

Men & Mice Suite 5.1

for Small to Midsize Businesses

Installation Guide

for Windows, Solaris, Linux, FreeBSD, and Mac OS X

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1 Introduction

Welcome to the **Men & Mice Suite SMB**, a cross-platform DNS management system that allows you to manage servers on multiple platforms simultaneously.

The Men & Mice Suite consists of three components: Men & Mice Management Console, Men & Mice Central, and Men & Mice DNS Server Controller. An overview of the relationships between the components is shown in Figure 1.

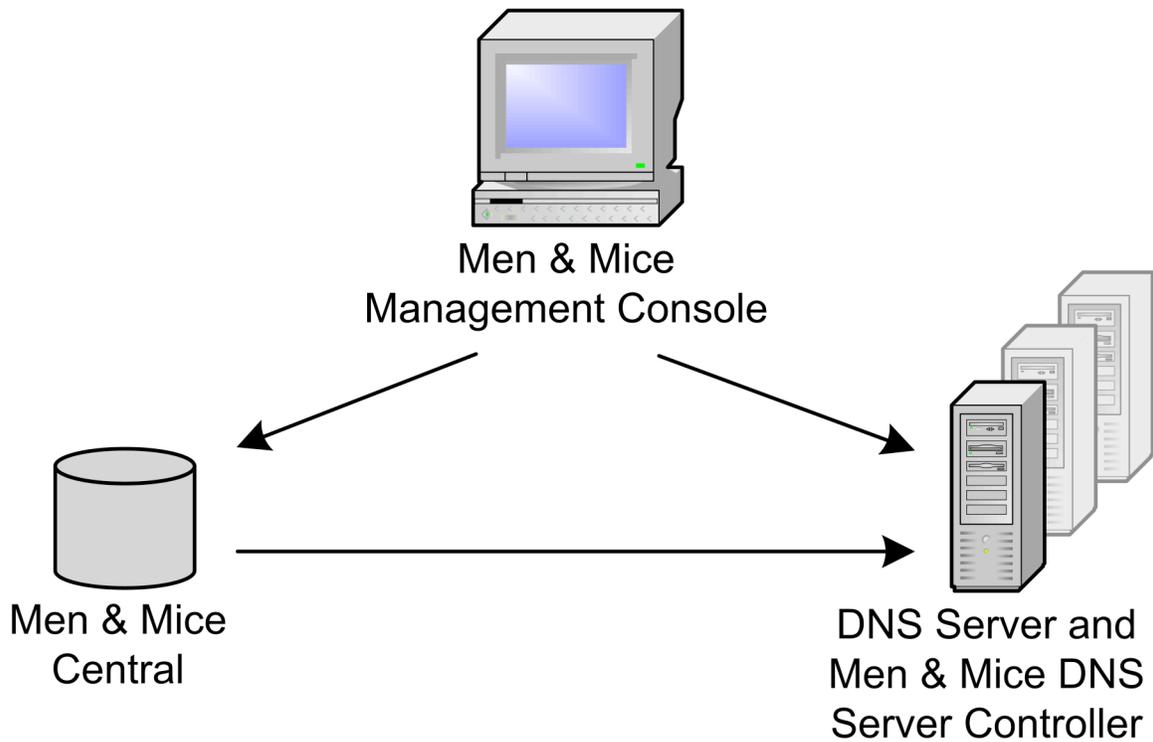


Figure 1

- **Men & Mice Management Console** is the user interface of the Suite. The Management Console can be installed on any machine on your network that meets the minimum system requirements, but be aware that only one copy can be connected at a time.
- **Men & Mice Central** provides central user authentication and meta-data storage for the Suite. Central can be installed on any available server on your network - it does not need to be installed on a DNS server. Only one instance of Central should be installed. Central connects to the DNS Server Controller on port 1337/TCP, and listens for connections from the Management Console on port 1231/TCP.
- **Men & Mice DNS Server Controller** is the agent software that manages a DNS server on your behalf. A copy must be installed on each DNS server machine, except in Active Directory environments, where a copy should be installed on just one DC in each application partition or domain. The DNS Server Controller listens for connections from the other components on port 1337/TCP.

This guide contains instructions to install each of these components. Once installation is complete, you should read the first two chapters of the **Men & Mice Suite User's Guide** for instructions on how to enter your license keys and set up connections between the various components. The User's Guide is installed in PDF format with the Management Console.

2 Minimum System Requirements

2.1 Component/Operating System Matrix

	Windows	Solaris	Linux	FreeBSD	Mac OS X
Men & Mice Management Console	+	-	-	-	+
Men & Mice Central	+	+	+	+	+
Men & Mice DNS Server Controller	+	+	+	+	+

2.2 System Requirements

Operating System	Windows 2000 or later *
	Solaris 8 or later for UltraSparc
	Red Hat Linux 8.0 or later for x86
	Red Hat Enterprise Linux 3 or later for x86
	Fedora Core 1 or later for x86
	SuSE Linux 8.2 or later for x86
	FreeBSD 5.0 through 5.4 for x86
	Mac OS X 10.3 or later **
DNS Server	Microsoft DNS
	BIND 8.3 or later ***
	BIND 9.2 or later ***

* The DNS Server Controller for Windows requires a Server edition of Windows with Microsoft DNS installed.

** For all components other than the Management Console, the BSD Subsystem is required..

*** The BIND name server is supported on all platforms except Windows.

3 Installing the Men & Mice Management Console

The Management Console is the primary user interface to manage your DNS and DHCP servers and IP address management data. It is available as an application for Windows and Mac OS X.

3.1 Windows Installation

3.1.1 Upgrading from a previous version

To upgrade from a previous version of the Management Console you must first uninstall the old version. Note that if you are upgrading from a version older than 5.0 you will need new license keys to use version 5 of the Men & Mice Suite. Use the Add/Remove Programs item in the Windows Control Panel.

3.1.2 Installing the Men & Mice Management Console

Download `Men_and_Mice_Management_Console_5.1.msi`, the Management Console installer, from the Men & Mice website. Double-click on it and follow the on-screen instructions to complete the installation.

3.2 Mac OS X Installation

3.2.1 Upgrading from a previous version

Multiple versions of the Management Console can be installed simultaneously; if you no longer need an older version, simply drag it to the trash. Note that if you are upgrading from a version older than 5.0 you will need new license keys to use version 5 of the Men & Mice Suite.

3.2.2 Installing the Men & Mice Management Console

Download `Men_and_Mice_Management_Console_5.1.dmg`, the Management Console disk image, from the Men & Mice website. Mount the disk image, and then drag-install the contents to your Applications folder. Note that you can option-drag the virtual disk itself (not the disk image file) to copy it and its contents as a folder.

4 Installing Men & Mice Central and Men & Mice DNS Server Controller

4.1 Windows Installation

Full descriptions and system requirements for these components can be found in sections 1 and 2 above. Briefly:

- Install one copy of Men & Mice Central on some server.
- Install the Men & Mice DNS Server Controller on each DNS server unless you are using Active Directory; install the DNS Server Controller on just one DC in an AD domain.

Men & Mice Central and Men & Mice DNS Server Controller for Windows are distributed as separate installers.

4.1.1 Upgrading from a previous version

To upgrade from a previous version, you must first uninstall the old versions of Men & Mice Central and Men & Mice DNS Server Controller. Note that if you are upgrading from a version older than 5.0 you will need new license keys to use version 5 of the Men & Mice Suite. Uninstalling these components will not remove their data, nor will it interrupt the operation of the DNS service. These components can be uninstalled using the Add/Remove Programs item in the Windows Control Panel.

4.1.2 Installing Men & Mice Central

Download the installer, `Men_and_Mice_Central_5.1.msi`, from the Men & Mice website. Launch the installer. Follow the on-screen instructions to complete installation.

4.1.3 Installing Men & Mice DNS Server Controller

Download the installer, `Men_and_Mice_DNS_Server_Controller_5.1.msi`, from the Men & Mice website. Launch the installer. Follow the on-screen instructions to complete installation.

After installation, if the server's operating system is Windows Server 2003, and if you plan to use any dynamic or AD-integrated zones, a preferences file must be edited. This version of Microsoft DNS refuses to allow zone transfers to the loopback address, 127.0.0.1.

Men & Mice DNS Server Controller needs to get a zone transfer in order to show any dynamic zone, including any AD-integrated zone, because that is the only way to get the most current copy of the zone. This happens any time you open such a zone for editing. By default, the DNS Server Controller attempts to get the zone transfer from the loopback address.

To configure the DNS Server Controller to use a different address, edit the following file, where {Windows} is probably `C:\Windows`:

```
{Windows}\System32\dns\qdns\preferences.cfg
```

If the file does not exist, create it. The file is a text file in a simple XML-based format. Add the following element, replacing the dummy address here with the server's correct network address:

```
<DNSServerAddress value="192.2.0.1"/>
```

Save the file, and then restart Men & Mice DNS Server Controller using Administrative Tools > Services.

4.2 Unix Installation (Solaris, Linux, and FreeBSD)

Full descriptions and system requirements for these components can be found in sections 1 and 2 above. Briefly:

- Install one copy of Men & Mice Central on some server.
- Install the Men & Mice DNS Server Controller on each DNS server.

Men & Mice Central and Men & Mice DNS Server Controller are distributed in one combined installer for each operating system. The installer needs to know several things about your system, and it will ask questions before doing anything. It is a good idea to gather the answers to these questions beforehand. Most of the answers can be found by examining the way named is launched – check the init script for named or its settings file (e.g. `/etc/sysconfig/named`), or else look at the output of a command like one of these:

```
ps axww | grep named
ps efww | grep named
```

Look for the following options:

- `-c` the location of `named.conf`
- `-t` the location of the chroot jail
- `-u` the user account that runs named

Note that if the `-c` option is not present, the default is often, but not always, `/etc/named.conf`. On FreeBSD, the default may be `/etc/namedb/named.conf`. The default can be set during compilation of BIND.

4.2.1 Upgrading from a previous version

To upgrade from a previous version, simply run the installer as normal. Your data will normally be retained. Be sure to give the same answers to questions during installation as you gave when installing the older version, or your data may not be retained. Note that if you are upgrading from a version older than 5.0 you will need new license keys to use version 5 of the Men & Mice Suite.

4.2.2 Starting the Installation

Be sure to read the sections below for each desired component before starting the installation.

Download the installer archive, `mmsuite-5.1.*.tgz` (where `*` is the type of operating system), to the server. Become root - you must be the superuser to install the software. Unpack the archive using one of the two following commands:

- `tar xzf mmsuite-5.1.*.tgz`
- `gzcat mmsuite-5.1.*.tgz | tar xf -`

Then execute the following commands:

```
cd mmsuite-5.1
./install
```

Follow the on-screen instructions to complete installation. Note that the installer will ask if you want to install the Men & Mice CLI; this component is only useful in the Enterprise edition of the Men & Mice Suite.

4.2.3 Installing Men & Mice Central

The following questions affect installation of Men & Mice Central:

- Are you running named in a `chroot()` environment?
 - What is the `chroot()` directory?
- Where do you want to install the Men & Mice Suite binaries?
- Where do you want Men & Mice Central to keep its configuration files?
- Enter the user and group names under which you want to run the Men & Mice Suite daemons. This must be the user which is running named.

4.2.4 Installing Men & Mice DNS Server Controller

4.2.4.1 BIND 9 rndc configuration

Before installing the Men & Mice DNS Server Controller, first determine what version of BIND name server you have. For BIND 9, make sure that `rndc` is explicitly configured in `named.conf`, rather than relying on the implied configuration using the `rndc.key` configuration file. If you are not sure how to do this, take the following steps:

1. Determine whether you need to do anything. Look through your `named.conf` file and any included files for a statement block starting with the token `controls`. The block should look something like this

```
controls {
    inet 127.0.0.1 port 953
        allow { 127.0.0.1; } keys { "rndc-key"; };
};
```

If you do not find one, or if it looks significantly different (especially if there is a `unix` substatement instead of an `inet` substatement), you must (re)configure `rndc`; continue with steps 2 and 3. Otherwise, `rndc` is probably configured correctly.

2. Create an `rndc.conf` file using the tool `rndc-confgen` which came with BIND 9:

```
rndc-confgen > /etc/rndc.conf
```

This creates an `rndc.conf` that also contains, in comments, two statement blocks that must be copied into `named.conf`.

3. Copy the **lower half** of the new `rndc.conf` to the beginning of your name server's `named.conf` file and remove the comment character (`#`) from the beginning of each of the 8 lines of configuration (the `key` and `controls` statements).

4.2.4.2 The directory Statement

Before installing Men & Mice DNS Server Controller, look through your `named.conf` and included files for the `options` statement block and its `directory` substatement. (If one does not exist, create it.) The installer will assume that the specified directory is dedicated to holding named's configuration files, and will replace it with a rearranged version. If this directory is `/`, `/etc`, or something else important, the installer will refuse to function.

Be sure to point this statement to a directory that can be replaced. You may have to fully-qualify other paths in your `named.conf` or move files around because of this. If you are unsure what to use, it may be best to create a new directory or use `/var/named` for this purpose.

It is allowable to have `named.conf` located in this data directory. This is sometimes the configuration, for example, on FreeBSD, where `named.conf` and all other configuration and zone files are located in `/etc/namedb`.

4.2.4.3 The \$INCLUDE directive

If any of your zone files include other files with the `$INCLUDE` directive, the DNS Server Controller installer will not notice. If they are located inside the data directory, as specified in the `directory` statement, you must manually copy them from the old data directory to the new one after installation. The old data directory is in the same place as before, but its name has had `".bak"` appended. For example, if your `directory` statement specifies `/var/named`, your old data directory will be `/var/named.bak`.

If any included file is specified with just its name, rather than some kind of path to a subdirectory, be sure to put it directly into your data directory. Do not put the included file into the same location as the zone files; included files are looked for (if no path is specified) in the root of the data directory, but the installer places master zone files into the `hosts/masters` subdirectory.

Please also visit the Men & Mice Knowledge Base for more information about how `$INCLUDE` directives are handled in Men & Mice Suite.

<http://kbase.menandmice.com/>

4.2.4.4 Installation with Dynamic Zones

Men & Mice Suite expects dynamic zones to be made dynamic by allowing signed updates. Any dynamic zone must have an `allow-update` statement whose ACL contains a key. If you do not have a need for signed updates, add the `rndc` key (or any other key) to the list.

Furthermore, after installation, be sure that your server allows zone transfers to the loopback address, `127.0.0.1`, or users will be unable to open dynamic zones from this server. Zone transfer restrictions can be set or changed in the server's Options window in the Men & Mice Management Console.

4.2.4.5 Installing on SuSE Linux

Some installations (mostly Linux distributions) are now using a chroot jail by default. If you are not sure, check the init script and/or full command line of the named process, looking for a "-t" option.

Furthermore, in the last several revisions of SuSE Linux, the chroot jail setup involves lots of symlinks and a special jail maintenance routine in the `/etc/init.d/named` init script. The main problem with this is that the init script copies data from outside the jail into the jail every time the service is started (or restarted). Most problematically, `/etc/named.conf` is copied in each time the service is started. This causes problems for Men & Mice DNS Server Controller.

The first time you install the Men & Mice DNS Server Controller, either turn off the chroot jail by editing `/etc/sysconfig/named`, or else fix the situation immediately after installing the DNS Server Controller. To fix it, take the following steps:

1. During installation, answer the following questions as indicated (note that some answers are the defaults, and are only included to illustrate the correct answers):
 - Are you running named in a chroot() environment? [n]:y
 - Do you want to run the Men & Mice DNS Server Controller within the chroot() environment? [n]:n
 - Where is the BIND configuration file?
[/etc/named.conf]:**/etc/named.conf**
 - The directory `"/var/lib/named"` contains links. Proceed at your own risk. Do you want to continue? [n]:y

You will see some errors at the end of the installation.

2. Stop both named and the DNS Server Controller using their init scripts, like this:

```
/etc/init.d/named stop
/etc/init.d/qdnssr stop
```

3. Fix the jail. Execute the following commands:

```
rm -r /var/lib/named/var/lib
cd /var/lib/named.bak
cp -a dev log ../named
cp -a var/run var/log var/lib ../named/var
```

4. Start named using its init script:

```
/etc/init.d/named start
```

You will see some error messages from the 'cp' command. This is normal and cannot be helped. (It actually indicates that everything is set up correctly.)

Make sure it started successfully: Wait a few seconds and then use the init script again:

```
/etc/init.d/named status
```

5. Edit the DNS Server Controller init script, `qdnssr`, using your preferred text editor (e.g. `vi` or `nano`). Near the top there are several variables defined, including "PARAMS" and "CHROOTDIR". Set them as follows:

```
CHROOTDIR="/var/lib/named"
PARAMS="-unamed -gnamed -c/etc/named.conf"
```

Save and exit the editor.

6. Start the DNS Server Controller using its init script:

```
/etc/init.d/qdnssr start
```

Wait a few seconds, and then check its status:

```
/etc/init.d/qdnssr status
```

4.2.4.6 Installer Questions

The following questions affect installation of Men & Mice DNS Server Controller:

- Where is the BIND configuration file?
- Are you running named in a `chroot()` environment?
 - What is the `chroot()` directory?
- The installer needs to rearrange the files in `/var/named` and restart the name server. A backup will be created. Is this OK?
- Where do you want to install the Men & Mice Suite binaries?

- Enter the user and group names under which you want to run the Men & Mice DNS Server Controller. This must be the user which is running named.

4.3 Mac OS X Installation

Full descriptions and system requirements for these components can be found above. Briefly:

- Install one copy of Men & Mice Central on some server.
- Install the Men & Mice DNS Server Controller on each DNS server.

Men & Mice Central and Men & Mice DNS Server Controller for Mac OS X are distributed as separate installers, but on the same disk image.

4.3.1 Upgrading from a previous version

To upgrade from a previous Mac OS X version, simply install the new version over the old. Your data will be retained. There is no need to uninstall the old version or perform any kind of clean installation. Note that if you are upgrading from a version older than 5.0 you will need new license keys to use version 5 of the Men & Mice Suite.

To upgrade from a version of QuickDNS for classic Mac OS, please see the Men & Mice Knowledge Base. <http://kbase.menandmice.com/> Your data will need to be converted from the old format and imported into the new version.

4.3.2 Installing Men & Mice Central

To install this component:

- Download the installer disk image, `Men_and_Mice_Suite_5.1_Installers.dmg`, from the Men & Mice website.
- Mount the disk image.
- Launch the Men & Mice Central installer.
- Follow the on-screen instructions to complete installation.

4.3.3 Installing Men & Mice DNS Server Controller

Before installing, make sure your configuration is valid. After installing Men & Mice DNS Server Controller, subsequent updates from Apple will sometimes corrupt the configuration. This has happened with the 10.2, 10.3, and 10.4 paid upgrades. It has not (so far) happened with any free updates. If you are unsure, execute this command in a Terminal window (`/Applications/Utilities/Terminal.app`):

```
named-checkconf
```

If there is no output from this command, then there are no errors. Note that on a fresh install of Mac OS X 10.4.x, where DNS has never been configured, this utility may give an error about a missing file named `rndc.key`. This case is handled by the Men & Mice DNS Server Controller installer.

If other problems are found, they must be fixed before installing the DNS Server Controller. Instructions can be found in the Men & Mice Knowledge Base.

<http://kbase.menandmice.com/>

To install this component:

- Download the installer disk image, `Men_and_Mice_Suite_5.1_Installers.dmg`, from the Men & Mice website.
- Mount the disk image.
- Launch the Men & Mice Suite installer.
- Follow the on-screen instructions to complete installation. This will install the DNS Server Controller as well as (by default) a current copy of the BIND 9 name server.

5 Unix Installation, More Information

This section contains some background information regarding what the Unix installer (Solaris, Linux, and FreeBSD) for Men & Mice Central and Men & Mice DNS Server Controller does to the system, and how to remove the software and revert to your original configuration.

5.1 Men & Mice DNS Server Controller installation

Installing Men & Mice DNS Server Controller rearranges your named configuration data, including rewriting named.conf and rearranging the data directory. The new configuration is functionally equivalent to the old, except the logging statement is either added or changed to add some new channels.

5.1.1 Common Files

The file layout is a little different with or without BIND views. Here are the parts in common:

Description	File(s) or directory	
Men & Mice DNS Server Controller daemon	qdnsremoted, usually in /usr/sbin or /usr/local/sbin	
Data directory for Men & Mice DNS Server Controller	Usually /var/named, /etc/namedb, /var/lib/named, or something within a chroot jail; the same location as before the DNS Server Controller was installed	
Backup of original data directory	Same as above, with ".bak" appended to the path	
New starting configuration file	Usually either /etc/named.conf or /etc/namedb/named.conf; possibly located within a chroot jail	
Backup of original starting configuration file	Same as above, with ".bak" appended to the path	
logging statement from named.conf	conf/logging, relative to the data directory	
key and acl statements from named.conf	conf/user_before, relative to the data directory	
options statement from named.conf	conf/options, relative to the data directory	
controls, server, and trusted-keys statements from named.conf; also, if present and if not using views, the root hints zone statement	conf/user_after, relative to the data directory	
Preferences file	qdns/preferences.cfg, located in the data directory	
init script, the shell script that can be used to control the service; used by init during system startup	Solaris:	/etc/init.d/qdnrsr
	Linux:	/etc/init.d/qdnrsr
	FreeBSD:	/usr/local/etc/rc.d/qdnrsr

5.1.2 Without Views (including BIND 8)

If views are not defined, the following files are created inside the data directory:

Description	File(s) or directory
List of include statements, one for each zone statement file	conf/zones
Directory of zone statement files	conf/zoneopt
A sample zone statement file, for the zone "localhost."	conf/zoneopt/localhost.opt
Directory of primary master zone files	hosts/masters
Directory of slave zone files	hosts/slaves
A sample zone file, for the zone "localhost."	hosts/masters/localhost-hosts

5.1.3 With Views (BIND 9 only)

If views are defined, the following files are created inside the data directory:

Description	File(s) or directory
View statements, not including zone statements within each view	conf/zones
List of include statements for a particular view, one for each zone statement file	conf/zones_viewname
Directory of zone statement files for a particular view	conf/zo_viewname
A sample zone statement file, for the zone "localhost." in the view "internal"	conf/zo_internal/localhost.opt
Directory of primary master zone files for a particular view	hosts/view_viewname/masters
Directory of slave zone files	hosts/view_viewname/slaves
A sample zone file, for the zone "localhost." in the view "internal"	hosts/view_internal/masters/localhost-hosts

5.1.4 Removing the DNS Server Controller and Reverting to Original Data

To remove the DNS Server Controller, first use the init script to stop the service (give it the "stop" argument). Then simply delete the daemon and the init script, and remove any references to the init script in the rest of the boot system if necessary.

To revert to your original data, stop named with its init script. Then delete the initial configuration file and the data directory and rename the originals, removing the ".bak" from their names.

5.2 Men & Mice Central

Installing Men & Mice Central puts the following files on your system:

Description	File(s) or directory	
Men & Mice Central daemon	qdnscentrald, usually in /usr/sbin or /usr/local/sbin	
Data directory for Men & Mice Central	usually /var/qdns/qdnscentral, possibly within a chroot jail	
Preferences file	preferences.cfg, located in the data directory	
init script, the shell script that can be used to control the service; used by init during system startup	Solaris:	/etc/init.d/qdnsc
	Linux:	/etc/init.d/qdnsc
	FreeBSD:	/usr/local/etc/rc.d/qdnsc

To remove Men & Mice Central, first use the init script to stop the service (give it the "stop" argument). Then simply delete the daemon and the init script, and remove any references to the init script in the rest of the boot system if necessary. Also delete the data directory if desired.