

## Chapter 11

# Monitoring of Wise Civilization

### INTRODUCTION

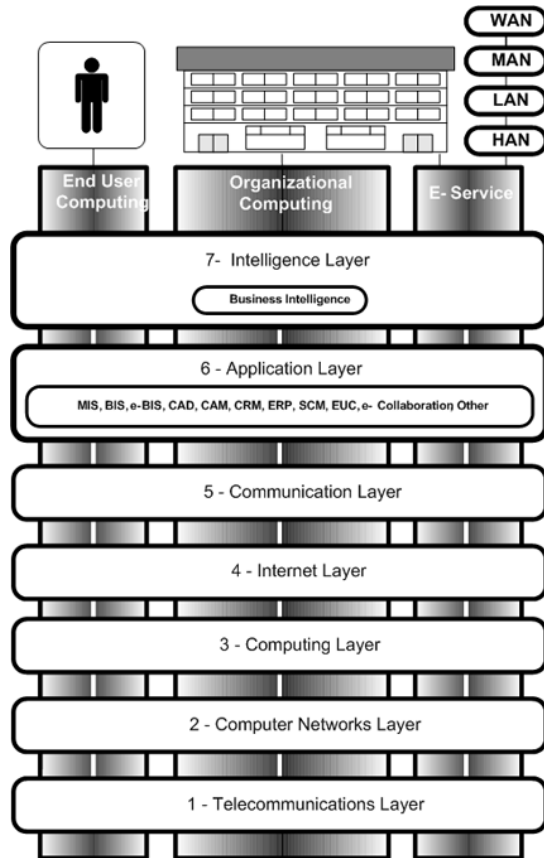
The purpose of this chapter is to define how to transform a classic enterprise into a sustainable and global-oriented enterprise that will be economically vital, environmentally accountable, and socially responsible. Furthermore, such an enterprise's intelligence system should be integrated with national and civilizational levels of monitoring and predicting systems. The approach to solve these issues is based on graphic modeling. To supplement the results of this study, the pathways to a sustainable future of an enterprise and civilization are offered.

### CLASSIC ENTERPRISE INFORMATION INFRASTRUCTURE

The Classic Enterprise Information Infrastructure (C-EII) is illustrated in Figure 1. It contains seven specialized layers, where the sixth and seventh layers are the most visible to the end-users. A set of applications is evolving along with the development of IT concepts and business needs. In the 2000s it is based upon work from the office via in-building, local, metropolitan, and national networks/infrastructures (LAN, LII, MII, NII) and from home via a home network/infrastructure (HII) for tele-work. The intelligence layer (layer 7) is also an application layer, which specializes in managing the whole enterprise with the support of a knowledge management system, composed of an enterprise datawarehouse, data mining, a

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Figure 1. The classic enterprise information infrastructure architecture

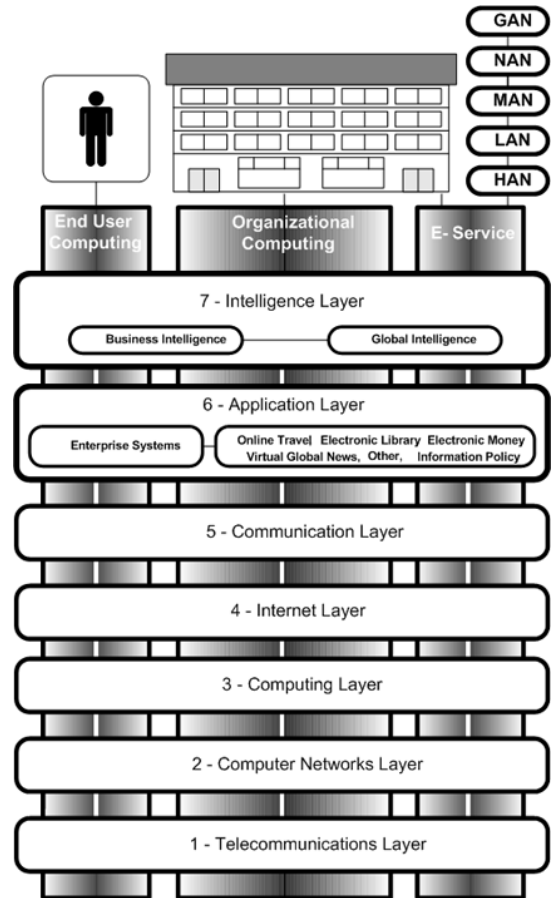


knowledge database, and a management dashboard (also known as business intelligence).

## GLOBAL ENTERPRISE INFORMATION INFRASTRUCTURE

The Global Enterprise Information Infrastructure (G-EII) is the extension of the C-EII through the Global networks/infrastructure, as illustrated in Figure 2. The user-visible layer 6 has more complex applications than those of a classic enterprise because they have to cover that enterprise's geographic presence around the globe and must comply with a given set of nations' legal rules. This requirement is particularly important in hu-

Figure 2. The global information infrastructure architecture



man resources applications, which must comply with each country's rules. In the G-EII, new applications are in demand, such as e-Collaboration and e-CAD/CAM. E-Collaboration allows for a team or teams to work simultaneously in a virtual space, including virtual reality, saving on the costs of traveling to be in meetings. E-CAD/CAM is particularly applicable in offshore outsourcing of manufacturing processes. E-Library is also a convenient application, particularly for remotely located users who have limited access to good libraries.

Layer 7, the intelligence layer contains two intelligence-oriented systems, the classic business intelligence and global intelligence. The difference

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