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HP Policy Position

Technology

Technology policy has a direct and fundamental impact on our business growth. We support outcomes-driven, consumer-friendly regulatory frameworks that encourage growth of and access to innovative technologies.

HP seeks to shape regulatory environments that enable the potential of technologies related to cyber security, cloud computing, information analytics, and mobility. Governments can play an important role in demonstrating the benefits of adopting these innovative technologies, which offer improved service and convenience, important insights and trends, and cost savings.

Key policy issues affecting the adoption and wide scale deployment of these technologies include: improved cyber threat information sharing, technology-neutral international standards, cross-border data flow and server location flexibility, and robust privacy and data protection frameworks.

HP's Policy Recommendations

Cyber Security

- Governments should address cyber vulnerabilities and improve threat information sharing, yet avoid regulatory approaches that would stifle innovative defenses against changing cyber threats. An outcomes-based approach is most flexible in an environment where technology and threats are constantly changing. HP encourages public-private partnerships where business and government share best practices and threat information.

- Since cyber security threats, protections, and solutions tend to be global in nature, HP supports international cooperation and convergence in standards development, as recommended in the World Economic Forum principles. To ensure access to the best global technologies, cyber security policies and procurements should be based on objective criteria rather than geographic considerations.

Cloud

- Cloud provides governments with a more flexible, agile, and efficient IT environment, transforming existing infrastructure, services, and applications. Moving to the cloud enables governments to deploy IT resources more efficiently, consolidate data centers and improve energy efficiency, and explore new interactions with citizens. HP supports standardization, interoperability, and portability of cloud services and solutions.

Information Analytics

- Governments around the world are some of the largest collectors of data. HP encourages policies that promote deployment of analytics projects that identify trends and provide actionable information for policy makers, while protecting individual privacy. Big data offers

valuable insights in areas ranging from scientific discoveries and environmental monitoring, to improved healthcare and education services, to enhanced public safety and smarter traffic management.

Standards/Open Source

- HP advocates for technology-neutral standards, developed in an open, international, and collaborative process with industry and open source communities. Government policies and procurements should avoid country-specific technical standards or proprietary technologies.

- HP encourages governments to prioritize procurement of the best technologies from vibrant open source communities, such as OpenStack® for interoperable and flexible global cloud infrastructure and Hadoop open source software for big data analytics.

Cross-border data flow

- The ability to move and access information across borders provides flexible delivery of technologies such as cloud and information analytics. HP supports language in trade agreements to protect the cross-border data flows. In addition, HP discourages national or regional measures that mandate server locations or restrict cross-border data flows.

Data Protection

- HP is an industry leader in privacy and data protection, and was the first company certified under both Binding Corporate Rules in Europe and APEC Cross-Border Privacy Rules. HP is committed to accountability, maintains one of the most robust privacy programs in the world, and actively engages with privacy officials worldwide to strengthen and harmonize privacy frameworks.

Issue Background

By 2020, more than a trillion applications will be exchanging 58 zettabytes of digital data over more than 100 billion devices.[3] IT providers are handling an increasingly complex workload through a combination of traditional and new technologies. Employees and consumers increasingly access systems from numerous devices and locations, presenting new cyber security challenges, and requiring robust privacy and data protection frameworks in a highly mobile environment.

Cyber Security

Today's information technology security environment presents a sophisticated set of challenges. The increasing volume of cyber security threats and risks faced by consumers, enterprises, and governments has ushered in a new era in which policymakers are increasingly seeking to address the issue through legislation and regulation.

As a leading provider of security intelligence and risk management platforms, HP protects cyber infrastructure for business and government clients around the world. HP supports positive efforts by governments to enhance defenses against the many and evolving cyber threats. HP participates in global efforts – academic, technical, and governmental – to develop international standards for cyber security policy, legislation, and regulation. HP is a signatory to the World Economic Forum's Principles for Cyber

[3] http://www8.hp.com/hpnext/posts/hp-s-helion-agile-open-and-secure-cloud - _ftn1

Resilience, a multi-stakeholder initiative intended to help improve systemic resilience to cyber risks by focusing on improving cyber resilience of individual local organizations.

Cloud

Cloud computing has fundamentally changed the economics of IT design and investment. The cloud provides the ability to access and rapidly scale up or down computing, data storage, and processing resources on demand from a data center.[4]

Governments can demonstrate the benefits of cloud technology by replacing legacy technologies, consolidating data centers, and exploring new cloud-based interactions with citizens, transforming existing services and applications. "Cloud First" policies, such as those implemented in the U.S. and UK, require agencies to prioritize cloud in government IT purchases.

Cloud customers should have portability—the ability to change cloud providers and to move their applications and data from one cloud platform to another. HP recognizes the importance of an interoperable and flexible global cloud infrastructure and is a founding member of the OpenStack® Foundation and an active participant in the OpenStack® project, an open source software project for building the software that powers private and public clouds. Over the next two years, HP is investing $1B in R&D, engineering, and development around HP Helion, which relies on OpenStack® architecture to best meet customers' complex IT needs through secure and agile cloud solutions.

HP supports standardization, interoperability, and portability of cloud services and solutions by advocating globally for the inclusion of technology-neutral open standards in legislation, regulation, and government procurement policies. Government procurements should leverage existing standards and prioritize the best technologies from vibrant open source communities such as OpenStack®.

Information Analytics

Information analytics holds the potential to unlock key discoveries and trends in areas such as healthcare, financial fraud, cyber security, weather prediction, scientific research, and education.

Governments around the world are some of the largest collectors of data. Increasingly, sophisticated tools and methods allow analysis of the 85 percent of data that is "unstructured," such as video, voice, and social networking. "Big data" is characterized by its volume, variety, and velocity. Big data differs from traditional analytics because it uses all the data, rather than statistical samples, to discover correlations between diverse data sets. Most big data projects remove personally identifiable information from data sets.

HP is taking a leadership role in evolving data governance to ensure society reaps the benefits of big data while still protecting individual privacy. HP is working with the Information Accountability Foundation to develop the Unified Ethical Frame for Big Data Analysis, an effort backed by regulators, companies, and the privacy community. HP believes accountability is critical for big data governance and is applicable beyond private sector activities, since governments are potentially major users of big data processes.

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[4] *The NIST Definition of Cloud Computing*, Peter Mell & Timothy Grance, National Institutes of Technology, U.S. Department of Commerce, Special Publication 800-145, September 2011, *available at* http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf; *Unlocking the Benefits of Cloud Computing for Emerging Economies – A Policy Overview*, Peter Cowhey & Michael Kleeman, University of California San Diego, released November 2012, *available at* http://irps.ucsd.edu/assets/001/503998.pdf, at 1, 6.

Therefore, HP believes that accountability practices should be applied to the public sector as well as the private sector.

HP strongly supports policies that encourage the development of analytics technologies and projects. HP's integrated HAVEn platform combines the power of Hadoop open source software, Autonomy real-time unstructured data analysis, Vertica massive database platform, enterprise security and next-generation applications to deliver cutting-edge and relevant information analytics for public sector and enterprise customers. For example, HP's Future Cities initiative uses HAVEn to develop a detailed understanding of local constituencies, identify trends, and target services to citizens when and where they need them, ranging from healthcare and education to public safety and traffic management. Even climate change can be better understood and addressed through big data analytics, as demonstrated in HP's innovative Earth Insights collaboration with Conservation International.

Cross Border Data Flow

Cloud providers should have flexibility to locate servers where economically feasible, and be able to send and receive data across borders. This flexibility is also relevant to big data analytics projects. The ability to move and access information across borders allows providers the flexibility to determine the most efficient delivery configuration. However, some governments have become increasingly concerned about regulating data flows and several have proposed restrictions on data movement or mandated server locations that reduce flexibility for multinational IT providers. HP supports protecting open cross-border data flows and discourages mandates on server locations.

Data Protection

HP considers effective data protection a competitive advantage rather than a cost, and an enabler of current and future ICT offerings. Accordingly, HP maintains one of the most robust privacy and data protection programs in the world, with principles derived from the OECD Guidelines and the EU Data Protection Directive, which HP applies across the globe as the highest existing data protection standard. HP was the first company to be approved under both the Binding Corporate Rules (BCR) and Asia-Pacific Economic Cooperation's Cross-Border Privacy Rules (CBPR) systems.

HP adheres to four core principles around data protection:

1.) Privacy is a fundamental right
2.) Accountability is integral to data stewardship
3.) Global harmonization and interoperability of privacy frameworks are essential
4.) Regulatory solutions must be flexible to address an ever-evolving global marketplace.