

# CLASSIFICATION OF EMERGING MOBILE PAYMENT SYSTEMS

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**W**ith the exponential growth of smartphone sales, start-ups and established technology and financial service companies alike are seeking to launch innovative mobile payments solutions. Such programs may leverage the existing mobile infrastructure, such as short messaging service (SMS), introduce new technology, such as near field communication (NFC), or take a hybrid approach by combining existing payment card types with NFC. This landscape is rapidly evolving and while there are many variations, most of the current mobile payments systems can be grouped according to their main feature or technology. The chart below provides a snapshot of some the current mobile payments initiatives and sample providers of such systems. To create this matrix, we looked at many mobile payment systems that are currently being used as well as some that have yet to be launched commercially, and divided them into five categories based on their core features. In addition, our “Mobile+” category includes technologies that are ancillary to mobile payments or payment innovations in a particular industry. For purposes of our classification, we focused more on the features and technology most apparent to the user and less on the regulated structure underpinning the system. Many other classifications are possible.

As companies continue to innovate, it may be increasingly difficult to neatly classify payment systems in such categories - even the current systems present quite a challenge. For example, of the mobile payment systems that aim to eliminate or transform the point of sale queue at a supermarket or restaurant, some solely accommodate merchant acceptance by turning any mobile wireless device, including tablets, into a credit card reader, while others allow a customer to pay the amount due using the customer’s mobile device. However, many of these wireless POS payment and acceptance systems as well as contactless POS payment systems can facilitate peer to peer money transfers and the ability to earn and burn loyalty points. The lines drawn between many of these systems may disappear if consumers demand more options from each payment system to avoid maintaining a specific application or technology to use each payment feature.

EMERGING MOBILE PAYMENT SYSTEMS IN THE UNITED STATES			
How it Works	Sample Providers	Type of Technology	Type of Purchases Online   Point of Sale
<b>MOBILE BILL TO PHONE</b>			
To pay for online purchases, customers enter their phone number as well as their mobile provider. The phone is used as the authorization method, and the amount spent is charged to the phone bill.	Boku (aka Paymo); Verizon Wireless/Payfone; Zong	SMS; Internet App	Online only
<b>STORED VALUE MOBILE PAYMENTS</b>			
This mobile payment platform allows customers to store gift and loyalty cards, and in some cases monetary value, on their mobile device – much like a prepaid card. Payments are then made via short messaging, via the Internet or using contactless readers at the point of sale.	PaybyMobile; Eagle Eye Vouchering; Mocapay; Paycloud; Chatterfly	SMS; Internet App, NFC	Online; POS
<b>PERSON-TO-PERSON</b>			
Mobile users can send and receive money, with one another, and in some instances with merchants, through their phones via a mobile web browser or SMS.	Eficash; m-Via Boom; Obopay; P2P Cash; Serve(Amex); Zala; PayPal Mobile	SMS; Internet App	Online only
<b>WIRELESS POS PAYMENTS &amp; ACCEPTANCE</b>			
Wireless POS payments allow just about anyone to process credit and debit cards in real-time by transmitting the customer's account information via the mobile phone's Internet connection, all while avoiding checkout lines at the point of sale.	AisleBuyer; Zumogo; JAK; Square; Card.io; Junio; PAGO; TotalTab	Internet App	POS
<b>CONTACTLESS POS PAYMENTS</b>			
Payment for purchases at the point of sale can be authenticated using a tap-and-pay contactless technology, whereby the mobile user waves the phone in close proximity to the merchant's reader, enabling the merchant to process payment information stored on the user's mobile phone.	Zenius Wallet; M-Transact; Bling Nation; Charge Anywhere; Google Wallet; Isis; Zoosh; Face Cash	NFC; RFID; Internet App	Online**; POS ** Many payment systems also allow for traditional online pmts
<b>MOBILE +: INDUSTRY INNOVATIONS; BIOMETRICS</b>			
Several industries have leveraged recent payment innovations to provide existing services in new ways including mobile ticketing to events and concerts as well as using mobile apps for marketing campaigns. Others have used the mobile phone to partially authenticate payments in conjunction with the use of biometrics.	Mobiqa; Mobile Tag; Face Cash	Internet App; SMS; NFC	Online; POS