

Open Web Application Security Project (OWASP) **DRAFT v2~~1~~**

Response to Consultation on a New .UK Domain Name Service

F. About you

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G. Security

1. As outlined above, we are proposing that the direct .uk service offers routine monitoring and notification to registrants of viruses and malware on sites associated with the domain. Do you have any comments on this proposal?

Monitoring, and subsequent action to resolve the effects, of viruses and malware are not sufficient measures to protect business systems, business data and users.

This also seems to assume that malware is associated with a single specific domain. With cloud services, data mashups and shared hosting, it is possible for malware to originate from some other included source, outside the control of the site's owner.

In addition, some parts of sites may not be easily monitored by external monitoring. This includes parts of a website requiring authentication (by customers, citizens, administrators, etc) where some of the most critical business logic is usually found.

Threats target a wide range of vulnerabilities¹ in websites and their supporting systems; the vast majority of which would not be detected by the suggested monitoring. Some successful attacks could lead to malware and viruses being hosted on the site, but the purpose of an attack is more likely to be to steal data, to misuse business processes for benefit, to commit fraud, to cause damage to the site, or to link to more malicious material.

OWASP recommends that security is considered throughout the lifecycle of the site – from initial concept, right through to deployment, operation and disposal. OWASP's Software Assurance Maturity Model² (SAMM) provides a simple method to assess an organisation's overall maturity to generate a scorecard for 12 practices. This could be self-assessed, or supported by an independent review, or validated by a formal audit.

¹ <http://projects.webappsec.org/w/page/13246995/Web-Hacking-Incident-Database>

² https://www.owasp.org/index.php/Category:Software_Assurance_Maturity_Model

Organisations could select their own level of verification and publish this with their scorecard.

An individual website could also be assessed using the OWASP Application Security Verification Standard³ (ASVS) which defines a range of security controls, including data protection, for different assurance levels.

1b. How long should registrants have to resolve any notified infection before their domain is suspended? ... Further comments.

No comment.

2. As outlined above, we are proposing that the direct .uk service offers a trust mark to registrants. Do you have any comments on this proposal?

OWASP is concerned that the proposed trust mark would provide very little actual protection to users of such websites, and may actually mislead them. And, one or a small number of such public failures such as a breach in confidentiality would undermine the trust mark and all other websites using the proposed new .uk domain service. Trust marks can easily be faked and generally they are implemented using third-party hosted JavaScript, meaning the site's content is no longer under the owner's complete control (this is why similar trust marks are not displayed on banking websites and rarely on ecommerce checkout pages for example).

3. As outlined above, we are proposing that the direct .uk service requires a digital signature known as DNSSEC as mandatory. Do you have any comments on this proposal?

Agree. OWASP suggests that Nominet utilises its position to make this a strong recommendation for all third-level sub-domains, and actively encourages it, perhaps by offering beneficial renewal rates to registrants who adopt this measure. However, other measures such as requiring that all communications between the user and the site is undertaken using robustly-configured transport layer security (aka SSL) should be considered.

N. General Views on the Proposed Service

11b. Are there any other points you would like to raise in relation to this consultation or about the proposed new service?

This official response has been submitted on behalf of the Open Web Application Security Project (OWASP) by the OWASP Global Industry Committee, following our own consultation process with the local OWASP chapters in the UK. The response is a subset of Nominet's consultation questions which relate to OWASP's remit.

OWASP would be pleased to work with Nominet to progress any security-related aspects.

OWASP is a worldwide free and open community focused on improving the security of application software. Our mission is to make application security "visible," so that people and organizations can make informed decisions about application security

³ https://www.owasp.org/index.php/Category:OWASP_Application_Security_Verification_Standard_Project

risks. Everyone is free to participate in OWASP and all of our materials are available under a free and open software license. The OWASP Foundation is a U.S. recognized 501(c)(3) not-for-profit charitable organization, that ensures the ongoing availability and support for our work at OWASP, and is also registered as a non-profit corporate entity in Europe (VAT number BE 0836 743 279). Further information:

- About The Open Web Application Security Project
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- The Open Web Application Security Project
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- OWASP Global Industry Committee
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