Session 1-4

Identifying Customer Requirements

Identifying Customer Design Requirements

- Why follow a design methodology?
  - It ensures that steps are not missed when the process is followed.
  - It provides a framework for the design process deliverables.
  - It encourages consistency in the creative process, enabling network designers to set appropriate deadlines and maintain customer and manager satisfaction.
  - It allows customers and managers to validate that the designers have analyzed and met their requirements.

Identifying Customer Design Requirements

- To obtain customer requirements, talk to network engineers, to business unit personnel and company managers

- Steps to identify customer requirements:
  - Step 1. Identify network applications and services.
  - Step 2. Define the organizational goals.
  - Step 3. Define the possible organizational constraints.
  - Step 4. Define the technical goals.
  - Step 5. Define the possible technical constraints

Identifying Customer Design Requirements

- Analyze the data and develop a network design
- Identify current and planned applications and determine the importance of each application

Figure 1-5. *Identifying Customer Requirements*

Identify Network Applications and Services

Define Technical Constraints

Document the Collected Information

Define Organizational Goals

Define Technical Goals

Define Organizational Constraints
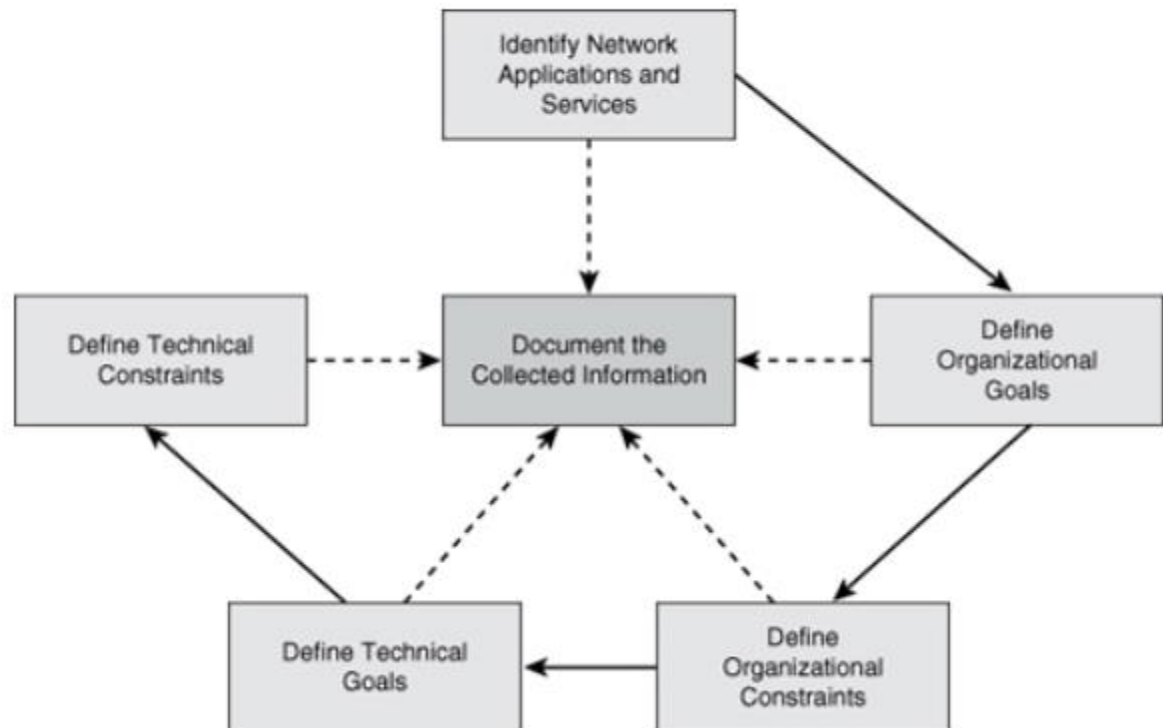
Identify network applications and services

A table identifying applications should list the following:

- **Planned application types**: Such as email, collaboration, voice, web browsing, file sharing, database

- **Concrete applications**: Such as Outlook, MeetingPlace

- **Business importance**: Labeled as critical, important, or unimportant

- **Comment**: Any additional information critical to the design of the network

Identifying Customer Design Requirements

- Planned infrastructure services should be gathered
- Network services include security, quality of service (QoS), network management, high availability, unified communications, mobility, and virtualization

Identifying Customer Design Requirements

Table 2-3 *Planned Network Application Table*

Application Type	Application	Level of Importance	Comments
Collaboration	Cisco Unified MeetingPlace	Important	We need to be able to share presentations and applications during remote meetings.
Video browsing	Microsoft Internet Explorer, Opera, Netscape	Important	—
Videoconferencing	TelePresence	Critical	
Database	Oracle	Critical	All data storage will be based on Oracle.
Customer support	Customer applications	Critical	—

Identify network applications and services

Table 2-4 *Planned Infrastructure Services Example*

Service	Comments
Security	Deploy security systematically, including firewalls, intrusion detection systems (IDS), and access control lists (ACL).
QoS	Direct priority to delay-sensitive voice traffic and other important traffic.
Network management	Utilize centralized management tools where appropriate and point product management as required.
High availability	Eliminate single points of failure and use redundant paths as needed.
Unified Communications	Focus on migrating the company from regular telephony.
Mobility	Commit to enhancing client laptop guest access and mobility of employee PCs.
Virtualization	Focus on the migration of physical servers to an ESX server.

Organizational goals

Identify whether the company's goal is to:

- Improve customer support,
- Add new customer services,
- Increase competitiveness
- Reduce costs
- Accombination of any

Organizational Constrains

Constrains include:

- Budget,
- Personnel,
- Policy,
- Schedule

Technical goals

The goals support the organization's objectives and the supported applications

- Improve the network's response-time throughput

- Decrease network failures and downtime (high availability)

- Simplify network management

Technical goals continued..

The goals support the organization's objectives and the supported applications

- Simplify network management

- Improve network security

- Improve reliability of mission-critical applications

- Modernize outdated technologies (technology refresh)

- Improve the network's scalability

Technical Constrains

Constrains include:

- Existing wiring does not support new technology.

- Bandwidth might not support new applications.

- The network must support exiting legacy equipment.

- Legacy applications must be supported (application compatibility).