices. This session will

explore the level of IPv6 take-up in Europe and the ways to achieve interoperability for the period of co-existence between IPv4 and IPv6 as well as to identify the remaining challenges, bottlenecks and security implications of IPv6 deployment. The crucial aim is to provide appropriate strategic recommendations suggesting the way forward and the actions to be initiated by the various stakeholders - regulators, standardisation bodies, ICT industries and end-users - to stimulate IPv6 connectivity.

09:45 Presentation by **Prof. Rolf Weber**

Director of the European Law Institute and of the Centre for Information and Communication Law, Faculty of Law, University of Zürich

- How long we will have enough IPv4 addresses? How to better allocate the remaining IPv4 address space and better re-use allocated address space?
- What are the drivers and challenges for transitioning to IPv6 through a dual IPv4/IPv6 environment? Is there a risk to split the Internet into two address spaces?
- What are the drivers and challenges of IPv6 deployment? What is the current status of IPv6 deployment? What lessons could be learned from successes and barriers that have been identified in IPv6 implementations to-date?
- How to accelerate the transition from IPv4 to IPv6? What is the role of different stakeholders in the transition to IPv6? Are Internet-poor countries ready in upgrading themselves to IPv6? Is there a need for an EU initiative on this technology?

10:05 Questions and answers session

SESSION 3: THE INTERNET OF THE FUTURE: ACHIEVING TRANSPARENCY, PLURALISM AND DEMOCRACY

User generated content, Web 2.0, RFID, Internet of things are no more buzzwords only, but have already started to challenge the way some of us currently lead our lives and expect to live them in the future. Recognising the Internet as a key infrastructure in addressing mainstream policy challenges (e.g. ageing, health, environment, globalisation…), this session will present different approaches and perspectives on the scope and implications of the future Internet governance debate. It will identify the priority issues which should be addressed in the near future as well as bring into focus emerging issues which could be of importance to the future agenda of the IGF.

10:20 Presentation by **Prof. Yves Poullet**

Director, Research Centre on IT and Law (CRID), University of Namur, Belgium

- How to address the vulnerability issues (security, privacy, etc.)? What is the relationship between security, privacy and openness? Are there new rights in cyberspace? Is there a need for an Internet Bill of Rights?

- What are the public policy issues related to key elements of Internet governance in order to foster the sustainability, robustness, stability and development of the Internet?
- How to ensure the interaction between the Future Internet and the Internet of Things towards a new "post-Internet" network? What concrete actions should the European Union take at international level?

10:40 Questions and answers session

SESSION 4: EUROPEAN INTERNET GOVERNANCE APPROACH: OVERVIEW BY THE EUROPEAN COMMISSION

This session provides an opportunity for interactive discussion on the EU policy and activities in relation to internet governance.

10:55 Presentation by **Michael Niebel**

Head of Unit, Internet; Network and Information Security, European Commission

- What are the key challenges of internet governance at European level?
- What is the role of EU regarding internet governance? What are the policy orientations and activities of the European Commission?
- What does European business expect from internet governance? Do we need more regulation for the Internet? What should a new policy framework look like?
- How can the EU increase its impact and build a stronger presence of Europe in the design of the Internet? How can Europe ensure that its impact on defining internet governance will be felt?

GENERAL DEBATE

11:15 Debate with all the panellists - Which of the many issues involved in Internet governance should be given priority in the near-term?

CONCLUSIONS: PRIORITY-SETTING AND WRAP-UP

11:50 Closing remarks – MEP Catherine Trautmann

The Workshop is organised by the Policy Department A and the ITRE Secretariat

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Internet Governance & Domain Names

IGF – An European Perspective
ITRE Workshop
European Parliament
Strasbourg, November 20, 2008

Wolfgang Kleinwaechter
University of Aarhus

Internet Governance

- DNS was invented in the 1980s, managed by one man (Jon Postel delegated by handshake)
- IANA contract in 1988 (expired 1998)
- Term Internet Governance emerged in the 1990s used by the HIIP-Project at Harvard JFK School of Government in the understanding of “Governance without Government” (self-regulation/private sector leadership)
- Various efforts to “enhance/internationalize” IANA (ISOC, IAHC, Green & White Paper with strong EU comments which finally led to ICANN in 1998)

The WSIS IG Conflict

- In WSIS (2002) China argued that private sector leadership for IG was good for one million Internet userss but governmental leadership is needed for one billion+ Internet users
- The controversy “private sector leadership vs. governmental leadership” led to the UN Working Group on Internet Gonvernance (WGIG)

The WGIG Compromise

- WGIG proposed “Multistakholderism” instead of “leadership” (Government, Private Sector, Civil Society, technical & academic community)
- Internet should NOT be governed by a single unity
- There should be not singular IG Model
- Multilayer Multiplayer Mechanism (M3) where the various stakeholders are involved according to their specific roles and responsibilities
- Working together via enhanced communication, coordination and cooperation (C3)

The Tunis Agenda

- In November 2005 the 2nd World Summit on the Information Society (WSIS) in Tunis accepted the WGIG proposal in principle by
  - Agreeing on a framework of basic principles (openess, transparency, multilingualism, multistakeholderism, equal rights, sovereingty etc.)
  - Creating the Internet Governance Forum (IGF)
  - Launching a process of “enhanced cooperation” among stakeholders and governments

The Internet Governance Forum

- NO new UN Intergovernmental Internet Organisation but a multistakholder discussion platform without decision making capacity which sends messages to relevant institutions for taking actions, where needed
- Started 2006 in Athens, continued 2007 in Rio de Janeiro followed by Hyderabad (2008), Cairo (2009) and Vilnjus/Baku (2010)
- About 2000 participants from all stakeholders (Davos of the Internet)

How the Domain Name System is evolving?

- DNS has proofed its efficiency (accomodated incredible quantative growth from several thousands to nearly 200 million domain names)
- At the eve of qualitative growth with new generic and multilingual TLDs
  - New TLD categories (GEO-TLDs, Corporate TLDs etc.)
  - iDNs (Chinese, Cyrillic, Arabic etc.)

Who are the potential actors for the global governance: An extended ICANN, ITU or something else?

- Multistakeholder model organisaiton in form of a Multilayer Multiplayer Mechanism
- Extended ICANN?
  - Reconsideration of Board/GAC Relationship
  - GNSO as core business
  - NRO/CNSO/former PSO in more independent bodies?
  - Greater role for At Large/Users
- Extended ITU?
  - Reconsideration of the relationship between voting governments and non-voting sector members
  - Inclusion of Civil Society
- IGF as “watchdog” for IG?
  - Platform for ITU-UN-UNESCO-COE-EU-ICANN-IETF-W3C-NRO etc. enhanced collabaration?
  - WTPF as waste of ressources?

What are the legal, operational, business and political issues of the ongoing reform?

- Mandate & Legal Status
- Contractual Arrangement with USG
- Future Role of the GAC
- Contractual Arrangements with Non-Governmental Constituencies
- Multistakeholder Model
- Role of Staff (Who serves whom?)

What is the EU position on the question identified in ICANNs transition action plan?

- To address freedom from capture
  - Commercial capture by market dominance (competition and anti trust law)
  - Governmental capture by some government
  - Staff Capture
- To strengthen ICANN's accountability to its community
  - Transparency in the last mile of PDP
  - review process
  - Strengthening Ombudsman
- To internationalize ICANN
  - ICANN International?
  - Regulation by contracting?
  - Conflicting jurisdictions (Whois, competition law)
- To Ensure Financial and Operational Security
  - Broadening of income sources but keeping the non-commercial public benefit nature
  - Transparency for income from gTLD process
  - DNS Solidarity Fund?
- To Maintain Secure and Stable operations
  - role of US Government / new administration & GAC
  - DNSSec
  - contingency plan

What is the future of ICANN with the completion of the Joint Project Agreement (JPA)?

- JPA is mainly symbolic (reporting & consultation)
- Without JPA broader recognition and legitimacy but need for greater accountability (no “abstract independence”)
- Transparent PDPs and procedures for interaction among stakeholders
- Redefinition of role of GAC (internal GAC procedures as well as interaction among GAC, the Board and other stakeholders)
- Future of the IANA contract (Authorization of the Publication of TLD Zone Files in the Root)
- Future of ICANN-VerySign-DOC contractual arrangements (Hidden Server)

How to achieve broad representation of global Internet communities?

- Strengethening of weak constituencies (At Large, Non Commercial, developing countries)
- Fellowship programme (support fund from new TLD programme?)
- Political awareness among governments both in developed and developing countries (GAC meetings in Geneva or New York City?)
- Multilingualism (ccTLD IDNs)
- Regional bodies

How to promote cultural and linguistic diversity on the internet?

- TLD level: ccTLD IDN fast track
- Content is not ICANNs mandate but .cat is an interesting exmpale
- ICANN documents in various languages
- ICANN meetings should be more outreach oriented (university and local business day etc.)
- Regional ICANN offices?

New generic and multilingual Top Level Domains (TLDs): Benefits and Challenges?

- Benefits:
  - Removing of language/script barriers
  - More choice for consumer
  - New business opportunities
  - Opportunity for a more systematic ordering of new domain name spaces
- Challenges:
  - Confusion ?
  - Consumer Protection
  - Security (Phishing)

How to ensure that the security, stability and interoperability of the DNS is maintained?

- Avoid risky experimentation with oversight (if it is not broken, don't fix it)
- Enhance security at the Root & Name Server Level (DNSSec)
- Reduce incentives for alternative (language) roots (Fast Track ccTLD iDNs)
- Raise awareness among all stakeholders (main security risk is the naiv and uninformed enduser)

How to minimize risks of domain name testing, cybersquatting, and consumer confusion?

- Consumer / End User Training & Education
- Identifying gaps in PDPs (domain name tasting as example)
- Review and Enhancing of UDRP mechanisms

Future Internet

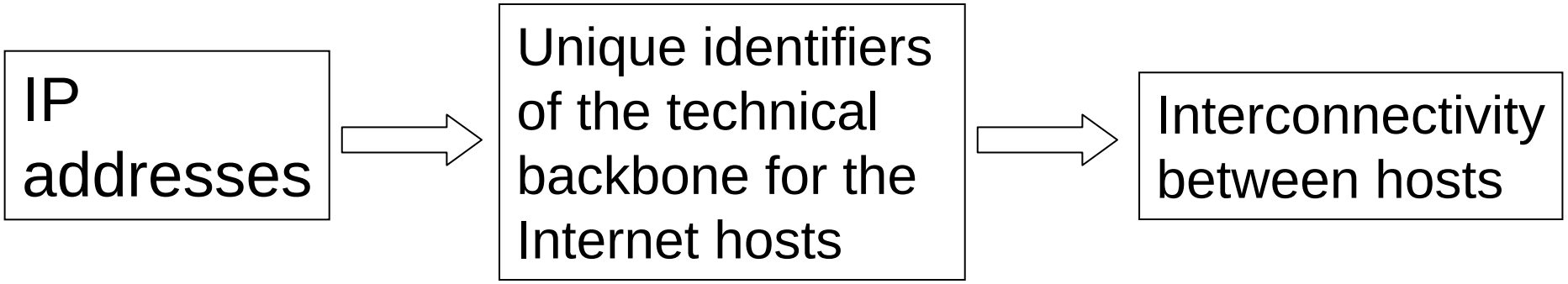
- The governance aspect will remain an important part of the future Internet, in particular if new technical protocols touch public policy components (privacy, security, freedom of expression, intellectual property rights etc.)
- Multistakholderism as a guiding principle for NGN Governace
- Challenge Internet of Things, RFIDs & Object Naming System

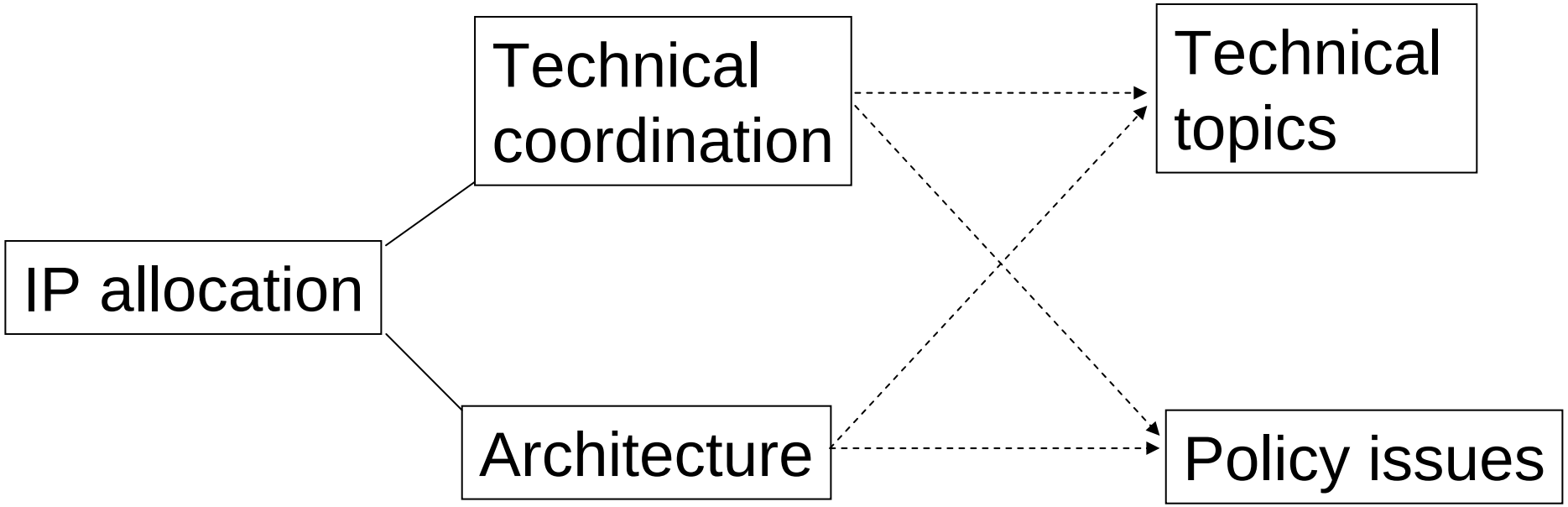
Universität Zürich
Rechtswissenschaftliches Institut

Prof. Dr. Rolf H. Weber

Transition from IPv4 to IPv6: Success and Challenges

Strasbourg, 20th November 2008


IP addresses
Unique identifiers of the technical backbone for the Internet hosts
Interconnectivity between hosts

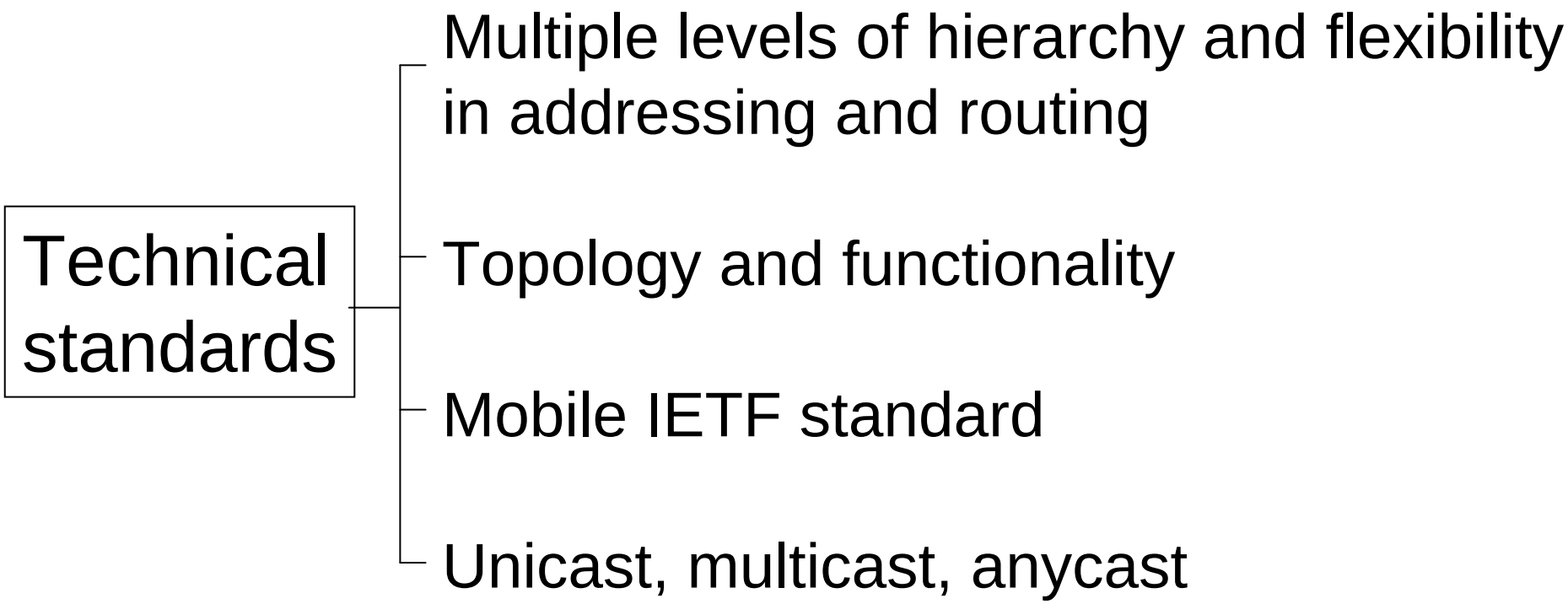

Technical coordination
Technical topics
IP allocation
Architecture
Policy issues

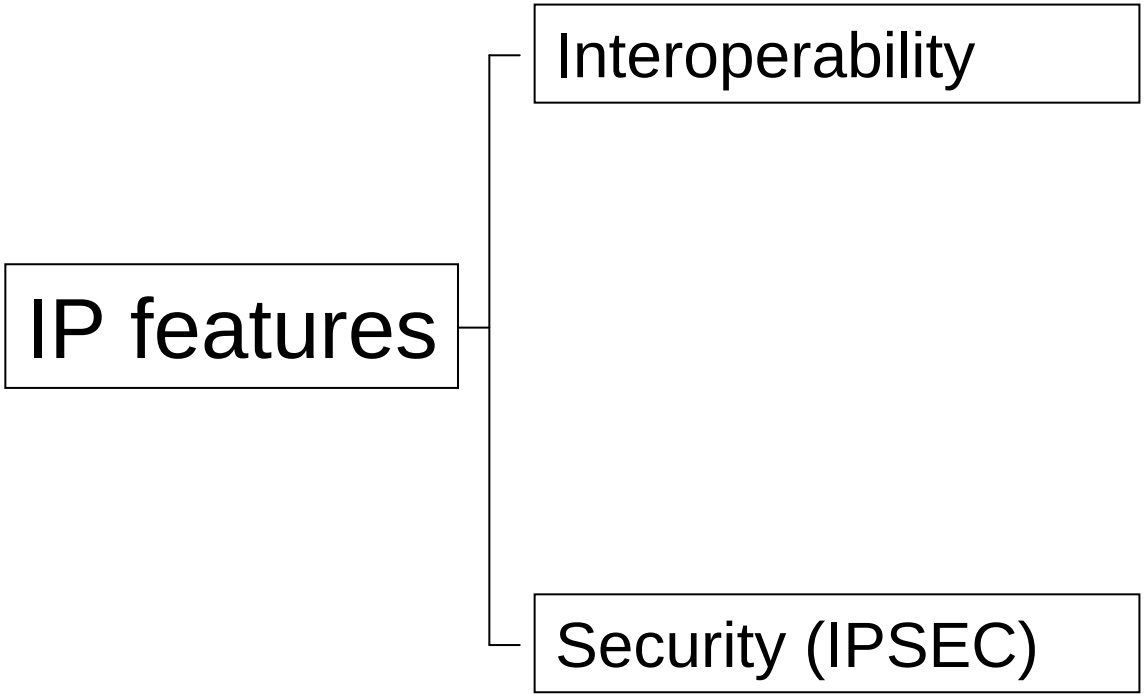
Restricted capacity

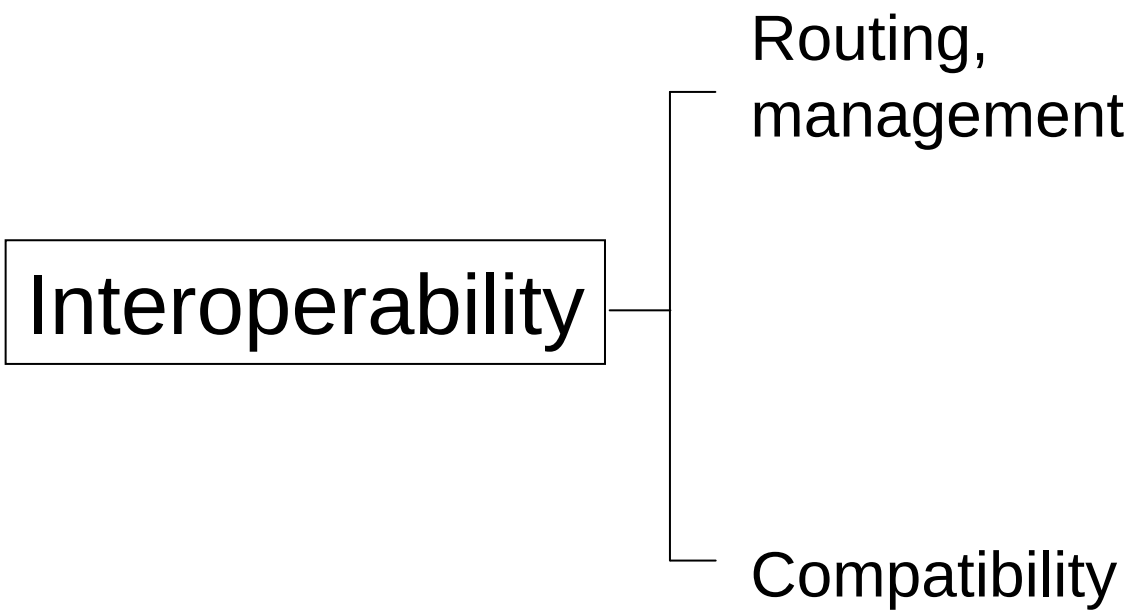
(as of 5 November 2008 at 15:45)

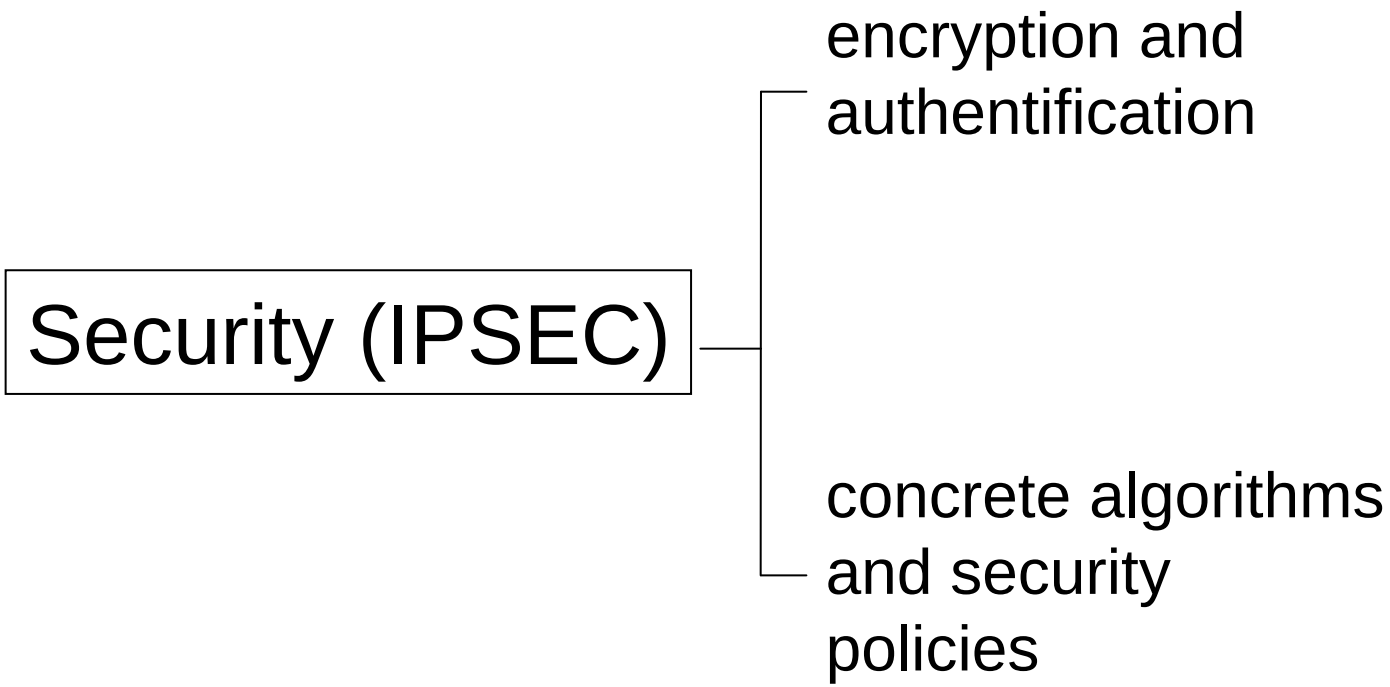
Regional registry IPv4 address exhaustion in 1201 Days, 9 Hours, 16 Minutes, 47 Seconds.

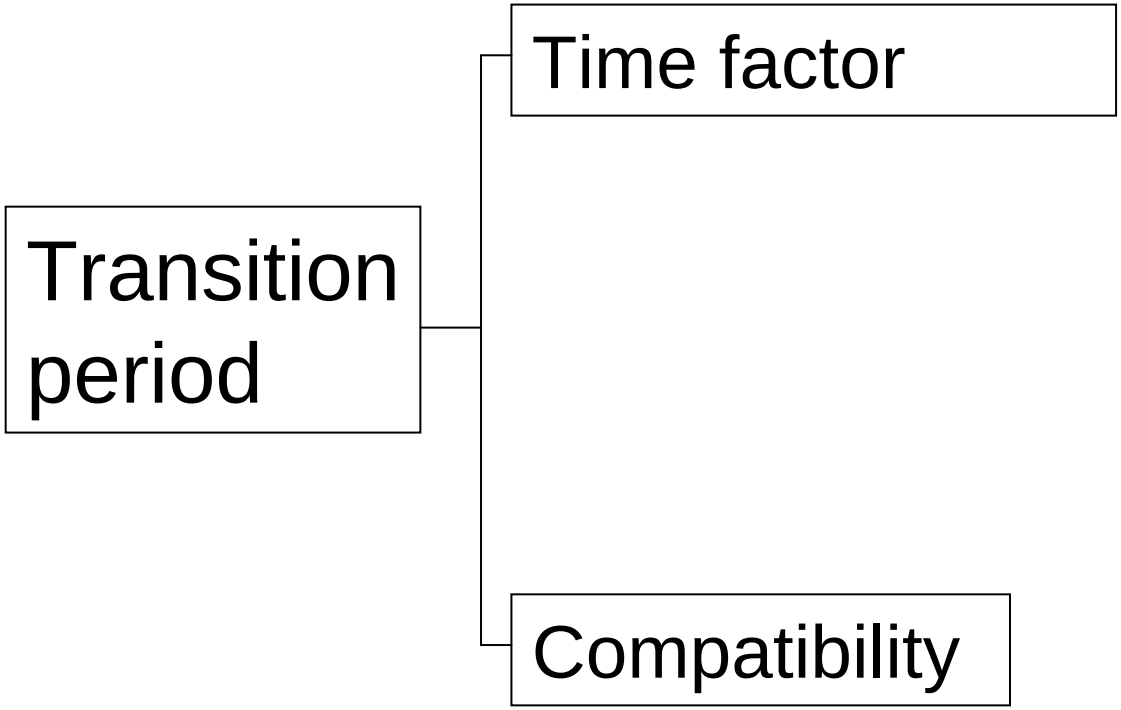
(There are 824 days until Central Registry IPv4 address exhaustion.)

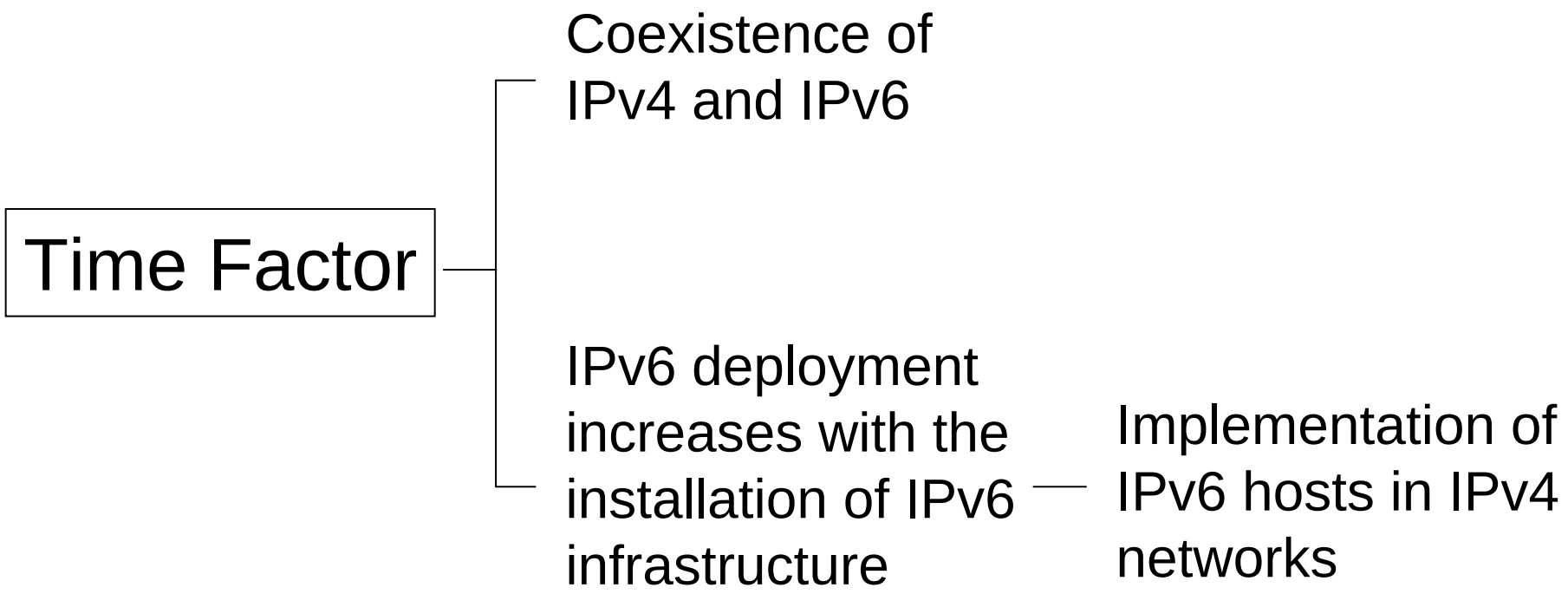

Technical standards
Multiple levels of hierarchy and flexibility in addressing and routing
Topology and functionality
Mobile IETF standard
Unicast, multicast, anycast

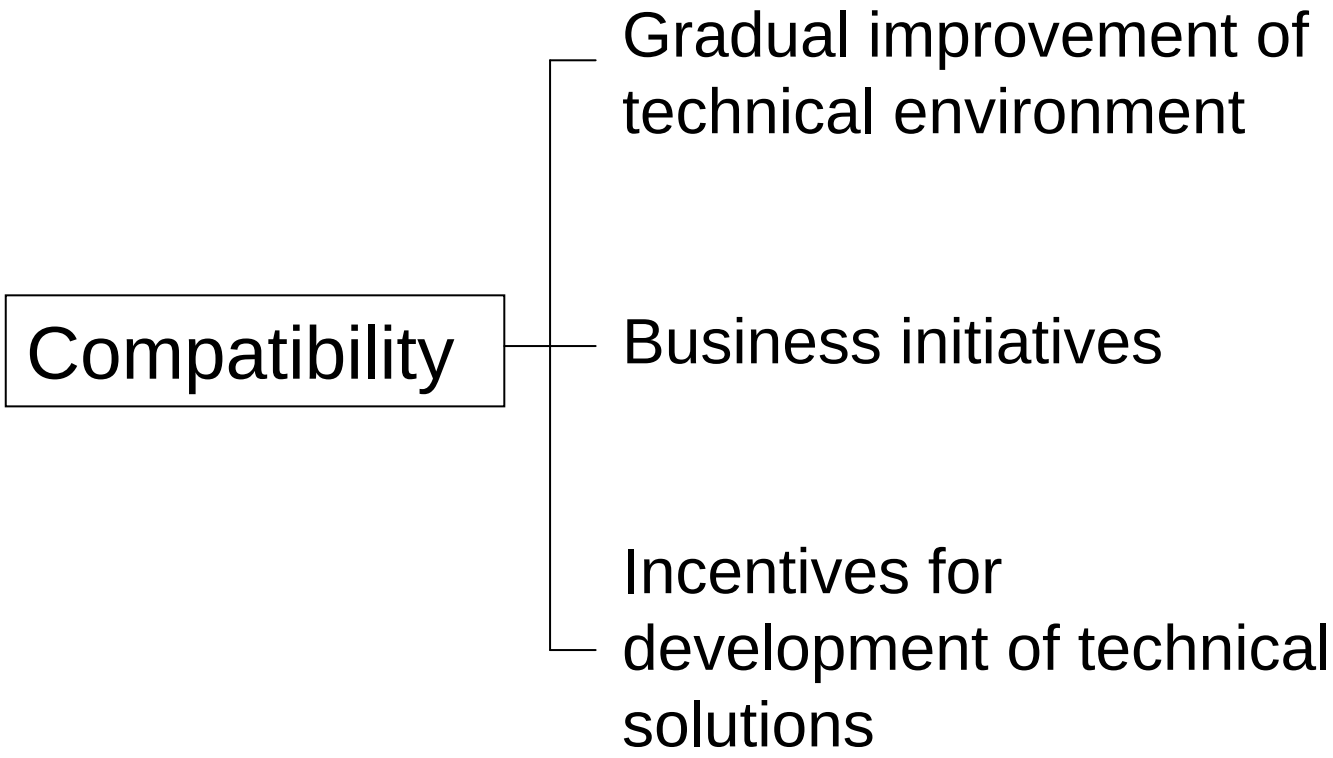

IP features
Interoperability
Security (IPSEC)


Routing,
management
Interoperability
Compatibility


Security (IPSEC)
encryption and authentification
concrete algorithms and security policies

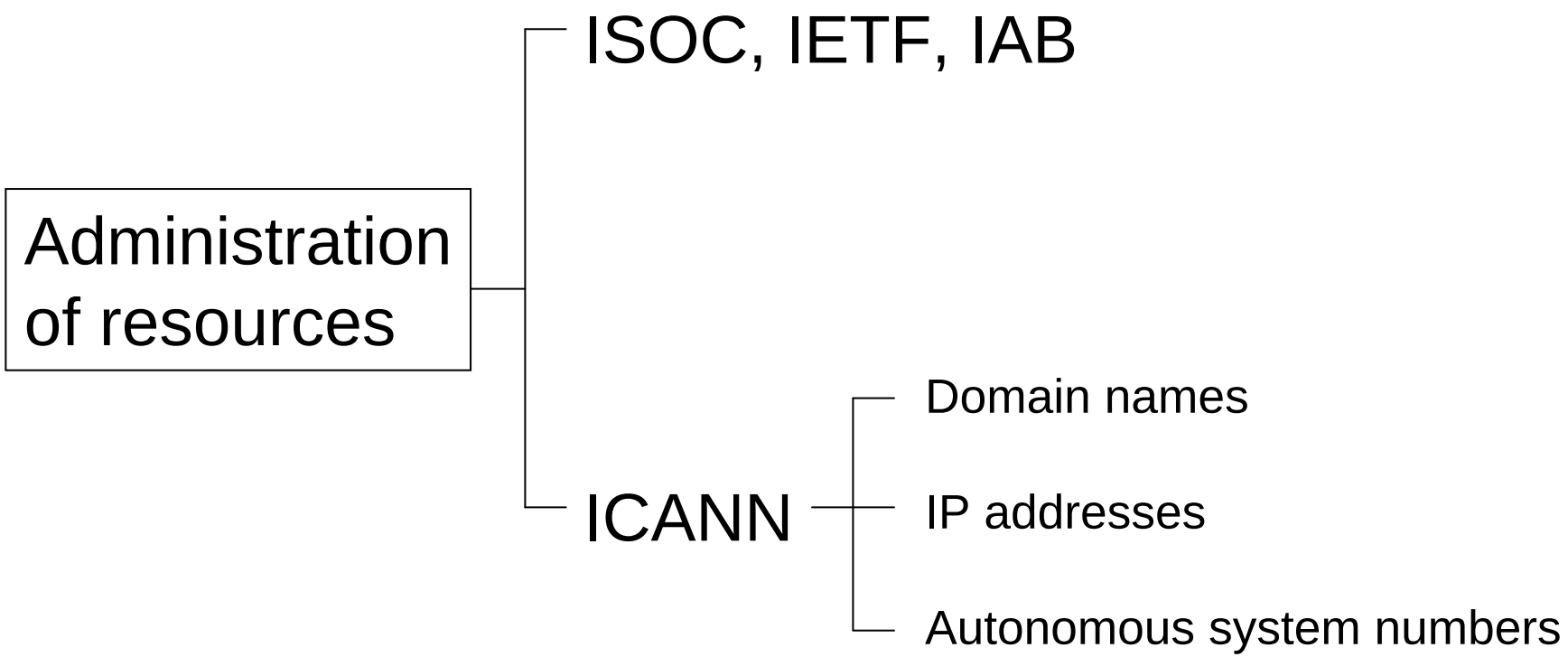

Transition period
Time factor
Compatibility

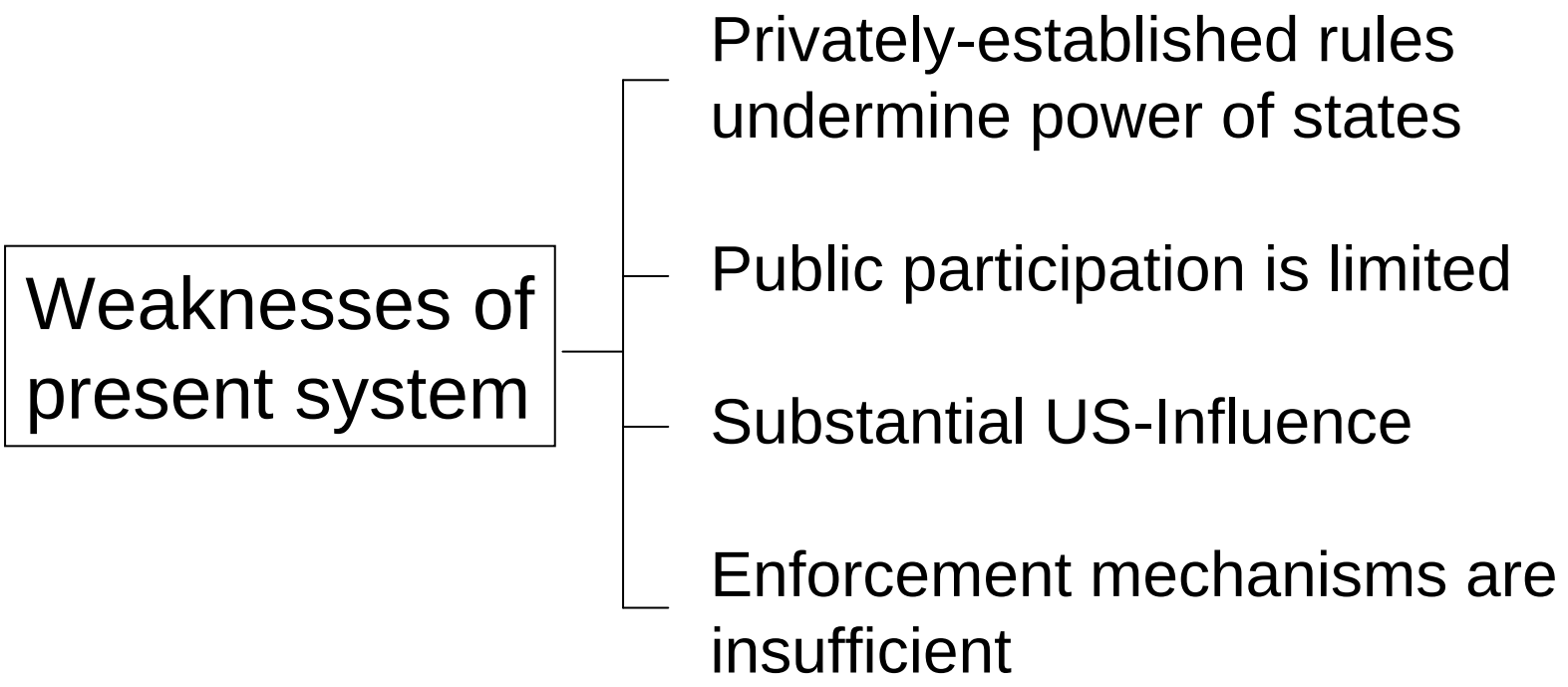

Time Factor
Coexistence of IPv4 and IPv6
IPv6 deployment increases with the installation of IPv6 infrastructure
Implementation of IPv6 hosts in IPv4 networks

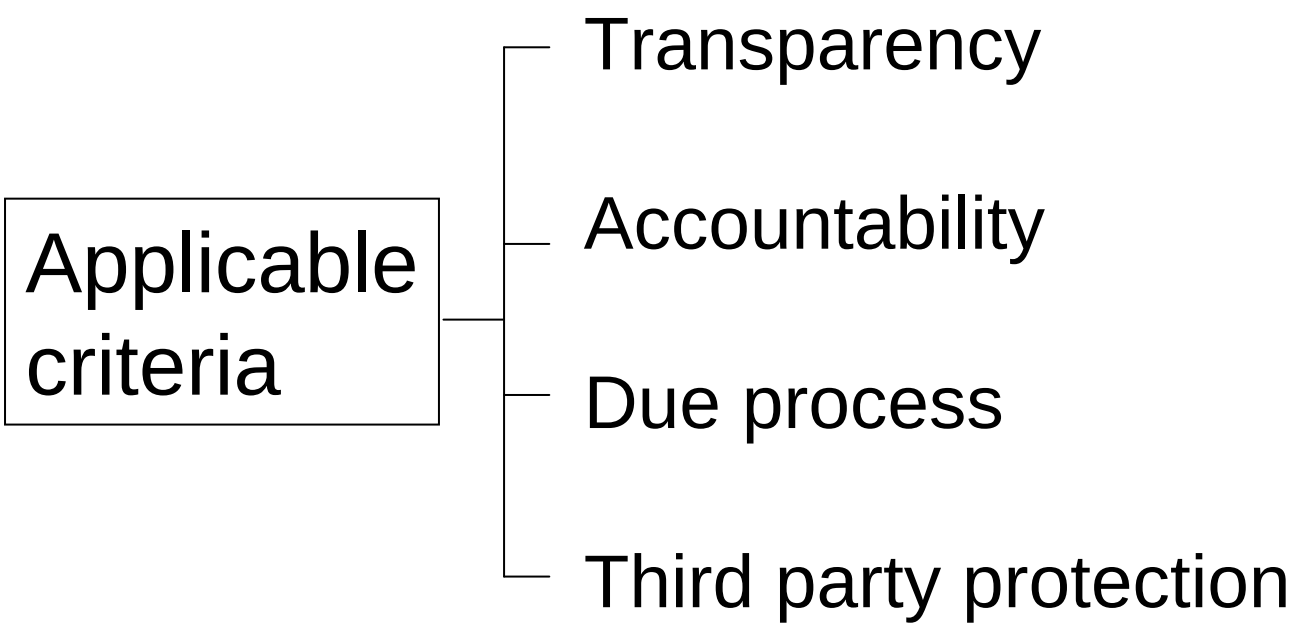

Compatibility
Gradual improvement of technical environment
Business initiatives
Incentives for development of technical solutions

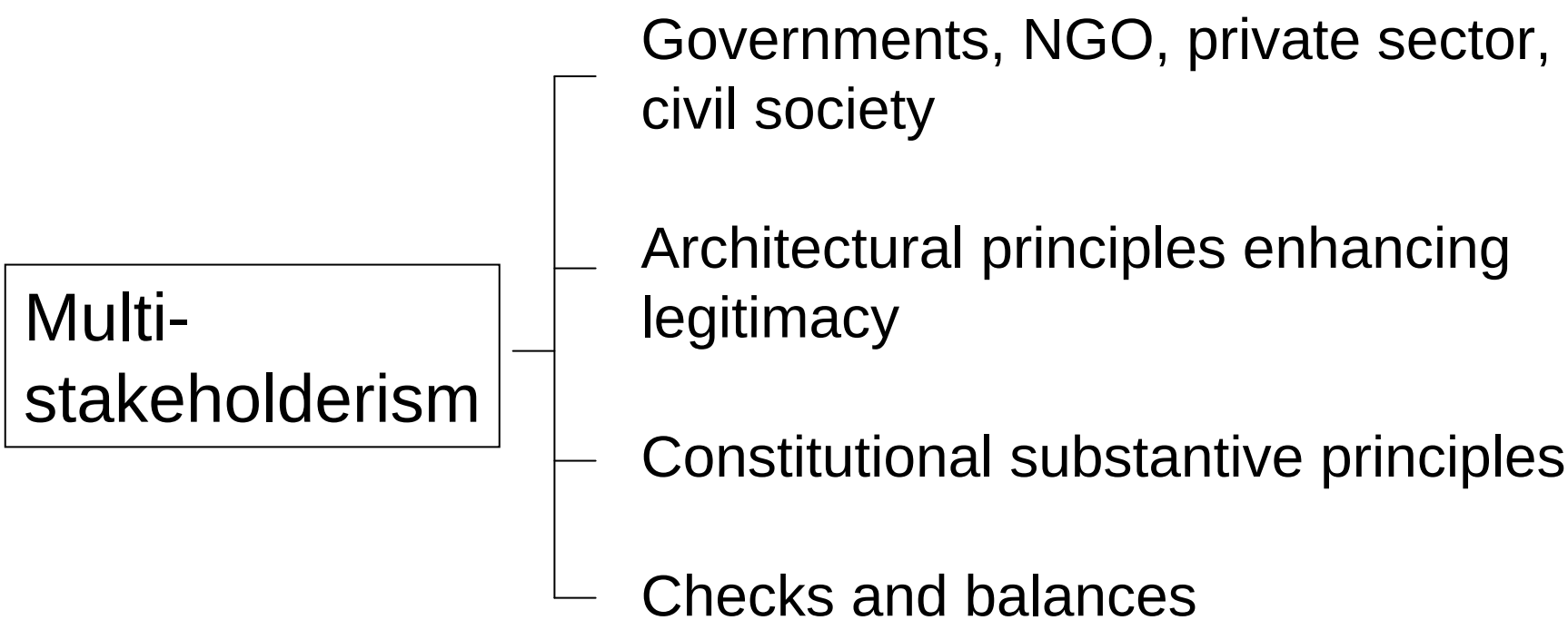
Allocation of critical resources

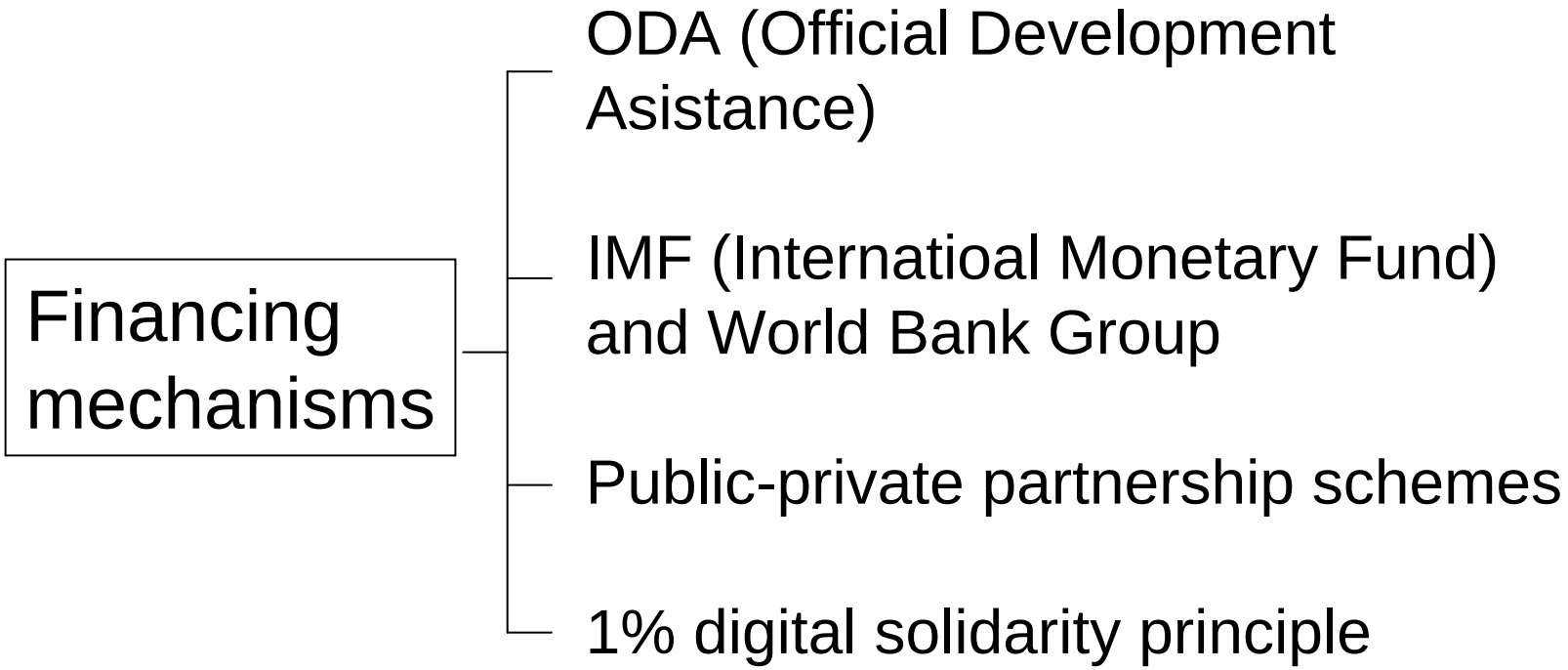
- No accepted definition of “criticality”
- Technical access → essential facilities doctrine
- Administration as inclusion of institutional and human clements


Administration of resources
ISOC, IETF, IAB
ICANN
Domain names
IP addresses
Autonomous system numbers


Weaknesses of present system
Privately-established rules undermine power of states
Public participation is limited
Substantial US-Influence
Enforcement mechanisms are insufficient


Applicable criteria
Transparency
Accountability
Due process
Third party protection


Multi-stakeholderism
Governments, NGO, private sector, civil society
Architectural principles enhancing legitimacy
Constitutional substantive principles
Checks and balances


Financing mechanisms
ODA (Official Development Asistance)
IMF (Internatioal Monetary Fund) and World Bank Group
Public-private partnership schemes
1% digital solidarity principle

Research Centre on IT and Law

European Parliament: ITRE workshop on I.G.F.

THE INTERNET OF THE FUTURE: ACHIEVING TRANSPARENCY,PLURALISM AND DEMOCRACY

Strasbourg, November 20th, 2008

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Table of Content

1. Some findings about the technological landscape
2. Privacy issues in an “ubiquitous computing” society
3. Freedom of Information: from evidence to challenges
4. Conclusions

A. Evolution of the technological landscape and new applications

1. Characteristics of the new ICT technologies

- Preliminary remark: Technology operates jointly with economic and social factors we have to take into account

- 5 major evolutions
  1. The increasing capacity of storing, processing and transmitting data : the Moore Law
  2. The multifunctionality and miniaturisation of the terminal equipment
  3. New Internet applications
     1. Convergent networks
     2. Semantic Web
     3. Web 2.0

Characteristics of the new ICT technologies

Characteristics of the « new » Information systems : between Tera and Nano

- **Ability to store speech, data, images or any combination**
- **Increasing capacity as regards the transmission (10Kb/sec.)**
- **Increasing capacity as regards the processing (Moore's Law)**
- **Increasing capacity as regards the storage capacity**
- **Multiplication of terminal devices (as regards their mobility and their size)**

-> E.g. the desktop computer bought at the supermarket

Year	1987	2007	2020 (x1000) ?
Processor	8 Mhertz	3 Ghertz (x 375)	3 TeraHz
Memory 640KB	512 MB(x 800)	512 Gbytes	
Hard Disk	20 Mbytes	120 Gbytes (x 6000)	120 Terabytes
Phone conn.	10Kb/sec	3 Mb /sec	10 Gb/sec

Characteristics of the new ICT technologies(2)

4. New methods of identification and authentication: the digital identifiers

Why ?

How ? From traditional identifiers to automatically generated identifiers and to biometric data.

5. Ambient intelligence

Ubiquitous computing – opacity – Human being as an object amongst others one.

Characteristics of the new ICT applications (3)

Technological landscape (1989)	*Technological landscape (2009)*
• *Big, expensive and slow computers* • *Limited capacity of storage and processing* • *Scattered and heavy databases* • *Limited telecommunication capacities* • *"stupid" telecommunication device for the public.*	• *Small, cheap and fast computers* • *Huge capacity of storage and processing* • *Ubiquitous computer data (daily life recorder)* • *Explosion of interconnected "always on" networks* • *Intelligent telecommunication devices*

B. New applications, new actors

1. *User Generated Content and Web 2.0 applications (60% of the web traffic): Internet's users are becoming data controllers, journalists even editors*
2. *Profiling methods: 'process of inferring (through statistical methods) a set of characteristics about an individual or collective entity and then treating that person or entity in the light of these characteristics'*
3. *Increasing role of the intermediaries (the gatekeepers: those who make useful the usage of the Internet's applications (web 2.0 platforms; search engines): a new category with no clear legal status and liability.*
4. *Privatisation of the 'public space': by the propertization of the information, by the blurring between public and private space, by the privatization of the access to and control of the public content and discussion.*

II. Human liberties and Democracy Challenges

1. How Democracy and Human liberties are interelated?

- Privacy as ‘selfdetermination’ and thus as condition for a free expression within a democratic society.

- Freedom of expression conditioned by possible access to a pluralistic expression of opinions, the respect of the diversity of cultural sensitivities and the existence of a public debate.

A. Privacy as selfdetermination.

1. The 1983 BVerf.G decision : the census case.

This authority (the possibility of the individual to decide for himself) particularly needs protection under present and future conditions of autonomic data processing. It is particularly endangered because in reaching decisions one no longer has to rely on manually collected registries and files, but today the technical means of storing individual statements about personal or factual situations of a certain or verifiable people with the aid of automatic processing are practically unlimited and can be retrieved in a matter of seconds irrespective of distance. Furthermore, they can be pieced together with other data collection- particularly when integrated information systems are built up- to add up to a partial or virtually complete personality profile, the ***persons controlled having no sufficient means of controlling its truth and application.*** *The possibility of inspection and of gaining influence have increased to a degree hitherto unknown, and may influence the individuals' behaviour by the psychological pressure exerted by public interests. Even under certain conditions of modern information processing technology, individual self-determination presupposes that the individuals left with the freedom of decision about actions to be taken or to be omitted, including the possibility to follow that decision in practice. If someone cannot predict with sufficient certainty which information about himself in certain areas is known to his social milieu and* ***cannot estimate sufficiently the knowledge of parties to whom communication may be possibly be made, he is crucially inhibited in his freedom to plan or to decide freely and without being subject to any pressure influence****. If someone is uncertain whether deviant behaviour is noted down and stored permanent as information, or is applied or passed, he will try not to attract attention by such behaviour. If he reckons that participation in an assembly or a citizens' initiative will be registered officially and that personal risks might result from it, he may possibly renounce the exercise of his respective rights. This would not only impact his chances of development but would have also impact the common good ("Gemeinwohl"), because* ***self-determination is an elementary functional condition of a free democratic society based on its citizen's capacity to act and to cooperate****."*

Privacy as self-determination (2)

Two facets of the privacy beyond Data Protection

- Right to intimacy (passive) and right to self determination (active) are both conditions of the building up of our autonomous development which are essential for our democracy (full participation to the Society).
- Privacy is the « fundamental fundamental » Human Right

Relationships between citizens and Data controllers in our I.S. : between KAFKA and ORWELL

- « Big Brother » : the increasing asymmetry between DC and DS (the Google example) as regards the data captured (instantaneous slices of life) and their processing (statistical truth) and its consequence : the **reductionism**
- « The Trial »: the radical opacity of our IS and its consequence: the **anticipatory conformism.**

Towards an « Observation Society »: D.C. *combines multimodal capture of data « extracted » from human bodies with an implicit understanding of interpretation of these data as valid and priviliged source of « truth » about the persons, their preferences, intentions, etc..., following the preconception according to which the 'body does not lie'*

Privacy as self-determination (3)

Reinventing Data¨Protection ?

- Two key words: Proportionality and Transparency

1. Proportionality

- *Proportionality of the processing : Choice of the less intrusive data processing and lawfulness of the processing*
- *Proportionality of the content*
- *Against the public security and economic logics…need for societal control.*
- *Certain consequences: about consent and other questions?*

2. Transparency

- *Enlargment of the obligation of transparency as regards the characteristics of the processing : examples drawn down from the profiling*
- *New methods of access: technology as support to the access.*
- *Transparency of the terminals*

Freedom of expression

1. *A prerequisite: from Universal service (the delicate question of Network neutrality) to internet's litteracy (a broad concept).*
2. *IPR challenging Freedom of expression*
   - A priori propertisation of the information through technical and contractual measures (e.g. Tatooing and DRMs): from copyright to property rights?
   - Impact on the creativity: return to the IPR fundamental equilibrium.
   - The need to reinforce the 'public domain'

Freedom of expression (2)

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Freedom of expression (3)

3. The limits of the freedom of expression

- More speech and not regulated speech are definitively the solution
- The death of the public forum in the cyberspace: the need to regulate the intermediaries and their selfregulation?
- How to face with e-journalists and e-Press and their liabilities?

4. How to ensure the cultural diversity in a « global context »?

- Unesco Convention on the diversity of cultural expressions
- Who will be the judge? The WTO or ….?
- The remaining question of the public national sovereignty on the Net.

Final statements

1. *ICT is the risk, ICT might also be the solution*
   - The need to focus on a value sensitive design of the technologies apart from the very early stage
   - The absolute need for a societal debate
2. *The role of the State(s)*
   - The duty to reassert Human values enacted by the ECHR at a global level
   - To reach a global consensus on Privacy: the Council of Europe Convention n°108
   - To maintain the conditions for an open public forum
   - The « zoning of the Net »?
3. *The role of citizens*
   - The risk of their adrift
   - The absolutely needed role of active citizens in order to maintain the democratic value of the Net.