

# C&C Email Infrastructure and UW Medicine Requirements

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# Goals

- Understand
  - UW Medicine use of C&C-provided infra
    - UW NetID, email
  - how UW email infrastructure works
- Consider
  - approaches to meeting requirements using existing C&C services
    - UW NetID, mail routing, webpine

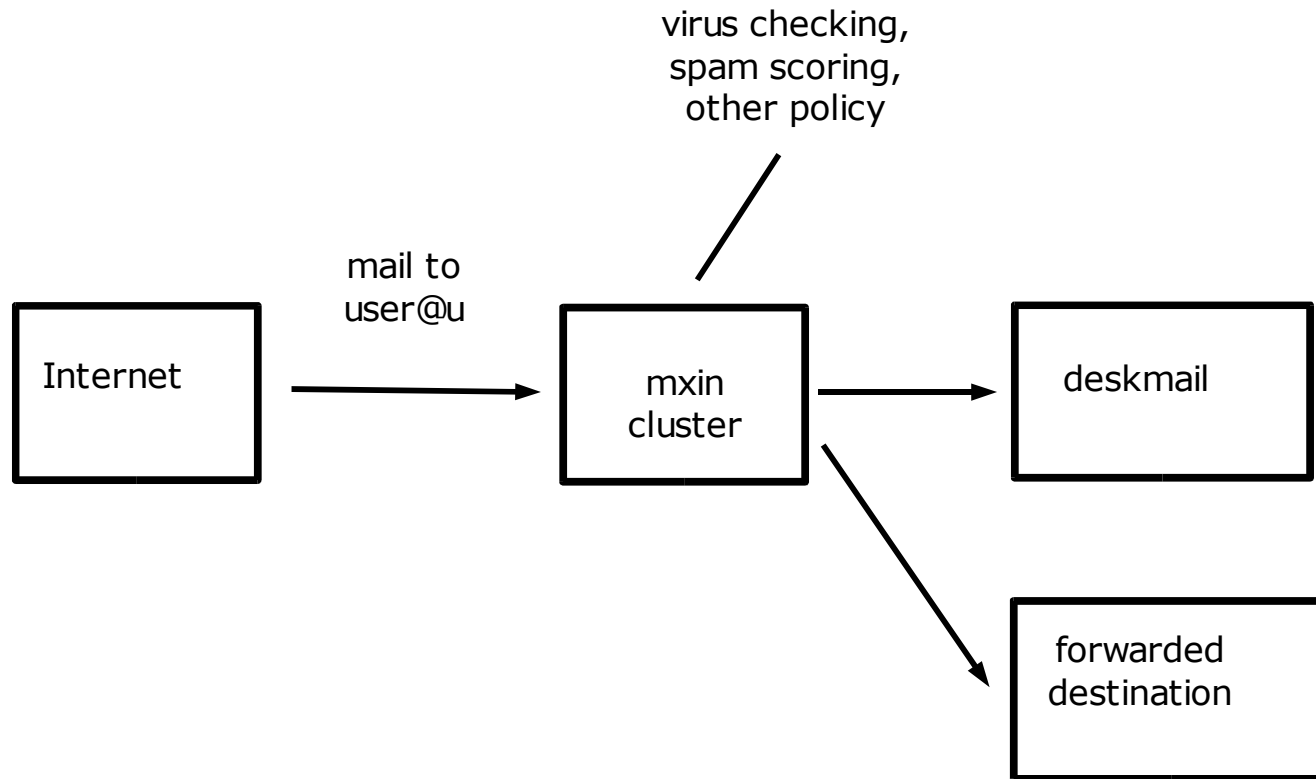
# UW Medicine users and C&C

- UW Med affiliations in Person Registry
  - 23,000 (of about 500,000 total in registry)
    - most are also staff (i.e., in HEPPS)
- UW NetID
  - 22,000 (2,000 “no additional services”)
- deskmail (“@u”) email
  - about 13,000 active
  - others may forward elsewhere, or not read it

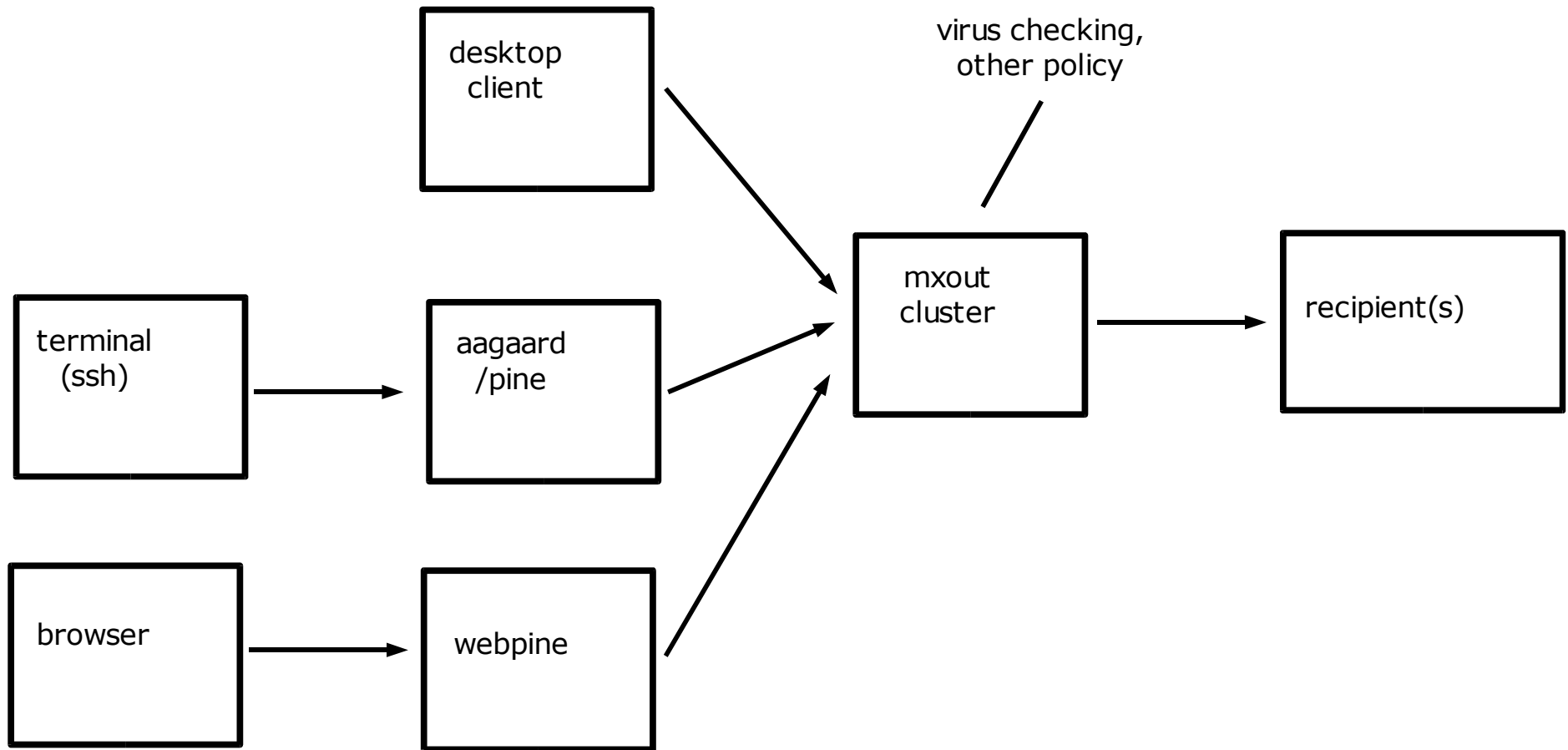
# C&C Service Hosts for UW Medicine

- timeshare accounts on “aagaard” cluster
  - also given “homer” cluster if staff and/or “dante” cluster if students
- email inboxes are on IMAP servers
  - traditionally separate servers for med users
  - now more often put onto regular staff servers
    - only difference is backup policy:  
med users mail folders not backed up

# How C&C email works: delivery



# How C&C email works: submission



# email routing and policy

- submission via C&C goes via “mxout”
  - use Sophos PureMessage product
  - can do filtering, blacklist, spam scoring, attachment removal, etc
- desktops, dept servers may do otherwise
  - we encourage use of mxout, don't require

# email security

- all C&C SMTP servers can use SSL/TLS
  - for on-the-wire encryption between MTAs
  - not used internal to C&C
  - not required for any destination
- IMAP servers require SSL/TLS
- webpine requires SSL/TLS
  - except for UW dialins
- timeshare servers require ssh or equiv

# email and PHI

- requirements
  - ease of use
  - participant authentication
  - transmission security
  - secure servers
  - protection of PHI
  - patient consent

# authentication and UW NetID

- C&C email services use UW NetID authn
  - (except on-campus email submission)
- 250,000 active UW NetIDs
  - alumni fastest growing population
- UW NetIDs for patients
  - patient-specific enrollment procedures
    - e.g., web forms, info provided, consent, etc
      - via MyUW, perhaps
    - multiple affiliations issue: plusses and minuses

# policy routing of PHI

- apply PHI-handling policy at mxout
  - per-user/group policy supported
  - hand off to external server for processing
  - inject message into recipient mail store for reading via web browser
  - send notification to recipient's outside email
  - custom development ...

# access to PHI messages

- webpine provides web UI for mail
- possible new features:
  - support for per-message URL format
  - non-NetID-based authentication?
    - eg “possession of URL”
  - custom composition forms
  - auto-deletion/disposition/notification

# Conclusion

- C&C email/security infra meets most requirements now
- integration with current infra necessary
  - even with vendor products
- development/extension possible
  - to meet new requirements
- UW NetID issues separable from email handling