

55th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)  
27th IAA/IISL Scientific-Legal Round Table "Optical Communication" (6-E3.5)

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INTERNATIONAL TELECOMMUNICATIONS UNION INSTRUMENTS IN TELECOMMUNICATIONS  
SECURITY

**Abstract**

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International Telecommunications Union Instruments in Telecommunications Security author: Otto Gudiño  
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The International Telecommunications Union (The Union) is the specialized organization that belongs to the United Nations System which has the main function of regulate the information and communications technologies. Its mandate is very clear in all of its sectors and instruments by which the Union fulfill these purpose, the allocation of global radio spectrum and satellite orbits developing the standards that all of its member may adopt into their domestic legal systems in order to ensure networks and technologies seamlessly interconnected, guaranteeing access to served and unserved communities in the world.

The Optical Communications and the Security Standards related to these Systems are also subject of the Union. All the relative Concepts like Interference and Communications Interception are defined in the Unions instruments: The Union Constitution, the Convention, The Radiocommunications Regulation and its annexes, also all the Resolutions and Recommendations adopted by the World Radiocommunications Conference and the Plenipotentiary Conference that not only build the Union structure, but establish the Framework for International Telecommunications and this includes the relative regulatory and technical aspect of assuring that all communications be secure of harmful interference and interception.

Privacy and data confidentiality, authentication, integrity, non repudiation, Vulnerability, threats and risks, Security Frameworks Requirements, Security and Public Key Cryptography are some of the Basic Concepts that The Union have been developing over the years and continue in its development. Recommendations settled by the Union in security telecommunications can be mentioned like X-800 for open system Interconnection, X-810 to 816, X-805

In particular what refers to Optical Transport Networks can be said that are the basis for all Internet protocol telecommunications, earth Systems Networks and Communications transport linked to Communications satellite Systems.

The purpose of these document will be 1.- the analysis of the Unions instruments Concepts on security telecommunications that have been made till now, 2.- the study of regulatory and technical resolutions and recommendations in particular those for securing optical Communications Networks for preventing them of harmful interference and interception.