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Madrid, 4th, 5th and 6th, November 2009
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Global Trade and Personal Data Flows

Are the Rules of Engagement Incompatible with Privacy?



INTERNATIONAL
TRADE
ADMINISTRATION

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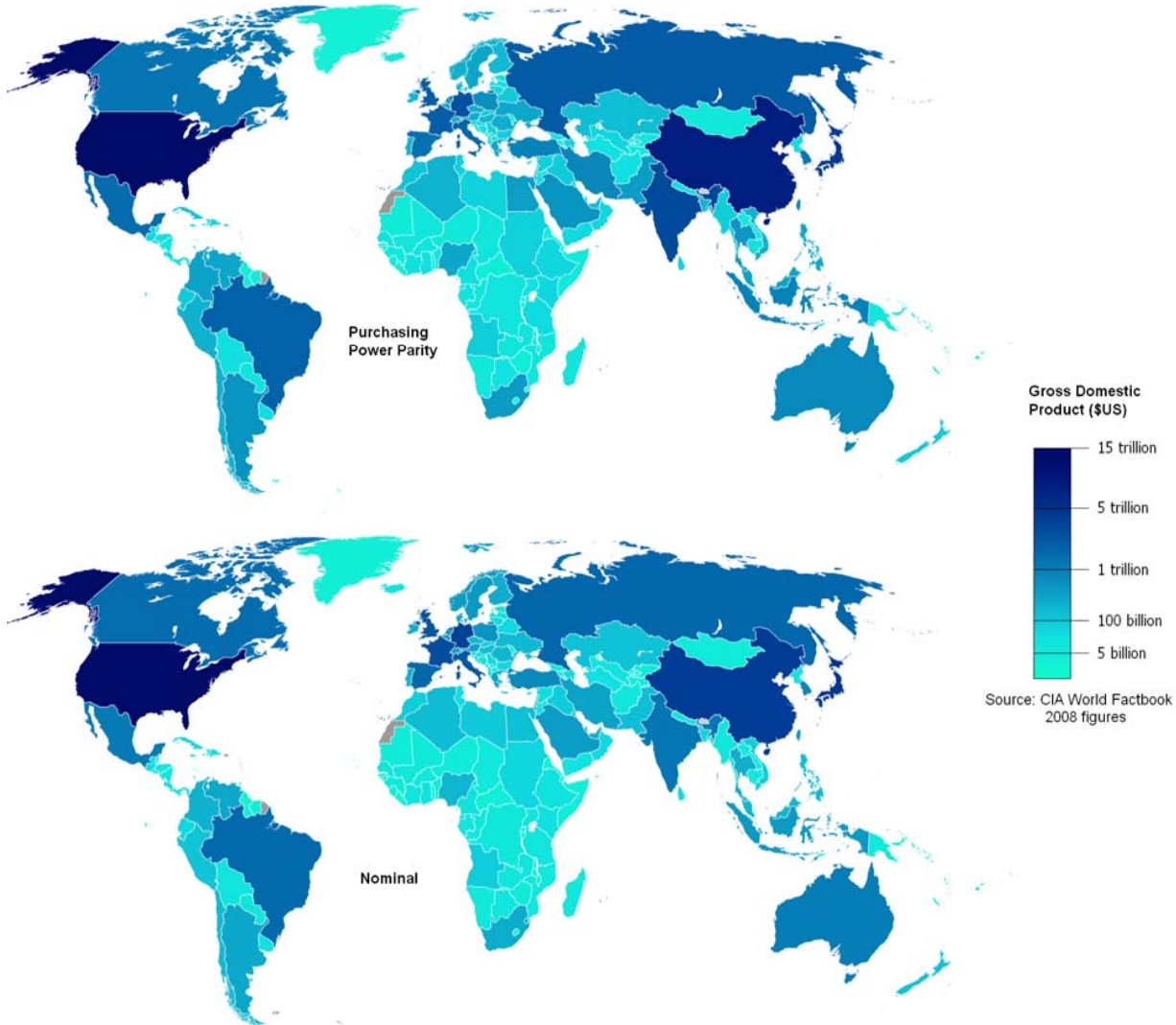
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- Trade and investment increasingly rely on the free flow of personal data globally in realtime;
- Essential that national regulatory and legislative bodies work to design data protection policies to implement data protection rules and standards that do not impede economic growth or discourage law enforcement cooperation;
- The global recession provides further evidence of the extent to which the global economy has become interconnected and dependent on cross-border data flows. Striking the proper balance with respect to privacy, a decidedly political and often contentious issue, will require enhanced levels of international cooperation.



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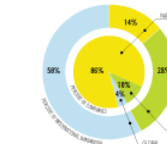
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2009 GLOBAL INTERNET MAP

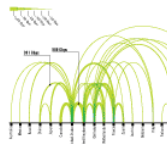
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INTERNATIONAL INTERNET HANDSOME BY COUNTRY

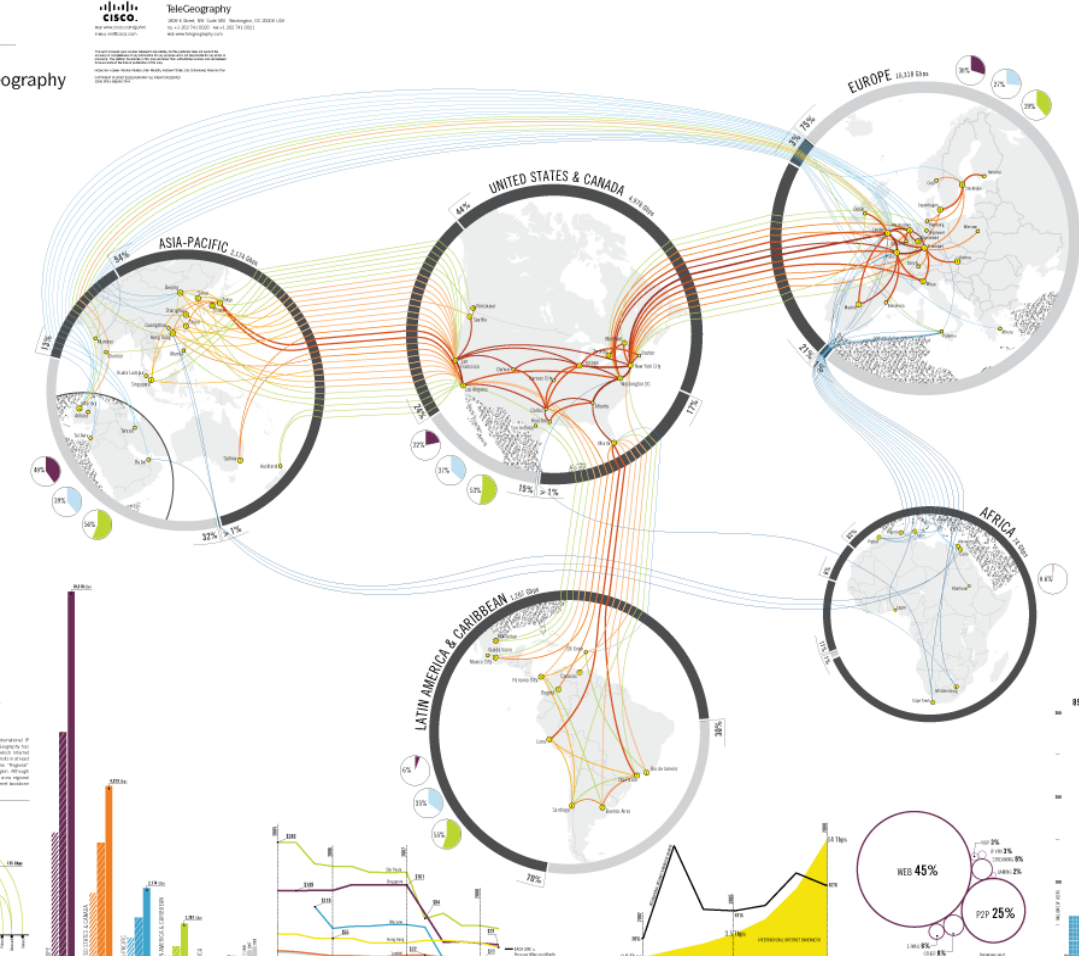


CARRIERS
In 2009, the Internet's international growth was the work of 461 individual international carriers who service almost 40 million unique international network capacity. TeleGeography has identified these carriers by their geographic location, regional, and interconnectivity with other backbone providers. The chart of carriers is broken down by region, with the United States and Canada having the most carriers, followed by Europe, Asia-Pacific, Latin America & Caribbean, and Africa.



COUNTRY ROUNDS

The largest capacity countries include Internet routes to Europe Region (ranked with each other) and the United States in 2009. Asia-Pacific was the largest region in Africa, with a capacity of 800 Gbps.



REGIONAL CAPACITY

The chart shows the total capacity for each region in Gbps. The United States and Canada have the highest capacity, followed by Europe, Asia-Pacific, Latin America & Caribbean, and Africa.

PRICING

Internet bandwidth is priced, but Internet regions price are varied, determined by competition, local market structure, and the cost of regional capacity. The chart shows the price per Gbps for each region, with the United States and Canada having the highest price, followed by Europe, Asia-Pacific, Latin America & Caribbean, and Africa.

CAPACITY GROWTH

Between 2002 and 2009, capacity in international Internet has increased at a compound annual growth rate of 27 percent. The chart shows the growth of capacity for each region, with the United States and Canada showing the highest growth, followed by Europe, Asia-Pacific, Latin America & Caribbean, and Africa.

TRAFFIC BY APPLICATION

Internet usage is split by a wide variety of applications and services, but as the content has changed over time, the most common applications have shifted. The chart shows the percentage of traffic by application, with Web being the largest, followed by P2P, Video, and Voice.

BEHINDING USER GROWTH

The amount of traffic generated has not only increased dramatically in a number of years, but also in the number of users. The chart shows the growth of users and traffic, with the United States and Canada showing the highest growth, followed by Europe, Asia-Pacific, Latin America & Caribbean, and Africa.

ABOUT THE MAP PRODUCTION

Map Data
The map data is derived from a combination of public and private sources. The data is processed and analyzed to create the visual network map. The map is a complex network of connections between various regions and countries.

REGIONAL SUMMARY

- 1. **Significant growth in the United States**
The United States has seen significant growth in international internet connections, driven by a combination of factors including increased competition and the rise of new carriers.
- 2. **Europe's growing importance**
Europe has also seen significant growth in international internet connections, driven by a combination of factors including increased competition and the rise of new carriers.
- 3. **Asia-Pacific's rapid expansion**
Asia-Pacific has seen rapid expansion in international internet connections, driven by a combination of factors including increased competition and the rise of new carriers.

INTERNATIONAL INTERNET HANDSOME BY COUNTRY

The chart shows the number of international internet connections for various countries. The United States and Canada have the most connections, followed by Europe, Asia-Pacific, Latin America & Caribbean, and Africa.

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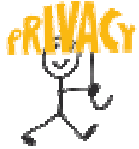
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- **The Internet Observatory study found:**

- Over the last five years, Internet traffic has migrated away from the traditional Internet core of 10 to 12 Tier-1 international transit providers;
- Rise of the ‘Hyper Giants’: Five years ago, Internet traffic was proportionally distributed across tens of thousands of enterprise managed web sites and servers around the world;
- Applications Migrate to the Web: Historically, Internet applications communicated across a panoply of application specific protocols and communication stacks;
- A New Internet Ecosystem: Over the last five years, macroeconomic forces have radically transformed the global Internet commercial ecosystem.



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- These data are quite interesting but one may ask why does it matter in the privacy realm?
- The traffic patterns also reflect global trade flows and underscore that transformational changes are under way in how the Internet functions. how the global community conducts trade and stays in touch *{are these phenomena a tsunami or an opportunity for engagement}*;
- The coming year presents a critical opportunity for reinvigorating a global conversation on data protection, privacy, and the free flow of information. In the U.S., the administration is mobilizing its institutional expertise to re-examine its policies both domestically and internationally.



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- **OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data State – Part Three:**
 - Member countries should take into consideration the implications for other Member countries of domestic processing and re-export of personal data;
 - Member countries should take all reasonable and appropriate steps to ensure that transborder flows of personal data, including transit through a Member country, are uninterrupted and secure;
 - A Member country should refrain from restricting transborder flows of personal data between itself and another Member country except where the latter does not yet substantially observe these Guidelines or where the re-export of such data would circumvent its domestic privacy legislation and;
 - Member countries should avoid developing laws, policies and practices in the name of the protection of privacy and individual liberties, which would create obstacles to transborder flows of personal data that would exceed requirements for such protection.



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- **The Conundrum**

- The world is witnessing ever increasing volumes – more than 256 exabytes of Internet traffic – of data flows within and between companies, nations and individuals;
- Businesses want to invest in countries with a culture of data protection; countries want to encourage business and investment;
- The U.S. model, a combination of self-regulatory initiatives and sector-specific federal laws and enforcement, ensures that personal data is protected while providing economic benefits for companies doing business globally;
- Challenge to effective data protection arises in those countries and regions where balancing personal privacy with global business operations is not well understood or widely practiced.



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- **Global Standardization – is that the road to travel?**
 - The ISO's JTC-1 under Working Group 5 is finalizing a "Global Privacy Framework" which consists of a set of principles that embody elements of the OECD Guidelines, APEC, and the EU directive.
 - The ICDPPC has held discussions and supported resolutions to advocate for an international privacy standard modeled on the EU's experience; it proposes that its model would encompass public and private sector institutions;
- **Other Models – are there options?**
 - Asia Pacific Economic Cooperation's – APEC Privacy Framework based on accountability agents, harm, recourse and founded on the OECD Guidelines;
 - Safe Harbor – a solution designed to bridge differences in approaches to data protection and privacy – principles based on the EU directive and the OECD Guidelines
 - A paradigm that has yet to emerge – shared responsibility for compliance and vigilance



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- **What, then, are the rules of engagement ?**
 - **Jurisdiction** – Facebook Case in Canada was a victory for Canadian citizens or was it a statement on the extraterritorial application of domestic law to a global community?
 - **Commonality in Objectives** – The OECD Guidelines clearly recognized the importance in the outyears following their approval, that data was not only to be legal tender in the digital world but also a strategic asset that all had stakes in protecting.
 - **Technological Evolution** – The rate at which change occurs in the digital world is astounding. Today's rage may be Facebook; five years from now it may be eclipsed by SNS that we haven't conceived or thought about today.
 - **Mutual Recognition and Compatibility** – Standards are designed to allow technology, processes, and services to access global markets; a process should be designed to incorporate these elements into any attempt to formulate a technically neutral policy framework.



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- **Summing up**

- Global Internet Traffic Map notes there is no one single path for information flows; data is ubiquitous and universally in electronic form;
- A data protection and privacy regime, of necessity, needs to be flexible, adaptable, and transparent;
- Trade and data flows are mutually dependent and travel common highways leading to economic growth;
- Our approach, thus, must be comprehensive, inclusive, and deliberate;
- The rules of engagement must be defined before we march forward;
- Finally, they must be easily understood and and practical.