

# DNS

## Internal Servers

Internal servers are designed to be used primarily by servers that are not within a managed divisional subdomain but are inside the UCAR security perimeter. Internal servers cannot be used by hosts outside the perimeter. CISL provides DNS servers both at ML and at NWSC (NCAR-Wyoming Supercomputing Center in Cheyenne, WY). You are encouraged to use at least one DNS server from both locations to provide redundancy in the face of an outage at a single site (e.g. the semi-annual ML power downs or DNS server maintenance periods). NETs provides links from all locations to both ML and NWSC that do not depend on anything at the other site, so DNS servers at ML and NWSC can back each other up in the event of an outage at either site.

Name Server	IP Address	Location
<a href="https://dnsi1.ucar.edu">dnsi1.ucar.edu</a>	128.117.64.44	ML
<a href="https://dnsi2.ucar.edu">dnsi2.ucar.edu</a>	128.117.64.45	ML
<a href="https://dnsn1.nwsc.ucar.edu">dnsn1.nwsc.ucar.edu</a>	128.117.177.1	NWSC
<a href="https://dnsn2.nwsc.ucar.edu">dnsn2.nwsc.ucar.edu</a>	128.117.177.44	NWSC

## External Servers

External servers are intended for use by servers connected to UCAR external and guest networks, meaning outside of the UCAR security perimeter, but not within subdomains managed by a divisional or program entity. External servers cannot be used by hosts inside the perimeter. As with internal servers, it is recommended to use at least one DNS server from the two different locations to provide redundancy in the event of an outage at either location.

The external servers listed here are all authoritative servers for the [ucar.edu](https://ucar.edu) domain. They transfer the entire zone from the master server relatively frequently. If you have a working server, there is no reason why you *have* to change anything, although you might want to add an NWSC server for extra DNS redundancy.

Name Server	IP Address	Location
<a href="https://dnsx1.ucar.edu">dnsx1.ucar.edu</a>	192.43.244.39	ML
<a href="https://dnsx2.ucar.edu">dnsx2.ucar.edu</a>	192.43.244.40	ML
<a href="https://dnsnx1.nwsc.ucar.edu">dnsnx1.nwsc.ucar.edu</a>	128.117.182.39	NWSC
<a href="https://dnsnx2.nwsc.ucar.edu">dnsnx2.nwsc.ucar.edu</a>	128.117.182.39	NWSC