



The 4th Africa Peering & Interconnection Forum



Casablanca, Morocco, September 3 – 5, 2013

Is Policy the Missing Link to Interconnection ?

Moez Chakchouk, Chairman & CEO of ATI

Before the revolution #14Jan

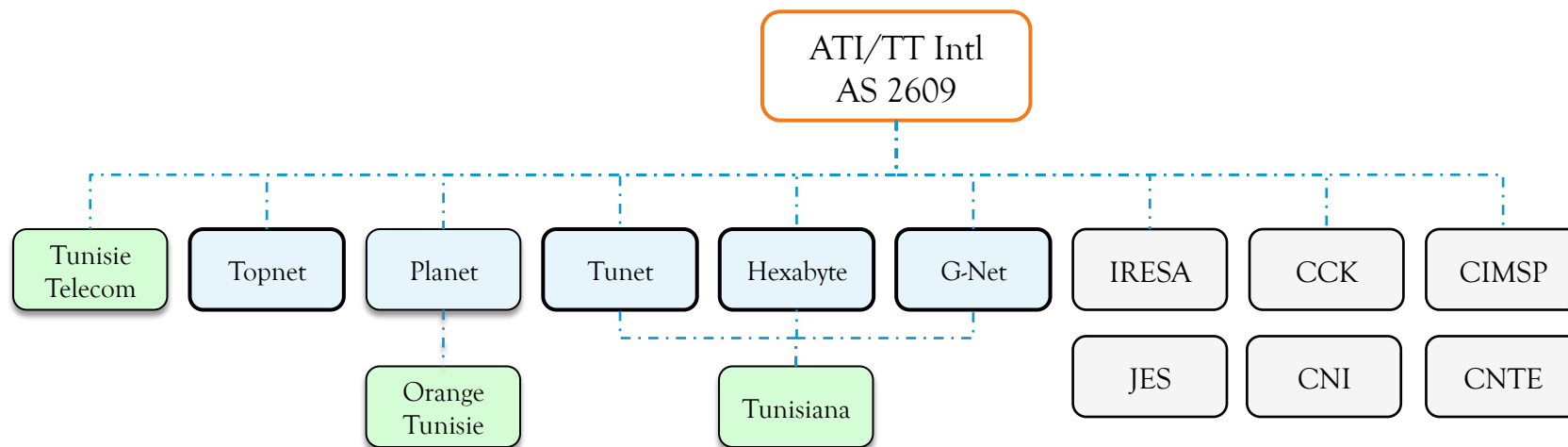
- ▶ **ENEMY** of internet despite the huge work done by high skilled engineer operating the IP transit network available for all ISPs in TN.
- ▶ **UNCLEAR** role and a lot of tensions with the civil society.
- ▶ **LACK** of Transparency and openness to civil society.



#Censorship
#Ammar404
#Surveillance
#CyberPolice
#...

Before the revolution #14Jan

- ▶ Monopoly: 1 AS for the whole country operated by ATI/TT International.
- ▶ Routing internet traffic via ATI is a regulatory obligation for all ISPs/Operators.
- ▶ International IP transit services: Expensive tariffs (End of 2010: 30€/Mbps).
- ▶ Coarse economic model: Total revenue of IP Transit services in Tunisia was shared between ATI (30%) and TT International (70%).
- ▶ Routing local traffic is free.



After the revolution #14Jan: A lot of Change

- ▶ Implement an ambitious action plan based on openness and **best practices**.
- ▶ **Clarify the role of ATI** and its relation with the government.
- ▶ Modify the **economic model** for the provision of IP transit services.
- ▶ Stop **net censorship** and support **online freedom and privacy**.
- ▶ Promote the registration of Tunisian cctld .tn & IDN تونس.
- ▶ **mirror.tn**: Promote open source mirror servers.



#TunIXP
#Netfreedom
#Privacy
#Mirror.tn
#Openness
#Transparency

TunIXP, the 1st IXP in the Maghreb Arab Region



Tunisian Internet eXchange Point



TunixP

TunIXP Tunis

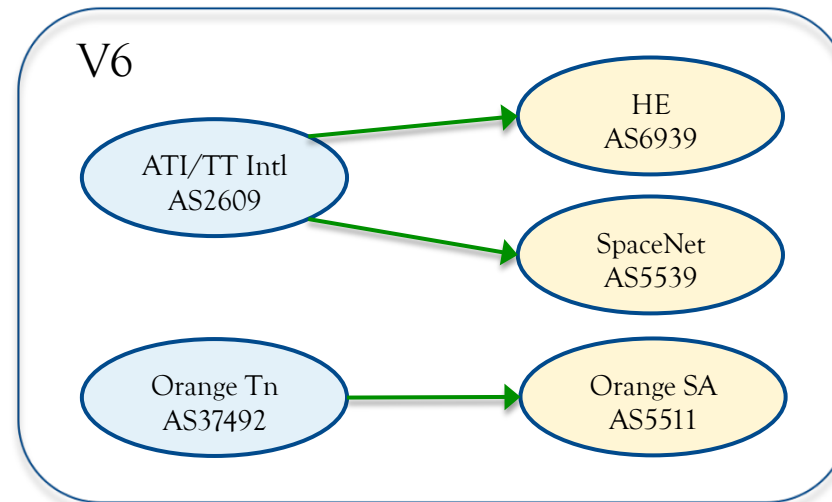
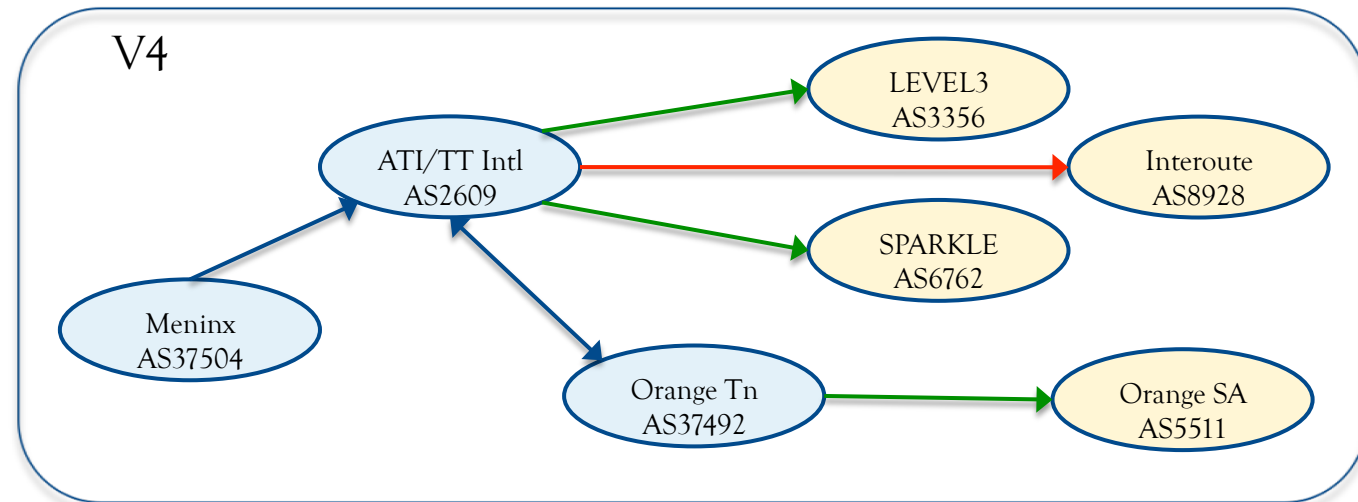
- 2/3 sites connected via Dark Fibers
- 7 members (12 more with no public AS)
- 1 ROOT Name Server (L-Root).

TunIXP Enfidha (110 km from Tunis)

- 1 site: Meninx Data Center
- 3 members

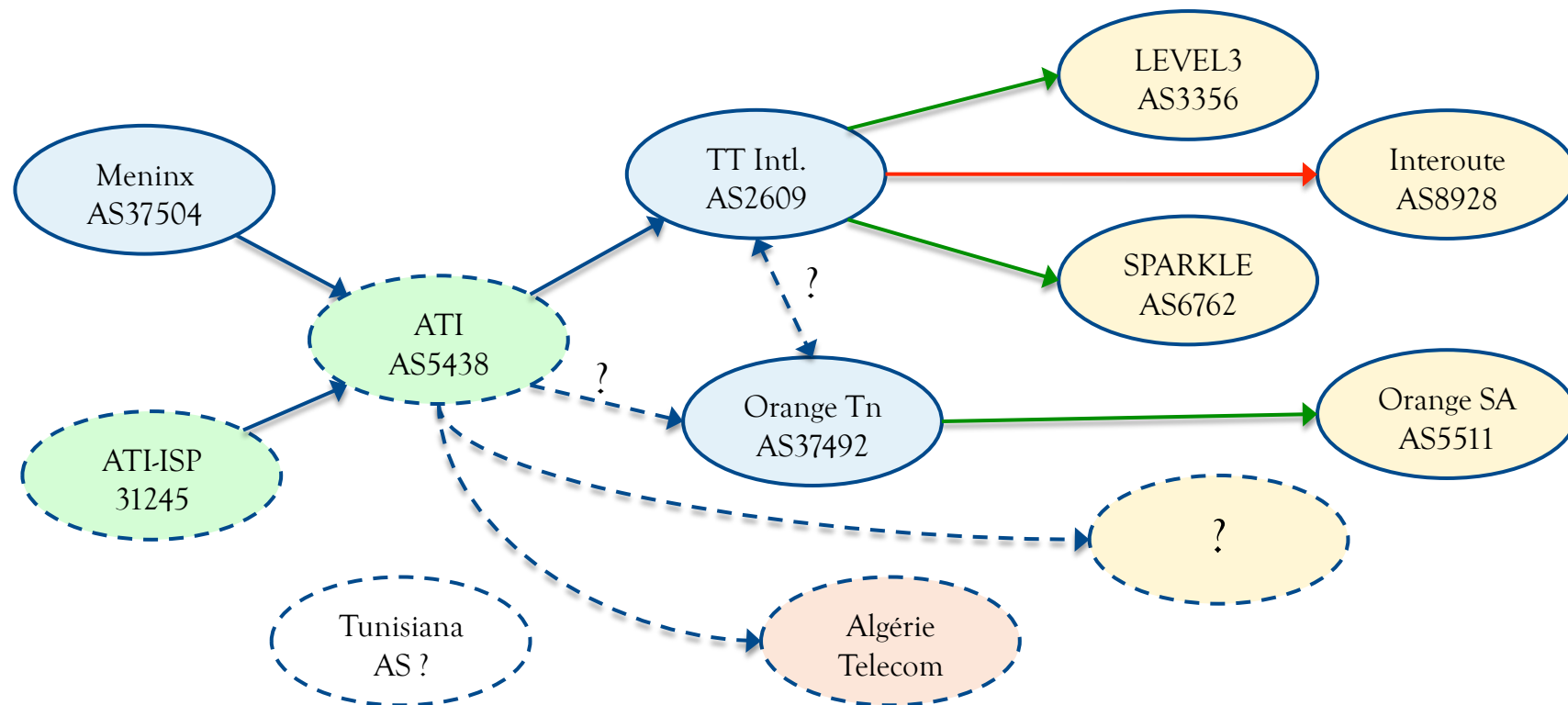
Reshaping the existing infrastructure (1)

CNI	TT
IRESA	Tunisiana
CIMSP	Gnet
CCK	Hexabyte
CNTE	Tunet
JES	Topnet



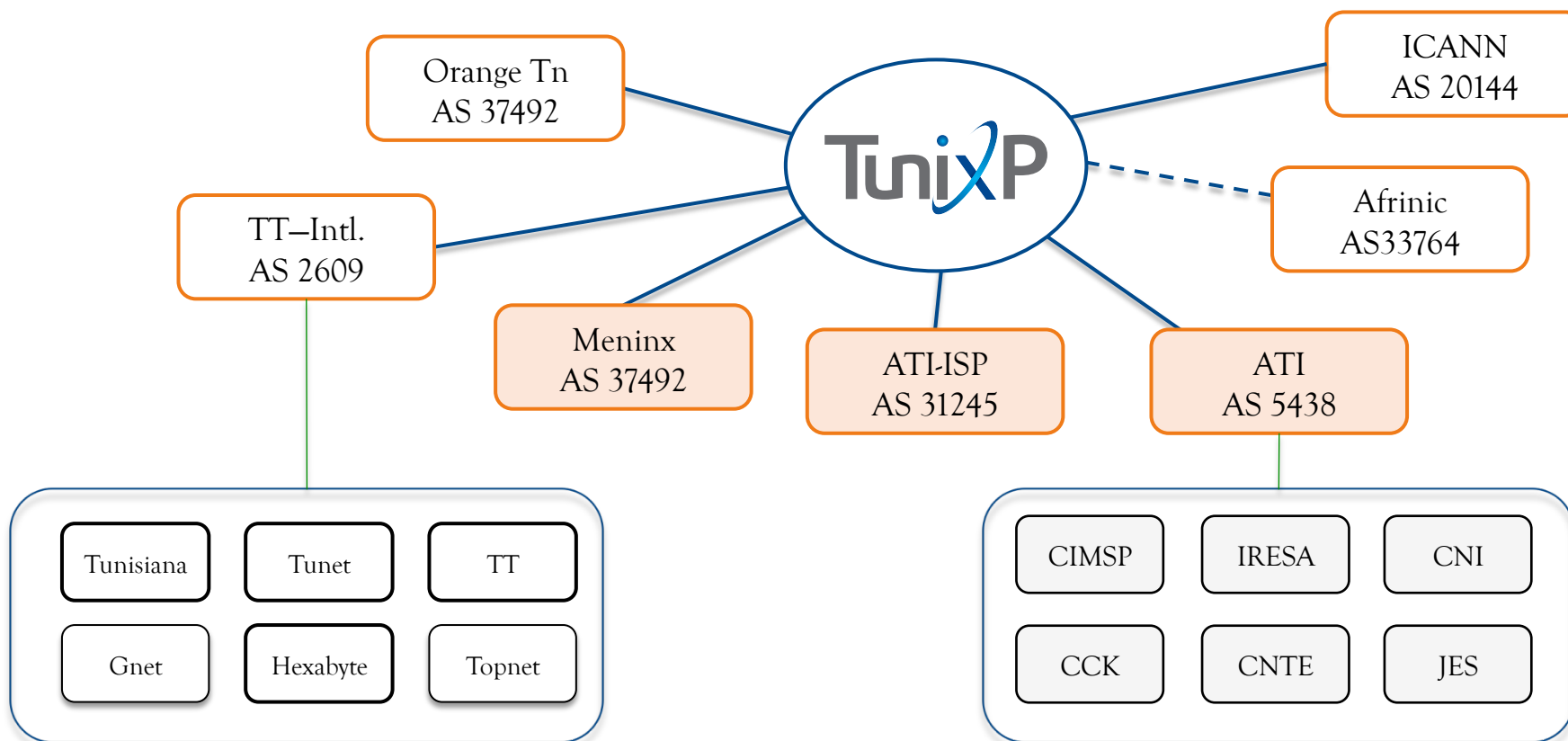
Reshaping the existing infrastructure

- ▶ ATI will operate independently from Tunisie Telecom (AS2609) and will run two AS:
 - ▶ AS31245 - Internet Service Provider.
 - ▶ AS5438 - national/international IP Transit Service Provider.



Reshaping the existing infrastructure

- ▶ Layer 2 platform for TunIXP will be operated by an association to be created before the end of 2013.
- ▶ ATI, the founder of TunIXP, will act as any other member of TunIXP.



L-Root Name Server

- ▶ First ROOT server in the Maghreb Region,



TunIXP linked to open innovation & measurements

MLAB

measurementlab.net








404Labs



Tunisian open innovation labs



Interconnection in the Maghreb Arab Region

				
Mauritania – 1 Submarine Cable – 1 Landing Station – 2 AS	Morocco – 5 Submarine Cables – 3 Landing Stations – 4 AS	Algeria – 4 Submarine Cables – 4 Landing Stations – 10 AS	Tunisia – 4 Submarine Cables – 2 Landing Stations – 3 AS	Libya – 3 Submarine Cables – 2 Landing Stations – 4 AS

- ▶ Only Tunisia and Algeria are connected physically via SEA-ME-WE4.
- ▶ Implementation of cross border interconnection could be via the existing terrestrial Fiber infrastructure, including alternative one owned mainly by the electricity company, etc.
- ▶ Lack of IXPs, local traffic is routed via international IP Transit Operators

With regards to the Maghreb Arab Union, what can be done by policy makers to promote the cross border interconnection in the Maghreb Arab Region ?

Interconnection in the Maghreb Arab Region

C	IP Transit SP (AS)	MR (2)	MA (3)	DZ (10)	TN (2)	LY (4)	#
FR	Orange / AS5511	2	1	4	1	1	9
IT	TI Sparkle / AS6762		1	3	1	2	7
DE	Tinet / AS3257		2	4			6
US	Cogent / AS174		2	2			4
US	Level3 / AS3356			2	1	1	4
ES	Telefonica / AS12956		1	2			3
UK	Avanti / AS39356					2	2
DE	Deutsche Telecom / AS3320		1				1
UK	Interoute / AS8928				1		1
GR	OTE / AS12713					1	1
ES	ORAN Link / AS57023			1			1
UK	Cable & Wireless / AS1273			1			1
UK	British Telecom / AS5400			1			1
BE	WIS Telecom / AS21175			1			1
MA	Maroc Telecom / AS6713	1	-				1

- ▶ Why do you pay foreign carriers to carry domestic traffic to Europe and exchange it there?
- ▶ Think about saving ≈ 50 ms of round-trip latency and keeping purely domestic traffic in-country.



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Thanks ...

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