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POLICIES ALIGNED BUSINESS RULE FRAMEWORK FOR HEALTHCARE SERVICE SOLUTIONS

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Healthcare (HC) services involve with a set of complex policies that are required to realize with HC service rules in terms of lower level technical requirements which are mainly focusing on service processes. Ensuring compliance of the HC service process with policies and rules stemming from various sources such as corporate guidelines, standards laws and government acts is a fundamental challenge to esolution development. Current e-Health solutions are lack in realizing these higher level policies. Although these solution designing have used global standard such as HL7 it is limited on technical level message passing. Also, another limitation is the tendency of focusing only on security policies and acts such as HIPAA even though there are many other higher level acts and policies to control HC service process. Thus, it is necessary to design a systematic approach to fill the gap between higher level service policies with lower level service processes. Therefore, the proposed framework could be considered as a bridge facilitating e-Health solution developers to systematically realize high level policy level requirements on underlying technologies. This research work is an initiative contributing to design a framework with three main consecutive layers for higher level policy driven service process designing. The proposed framework uses different modeling ontologies for designing artifacts of each layer. The framework consists of three modeling layers; HC Governance (HG), HC Service Rules (HSR) and HC Service Process (HSP). Principals of global HC service interoperability standards (SAIF) and business modeling ontologies are considered when designing each layer of the framework. Governance layer is designed based on the principals of SAIF governance layer that refers higher level policy decisions and constraints with considering responsible authorities. A set of main policy perspectives are introduced in the research and top down application of them towards lower rule identification is discussed in the research. The work reported here introduced a contribution in an endeavor to develop a complete and sound business rule oriented service designing framework. Yet another commendable contribution is the facilitation to bi-directional traceability between these modeling layers that designers could be achieve with the adoption of the proposed framework.

Keywords: Healthcare, HC governance, HC Service Rules, HC Service process