

CLAIMS

1. A system including:
 - a user device including:
 - a display;
 - at least one processor, wherein the processor is configured to:
 - obtain a resource access credential authorising payment for a transaction relating to the purchase of goods or services;
 - receive a user supplied transaction identifier from a user;
 - generate a barcode encoding barcode data including at least a purchasing entity identifier, the resource access credential, and the user supplied transaction identifier; and
 - display the barcode on the display of the user device;
 - a merchant computing system including:
 - an optical reader;
 - at least one processor, wherein the processor is configured to:
 - receive the barcode data from the optical reader on reading of the displayed barcode, in use;
 - request payment for the transaction using the resource access credential; and
 - produce a transaction data packet containing transaction data relating to the transaction, together with at least the purchasing entity identifier and the user supplied transaction identifier.
2. The system of claim 1, wherein the at least one processor of merchant computing system is configured to call a first application programming interface of a transaction processing service to request payment using the resource access credential.
3. The system of claim 2, wherein the transaction processing service provides the resource access credential to the user device for inclusion in the barcode.
4. The system of claim 2 or claim 3, wherein the at least one processor of the merchant computing

system is configured to transmit the transaction data packet to the transaction processing service.

5. The system of claim 4, wherein the at least one processor of the merchant computing system is configured to call a second application programming interface of the transaction processing service in order to transmit the transaction data packet to the transaction processing service.
6. The system of any one of claims 1 to 5, wherein the at least one processor of the user device is configured to display a user interface, and wherein the user supplied transaction identifier is received as an input into the user interface.
7. The system of any one of claims 1 to 6, wherein the resource access credential includes a one-time authorisation code.
8. The system of any one of claims 1 to 7, wherein the resource access credential is time-limited.
9. The system of claim 8, wherein the resource access credential is based on a Time-Based One-Time Password algorithm.
10. The system of any one of claims 1 to 9, wherein the resource access credential has an associated spend limit.
11. The system of claim 10, wherein obtaining the resource access credential includes receiving a value for the transaction as a user input, and issuing the resource access credential based at least in part on the user input value.
12. The system of claim 10, wherein obtaining the resource access credential includes receiving pre-transaction data from the merchant computing system relating to the proposed value of the transaction,
5 and issuing the resource access credential based at least in part on the pre-transaction data.
13. The system of any one of claims 1 to 12, wherein the barcode is a two-dimensional barcode.