



The GIS Success Story behind the 2016 Pinellas Co., FL Esri Enterprise GIS Award

Bryan Zumwalt – Pinellas Co., FL BTS

Adam Carnow – Esri



About Pinellas County

- 1M+/- residents
- 6th largest county by population
- 274 square miles
- 2nd smallest county by area
- Most densely populated county
- 24 municipalities
- Clearwater & St. Petersburg are largest cities
- Highest elevation = 110 ft above sea level
- Very little developable land (built out)
- Median household income = \$45,362





HARRY CONNICK, JR. ASHLEY JUDD KRIS KRISTOFFERSON MORGAN FREEMAN

Dolphin Tale™

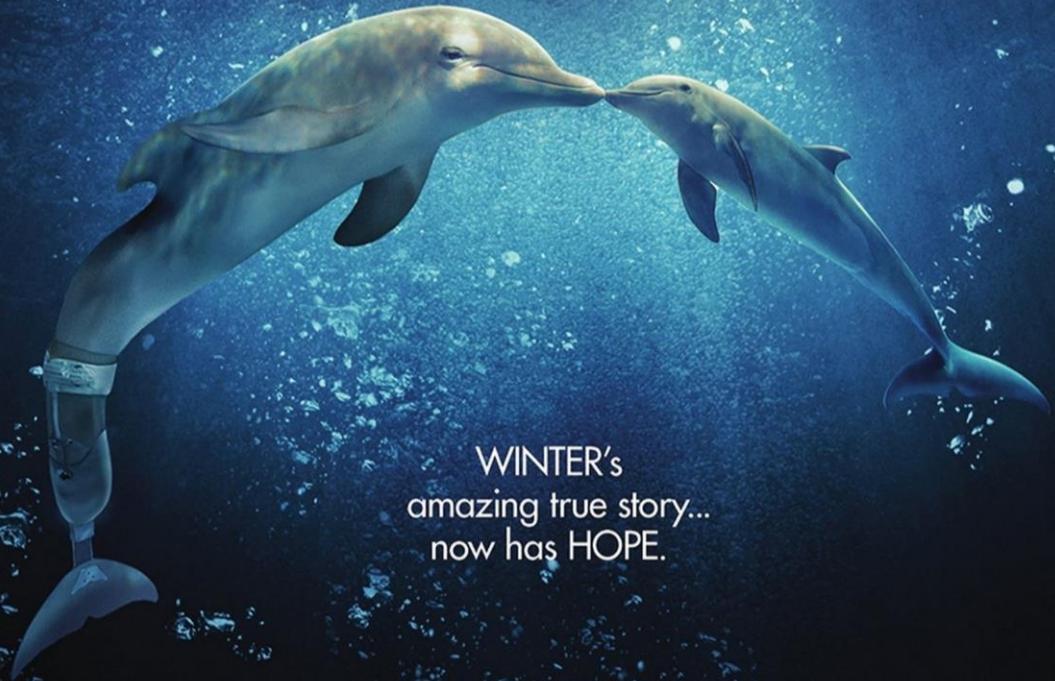


INSPIRED BY THE AMAZING TRUE STORY
OF WINTER THE DOLPHIN



HARRY CONNICK, JR. ASHLEY JUDD KRIS KRISTOFFERSON and MORGAN FREEMAN

Dolphin Tale 2



WINTER'S
amazing true story...
now has HOPE.

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ECKERD COLLEGE



University of South Florida
St. Petersburg



RAYMOND JAMES



Enterprise GIS Award

Pinellas County, Florida

Martin P. Rose
Chief Information Officer

Bryan J. Zumwalt
GIS Manager

Tom Fredrick
Director of Emerging Technologies
& Application Development



Pinellas County

Florida



Self-Service Apps Drive Smarter Operations

Open Data and Apps Deliver Value for Residents

Timeline

- **Prior to 2009:**
 - BoCC Enterprise GIS was not based on ArcGIS, PAO was
- **2009: BTS approached Esri about a Partnership**
 - **Driving forces:**
 - Two GISs created inefficiencies & barriers to collaboration & sharing
 - IT Consolidation
 - Unsupported web technology
 - Web GIS apps did not support modern browsers
 - Lack of modern mobile solutions (internal & external)
 - Loss of key staff
 - Unsustainable, custom, wanted to prioritize on COTS
- **2010:**
 - **County creates Enterprise GIS Governance – (EGIS) Steering Committee**



Your County Connection



Official Government Website

[All County Residents](#) ▾[Unincorporated Residents](#) ▾[Community Outreach](#) ▾[Meetings & Agendas](#) ▾[Multimedia](#) ▾[Quick Find](#) ▾[Special Interest](#) ▾

County Information Desk:
(727) 464-3000
[Contact Us](#)

Pinellas County Enterprise GIS (EGIS) Steering Committee

The primary mission of this committee is to process and assess information, develop a plan to provide GIS services at an enterprise level, and make recommendations to appropriate entities – constitutional officers, appointing authorities, and the Board of County Commissioners. These committee meetings fall within Sunshine Law because this committee functions as a policy-making committee to rank, screen, and eliminate different policy considerations.

[Resolution](#) - [Operating Guidelines](#) - [eGIS Policies & Standards](#)

Regular Meetings are held the first Thursday of every other month, 1:30 pm, in the Clerk's 4th Floor Conference Room.

The next meeting is **October 6, 2016.**

[Location Map - Directions](#)

Meeting Materials:

▪ 08/04/16 - [Agenda](#) - [Minutes](#)

News

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Pinellas County Receives Esri Enterprise GIS Award

County's Smart Communities Approach Key to Win

[Tweet](#) 0[Share](#) 0[share](#) New

June 28, 2016

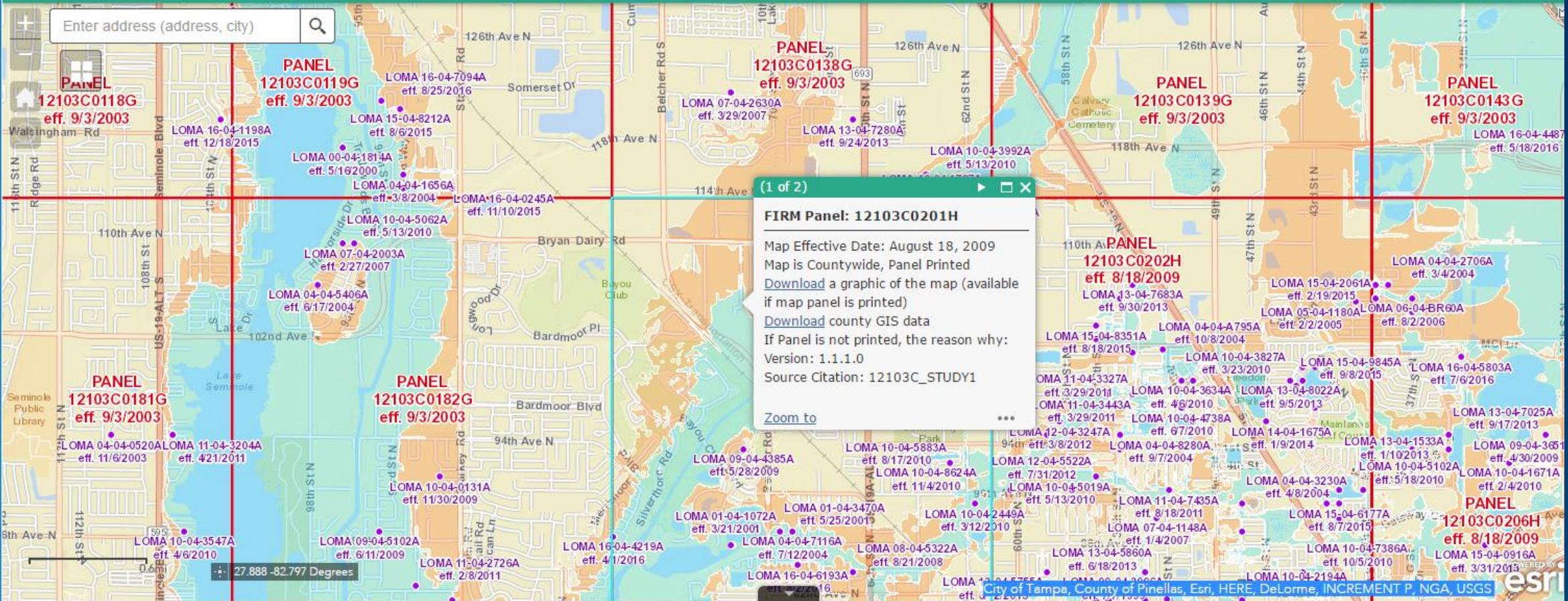
Redlands, California—This week, Esri presented Pinellas County, Florida, with the 2016 Enterprise GIS Award for innovating a smart community governance model. That model fulfilled county initiatives to build a public GIS with apps that benefit the community. One of those apps used Federal Emergency Management Agency (FEMA) open data to save property owners \$5.3 million on National Flood Insurance Program (NFIP) premiums.

Reasons for Success

- Partnership
- Understanding of GIS as a Foundational Enterprise IT System
- Governance
- Executive Sponsorship
- Commitment to Best Practices
- Commitment to COTS with Oversight
- Entrepreneurial Attitude



Enter address (address, city)



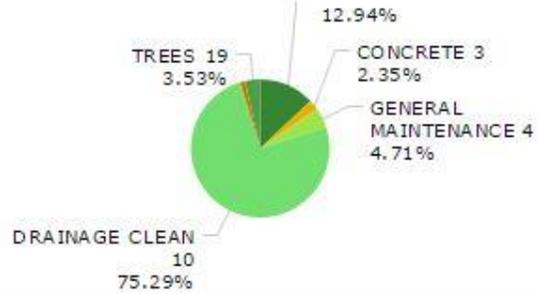
- LOMRs
- LOMAc
- FIRM Panels
- Cross-Sections
- Base Flood Elevations
- Flood Hazard Boundaries
- Flood Hazard Zones

Options Filter by Map Extent Zoom to Clear Selection Refresh

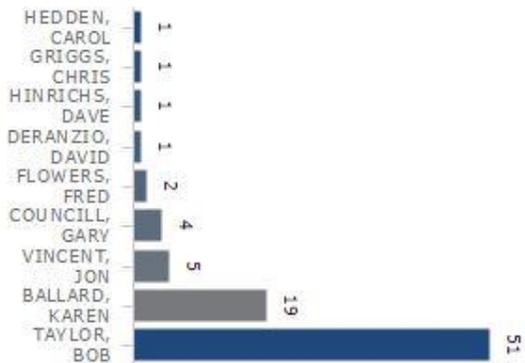
OBJECTID	SHAPE	CASENUMBER	STATUS	PROJECTNAME	PROJECTCATEGC	DATEENDED	DATEENDEDSTR	CID	COMMUNITYNAM	DETERMINATION	LAT	LON	PDFHYPERLINKID
17155		11-04-5435A	Completed	BEACON RUN, UNIT 2, LOT 76 -- 6519 107TH TERRACE	LOMA	June 13, 2011		120251	PINELLAS PARK, CITY OF	DetermLetter	27.87	-82.73	11-04-5435A-120251
19704		09-04-4385A	Completed	BAYOU CLUB ESTATES, TRACT 4, LOT 38 -- 7336 SAWGRASS POINT DRIVE	LOMA	May 27, 2009		125139	PINELLAS COUNTY +	DetermLetter	27.86	-82.74	09-04-4385A-125139
22539		07-04-2630A	Completed	KNOLLWOOD INDUSTRIAL	LOMA	March 28, 2007		120251	PINELLAS PARK, CITY OF	DetermLetter	27.88	-82.74	07-04-2630A-120251

124 features 0 selected

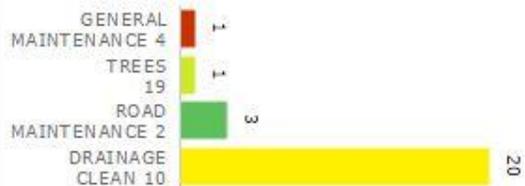
Agile Work Request Type



Work Requests by Inspector



Work Requests Completed



Latest Calls

- #1594601 ()
NEED HIGH WATER SIGNS INSTALLED (PER KAREN)
- #1594598 (RODGERS, JOHN)
CITIZEN STATED COUNTY CAME OUT TWICE AND ADVISED PIPE CORRODING UNDER YARD AND SHOULD BE RE-LINED. NOW HOLE IS GETTING BIGGER NEAR DRIVEWAY AND INTEGRITY OF DRIVEWAY IS A FACTOR. THE PIPE GOES INTO JOE'S CREEK. CITIZEN STATED EMERGENCY DUE TO DRIVEWAY IMPACTED SOON.
- #1594597 (SCF 2857840)
WATER FROM THE DRAINAGE DITCH BEHIND CALAIS IS OVERFLOWING ONTO TOWN APARTMENTS PROPERTY. WITH CONTINUED RAIN OUR DOWNSTAIRS UNITS WILL SOON FLOOD. MAYBE PRIVATE, BUT SAW DRAINAGE PIPES ON MAP.
- #1594596 (DEFABBRIO, SUSAN)
THE DRAINAGES IN THE DEAD END ARE FILLED WITH GARBAGE AND NOW THE STREET IS FLOODED!
- #1594595 (COLEMAN, TAMMY)
DRAINAGE ISSUE AS STORM DRAINS ARE NOT DRAINING POSSIBLY CLOGGED & THIS IS AT BOTH THE NORTH & SOUTH ENDS OF THE ROADWAY (WATER IS KNEE DEEP)
- #1594593 (KENDALL)
TREE FELL ON VACANT HOME POSSIBLY PRIVATE & ON SUNDAY MORNING & YESTERDAY THE NEXT DOOR NEIGHBORS STARTING CUTTING IT UP & LEFT ON ROW & NOW ITS BLOWN INTO THE ROADWAY & IS BEING HIT BY VEHICLES & WORRIED ABOUT THE STORM & WANTS REMOVED
- #1594592 (GORDON)
POT HOLE IN FRONT OF PROPERTY
- #1594591 (TIFFANY)

Road Blocks

11

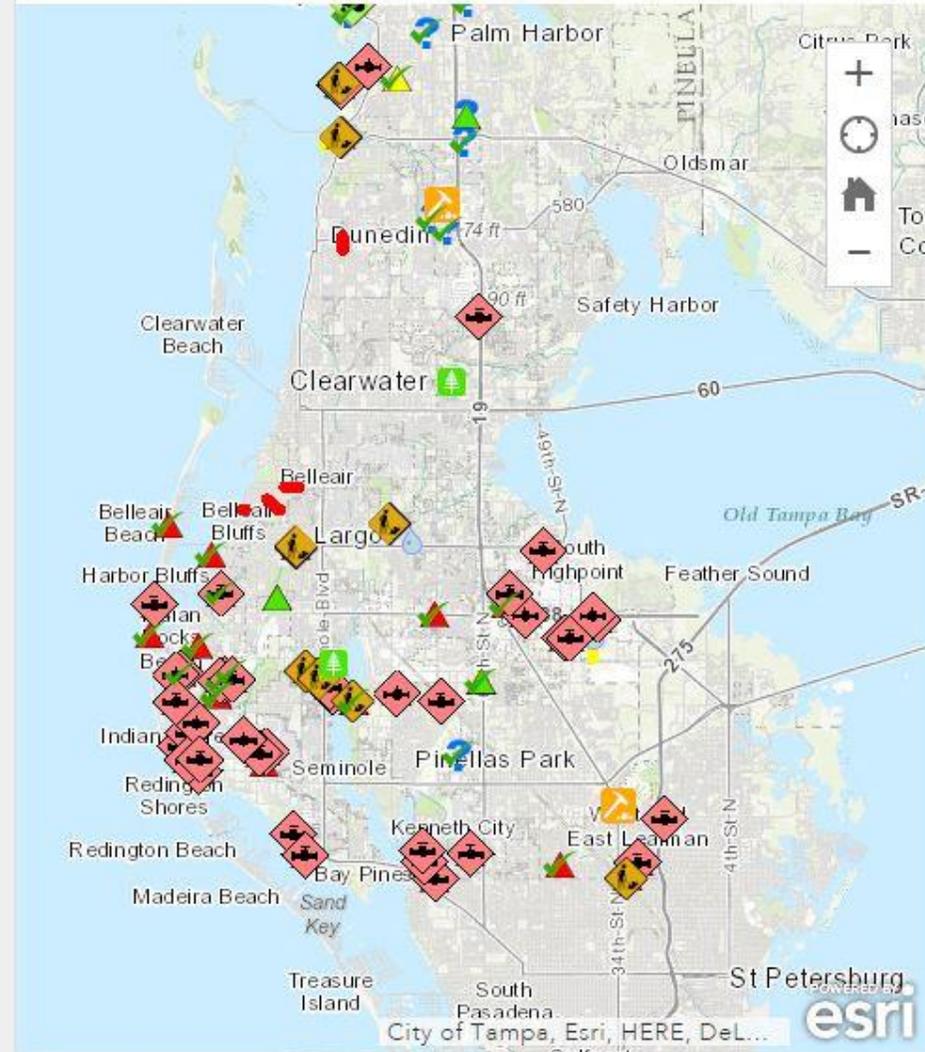
Road Closures

20

Road Detours

0

Field EOC Operations

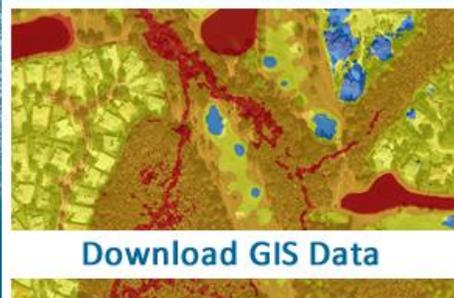


Pinellas County Enterprise Geographic Information Systems

WELCOME TO PINELLAS COUNTY'S ENTERPRISE GIS PORTAL



[View GIS Applications](#)



[Download GIS Data](#)



[Contact Our Staff](#)

This site is best experienced with Mozilla Firefox or Google Chrome.

PRESENTING ENTERPRISE GIS

PUBLIC APPS



WEBGIS (PUBLIC)

New Esri based GIS Viewer.

(Compatible with Firefox and Chrome only)



OPEN DATA PORTAL

Pinellas County's Open Data Portal. This self-service application allows near real-time public access to Pinellas County's Enterprise GIS data.



ZONING / LAND USE UNINCORPORATED LOOKUP

Pinellas County's Zoning / Land Use Unincorporated Lookup. This self-service application allows users to look up the zoning and land use information on county proprieties.



AIRS (AERIAL IMAGERY)

Pinellas County's Aerial Imagery Viewer. This application contains historic and current aerial imagery for the County.



CRIME VIEWER

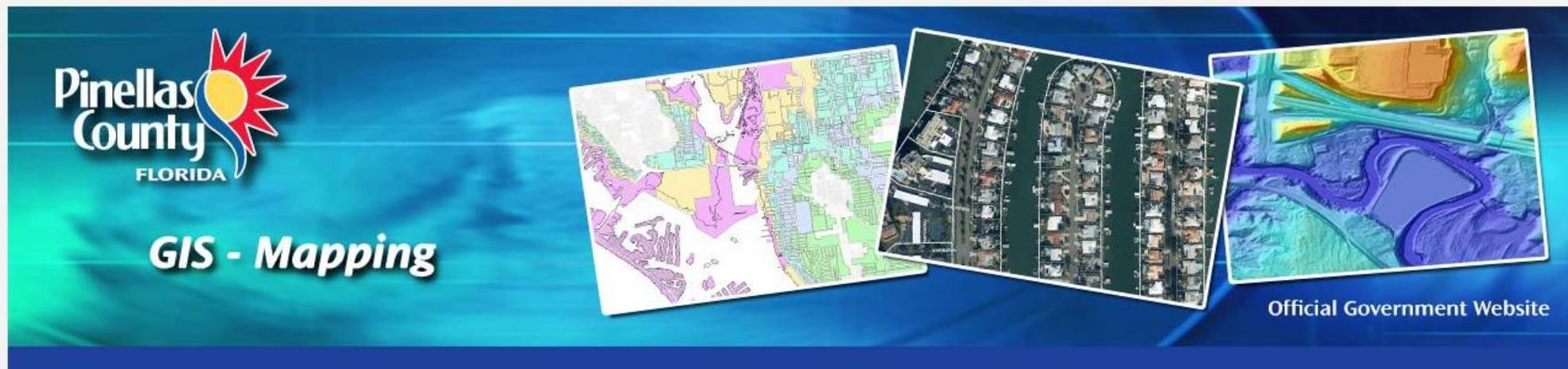
Crime Viewer allows users to view crime data reported by the Pinellas County Sheriff's Office and other municipal police departments.



STORM SURGE

Pinellas County Emergency Management's online tool for viewing potential storm surge levels for Pinellas County properties. This application depicts Hurricane Storm Surge and is NOT related to FEMA Flood Zones.

PINELLAS COUNTY OPEN DATA PORTAL



This site provides access to Pinellas County's publicly available GIS data. Use the search bar at the top or the data category buttons to browse the data collection. Data can be previewed in the map and downloaded as a spreadsheet, shapefile, KML or linked via API.

[Click here to browse the complete data collection](#) or *browse below by data category*



[Boundaries](#)



[Demographic](#)



[Economic](#)



[Education](#)

Pinellas County Enterprise GIS

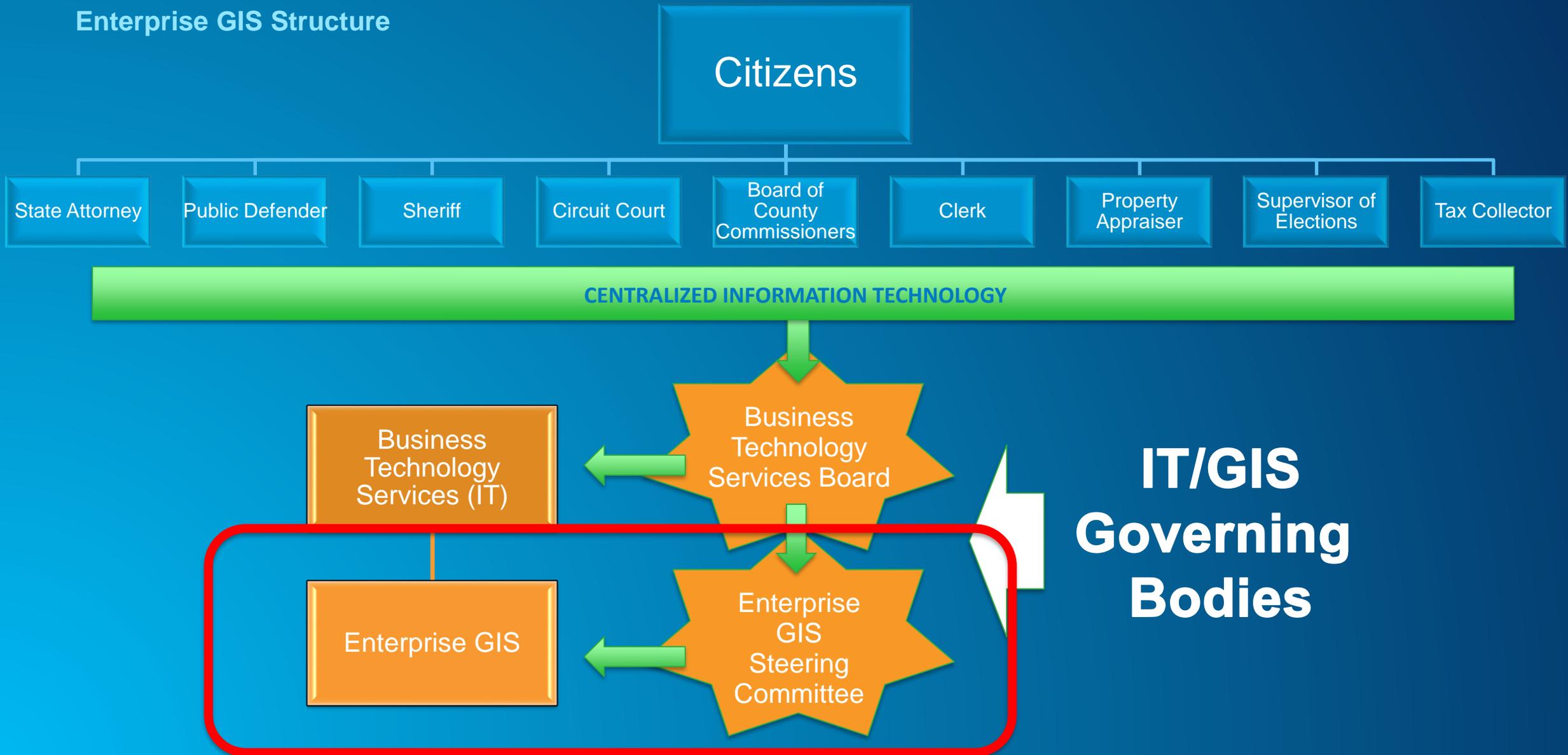
Partnership with Esri

- Enterprise License Agreement & Esri Enterprise Advantage Program (EEAP) April 2012
- Recently renewed both programs until 2020
- Examples of Pinellas County EEAP Activities:
 - Strategic Visioning & Planning Workshops
 - Staff Development Plan
 - On-Site Training Events
 - Infrastructure Planning & Architecture Support
 - Security Assessment & Vulnerability Analysis
 - Load and Performance Testing
 - Open Data & ArcGIS Online Implementation & Support
 - Annual GIS Health Checks



Pinellas County Enterprise GIS Program

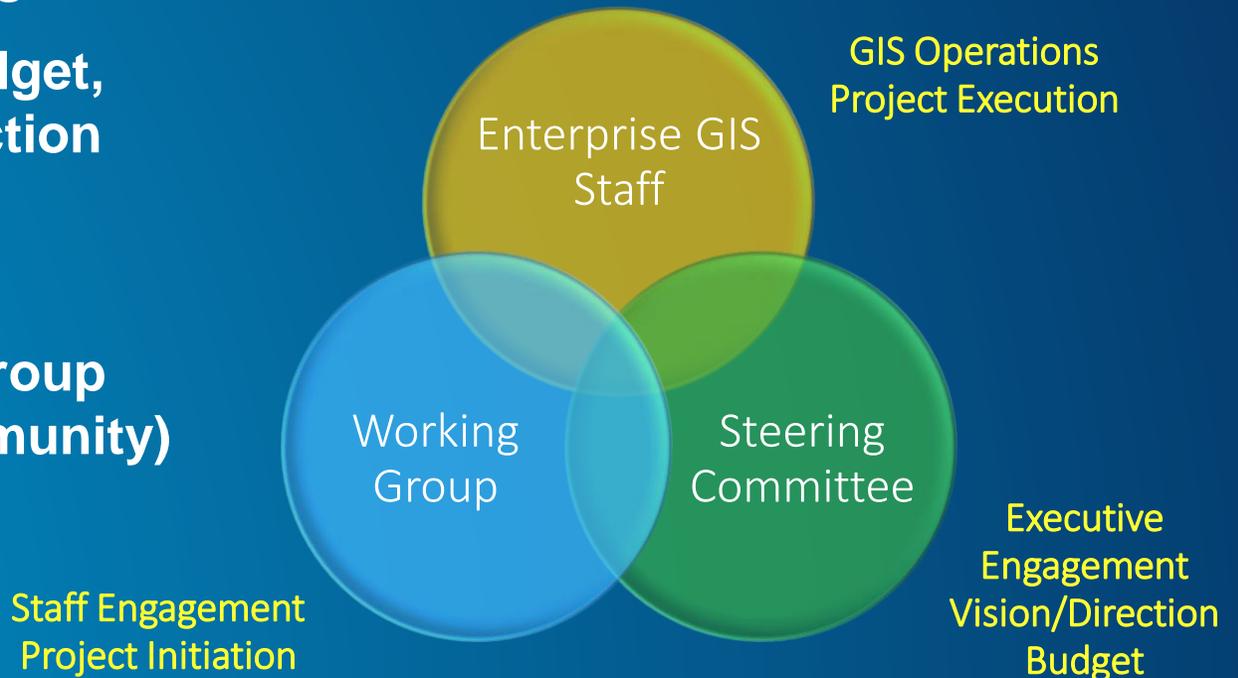
Enterprise GIS Structure



Pinellas County Enterprise GIS Steering Committee

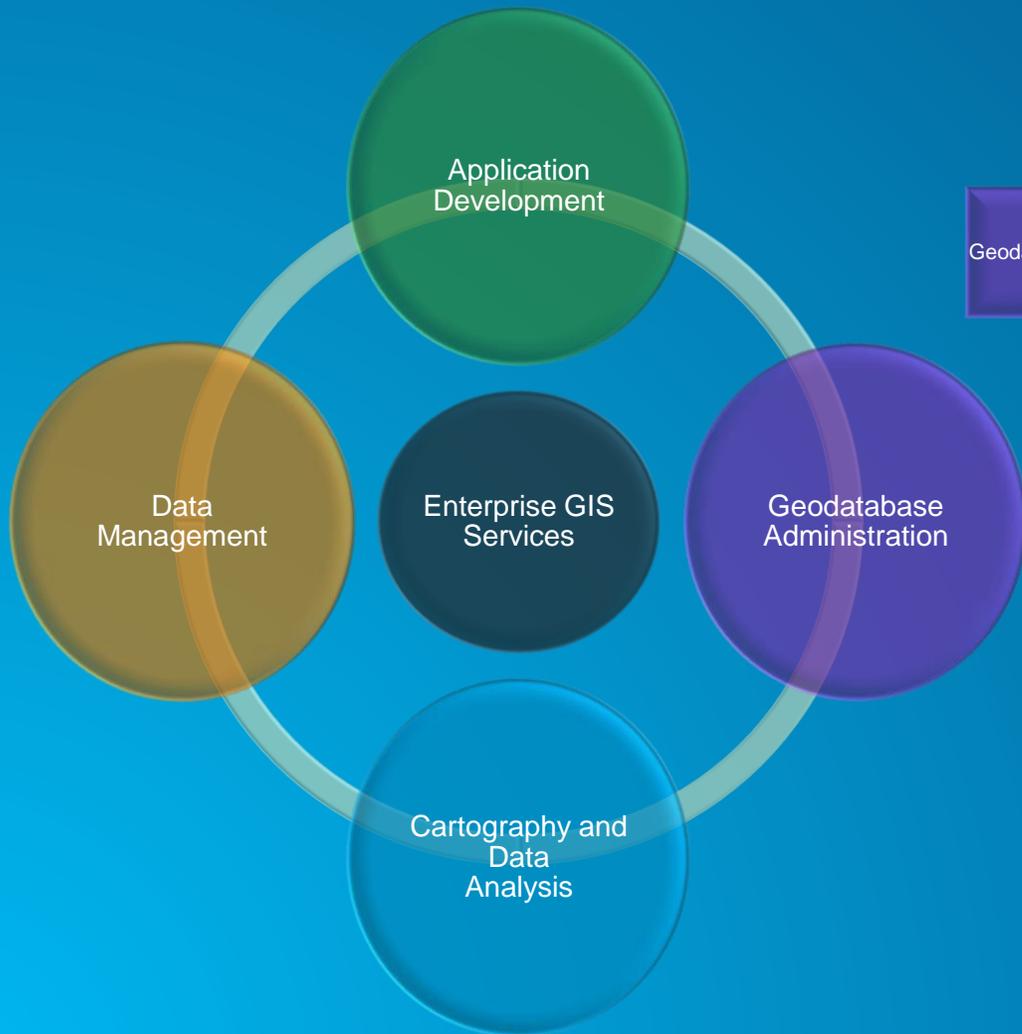
Membership and Guidelines

- Made up of executive leaders from various County stakeholder departments (Property Appraiser, Supervisor of Elections, Public Works, Utilities, etc.)
- Subject to public record and sunshine laws
- Decides project prioritization, funding, budget, organizational changes and strategic direction of Enterprise GIS program
- Enforces COTS over Custom
- Leaves project initiation to GIS Working Group made up of staff-level members (GIS Community)



Pinellas County Enterprise GIS Staff

Organizational Structure



EGIS RADAR

Development Team

- Tree Inventory
- Water Nav Markers
- Focused App for Planning (Alan Shelhorn/Gordon Beardsley)
- ~~GeoEvents Processor for AVL (Utilities/PW) *~~
- Damage Assessment Summary Dashboard (EMA/Bishop)
- Sheriff Apps to Prod by 9/30 (Sheriff)
- Stormwater Migration/Collector App (PW/Levy) *
- Public Notification App to Prod (Countywide)
- SAP - Address Aliasing for Validation Files (Utilities/Stan)
- FOG Program - View/Edit Application (Utilities/Kiehn)
 - ↳ GeoForms
- SCADA/GIS Integration (Utilities/Engineering)
- Hydrant App (Rick Godt)
- DRS Front Counter to Prod (DKS/Lyon) *
- PCUGIS Updates (Utilities) *
- WebGIS Updates (County) *
- Reclaimed Water Availability Focused App (Capes)
- ~~Mike Baird Asset Lookup (Baird) → My Gov Services~~
- Infrastructure Crosswalks (Tinch/Wendy)
- PCUGIS Offline Collector App (Capes/Utilities)
- Infrastructure Migration (eGIS)

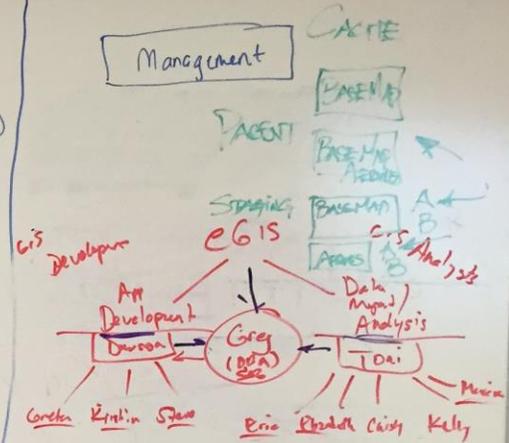
Data/Analysis Team

- * AI Teague/Alan Lynne ITS Editing (Traffic)
- * Road Row Editing (Zeller) - Testing/Outover - Zwecks
- Parcel Level Zoning (Shelhorn)
- Road Centerline/Aliasing (Countywide)
- Utility Data Management Training
- PFC Data Migration (ID11)

DBA Team

- PFC Data Migration (ID11)
- SAP Data Migration
- Infrastructure Crosswalks
- PSC Mode
- Database Restructure (SQL)
- ~~Lead Selection → Test POCs~~
- PAO to PSS parcel replication

Management

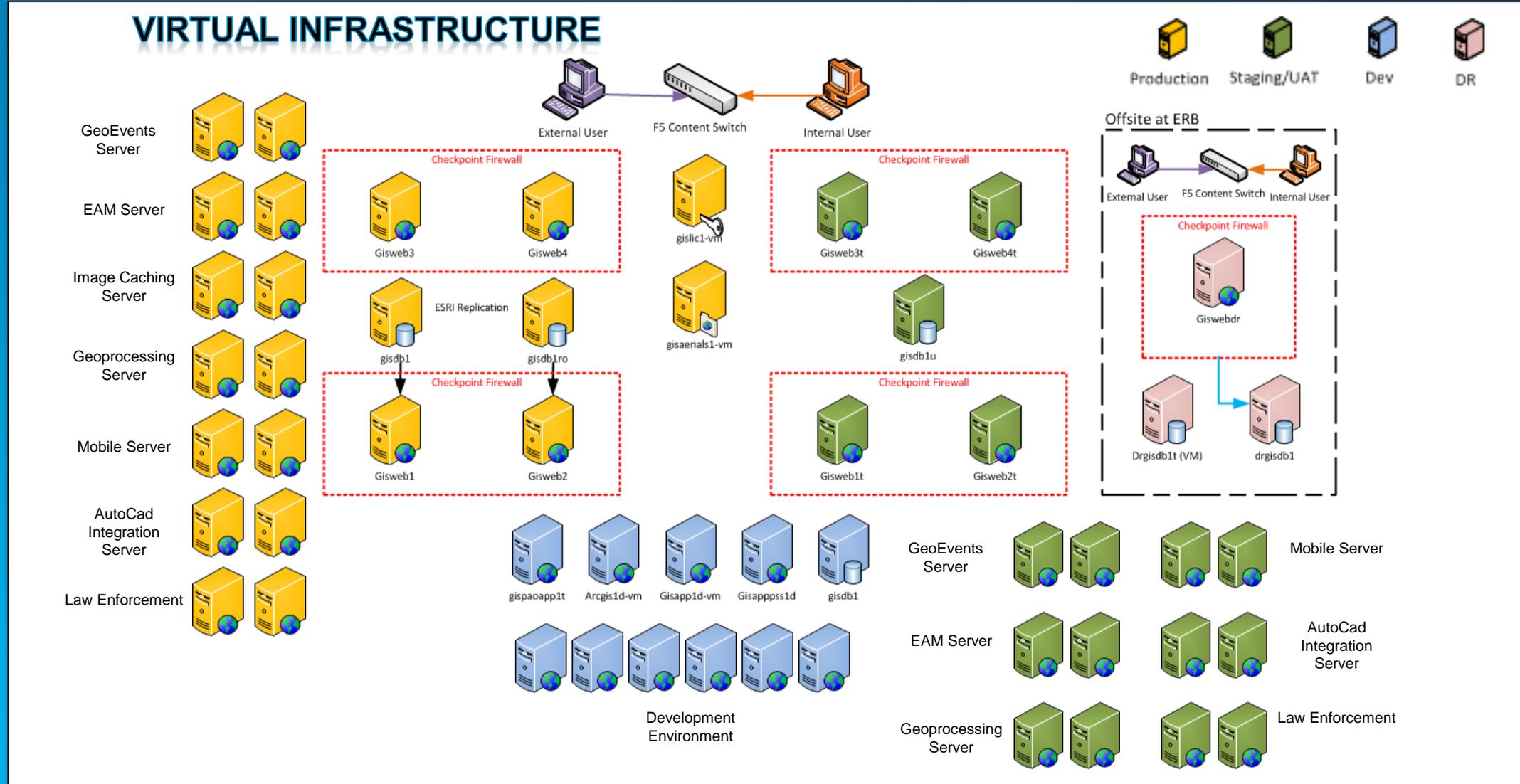


- CMDB Cleanup
- LIDAR Storage #
- MapGuide Retirement Training
- Procedures/Access Rights

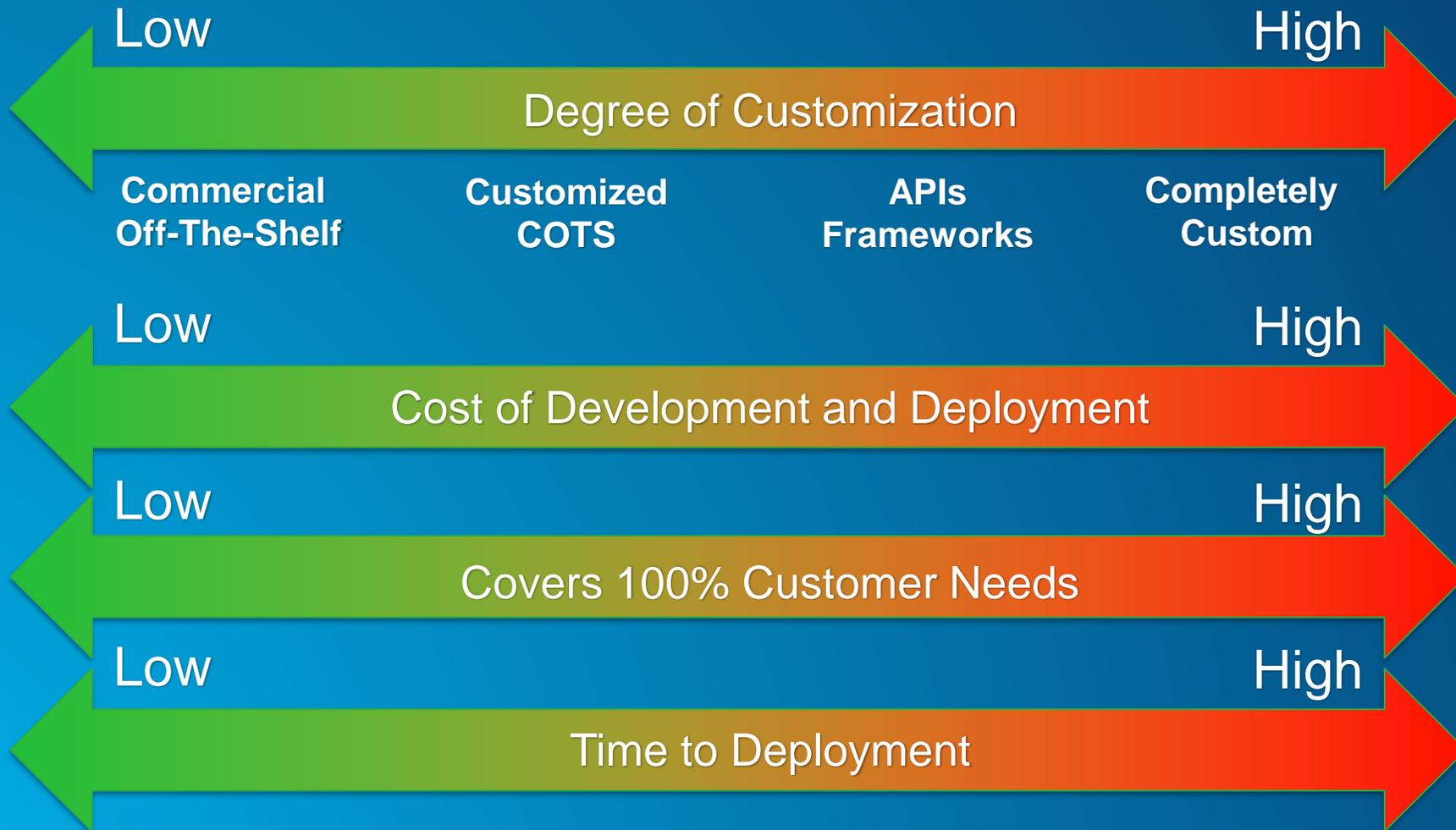


Pinellas County System Architecture

2015-2019



Commercial off the Shelf or “COTS”



Commercial off the Shelf or “COTS”

Pinellas County’s Approach

- Always deploy Commercial Off the Shelf when possible
- Adopted strategy by executive leadership written into Enterprise GIS governance
- Projects reviewed by management to ensure enforcement and sustainability
- Customization only when business value is greater than life-cycle cost of development
- An 85%-90% solution is acceptable to avoid long-term maintenance headaches



Strategic Planning

- Create a sustainable, attainable strategic plan with realistic goals and objectives
- Create a *shared* vision for what you want your organization to look like
- Target a 3 year time horizon
- Identify key issues that strategic plan will address for your organization
- Outline strategies to reach goals and address key issues
- Manage Change

VERSION 1.0
AUGUST 15, 2014



ENTERPRISE GIS STRATEGIC PLAN
2014

PRESENTED BY: BRYAN J ZUMWALT, GISP
GIS MANAGER
PINELLAS COUNTY
BUSINESS TECHNOLOGY SERVICES

Bryan Zumwalt

What are the things that I am doing as a GIS Manager to give us the best odds of success?

- **Never be afraid to speak to someone above your paygrade about GIS (it's usually lonely at the top anyway)**
- **Understand that all success starts with the relationships you build**
- **Learn your customers' business as if you had to work in their department**
- **Invest in quality staff and give them freedom to innovate, learn and progress (work yourself out of your current job)**
- **Never let process get in the way of progress (if it is, you have too much of it)**
- **Leadership in GIS involves leaving your office . . . A lot! (don't wait for the customer to come to you)**
- **Value ideas, especially the crazy ones . . .**

Thank You!

Bryan Zumwalt

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Understanding our world.