TECHNICAL CONSIDERATIONS IN DEVELOPING THE FIRST EMRGENCY OPERATION CENTER (EOC) OF IRAN IN TEHRAN

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Keywords: Tehran, Earthquake, EOC, Damage Estimation

Lack of appropriate Emergency Operation Centers (EOC) in the affected areas by Iran's recent earthquakes caused many difficulties in coordination of emergency response activities (Amini Hosseini et al., 2009). This shows the importance of establishment the EOC's in big cities, like Tehran.

According to the worldwide experiences in this field, EOC's should fulfil many criteria to be operational at the time of crisis. Besides of necessity to have earthquake resistance structure, these facilities should have specific design, architecture and infrastructures. In addition, many facilities such as damage estimation and emergency communication systems should be available at these centers. Furthermore, they need to have emergency operation systems and initial action plans as well as sufficient experts to make these centers operational continuously in 24 hours/7 days in a week.

Considering these points, Tehran Emergency Operation Center has been designed and constructed during the years 2007-2010 in Tehran Disaster Mitigation and Management Organization (TDMMO) and operated since then with having the following features:

- Earthquake resistance building to resist in maximum credible earthquake;
- Proper location considering safe multi-access after potential earthquake;
- Online links with related centers and organizations of emergency response management, at local to regional levels;
- Having necessary equipments, hardware and software with the necessary information and databases on population and buildings;
- Having emergency electricity, water and communications networks so that they can work for 72 hours without interruption in crisis condition;
- Having storages of requirements for independent operation for at least 3 days;
- Assignment of the related staffs for 24/7 operations;

The most important equipments (hardware and software) that have been installed in this center include:

- Special on-line cameras for monitoring the roads and city and transmitting information through reliable communication lines;
- Network communication systems for disasters and information disseminations;
- Seismic monitoring stations and professional software such as Quick Damage and Loss Estimation System (QD & LE), Figure 1.

In this paper, having a look on the worldwide experiences on developing EOC's, a summary about design and developing procedure of Tehran Emergency Operation Center will be introduced and discussed.

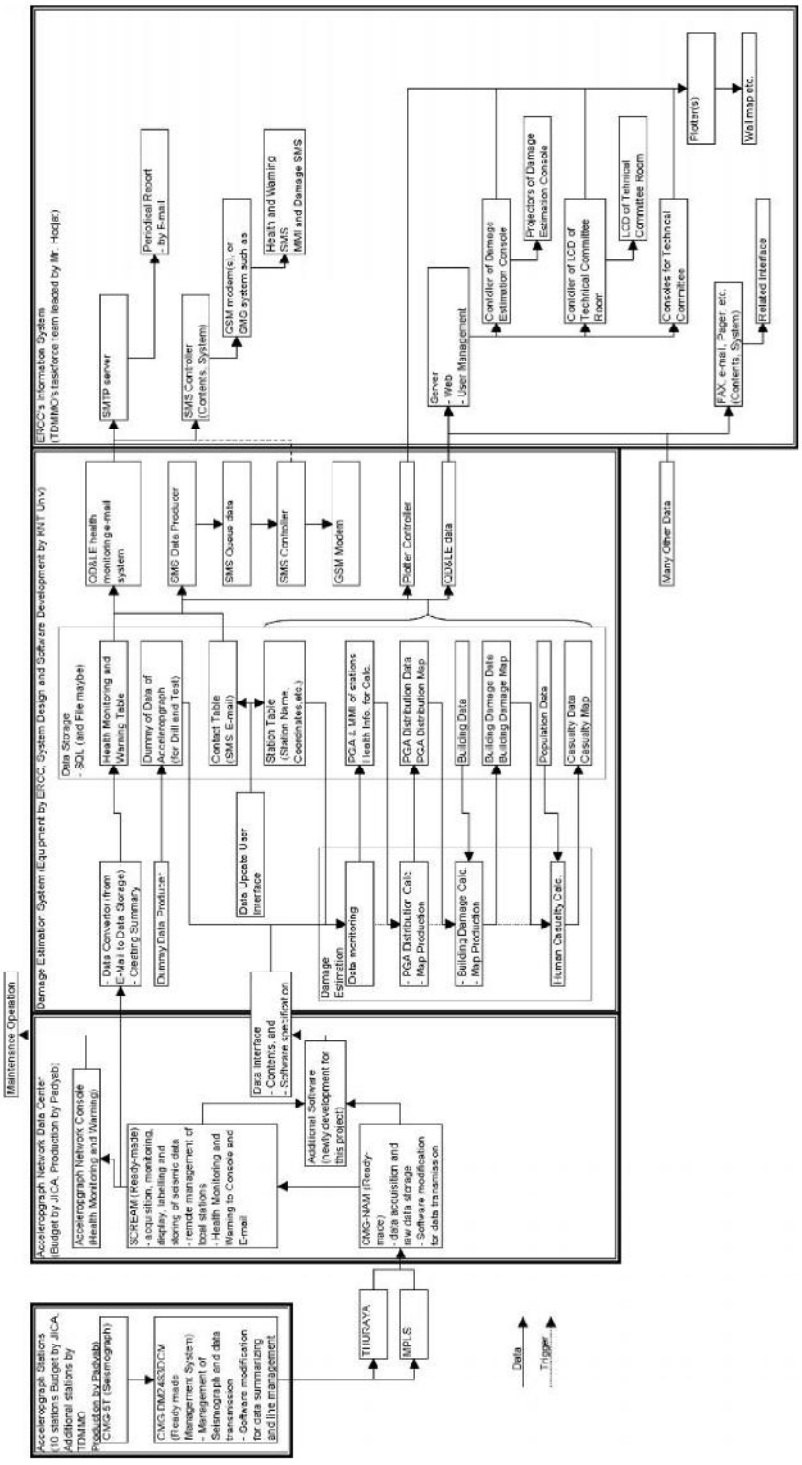

Figure 1. General Configuration of QD&LE System in Tehran EOC (JICA and TDMMO, 2009)

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