

# 2013 EMERGING TECHNOLOGIES PROMOTION

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## 2013 EMERGING TECHNOLOGIES PROGRAM REQUIREMENTS

### I. BACKGROUND

#### Program Background:

This promotion will build upon previous promotions and continue our strategy of encouraging mailers to integrate direct mail with mobile technology. The Postal Service is offering a discount to business mailers who use Augmented Reality, Authentication or Near Field Communication with their mailpieces, in order to improve the value of their mail.

**NOTE: The Emerging Technologies Promotion includes three separate and independent components. Mailers must use one of the three components to qualify for the discount**

***Augmented Reality Component:*** Augmented reality (AR) is a live view of a physical, real-world environment whose elements are augmented by computer-generated sensory input such as sound, video, graphics or GPS data, etc. The mailpiece must contain print technology that leads recipients to engage in an augmented reality experience that is facilitated by a mobile device or computer. The augmented reality experience must have the following characteristics: it combines real and virtual experience, it is interactive in real time, and it is in 2-D or 3-D.

***Authentication Component:*** Authentication describes the process of verifying a unique customer/consumer using one or a combination of authentication factors. The attributes of the mailpiece and mobile technology must be integrated to facilitate an authentication process as outlined in Section III Eligibility Requirements, Sub-Section A-2. The authentication process must utilize information unique to the recipient and must serve to authenticate the recipient's identity and facilitate access to secure personal content. **Mailers must receive prior approval for their proposed authentication uses from the USPS Program Office to be eligible for this discount.**

***Near Field Communication (NFC):*** Near field communication creates a two-way communication link between two devices with Radio-Frequency Identification (RFID) capabilities. The mobile device and RFID affixed object must create a platform to deliver content-rich messaging. The mailpiece must contain a NFC smart tag<sup>1</sup> or RFID chip<sup>2</sup> that allows information to be transmitted from the mailpiece to a mobile device.

### II. PROGRAM DESCRIPTION

The Emerging Technologies Promotion provides business mailers with an upfront two percent postage discount on Standard Mail®, Nonprofit Standard Mail®, and First-Class Mail® letters, flats, and cards (presort and automation) that incorporate augmented reality, authentication or near field communication with mailpieces.

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<sup>1</sup> **NFC Smart tag:** a piece of information that can be read electronically over a short distance by a NFC-enabled device. A smart tag can contain a range of information, such as web addresses, telephone numbers, email addresses, coupons, graphics, media files, event details, etc.

<sup>2</sup> **RFID Chip:** a tag containing unique information that can be transmitted over a long distance through radio waves to an electronic device.

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### III. ELIGIBILITY REQUIREMENTS

#### A. Mailing Requirements

**Registration Period:** June 15, through September 30, 2013  
**Program Period:** August 1 through September 30, 2013  
**Discount Amount:** 2% of eligible postage. The discount is calculated in *PostalOne!*® and applied to the postage statement at the time of mailing. The 2% discount is deducted from the postage amounts of qualifying product categories that are paid at the time of mailing. Normal postage prices listed in the published Price List (Notice 123) apply to the mailing and the discount is applied to those prices.

**Eligible Mail:** Standard Mail® letters and flats  
Nonprofit Standard Mail letters and flats  
First-Class Mail® presort and automation letters, cards and flats

**Ineligible Mail:** First-Class Mail Residual Pieces  
Periodicals (includes Pending Periodicals mail)  
Bound Printed Matter  
Media Mail  
First-Class Mail and Standard Mail parcels

The mailpiece must meet the requirements of one of the three emerging technology components described in this section (Augmented Reality, Authentication or Near Field Communication).

#### 1. Augmented Reality (AR) Requirements:

The mailpiece must contain a print-mobile technology that leads the recipient to an augmented reality experience. Print-mobile technologies include: Mobile barcodes (e.g. 2-D/3-D Barcode, QR codes, IMb codes, images embedded with a digital watermark, intelligent print image recognition, etc.) on the mailpiece that can be scanned or read by a mobile device generating an augmented reality experience.

The augmented reality experience must have **all** of the following characteristics:

- **Combines real with virtual** - the mailpiece triggers an experience that is enhanced by digital information generated by a computer or mobile device
- **Interactive in real time** – the display or exposure to content is triggered by the recognition of the mailpiece seen through the camera on a mobile device or computer and ends when the mobile device is moved away from the mailpiece. As an individual moves the camera or mailpiece, the technology must provide accurate placement of relevant content on the mailpiece in real time.
- **Rendered in 3-D or 2-D** – the augmented image must have the appearance of 2-D or 3-D static images overlaid onto the mailpiece.
- **Relevant to the content of the mailpiece** – the augmented image must be relevant to the content of the mailpiece and enhance its messaging.

#### 2. Authentication Requirements:

***Mailers must receive prior approval for their proposed authentication uses from the USPS program office to be eligible for the discount. To submit concepts and mock-ups for approval, email the program office at [mobilebarcode@usps.gov](mailto:mobilebarcode@usps.gov).***

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Authentication describes the process of verifying a person’s identity based on the reliability of a credential offered. The Office of Management and Budget (OMB 04-04) describes four levels of identity authentication assurance levels (shown in the table below), which indicate the degree of confidence that the user who presented a credential is in fact the user. One or a combination of factors - a knowledge factor (“something the user knows”), a Possession factor (“something the user has”), and an Inherence factor (“something the user is”) – can be used to achieve the different assurance levels. The intent of the authentication component is to highlight how mailpiece content and mobile technology can be leveraged to perform an authentication process to assure the recipient’s identity and to facilitate access to secure personal content.

Assurance Level	Assurance Level Description	Authentication Level
Level 1	Little or no confidence exists in the user's identity; virtually no risk associated with an authentication failure	No Authentication Required
Level 2	Confidence exists that the user's identity is accurate; low/moderate risk associated with an authentication failure	Single factor Authentication
Level 3	High confidence that the user's identity is accurate; used to access restricted data; moderate/high risk associated with an authentication failure	Two-factor Authentication
Level 4	Very high confidence that the user's identify is accurate; used to access highly restricted data; very high risk associated with an authentication failure	Multi-factor Authentication

The promotion requires that mailpiece content and mobile technology be the key components of an authentication process that satisfies the following criteria:

- **Utilize content within the mailpiece** – the authentication process must rely on at least one piece of information contained in the mailpiece (e.g. a unique promotional code, customer reference number, etc). This information must provide one factor in the authentication process – in most instances this would be considered a “Knowledge” factor.
- **Leverage mobile technology** – the authentication process must leverage mobile technology to verify the user’s identity. The mobile device must provide the second factor in the authentication process – in most instances this would be considered a “Possession” factor.
- **Facilitate access to specialized privileges** – the authentication process must utilize information unique to the individual user and must either serve to authenticate the individual’s identity or facilitate access to personalized content in a secure environment.
- **Relevant to the content of the mailpiece** – the authentication process must be relevant to the content of the mailpiece and enhance its content.

The example below is intended to illustrate one of the ways in which the mailpiece and mobile technology can be used to fulfill the authentication requirements. ***Prior approval is required from the USPS Program Office for all proposed authentication uses, including but not limited to uses similar to the example shown here:***

- **Credit Card Activation:** A financial services company sends a mailpiece containing a card which needs to be activated. The user scans a QR code with their mobile device, which prompts a click-to-call 1-800 number. The user can place the call from their mobile device and the company verifies that the phone number matches the number on record (first authentication factor). The user enters the code provided on

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the mailpiece and the company verifies that this was the code sent to the participant (second authentication factor). Once these factors are verified, the card is activated.

### **3. Near Field Communication (NFC) Requirements:**

To participate in the promotion, the mailpiece must incorporate the use of standard NFC technology to engage the mobile device in providing an interactive experience for the user. Standard NFC technology generally consists of embedding a small chip or other form of technology into a carrier (mailpiece or other item) that can be recognized by a NFC enabled mobile device. The interaction is initiated by touching the mobile device on the NFC embedded item or by placing the mobile device within 1-2 inches of the NFC embedded item.

Examples of NFC usage for this promotion include, but are not limited to:

- The mailpiece could allow the mobile device to capture pictures so that, when touched to an enabled computer or television, the mobile device transmits the images for display.
- The mailpiece could be embedded or affixed with NFC technology that would allow the mobile device to download applications, videos or games.
- NFC technology embedded within the mailpiece interacts with the mobile device upon touch to generate a communication related experience.

*(These are just a few examples and are not designed to limit or restrict the use of NFC technologies. Examples of usage and any new developments for the technology can be submitted to the Program Office for prior approval.)*

### **Directional Copy**

To qualify for the Emerging Technology Promotion, mailpieces must contain copy near the barcode or image providing: 1) guidance to the consumer about how to interact with the mailpiece (e.g., how and where to download an app, information about NFC enabled devices, how the identity of the recipient can be authenticated via mobile device, etc) and 2) information about the landing page, website or digital experience (e.g, to see products in an augmented reality experience, the reason for the authentication, to receive information about products and services, etc.). Between the directional text and the cues from the landing page the intent of the promotion component (authentication, augmented reality or NFC) should be clear to the recipient. This may include symbols or images that indicate a mobile interactive experience. The symbols, images and wording must be specific to the emerging technology component used in the mailpiece.

Examples of directional copy include, but are not limited to:

- Download our app and scan here for an augmented reality experience
- Tap your NFC enabled mobile device here (NFC) to view our video
- Scan this barcode and enter this unique password to complete your enrollment
- Place you NFC enabled device here to get more information about our products and services
- Download our app and hold your phone over the catalog pages for an interactive product experience

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### B. REGISTRATION REQUIREMENTS

**Registration Period:** Registration opens June 15,, and will continue through September 30, 2013.

**Program Registration:** Participants and/or mail service providers (MSPs) must register on the Business Customer Gateway (BCG) via the Incentive Program Service (gateway.usps.com). Promotion participants must complete their registration (including agreeing to the promotion terms) at least 2 hours prior to presenting the first qualifying mailing and specify which permits and CRIDs will be participating in the promotion. *It is recommended that mailers register several days in advance of the first qualifying mailing.* As part of the terms of participation, mailers must agree to complete a survey about their participation in the promotion at the end of the promotion period.

#### **Auto Enrollment (for Mail Service Providers):**

Electronic documentation (eDoc) enrollment using Mail.dat, Mail.XML, or Postal Wizard enables MSPs to enroll their clients in real-time when eDocs claiming the promotion are submitted. During postage statement finalization, *PostalOne!* will validate that the MSP CRID in the eDoc is enrolled as a MSP. The *PostalOne!* system will enroll the client(s) in the promotion based on the "For" field data in the eDoc, and will only then calculate the discount if there are no system Warnings. *PostalOne!* will perform By/For Warning validations and generate warnings for MSPs that are not registered and for invalid CRIDS or Mailer IDs. In the case of Warnings, *PostalOne!* will process the eDoc and allow the mailing without failing the file. However, *PostalOne!* will not apply the promotion discount to the mailing.

### C. MAILING SUBMISSION REQUIREMENTS

#### **Documentation/Postage Statement**

Mailings must be submitted electronically via mail.dat, mail.xml or Postal Wizard. Mailings submitted via Postal Wizard claiming the Full Service discount cannot exceed 9,999 pieces. Basic Service pieces in Postal Wizard mailings are not subject to this limitation. Mailings that are prepared and entered by an entity other than the mail owner must indicate the owner's identity in the electronic documentation ("eDoc"). The eDoc must identify the mail owner and mail preparer in the By/For fields by Customer Registration ID (CRID).

#### **Combined and Commingled Mailings**

First-Class Mail and Standard Mail commingled, combined, and co-mail mailings (including MLOCR mailings) may only qualify for the promotion if:

- All of the pieces commingled in the mailing meet program requirements, or;
- The mailings include multiple clients (or versions) but have separate postage statements generated for the mailpieces that contain mobile barcodes.

#### **Discount**

Participating mailers will be required to affirmatively claim this promotion in the Incentive Claimed section on electronic postage statement submissions, certifying each mailpiece meets all eligibility requirements. All mailpieces covered by a postage statement must meet all eligibility requirements.

**NOTE: THE DISCOUNT MUST BE CLAIMED AT THE TIME OF MAILING AND CANNOT BE REBATED AT A LATER DATE**

#### **Mailing Date**

Mail must be tendered for acceptance during the promotion period, August 1 through September 30, 2013. Plant-Verified Drop Shipment (PVDS) mailings that are verified and paid for during the promotion period, and that qualify for the promotion, will be accepted at

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destination entry postal facilities through October 15, 2013, when presented with appropriate verification and payment documentation (PS Form 8125). A PVDS mailing that qualifies for the promotion can not have verification or the actual drop ship occur prior to August 1<sup>st</sup>. Any qualifying mailing that is accepted and paid for prior to August 1<sup>st</sup> is not eligible for the promotion discount.

**Postage Payment Method**

Postage must be paid using a Permit Imprint or Precancelled Stamp permit. Some Meter Permit mailings may qualify. OMAS and "Official Government Mail" mailings are not eligible for the promotion. Every Door Direct Mail (EDDM) deposited at a Business Mail Entry Unit may qualify, but EDDM Retail mailings taken to local Post Office retail units are ineligible to participate.

**Meter Mail/Precancelled Payment Option**

All discounts must be claimed at the time of mailing and cannot be rebated at a later date. Meter mailers who wish to claim the incentive must affix the appropriate reduced promotion amounts listed below to each piece in the mailing. Mailers must select the appropriate Affixed Method option from the following:

- VAR/CVAR Meter Mail: all options are available (Lowest, Correct, and Neither)
- NonVAR/CVAR Meter Mail: only option available is Neither
- Precanceled: Only Neither is an option
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Any net postage due for the mailing must be paid from an advanced deposit (Permit) account.

<b>Processing Category</b>	<b>Incentive Postage Amount Affixed</b>
First-Class Mail Cards	0.20
First-Class Mail Letters auto and presort	0.25
First-Class Mail NM Letters	0.45
First-Class Mail Flats - auto and presort	0.35
Standard Mail Regular Auto/PRSRT/CR Letters	0.12
Standard Mail Regular Auto/PRSRT/CR Flats	0.13
Standard Mail Nonprofit Auto/PRSRT/CR Letters	0.05
Standard Mail Nonprofit Auto/PRSRT/CR Flats	0.06

**IMb Requirements:** Mailings of automation letters or flats must have Intelligent Mail<sup>®</sup> barcodes. Mailpieces with POSTNET<sup>™</sup> barcodes will no longer be eligible for automation prices and will not be eligible for the price reduction. More details about this requirement are as follows:

<b>Mail Category</b>	<b>IMb Required (Full Service or Basic)</b>	<b>IMb Not Required</b>
<b>First-Class Mail Letters and Cards</b>	Automation (5-digit, 3-digit, AADC, Mixed AADC)	Presorted (Machinable and Nonmachinable)

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<b>First-Class Mail Commercial Flats</b>	Automation (5-digit, 3-digit, AADC, Mixed AADC)	Presorted (Machinable)
<b>Standard Mail Letters – Carrier Route &amp; Automation (includes Nonprofit)</b>	Carrier Route (Saturation, High Density & Basic) Automation (5-digit, 3-digit, AADC, Mixed AADC)	
<b>Standard Mail Letters – Nonautomation (includes Nonprofit)</b>		Carrier Route (Saturation, High Density and Basic) Machinable (AADC & Mixed AADC) Nonmachinable (5-digit, 3-digit, AADC, Mixed ADC)
<b>Standard Mail Flats (includes Nonprofit)</b>	Automation (5-digit, 3-digit, ADC, Mixed ADC)	Carrier Route (Saturation, High Density & Basic) Nonautomation (5-digit, 3-digit, ADC, Mixed ADC)

**D. RESTRICTIONS ON BARCODE PLACEMENT**

The mobile-print technology (barcode, RFID chip, watermarked image) can be placed on the inside or outside of the mailpiece.

The mobile-print technology cannot be placed on a detached address label (DAL) or card that is not attached to or enclosed within the mailpiece (e.g., unattached blow-in card).

The mobile-print technology cannot be placed in the indicia zone or the barcode clear zone on the outside of the mailpiece. Additional guidance is provided below:

**Barcode Clear Zone**

Barcode Clear Zone for Letters:

The barcode clear zone for letters is defined in the Domestic Mail Manual (DMM®) section below. DMM design requirements (DMM Sections 202.5.1) must be met:

**DMM® 202.5.1 Barcode Clear Zone**

Each letter-size piece in an automation price or an Enhanced Carrier Route price mailing must have a barcode clear zone unless the piece bears an Intelligent Mail barcode with a delivery point routing code (see 708.4.3) in the address block. The barcode clear zone and all printing and material in the clear zone must meet the reflectance standards in 708.4.4. The barcode clear zone is a rectangular area in the lower right corner of the address side of cards and letter-size pieces defined by these boundaries:

- a. Left: 4-3/4 inches from the right edge of the piece
- b. Right: right edge of the piece
- c. Top: 5/8 inch from the bottom edge of the piece
- d. Bottom: bottom edge of the piece



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A pictorial description of the barcode clear zone on letters can be found in Quick Service Guide 602 at the link below:

<http://pe.usps.com/text/qsg300/Q602.htm#1009536>

Barcode Clear Zone for Flats:

For flats, the mobile barcode should not be placed within 1/8" of the actual routing Intelligent Mail barcode.

### **Indicia Zone**

The "indicia zone" is two inches from the top edge by four inches from the right edge of the mailpiece; in addition, the mobile barcode should not be placed within two inches of the actual postage indicia when the indicia is not placed in the described "indicia zone."

Indicia Zone For Flats:

For optimal processing, we strongly advise to avoid placing the barcode, images, or tags in the destination address block and indicia.

Indicia Zone for Letters:

The "Indicia Area" on letter mail is the top-right corner. The Postal Service's Barcode Sorters look for these Information-Based Indicia (IBI) codes in the zone 2" from the top edge x 4" from the right edge of the mailpiece. Barcodes, images, or tags can not be used in this area.

## **E. REQUIREMENTS AT MAIL ACCEPTANCE AND POST- MAILING**

**At Mail Acceptance:** The mailer must provide a hard copy, unaddressed sample of the mailpiece showing the placement of the mobile barcode, image, or tag and directional copy to the acceptance clerk. If a mailing agent submits promotional mailings from multiple mailers, a hard copy sample of each mailer's mailpiece must be presented. All mailings are subject to standard acceptance and verification procedures and may be inspected for use of the emerging technologies, mobile barcodes, images or tags, etc. and directional copy.

- Addressed samples will not be accepted (this is especially important for First-Class Mail as it would give the appearance of a piece that was paid for, but not delivered). If pieces are variably printed, one sample that is comparable to the mailing may be presented.
- If the mailer is unable to print an unaddressed mailpiece the mailer should remove a piece from the mailing, remove the address (e.g. place a blank address label over the address) and submit it at mail acceptance. As an alternative for Standard Mail, an addressed piece may be accepted if the mailer marks through the address and marks "USPS Promotion Piece Sample" on the piece.

**Post Mailing Requirements:** The Program Office will conduct a sampling of mailpieces collected at Business Mail Entry Units to verify that submissions meet program requirements. The Postal Service reserves the right to pursue a revenue deficiency for mailings that do not meet all program requirements or to unenroll the mailer from the program.

Additionally, all mailers who receive the discount must retain an electronic or hard copy sample of the mailpiece until November 30, 2013, and if requested by the Postal Service, must forward such sample to the Promotion Program Office.

- If a mailing contains mobile barcode image, tag, and directional copy mail from multiple mailers, a sample of each mailer's mailpiece must be retained.
- Mailers must retain a screenshot of the page where the technology takes the recipient.

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### **IV. TECHNICAL INFORMATION**

For further technical information, please refer to the January 2013 [Technical Specifications](https://ribbs.usps.gov/intelligentmail_schedule2013/releases/jan2013/docs/techspecs/PostaloneMaildatTechSpecR32_33_34.pdf) on RIBBS at [https://ribbs.usps.gov/intelligentmail\\_schedule2013/releases/jan2013/docs/techspecs/PostaloneMaildatTechSpecR32\\_33\\_34.pdf](https://ribbs.usps.gov/intelligentmail_schedule2013/releases/jan2013/docs/techspecs/PostaloneMaildatTechSpecR32_33_34.pdf)

### **V. PROGRAM OFFICE CONTACT INFORMATION**

Further questions can be directed to the Program Office. Although not required, the Program Office will review samples and scenarios to determine if program requirements have been met.

**Email:** [mobilebarcode@usps.gov](mailto:mobilebarcode@usps.gov)  
**Facsimile:** 202-268-0238  
**Mail:** US Postal Service  
Attn: Emerging Technologies Promotion  
PO Box 23282  
Washington, DC 20026-3282

Information and resources will also be posted online at:  
<https://ribbs.usps.gov/index.cfm?page=mobilebarcode>