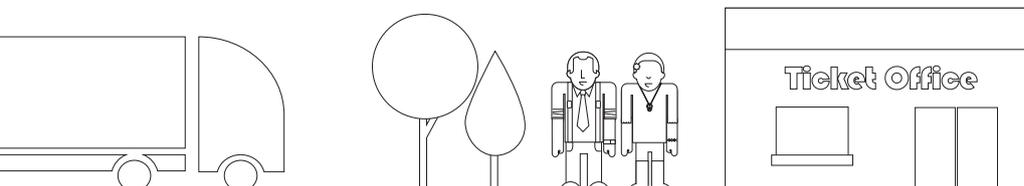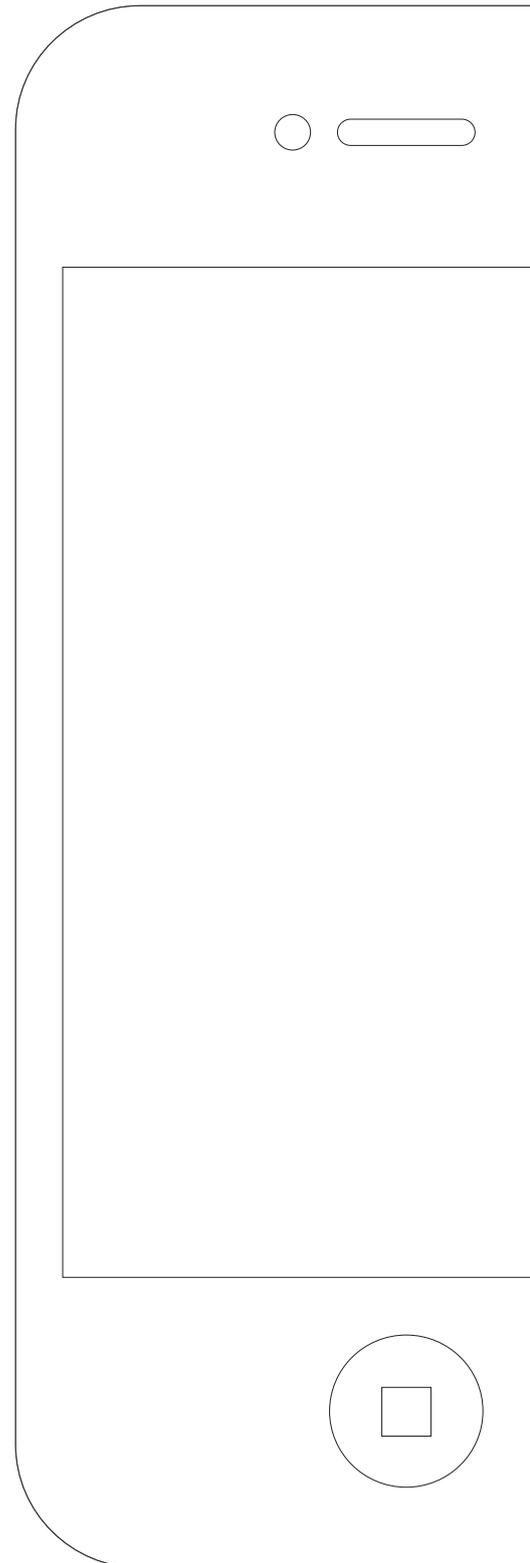**incentivated**
building mobile

Mobile Coupons, Vouchers and Tickets

July 2011

Ticket Office

Introduction

Paper and email based coupons and vouchers are established marketing tools used to encourage trial of products and services and also loyalty. The exact promotion mechanic will open up the brand to differing levels of mal-redemption and over-redemption and so security can matter. Replacing a piece of paper with an electronic coupon or voucher can improve security and also bring other practical benefits to the consumer and retailer. Likewise an electronic ticket is often an improvement over a physical one. In many cases the mobile phone is an ideal channel through which to deliver the coupon, voucher or ticket for display on the device's screen.

Uniqueness can be acheived through an alphanumeric text string (code) or a barcode. Both have their place.

Use of a barcode as opposed to an alphanumeric text string speeds up redemption; a simple text code requires manual entry and is prone to error if the data entry is rushed. Barcodes 'pushed' to the consumer for use as a coupon, voucher or ticket can be of any format (e.g. 1D, 2D or 3D) so long as the scanning equipment is compatible. (This white paper does not discuss barcodes of the 'pull' type, often used for direct response reasons and scanned by the mobile having been displayed in another medium e.g. phone QR Codes).

Mobile phones have been capable of displaying coupons, vouchers and tickets as barcodes for many years but the infrastructure required to scan their screens, and authenticate the content, is not cheap. Rollout is happening only now in Europe and USA, often in conjunction with the replacement of time-expired, incompatible EPOS systems or the building of new airport terminals (e.g. T5 at LHR). It is likely to be another decade before every scanner has been replaced. For example, at the time of writing, Tesco has the correct scanners in its Metro stores but not its supermarkets.

This white paper explores approaches for mobile coupons, vouchers and tickets to fit into your marketing strategy. Independent of your IT hardware or current redemption processes there is likely to be an option that will work for your organisation.

1 Why run a "mobile" coupon or voucher campaign

1.1 Coupons are a great way for companies to increase trial of a specific product or service and as a way to clear old stock, or provide a tactical sales burst. This can lead to increased product awareness and a sales bubble post-campaign. Vouchers are often provided to existing customers in order to recognise their loyalty and encourage subsequent purchases. Both coupons and vouchers are forms of sophisticated discounting and can be tied to particular behaviour.

1.2 A recent (May, 2011) report in The Grocer found that the popularity of coupons is soaring. A record 61% of consumers claimed to use the money saving device, up from 52% a year ago, according to a survey by Valassis.

1.3 And coupon usage was just as high among shoppers in the highest AB demographic, the survey found, with an identical 61% claiming to use coupons and 33% looking out for more promotions than they did a year ago.

1.4 A 'mobile' coupon or voucher is a digital price offer delivered to a customer's mobile phone. It can then be exchanged for a discount. A mobile ticket allows the consumer to gain entry to an event.

1.5 The mobile phone is with you every minute of every day. In fact recent research from the IAB has suggested that a majority keep it (switched on) within five feet of themselves, throughout the night as well.

1.6 So delivering a coupon or voucher to your consumer's mobile can assist in impulse shopping. With a mobile voucher the consumer is unlikely to leave it at home. Juniper research predicts that by 2012 over 13bn mobile vouchers will have been redeemed worldwide.

1.7 Mobile coupons and vouchers also offer the potential for better analytics and understanding of each individual customer interaction with your brand: a phone is more personal than other forms of communication channels as a mobile phone is unique to a user (via its network-reported IMSI number) whereas a PC (identified by its IP address) can be used by any number of users and is not typically portable.

1.8 Benefits over traditional paper based coupons:

- Can help position your company as innovative.
- Can deliver a better redemption rate.
- Allows for personalised messaging and better targeting.
- Provides advanced reporting data.
- Helps the environment (no paper, ink or post-use waste).

2 Display options

2.1 There are a number of ways that coupons can be delivered to the consumer and displayed on screen. Which one you choose will depend upon a number of factors, the most common are likely to be:

- the method of delivery
- the technical capability of your EPOS system or other scanning technology
- your budget.

2.2 The most common options to choose from are listed below:

Traditional 1D barcode

2.3 E.g. UPC, EAN or other one dimensional barcode as seen on almost everything you buy in a shop these days. A scanner spots and decodes the barcode from the phone's screen.

2.4 Can be sent to a phone as a multimedia message (MMS), or accessed via an email, web page or in an 'app', for example. The Tesco Clubcard apps displays the customer's loyalty scheme membership number as a 1D barcode regardless of the device.
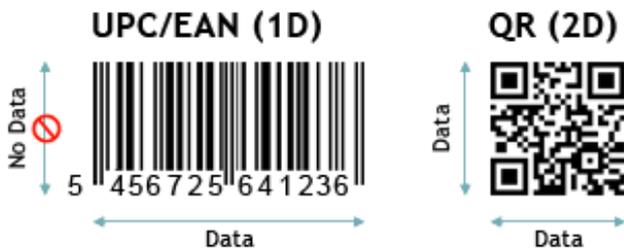
Anatomy of an EAN/UPC 13 Barcode

Figure 1: Anatomy of an EAN/UCC 13 barcode

The 2D barcode

2.5 2D barcodes resemble a square-like maze. Unlike a 1-dimensional barcode, a 2-dimensional barcode stores data along two axes and so can hold much more information.

2.6 The three most common formats are:

UPC/EAN (1D) — No Data / Data — 5 456725 641236 — Data

QR (2D) — Data — Data

⊙ **Aztec**
The global standard for airline boarding passes.

⊙ **Datamatrix**
The favourite choice of the logistics industry.

⊙ **QR**
Mostly used for direct response purposes (see other white paper).

2.7 2D barcodes can store a variety of data. A traditional 1D barcode (UPC/EAN) stores up to 30 numbers. A 2D barcode (QR) can store up to 7,089 numbers. The additional storage capacity accommodates a variety of data beyond numbers though the information in coupons, vouchers and tickets is often encoded and only means something to the issuer e.g. the retailer, venue or transport company.

Alphanumeric text string (simple code)

2.8 This is the simplest solution; an alphanumeric code delivered within the content of a simple text message. It will need to be entered manually into a till in order to be redeemed.

2.9 Generating large numbers of combinations and using letters as well as numbers helps reduce fraud.

2.10 Its ubiquity but low level of security means that this method is often the starting point for brands and they tie the promotion to a low risk offer, e.g. BOGOF.

3 Customer targeting and profiling

3.1 It is important to classify the customers that you are going to target with your mobile coupon or voucher campaigns. As well as defining the customer proposition and campaign objectives, you need to understand your customer segments likely mobile behaviours and device ownership profile(s).

Customer segmentation

3.2 The more information about your customers that you have, the better the classification of their mobile activity can be pre-determined in setting your objectives and agreeing the mobile communications option(s) to best use. This can optimise your campaign and deliver an improved overall ROI.

3.3 Examples of filter data can include:

3.4 **Customer data**

You can use information such as gender, location and class to determine what sort of products a group of people may or may not be interested in.

3.5 For example:

⊙ Coupons for gender-specific products can be sent only to the correct half of your database.
⊙ Location can be used to trigger coupon delivery through a postcode lookup/ cell location etc.

3.6 **Customer purchase history**

Based on what your customers have purchased in the past you can:

⊙ Promote similar products.
⊙ Identify cross-sell opportunities.
⊙ Better identify lifetime value (LTV) of customers.
⊙ Better understand the right time to send a marketing message in order to trigger a reaction.

3.7 **Mobile phone classification**

It is possible to know what mobile phone your customers have so the mobile coupon or voucher campaign, or ticket can be optimised for that specific type of phone.

3.8 This can be achieved by sending a mobile message to the customer triggering them to click a link to a mobile enabled web page.

3.9 If you are sending to a bought list, an alternative approach is to look at the population as a whole to see how popular certain types of mobile phones are to others against the socio-demographic segmentation of your list.

3.10 The messaging technology supported by mobile phones is:

SMS	100%
MMS	92%

3.11 If going down the MMS route without having been able to classify the phone ownership of your database, consider a lower-spec alternate option as not all mobile phones can support it.

5 Redemption

5.1 For a successful mobile coupon campaign the customer has to be able to present the coupon to the cashier and the cashier must be able to validate it and apply the discount in a quick and simple fashion.

5.2 This is dependent on the creative route and delivery option that has been selected and the decision taken for which type of coupon code was used (and your technical capability for redeeming the coupon).

5.3 The following provides a break down of the different deliver methods and the different techniques for presenting the coupon.

Text Message (SMS)

5.4 A text message can only contain textual content which is not as engaging for a customer as an image. It is also limited to 160 characters (unless concatenation is used).

5.5 Using this method, the coupon code has to be included within the message.

5.6 The customer is required to show the cashier the phone screen in order for it to be redeemed (people cannot be expected to hand over their phone to the cashier).

5.7 The key advantage is that 100% of mobile phones support SMS maximising your potential target audience.

Multimedia Messaging (MMS)

5.8 An MMS provides the ability to include text and picture content, including a barcode. MMS options available include:

- Short and long alphanumeric coupon code
- A graphical image of a coupon that the cashier can recognise to apply the discount through a 'hot key' on the till, for example.
- A 1D or 2D Barcode that the cashier can scan to apply the discount.
- An image can be scanned by compatible F_POS systems.

5.9 Using a graphical image to present your coupon is more engaging for the customer than just text.

5.10 The user experience of receiving an MMS and presenting it to the cashier is better than just a simple text message.

5.11 However the MMS delivery method is more expensive than an SMS, and MMS messages are supported on only 92% of all mobile phones.

Link to a Mobile Site

5.12 A mobile message can contain a link that directs the user to a mobile site page where the mobile coupon can be displayed, and from where it can be scanned or shown to the staff member.

5.13 One of the advantages of presenting a mobile coupon in a webpage is the link to the page can be delivered within an SMS making it cheap to deploy but the webpage itself can be very graphically engaging. Security is also higher

5.14 One of the disadvantages is that the mobile phone is required to be able to browse the mobile web which in some places can be slow or not available. Provision of open WIFI access in your store can resolve this problem.

5.15 Further benefits for this type of deployment are described later in this document.

Mobile App

5.16 Mobile coupons can be delivered to customers using a mobile app. The customer will be required to have first downloaded the mobile app to their

	SMS	MMS	Web page	Mobile app	Web App
Visual branding	Poor	Good	Good	Good	Good
User Experience	Poor	Good	Average (wait for page to load)	Good	Average (wait for page to load)
Target audience	100%	92%	95%	XX%	95%
Deployment method	SMS	MMS	SMS & Webpage	HTTP	HTTP
Deployment Cost	Low	High	Average	N/A	N/A
Setup Cost	Low	Low	Average	High	Average

Table 1: Summary of mobile redemption options.

mobile device. Again the screen of the mobile phone can be scanned or shown to the retailer.

5.17 It is possible to include a push notification within the app to alert the user of any new coupons that may be available or based on preference. The mobile coupons will be delivered over the web so the cost of deployment is negligible

5.18 A loyalty app can be built as a cross-platform web-app, as opposed to a native one, so reducing build cost.

6. How to design your mobile coupon

6.1 It is important to design the coupon based on a certain structure to optimise ROI for the campaign and meet legal requirements. Topline recommendations for coupon design:

6.2. **Design, look and feel**

The coupon content needs to be presented to the consumer in a truthful non-deceptive or misleading manner. This includes:

- Simple, easy to understand message.
- A clear and obvious 'originator' name: it is important for the customer to know from whom the message has been sent.
- Use images designed in accordance with the promotional offer and your brand.

6.3 **Personalise the message**

The mobile phone is an inherently personal media item – possibly the most personal device the each of us have. Mobile coupons offer the ability to directly target individuals and to tailor specific promotions based on their known past behaviour.
It is important to:

- Ensure the coupons are being sent to the right audience.
- Include the customer's name within the message.
- Make sure the offer is relevant to the customer.
- Customise the design based on the customer's mobile phone capabilities.
- If the coupon goes to a website page, make sure the page is personalised to the customer.

6.4 **Legal requirements**

It is important to comply with any local or international legal constraints imposed for mobile messaging, such as:

- Effectively communicate the terms and conditions.
- Clearly display disclaimers, warranties, guarantees and expiration dates.
- It is a legal requirement to provide the customer with the option to easily opt out of further communication (usually any reply to the originator number with "STOP" or some obviously similar instruction should result in an opt-out action being taken).
- Ensure the number sent "from" can be replied to (or provide a number to reply to within the body of the message).
- The design must be compliant with accessibility standards.
- Provide an option for the customer to feedback.

6.5 **Other considerations**

Further things to consider for your coupon campaign include:

- Use unique codes for your mobile activity to help track redemption rates and ROI for the campaign.
- Indicate that there is no cost to the consumer in signing up for/receiving (in the UK) mobile marketing messages.

7 Clearing process

7.1 Clearing is the process of validating the coupon and applying the discount to the purchase.

7.2 The clearing process for paper coupons is relatively straight forward, the customer hands the cashier the coupon and this is then applied to the overall total and sent to a handling house for financial remuneration.

7.3 But for mobile messages, you cannot handover your phone to the cashier. The redemption process can also vary depending on the delivery and design of the mobile message used. The possible redemption processes are:

- manual coupon code entry
- visual confirmation of an image
- scanning of a barcode.

7.4 Manual code entry is something most organisations want to avoid to reduce 'time at till'. It can also be prone to mistakes (or fraud).

7.5 A visual confirmation of a coupon is simple but not ideal because it could quite easily be copied and replicated.

7.6 Scanning a barcode is the desired solution as the code can be verified as valid, unique to the customer, immediately expired if necessary (to prevent re-use) and provide improved reporting capabilities.

Coupon Validation

7.7 The redemption process should include a way for the cashier to quickly validate the coupon presented by the customer. This is normally done by having the process integrated with your transaction workflow.

7.8 Ideally, your EPOS system needs to verify the code as valid and automatically apply any discount associated to this code.

Coupon expiration

7.9 It is often the case that coupons have a time to live. This can vary from anywhere between one day to one year.

7.10 It is important that this time to live attribute is adhered to and the redemption process needs to prevent coupons being redeemed that are out of date. This could be achieved by clearly showing an expiration date within the text or image of the coupon so the cashier can take appropriate action.

7.11 A better solution is to associate the coupon code with an expiration date, so when it is entered into the point of sale system, the system will inform the cashier whether the coupon is valid or not.

7.12 If however you have opted to deploy the coupon via a webpage or mobile app, it is possible to make the coupon no longer accessible to the customer once the expiration date has been reached (in this instance, we would suggest replacing the coupon page with something brand-appropriate by way of an apology/encouragement to use sooner next time etc – not just a removed page error/ broken link).

Preventing over redemption

7.13 Depending on the campaign you are running, you might want to prevent a customer from redeeming the same coupon more than once. This will require unique codes being sent to each customer. Once the coupon has been redeemed, the code associated to the coupon needs to be marked as been redeemed in the database and a check needs to be implemented to make sure this code cannot be redeemed again.

7.14 Another approach is to present the coupon through a mobile webpage and prevent the customer from accessing the webpage multiple times. This solution requires access to the unique identities provided by the customer's mobile network. For mobile apps, you can make it a requirement for the cashier to press a button within the mobile app to signify the coupon has been redeemed.

Non transferable coupons

7.15 Mobile coupons can also have a viral effect with customers forwarding the coupon onto their family and friends and so on. This may not be desired and it might be important to restrict the coupon just to the mobile device it has been sent to. This can be achieved using DRM (Digital Rights Management) within the phone for MMS messages.

7.16 A non transferable solution can also be applied to a mobile site were logic is added to the webpage to prevent repeat visits to a particular coupon as mentioned above – although the first visit may not be the redeeming visit to a store etc, which could cause complaints and dissatisfaction. It might be worth highlighting to the consumer the visit-limited nature of the page (e.g. with a large VIEWS LEFT countdown number or similar) to avoid any frustration and arguments at the till. The coupon, voucher or ticket would not be displayed on another device even if the link was shared.

	Transferable	User tracking	Redeem once	Time at till	Time based	Fraud prevention
SMS	Yes	Yes	Requires EPOS integration	Slow	Requires EPOS integration	Low
MMS barcode 1D	No (DRM)	Yes	Requires EPOS integration	Good	Requires EPOS integration	Medium (1D) High (2D)
Mobile site barcode	No	Yes	Yes	Good	Yes	Medium (1D) High (2D)
Mobile app	No	Yes	Yes	Good	Yes	Medium

Table 2. Summary of redemption & clearing process.

7.17 In addition, coupons presented within a mobile app cannot be forwarded on unless the brand wants this to happen.

Reporting

7.18 For a coupon campaign it is important to record the redemption rate for the campaign and, if possible, include the date and time of all transactions so you can see when most people redeemed the coupon.

7.19 It can be just as important to track and understand non-redemption behaviour, open rates, unredeemed downloads and so on.

7.20 Mobile coupons are virtual and offer more accuracy in reporting capabilities then paper ones. This includes the possibility to track individual customers and classifications of customers and their behaviour to determine
future trends to aid future campaigns and business growth.

7.21 Unique customer tracking can be done by sending a unique coupon code to each customer. It is also possible to track individual customers if you are using a mobile app that has required the customer to enter their details or is linked with a loyalty card system.

Fraud prevention

7.22 This is best achieved by integrating the campaign with the EPOS system i.e. ensuring that the coupon, voucher or ticket uses a non-guessable code and the EPOS system allows this to be used only once. This coupon code would ideally be unique for each customer and generated in such a way that it is difficult for someone to replicate. To secure a coupon code, you can do either the following:

7.23 Check sum

Include a check sum digit at the end of the coupon code that is calculated based on an algorithmic formula combining the other values of the coupon code together to create one single digit. This solution is used in many industries and is common in transferring digitised messages between one system and another.

This is not a guaranteed secure solution and if someone knows the check sum calculation they can create coupon codes in a valid format. It is then important to cross reference this format with all active coupons codes for that particular campaign.

7.24 Encryption

The better solution is to encrypt your coupon code using asymmetric or public and private key encryption algorithms. This method of encryption is used to secure the transfer of financial data between systems. The result of this form of encryption is usually a large number and as such is only suitable for 2D barcodes as these can store a large amount of information.

8. Scanning

8.1 It may seem relatively straight forward to roll out a mobile coupon campaign, but there are some technical issues that may cause difficulties and lead to customer dissatisfaction if not appropriately dealt with.

8.2 Capabilities of your barcode scanners

The scanners used by many EPOS systems have been there for many years and most are not capable of scanning an image on the screen of a mobile phone. The scanners need to be of the optical or 'CCD' type. Those that fire a 'laser' at the barcode rather than using ambient light cannot typically deal with the reflected glare. (Sometimes optical scanners use a red LED but this is to help the user line-up the scanner).

8.3 Testing of your barcode scanners in store needs to be completed before opting to go deploy a mobile coupon campaign using barcodes.

8.4 Capabilities of your redemption process

As with the barcode scanners, your EPOS system may not offer a coupon redemption process or may not offer a redemption process suitable for your mobile coupon campaign. If you are planning on using coupon codes and one of your requirements is to make them secure, you need determine what format the coupon codes can be in? Can your redemption process support checksums? Can it support coupon codes that are over 100 characters long?

8.5 System integration

As with any mobile coupon campaign, you need to extract your customer information, dynamically append the coupon content unique for the customer and send it through a mobile channel. You need to check with your IT department your system can export this content currently or whether further development needs to be undertaken.

The unknown

This document covers a raft of technology to create and deploy your mobile coupon, voucher or ticket campaign. But it is unrealistic for someone to see this is the only solutions available. The mobile space is developing very quickly with new innovative technology being introduced on a yearly basis. The solution you opt for may require changing just a few years down the line as new technology is introduced.

Fortunately enough, some of this future technology can often be observed in Japan as they are leading the world on mobile technology development. It is envisaged that in a few years all mobile devices will contain an RFID chip supporting near field communication (NFC) that will allow mobile phones to be used as a form of payment and will replace the need for loyalty cards. To take advantage of this technology, your POS needs to be upgraded.

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Incentivated is an independent technology company with 10 years' experience operating exclusively in the mobile marketing services sector.

We help our international client base engage with their customers by designing, developing and delivering integrated acquisition, retention (CRM) and transaction (mCommerce) campaigns and services for mobile.

Our proprietary technology and specialist staff are well positioned to help brands, the public sector and charities to develop everything from enterprise messaging (SMS & MMS) through to mobile internet sites, to server-side software or handset applications, including web-apps, for 'smartphones' and feature-phones.

We also provide strategic, creative and technical advice for the use of mobile by businesses to raise awareness, deliver marketing ROI and provide customer service.

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