

SBIR 06.2 PHASE I - AWARD DETAILS	
ORGANIZATION	TARDEC
TOPIC NUMBER	A06-222
CONTRACT NUMBER	
YEAR OF AWARD	
AWARD START DATE	
AWARD COMPLETION DATE	
PROPOSAL NUMBER	A062-222-2594
TITLE	MECS: Mobile Embedded Component Suite
PROJECT MANAGER	R. Brian Anderson (513) 771-3751 andersrb@cliftonlabs.com
COMPANY	Clifton Labs, Inc 7450 Montgomery Rd Suite 300 Cincinnati OH 45236 Minority Owned: No Veteran Owned: No Number of Employees: 5
KEYWORDS	Embedded Computing, Message Framework, Widget Toolkit, GUI, Java, OSGi, JMS, Eclipse
ABSTRACT	The demand for open source software in the domain of embedded computing has seen an upward trend that will continue for the foreseeable future with the Java 2 Micro Edition being adopted as the platform of choice for 40% of mobile application developers. A market is emerging for open source Java middleware for embedded systems that promote rapid development of software for networked mobile devices. Clifton Labs is proposing to investigate the design and implementation of a Java development framework that supports embedded application development. The proposed product will be an open source software solution leveraging existing open source projects and standards. It includes a lightweight messaging framework based on the Java Message Service, and a rendering engine for a declarative, bitmap-based, user interface markup language. The product includes additional tooling for the Eclipse development environment, including a visual user interface designer.
BENEFITS	The benefits of the proposed solution include seamless device interoperability, code reuse, reduced development times, and increased developer productivity. Basing the messaging system on JMS leverages the experience of enterprise Java engineers by providing a proven and well-known publish/subscribe API. Defining user interfaces using a markup language promotes separation of the interface from domain logic, and simplifies the task of running the same application on different displays. The potential application areas of the proposed technology are extensive, as networked and interactive mobile devices are common in many industries.