Claims:

1. An electronic payment system for electronic transaction using a mobile electronic apparatus and a merchant having an mobile electronic payment apparatus wherein the electronic payment apparatus of the merchant and the mobile electronic apparatus are used to making online payment transaction including transferring a digital currency of a consumer using the mobile electronic apparatus as payment for the online transaction, said mobile electronic apparatus having a Mobile Application (MA) and a Payment Application residing in a Card Emulator (CE) Application running on a Mobile electronic Operating Software (OS), including

a Host Terminal Emulator Platform (HTE) which is an interface medium for transaction between the Mobile Application (MA) and the Card Emulator (CE) Application; and

a Mobile Payment Toolbox (MPT) including icons for activating a step to Debit, to Credit, to Top Up and to disclose Transaction History, and for activating a step to check Prepaid Credit Balance, and the MPT stores all payment related icons, wherein the MPT ICON function is integrated and used by the MA to activate payment transaction, and wherein the Card Emulator Application emulates card behaviour, and contains payment application, and the MA initiates a request with the HTE via a defined Application Programming Interface (API).

2. The electronic payment system of Claim 1, wherein the Host Terminal Emulator Platform (HTE) comprises a HTE Driver and an Interrupt service Handler which periodically receives data from said Operating System of the Mobile electronic, and checks for new sets of data loaded via the HTE or the Driver.

3. The electronic payment system of Claim 2, wherein the HTE further comprises a set of software API for payment request activation and payment data exchange between the MA and the HTE.

4. The electronic payment system of Claim 1, wherein the HTE further comprises,

a. a module to interface MA with payment application residing in the card Emulator;

b. a module to manage a secure transaction process wherein the secure token validation and generation process shall be performed within a secure container [G,G' or G'']; and

c. a module to perform debit and credit payment by translating the payment enquiry input data to respective payment scheme transaction commands, wherein all commands shall already residing within the HTE.

5. The electronic payment system of Claim 1, wherein a mobile user triggers a payment request through the MPT Icon of said MA by sending Sessions Key Token (1), SKT (1) and relevant Transaction Data to the HTE.

6. The electronic payment system of Claim 5, wherein the MA sends the SKT (1) request to a MA backend provider and forward a generated SKT (1) to the HTE.

7. The electronic payment system of Claim 6, wherein the HTE translates said Transaction Data to the Input Data and use said Input Data to generate Payment Secure Session Token; PSST upon said SKT (1) credential requirement validation satisfied by the HTE.

8. The electronic payment system of Claim 7, wherein the card emulator applications conduct a transaction approval decision by processing said Input Data to generate digital Transaction Electronic Receipt Token and

the Payment Secure Session Token Response PSST (R) as response data set to the HTE upon the PSST credential requirement validation satisfied by the card emulator application.

9. The electronic payment system of Claim 5, wherein the HTE sending said Transaction Electronic Receipt Token and the generated Session Key Token (1R) to the MA backend provider through the MA upon Payment Secure Session Token Response – PSST (R) credential requirement validation satisfied.

10. The electronic payment system of Claim 5, wherein the MA backend provider completes the online payment transaction by updated the MA GUI upon the Session Key Token (1R) MA credential requirement validation satisfied.