Chapter 8

Software deployment

and Software maintenance

- Scope

- Plan

- Conversion

- task

- diagram

- bug tracking

Soft ware Deployment

- Deployment term : " Installation and release
- the process of putting the finished application in the target environment
  - Consider
    - scope of deployment
    - plan and follow the plan
  - rollback any changes to try again later
  - Use systen conversion strategies to make thing easier
- you need to know when to abandon a deployment

Deployment scope

- Number of user
- Size of application
  - Data involved
  - Number of ex systen
  - quantity of code

Deployment Plan

- list the successful step and detail
- list the step that could fail and describe work-around or alternative approches
- Write roll aback plan to undo every thing you done

Systen Conversion : ptopess that move user to new systen

- Staged deployment
- Incremental Deployment
- Direct conversion
- Pilot conversion
- Parallel conversion
- Gradual Cutover

Staged Deployment
- Testing the new System in Staging area
- Engaging of power users in this deployment is very useful

Direct conversion
- abandoning the old and start new system
- risky deployment

Parallel Conversion
- old and new system are operated side by side until the new one proves to be reliable.
- low-risk deployment
- high cost

Incremental Deployment
- Releasing the new system's feature to the user gradually
- install one feature and another feature and another feature

Pilot conversion
- Releasing new System in only one part of the organization
- less expensive than parallel conversion

Gradual Cutover
- one user try new system > add more user to new system

Deployment tasks for a large deployment

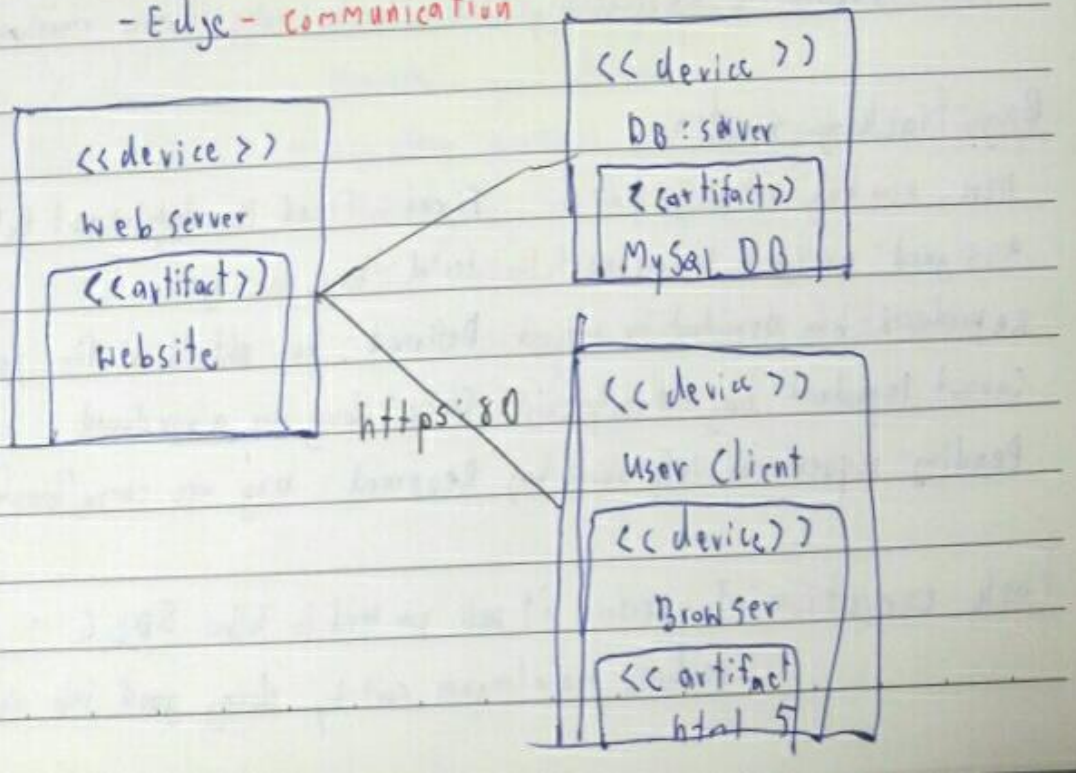
- physical environment
- Hardware
- Documentation
- Training
- Data base
- other people's software
- your software

Deployment mistakes

- assume everything will work
- Have no roll back plan
- Allow insufficient time
- Don't know when to surrender
- skip staging
- Use an unstable environment

Deployment Diagram

- Static deployment view of a system
- physical allocation of component to computational unit
- Node - computational unit
- Edge - communication



Software maintenance

Software maintenance is a modification of a software product after a delivery in order;

- to correct faults or
- to improve existing feature
- to adding new feature
- to improve performance for product's environment

Maintenance Cost : 60-80 % of project total cost

Four categories of maintenance tasks

50 %. Perfective : Improving existing feature
25 %. Adaptive : modify the application to meet changes in eco syst
20 %. Corrective : Fixing bug
5 %. Preventive : Restructuring the code to make it more maintainable

Bug tracking system

new : new bug not assign yet
assigned : assigned to someone to fix
Reproduced : bug Reproduced by someone
Cannot reproduced : bug not really exist
Pending : request more info about bug
Fixed : Fixed the bug but not test
tested : bug are gone
Deffered : bug should not fix yet
Close : bug are abandoned
Reopened : bug are come back

Task execution : To perform it well you need to follow SDLC .
: reduce maintenance cost by doing good job on work