# PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS WORKSHOP SUMMARY

Meeting Date: August 29, 2023

Department: Information Systems Services
Submitted by: Information Systems Services
Submitted for: Information Systems Services

### I. EXECUTIVE BRIEF

Title: Information System Services Department (ISS) Overview

**Summary:** Staff from the Information Systems Services Department (ISS) will provide an overview of the functions, responsibilities, and services. <u>Countywide</u> (DB)

**Background and Policy Issues:** ISS is a general fund internal services department that supports all county agencies and Constitutional Offices. The department has a complement of 213 positions allocated throughout five divisions: Application Services, Enterprise IT Security, Finance and Administration, Network Services, and Platform (Infrastructure) Services.

### **Attachments:**

1. ISS Overview Presentation

Recommended by:	All—	7/19/23		
	Department Director	Date		
Approved by:	Maker	8/22/23		
	County Administrator	Date /		

## II. FISCAL IMPACT ANALYSIS

## A. Five Year Summary of Fiscal Impact

Fiscal Years	2023	2024	2025	2026	2027	
Capital Expenditures	\$0	0	0	0	0	
Operating Costs	\$0	0	0	0	0	
External Revenues	0	0	0	0	0	
Program Inc (County)	0	0	0	0	0	
In-Kind Match (County)	0	0	0	0	0	
in rand materi (County)		U	O	U	U	
NET FISCAL IMPACT	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	
# Additional FTE						
Positions (Cumulative)	<u>0</u>	0	0	<u>0</u>	<u>0</u>	
				_	~	
Is Item Included in Current Budget	Ye	es _	No			
Does this item include the use of federal funds? Yes No _						
Budget Account Number: Fi	und _ Do	ept	Unit	Object_		
B. Recommended Sources of Funds / Summary of Fiscal Impact						
There is no direct fiscal impact a	ssociated with	this unds	ıte.			
There is no direct liseal impact a	330Clated With	Tills upue				
C. Department Fiscal Review: 1/18/23						
III. REVIEW COMMENTS						
A. OFMB Fiscal and/or Contract Development & Control Comments:						
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The same of the sa						
OFMB H 0/3 Contract Administration						
	110					
B. Legal Sufficiency:						
When 8/9/27						
Assistant County Attorney						
C: Other Department Povious						
C: Other Department Review:						

THIS SUMMARY IS NOT TO BE USED AS A BASIS FOR PAYMENT.

Department Director

# Overview Of Palm Beach County Information Systems Services Department

August 29, 2023



Information Systems Services serves as the centralized information technology (IT) support agency for the Board of County Commissioners and provides services to the independently elected constitutional officers of Palm Beach County.





### Mission Values Think strategically and anticipate the To drive a continuous improvement culture of Fundamental competence County future. Ensure that decisions made excellence that achieves a measurably high level Unwavering commitment today will have lasting value of public satisfaction Creative leadership Interactive communication Provide high quality information Oversight of the County's information technology Quality (trained workforce) services to Palm Beach County infrastructure which serves as a reliable and Stewardship (leadership) affordable resource for management decisiongovernment, its citizens and business Teamwork partners now and anticipate these making, efficient work processes, and transparent Integrity needs into the future. access of public data. Customer Service (competitive pricing)

### **Strategic Priorities**



Customer Service

 Develop a stakeholder engagement plan

 Maintain flexibility to anticipate changing needs



and Retain

Recruit

Talent

• Internship Program

 Job series refinement

• Train and Retain Current Employees

 Succession Planning



Excellence

perational

 Effective, timely, and informed decision-making

 Network expansion, redundancy

 Modernization and upgrade of business applications

 Expansion of Public Offerings



ecurity Risk Management

Threat
 Management
 Program

 Cyber Champion Program

 Create Incident Response Playbook

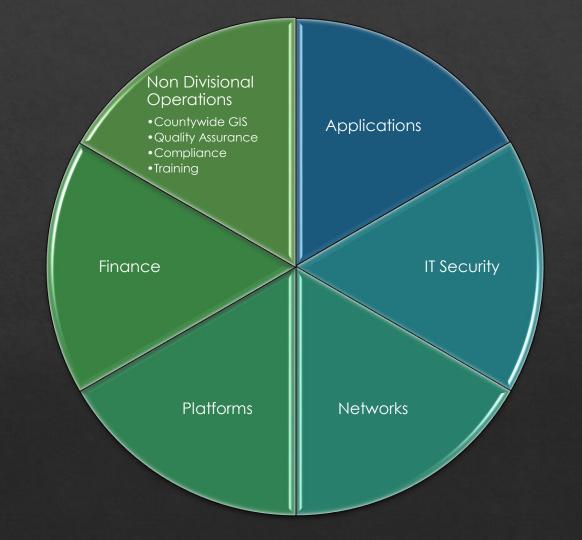
 Improve Access and Controls

# 2021-2024 IT Strategic Plan Summary



# Organization and Budget





# Structure







\$9,502,171 Operating Revenue



\$28,679,340 Net Ad Valorem

2023 Budget Summary

\$13,989,000
Capital Budget Allocated for
Continuous Planned
Renewal, Replacement
& Improvements





# Internship Program

- From local colleges and universities, primarily PBSC & FAU
- Interested students are directed to the County's Job Application Page





34 Conversions into Employees

24 remain



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1])===!1&&e.stopOnFalse){r=!1;break}n=!1,u
=u.length:r&&(s=t,c(r))}return this},remov
ion(){return u=[].this}.disable:function
```

# Application Services

# **Application Services**

- Develop, implement, and maintain departmental and enterprise software applications using appropriate technology;
- Coordinate the acquisition of third party commercial software packages, as necessary;
- Provide database services for development and production environments;
- Maintain existing applications to assure system compatibility and overall seamless business operations;
- Develop and maintain web pages and mobile applications; and
- Provide general consulting and project management services to user departments.



# **Key Business Applications**



Case Management



Employee Information Systems



Contract Management



Financial Management



Inventory and Maintenance Manager



... plus many more



# **Key Applications by Department**

### Clerk and Comptroller

- Revenue Receipting System
- Financial Special Assessment
- Public Service Tax System

# Environmental Resources Management

- Environmental Enterprise Database
- Sea Turtle Tracking
- Online Equestrian Permits

### Community Services

- STARS EDI
- OSCARSS
- Resource & Referral Portal
- Housing Inventory
- Congregate Meals Portal

# Facilities & Development Operations

- Work Order Tracking
- Storeroom and Inventory Management
- Financial Contract Management

### Engineering & Public Works

- Work Order Tracking
- Electronic Permitting
- Intersection Maintenance
- Crash System
- TPS Traffic Performance

# Housing and Economic Development

- Cares for Business
- Housing Assistance Program
- Calyx



# **Key Applications by Department**

### Planning, Zoning and Building

- Permits and Inspections
- Code Enforcement
- Contractor Certification
- •Impact Fees
- Planning and Zoning

### **Property Appraiser**

- Homestead e-file application
- Permit Portal
- Property Appraiser Public Access "PAPA"
- Tangible e-File

### Public Safety

- Case Manager Pro
- Consumer Affairs Tracking System
- DART / RIAT / SNAP Portal
- Field Officer Portal

### Water Utilities Department

- Capital Improvement Projects
- Development Tracking
- Special Assessment
- Customer Information / Billing
- Backflow Tracking

### Youth Services

- Contract Monitoring
- Notice of Funding Opportunity
- Summer Camp
- Case Manager Pro
- Birth to 22

### Other

- Legal Assist
- •IGIMS / IA
- Bus Pass Tracker
- Virgin Islands Licensing System



# **Key Enterprise Applications**

**HRIS** 

eKPI

Advantage Financial

**TED** 

Fixed Asset Tracking

PBC Works

Public Records Request



# **Applications Toolbox**



















# **Database Administration**

**796** SQL Server Databases

• TB of Data in SQL Databases

119 Oracle Databases

• TB of allocated space in Oracle Databases









# **Enterprise IT Security**

- Provide guidance to Departments to appropriately manage information risk.
- Create and maintain information security policies and help set implementation goals.
- Monitor the threat and regulatory landscapes and identify the top risks facing the County.
- Invest in and manage advanced capabilities to improve the protection against and detection of cyber attacks on the County.
- Assist data owners (in the first line of defense) to make risk management tradeoff decisions and select appropriate security controls.
- Facilitate and monitor the implementation and maintenance of security controls across the County.



# National Institute of Standards and Technology (NIST) Security Framework



### Identify

Develop the organizational understanding to manage cybersecurity risk to systems, assets, data, and capabilities.



### **Protect**

Develop and implement appropriate safeguards to ensure protection of the County's assets.



### Detect

Develop and implement the appropriate activities to identify the occurrence of a cybersecurity event.



### Respond

Develop and implement the appropriate activities to take action regarding a detected cybersecurity event.



### Recover

Develop and implement the appropriate activities to take action regarding a detected cybersecurity event.



# **Security Programs**

### Identify

(Maintain an inventory of assets and processes that may be vulnerable to cyber attack)

- Continuous Vulnerability Scanning
- Data Classification
- •IT Governance

### **Protect**

(Ensure protection procedures are in place for all)

- Security Awareness Training
- Endpoint Protection
- Patch Management / Virtual Patching

### Detect

(Implement monitoring processes to alert staff of anomalous activities)

- Next Generation Firewalls
- User Behavior Analytics
- Continuously Scanning

### Respond

(Ensure procedures in place to quickly isolate and mitigate anomalous activities)

- Incident Response Planning
- Communication

### Recover

(Be prepared to restore services and improve protections against source of anomalous activity)

- Daily Data Backups
- Computer/Network Forensics
- Root Cause Analysis



# **Security Metrics**

78,977 • Emails blocked from delivery in 2022 8,765 •Suspicious Emails Reported by staff in 2022 806 • Blocked Clicks in 2022 9% • Reduction in simulated click rate 6:1 • Reported emails vs clicked emails 7,000+ Devices patched on a monthly basis 500,000 • Probes blocked by next-gen firewalls per day

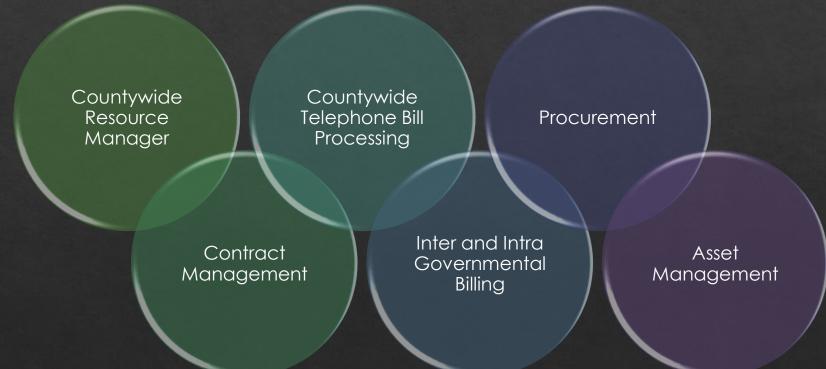




# Finance and Administrative Services



# Finance & Administration





# Network. Services



# **Network Services**

Local Area (LAN) & Wide Area Networks (WAN)

E Government Initiatives

Video Conferencing

Voice over IP (VOIP)

> Virtual Private Networks (VPN)

Secure Intranet Services



# The PBC Network by the Numbers

> 1,200	•miles of fiber-optic cable
523	•connected facilities
4,500	•network management devices (routers, switches, wireless access points)
35,000	•connected client devices
4 petabytes	• of data handled by core routers monthly
950	terabytes of internet data downloaded monthly
10K	VoIP phones handling 500K+ calls monthly
17	Contact Centers, 500 agents, 350K calls monthly
10 million	•public Wi-Fi sessions monthly
4 million	•inbound emails monthly (97% spam)



# Access to the Internet via FLR







# Platform & Infrastructure

- Hosts and administers County's enterprise information systems
- E-mail and archiving,
- Enterprise reporting,
- Backup and recovery
- Enterprise Data Centers
- External Agencies Hosting Services
- Provides IT customer service through first-call resolution and incident/service request management
- Provides hardware, software, and peripheral device support



# Platform Services by the Numbers

### Servers

- 38 physical servers
- 1,774 Virtual Servers
- 3.84 THz of Virtual Compute
- 86 TB of Virtual Memory

### Storage

- 6.2 Petabytes of Private Cloud storage
- 1.7 Petabytes of Flash Storage
- 572.88 Terabytes of managed File System Data
- 41 Terabytes of Logs

### Email

- 120,000 emails per day
- 9,922 unique mailboxes

### Data Centers

• 3 Geo-diverse Data Centers



# Non Divisional Services



# Non Divisional Services

Quality Assurance Program Project Support Office

Training Program Geographic Information System



# Countywide GIS Coordination & Services

## **Countywide GIS**

- Partnerships
- Coordination
- Administration
- Planning
- Education

## GIS Service Bureau

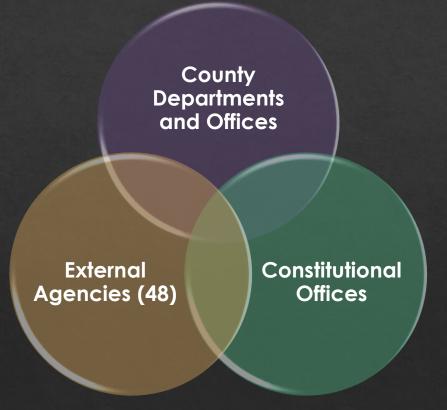
- Enterprise Management
- Applications Development
- Business Integration
- Centralized Data
   Access & Distribution
- User Training



# Services and Customers



# **ISS** Customer Base





# Services Offered

Internet Service Provider

Network Services

Disaster Recovery GIS Hosting and Support

Unified Communications Platform

Cyber Security
Awareness

Desktop Support

Business Applications



# **Benefits**

Faster adoption of newer technologies

Improved services to constituents

Reduced costs

Greater network bandwidth and interconnection to Florida LambdaRail

More efficient work force

Intergovernmental cooperation



# Accountability

Strategic Plan

Cost Allocation Plan Work Orders and Problem Tickets

Customer Billing Performance Measurement System

Management Reporting

Hourly Time Keeping Requirements



# **Key Success Factors**

Support from the Board of County Commissioners and County Administrator

Adequate funding through the annual budget process

Robust Information Technology Infrastructure

Full Service Shop

Collaboration through Service Agreements

Quality of Staff highly experienced and capable

Accountability Measures and Strong Customer Relationships



# Infrastructure Investments

PBC Fiber Optic Network Enterprise Server/Storage Platforms Internally
Developed
Business
Applications

Third Party Software Products

Unified Communications Enterprise Data Center

Cybersecurity



# **Technology Trends**



# Government **Business Trends**

### Transparency, Accountability, Self-service

Citizens are demanding more and more accountability and openness from government



### Digital Workplace

Transformative technologies are changing what and how things are done. At the time governments are preparing for the changing nature of work (augmented workforce) and the rise of

## Sustainable Cybersecurity

Vulnerabilities and breaches have afflicted governments at all levels, Governments must be more proactive and strategic





# Citizen Interaction Management

Citizens want to easily engage across agencies using their own communication preferences

# Government Shared Services

Organizations achieve economies of scale through an entity that delivers standardized services for multiple



# Emerging Technology Trends

### **Artificial Intelligence**

Al-based technologies adapt their behavior based on experience, spawning massive changes in government, transforming how work is getting done. PBC utilizes Al for cybersecurity, traffic signal preemption for emergency vehicles, etc.



### **Cloud Computing**

A style of computing the uses Internet technology to deliver IT servicess to external customers. ISS operates a "government cloud" for providing IT services to external agencies.



### **Data Analytics**

Autonomous or semiautonomous examination of data or content using advanced techniques and tools. Could provide insight for PBC that can guide actions to increase organizational efficiency and program effectiveness



### Internet of Things

Network of dedicated physical objects with embedded technology to communicate and interact with the external environment.



### Mobile (including 5G)

Ubiquity of mobile technology is rapidly moving to the next level, including wearables, that will keep people constantly con nected. 5G networks will result in lower latency, lower power consumption, and faster speeds overall



### **Blockchain**

Blockchain is a distributed, decentralized public ledger. Could be used by PBC for smart contracts and real estate transactions, and to verify authenticity of supply chain partners



# Awards for Information Technology Excellence

ISS aspires to excellence and actively competes for recognition among our peers.

### **Annual Digital Counties Survey**

- Consistently ranked Nationally in the Top 10
- Ranked #1 Nationally in 2011

### FLGISA Technology Achievement Awards

•Received in 2014 and 2016

### National Association of Counties

•44 Awards since 2018

### Government Experience Award

• Earned in 2020 and 2022



# Thank You Questions?

