Department of Revenue

Working together to fund Washington’s future
Have any of you been to the farmers market lately? How about the fair or a swap meet? Maybe you've had some bark delivered or just stopped by your local coffee stand.

If you have, you’ve most likely been “squared.”
Finding Washington’s sales tax rates using mobile apps
Overview

• Mobile devices in business
• Customer’s mobile needs
• Online Tax Rate Lookup tool
• Mobile statistics
• Design and development
• Next steps
• Questions
Today, many small businesses use their mobile devices to instantly access the information they need to run their business. By using GPS, credit card readers, cameras and messaging, mobile apps provide a service that web pages could never dream of.

According to CNet.com and AllThingsDigital.com; smart phones and tablets account for more then 20% of all traffic on the web. The number of smart phones alone in use across the globe has surpassed the 1 BILLION mark and is expected to easily double within the next two years.
Mobile devices are game changers for small businesses. Over 94% of the small business owners who use mobile devices said their mobile devices make them more efficient and 75% said their mobile devices are "critical" to their jobs.
Industries that benefit

- Construction
- Retail
- Professional services
- Food services
- Manufacturing
- Landscaping
- Delivery services

The industries with the highest potential to benefit from mobility are:
- Construction
- Retail
- Professional services
- Food services
- Manufacturing
- Landscaping
- Delivery services

Over two thirds of mobile device users said that their company would lose competitive ground in today’s market without mobile devices.
For many small businesses, mobile devices have replaced the use of cash registers, land-line phones and credit card readers and, for some, traditional desktop computers.

DOR continually focuses on customer needs. We look for ways to make it easier to conduct business and communicate with DOR. We focus on our website, our online applications and ways to adapt services to fit the needs of our customers.
In July of 2008, Washington changed from an origin-based system for local retail sales tax to a destination-based system. Which means that sales tax is collected based on the rate at the location where the buyer receives the merchandise and services.

So, imagine you are a business that sells and delivers bark. You may deliver bark to many different locations on any given day and each of these could have a different sales tax rate.

Now apply this same scenario to the construction industry or to people who sell products at farmers’ markets, swap meets and fairs. These businesses have already incorporated the use of mobile devices such as phones or tablets into their daily business. These devices and apps can save them not only hours of work but also can greatly reduce the amount of billing and reporting errors.
Customer’s mobile needs

For many of these businesses, the process they used was very time consuming. Many would have to call back into the office and have someone find the tax rate using our website or go back later that evening, put in the information, and then send a bill in the mail.
As we looked at the data from our website and online applications, one area we felt could really help our mobile customers was our Tax Rate Lookup tool (GIS).
Online Tax Rate Lookup Tool

When the information is put in, the search returns a lot of information.
Online Tax Rate Lookup Tool

You can also search using the map search tab and by latitude and longitude.

We have over 1.6 million customers using this tool every year or about 6,200 a day.
But let’s go back to the longitude/latitude tab again. How often do you think that tab gets used from desktop computer searches?

A search by longitude/latitude is actually the most accurate way to search, within meters of where you are standing but who is actually using it on our website.....NO ONE.
Today, many of our customers are carrying devices with built-in GPS. Using their phones or tablets, they can pinpoint their exact location making it easy, fast and accurate to determine their sales tax rate.
Based on Google Analytics, we’ve had about 256,000 mobile visitors over the last year. The percentage of mobile visitors is not huge, only around 4%, but when you look back a few years it has more then doubled each year.

What will it be next year....8%, 10% or how about the following year......16%, 20% or possibly more?

If you look at the projected US statistics for mobile devices by 2015, the numbers are staggering.
Now, let's look at what type of devices our customers are using.

As you can see, our customers are using a lot of Apple iOS devices. But there are 430 different mobile devices coming to our site.
Mobile visits to dor.wa.gov

This chart shows that there are 16 different mobile operating systems.

This gives us a pretty good picture of our mobile customers, their devices, and which operating systems those devices use.
Birth of a mobile app
Project Charter

Executive approval

- Executive Sponsor (TPS)
- CIO approve project charter (IS)
- Project sponsor (TPS)
- Project manager (TPS)
- Project coordinator, technical lead, developer (IS)
- Subject matter experts (TPS)
- Business Analyst (IS)
- Test lead (IS)
- Marketing (TPS)

Joint effort by Taxpayer Services and Information Services.
Project Charter
Mobile Application

• Background
  - Make it easier for businesses to determine the correct sales tax rate

• Goal
  - Develop a mobile version of the Tax Rate Lookup online application that can automatically locate sales tax rates and the location code using GPS

• Objective
  - Develop an application for iOS and Android smart phones and tablets

Clear goals and objectives.
Design and development

Mobile app for iOS first and then Android.
Design and development

Determining requirement Specifications:

The website is designed to return a lot of information that is not necessary for a mobile user.

We used Jakob Nielson’s usability study to make sure we were not wasting the users’ time. Mobile users are in a hurry and get angry if you waste their time. Phones have a much smaller screen so the information needs to be easily understood and read on a small screen.
How the app would be used

Search options

- GPS
- Address
- Zip + 4

We want them to use the GPS option and we guide them to use it in the way we intended.

Once the user initiates the search, what information does our mobile user actually need?
Search results

Primary information

• Sales tax rate
• Confirmation code
• Address

Secondary information

• Location code
• Effective dates

Narrowing this down to only the necessary information was not as easy as it sounds.
How they use the information

Primary use

• Save
• Send
• Title

Secondary use

• Map
• Calculate

How would they use this information?

Mobile users wanted to get the information fast, do something with it and move on.
The requirements document helped us develop our process flow diagram.
Design and development

Develop a prototype.

The prototype was not intuitive or user friendly.

How would the user move between screens?

Adhere to the design and branding guidelines of the agency. It needed to look like a DOR product.
We gave the prototype to usability experts. They did a great job applying usability guidelines to each screen and making the information easy to read and understand. This process went through several reviews and each time it was refined and made easier to understand and use.

One of the hardest parts was the navigation and how the user would move between screens. Making the app intuitive for the user is extremely important. This is a lot easier said than done and is really much different than a website. This led us to create a navigation flow diagram.
Design and development

This helps “guide” the user to use the app as we intended. You don’t want to force your user to do things but gently guide them into a direction or a way of doing things. This allows us to “prompt” the user in the direction we want them to go. Doing things like adding a title, or making sure to use the mobile devices’ GPS function, helps the user get a more accurate rate.
Demo
Next steps

- Android app
- HTML 5
- Incorporate feedback
- Marketing
- Evaluate mobile data
Questions?

http://dor.wa.gov/taxratemobile