Document #3 System Analysis and Design DUE: 21.02.2017 midnight

3. Requirements Traceability Matrix (RTM).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Entry #** | **System Specification text** | **Type** | **Build** | **Use Case Name** | **Category** |
| 1 | The Adept Mail Server shall store user e-mails in a database. | SW | 1 | Send Email, Edit Emails | Server |
| 2 | The Adept Mail Server shall move user e-mails between user-designated mailboxes upon an authenticated request from that user. | SW | 2 | Edit Folders | Server |
| 3 | The Adept Mail Server shall delete user-designated e-mails from its database upon an authenticated request from that user. | SW | 2 | Delete Emails | Server |
| 4 | The Adept Mail Server shall serve user data when authenticated requests are received from the Adept Mail Client via a minimally compliant IMAP protocol. | SW | 1 | Serve Updates | Server |
| 5 | The Adept Mail Server shall send user emails from other Adept Mail Servers upon an authenticated request from that user via a minimally compliant SMTP protocol. | SW | 2 | Send Email, Send External Email | Server |
| 6 | The Adept Mail Server shall receive user emails from other Adept Mail Servers via a minimally compliant SMTP protocol. | SW | 2 | Receive Email | Server |
| 7 | The Adept Mail Server shall encrypt all incoming and outgoing connections using the TLS 1.2 standard. | SW | 1 | Receive Email, Send External Email, Serve Updates, Edit Emails, Edit Folders, Authenticate | Server |
| 8 | The Adept Mail Server shall support multiple concurrent connections. |  | 1 | Receive Email, Serve Updates, Edit Emails, Edit folders | Server |
| 9 | The Adept Mail Client shall request user email data from the Adept Mail Server via a minimally compliant IMAP protocol. | SW | 1 | Request Update | Client |
| 10 | The Adept Mail Client shall store user email data locally in a local database. | SW | 1 | Request Update | Client |
| 11 | The Adept Mail Client shall send user emails to the Adept Mail Server via a minimally compliant SMTP protocol. | SW | 1 | Send Email | Client |
| 12 | The Adept Mail Client shall provide a graphical user interface to allow users to generate requests and view their emails. | SW | 2 | Authenticate, View Email, Manage Emails, Manage Folders | Client |
| 13 | The Adept Mail Client shall require local authentication from any user before executing local requests. | SW | 1 | Authenticate | Client |
| 14 | The Adept Mail Client shall provide remote authentication to the Adept Mail Server prior to executing any requests. | SW | 1 | Manage Emails, Manage Folders | Client |
| 15 | The Adept Mail Client shall locally encrypt and decrypt the subject and body of every email it sends and receives, respectively, using symmetric-key block encryption based on a user provided password. | SW | 2 | Request Update | Client |