

Re: loader.conf examples

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/stable/2005-01/0626.html>

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Date: 01/23/05

Date: Sun, 23 Jan 2005 17:41:04 +0000 (GMT)
To: "Jason C. Wells" <jcw@highperformance.net>

On Sun, 23 Jan 2005, Jason C. Wells wrote:

> --On Sunday, January 23, 2005 7:22 AM -0500 Matt Herzog <msh@blisses.org>
> wrote:
>
> > I'm confused about how and why modules are built and (seemingly
> > loaded without my having specified any to load) when I have not
> > told my kernel conf file to build anything as a module. As a former
> > NetBSD user, I had expected a monolithic kernel . . .
>
> > You can still run a monolithic kernel as I do. You can also use
> > NO_MODULES as a make option to prevent the build and installation of
> > modules. See also MODULES_OVERRIDE in /sys/conf/NOTES.
>
> > If you never specified a module to load, then no modules should be
> > loaded. (Ref kldstat) Maybe the default behavior has changed. I
> > wouldn't know though since I don't use the default behavior.

Modules will sometimes be auto-loaded on demand -- typically this occurs in the following sorts of situations:

- Modules will be auto-loaded if another module that depends on the module is loaded.
- `acpi.ko` will be auto-loaded during the boot process if ACPI is enabled.
- The kernel will auto-load modules necessary to mount a requested file system if the necessary modules are not already present.
- If certain features are enabled in `rc.conf`, the modules will be loaded to support them if not already present in the kernel, including modules for various ABI compatibility layers (linux, etc), firewalls, ATM-related network pieces, NFS, and some MAC modules.
- The `ppp(8)` command will auto-load modules to support PPPoE if required.

The user process requested loading of modules is blocked if the `securelevel` is `> 0`. Likewise for the auto-loading of modules relating to file system mounts. The loader will still load modules during the early boot process before the `securelevel` is available for inspection, however.

freebsd-stable: Re: loader.conf examples

Robert N M Watson

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