

Introduction

A computer program in a traditional sense is a piece of compilable programming code designed for execution on a computer. However, there is only so many things one program on one computer can do. For today's large business applications, scattered across multiple computers in different networks, the solution needs to be extended. The applications of today cannot be limited to operate within one computer, they need a way of communication which is efficient, secure, and reliable.

The solution is remote method invocation. It is the concept of providing such support architecture, that an application can use resources and services which are not in the same execution space almost as easily, as if the resources were local. The architecture takes care of the complex communication between the applications and exposes just a set of methods that includes everything necessary.

.NET Remoting is a technology for remote method invocation developed by Microsoft, which has been in use from the first version of the .NET Framework. It is a part of many business applications and even today, while being superseded by newer technology, deserves attention. This is largely due to a fact, that the lifespan of business applications is long, because the costs of replacing a working profit-generating software are enormous.

Business applications are usually designed to meet the highest security standards and this requirement must be met by every technology used in the solution, which also includes Remoting. Remoting has been in use from its release with the version 1.0 of the .NET Framework in the year 2002. That is eleven years in time of writing this thesis, which is a very long time for any technology. During this period, a number of flaws has been discovered and subsequently fixed. However, as an complicated and outdated technology, which is on top of all used in serious business applications, Remoting is today a tempting target for misuse.