Migrating from ArcIMS to ArcGIS Server – Atlanta Regional Commission, Atlanta, GA

Brock Kingston – Latitude Geographics

Agenda

- GIS at ARC
- ARC's initial foray into web-GIS (ArcIMS)
  - Successes & Challenges
- Next generation web-GIS: Needs
- The Solution: ArcGIS Server and Geocortex Essentials
- Development and Deployment
- Lessons Learned and Conclusions

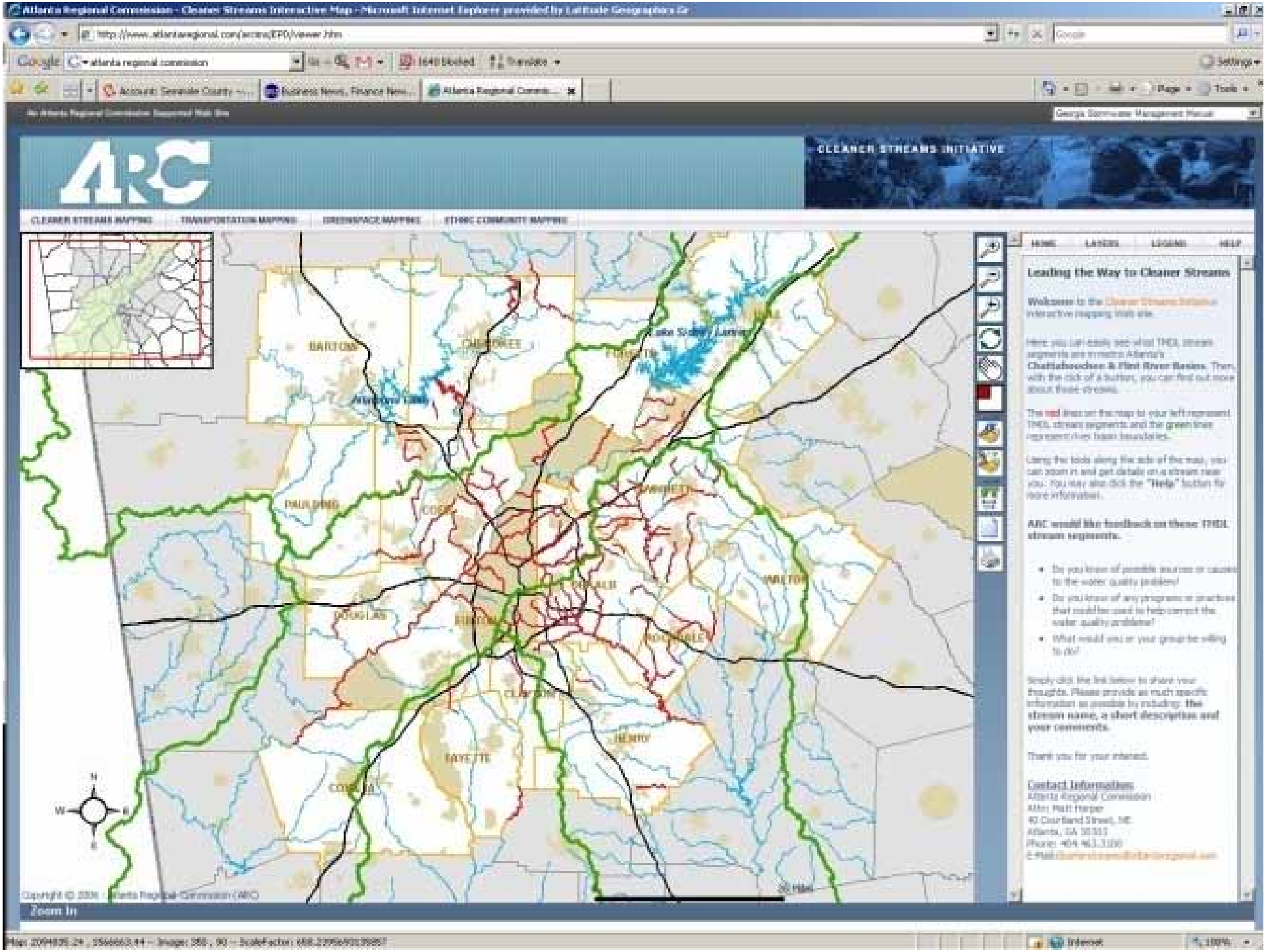
The Atlanta Regional Commission (ARC) is the regional planning and intergovernmental coordination agency for the 18-county metropolitan area. For 60 years, ARC has helped to focus the region's leadership, attention and resources on key issues of regional consequence.

Areas of focus:

GIS at the ARC

- Status of GIS at ARC → 6-7 power users, several other desktop users, 30 regular users, plus additional ad-hoc users.
- Public facing ArcIMS sites that provide spatial information for the various focus areas.
- An early implementer of ArcIMS and have developed a lot of tools and functions for their IMS site over the years

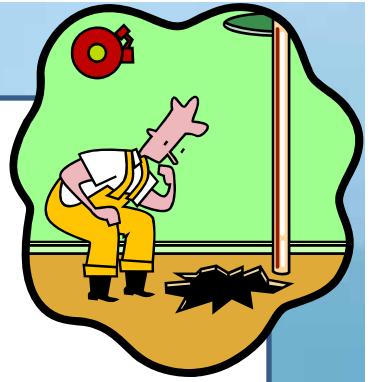
Existing System


CLEANER STREAMS INITIATIVE
CLEANER STREAMS MAPPING
TRANSPORTATION MAPPING
GREENSPACE MAPPING
ETHNIC COMMUNITY MAPPING
HOME
LAYERS
LEGEND
HELP
Leading the Way to Cleaner Streams
Welcome to the Cleaner Streams Initiative interactive mapping Web site.
Here you can easily see what TMDL stream segments are in metro Atlanta's Chattahoochee & Flint River Basins. Then, with the click of a button, you can find out more about these streams.
The red lines on the map to your left represent TMDL stream segments and the green lines represent river basin boundaries.
Using the tools along the side of the map, you can zoom in and get details on a stream near you. You may also click the "Help" button for more information.
ARC would like feedback on these TMDL stream segments.
Do you know of possible sources or causes to the water quality problem?
Do you know of any programs or practices that could be used to help correct the water quality problems?
What would you or your group be willing to do?
Simply click the link below to share your thoughts. Please provide as much specific information as possible by including: the stream name, a short description and your comments.
Thank you for your interest.
Contact Information
Atlanta Regional Commission
Attn: Matt Harper
40 Courtland Street, NE
Atlanta, GA 30303
Phone: 404.463.3100
BARTOW
CHEROKEE
FORSYTH
FULTON
COBB
DOUGLAS
FAYETTE
CLAYTON
HENRY
COWETA
Zoom In

ARC's Past to Present web-GIS

- Early experimentation with ArcIMS
  - Several internal test sites
  - Custom development using internal resource (developer)
  - Encountered performance issues
- Looking forward …
  - Business is driving new functional requirements not available in ArcIMS, but need to retain existing functionality

A Gapping Hole … ARC's Developer left!!!



- Web-GIS was at a standstill / learn more about ArcIMS / struggle to maintain / do small changes / nothing bigger
- Struggle to keep web-GIS sites afloat
- Huge vacuum of missing knowledge / needed to fill and build capacity to avoid this in the future / by bringing more people on

Next generation web-GIS: Needs

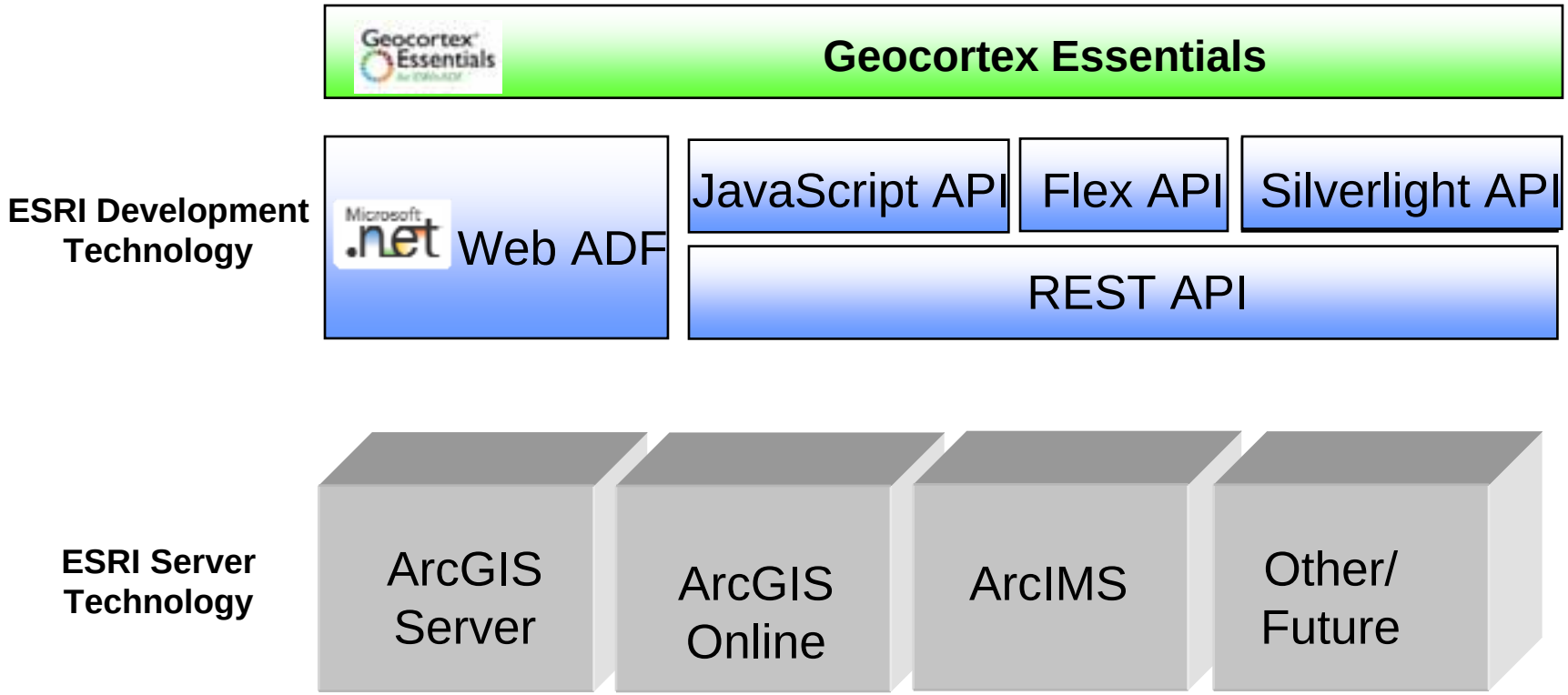
- All of the core functions of the existing custom ArcIMS approach
- Ease of development and maintenance
- “COTS Product” approach to deployment (vs. custom development)
- Capability for feature enhancements outside the scope of capability of ArcIMS as a mapserver

Solution: ArcGIS Server and Geocortex Essentials

Moving Forward …

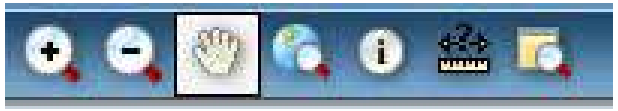
- ✓ Dual, steep learning curve with a new solution: ArcGIS Server + Geocortex Essentials (large technical jump with new technology)
- ✓ Currently upgrading technology, most custom tools replaced with out-of-the-box tools

ArcGIS Server and Geocortex Essentials



Custom vs. “COTS/Middleware” ArcGIS Server development?

- The default ESRI WebADF Viewer only includes:

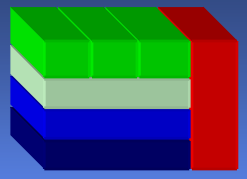


  - Basic zoom in/out, pan, identify, and measure tools

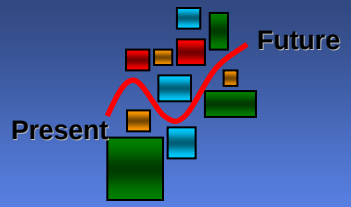
- Geocortex Essentials includes all of the above . .**plus**:

Geocortex Essentials Web Framework

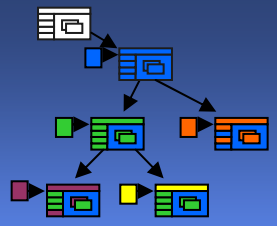
Features & Functions



Core Functionality



On-going alignment with ESRI



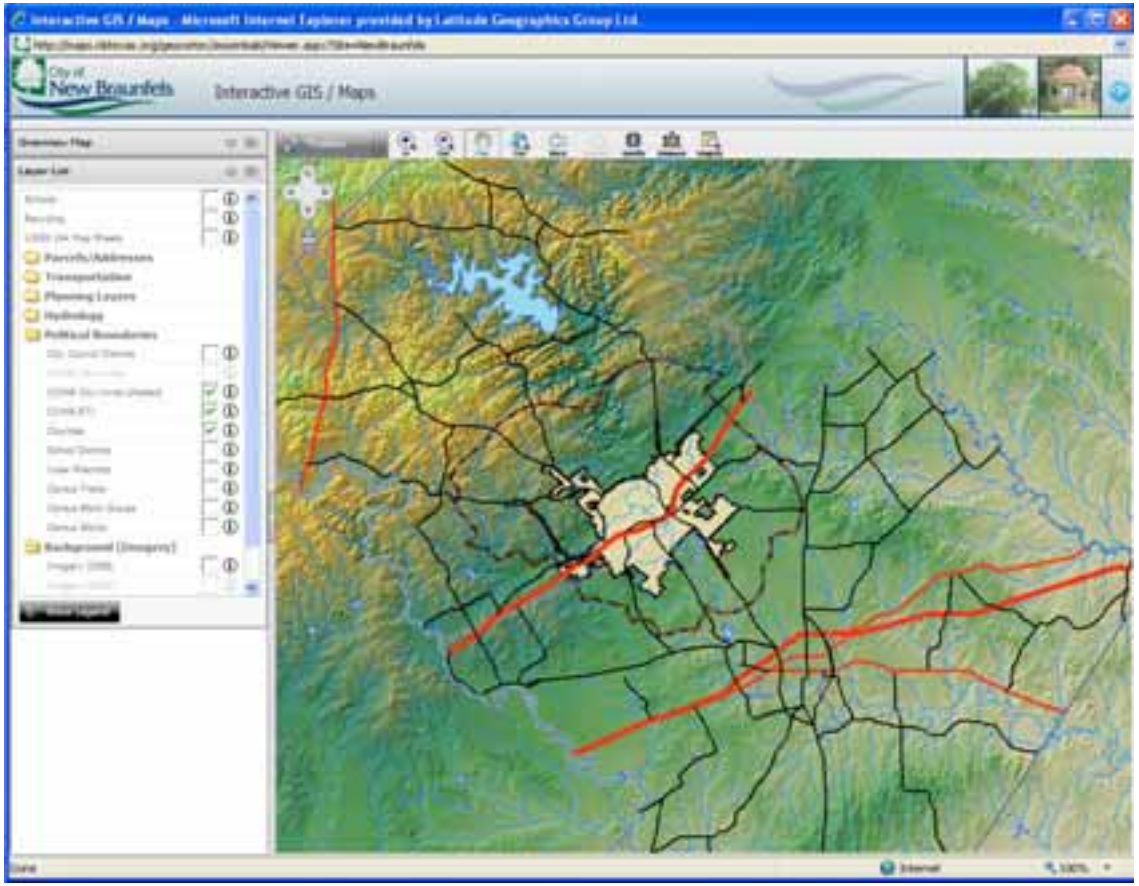
Hierarchical Configuration

Administration

All included and available “out-of-the-box”!

Core Components of Geocortex Essentials

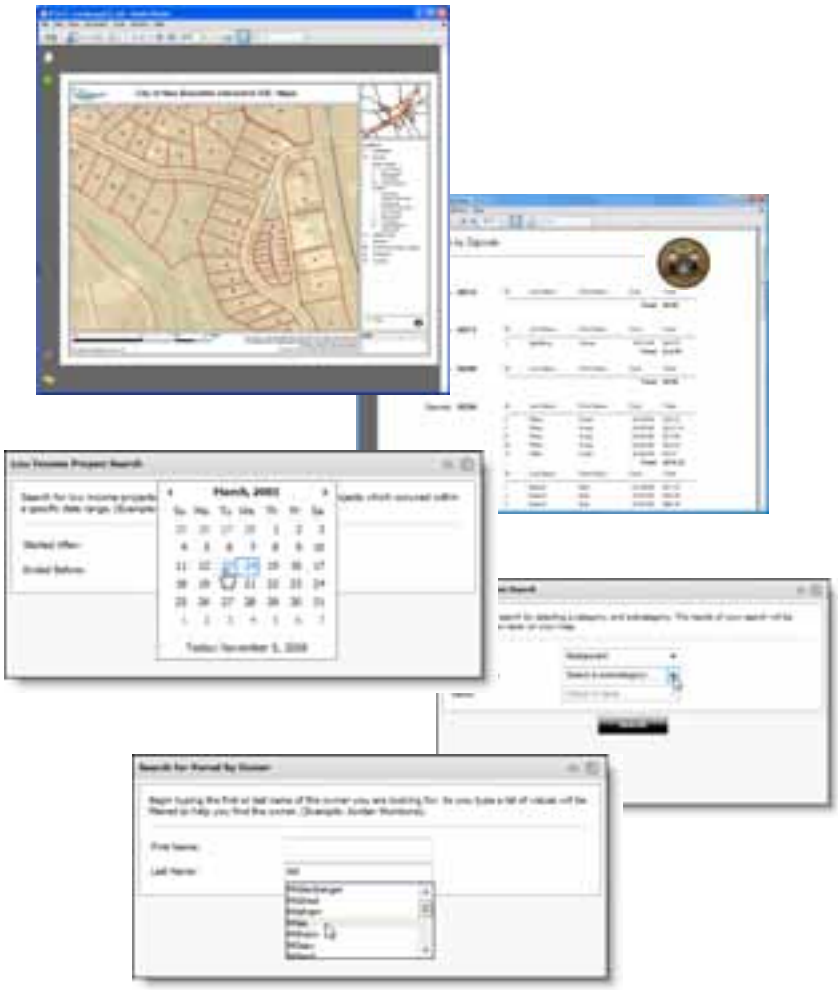
1. Web Mapping Viewer – Out of the Box Tools



Core Components of Geocortex Essentials

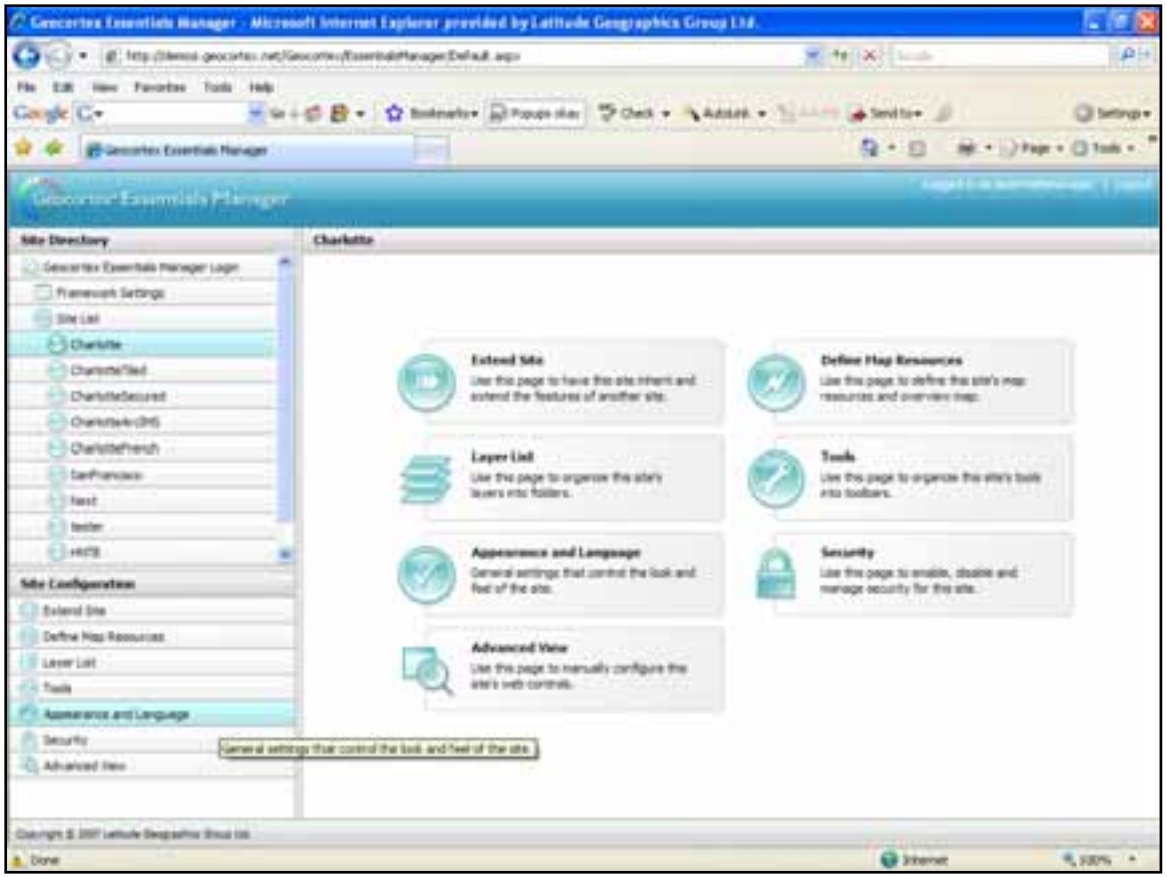
2. Core Functionality

- ✓ Data Linking
- ✓ Printing
- ✓ Reporting
- ✓ Search & Query …



Core Components of Geocortex Essentials

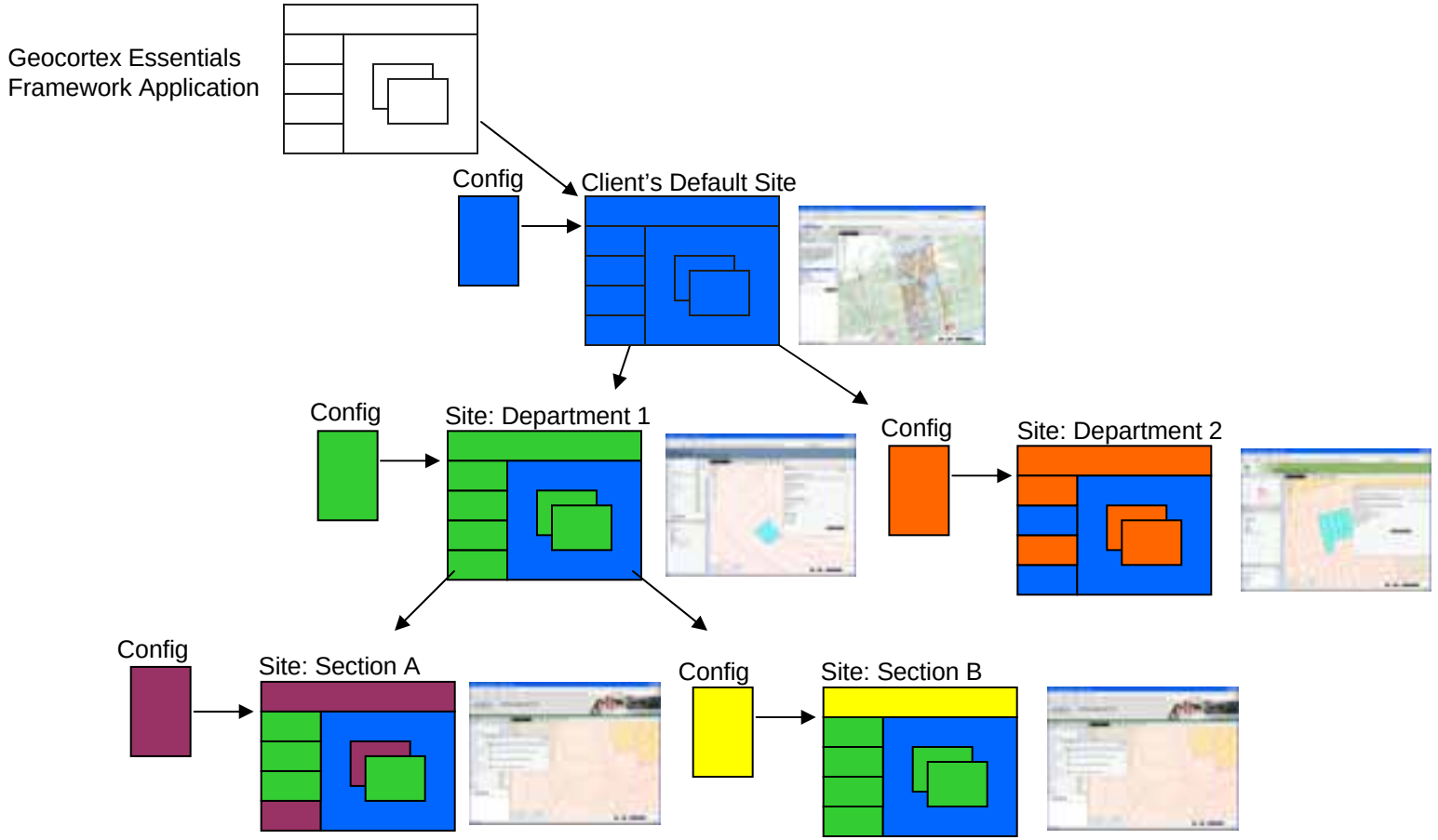
3. Management Tool – Web based



Click and drag …

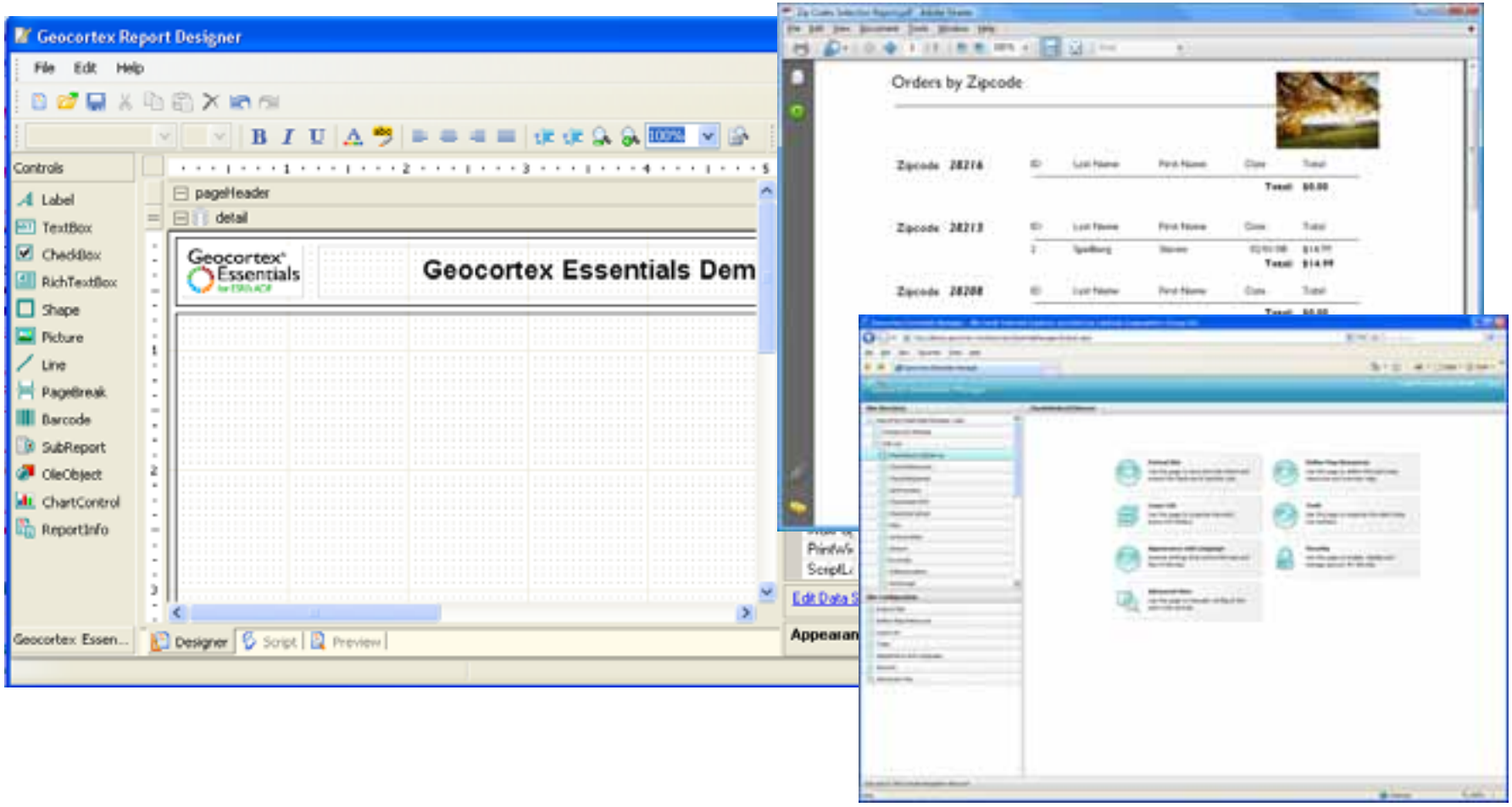
Core Components of Geocortex Essentials

4. Framework for Managing Enterprise Applications



Core Components of Geocortex Essentials

5. WYSIWIG Report & Map Printing Designer



Development & Deployment

- Remote development provided by Latitude Geographics
- Multiple iterations
- Stakeholder feedback incorporated into alpha and beta revisions

Next generation system … a sneak peak at what's to come!

Lessons Learned

- With new technologies; expect some bumps
- Set your expectations reasonably
- Plan / approach it logically, a phased approach allows you to release functionality sooner
- Out-of-the-box core business tools allow you to get to market faster and reduce the learning curve!

Conclusions

- Advantages to being an early adopter - build more experience and a strong skill base
- Not a ‘flip of the switch’ from IMS to Server
- Set up an optimal development environment in the beginning
- It’s worthwhile to review your approach to GIS!

The Atlanta Regional Commission is embracing next generation out-of-the-box web-GIS technologies to meet their core current and future business requirements!