

6WINDGate: The Smart IPv6 Migration Router IPv6 Summit Madrid, 2002

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6WIND, The New Internet

- ✓ ***Funded in Sep 2000, 35 employees***
- ✓ **Spin-off from the Dassault / Thomson-CSF**
- ✓ **Founding member of the IPv6 Forum Board (VP)**
- ✓ **Funding from ACE Management, CDC Innovation Partners, Sofinnova Partners and Techfund Capital**
- ✓ **Leverage experience of 6 years of IPv6 R&D activities with 20+ team of engineers**



MISSION STATEMENT

To be the leading provider of access devices for the new generation mobile-multimedia-everywhere Internet

A MARKET INFLECTION POINT

Fixed data Internet

Mobile multimedia Internet everywhere

- Fixed IP access
- Data transfer

- Mobile IP access
- Home networking
- Multimedia applications

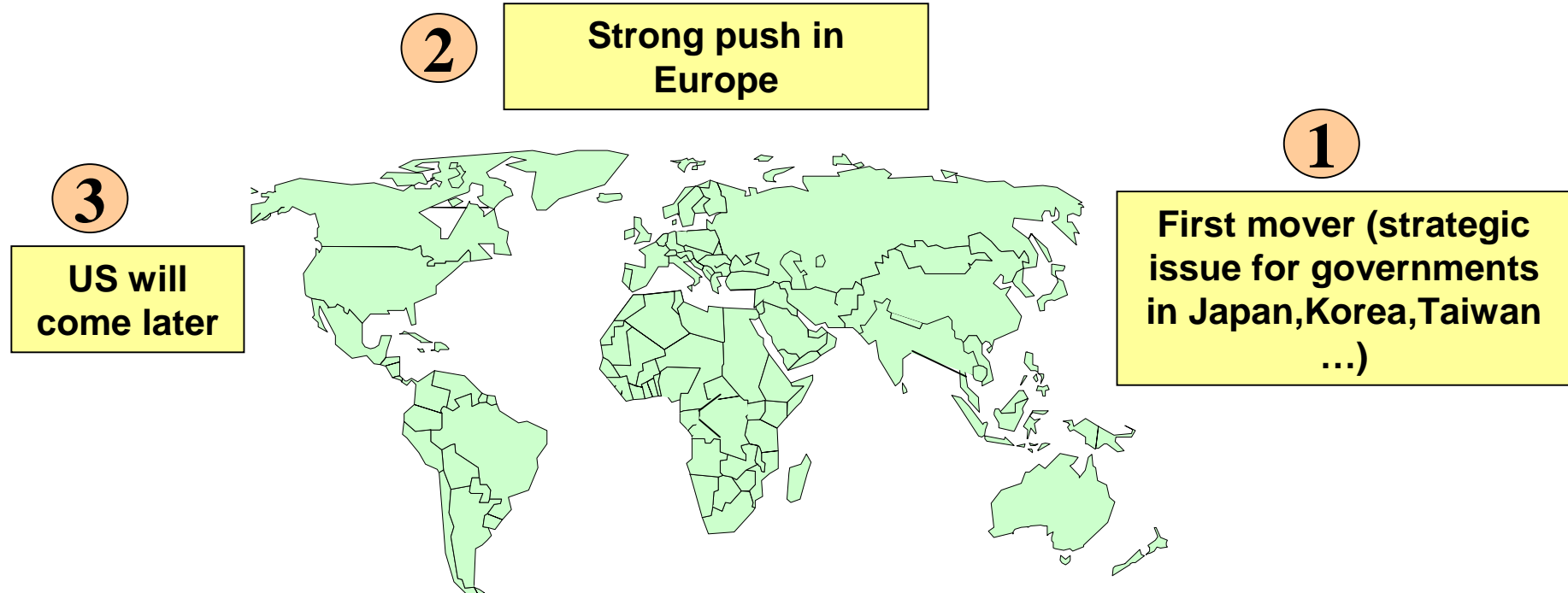
Fundamental Drivers

- IPv4
- Telephony

- **IPv6 and IP new services**
- Telephony over IP
- 3G mobile

Fundamental Technologies

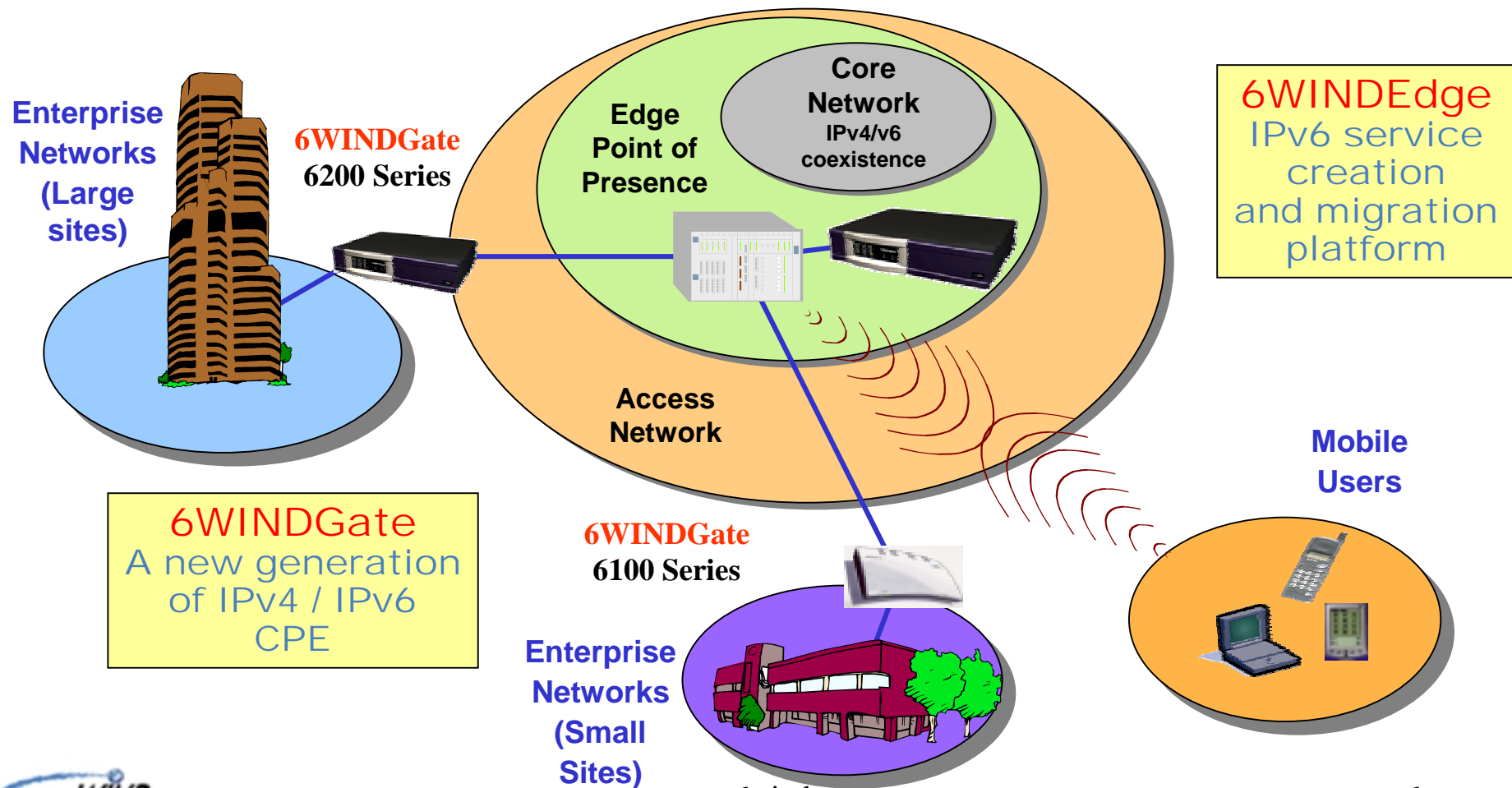
IPv6 MARKET IS COMING



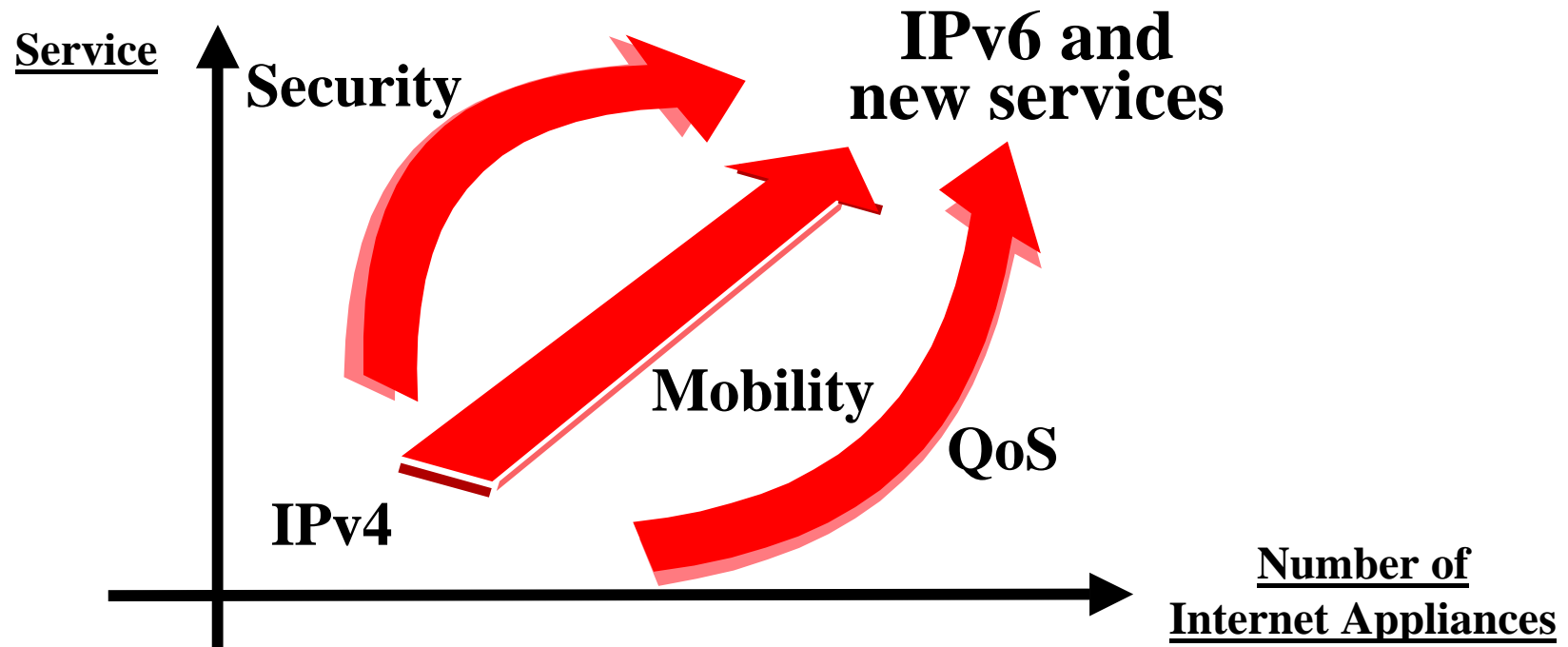
**1 billion Internet devices in 2004 among which
350 million will be mobile
IPv6 is mature...**

**and the major players are preparing for its rise : IPv6
Forum, Hitachi, Nokia, Cisco, Ericsson, NTT, Sun, Microsoft**

6WIND Product Line



CUSTOMER DRIVEN MIGRATION



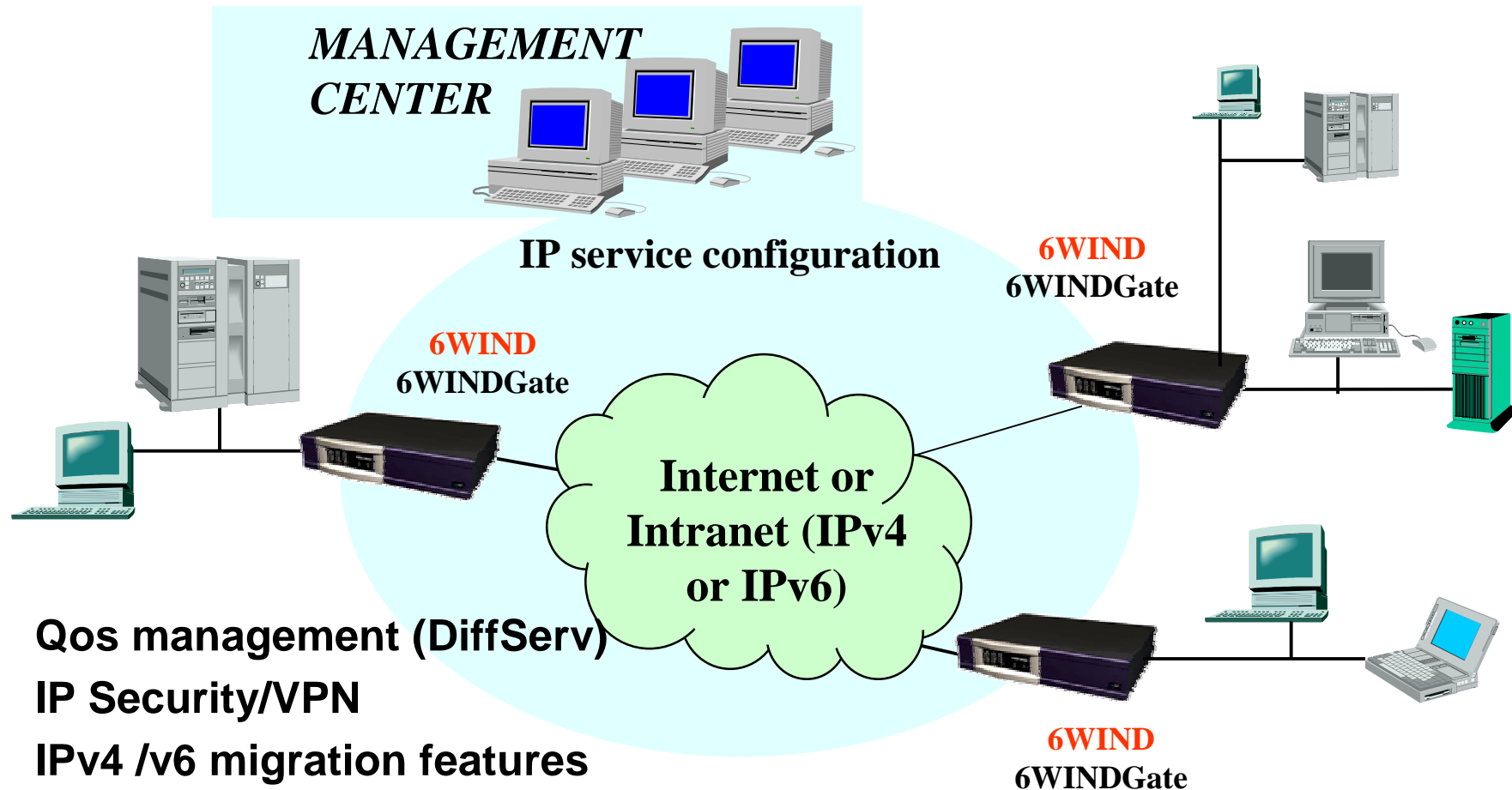
Migration Benefits for xSPs

- *New services*
- *Gain market share*

Migration Constraints

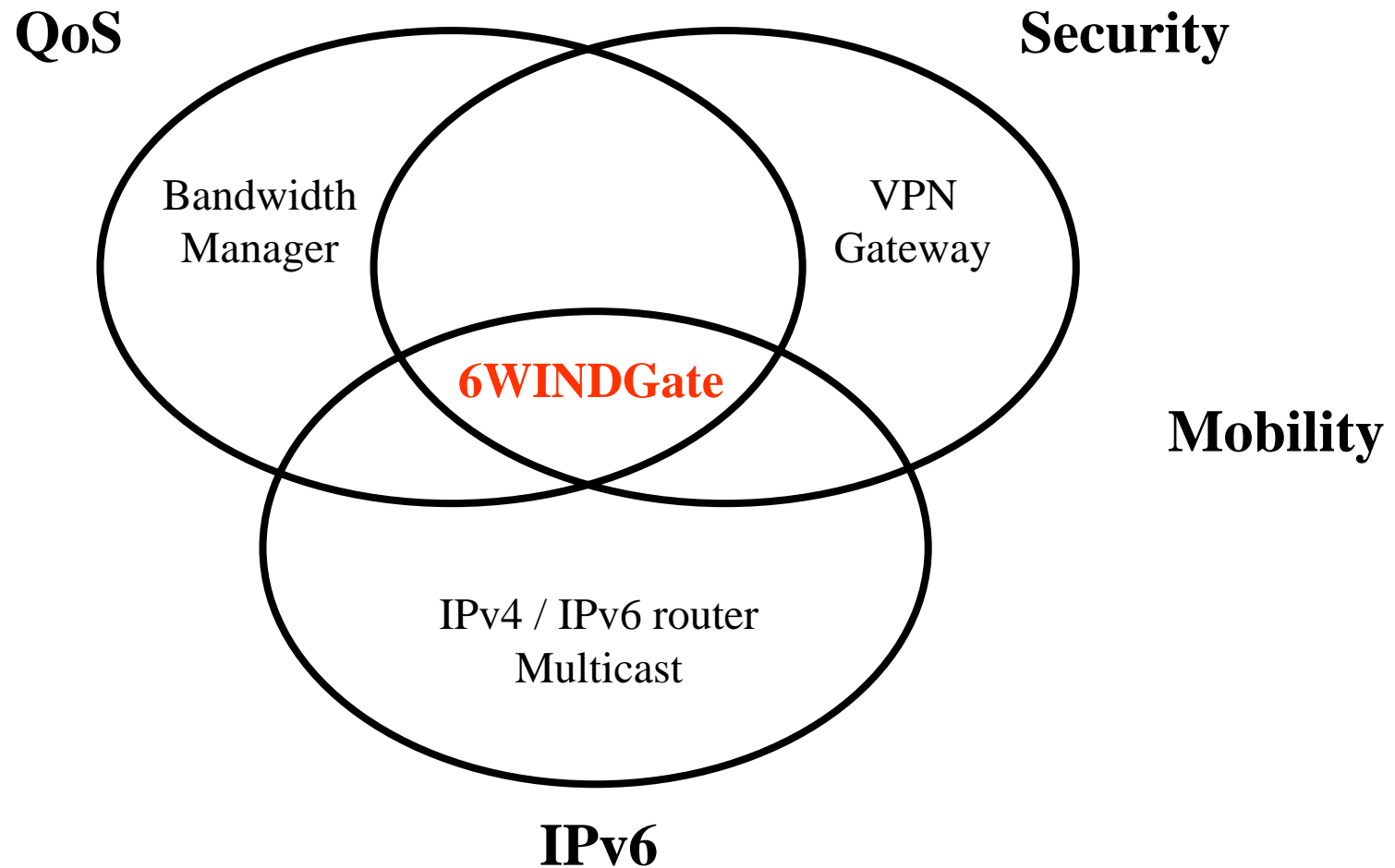
- *No D Day*
- *Be seamless*
- *No service interruption*

MIGRATION : THE BORDER IS THE KEY



- Qos management (DiffServ)
- IP Security/VPN
- IPv4 /v6 migration features
- Mobility (mobile IP)
- Routing

6WINDGate CONCEPT



GRAPHICAL
MANAGEMENT
CENTER

ARCHITECTURE Example with 6WINDGate

IPv4 or/and v6
LANs

QoS features

6WINDGate

IP v4 or v6
backbone

Firewall v4/v6
(IP Filtering)

IPSEC Tunnels (VPN)

6WINDGate

6WINDGate

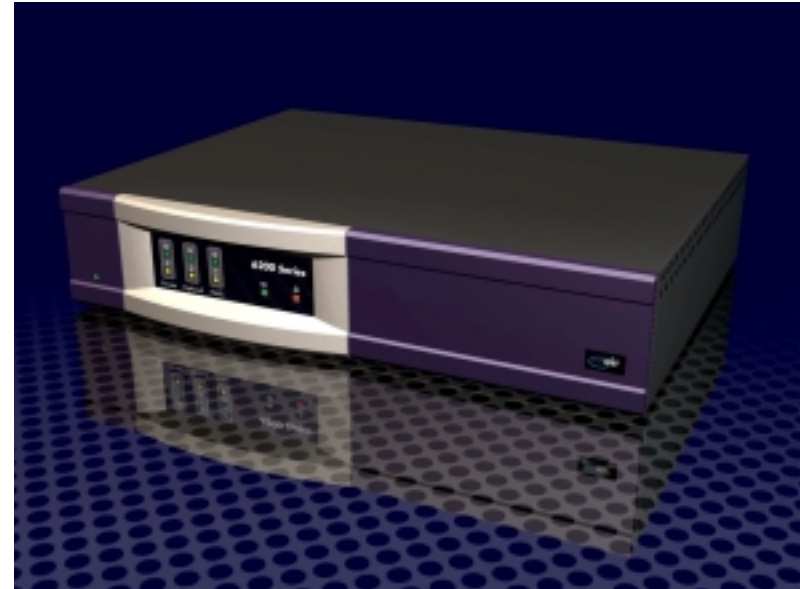
QoS, Security & v6 Migration
functions in one device

IPv6 & IPv4
transition tunnels



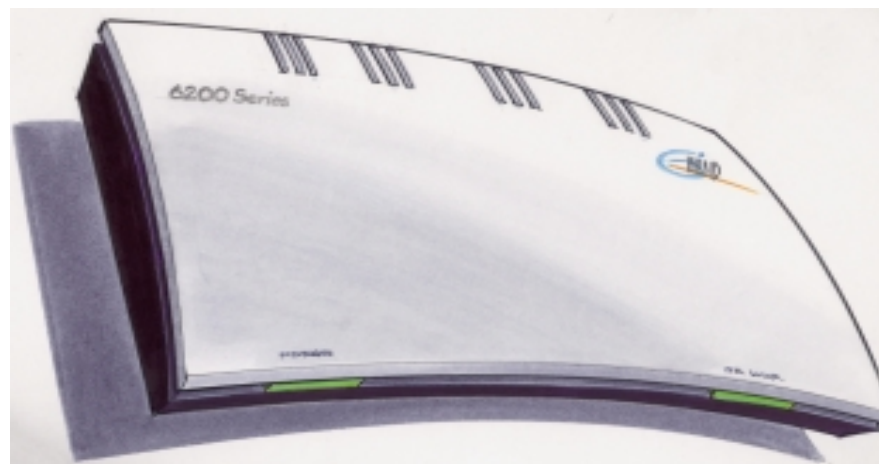
6200 Series Features (HW)

- ✓ **6WIND 6211 :**
 - ✓ LAN to LAN (Fast Ethernet)
 - ✓ 2 Private Fast Ethernet
 - ✓ Able to deliver a 25+ Mbps 3DES encrypted traffic
 - ✓ 2000 tunnels and 2000 QoS flows
- ✓ **6WIND 6221 :**
 - ✓ LAN to WAN (Serial for leased lines)
- ✓ **6WIND 6231 :**
 - ✓ LAN to WAN (ATM 155 Mbps)

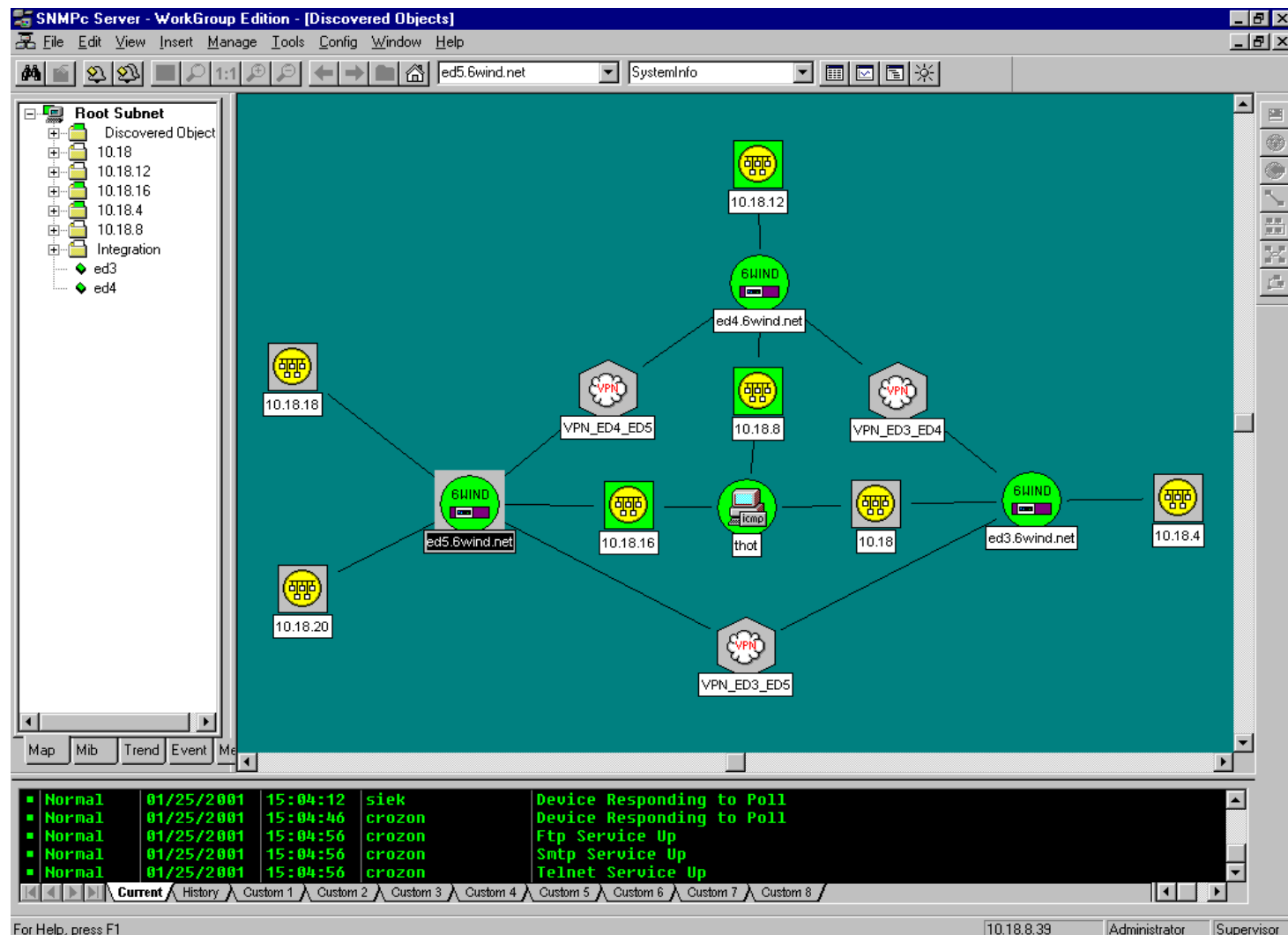


6100 Series Features

- ***Designed for ADSL, cable, high speed serial lines access technologies:***
 - ✓ Based on Snapgear HW
 - ✓ 2 Fast Ethernet interfaces
 - ✓ 1 Serial line interface (up to 2Mbps)
- ***Performances:***
 - ✓ Running IPv4 / IPv6 6WIND technology
 - ✓ 10 Mbps (clear traffic) and 2 Mbps encrypted
 - ✓ 100 tunnels and 100 QoS flows
- ***Available end of Q1/2002***



NMS Tool





SixOS Features (SW)

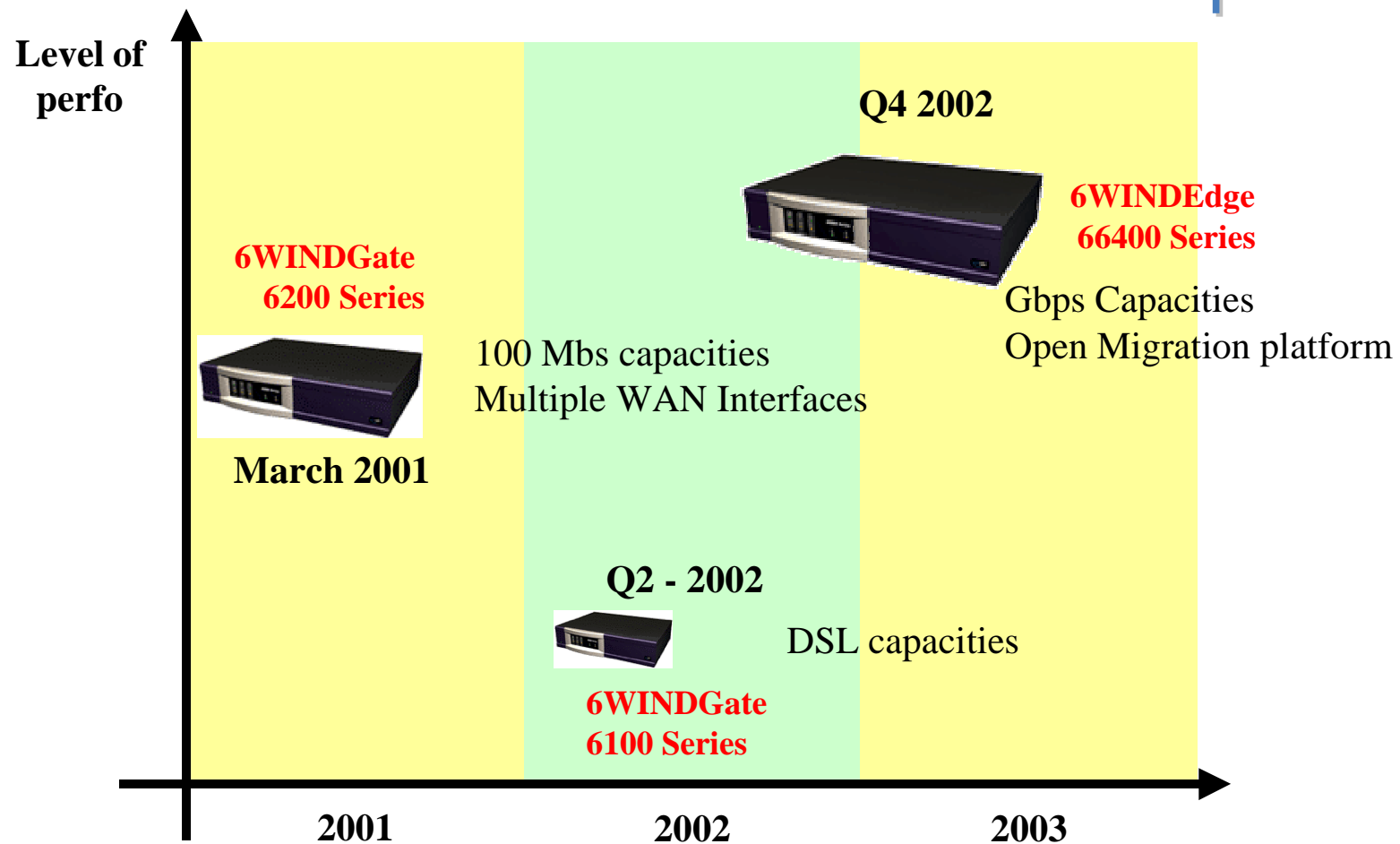
- **QoS:**
 - EF, AF for IPv4 and IPv6
 - Dynamic QoS configuration
- **Security:**
 - IPSEC, IKE for IPv4 and IPv6 X509 certificates
 - IPv4 and IPv6 filtering for firewalls
 - Dynamic Security configuration
- **Network:**
 - PPPv4, PPPv6
 - DNS client
 - *NAT/NAPT, PPPoE (March)*
 - *SNTP (June)*
- **Multicast:**
 - MLDv2
 - PIMv6 SM/SSM



SixOS Features (SW)

- **IPv6 / IPv4:**
 - Both stacks
 - 6to4, ISATAP, v6 into v4 (automatic and configured), v4 into v6, v6 into v6 tunnels,
 - DSTM, *NAT-PT (June)*
- **Routing:**
 - RIP, RIPng, BGP4+
 - *OSPFv2 / v3 (June)*
- **Mobile IPv6:**
 - Home Agent
- **Management:**
 - CLI, SNMP agent with standard and IPv6 MIB
 - NMS tool integrated in a SNMP framework (telnet, SSH)
 - *Web browser-based management tool (June)*

Product Roadmap





R&D Strategy

- **KEY SUBJECTS:**
 - ✓ IPv6 value added functions
 - ✓ Mobility
 - ✓ Zero configuration
 - ✓ Multicast
 - ✓ Migration functions
 - ✓ Complete set of solutions
 - ✓ Programmability
 - ✓ Service customisation
 - ✓ IP solutions (including third party technologies)
 - ✓ Migration, IP Telephony, IP video-conference...



R&D Organization

- ***Short term (months)***
 - ✓ Development driven by the customers requests
- ***Medium term (year)***
 - ✓ Development leading to major releases or new products
- ***Long term (years)***
 - ✓ Advanced R&D taking into account new approaches and new technologies and leading to demonstrators

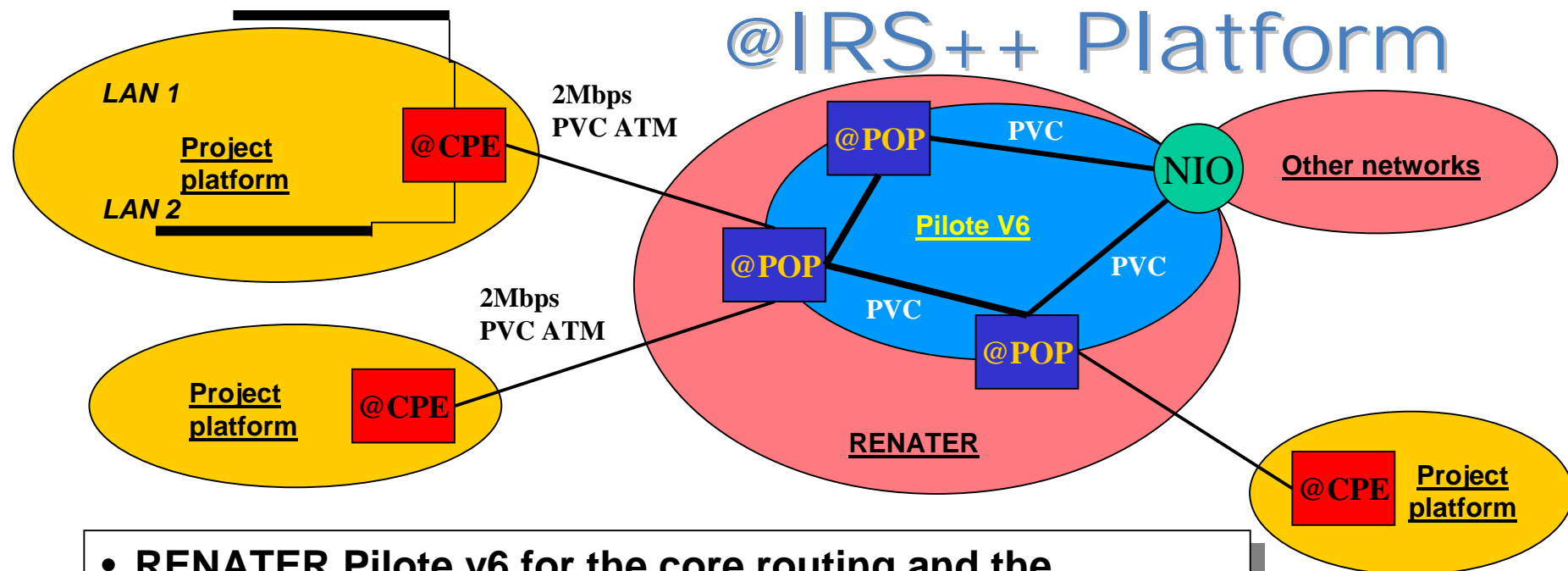




R&D French & EC Projects

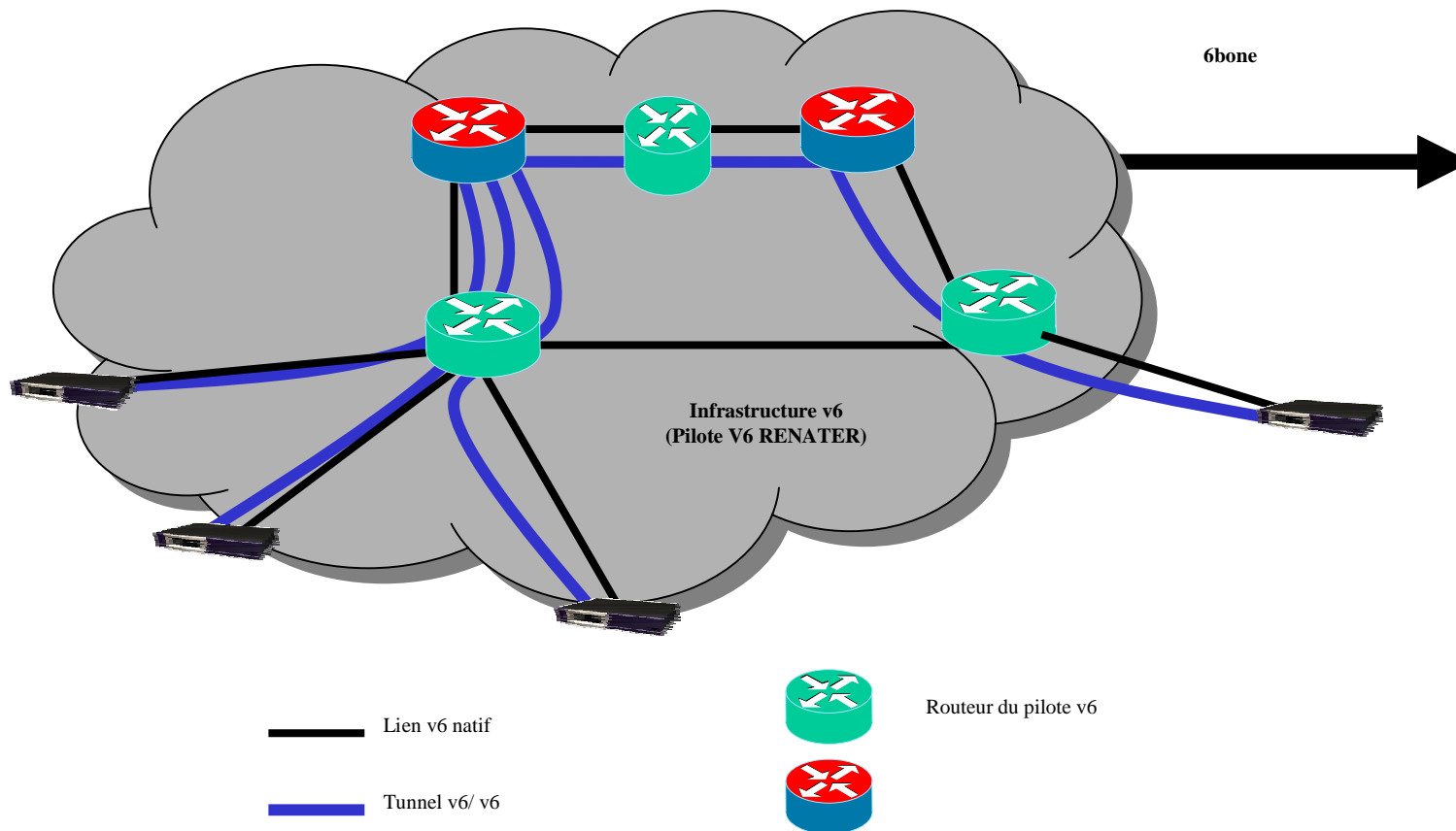
- ***RNRT :***
 - ✓ @IRS++ : multicast, fix mobile integration
 - ✓ RAHMS : zero configuration
 - ✓ Intradiff : QoS
- ***IST :***
 - ✓ Euro6IX : deployment
 - ✓ Android : programmability
 - ✓ 6WINIT : fix-mobile integration

@IRS++ Platform

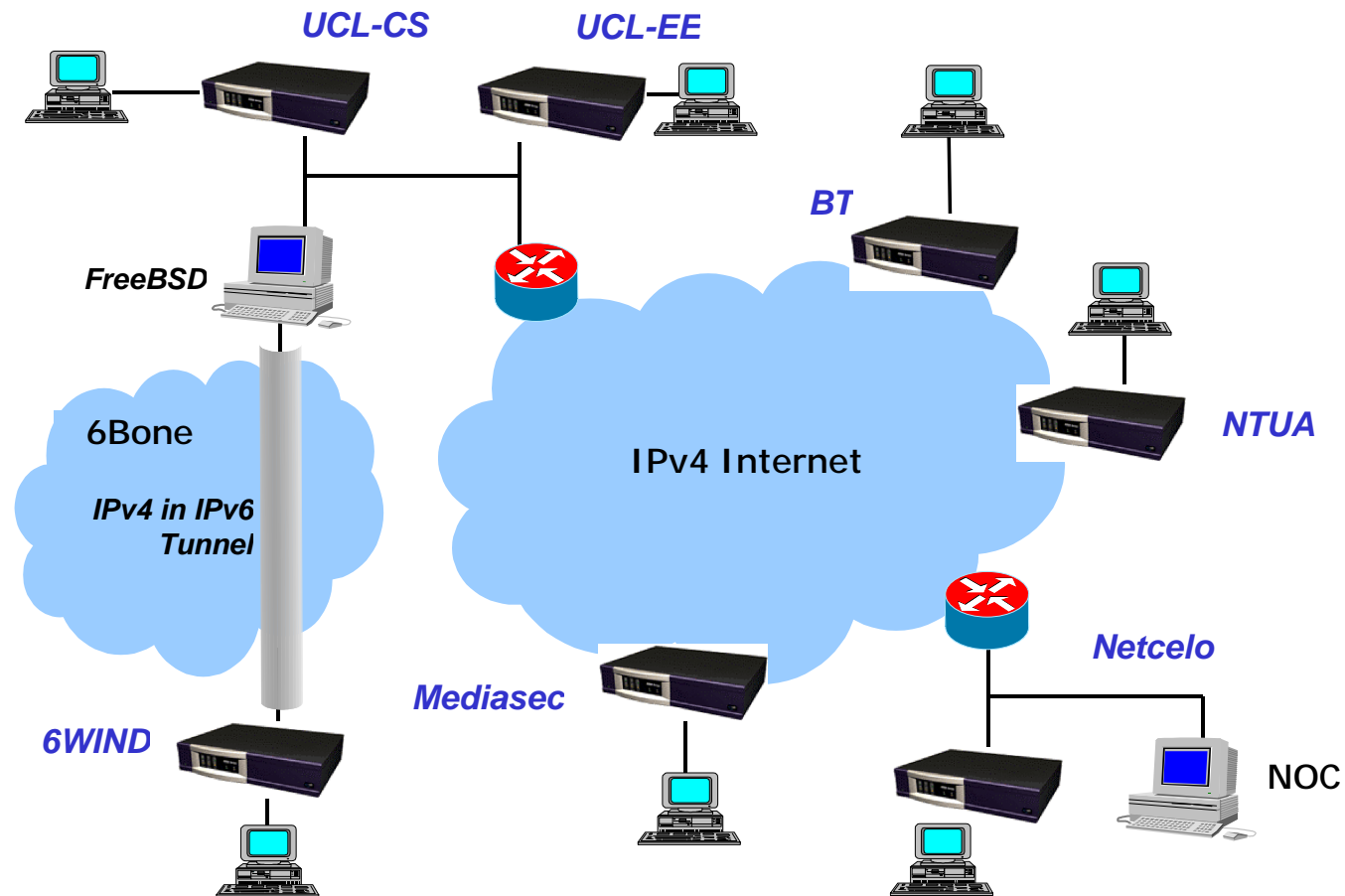


- **RENATER Pilote v6** for the core routing and the interconnection with the other backbones
- **Points of presence (@POP)**
- **6WIND access routers (@CPE)** on project sites
 - ✓ 1 WAN interface: ATM or Ethernet
 - ✓ 2 LAN Ethernet 100 Mbps interfaces

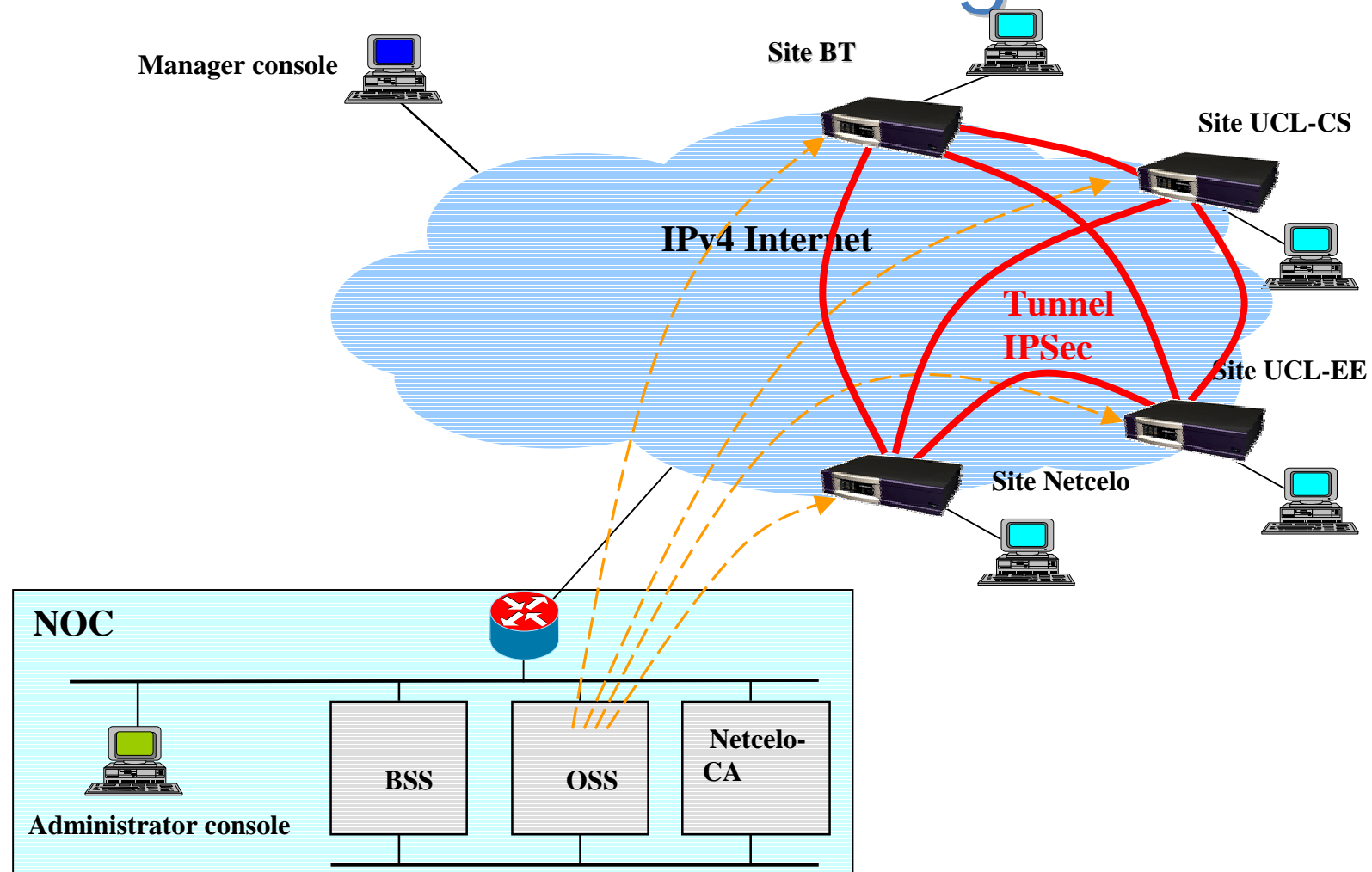
@IRSbone



Android Platform

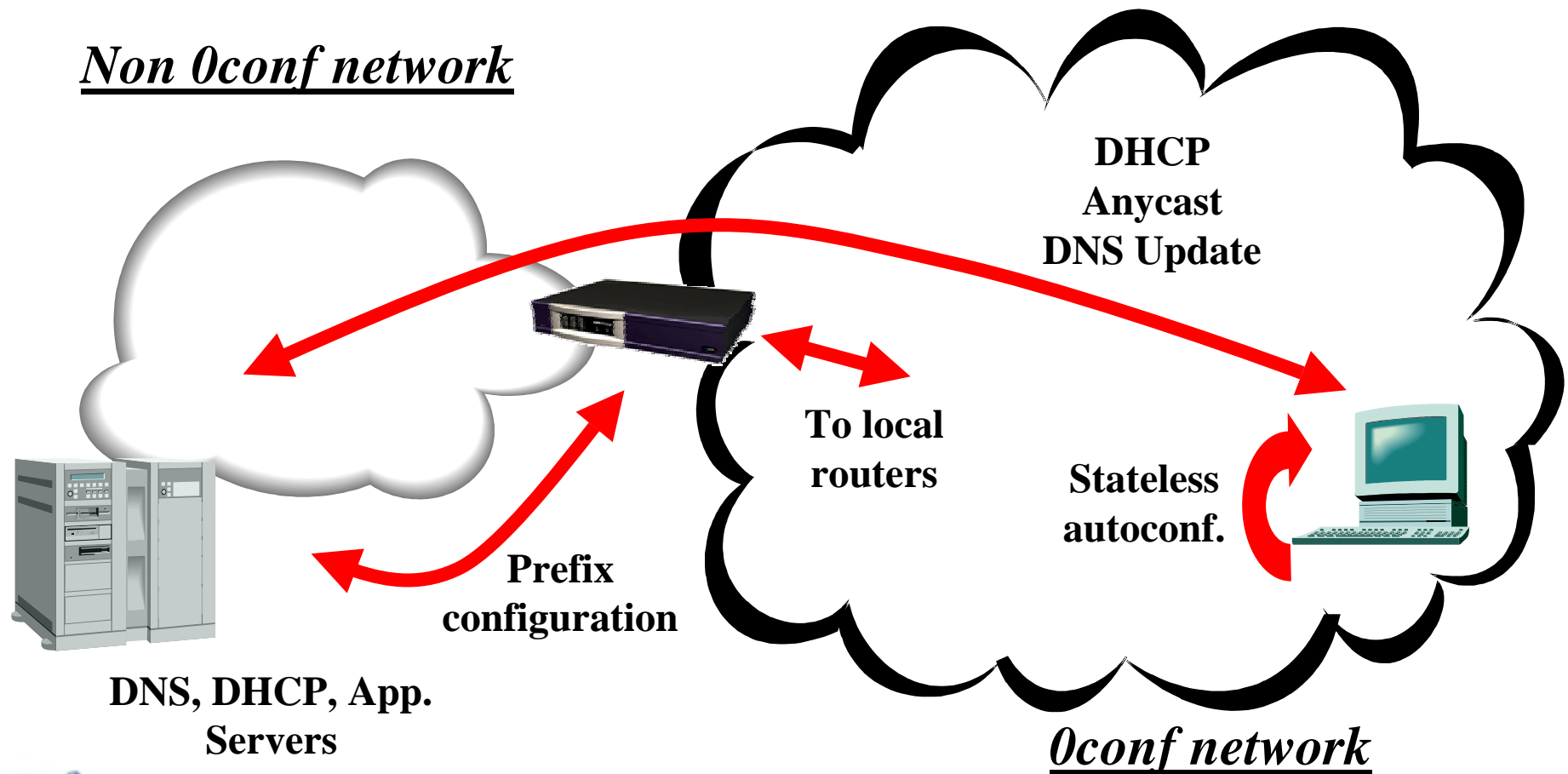


Android – VPN management



RAHMS – Zero-conf Platform

Non 0conf network



MARKET STRATEGY

- ***Targeted Regions***
 - ✓ Asia (Japan Taiwan, Korea,,...)
 - ✓ Europe
- ***Targeted Markets***
 - ✓ ISPs, Telcos & large corps
 - ✓ Home Networking
- ***Selling Strategy***
 - ✓ Direct sales to major organizations
 - ✓ Worldwide network of integrators and VARs
 - ✓ OEM partnerships for specific market segments



VISION

- *ISPs need to offer Value Added Services*
- *IPv6 is coming*
- *6WIND products provide the solution to efficiently set up new services taking advantage of the IP migration*
- *6WIND: solutions to ease IP network services deployment*

More Information

- **Questions ?**
 - ✓ Info@6wind.com
- **Web sites**
 - ✓ www.6wind.com
 - ✓ www.6wind.com/kr
 - ✓ www.6wind.com/jp
 - ✓ www.ipv6forum.com
 - ✓ www.6init.org
 - ✓ www.lip6.fr/airs