

Leveraging the Amazon S3 Infrastructure For Your ArcGIS Server Tiled Map Caches

SERUG, Jacksonville Florida May 2 - 4



Agenda

- Introductions
- Quick Rundown of ArcGIS Server
- What are Amazon Web Services?
- What is the Amazon s3 Service?
- Put it to use
- The tool kit
- Code samples
- Demos
- Questions

ROK Technologies, Inc.

- Business Partner since 1998
- Esri Authorized ASP for ArcGIS Server
- Degree in Geography
- ArcIMS and ArcGIS Server since first alphas
- Develop in Flex & ColdFusion backend
- Android Enthusiast

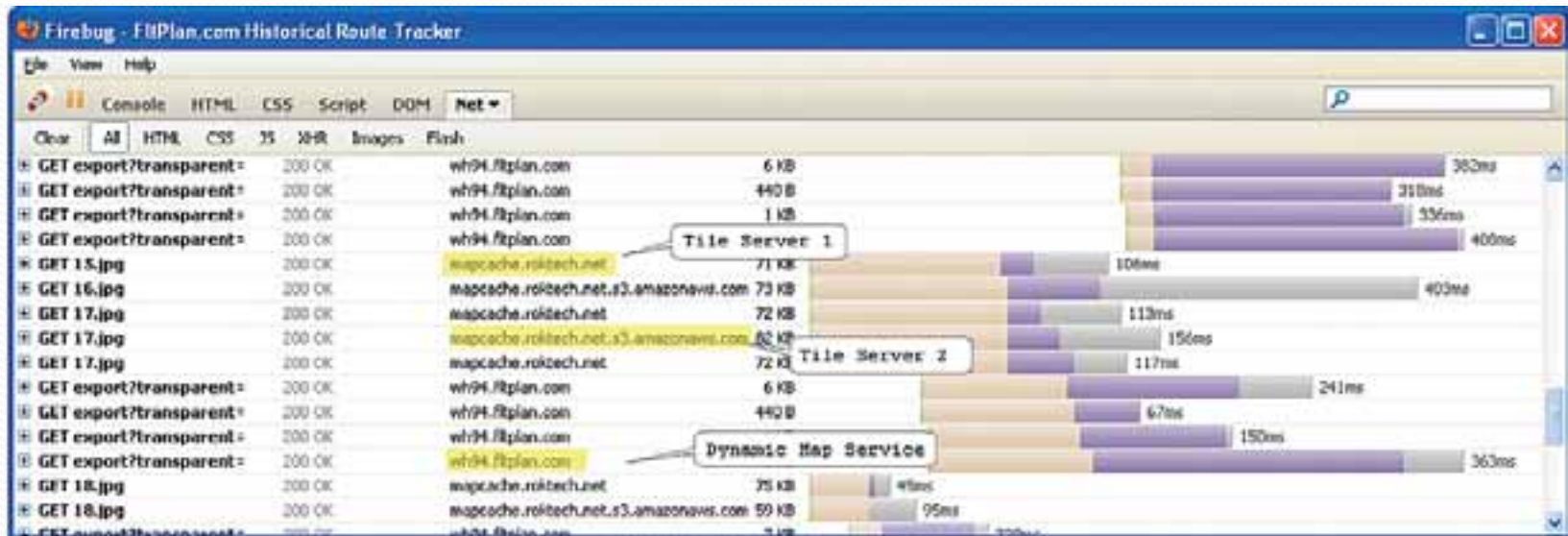


ArcGIS Server – Quick Rundown

- Started with a early form of the WebADF
- WebADF
- Difficult to program
- REST!!!!

ArcGIS Server – Quick Rundown

- REST opened up endless possibilities
- Dynamic Map Services
- Tiled Map Services – Map Caches – Multiple Tile Servers



"The Cloud"

- Just a fancy word for a server(s) not in your building
- Pay for what you use

Amazon Web Services

From Wikipedia:

Amazon Web Services (AWS) is a collection of remote computing services (also called web services) that together make up a cloud computing platform, offered over the Internet by Amazon.com. The most central and well-known of these services are Amazon EC2 and Amazon S3.

The Big Problem

Google has become both a blessing and a curse to GIS developers. Google Maps allows people to understand maps – but everyone has come to expect Google Maps performance.

“Since the emergence of map-cached ArcGIS Server sites, user demand has noticeably increased. As a result, many smaller organizations that serve high-quality cartographic imagery are hitting a bandwidth limit fairly quickly as traffic to these sites grows. Since the cost of adding more T1 lines isn't realistic given limited budgets of many businesses and small governments, the result can be imagery that takes eons to render.”

Amazon s3 Service & ArcGIS Server

In its basic form the s3 service is:

- A giant hard drive (essentially limitless in size to you and me)
- Blazing fast bandwidth
- Perfect place to store your static tile caches
 - Imagery

The Solution

Lets store our Map Cache on the Amazon s3 service.

- Technical Issues
- Map Cache Prep
- Toolkit

The Solution - Step 1

Create your map cache as normal
on your ArcGIS Server

The Solution - Step 2

Use your tool kit to prep your cache

- ROK Image Tools
- Hybrid Cache needs special attention
- Delete any empty tiles

The Solution - Step 3

Upload Your Cache

- Sign Up for a S3 account
- Use Bucket Explorer to Upload Your cache and mapserver file – tweak the preferences first to allow mass uploads. ACL permissions

The Solution - Step 3

Modify Your Code – Flex

<s3:S3ArcGISTiledMapServiceLayer

Quick code review...

The Solution - Step 3

Modify Your Code – JavaScript

function

**initLayer(servicename,imgFormat,
layerVis)**

Quick code review...

Quick Demo

Lets take a quick look at the
performance gains you can see...

FireBug is your best friend...

Questions?

Thank you for attending

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