

IT Strategy 2020

- The IT Strategy is built from:
 - The 2020 Goals set by the County Executive.
 - Operational necessities of IT.
 - New capabilities and technology that are required for providing services
 - The reality of the County's financial position and the limited budgets for the foreseeable future.

IT Strategy 2020

Goals

- **Rebuild Trust in Government**

- Accountability
- Ethical Standards
- Transparency

- **Making Government work for Everyone**

- Customer Friendly Government
- Operational Effectiveness
- New Efficiencies
- Collaboration with the County Council
- Regional Collaboration
- Being a Responsible Employer

- **Addressing our Regions biggest challenges**

- Public Safety
- Jobs and Economic Development
- Racial and Gender Equality
- Economic and Social Justice
- Rebuilding Infrastructure
- Criminal Justice Reform
- Justice Center Reform
- Protecting Animals

Customer Centric Approach

- **Web Based Communication**

- The Internet Web Site is the central communication vehicle. It is augmented through the use of other solutions such as GIS, Chatbots, YouTube videos, etc. This allows citizens a single place to find information no matter the platform.

- **Customer Centric Support**

- Support needs to be optimized to put the customer first.
- The most critical issues for the most critical people should be serviced first.
- Support incidents need to be classified based on the severity of the issue and the impact on County operations. This means that there are some instances where a single user issue is preventing a department from being able to execute its operations. The question then becomes, how critical is the operation being performed?

- **Customer Centric Solutions**

- Solutions generated by IT, either custom or shrink wrapped, need to fit the need of the customer.
- The customer needs to be trained on how to use the solution.
- User oriented training will be developed and maintained for each solution to allow staff to self-learn.

- **Work from Anywhere**

- Staff that do not need to have physical access to a customer, hardware or specialty machinery should be able to work from any location with a sufficient network connection. Technology needs to be enabled to make this an easy simple seamless transition from office to remote office.

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Open Government

- **Web Based Communication**

- Utilize the existing Website software, including search engine, as a single location where citizens can find any information that the County Government is making available. This will simplify the ability for citizens to find information they desire and enable County Government to be more transparent.

- **GIS**

- Leverage the existing GIS platform for the creation of reporting applications and dashboards that can make data currently contained in internal applications available over the internet.

- **Sunshine Portal**

- The current ability of citizens to submit and track their sunshine requests is inadequate. IT intends to stand-up a FOIA solution that allows for submission, tracking and resolution of Sunshine requests. This solution will keep the results of past sunshine requests available for citizens so that the citizen can rapidly find the results of prior results.

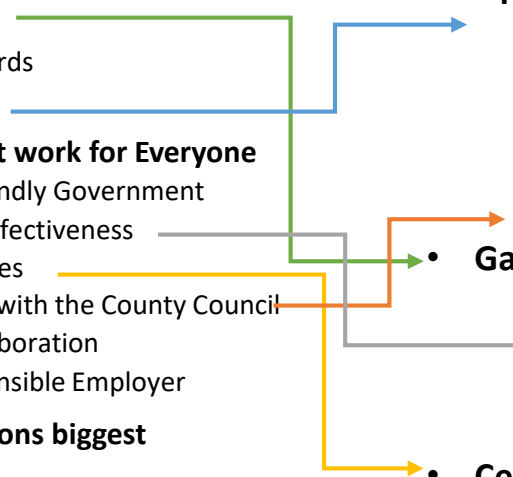
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Budget and Operations

- **Operational Budget Management**
 - Budgets, along with operations and projects, need to be designed to optimize the operational budget.
 - The operational budget is for operations. Financial savings versus projected spend can be used for projects, but only when funding for operations is not compromised.
 - New solutions should be analyzed against this budget reality.
 - Expensive projects should be funded through supplemental requests or through bond funding.
- **Gain Value from existing investments**
 - Solutions that have already been paid for, should be leveraged to their fullest extent prior to sourcing new solutions to existing challenges. Only when existing solutions are not suitable to fit the business need will new or replacement solutions be sourced.
 - IT will focus on educating our workforce on existing solutions and how they can be used to solve existing challenges.
- **Centralized Management**
 - IT will manage the acquisition, lifecycle and budgeting for all Enterprise Solutions. That may include locking portions of other department's budgets to fund their portion of the Enterprise solutions.



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Enterprise vs. Departmental Solutions

• Definition of a Solution

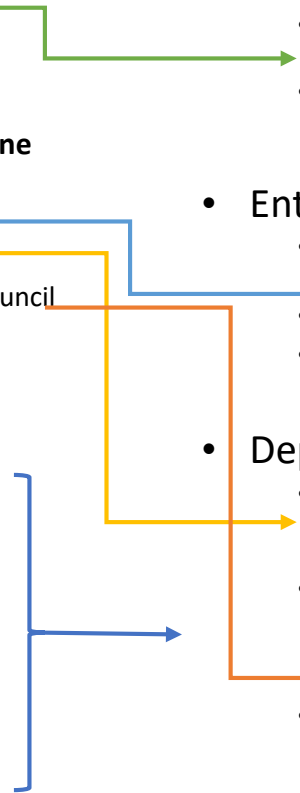
- A solution is defined as a collection of hardware, software, connectivity, configuration, knowledge and labor that is directed to produce a service or a result.
- The number of Information Technology solutions in use is greater than 300. Many of these are Enterprise wide solutions that lend themselves well to centralized management. Some are specific to a single department and lend themselves well to a partnership management.

• Enterprise Solutions

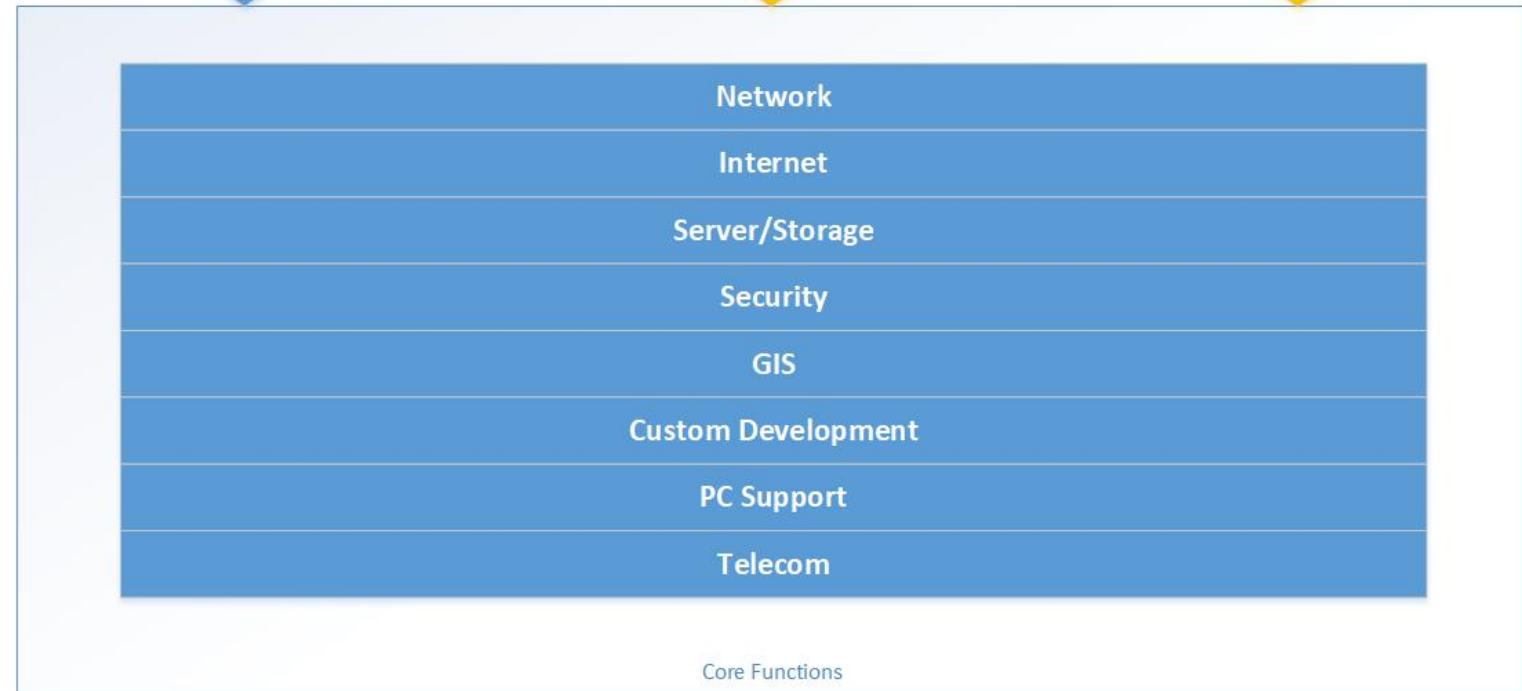
- An enterprise solution is defined as a collection of hardware, software and configuration that is used by multiple departments.
- IT fulfills 100% of all responsibilities, staffing and funding needed to the Enterprise Solution.
- Enterprise solutions fulfill a similar need in each department such as:
 - Web based team conferencing and public meeting, email, collaboration systems, storage, GIS

• Departmental Solutions

- Departmental solutions are defined as a collection of hardware, software and configuration that is used, or primarily used, by a single department. These solutions are dependent on one or more Enterprise Solutions.
- IT partners with the department to manage this solution.
 - The Enterprise solutions needed for this solution operate such as servers, PCs, network, are managed 100% by IT.
 - The Department will supply the labor and knowledge to administer, coordinate, and manage the solution and manage the vendor relationship.
- The department will need to coordinate with IT to determine the departmental staffing needs. IT is not staffed to be able to provide the necessary support and management of departmental systems and enterprise solutions.



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**Blue = Information
Technology Responsibility**

**Yellow = Departmental
Responsibility**

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Enterprise Solution

	IT Responsibility	Department Responsibility
Business Knowledge	Yes	No
PC Support Helpdesk	Yes	No
Application Support	Yes	No
Support Staff	Yes	No
Security	Yes	No
Connectivity	Yes	No
Server/Storage	Yes	No
GIS	Yes	No

Department Solution

	IT Responsibility	Department Responsibility
Business Knowledge	No	Yes
PC Support Helpdesk	Yes	No
Application Support	No	Yes
Support Staff	No	Yes
Security	Yes	Yes
Connectivity	Yes	No
Server/Storage	Yes	No
GIS	Yes	No

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Product and Service Selection

• Evaluation

- Each need will be analyzed based on a series of criteria that IT uses to evaluate solutions prior to selection. This process is in addition to, and does not replace, the use of approved procurement processes such as Request for Proposals.
- **Feature/Function**
 - Features and Functions required to fulfill this need will be identified and prioritized. This includes an evaluation against enterprise solutions to verify that the solutions will operate properly in our environment.
- **5 Year Total Cost of Ownership**
 - Each solution will be evaluated on a 5-year projected spend that includes direct spend on software and hardware, and indirect spend on staff, network, support and other items that contribute to the total cost of a solution.
- **Cloud vs On-Prem**
 - All solutions should be evaluated to determine if a cloud-based solution is a better fit than on-prem. There could be reasons such as anticipated load or the need for variable resources that can make a solution in the cloud.
- **Service vs Persistent**
 - Each need that is identified should be evaluated against delivery purchased as a service, which generates an annual cost, vs. a persistent solution which generates a one-time cost that will repeat itself at the end of the solution lifecycle.
- **Build vs. Buy**
 - Identified needs will be evaluated against purchasable options compared to custom developed options. Needs that are better suited for build vs. buy will be developed and supported by in-house staff. Needs that are better suited for buy will be sourced and purchased using the approved procurement methods.



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How IT will Operate

- **ITIL**
 - Expansion and implementation of ITIL processes that make sense for County IT. These include Incident Management, Change Management, Release Management, Asset Management and License Management.
- **Meaningful Policies**
 - Policies will be written for an about people. Technical requirements and standard will be regulated to standards documents. This will make it easier for people to find and understand what requirements IT has of them.
- **Operations vs. Projects**
 - Operations is defined as the support and maintenance activities required to make existing solutions function.
 - Keeping existing solutions operating is more important than implementing new systems unless the old systems are failing to perform the needed business function.
 - Support is our number one job and should be the first priority of all of IT. Support is defined as something worked before and now it doesn't.
 - Projects are prioritized by the business priority.
 - County Executive's office dictates the priority based on their annual guidance
 - Only projects that are required for operations or that align with the priorities of the County Executive will be performed.

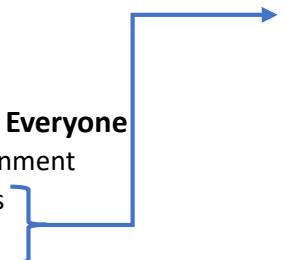
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IT Organization

- IT will complete its restructuring to create a responsive organization designed to meet the changes of technology.
- IT will be organized first by teams and then by Divisions
- IT will utilize open positions to restructure with limited changes or reclasses of existing staff.



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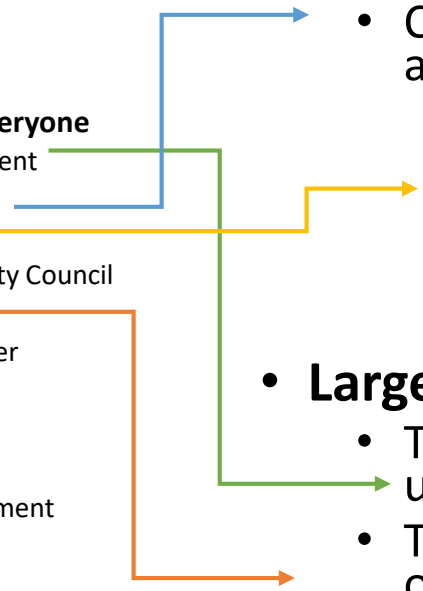
Collaboration Technology Direction

• **Collaboration (internal and external)**

- Collaboration systems must allow for the following types of activity
 - Voice Communication
 - Instant Messaging/Chat
 - Interactive Whiteboarding
 - Saving or screen printing
 - Collaborative Editing of a single document

• **Large File Sharing**

- There needs to be the capability to send and receive large files using an link
- There needs to be the capability to secure the content so that only the sender can download it
- There needs to be the capability to lifecycle content to prevent content from staying in a large file storage area longer than it is needed.



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Cybersecurity

- **Approach**
 - First, security needs to be targeted to identifying what data and systems needs to be protected from access or corruption and placing the most stringent controls there.
 - Second, security needs to be focused on maintaining the integrity of our systems and preventing a cyberattack from being able to bring County Services to a halt.
 - Make reasonable efforts to protect against data leakage without compromising usability of our applications.
- **Data Security**
 - Data Security should be focused on the prevention of data corruption.
 - There should be controls in place to protect data that requires protection such as PII, HIPPA and CJIS.
 - Data leakage should not be a priority concern and should be handled by policy instead of additional technology.
- **Access Control**
 - Systems need to be protected from unauthorized access. Only accounts and systems that need to access systems should have access to a system.
 - Data should be encrypted in transit when traversing public networks.

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Device Management

- **Compute Device Management**
 - A device is defined as a computing device that a person uses to access applications and perform work.
 - All County owned devices will be managed through a platform that allows at minimum
 - The ability to deliver and verify updates to the device
 - The ability to deliver and verify applications to the device
 - Devices should never be a permanent data store and therefore are not backed up and not recoverable
- **IOT Device Management**
 - An IOT device is defined as a network connected device designed for a limited number of functions with a limited user interface that either gathers data or delivers data. Examples of these devices are printers, scanners, badge readers and security cameras.
 - These devices need to be secured in such a way as to prevent a compromise of the IOT device from endangering other network connected devices or the network itself.
 - These devices need to be managed with a minimum of delivering updates and upgrades required to maintain **security**.

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Business Continuity

- **Departmental Continuity**
 - Departments should consider and plan on a variety of use cases to be able to continue government operations in the event of a disaster. The department should form a team that will engage with IT to determine what technology is needed to enable their department to operate in a variety of disasters.
- **Business Critical Systems**
 - Critical enterprise solutions should be designed with either a high availability adaption or a manual failover solution that can be implemented within 24 hours of the solution failure.
 - Critical departmental solutions should be designed based on the funding available by the department funding the solution.
- **Catastrophic Disaster Response**
 - In the event of catastrophic failure in the data center, recovery to a cloud-based solution is critical.
 - Systems deemed critical to public safety should be designed with off-site failover
 - Critical Enterprise solutions should be recovered within 24 hours of a disaster declaration
 - Critical Department solutions should be recovered within 48 hours of a disaster declaration
 - Non-Critical solutions should be fully recovered 240 hours after a disaster declaration.

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Data

- **Open Government Enablement**
 - A Data Warehouse needs to exist to aggregate data
- **Data Storage**
 - County data should be consolidated into the minimum number of platforms as possible.
 - Structured data (DB) environment
 - Should be accessible over the Internet by qualified devices or users
 - These are “Standard Operational Databases”
 - Web Based for unstructured (SharePoint or similar)
 - Should be accessible over the Internet by qualified devices or users
 - File Share Based (for what won’t fit into the previous two options)
- **Data Reporting**
 - ESRI is the default reporting tool for all data
 - Other options can be used only if ESRI is not suitable (HIPPA or CJIS compliance)