Why using Mikrotik ?

(how to compete whith big ones in a telco world)

Mikrotik MUM 2016 Ljublajana (Slovenia)

WideVOIP / WhichWAN
French Telco based in Strasbourg

VoIP services
Internet access
IP Transit

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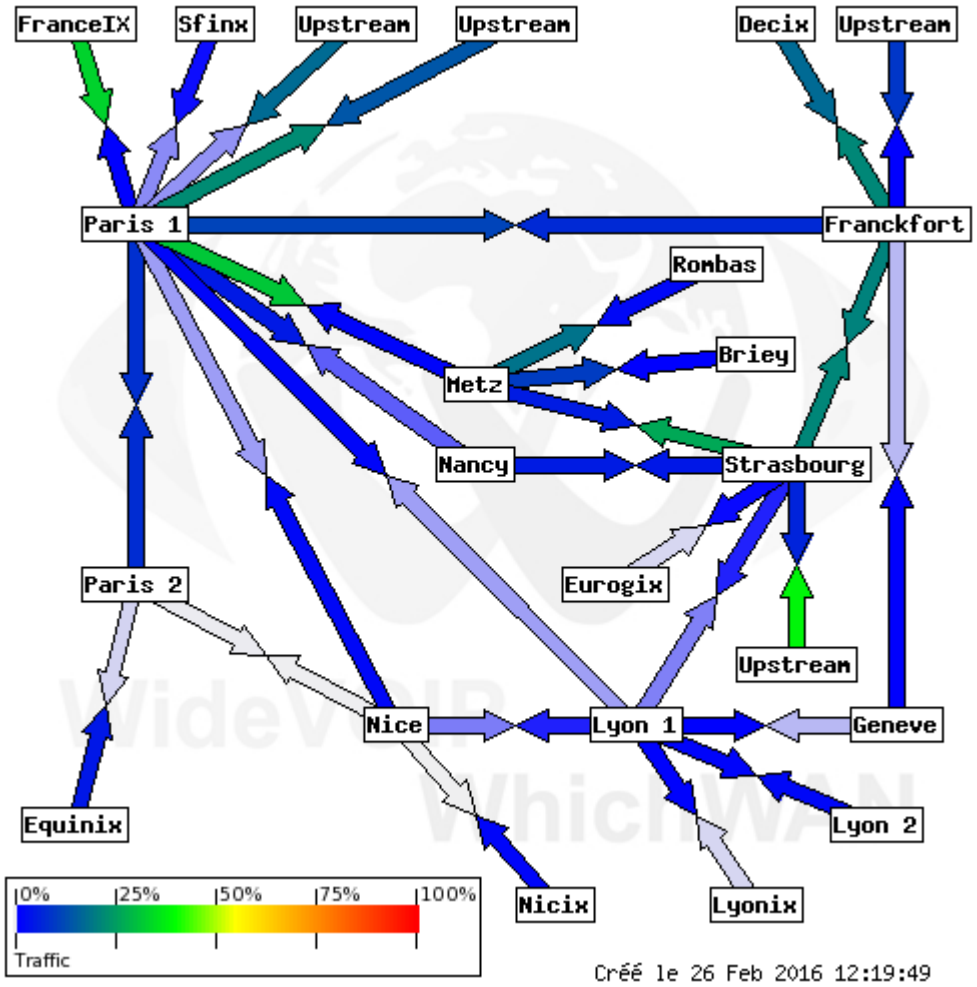
Introduction

This presentation is not about advertising Mikrotik™ solutions but about how it help us making business and surviving in a Telco World driven by big ones.

Our Business

- ✓ Voice services : A-Z termination, DID
- ✓ Internet Access : DSL, Cable Modem, Gpon
- ✓ IP Transit : Layer 2, Layer 3, IPV4, IPV6
- ✓ Hosting : micro datacenter
- ✓ Consultancy : Backbone, Provisioning, Voice

Our Network


FranceIX
Sfinx
Upstream
Upstream
Decix
Upstream
Paris 1
Franckfort
Rombas
Briey
Metz
Nancy
Strasbourg
Paris 2
Eurogix
Upstream
Nice
Lyon 1
Geneve
Equinix
Lyon 2
Nicix
Lyonix
0%
25%
50%
75%
100%
Traffic
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Some clues

- ✓ 10 Gbps of IP Transit
- ✓ 400 BGP peering sessions
- ✓ Full MPLS / VPLS backbone
- ✓ 3000 Internet customers
- ✓ 2000000 minutes / month
- ✓ 240000 DID
- ✓ Mikrotik™ CCR (backbone)
- ✓ Mikrotik™ x86 (BGP routers)

History

- ✓ 2005 : Company Setup
- ✓ 2006 : First Rack in Frankfurt
- ✓ 2007 : Becoming a LIR
- ✓ 2008 : POP in Paris and DSL services
- ✓ 2009 : POP in Sophia Antipolis and Strasbourg
- ✓ 2009 : Gbps ports and Peering
- ✓ 2010 : Full IPV6 dual stack (LIR 4 stars)
- ✓ 2012 : Testing Mikrotik AHx2 and going to production
- ✓ 2013 : First MUM in Zaghreb
- ✓ 2014 : VPLS as a Backbone (full Mikrotik Network)
- ✓ 2015 : 10 Gbps Backbone
- ✓ 2016 : Full 10Gbps backbone with waves and CWDM

2006 : First Fack in Frankfurt

- ✓ 42U rack with 10 Mbps IP Transit : setup fees 5000 €
- ✓ 2 servers : 5000 €
- ✓ First Cisco 2811 router : 5000 €
- ✓ 10 Mbps of IP Transit

Cost : 15000 €

2007 : Becoming a LIR

- ✓ RIPE setup fees : 2000 €
- ✓ Second Cisco 2821 router : 7000 €
- ✓ Second Upstream setup : 4000 €
- ✓ 50 Mbps IP Transit

Cost : 13000 €

2008 : POP in Paris

- ✓ 10U Rack : 2000 €
- ✓ 1 Cisco 7204VXR : 15000 €
- ✓ 1 Cisco 2811 : 5000 €
- ✓ L2 and L3 links setup : 3000 €
- ✓ DSL port : 2000 €

Cost : 27000 €

2009 : POP in Strasbourg

✓ 2 x 42U Rack : 5000 €

✓ Cisco 6502 switch / router refurbished : 15000 €

✓ L2 and L3 links setup : 5000 €

Cost : 25000 €

2009 : POP in Sophia Antipolis

- ✓ 42U Rack : 2000 €
- ✓ 2 Juniper Routers : 15000 €
- ✓ 2 Juniper Switches : 5000 €
- ✓ L2 and L3 links setup : 3000 €

Cost : 25000 €

2010 : Full dual stack IPV6

- ✓ Network crash enabling IPV6
- ✓ Lack of ISIS compatibility between Cisco and Juniper
- ✓ Emergency migration to OSPF and OSPF v3
- ✓ 4H of service disruption

Cost : UNKNOWN

2012 : Implementing Mikrotik™

- ✓ Testing Mikrotik with RB750AHx2
- ✓ First setup in the backbone with AHx2 (Nancy POP)
- ✓ Full hardware redundancy (2 routers)
- ✓ 50 Mbps Layer 2 transport

Cost : 1000 €

2013 : MUM Zaghreb

- ✓ Mikrotik™ Human Community
- ✓ Mikrotik™ Eco System
- ✓ Mikrotik™ x86 solutions
- ✓ Removing 4 Old Cisco and Juniper
- ✓ Setup of 6 new x86 Mikrotik™ Routers
- ✓ IP Transit : 1 Gbps

Cost : 20000 €

2014 : MPLS / VPLS as a Backbone

- ✓ Dual MPLS / VPLS ring
- ✓ Six POP to Setup
- ✓ Minimum of 1 Gbps betwen POP
- ✓ Mikrotik™ CCR1036
- ✓ Ready for 10Gbps links

Cost : 50000 €

2015 : Expanding to 10 Gbps

- ✓ New POP : Lyon 1 + Lyon 2
- ✓ 10 Gbps links between POP
- ✓ 10 Gbps upstream link
- ✓ 10 Gbps peering link

Router Cost : 0 €

New POP Cost (per POP) : 5000 € All Inclusive ☺

2016 : Expanding ☺

- ✓ 20 Gbps IP Transit
- ✓ 10000 FTTH Customers
- ✓ 2 micro datacenters
- ✓ 200 km of dark fiber
- ✓ New markets (FTTH / FTTLA)

No need to invest in the backbone

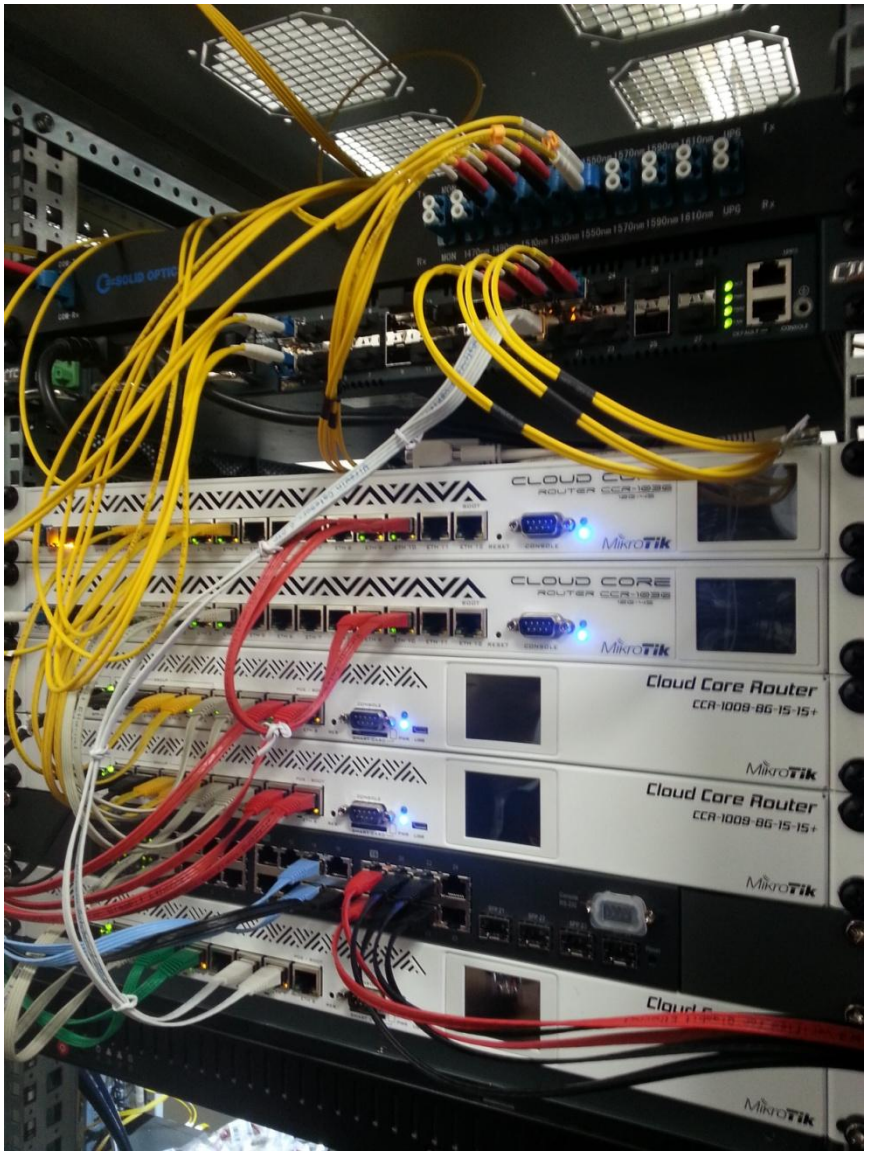
What did Mikrotik™ for us

Reducing hardware costs

Implementing next generation services

Standardizing Router Administration

Reducing support costs


CLOUD CORE
ROUTER CCR-1036
MikroTik
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Cloud Core Router
CCR-1009-8G-1S-1S+
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