Documentation

The Documentation process aims to gather information about systems while keeping it accurate and current and providing the system administrators and users with easy and fast access to this information.
Documentation

- gathering
- re-arranging
- presenting
- (re)organizing

(documentation repository)
What to document?

- information about the system
  - components, structure, dependencies
- information related to the system
  - user manuals, persons, responsibilities, permissions
- factual & pragmatic

document complicated and unpleasant procedures first
When to document?

- Planning
- Risk Management
- Testing
- Implementing
- Operations
When to document?

document as instantly as possible
  ➔ …while the details are still fresh
  ➔ what you'll remember few days later probably does not need to be written down anyway

include documenting in procedures
  ➔ no need to have “dedicated” documenting process
Why to document?

easy delegation
fast solutions to recurring incidents
easier for new hires
more efficient help desk
documentation is a part of the disaster plan
easier to audit
Why to document?

Proper documentation saves an order of magnitude more time and resources than it took to create the documentation.
Skills, knowledge

Knowledge management

Configuration management

Documented procedures

Clear overview

Direct control over the components

Vision, planning

Retrospect: fundamentals
Documentation: scope

ideally, the whole system is covered
try to cover critical (sub)systems first
try to compensate for the inadequate components of the existing documentation first
too wide scope is impractical, as is too narrow
Documentation: detail

ideally, the documentation is detailed enough to re-build the system from scratch

too much detail
- takes time to create
- takes time to search through
- takes time to change

too little detail
- reader is expected to fill in the details
- ...this takes time :)}
Documentation: tools and methods

collecting and re-structuring existing documentation
  → including the documentation shipped with hardware and software

writing new documentation items
  → documenting the system administration procedures
  → writing user guides
Documentation: tools and methods

communication

- e-mail messages (incl. sent e-mails!)
- instant messaging

automated documenting

- monitoring systems, logs
- configuration management software
- system management software
Documentation: formats

do not underestimate the importance of format

- searchable?
- universal?
- recyclable?
- usable under limited conditions (text terminals, mobile devices, print-outs)?
Simplifying the process

we all know about the importance of documenting - but...

use existing sources

automate!
Existing sources

messaging
  → e-mail
  → IM

command line history
  → store and re-format
  → good base for automation

incident tickets
  → both for history and recurring incidents
Automated documenting

a lot of data needed for documentation already exists in the system, we just need to collect, process and represent
Automated documenting

- Configuration Management Process
- logs, log analyzers
- command line history
- event audit
- network scanners
- monitoring software
- system management software
Automated documenting sources

common, widely used sources

- name service data (DNS zones)
- DHCP configuration and lease database
- inventory/asset database
- workstation event logs
- workstation software management database
Automated documenting sources

additional sources (if available):

- configuration management database (CMDB)
- system management software
- security management software
- identity management software
- network management and monitoring software
Knowledge Management

Knowledge Management includes

- internal training
- meetings
- team work
- junior and senior specialists
- working in pairs

documenting is a sub-process of Knowledge Management
1. Write down 2-3 problems in the documenting process (use only one sentence!)

2. Find people with similar thoughts, form teams (3-5 members)

3. Agree on the single most important problem, describe it in one sentence, then you are expected to explain the problem in 1 minute

4. Re-organize (if you find some other teams' key problem more important)

5. Offer solutions for this key problem - 1-2 minutes to explain the solution