



PROJECT SUMMARY

Organization

hellas online

Solution

Communications

Location

Athens, Greece

Project Objectives

- Move from a design and documentation system with multiple data sources to a repository-based system
- Speed up the network design and build processes
- Lower the cost of the design and build processes
- Use one system to support different user groups – designers, field engineers, fault managers and customer service representatives

Products Used

- Bentley Fiber
- Bentley Inside Plant

FAST FACTS

- hellas online operates as a competitive communications service provider in Greece
- This project involved the design and construction of a 400 km metropolitan fiber ring in Athens, Greece
- hellas online is using Bentley Fiber for intelligent network engineering

HELLAS ONLINE USES BENTLEY® FIBER TO ENGINEER A 400 KM METROPOLITAN FIBER INFRASTRUCTURE

Attica Telecom is a go-ahead Greek telecommunications service provider founded by a group of large Greek construction companies in 2001. In April 2007, Attica Telecom was acquired by hellas online, one of the largest fixed telephony, and broadband operators in Greece. This acquisition further expanded hellas online's network, by encompassing Attica Telecom's extensive, privately-owned fiber-optic network. The acquisition of Attica Telecom, along with several other strategic developments, allows hellas online both to strengthen its brand name and to offer the highest quality services while being able to reach more customers over a wider area of Greece. The company is progressing towards its corporate goal of developing an extensive, modern, and secure telecommunications infrastructure, and consequently becoming the largest alternative fixed telephony and broadband services provider in Greece.

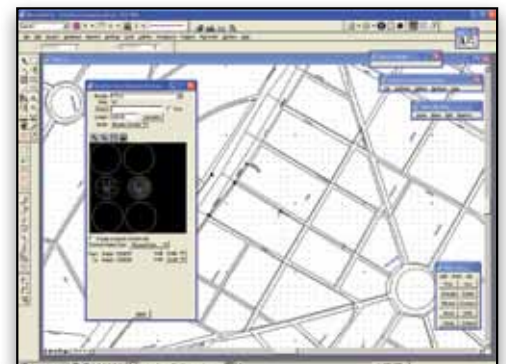
hellas online offers leased line services to incumbent fixed and mobile telecommunications service providers and also to internet service providers (ISPs). The company offers leased PDH/SDH services, leased Ethernet services, Lambda services for disaster recovery and business continuity, SHDSL Ethernet services, SHDSL TDM services, ADSL broadband and Internet via Ethernet. Previous Attica Telecom/hellas online projects have included designing and building a fiber network for the Athens Metropolitan Traffic Surveillance System and a fiber infrastructure for the Ministry of Public Administration which connects all the major public buildings in Athens.

Attica Telecom focused initially on building a metropolitan fiber network with a ring-based topology in Athens covering 400 route kilometres with 4,000 kilometres of fiber optic cable. The ring is built out with spokes to key buildings and the conduit architecture is designed to handle a growing business by being able to take sub-conduits and incremental fiber optic cables added after the

initial build. Infrastructure of this scale requires careful planning and the right engineering and documentation software to ensure that both the design and build phases are executed at the lowest possible cost, avoiding the over-ordering of materials and re-works – and this is why Attica Telecom chose Bentley's Communications software solution.

Early on in the project's life Attica Telecom had started the design process with a number of different desktop applications including Microsoft Access, Visio, Excel and static CAD drawings. It soon became clear that this was not proving productive as Dimitris Nikas, Head of GIS and FO Documentation, explains "Initially we worked with a series of products that were not inter-operable and most of the design workflows required print-outs and paper-based transactions to move things forward – this soon became unworkable because of the errors introduced into the process and because it was almost impossible to keep the data up-to-date across all of these programs and file types."

Attica Telecom then began the search for a solution that would deliver cable information, access point information, duct information, splice enclosure information, building enclosure information, documentation of the fiber distribution panels, full



Bentley Communications has tools to easily view, check and modify the contents of duct bundles.

"We chose the Bentley products because they are based on mature, tried-and-trusted technology, and there was no need for any form of custom development."

ABOUT BENTLEY

Bentley Systems, Incorporated is the global leader dedicated to providing comprehensive software solutions for sustaining infrastructure. Architects, engineers, constructors, and owner-operators are indispensable in improving our world and our quality of life; the company's mission is to improve the performance of their projects and of the assets they design, build, and operate. Bentley sustains the infrastructure professions by helping to leverage information technology, learning, best practices, and global collaboration – and by promoting careers devoted to this crucial work.

For more information, visit www.bentley.com

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documentation of the inside plant inventory and customer information. Additionally, the requirement was to have all of this information displayed graphically and easily made available to all of the designers and construction engineers on the project.

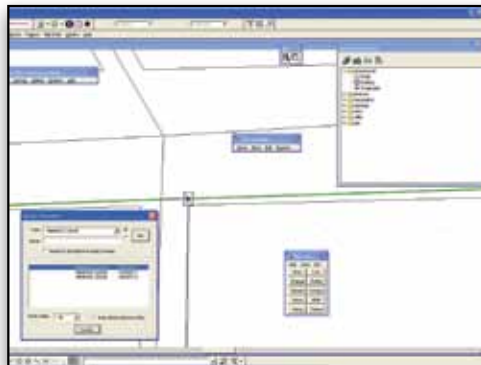
Further, the system needed to be repository-based, allowing comprehensive data queries with easy data import and export tools and have the capability to support the correlation of logical events with a physical location.

"We chose the Bentley products because they are based on mature, tried-and-trusted technology," added Nikas, "and there was no need for any form of custom development – all we needed to do was to configure the products to handle our data. As soon as we had installed the products and completed the initial set-up, we were able to begin importing the existing data from our Access

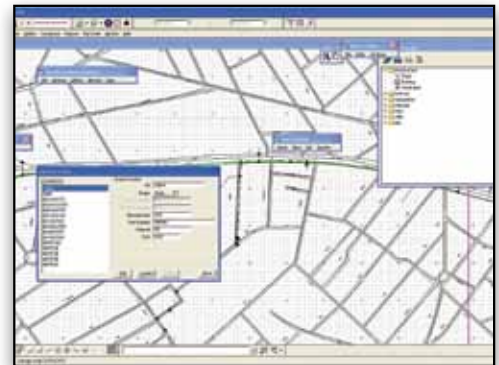
database and from Visio. At that point we were ready to go."

All the ongoing design work for the network as it evolves is now carried out in Bentley® Fiber and Bentley® Inside Plant. Bentley Fiber is used by many members of the hellas online team from designers to field engineers and those dealing with customer issues.

But the involvement of Bentley will not end with Bentley Fiber and Bentley Inside Plant. hellas online has firm plans to deploy further Bentley Communications solutions including Bentley® Geo Web Publisher™ for Communications (which presents maps and diagrams in a Web browser environment for non-technical users like customer service representatives) and ProjectWise® for its comprehensive workflow and documentation management capabilities.



The system handles both graphical and attribute information making it easy to locate enclosures.



Bentley Communications has a conduit editor tool that is used to define conduit types (ID, shape, manufacturer, material etc.).