What's New in FreeNAS 9.3

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What is FreeNAS?

Open source NAS (network attached storage) based on FreeBSD (nanoBSD) and released under a 2-clause BSD license

9.3-STABLE is the latest version

Core Features

Uses OpenZFS, a self-healing file system well suited for storage

Built-in file sharing protocols include Appletalk, NFS, and CIFS

Supports access through FTP/SFTP, SSH, and iSCSI

Core Features

Integration with OpenLDAP, Active Directory, NIS

Automated, secure replication via rsync/ssh

Automated ZFS snapshots and scrubs

Front-ends to cron, sysctls, loader.conf

Reporting graphs, scheduled S.M.A.R.T. tests, automated alerts, UPS

Core Features

Link aggregation, failover, and VLAN support

DDNS, SNMP, and TFTP support

Control panel to stop/start and view the status of services

Supports OSX Time Machine and Windows Shadow Copies

Core Features

OS is installed on USB stick/CF/SSD and is separate from data on storage disks

Upgrades keep a backup of the old OS, allowing for rollback

Administrative GUI accessed through a web browser; there is a web shell for command line operations

Online Users Guide published with each software release and updated as new features added

So, What's New?

Boot Environments!

Boot device formatted with ZFS, boot device mirroring support, boot menu which supports multiple boot environments (BEs)
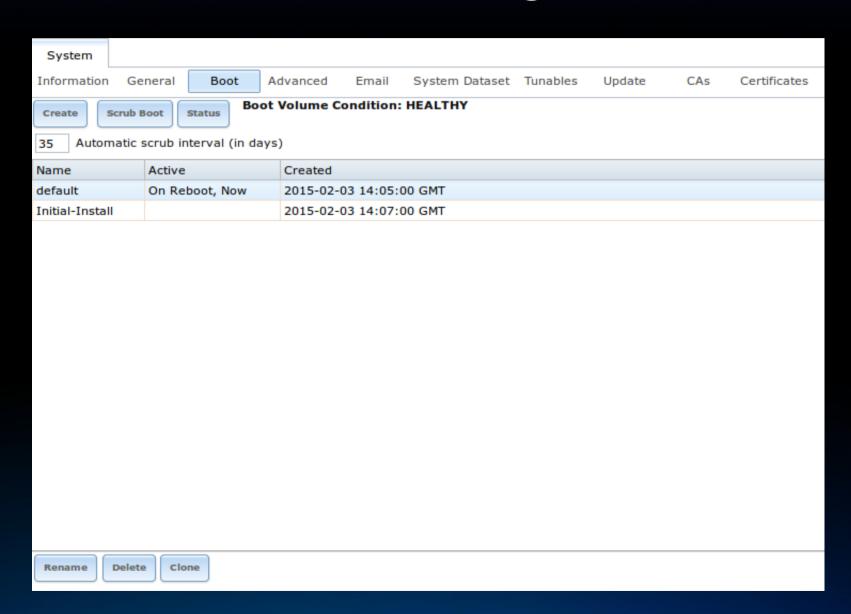
Boot Manager in GUI allows you to create BEs on demand and prune old BEs

New Update Manager automagically creates a new boot environment when updating the system

Revert to a previous version of OS by selecting from boot menu

Boot Manager

Boot Menu

```
          GNU GRUB   version 2.02~beta2

┌─────────────────────────────────────────────────────────────────────┐
│*FreeNAS (default) - 2015-02-09 02:54                                  │
│ FreeNAS (Initial-Install) - 2015-02-09 02:56                          │
│ FreeNAS (Wizard-2015-02-10_06:18:23) - 2015-02-10 06:18               │
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      Use the ↑ and ↓ keys to select which entry is highlighted.
      Press enter to boot the selected OS, `e' to edit the commands
      before booting or `c' for a command-line.
```

No More Point Releases!

New Update Manager supports tracking of multiple "trains"

As new drivers, features, bug fixes become available for train(s) being tracked, Alert is issued

Administrator decides when to apply signed updates

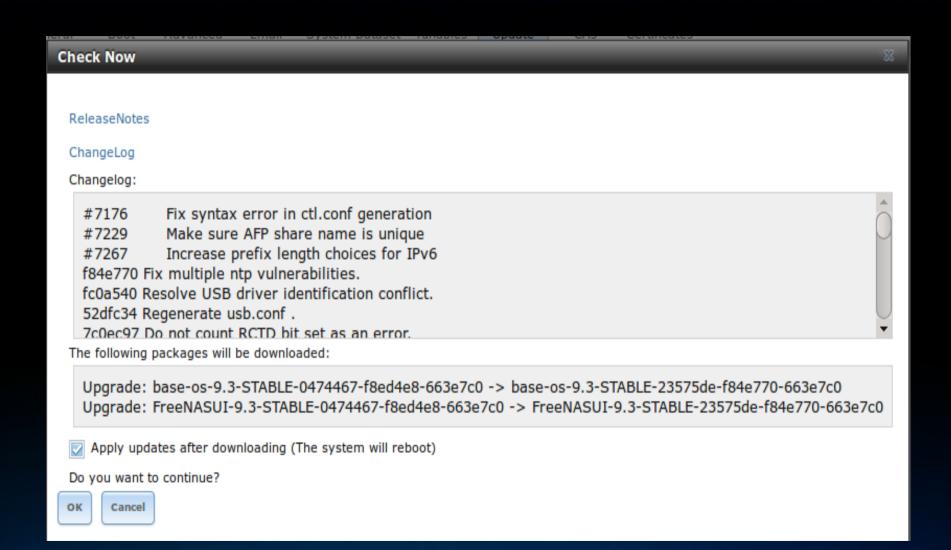No longer have to manually download upgrade files and checksums

Update Manager

Update Manager

Configuration Wizard

Starts automatically after new installation, available any time as Wizard in GUI

Can create/import ZFS pool, configure directory services, create shares and their permissions, and configure email address to receive alerts

FreeNAS system can be up and running in minutes; can still use rest of UI to fine-tune initial settings

Configuration Wizard

Wizard   X

Pool Name: [   ]

Purpose

- ⦿ Automatic
- ○ VMWare (RAID 10: Good Reliability, Good Performance)
- ○ Backups (RAID Z2: Best Reliability, Less Storage)
- ○ Media (RAID Z1: Less Reliability, More Storage)
- ○ Logs (RAID 0: No Reliability, Max Performance / Storage)

[Next] [Exit]

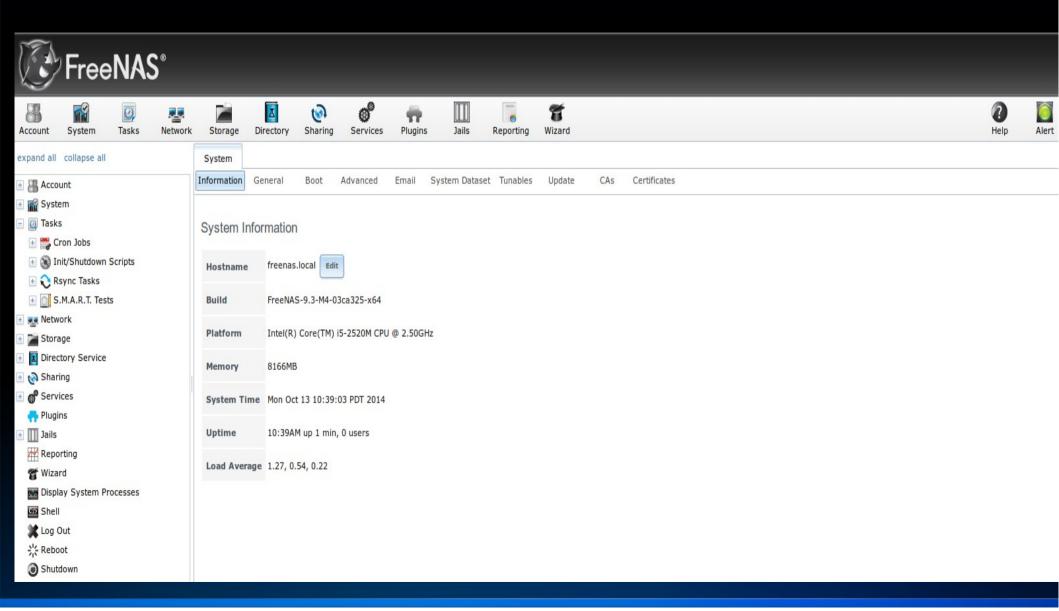# Configuration Wizard

Configuration Wizard

Simplified UI

UI has been organized to make it easier to find configuration settings

Configuration screens only show mandatory or most used options; settings which are optional or intended for advanced usage scenarios are now in Advanced Mode

Tasks section has been added for configuring scheduled tasks

Simplified UI

Certificate Manager

Used to create or import a Certificate Authority

Used to create or import certificates and generate certificate signing requests

Imported/created certificates are automagically added to the drop-down Certificate menus for the services that support SSL/TLS

Certificate Manager

Certificate Manager

WebDAV

Allows authenticated users to browse the contents of the specified volume, dataset, or directory from a web browser

Can specify authentication type, password, port number, and whether or not to use/force encryption

Updated Services

Kernel iSCSI adds support for VMWare VAAI primitives (such as unmap and threshold warning), Microsoft ODX acceleration, and Windows 2012 clustering

Kerberized NFSv4 support

LLDP for Ethernet device discovery

SSSD for multiple directory services support

SNMP now uses Net-SNMP

Miscellaneous

Ability to configure rc.conf variables from GUI

ZFS pool upgrades and growing zvol-based LUNs can now be performed from the GUI

GUI now supports IPv6

Kerberos Realms and Kerberos Keytabs can be configured in the GUI and will be automagically added to the Realm and Keytab drop-down menus for Active Directory and LDAP

Resources

Website: http://www.freenas.org

Forums: http://forums.freenas.org

Bug tracker: http://bugs.freenas.org

Docs: http://doc.freenas.org/9.3

IRC: #freenas on Freenode

Questions

Contact:

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URL to Slides:

http://slideshare.net/dlavigne/scale2015