SUBMARINE LANDING FRAMEWORK
From new opportunities
to new complexities

PTC’22
REUNITE. RETHINK. RENEW.
16-19 JANUARY 2022 | HONOLULU, HAWAII

Diego Teot
Head of Retelit International BU
WE DESIGN
TELCO AND ICT SOLUTIONS FOR
NATIONAL AND INTERNATIONAL
OPERATORS, OTT, GOVERNMENT, ENTERPRISES

CONNECTIONS ACROSS
THE WORLD
EUROPE, ASIA, MIDDLE EAST, USA

CONNECTIONS TO
THE MAIN INTERNET
EXCHANGES AND
TELECOMS HUB IN ITALY
AND EUROPE

SD-WAN
INTELLIGENT
CONNECTIVITY
PLATFORM

BARI
CABLE LANDING
STATION

NETWORK OF CONNECTED
DATA CENTERS IN MILAN,
ITALY AND EUROPE

MULTICLOUD PLATFORM
AND DIGITAL MARKETPLACE
FOR IOT AND SMART CITY
PROJECTS

MEMBER OF
AAE1

16.000 KM
OF FIBER OPTIC

12.842
SITIES ON-NET
IN ITALY

19
OWNED DATA CENTER
(18 ITALY + 1 AUSTRIA)

451
TELECOM
CABINETS

10
COUNTRIES
CONNECTED
IN EUROPE

200
CITIES CONNECTED
IN EUROPE

70
DATA CENTER
CONNECTED IN EUROPE

1.430
TELECOMUNICATIONS
TOWERS

11
METROPOLITAN AREA
NETWORK IN ITALY

11.000 KM
OF FIBER OPTIC

70
DATA CENTER
CONNECTED IN EUROPE

1.430
TELECOMUNICATIONS
TOWERS

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METROPOLITAN AREA
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SCENARIO

TRADITIONAL CONSORTIUM (eg. AAE-1)
Up to 8 DF pairs single «Subsea Line Terminating Equipment» (SLTE)

REPEATER «QUAD PUMP REDUNDANCY» SUBMARINE

CABLE CLUB (eg. Marea)
High Fiber Count (HFC) up to 24 fiber; Each partner has its own SLTE

WHAT’S NEXT?

FIBER MULTICORE (4x capacity on each DF pair)

UP TO 2017

SINCE 2018

24Tbps per DF pairs

UP TO 2017

REPEATER «QUAD PUMP REDUNDANCY» SUBMARINE

SINCE 2018

CABLE CLUB (eg. Marea)
High Fiber Count (HFC) up to 24 fiber; Each partner has its own SLTE

WHAT’S NEXT?

FIBER MULTICORE (4x capacity on each DF pair)
ROLE OF SPECIALIZED OPERATORS, WHAT HAS CHANGED?

• Direct government support for permits and approvals
• Control of local/national infrastructure by system owner
• Predictable traffic patterns (growth/routing)
• Existing CLS/Landing well defined

• Decoupling of cable system and backhaul provider
• Deregulation
• Permits and authorizations to be obtained without direct government involvement
• Open landing station

• Hyperscaler Investment
• New Data Centers and Edge Computing
• Government intervention in submarine cable development

• Participation of Regional Operators in consortia for the development of new submarine cables
• New CLSs run by small operators
• New land transport offers
• Involving Regional Operators who can bring their expertise to build and maintain the Submarine Cable System
• Support in the creation of terrestrial infrastructure to DC & Edge
• Design and Management of new CLS

22 new cables will go RFPA
Only 4 Will have country incumbent in the consortium or club
516 DF pairs
2.189 Tbps
100,000 km

*Source: Telegeography*
ITALY A KEY COUNTRY FOR SUBMARINE CABLES

July 1854, Corsica - Sardinia
First Italian Submarine Cable

Today

26
Cables land in Italy
18 Sicily
5 Puglia
4 Others

+4
Planned in 2022/2023
1 Crotone (Jonian)
2 Genoa (Blue Med – 2Africa)
1 Savona (IEX)

15
Cable landing Stations
6 Sicily
4 Puglia
5 Others

+4
Planned in 2022/2023
1 Crotone
2 Genoa
1 Savona
Despite Telecommunication is recognized as Public Interests and supported by Multiple Laws Decrees local interest (NIMBY) and other Infrastructure priority can make the building of Submarine Landing complex (eg. to install a cable along highway without digging 6500 pages of permits and 1 Year of preparation were required)

Data and Data transport are now recognized as critical and giant OTT that were welcomed in the past are now under closed scrutiny of government

NIS directive recognize Cable system as part of the Cyber infrastructure and again this attracts scrutiny.

Government interest for the critical Infrastructure and the Multinational trait of any Cable system requires Golden Power Green light from Government when the rights of the infrastructure are alienated. To foreign entities

Compared to past consortium were the incumbent owned the infrastructure as well current Infrastructure, especially the Backhaul, can relies on multiple owners and rights shall be granted for the Cable lifetime
CREATING A STRATEGIC VIEW FOR THE SYSTEM (EG. GENOVA) IN COOPERATION WITH THE MOST PROMINENT LOCAL AUTHORITY

LEVERAGE AS MAXIMUM AS POSSIBLE THE LAW OPPORTUNITIES WHERE SOFT PERSUASION DOES NOT WORK (GOOD REGULATORY LAWYER > ESSENTIAL)

HAVE A PLAN B WHEREVER POSSIBLE (EG. MULTIPLE LOCATION FOR THE CLS/BMH)

DOCUMENT CLEARLY THE DEMARcation POINT OF LANDING PROVIDER RESPONSIBILITY (VERY Seldom THEY ARE RELATED TO THE CONTENT)

DESIGN IN THE AGREEMENT SPECIFIC SECTIONS ADDRESSING HOW THE PARTIES WILL MANAGE THE INFRASTRUCTURE AND THE DATA

PROVIDES INNER SECURITY FEATURES IN CLS/BMH DESIGN (EG. SPECIFIC KEYS FOR MANHOLE, ANTI VANDALISM SOLUTION FOR THE SHELTERS IN CASE OF SIMPLE PFE)
ADDRESSING COMPLEXITIES
RETELIT EXPERIENCE

GOLDEN POWER NOTIFICATION REQUIREMENTS

• Design the Landing Agreement with the assumption GP is required
• Structure clear what if scenario
• Avoid conditions where the LP is acting as simple Proxy (LP shall manage the Infrastructure on behalf of the Club).
• Plan proper time for negotiation
• Don’t underestimate Legal Costs

MULTIPLE RIGHTS OWNERS FOR INFRASTRUCTURE

• Assess carefully rights duration/expiration for any ducts used
• Contact the owners and plan in advance extension and/or cost of extension
• Clearly discuss and address potential issues with the Club
• Have a Plan B for portion with unclear rights (e.g. new digging/alternative provider)
NEW COMPLEXITIES TAKEAWAYS

- Technological freedom is not coming for free
- Do not underestimate legal work
- Choosing the right partner for your landing is key
- Olistic approach (FH/CLS/BH) even if not required is still a good advantage
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