Section 1
The Practical Trail


INTRODUCTION

Section 1 is an historical account of experiences, observations and incidents from the Ericsson development practice that somehow have influenced the Activity Domain Theory (ADT). There are two main paths that contributed to this. The first one is the introduction in the early 1990s of the anatomy as a main instrument for managing the complexity of mobile telephone development projects at Ericsson. The second path is the evolution of coordination support based on a particular information system (IS), Matrix, in which I was personally involved. This path is called the domain construction strategy (DCS) in the book.
The Emergence of the Anatomy

The evolution of the mobile systems has been described as a sequence of generations (Lindmark, Andersson, Johansson, & Bohlin, 2004). The first generation, 1G, was developed in the 1980s until replaced by 2G generation in the 1990s. The main difference between 1G and 2G is that 1G radio signals are analogue, while 2G signals are digital and handed over between “cells” in the network as the mobile moves along. The architecture for the 2G systems is based on the GSM standard (Global System for Mobile communications; originally from Groupe Spécial Mobile).

By the early 1990s, the wireless industry was ready to go for digital cellular systems. On Jan 16th, 1992, Ericsson was awarded a contract with Tokyo Digital Phone for a mobile telephone system to be delivered on April 1st, 1994. At that time, the cellular mobile technology was in its infancy, the telecom market had been deregulated, and several new operators began to take advantage of the new technology. The project turned out to be a success, and by 1996, Ericsson passed the 1 million subscriber milestone for its CMS 30 system, making Japan one of the fastest growing markets for cellular telephony.

It was in the Japan project that Ericsson introduced the concept of the “anatomy” of a system for the first time. The anatomy is an architectural view, illustrating the dependencies between capabilities, from the most basic one to the complete capability of the system. An example is given in Figure 1. Each box represents a capability, and each line a dependency. The details are not essential here; however, note
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