

Abstract

To help modern telecom corporations gain an advantage in the competition with other companies, the standards based platforms built using commercial off-the-shelf (COTS) components represent a new trend within the industry. This new development method increases efficiency, reduces the cost and shortens the time to market. The goal of this dissertation project is to construct a prototype database to hold information about COTS components. This dissertation first presents a general overview of the telecom industry. Several standards issuing organizations and the main content of some of the standards are then presented, such as PICMG¹ (ATCA²), OSDL³ CGL WG⁴ (CGL RD⁵), and SAF⁶ (HPI⁷&AIS⁸). Five standards structuring organizations (SCOPE⁹, PICMG RES¹⁰, CP-TA¹¹, MVA¹², ITU-T¹³ OCAF¹⁴) are also described. The dissertation then presents a synthesis of the information from the given standards related organizations and analyses the information from the standard compliant COTS components. Finally, the prototype of the COTS component database is defined as a prototype tool for the platform integration department of TietoEnator to actively integrate information about telecom components, platforms, and systems in the future.

¹ PICMG: PCI Industrial Computer Manufacturers Group

² ATCA: Advanced Telecom Computing Architecture (AdvancedTCA)

³ OSDL: Open Source Development Lab

⁴ CGL WG: Carrier Grade Linux Working Group

⁵ CGL RD: Carrier Grade Linux Requirement Definition

⁶ SAF: Service Availability Forum

⁷ HPI: Hardware Platform Interface

⁸ AIS: Application Interface Specification

⁹ SCOPE: SCOPE Alliance

¹⁰ PICMG RES: PICMG Requirements Engineering Subcommittee

¹¹ CP-TA: Communications Platforms Trade Association

¹² MVA: Mountain View Alliance

¹³ ITU-T: International Telecommunication Union-Telecommunication Standardization Sector

¹⁴ OCAF: Open Communication Architecture Forum