

Multimedia HomeStation™

Residential Gateway and Multimedia
Access System

HomeNet2Run

CiaoLab



HomeStation™ means Home Connection

- Internet Access
Web Browser & E-Mail
- IP Gateway WAN/LAN
ADSL/Ethernet
- Digital Satellite Receiver
DVB-S



HomeNet2Run

CiaoLab



HomeStation™ means Entertainment

- DVD Player
- Video on Demand
MPEG1/2 streaming from video server
through broadband connections
- MP3 audio files
- Photo album



HomeNet2Run

CiaoLab



HomeStation™ means Comfort

- Personal Video Recorder
more than 20 hours digital
recording & playing
- TV Time Shift function
3 hours TV broadcast program shifting
- Personal Active Agenda



HomeNet2Run

CiaoLab



HomeStation™ means Automation

- Light control
ambient, scenarios
- Alarm Control
intrusion, gas, water..
notification & logging
- Video Surveillance
cameras scanning
- Interphone message box
- House Phone, Entry Phone
audio/video recording



HomeNet2Run

CiaoLab



UPnP Shared Bandwidth Management

- Shared resources management system in a Home Area Network for multimedial contents



cefriel

CiaoLab



HomeNet2Run

CiaoLab



UPnP Bandwidth Reservation Schema

UPnP Client



1. UPnP Service request
2. **Service requires bandwidth**
3. Bandwidth resv. request
4. Reservation accepted
5. Band. Resv. Confirmed
6. Service request sent
(with correct bandwidth parameters)

UPnP Network



2. Service request accepted with granted bandwidth

UPnP Residential Gateway



4. Reservation accepted

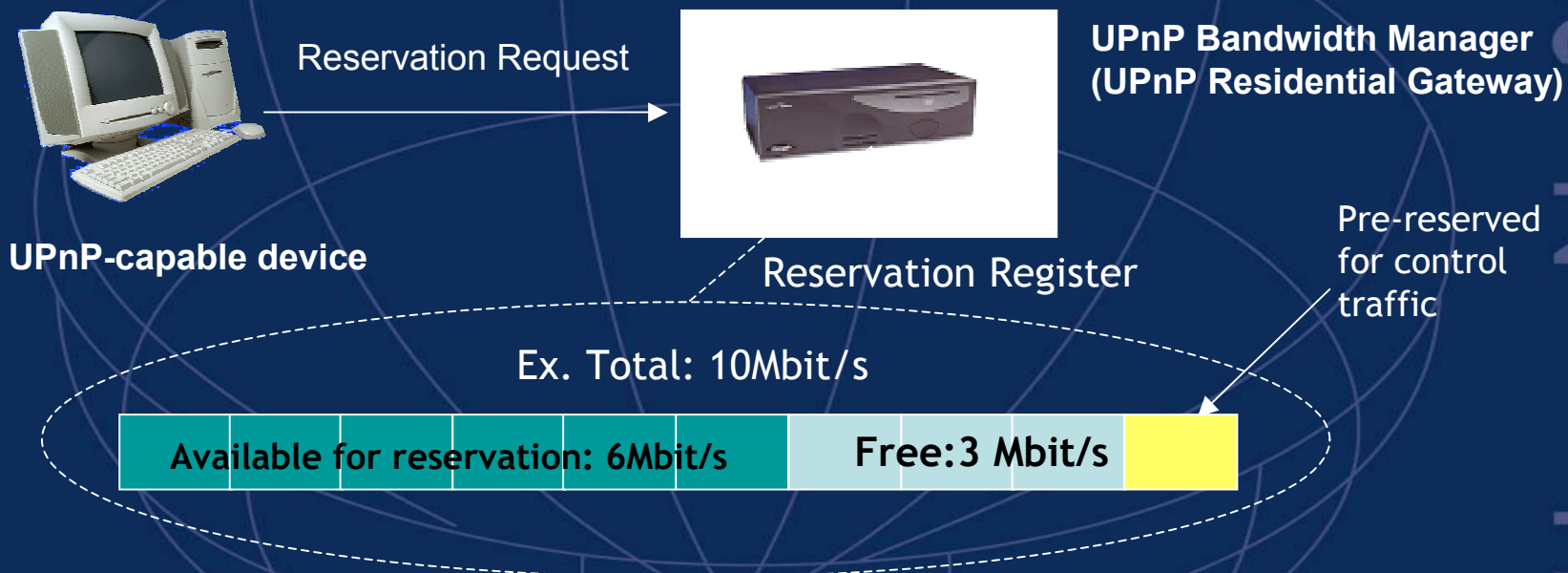
UPnP Media Server

CiaoLab

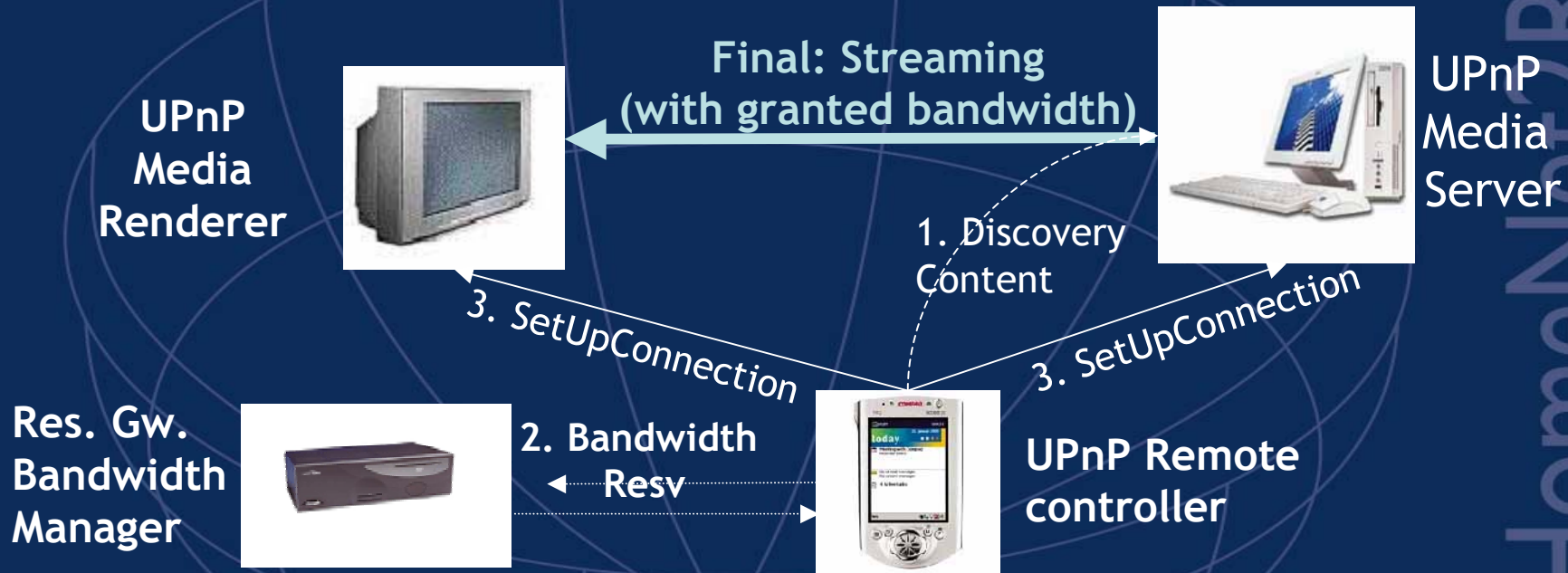


HomeNet2Run

Built-in reservation register



Testbed – Remote control with Bandwidth Management



UPnP
Media
Server

UPnP
Media
Renderer

Res. Gw.
Bandwidth
Manager

2. Bandwidth
Resv

UPnP Remote
controller

3. SetUpConnection

3. SetUpConnection

Final: Streaming
(with granted bandwidth)

1. Discovery
Content

CiaoLab



HomeNet2Run