Control Application for CIV System

Tomasz Jurga

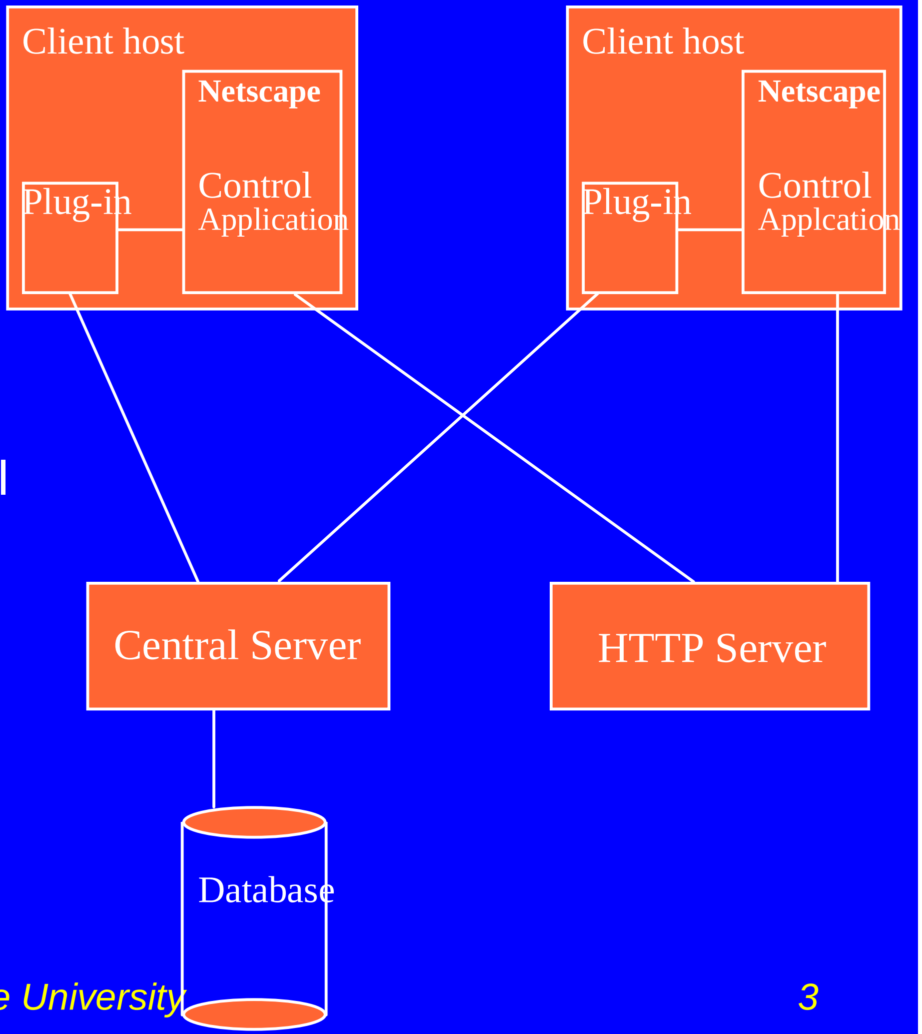
Definition of CA

- Graphical interface to the system
- Allows a user to control other applications
- Allows a user to control sessions.

  "session" - this notion entails a group of applications of the same type running on different hosts in Master/ Slave mode.
- Particular functions depend on user privilege level

Architecture

- Client side
- Runs in Netscape Browser
- Communicates with Central Server via Plug-in
  - This bypass eliminates Netscape security constraints concerning local sockets
- Set of Java applets loaded from HTTP Server
- All applets run in one frame



Major Functions

- Control Application allows a user to:
  - log in/out of the system
  - launch applications locally and remotely (i.e. on other user side)
  - close applications
  - create and join sessions of applications
  - switch between Master/Slave modes
- Control Application displays information about:
  - all users already logged into the system
  - all session already established
  - all applications already launched locally

Principles of Operation

- Wait for user name and password
- Verify user privileges on Central Server side
  - User not authorized - system quits
  - User authorized - all applets are loaded
- Wait for some user action (according to the privileges)
- Exit button pressed - system quits
- User may log in once again afterwards

Applets and Their Functions

- **Time** and **Date** applets - displays current date and time
- **Tools** applet - displays all types of applications being part of the system and all functions that user can perform (according to the privilege level)
- **User_List** applet - displays all users already logged into the system
- **Session_List** applet - displays all sessions already established
- **Applications** applet - displays all applications alredy launched locally
- **Mail** applet - allows to send a mail to another user and to read already received mail

Communication protocol: Control Application - Other applications

- The sub-protocol of the communication protocol used in the CIV system
- An application can query Control Application by sending a pre-defined value in a message.
  - Supported queries include information about: master of session, username, host, ...
- Control Application sends back a message containing this predefined value (to confirm the qyery type) and the query results

Current Status of Integration

Applications already ported into the system:

- GIS Viewer (C++/Inventor applications)
- Chat Tool
- VideoConference Tool (uses independent multimedia communications channels)
  - VTC Tool supports whiteboard tool
- Weather Report applet
- HTML Collaborative Browser