

Email —

Infrastructure & Future

A service provided by Lane ESD

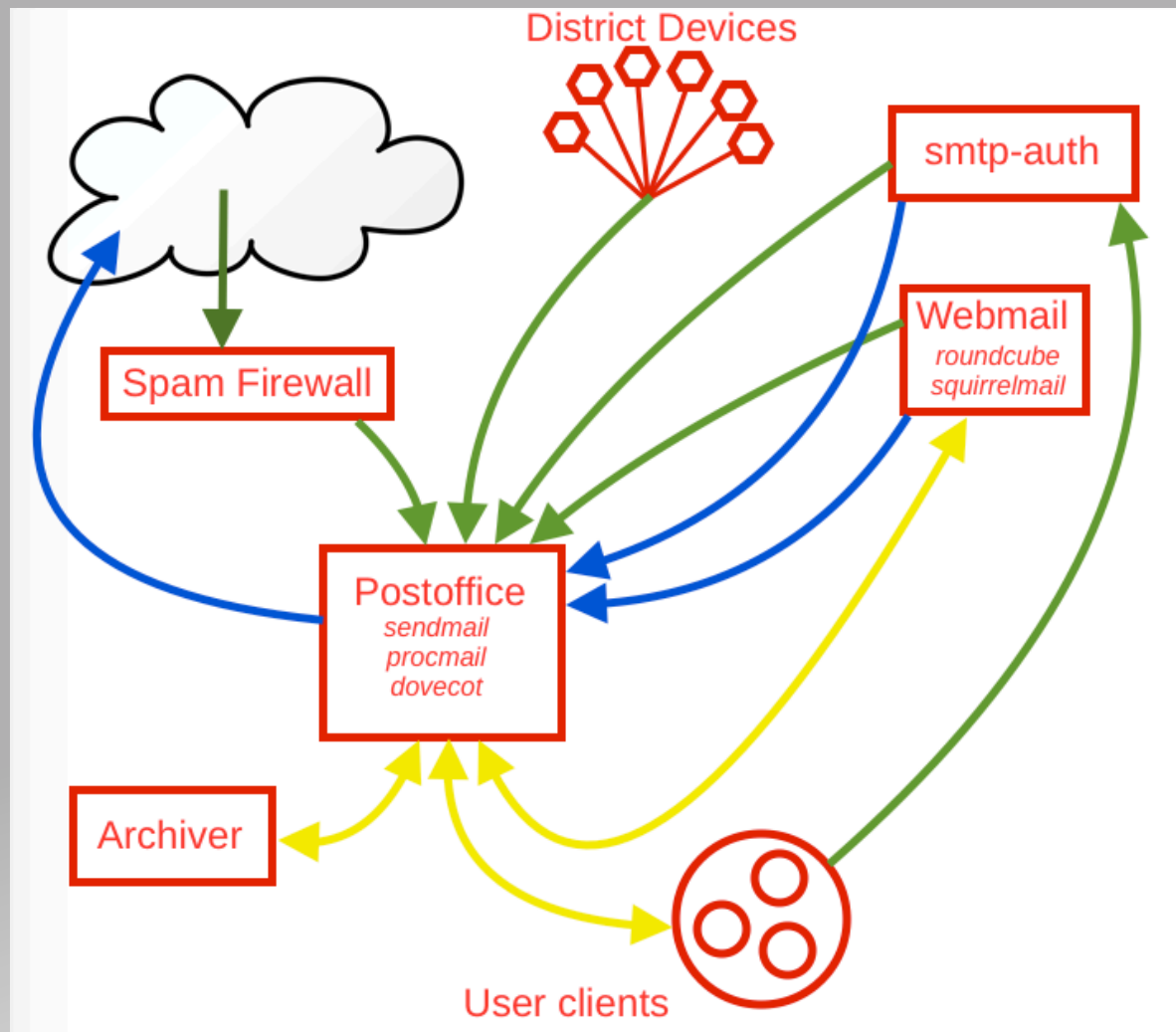
- Lane ESD provides email services for the ESD itself and 13 districts, all but Bethel, Eugene & Springfield
- Currently serving 2,300 accounts
- Mailstore size currently approximately 1.8 TB (up from 1.4 TB last year at this time)
- Average user has 608 MB

Mail flow diagram

Green is inbound SMTP

Blue is outbound SMTP

Yellow is bi-directional IMAP



Email environment (refreshed Summer 2015)

- 3 virtual servers – IMAP, SMTP, web mail
- Host environment
- HP DL380-Gen9 (x2)
 - Dual 2.6 GHz 10-core CPUs
 - 128 GB RAM
 - 300 GB mirrored on-board disk
- HP MSA 2040 storage
 - Dual-path 10 Gb iSCSI to both servers
 - 22 TB storage, shared

- Additional bits
 - All 3 servers (mail, webmail, smtp-auth) running on CentOS 7
 - Barracuda inbound spam firewall (details in a later presentation)
 - Archiver is Windows 2008 server with Mailarchiva (free edition), 3.0 TB storage (increasing to 11.0 TB soon)
 - Snapshot-type backups to disk performed nightly

- ESD Processes

- Configuration backups
- Archiving management
- System maintenance & updates
- System monitoring
- Manage aliases and forwards
- Evaluate system status at global level

- User Management

- User account directory is a custom MySQL database, accessed via a perl cgi script
- Management page

<https://directory.lesd.k12.or.us/cgi-bin/acct-mgmt.cgi>

- Some notes

- Utility accounts are available for shared or non-human mailboxes
- Contact us in case of name changes, we do have processes for this
- On account creation, it takes as much as 25 minutes for everything to be set up in webmail. Logging into webmail before the processes finish will create an identity with a bad email address

- Email lists (listservs)

- Mail server has 14 separate instances of mailman running, one per district
- Mail system auto-generates 2 or 3 lists per district nightly
 - staff@district
 - students@district (if your district gives student email)
 - all-accounts@district (includes staff, student & utility)
- Additional lists created and configured on request
- Lists (other than auto-gen lists) can be managed by district staff or by LESD
- All listservs maintain a list archive for quick reference

Spam filtering

- Spam firewall has two levels
 - Block
 - Tag
- Blocks far more than it allows
- Most obvious spam never makes it to the user
- Tagged messages (suspected spam) can be diverted to the users' spam folders
- Server-side filtering for users is opt-in, not default
- Link to list of users in your district who have enabled this is in the email admin page.

Email Statistics [inbound] Help			
	Total	Day	Hour
Blocked	10,010,679	9,860	17
Blocked: Virus	5,275	0	0
Rate Controlled	15,492,367	5,599	0
Quarantined	93	0	0
Allowed: Tagged	1,078,749	1,493	2
Allowed	6,099,631	5,301	12
Total Received	32,686,794	22,253	31

Future

- What features/functions are desired?
 - Integrated calendars
 - Easier/distributed listserv management/creation
 - Better password control/security
 - LDAP authentication
 - Other??
- Possible directions
 - Separate servers per district
 - Gmail?
 - Other??

- That's it.
- Questions and Roundtable