The Isabel Application

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ISABEL

◆ Advanced multiconferencing system
  ▶ Developed at UPM since 1993 (RACE/ACTS/IST)
    – http://isabel.dit.upm.es
  ▶ Commercialised by Agora Systems
    – http://agoratechnologies.com

◆ To interconnect audiences or groups
  ▶ With a large number of endpoints/users
    • Effective multiconferences with up to 20 sites
  ▶ Over the Internet

◆ New service concept
ISABEL Usage & Events

◆ RACE Summer Schools on ABC (93, 94, 95, 96)
  ‣ ABC´93: 2 sites (Spain-Portugal)
  ‣ ABC´94: 5 sites (Spain, Portugal, Switzerland)
  ‣ ABC´95: 11 sites (Europe)
  ‣ ABC´96: 20 sites (Europe & Canada)

◆ Distributed Congress (97-00):
  ‣ Global 360s, Telecom I+D, Internet NG workshops,

◆ Industrial usage:
  ‣ Initialy: Telemeeting/work service for Ericsson
    • Between Madrid, Aachen, Alsjvo & Kista
  ‣ Others: Vodafone, Telefonica, Portugal Telecom, ......

◆ Distributed courses (97-00):
  ‣ PhD & graduate courses performed
    • Between Madrid, Barcelona, Valencia, Murcia, ...

◆ Madrid Global IPv6 Summit 2002
  ‣ First congress distributed over IPv6 with ISABEL
LONG: Participants

- Portugal Telecom Innovacao
  - Vasco Lagarto, Francisco Fontes, Jacinto Vieira, T. Barata, F. Morgado

- TELEFONICA I+D
  - Pedro Lizcano, Carlos Ralli, Ruth Vazquez, Sheila Escribano, Cristina Peña

- Universidad Carlos III de Madrid
  - Arturo Azcorra, Alberto García, Carlos Manuel Pérez, Juan Ramón Hernández

- Universidad de Evora
  - Joaquin Godinho, Miguel Ramos, Mario Filipe

- Universidad Politécnica de Barcelona
  - Jordi Domingo-Pascual, Josep Sole, Josep Mangues, Albert Cabellos, René Serral

- Universidad Politécnica de Madrid
  - Tomas de Miguel, Joaquín Salvachúa, Eva Castro, Alberto López Toledo, Santiago Pavón, Javier Sedano, Elena Apolinario, Maria Jose Perea, Juan Antonio Fernández
Distribution of the Madrid Global IPv6 Summit

- Performed by the LONG Project
  - First large scale distribution of a congress over IPv6
    - With remote participation of speakers and participants
      - not only broadcast

- The network platform: IPv6 + IPv4 scenario
  - Makes the Summit a demonstration of the viability of transition scenarios
  - Includes:
    - IPv4
    - IPv6 over IPv4
    - Native IPv6
Network Platform

UPC Barcelona

Rediris

FCCN

IPv6 over ATM
IPv6 over IPv4
IPv4 guaranteed bandwidth
IPv4 internet best effort link

Hotel Madrid

TID Telefónica

PTIN Portugal

FCCN Portugal

UPC Barcelona

UM Murcia

UC3M Madrid

UC3M Madrid

Caribe

Hotel Madrid

MCLAB Switzerland

CA*net3

CRC Canada

ETRI Korea

UNAM Mexico

ICSI California

Koren

Telefónica

UC3M Madrid

ICSI California

Koren

Letters indicate origin of IPv4 Internet best effort link.
Port of Isabel to IPv6

- Port to IPv6 obliged to redesign
  - Some Isabel modules
    - Reason: IPv4 conditioned architecture
    - Redesign leads to a more consistent architecture
  - Amount of work invested was reasonable

- Work still needed to take advantage of IPv6
  - Security, QoS, mobile IP, etc
ISABEL Architecture

- Manager + media components + flow server
Isabel Services

◆ Isabel is a meta-application
  ▪ For designing new services
  ▪ **Service** = { interaction modes } + management
    • Control panel: provides access to management function
  ▪ **Interaction mode**: 
    • Particular set-up of audio, video, shared workspace, ... 
      supporting a particular type of collaboration
    • Each participant is assigned a particular role.
      – Examples: Presentation, questions, debate, demonstration, 
        .....

◆ **Distributed event** = sequence of interactions
  ▪ Selected during the event operation by means of the control panel.
Big Technical Trial

October 1997

North America, Europe, Asia: 16 sites
Conclusions

◆ The Isabel distribution of the IPv6 Summit
  ⦿ can be considered a validation of the transition scenario for IPv6
  ⦿ IPv6 product maturity has improved very significantly
    • From Madrid 2001 Global IPv6 Summit

◆ Port of Isabel to IPv6 was achieved in a reasonable time
  ⦿ Software for Real time videoconferencing
    • Very demanding: stability, performance, etc

◆ Isabel Service Concept
  ⦿ has proven sound for a transition scenario
  ⦿ Isabel is a
    • Network independent component coordinator