In the presented work, we study a derivation of an optimal communication XML schemas for a given conceptual model of a business process, complemented with a conceptual model of exchanged data and influence of a change in user requirements on derived XML schema. The work contains a review of important problems related to the topic. It also describes existing approaches of these problems. The work analyses a derivation of an optimal XML schema in detail. The approach presented in this thesis shows an ability to model exchanged data with a conceptual model of a business process. The thesis describes a solution, how to derive a concrete XML schema automaticly from a given conceptual model of exchanged data. Finally, the work contains a prototype implementation of the presented solution.