

# Greek School Network

[www.sch.gr](http://www.sch.gr)

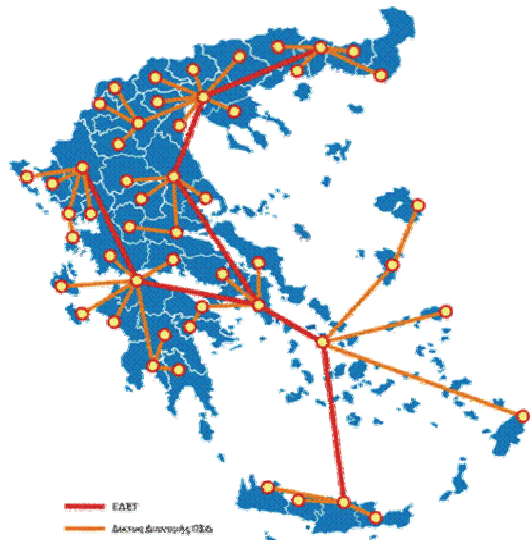
The **Greek School Network** (GSN - [www.sch.gr](http://www.sch.gr)) is the educational intranet of the **Ministry of Education and Religious Affairs** (MoE - [www.ypepth.gr](http://www.ypepth.gr)), which interconnects all schools in Greece and provides basic and advanced telematic services. The implementation of the Greek School Network is funded by the Operational Programme for the Information Society (OPIS - [www.infosoc.gr](http://www.infosoc.gr)), in close cooperation between the MoE and the **12 Research Centers and Highest Education Institutes**, specialized in network and Internet technologies. The GSN project was initiated to address the Primary and Secondary Education institutions' requirements for innovative educational methods, access to digital content and collaboration between geographically distributed users' groups.

GSN is a nation wide network that spans to all (fifty one) prefectures of Greece. Currently, parts of the Greek Schools Network are all the educational and administrative units of the second educational degree, approximately 99% of the first degree educational units and 42.825 teachers.

## The Structure of the Network

In order to manage with the complexity and the big number of the sites that had to be covered, a four layered architecture was used for the networks' topology: Backbone network, Distribution network, Access network and Local area network in school laboratories.

As backbone network is used the **Greek Research and Technology Network** ([www.grnet.gr](http://www.grnet.gr)). The GSN connected to the GRNET in eight points with Gbps connections. The choice of GRNET as the GSN internet provider was a strategic choice of the MoE, absolutely compatible with the international practice.



The design model and the operational specifications of the GSN are based on the TCP/IP protocol. In the past months the **GSN network became IPv6 enabled** in order to take advantage of the IPv6 protocols' enhancements (improved security, performance and design flexibility). A special reference regarding IPv6 follows in the last section.

## Services

The Greek School Network offers to its users (schools, teachers, students) a number of services. The most important of them are:

- Strong registration procedure,
- Remote network access (dialup),

- E-mail & E-mail lists (with enhanced **anti-spam** / **anti-virus** protection which have led to an increase of the “clean” percentage of mails from an 86% last year to 96% this year),
- Web Portal ([www.sch.gr/en](http://www.sch.gr/en)),
- Web hosting for static and dynamic pages,
- Asynchronous distance learning,
- Teleconference,
- Video On Demand, webcasting and multicasting
- Electronic Magazine,
- Voice over IP
- Help-Desk, for immediate solution of technical problems.

### **Enabling IPv6 in the GSN**

Research and Academic Computer Technology Institute (RACTI – [www.cti.gr](http://www.cti.gr)) as the technical leader of GSN, and the Greek and Research Network (GRNET) as the Greek NREN, are in strong cooperation in order to complete the transition from an IPv4-only network to a dual stack (IPv4/IPv6) network. Collaboration with **6net** project was of great importance for the GSN as it is expected to boost the transition to a **safer and more flexible network**. The Greek School Network will be able in the near future to offer new services overcoming the obstacles the older protocol has imposed. Up to now, only a small number of schools has been connected to the IPv6 network (with extremely positive results). We intend to increase that number to a large extent in order to.

### **Grnet and GEANT2 – providing not only the infracture**

GEANT2 and GRNET provide to the Greek educational network the necessary means for fast network access equipped with features of no comparison in the commercial sector. Researchers from NREN in Europe are striving into integrating newly developed network technologies for the merit of education in primary and secondary schools. Thus GEANT and NRENs are not only early adopters but also enablers in the brave arena of technology adoption in education.

**More information :** [www.sch.gr/en](http://www.sch.gr/en), [info@sch.gr](mailto:info@sch.gr)