A Proposed NISO Work Item:
Standard Interchange Protocol (SIP)

Proposal for Consideration by the NISO Voting Membership
Approval Ballot Period: March 13 – April 13, 2012

The following proposed work item is submitted by
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Proposal Last Modified: March 2, 2012
Approved by the NISO Discovery to Delivery Topic Committee, March 12, 2012

BACKGROUND AND PROBLEM STATEMENT

3M introduced the 3M™ Standard Interchange Protocol (SIP) in 1993. This protocol provided a standard communication mechanism to allow Integrated Library Systems (ILS) applications and self-service devices to communicate seamlessly to perform self-service transactions. This protocol quickly became the de facto standard around the world, and remains the primary protocol to integrate ILSs and self-service devices.

Since the protocol’s inception in 1993, 3M has continued to produce updated versions of it. Most recently 3M published version 3.0, for which the library community of developers and interested parties was utilized to provide input for its production. Version 3.0 was published at the end of 2011.

This standard protocol benefits library staff by enabling them to:

• Add new types of automated devices and services to the library with minimal change to the ILS system.
• Upgrade to new versions of automated devices with minimal or no change needed in the ILS system.
• Change from one ILS to another without the need to replace equipment or services that interface with the ILS.

This standard protocol specification will be useful to:

• Vendors of library systems and devices who wish to develop a standard interface between the ILS and automated library devices.
• Library planning committees who are planning new types of automated devices and services for patrons or staff.

SIP version 3.0 has several new messages that have been added to provide additional capability making it easier to implement new functionality in library products for managing the patron record. Below is a summary of changes.
New functionality that the protocol supports:

- Allow creation / registration of patrons from self-service devices
- Allow patrons to update their PINs / Passwords from a self-service device in the library
- Allow patrons to update their home addresses and phone numbers
- Support for handling electronic resources
- Support for staff overrides on self-service circulation
- Support for sortation systems
- Support for PC Management systems

New messages were added to simplify implementation and clarify usage:

- Undo Checkout and Undo Check-in messages have been added to simplify implementation. It has been confusing for many developers to send a Check-in w/cancel flag to cancel a Checkout and send a Checkout w/cancel flag to cancel a Check-in. This was confounded by the fact that many ILS vendors did not support cancelling a transaction and would then proceed as a standard check-in (if cancelling a checkout) causing the patron to be removed from the hold list.
- Added Off-line Checkout and Off-line Check-in messages to support off-line processing.
- Added Unsupported Message Response to indicate that the message request is not supported by the library system.

Grouped data:

- Data can now be grouped to provide all information required for a specific event. For example, a fee consists of the following fields: fee identifier, currency code, fee amount, and fee type. These fields can now be grouped together to simplify the passing of multiple fees on a single request or response message. Each set of group data starts with a group identifier and ends with a group end field.

The standard will need to be maintained for future growth of the Library industry. As the needs change and communication protocol requirements change, the SIP specification will need to be enhanced to support this growth. 3M feels that further maintenance and enhancements to SIP would be best performed under the ANSI/NISO standardization procedures. 3M shall continue to participate as a vendor, but will not lead the efforts, in order to ensure independence of the maintenance work.

**STATEMENT OF WORK**

The goal of this work item is to take the currently existing SIP version 3.0 specification and shepherd it through the NISO standardization process. Because of the maturity of the protocol, we believe that, once a Working Group is created, it will be possible to propose that version 3.0, as it currently stands, be accepted as a Draft Standard following a brief period of review within the group.

Following Draft Standard review and subsequent NISO Voting Member ballot, if approved, a Maintenance Agency or Standing Committee will be appointed for future review and maintenance of SIP.

**PARTNERS AND PARTICIPATION**

The success of SIP so far is due to the wide involvement of many types of participants in its development. The following types of organizations should be involved in the NISO working group:
• Representatives of Library Integrated Library Systems (ILS) vendors worldwide. Representatives may include management, support, or systems / software developers.

• Representatives of organizations that develop Library devices worldwide communicate with the ILS. Representatives may include management, support, or systems / software developers.

• Librarians interested in interoperability between vendors that support SIP.

**TIMELINE**

Following are the proposed timeline milestones for this initiative. Future dates to be determined by an established working group.

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<tr>
<th>Milestone</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>Appointment of working group</td>
<td>Month 1</td>
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<tr>
<td>Approve initial Work Plan (which will include determining how to package SIP version 3.0 as a Draft Standard)</td>
<td>Months 1-3</td>
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<tr>
<td>Submit SIP version 3.0 as a Draft Standard</td>
<td>Months 3-9</td>
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<td>Completion of final standard document (including review of and response to comments received during the Draft Standard phase)</td>
<td>Months 10-11</td>
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<tr>
<td>Approval and Publication; appointment of Standing Committee/Maintenance Agency</td>
<td>Month 12</td>
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