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## Contrib: IMSTI

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### **Description:**

The Sakai IMSTI project is an implementation of the IMS Tools Interoperability Guidelines (TI), version 1.0 (February 2006) . TI provides a framework for extending learning management systems to include third-party tools via web services. Sakai IMSTI comprises a collection of published APIs, component services, data definition language (DDL) files and a JavaServer Faces (JSF) tool implementation. IMSTI also includes a set of sample proxy tool XML deployment descriptors that can be used to test IMSTI proxy capabilities with an external application called Concept Tutor developed and maintained at the University of Wisconsin, Madison. IMSTI leverages common Sakai services as well as the Apache AXIS web services project to define proxy tools, construct SOAP messages and make web service calls across the Internet.

IMSTI proxy tool instances serve as facades for web applications external to the Sakai CLE. External applications are required to implement at a minimum the TI launch service and make available a deployment package comprising an XML deployment descriptor that provides basic tool configuration information that IMSTI utilizes to communicate with target tools. Web service description language (WSDL) files that describe both the TI launch and outcome services together with a deployment protocol XSD file are available from IMS for developers interested implementing the TI guidelines.

Please see the attached document for further information regarding IMSTI.