

Java in SMASH

Remote Education Application



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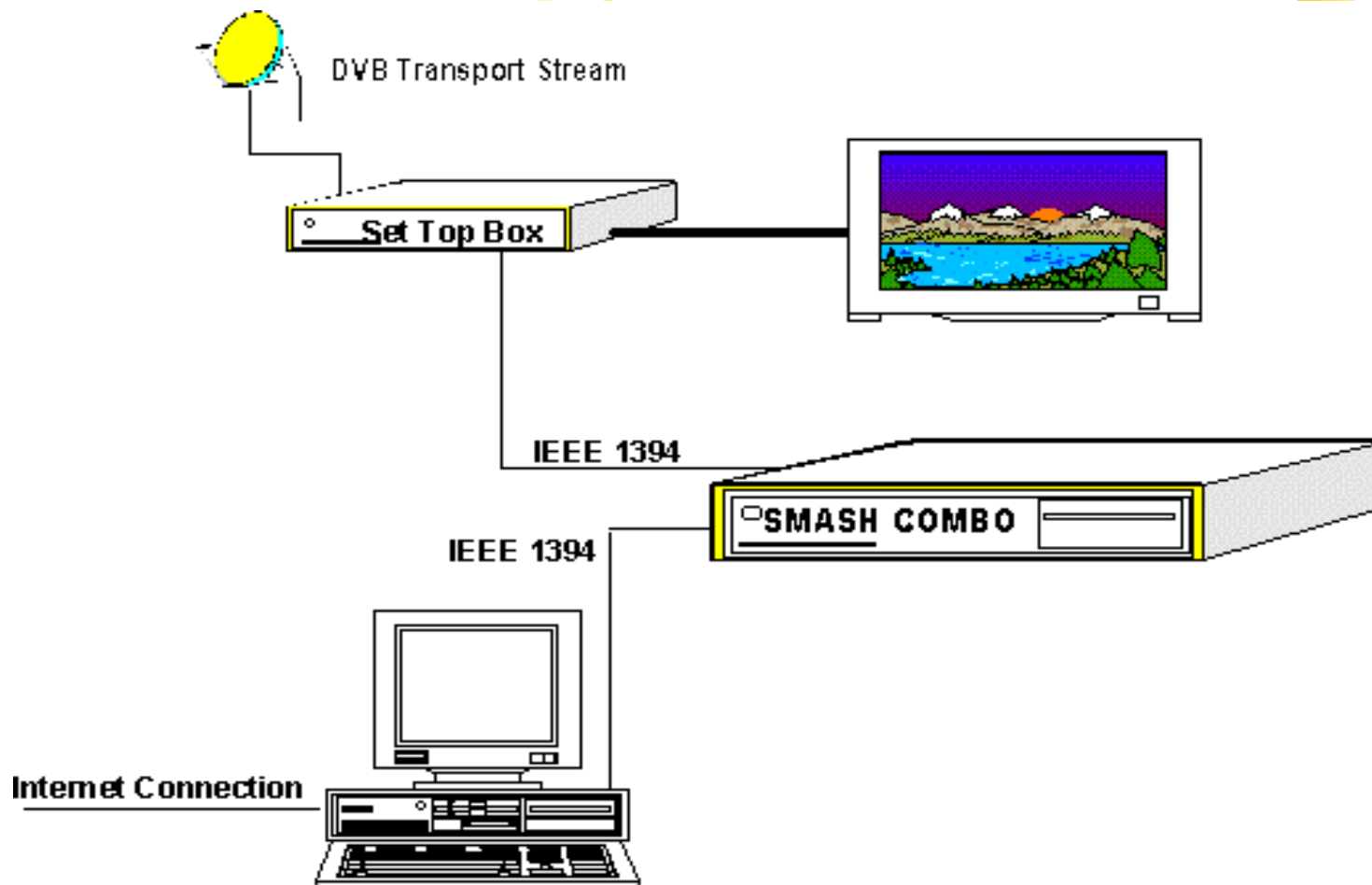
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Introduction



- Why Remote Education System
- Dealing with large amount of data
- Java appears naturally
- Compatibility with existing technologies
- User friendly and obliging to both sides
- Open to wide spectrum of users

Typical application



Software structure



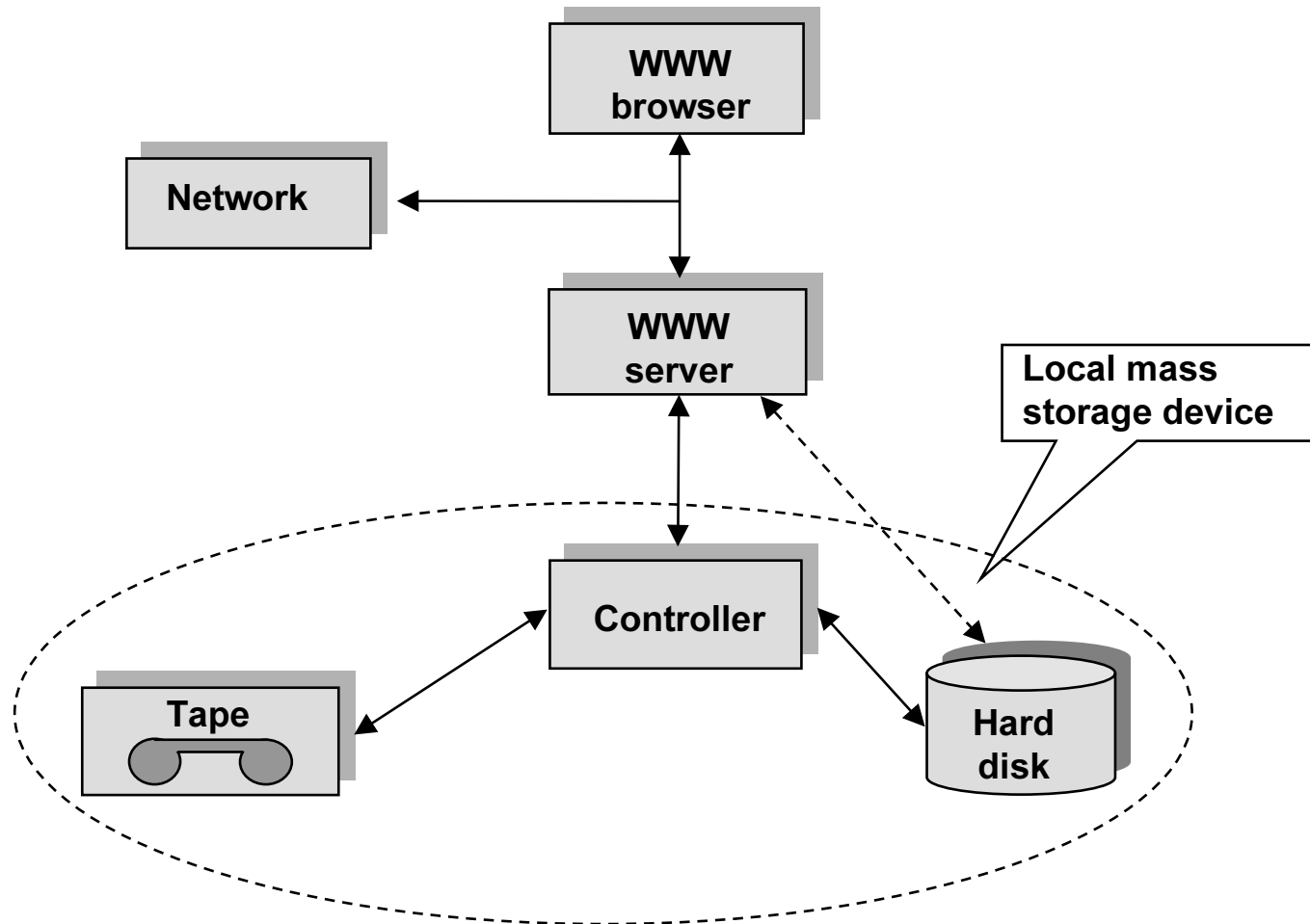
- Based on WWW
- COMBO system hidden from user interface
- Three layers:
 - application layer
 - interface layer
 - management of storage device

Why Java



- It naturally appeared in the world of Internet
 - portable, secure, dynamic, ...
- It can be used at all levels of our application
- It supports wide range of network standards

Structure of Remote Education Application

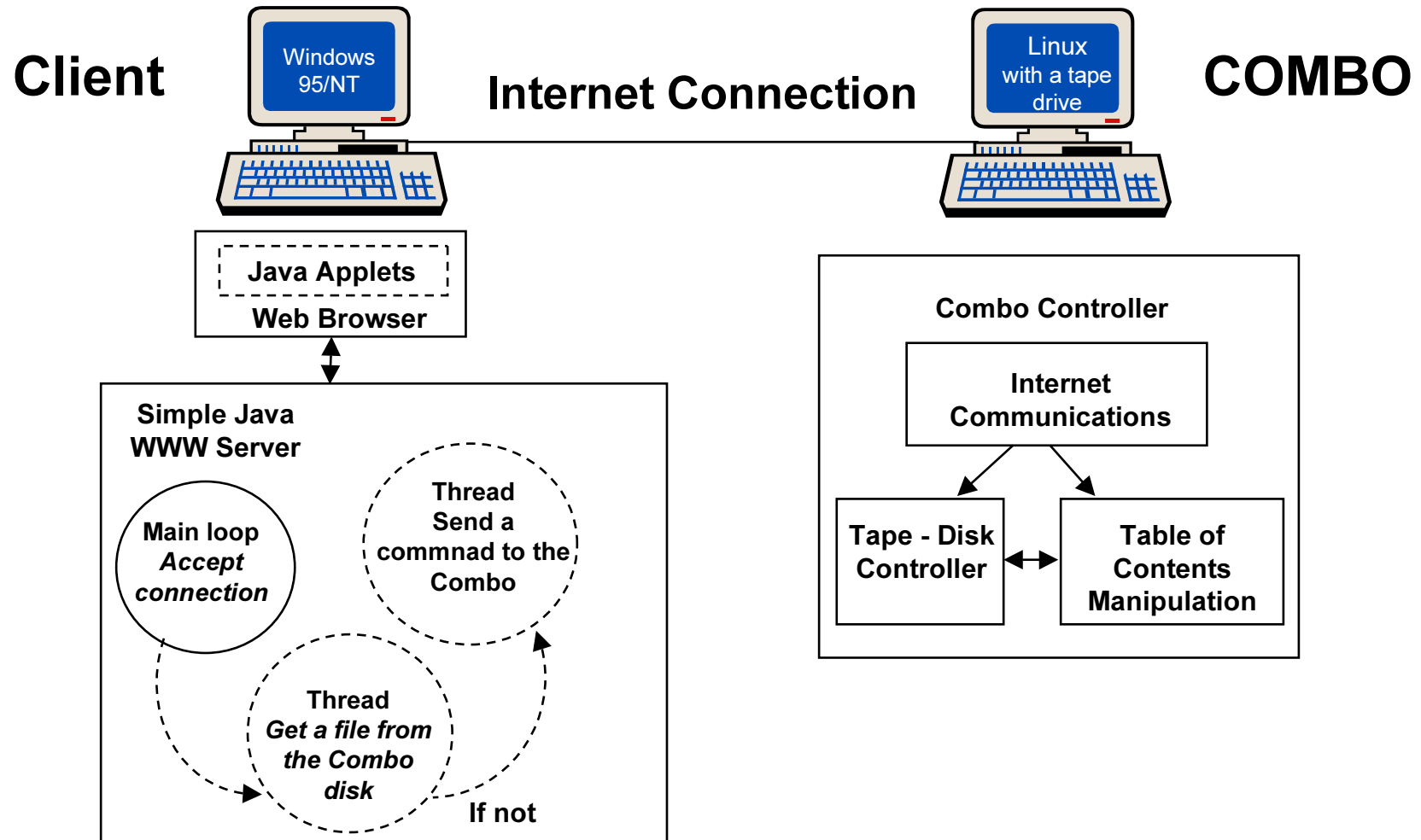


Java Packet java.net



- It consists of the following classes:
InetAddress, URL, URLConnection, URLEncoder, URLStreamHandler, ContentHandler, DatagramPacket, DatagramSocket, ServerSocket, Socket, SocketImpl
- Our Server/Client application is based on classes
ServerSocket, Socket

COMBO Controller with Client



Java at work

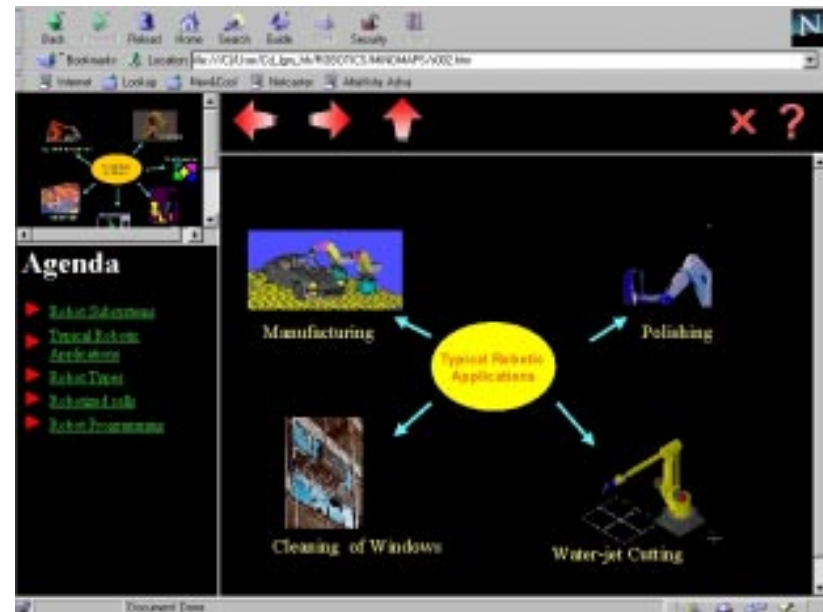


To run REA application we proceed

1. Start COMBO controller on server side
2. Start Simple WWW server on the client side
3. Start Web browser and enter URL location
http://localhost:port_number
4. Choose your area of interest using User Interface

User Interface

- Graphics user interface with Netscape
 - Display area
 - Table of contents
 - Navigation map
 - Navigation buttons



Conclusion remarks



- Java Client/Server application for REA in development phase is presented
- File management strategy should be optimised
- All functionality added at a later stage should also be written in Java