Med Nautilus Greece
Cloud Computing Conference

Maroussi Anphitheatre
March 20, 2014
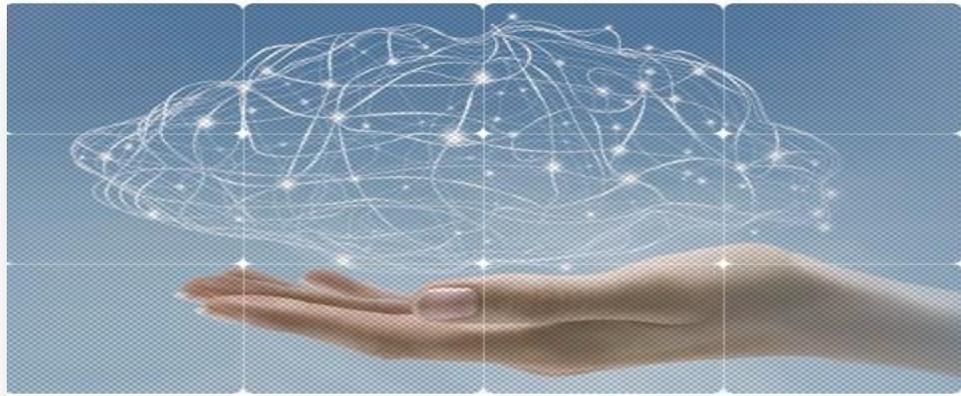
Cloud Revolution in Greece ?

A.Danesi
*CEO - MNG*

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The True Cloud Customer Perspective ....
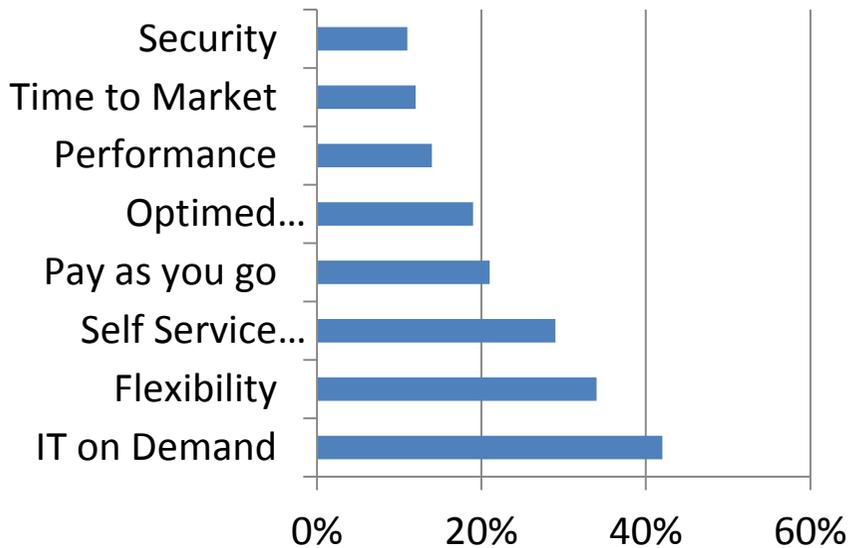
The Recognized Cloud Values

Chart 1 (horizontal bar chart, values approximate):
- Security: ~11%
- Time to Market: ~12%
- Performance: ~14%
- Optimed…: ~19%
- Pay as you go: ~21%
- Self Service…: ~29%
- Flexibility: ~34%
- IT on Demand: ~42%

(axis: 0%, 20%, 40%, 60%)

The Main Cloud Applications

Chart 2 (horizontal bar chart, values approximate):
- Server…: ~11%
- DataBase: ~14%
- Collaboration: ~15%
- Logistics: ~18%
- HR: ~20%
- CRM: ~24%
- Finance: ~26%
- Messaging: ~54%

(axis: 0%, 20%, 40%, 60%)

Source: MNG elaborations on PAC Consultants report
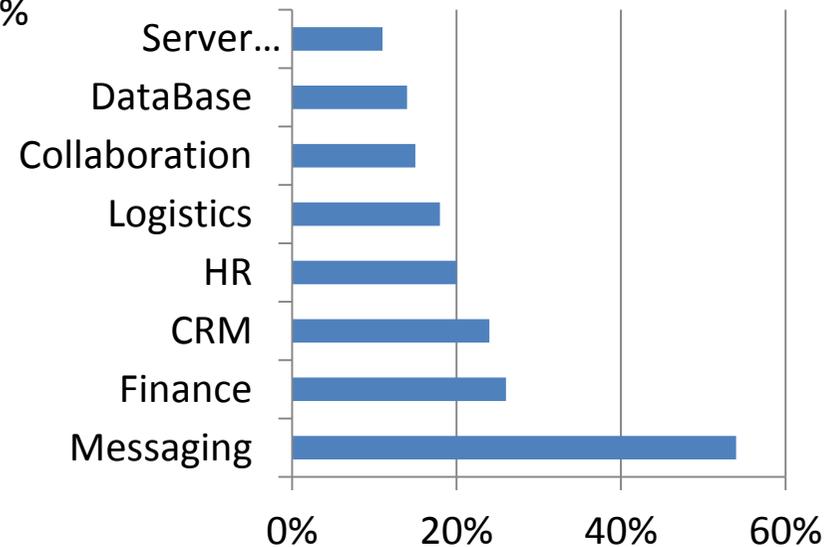
Cloud Computing: Benefits for Customers
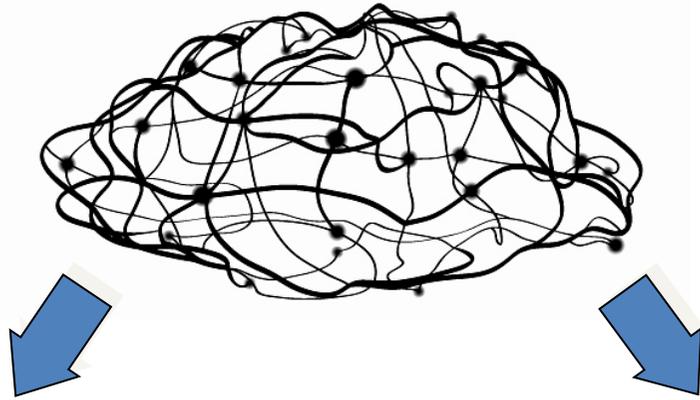
IT TCO Reduction (-23%)

IT Labour Productivity (200 VMs x HC)

Wide Adoption Worldwive

+60% Workload virtualized at DCs

Net cost savings/Lower risk

Peak Demand Management

Scalability

Business creation

Export boost/reduction

Time2Market4Innovation

Cloud computing leads to cost reduction and higher productivity, providing means to capture previously unsatisfied demand...

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The Virtualization Trend in EMEA

Virtual machines deployed on new server shipments virtualized in EMEA
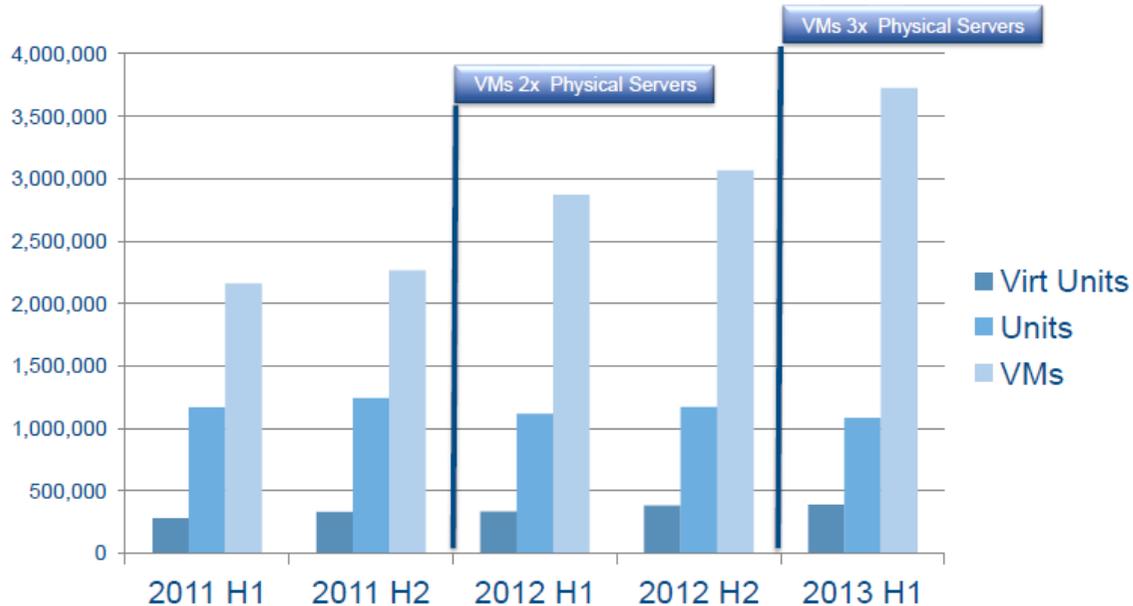
Ave . Cloud Provider Basic metrics:
- **VM Size doubling every 18-24 months**
- **Basic Configuration: 4Gb vRAM,**
- **Basic hosting: 2Gb vRAM**
- **Critical apps:12Gb vRAM**

Cloud SP Organization:
- ❑ **Headcount: doubling in 2 years**
- ❑ **200% Revenues Growth in the first year of operation**

Virtualization Global Megatrend is heavily affecting the entire IT Industry

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Source: IDC Quarterly Server Virtualization Tracker IDC end user survey,
n= 2,203 company applying server virtualization, and VMWare

Cloud Business in Greece

Server virtualization rate

45%
40%
35%
30%
25%
20%
15%
10%
5%

A
D
K
F
B
G
H
J
I
E

Major Countries in EMEA in 2013
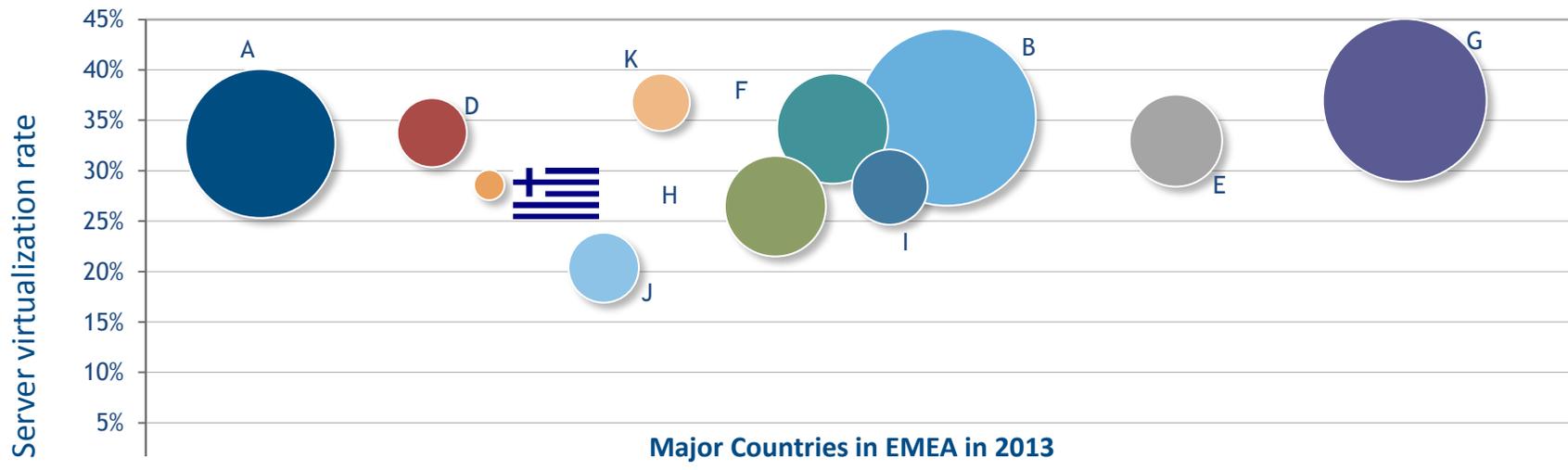
Note: Bubble size corresponds to new server systems virtualized

● A France ● B Germany ● C Greece ● D Israel ● E Italy ● F Netherlands ● G UK ● H Russia ● I Spain ● J Sweden ● K Turkey

Greek Virtualization rate still at 30%/year more or less in line with the other South Europe and Mediterranean Countries (Italy, Spain, Israel)

3,500 Server Virtualized in 2013

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Cloud Business in Greece

Virtual machines deployed on new server shipments virtualized in Greece
Source: IDC Quarterly Server Virtualization Tracker
IDC EMEA end user survey

Chart legend: Units, VMs. X-axis: 2011 H1, 2011 H2, 2012 H1, 2012 H2, 2013 H1, 2013 H2. Y-axis: 0 to 7,000.
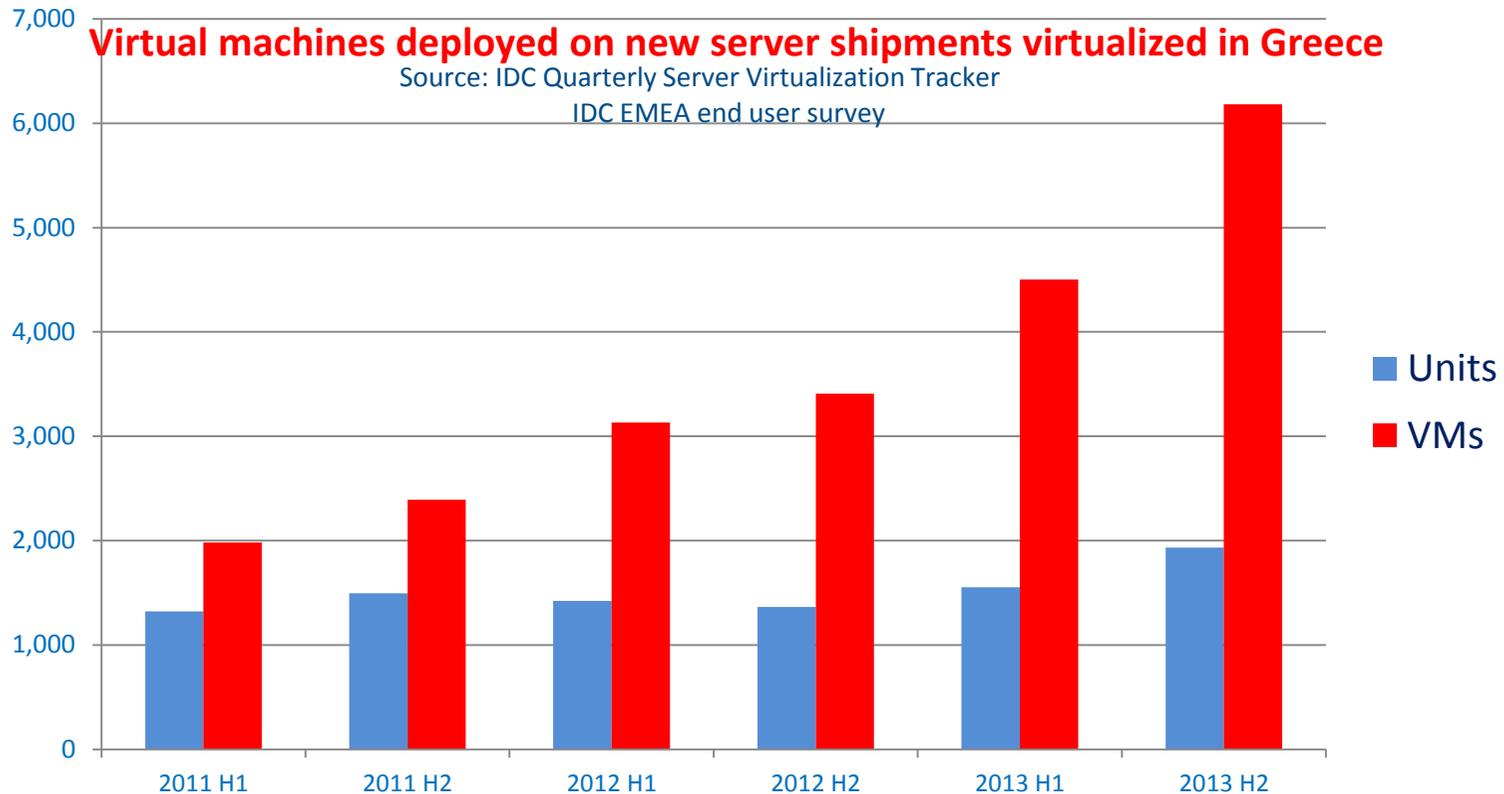
▶ IT virtualization for Enterprise Customers are increasingly adopted by large organizations

▶ +22,000 Cloud VMs in operations since 2011, with a 2013 run rate of +10,000 new VMs/year (Mainly for enterprise private cloud purrposes)

▶ Market Intelligence and IDC in Greece reveals that such solutions are gradually adopted also by small and medium enterprises (up to 40 Headcounts).

▶ Medium Term Cloud business Projections:
  ❖ 36M€ by year 2018
  ❖ of which only 7.5M€ for public Cloud

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Private vs. Public Cloud Dilemma
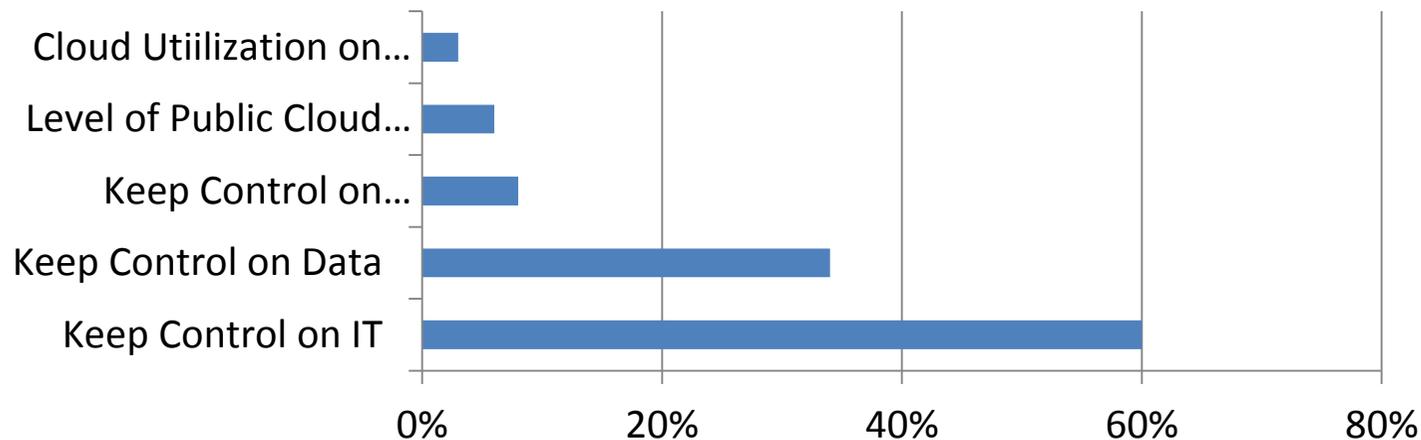
Large Corporate Customers struggling with Public (or even Hybrid) Cloud Solutions: +15,000 private VMs deployed in Greece over the last 3 years while Public Cloud still lagging behind.

Shouldn't Current Credit Crunch issues force Corporates and System Integrators to go Public (or at least Virtual Hosted) faster ?

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Source: MNG elaborations on PAC Consultants report

MED Nautilus Greece: Cloud Target Market

Corporate &
Public Sector

Hybrid Solutions
(through Integrators)

2,000

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Cloud Target Markets

Large SMEs
(2,5M€ Turn-Over ave.)

15,000

IaaS (+SaaS) Solutions
(through ISV and IT VARs)

Small Business
(0,2M€ Turn-Over ave.)

140,000

IaaS Solutions
(Unsolicited Demand)

Freelancers
(Soho)

650,000

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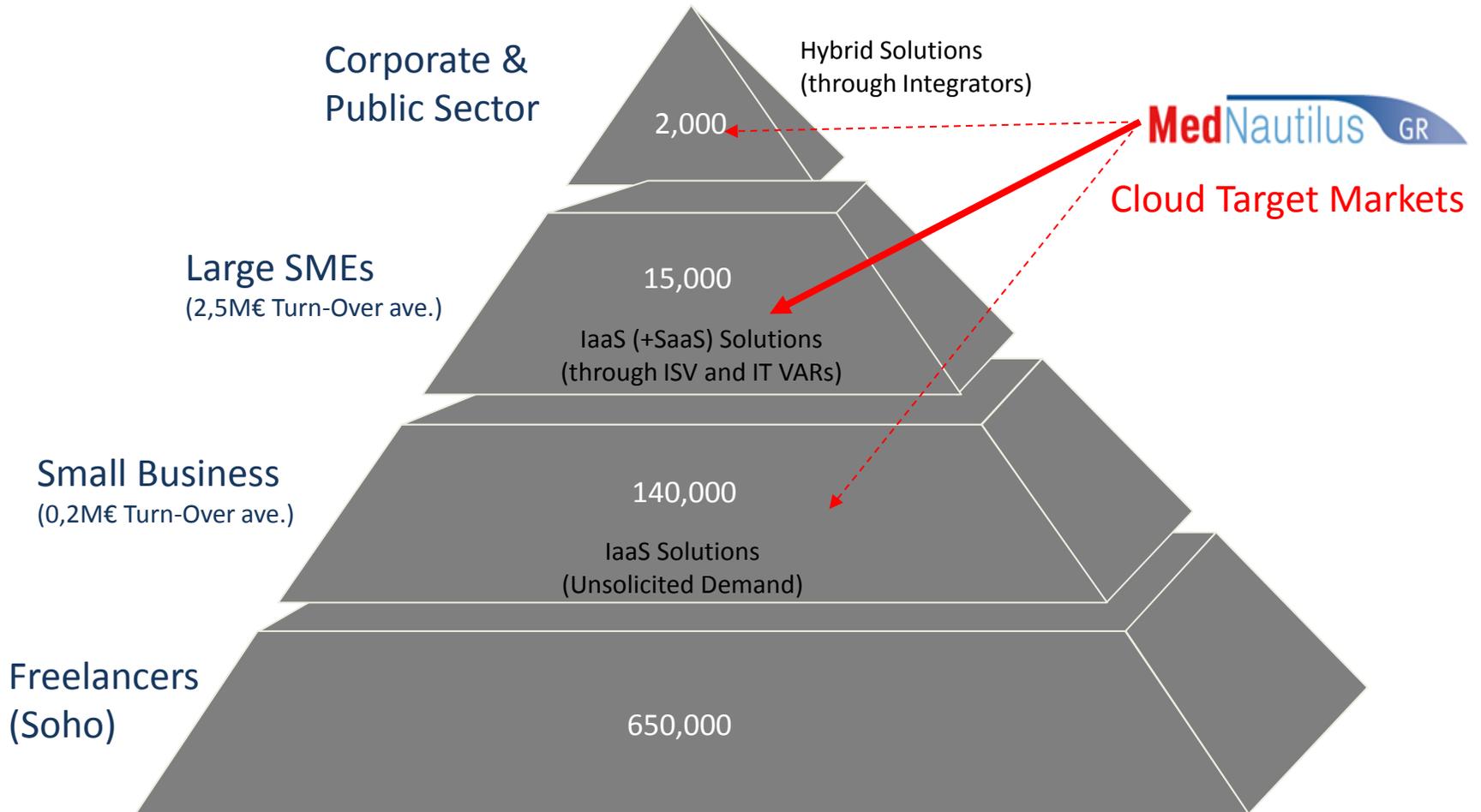
Telcos Beyond Connectivity: Web and Cloud

M&A **Make** **Off-the-shelf**

	Tier1 US-based	European Players	Regional ICT operators
Preferred Entry Strategy	Big players M&A : • Verizon – Terremark • CenturyLink – Savvis • Level3 – Global Crossing • AT&T – USinternet	Make: • T-Systems (DSI-Dynamic Services for Infrastructure) • TI (Nuvola Italiana) • Interoute (CloudStore)	Reselling: • KPN (Parallels) • Colt (Parallels) • Belgacom (stakes in IT Start-ups)
Rational	to become ICT global players (enter IT market more quickly)	to enhance ICT offering (support to existing customers)	to address new target market (mainly SMBs opportunistically)
Leverage	• Economies of scale	• Internal IT department • Existing customer base	• Time to market

Telcos will retain +70% of the Public IaaS investments over the next 5 years

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TI Cloud Solutions: Nuvola Italiana

TI Competitive Advantages in Cloud:
- **Connectivity**
- **QoS**
- **Native Multitenant Environment**
- **Bundling**
- **Multi-Tiered Sales Channel**

Cloud Offerings	Customer Segment			
	Large Enterprises	Medium-Sized Businesses		Small Businesses
SaaS	T-Systems Dynamic Services (pre-2007)	Orange IT Plan 2008 / Telstra T-Suite 2008	Telefónica Aplicateca 2009	Deutsche Telekom T-Mobile 2009
PaaS		SK Telecom Cloud Platform 2009		
IaaS		AT&T Synaptic Hosting 2008 / BT Virtual Data Centre 2009	Verizon Computing-as-a-Service 2009	Orange Flexible Computing 2010

*Source: TIS based on Booz Allen & Hamilton, Cap Gemini*

Nuvola Italiana - Service Portfolio

SaaS — Messaging, Collaboration, Business Support, E-Government

PaaS — Cloud Service Designer, Test a Service, API

IaaS — Ospit@ virtuale Hosting, Virtual Desktop, Space, Production

Co-location → Physical Hosting → Virtual Hosting
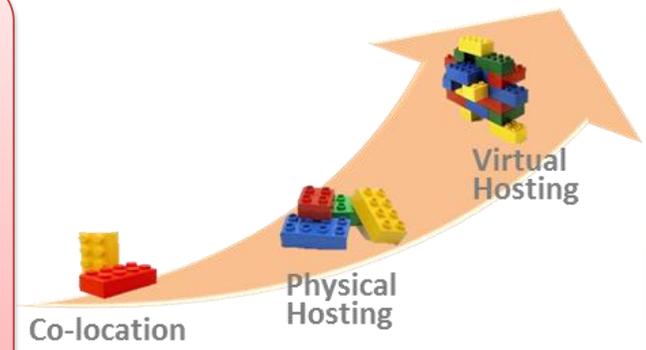
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TI Nuvola Italiana: Cloud for Everyone

Top Corporate

Corporate Large Enterprise

Enterprise PMI

Public Cloud

Hybrid Cloud

Private Cloud

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11 11

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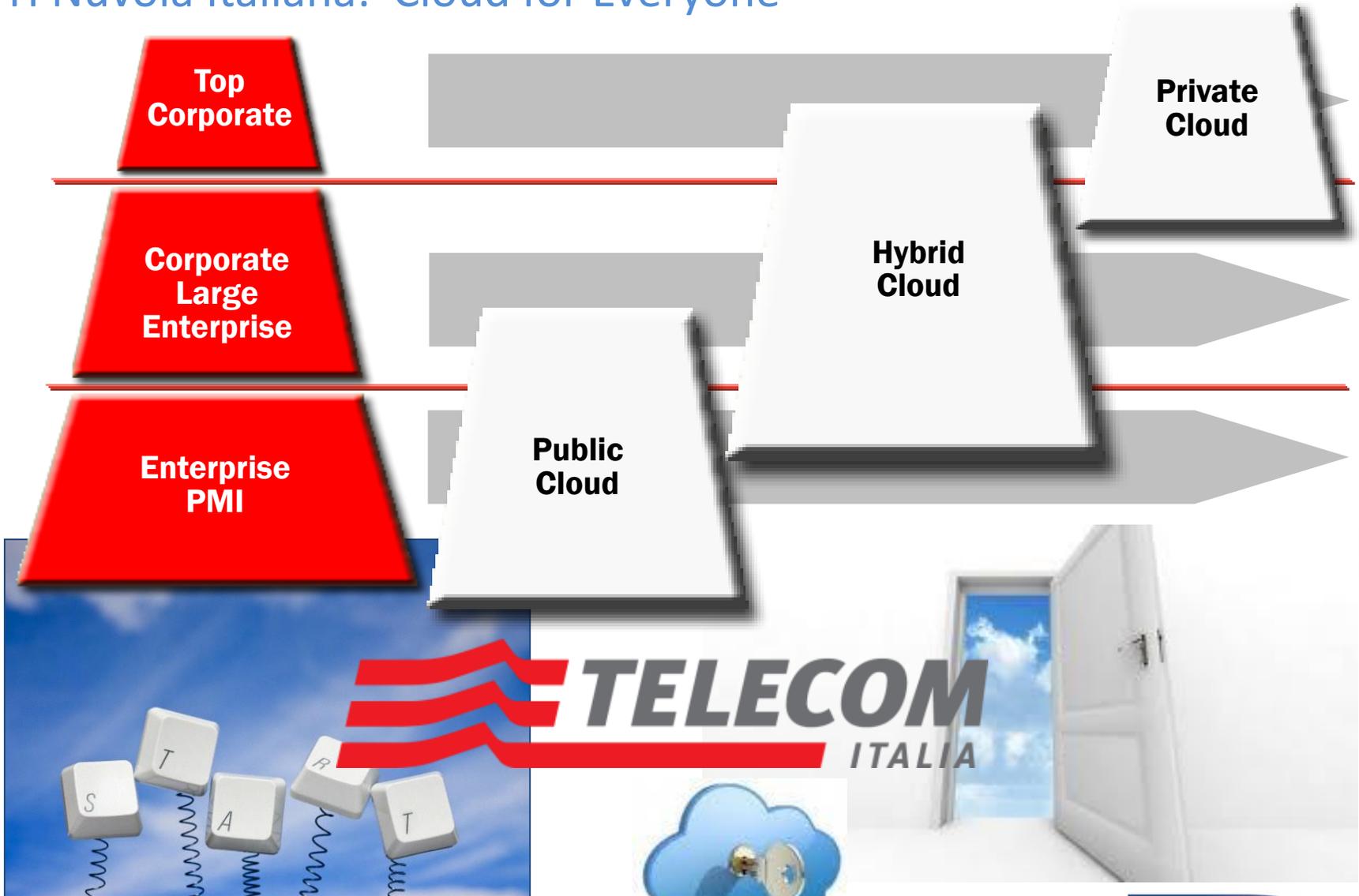
TI Nuvola Italiana: A True Success Story in Europe

- No. Servers
- Storage (Terabytes)
- Back-up (Terabytes)

34,000 Sq.mt over 11 DCs

2010
- 600
- 125
- 40

2011
- 7461
- 1925
- 600

2012
- 21213
- 5794
- 1820

2013
- 24000
- 14000
- 19000

100M€ Revenues (2013)

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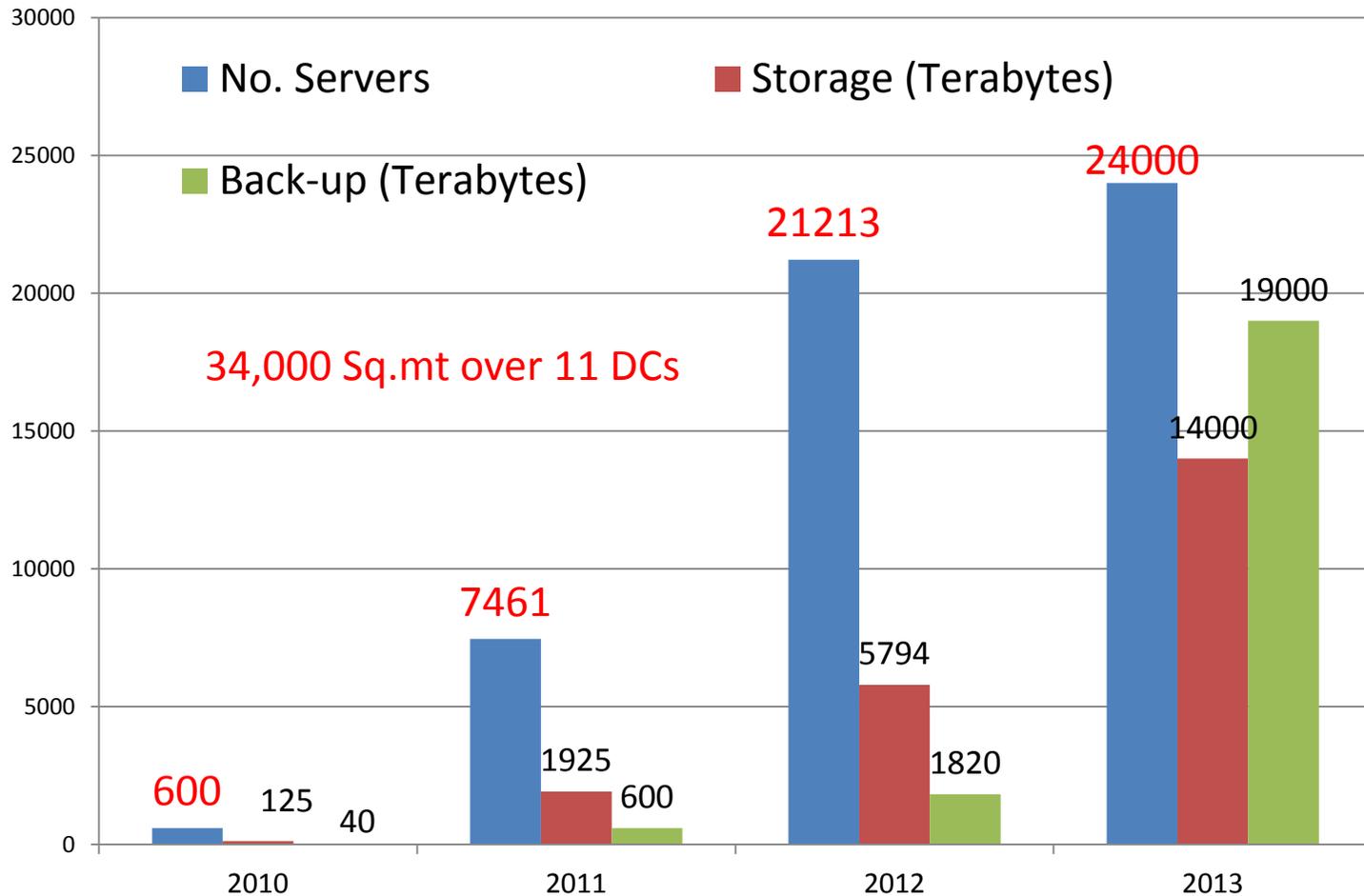
Med Nautilus Cloud Solutions: Exporting Nuvola IT

Synergies with TI

VAS
- Export new products & services

IaaS
- Product Catalogue
- Product Engineering
- Control Room Support
- Know-Transfer
- Test for new solutions
- Vendors selection

VAS - TI Export
- Unified Communication & Collaboration
- Virtual Desktop
- MyCommunication HD
- ERP/CRM Solutions
- ...

Value Added Services
- Video Platform
- Disaster Recovery
- Cloud Security
- Cloud Storage
- Cloud Assurance
- ...

Partnership with IT Consultants
- Integrated solutions in synergy with IT Consultants and / or System Integrators to address Top and Large accounts, ISPs

Channeling with VAR's
- To exploit SaaS vendors to target SME leveraging on reselling IaaS capabilities

Entry Level
- Virtual Hosting: IaaS
- Physical Hosting: project based

IaaS

Top & Large

SME

SoHo

From Traditional DC Colo Services to Cloud Solutions Leveraging on TI Group Internal Know-how and Expertise

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Med Nautilus Cloud Developments
in Mediterreanean Eastern and South Europe

Sinergie con TI
- Infrastructure design
- Product set up
- Service platform
- Control Room

Nuvola Italiana

Partnership with S.I./IT Consultants
- Tailored solutions

Channeling with VARs
- Standard offer (IaaS +PaaS/SaaS)

Launch phase
- IaaS

Top & Large

SME

SoHo

TIS infrastructure as a Service
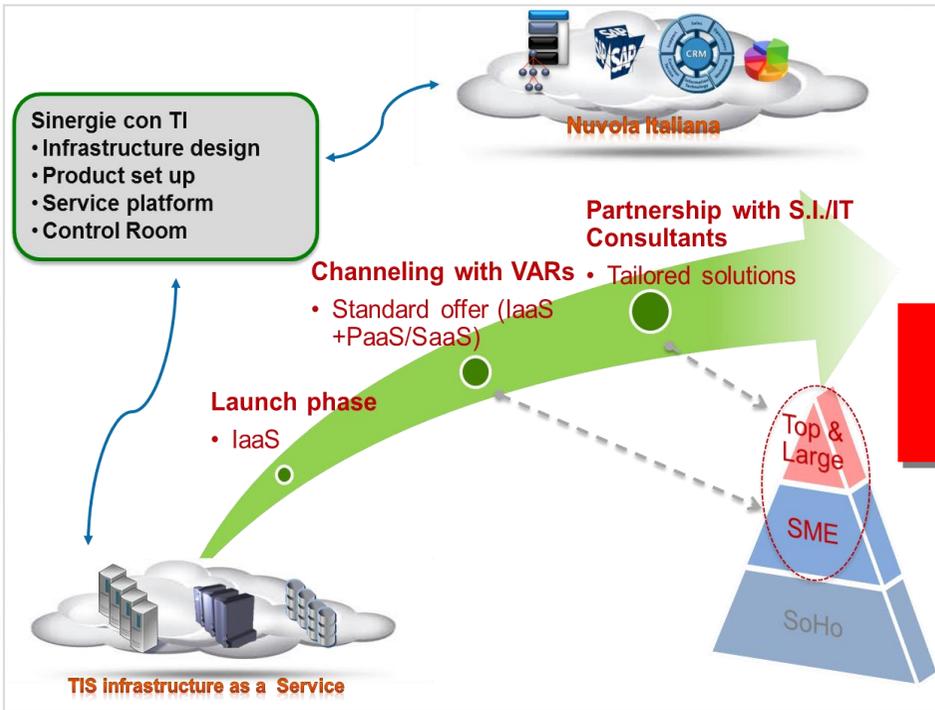
Starting point: focus on the Mediterranean basin

ISTANBUL

ATENE

CATANIA

5 x NGDC
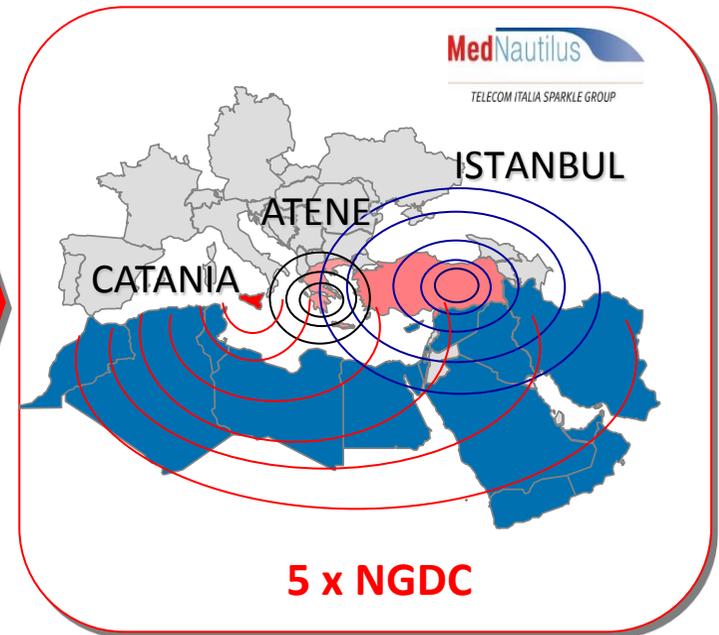
Exporting «Nuvola Italiana»…
to the Mediterranan Basin and to the Balkans

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# Med Nautilus Group: Cloud sitting Inside the TIS Global Network
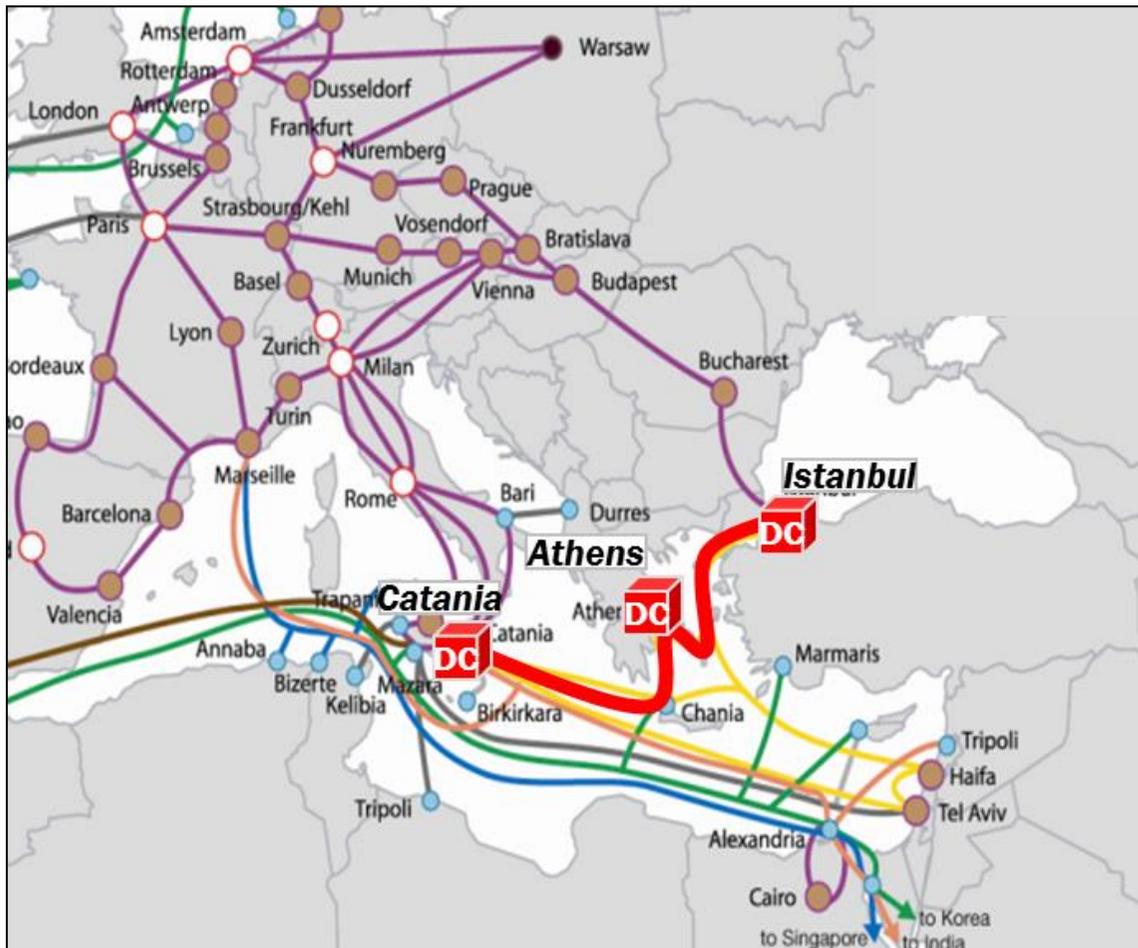
- **Unique Mediterranean, Middle East and Balkans Connectivity for Local Telcos, Mobile Operators, ISP, Content Providers and Enterprises/Corporate Customers**
- **Mediterranean (Balkans) Cloud Networking x Domestic and Int'l Disaster Recovery purposes**

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# Med Nautilus Cloud Business Model Evolution

TIS/MN Group is now looking for local partners in order to enlarge service offering in its existing POPs and to expand its own operations in Greece and in the Balkans region
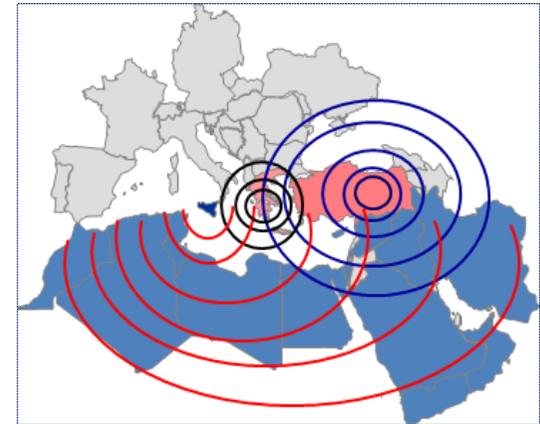
Business Model Evolution
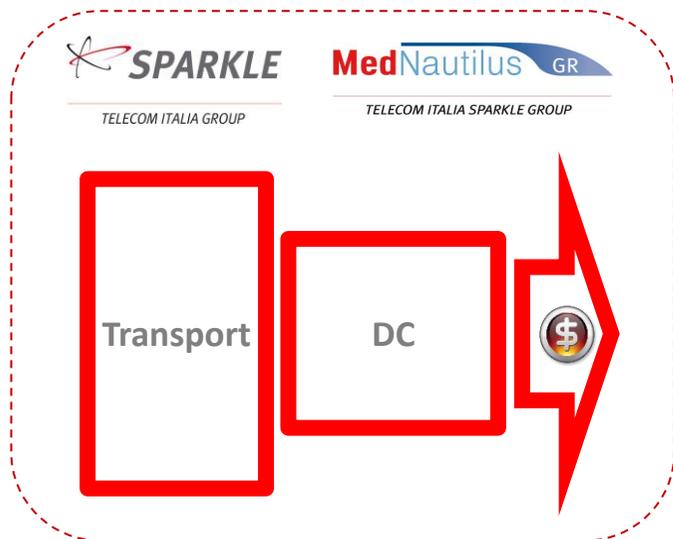
**From a «make option» …**
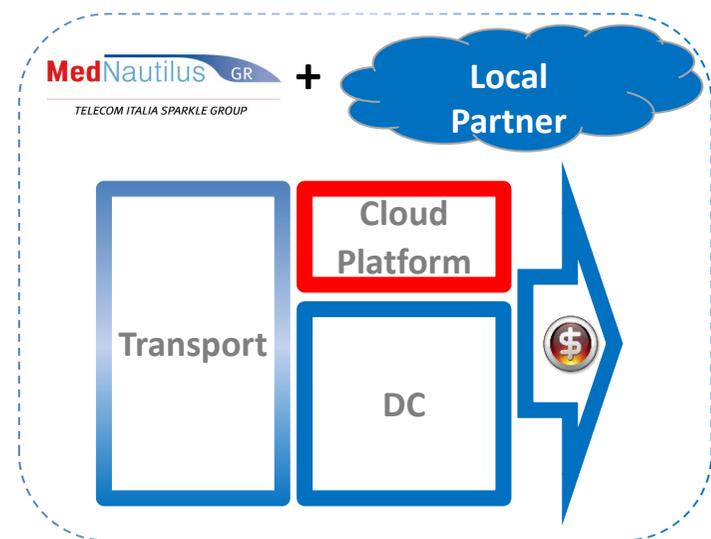
… to a «cooperative» approach

Med Nautilus Greece Partnership Program

Joint Customer Solutions for SMBs

Telcos, Integrators, ISV, IT VARs

SMBs

- IaaS Resources
- Ntwk Resources
- Support
- IT Svcs
- Apps
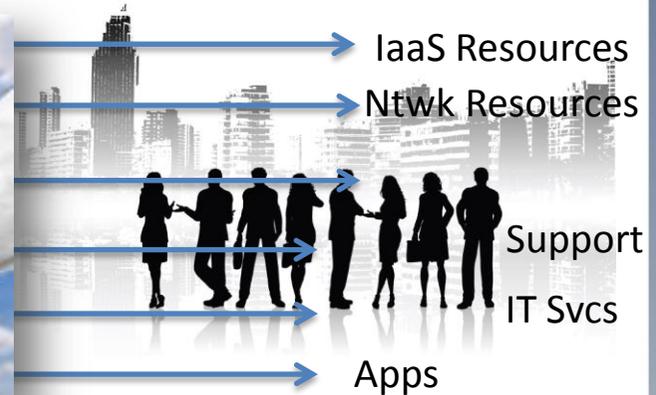
MED Nautilus Greece: Data Center Facilities

Unsurpassed IP Market Leadership

50% Market Share Global IP in Greece

Metamorfosi, Attika
Next Generation DC

Koropi, Attika

Chania, Crete Island

8000 Sq.mt.

Unsurpassed DC Market Leadership:
40% Market Share
Colocation Business in Greece

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CLOUD Infrastructure

BEST IN CLASS TECHNOLOGIES & VENDORS

HYPERVISOR

IT & NETWORKING

STORAGE

BACK UP
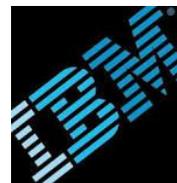
SECURITY

MNG Virtual Private Hosted and Public Cloud Offering

Hosted Private Cloud
Dedicated Proprietary Fiber

Public Cloud
Internet Access

SMBs
Enterprises

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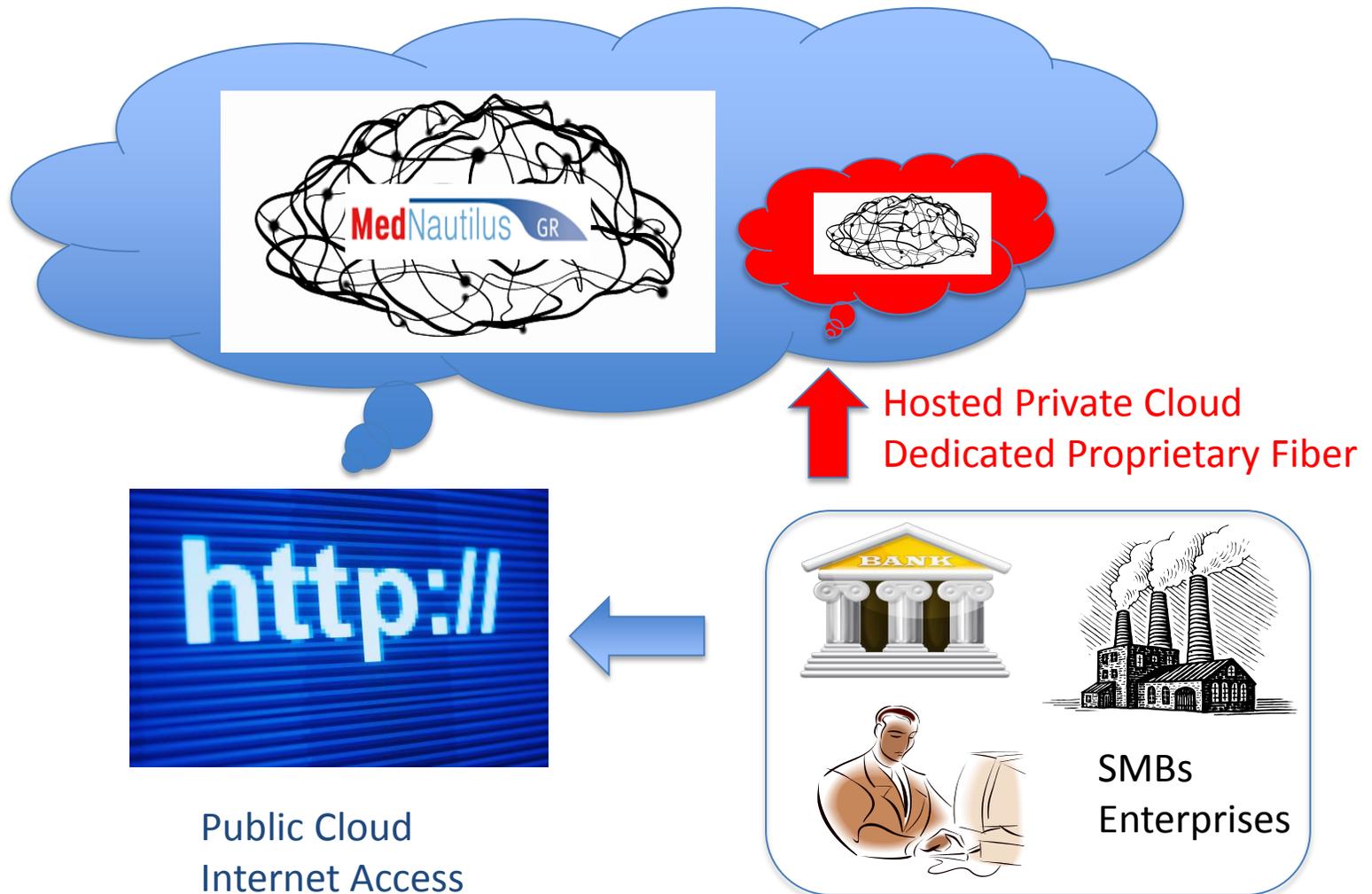
Med Nautilus Cloud Distinctive Values

CLOUD SOLUTIONS

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- **Local Data Storage in Greece** (Hosted Private Cloud in Athens as well)
- **State of Art Security** (Local Data)
- **Cloud Inside Domestic and International Network**
  - ❑ **MNG → 1^ Alternative Global IP Provider in Greece**
  - ❑ **Greece on-net over TIS Global Backbone in the Med Basin through dual MN Submarine Cable and alternative Balkans route**
- **Network of Data Centers in the Med Basin for Global Disaster Recovery**
- **«Nuvola Italiana» Global Program**
- **Tier-1 Cloud Infrastructure at the benefit of SMBs**

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Last Food for Thoughts...

Windows XP end of support means big decisions for IT

- **3 year IRR to move from XP to W8**
- **Approx. 700€ to stay with XP machines (5 x W7 Maintenance)**
- **60% of XP users expected to stay**

Will the end of XP drive a New Cloud Momentum ?

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Let's Cloud with us !

The Greek Cloud with the Network Inside