

25 September, 2003

Paul Twomey,
President & CEO,
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Marina Del Rey,
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Dear Paul,

Use of wildcard dns entries by Verisign

As you know, one of auDA's obligations under its Constitution is to liaise with national and international bodies on issues relating to the development and administration of domain name systems. With regard to the introduction of wildcard dns entries in .com and .net by Verisign, auDA has various concerns including the use of wildcards generally and the unsatisfactory process by which these wildcards were introduced.

Following the introduction by Verisign of the 'sitefinder service', I asked auDA's Technical Committee to brief me on the matter. I set out below auDA's comments, observations and concerns which fall into 3 categories:

1. Processes that should apply where significant changes to operational infrastructure are contemplated.

From a process perspective, it is critical that any changes which have a widely felt impact on the internet or it's users be announced and discussed prior to deployment.

It is a well understood notion in the IT&T industry that sudden and unexpected changes may cause unnecessary disruption. Sudden changes also carry risks that the advocates of change may not have considered.

Sudden change can also result in abrupt counter-changes, as in this case, where a number of internet infrastructure providers and application software developers have taken countermeasures which may themselves have side-effects. For example some ISPs have null routed the Verisign response server IP address while others have emergency-patched their DNS systems.

The process, or lack of process, under which Verisign's change has occurred is a systemic issue that, if left un-addressed, injects unnecessary risk into the operation of both the DNS infrastructure and those infrastructures that rely upon DNS.

As an example, if the Australian registry wished to introduce wildcards in .au, auDA would not even contemplate such an introduction without first going through a series of technical consultations, producing a discussion paper, posting that for public comment, refining the paper and undertaking another round of public comment.

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2. Technical issues associated with the use of DNS wildcards

auDA's general belief is that the wide range of negative impacts resulting from this change outweigh the potential benefits to web browsing users. We echo the concerns of both The Internet Architecture Board and the ICANN Security and Stability Advisory Committee.

The Internet Architecture Board identifies problems in the following areas: Web Browsing, email, spam filtering, user-interfaces that use dns lookups, interactions with other protocols, automated tools, charging, single-point of failure, privacy, reserved names and undesirable workarounds.

All of these areas are of concern and in most cases effect the stability and integrity of the DNS.

3. Whether the use of DNS wildcards should be subject to regulatory control?

auDA believes that this should be the case in the gTLD space.

The unexpected nature of the change, together it's associated negative impacts, prompts auDA to make the following recommendations to ICANN:

- a. that the recent addition of a DNS wildcard for .com and .net be rolled back immediately;
- b. that a process of consultation and public comment be established to consider the use and operational impact of DNS wildcards at the root and gTLD levels of the DNS hierarchy;
- c. that consultation and risk-management processes be reviewed for the root and gTLDs and urgent action taken to address any gaps in the systems that allow changes such as this to be made without consultation or, indeed, warning.

These recommendations broadly parallel the recommendations made by the ICANN Security and Stability Advisory Committee referenced below.

References

Views compared - CENTR and Verisign:

- <http://www.centri.org/meetings/ga-19/ga19-kjd-wildcards.pdf>
- <http://www.centri.org/meetings/ga-19/ga19-sh-wildcards.pdf>

Internet Architecture Board on DNS Wildcards, in the context of internationalised domain names:

- <http://www.iab.org/Documents/icann-vgrs-response.html>

Internet Architecture Board Architectural Concerns on the use of DNS Wildcards

- <http://www.iab.org/documents/docs/2003-09-20-dns-wildcards.html>

ICANN Security and Stability Advisory Committee Recommendations regarding VeriSign's introduction of wildcard response to uninstatiated domains within COM and NET

- <http://www.icann.org/correspondence/secsac-to-board-22sep03.htm>

Yours sincerely,



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