

# Healthcare Applications Interoperability through Implementation of HL7 Web Service Basic Profile

Maqbool Hussain, Muhammad Afzal, H. Farooq Ahmad, Naeem Khalid, Arshad Ali  
NUST School of Electrical Engineering and Computer Science  
National University of Sciences and Technology Pakistan  
{maqbool.hussain, muhammad.afzal, farooq.ahmad, naeem.khalid, arshad.ali}@seecs.edu.pk

## **Abstract**

*Information sharing within or cross enterprise is the core need of each enterprise to fully benefit from the state of the art technologies. On one hand, it allows utilizing the resources efficiently, and on the other hand, it expedites the processes of enterprise. Healthcare information is more complex and has diverse dimensions. Sharing this information by integrating various healthcare information systems is a great challenge. HL7 is renowned healthcare standard that provides specification for standardization of information exchanged among healthcare applications. To make these systems truly interoperable, it provides transportation specification for message exchanges named as web service profiles. This paper discusses the technical details including architecture, design and implementation of web service component that implement HL7 Web Service Basic Profile (HL7 WS-BP). This component is part of the transportation subsystem of the HLH project recently in progress at NUST School of Electrical Engineering and Computer Science (NUST SEECS), Pakistan.*