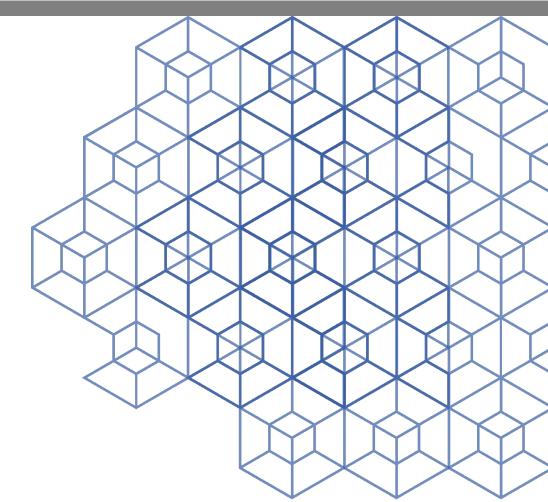
GRID TELECOM Connectivity off the beaten track





Nick Galanis *Head of Wholesale*

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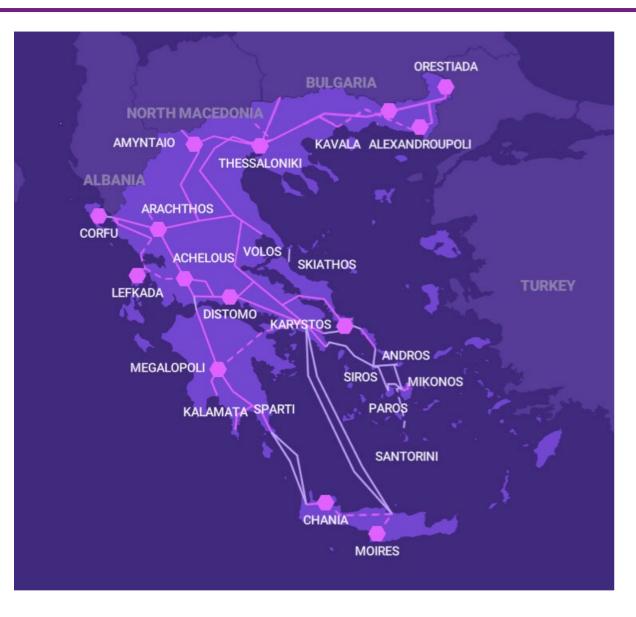
Grid Telecom's Origins

- Grid Telecom was established in January 2019, as a wholly owned subsidiary of the Independent Power Transmission Operator (IPTO) of Greece, acting as its vehicle to provide high quality telecommunications services on wholesale basis to national and international operators.
- ☐ IPTO aims at the reliable, efficient, and green electrification of the country, promoting the development of free competition in the Greek electricity market.
- ☐ The optical fiber network installed by IPTO, is an integral part of its broader network that extends nationwide in the Greek mainland and the islands and is interconnected with the corresponding Transmission System Operator (TSO) networks of neighbouring countries and beyond.

Grid Telecom's Mission and Vision

- ☐ Grid Telecom's **mission** is to utilize state-of-the-art technologies and business know-how in order to provide its customers with enhanced **open-access** connectivity and networking services, so that they are able to develop reliable national and international telecommunications networks.
- ☐ Grid Telecom's **vision** is to provide leading telecommunications solutions, in order to consolidate its position as a premier **carrier neutral** wholesale services provider, contributing to the national digital transformation, establishing Greece as a reliable connectivity hub in the broader Balkan − Mediterranean region.

Grid Telecom National Optical Fiber Network



- ☑ Grid Telecom's alternative optical fiber network utilises the overhead Optical Ground Wire (OPGW) cables on IPTO's transmission towers, underground fiber links and subsea optical fiber cable systems, achieving the shortest possible routes, network diversity, maximum security, high availability, and very low latency.
- ☑ Grid Telecom's domestic network will soon exceed 6,000 km, offering dark fiber and spectrum, as well as colocation services at protected areas in IPTO's substation sites, across Greece. Through a state-of-the-art proprietary DWDM network, is offering rapid activation of Metro Ethernet interconnections, with guaranteed quality and low latency.

Grid Telecom's Products and Services

Services



Provision of Dark Fiber through IPTO's terrestrial and submarine network infrastructure combining Grid-Telecom's terrestrial network part



High-speed capacity services (nx10G and nx100G) via a state-of-the-art DWDM network accompanied by High Availability Service Level Agreements



Collocation services in IPTO's High Voltage Centers, Substations and on the Transmission Towers throughout Greece.

Grid Telecom's Products and Services

- ☐ Grid Telecom was created to be a game-changer in the wholesale telecommunications market and to offer reliable integrated solutions and exceptional customer experiences, through an independent neutral infrastructure network in Greece and beyond.
- ☐ Grid Telecom provides the following wholesale telecommunications services:
 - dark fiber services to deploy private telecommunications networks,
 - ☑ ultrahigh capacity services through a modern proprietary DWDM network (optical fiber wavelength and Ethernet),
 - ☑ colocation services in the IPTO premises (HVCs: High Voltage Centers) and elsewhere.

Connectivity Demand

- ☐ Increasing demand for dark fiber infrastructure is being driven by significant industry trends, including the roll-out of 5G, the Internet of Things (IoT), cloud computing, artificial intelligence, augmented reality and virtual reality, and ultra-high-definition video.
- ☐ Dark fiber deployment is critical for connecting existing and new data centers (particularly to hyperscale customers), mobile infrastructure (towers and small cells), and eventually, edge computing.
- ☐ Dark fiber requires the end customer to light it up including investment in wavelength-division multiplexing (WDM) equipment and own management. As an alternative, fiber wavelength employs fiber lit by the network provider, managing it for the end customer.
- Business opportunities in the wholesale telecom market, (a) physical infrastructure sharing, (b) dark fiber and spectrum leasing, (c) physical and virtual leased circuits and (e) colocation space leasing.

Competitive Advantages

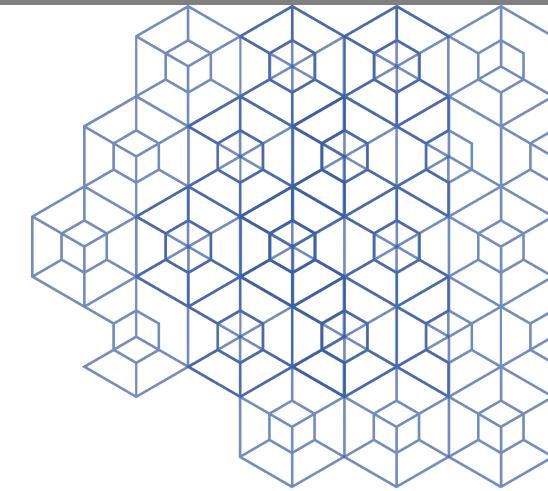
- ☑ Grid Telecom as a wholly owned subsidiary company of IPTO and its vehicle for the provision of wholesale telecommunications services to national and international operators, has its full financial and technological support.
- ☑ Grid Telecom consists of a lean flexible team of executives with extensive experience and expertise in the field of wholesale telecommunications and corporate solutions.
- ☑ Grid Telecom's alternative optical backbone network offers reliable integrated solutions through an independent neutral infrastructure network and achieves the shortest possible routes and minimum faults, ensuring network diversity, maximum security, high availability, and extremely low latency.
- Grid Telecom provides a personalized customer experience with "One-Stop-Shop" service, with sophisticated Customer Relationship Management (CRM) systems and 24-hour support of the Network Operations Center (NOC).

Conclusions

- Greece is taking the initiative and seizing the opportunity to fast becoming a critical energy and data hub at the crossroads of Europe, Africa, and Asia.
- IPTO Group is building critical infrastructure for tomorrow's electricity and telecommunications backbone networks throughout Greece and beyond, interconnecting the future.
- Grid Telecom can provide diverse terrestrial and subsea fiber connections throughout Greece and beyond, leveraging its position as an emerging open-access carrier neutral connectivity node in the broader Balkan Mediterranean region.
- Grid Telecom is consolidating its position as a premier neutral wholesale services provider, contributing to the national digital transformation, and supporting IPTO in developing Greece into a regional data hub of high geopolitical and geostrategic value.

...thank you





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