

NACHA's guidelines for bill payments via QR codes

NACHA, the Electronic Payments Association, has just taken a step towards easing consumer payments via mobile devices. The Council for Electronic Billing and Payment, a subsection of NACHA, released its 'Quick Response Encoding for Consumer Bill Pay Guidelines, version 1.0,' in January. Margo H.K. Tank, Kate Aishton and Andrew Grant of BuckleySandler LLP, examine the guidelines and risks faced by consumers when using QR codes.

What are QR codes, and why are they important?

Like traditional bar codes, Quick Response (QR) codes are two-dimensional graphic-printed images that contain data accessible by scanners. However, QR codes can hold more information and allow for greater error correction than traditional bar codes. These qualities make QR codes far more valuable for mobile applications, allowing scanning by a smartphone or other mobile device using a number of free, downloadable QR code readers. The QR code format is patented but available royalty-free.

While QR codes were invented as an industrial application for tracking inventory in the Japanese automotive industry, their consumer applications have multiplied rapidly and continue to expand. Smartphone users can scan codes to trigger actions within their phones - opening a website, downloading an application or even making a call. Marketers have harnessed the technology to allow consumers to quickly find more information on a product by including the codes in advertisements across media. Retailers use the technology to

enable payment for goods with a quick scan.

Financial services firms and other companies are recognising the potential QR codes possess for streamlining bill payment. Properly deployed, QR codes can make bill payment faster and easier with less room for error. Instead of mailing a cheque, making a phone call or even entering a website, consumers can access bill-payment systems with a simple scan, anywhere they use their mobile device.

Encouraging consumers to pay via mobile device also provides an opportunity for companies to encourage consumers to explore other features of their websites or mobile apps, increasing the likelihood their customers will use additional products and services. QR codes may also build a company's understanding of customer behaviour, tracking when customers access their accounts online, how they got there and what site features they used.

QR code guidelines

To facilitate adopting QR codes for bill payment, the Council for Electronic Billing and Payment (CEBP) brought together billers, financial institutions, service providers, and other industry stakeholders to create the Guidelines. These Guidelines seek to establish a single QR code format that reaches 'consumers wherever they view or pay bills.' In pursuit of that goal, the Guidelines address the following QR code topics: (1) uses, including various bill-pay functions and the user experience, (2) advantages QR codes provide for the consumer, biller, and solution provider, and (3) what bill data will be supported and how it will be encoded.

The Guidelines state that QR codes will enable consumers to access a variety of bill-pay functions, including viewing bills,

making bill payments, enrolling for eBills and setting up payees in online banking. The user experience - what functions would be available and when - would depend on what QR code reader the consumer uses. The Guidelines describe three QR code readers and what functions they would support: (1) generic QR code readers, (2) QR code readers provided by the biller, and (3) QR code readers provided by the consumer's financial institution/aggregator. For security purposes, the Guidelines recommend that generic QR code readers would link only to the general bill page, thereby supporting only the most basic QR code functions. Because QR code readers from the biller or the financial institution/aggregator would be inherently more secure, they would permit the consumer to view significantly more information, such as specific bill details, once the entity has verified the consumer's identity.

Next, the Guidelines provide voluntary standards for what bill data will be included and how that data will be encoded. They address, among other issues:

- Two size options for codes: a larger format provides room for more detailed information and for error correction. A compact version can be used to save space on a printed surface with scarce free space.

- What data each code should contain: in every case, the code should contain three categories of information. First, the biller-direct URL allows the consumer's mobile device to access the payment website or, if activated through a dedicated app, the payment process within the app. Second, payment information (including the user account number, billing amounts, and due date) identifies key data for the specific consumer. Finally,

QR CODES

billers identification information (including physical address and other contact information) both indicates what biller created the code and includes optional biller-defined fields that can be used for tracking the QR code source or other purposes. Note that the Guidelines recommend that no personally identifiable information be stored in the QR code.

- How that data should be presented: information in each code must appear in a certain order, within specific character limits and separated by chosen delimiting characters.

The risks when using QR codes

The new Guidelines remove significant uncertainty for companies looking to use QR codes for billing, but questions about risk remain. The Guidelines state that using QR codes for bill pay is a low risk transaction. The Guidelines identify some known fraud risks, but correctly note that they are just examples and are not inclusive of all risks. Even though the Guidelines only recommend including the consumer account number and no other consumer identifying information, the entities using QR codes for billing purposes will be able to connect the transaction behaviour to a specific customer via the account number, and will also be responsible for ensuring the safety of a significantly greater quantity of sensitive consumer information than non-financial entities using QR codes for informational or advertising purposes. And as the FTC's new guidance on mobile

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privacy emphasises, there will also be risk associated with the collection and analysis of information on consumer behaviour. Therefore, while the potential misuses of the technology may be the same as those faced by other entities, the risk of divulging sensitive consumer financial information may be greater. Like limiting phishing attacks, mitigating QR code risks will require customer vigilance, and billers should anticipate that regulators will expect them to take steps to protect consumers from fraud in this area.

The first risk that the Guidelines address is controlling what information is displayed to the user depending on what QR code reader the user employs. QR code readers are capable of installing malware or introducing software viruses onto a mobile device. As discussed above, the Guidelines mitigate against this risk by recommending that very limited information be disclosed to those consumers using a generic QR code reader. QR code readers released by the billing entity would permit consumers to view significantly more information about their bill. To the extent that billers and financial institutions abide by this guidance, this should limit the risk that malicious QR code readers present.

The Guidelines address phishing scenarios where consumers are sent fake bills with fraudulent QR codes. Here, the Guidelines recommend one option: creating a 'closed loop' system that requires both the biller and the consumer to register. Scanning the QR code

would then validate the user information already on file.

Additionally, billers should select a method of generating their billing codes carefully to reduce the potential for fraud raised by creating new QR codes. Whether a service provider allows itself to be hacked by applying insufficient security precautions or is itself a bad actor, customers and billers would suffer the consequences. Checking on a QR code generating service's history and reputation is a crucial step to preventing malicious codes from being distributed through legitimate channels.

To counteract these vulnerabilities, billers and banks will need to take a proactive role in educating their consumers about QR codes and explaining the risks. While it will be impossible to guard against every risk, a proactive approach can mitigate those that arise.

As QR codes continue to gain recognition among consumers and pop up in new contexts, companies will face increasing pressure to use them for bill payment. The NACHA Guidelines offer significant and useful answers to some of the questions that technology raises - copies of the Guidelines can be obtained through a request to the CEBP. Billers will need to find answers to the other questions elsewhere.

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