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The project will investigate the requirements and challenges associated with interoperability and system integration of various heterogeneous health care information systems and applications (components) that is typically deployed in a developing country. The outcome of the research will be an framework that facilitates interoperability and system integration within a national health information system in a developing country. The framework will primarily provide support for: multiple data representation standards; multiple messaging and communication protocols; and a generic orchestration engine to coordinate the flow and processing of data between the various components. The initial requirements and evaluation of the framework will carried out within the context of the current deployment of the Rwandan National Health Information System.