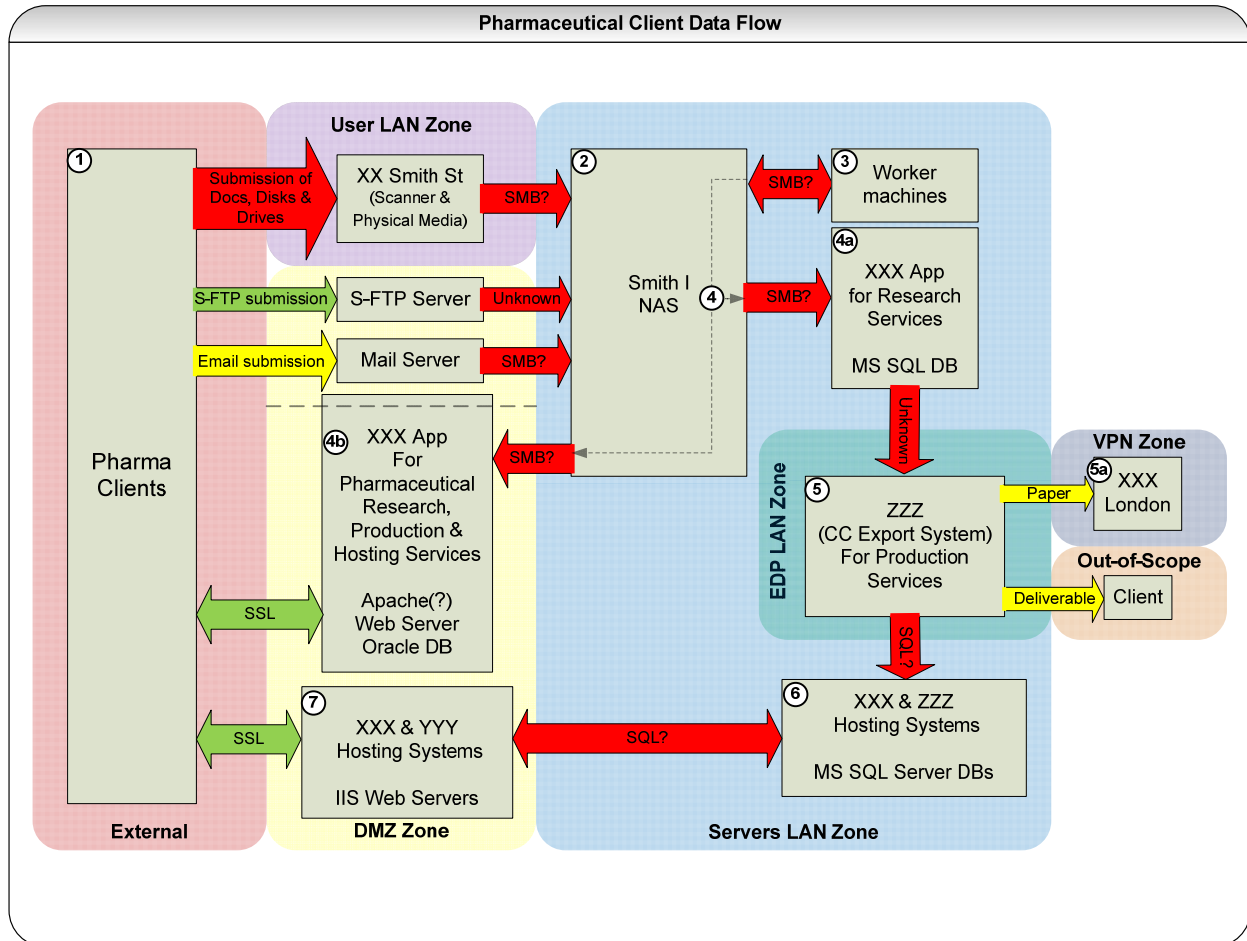


XXX Pharmaceutical Data Flow Diagrams

XXX Pharmaceutical uses two “types” of data – (1) data submitted by the client for the research project and (2) project instructions created by XXX to manage the research project.

Client Data Flow



1. Clients submit their data for pharmaceutical research using a variety of formats/media:
 - a. Paper documents
 - b. DVD, CD
 - c. Hard disk drives (IDE, SATA, USB)
 - d. Flash drives
 - e. Secure FTP
 - f. E-mail
2. After submission, client data is copied from a scanner, DVD, CD, HDD, USB drive, flash drive, S-FTP server or e-mail to the YYY NAS system and stored in the XXX folder structure.
3. Client data is validated and prepared for processing by a group of VMs called “worker machines”.
4. Data prepared for Research can be handled by either the XXX or YYY systems:
 - a. For most clients, a project is created in the XXX application and then an enumeration inventory is created of the dataset. After validation, a dataset is extracted, culled or imaged (if necessary) and released for production.

XXX Pharmaceutical Data Flow Diagrams

- b. Projects that require an early case assessment tool are created in the ZZZ system where clients can access their project over the Internet after Research and Production Services are completed.
5. The dataset released from Pharma Research is imported into the CCC Export System (CC) for Production. The dataset is validated and prepared for export. Control numbers are applied and Endorsements or OCR is performed, if necessary. Exception reports and quality assurance are provided for the client deliverable before delivery to the client.
 - a. Documentation with client data can exist in the London office.
6. If the client asked XXX to host the deliverable, then a new database or project is created in XXX or YYY hosting systems using templates (if possible). Fields are created (if necessary), case objects are created (e.g. tags, users, groups, etc.) and the data is loaded into the hosting system's repository and validated.
7. Clients perform an "Quality Review" of the data by accessing the XXX or ZZZ web servers over the Internet. If any issues are discovered, then a revised dataset is retrieved from CC (see #5).