

PROJECT PROPOSAL FOR A REVISED INCITS PROJECT

1 Source of the Proposed Project

1.1 Title: Revised Project – Real Time Locating Systems

1.2 Date Submitted:

1.3 Proposer: T20 Committee

2 Process Description for the Proposed Project

2.1 Project Type: D

2.2 Type of Document: Standard

2.3 Definition of Concepts and Special Terms: None

2.4 Expected Relationship with Approved Reference Models, Frameworks, Architectures, etc.:

Real Time Locating Systems locate assets equipped with RTLS tags within a localized network. It has been long recognized that a technical standard is needed, both in the U.S. and internationally.

2.4.1 It is envisioned that one part of the proposed standard will develop a 2.45 GHz air interface for Real Time Locating Systems.

2.4.2 A second part will develop an air interface at 433 MHz.

2.4.3 A third part will provide a common application programmer interface (API) from the RTLS server to the host applications.

2.4.4 The parts of the standard will progress separately and independently within the committee, but will be forwarded for public review as a complete three-part standard. Each part will be of equal significance in the completed standard.

Equipment suppliers will support either Part 1 (2.45 GHz) or Part 2 (433 MHz) of this standard. All compliant systems will adhere to Part 3 (the API) as described in this standard.

2.5 Recommended INCITS Development Technical Committee: T20

2.6 Anticipated Frequency and Duration of Meetings: Meetings will be held every six to eight weeks. A meeting will normally last 1 1/2 days.

2.7 Target Date for Initial Public Review (Milestone 4): February 2003

2.8 Estimated useful life of the document: Five years or longer

3 Business Case for Developing the Proposed Standard or Technical Report

3.1 Description: The primary application for this technology is to locate assets within an area covered by one or more radio transmitters. Application areas affected by the standards are: transportation, warehousing, ground support equipment tracking, energy, and industrial production.

3.2 Existing Practices and the Need for a Standard: Real Time Locating Systems (RTLS) address the weaknesses of conventional supply-chain management systems with wireless technology, by providing instantaneous location, tracking, and management of supply-chain resources.

Items are fitted with a wireless electronic tag that emits a unique tracking signal. The signal of each tag is then monitored by a cellular system of "readers" that receive and relay the tag's location to a database server. The location information is then displayed in map form on a PC or workstation either locally or across the web.

By continuously monitoring signals from the tags, 2.45GHz RTLS can pinpoint items to within 10-feet, and 433MHz RTLS can locate items to within 25-feet providing managers with a real-time picture of supply-chain movement and workflow.

When used with containers, pallets, parts, and equipment, RTLS streamlines production staging, inventory control, and finished goods putaway and retrieval. The system also replaces the error-prone manual methods used commonly in work-in-process and queue-time tracking, allowing operators to instantly determine the location of a specific job, the process stage, and the dwell time.

When deployed in a warehouse or distribution center, RTLS expands the percentage of useable storage area by eliminating the need to allocate bin or rack space to individual cartons or part numbers. As a wireless alternative for asset management and job-order tracking, the system is effective in reducing tool losses and supplying up-to-the-minute information on job status and delivery dates.

3.3 Implementation Impact of the Proposed Standard:

3.3.1 Development Costs:

Logistical Cost: Zero -- facilities provided by member organizations at no cost to INCITS.

Meeting attendance: Meetings ranging from six weeks to two months to be attended by approximately 25 committee members, exclusive of attendee travel costs. The intent is to complete the standard as quickly as possible.

Work between meetings: Drafts and revisions of drafts will be developed between meetings by members of dedicated ad hoc committees.

Editorial Work: Will require two man months to prepare submission.

3.3.2 Impact on Existing or Potential Markets: As local locating technologies and use proliferate, there is a need to develop a single structure for the location of an asset. The need of this work item arises from the fact that no national or international activity addresses such standardization and that the absence of such a standard creates the risk of proliferation of incompatible identifications. This has the potential for creating confusion for the user and would impede trade.

3.3.3 Cost and Methods of Conformity Assessment: No official validation or certification procedure has yet been established. System or application implementers may assert compliance.

3.3.4 Return on Investment: We have no basis on which to form such an assessment.

3.4 Legal Considerations:

InterNational Committee for Information Technology Standards (INCITS)

Title: Project Proposal for Revised Project – Real Time Locating Systems (INCITS SD 3)

Date: 13 August 2002

Document: INCITS T20/N01-001R3

3.4.1 Patent Assertions: None that we are aware of. Calls for patents will be made through the technical committee. All members that indicate that they hold relevant patents have agreed to conform to ANSI patent policy.

3.4.2 Dissemination of the Standard: The submitter is unaware of any IPR assertions that will hinder this distribution.

4 Related Standards Activity

4.1 Existing Standards: None

4.2 Related Standards Activity: AIM RTLS Forum

4.3 Recommendation for Coordination Liaison: None

4.4 Recommendations for Close Liaison: Joint Steering Group (JSG) on Spatial Standardization and Related Interoperability