**DNSSEC instructions for owners of DNS subdomains**

To prepare for the implementation of DNSSEC at UC Davis, owners of DNS subdomains need to:

- Work with their designated firewall administrators to ensure that DNS traffic (port 53) is enabled for both UDP and TCP protocols, and that UDP packets on port 53 accept fragmentation.

- Confirm/allow their DNS server's local software firewall to permit DNS traffic (port 53) for both UDP and TCP protocols, and confirm that UDP packets on port 53 accept fragmentation.

- Configure a client behind the local VLAN firewall to use the sub-domain's DNS server as their primary resolver.

- Run the following DNSSEC preparation tests, and submit the results to [dnssec@ucdavis.edu](mailto:dnssec@ucdavis.edu).
  
  o `dig +nodnssec +norec +ignore ns . @m.root-servers.net`
  
  o `dig +dnssec +norec +ignore ns . @m.root-servers.net`
  
  o `dig +dnssec +norec ignore any . @m.root-servers.net`
  
  o `dig +short rs.dns-oarc.net txt`

Almost all Unix systems have the `dig` utility installed by default. Otherwise it can be installed via most package management systems.

Windows clients can download the ISC BIND Windows distribution that contains the `dig` utility from the Internet Consortium Systems site: [BIND for Windows Version 9.9.2-P2](https://isc.org/downloads/bind/9.9.2-p2-windows/)

Unzip this installation, and the `dig` utility is located within it (MS VC++ needs to be on the box; if not, run the `vcinst_i386.exe` included in the archive to install it).

The campus will implement DNSSEC at 11 a.m. Tuesday, July 9. All preparations need to be completed by then. IET advises units to prepare well in advance of July, to allow adequate time for testing and adjustments if needed.

Submitted results will be examined by the Information and Educational Technology DNSSEC implementation team, which will provide additional instructions or guidance to departments based on the results.

If you have questions, please contact the DNSSEC implementation team at [dnssec@ucdavis.edu](mailto:dnssec@ucdavis.edu).