Statement of

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At the Hearing

"ECPA Reform and the Revolution in Cloud Computing"

Before the

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Good morning, Chairman Nadler, Ranking Member Sensenbrenner, and members of the Subcommittee, my name is Paul Misener, and I am Amazon.com's Vice President for Global Public Policy. On behalf of my company and our millions of customers, thank you very much for inviting me to testify at this important hearing on cloud computing.

The Amazon.com website began in 1995 as a place to buy books. Since then we have strived to be Earth's most customer-centric company, where people can find and discover virtually anything they want to buy online, and now Amazon Web Services provides a family of cloud computing functions to small and large businesses, government agencies, academic institutions, and other users.

Cloud computing, as others have described for the Subcommittee, is a means of providing, through the Internet, computing functions similar to what a desktop or laptop computer can provide, but far more efficiently and reliably, and at much greater scales and speeds.

For example, desktop PCs can store files, like memos, spreadsheets, digital photos, and music. So can cloud computing services, only much more efficiently and reliably. A desktop computer's hard disk drive can "crash," for instance, potentially deleting files. Cloud computing storage done well, however, is redundant and thus files are far more durable and the chance of unintentionally deleting them is virtually nil.

Amazon offers data storage as Amazon Simple Storage Service, or "S3." This service can be used to store and retrieve any amount of data, at any time, from anywhere on the web. S3 gives users access to the same highly scalable, reliable, secure, fast, inexpensive infrastructure that Amazon uses to run its own global network of web sites. The service aims to maximize benefits of scale and to pass those benefits to users. In one example, a company called ElephantDrive uses Amazon S3 storage to provide consumers an inexpensive way to make backup copies of digital files.

Likewise, desktop PCs can perform calculations on data. Although many of us never perform calculations much more complicated than with spreadsheets, small and large businesses, researchers, and government agencies often need to perform complicated and data-intensive calculations. Desktop PCs are often not up to the task, and even dedicated local workhorse computers often can't deliver satisfactory results or are cost-prohibitive capital investments. Cloud computing, on the other hand, can provide virtually unlimited computation capacity that may be rented as needed, rather than obtained through a large, wasteful up-front capital expenditure that requires expert set-up and maintenance and rapidly becomes obsolete.

Amazon also offers a service known as Amazon Elastic Compute Cloud, or "EC2," that is designed to make web-scale computing easier. Just as S3 enables storage in the cloud, Amazon EC2 enables "compute" in the cloud. The EC2 web interface allows users to obtain and configure capacity and control computing resources. Users may quickly scale capacity, both up and down, as their computing requirements change, and they pay only for capacity that they actually use. In one case, an engineer at *The Washington Post* used the equivalent of over 1400 server hours on Amazon EC2 to convert over 17,000 pages of First Lady Hillary Rodham Clinton's newly-released documents into a web-friendly format – within just nine hours and for less than \$150.

The benefits of these and other cloud computing services – to businesses large and small, to government agencies, to researchers, and other organizations – are manifest. The power of expensive and complicated computer hardware is available immediately, on a pay-as-you-go basis. No longer must an enterprise expend capital up front and endure delays. And the computing capacity is completely elastic, scaling up in time of high demand and down as appropriate. Bottom line, with cloud computing, enterprises can focus their engineering resources on their own specialties. No longer must enterprises manage the difficult tasks of building and maintaining computing infrastructure. Accordingly, we believe it in the public interest to ensure that there are no inappropriate legal impediments to cloud computing and that applicable law, including the Electronic Communications Privacy Act (or "ECPA"), is clear and current. We appreciate the Subcommittee's interest in this matter and its investigation of whether and how ECPA should be modified.

Amazon.com is a member of Digital Due Process, a coalition of companies, public interest groups, scholars, and others that was formed "[t]o simplify, clarify, and unify the ECPA standards, providing stronger privacy protections for communications and associated data in response to changes in technology and new services and usage patterns, while preserving the legal tools necessary for government agencies to enforce the laws, respond to emergency circumstances and protect the public." Amazon also supports several other members of this group, including the Center for Democracy and Technology and the American Booksellers Foundation for Free Expression.

The Digital Due Process coalition has proposed clarifications of ECPA in four areas, covering requests for (1) the content of electronic communications; (2) location information; (3) real-time transactional data about communications; and (4) bulk information about broad categories of users. Although we are aware, for example, that the standards applied to location information may need clarification, our experience primarily relates to requests for the content of communications.

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With respect to the content of electronic communications, we believe that ECPA requires law enforcement authorities to obtain a search warrant to compel disclosure. We do not release information without valid process and have not disclosed content without a search warrant. In order to protect the privacy of communications, we certainly agree with our fellow members of the Digital Due Process coalition that this is how the law *should* operate: compelled disclosure of content should require a search warrant, just as obtaining content out of a person's desk drawer would. If there is any significant ambiguity in ECPA, such as with respect to the age of a communication, we would support legislation to clarify that compelled disclosure of content may only come as a result of a search warrant, regardless of the age of a communication.

Thank you again for the opportunity to testify on the important topic of cloud computing services. Amazon believes that these new services have important societal benefits, and if laws such as ECPA should be clarified to address cloud computing, we support the effort.

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