

Bango overview

February 2013

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bango®

Introduction



- Founded 1999 to enable effective payment for content and services by users of mobile internet devices
- World leader in mobile operator billing for smartphones
- Offices in Cambridge UK and New York USA
- 59 employees
- Listed on London Stock Exchange since 2005 (AIM: BGO.L)

Bango customers include:



90+ Operator relationships include:



Award winning technology:



The smartphone opportunity...



(1) Smartphone base growing fast:

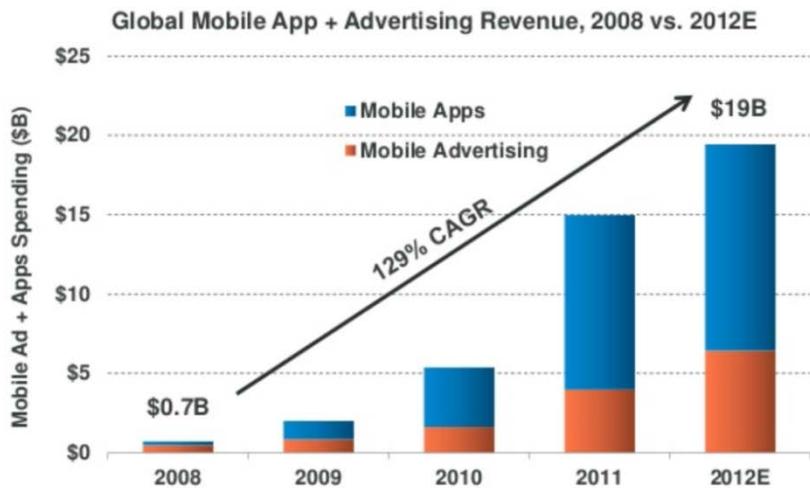
Global smart phone market

Shipments into the channel, split by platform, Q2 2012, Q2 2011

Platform	Q2 2012		Q2 2011		Growth
	shipments (million)	% share	shipments (million)	% share	
Total	158.3	100.0%	107.7	100.0%	46.9%
Android	107.8	68.1%	51.2	47.6%	110.4%
iOS	26.0	16.4%	20.3	18.9%	28.0%
BlackBerry	8.5	5.4%	12.5	11.6%	-32.1%
Symbian	6.4	4.1%	18.1	16.8%	-64.6%
Windows Phone	5.1	3.2%	1.3	1.2%	277.3%
bada	3.3	2.1%	3.1	2.9%	5.1%
Others	1.2	0.8%	1.1	1.0%	15.2%

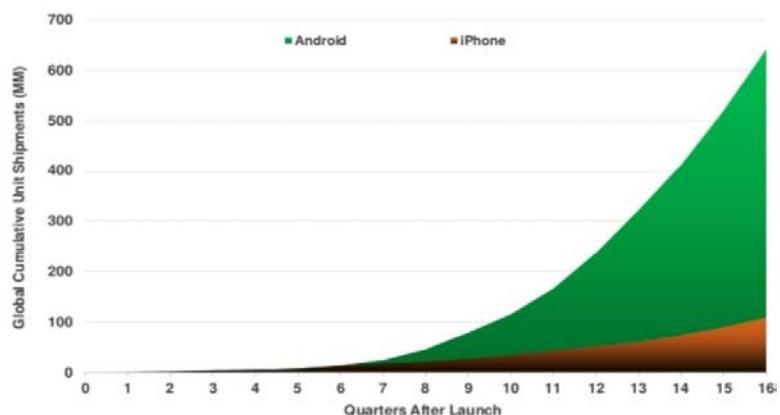
Source: Canalys estimates, © Canalys 2012

(2) Driving app and advertising revenues:



Note: Apple has paid \$6.5B+ to developers as of 9/12, implying gross app market revenue of \$9B+ in 4 years; Google indicated during Q3'12 earnings call that its mobile revenue (from advertising and apps / content) run rate is \$8B+, up from \$2.5B mobile ad revenue run rate in Q3'11.

First 16 Quarters Cumulative Global Android & iPhone Unit Shipments



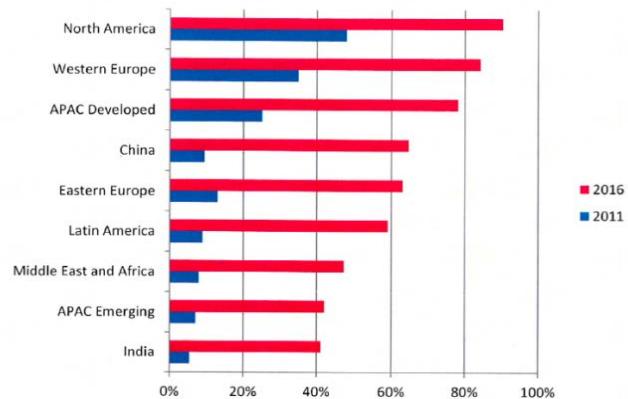
Source: Gartner, Morgan Stanley Research, as of Q3'12.

KPCB

(3) With much more growth to come:

Growth of smartphone adoption over the next 3 years

Installed base of smartphones by region, % of total mobile phone base



KPCB

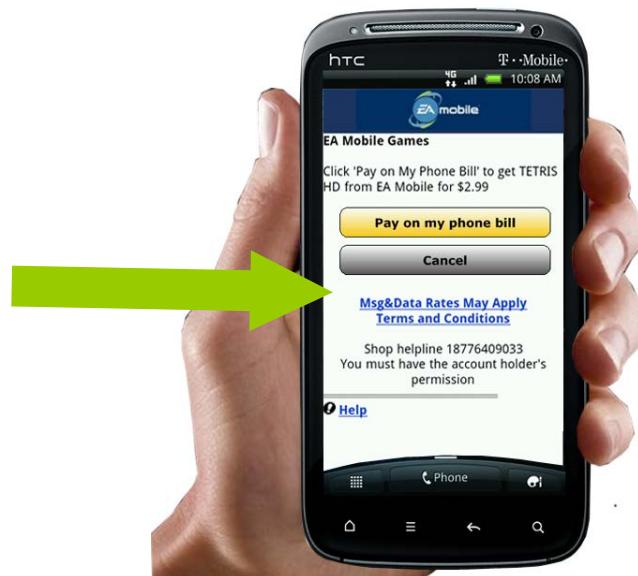
Mobile Payments

© CCS Insight

What Bango does



**Streamline
the user
payment
experience**



**One-click
payment
increases
sales**

For thousands of digital merchants



Already at scale



Billing reach >1 billion mobile users
- increasingly in emerging markets

Date (GMT)	Identity		Connection		Payment		
	User ID	Tracking User ID	Device	Network	Trans ID	Amount	Currency
28 Jan 13 12:00:58	1333280159		w		1103117205	5.00	GBP
28 Jan 13 12:00:58	1491798035		w		1103117195	1.00	GBP
28 Jan 13 12:00:57	263412559		w 48050578	GBR_THREE	1103117175	1.49	GBP
28 Jan 13 12:00:55	1094613519		w 8808156614	DEU_O2	1103117155	2.00	EUR
28 Jan 13 12:00:54	80240498		w 38056212	GBR_VODAFONE			
28 Jan 13 12:00:53	1004842299		w 123122179	DEU_O2	1103117135	2.49	EUR
28 Jan 13 12:00:53	1620647975		x 1121943001	USA			
28 Jan 13 12:00:51	1620648625		w		1103117105	0.75	EUR
28 Jan 13 12:00:51	1035008409		w		1103117095	1.00	GBP
28 Jan 13 12:00:51	1034387549		w 79745138	GBR_THREE	1103117085	1.49	GBP
28 Jan 13 12:00:50	1618011285		w		1103117075	3.99	GBP
28 Jan 13 12:00:48	1620539565		x 1485974182	NPL_SPICE			
28 Jan 13 12:00:48	1056646699		w 61077578	DEU_O2	1103117025	2.00	EUR
28 Jan 13 12:00:48	1620647565		x 1121918681	USA			
28 Jan 13 12:00:47	Premium	116170481477850	x 1121959591	IND			
28 Jan 13 12:00:46	970126159		w 63352888	DEU_O2	1103116995	2.49	EUR
28 Jan 13 12:00:42	Premium	116170481461650	x 352044350	USA			
28 Jan 13 12:00:42	Premium	116170480874250	x 1121903541	USA			
28 Jan 13 12:00:42	1273623519		w		1103116945	0.99	USD
28 Jan 13 12:00:41	Premium	116170481470250	x 1121958701	USA			
28 Jan 13 12:00:38	1255022949		w		1103116915	4.99	CAD
28 Jan 13 12:00:37	1620638955		w		1103116905	19,800.00	IDR
28 Jan 13 12:00:37	Premium	116170481465350	x 1171713314	IND			
28 Jan 13 12:00:35	1114804429		w		1103116875	4.99	CAD
28 Jan 13 12:00:34	1232353890		x 137927700	GBR_O2			
28 Jan 13 12:00:30	1185205889		w		1103116825	5.00	GBP
28 Jan 13 12:00:28	1609317105		w		1103116795	13,200.00	IDR
28 Jan 13 12:00:26	1620647565		x 1121918881	USA			
28 Jan 13 12:00:26		11617038574950	x 156169104	BGD_GRAMEENPHONE			
28 Jan 13 12:00:23	Adult	116170430154950	x 71065862	IND			
28 Jan 13 12:00:21	Premium	116170481444350	x 1121956501	PHL_GLOBETEL			
28 Jan 13 12:00:16	1620647575		w		1103116745	19,800.00	IDR
28 Jan 13 12:00:16		116170481437450	x 1121751011	IND			
		955621	USA				
		28291	IND				
		751011	IND				
		843011	IND				
		918681	IND				
		00611	IND				
28 Jan 13 12:00:01	Premium	116170481416550	x 1121954091	IND			
28 Jan 13 12:00:01	Premium	116170481415150	x 1121953931	IND			

Sample from millions of payment transactions from round the world

DateTime (UTC)	Identity		Connection		Device					
	Tracking UID	iNetwork ID	Country	Is WiFi	IP address	C-Network ID	Country	Device	Type	Device ID
28 Jan 2013 12:00:59	116164124279550				66.87.82.40	USA_SPRINT_IPL	USA	Samsung M820	Smartphone	1113602332
28 Jan 2013 12:00:58	116170481429260				190.125.239.74	COL_Apple_iPhone	COL	Apple iPhone	Smartphone	1112950961
28 Jan 2013 12:00:57	116170481409680				71.222.152.14	IND_Apple_iPhone	IND	Apple iPhone	Smartphone	1112953451
28 Jan 2013 12:00:55	116170481409680	IND_BHARTI	IND		106.214.163.199	IND_BHARTI	IND	Nokia N95_3GB 20.0.016	Smartphone	1112964331
28 Jan 2013 12:00:54	116157549022090				78.111.61.53	USA_Apple_iPhone	USA	Apple iPhone	Smartphone	1120970410
28 Jan 2013 12:00:53	1161704813586250				201.144.162.9	MEX_Samsung S5230 1.2.0	MEX	Samsung S5230 1.2.0	Smartphone	1985650970
28 Jan 2013 12:00:53	116162024241660				174.220.128.92	USA_VZERON	USA	Apple iPhone	Smartphone	206810820
28 Jan 2013 12:00:51	116155912460590				208.169.119.5	BRA_Nokia 1690s 2.0	BRA	Nokia 1690s 2.0	Smartphone	555817779
28 Jan 2013 12:00:50	1161704814241660	CAN_TELUS	CAN		216.198.139.84	CAN_TELUS	CAN	Apple iPhone	Smartphone	1991316650
28 Jan 2013 12:00:49	GBR_O2	GBR	GBR		78.147.197.240	GBR_Samsung S5830	GBR	Samsung S5830	Smartphone	1121947841
28 Jan 2013 12:00:48					198.228.200.41	Apple_iPhone	IND	Apple iPhone	Smartphone	981742961
28 Jan 2013 12:00:47	116168199801050				174.141.208.103	USA_METROPCS	USA	Samsung R720	Smartphone	1590085744
28 Jan 2013 12:00:46	116175524640500				67.228.59.67	USA_Apple_iPhone	USA	Apple iPhone	Smartphone	2096934620
28 Jan 2013 12:00:45	USA_TMBOILE	USA	USA		74.100.190.38	USA_T-Mobile_myTouch 4G Slide	USA	T-Mobile myTouch 4G Slide	Smartphone	1071761651
28 Jan 2013 12:00:44					198.228.228.197	Apple_iPhone	IND	Apple iPhone	Smartphone	301347861
28 Jan 2013 12:00:44	116157557583650				78.18.17.187	USA_Apple_iPhone	IND	Apple iPhone	Smartphone	207228700
28 Jan 2013 12:00:43	116170481492760				117.227.204.82	IND_Samsung S5620	IND	Samsung S5620	Smartphone	1112950941
28 Jan 2013 12:00:42	116160590507060				72.84.80.8	USAHTC_Droid_Incredible	USA	HTC Droid Incredible	Smartphone	148743210
28 Jan 2013 12:00:41	USA_ATT	USA	USA		198.228.200.15	USA_ATT	USA	Samsung i747	Smartphone	983884861
28 Jan 2013 12:00:40	1161323707078800				194.227.226.226	USA_SPRINT_IPL	USA	Samsung Epic 4G	Smartphone	1287190680
28 Jan 2013 12:00:39	116161567139050				202.140.108.65	HKG_VODAFONE	HKG	Apple iPhone	Smartphone	3016021
28 Jan 2013 12:00:39					216.164.174.21	USA_Apple_iPhone	USA	Apple iPhone	Smartphone	204038480
28 Jan 2013 12:00:38	AUS_TELSTRA	AUS	AUS		149.135.146.112	AUS_TELSTRA	AUS	Apple iPhone	Smartphone	50904981
28 Jan 2013 12:00:37	GBR_O2	GBR	GBR		82.132.223.89	GBR_O2	GBR	Samsung i9300	Smartphone	986535641
28 Jan 2013 12:00:36	1161704814045060				65.82.235.234	USA_Motorola_Droid_3	USA	Motorola Droid 3	Smartphone	1872598030
28 Jan 2013 12:00:35	49.135.143.132					JPN_SonyEricsson_S0-01B	JPN	SonyEricsson S0-01B	Smartphone	1112952721
28 Jan 2013 12:00:34	116159146143860				70.179.152.65	USA_C5155	USA	C5155	Smartphone	11209541
28 Jan 2013 12:00:33	USA_TMBOILE	USA	USA		206.54.38.170	USA_TMBOILE	USA	Apple iPhone	Smartphone	471541174
28 Jan 2013 12:00:32						USAHTC_Droid_Incredible	USA	HTC Droid Incredible	Smartphone	984049940
28 Jan 2013 12:00:31						KHM_Apple_iPhone	KHM	Apple iPhone	Smartphone	23325971
28 Jan 2013 12:00:30						USA_Apple_iPhone	USA	Apple iPhone	Smartphone	595838761
28 Jan 2013 12:00:29	AIA_RIMATT	AIA	AIA			RIM_BlackBerry_9000	AIA	RIM BlackBerry 9000	Smartphone	751057704
28 Jan 2013 12:00:28	AIA_VZERON	AIA	AIA			USA_Apple_iPhone	AIA	Apple iPhone	Smartphone	1261963130
28 Jan 2013 12:00:27						97.956.991				
28 Jan 2013 12:00:26						93.186.31.83	GBR_RIM	GBR_RIM BlackBerry 9360	Smartphone	1803389630

Sample from billions of analytics transactions from round the world

Sample of Bango transactions from a sampled minute: 12:00 UTC Mon 28 Jan 2013

Warrior needs a sword during game-play (mobile payment example)

Pay with PayPal (Zong)

1. Choose your sword
2. Click & type phone number
3. Click to continue
4. Wait for a text message
5. Open the message
6. Note down the PIN code
7. Go back to the app
8. Type in the PIN code
9. Get the sword



Killed by
the Ogre

Pay with Bango

1. Choose your sword
2. **One click to pay**
3. Get the sword



Met the
princess

Defeated
the giant

Ruling
the land

Facebook – Operator billing examples

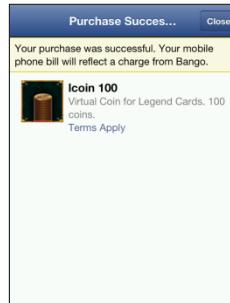
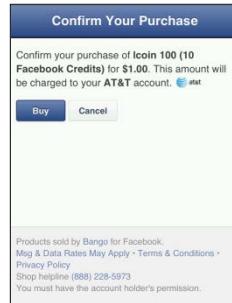


User selects credit amount

User chooses to pay on their mobile phone bill

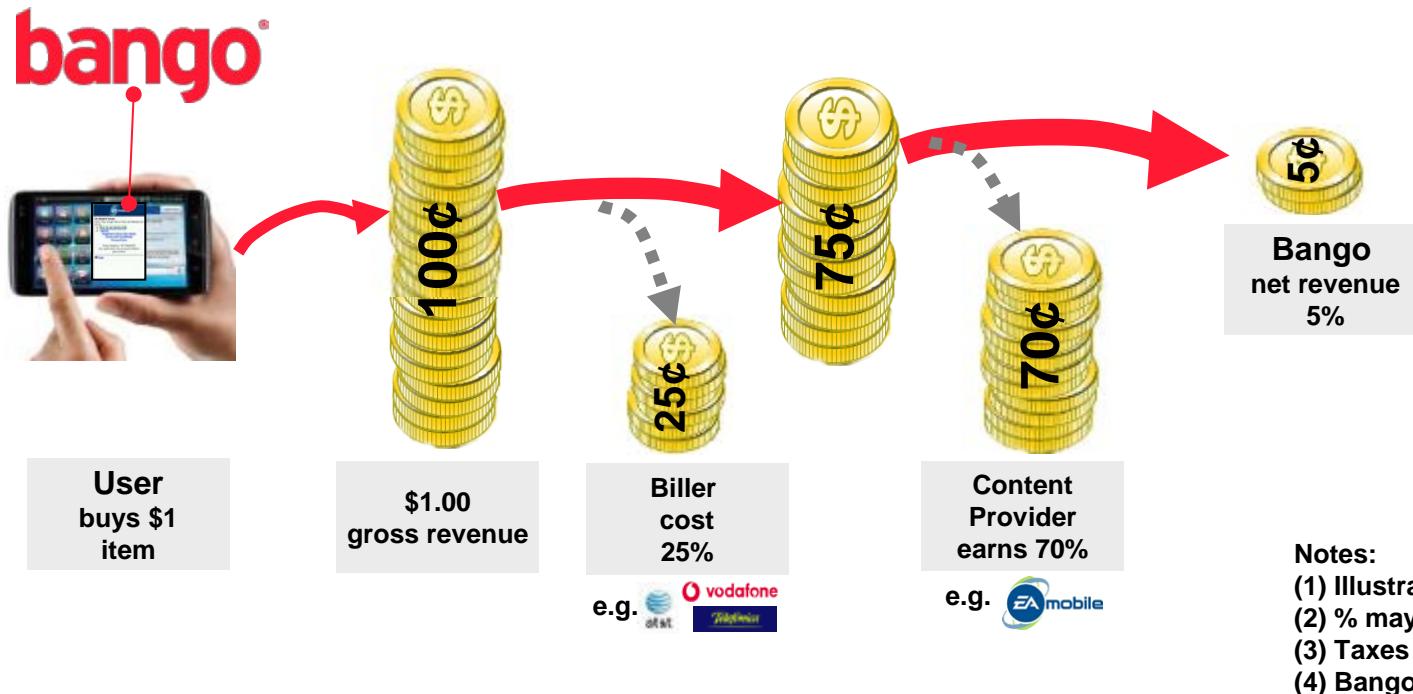
User confirms purchase

Payment is confirmed



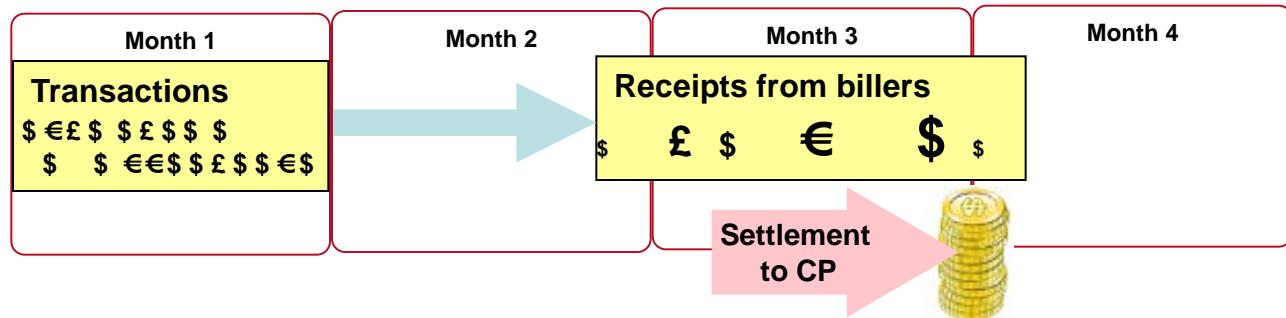
Bango business model

bango®



Settlement

Bango system aggregates cash from all billers, converts and pays 60 days after month end



Bango has a unique edge



Common user identity across multiple services / apps

Direct operator billing gives 300% - 1,000% sales uplift.



Bango ID boosts that further by enabling one click even on Wi-Fi

Bango Payment Platform

User identity:
Bango ID merges multiple identities using cross-site & app history

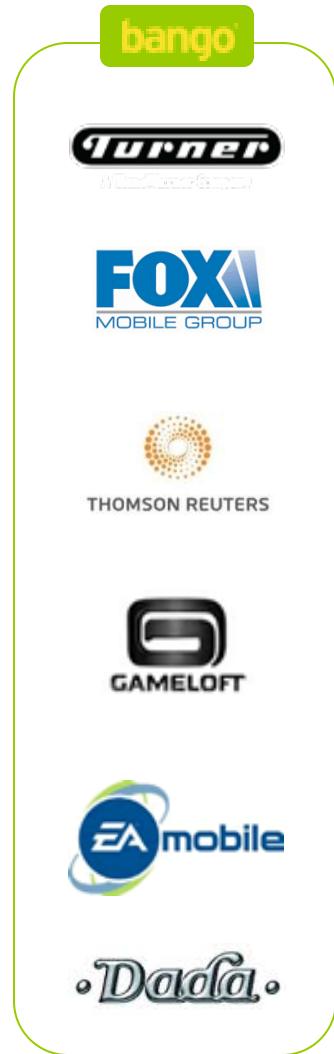
- Carrier MSISDN
- Carrier UserID
- RIM Identity
- Opera ID
- Device ID
- Browser ID
- Facebook ID
- Microsoft ID



Single technical and commercial integration with 90+ billing systems



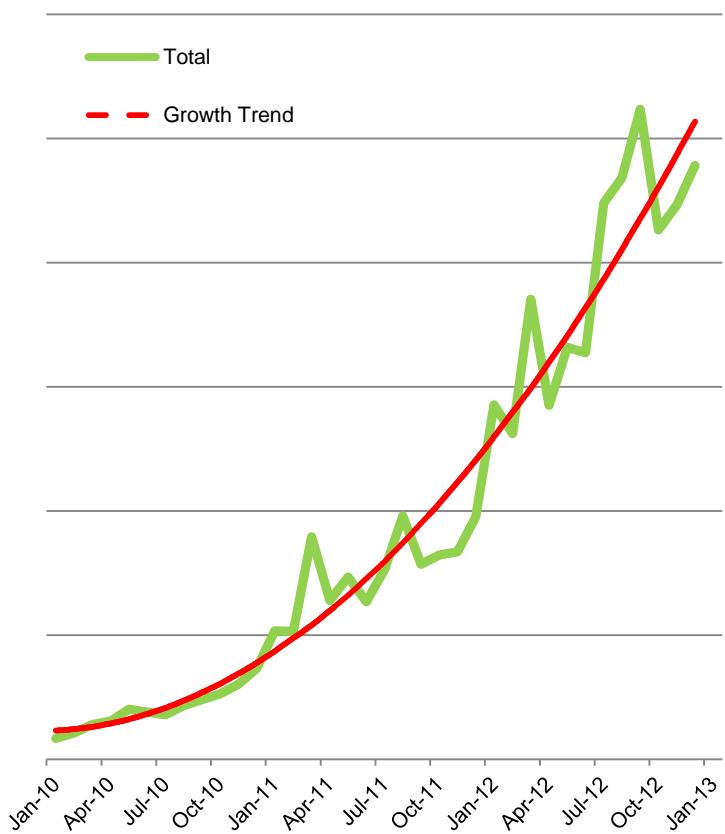
Bango is gaining momentum



Bango Analytics synergy



- Significant analytics customers include: NBA, CNN, Thomson Reuters, Telefonica
- Android, iOS, BlackBerry, Windows, HTML5 and other devices all driving traffic
- Volumes more than doubled again Y on Y driven by mobile websites & app downloads
- Adding millions of users to Bango ID database every month



Big benefits for analytics customers

Big benefits for payment customers

9m2012 Operational progress



- Mobile operator integrations
Direct billing relationships completed into >90 MNO
- Payments & analytics new releases and £1m upgrade of primary datacentre
- COO David Keeling and CFO Gerry Tucker joined leadership team



Bango Newsroom

David Keeling joins Bango as Chief Operating Officer

Posted on November 5, 2012 by Richard Leyland

Following a global search, Bango today announces the appointment of David Keeling as Chief Operating Officer (COO). In this newly created senior management role, David is responsible for service delivery, global operations and account management.

The COO is a key hire as Bango continues to acquire major customers for its mobile payments and analytics technology. In just the last 20 months, Bango has tripled the number of mobile users reached through its direct mobile operator billing, to more than one billion mobile phone users, and has signed agreements with Facebook, Amazon, Microsoft, MasterCard and others.



Gerry Tucker, CFO

Gerry is a key voice in the development and implementation of Bango's strategic plan. He is responsible for reporting to Bango's management team, board and shareholders and is further responsible for all financial elements of the company's commercial relationships.

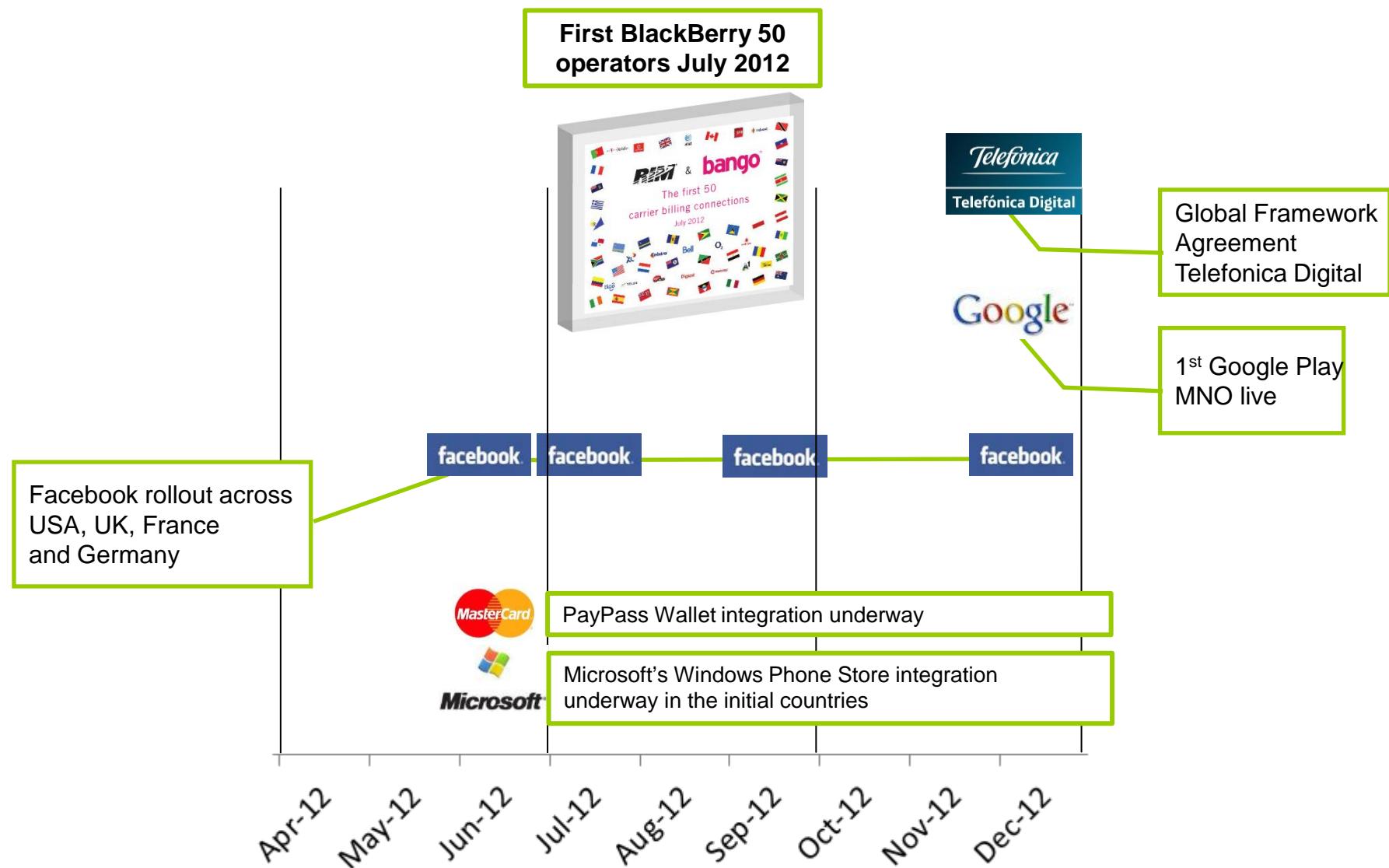
Gerry is a seasoned finance leader with an excellent track record. His career to date encompasses roles across several different market sectors, and in his most recent role he was acting CFO and Senior Financial Analyst for PLUS Markets Group, a London Stock Exchange AIM-listed UK company. He has held a number of senior financial and operational roles with companies ranging from pre-revenue start-up, to large multinationals. These companies include: Vodafone, where he documented and analysed processes throughout their business; Take Two (and Rockstar), the publishers of Grand Theft Auto and; Activision, publishers of Guitar Hero.



He has considerable experience in start-ups, where he took a firm from start-up to £300 million in five years, as well as expertise in mergers and acquisitions, product launches and financial modelling.

- Unaudited management accounts show that gross margin on end user spend has remained stable at around the 3.7% level which is within Bango's longer term target range of between 2% and 5%
- Loss for the period of approximately £2.4 million (as advised in market update)
- One off costs of approx. £1.3m
 - Technology costs £400k
 - People costs £800k
 - Share based payments and contract win bonuses
 - Recruitment and restructuring
- Invested approximately £1 million in a major hardware and software platform refresh in the primary datacentre to process significantly higher volumes of payment and analytics transactions
- Net cash at 31 December 2012 was £2.3m (at 31 March 2012: £1.8m)

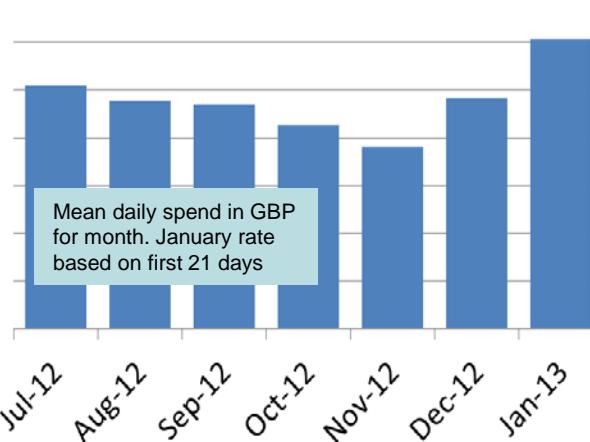
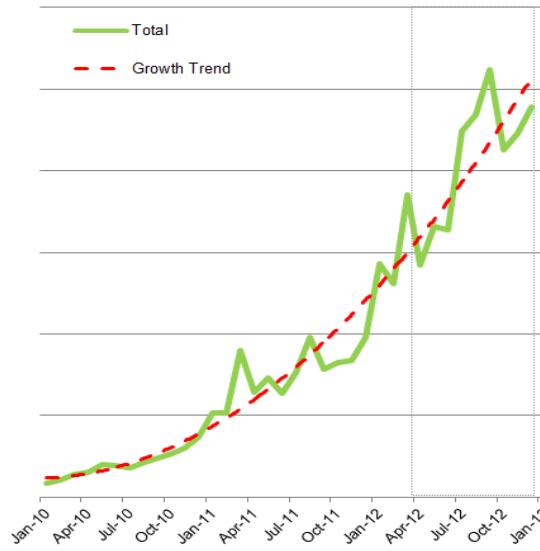
9m2012 Commercial success



9m2012 Key Performance Indicators



- Billing reach >1 billion mobile users
 - increasingly in emerging markets
- Analytics transaction volume doubled again over 2012
 - building user ID database
 - generating significant margin
- End User spend growth resumed
 - new smartphone now >80% of spend
 - Dec 2012 up >25% vs. Nov 2012
 - Jan 2013 will exceed Dec 2012



- Brazil
 - New Telefonica Relationship Opening up LATAM
 - Opportunity for activity with other MNO in LATAM
- India
 - Breakthrough with BlackBerry World – now integrating
 - Google and Facebook engaged
- Other Asia
 - BlackBerry interest based on BB10 opportunities
 - High interest from others
- ZTE, Samsung, others will be using Web-based Firefox O.S.

- Underwrite emerging market opportunity
- Boost sales/business development to win further MNO partnerships
 - Telefonica partnership is real coup for Bango
 - Want to repeat with other major MNO groups
- Balance sheet to enable datacentre financing if needed

2013 outlook and opportunities



- Continued adoption of Bango technology by leading industry players with Facebook and Amazon progressing
- BlackBerry BB10 launch 30th January
BlackBerry World to be more than apps
- Potential for significant growth from mobile operators partnering with Bango to provide services beyond major app store
- Increasing interest from key customers in emerging markets which see biggest benefit from mobile operator billing (vs. credit cards)



Appendix

Board & Senior Management



Ray Anderson – Chief Executive Officer

Ray co-founded Bango in 1999 after realizing that the convergence of the internet with the ubiquity of mobile phones could open up huge opportunities for content and service providers. Ray positioned the company to benefit from the opening up of the operator portals in 2004, and the transition of the mobile content business from a messaging model to a customer friendly browse and buy Internet model. In 2005, Ray led the successful floatation of the company, and continues to build and steer the Bango team forward in to one of the most exciting markets in history.

In 1988, Ray established IXI which created the industry standard network GUI – X.desktop. IXI was an early leader in the creation of the web. It sponsored the first ever WWW conference at CERN and shipped the world's first commercial web browser. In 1993 The company merged with SCO and then floated on NASDAQ. Ray held senior executive roles in SCO, including general manager, senior VP Marketing, and senior VP of New Ventures.

Before IXI Ray was a co-founder of Torch Computers which he sold to CATSCO in 1984. Before that he worked for Acorn Computers, The General Electric Company and Sinclair Research.

He was named "Technology Entrepreneur of the Year" in February 2006 and in September 2006 at the ME Awards was given a special award for outstanding contribution to the mobile entertainment industry. A member of "The Cambridge Angels", Ray was a founding investor in a variety of growing companies including TeamStudio, Electronic Share Information (sold to E*Trade), Aspective, Trigenix (sold to Qualcomm), RE5ULT (82ASK), Shortfuze, Midentity and other technology businesses. He holds a 1st Class Degree in Computer Science from Cambridge University and is a keen pilot.



Gerry Tucker – Chief Financial Officer

Gerry is a key voice in the development and implementation of Bango's strategic plan. He is responsible for reporting to Bango's management team, board and shareholders and is further responsible for all financial elements of the company's commercial relationships.

Gerry is a seasoned finance leader with an excellent track record. His career to date encompasses roles across several different market sectors, and in his most recent role he was acting CFO and Senior Financial Analyst for PLUS Markets Group, a London Stock Exchange AIM-listed UK company. He has held a number of senior financial and operational roles with companies ranging from pre-revenue start-up, to large multi-nationals. These companies include; Vodafone, where he documented and analysed processes throughout their business; Take Two (and Rockstar), the publishers of 'Grand Theft Auto' and; Activision, publishers of 'Guitar Hero'.

He has considerable experience in start-ups, where he took a firm from start-up to £300 million in five years, as well as expertise in mergers and acquisitions, product launches and financial modelling.



Anil Malhotra – VP Marketing and Alliances

Anil Malhotra co-founded Bango. Anil is a marketing strategist and business developer with sixteen years' experience in senior marketing and business roles at companies including Logotron, CyberLife, Millennium Interactive (sold to Sony Computer Entertainment in 1998), SCO and IXI.

Anil has a degree in Psychology from Bangor University, and a master's degree in Computer Science from Essex University.

Board & Senior Management



David Sear, Non-executive Director

David Sear is Divisional Managing Director at Travelex Global Business Payments, a company which provides international payment services to 35,000 businesses across 14 countries. David joined Travelex in March 2006 from Voca Ltd (previously BACS), where he helped to transform the company at the centre of the UK's payments industry. Prior to Voca, David was Chief Operating Officer at WorldPay Group plc.

Earlier in his career David spent seven years at Equifax Cheque Services, the world's largest cheque guarantee company, becoming European Managing Director.

Martin Rigby, Non-executive Director

Martin Rigby, is founder and joint managing director of ET Capital Limited (ETCapital), a shareholder in the Company. He has been a venture capital investor for over 20 years making and managing investments in innovative technology businesses, principally in network services, software and hardware.

ETCapital has many of Cambridge's most innovative technology businesses in its portfolio, including Cambridge Display Technology, Plastic Logic, Cambridge Positioning Systems (now part of CSR plc), Astron Clinica and Phico Therapeutics.

Rudy Burger, Non-executive Director

Rudy is the Managing Partner of Woodside Capital, an investment bank for emerging growth companies. Prior to Woodside Capital, Rudy led the restructuring of Scipher plc which involved the sale of all of the company's operating businesses. Prior to Scipher, Rudy was the founding CEO of Media Lab Europe, a \$40M joint venture between MIT and the Irish government.

Rudy has founded five companies, all in the digital media technologies sector. He is a leading expert in digital technologies and international business development. Over the past twenty-five years, he has founded companies in the US, run a European public company, and served as a senior executive for two global 500 companies – EVP and CTO for NEC Packard Bell and VP Software for Xerox. He is an effective, dynamic leader with a proven track record in strategic planning, change management, and business development. Dr.Burger serves on the boards of several US and European companies. He has a BSc and MSc from Yale University and a PhD from Cambridge University.

David Keeling – Chief Operating Officer

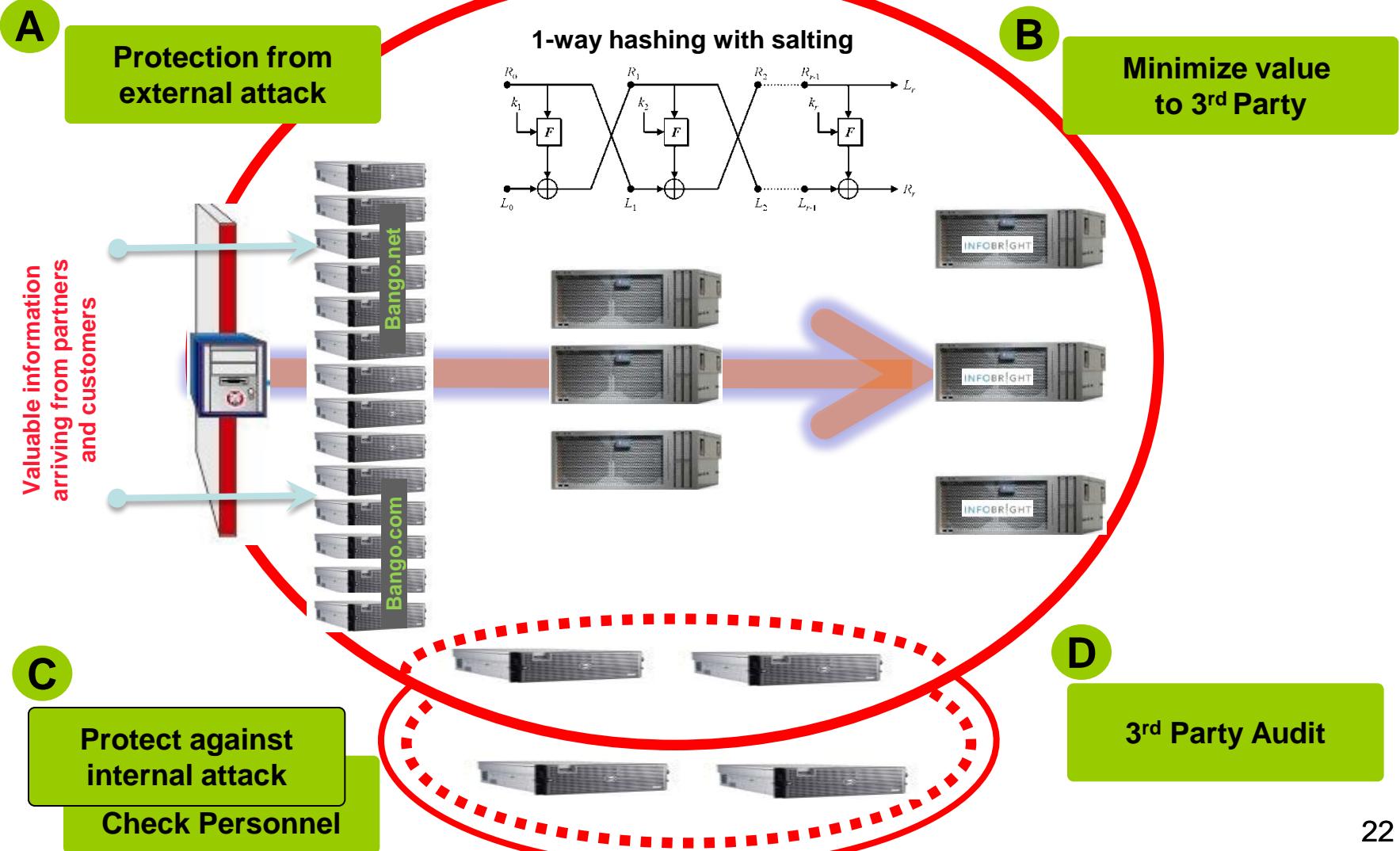
David is responsible for service delivery, global operations and account management. He provides leadership, direction and policy guidance to the proven operations, security and customer service teams, aligning them to the demands of all Bango customers.

David brings a fifteen year career in service delivery to Bango, with particular success in fast-growth technology companies, more recently at mobile messaging leader Acision, where David led the transformation of the operations function building a number of global services centres. His career in Acision culminated in five years leading its global customer service and professional services organisation, enabling 300 clients to serve over one and a half billion customers in 135 countries. He was a member of the M&A team, and brings extensive experience of alternative sourcing strategies.

David has a keen interest in the development and evolution of customer support and professional services, and presented at SSPA industry conference "Going Global". He has previously been a visiting lecturer in Project Management methodologies Plymouth University. David holds a Post Graduate Diploma in Management studies from Middlesex University.

Bango security strategy

bango®



Bango's view of competitive options

