

# Data Centre Networking at Orange Business analysis

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First Workshop on Data Center - Converged and Virtual Ethernet Switching (DC CAVES), Sept 14 2009



# France Telecom Orange

- One of the **main** telecom operator in the world
- Providing services to more than **186 millions** customers in all continents
- Of which over **2/3** with Orange Brand

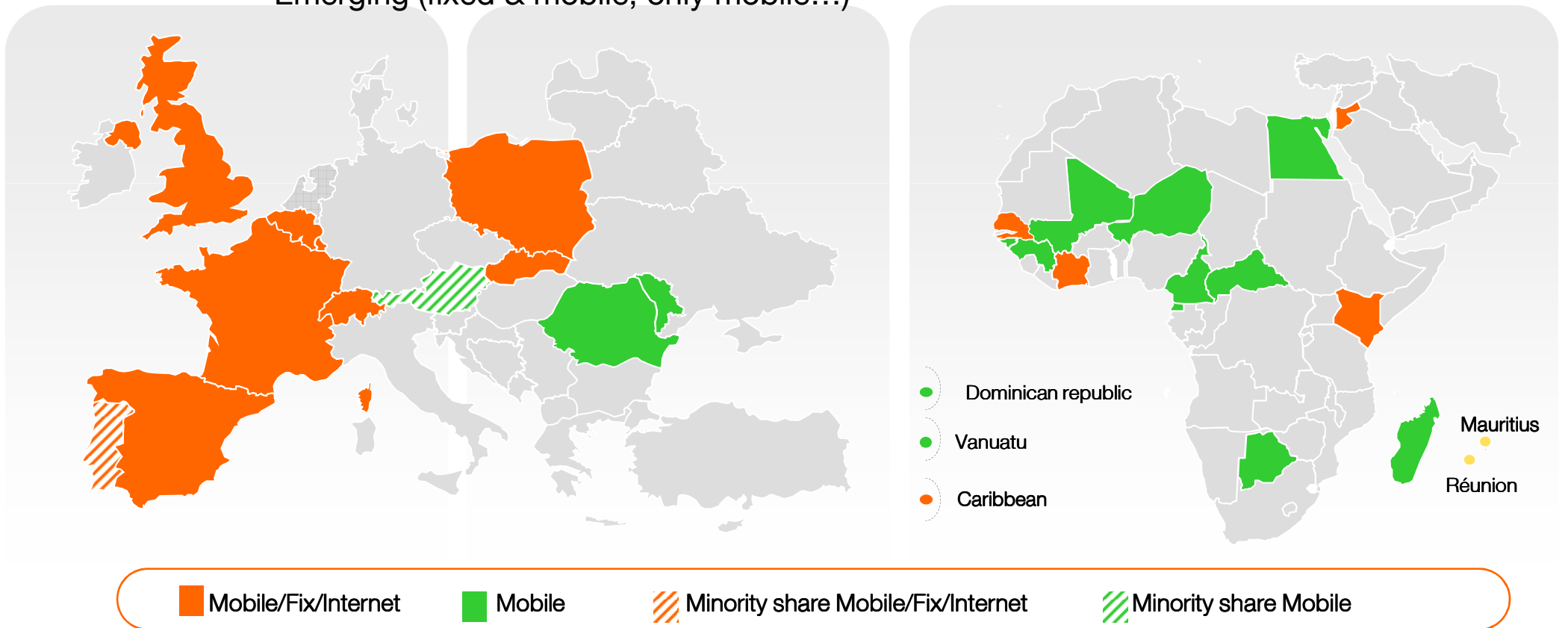
As of 30/6/2009



# Mobile, fix and Internet

- **Different business**

- Fixed incumbent + mobile
- Fixed alternate + mobile (using country wholesale or building)
- Mobile only
- Emerging (fixed & mobile, only mobile...)



## Our main activities

### Personal

- N°3 in Europe for mobile with around **120 millions** customers
- Around 22 millions broadband mobile customers with access to **Orange world** mobile portal.

### Home

- Europe leader for broadband Internet (ADSL) with around **13,4 millions** customers
- 8,4 millions residential home gateways **Livebox**, key component to get access to broadband services
- N°1 in Europe for IPTV (ADSL) with over **2 million** customers



### Business

- With Orange Business Services, one of the **leaders in the world**
- Provides telecommunication services to more than **3 750 MNC** (Multi National Companies)

# Business needs

- Ever increasing reliance on **IT and network**
- A **vital part** of business operation: application access, data...
- Necessary to increase efficiency, competitiveness and meet customer demands
- At the same time need to contain overall operating costs, in spite of increasing complexity (legacy...), need to decrease new business entry cost.
  
- Network cost control with competition, “network virtualization” from LL to VPN, based on private network or Internet
  - Security, availability/resiliency
  - Bandwidth needs
  - Network functions
  
- IT cost control with TCO control, “IT virtualization”
  - Security, availability/resiliency
  - Strategic business application on centralized IT architectures and locally hosted applications

# Business network needs

## Some examples of different network needs per segment (with implied IT needs)

- **MNC, large companies:**

- LL for security, Internet access with IPSec, Bandwidth on demand
- Sophisticated call centers, Voice VPN, mobile fleet

- **SMB:**

- BB access, Internet based VPN, access to some private hosted applications, access to other VPN (B2B)
- Network ACD, CRM support

- **Soho:**

- BB access, 3<sup>rd</sup> party hosted applications (web site..)

- **Other (ISP, content provider...):**

- Very BB access, Bandwidth on demand
- CDN....

- **And ... customer**

# Business IT needs

**Some examples of different IT needs per segment (with implied Network needs)**

- **Private centralized IT infrastructure are expensive. Part or all of IT may be virtualized.**
- **MNC, large companies:**
  - Own strategic IT on own private clouds, with secured VPN access
  - Some privately hosted internet application
- **SMB**
  - Private shared clouds
  - Public cloud with own application on public cloud (PaaS)
- **Soho**
  - Public cloud with 3<sup>rd</sup> party applications (SaaS)
- **Others**
  - Data centers
- **And ... customers**
  - Storage, N-PVR, internet applications...

# Opportunity for Orange

**Leveraging on telecom competence, provide ways to decrease overall IT and network cost for businesses and customers. Some examples:**

- **Hosting, starting with IX centers (such as Parix)**
- **B2B:**
  - Outsourcing network + IT – eventually optimizing IT with private cloud approach
  - Bundling VPN with private clouds (with security, backup and IT + network optimization)
- **B2SMB:**
  - Bundling access with IT applications (based on private clouds and PaaS)
- **B2Soho**
  - SaaS, bundled with access
- **B2B2C:**
  - Bundle datacenter + telecom (with bandwidth SLA)
  - Provide specific information on customers (mobile...) with Telco 2.0 API
- **Customers...**

**Take into account Network and IT synergies**

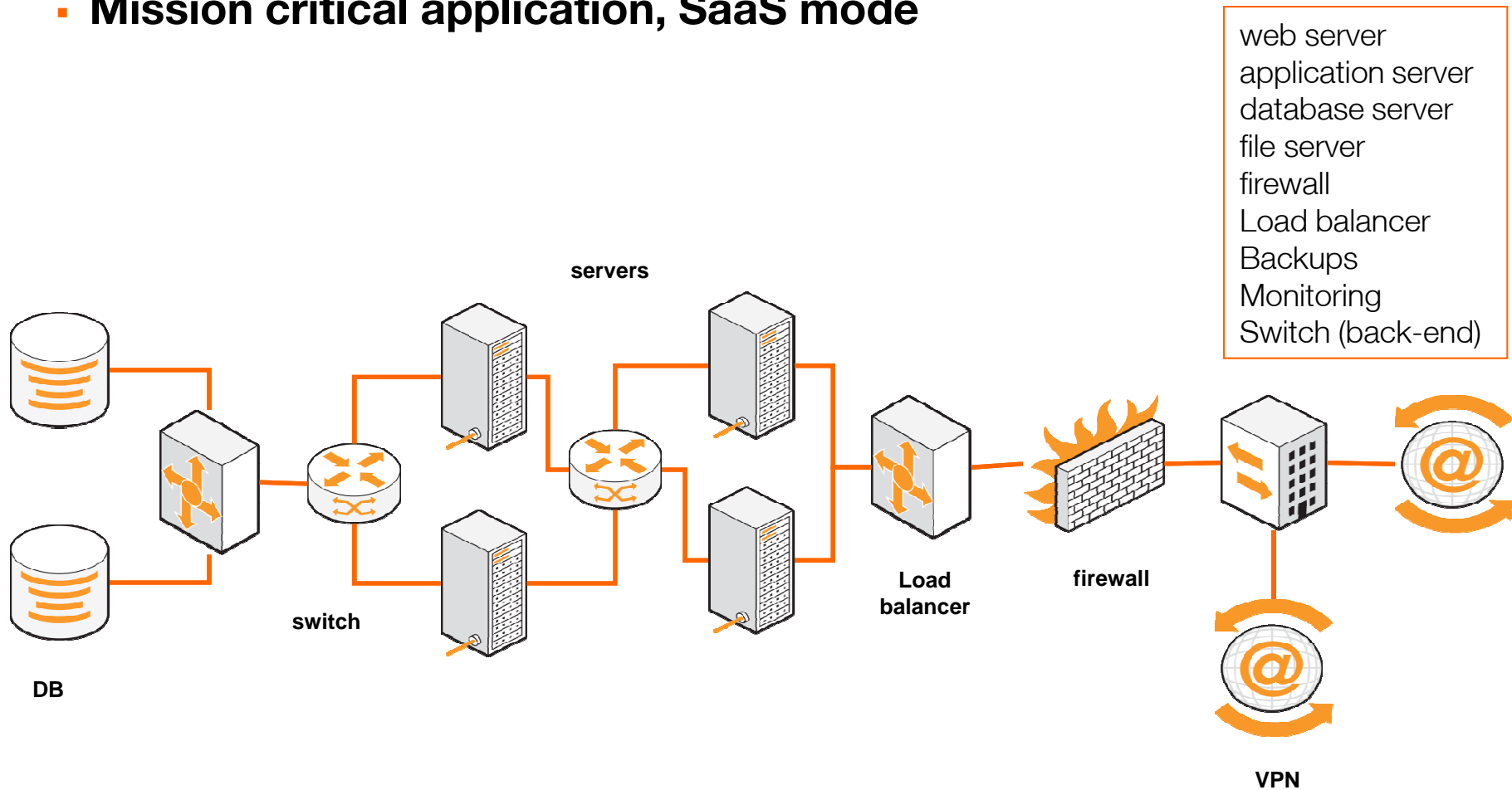


# Example of Orange flexible computing

- **Flexible Computing is a IT infrastructure service**
  - Based on virtualization, with several virtual machine
  - Internet or Intranet access (based on Orange Business VPN ou Equant VPN), secured LAN and remote access
  - Load Balancing hardware
  - Customer control with monitoring, 24/7 monitoring and support
  - SLA (availability 99,8 or 99,9%), security (physically in data centers, application level with firewall), evolvability
  - backup and restoration features
- **Typical usage**
  - Application or web site hosting
  - High traffic application or web site hosting: with load balancing
  - Internal or external mission critical application hosting...
- **Parameters**
  - Nb of VM, CPU, ram, storage, OS, IP address...

# Example of one Orange flexible configuration

- **Mission critical application, SaaS mode**



# Example of Telco 2.0 approach

- Allow 3<sup>rd</sup> party to define new applications hosted by the network
- <http://www.orangepartner.com/>
- Based on datacenters and network capability (such as IMS AS for Click to call)



## Contact Everyone API

Broadcast info via different media.

[find out more→](#)



## Multimedia Conference API

Create a web conference.

[find out more→](#)



## Device Capability Enabler API

Retrieve mobile capability info.

[find out more→](#)



## Service Localisation API

Retrieve mobile location info.

[find out more→](#)



## SMS Internet API

Broadcast SMS to users.

[find out more→](#)



## click-to-call API

Establish phone calls.

[find out more→](#)



## API manager

Develop and manage your solution(s).

[find out more→](#)

# Requirements

- **IT virtualization**

- CPU, Storage, RAM, application

**AND**

- **network virtualization**

- Access bandwidth management, VPN, transmission, CPE / Load balancers / Switch / Firewalls..

- **Synergies between IT and network**

- **Suppliers, interoperability**

thank you

