

O P E N P A Y M E N T S

C R E A T I N G P U B L I C T R A N S P A R E N C Y
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F I N A N C I A L R E L A T I O N S H I P S

**Open Payments Mobile Application Quick Response (QR) Code
Reader Documentation: A How-To Guide to Create Java Script
Object Notation (JSON) QR Code**

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Documentation Version Table

Version	Summary
0.1	Initial Draft

Introduction

CMS has two mobile applications that serve as tools to be used by physicians, applicable manufacturers, and applicable Group Purchasing Organizations (GPOs) to track payments and other transfers of value made throughout the year. The mobile applications can be downloaded free of charge and used easily and conveniently on a mobile device.

Use of these mobile applications by applicable manufacturers, applicable GPOs, physicians, and teaching hospitals are *voluntary* and not mandatory.

The Open Payments mobile applications are supported for iPhone™ (iOS 6.0 or higher) and Android-based phones (2.3.3 or higher).

The mobile applications, also called mobile apps, allow both industry and physician users to track payments and other transfers of value in real-time. One app is targeted specifically to physicians (*Open Payments Mobile for Physicians*) and the other one is for industry, including applicable manufacturers and applicable GPOs (*Open Payments Mobile for Industry*).

Although physicians themselves are not required to report any data under Open Payments, they can use the mobile apps to track and ensure accuracy of information about their financial relationships that will be reported by industry.

One of the key features of both apps is the use of the Quick Response (QR) Code reader. The QR Code feature serves similar but different functionalities depending on the mobile app used. The table below compares the QR Code functionality of both Open Payments mobile applications.

<i>Open Payments Mobile for Industry</i>	<i>Open Payments Mobile for Physicians</i>
<ul style="list-style-type: none">• Create or import (using a QR Code reader) physician contact information.• Generate a QR Code to transfer information about a user's profile• Generate Payment QR Code with details on payments or transfers of value. Please refer to <i>Components</i> section of this document for more JSON QR Code details.	<ul style="list-style-type: none">• Create or import a contact for industry representatives.• Generate a QR Code with the physician's profile.• Generate Payment QR Code with details on payments or transfers of value. Please refer to <i>Components</i> section of this document for more JSON QR Code details.

Table 1 QR Code Functionality of Open Payments Mobile Applications

The Open Payments mobile applications do not have a centralized storage system and all data storage is local to the device. The applications support data transfers of profile and payment information for physicians, applicable manufacturers, and applicable GPOs via QR Codes. Profiles and payments are transferred by scanning two separate QR Codes. The Profile QR Code needs to be transferred or scanned prior to transferring the Payments QR Code.

Purpose of this Document

This document will provide guidance on how to create JSON (Java Script Object Notation) QR Codes compatible with the Open Payments mobile apps so that applicable manufacturers, applicable GPOs, and physicians can integrate existing data collection and reporting tools with the mobile apps. If, for example, an applicable manufacturer already has tools to collect and report payments or transfer of value data, they could implement compatible QR functionality to send data to physicians using *Open Payments Mobile for Physicians* using this guidance. This document will delineate components required in creating QR Codes that can be used by Open Payments mobile applications.

The following tables show how the QR Code functionality can be used by Open Payments mobile applications.

<i>Open Payments Mobile for Physicians QR Code functionality</i>	
<u>Can</u>	<u>Can't</u>
<ul style="list-style-type: none"> • Create Physician Profile QR Code • Create Vendor Profile QR Code • Scan Vendor Profile QR Code • Create Payment QR Code • Scan Payment QR Code 	<ul style="list-style-type: none"> • Scan Physician QR Code

Table 2 Open Payments Mobile for Physicians QR Code Functionality

<i>Open Payments Mobile for Industry QR Code functionality</i>	
<u>Can</u>	<u>Can't</u>
<ul style="list-style-type: none"> • Create Vendor Profile QR Code • Create Physician Profile QR Code • Scan Physician Profile QR Code • Create Payment QR Code • Scan Payment QR Code 	<ul style="list-style-type: none"> • Scan Vendor QR Code

Table 3 Open Payments Mobile for Industry QR Code Functionality

Currently, physician and payment fields are **not** mandatory in Open Payments mobile applications. If these fields are left blank, the record will still be saved without any value.

NOTE:

Open Payments mobile apps (both physician and industry versions) can read JSON (Java Script Object Notation) compliant QR Codes only. Any other QR Code which does not support JSON will not be supported by Open Payments mobile apps. The apps will return an error box to users who attempt to read non-JSON QR Codes.

Components

Example QR Codes

Physician



JSON Value:

```
{
  "physician":{
    "physicianFirstName":"John",
    "physicianLastName":"Doe",
    "physicianStreetAddressLineOne":"555 main street",
    "physicianStreetAddressLineTwo":"PO box 55555",
    "physicianCityAddress":"Baltimore",
    "physicianStateAddressIndex":"MD",
    "physicianStateAddress":"Maryland",
    "physicianZipCodeAddress":"21202",
    "physicianEmail":"john.doe@example.com",
    "physicianBusinessPhone":"555-555-5555",
    "physicianMobilePhone":"555-555-5554",
    "physicianTypeIndex":"1",
    "physicianType":"Medical Doctor (MD)",
    "physicianNpi":"123456789",
    "physicianSpecialty":"surgeon",
    "physicianLicenseStateLicenseNumber":{
      "licenses":[{
        "physicianLicenseNumber":"1234567890",
        "physicianLicenseState":"Maryland",
        "physicianLicenseStateIndex":"MD"
      },{
        "physicianLicenseNumber":"0987654321",
        "physicianLicenseState":"Arkansas",
        "physicianLicenseStateIndex":"AR"
      }
    ]
  }
}
```

Table 4 Physician JSON QR Code

Name	Type	Default	Description
physicianFirstName	String	Null	The physician's first name
physicianLastName	String	Null	The physician's last name
physicianStreetAddressLineOne	String	Null	The first line of the physician's address
physicianStreetAddressLineTwo	String	Null	The second line of the physician's address
physicianCityAddress	String	Null	The city portion of the physician's address
physicianStateAddressIndex	String	Null	The index value of the state option for the select menu (drop-down)
physicianStateAddress	String	Null	The text value of the state option for the select menu (drop-down)
physicianZipCodeAddress	String	Null	The zip code portion of the physician's address
physicianEmail	String	Null	The physician's email. The user will have the 'email' input keyboard available.
physicianBusinessPhone	String	Null	The physician's business phone number. Not format restricted. User will have html 'tel' input keyboard available.
physicianMobilePhone	String	Null	The physician's mobile phone number. Not format restricted. User will have html 'tel' input keyboard available.
physicianTypeIndex	String	Null	The index value of the physician's type select menu (drop-down)
physicianType	String	Null	The text value of the physician's type select menu
physicianNpi	String	Null	The physician's NPI number. The user will be able to link to the NPI lookup website while adding or editing this value.
physicianSpecialty	String	Null	The physician's specialty.
physicianLicenseStateLicenseNumber	String	Null	Contains JSON for potentially multiple license numbers and states. With a limit of 5 maximum.
physicianLicenseNumber	String	Null	The physician's license number for a selected state.

Table 4 Physician JSON QR Code			
Name	Type	Default	Description
physicianLicenseState	String	Null	A state in which the physician is licensed. The text value of the state option for the select menu (drop-down)
physicianLicenseStateIndex	String	Null	The index value of the state option for the select menu. (drop-down)

Additional Information:

- physicianStateAddress, physicianLicenseNumber and physicianType are predefined types within the application and are represented by (drop-downs) single select menus.
- physicianLicenseStateLicenseNumber is nested JSON that can contain multiple physician license numbers and license state data. Currently with a limit of five maximum.
- Physicians **cannot** be imported in the *Open Payments Mobile for Physicians* application.

Vendor



JSON Value:

```
{
  "vendor":{
    "vendorFirstName":"Jane",
    "vendorLastName":"Doe",
    "vendorPhone":"555-555-5555",
    "vendorEmail":"jane@example.com",
    "vendorCompany":"",
    "vendorAddressLineOne":"555 west street",
    "vendorAddressLineTwo":"PO box 12345",
    "vendorCity":"San Francisco",
    "vendorState":"CA",
    "vendorZip":"12345"
  }
}
```

Table 5 Vendor JSON QR Code

Name	Type	Default	Description
vendorFirstName	String	Null	The vendor's first name.
vendorLastName	String	Null	The vendor's last name.
vendorPhone	String	Null	The vendor's phone number. Not format restricted. User will have 'tel' input keyboard available.
vendorEmail	String	Null	The vendor's email address. The user will have the 'email' keyboard input will be available.
vendorCompany	String	Null	The name of the company the vendor is associated with.
vendorAddressLineOne	String	Null	The first line of the vendor's address.
vendorAddressLineTwo	String	Null	The second line of the vendor's address.

Table 5 Vendor JSON QR Code			
Name	Type	Default	Description
vendorCity	String	Null	The city portion of the vendor's address.
vendorState	String	Null	The state of the vendor's address. Predefined select menu (drop-down)
vendorZip	String	Null	The zip code portion of the vendor's address.

Additional Information

- vendorState is a predefined type within the application and are represented by (drop-downs) single select menus. Vendors **cannot** be imported in the *Open Payments Mobile for Industry* application.

Payment



JSON Value:

```
{
  "payment":{
    "paymentFormIndex":"Cash or cash equivalent",
    "paymentForm":"Cash or cash equivalent",
    "paymentNatureIndex":"Travel and Lodging",
    "paymentNature":"Travel and Lodging",
    "paymentAmountDollars":"1900",
    "paymentAmountCents":"73",
    "paymentDate":"7/31/2013",
    "paymentCoveredDrug":"n/a",
    "paymentAdditionalNotes":"Hilton",
    "paymentCity":"Chicago",
    "paymentState":"Illinois",
    "paymentStateIndex":"IL",
    "paymentCountry":"U.S."
  }
}
```

Table 6 Payment JSON QR Code

Name	Type	Default	Description
paymentFormIndex	String	Null	The index of the ‘form of payment’ option selected in the select menu (drop-down).
paymentForm	String	Null	The text value of the ‘form of payment’ option selected in the select menu (drop-down).
paymentNatureIndex	String	Null	The index of the ‘nature of payment’ option selected in the select menu (drop-down).
paymentNature	String	Null	The text value of the ‘nature of payment’ option selected in the

Table 6 Payment JSON QR Code

Name	Type	Default	Description
			select menu (drop-down).
paymentAmountDollars	String	Null	The dollar portion of the payment value/amount. Limit of 9 digits maximum.
paymentAmountCents	String	Null	The Cents portion of the payment value/amount. Limit of 2 digits maximum.
paymentDate	String	Null	The Date of the payment. Format: MM/DD/YYYY. The user will have a date picker input available.
paymentCoveredDrug	String	Null	Specified drugs, biological, devices, or medical supplies associated with the payment.
paymentAdditionalNotes	String	Null	A notes section where the user can provide additional information about the transaction.
paymentCity	String	Null	The city that the payment is related to or occurred in.
paymentState	String	null	The state that the payment is related to or occurred in. Predefined select menu (drop-down)
paymentStateIndex	String	Null	The index value of the state selected. Predefined select menu (drop-down)

Additional Information

- paymentState, paymentForm, and paymentNaure are predefined types within the application and are represented by (drop-downs) single select menus. Their index counter parts represent the select menus option value.
- paymentDate should be formatted to MM/DD/YYYY for compatibility with the application.
- paymentCity, paymentState, paymentStateIndex, and paymentCountry are only relevant if the paymentNature is set to “Travel and Lodging” otherwise these fields are not used.
- Due to QRCode size limitations (soft cap), importing a payment will require the user to assign it to a vendor (for physican app) or physician (for industry app) manually.
- paymentAmountDollars is limited to nine digits.
- paymentAmountCents is limited to two digits.
- **As noted in the previous section of this document, Open Payments mobile apps (both physician and industry) can read JSON (Java Script Object Notation) compliant QR Codes only. Any other QR Code which does not support JSON will not be supported by Open Payments mobile apps. The apps will return an error box to users while attempting to read non-JSON QR Codes.**

Limitations of QR Code

- QR Code format hard cap 4,296 alphanumeric characters.
- QR Code format soft cap 400 – 600 alpha numeric characters; most QR Codes generated above this range will become greatly harder if not impossible to read for the majority of devices.
- Due to QR Code size limitations (soft cap), importing a payment will require the user to assign it to a vendor (for physician app) or physician (for industry app) manually.

Pre-Defined Data

Form of Payment

Table 7 Form of Payment	
Index	Value
Cash or cash equivalent	Cash or cash equivalent
In-kind items and services	In-kind items and services
Stock, stock option, or any other ownership interest	Stock, stock option, or any other ownership interest
Dividend, profit or other return on investment	Dividend, profit or other return on investment
(empty)	Select form of payment

Nature of Payment

Table 8 Nature of Payment	
Index	Value
Consulting Fee	Consulting fee
Compensation for services other than consulting, including serving as faculty or as a speaker at a venue other than a continuing education program	Compensation for services other than consulting
Honoraria	Honoraria
Gift	Gift
Entertainment	Entertainment
Food and Beverage	Food and beverage
Travel and Lodging	Travel and lodging
Education	Education
Research	Research
Charitable Contribution	Charitable contribution
Royalty or License	Royalty or license
Current or prospective ownership or investment interest	Current or prospective ownership or investment interest
Compensation for serving as faculty or as a speaker for a no accredited and noncertified continuing education program	Compensation for speaking at un-accredited or non-certified education program
Compensation for serving as faculty or as a speaker for an accredited or certified continuing education program	Compensation for speaking at accredited or certified education program
Grant	Grant
Space rental or facility fees (teaching hospital	Space rental or facility fees (teaching hospital

Table 8 Nature of Payment

Index	Value
only)	only)
(empty)	Select nature of payment

States

Table 9 States

Index	Value
AL	Alabama
AK	Alaska
AS	American Samoa
AZ	Arizona
AR	Arkansas
CA	California
CO	Colorado
CT	Connecticut
DE	Delaware
DC	District of Columbia
FL	Florida
GA	Georgia
GU	Guam
HI	Hawaii
ID	Idaho
IL	Illinois
IN	Indiana
IA	Iowa

Table 9 States

Index	Value
KS	Kansas
KY	Kentucky
LA	Louisiana
ME	Maine
MD	Maryland
MA	Massachusetts
MI	Michigan
MN	Minnesota
MS	Mississippi
MO	Missouri
MT	Montana
NE	Nebraska
NV	Nevada
NH	New Hampshire
NJ	New Jersey
NM	New Mexico
NY	New York
NC	North Carolina
ND	North Dakota
MP	Northern Marianas
OH	Ohio

Table 9 States

Index	Value
OK	Oklahoma
OR	Oregon
PA	Pennsylvania
PR	Puerto Rico
RI	Rhode Island
SC	South Carolina
SD	South Dakota
TN	Tennessee
TX	Texas
UT	Utah
VT	Vermont
VA	Virginia
VI	Virgin Islands
WA	Washington
WV	West Virginia
WI	Wisconsin
WY	Wyoming

References

1. FAQs for *Open Payments Mobile for Physicians & Open Payments Mobile for Industry Applications*
<http://www.cms.gov/Regulations-and-Guidance/Legislation/National-Physician-Payment-Transparency-Program/Downloads/Mobile-App-Public-FAQs.pdf>