

## NAME

**mDNSResponder** - Multicast and Unicast DNS daemon

## SYNOPSIS

**mDNSResponder**

## DESCRIPTION

**mDNSResponder** (also known as **mdnsd** on some systems) is a daemon invoked at boot time to implement Multicast DNS and DNS Service Discovery. On Mac OS X 10.6 (Snow Leopard), **mDNSResponder** is also the system-wide Unicast DNS Resolver.

**mDNSResponder** listens on UDP port 5353 for Multicast DNS Query packets. When it receives a query for which it knows an answer, **mDNSResponder** issues the appropriate Multicast DNS Reply packet.

**mDNSResponder** also performs Unicast and Multicast DNS Queries on behalf of client processes, and maintains a cache of the replies.

**mDNSResponder** has no user-specifiable command-line argument, and users should not run **mDNSResponder** manually.

## LOGGING

There are several methods with which to examine **mDNSResponder**'s internal state for debugging and diagnostic purposes. The syslog(1) logging levels map as follows:

- Error - Error messages
- Warning - Client-initiated operations
- Notice - Sleep proxy operations
- Info - Informational messages

By default, only log level Error is logged.

A SIGUSR1 signal toggles additional logging, with Warning and Notice enabled by default:

```
% sudo killall -USR1 mDNSResponder
```

Once this logging is enabled, users can additionally use syslog(1) to change the log filter for the process. For example, to enable log levels Emergency - Debug:

```
% sudo syslog -c mDNSResponder -d
```

A SIGUSR2 signal toggles packet logging:

```
% sudo killall -USR2 mDNSResponder
```

A SIGINFO signal will dump a snapshot summary of the internal state to */var/log/system.log*:

```
% sudo killall -INFO mDNSResponder
```

## OPTIONAL ARGUMENTS

**mDNSResponder** accepts the following optional arguments:

### **-AlwaysAppendSearchDomains**

Append search domains for multi-labeled Partially Qualified Domain Name as well as single-labeled Partially Qualified Domain Name. This argument is not recommended because of the extra DNS traffic it generates and its adverse effect on battery life.

**-NoMulticastAdvertisements** Prevent the system from advertising Bonjour services via Multicast DNS.

To cause **mDNSResponder** to run with these optional arguments when it launches on OS X 10.11 (El Capitan) and later, set the **AlwaysAppendSearchDomains** or **NoMulticastAdvertisements** boolean keys to true in */Library/Preferences/com.apple.mDNSResponder.plist* and reboot.

## FILES

*/usr/sbin/mDNSResponder* */Library/Preferences/com.apple.mDNSResponder.plist*

## INFO

For information on Multicast DNS, see <http://www.multicastdns.org/>

For information on DNS Service Discovery, see <http://www.dns-sd.org/>

For information on how to use the Multicast DNS and the DNS Service Discovery APIs on Mac OS X and other platforms, see <http://developer.apple.com/bonjour/>

For the source code to **mDNSResponder**, see <http://developer.apple.com/darwin/projects/bonjour/>

## BUGS

**mDNSResponder** bugs are tracked in Apple Radar component "mDNSResponder".

## HISTORY

The **mDNSResponder** daemon first appeared in Mac OS X 10.2 (Jaguar).

Also available from the Darwin open source repository (though not officially supported by Apple) are **mDNSResponder** daemons for other platforms, including Microsoft Windows, Linux, FreeBSD, NetBSD, Solaris, and other POSIX systems.