Geophysical Research Abstracts Vol. 18, EGU2016-8420-2, 2016 EGU General Assembly 2016 © Author(s) 2016. CC Attribution 3.0 License.



The Italian National Seismic Network

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The Italian National Seismic Network is composed by about 400 stations, mainly broadband, installed in the Country and in the surrounding regions. About 110 stations feature also collocated strong motion instruments. The Centro Nazionale Terremoti, (National Earthquake Center), CNT, has installed and operates most of these stations, although a considerable number of stations contributing to the INGV surveillance has been installed and is maintained by other INGV sections (Napoli, Catania, Bologna, Milano) or even other Italian or European Institutions. The important technological upgrades carried out in the last years has allowed for significant improvements of the seismic monitoring of Italy and of the Euro-Mediterranean Countries.

The adopted data transmission systems include satellite, wireless connections and wired lines. The Seedlink protocol has been adopted for data transmission.

INGV is a primary node of EIDA (European Integrated Data Archive) for archiving and distributing, continuous, quality checked data. The data acquisition system was designed to accomplish, in near-real-time, automatic earthquake detection and hypocenter and magnitude determination (moment tensors, shake maps, etc.). Database archiving of all parametric results are closely linked to the existing procedures of the INGV seismic monitoring environment.

Overall, the Italian earthquake surveillance service provides, in quasi real-time, hypocenter parameters which are then revised routinely by the analysts of the Bollettino Sismico Nazionale.

The results are published on the web page http://cnt.rm.ingv.it/ and are publicly available to both the scientific community and the the general public.

This presentation will describe the various activities and resulting products of the Centro Nazionale Terremoti. spanning from data acquisition to archiving, distribution and specialised products.