



# GISWORX



## Monitoring your GIS Infrastructure and How it is Used

April 2016 | Presenter: Cam Barnard



 Latitude Geographics®  Geocortex®

Technical Expertise



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How do we  
improve **uptime**,  
increase **performance**,  
and ensure **stability**  
of our  
GIS infrastructure?

# Challenging Questions

If one of your mission critical map services goes down,  
how do you find out about it?

# Challenging Questions

What was the total usage of your GIS infrastructure last month?

Is it increasing or decreasing?

At what point do you need to grow it to accommodate demand?

# Challenging Questions

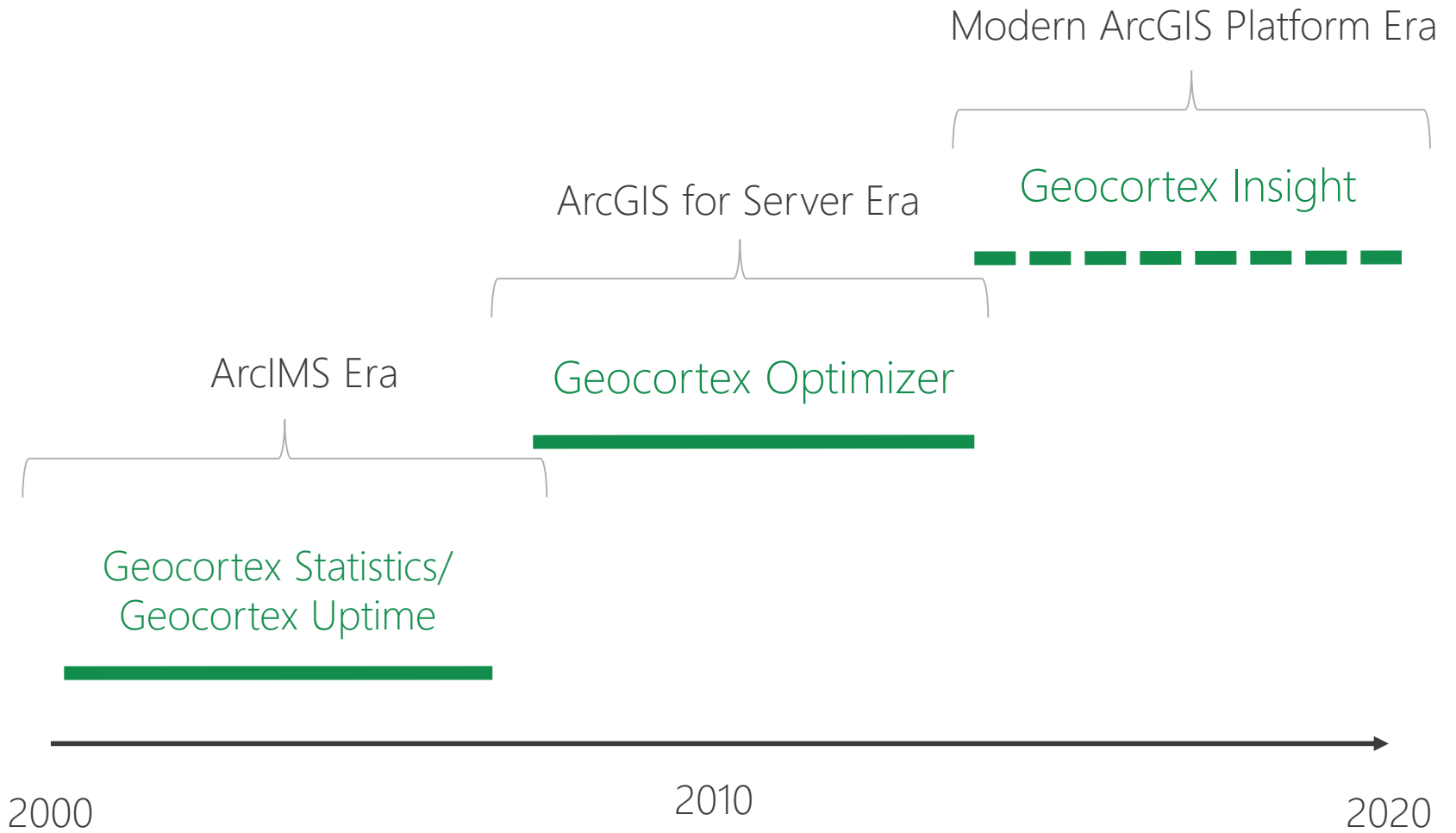
How many people are using the new application you recently built and published?

What are they doing with it?

# What is Geocortex Insight?

## A GIS Application Performance Management Product

- You have invested heavily in your GIS environment that your users depend upon.
- Ensure your investments are seeing the right returns – with a positive user experience – by monitoring your environment's performance.



# Geocortex Insight Overview



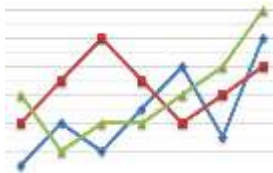
# Four Main Areas



Summary



Status



Trends



Dashboard

# Summary

## *Most Important Information*



- ✓ View most important alarms
- ✓ Quick view of visitors over the last 24 hours
- ✓ Quick view of probe success over the last 24 hours

# Status

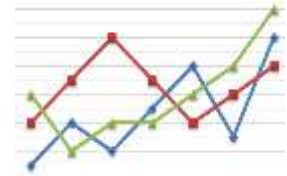
*Right Now*



- ✓ Current CPU % in use on each *server*
- ✓ Which of my web maps in my *portal* are currently broken?
- ✓ Last time each Geocortex Essentials *site* was accessed
- ✓ How many users are currently using this *application*?

# Trends

*Past*



*Over the currently selected reporting period:*

- ✓ What is the uptime/downtime of this *server*?
- ✓ Who is my most active user on this *application*?
- ✓ How many requests did this Geocortex Essentials *site* receive?
- ✓ What is the average response time for a query on this ArcGIS for Server *service*?

# Dashboard

*All in One Place*



*Enhanced to provide significant improvements:*

- ✓ Customize to contain only the most important reports
- ✓ Build multiple dashboards for different purposes (daily reports, monthly summaries, production system statuses, etc.)
- ✓ Export PDF reports directly from custom dashboards

# Alarms

# Types of Alarms

- HTTP Content
- HTTP Response
- Ping Response
- Windows Performance
- ArcGIS Online Minimum Credits
- ArcGIS Online User Inactive
- Portal for ArcGIS Storage Remaining

# Types of Notifications

- **None:** No alarm is sent, but is listed in the Reporting Application.
- **Email:** List in the application and sends an email message to one or multiple email addresses.
- **SMS:** List in the application and sends an SMS message to one or multiple phone numbers.



# Example Email Notification

Geocortex Insight: Alarm Notification

To  Derek Pettigrew

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## Geocortex Insight

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### Alarm Notification

Friday, November 13, 2015 3:43:26 AM

#### **Alarm Fired on the Web Site Probe Collector**

HTTP response for address

'http://gedemo.geocortex.com/Geocortex/Essentials/Sandbox/REST/sites/Insight\_Test\_Site' returned status code 408 (Request Timeout). The response time was 100019 milliseconds.

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You received this email from the Geocortex Insight alarm system. To stop receiving emails for this alarm, edit the <Alarm> element in the role.config file of the Web Site Probe Collector. To stop all alarm notifications, delete your email address from the role.config file of the Alarms role. For more information, see the *Insight Developer and Administrator Guide*.

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# Geocortex Insight Demo

# Over 150 Interactive Reports

## STATUS

|    |                              |
|----|------------------------------|
| 5  | Server reports               |
| 10 | Portal for ArcGIS reports    |
| 10 | ArcGIS Online reports        |
| 5  | ArcGIS for Server reports    |
| 15 | Geocortex Essentials reports |
| 4  | Application reports          |
| 3  | Website reports              |

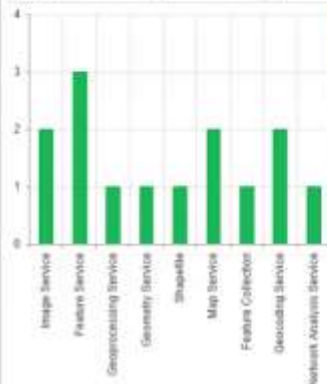
## TRENDS

|    |                              |
|----|------------------------------|
| 10 | Server reports               |
| 8  | Portal for ArcGIS reports    |
| 11 | ArcGIS Online reports        |
| 23 | ArcGIS for Server reports    |
| 19 | Geocortex Essentials reports |
| 25 | Application reports          |
| 5  | Website reports              |

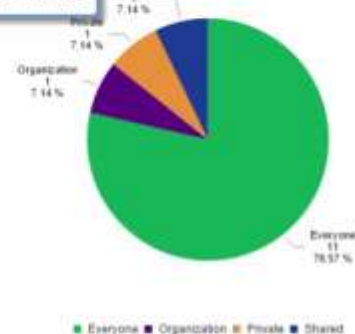
### Item Summary

| Type         | Count     | Everyone  | Organization | Shared   | Private  |
|--------------|-----------|-----------|--------------|----------|----------|
| Web Maps     | 5         | 2         | 1            | 1        | 1        |
| Layers       | 14        | 11        | 1            | 1        | 1        |
| Tools        | 4         | 1         | 1            | 1        | 1        |
| Apps         | 8         | 2         | 2            | 2        | 2        |
| Files        | 3         | 1         | 0            | 1        | 1        |
| <b>Total</b> | <b>34</b> | <b>17</b> | <b>5</b>     | <b>6</b> | <b>6</b> |

Table



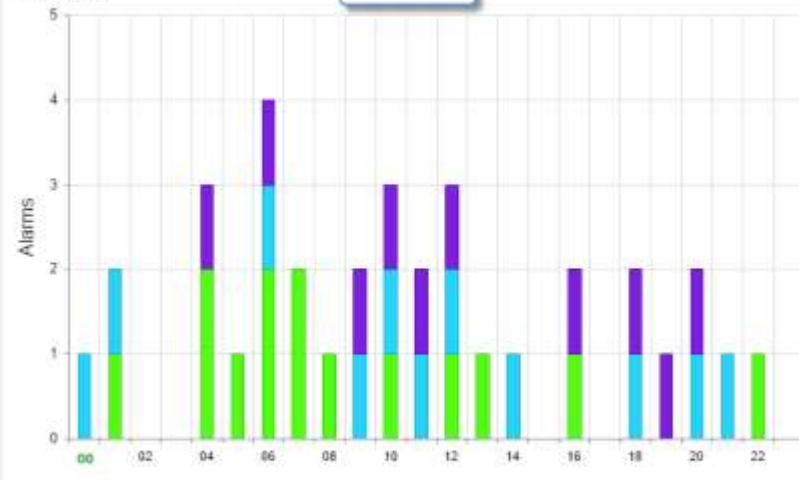
Pie Chart



### Alarms

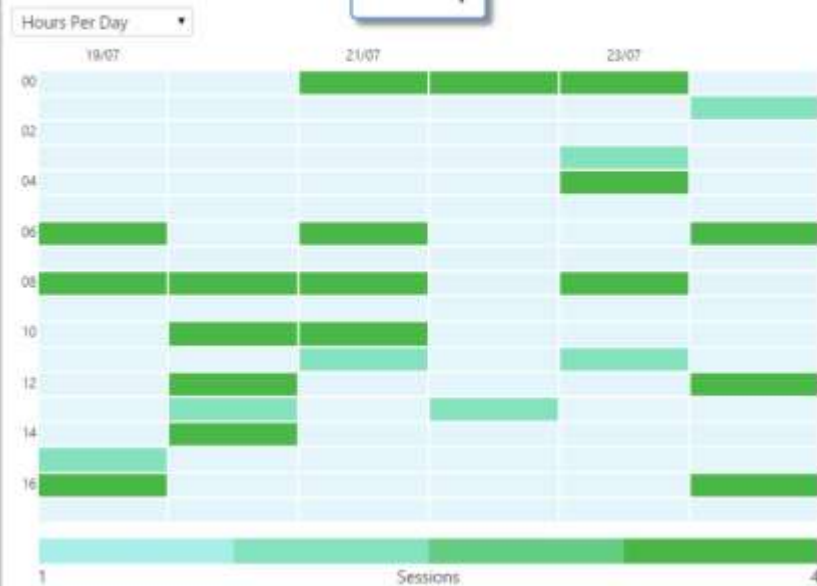
Alarms: 35

Bar Chart



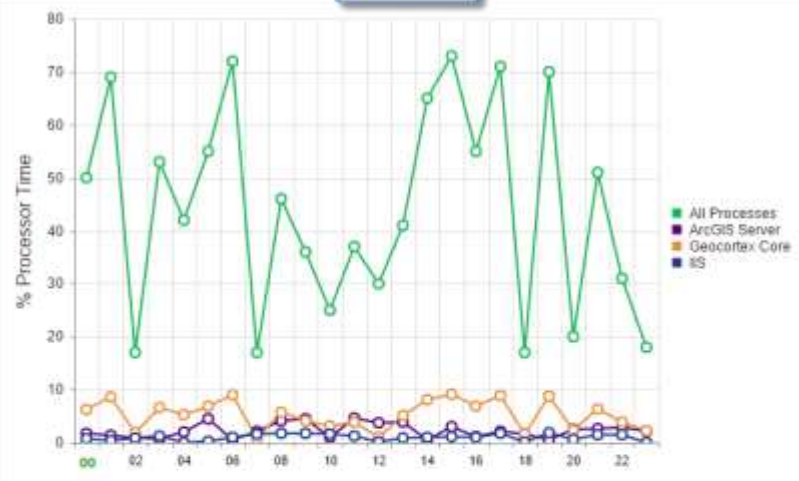
### Peak Times

Heat Map



### Average CPU Time

Line Chart



### Storage Status

Information

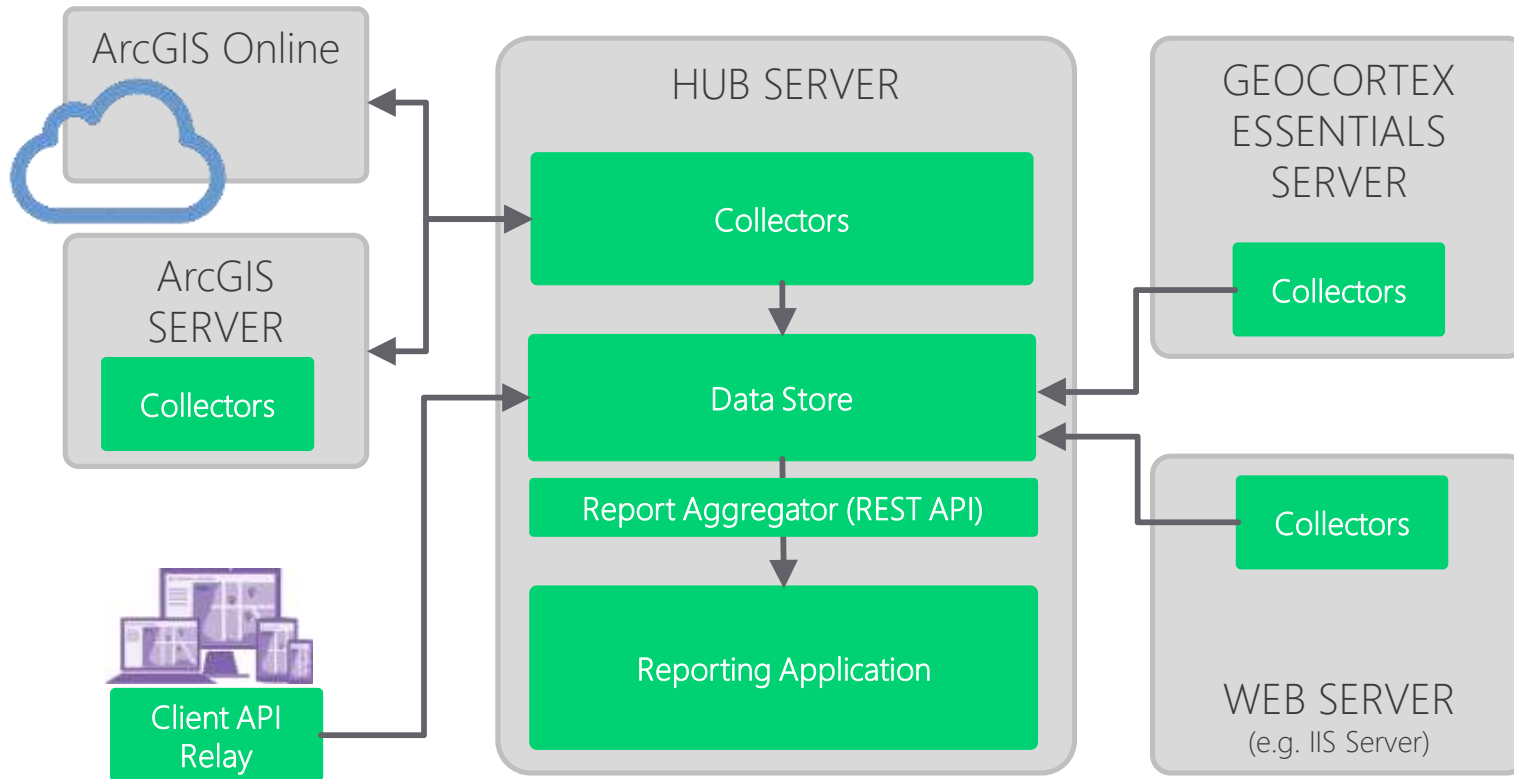


# Configuration of Geocortex Insight

# Providing insight into your GIS Infrastructure

- ❖ Collect → Routine probing and real-time usage logging
- ❖ Monitor → Is this map service responding? How quickly?
- ❖ Alarm → No response 3x | Response time > 3000ms
- ❖ Act → Notification by SMS message or e-mail
- ❖ Report → Show map service uptime and response times over the past 30 days

# Basic Deployment Architecture



 Geocortex Insight component

# Installation Options

- Version 1.0.3 requires *support-assisted* installation and configuration
- Version 1.1 (currently slated for end of Q2) will offer *self-service* configuration



# Minimum Requirements

## Hardware

- 6GB Available RAM
- 40GB Data Drive
- CPU 2.0GHz Quadcore

## Software

- Geocortex Essentials 4.4.1
- Geocortex Viewer for HTML5 2.5
  - Or Geocortex Viewer for Silverlight 2.5
- ArcGIS Server 10.1+
- Portal for ArcGIS 10.2.0+
- Browser: IE 11, current version of FF or Chrome

# Current Customers

# Anne Arundel, MD

“Insight has been very helpful in maximizing the efficiency of our services and apps. We are now able to see who is using what, when they are using it, and how long they have to wait.” – Dave Gillum

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*GIS environment:* 4 ArcGIS servers, 48 services, and an ArcGIS Online Subscription

# York County, SC

“Instead of testing many links each morning we can monitor a variety of resources, within resources, that would have previously taken many mouse clicks to verify and evaluate.”

– Bryan Townsend



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*GIS environment:* 10 servers, ArcGIS server with dozen of services, 40 Essentials sites, dozens of viewers

# Product Roadmap

# Roadmap

## Major, immediate priority

- Self-service setup (late Q2, 2016)

## Future

- Support non-Geocortex JavaScript applications
  - (e.g. WebApp Builder)
- Database monitoring
- Extend Geocortex Insight for use by third parties
- Map IT infrastructure connections

# Geocortex Insight

## *GIS Application Performance Management*

*Full visibility of your GIS environment in one place:*

- Maximize the ROI of your infrastructure and services
- Troubleshoot problems quicker
- Optimize your services for the greatest impact
- Understand your users and plan for the future
- Easily monitor what is most important

# Want to learn more?

Geocortex Insight  
[geocortex.com/get-insight](https://geocortex.com/get-insight)





# GISWORX

Thank You



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