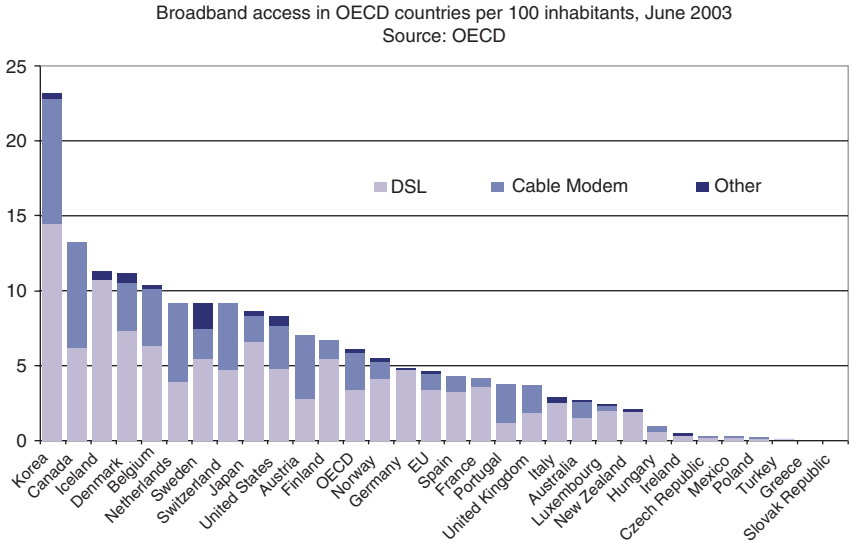
Chapter 10
Information Infrastructure: Resilience, Recovery, and Security

This Chapter is concerned with bringing together much of the foregoing. There is a little repetition here of earlier comments and statements. This is supposed to be helpful by way of putting a number of ideas into a context. It does this by exploring the strategic importance of the relationship between Information Infrastructure, telecommunications resilience, recovery and security and both Asymmetric Warfare and Obstructive Marketing. This relationship is neither well documented nor well understood. However, it is important to a philosophical and pragmatic approach for sustaining order, development, and cohesion in Information Infrastructure. This is because it is now clear that the success of the western/northern world economies, and sustainability for other economies, is increasingly dependent on the reliable operation of Information Infrastructure.

The year 2000 was an eventful year for Information Infrastructure and associated industries. The world did not collapse as a result of the Year 2000 (Y2K) computer stability and calendar issue. Eos (2004)[182] describes how well things actually went. In the middle of the year mankind became more dependent on computers for survival than anything else, this was determined largely from Y2K related projects that identified the how and why of the dependency. The dot.com bubble effectively burst. Bloor (2000)[183] catalogues the end of the dot.com dreams. The following year, 2001, as the first year of the millennium, was almost as important. 2001 was the year in which the United States of America (USA) economy began to show signs of massive productivity growth on the back of Business to Business (B2B) productivity improvements enabled by telecommunications (as tracked by The Economist, Bloomberg, Business Week, Europa (2004)[184] and others); it

[182] The Eos Life – Work Resource Centre Y2K Update. Available at http://www.eoslifework.co.uk/Y2Kupdate.htm (Accessed: 3 January 2007).
[183] Bloor, R (2000) The Destruction of Dot Com Dreams. Available at http://www.it-analysis.com/article.php?articleid=1429 (Accessed: 3 January 2007).
[184] Europa (2004) Available at http://www.europa.eu.int/abc/index2_en.htm (Accessed: 3 January 2007).

Table 4. Broadband access in OECD 2003. Proxy for telecommunications and data usage (Source: OECD[185])



saw a conservatism develop in the telecommunication players as a counter-point to both Y2K and as a reaction to the dot.com bubble. This conservatism was partly a result of reduced expenditure on computer and Information Infrastructure related items post Y2K. This conservatism reduced the hype of Business to Consumer (B2C) developments in favor of making B2B work. At the same time developments in standards began to gather pace according to the British Standards Institute and others. These changes were exacerbated by the well-documented events of the 11 September 2001 at the World Trade Center, New York, USA.

Telecommunications traffic remains massively skewed toward the biggest world economies (OECD) and remains the driving force of the differential growth rates between the OECD and others.

Information Infrastructure and associated systems are therefore clearly at the heart of day-to-day life, economic development and globalization, and, as a consequence, a key strategic resource. Information Infrastructure is a Critical Infrastructure.

The elements of a telecommunication system are a transmitter, a medium (line) and possibly a channel imposed upon the medium, and a receiver. The transmitter is a device that transforms or encodes the message *into a physical*

[185] Source available at http://www.oecd.org/document/16/0,2340,en_2649_34225_35526608_1_1_1_1,00.html (Accessed: 7 January 2007).