



Corporate Presentation

September 2021

 **SPARKLE**

TIM Group Overview

It is the leading Telecommunications and ICT group and Italy's digital partner in the areas of **fixed, mobile and convergent telecommunications, internet, digital content, cloud platforms and services, ICT solutions, research and development**

- **Leading Player in Brazil**
- **Among TOP global operators through Sparkle**
- **Core markets: Italy, Brazil**



Sparkle Overview

Leading Global Operator, thanks to its **full range of ICT solutions** provides global connectivity, services and capabilities to **Enterprises, OTTs and Content Players, ISPs, Fixed and Mobile Operators**

TIM Group's fully owned Global Operator, Sparkle was established in 2003 with the objective of **developing and managing the international clients and infrastructures of the Group**

First provider of international services in Italy and among the top ten globally

COMPANY DATA

32 Countries of presence *

Headcount **738**

170 PoPs Network coverage

PoPs via partners **>1,000**

KEY FIGURES

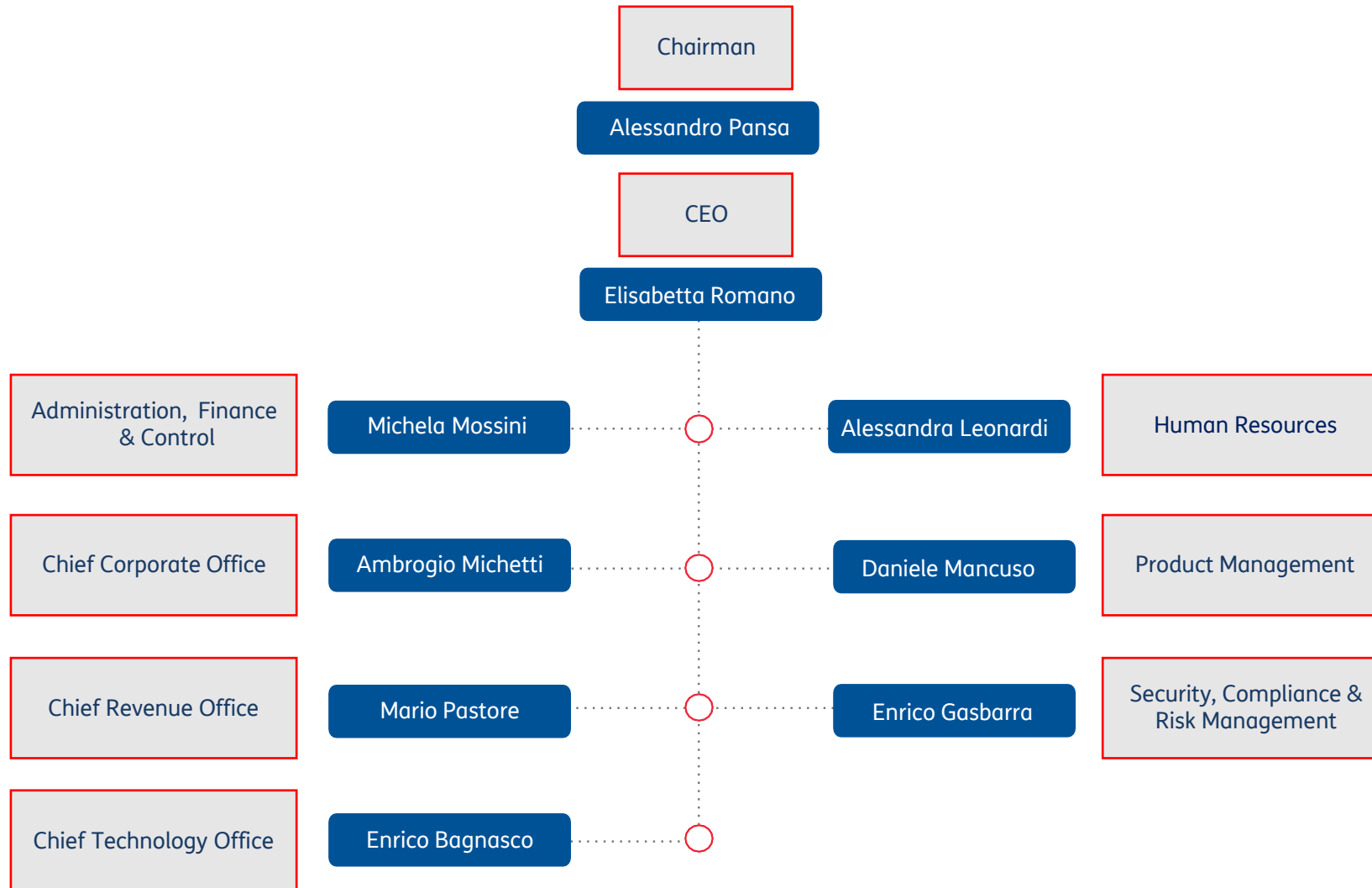
1,500 Clients

Voice Traffic **9 Bn minutes**

Data Traffic **57 Tbps**

966 Mln € Revenues

Organization



Positioning



Leader in Italy for the offer to **Enterprises**, challenger in Europe and Africa and emerging player on the global market



Cloud & Data Center solutions with strategic assets in the Mediterranean



Sparkle **Global IP Backbone** “Seabone” ranks **5°** worldwide and is leader in the Mediterranean, Middle East, Africa and in South America



Top Global Player for worldwide **Voice** traffic collected on an international basis



Among the few global players currently active in the wholesale **Mobile** market



IP&Data # 5 globally

- # 1 in Middle East
- # 1 in South America
- # 2 in Africa
- # 5 in Europe

IP WW Ranking

IP Global Ranking (Backbone)	July 2021
Lumen	1^
Telia Carrier	2^
GTT Communications	3^
Cogent Communications	4^
Sparkle	5^
NTT	6^
Hurricane Electric	7^
Zayo	8^
Tata Communications	9^
PCCW Global	10^

Source: Caida

Key Assets

#01

Global Services Portfolio for **Enterprises, Media & Content Players, Application Service Providers, OTTs, ISPs, Fixed and Mobile Operators**

#02

Worldwide presence in 32 countries based on fully owned companies and offices

#03

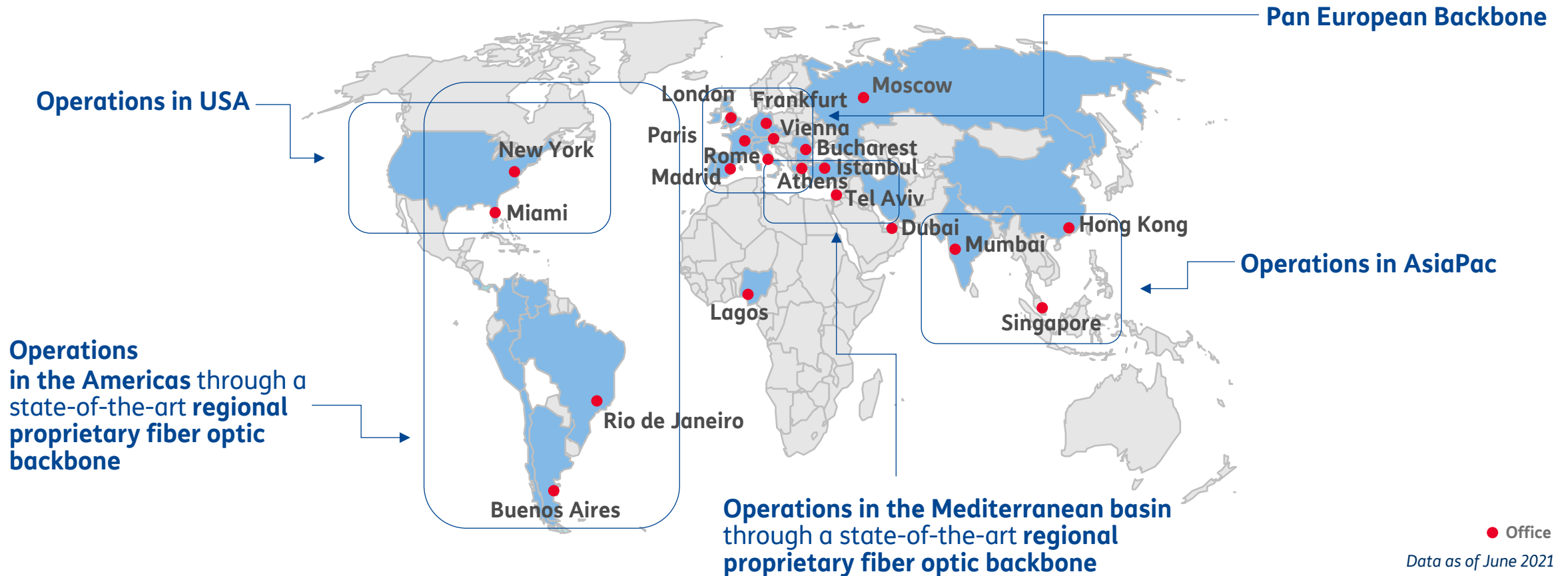
State-of-the-art Global Network with proprietary backbones in **Europe, the Mediterranean Basin** and the **Americas** and ownership in submarine cables connecting Europe with **South-East Asia** and the Americas

#04

Customer care at the center of the system, active 24x7x365, with **multilingual Call Center** supported by **three global NOCs** with 24/7 coverage

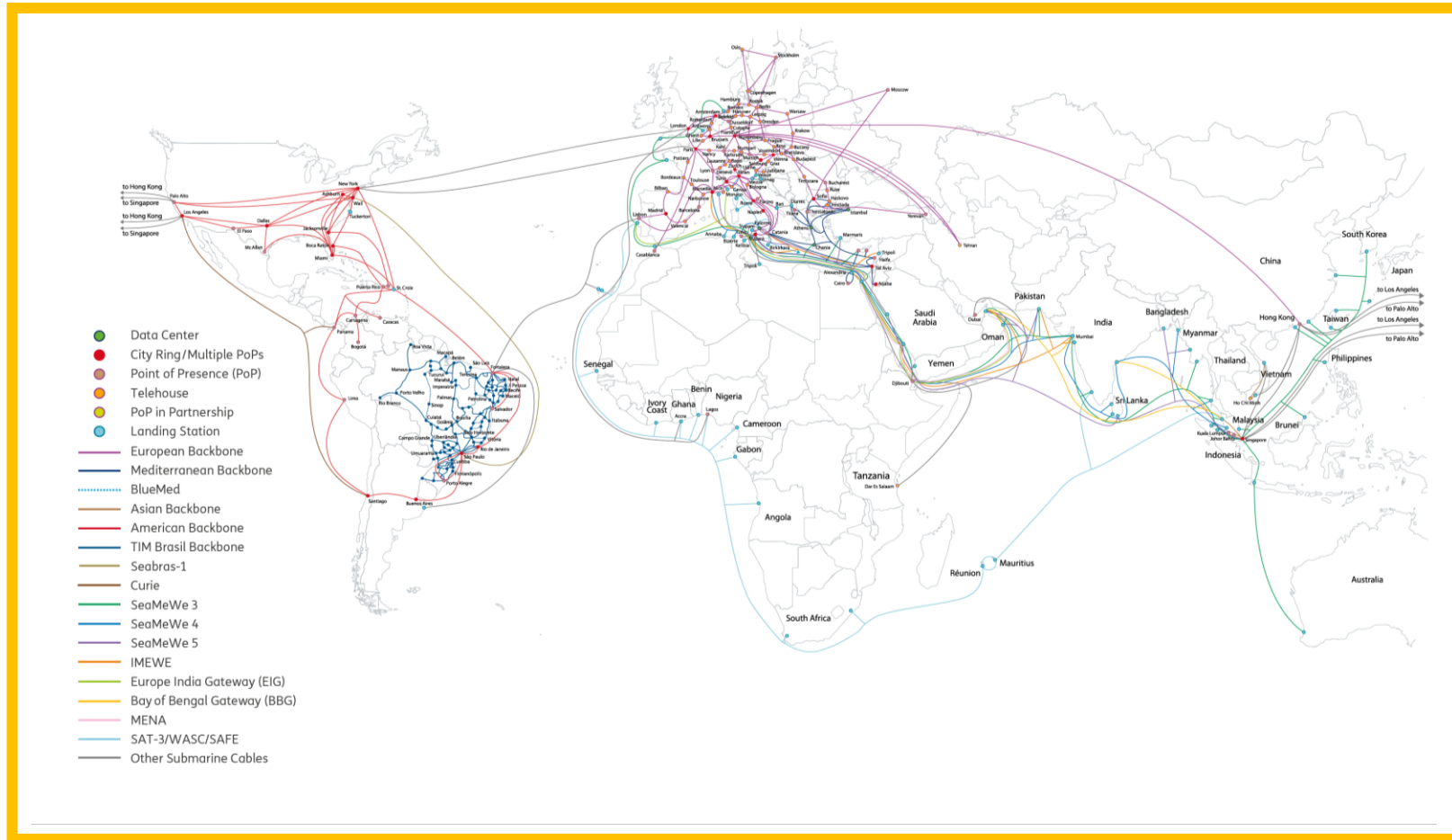
Operations

Sparkle has a **global presence** based on its fully owned subsidiaries and offices in **32 countries**, with a headcount of over 700 in Italy and abroad



Global Backbone

Sparkle's backbone represents the highway that allows, also through agreements with over 200 regional and local operators, to reach any destination in the world



Sparkle owns and manages a **global and technologically advanced proprietary network of over 600,000 km of fiber** which include **three major regional systems in Europe, the Mediterranean and the Americas** as well as an extensive ownership in major international submarine cables

- **88 cities in 45 countries**
- **170 proprietary PoPs (Point of Presence)**
- **>1,000 PoPs through partners**
- **3 Network Operation Centers “around the clock”**

Service Proposition



ENTERPRISE

Complete portfolio of services, including global connectivity and ICT, aimed at serving the needs of enterprises with the highest performance level



IP&DATA

A complete range of solutions designed to access any content on the Internet with secure global international IP connectivity, high-performance international bandwidth and IP MPLS services



MOBILE

Multichannel Messaging Service Suite for Mobile Communication and Digital Promotion.
Full IoT solutions for remote control of devices



CLOUD & DATA CENTER

Suite of highly flexible and scalable top class integrated IaaS, PaaS and SaaS that meets the ever growing need of cost efficient and top security IT solutions, available in several Data Centers worldwide, with proprietary key assets in Italy, Greece and Turkey



VOICE

Voice Solutions offer worldwide voice capabilities to Carriers, Service Providers and Mobile Operators combining network reliability, competitive pricing and excellent routing solutions

Sparkle is the ideal partner to support business growth driven by digitalization through:

The most innovative Cloud and MultiCloud solutions to accompany companies in the digitization process

Focus on network and asset security with customized training and support programs to initiate companies into awareness of security risks and responses

Advanced network solutions for flexible connectivity for companies and to the main Cloud providers: SD-WAN, MPLS, Internet Access

Solutions for Enterprises

Connectivity

Evolved - Flexible - Managed

- **Cloud Connect** – dedicated connectivity to the major Cloud Providers
- **Bandwidth on demand (BoD)** for level 2 services
- **SD-WAN** as an evolution of level 3 services for **greater flexibility** towards **Cloud solutions** and **multisite connectivity**
- **Direct Internet Access (DIA)** for high performance Internet access

Security

Network - Asset - SOCaaS

- **End-to-end network security features**
- **Cybersecurity training courses**, specialized for different types of applications
- **Security control and management services** through the highly specialized Sparkle's SOC

Cloud

IaaS - SaaS - BaaS - DRaaS

- **MultiCloud platform** for access to different Cloud Providers and **optimization of flow management**
- **Dedicated and dynamic connectivity** to the major Cloud Providers
- **Back-up and Data Recovery services with flexible solutions** at Sparkle's Data Centers

Solutions for Enterprises

Multimessaging

- **Multichannel platform** (SMS, OTT channels, email) for two-way communication between company and customers (**A2P and P2A**)
- **Marketing campaign** and **customer profiling** modules
- **Chatbot solutions for automated customer management**
- **Lead generation** and **customer acquisition** campaign management
- **Proprietary SMS transport network** with direct termination agreements with international mobile operators

IoT

- Supply of **SIM and numbers** enabled for world-wide **M2M traffic**
- **Low latency mobile cloud network infrastructure**
- Platform for the **management of eSIM / SIM**
- Advanced **billing modules**
- **Analytics**

Global Network Infrastructure, Colocation and MultiCloud

Colo and Hosting capabilities, completely integrated with Sparkle's network services worldwide

Regional Data Centers in Italy, Greece and Turkey that leverage on Sparkle's unique protected terrestrial and submarine network to Europe

Cloud

MultiCloud

Reselling of Public Clouds and professional services

Online Marketplace

Self-Management white label marketplace and advanced SaaS solutions

Security

The best and most reliable Authentication service

Cloud Storage & DRaaS

Secure, reliable and scalable with high business agility and continuity

Cloud Connect

Fast and secure connectivity with all players

Data Center

Colocation

Six DC Hubs worldwide

Power

Best technology in the market

Cabling

Everything you need to be connected

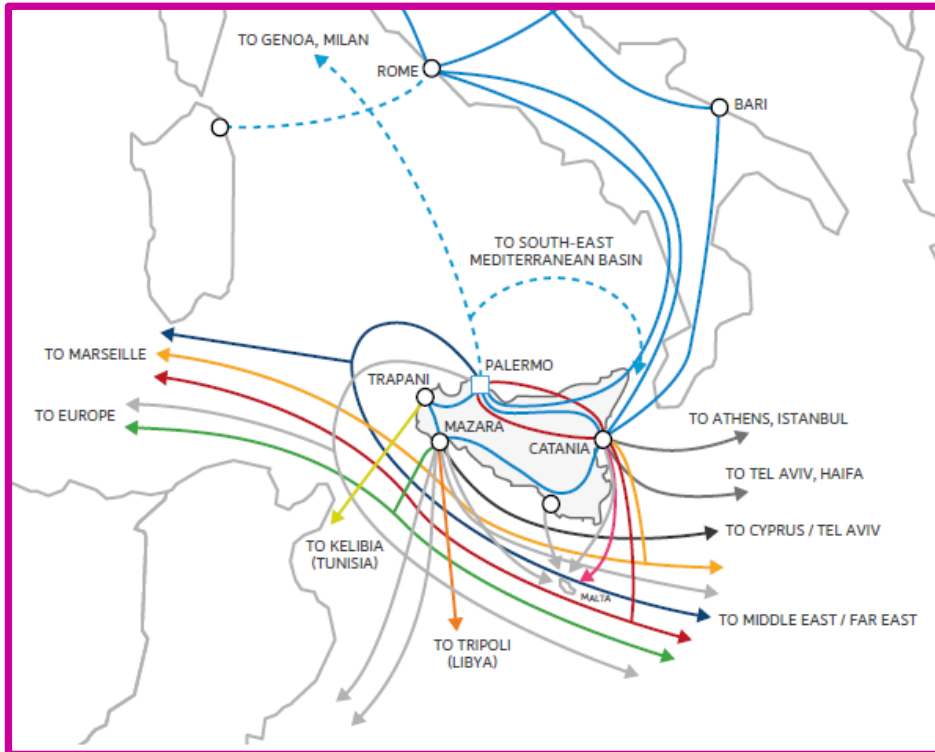
Colo Professional Services

360° Data Center support

Sicily Hub as Top Mediterranean Gateway to the Global Internet

The leading IP gravity center in the Mediterranean where Content meets ISPs

● SPARKLE | Sicily Hub



- **Neutral colocation facility**
- **Connected to all landing stations in Sicily, including SeaMeWe-5**
- **Around 18 subsea cables**
- **Private or Public Peering through DE-CIX, the world largest neutral IX**
- **Content**, the most important players have chosen Sicily Hub to interconnect with ISPs
- **Quality & Competitiveness**, improved latency and lower costs than any other European location
- **Flexibility**, to efficiently manage submarine and terrestrial capacity with enhanced resilience
- **Marketplace** of multi-breed interconnected players to trade any telecommunication and cloud solutions

Excellence in the Industry: Certifications



Certificate of Origin - **Certification for the use of renewable energy in the data centers of Metamorfofis (Athens), Koropi and Chania**



Quality, Health & Safety and Environment - **ISO 9001, ISO 14001, ISO 45001, ISO 27001**



MEF 3.0 Carrier Ethernet

Excellence in the Industry: International Awards



**BUSINESS
IMPACT**

Business Impact Award received from MEF in march 2021 for a Proof of Concept on Secure Access Service Edge (SASE). The “Remote Employee Access to Cloud” PoC demonstrated how Sparkle enables multinational enterprises to deploy a post-pandemic hybrid workplace model, establishing secure and effective remote employee access to company resources located in multiple clouds or on premise



Operator Efficiency prize at the World Communication Awards 2020 as a recognition for the use of Artificial Intelligence to improve operational efficiency and customer experience



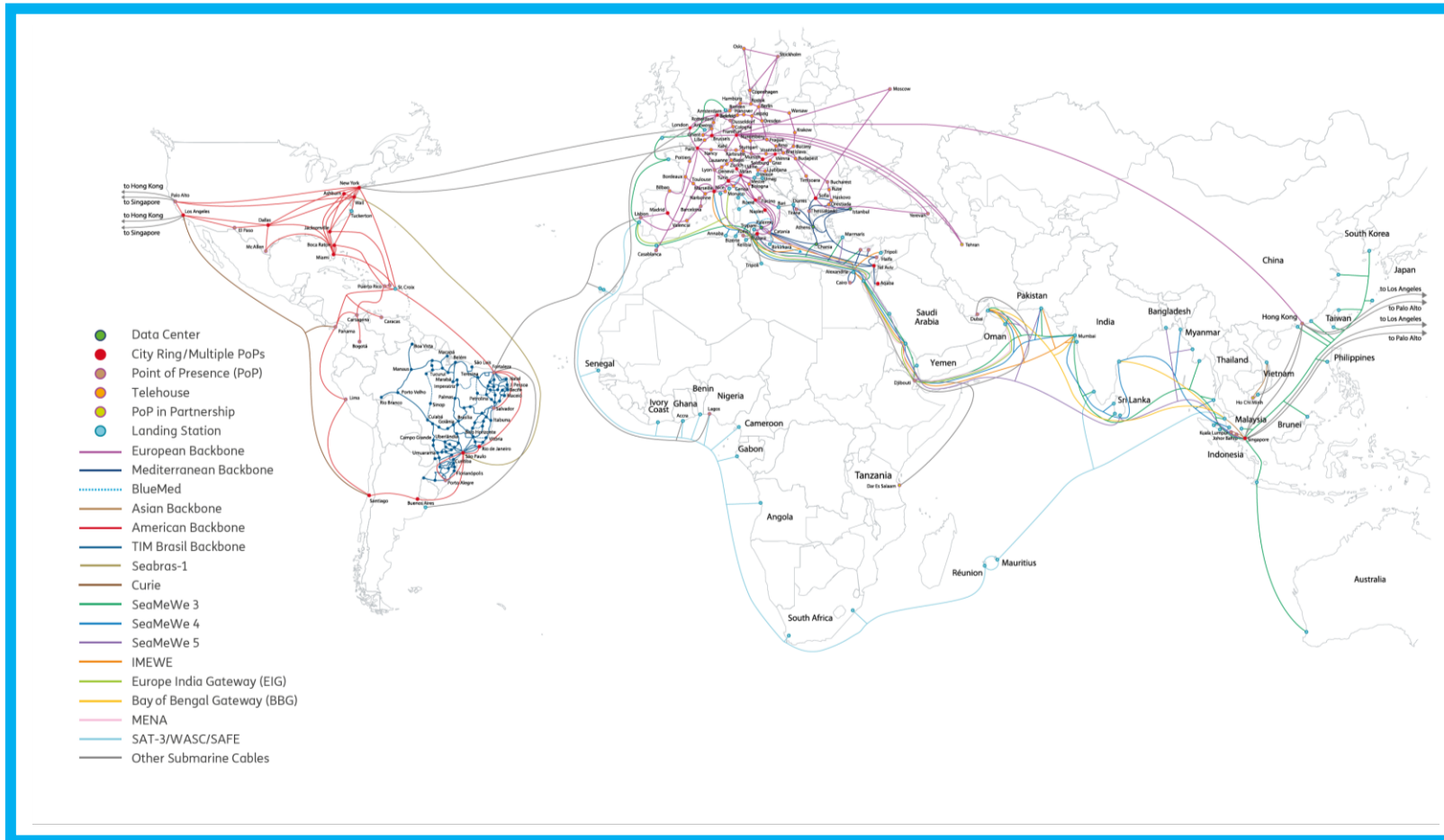
Global Carrier Awards 2020, the most prestigious competition for the international wholesale sector, in the categories **Best Middle East Africa Project**, **Best Americas Project**, **Best Data Center** and **Best 5G Deployment**



Focus on Sparkle's Backbone

Global Backbone

Sparkle owns and manages a **global and technologically advanced proprietary network of over 600,000 km of fiber** which include **three major regional systems in Europe, the Mediterranean and the Americas** as well as an extensive ownership in major international submarine cables

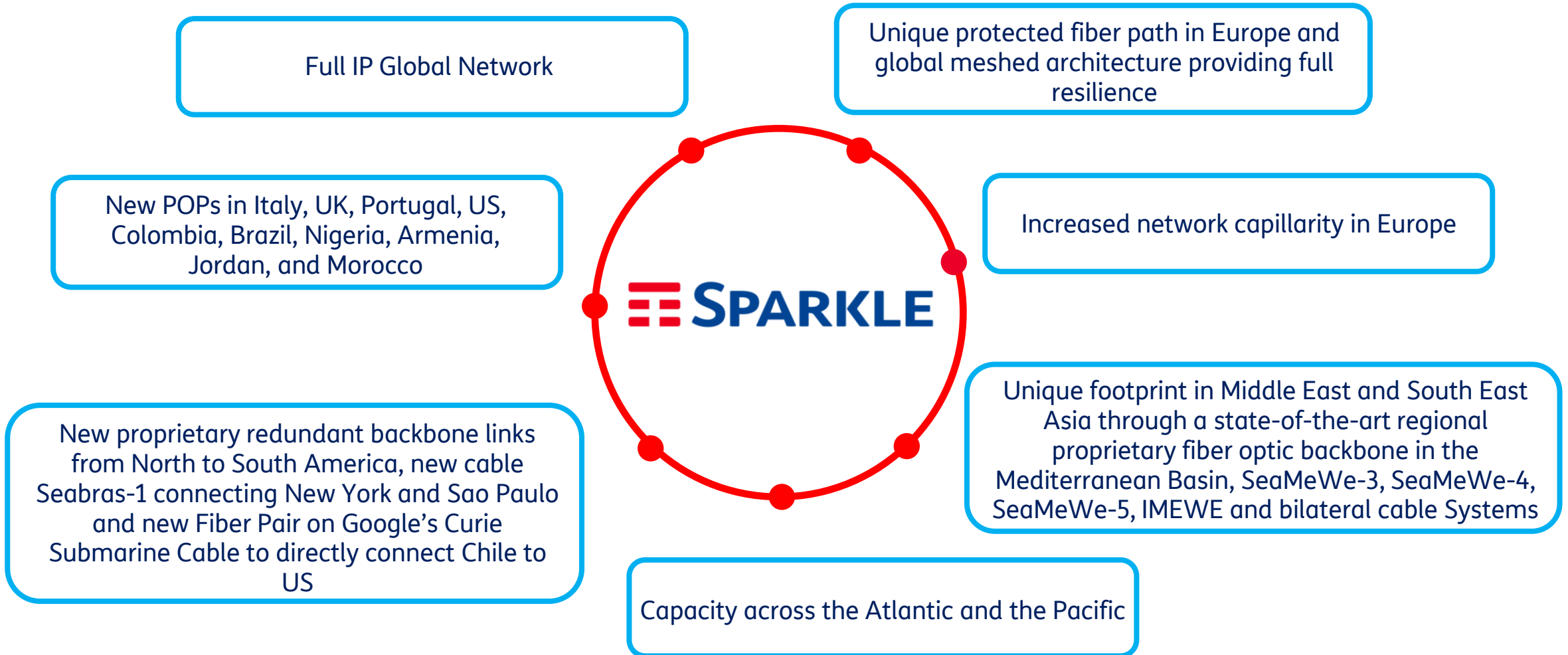


GLOBAL CAPABILITIES

- 88 cities in 45 countries
- 170 PoPs
- >1,000 PoPs through partners
- 41,000 km/fibre PEB
- 58,500 km Americas Backbone
- 11,000 km Mediterranean Backbone
- 18,000 km/fibre Italian network
- more than 433,000 km submarine cables*
- ca. 53,000 km other fibre network*

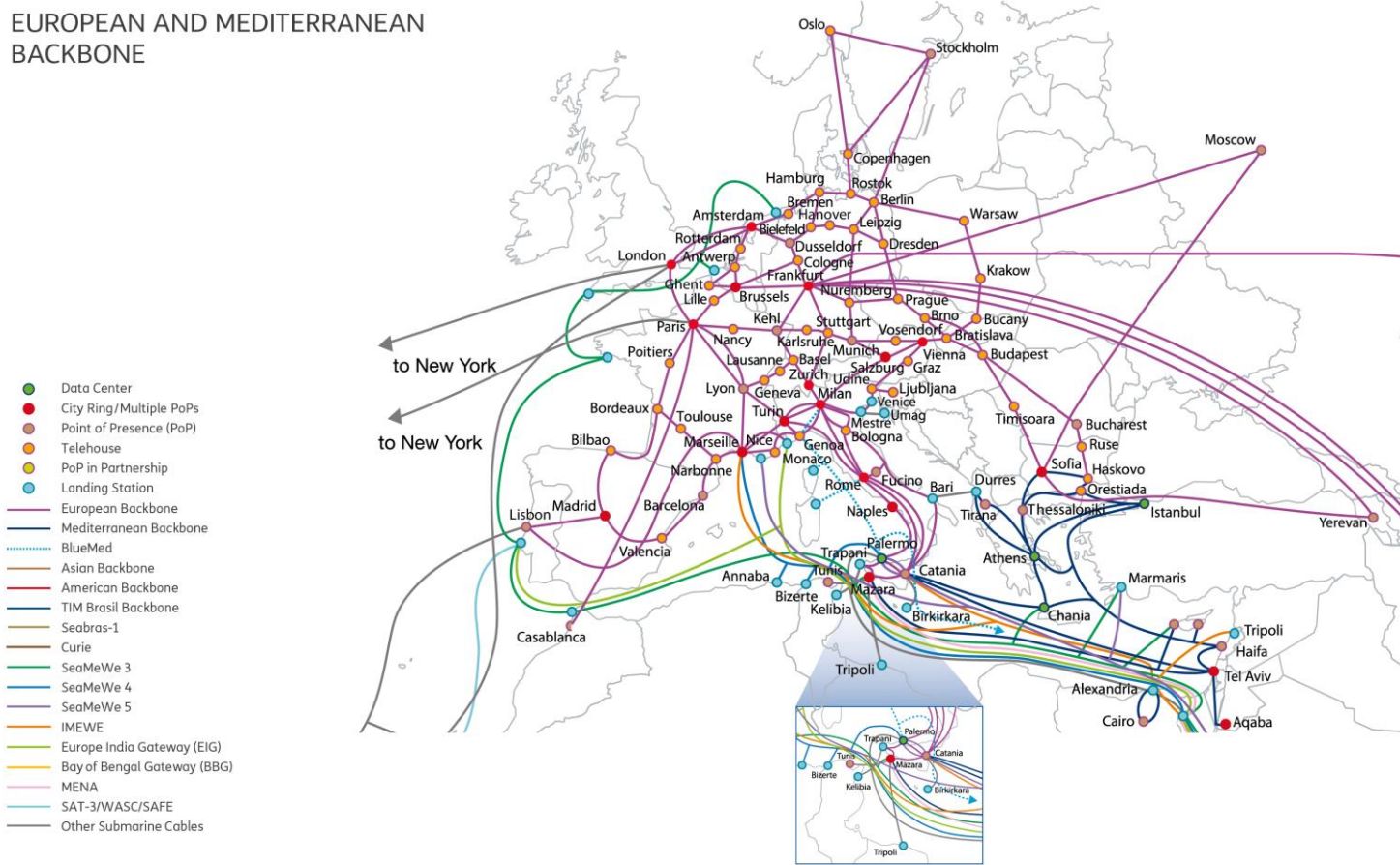
December 2020
(* Includes Lease)

Global Backbone



Key Regional Backbones: Europe & Mediterranean

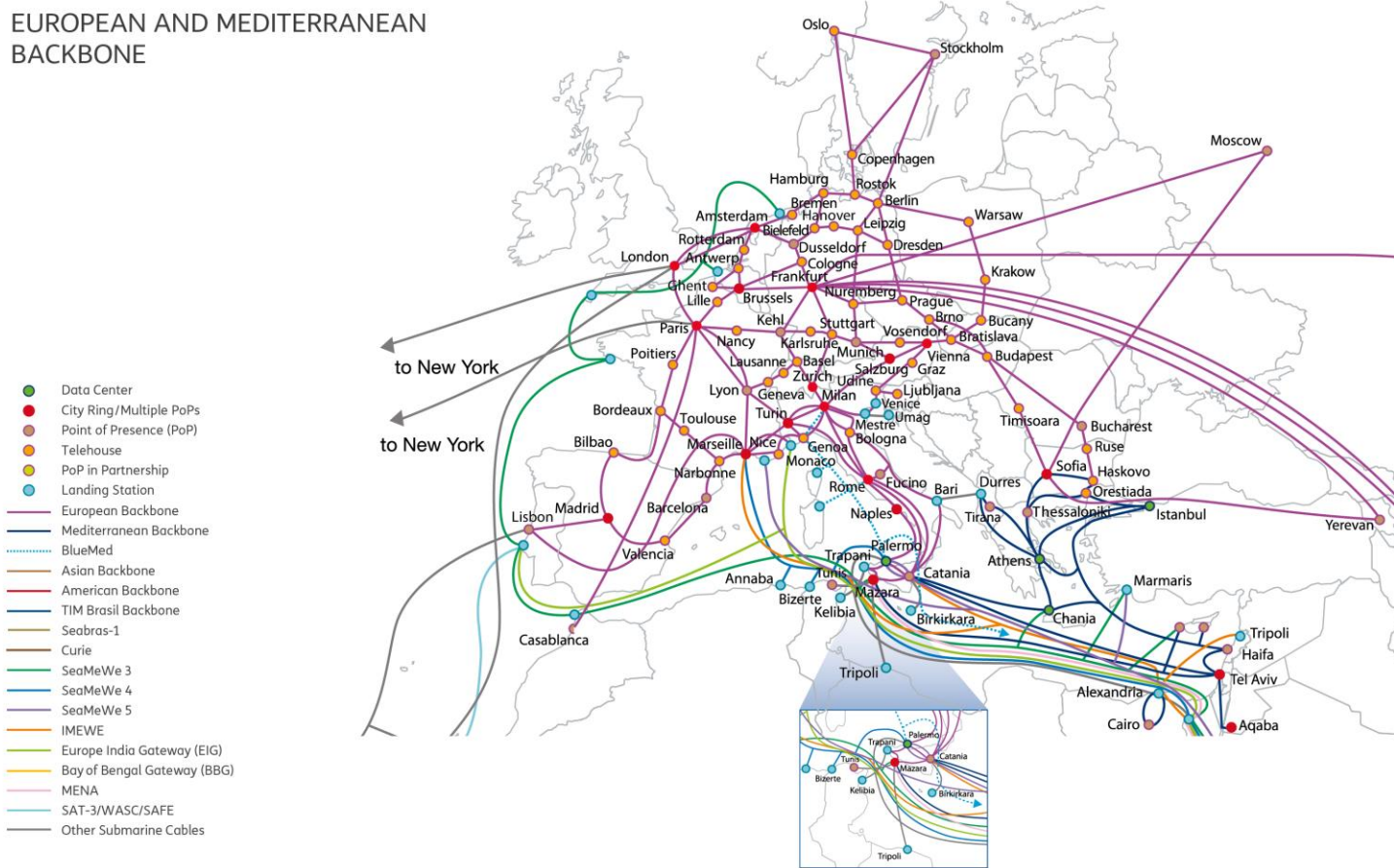
EUROPEAN AND MEDITERRANEAN BACKBONE



- Increased network capillarity in Europe
- Unique protection from Istanbul to Europe through terrestrial and submarine networks
- Diversified and protected backbone links in the Balkans as alternative route to connect Europe to Africa, Middle and Far East
- New direct route between Athens and Milan - “Albania Crossing” - providing the shortest and fastest route from the Balkans to the main Western European internet ecosystems, adding diversity and redundancy to the existing routes
- New POPs in Moscow and Casablanca for the offering to Enterprises

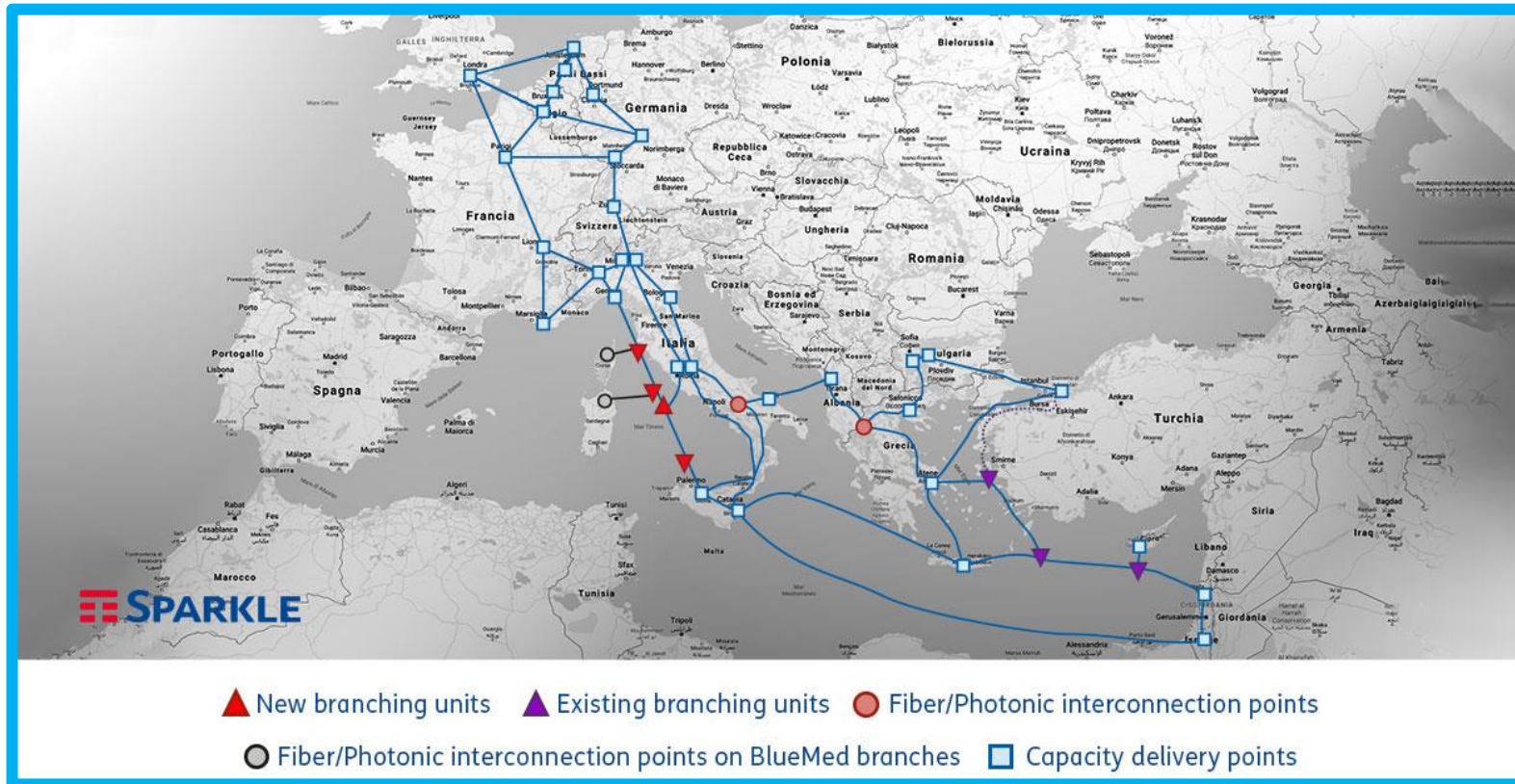
Reinforcing Leadership in the Mediterranean through BlueMed...

EUROPEAN AND MEDITERRANEAN BACKBONE



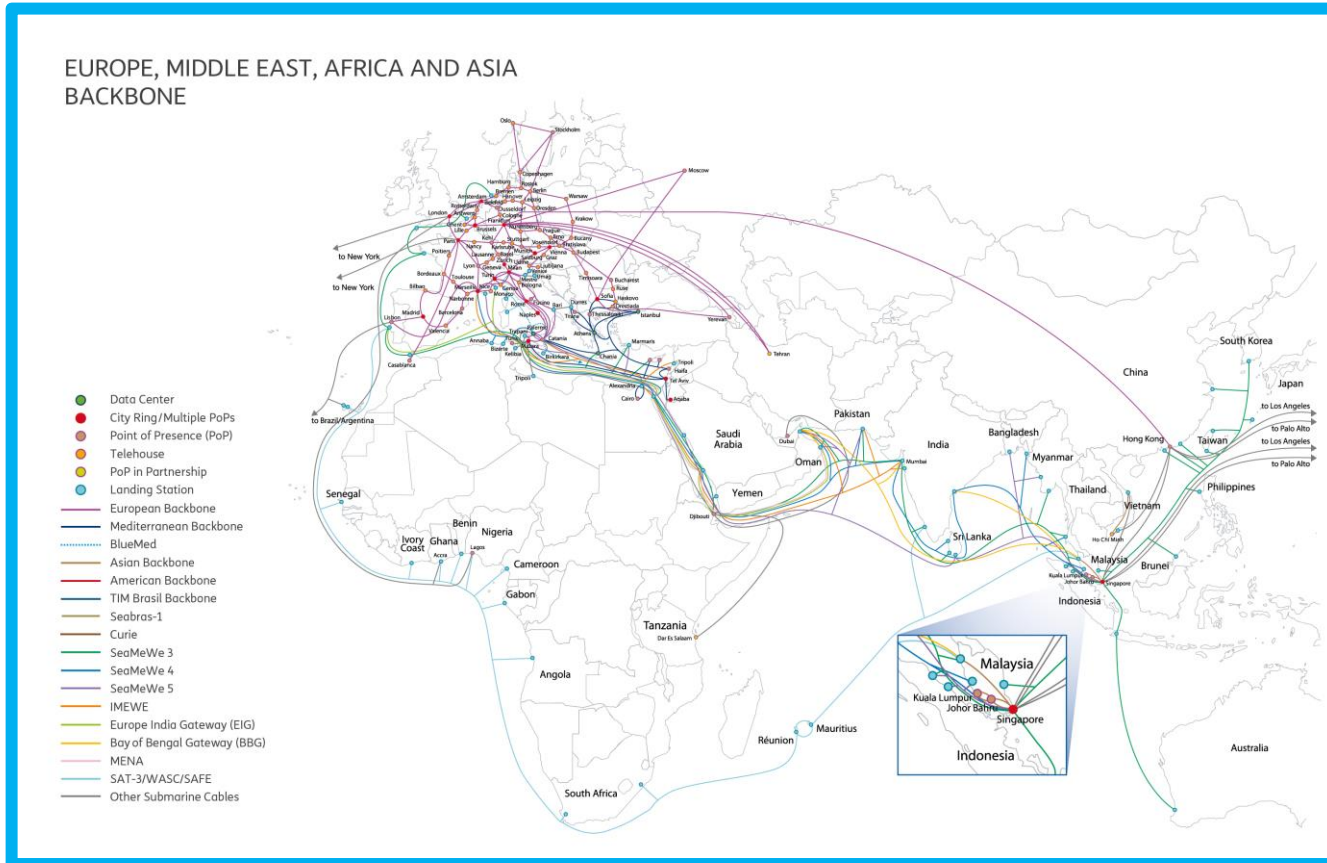
- **New cable to connect Palermo with Genoa's new open landing station, directly connected to Milan's rich digital ecosystem**
- **Multiple branches within the Tyrrhenian Sea to support further extensions southbound of Sicily**
- **Capacity up to 240 Tbps, Total length of 1,000 km**
- **Expected RFS 2022**
- **BlueMed will provide advanced connectivity between Middle East, Africa, Asia and the Europe with up to 50% latency reduction than existing terrestrial cables connecting Sicily with Milan**
- **Sparkle's new open landing station in Genoa is set to become the alternative priority access for other upcoming submarine cables looking for a diversified entry way to Europe, thus strengthening Italy's role as digital gateway between Africa, Middle East, Asia and Europe**

....and Nibble, the new Pan-Mediterranean Network



- New ultra-long-haul photonic backbone digitally linking Sicily with the major Points of Presence and data centers in Europe
- Built upon new express fibers, Nibble will provide industry-leading speeds, low-latency, high-performance, scalable and guaranteed connectivity services between the most important European locations, meeting carriers and enterprises' rapidly increasing network capacity requirements
- Based on: DWDM & Instant Network technologies, Software-Defined Bandwidth solution and Instant Network
- Nibble will progressively be integrated with Sparkle's existing Mediterranean and Balkans Network and with BlueMed
- First link connecting Sparkle's Sicily Hub in Palermo with Milan Caldera open data center

Strategic Focus on Med, ME, Africa & APAC Corridors



Through Sparkle's global network, operators in fast-growing markets of Middle East and Asia have access to worldwide contents with unrivalled performance through a **2-way path connecting Sparkle's Asian network to Europe and US, both East and Westbound**

EUROPE & MEDITERRANEAN

- Fully resilient Pan European backbone covering 13 countries
- State-of-the-art regional proprietary fiber optic backbone covering : Italy, Turkey, Israel, Greece, Cyprus
- Proprietary submarine cable Athens-Istanbul
- Bilateral cables with Monaco, Albania, Croatia, Slovenia, Cyprus, Malta, Israel and Libya

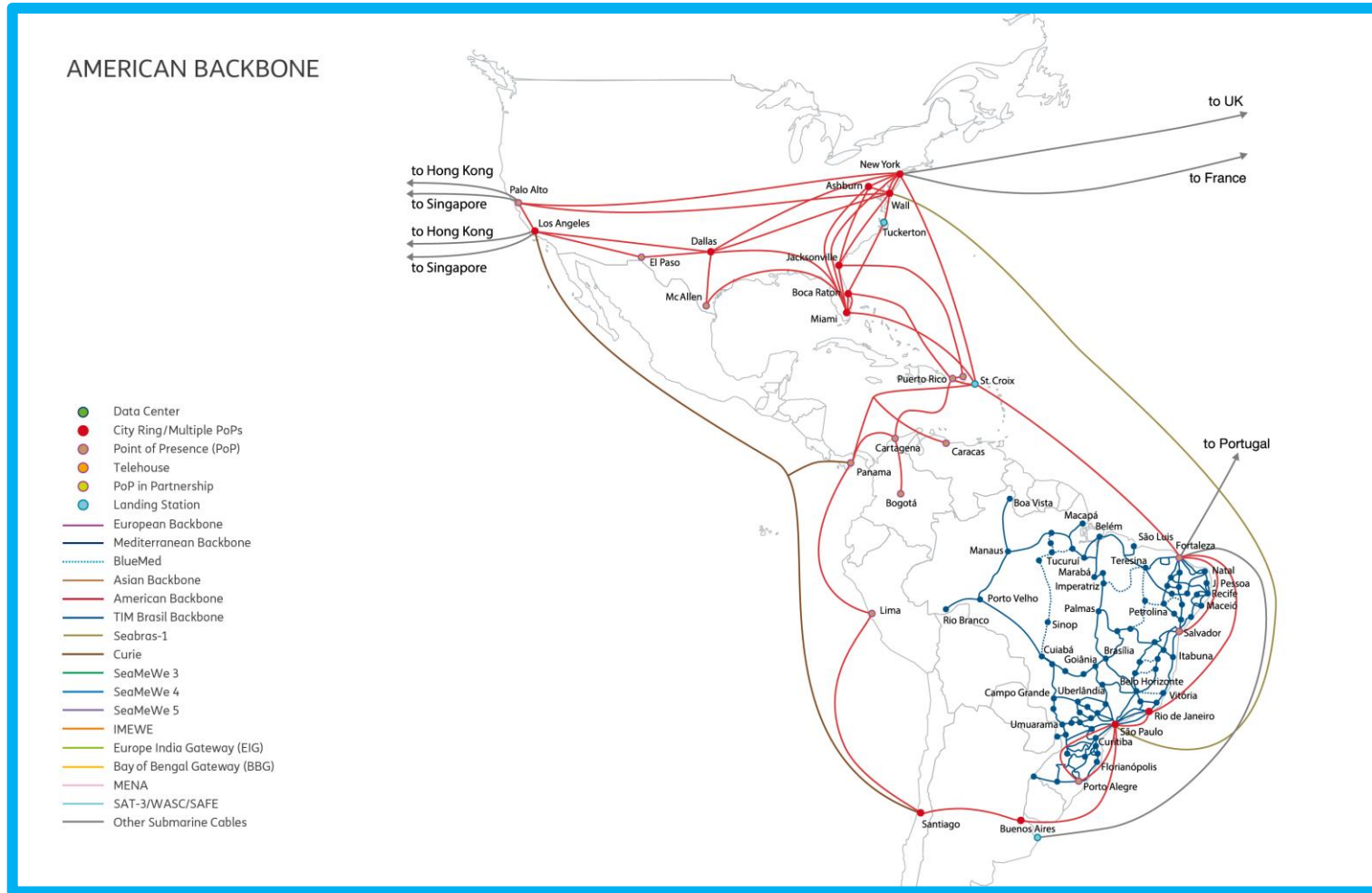
EUROPE TO AFRICA, ME & ASIA

- **SeaMeWe-4 cable:** France, Algeria, Tunisia, Italy, Egypt, Saudi Arabia, India, South-East Asia
- **SeaMeWe-5 cable:** Europe to Asia, reaching 17 countries, with a main landing in Catania, Sicily
- **IMEWE cable:** France, Italy, Lebanon, Egypt, Saudi Arabia, United Arab Emirates, Pakistan, India
- Other Submarine Cables: **SeaMeWe-3, EIG, BBG** and **MENA** (Europe, Africa, Middle East, Far East)

EUROPE TO WEST AFRICA & SOUTH AMERICA

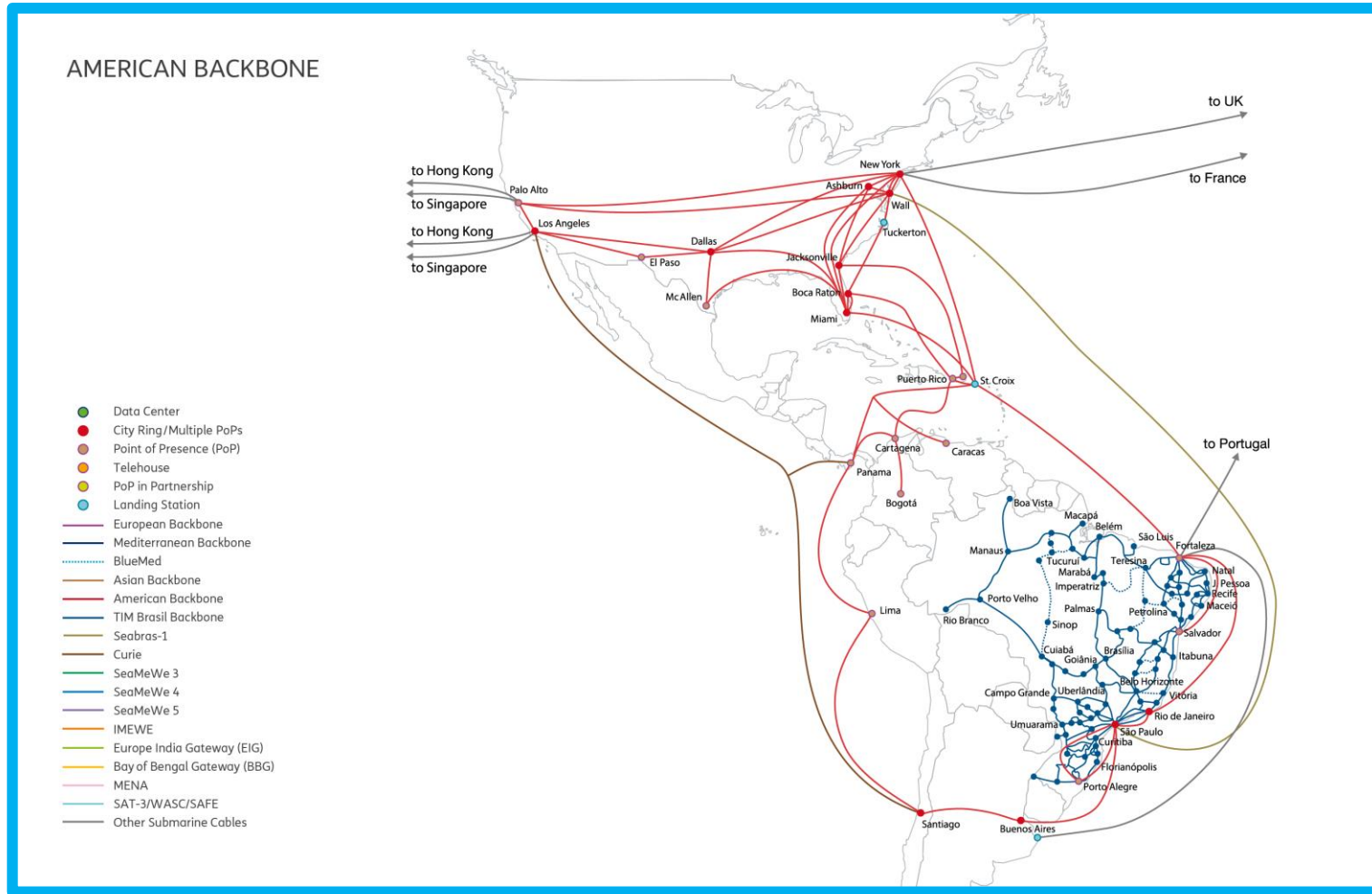
- **SAT-3** (Europe, West Africa), **ATLANTIS-2** (Europe, West Africa, South America)

Key Regional Backbones: Americas



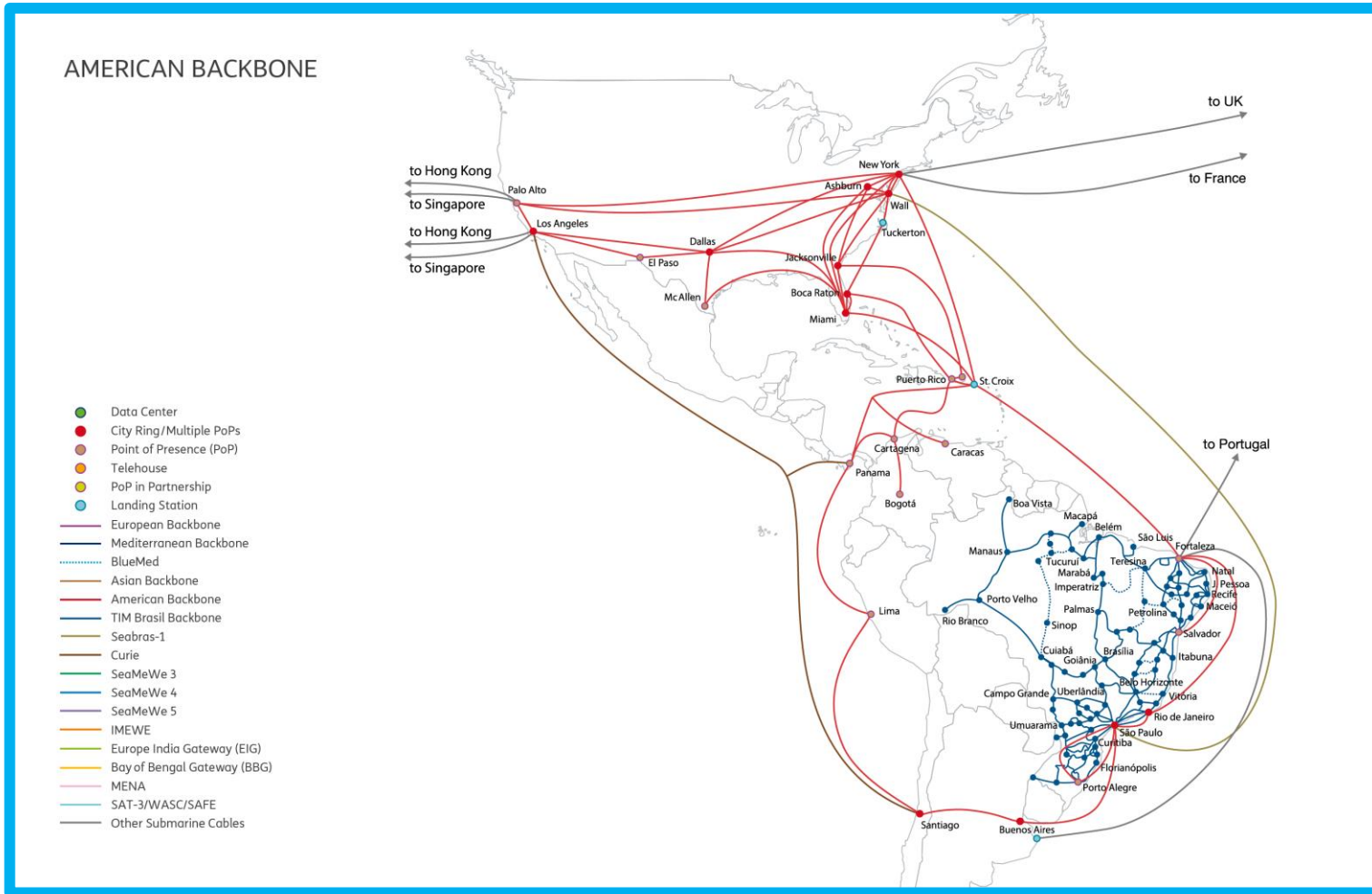
- Full IP network in the Americas
- **State-of-the-art proprietary fiber optic backbone in 8 countries: US, Argentina, Brazil, Chile, Colombia, Panama, Peru, Venezuela**
- New proprietary redundant backbone links from North to South America
- **TIM Brasil Backbone fully integrated with Sparkle's global network**
- Capacity across the Atlantic and the Pacific
- **New investments in Panama for the construction of an open landing and connectivity center that aims to become the digital hub for all Central America, the Andean region and the Caribbean**

Reinforcing Leadership in the Americas through Seabras-1....



- First cable to connect Sao Paulo directly to New York
- Seabras-1 is based on six fiber pairs and with initial design capacity of 72 Terabytes
- Sparkle owns 3 out of the 6 pairs
- Investment in a Branch Unit in Fortaleza, Brazil, and a protected backhaul between New York and Miami
- Full network resiliency with top service quality
- With Seabras-1 Sparkle will support the fast growing demand of capacity originating in South America, especially Brazil, along the South to North America route, one of the most relevant IP traffic streams globally
- With the backhaul extensions from cable landing points to main PoPs in New York and Sao Paulo, Sparkle will also provide easy onward connectivity to rest of world

....and Curie Submarine Cable



- New fiber pair on Curie submarine cable system connecting Chile to US
- Google-owned subsea cable Curie is the first direct new generation US-Chile cable connecting Los Angeles to Valparaiso
- Sparkle's new fiber pair on Curie will be fully integrated with Sparkle's global backbone, increasing redundancy and offering a fourth diversified route to directly connect South and North America
- Thanks to these newest highways, Curie in the Pacific and Seabras-1 in the Atlantic, Sparkle offers the best performance in terms of latency and robustness through its pillar connectivity service City2City and its global Tier-1 IP transit service Seabone



Thank You



SPARKLE