

Bush administration refuses to relinquish US control of Internet

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A statement published by the US government last week reverses previous promises to relinquish control of the Internet's Domain Name and Addressing System (DNS) and transfer it to an international body.

The DNS is the method by which Internet addresses in mnemonic form (e.g., wsws.org) are converted into the equivalent numeric IP (Internet Protocol) address used by the hardware that routes all Internet traffic.

The US announcement states that governments have a "legitimate interest in the management of their country code top level domains (ccTLD)"—for example, "de" for Germany, "cn" for China, etc. It goes on to assure them that "the United States is committed to working with the international community to address these concerns, bearing in mind the fundamental need to ensure the stability and security of the Internet's DNS."

This assurance is virtually meaningless, however, considering how the DNS system works. At the heart of the Internet are 13 so-called "root servers," 10 of which are in the US.

These maintain the records allowing a domain name, such as wsws.org, to be translated into an IP address pointing to a specific computer on which a web site is held, or from which email is served. Local DNS servers acquire files from the root servers, telling them the location of all the different addresses on the Internet.

The root servers perform a critical role in routing traffic that ends in a top-level domain, such as a country-specific code. Of particular importance is the main server, or root server A, presently managed by Verisign Inc., a corporation listed on NASDAQ, the largest US hi-tech stock market.

Root server A contains the authoritative records for all top-level domains, such as "com," "net," "org" and "gov," as well as those for the top-level domains of every country in the world. Every 12 hours or so, root server A copies a file to the other 12 root servers, thereby ensuring that when a web user clicks on a link, his browser displays the correct page.

All changes to DNS records are made only on root server A and are subject to approval by the US Department of Commerce, giving the American government the ability to deprive an entire country of effective use of the Internet. While some commentators have dismissed this as an unlikely

scenario, some recent examples show that it is not so far-fetched:

* In April 2004, Libya "disappeared" from the Internet for three days, after the "ly" domain was disabled, reportedly following a dispute between two people who each claimed to have control over the top-level domain.

* A more worrying example was the handing over of the Afghanistan top-level domain to the US-backed interim authority after a letter allegedly signed by the domain's previous administrator was produced. The "af" domain name is now referenced to servers based in New York, which are owned by the United Nations Development Programme.

* During the war against Iraq in 2003, the domain records for the English-language site of the Arabic news service *Aljazeera* were diverted to a pro-war web site, supposedly after hackers broke into Verisign's servers that hold the DNS records.

Not surprisingly, the move by Washington to maintain its control over the routing of Internet traffic has provoked international criticism. Patrik Linden, a spokesman for the foundation that runs the Swedish national domain .se, said the US announcement was "rather confrontational" towards those who would prefer that an international body take control of the domain name system. "This kind of statement doesn't exactly favour that discussion," Linden said, adding, "This is perhaps what a lot of people thought [the US] had intended all along."

Masahiko Fujimoto of the data division of Japan's Ministry of Internal Affairs and Communications said, "When the Internet is being increasingly used for private use, by business and so forth, there is a societal debate about whether it is befitting to have one country maintaining checks on that."

The official response from Europe has been more muted. The Council of European National Top-Level Domain Registries, CENTR, issued a statement simply asking the Bush administration to give further consideration to international concerns.

"We encourage the US to further explore, together with registry managers and other governments, the means by which the execution of these functions can be enhanced and decentralised using proven technology in order to optimise efficiency, accuracy of data, Internet stability and security," the CENTR statement read. "This approach," it continued, "can

contribute to depoliticise the role of the root [server], and empower the relevant local Internet registries and the respective local Internet communities (including governments) to exercise local supervision of their components in the root zone. This should minimise the need for any procedural intervention by other parties.”

American control of the Internet is a result of its origins as a research project set up by the US Defence Department. From 1968 to 1984, the ARPANET was managed by BBN Planet on behalf of the US government. By this time, the network had grown to include academic as well as government research facilities, and in 1984 there were about 1,000 hosts connected to the network.

With the invention of the World Wide Web five years later, the Internet, as it became known, underwent an explosive growth. In 1993, the National Science Foundation, which assumed responsibility for the Internet, created InterNic, consisting of three organizations: AT&T to handle database services, Network Solutions, Inc. to handle host and domain name registration, and IP assignment and General Atomics to handle information services. Network Solutions began registration services for “com,” “net,” “org” and “gov” domains.

The handing of the domain names to Network Solutions Inc. was widely regarded as the privatisation of the Internet, but the US government maintained its control through the Department of Commerce.

In 1998, during the presidency of Bill Clinton, the Department of Commerce selected the Internet Corporation for Assigned Names and Numbers (ICANN)—a California-based non-profit organisation largely comprised of international Internet Society members—to take over the running of the domain name services. However, the Department of Commerce maintained a veto over modifications to the root server databases, which the agreement stipulated that Network Solutions would continue to manage.

Though ICANN was put in place supposedly to ease international concerns over US control of the Internet, it has never been fully accepted by those responsible for country top-level domains.

In 2004, Erkki Liikanen, European Commissioner for Enterprise and Information Society, gave a speech aimed at encouraging more European countries to sign up to the Country Code Names Supporting Organisation (ccNSO), which is the ICANN supporting body for different countries around the world. He called ICANN “a unique experiment in self-regulation” before stating, “The expectation among governments at the outset was that ICANN would provide a neutral platform for consensus-building.... It was also hoped that ICANN would provide a way for the US government to withdraw from its supervisory role. In this way, we could achieve a greater internationalisation and privatisation of certain key functions. It has yet to fully deliver on either of

these objectives.”

Liikanen said that “the absence of any clear picture” from the US about its intentions was “not helpful,” but he called for the ccTLDs (country code top level domains) to sign up anyway. Otherwise, governments would conclude that ICANN had failed.

There are indications that this is also the position of the United Nations, which is due to deliver a review of Internet governance later this year. According to the *Register* Internet technology web site, the review team is considering calling for the handing over of elements of Internet control to a UN body, possibly the International Telecommunications Union (ITU).

The *New York Times* on July 4 reported, “Brazil, India, Syria, China and other countries have proposed that an international body take over from ICANN. Last month, the European Union called for an ‘international consensus’ on Internet governance, without specifying the role of governments, the private sector or ICANN.”

Some commentators believe it is calls for UN control that have caught the attention of the Bush administration, prompting last week’s announcement by the US government.

The overtly political character of the decision was underlined in a presentation given by the assistant secretary of the National Telecommunications and Information Administration, Michael Gallagher, full of tributes to the Bush administration and the president personally. It opened with a slide stating, “Thanks to the president’s policies, America’s economy is strong.” A number of other slides dealt with investment and trade opportunities in India, China and Russia and the role of the Internet and telecommunications in facilitating such opportunities.

A slide entitled “Commitment to security and stability of the Internet DNS” spoke of America’s role in founding the Internet, and stated, “This historic role continues today with DoC (the US Department of Commerce) being the steward of the critical elements of the Internet’s underlying infrastructure—the domain name and addressing system (DNS).”

Despite a declaration in the conclusion that the US “will work with the international community to find appropriate ways to address Internet governance issues,” the real message is clear. The Internet is considered both a major strategic resource for the US and a potential weapon against America’s rivals, over which the Bush administration does not intend to relinquish control.

The US government statement can be read at here.



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