A Professional's Guide to an Economical, Secure, and Functional Computing Environment

Florin B. Manolache

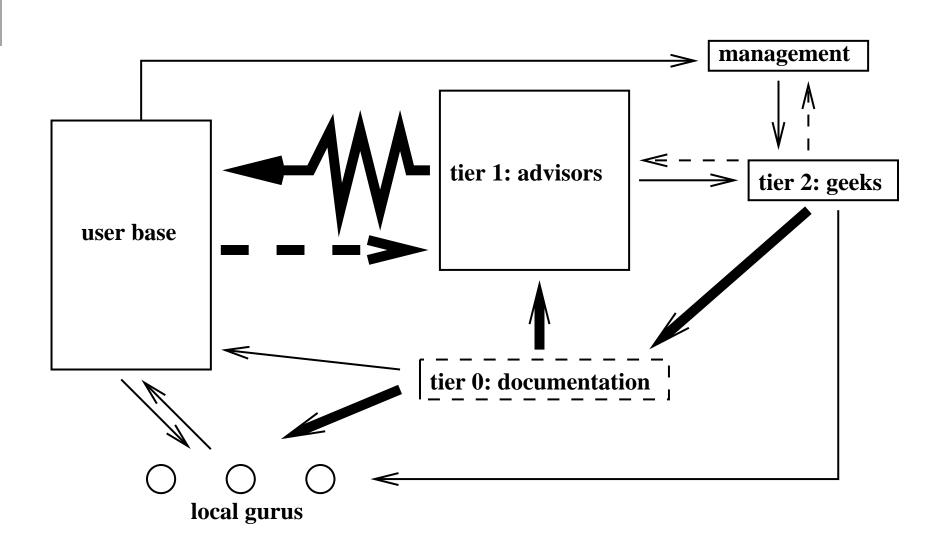
florin@andrew.cmu.edu

Carnegie Mellon University
Pittsburgh, Pennsylvania, USA

Overview

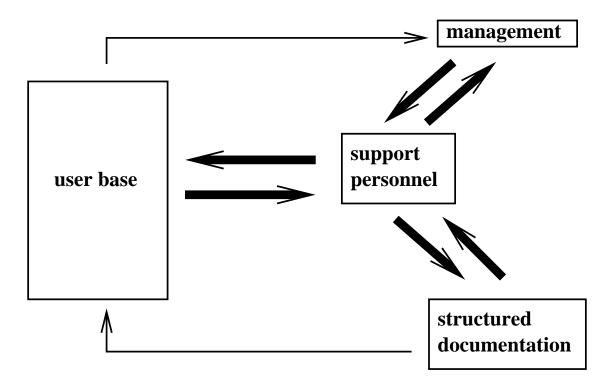
- Computing Environment
- The High Qualification Model (HiQ)
- Structure & Management
- Open Source Software (OSS)
- Transition
- Cost Analysis
- Results !!!

Computing Environment Structure



The High Qualification Model

PRINCIPLE: A computing environment is as good as the professionals supporting it directly.



1. Expose the most qualified support professional.

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").
- 4. Users concerns should be addressed immediately.

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").
- 4. Users concerns should be addressed immediately.
- 5. The software should be managed by professionals.

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").
- 4. Users concerns should be addressed immediately.
- 5. The software should be managed by professionals.
- 6. Uniform hardware/software infrastructure.

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").
- 4. Users concerns should be addressed immediately.
- 5. The software should be managed by professionals.
- 6. Uniform hardware/software infrastructure.
- 7. Refresh/rotate computers based on user needs.

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").
- 4. Users concerns should be addressed immediately.
- 5. The software should be managed by professionals.
- 6. Uniform hardware/software infrastructure.
- 7. Refresh/rotate computers based on user needs.
- 8. No unplanned downtime is acceptable. (OSS)

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").
- 4. Users concerns should be addressed immediately.
- 5. The software should be managed by professionals.
- 6. Uniform hardware/software infrastructure.
- 7. Refresh/rotate computers based on user needs.
- 8. No unplanned downtime is acceptable. (OSS)
- 9. R&D for professionals.

- 1. Expose the most qualified support professional.
- 2. Educate users by explaining problems and solutions.
- 3. No rigid arbitrary rules (what is "supported").
- 4. Users concerns should be addressed immediately.
- 5. The software should be managed by professionals.
- 6. Uniform hardware/software infrastructure.
- 7. Refresh/rotate computers based on user needs.
- 8. No unplanned downtime is acceptable. (OSS)
- 9. R&D for professionals.
- 10. No more consultants.

First step: gradually start building the HiQ task force.

First step: gradually start building the HiQ task force.

Second step: start building custom software distributions matching the local needs and activities. (OSS)

First step: gradually start building the HiQ task force.

Second step: start building custom software distributions matching the local needs and activities. (OSS)

Third step: start encouraging users to migrate to a standard hardware platform running the newly developed software distribution.

First step: gradually start building the HiQ task force.

Second step: start building custom software distributions matching the local needs and activities. (OSS)

Third step: start encouraging users to migrate to a standard hardware platform running the newly developed software distribution.

Fourth step: consolidate the environment.

First step: gradually start building the HiQ task force.

Second step: start building custom software distributions matching the local needs and activities. (OSS)

Third step: start encouraging users to migrate to a standard hardware platform running the newly developed software distribution.

Fourth step: consolidate the environment.

Fifth step: plan for the future.

Cost Analysis

- The salary fund
- Software licensing costs
- Hardware costs
- User education costs
- Training of the support professionals
- Repair expenses
- Consulting expenses
- Server downtime
- Computer downtime
- Security expenses

Results

HiQ + OSS:

- Great user satisfaction
- Lower costs by one order of magnitude per computer
- No downtime
- No security problems
- No data loss