PCaPAC
Rome, October 14th 2002

Controlling large systems apparatus in an effective manner using the thin client technology

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Sun microsystems
We make the net work.

Agenda

- Overview

- Technology Evolution

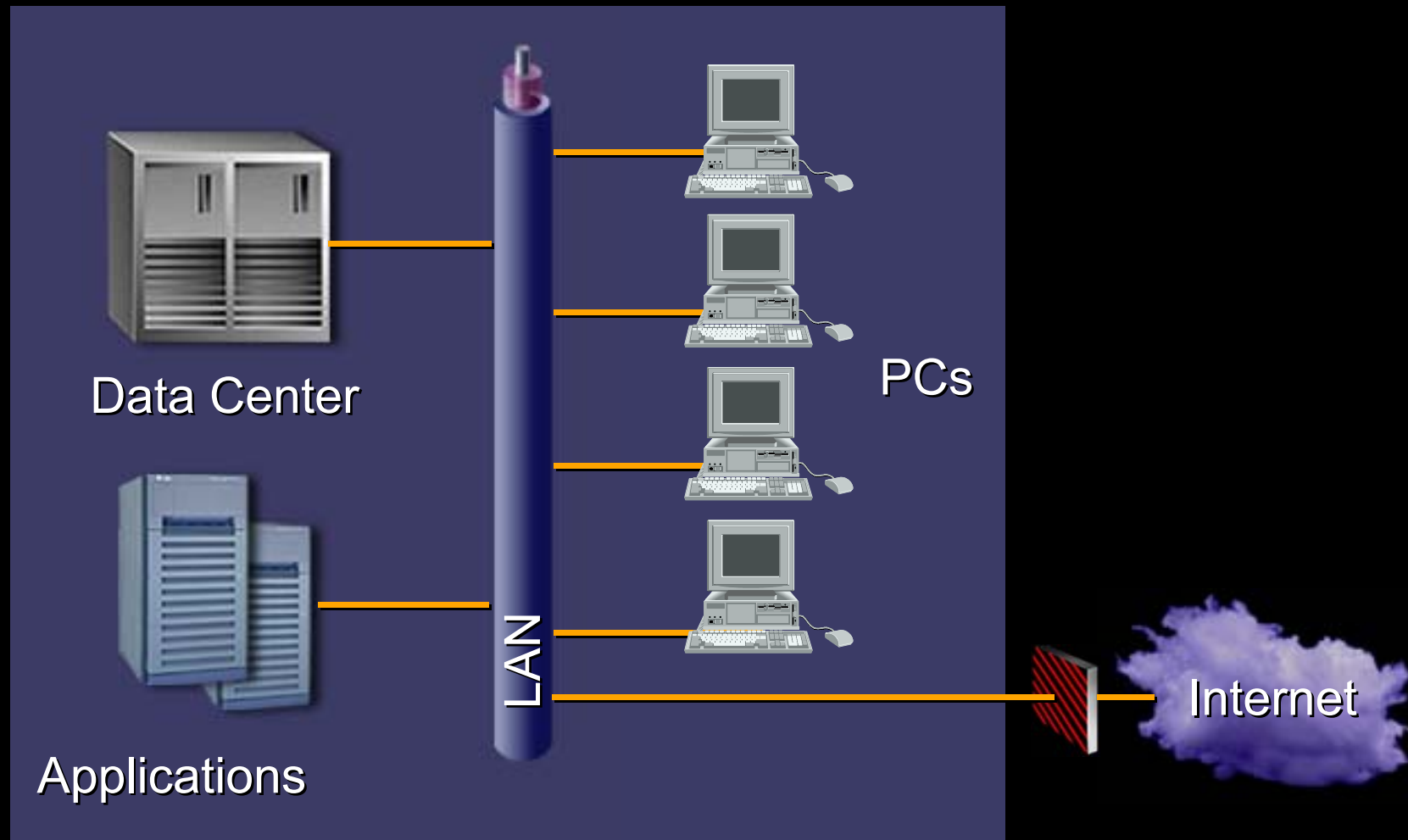- Hot Desk Technology

- SunRay and WinXX integration

The needs

Provide a cost effective tool to deploy applications/services to the end-users exploiting the ease of use of the Graphical User Interfaces.

Few examples

Traditional Managed Environment

Data Center

Applications

LAN

PCs

Internet

Functional Partitioning

Machine Room   **Desktop**

**Client/
Server
Architecture**

**Back-End
(Database)**   Front-End
(Applications)   **Graphical
User
Interface**   **Human
Interface**

Functional Partitioning

Machine Room   **Desktop**

Client/
Server
Architecture

**Back-End
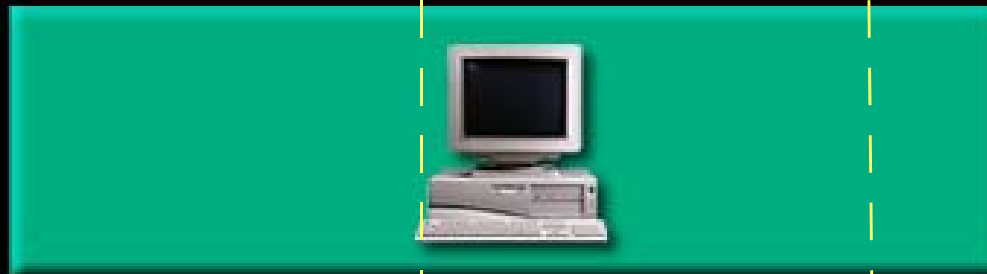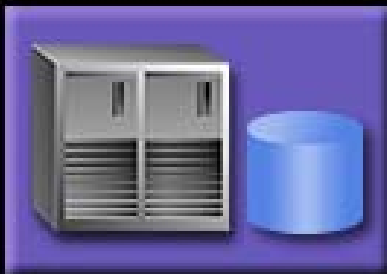(Database)** | **Front-End
(Applications)** | **Graphical
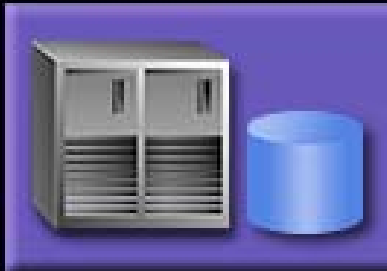User
Interface** | **Human
Interface**

Functional Partitioning

Machine Room

Desktop

**Client/
Server
Architecture**

**Three-
Tiered
Architecture**

**Back-End
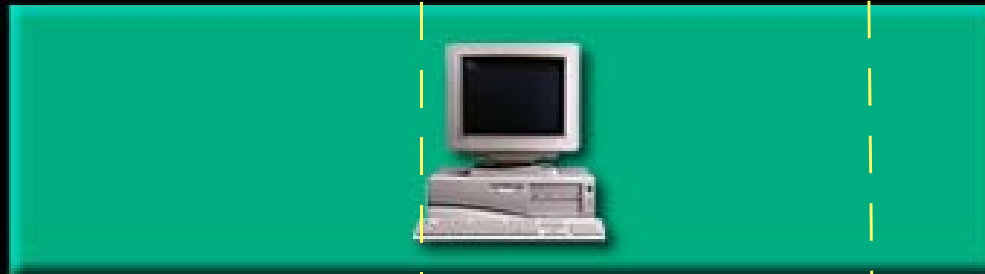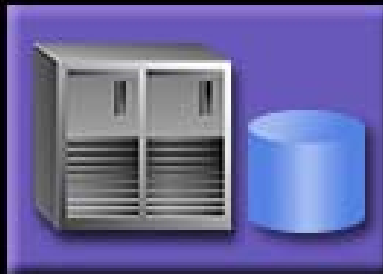(Database)**

**Front-End
(Applications)**

**Graphical
User
Interface**

**Human
Interface**

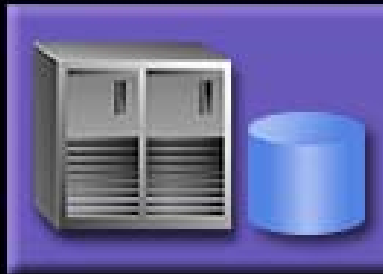# Functional Partitioning

Machine Room　　　　　　　**Desktop**
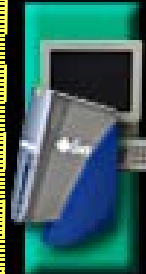
Client/
Server
Architecture

Three-
Tiered
Architecture

Sun Ray
Hot Desk
Architecture

**Back-End
(Database)**　　**Front-End
(Applications)**　　**Graphical
User
Interface**　　**Human
Interface**

The Sun Ray Hot Desk Architecture

Everything Managed Centrally!

Data Center

LAN

Sun Ray
Enterprise
Server
Software

Applications

Ethernet
Switch

Internet

Sun Ray
Enterprise
Appliances
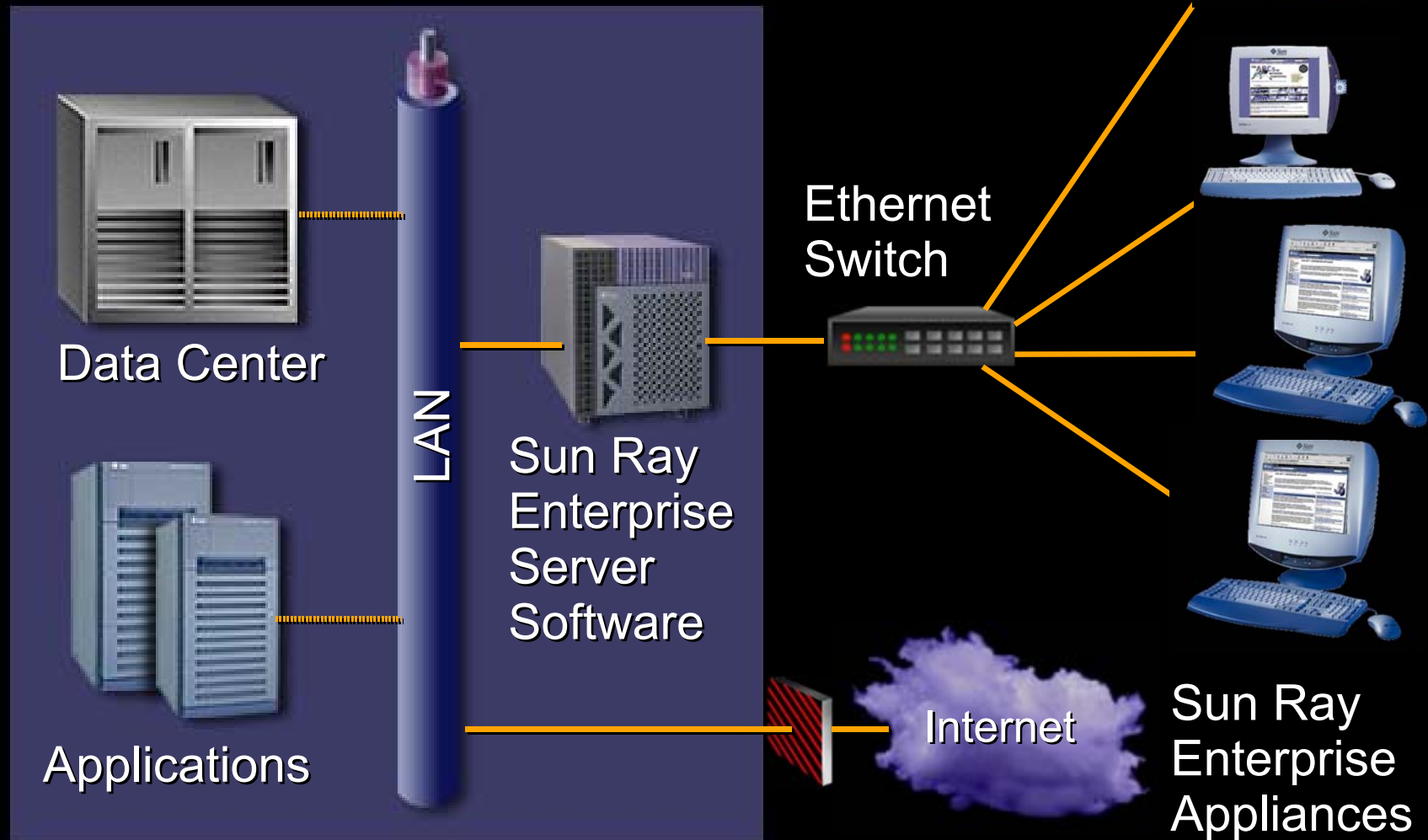
Technology

- Hot Desk Technology
- Sun Ray Enterprise Appliances
- Sun Ray Enterprise Server Software
- Application Interoperability

Hot Desk Technology

What is it?

- The technology underlying the Sun Ray Hot Desk architecture
- Components
  - Server software which instantly maps users' computing sessions to appliances
  - A low-cost, high quality of service interface used to communicate between server and appliance
  - Smart card access

How it Works

Sun Ray
Enterprise Appliances

Server Running Sun Ray Enterprise Server SW

User
Session

How it Works

**Sun Ray
Enterprise Appliances**

Server Running Sun Ray Enterprise Server SW

User
Session

How it Works

**Sun Ray
Enterprise Appliances**

Server Running Sun Ray Enterprise Server SW

User
Session #1

Sun Ray Enterprise Server Software

Sun Ray Enterprise Server Software Environment

Sun Ray Enterprise Server Software

Interoperability Software

Citrix

Sun Ray Enterprise Appliances Family

Sun Ray 1

- SPARC CPU
- 1280 x 1024 x 24 frame buffer
- 10/100Mb Ethernet
- Access to Solaris Operating Environment, Java technology-based, Microsoft Windows NT applications
- Rich multimedia capabilities
- Smart card reader
- USB support (4 ports)
- 5 years warranty

Never needs to be upgraded!

Sun Ray 100

ALL-IN-ONE design

- Same configuration as Sun Ray 1
- Integrated in a 17" CRT monitor
    - 1280x1024 @ 75 Hz, .26 dot pitch

Never needs to be upgraded!

Sun Ray 150

ALL-IN-ONE design

- Same configuration as Sun Ray 1

- Integrated in a 15" TFT monitor

  - 1024 x 768 @ 60 Hz

- Projector port

Never needs to be upgraded!

Smart Card

- Enables session mobility
  - Session follows unique smart card token
- Multiple policies supported
  - Self registering cards
  - Pre-registered cards only
  - Cardless operation
- Smart cards available through SunStoreSM services/Solaris ready and allies
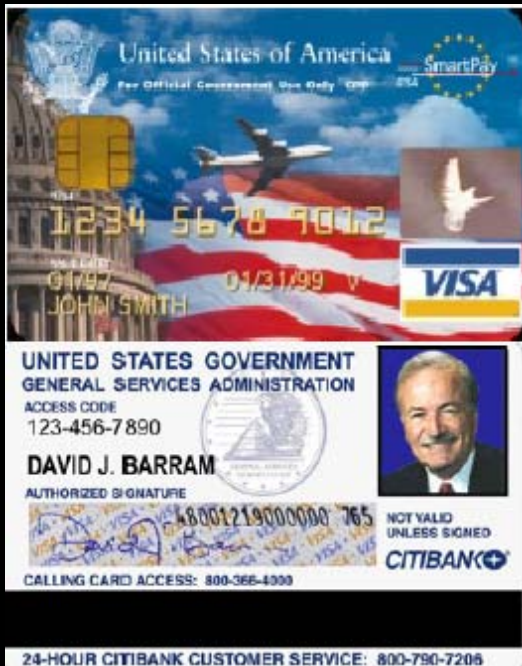
Mobility

- Since version 1.3 of SunRay Enterprise Server Software, mobility is extended to non SmartCard users
  - Relies on session lock to map session to the right SunRay appliance

Unique Badge

- Official Employee Badge
- Building Access
- Access to Sun Ray

- Official Employee Badge
- Building Access
- Standard Credit Card
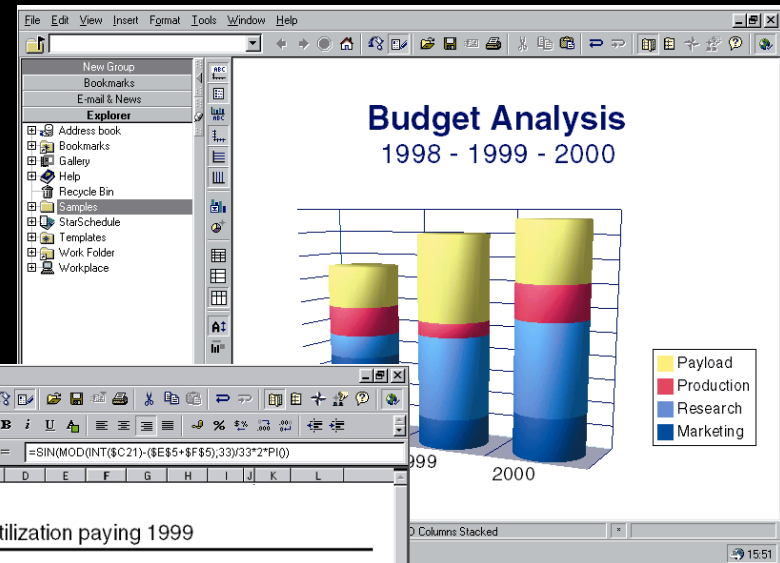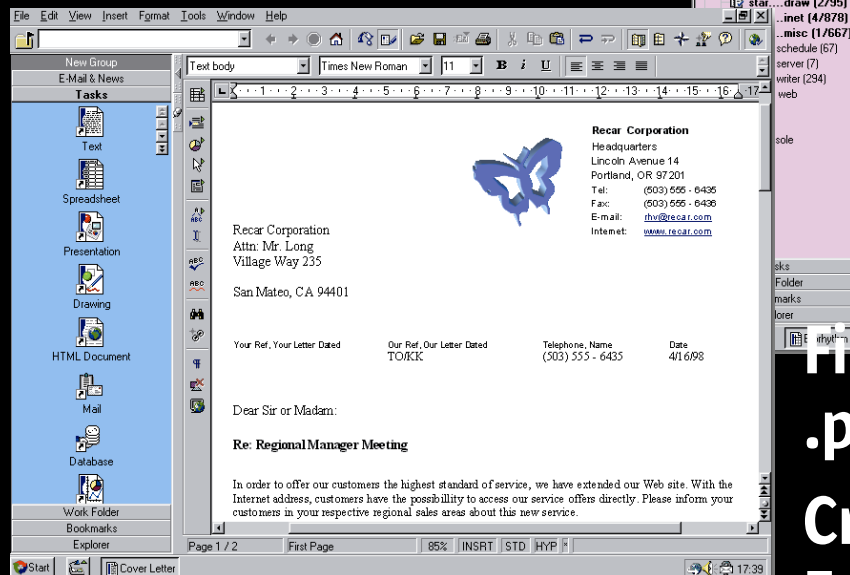- Digital Certificates
- Calling Card

Applications and Interoperability

StarOffice Software

Download Free! No software license fees

Support, subscriptions, and media kits available from Sun

Full featured, fully integrated office suite

File format compatible: .doc, .xls, .ppt

Cross platform: Solaris Operating Environment, Microsoft Windows, Linux, OS/2
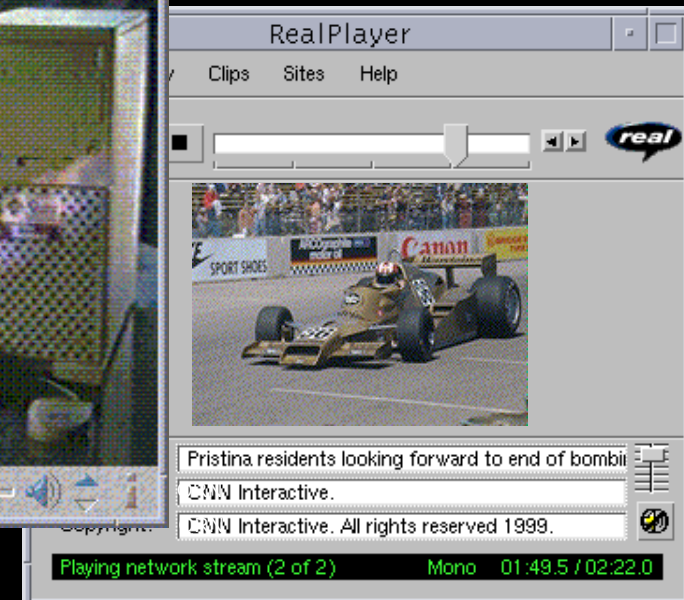
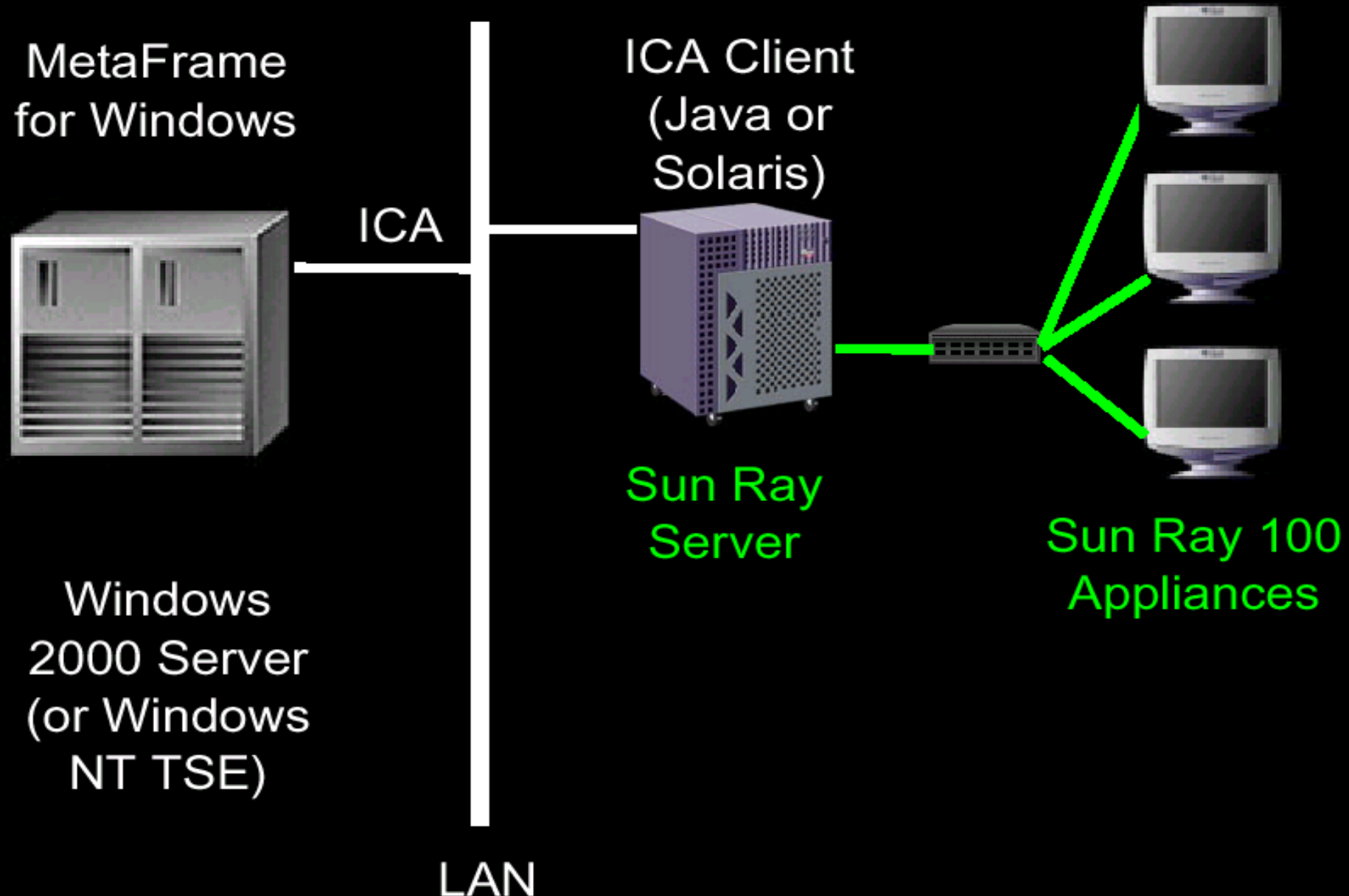# Available Media Players

ShowMe TV 1.3

Java Media Player

RealNetworks'
RealPlayer

SunRay and WinXX integration

- Citrix Metaframe
- SCO Tarantella
- HOB HOBLink
- SunPci II Pro

Citrix Metaframe

MetaFrame
for Windows

ICA Client
(Java or
Solaris)

ICA

Sun Ray
Server

Sun Ray 100
Appliances

Windows
2000 Server
(or Windows
NT TSE)

LAN

SCO Tarantella

Tarantella Server

Sun Ray Server

Sun Ray 1 Appliances

RDP

AIP

X11

TN3270

Windows 2000 (or Windows NT TSE Server)

LAN

Mainframe

UNIX
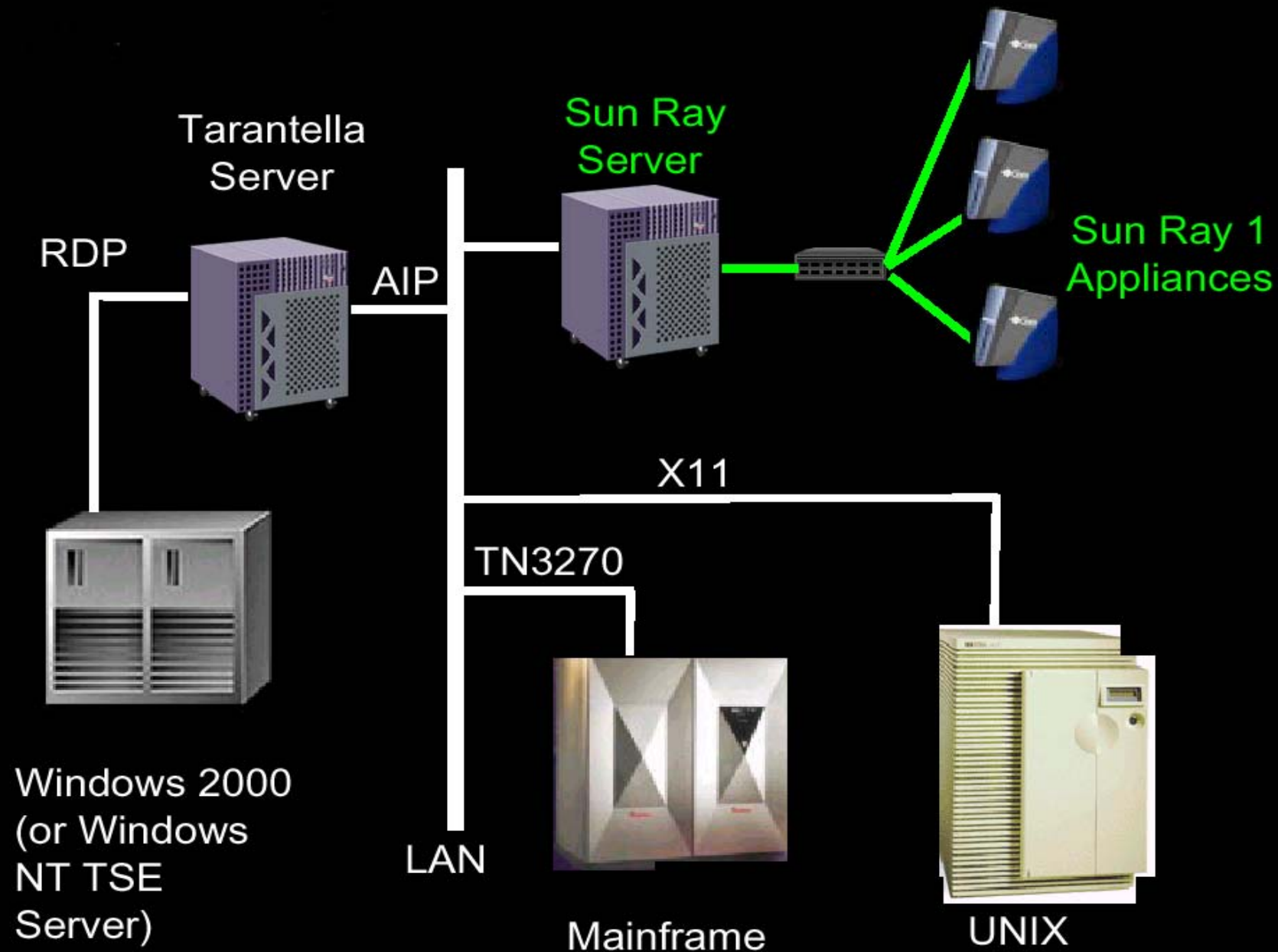
Competition

Sun Ray Enterprise Appliances vs. Today's Clients

	Sun Ray	WBT	X-Terminal	PC
Plug and Work	Yes	No	No	No
Session Mobility	Yes	No	No	No
Display Rendering	Centralized	Local	Local	Local
O/S	Centralized	Local/Central	Local	Local
Full Multimedia	Standard	Requires Card	Requires Card	Requires Card

Key Differentiators vs. PCs, WBTs and X-Terminals

- Hot Desking
- No-upgrade appliance
- Solaris Operating Environment RAS
- Power of the server on your desktop

Sun Ray Hot Desk Architecture Summary

User Experience

- Instant
- Constant
- Simple
- Rich

IT Experience

- Centrally managed
- Low cost
- Interoperable
- Reliable
- Secure
- Scalable

The Appliance Architecture for the Service Driven Network

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