Graduate Operating Systems
(Storage & File Systems)

Fall 2020
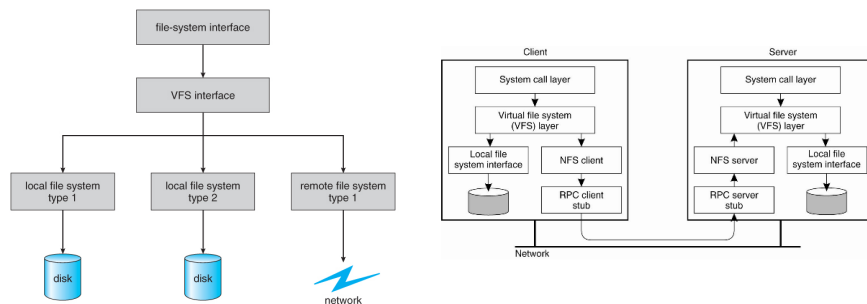
Paper "Distributed FS"

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Workstations

Servers

User program · Venus · UNIX kernel

Vice · UNIX kernel

User program · Venus · UNIX kernel

Network

Vice · UNIX kernel

User program · Venus · UNIX kernel
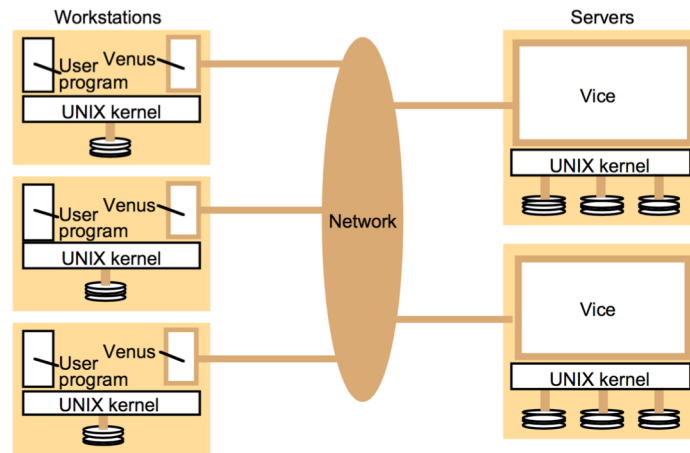
Paper "Distributed FS"

- *What is "location transparency"?*
- *What is the primary goal of AFS architecture and how is it achieved?*
- Address space sharing
- IPC via files
- Stub directories
- Asynchronous slow-propagation
- CPU-bound vs. I/O-bound
- Context switching

Paper "Distributed FS"

- Remote Procedure Call (RPC)
- Caching: hit & miss ratios
- Call distribution (Table 2)
- Server usage (Table 4)
- Performance bottleneck

Paper "Distributed FS"

- AFS: file caching, user-level processes, RPC
- *What are pros/cons of whole file caching?*
- *What are pros/cons of invalidation messages?*
- *What are pros/cons of stateful and stateless servers?*
- *What are lightweight processes (LWPs)?*
- Consistency semantics
- Results: Figure 1, Table VII, Figure 2, Table VIII