AWS Road Trip Final Report

Jeff Barr

June 7, 2013

INTRODUCTION

This report summarizes an independent study project that took place in the Spring quarter of 2013 under the aegis of the University of Washington's MCDM (Master of Communication in Digital Media) program[1]. Because this report summarizes a personal experience, it is written in first person narrative style. The independent study project was supervised by, and benefitted from the advice of Brian Marr, an MCDM faculty member.

BACKGROUND

I hold the position of Chief Evangelist for the Amazon Web Services (also known as AWS). AWS is the leading product in the market space known as "cloud computing." I am part of the Marketing team and am responsible for a number of outbound marketing efforts. I founded and have been writing for the AWS Blog[2] since 2004, and have published over 1600 posts. I also host a YouTube talk show called the AWS Report, and wrote an AWS Book ("Host Your Website in the Cloud") in 2010.

As our audience has grown in size and sophistication, I found myself speaking at larger conferences and to larger audiences, often numbering in the high hundreds or even thousands. While fulfilling from the perspective of scale and sophistication, there's also a cost. Conference organizers, eager to pack the agenda with content that will appeal to a large audience, provide ever-decreasing time slots. For example, I flew to Beijing in early 2013 in order to deliver a 15 minute talk. I was able to arrange for other meetings to make this trip worthwhile from a time and cost perspective. The larger events also separate the speaker from the audience. It is literally impossible to even see the audience – the stage is lit and the room is dark. It is very difficult to feel a real connection since there's no way to make eye contact or to take the time to answer detailed questions.

Since my teens, I have been a big fan of technology user groups. They attract a focused audience of technophiles with a genuine interest in a particular topic. While the audience size is often smaller than found at a conference, this is more than balanced a number of important factors including the amount of time they'll spend, the focus that they have on a topic, and their sheer enthusiasm. User groups also provide a unique opportunity to establish a strong connection with current and potential customers and to learn from them while doing so.

Over the last ten years I have spoken to many technology, cloud computing, and AWS user groups on a one-off basis. These talks have taken place in the US, Japan, and Europe.

For many years I had considered the possibility of a focus on user groups, and dreamed of ways to reach a number of them in a condensed time period in an economical way. In January of 2013 I discussed my ideas with my manager and he gave me the go-ahead to plan and execute a multi-week road trip / speaking tour. Sensing the opportunity to make use of what I had learned during my time in the MCDM program, I approached the program director (Hanson Hosein) and he encouraged me to pursue this trip as an independent study project.

[1] http://mcdm.washington.edu/
[2] http://aws.typepad.com

The remainder of this report documents my planning process and my trip, analyzes the results, and concludes with some words of advice to future road-trippers.

THE PLANNING PROCESS

With permission secured, it was time to get busy. The basic time frame was established by the fact that I needed to complete the trip in time to write this report and to graduate from the MCDM program. In retrospect, a spring trip was perfect. A winter trip would present possible difficulties due to bad weather, and many groups don't meet in the summer.

Looking at my calendar, I found a nice three week interval, conveniently sandwiched between my grandson's first birthday and my youngest daughter's high school graduation activities. I failed to check the calendar for holidays; doing so would have kept me from starting out on Mother's Day or trying to schedule a talk for Memorial Day.

My initial thought was to organize my trip as a great loop, starting in and eventually returning to Seattle. As I started to search for possible user groups, I found that too many of the candidate states were sparsely populated and didn't have enough in the way of user groups to make the trip worthwhile. I began to look further east, and soon decided to drive across the entire United States, starting in Boston, heading southwest until reaching California, and then north to Seattle. I mapped out the states started to explore some routes. I quickly ran in to technical problems with every one of the commonly used mapping and navigation sites and tools. The Google Maps[3] and Roadtrip America[4] sites silently limited the route to at most ten stops. The AAA Road Trip Planner was difficult to use and displayed tiny maps. The Bing Maps[5] lost waypoints and generated URLs that would not work when revisited. The AWS-powered ArgGIS Explorer[6] turned out to be somewhat more useful for planning purposes. Ultimately, I abandoned the idea of generating an entire cross-country route and simply measured the distances between the target cities.

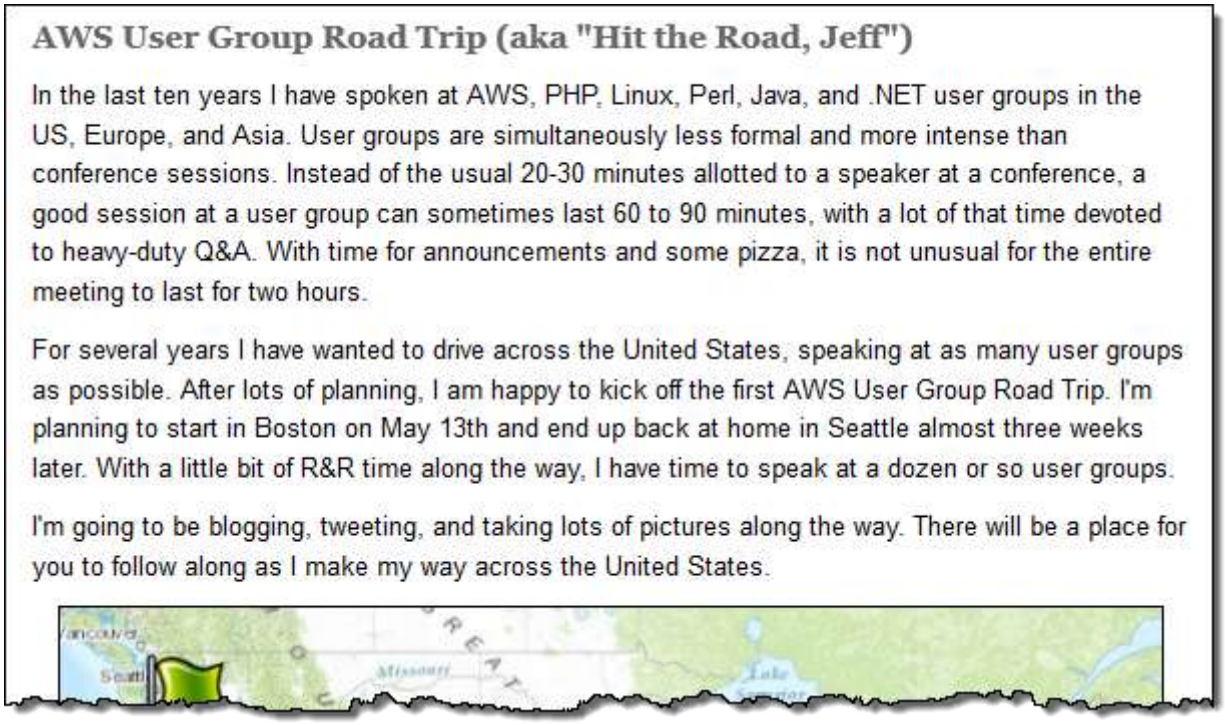
I relied on intuition and some preliminary searches for user groups to guide my choice of states and cities. A slightly more scientific approach would have used population data and other information as a guide. I did want to make sure that many of the cities on my route were a bit off of the well-traveled paths created by other technology evangelists. This proved to be a very good decision; the groups in Roanoke (Virginia) and Lexington (Kentucky) proved to be especially appreciative of the effort that I had made to visit their cities. Based on previous driving experience gained on family road trips, I decided that it was reasonable to drive 300 to 350 miles per day and still arrive with sufficient time and energy to give a two hour talk every weeknight for three weeks!

I created a Google Docs spreadsheet and used it as the focal point for my planning. This spreadsheet eventually grew to 19 tabs as I collected, cataloged, and stashed away all of the information that I needed to make my trip a success. One of the tabs was used to track the status of the tasks that I identified during the planning process. I used a simple set of rules to color code the status column:

[3] https://maps.google.com/
[4] http://www.roadtripamerica.com/
[5] http://www.bing.com/maps/
[6] http://www.arcgis.com/explorer/

	A	B	C
1	Task	Date Complete	Status
6	Outline planned route	2/5/2013	Done
7	Clear calendar	1/22/2013	Done
8	Talk to MCDM about independent study	3/18/2013	Done
9	Pick departure date	3/11/2013	Done
10	Book all user groups	4/20/2013	Done
11	Figure out social media stuff		Done
12	Approval from IR to speak at UBS	3/18/2013	Done
13	Finalize Vegas	3/18/2013	Done
14	Finalize Portland	3/18/2013	Done
15	Delete Sacramento	3/18/2013	Done
16	Delete Albuquerque	3/18/2013	Done
17	Finalize Phoenix	3/18/2013	Done

With the cities identified, I wrote a blog post and published it in early March[7]:



AWS User Group Road Trip (aka "Hit the Road, Jeff")

In the last ten years I have spoken at AWS, PHP, Linux, Perl, Java, and .NET user groups in the US, Europe, and Asia. User groups are simultaneously less formal and more intense than conference sessions. Instead of the usual 20-30 minutes allotted to a speaker at a conference, a good session at a user group can sometimes last 60 to 90 minutes, with a lot of that time devoted to heavy-duty Q&A. With time for announcements and some pizza, it is not unusual for the entire meeting to last for two hours.

For several years I have wanted to drive across the United States, speaking at as many user groups as possible. After lots of planning, I am happy to kick off the first AWS User Group Road Trip. I'm planning to start in Boston on May 13th and end up back at home in Seattle almost three weeks later. With a little bit of R&R time along the way, I have time to speak at a dozen or so user groups.

I'm going to be blogging, tweeting, and taking lots of pictures along the way. There will be a place for you to follow along as I make my way across the United States.

I posted the link to my Facebook page[8] and to my Twitter account[9]. Within hours I started to receive encouraging responses from user groups in the cities that I had identified. In several cases, multiple cloud and technology user groups in a target city agreed to work together to create and host an event. In every case, the

[7] http://aws.typepad.com/aws/2013/03/aws-user-group-road-trip-aka-hit-the-road-jeff.html
[8] https://www.facebook.com/jeff.s.barr
[9] https://twitter.com/jeffbarr

user groups showed remarkable flexibility and did their absolute best to accommodate the unchangeable dates on my schedule.

With the schedule firming up, I began to work toward another one of my goals. The Amazon Web Services are used by hundreds of thousands of customers in 190 countries. Since many of our customers are building applications that are targeted at consumers, I decided to do my best to make the trip "cloud powered." I wanted to use as many different AWS tools, applications, and services en route as possible, and to share this with my audiences.

I worked with the AWS Business Development team to identify and target potential supporters and sponsors. My friend Jeff Shuey connected me with the PR Department at Ford Motor Company and they tried to find a car for me in their PR Pool. Although this didn't end up working out, I appreciate and acknowledge their efforts. An AWS business partner, 2nd Watch, connected me with the PR team at Red Lion Hotels. This hotel chain uses AWS to power their web and mobile sites[10]; they agreed to provide me with complimentary hotel rooms in the cities and states where they had properties. They asked for nothing in return, but I did my best to include them in my daily blog posts and to acknowledge their contribution. Since frugality is one of Amazon's core values, their contribution was especially valuable.

One of my colleagues connected me with the marketing department at Waze[11]. This is an AWS-powered mapping and navigation application that runs on mobile devices. It provides crowd-sourced information on traffic delays, road hazards, and more:

This powerful application would prove to be invaluable as I made my way across the country.

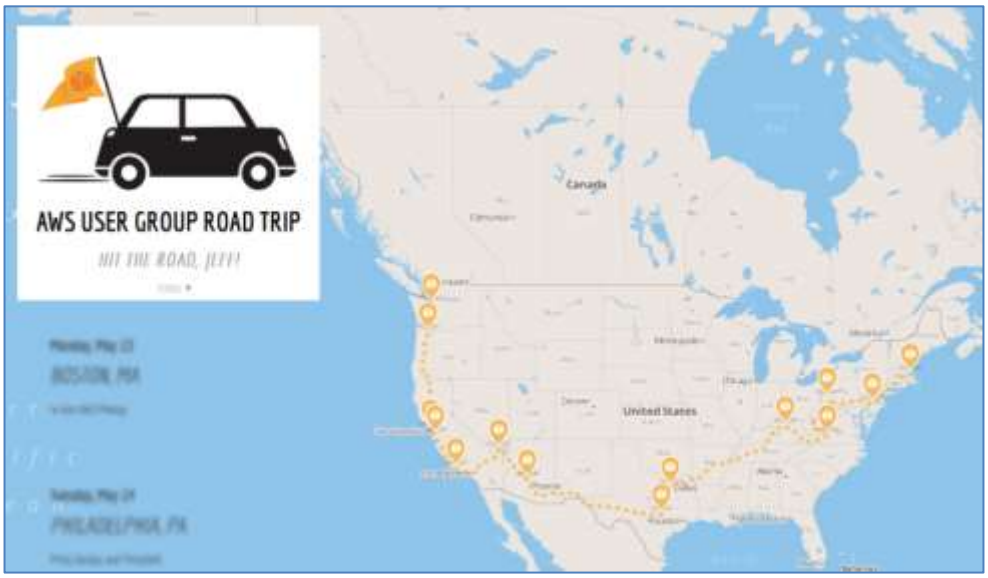
[10] http://aws.amazon.com/solutions/case-studies/red-lion/
[11] http://www.waze.com

I contacted Contour[12], a Seattle-based producer of an action-adventure camera product. They process and store their videos on the AWS cloud. They supplied me with a camera and a suction cup mount so that I could create time lapse videos of my departures and arrivals. As the first official ride of my trip, I used the Seattle Monorail[13] to get to their office. A little Twitter note about their prices actually elicited a response:

Once I had the Contour camera in hand, I experimented with various image formats and tools to create time lapse videos. After a lot of experimentation, I ended up using the open source **ffmpeg**[14] tool to handle the video processing. I copied each video off of the camera and used the following command to do the dirty work:

```
ffmpeg -i file0119.mov -filter:v "setpts=0.05*PTS,scale=iw/2:-1" -an file0119_half.mov
```

The development team at MapBox created a nice dynamic site[15] to track my travels:



[12] http://store.contour.com/ae/us/page/home
[13] http://www.seattlemonorail.com/
[14] http://www.ffmpeg.org/
[15] http://www.mapbox.com/labs/aws/

I linked to the appropriate part of the MapBox site each day to provide my audience with a better idea of my current and future locations.

I also decided to use Yelp[16], foursquare,[17] and Dropbox[18]. I also ended up using Reddit in an interesting and surprising way. All four of these sites run on AWS.

As a final part of my plan to be cloud-powered, I hosted my road trip blog on AWS. I'll have more to say about this later in the report.

During the entire preparation process I continued to add items to my lists. At one point it seemed as if marking a single item as **Done** caused me to create three or four new items and that I would never complete my self-assigned tasks. In late April I decided to limit the complexity and to focus on doing my best at what I had already agreed to do.

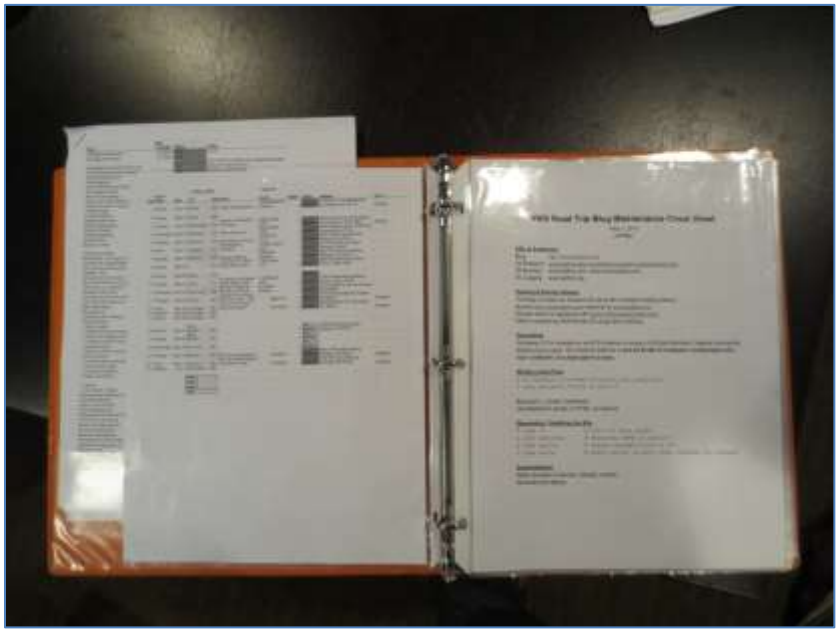
I reserved a rental car with Avis, with the agreement that I could choose from among a variety of vehicles once I arrived in Boston. Because I didn't know how it would be equipped, I made sure to bring extra power cords, some duct tape, and even some bungee cords to make sure that I could mount my camera and my phone on the windshield in the desired fashion.

I created a daily checklist to ensure that I wouldn't forget any of the numerous things that I had to do each day before leaving the hotel.

[16] http://yelp.com
[17] https://foursquare.com/
[18] http://www.dropbox.com

The clipboard itself had been provided as part of an MCDM Usability Testing class; this was a nice physical reminder that this trip had an MCDM component!

I also put all of the important documents (addresses, routes, and so forth) into a binder:



I also packed a box cutter knife, tools, some first aid supplies, some Starbucks gift cards to use as thank-you gifts for people who had helped me, and enough cash to pay for tolls and miscellaneous expenses. I didn't want to waste any time on shopping once the trip was underway.

Before leaving the house I made sure to prepay as many monthly bills as possible to make sure that I wouldn't face any late fees when I returned.

STATIC BLOGGING ON AMAZON S3

After exploring a couple of options, I decided to use Amazon S3[19] (our web-scale storage service) to host a blog that I would set up for the road trip. I purchased the domain **awsroadtrip.com** and used Route 53[20] (the AWS Domain Name Service) to map the domain to the S3 container (bucket) where I would store my content. By using a static hosting setup I was able to minimize costs, ensure scalability, and keep myself isolated from any possible bugs in any blogging tools that I might have otherwise chosen to use. I wanted to be able to focus on content, not technology, during the trip.

I set up the Octopress[21] static blogging tool and quickly set up a simple editing and publishing workflow. I also installed and configured the Analog[22] package to give me some simple web traffic analytics. The workflow was

[19] http://aws.amazon.com/s3
[20] http://aws.amazon.com/route53
[21] http://octopress.org/
[22] http://www.analog.cx/

very straightforward. I wrote the content using the Markdown[23] language, and then generated the static HTML with a single shell command:

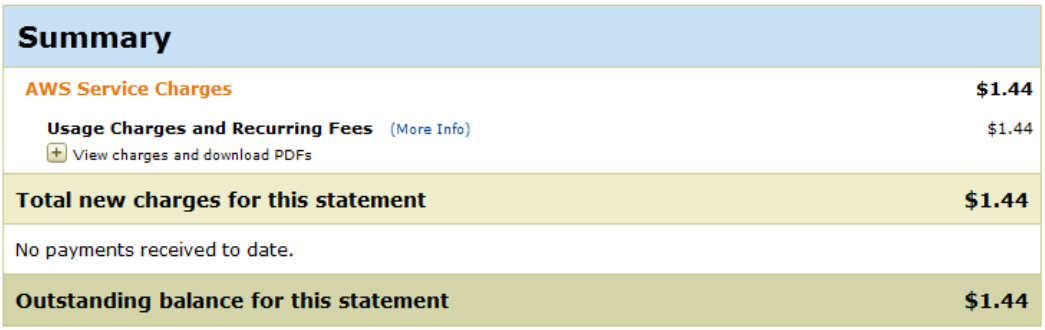
```
rake generate
```

I then pushed the HTML to S3 with a second command:

```
rake s3
```

The entire process of generating and pushing HTML took about 22 seconds.

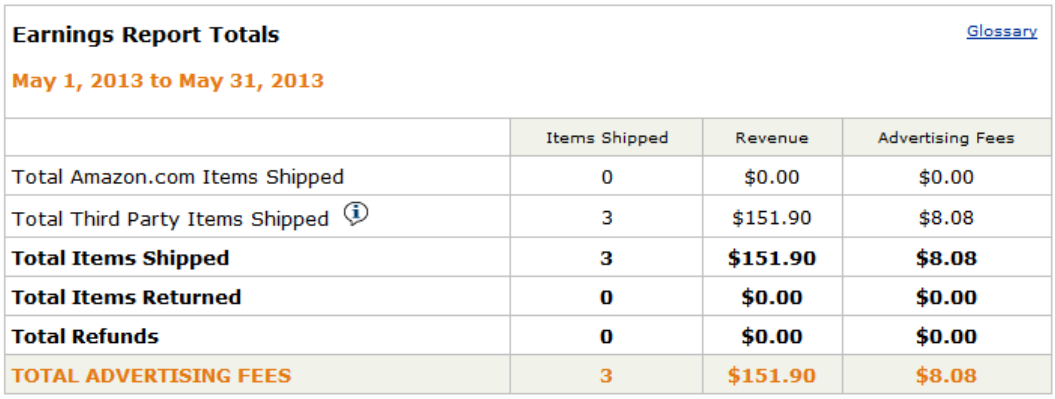
I demonstrated the blogging process at every one of my talks. The audiences were uniformly impressed with this relatively simple yet powerful cloud use case. I also showed them how inexpensive it was to host and run the blog, with an actual peek at my AWS bill:



Summary

AWS Service Charges	$1.44
Usage Charges and Recurring Fees (More Info)	$1.44
View charges and download PDFs	
Total new charges for this statement	**$1.44**
No payments received to date.	
Outstanding balance for this statement	**$1.44**

But that's not all! I signed up for the Amazon Associates[24] program and earned commissions by linking to some books and music that I referenced in my blog posts.



Earnings Report Totals Glossary

May 1, 2013 to May 31, 2013

	Items Shipped	Revenue	Advertising Fees
Total Amazon.com Items Shipped	0	$0.00	$0.00
Total Third Party Items Shipped	3	$151.90	$8.08
Total Items Shipped	**3**	**$151.90**	**$8.08**
Total Items Returned	**0**	**$0.00**	**$0.00**
Total Refunds	**0**	**$0.00**	**$0.00**
TOTAL ADVERTISING FEES	**3**	**$151.90**	**$8.08**

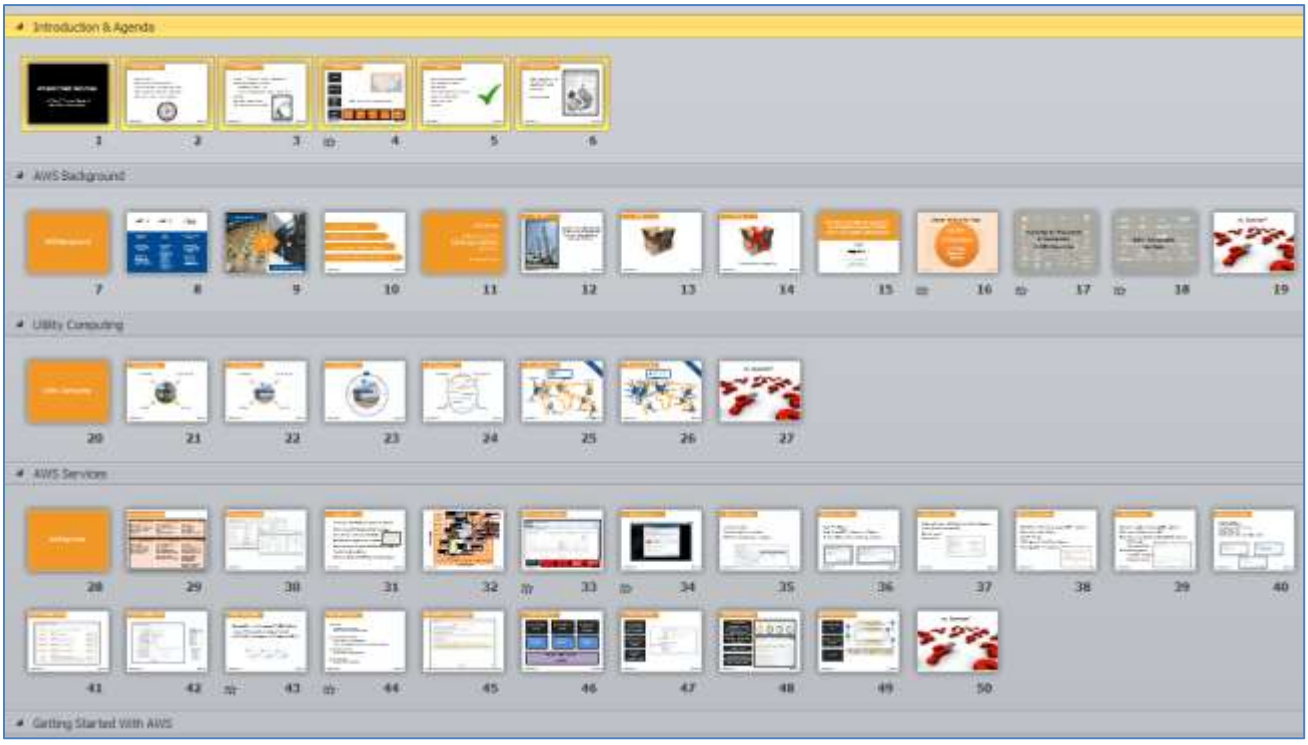
[23] http://daringfireball.net/projects/markdown/syntax
[24] https://affiliate-program.amazon.com

With advertising fees of $8.08, I actually generated a profit of $6.64 from my road trip blog!

We often use the phrase “drinking our own champagne” at Amazon as a classier counterpart to Microsoft’s claim[25] that they “eat their own dog food.” My use of the Amazon S3 storage service to host my road trip blog was a strong proof point that gave me additional credibility with my audiences.

I set up a survey using Qualtrics (using what I had learned in my MCDM Marketing class) with a plan to ask each audience to provide me with feedback.

The last few days prior to my departure were spent creating and fine-tuning my actual content – a detailed PowerPoint presentation:



SAFETY

I spent a lot of time thinking about my personal safety before and during the trip. Here were some of my concerns and my defenses for them:

Bad Weather	Pre-departure weather check each morning of starting city, ending city, and one city en route.
Vehicle Malfunctions	Daily pre-flight inspection of tires and body; close watch on all gauges and indicators.
Fatigue	Avoidance of caffeine. Lots of water. Frequent rest stops. No night driving. High quality podcasts and music in the car.

[25] http://en.wikipedia.org/wiki/Eating_your_own_dog_food

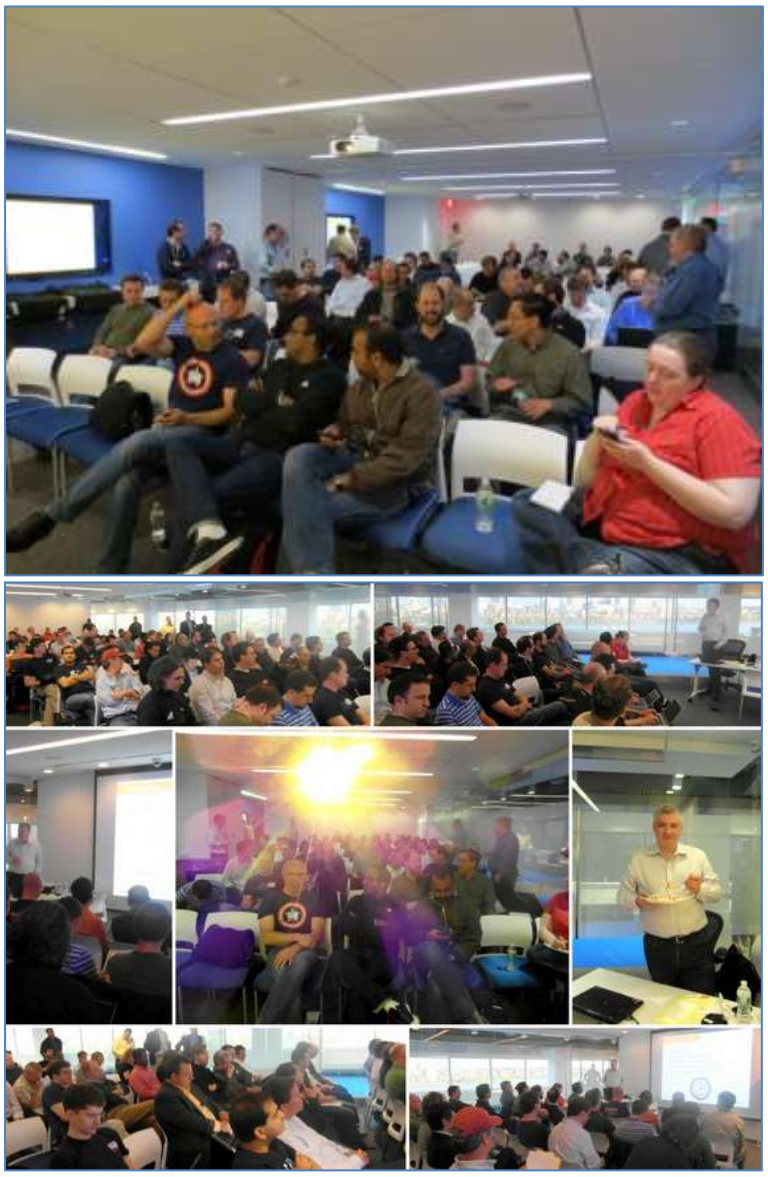
	Extended phone calls with family while driving.
Crime	Paying attention to parking locations in urban areas.
Device Power	Plenty of charging cables and a power brick. Regular monitoring of camera, iPod, and phone power.

In general I decided to take as few risks as possible, and to drive defensively and conservatively.

THE TRIP

I flew to Boston on May 12, got my rental car, and created my first time lapse video to document my trip from Logan airport to the Royal Sonesta hotel. I spent the following day getting the car ready to go and also had meetings with a couple of local AWS users.

I gave my first talk on the evening of May 13th to a crowd of over 150 people:



A local company sponsored dinner (pizza and soft drinks) for the event; other companies provided comparable dinners at the other talks.

Some of my local colleagues attended and helped me to carry a load of AWS t-shirts and other swag from my hotel to the venue. I thought about buying a luggage cart but postponed the decision. One of the attendees tripped over the power cord for my laptop and bent the plug. Fortunately, I had my tools back at the hotel and was able to fix it up.

The next morning I was up bright and early and drove to Philadelphia in a spectacularly uneventful fashion. After completing this 300 mile drive I knew that my trip was feasible and I started to relax just a bit. I ended up buying a pair of laundry bags in the Penn State bookstore to carry my t-shirts and other swag.

Things went very smoothly for most of the trip. The groups varied in size from around 40 to 150. At most groups, there was a 50-50 mix of current AWS users and potential users and I prioritized my talk accordingly. I used my driving time to reflect on my talk and on the sticking points and made modest adjustments to my presentation each afternoon as a result. I was a bit surprised to find that I was getting a little bit bored after presenting the same material time and time again, and found it necessary to start describing the same basic concepts and services in different ways. I generally spent 2 to 2.5 hours in front of each group, describing AWS and some popular use cases, going in to detail about some of the services, and answering a plethora of interesting questions.

I had planned to make one interesting tourist stop each day, choosing something unique and memorable from the Roadside America site[26]. It was pretty clear that this wasn't going to be practical and I gave up all thoughts of being a part-time tourist within a day or two. Instead, I focused on getting to my destination safely and efficiently. I did spend three nights in Las Vegas (accompanied by my very understanding and accommodating spouse) and we got to relax, see the Hoover Dam, and take in some shows.

Weather was generally good, with the exception of one blinding rain storm that forced me to pull off of the road for almost 30 minutes. I was in one small earthquake[27] while in Santa Barbara, California!

I spent several hours blogging each day. In retrospect I should have spent a bit more of my preparation time optimizing the picture processing workflow. Copying the files, scaling and cropping, uploading to Amazon S3, and embedding in the blog all took longer than I would have liked. None of this was news to me, but I never realized quite how time consuming it was. I also did foursquare check-ins, but didn't have time to interact with any of my foursquare friends en route. Where possible, I used the storytelling skills that I learned in the MCDM program to structure my blog posts.

All in all I wrote 21 blog posts containing 9,561 words and 82 embedded images. The blog has been viewed 26,848 times from inception to June 5, 2013:

[26] http://www.roadsideamerica.com/
[27] http://losangeles.cbslocal.com/2013/05/29/4-6-magnitude-earthquake-strikes-near-santa-barbara/

Each unit (▬) represents 600 requests for pages or part thereof.

month	reqs	pages	
Apr 2013	102	28	
May 2013	93911	23930	
Jun 2013	6990	2890	

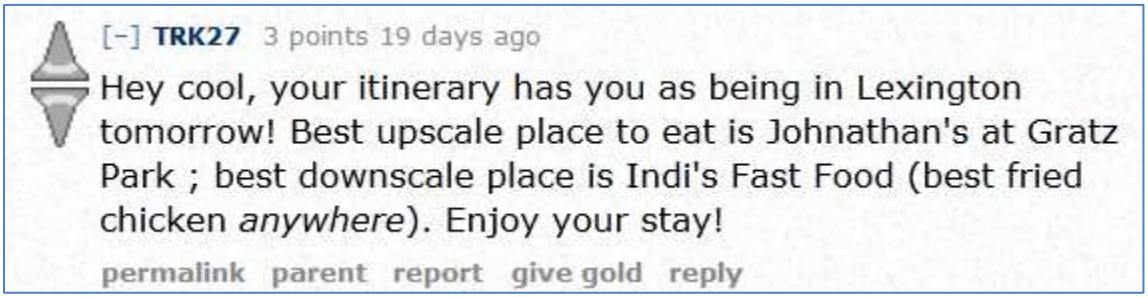
The Waze application did an incredible job of getting me from city to city in the most expeditious way possible. I was surprised to find that cell phone coverage was fairly sparse in many parts of the country, and sometimes worried about what I would do if my cell phone burned out or if other mechanical problems became a blocking issue. Much of the US has a surprisingly low population density. As a lifelong resident of suburbia, I didn't expect to see so much empty space!

En route, traffic delays were minimal and I was able to stay refreshed and alert by drinking plenty of water and taking frequent breaks.

I should mention that I had to continue with my "day job" during this trip. I drafted and published multiple posts for the AWS Blog, did my best to stay current on email, and connected with several customers along the way.

I was fairly liberal with my use of social media, especially Twitter and Facebook during the trip. One fun surprise came when I captured a good picture of a gigantic steel beam and posted it to Reddit:

This even resulted in a restaurant recommendation:



Sadly, I didn't have time to check out either of the recommendations. There is a good lesson here about using social media to create and share interesting content, and to set yourself up to be the beneficiary of serendipitous encounters.

I arrived at home in Sammamish on June 20th to find that my family had set up a finish line, complete with checkered flags, on the hill leading in to our neighborhood:

I was road weary and spent the following couple of days in a zombie-like state of exhaustion!

SURVEY RESULTS

As I mentioned earlier, I created a Qualtrics survey and used it to measure my success with each group. I promoted the survey at the end of each talk and also asked the organizers to send it around to the attendees. Here are a few of the results.

60 respondents in total:

#	Answer		Response	%
1	Boston		9	15%
2	Philadelphia		6	10%
3	Pittsburgh		2	3%
4	Roanoke		0	0%
5	Lexington		4	7%
6	Dallas		5	8%
7	Austin		3	5%
8	Phoenix		2	3%
9	Las Vegas		11	18%
10	Santa Barbara		5	8%
11	San Jose		10	17%
12	San Francisco		3	5%
13	Portland		0	0%
14	Seattle		0	0%
	Total		60	100%

Most of the respondents felt that the presentation met their expectations and provided them with useful information:

4. Did the presentation meet your expectations and provide you with useful information?

#	Answer		Response	%
1	Strongly agree		33	55%
2	Agree		19	32%
3	Neutral		6	10%
4	Disagree		2	3%
5	Strongly disagree		0	0%
	Total		60	100%

They were generous with their praise:

5. Select the ratings that best describe your impression of Jeff and his presentation:

#	Question	Excellent	Very Good	Good	Fair	Poor	Total Responses	Mean
1	Value of content	31	19	9	0	1	60	1.68
2	Presentation skills	41	19	0	0	0	60	1.32
3	Knowledge and expertise	44	15	1	0	0	60	1.28
4	Enthusiasm	51	9	0	0	0	60	1.15

The respondents offered a lot of advice in the free-form commentary:

- 'None to give...Jeff was enthusiastic...on topic...obviously highly knowledgeable....and gave developers swag and food! He gets us!"
- "When dealing with a group already familiar with AWS basics, it may be nice to focus on the newer cutting edge services such as DataPipeline, RedShift, OpsWorks etc."
- "Jeff, you did a great job presenting AWS. It was great to see a top notch speaker at a local user group meeting. Be sure to come back to Dallas again!"
- "I can't think of a thing! He crammed a huge amount of info in a short time and made it all perfectly understandable."
- "The length of the presentation was a bit too long. Save room for more questions and interaction with the audience."
- "Go more in-depth on each service. The presentation only provided very high-level overview."

PRESS COVERAGE

My trip received some press coverage both before and during the event:

The Next Web[28]:


Amazon Web Services evangelist Jeff Barr embarking on cloud-powered cross-country road trip

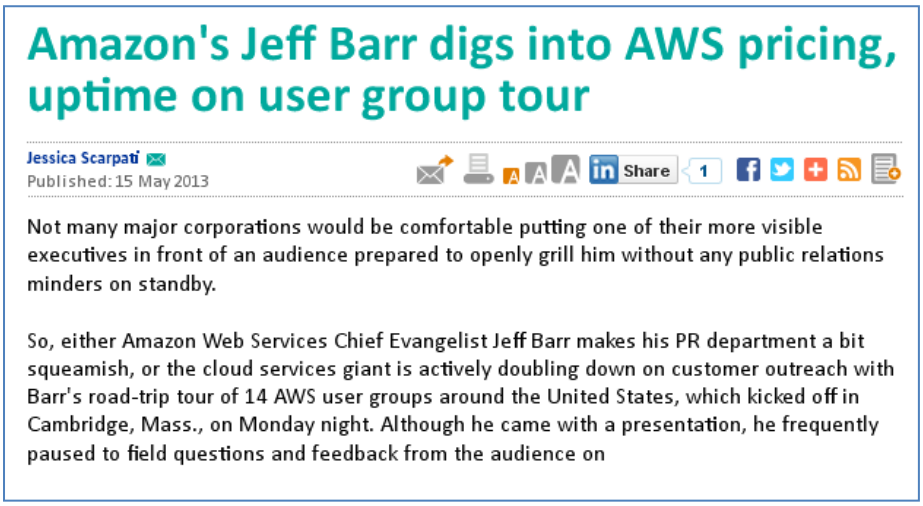
SHARED: 225 NEXT

Amazon Web Services principal evangelist Jeff Barr is embarking on an AWS Road Trip that involves driving across the country to promote the cloud platform.

Josh Ong
Contact Author

3 May 2013

Search Cloud Computing[29]:


Amazon's Jeff Barr digs into AWS pricing, uptime on user group tour

Jessica Scarpati
Published: 15 May 2013

Share 1

Not many major corporations would be comfortable putting one of their more visible executives in front of an audience prepared to openly grill him without any public relations minders on standby.

So, either Amazon Web Services Chief Evangelist Jeff Barr makes his PR department a bit squeamish, or the cloud services giant is actively doubling down on customer outreach with Barr's road-trip tour of 14 AWS user groups around the United States, which kicked off in Cambridge, Mass., on Monday night. Although he came with a presentation, he frequently paused to field questions and feedback from the audience on

LESSONS LEARNED

All in all, the trip went extremely well. I drove a total of 5,550 miles and spoke in 14 cities. Despite a little bit of weather and some unexpectedly heavy traffic, the route turned out to be eminently drivable and I never had even a moment of regret after starting the trip.

[28] http://thenextweb.com/insider/2013/05/03/amazon-web-services-evangelist-embarking-on-cloud-powered-cross-country-road-trip/

[29] http://searchcloudprovider.techtarget.com/news/2240184215/Amazons-Jeff-Barr-digs-into-AWS-pricing-uptime-on-user-group-tour

Early in the planning process my colleagues made a number of suggestions that might have enhanced the trip while adding considerable complexity. I was able to turn down all of the suggestions including the following:

- "Rent an RV."
- "Take me along! It sounds like a great way to see the country."
- "Take a video crew and interview lots of developers."
- "Set up an entire convoy of cars to follow you around the country."

The trip generated a lot of Twitter traffic and boosted my follower count beyond 16,000.

My colleagues in Singapore have asked me to make a similar trip through Southeast Asia, but by air rather than by car, and with considerably fewer stops.

This has proven to be a very worthwhile undertaking and I am happy to have done it.