

US010140603B2

(12) United States Patent Fisher

(54) FINANCIAL TRANSACTION PROCESSING WITH DIGITAL ARTIFACTS AND MULTIPLE PAYMENT METHODS USING A SERVER

(71) Applicant: **Michelle Fisher**, Marina Del Rey, CA

(72) Inventor: **Michelle Fisher**, Marina Del Rey, CA

(73) Assignee: Michelle Fisher, Berkeley, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 94 days.

(21) Appl. No.: 14/874,858

(22) Filed: Oct. 5, 2015

(65) Prior Publication Data

US 2016/0078425 A1 Mar. 17, 2016

Related U.S. Application Data

- (63) Continuation of application No. 14/179,952, filed on Feb. 13, 2014, now Pat. No. 9,177,331, which is a (Continued)
- (51) **Int. Cl. G06Q 20/20** (2012.01) **G06Q 40/00** (2012.01)
 (Continued)

(Continued)

(10) Patent No.: US 10,140,603 B2

(45) **Date of Patent:** Nov. 27, 2018

(58) Field of Classification Search

CPC G06Q 20/20; G06Q 20/204; G06Q 40/00; G06Q 40/04; G06Q 20/00; G06Q 20/108; (Continued)

(56) References Cited

U.S. PATENT DOCUMENTS

(Continued)

FOREIGN PATENT DOCUMENTS

WO WO 2006095212 A1 9/2006

OTHER PUBLICATIONS

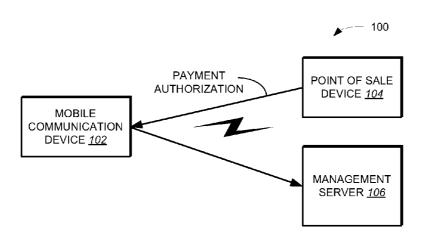
U.S. Appl. No. 11/933,337, Office Action dated May 27, 2010, 9 p. (Continued)

Primary Examiner — Olusegun Goyea

(57) ABSTRACT

A method and system for conducting an online payment transaction through a point of sale device. The method includes receiving input from a user selecting an item for purchase through the point of sale device; calculating a total purchase amount for the item in response to a request from the user to purchase the item; and sending payment authorization for the total purchase amount from the point of sale device to a payment entity, in which the payment authorization is sent to the payment entity via a mobile communication device of the user. The method further includes receiving a result of the payment authorization from the payment entity through the mobile communication device; and completing the payment transaction based on the result of the payment authorization.

42 Claims, 4 Drawing Sheets



Related U.S. Application Data

continuation of application No. 13/708,098, filed on Dec. 7, 2012, now Pat. No. 8,688,526, and a continuation of application No. 11/948,903, filed on Nov. 30, 2007, now Pat. No. 8,352,323.

(51) Int. Cl. (2018.01)H04W 4/21 G06Q 20/32 (2012.01)G06O 30/02 (2012.01)G06Q 30/06 (2012.01)G06Q 20/38 (2012.01)G06Q 20/40 (2012.01)G06Q 20/36 (2012.01)G06Q 20/16 (2012.01)G06Q 20/00 (2012.01)G06Q 20/10 (2012.01)H04W 8/20 (2009.01)H04M 1/725 (2006.01)H04W 4/18 (2009.01)H04B 5/00 (2006.01)H04W 4/80 (2018.01)H04N 21/81 (2011.01)G07F 7/10 (2006.01)H04W 88/02 (2009.01)H04W 4/02 (2018.01)

(52) U.S. Cl.

CPC *G06Q* 20/202 (2013.01); *G06Q* 20/204 (2013.01); G06Q 20/206 (2013.01); G06Q 20/32 (2013.01); G06Q 20/322 (2013.01); G06Q 20/325 (2013.01); G06Q 20/3223 (2013.01); G06Q 20/3226 (2013.01); G06Q 20/3227 (2013.01); G06Q 20/3255 (2013.01); G06Q 20/3278 (2013.01); G06Q 20/3674 (2013.01); G06Q 20/382 (2013.01); G06Q 20/3821 (2013.01); G06Q 20/40 (2013.01); G06Q 20/409 (2013.01); G06Q 20/4012 (2013.01); G06Q 20/4014 (2013.01); G06Q 30/02 (2013.01); G06Q 30/0222 (2013.01); G06Q 30/0238 (2013.01); G06Q 30/0251 (2013.01); G06Q 30/0253 (2013.01); G06Q 30/0255 (2013.01); G06Q 30/0267 (2013.01); G06Q 30/0268 (2013.01); G06Q 30/06 (2013.01); G06Q 30/0613 (2013.01); G06Q 30/0635 (2013.01); G06Q 40/10 (2013.01); G06Q 40/12 (2013.12); H04B 5/0025 (2013.01); H04M 1/72561 (2013.01); H04W 4/18 (2013.01); H04W 4/21 (2018.02); H04W 8/205 (2013.01); G06Q 20/10 (2013.01); G06Q 20/105 (2013.01); G06Q 40/00 (2013.01); G07F 7/1008 (2013.01); H04N 21/812 (2013.01); H04W 4/02 (2013.01); H04W 4/80 (2018.02); H04W 88/02 (2013.01)

(58) Field of Classification Search

CPC G06Q 30/00; G06Q 20/04; G06Q 30/02; G06Q 10/00; G06Q 20/10; G07F 7/00; G07F 17/16

USPC 705/16, 38, 30, 39, 40, 41, 44, 65, 72, 5, 705/26.8, 14.38, 14.64, 26.1; 455/558; 235/375–385, 462.46

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

6,115,601	A *	9/2000	Ferreira H04M 15/47
6,123,259	A *	9/2000	379/114.2 Ogasawara G06K 17/0022 235/380
6,128,655	A	10/2000	Fields
6,141,666	A	10/2000	Tobin
6,199,082	B1	3/2001	Ferrel
6,250,557	B1 *	6/2001	Forslund G06K 17/0022
			235/375
6,394,341	B1*	5/2002	Makipaa G06Q 20/02 235/379
6,415,156	В1	7/2002	Stadelmann
6,450,407	B1 *	9/2002	Freeman G06K 19/0723
			235/376
6,587,835	B1 *	7/2003	Treyz G06Q 20/12
C COE 120	D.I	0/2002	705/14.64
6,605,120	Bl	8/2003	Fields
6,771,981	B1	8/2004	Zalewski
6,772,396	B1	8/2004	Cronin
6,886,017	B1	4/2005	Jackson
6,950,939	B2	9/2005	Tobin
7,031,945	B1	4/2006	Donner
7,069,248	B2	6/2006	Huber
7,096,003	B2	8/2006	Joao
7,110,744	B2	9/2006	Freeny
7,110,792	B2 *	9/2006	Rosenberg G06Q 20/085 235/380
7,127,236	В2	10/2006	Khan
7,200,578		4/2007	Paltenghe G06F 21/6209
7,200,570	DL	1/2007	705/1.1
7,289,810	В2	10/2007	Jagadeesan
7,308,254		12/2007	Rissanen
7,357,312	B2	4/2008	
	B2		Gangi
7,379,920		5/2008	Leung
7,383,226	B2 *	6/2008	Kight G06Q 20/04 705/40
7,472,829	В2	1/2009	Brown
7,472,825	B2	1/2009	Hammad
7,512,567	B2 *	3/2009	Bemmel G06Q 20/20 705/64
7 522 005	DO	4/2000	
7,522,905	B2	4/2009	Hammad
7,783,532	B2 *	8/2010	Hsu G06Q 10/087
			705/14.11
7,784,684	B2 *	8/2010	Labrou G06Q 20/32
			235/375
7,818,284	B1 *	10/2010	Walker G06Q 20/387
			705/26.2
7,827,056	B2 *	11/2010	Walker G06Q 10/101
			705/14.1
7,870,077	B2 *	1/2011	Woo G06Q 20/02
			235/379
7,979,519	B2 *	7/2011	Shigeta H04L 69/329
			370/349
8,005,426	B2 *	8/2011	Huomo G06Q 20/20
			455/41.2
8,019,362	B2 *	9/2011	Sweatman H04W 4/12
			455/455
8,073,424	B2 *	12/2011	Sun G06Q 20/085
			455/406
8,086,534	B2 *	12/2011	Powell G06Q 20/32
			705/44
8,109,444	B2 *	2/2012	Jain G06K 19/07739
			235/492
8,121,945	B2	2/2012	Rackley
8,127,984		3/2012	Zatloukal G06K 7/0008
0,127,704	102	5,2012	235/375
0 214 454	D1*	7/2012	
8,214,454	DI "	7/2012	Barnes G06F 17/30876
0.420.020	D2 *	4/2012	709/217
8,429,030	B2 *	4/2013	Walker G06Q 30/02
0.420.021	Da #	1/2012	705/14.38
8,429,031	B2 *	4/2013	*
			705/14.38

US 10,140,603 B2 Page 3

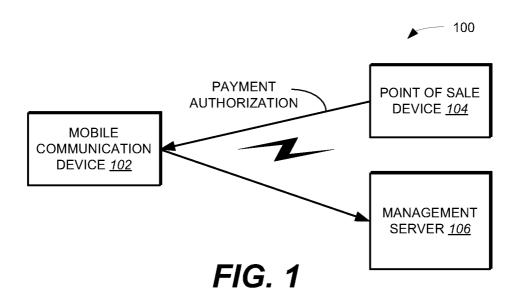
(56)		Referen	ces Cited	2003/0140004	A1	7/2003	O'Leary
	U.S. I	PATENT	DOCUMENTS	2003/0163359	A1*	8/2003	Kanesaka G06Q 30/02 705/7.33
8,438,077	B2 *	5/2013	Walker G06Q 30/02	2003/0171960			Skinner G06Q 10/02 705/5
8,438,078	B2 *	5/2013	705/14.38 Walker G06Q 30/02	2003/0172028 2003/0220839		9/2003 11/2003	Abell Nguyen G06Q 20/387 705/14.38
8,467,766	B2 *	6/2013	705/14.38 Rackley, III G06Q 20/042 455/406	2004/0006497 2004/0030658			Nestor G06Q 20/045
8,489,067	B2*	7/2013	Rackley, III G06Q 20/102 455/406	2004/0034544		2/2004	705/65 Fields
8,510,220	B2 *	8/2013	Rackley, III G06Q 40/00 705/39	2004/0059671			Nozaki G06Q 20/04 705/39
8,923,827			Wentker G06Q 20/10 455/414.1	2004/0064407			Kight G06Q 20/04 705/40 Kight G06Q 20/04
2001/0011250			Paltenghe	2004/0064408			705/40 Kight G06Q 20/04
			Flickinger	2004/0064410			705/40 Kight G06Q 20/04
			705/14.1 Hudda G06Q 30/06	2004/0073497			705/40 Hayes G06Q 30/02
			705/26.1 Ueno	2004/0078329	A1*		705/26.1 Kight G06Q 20/04
2002/0026423			705/39 Maritzen G06Q 20/02	2004/0083167	A1*	4/2004	705/40 Kight G06Q 20/04
2002/0056091	A1*	5/2002	705/56 Bala G06Q 30/02	2004/0093271	A1*	5/2004	705/40 Walker G06Q 30/02 705/14.17
2002/0059100 2002/0060246		5/2002 5/2002	725/34 Shore Gobburu G06Q 20/04	2004/0111320	A1*	6/2004	Schlieffers A47F 9/047 705/16
2002/0063895		5/2002	235/462.46	2004/0127256	A1*	7/2004	Goldthwaite G06K 7/0004 455/558
2002/0065774			Young G06Q 20/02 705/41	2004/0143545			Kulakowski G06Q 20/02 705/39
2002/0077918 2002/0082879		6/2002 6/2002		2004/0199474	A1*	10/2004	Ritter G06Q 20/00 705/65
2002/0082879			Shida G06Q 30/02 705/14.33	2004/0224638	A1*	11/2004	Fadell G06F 1/1632 455/66.1
2002/0101993	A1*	8/2002	Eskin G01S 1/68 380/270				Rosenberg G06Q 20/085 455/406
2002/0107756 2002/0107791		8/2002 8/2002	Hammons Nobrega G06Q 20/02	2004/0243519 2004/0254836		12/2004 12/2004	Perttila Emoke Barabas G06Q 30/02
2002/0116269	A1*		705/39 Ishida G06Q 30/02	2004/0267618			705/14.35 Judicibus
2002/0120589	Δ1*	8/2002	705/14.64 Aoki A63F 13/10	2004/0267665 2005/0003810		1/2004	Nam Chu
			705/400 Wolfe H04M 3/493	2005/0021478			Gautier G06Q 20/12 705/65
			455/414.1 Walker B42D 15/00	2005/0037735	A1*	2/2005	Coutts G06Q 20/227 455/411
2002/0169984		11/2002	705/14.36	2005/0040230			Swartz G06K 17/00 235/383
2003/0022655		1/2003	Bogat G06Q 20/04 455/406	2005/0043994			Walker B42D 15/00 705/14.19
2003/0033272			Himmel	2005/0076210 2005/0131837			Thomas Sanctis G06Q 20/12
2003/0055675 2003/0061113			Klein Twennaar G06Q 20/02 705/40 Petrovich G06Q 10/087	2005/0150945			705/64 Choi G06Q 20/108
2003/0065805			705/26.43 Barnes	2005/0165646			235/379 Tedesco B42D 15/00
2003/0066883	A1*	4/2003	Yu G06K 7/1095 235/382	2005/0187873	A1*	8/2005	705/14.1 Labrou G06Q 20/02
2003/0074259	A1*	4/2003	Slyman, Jr G06Q 20/204 705/14.22	2005/0210387	A1*	9/2005	705/40 Alagappan G06Q 30/06
2003/0085286			Kelley G06K 19/073 235/492	2005/0215231			715/700 Bauchot
2003/0087601			Agam G06F 21/34 455/39				Staib
2003/0093311			Knowlson				Yan
2003/0093695 2003/0105641	A1	5/2003 6/2003	Lewis				Ekberg G06Q 20/02 705/67
2003/0132298	A1*	7/2003	Swartz G06K 17/00 235/472.02	2006/0014518	A1*	1/2006	Huh

US 10,140,603 B2 Page 4

(56)	Referen	ices Cited	2008/0004952	A1* 1/2008	Koli G06Q 30/02
U.	.S. PATENT	DOCUMENTS	2008/0006685	A1* 1/2008	705/14.55 Rackley, III G06Q 20/10 235/379
2006/0031752 A	.1* 2/2006	Surloff G06F 3/021 715/205	2008/0010190	A1* 1/2008	
2006/0044153 A	.1* 3/2006	Dawidowsky G06K 7/0008 340/4.3	2008/0010191	A1* 1/2008	Rackley, III G06Q 20/042 705/39
2006/0089874 A	.1* 4/2006	Newman G06Q 30/02 705/14.32	2008/0010192	A1* 1/2008	Rackley, III G06Q 20/042 705/39
2006/0135156 A	.1* 6/2006	Malu H04W 8/18 455/432.3	2008/0010193	A1* 1/2008	Rackley, III G06Q 20/042 705/39
2006/0143091 A	.1* 6/2006	Yuan G06Q 20/343 705/26.1	2008/0010196	A1* 1/2008	Rackley, III G06Q 20/102 705/40
2006/0161871 A	.1* 7/2006	Hotelling G06F 3/0485 715/863	2008/0010204	A1* 1/2008	Rackley, III G06Q 20/042 705/45
2006/0165060 A	.1* 7/2006	Dua G06Q 20/20 370/352	2008/0010215	A1* 1/2008	Rackley, III G06Q 20/042 705/70
2006/0180660 A	.1* 8/2006	Gray G06Q 20/24 235/380	2008/0011825	A1* 1/2008	Giordano G06Q 20/04 235/380
2006/0191995 A	.1* 8/2006	Stewart G06F 21/6245 235/379	2008/0017704		Vandeburg G06Q 20/32 235/380
2006/0206709 A	.1* 9/2006	Labrou G06Q 20/18 713/167	2008/0027795	A1* 1/2008	Medlin G06Q 20/20 705/14.14
2006/0218092 A	.1* 9/2006	Tedesco B42D 15/00 705/40	2008/0040265	A1* 2/2008	Rackley III G06Q 20/02 705/40
2006/0219780 A	.1* 10/2006	Swartz G06K 17/00 235/383	2008/0045172	A1* 2/2008	Narayanaswami G06Q 30/02 455/187.1
2006/0261149 A	.1* 11/2006	Raghavendra Tulluri	2008/0046366	A1* 2/2008	Bemmel G06Q 20/20 705/44
2006/0278698 A	.1* 12/2006	235/379 Lovett G06Q 20/24	2008/0048022	A1* 2/2008	Vawter G06Q 20/32 235/380
		235/380 Perkins G06Q 30/02	2008/0051059	A1* 2/2008	Fisher G06Q 20/20 455/410
2006/0294025 A	.1* 12/2006	705/14.49 Mengerink G06Q 20/085	2008/0051142	A1* 2/2008	Calvet H04W 88/02 455/558
2007/0004391 A	.1 1/2007	705/77 Maffeis	2008/0052192	A1* 2/2008	Fisher G06Q 10/02 705/5
2007/0011099 A	.1* 1/2007	Sheehan G06Q 20/32 705/65	2008/0052233	A1* 2/2008	Fisher G06Q 20/102 705/40
2007/0012763 A	.1* 1/2007	Van de Velde G06Q 20/045 235/380	2008/0059329	A1* 3/2008	Luchene G06Q 30/0603 705/26.35
2007/0021969 A		Homeier-Beals G06Q 20/06 705/1.1	2008/0126145	A1* 5/2008	Rackley, III G06Q 20/102 455/406
2007/0022058 A		Labrou G06Q 20/32 705/67	2008/0133336	A1* 6/2008	Altman G06Q 30/0207 455/456.1
2007/0055754 A		Robbin G07F 17/16 709/223	2008/0139155 2008/0140520		Boireau Hyder G06Q 20/342
2007/0095892 A 2007/0125838 A		Law G06Q 20/04	2008/0148040		705/14.1 Machani G06F 21/6245
2007/0125840 A	.1* 6/2007	235/379 Law G06Q 20/10	2008/0167017		713/150 Wentker G06Q 20/10
2007/0138299 A	.1* 6/2007	235/379 Mitra G06K 19/0719	2008/0167961		455/414.1 Wentker G06Q 20/10
2007/0131759 A			2008/0167988		705/14.25 Sun G06Q 20/085
2007/0156436 A		Fisher G06Q 20/102 455/552.1	2008/0172274		705/39 Hurowitz H04W 4/02
2007/0175978 A		Stambaugh	2008/0172274		455/433 Hurowitz G06O 30/02
2007/0179883 A		Questembert G06Q 20/06 705/39	2008/0172291		455/414.1 Hurowitz G06Q 30/02
2007/0210155 A 2007/0215690 A		Swartz G06K 17/00 235/383 Shar	2008/0172291		705/14.1 Hurowitz G06Q 30/02
		Shea			705/14.14 Delean
2007/0235519 A 2007/0235539 A		Sevanto G06K 7/10237 235/451	2008/0177668 2008/0207234		Arthur G06Q 20/20 455/466
2007/0255662 A		Tumminaro	2008/0208681		Hammad
		Hampel H04L 51/20 455/456.3 Line G06O 20/32	2008/0208743		Arthur
		Liao	2008/0208744		Arthur G06Q 20/105 705/41
2007/0294640 A	.1* 12/2007	Eskelinen G06F 3/04817 715/835	2008/0208762	A1* 8/2008	Arthur G06Q 20/027 705/79

US 10,140,603 B2Page 5

U.S. PATENT DOCUMENTS 2008/0221997 A1* 9/2008 Wolfe G06Q 30:02 2008/0242274 A1* 10/2008 Swanburg G06Q 30:02 2008/0242274 A1* 10/2008 Swanburg G06Q 20:12 2008/0249938 A1* 10/2008 Drake-Stoker G06Q 20:12 2008/0249938 A1* 10/2008 Drake-Stoker G06Q 20:12 2008/0249938 A1* 10/2008 Friedman G06Q 20:12 2008/0255947 A1* 10/2008 Friedman G06Q 20:12 2008/0262928 A1* 10/2008 Michaelis G06Q 30:02 2008/0262928 A1* 10/2008 Michaelis G06Q 30:02 2008/027799 A1* 11/2008 Mathieson G06Q 30:02 2008/027799 A1* 11/2008 Lakshminarayanan G06Q 20:02 2008/029456 A1 11/2008 Anderson G06Q 30:02 2008/029456 A1 11/2008 Anderson G06Q 30:02 2008/029456 A1 11/2008 Anderson G06Q 30:02 2009/0018913 A1* 1/2009 Sarukkai G06Q 30:02 2009/006188 A1* 3/2009 Rajan G06Q 30:02 2009/006188 A1* 3/2009 Rajan G06Q 30:02 2009/0076912 A1* 3/2009 Rajan G06Q 30:02 2009/0076912 A1* 3/2009 Rajan G06Q 30:02 2009/0076912 A1* 3/2009 Fisher G06Q 30:02 2009/0124234 A1* 5/2009 Fisher G06Q 20:04 2009/0124234 A1* 5/2009 Fisher G06Q 20:04 2009/0124234 A1* 5/2009 Fisher G06Q 20:04 2009/0144161 A1* 6/2009 Fisher G06Q 20:04 2009/0144010 A1* 6/2009 Fisher G06Q 20:04 2009	(56)		Referen	ces Cited	2010/0145835 A1* 6/2010 Davis G06Q 20/10 705/30
2008/021997 Al* 9/2008 Wolfe G06Q 30/02		U.S.	PATENT	DOCUMENTS	2010/0312694 A1* 12/2010 Homeier-Beals G06Q 20/10
2008/0242274 A1* 10/2008 Swanburg G66Q 20/32	2008/0221997	A1*	9/2008	~	2011/0055038 A1* 3/2011 Mengerink G06Q 20/085
2008/0249938 A1 * 10/2008 Drake-Stoker G66Q 20/12 2012/0030044 A1 * 2/2012 Hurst G60Q 20/105 705/14 705/14 705/18 705/	2008/0242274	A1*	10/2008	Swanburg G06Q 20/3223	2011/0320316 A1* 12/2011 Randazza G06Q 20/02
2008/0255947 A1 * 10/2008 Friedman G6GQ 20/02	2008/0249938	A1*	10/2008	Drake-Stoker G06Q 20/12	2012/0030044 A1* 2/2012 Hurst G06Q 20/105
2008/0262928 Al * 10/2008 Michaelis G06Q 30/02 705/14.26 2012/0220314 Al * 8/2012 Sussman G06F 9/50 705/5 2008/0275779 Al * 11/2008 Lakshminarayanan G06Q 20/02 705/39 2012/0220314 Al * 8/2012 Alman G06Q 30/0207 705/39 2012/0265677 Al * 10/2012 Rackley, III G06Q 20/02 705/34 2008/0305774 Al 12/2008 Ramakrishna 2008/0305774 Al 12/2008 Ramakrishna 2009/0018913 Al * 1/2009 Rajan G06Q 30/025 455/445 2009/0061884 Al * 3/2009 Rajan G06Q 20/105 705/14.56 2009/0063312 Al * 3/2009 Rajan G06Q 20/105 705/14.64 2009/0076912 Al * 3/2009 Rajan G06Q 20/105 705/14.64 2009/0106112 Al * 4/2009 Dalmia G06Q 20/04 705/14.75 2009/0143104 Al * 5/2009 Fisher G06Q 20/02 20/09/0132362 Al * 5/2009 Fisher G06Q 20/02 20/09/0143104 Al * 6/2009 Fisher G06Q 20/02 20/09/017587 Al * 7/2009 Siegal G06F 21/32 705/67 2009/0143104 Al * 6/2009 Fisher G06Q 20/02 20/09/017587 Al * 7/2009 Siegal G06F 21/32 705/67 2009/0167619 Al * 3/2010 Weller G06Q 20/02 705/41.56 2018/005/619 Al * 3/2010	2008/0255947	A1*	10/2008	Friedman G06Q 20/20	2012/0150744 A1* 6/2012 Carlson G06Q 20/02
2008/0274794 A1 * 11/2008 Mathieson G06Q 30/02	2008/0262928	A1*	10/2008	Michaelis G06Q 30/02	2012/0215573 A1* 8/2012 Sussman G06F 9/50
2008/0275779 A1* 11/2008 Lakshminarayanan G06Q 20/02 705/34 2008/0294556 A1 11/2008 Anderson 705/34 2008/0305774 A1 12/2008 Ramakrishna 2009/0018913 A1* 1/2009 Rajan G06Q 30/02 705/45 455/445 2009/0063312 A1* 3/2009 Rajan G06Q 20/02 455/445 4/2009 Considerate and the state of the st	2008/0274794	A1*	11/2008	Mathieson G06Q 30/02	
705/39 2013/0013501 A1* 1/2013 Rackley, III G06Q 20/02 705/41	2008/0275779	A1*	11/2008	Lakshminarayanan	•
2008/0305774 A1 12/2008 Ramakrishna 2009/0018913 A1* 1/2009 Sarukkai				705/39	
2009/0018913 A1* 1/2009 Sarukkai					
705/14.56 2009/0061884 A1* 3/2009 Rajan					
2009/0063312 A1* 3/2009 Hurst	2009/0018913	A1*	1/2009		
2009/0076912 A1* 3/2009 Rajan G06Q 20/105 705/30 2009/0076912 A1* 3/2009 Rajan G06Q 30/02 705/14.64 2009/0106112 A1* 4/2009 Huomo	2009/0061884	A1*	3/2009	Rajan G06Q 30/0225	
705/14.64 2009/0106112 A1* 4/2009 Huomo 2009/0106112 A1* 4/2009 Dalmia	2009/0063312	A1*	3/2009	Hurst G06Q 20/105	OTHER PUBLICATIONS
2009/0106112 A1*	2009/0076912	A1*	3/2009	3	
705/14.17 2009/0112747 A1* 4/2009 Mullen G06Q 20/04 705/35 2009/0124234 A1* 5/2009 Fisher G06Q 20/32 2009/0132362 A1* 5/2009 Fisher G06Q 10/06 2009/0143104 A1* 6/2009 Loh G06Q 20/32 2009/0144161 A1* 6/2009 Fisher G06Q 20/32 2009/0147587 A1* 7/2009 Siegal G06K 19/07309 2009/0227281 A1* 9/2009 Hammad G06K 19/07309 2010/0057619 A1* 3/2010 Weller G06Q 20/02 2010/0063895 A1* 3/2010 Dominguez G06Q 20/02 2010/0063895 A1* 3/2010 Dominguez G06Q 20/02 2010/0063895 A1* 3/2010 Dominguez G06Q 20/02 2009/014234 A1* 4/2009 Fisher G06Q 20/02 2009/0143104 A1* 5/2009 Fisher G06Q 20/02 2009/0143104 A1* 6/2009 Fisher G06Q 20/02 2009/0143104 A1* 5/2009 Fisher G06Q 20/02 20	2009/0098825	A1	4/2009		U.S. Appl. No. 11/933,367, Office Action dated May 27, 2010, 8 p.
2009/0124234 A1*	2009/0106112	A1*	4/2009		
2009/0132362 A1* 5/2009 Fisher	2009/0112747	A1*	4/2009		U.S. Appl. No. 12/592,581, Office Action dated Jun. 4, 2010, 20 p.
2009/0132362 A1* 5/2009 Fisher	2009/0124234	A1*	5/2009	Fisher G06Q 20/32	U.S. Appl. No. 11/939,821, Office Action dated Aug. 17, 2010, 11
2009/0143104 A1* 6/2009 Loh	2009/0132362	A1*	5/2009	Fisher G06Q 10/06	1
2009/0144161 A1* 6/2009 Fisher	2009/0143104	A1*	6/2009	Loh G06Q 20/32	
2009/0177587 A1* 7/2009 Siegal	2009/0144161	A1*	6/2009	Fisher H04W 4/21	1
2009/0227281 A1* 9/2009 Hammad G06K 19/07309 455/550.1 2010/0057619 A1* 3/2010 Weller G06Q 20/02 2010/0063895 A1* 3/2010 Dominguez G06Q 20/02 2010/0063895 A1* 3/2010 Dominguez G06Q 20/02 3/2010 Hammad G06K 19/07309 455/550.1 Communication (NFC) Solution at the NRF Show." Business Wire: 1 Jan. 16, 2006. Business Dateline; Hoover's Company Profiles; ProQuest Central. Web. Oct. 5, 2012.	2009/0177587	A1*	7/2009	Siegal G06F 21/32	
2010/0057619 A1* 3/2010 Weller	2009/0227281	Al*	9/2009	Hammad G06K 19/07309	
2010/0063895 A1* 3/2010 Dominguez G06Q 20/02	2010/0057619	A1*	3/2010	Weller G06Q 20/02	1 Jan. 16, 2006. Business Dateline; Hoover's Company Profiles;
	2010/0063895	A1*	3/2010	Dominguez G06Q 20/02	,



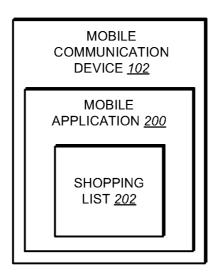


FIG. 2

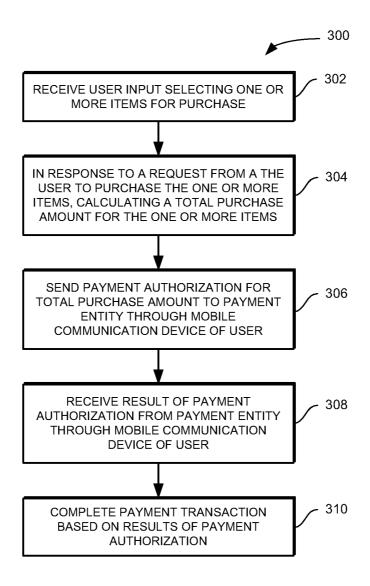
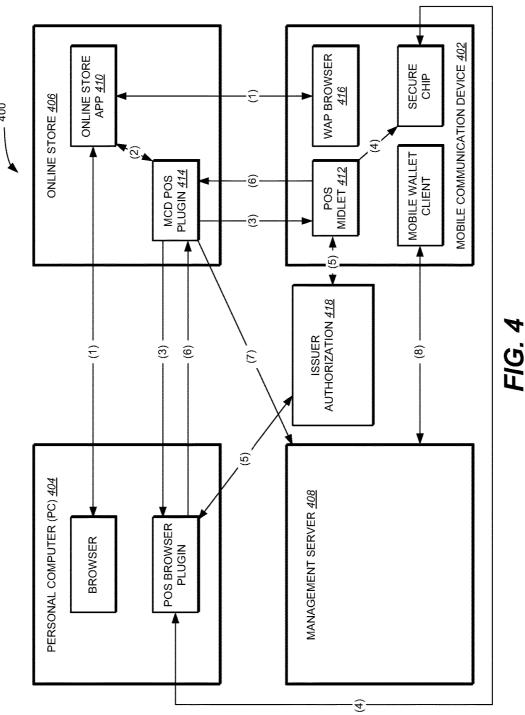
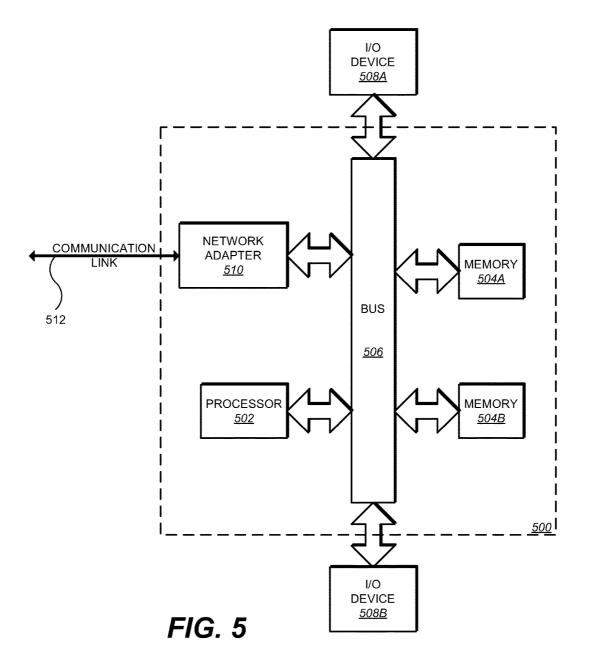


FIG. 3





FINANCIAL TRANSACTION PROCESSING WITH DIGITAL ARTIFACTS AND MULTIPLE PAYMENT METHODS USING A SERVER

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of application Ser. No. 14/179,952 filed on Feb. 13, 2014, titled "FINANCIAL TRANSACTION PROCESSING WITH DIGITAL ARTIFACTS AND A DEFAULT PAYMENT METHOD USING A SERVER" which is a continuation and claims priority to application Ser. No. 13/708,098, filed Dec. 7, 2012, titled "FINANCIAL TRANSACTION PROCESSING WITH DIGITAL ARTIFACTS USING A MOBILE COMMUNICATIONS DEVICE" now U.S. Pat. No. 8,688,526 which is a continuation and claims priority to application Ser. No. 11/948,903, filed Nov. 30, 2007, titled "METHOD AND SYSTEM FOR CONDUCTING AN ONLINE PAYMENT TRANSACTION USING A MOBILE COMMUNICATION DEVICE" now U.S. Pat. No. 8,352,323, all of which are incorporated by reference herein in its entirety.

FIELD OF INVENTION

The present invention relates to data communications and wireless devices.

BACKGROUND OF THE INVENTION

Mobile communication devices—e.g., cellular phones, personal digital assistants, and the like—are increasingly being used to conduct payment transactions as described in U.S. patent application Ser. No. 11/933,351, entitled "Method and System For Scheduling A Banking Transaction Through A Mobile Communication Device", and U.S. patent application Ser. No. 11/467,441, entitled "Method and Apparatus For Completing A Transaction Using A Wireless Mobile Communication Channel and Another Communication Channel, both of which are incorporated herein by reference. Such payment transactions can include, for example, purchasing goods and/or services, bill payments, and transferring funds between bank accounts.

BRIEF SUMMARY OF THE INVENTION

In general, this specification describes a method and system for conducting an online payment transaction through a point of sale device. The method includes receiving input from a user selecting an item for purchase through the point of sale device; calculating a total purchase amount for the item in response to a request from the user to purchase the item; and sending payment authorization for the total purchase amount from the point of sale device to a payment entity, in which the payment authorization is sent to the payment entity via a mobile communication device of the user. The method further includes receiving a result of the payment authorization from the payment entity through the mobile communication device; and completing the payment transaction based on the result of the payment authorization.

Particular implementations can include one or more of the following features. The point of sale device can be a desktop computer, a laptop computer, or a terminal. The mobile 65 communication device can be a cellular phone, a wireless personal digital assistant (PDA), or a laptop computer. The

2

cellular phone can be an NFC-enabled phone. Sending payment authorization for the total purchase amount from the point of sale device to a payment entity can include sending the payment authorization securely to the payment entity. The payment entity can be a person, a computer system, or a bank. The method can further include maintaining a shopping list on the mobile communication device of the user, in which the shopping list includes a listing of one or more items to be purchased by the user. The payment authorization can be an authorization for payment with a credit card, a debit card, or a prepaid card.

The details of one or more implementations are set forth in the accompanying drawings and the description below. Other features and advantages will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a block diagram of a communication
 system including a wireless mobile communication device
 and a management server in accordance with one implementation.

FIG. 2 illustrates one implementation of the wireless mobile communication device of FIG. 1.

FIG. 3 is a method for conducting a payment transaction using a point of sale device in accordance with one implementation.

FIG. 4 illustrates a block diagram of a communication system including a wireless mobile communication device ³⁰ and an online store in accordance with one implementation.

FIG. 5 is a block diagram of a data processing system suitable for storing and/or executing program code in accordance with one implementation.

Like reference symbols in the various drawings indicate

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 illustrates one implementation of a communication system 100. The communication system 100 includes a hand-held, wireless mobile communication device 102 a point-of-sale device 104 and a management server 106. In one implementation, the mobile communication device 102 includes a mobile application (discussed in greater detail below) that permits a user of the mobile communication device 102 to conduct payment transactions. Payment transactions can include, for example, using contactless payment technology at a retail merchant point of sale (e.g., through point of sale device 104), using mobile/internet commerce (e.g., purchase tickets and products, etc.), storage of payment information and other digital artifacts (e.g., receipts, tickets, coupons, etc.), storage of banking information (payment account numbers, security codes, PIN's, etc.), and accessing banking service (account balance, payment history, bill pay, fund transfer, etc.), and so on. The mobile communication device 102 can be a cellular phone, a wireless personal digital assistant (PDA), a laptop computer, or other wireless communication device. The point of sale device 104 can be a desktop computer, laptop computer, terminal, or other device that is configured to receive user input selecting items for purchase or other transaction.

In one implementation, authorizations for payment transactions that are made through the point of sale device 104 are sent from the point of sale device 104 to an issuer authorization (e.g., management server 106) through the mobile communication device 102 (as shown in FIG. 1). In

one implementation, an issuer authorization is a payment entity that either approves or disapproves a payment transaction. An issuer authorization can be, e.g., a person, computer system, bank (or other third party). One potential benefit of having payment authorizations flow through the 5 mobile communication device 102 is that sensitive user information (e.g. account numbers, pin numbers, and/or identity information) need only be sent from the mobile communication device 102 directly to an issuer authorization. Such operation reduces the potential for identity theft and/or fraudulent purchases made through a point of sale device. For example, (in one implementation) payment authorizations cannot be sent to an issuer authorization if the mobile communication device 102 is turned off.

FIG. 2 illustrates one implementation of the mobile com- 15 munication device 102. The mobile communication device 102 includes a mobile application 200 that (in one implementation) is provided to the mobile communication device 102 through a remote server (e.g., management server 106). In one implementation, the mobile application is a Mobile 20 Wallet application available from Mobile Candy Dish, Inc., of Alameda, Calif. In one implementation, the mobile application is a hosted service, as described in U.S. patent application Ser. No. 11/939,821, entitled "Method and System For Securing Transactions Made Through a Mobile 25 Communication Device", which is incorporated herein by reference. In one implementation, the mobile application 200 is configured to send requests to the management server for artifacts based on user input, e.g., received though a keypad (not shown) of the mobile communication device 30 102. Requests to the management server 106 can also be automated, via proximity-based services, e.g., consumer tapping (or in close proximity) an LBS/contactless/RFID enabled phone against a smart poster (RFID/Bluetooth/LBS enabled, etc.), kiosk, or other device.

In one implementation, the mobile application 200 running on the mobile communication device 102 is configured to receive artifacts (e.g., advertisements, receipts, tickets, coupons, media, content, and so on) from the management server 106. In one implementation, the management server 40 to sends artifacts to the mobile application based on user profile information and/or a transaction history (or payment trends) associated with a user of the mobile communication device 102 as described in U.S. patent application Ser. No. 11/944,267, entitled "Method and System For Delivering Information To a Mobile Communication Device Based On Consumer Transactions", which is incorporated herein by reference

In one implementation, the mobile communication device 102 is an NFC-enabled phone. The mobile communication 50 device 102 can be NFC-enabled, for example, through an embedded chip or a sticker that is affixed to the cellular phone, as described in U.S. application Ser. No. 11/933,321, entitled "Method and System For Adapting a Wireless Mobile Communication Device For Wireless Transactions", 55 which is incorporated herein by reference. In one implementation, the NFC chip (or sticker) on the cellular phone can be used in conjunction with a merchant's point of sale device as described in greater detail below.

For example, with reference to FIG. 4, in one implementation, the NFC chip (or sticker) on the cellular phone can communicate with NFC chips that are installed on the front of PC's (TV's, Kiosks, or any other device) and serve as scanners/readers. In this implementation a mobile candy dish applet (e.g., MCD POS plugin 414) is installed on the 65 consumer's computer (e.g., PC 404) which interfaces with the NFC chip on the PC. When a consumer (or user) is

4

shopping online and they are ready to pay for their products, the consumer opens his mobile wallet and selects one of the payment methods (e.g., credit card, debit card, prepaid card, etc.) from their mobile wallet. If a default card has been selected already, this step is not necessary. The consumer then waves their phone over the NFC reader present on the PC 404. The consumer's payment credentials are transferred from the phone to the merchant website (e.g., online store application 410) using a communication protocol between the chip in the phone and the chip in the PC, which can be radio frequency for example. If the consumer has coupons in their mobile wallet the consumer can either elect to manually apply the coupon, save the coupon for a future use (against a larger purchase for example), or have the coupon automatically applied during the transaction and the transaction amount is updated. After the consumer enters any necessary validation information (e.g., pin) to provide a multi-factor authentication and confirms the transaction, the online purchase is processed as normal by the merchant's online processor. The mobile wallet can retrieve transaction data, account balance from the management server 408.

In one implementation, the mobile communication device 102 is a non NFC-enabled phone. In this implementation, the consumer connects his phone to the PC 404 via some non radio frequency method (e.g., IR, Bluetooth, USB cable, etc.). When a consumer is shopping online and they are ready to pay for their products, the consumer opens his mobile wallet and selects one of the payment methods (e.g., credit card, debit card, prepaid card, etc.) from their mobile wallet. If a default card has been selected already, this step is not necessary. The consumer then pushes, e.g., a "Buy now" button and the consumer's payment credentials are transferred from the phone to the merchant website (e.g., online store application 410) using the protocol between the phone and the PC 404 which can be radio frequency, for example. If the consumer has coupons in their mobile wallet the consumer can either elect to manually apply the coupon, save the coupon for a future use, or have the coupon automatically applied during the transaction and the transaction amount is updated. After the consumer enters any necessary validation information (e.g., pin) to provide multifactor authentication and confirms the transaction, the online purchase is processed as normal by the merchant's online processor. The mobile wallet can retrieve transaction data and account balance from the management server 408.

In one implementation, the management server 408 and merchant portal (e.g., online store 408) are maintained by trusted parties and use an encrypted tunnel to transfer financial data. When the consumer is ready to pay for their online product, they enter their cell phone number on the merchant portal. The merchant portal (which has an MCD applet (e.g., MCD POS plugin 414) installed on its server) securely connects to the management server 408 (that in one implementation is maintained by Mobile Candy Dish (MCD)). In one implementation, the management server 408 identifies the consumer through their cell phone number, and verifies the consumer's authenticity by sending a unique transaction code to the consumer mobile wallet on their cell phone. The consumer then enters this unique transaction code onto the merchant's web portal. The merchant portal sends this transaction number to the management server 408 for authentication. Upon authentication, the consumer's virtual wallet and payment methods (e.g., credit card, debit card, prepaid card, etc.) are securely retrieved from the management server 408 and are displayed to the consumer in a window on a website associated with the merchant portal. The consumer selects one of these payment methods

to pay for their transaction. If a default card has been selected already, this step is not necessary. If the consumer has coupons in their mobile wallet the consumer can either elect to manually apply the coupon, save the coupon for a future use, or have the coupon automatically applied during the transaction and the transaction amount is updated. After the consumer enters any necessary validation information to provide a multi-factor authentication and confirms the transaction, the online purchase is processed as normal by the merchant's online processor. The mobile wallet can retrieve transaction data, account balance from the management server 408.

Referring to FIG. 2, in one implementation, the mobile application 200 maintains a shopping list 202 for a consumer. Accordingly, consumers have the ability to store their 15 shopping list in their mobile wallet and add, delete, or change items on their shopping list either in offline or online mode. In one implementation, consumers are sent coupons based on items on their shopping list, preferences, previous shopping history, proximity to the physical retail store, or a 20 combination of these parameters, as discussed in application Ser. No. 11/944,267, which is incorporated by reference above. If the consumer has coupons in their mobile wallet the consumer can either elect to manually apply the coupon, save the coupon for a future use, or have the coupon 25 automatically applied during the transaction and the transaction amount is updated. When a consumer wants to order the items on their shopping list via an on online merchant (in contrast to a physical retail store), the consumer can logon to the merchant portal and electronically transmit their 30 shopping list to the merchant portal either by waving their phone over NFC enabled PC's or some other connection such as IR, bluetooth, USB, or the like.

FIG. 3 illustrates a method 300 for conducting a payment transaction using a point of sale device (e.g., point of sale 35 device 104). User input is received selecting one or more items for purchase (e.g., at the point of sale device) (step 302). In general, the transaction being made at the point of sale device can be any type of transaction that involves the exchange or transfer of funds—e.g., the transaction can be 40 a payment transaction, a fund transfer, or other type of transaction. In response to a request from the user to purchase the one or more items, a total purchase amount for the one or more items is calculated (e.g., by the point of sale device) (step 304). If the user has coupons in their mobile 45 wallet the user can either manually apply the coupon or have the coupon automatically applied during the transaction and the transaction amount is updated. The user request to purchase an item can be received, e.g., by a user clicking on a "buy now" icon that is displayed on a graphical user 50 interface of the point of sale device. Payment authorization for the total purchase amount is sent to a payment entity through a mobile communication device of the user (step **306**). A result of the payment authorization is received at the point of sale device from the payment entity via the mobile 55 communication device (step 308). The payment transaction is completed based on the result of the payment authorization (step 310). If the payment transaction was authorized by the payment entity, then the sale of the items through the point of sale device is completed. Otherwise, if the payment 60 transaction was not authorized by the payment entity, then the point of sale device terminates the payment transaction.

FIG. 4 illustrates an example payment transaction being made in a communication system 400 in accordance with one implementation. The communication system 400 65 includes a mobile communication device 402, a personal computer (PC) 404, an online store 406, and a core (or

6

datastore) 408. As indicated by interaction (1), a user (or customer), using a phone (e.g., mobile communication device 402 or personal computer 404), browses an online store website (online store application 410) and finds an item that the customer wishes to purchase. This could also be a purchase made through a midlet application (POS midlet 412) residing on the mobile communication device 402. The user then goes to, e.g., a checkout of the online store 406 make a purchase. If the user has coupons in their mobile wallet the user can either manually apply the coupon or have the coupon automatically applied during the transaction and the transaction amount is updated. When it comes time to authorize the purchase, (in one implementation) the user is given an option to purchase with the mobile communication device 402. In one implementation, the mobile communication device 402 is an NFC-equipped phone (or NFC

In interaction (2), when the user chooses to purchase with the mobile communication device 402, the online store application 410 sends the transaction information for authorization to the POS vendor plugin (e.g., MCD POS plugin 414). In one implementation, the POS vendor plugin is installed in the merchant's online store and enables the merchant to accepts MCD Blaze payments as an alternative form of payment, similar to accepting credit cards for payment. As shown by interaction (3), the POS vendor plugin formats, encrypts, and cryptographically signs the purchase authorization request which is sent via a secure SSL link (e.g., HTTPS, Bluetooth, IR, USB, or other suitable protocol) established by the browser/web application 416 back to the mobile communication device 402. As with the first scenario, all communications is over secure channels. (It may be required that the mobile wallet application be opened prior to beginning a phone online purchase.) The POS midlet 412 is a component of the mobile wallet application that executes PayPass or other payment authorization protocol between itself and the SE payment applications on the mobile communication device 402 (interaction (4)). The results of the request are sent back to the POS vendor plugin.

As shown by interaction (5), the POS midlet 412 then forwards the properly formatted authorization request to a payment entity (e.g., issuer authorization 418) for authorization. The results of the request are then sent back to the POS component of the mobile wallet. Through interaction (6), the POS midlet 412 then forwards the results back to the MCD POS plugin 414 to complete the purchase. The MCD POS plugin 414 then forwards the purchase transaction information to the management server 408 for later customer viewing (interaction (7)). As indicated by interaction (8), users (or customers) will then be able to query the management server 408 and immediately obtain purchase information, either by phone or PC.

One or more of method steps described above can be performed by one or more programmable processors executing a computer program to perform functions by operating on input data and generating output. Generally, the invention can take the form of an entirely hardware embodiment, an entirely software embodiment or an embodiment containing both hardware and software elements. In one implementation, the invention is implemented in software, which includes but is not limited to firmware, resident software, microcode, etc. Furthermore, the invention can take the form of a computer program product accessible from a computer-usable or computer-readable medium providing program code for use by or in connection with a computer or any instruction execution system. For the purposes of this

description, a computer-usable or computer readable medium can be any apparatus that can contain, store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, or device. The medium can be an electronic, magnetic, 5 optical, electromagnetic, infrared, or semiconductor system (or apparatus or device) or a propagation medium. Examples of a computer-readable medium include a semiconductor or solid state memory, magnetic tape, a removable computer diskette, a random access memory (RAM), a read-only memory (ROM), a rigid magnetic disk and an optical disk. Current examples of optical disks include compact diskread only memory (CD-ROM), compact disk-read/write (CD-R/W) and DVD.

FIG. 5 illustrates a data processing system 500 suitable for 15 storing and/or executing program code. Data processing system 500 includes a processor 502 coupled to memory elements 504A-B through a system bus 506. In other implementations, data processing system 500 may include more than one processor and each processor may be coupled 20 directly or indirectly to one or more memory elements through a system bus. Memory elements 504A-B can include local memory employed during actual execution of the program code, bulk storage, and cache memories that provide temporary storage of at least some program code in 25 includes metadata operable to trigger a call to action. order to reduce the number of times the code must be retrieved from bulk storage during execution. As shown, input/output or I/O devices 508A-B (including, but not limited to, keyboards, displays, pointing devices, etc.) are coupled to data processing system 500. I/O devices 508A-B 30 may be coupled to data processing system 500 directly or indirectly through intervening I/O controllers (not shown).

In one implementation, a network adapter 510 is coupled to data processing system 500 to enable data processing system 500 to become coupled to other data processing 35 systems or remote printers or storage devices through communication link 512. Communication link 512 can be a private or public network. Modems, cable modems, and Ethernet cards are just a few of the currently available types of network adapters.

Although the present invention has been particularly described with reference to implementations discussed above, various changes, modifications and substitutes are can be made. Accordingly, it will be appreciated that in numerous instances some features of the invention can be 45 employed without a corresponding use of other features. Further, variations can be made in the number and arrangement of components illustrated in the figures discussed above.

What is claimed is:

1. A method for processing a contactless payment transaction, comprising:

maintaining, at a remote management server, a plurality of payment methods;

receiving at the remote management server a payment 55 account identifier from a point of sale terminal over a third communication channel, wherein the point of sale terminal receives the payment account identifier over a second communication channel that utilizes contactless communication from a payment application, wherein 60 the payment application receives the payment account identifier selected from a plurality of payment account identifiers through user input via a mobile device display, the payment application maintaining the payment account identifier in a mobile device memory 65 included in a mobile device, wherein the payment application is not browser based and is a mobile

operating system platform based mobile application with a graphical user interface that is preinstalled or downloaded and installed on the mobile device, the mobile device comprising the mobile device display, a mobile device processor, a mobile device wireless interface that utilizes at least one of CDMA, GSM, or WIFI, wherein a first communication channel, the second communication channel and the third communication channel are all different;

processing at the remote management server the contactless payment transaction using a payment method corresponding to the payment account identifier; and

- after the contactless payment transaction has been processed by the remote management server, transmitting, over the first communication channel, a digital artifact from the remote management server to the payment application for storage on the mobile device and display within a specific payment application generated screen, wherein the digital artifact is displayed using the mobile device display, wherein the specific payment application generated screen corresponds to a specific screen or area of the payment application.
- 2. The method of claim 1, wherein the digital artifact
- 3. The method of claim 1, further wherein prior to the contactless payment transaction being initiated, receiving, at the remote management server, user authentication information from the payment application, wherein the payment application stored on the mobile device receives the user authentication information via the mobile device display of the mobile device and further wherein upon receipt of the user authentication information, authenticating, at the remote management server, the user associated with the user authentication information.
- 4. The method of claim 3, wherein the user authentication information includes biometric data.
- 5. The method of claim 4, wherein the user authentication 40 information is a personal identification number (PIN).
 - 6. The method of claim 1, wherein a coupon is redeemed during the transaction.
 - 7. The method of claim 1, further wherein the remote management server selects the digital artifact based on one or more targeting parameters, wherein the targeting parameters comprises personal information and/or financial transaction related information.
- 8. The method of claim 1, wherein the digital artifact is an advertisement, receipt, ticket, coupon, media, or content 50 received at the payment application.
 - 9. The method of claim 7, wherein personal information comprises location, gender, age, interest, affiliation, userid, pageid, zip code, area code, and occupation.
 - 10. The method of claim 7, wherein the financial transaction related information comprises financial information related to historical payment transactions, financial information related to real-time payment transactions, financial information related to contactless transactions made using a secure element coupled to the mobile device, financial information related to internet commerce, financial information related to bill pay, financial information related to top spend categories, merchants, financial information related to storage of banking information, financial information related to account balance, financial information related to payment history, financial information related to funds transfer, financial information related to tickets, financial information related to receipts, financial information related to coupons

transactions made by the user but not through the mobile device, and financial information related to raw data downloaded from banks.

- 11. The method of claim 1, wherein the mobile device has a secure element including a secure element processor 5 configured for near field communication transaction processing, a secure element memory that maintains a secure element application, and a secure element near field communication transceiver.
- **12.** A remote management server for processing a contactless payment transaction, comprising:
 - a remote management server memory that maintains a plurality of payment methods;
 - a remote management server interface configured to receive a payment account identifier from a point of 15 sale terminal over a third communication channel, wherein the point of sale terminal receives the payment account identifier over a second communication channel that utilizes contactless communication, from a payment application, wherein the payment application 20 receives the payment account identifier selected from a plurality of payment account identifiers through user input via a mobile device display, the payment application maintaining the payment account identifier in a mobile device memory included in a mobile device, 25 wherein the payment application is not browser based and is a mobile operating system platform based mobile application with a graphical user interface that is preinstalled or downloaded and installed on the mobile device, the mobile device comprising the mobile device 30 display, a mobile device processor, a mobile device wireless interface that utilizes at least one of CDMA, GSM, or WIFI, wherein a first communication channel, the second communication channel and the third communication channel are all different;
 - a remote management server processor configured to: process the contactless payment transaction using a payment method corresponding to the identification code associated with the user; and
 - after the contactless payment has been processed by the 40 remote management server, a remote management server transceiver that transmits over the first communication channel a digital artifact to the payment application for storage on the mobile device and display within a specific payment application generated screen, 45 wherein the digital artifact is displayed using the mobile device display, wherein the specific payment application generated screen corresponds to a specific screen or area of the payment application.
- 13. The remote management server of claim 12, wherein 50 the digital artifact includes metadata operable to trigger a call to action.
- 14. The remote management server of claim 12, further wherein prior to the contactless payment transaction being initiated, receiving, at the remote management server, user 55 authentication information from the payment application, wherein the payment application stored on the mobile device receives the user authentication information via the mobile device display of the mobile device and further wherein upon receipt of the user authentication information, authenticating, at the remote management server, the user associated with the user authentication information.
- 15. The remote management server of claim 14, wherein the user authentication information includes biometric data.
- **16**. The remote management server of claim **15**, wherein 65 the user authentication information is a personal identification number (PIN).

10

- 17. The remote management server of claim 12, wherein a coupon is redeemed during the transaction.
- 18. The remote management server of claim 12, further wherein the remote management server selects the digital artifact based on one or more targeting parameters, wherein the targeting parameters comprises personal information and/or financial transaction related information.
- 19. The remote management server of claim 12, wherein the digital artifact is an advertisement, receipt, ticket, coupon, media, or content received at the payment application.
- **20**. A non-transitory computer readable medium for processing a contactless payment transaction, comprising:
 - computer code for maintaining, at a remote management server, a plurality of payment methods;
 - computer code to receive, at the remote management server, a payment account identifier from a point of sale terminal over a third communication channel, wherein the point of sale terminal receives the payment account identifier over a second communication channel that utilizes contactless communication from a payment application, wherein the payment application receives the payment account identifier selected from a plurality of payment account identifiers through user input via a mobile device display, the payment application maintaining the payment account identifier using the payment application in a mobile device memory included in a mobile device, wherein the payment application is not browser based and is a mobile operating system platform based mobile application with a graphical user interface that is preinstalled or downloaded and installed on the mobile device, the mobile device comprising the mobile device display, a mobile device processor, a mobile device wireless interface that utilizes at least one of CDMA, GSM, or WIFI, wherein a first communication channel, the second communication channel and the third communication channel are all different:
 - computer code for processing the contactless payment at the remote management server using a payment method corresponding to the payment account identifier;
 - computer code for after the contactless payment transaction has been processed by the remote management server, transmits from the remote management server, over the first communication channel, a digital artifact to the payment application for storage on the mobile device and display within a specific payment application generated screen, wherein the digital artifact is displayed using the mobile device display, wherein the specific payment application generated screen corresponds to a specific screen or area of the payment application.
- 21. The method of claim 1, wherein the payment method comprises a credit card, debit card, or prepaid card.
- 22. The method of claim 1, further wherein the digital artifact can be accessed by the payment application when the mobile device is not connected to a wireless network.
- 23. The method of claim 22, wherein upon the condition that the mobile device loses connection with the wireless network, the payment application monitors for access to the wireless network and automatically reconnects to the wireless network when the wireless network is available.
- 24. The remote management server of claim 12, wherein the payment method comprises a credit card, debit card, or prepaid card.

- 25. The remote management server of claim 12, further wherein the digital artifact can be accessed by the payment application when the mobile device is not connected to a wireless network.
- 26. The remote management server of claim 25, wherein upon the condition that the mobile device loses connection with the wireless network, the payment application monitors for access to the wireless network and automatically reconnects to the wireless network when the wireless network is available.
- 27. The method of claim 1, further wherein no sensitive data is stored on the mobile device.
- 28. The method of claim 27, wherein the sensitive data includes information related to the payment method.
- 29. The method of claim 27, wherein the sensitive data includes information related to the user authentication information.
- **30.** The method of claim **1**, wherein the remote management server sends the digital artifact to the payment application based on the geographical location of the mobile ²⁰ device.
- 31. The method of claim 1, further wherein the payment application can be used when the mobile device is not connected to a wireless network.
- **32**. The method of claim **1**, further wherein payment ²⁵ application generates an alert if it has not received the digital artifact within a certain period of time.
- **33**. The method of claim **1**, further wherein the same payment application is used in the contactless payment transaction and storing and displaying the digital artifact.
- **34**. The method of claim **1**, wherein the remote management server is configured to store a single identification code

12

associated with the user for a plurality of the user's mobile devices and further wherein this means the configuration scales

- **35**. The remote management server of claim **12**, further wherein no sensitive data is stored on the mobile device.
- **36**. The remote management server of claim **35**, wherein the sensitive data includes information related to the payment method.
- **37**. The remote management server of claim **35**, wherein the sensitive data includes information related to the user authentication information.
- **38**. The remote management server of claim **12**, wherein the remote management server sends the digital artifact to the payment application based on the geographical location of the mobile device.
- **39**. The remote management server of claim **12**, further wherein the same payment application is used in the contactless payment transaction and storing and displaying the digital artifact.
- 40. The remote management server of claim 12, wherein the remote management server is configured to store a single identification code associated with the user for a plurality of the user's mobile devices and further wherein this means the configuration scales.
- **41**. The remote management server of claim **12**, further wherein the payment application can be used when the mobile device is not connected to a wireless network.
- **42**. The remote management server of claim **12**, further wherein the payment application generates an alert if it has not received the digital artifact within a certain period of time.

* * * * *