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.
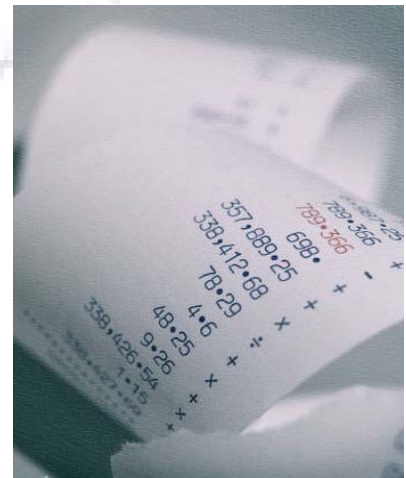
Proposed Solution

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.
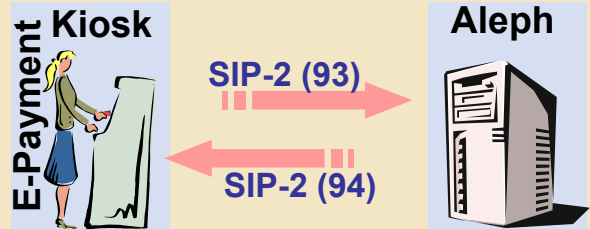
Status of Implementation

- 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.
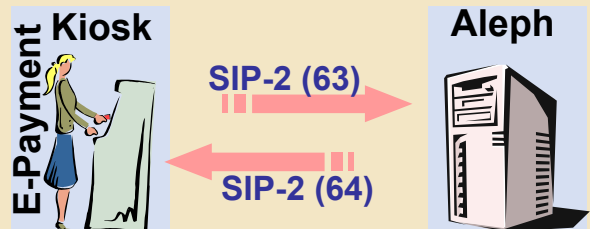
Presenter: Jacky Wong, Systems Specialist   Email: kaeperng@tp.edu.sg

Start

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

Kiosk — E-Payment
SIP-2 (93) →
← SIP-2 (94)
Aleph

- 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 — E-Payment
SIP-2 (63) →
← SIP-2 (64)
Aleph

- 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.

Temasek Polytechnic Library's
e-Payment Kiosk Concept
Patron Name: **Jacky Wong (P216275)**
Total Amount Payable: **$102.80 (includes VAT)**

Instructions:
Select charges to pay or click Pay Sum to settle the total amount payable.

Pay:	Item Barcode:	Title:	Charges:	Net Amt	VAT	Total
☑	T123456	Java	Replacement Cost	80.00	3.20	83.20
☑	T123456	Java	Handling Fee	10.00	0.40	10.40
☑	T123456	Java	Overdue Fees	1.20	0.00	1.20
☐	T654321	C#	Overdue Fees	8.00	0.00	8.00
				Total Amount:		94.80

Pay Sum   Pay Selected   Cancel

A

*NETS: Network for Electronic Transfers Singapore

A

NETS approved?

N →
- KIOSK informs Patron that NETS transaction has failed.
- ALEPH records will not be updated.

→ **End**

Y ↓

- KIOSK updates the e-payment transaction in its Transaction Log Database (TLDB).
- KOSK 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

E-Payment Kiosk

Aleph

SIP-2 (37)

SIP-2 (38)

KIOSK prints receipt for Patron

ALEPH receipt number updated in KIOSK Transaction Log DB