



# Autodesk Vault for the Enterprise: Evaluation, Implementation, and Integration

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Enterprise Solutions Architect

# Desired Agenda

## Dungeons and Dragons *RED BOX*

- A lot more fun than anything you can do with Vault!
- Way simpler than anything you need to do with SharePoint.
- Unlike what we will be talking about, everyone has to be working towards the same goal or your going to get eaten.
- Better defined than BIM.

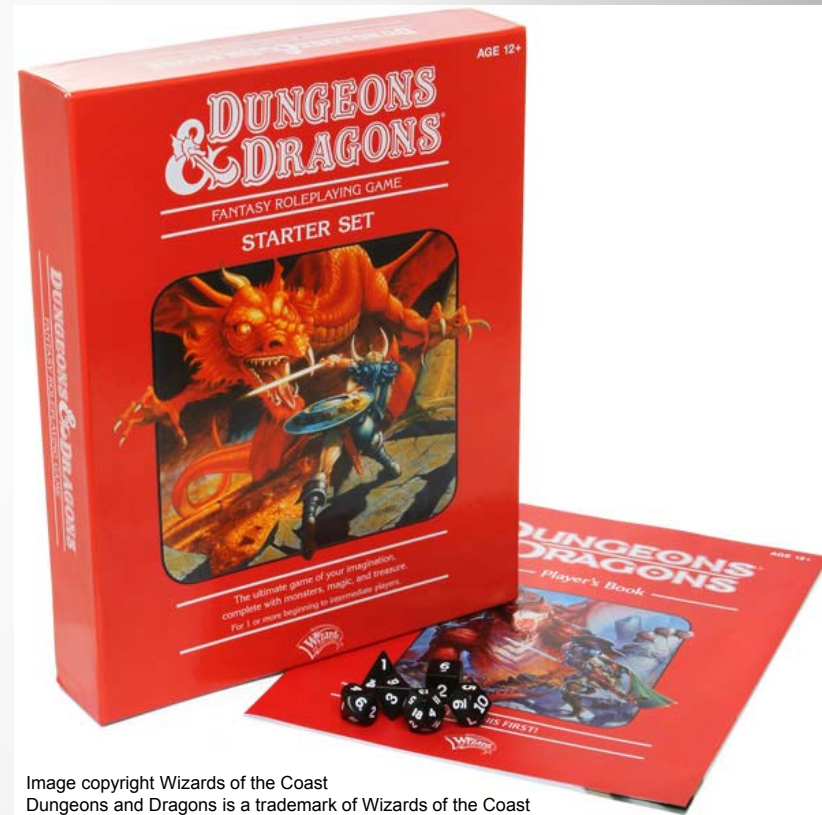


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# Actual Agenda



- Background
- Challenges
- Current Environment
- End Goals
- Planning
- Integration
- Future Proofing

# Goals

- Evaluate both Vault and company workflow for proper application
- Assess and construct the enterprise architecture to harmonize Vault and all integrated systems desired
- Implement the working environment and workflow processes to function effectively in the new system
- Identify methods to determine integration with other existing systems for a unified environment

## About Me

- Michael Dorland
  - Jack of all Trades
    - Enterprise Solutions Architect in IT at M3
    - Nine years experience with America Online
      - Beta/Quality Assurance
      - Network Operations
      - Network Analysis
      - Lots of technical stuff
    - Degree in Web Tech, Corporate Branding, and Comic Books



Image shamelessly stolen from Scott Adams

# Our Company

- A/EPCCM Company
- Large Industrial and Commercial Projects
- Multi-Disciplinary Firm
- 1000+ Employees worldwide
  - Headquarters: Tucson, AZ
  - Branch Offices: Chandler, AZ
  - Charlotte, NC
  - Hermosillo, MX
  - Buenos Aires
  - Guatemala



Copyright M3 Engineering & Technology

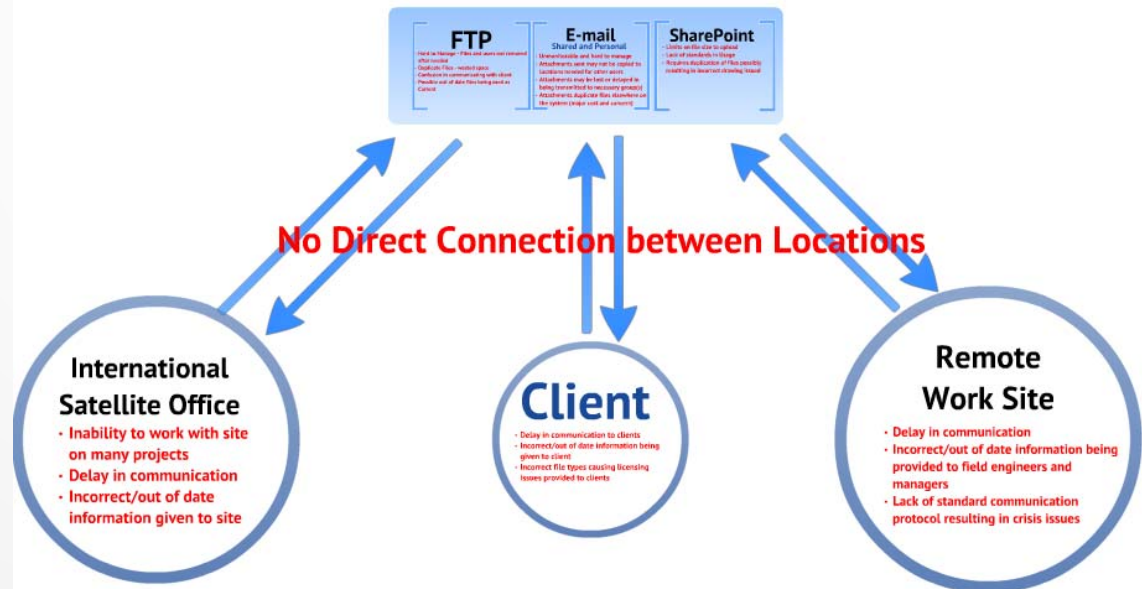
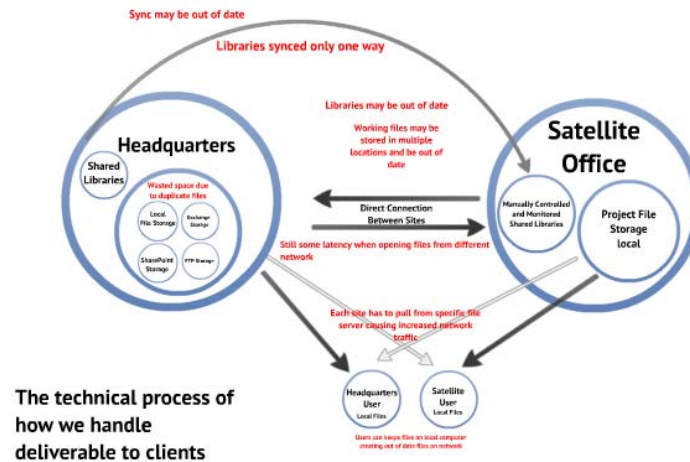


# Challenges We Face

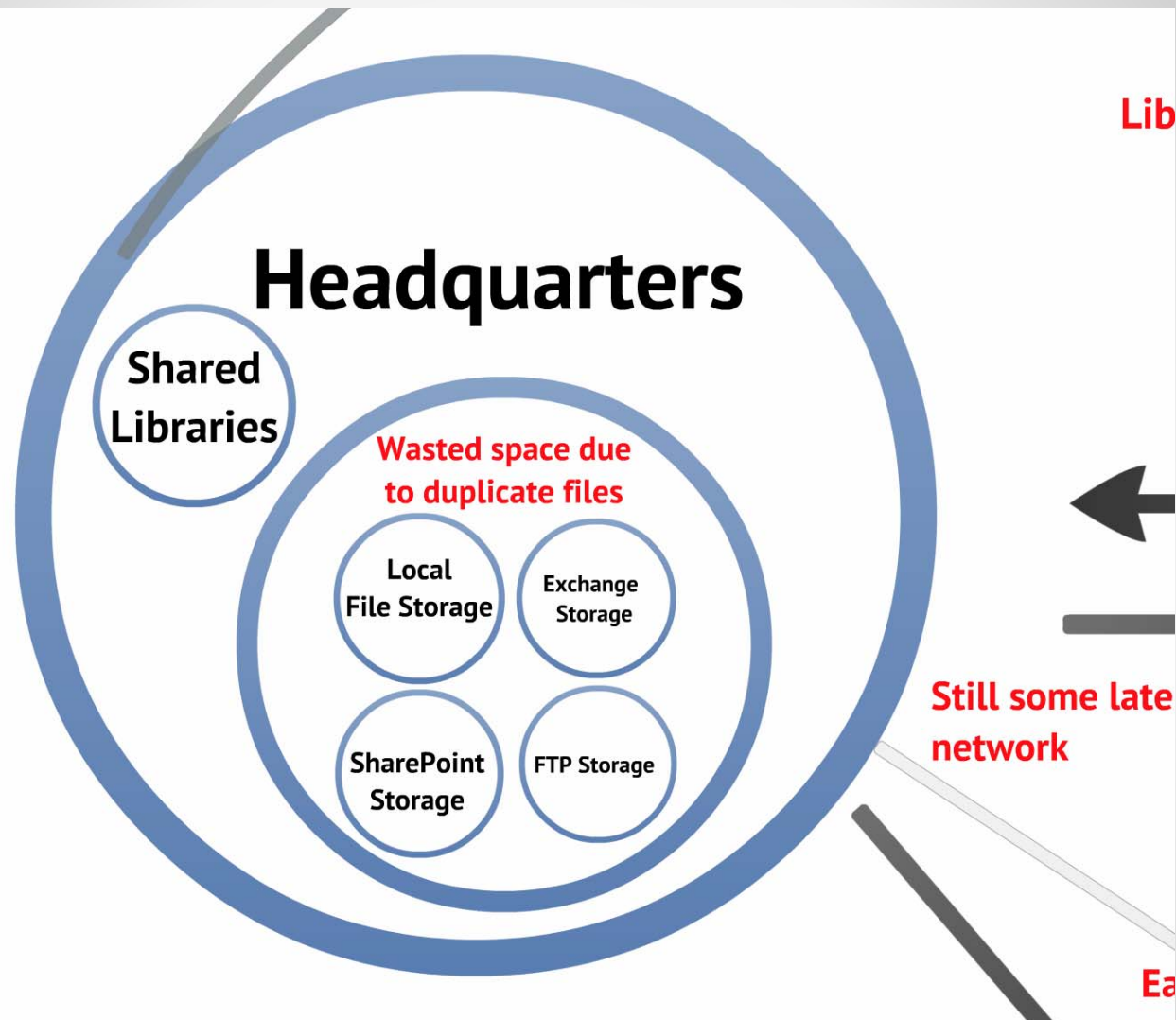
- Internal Data Coordination and Collaboration
  - Drawings
  - Specifications
  - Calculations
  - PO's
  - Etc...
- External Resource Management
  - Warehouse Coordination
  - Shipping/Tracking
  - Construction Progress
  - Site Materials
  - Punch Lists
  - Etc...

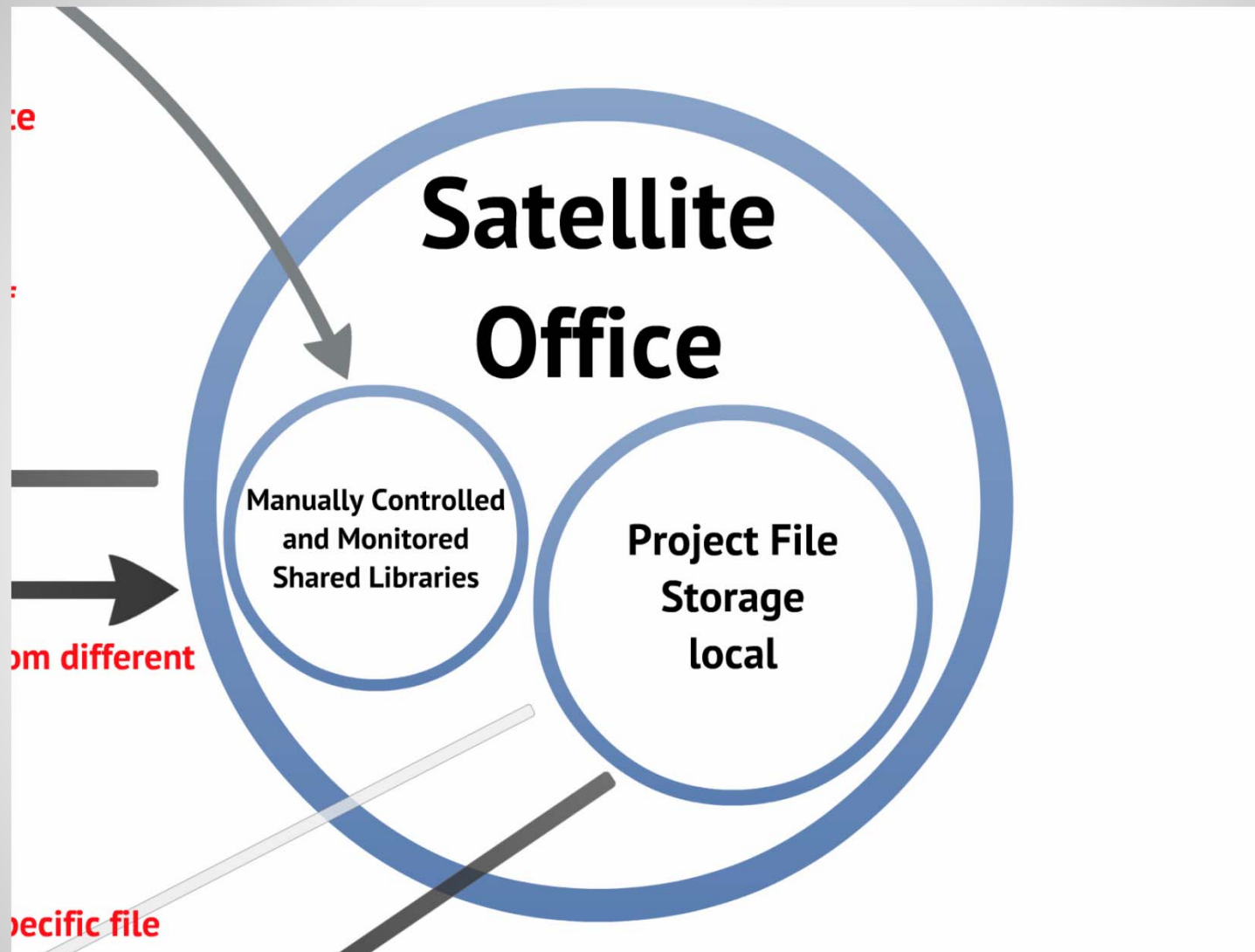


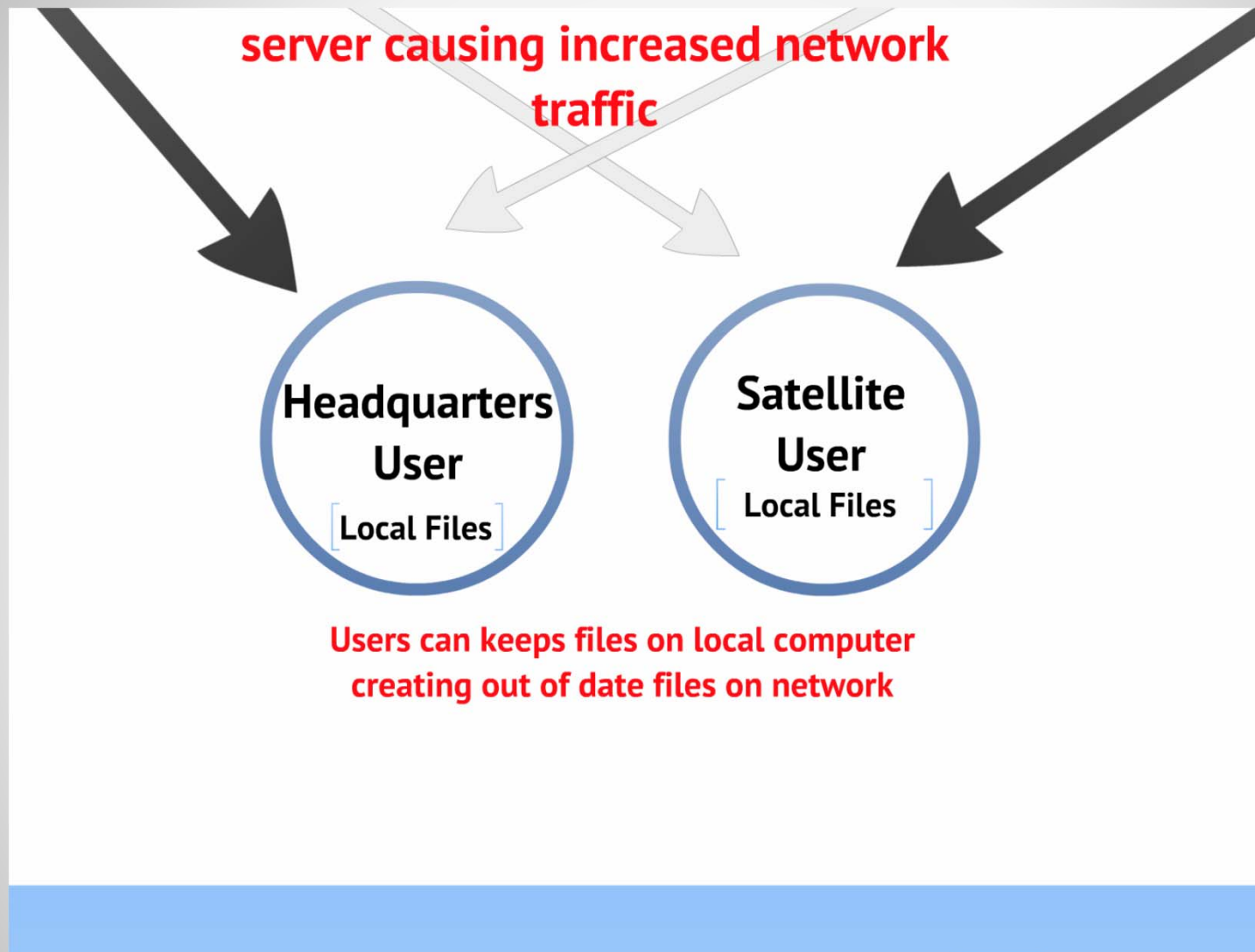
# How We Handle Files

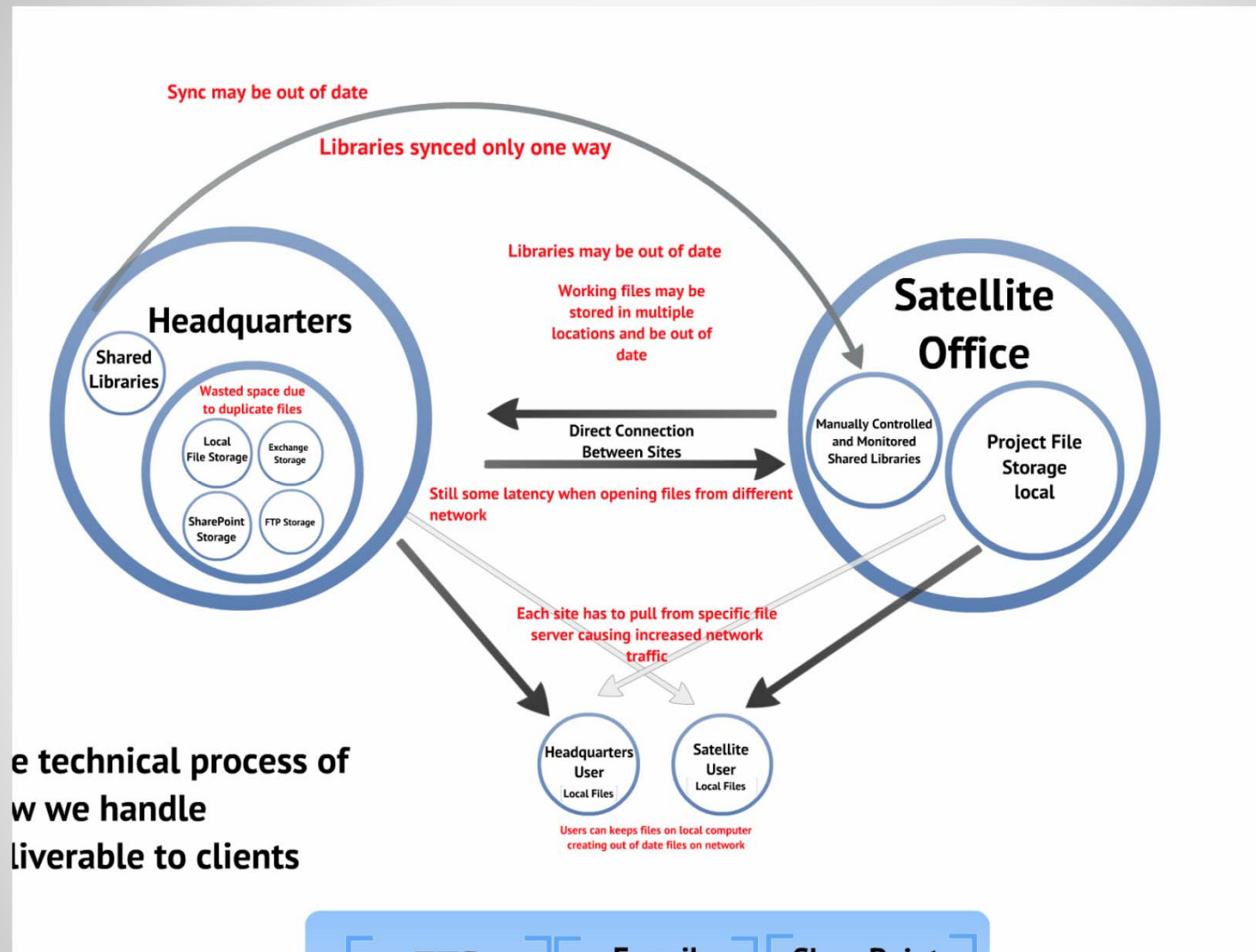






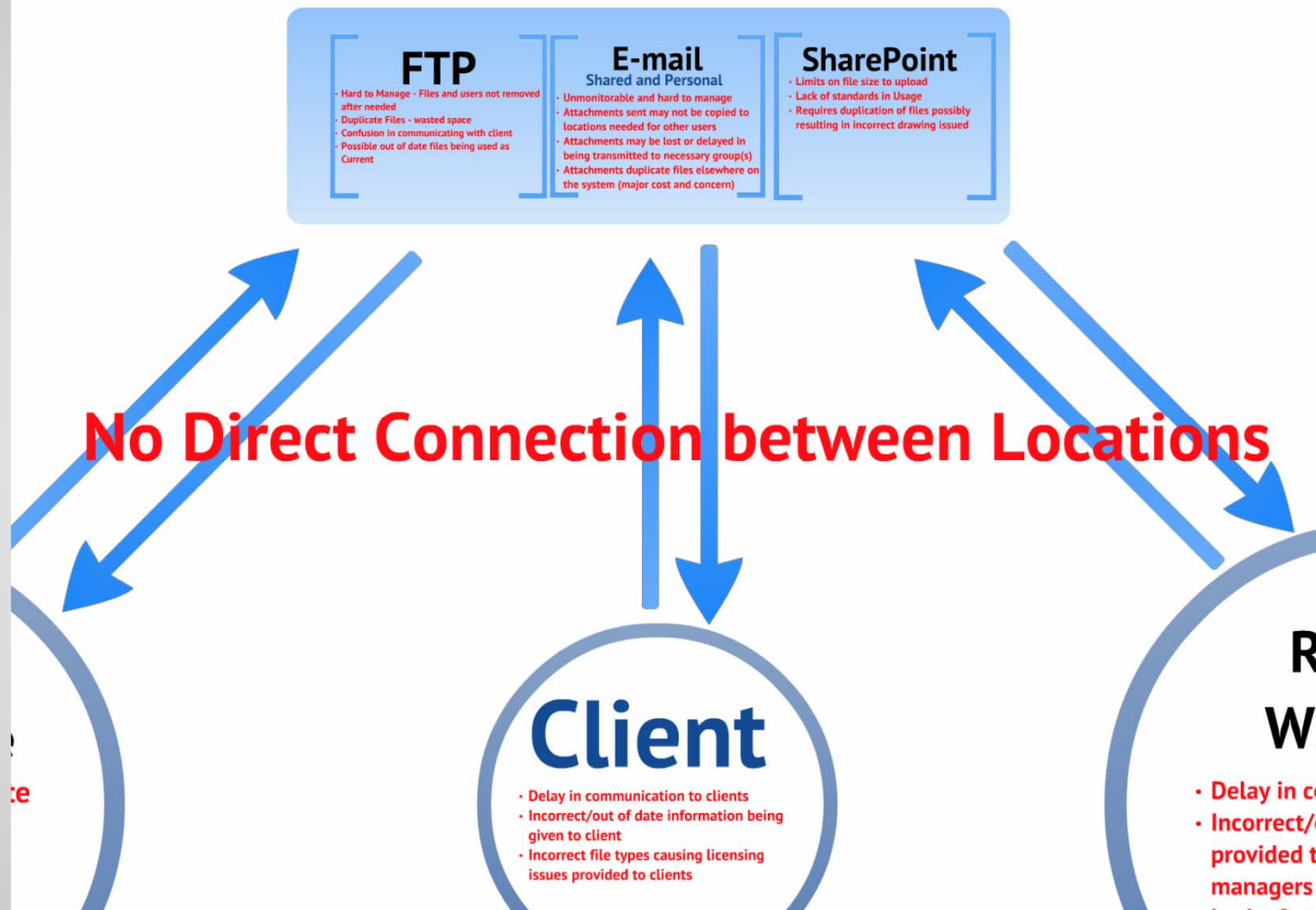






verable to clients

users can keep files on local computer  
creating out of date files on network



# FTP

- Hard to Manage - Files and users not removed after needed
- Duplicate Files - wasted space
- Confusion in communicating with client
- Possible out of date files being used as Current

- Unn
- Atta
- loca
- Atta
- bein
- Atta
- the





# E-mail

## Shared and Personal

- Unmonitorable and hard to manage
- Attachments sent may not be copied to locations needed for other users
- Attachments may be lost or delayed in being transmitted to necessary group(s)
- Attachments duplicate files elsewhere on the system (major cost and concern)

- Limits
- Lack of
- Requires result





# SharePoint

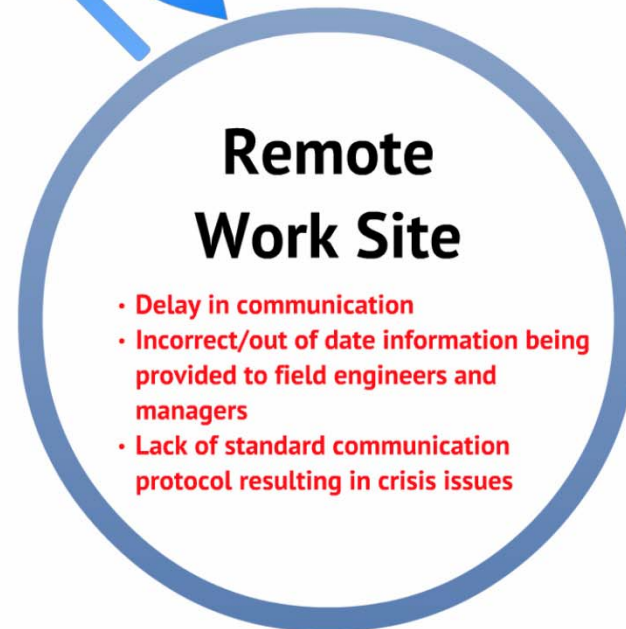
- Limits on file size to upload
- Lack of standards in Usage
- Requires duplication of files possibly resulting in incorrect drawing issued



# **International Satellite Office**

- **Inability to work with site on many projects**
- **Delay in communication**
- **Incorrect/out of date information given to site**

## Connection between Locations



# Primary Concerns

- “Redundantly Duplicated Duplication of Duplicated Redundancy” – *Anonymous M3 employee*
  - Manual audit of files from multiple sources
    - Inevitable duplication of data and/or files with error
    - Labor intensive
- Multi-Office Collaboration
  - Manual Coordination of multiple data sources
    - Using FTP, Email, SharePoint
- Security
  - Internet-facing systems
  - Multi-sites with different storage methods

# Our Vision of Success

- Corporate governance standards throughout all business units
- Consolidation of all branches and remote sites
- Complete project control
- Internal/Client communication control
- Immersed collaboration of teams
- Mitigation of litigation risk



# The Solution: Vault + SharePoint



# Vault

- What can it do for us?
- Major Points for an AEC Firm:
  - Centrally managed document repository
  - Internal and external access options
  - All parties working from a single document/directory (document lifecycle)
  - Integrates with Autodesk and Microsoft Office Products



# Vault Features

- File Reference Management
  - Knowing where a file, part or model is used
- Revit Server Integration & Indexing
- Document Life-cycling
- Vault + Revit Images; Provide document lifecycle example

# Vault Features

- Document Meta-tagging & Data Mapping
- SharePoint Integration
- Active Directory Integration for User Management
- Industry Specific features and functions

# SharePoint Integration

- Primary method of third party engagement
- Easily accessible, web-facing front end
- Direct data entry
- Active Directory Integration
- High resolution permission management

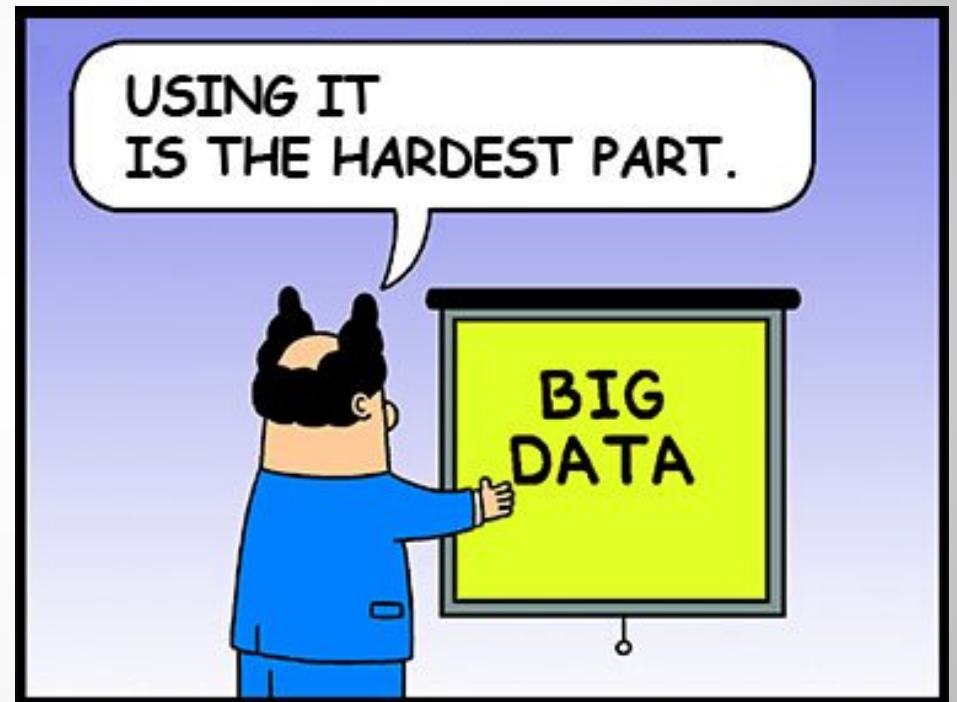
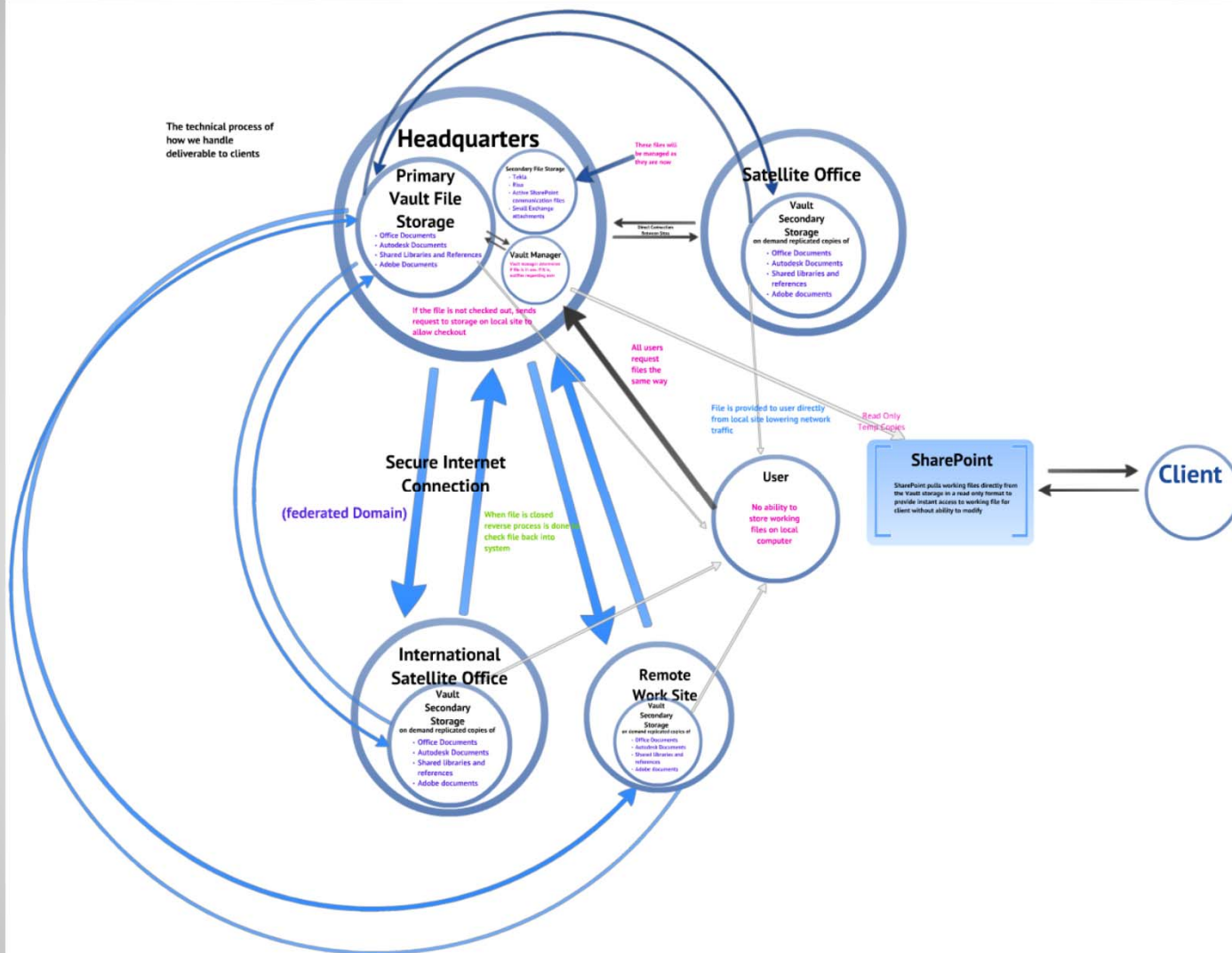
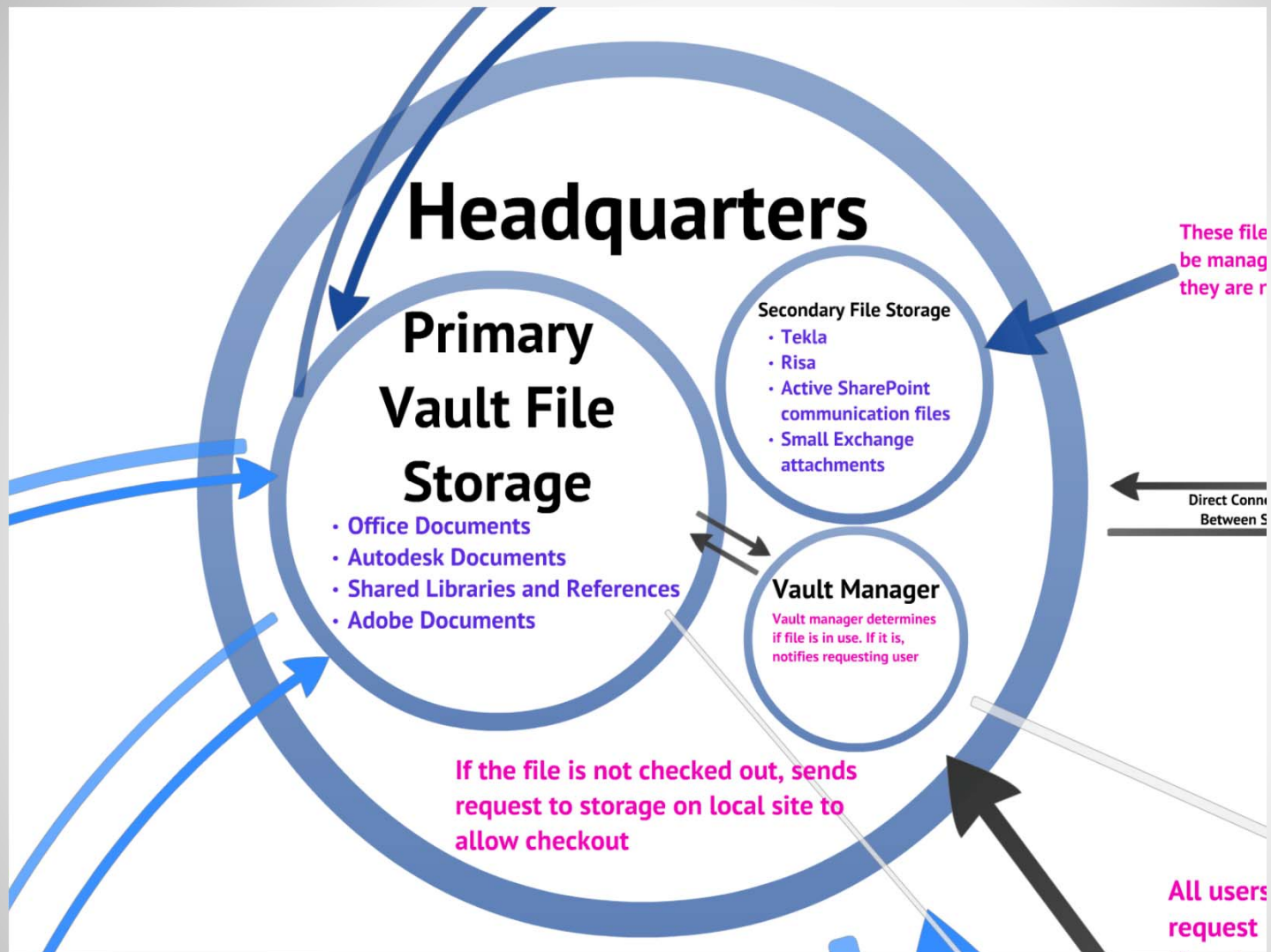


Image taken completely out of context from Scott Adams

The technical process of how we handle deliverable to clients





files will  
managed as  
are now

# Satellite Office

## Vault Secondary Storage

on demand replicated copies of

- Office Documents
- Autodesk Documents
- Shared libraries and references
- Adobe documents

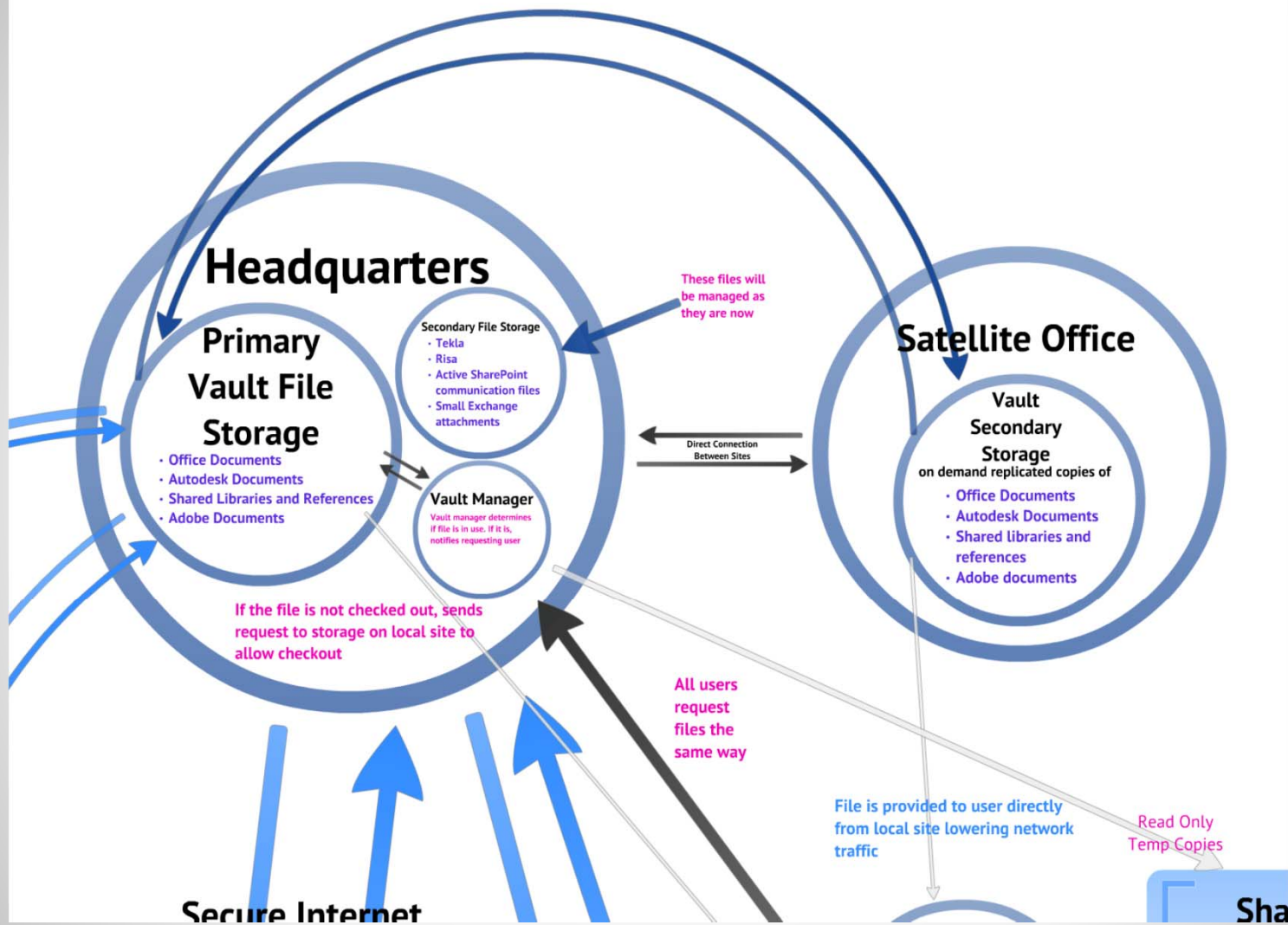
Connection  
between Sites



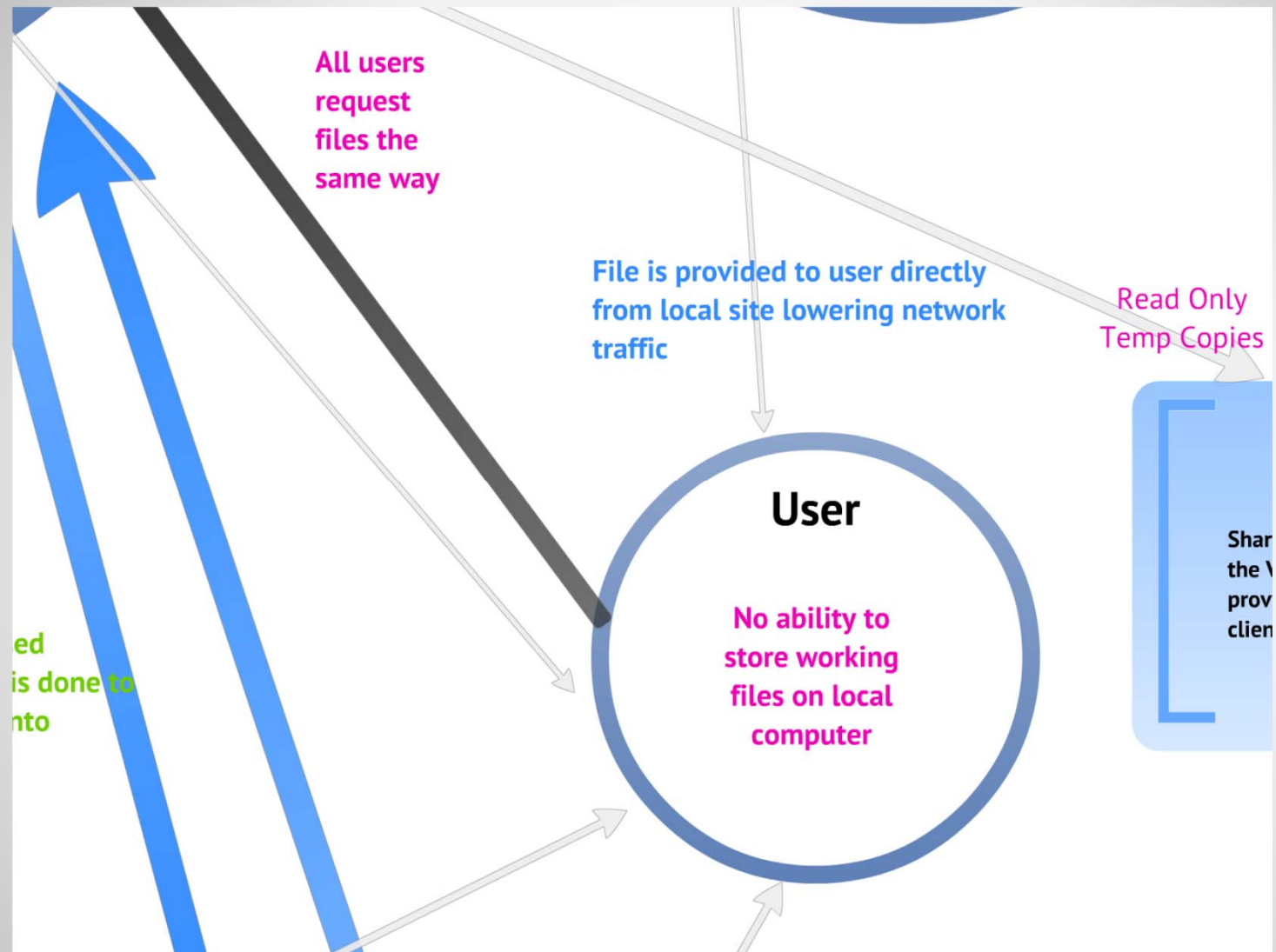
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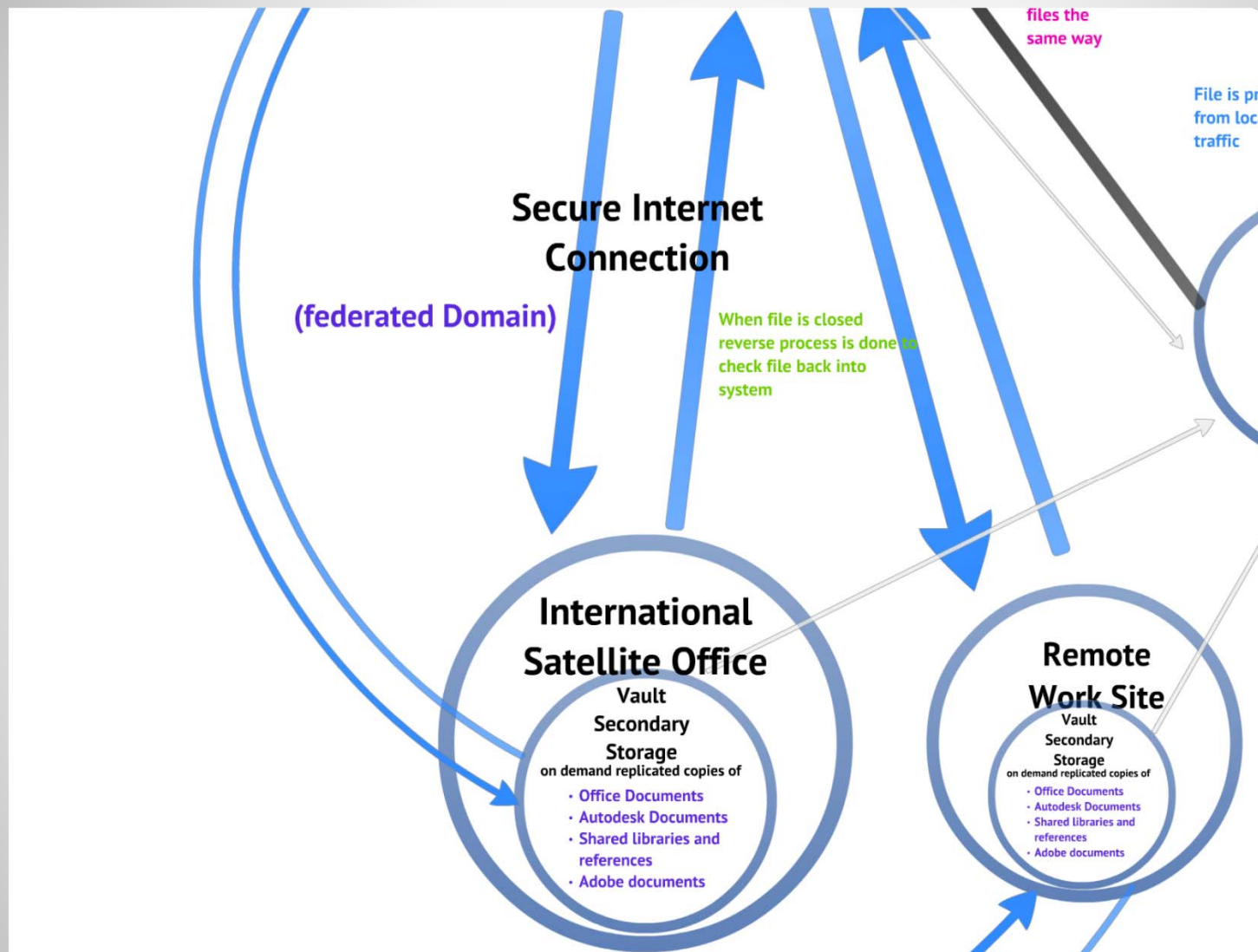




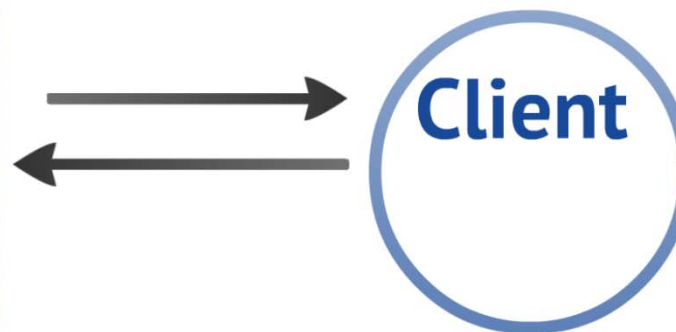
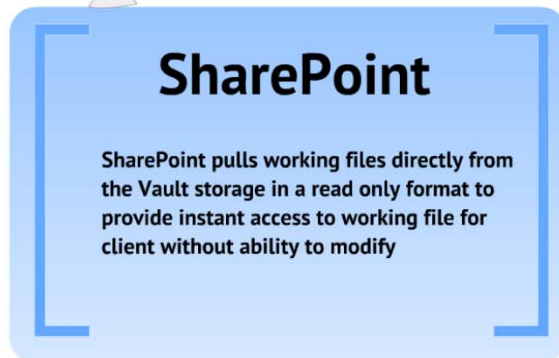




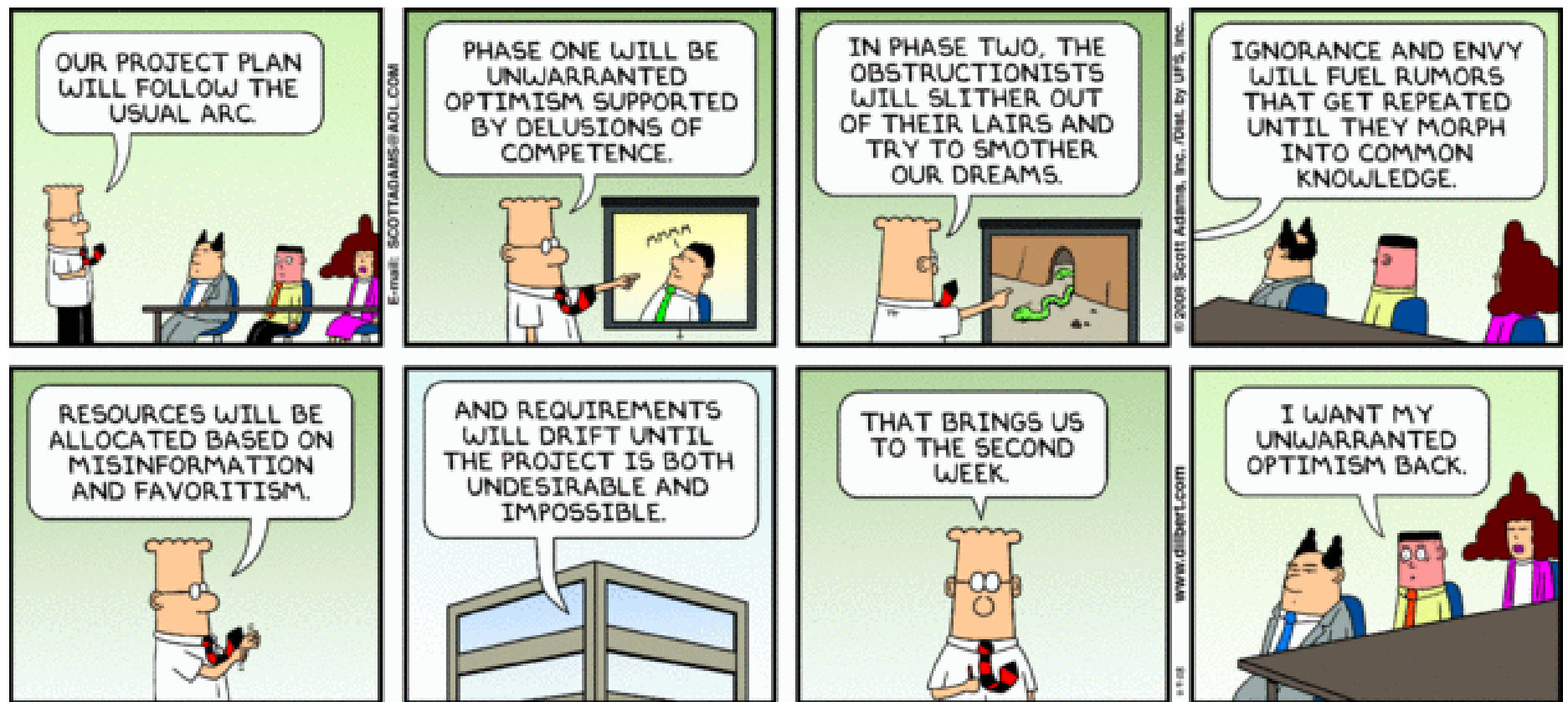




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# How to start the implementation of an enterprise system



An image that though funny is pretty much true by Scott Adams

# Planning and Preparation

- Vault is not a “turn-key” solution
- What to plan first
  - IT Infrastructure
  - Enterprise Infrastructure

# Planning and Preparation

- Define Enterprise Scope
- Mitigate “Scope Creep”
- Focus on core Vault and SharePoint Functions & Purpose
- Permissions and File Locations
  - Organized by deliverable
  - Assigning Permissions through Lifecycles
  - Integrated Search Functions enhance ease of file management
  - Folder Structure and Lifecycles

# Implementation and Production

- Executive level buy-in
- Team assignment
  - Specific organizational leads
  - Built from the bottom up
- Development
  - Testing and systems adjustments
- Governance and Training



Oh we know who did these by now... right?

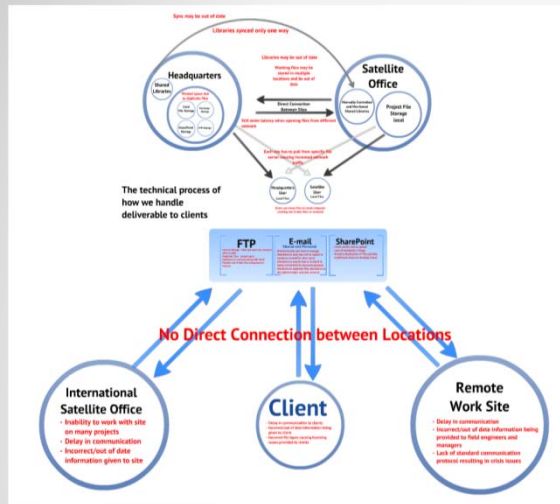




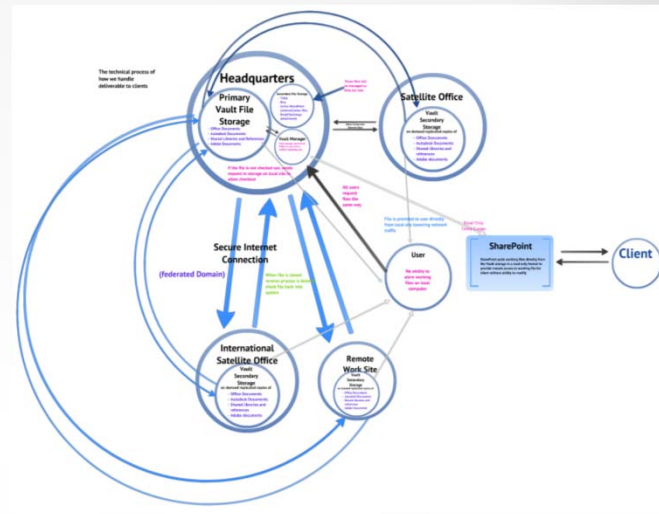
# Looking to the Future

- Advanced Enterprise Integration
  - Advanced Primary system Development
    - Vault and SharePoint
  - Integrating Support Systems
    - Separate tools for Reporting, Cost Forecasting, Accounting...
  - SQL Database Advantages
    - Database Warehousing
  - Taking advantage of Vault API
    - Specialized Systems

# Summary



- Evaluate Current System
- Plan for the Future



- Analyze Use
- Develop and Deploy

# Solicitation of Query from Assemblage Attendants

