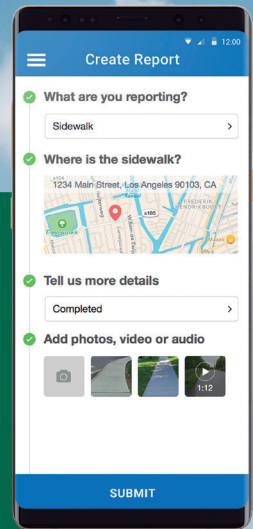


# SMARTPHONE CIVIC REPORTING APPLICATION:

Making government more efficient,  
responsive and transparent



ROCK SOLID

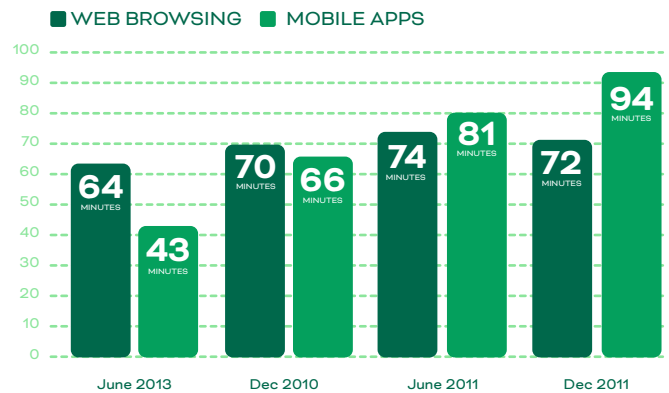
## Introduction

The technology and web explosion of the last 20 years have changed the way we interact as individuals and as organizations. This impact is evident in the public sector as well. No longer do your residents rely solely on the telephone to communicate with you. As residents, we expect to interact with our government through multiple channels, including telephone, email, online browsers, and increasingly, via smartphone applications (“apps”). This paper examines how civic reporting apps are changing local government, allowing them to be more efficient, responsive and transparent to those they serve.

## Why Mobile?

With over 2.2 million apps in Apple's App Store and over 3 million apps available on the Google Play Store, the mobile app revolution is in full swing. While the internet revolution took approximately 15 years to become mainstream, mobile apps only took four short years to dominate our attention. Steve Jobs announced the original iPhone in the summer of 2007. By the summer of 2011, for the first time, smartphone users were, on average, spending more time using mobile applications than browsing the web (both on the desktop and mobile web).<sup>1</sup>

### U.S. Mobile Apps vs. Web Consumption, Mins / Day



Sources: comScore, Alexa, Flurry Analytics

In 2016, smartphone users reached over 4.3 hours per day on mobile apps. Clearly, your residents are using apps. In some cases, it may be the only source of data connection they have. According to Pew Researchers:

**Some 84% of American households contain at least one smartphone—a third of American households have three or more smartphones. Many older adults also reside in households with multiple mobile devices. Nearly four-in-ten 30- to 49-year-olds (39%) and 29% of 50- to 64-year-olds say their home contains three or more smartphones.<sup>2</sup>**

(1) Newark-French, Charles. Flurry Blog. [Linked Here](#)

(2) Stephen J. Blumberg, Ph.D., and Julian V. Luke. Pew Research Center. [Linked Here](#)

The phrase "there's an app for that" no longer applies only to Facebook and Pokemon GO. It is estimated that there are currently over thirty vendors attempting to enter the smartphone civic reporting application market targeted at the government sector, with new entrants into the market appearing regularly. We increasingly expect to interact with organizations using a mobile device, and the expectation with

government is no different. In an age of high expectations and low levels of patience by residents and citizens, this type of application could not have come at a better time. As of 2016, 88% of adults aging from 30-49 and 74% of adults from 50-64 own a smartphone.<sup>3</sup>

### Who Owns Cellphones and Smartphones?

Percentage (%) of American adults who own the following devices. A substantial majority of Americans are cellphone owners across a wide range of demographic groups. By contrast, smartphone ownership exhibits greater variation based on age, household income and educational attainment.

	Any cellphone	Smartphone	Cellphone, but not smartphone
Men	96	78	18
Women	94	75	19
White	94	77	17
Black	94	72	23
Hispanic	98	75	23
Ages 18-20	100	92	8
30-49	99	88	11
50-64	97	74	23
65+	80	42	38
Less than high school education	92	54	39
High school graduate	92	69	23
Some college	96	80	16
College graduate	97	89	8
Less than \$30,000	92	64	29
\$30,000-\$49,999	95	74	21
\$50,000-\$74,999	96	83	13
\$75,000+	99	93	6

(3) "Mobile Fact Sheet". Pew Research Center. [Linked Here](#)

The internet has made everyone a publisher; we can express our thoughts on social media, blogs, and online forums. At times, these external outlets can quickly spiral into “bash the big bad government”. There are simply too many outlets, such as Facebook, Twitter, and Yelp that enable constituents to voice discontent; the mainstream media isn’t far behind with news stories. What if, instead you could harness this power of the group in a positive manner, by providing a channel that was introduced by your organization? This solution is possible when a population is armed with a low cost, location aware, network connected device.

Governments, that want to be seen as responsive, will get in front of these issues and offer their customers real, substantive solutions.

## Efficiency

As anyone with experience in municipal public works can attest, it’s quite common for residents to write letters or call in issues such as potholes or broken traffic signals. These written and verbal reports often come with a vague description of the problem, and sometimes even more vague information surrounding the problem’s location. Issues reported in this manner trigger a series of highly inefficient events.

From the scenario on the right, it’s easy to see why the smartphone applications offer a huge boost in operational efficiency.

Simply having a photo or video that’s attached to the report is incredibly useful. Now your staff can see what’s been affected. What color is the wall that’s been vandalized? How big is the pothole? Are roots the cause of the cracking sidewalk? Many of these questions can be answered just by looking at a photo or video. And with the inclusion of a GPS coordinate in the report, there’s no more guessing as to the location.



1 A public works staff member drives a vehicle (expending fuel and incurring vehicle wear/tear) to the location described attempts to locate the problem reported.

1

2 If able to locate the problem, he/she takes a picture to record the issue, records an exact GPS coordinate of the problem’s location (typically with an expensive, specialized device), and makes notes as to what supplies might be needed for its resolution (paint color, etc.). Sometimes this record is done with a specialized, network connected device, but most of the time is done the old fashioned way – pen and paper.



2



3 If pen and paper used to record the problem, it’s taken back to the office and manually entered into the municipality’s work order management system.

3

4 A public works staff member then drives back out to the location (costing more fuel and vehicle wear/tear) with all the supplies to resolve the issue.



4

5 Once complete, the worker updates (again, either with a costly specialized device or pen/paper) the problem in the work order system. If it was recorded with pen and paper, there is now additional data entry required to get the work order system updated.



5

Additionally, all of this information was gathered without the help of a municipal staff member. The efficiency gains are enormous when you think of fuel (now averaging \$2.33 per gallon), vehicle wear/tear, and staff member’s time. Assuming the average annual salary of a public works employee is \$68,000 USD (not including<sup>5</sup> benefits, taxes and pension – which typically adds 30% to the salary); a rough estimate of the annual costs for verification truck rolls is outlined below.

Public Works Employee Time: 1 Hour <sup>5</sup>	+ \$32.69
Employee Taxes, Benefits & Pension	+ \$9.80
Vehicle Fuel: 10 Miles RoundTrip <sup>4</sup>	+ \$2.33 (Assuming 10 miles/gallon)
Vehicle Wear & Tear	+ \$3.37 (Assuming \$0.337/Mile)
<b>SINGLE VERIFICATION TRUCK ROLL</b>	<b>= \$48.19</b>
Assuming 2 Rolls / Day over 250 Days per Year	x500 = (2x250)
<b>ANNUAL VERIFICATION TRUCK ROLLS</b>	<b>= \$24,095</b>

As the civic reporting smartphone application becomes more and more ubiquitous, municipalities are seeing a dramatic shift in operational efficiencies. Issues being reported by phone, email (which require data entry, hence added costs) and walk-ins have begun to be replaced by smartphone reports and web based forms (although web based forms are a bit more cumbersome to the customer). The costs are far outweighed by the benefits, even in the short term.

## Responsiveness

Municipalities which have adopted this technology to deploy a smartphone civic reporting application send a clear message to constituents:

- 1 We are here to serve you.
- 2 We want to know what’s important to you.
- 3 We want to hear from you.

But, aren’t there other solutions, besides mobile, that send the same message to residents? Yes certainly, and other options include 311 call centers, a self-service website, or an online form to submit issues directly. None of

(4) AAA’s Daily Fuel Gauge Report as of 4/26/2012. [Linked Here](#)

(5) Simply Hired. [Linked Here](#)

(6) Hayes, Kelvin. eHow. “How to Calculate Wear & Tear”. [Linked Here](#)

these, however, combine the simple, data-rich, location-aware, and portable solution provided by a Smartphone Civic Reporting App. It's significant to note that it's with smartphone technology that residents get the best feedback and sense of responsiveness from government. All of the other mechanisms for reporting issues really don't facilitate a one-to-one communication channel between government and constituent, at least not without added costs. 311 Call Centers, while very effective, leave it up to the resident to call back and get status on their issue. These call backs are very inefficient and put additional strain (and costs) on call center resources.

A full featured smartphone civic reporting application should include a suite of Post Notifications, email alerts and/or SMS text messages. Assuming the app is integrated with the municipality's back office, a crucial piece to overall solution, once a report is submitted through the app, the resident gets an immediate Push Notification (it's like an SMS text message, but free) with the case number that's linked to the municipality's back office system.

The resident is also notified on status updates (e.g., from "Open" to "In Process") and finally when the report is resolved. These Push Notifications reduce calls and emails (and hence additional costs) to municipal departments. The notifications happen automatically with minimal human interaction. The result is a

constituency that's kept up to date (in pseudo real-time). They know, without any additional effort, that their government is working behind the scenes to get issues resolved. By closing, the communication loop, these apps are transforming the way residents engage with government.

## Transparency

You've heard the rumblings; some residents view government as a black box. While your organization may have taken steps to become more transparent, it is not an easy nut to crack. Smartphone civic reporting applications provide a forum for direct government-to-citizen openness and sharing. Most software vendors in this space offer the option to display a map with active service requests on the web or smartphone device. Usually, the reports show up as a pin on a map with a color scheme signifying the stage of progress: "Submitted", "In Process", and "Closed" are typical status categories for service requests. This public display does a great service because it shows residents that government is working in tangible and quantifiable ways. It removes guess work for the resident as to how part of our tax money is being spent.

Traditionally, residents make a call, send a letter or e-mail a problem, and they never hear back from the city or county regarding their service request. As a resident this is

extremely frustrating, but in reality, back-and-forth communication for every issue would be impossible. But, by displaying the service requests submitted with real time status updates, residents know the exact status requests submitted and requests submitted in a given location. Thus, if a city or county is considering getting a Smartphone Civic Reporting App, they should use them to showcase the good work they are doing. Not all vendors give this option, which bears on their viability as an enterprise solution for local government.

## Conclusion

Smartphone and mobile apps are here to stay, there's very little doubt to this trend. Your residents are part of a mobile society and they've become accustomed to interacting with organizations through mobile apps. Current trends indicate that mobile app usage will continue to outpace online browsing, both desktop and mobile browser combined. But, mobile is not just another channel to reach residents; in many cases it may be the only manner by which your residents can digitally connect with you, particularly in regards to racial minorities, those without college education, and those of lower socioeconomic status. Mobile apps are bridging the digital divide.

There's more to be gained by governments than simply appeasing consumer demand or expanding access. Additional rich data

elements such as GPS and media files equate to better, more accurate information for your service requests. Additionally, the ability to send out location-aware status updates will allow you to bridge the two-way feedback loop with residents. Mobile apps don't stop at service requests, they have continued to evolve. Now allowing residents to submit payments for permits and utilities, as well schedule inspections, adopt pets, and even report criminal activity.

Why have a new app for each department within our organization if one app can connect the various back-end systems through a truly complete citizen app. Through adopting a mobile citizen app your municipality can expect to increase efficiency and appear both more responsive and transparent.

## About Rock Solid

Rock Solid provides a best of breed, real-time, smartphone civic engagement platform empowering residents to identify civic issues (public safety, quality of life, environmental issues, etc.) and report them to city hall for quick resolution. Rock Solid currently serves as the official smartphone application for a number of large cities and counties in the U.S. and worldwide.

For more information on how your organization can deploy a smartphone civic reporting solution, visit or contact us at:

 [one.rocksolid.com](https://one.rocksolid.com)

 [sales@rocksolid.com](mailto:sales@rocksolid.com)

 [facebook.com/onerocksolid](https://facebook.com/onerocksolid)

 [twitter.com/onerocksolid](https://twitter.com/onerocksolid)

 (424) 270-9438