e-Payment Kiosk Solution using SIP 2.0 protocol
Why e-Payment Kiosk?

Currently, patrons at Temasek Polytechnic Library can only pay for ALEPH charges at the counter. There is increasing demand by patrons for self-service electronic payments anytime and anywhere within the campus.

Proposed Solution

An e-Payment Kiosk, with a fully integrated self-service electronic payment interface using SIP-2 protocol. This solution provides real-time update of cash transactions in ALEPH.

Benefits

- Improvement in operational efficiency and user satisfaction.
- Staff can devote time saved to providing more value-added services to enhance patrons’ library experience.

Status of Implementation

- TP Library provided the design requirement to Ex Libris with new and modified SIP 2 messages and new z31 (Cash table) fields.
- Ex Libris has developed the e-Payment Kiosk interface for ALEPH 16.02.
- We are currently testing the interface with an in-house developed SIP messages emulator. Expected completion by Aug 2004.
- TP Library will then engage a vendor to supply the e-Payment Kiosk that provides the front-end interface with ALEPH to enable self-service electronic payments.

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e-Payment Kiosk (KIOSK) establishes connection with Aleph via SIP-2 message 93, 94. This is similar to 3M™ Self-Check™ machine.

- Patron provides Patron ID & PIN. These are sent by KIOSK to ALEPH as SIP-2 message 63.
- ALEPH returns Patron information and charges via SIP-2 message 64 to KIOSK.

- KIOSK displays Patron information and charges.
- Patron selects and confirms the charges to be paid.
- KIOSK performs electronic fund transfer through the e-Payment clearing house *NETS.

*NETS: Network for Electronic Transfers Singapore

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• KIOSK informs Patron that NETS transaction has failed.
• ALEPH records will not be updated.

If NETS approved?

Y

• KIOSK updates the e-payment transaction in its Transaction Log Database (TLDB).
• KIOSK sends e-payment transaction details to ALEPH via SIP-2 message 37. ALEPH updates Cash (z31) records.
• ALEPH returns receipt details to KIOSK as SIP-2 message 38. ALEPH receipt number is updated in TLDB.

KIOSK prints receipt listing:
1. NETS receipt number
2. ALEPH receipt number
3. Paid items

End

N

End