ISO/IEC JTC 1/SC 31

Automatic Identification and Data Capture Techniques

Secretariat: ANSI (USA)

DOC TYPE: New Work Item Proposal - Revision

TITLE: Information technology - Automatic Identification and Data Capture

Techniques - Radio Frequency Identification (RFID) for Item

Management - System Management Protocol -

Part 1: Device Management Part 2: Data Management

Part 3: Application Management

SOURCE: National Body of Japan

PROJECT: ISO/IEC 24752

STATUS: To define a system management protocol to enable effective

communications between the host and the interrogator that allows a

plug-and-play interface between the application and the

interrogator(s). The system management protocol shall be composed

of following three parts.

The following ballot is a Revision to the current project, ISO/IEC NP 24752. P-Members have an obligation to vote and are requested to cast votes on the SC 31 (LiveLink) website by the date indicated on

the cover page.

ACTION ID: COM

DUE DATE: 2006-09-05

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MEDIUM: Web

NO. OF PAGES: 38 (including this cover)

New Work Item Proposal

February 2004

PROPOSAL FOR A NEW WORK ITEM

| 2006-06-05 | Proposer: JISC |
|---|----------------------------|
| Secretariat: ANSI (GS1 US) National Body USA | ISO/IEC JTC 1/SC 31 N 2106 |

A proposal for a new work item shall be submitted to the secretariat of the ISO/IEC joint technical committee concerned with a copy to the ISO Central Secretariat.

Presentation of the proposal - to be completed by the proposer.

Title (subject to be covered and type of standard, e.g. terminology, method of test, performance requirements, etc.)

Revision

Information technology – Automatic Identification and Data Capture Techniques– Radio Frequency Identification (RFID) for Item Management – System Management Protocol-

Part 1: Device Management

Part 2: Data Management

Part 3: Application Management

Scope (and field of application)

To define a system management protocol to enable effective communications between the host and the interrogator that allows a plug-and-play interface between the application and the interrogator(s). The system management protocol shall be composed of following three parts.

[24752-1]

The system management protocol -part1 Device management(24752-1) shall include the following functions:

encapsulate the ISO/IEC 15961 data protocol (commands and responses)

control and parameterize the interrogator set-up, including parameters to meet regulatory requirements enable remote configuration, while providing for the security of the interrogator by the application for ongoing processes

report and program the interrogator status of the optional I/O data (sensors and actuators) report and program other optional features such as interrogator location, real time clock etc provide for extensibility of the functions of this standard

This device management protocol allows for the independent specification of the transport layer (e.g. TCP/IP, WiFi, RS-232)

[24752-2]

The system management protocol –part2 data management protocol shall include the following functions: encapsulate the ISO/IEC 15961 data protocol (commands and responses)

control and parameterize the tag data format, including the ISO/IEC 15961 object based data.

Translate the UII(Unique Item Identifier) from/to the Application code

provide for the template of tag data to the application

provide for method and information to the interrogator to generate the logical memory map provide the data filter method for the request from application provide for extensibility for security function of the tag data

[24752-3]

The system management protocol-part3 application management shall include the following functions: encapsulate the ISO/IEC 15961 data protocol (commands and responses)

management of application interface to application

respond to the resultant inputs of event management and task management, including the multiple interrogators connecting network.

| Purpose and justification - attach a separate page as annex, if necessary |
|---|
| ISO/IEC 15961 specifies the logical exchange of data between the application and the interrogator. A need has been expressed by users to develop a system management protocol in order to implement interchangeable (i.e., plug-and-play) RFID systems. |
| The system management protocol involves the various technical field like EDA, device communication and application interface. The multi-part of this standardization is proper to smooth discussion process and to deliver on requested time. |
| Programme of work |
| If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed? a single International Standard |
| More than one International Standard (expected number:)X_ a multi-part International Standard consisting of3partsX_ a Revision to the following International Standard(s)ISO/IEC NP 24752 a technical report, type |
| And which standard development track is recommended for the approved new work item? |
| X a. Default Timeframe |
| b. Accelerated Timeframe |
| c. Extended Timeframe |
| Relevant documents to be considered |
| ISO/IEC 15961 |
| ISO/IEC 15962 |
| ISO/IEC 18000-2 |
| ISO/IEC 18000-3 |
| ISO/IEC 18000-4 |
| ISO/IEC 18000-6 |
| ISO/IEC 18000-7 |
| Co-operation and liaison |
| ISO/IEC JTC 1/SC 31/WG 4/SG 3 |
| EPCglobal SAG |
| Preparatory work offered with target date(s) |
| Simultaneous NP/WD, CD, FCD +6 months from approval of CD, FDIS +6 months from approval FCD (see attached draft) |
| Signature: Mr. Frank Sharkey, ISO/IEC JTC 1/SC 31 Secretariat |
| Will the service of a maintenance agency or registration authority be required?NO |
| Are there any known requirements for coding?NO |
| Does the proposed standard concern known patented items?NO |

Comments and recommendations of the JTC 1 or SC 31 Secretariat - attach a separate page as an annex, if necessary

Comments with respect to the proposal in general, and recommendations thereon: It is proposed to assign this new item to ISO/IEC JTC 1 SC 31

Voting on the proposal - Each P-member of the ISO/IEC joint technical committee has an obligation to vote within the time limits laid down (normally three months after the date of circulation).

| Date of circulation: | Closing date for voting: | Signature of Secretary: |
|----------------------|--------------------------|-------------------------|
| 2006-06-05 | 2006-09-05 | Lisa A. Rajchel |

| NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA | | |
|---|--|---|
| Criterion | Validity | Explanation |
| A. Business Requirement | | |
| A.1 Market Requirement | Essential _X Desirable Supportive | Market requests interoperability of RFID interrogator with plug and play features. |
| A.2 Regulatory Context | Essential Desirable Supportive Not Relevant _X_ | The devices will need to operate within national radio regulations. The work is complementary and additional to the ISO/IEC 15961 and 15962 standards. |
| B. Related Work | | |
| B.1 Completion/Maintenance of current standards | Yes No_X | |
| B.2 Commitment to other organisation | Yes No_X | |
| B.3 Other Source of standards | Yes No_X | |
| C. Technical Status | | |
| C.1 Mature Technology | Yes _X No | The functions are already implemented in several interrogators. |
| C.2 Prospective Technology | Yes No_X | |
| C.3 Models/Tools | Yes No_X | |
| D. Conformity Assessment and Interoperability | | |
| D.1 Conformity Assessment | Yes No | |
| D.2 Interoperability | Yes No | |

| E. Cultural and Linguistic Adaptability | Yes | |
|---|-----|--|
| | No | |
| F. Other Justification | | See Annex A |
| | | A part of RESOLUTIONS |
| | | OF THE 12TH ISO/IEC |
| | | JTC 1/SC 31 PLENARY |
| | | See SC31-N-2096 Documents |
| | | Japanese Governmental Efforts for RFID and Proposal on Middleware to the Plenary |

Notes to Proforma

- A. Business Relevance. That which identifies market place relevance in terms of what problem is being solved and or need being addressed.
- A.1 Market Requirement. When submitting a NP, the proposer shall identify the nature of the Market Requirement, assessing the extent to which it is essential, desirable or merely supportive of some other project.
- A.2 Technical Regulation. If a Regulatory requirement is deemed to exist e.g. for an area of public concern e.g. Information Security, Data protection, potentially leading to regulatory/public interest action based on the use of this voluntary international standard the proposer shall identify this here.
- B. Related Work. Aspects of the relationship of this NP to other areas of standardisation work shall be identified in this section.
- B.1 Competition/Maintenance. If this NP is concerned with completing or maintaining existing standards, those concerned shall be identified here.
- B.2 External Commitment. Groups, bodies, or fora external to JTC 1 to which a commitment has been made by JTC for Co-operation and or collaboration on this NP shall be identified here.
- B.3 External Std/Specification. If other activities creating standards or specifications in this topic area are known to exist or be planned, and which might be available to JTC 1 as PAS, they shall be identified here.
- C. Technical Status. The proposer shall indicate here an assessment of the extent to which the proposed standard is supported by current technology.
- C.1 Mature Technology. Indicate here the extent to which the technology is reasonably stable and ripe for standardisation.
- C.2 Prospective Technology. If the NP is anticipatory in nature based on expected or forecasted need, this shall be indicated here.
- C.3 Models/Tools. If the NP relates to the creation of supportive reference models or tools, this shall be indicated here.
- D. Conformity Assessment and Interoperability
- D.1 Indicate here if Conformity Assessment is relevant to your project. If so, indicate how it is addressed in your project plan.
- D.2 Indicate here if Interoperability is relevant to your project. If so, indicate how it is addressed in your project plan
- E. Cultural and Linguistic Adaptability Indicate here if cultural and linguistic adaptability is applicable to your project. If so, indicate how it is addressed in your project plan.
- F. Other Justification Any other aspects of background information justifying this NP shall be indicated here

Annex A

RESOLUTIONS OF THE TWELFTH ISO/IEC JTC 1/SC 31 PLENARY World Trade Center, Moscow, Russia 25/26 May 2006

Future Activities on Middleware

JTC1/SC31 welcomed the presentation from the National Body of Japan and expects further activities on the middleware proposal. JTC1/SC31 encourages other National Bodies to make similar contributions.

UNANIMOUS