

GIS Cloud Migration 101

Learn How To Stop Worrying and
Love The Cloud



What's Your Destination?

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Different ways of thinking about the "cloud"



Business

Technical

Project

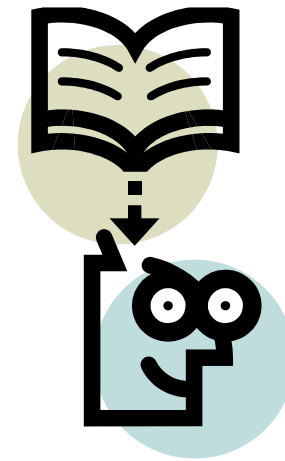
TOPICS



What's Your Destination?

First things first ...

- **Virtualization is key**
 - Better HW utilization
- **Virtual Machines**
 - VM \approx physical servers
 - AKA “instance”
- **Cloud providers:**
 - Amazon Web Services, Microsoft Azure, etc..
 - Your org. too?
 - Single- and multi-tenant environments



Business Drivers



- **Spend less \$**
 - CapEx & (sometimes) OpEx
- **Scale quick and easy**
 - Handle peak events
- **Improve testing ability**
- **Efficient migrations**
- **Easy performance improvements**

Business – Things to consider

- **Pricing model for instances / virtual machines**
 - Dedicated vs. on-demand
 - Security: isolated, single-tenant instances possible
- **Database migration**
 - Providers also offer virtualize DB services
 - Check the fine licensing print
- **Licensing**
 - Hosting fees take care of OS and (sometimes) DB
 - Esri acquired separately, can be migrated

Setup & Operation
Disaster recovery
Databases

TECHNICAL



Tech: Setup and Operation

- Relatively straightforward
- Tip: monitoring services
 - metrics, alarms & alerts
 - (not as detailed as SNMP...)
- Tip: check the Windows OS time zone config
 - Hosting hardware and Windows OS often have time zone differences



Tech: Disaster Recovery



- **Simplifies DR**
 - Provider has most effort
 - Restore times still vary
- **Automated DB DR**
 - Plentiful recovery points
 - Reduced effort
- **Easy snapshots**
 - Code changes
 - Patching
 - Archiving

Tech: Database

- Lots of business reasons to use a DB service
- But technical differences may complicate
 - Spatial index configuration more limited
 - Less admin-level access
 - Fewer tools for data migration

Business
Technical
Project
TOPICS



Modified from <http://www.flickr.com/photos/mightyohm/2729474646/>

Project Planning

- **Provider infrastructure relatively easy to setup**
 - Backups, warnings, alerts, etc..
- **Be sure to budget time for:**
 - Map document (.mxd) migration
 - Testing, bug fixing and ad-hoc tuning

Conclusions

- Cloud hosting offers significant business & technical advantages
- GIS web applications well-suited
- Careful planning important
 - Licensing
 - Migration
 - Operation

