# CROOK COUNTY WORK SESSION

## COCC Crook County Open Campus
## 510 SE Lynn Blvd, Prineville, OR

**Tuesday March 28, 2023 at 9 a.m.**
**Members of the public and media are welcome to attend**
**in person or via Zoom** 1-253-215-8782; **Meeting ID:** 962 4214 4333
**Meeting Passcode:** 970900

| | Requester | Discussion Matter | Packet Docs |
|---|---|---|---|
| 1 | | Public Comment | |
| 2 | Katie Plumb | Contract renewal for food handler permit certification | ✓ |
| 3 | Tim Deboodt | Response to BLM Programmatic | ✓ |
| 4 | Bill Elliott | County Dog Ordinance | ✓ |
| 5 | Andy Parks | IT Strategic Roadmap (VIE Consultants) | ✓ |
| 6 | Andy Parks | Goal Setting/Department Work Plans (Larry Patterson) | ✓ |
| 7 | Andy Parks | Space Needs Assessment | ✓ |
| 8 | John Eisler | Public records fee waiver request from OPB | ✓ |

| Requester | Executive Discussion Matter | Packet Docs |
|---|---|---|

*Requests to be placed on the Work Session agenda are due by 5 p.m. the Thursday before the Work Session*

**March 28, 2023 Work Session Agenda**

| | | | |
|---|---|---|---|
| Exec #1 | | ORS 192.660(2)(h) Consulting with Counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed. | ✓ |
| Exec #2 | | ORS 192.660(2)(h) Consulting with Counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed. | |
| Exec #3 | | ORS 192.660(2)(h) Consulting with Counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed. | |

*Items placed on the Work Session agenda are intended for discussion only, without making decisions or finalizing documents unless an emergency exists.*

**The Court may add additional items arising too late to be part of this Agenda. Agenda items may be rearranged to make the best use of time.*
**The meeting location is accessible to persons with disabilities. If additional accommodations are required, please submit your request 48 hours prior to the meeting by contacting County Administration at 541-447-6555.*

*Requests to be placed on the Work Session agenda are due by 5 p.m. the Thursday before the Work Session*

# AGENDA ITEM REQUEST

**Date:**
3/15/23

**Meeting date desired:**
3/28 Work Session 4/5 Court

**Subject:**
Contract renewal for food handler permit certification

**Background and policy implications:**
Contract with Lane County to provide food handler training program and issue food handler cards to individuals successfully completing the training program

**Budget/fiscal impacts:**
Continued cost-sharing agreement resulting in a total revenue of $13,500

**Requested by:**
Katie Plumb, Health & Human Services Director
kplumb@crookpublichealthor.gov 541-447-5165

**Presenters:**
Katie Plumb, Health & Human Services Director

**Legal review (only if requested):**
Legal has reviewed

**Elected official sponsor (if applicable):**
N/A

55213

Amendment # 1

WHEREAS, Lane County, hereinafter referred to as COUNTY, a political subdivision of the State of Oregon, and CROOK COUNTY, hereinafter referred to as AGENCY, have agreed that it is in the mutual interest of both parties to amend the Intergovernmental Agreement dated January 01, 2020 for AGENCY'S Shared Use Agreement - Foodhandlers project.
The purpose of this change is to extend the Agreement, revise Exhibit B and provide revenue sharing for the period of the extension

Now, therefore, the parties agree that the Intergovernmental Agreement should be amended as follows:

1 The Agreement is extended through December 31, 2025.
2 Anticipated revenue-sharing in the amount of $ 13,500 is added to the Agreement for the period of the extension, January 1, 2023 through December 31, 2025
3 Exhibit B-1, dated December 6, 2022, which is included by reference as if incorporated herein, replaces Exhibit B, effective January 1, 2023.

| FY 19/20<br>Paid by LANE COUNTY<br>1 Of 7 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Service Description** | **Funding Period** | **Funding Source** | **Previous Amount** | **This Amendment** | **New Total** | **Service Units** | **Account (Grant) (Program)** |
| revenue-shared foodhandler receipts | 01/01/20 - 06/30/20 | FOODHANDLER PERMITS | $1,800.00 | $0.00 | $1,800.00 | 6 | 512201-286-3427810 |
| | | **Total:** | $1,800.00 | $0.00 | $1,800.00 | | |
| **FY 20/21<br>Paid by LANE COUNTY<br>2 Of 7** | | | | | | | |
| **Service Description** | **Funding Period** | **Funding Source** | **Previous Amount** | **This Amendment** | **New Total** | **Service Units** | **Account (Grant) (Program)** |
| revenue-shared foodhandler receipts | 07/01/20 - 06/30/21 | FOODHANDLER PERMITS | $3,600.00 | $0.00 | $3,600.00 | 12 | 512201-286-3427810 |
| | | **Total:** | $3,600.00 | $0.00 | $3,600.00 | | |
| **FY 21/22<br>Paid by LANE COUNTY<br>3 Of 7** | | | | | | | |
| **Service Description** | **Funding Period** | **Funding Source** | **Previous Amount** | **This Amendment** | **New Total** | **Service Units** | **Account (Grant) (Program)** |
| revenue-shared foodhandler receipts | 07/01/21 - 06/30/22 | FOODHANDLER PERMITS | $4,000.00 | $0.00 | $4,000.00 | 12 | 512201-286-3427810 |
| | | **Total:** | $4,000.00 | $0.00 | $4,000.00 | | |
| **FY 22/23<br>Paid by LANE COUNTY<br>4 Of 7** | | | | | | | |
| **Service Description** | **Funding Period** | **Funding Source** | **Previous Amount** | **This Amendment** | **New Total** | **Service Units** | **Account (Grant) (Program)** |
| revenue-shared foodhandler receipts | 07/01/22 - 12/31/22 | FOODHANDLER PERMITS | $2,200.00 | $0.00 | $2,200.00 | 6 | 512201-286-3427810 |
| revenue-shared foodhandler receipts | 01/01/23 - 06/30/23 | FOODHANDLER PERMITS | $0.00 | $2,500.00 | $2,500.00 | 6 | 512201-286-3427810 |
| | | **Total:** | $2,200.00 | $2,500.00 | $4,700.00 | | |

| FY 23/24<br>Paid by LANE COUNTY<br>5 Of 7 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Service Description** | **Funding Period** | **Funding Source** | **Previous Amount** | **This Amendment** | **New Total** | **Service Units** | **Account (Grant) (Program)** |
| revenue-shared foodhandler receipts | 07/01/23 - 06/30/24 | FOODHANDLER PERMITS | $0.00 | $4,000.00 | $4,000.00 | 12 | 512201-286-3427810 |
| | | **Total:** | $0.00 | $4,000.00 | $4,000.00 | | |

| FY 24/25<br>Paid by LANE COUNTY<br>6 Of 7 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Service Description** | **Funding Period** | **Funding Source** | **Previous Amount** | **This Amendment** | **New Total** | **Service Units** | **Account (Grant) (Program)** |
| revenue-shared foodhandler receipts | 07/01/24 - 06/30/25 | FOODHANDLER PERMITS | $0.00 | $4,500.00 | $4,500.00 | 12 | 512201-286-3427810 |
| | | **Total:** | $0.00 | $4,500.00 | $4,500.00 | | |

| FY 25/26<br>Paid by LANE COUNTY<br>7 Of 7 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Service Description** | **Funding Period** | **Funding Source** | **Previous Amount** | **This Amendment** | **New Total** | **Service Units** | **Account (Grant) (Program)** |
| revenue-shared foodhandler receipts | 07/01/25 - 12/31/25 | FOODHANDLER PERMITS | $0.00 | $2,500.00 | $2,500.00 | 6 | 512201-286-3427810 |
| | | **Total:** | $0.00 | $2,500.00 | $2,500.00 | | |

This amendment is effective January 01, 2023. All other terms and conditions of the original Intergovernmental Agreement and any previous amendment(s) not altered by this amendment remain in full force and effect.

| **CROOK COUNTY** | |
|---|---|
| Authorized Signature Date<br>Signature: | |

| **Lane County, Oregon** | |
|---|---|
| County:<br><br>Steve Mokrohisky Date<br>County Administrator | Authorized Representative:<br>Collette M. Christian<br>Program Services Coord 2<br>collette.christian@lanecountyor.gov<br>151 WEST 7TH AVE S-520<br>EUGENE, OR 97401 |

Insurance Reviewed:

# Exhibit B - 1

## Program Plan

**EXHIBIT B**
**PROGRAM PLAN**
**SCOPE OF AGREEMENT**

Each AGENCY will:

a) By means of an Intergovernmental Agreement with the State of Oregon Health Authority (OHA), be granted the powers duties and functions enumerated in ORS 624.510, providing for the collection of fees related to food handler card issuance.
b) If necessary, provide local, in-person food handler training program and issue food handler cards to individuals who have successfully completed the in-person food handler training program at each AGENCY's designated location.
c) Agree to contract only with COUNTY for those services provided for in this Agreement for the duration of this Agreement.
d) List the Lane Food Handler Card website on each AGENCY's website. Within two (2) weeks of signing this Agreement, provide OHA the most recent link to the Lane Food Handler Card website and request OHA replace each AGENCY's website with the Lane Food Handler Card website link on OHA's list of online food handler issuance websites.
e) Agree that COUNTY is not liable for interruption of program services or loss of revenue during construction, development or implementation of requested changes to Food Handler Card website.

COUNTY will:

a) Maintain local public health authority as provided for under ORS 431.413 and, by means of an Intergovernmental Agreement with the State of Oregon Health Authority (OHA), be granted the powers duties and functions enumerated in ORS 624.510, providing for the collection of fees related to food handler card issuance. Provide in-person food handler training and card issuance, if needed
b) Provide and maintain on-line food handler card training and testing service on a specified website where residents of each AGENCY may train, test and be issued a food handler card valid throughout the State of Oregon for a period of three years. Residents of each AGENCY's County will enter the Lane Food Handler Card website via an online search mechanism or by referring to Agency/State websites.
c) Provide each AGENCY with support services during normal business hours. If website location changes, COUNTY must provide each AGENCY the new location (url), or re-direction information, with a minimum 30 days' written notice.
d) Issue food handler card(s) to individuals who have successfully trained and tested via the Lane Food Handler Card website. Food handler cards issued via the Lane Food Handler Card website will include the Lane County Public Health logo and will be valid throughout the State of Oregon for a period of three years from the date of issuance.
e) Either maintain a Merchant ID account for the Food Handler Card website to permit on-line payment services using Visa or Mastercard or contract with a PCI-compliant, third-party for these services. On-line payment for services will occur at a secure website

via triple-encryption or other secure technology, ensuring PCI compliance. Rates for program services are established pursuant to ORS 624.570(5).

f) Reimburse each AGENCY a portion of Food Handler Card fees received from those residents of each Agency accessing the Lane Food Handler Card website. Pursuant to ORS 624.570(5), COUNTY retains the right to assess a new program fee each time a participant takes, or retakes, all or part of a program or certification exam, or requests a duplicate certificate of completion. COUNTY will reimburse each AGENCY a portion of all program fees assessed pursuant to ORS 624.570(5). (See Exhibit C for reimbursement rates under this Agreement.)

g) Agree that each AGENCY and their duly authorized representatives may have access to the books, documents, papers and records of COUNTY which are directly pertinent to this Agreement for the purpose of making audits, examinations, excerpts, copies and transcripts. COIUNTY will retain and keep accessible such books, documents, papers, and records for the period of time required by state law.

h) Allocate each AGENCY a portion of the food handler fees on a quarterly basis, unless the value of those fees is less than $500. In the case the funds to be allocated in a given quarter are less than $500, COUNTY may elect to allocate payment twice annually. In this case, COUNTY will notify each AGENCY of the amount generated and to be held until the following quarter.

i) Provide annual reporting of the number of transactions completed on each AGENCY's behalf to the Oregon Health Authority.

j) County provides notice that it may offer discretionary items for sale on the site, via a separate Merchant ID. Revenue from these non-mandated items (for example certificates) will not be subject to any revenue-sharing foreseen under this Agreement.

Dated: 12/6/2022

# AGENDA ITEM REQUEST

**Date:**
03/22/23

**Meeting date desired:**
03/28/23

**Subject:**
review action request by County NRAC: Response to BLM Programmatic

**Background and policy implications:**
Oregon/Washington BLM Office is conducting a Programmatic NEPA for management practices to expedite riparian restoration activities.

**Budget/fiscal impacts:**
N/A

**Requested by:**
Tim Deboodt, Coordinator
Crook County Natural Resources

**Presenters:**
Tim Deboodt

**Legal review (only if requested):**
N/A

**Elected official sponsor (if applicable):**
N/A

Bureau of Land Management, Oregon/Washington State Office,
ATTN: OR-932,
P.O. Box 2965, Portland, Oregon 97208

This letter is in response to the BLM's March 1, 2023 Scoping notice for analyzing "a suite of aquatic and riparian habitat restoration activities on BLM-administered lands in Oregon and Washington east of the Cascade Mountains." We strongly support the described actions being considered for the purpose of accelerating the pace and scale of BLM's aquatic and riparian habitat restoration projects. We are concerned that the most important actions needed to restore long term health of streams and associated riparian areas are not listed.

Stream systems began to degrade in the 1800's. This degradation was caused by a variety of actions related the timing of early European influence (trapping, livestock grazing, homesteading). Crook County believes that the utilization of managed grazing (current knowledge about the use of timing, animal density, season of use, etc) should be an action considered under this programmatic EIS. Since the early 1990's, many stream systems have demonstrated favorable response and greatly improved conditions as a result of focused efforts to restore them through the implementation of adoption of new livestock grazing systems. We recognize that many more miles of streams on Public Lands are still non-functional or functioning-at-risk with no upward trend and when grazing is the concern, it needs to be addressed.

The BLM has rules in place; 43 CFR §4180 Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration for the permittees to contractually follow and abide by, along with various other regulations not listed.

> (a) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.
> (b) Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.
> (c) Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives such as meeting wildlife needs.
> (d) Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal proposed or candidate threatened and endangered species, and other special status species.

When current grazing practices are limiting recovery, a variety of techniques are available for making needed;

> (1). Placing water diversions and alternate water sources to attract grazing animals away from streams, reservoirs, lakes, etc.

(2). Fencing and applying rotation grazing management; to protect, maintain or improve the quantity and quality of the plant and animal resources, to maintain enough cover to protect the soil and to minimize water quality impacts from erosion, where soil hydrologic values, existing vegetation, fish and wildlife production and recreation are prevented or damaged by livestock.
(3). Placing salt or food supplements or providing shade away from water.
(4). Livestock exclusion from; overgrazed areas where water uses are important areas of high susceptibility to critical erosion and critical watersheds used for municipal and domestic water supply should be rare and limited.
(5). Periodic herding to redistribute livestock.
(6). Incorporate the concept of rest to assure plants have sufficient time periods to restore root reserves, complete lifecycle (produce seed) and to have adequate growth to meet other flood plain functions (sediment trapping and stabilization of streambanks).

While recognizing the potential benefits from the mechanical treatments in Scoping items 1-5, system-wide approaches are needed to restore the health of stream systems. Resource managers have the necessary information and tools to implement grazing systems that foster recovery; tools that are well documented from numerous works across the western U.S. And over time, the benefits of increased stored water in stream banks and wetlands, reduced sedimentation, to wildlife and fish, and recreation will exceed the costs to the agencies and ranchers when properly planned and implemented.

Water storage and availability is the most critical need as we move deeper into a warming climate regime, and the western U.S. is even now learning that reservoirs are not the total solution. Whether it's the Colorado River system, or the Crooked River in central Oregon, drought and low flows are causing major issues for all the people who depend on them for irrigation, drinking water, or recreation.

Water storage in healthy wetland and stream riparian systems is a natural and effective way to reduce the harsh impacts we are beginning to see; it doesn't create new water, but changes the way water is captured, stored, and released throughout the year and longer term. We strongly believe the role of healthy wetlands and riparian areas should be highlighted in any analysis of restoration opportunities, and the improved conditions that are possible with changed/improved management.

Thank you for the opportunity to comment on this programmatic review of actions for aquatic and riparian restoration projects. We look forward to participating in this NEPA review as it moves forward and look forward to hearing from you.

Sincerely,

Crook County Court

Email input to: BLM_East_ORWA_Aquatic_EA@blm.gov

# AGENDA ITEM REQUEST

**Date:**
Wednesday March 22, 2023

**Meeting date desired:**
March 28, 2023

**Subject:**
County Dog Ordinance

**Background and policy implications:**
The current language in the ordnance indicates dogs. Proposed language change to indicate nuisance animals excluding livestock.

**Budget/fiscal impacts:**
Possibly this would allow us to issue more citations that are now being prosecuted through the county attorney and would generate more revenue even though I believe that the revenue would be very slight.

**Requested by:**
Bill Elliott Crook County Sheriff's Office.

**Presenters:**
Bill Elliott

**Legal review (only if requested):**
I have talked with Eric already.

**Elected official sponsor (if applicable):**
If the item request is submitted after the due date/time, an elected official sponsor is needed.

# Agenda Item Request

**Date:**
*March 23, 2023*

**Meeting date desired:**
*March 28, 2023*

**Subject:**
*IT Strategic Road Map*

**Background and policy implications:**
*The County Court approved the County working with VIE Consultants to assess the current County IT operation and collaborating with all County departments create a strategic road map to guide County IT operations and investment.*

**Budget/fiscal impacts:**
*The financial impact of the Road Map are unknown at this time, however, the Road Map provides the framework for decision making going forward. In the near term there are key positions needed to move the IT program forward; Chief Information Officer (CIO) and a Business Analyst. Additionally, there are two major application groups; Enterprise Resource Planning (ERP), consisting of financial applications, and Human Resources Information Systems (HRIS), that are needed to meet the information needs of the County, and there are network and security improvements. The total financial resources dedicated to these elements is $1.45 million that has been reserved from ARPA funding received in fiscal year 2022.*

**Requested by:**
*Andy Parks*

**Presenters:**
*Mark Wehrmeister, VIE*
*Michael Northover, VIE*
*Mikek Scheurman, VIE*

**Legal review (only if requested):**
*NA*

Draft

# Crook County IT Strategic Roadmap

Presented by VIE consultants

Mark Wehrmeister, Michael Northover, Mike Scheuerman

# Key Findings

- **Governance**
- **IT Organization, Mission and Leadership**
- **Finance, HR & ERP**
- **Business Processes**
- **Departmental Autonomy and Shared Services**

*Derived from full IT Roadmap presented to the County Court by VIE*

# Governance

- Operational governance constrained by Oregon Public Meeting law
  - Structured operational management is a challenge
  - Assembling County Court to oversee is challenging

- IT Governance is in it's infancy
  - IT Oversight Committee (ITOC) lacks a charter
  - ITOC lacks processes for IT project prioritization
  - ITOC needs strategic IT leadership

# IT Organization, Mission and Leadership

- Current IT organization has limited scope
  - Network, helpdesk and system admin
  - Strategic leadership is needed
  - Formal IT governance is needed
  - More stakeholder engagement needed in prioritizaton
- Network Architecture
  - Generally a 'hub and spoke' design
  - Organically grown over years
  - Physical conditions of MDF and IDF rooms do not meet industry standards
  - Comprehensive network architecture redesign required

# Enterprise Resource Planning (ERP)

- Current ERP outdated and not fit for purpose
  - Support for Finance and HR is inadequate
  - 20 year old technology
  - Chart of Accounts needs redesign
  - Nobody outside of Finance/HR really understands the system
  - Payroll system is still 'green screen'
  - Paper timecards

# Business Processes

- Document Management
  - Many Departments have document management needs
  - Multiple solutions with little ability to share between departments
- Business Process Workflow
  - Paper-based Processes
  - Lack of electronic document workflow
- Training
  - Consistent request for business systems training

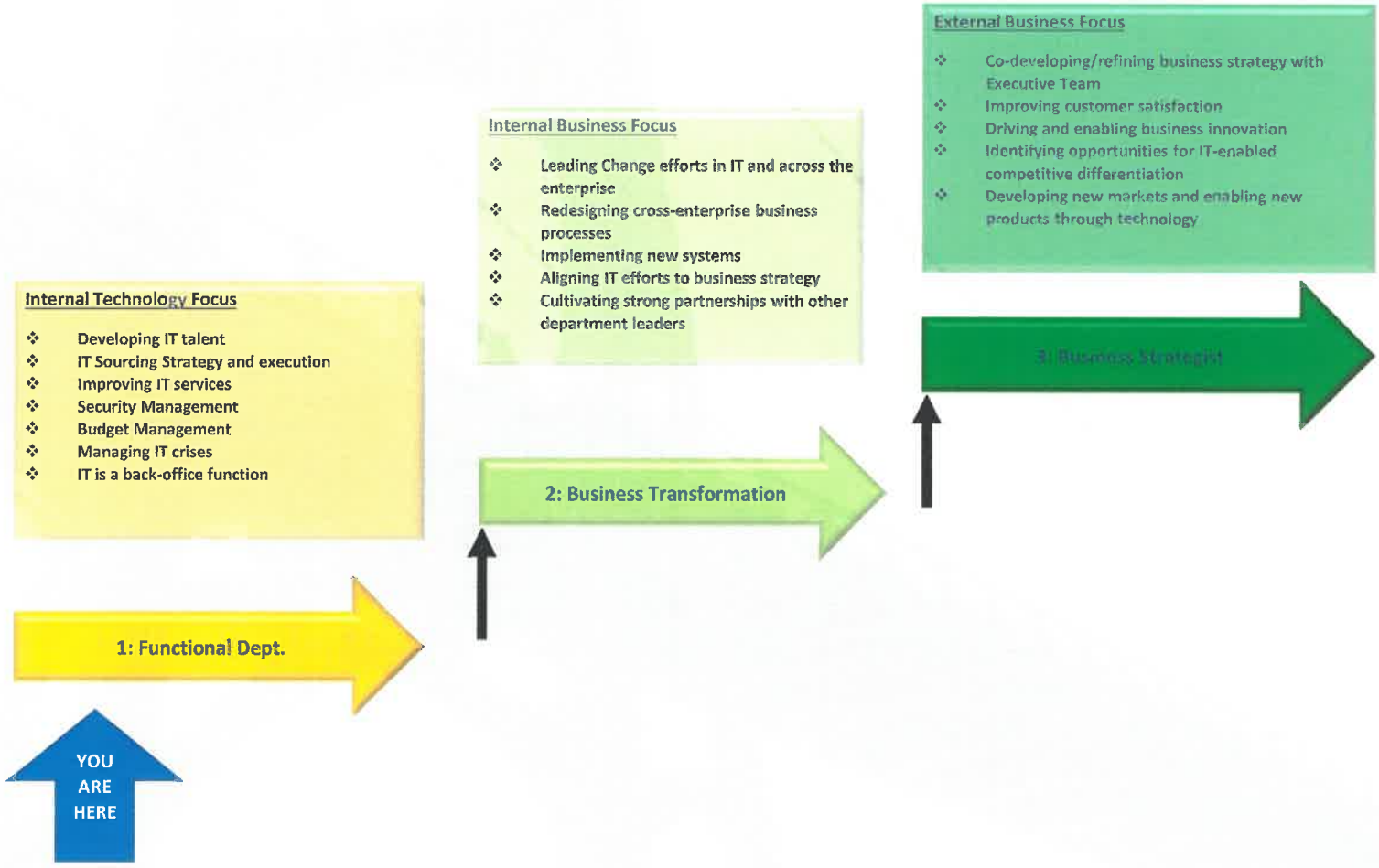
# Departmental Autonomy and Shared Services

- Departments Identify and Acquire needed technology solutions
  - Good for Departmental Autonomy
  - Downside
    - Lack of communication
    - Lack of integration
    - Lack of training
    - Lack of clear purchasing policy
- Application Acquisition and Support
  - Departments acquire software w/o IT's input
  - IT has no way to support what they don't know about
  - IT should be a trusted technology advisor
  - Consistent request for application support from IT

# 6 Month Roadmap

- Q4 FY 2023
  - Refine Governance Processes
  - Develop ERP requirements
  - Initiate Search for IT leader
  - Conduct Security and Network Architecture Reviews
- Q1 FY 2024
  - Initiate ERP Procurement
  - Hire IT Leader
  - Approve Security and Network Architecture
    - Begin implementation

# Progress to Crook County IT Maturity



# Questions - Comments

# IT Strategic Roadmap

## For

March 2023

# Crook County IT Strategic Roadmap

## Table of Contents


Introduction ..... 3
Executive Summary ..... 4
IT RoadMap ..... 7
County Strategy and Goals ..... 10
Current IT Plans and Priorities ..... 12
IT Organizational Structure and Capabilities ..... 13
IT Governance ..... 19
IT Service Management ..... 21
IT Performance and Operational Metrics ..... 22
IT Technology Infrastructure ..... 24
Department Integration ..... 33
Business Software Applications ..... 34
IT Budget and Financial management process / IT Spending ..... 47
Risk Management ..... 49
Appendix A – Personnel Interviewed ..... 59
Appendix B – Sample Charter for Technology Committee ..... 61
Appendix C – Sample Initiative Charter ..... 63
Appendix D - ITIL Overview ..... 64
Appendix E –Service Policy Template ..... 67

## Introduction

The objective of this report is to provide a strategic, management-focused perspective on the status and direction for Information Technology (IT) at Crook County. Virtual Information Executives (VIE) prepared this report based on interviews with Crook County personnel (list included in Appendix A), review of existing documents, technical meetings, and our understanding of best practices working with organizations of similar size and focus.

Information technology, by its nature, covers the whole enterprise and incorporates multiple ways information is used in business operations. Many of these needs will not be supplied by the internal IT department. As such, this Strategic Roadmap covers not only the IT department, but all business deployment of information technology.

This IT Strategic Roadmap provides strategic, forward-looking guidance and direction, enabling informed decisions to be made. Think of this document as a model for creating a successful and sustained IT capability. We anticipate follow-on work will be required to flesh out details and implement changes according to the recommendations and priorities laid out in this document.

# Executive Summary

## General Impressions

Crook County can be characterized as a "federated" organization. That is, it is made up of multiple unique and essentially autonomous departments, with little county-wide hierarchical operational management. With such a diverse set of departmental needs there are clear advantages to this model, however when it comes to the support of centralized common services it presents real challenges.

Common services are primarily provided by the HR, Finance, and IT departments.

Leadership is embodied in the elected County Court – made up of one Judge and Two Commissioners. Leadership is supported by an Executive Assistant/Communications Officer.

In addition, the county has employed the services of a business consultant, who has been engaged to perform and oversee several organization initiatives, including this project and serve as the County's Budget Officer.

One reason for the challenges in implementing strong operational management is that the members of the county court are constrained by Oregon Public Meeting law from meeting and discussing county matters outside of the formal Court Sessions. Thus, it is difficult for them to discuss, oversee, and direct day-to-day operational matters in a structured way. Furthermore, their interviews revealed that they tend, naturally, to be focused on legislative matters and/or matters that directly affect the running of the county and interests of the taxpayers of Crook County.

IT is a service organization. It is critical to understand the general operating model of the county as it has a direct impact on the operations of IT. Regardless of what deficiencies may be identified in the IT department, it is unreasonable to expect a coordinated and supported IT strategy in the absence of a coordinated and supported operational model. In other words, IT departments tend to reflect the culture and operation of their parent organization.

Thus, the IT department at Crook County tends to be wholly reactive to the various and diverse expectations of the different departments at the county. It would take a strong and experienced IT leader to drive real change in this environment.

## Key Findings

The following is a high-level overview of identified themes, more details of each are included later in this report.

### Governance

This applies to both operational governance (e.g., "County Manager") and IT governance. The technology committee is a step in the right direction. However, as it is currently constituted, it is not grounded in the right operational framework. To enhance the committee's opportunity for success, committee members need to be highly vested in or knowledgeable about IT with IT leadership capable to drive the conversation.

Furthermore, without some executive oversight of the current "federated" departmental model it will be hard for any IT leader to align IT strategy and priorities to the County's priorities and strategies.

### IT Leadership

To drive strategic change and budget decisions, the County will need a Chief Information Officer (CIO) level position.

The role and focus of the current IT Director and IT staff should continue to focus on supporting core infrastructure, Help Desk, and end user computing support.

### Finance, HR & ERP

Current Finance and HR information services do not meet the needs of the County. Everyone we spoke to recognizes this, however, based on their prior experience, staff are hesitant to move forward. Selecting and successfully implementing either a new ERP, or a set of integrated applications that meet the needs of the county, is a key strategic goal and will require organizational changes and infrastructure improvements to be successful.

### Scope of IT Mission and Services

IT is currently very narrowly scoped in the services they provide (regardless of whether they are well or poorly provided) and there is clearly demand for "higher value" services. The county must define the right set of IT Services they want, their financial appetite for supporting those services, and the right leader to drive those services. When IT is unable to act in an advisory capacity or support stakeholder needs, it is natural for the departments to look for their own solutions, which may not be in the best interest of the organization as a whole.

### Training

This is probably the most common theme from the interviews. It falls into three categories:

1. Training for staff on basic products that IT supports (Excel, email, etc.)
2. Training for staff and IT on 3rd Party software that has been purchased for departmental needs
3. Training for IT staff on core products used to support IT operations (e.g. Kaseya)

Generally, lack of training seems to be a big problem.

### Application Acquisition and Support

There is no clear policy or procedure around technology acquisition (each department acts autonomously). This may be another topic for the technology committee.

### Network Architecture

The county needs to engage a network design firm to review and rearchitect the network. Based on our conversations with Sparksta we believe they would be a good candidate to do this work.

### Justice Center

Overall program management concerns were raised regarding this initiative. With specific reference to IT, there is no defined plan, and given its future importance from a network perspective, this work should be coordinated with the aforementioned Network Architecture Design (NAD).

### Information Security

The IT team has checked all the main boxes with respect to *technology tools* for Information Security and are doing a good job with respect to awareness, especially with the available resources. However, it

wasn't clear the degree to which the tools are being fully leveraged or if there is a defined "program" in place. These issues are addressed in depth in the "Risk" section of the report.

### Document Management

This is probably the best example of the challenges presented by a "federated" operational model. Every department has document management needs and several expressed frustrations at the ability to share documents across departments. Furthermore, in the absence of a general document management strategy, some departments are already purchasing their own document management solutions.

### Paper-based Processes and Business Process Workflow

This issue is like, and closely tied to, the document management issue. There is a clear need for electronic document workflow. The right ERP system may resolve many of these issues but will not resolve them all.

### Departmental Autonomy and Shared Services

Most departments have done a good job identifying and implementing 3rd Party solutions that meet their various functional needs. That is the plus side of departmental autonomy. The downside is lack of communication on potential shared services, no clear purchasing policy, lack of training and expertise, IT being left out of the loop, etc.

### Website and Communication

The website needs further review. The design is basic and there is inconsistency across departments. Content management is seen as a challenge. The design should be based around the needs of the citizens of Crook County not the internal departmental structure. For example, the County Clerk indicated that a function on her page is being used to submit inquiries from a larger scope of constituents, which indicates there is an unmet need.

## IT RoadMap

Strategic imperatives can be summarized as follows:

- GOV Improve Governance
- CBS Improve Core Business Systems
- INF Improve Core Infrastructure
- ICB Integrate Core Business Systems into all department processes
- RSK Improve Information Security and Risk Management
- MT Enable Metrics
- STR Develop a Strategic Approach to IT

Workstreams can be summarized as follows:

- STA Staffing related activities (establishing required governance and management oversight and hiring key resources)
- PLN Planning activities
- ERP Enterprise Resource Planning system implementation
- NET Re-architect Network
- INF Improve Information Security program
- OFF Improve shared application services and office productivity capability (including training)
- BCP Business Continuity and Disaster Recovery planning

***Recommended IT Roadmap:***

| Timeframe | Work Stream | Activity | Strategic Imperative | Responsible | Resources Required |
|---|---|---|---|---|---|
| **Q4 FY 2023** | STA | Refine IT Oversight Committee | GOV | Business Consultant and management team | Key Stakeholders |
| | STA | Refine County Operational Governance | GOV | Business Consultant and management team | Key Stakeholders |
| | PLN | **Implement IT Project "Intake & Prioritization" Program** | GOV | Business Consultant and management team | IT Oversight |
| | ERP | Develop ERP General Requirements & procurement approach | CBS | Business Consultant and management team | Key Stakeholders |
| | STA | Initiate Search for IT executive | GOV | Business Consultant/HR | IT Oversight |
| | INF | Initiate Information Security Audit | RSK | IT Oversight | External Expert |
| | NET | Initiate a Network Architecture Review | INF | IT Oversight | External Expert |

# Crook County IT Strategic Roadmap

| | | | | | |
|---|---|---|---|---|---|
| **Q1 FY 2024** | ERP | Initiate ERP procurement approach | CBS | ERP Project Team | Key Stakeholders |
| | NET | Finalize and approve Network Architecture plan (including Justice Center) | INF | IT Oversight | External Expert, IT |
| | STA | Hire IT Executive | GOV | Commissioners | Business Consultant/HR |
| **Q2 FY 2024** | ERP | Select ERP Vendor & Contract | CBS | ERP Project Team | IT Oversight |
| | PLN | Expand VIE recommendations into a detailed, prioritized, 2-3-year IT Strategic Plan | STR | IT Executive | IT Oversight |
| | INF | Document current Information Security capabilities and implement "Defense in Depth" plan (based on audit findings) | RSK | IT Executive | IT Executive, IT Oversight, Key Stakeholders |
| | STA | Initiate Search for Business Analyst(s) | CBS | IT Executive | HR |
| | STA | Initiate search for SharePoint/MS 365 specialist (employee or consulting) | CBS | IT Executive | HR |
| **Q3 FY 2024** | ERP | Initiate ERP implementation (Phase I) | CBS | ERP Project Team | IT Oversight |
| | NET | Initiate Network Upgrade program (Justice Center – Phase I) | INF | IT Oversight | External Expert |
| | STA | Hire Business Analyst(s) | ICB | IT | HR, IT Oversight |
| | STA | Hire SharePoint/MS 365 Specialist (or consulting) | CBS | IT Executive | HR, IT Oversight |
| **Q4 FY 2024** | OFF | Document Data Management requirements | ICB | IT | Business Analyst(s) |
| | OFF | Document workflow processes | ICB | IT | Business Analyst(s) |
| | OFF | Establish Cloud Based SharePoint infrastructure | CBS/ICB | IT | SharePoint/ MS365 Specialist |
| | PLN | Develop Staff Training Plan for SharePoint/MS 365 and other core business applications (as necessary) | ICB | IT | SharePoint/MS 365 Specialist |
| | INF | Begin implementing "Defense in Depth" plan (Phase I) - including quarterly InfoSec updates to Leadership | RSK | IT Executive | IT Executive, IT Oversight, Key Stakeholders |
| | PLN | Develop IT Service Catalog | MT | IT | IT/IT Oversight |
| | PLN | Develop IT Scorecard | MT | IT/IT Oversight | IT/IT Oversight |

| | | | | | |
|---|---|---|---|---|---|
| **Q1 FY 2025** | ERP | ERP implementation (Phase II) | CBS | IT/IT Oversight | ERP Project Team, Business Analyst(s), Key Stakeholders |
| | OFF | Begin implementing SharePoint Document Management by department with training | ICB | IT/IT Oversight | Key Stakeholders SharePoint/ MS365 Specialist |
| | OFF | Begin implementing streamlined workflow processes | ICB | IT/IT Oversight | Key Stakeholders Business Analyst(s), SharePoint/MS 365 Specialist |
| **Q2 FY 2025** | ERP | ERP implementation (Phase III) | CBS | IT/IT Oversight | ERP Project Team, Business Analyst(s), Key Stakeholders |
| | OFF | Continue Document Management/Training program | ICB | IT/IT Oversight | Key Stakeholders SharePoint/MS 365 Specialist |
| | OFF | Continue to streamline workflow processes | ICB | IT/IT Oversight | Key Stakeholders Business Analyst(s), SharePoint/MS 365 Specialist |
| | BCP | Conduct Business Impact Analysis | RSK | IT Oversight | External Expert |

## County Strategy and Goals

### Crook County

Crook County is located in the geographic center of Oregon. As of the 2021 census estimates, it is home to 25,739 citizens. The county seat is Prineville.

Business activities in Crook County have historically focused on cattle ranching which has been one of the primary industries of the county, with huge herds grazing the countryside from the 1880s. Farming was also developed in certain valley regions friendly to agriculture. Logging in the Ochoco Mountains and the timber mills that accompanied also greatly contributed to the economic and population growth of the county.

Crook County has experienced substantial growth over the last several years, due in part to the establishment of Facebook and Apple data centers. The County anticipates significant tax revenue growth beginning in fiscal year 2028 when tax abatements on these properties begin to expire. Other significant sources of revenue are Federal and state revenue, community development fees, landfill fees, transient room taxes and data center payment in lieu (PILOT).

Crook County is also ranked #4 among the top counties for incoming investment in Oregon, with a strong showing in factors including business growth, GDP growth, new building permits and federal funding.

Crook County recognizes they face several threats in managing this growth, including:

- Technology constraints,
- Recruiting and retaining talent,
- Adapting to demographic changes and needs

### Strategic Imperatives for IT

To be effective, IT strategic plans must be driven by the County's overall business plan. While there are a number of tactical operational concerns to be addressed, Crook County has identified a handful of initiatives that must be considered strategic imperatives for IT.

| | |
|---|---|
| 1. ***Upgrade Core Infrastructure*** | This includes network architecture, a "Cloud-first" mindset and improvement is physical facilities. It should incorporate the plans for the new Justice Center. |
| 2. ***Improve Core Business Systems*** | Identified as both an Opportunity and a Problem. Key needs include replacing ERP for Finance and HR-IS. |
| 3. ***Integrate Business Processes*** | Technical challenges for document management, communication and collaboration must be addressed. |
| 4. ***Improve Information Security and Risk Management*** | The need to handle confidential data appropriately is a key expectation. Breaches in security are a huge threat and risk must be managed accordingly. Compliance with state and Federal regulations are in need of review. |

| | |
|---|---|
| ***5. Enable Metrics*** | Metrics are key to executing Crook County's strategic plan. Definition and management of metrics will be owned by IT Oversight. Tools and underlying data to enable metrics reporting must be provided and managed by IT. |
| ***6. Develop a Strategic Approach to IT*** | Transform IT from a reactive back-office function to a proactive, strategic enabler for the county. This is predicated on establishing appropriate IT Leadership. |

## Current IT Plans and Priorities

### Projects

The following projects are already in-progress or committed to start shortly.

| Project | DRI (Directly Responsible Individual) | Status |
|---|---|---|
| ERP Replacement | Christina Haron, CPA | Under consideration |
| HRIS Replacement[1] | Kim Barber | Under consideration |
| Refresh PCs | Sydney Chandler | In progress |
| Justice Center | None Identified | In progress |

Owned by Christina Haron, Acting Finance Director, a new project is being considered to replace the current Enterprise Resource Planning (ERP) system. The Human Resources Information System (HRIS) is a significant component of the ERP project, and is owned by Kim Barber, Human Resources Director. This project will primarily be focused on replacing the Finance and HRIS systems with modern solutions.

### Recommendations

1. All new projects should be initiated with a charter and oversight as appropriate.
2. Crook County should transition into the long-term IT governance model outlined in this Strategic Roadmap.
3. Appropriate prioritization, budget and resource allocation should be pre-requisites for initiating any project.

[1] HRIS is a component of the ERP replacement. The primary driver in the decision making will be the financial applications.

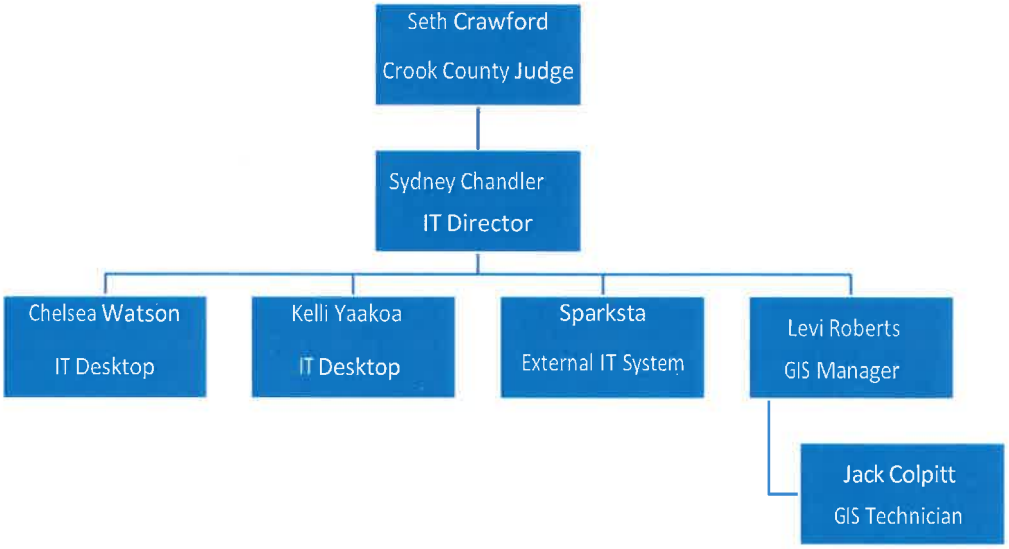
## IT Organizational Structure and Capabilities

### Current Structure

For most of Crook County's history, IT has been a back-office function managed primarily for cost control and basic utility. As Crook County grew, the IT organization has not been able to keep up with the changing expectations of IT in the county.

Early in 2022, after the previous IT Director left, Sparksta was brought in to assist in network support and systems administration. Sparksta provides basic Network Operations center (NOC) monitoring 24/7.

Sydney Chandler assumed the role of IT Director at the recommendation of the previous director. Current IT organization is as follows:




IT is currently years behind where it needs to be to effectively service business needs and to position Crook County for the future. In addition, the definition of "Information Technology" at Crook County is very narrowly scoped within the realm of basic infrastructure and endpoint hardware support. IT's immediate challenge is to quickly shore up the technology foundation, then to build capabilities that support and enable County strategy and business operations.

### General Observations

The IT department appears to be reactive and unstructured in serving their various stakeholders. However, the County organization and culture previously discussed are not the only causes of this.

Any organization will be defined by its mission and self-perception – even if not articulated. It is clear that Crook County has defined its IT department scope within very narrow boundaries. The mission statement on the IT web page starts with *"Supporting the Crook County community through technical infrastructure."* There are 44 core processes that are supported by a fully realized IT Department, most of which would not fall in the scope of that statement.

One could argue that resource constraints and skillsets drive the narrowness of this scope, and of course they are the realities the team must deal with, but there is a core belief that the role of the IT department is solely to support basic infrastructure services for the county. This was clearly indicated in all the interviews conducted, as departments are left to their own devices with respect to any IT issue above basic infrastructure and system administration services. Until the county engages an IT leader with a broader vision, combined with an effective countywide IT governance structure, technical infrastructure support is likely all that the county will continue to get.

## Perception of the IT Team

That is not to belittle the efforts of the IT team. Although there were a few notable detractors, most of those interviewed were very positive about the IT Department *within the scope of the services they provide*. Phrases like "*highly responsive*", "*great to work with*", "*get the job done*" were the most common responses. There is also a distinction within the IT team between those that provide technical support and the GIS team.

For the purposes of this discussion, the GIS team can probably be viewed as a specialized unit that can be considered out of scope. They are currently able to provide all needed services using the toolset they have at their disposal. The only potential consideration that came up related to this team was that the Road Manager expressed a need for the county to develop better Computer Aided Design (CAD) capabilities – that could either be embedded in the Road Department or the GIS team.

## IT Leadership

The current IT Director is well liked and considered responsive, hardworking, and dedicated, with good customer service skills - as are her technical team. Again, *within the scope of the services they provide*. The entire IT team have backgrounds that are essentially help desk and technical administrative support. However, this is an incomplete profile for a well-rounded IT team.

Also, while we heard many good things about the previous IT Director ("smart", "strategic"), we also heard that he tended to make decisions in a vacuum, invest without a clearly defined (or communicated) strategy, and did not share what he was doing, or why, with the current IT Director or the rest of the team.

To have success moving from a functional service department through the business foundation stage and to the business strategies stage to become a world class IT organization, as discussed later in this report, Crook County will need an IT Leader with a broad scope of experience, executive presence, and the ability to drive both operational excellence and strategic vision. The IT leader must be technically competent, have strong people management and communication skills, be strategic and have a vision in order to the organization as a whole successful with its migration to a world class IT operation.

## Services & Support

Engaging Sparksta was a smart move and probably averted disaster. However, even with this support, the current IT Department does not have sufficient resources and skillsets within the team to address all the operational challenges presented by Crook County's current IT environment. Significant areas of the infrastructure are maintained, but not necessarily fully understood, and there is little opportunity for strategic planning. This is not only setting up the team to fail but represents significant risk to the County in the event of a significant outage or incident.

Because of the great variation between the services provided by the many different business departments, there is great variation across departments as to their dependency on IT Services. The lower the level of services needed (e.g., basic network and computer support), the better the rating that IT received. When the requested support rises above the capabilities of the department, stakeholder needs are not being met and there is greater overall dissatisfaction.

Some of the best ratings came from departments that were either in the same building or close to the IT Department (*Editor's Note: this is a generalized statement to make a point and is not true in all cases*). It is natural that relationships will be stronger with people you work closely with. This indicates a tendency towards a reactive, relationship-driven, culture at Crook County.

For IT to be successful in supporting all constituents, it must develop, over time, a Service Catalog that identifies and supports the unique needs of all departments. This should be built on a foundation of uniform general services that are clearly defined and communicated to all county staff. Ideally, this Service Catalog would be available through the IT website.

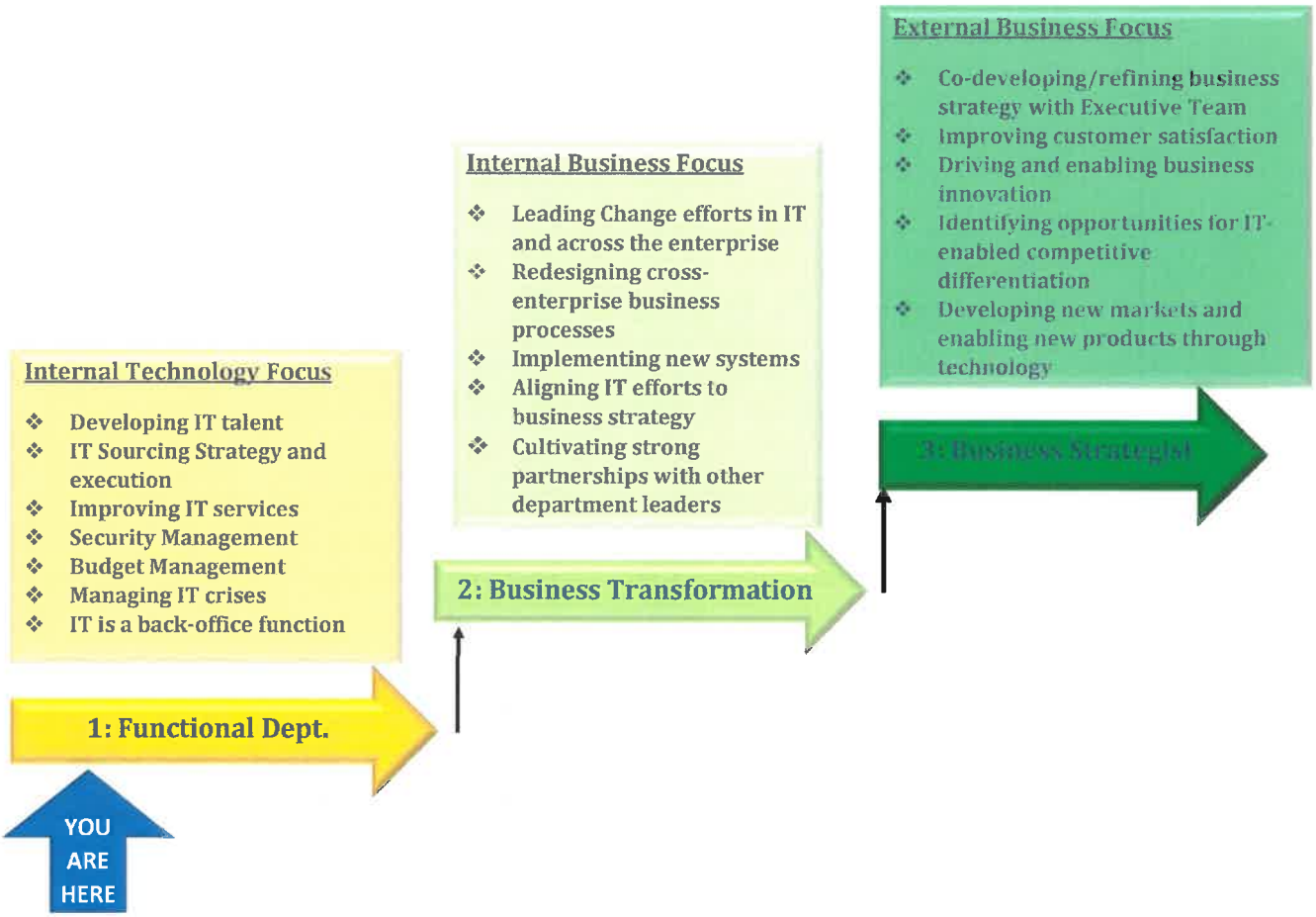
Department heads also have a responsibility in this respect. Some departments clearly find it easier to "go their own way" with respect to technology, rather than work to improve their relationship on centralized IT Services. This comes back to the "Federated Model" previously described – while effective in serving the specific needs of functional areas, this mindset does not help the county improve shared services.

## Vision

To achieve a goal of world-class business processes requires a "World Class IT" mindset. The diagram below describes the overall progression of enterprise-wide IT focus and skills. Each level is foundational and must be achieved in order to sustainably rise to the next level.

1. **Functional Department**. IT needs to begin the transition to become a functional department. Success at this level is achieved when the basic IT infrastructure and processes "just work" and basic business needs are well-supported.
2. **Business Transformation**. The next level is the ability to support, then lead information technology-enabled business transformation efforts. Success at this level is achieved by the ability to repeatedly execute business improvement projects successfully.
3. **Business Strategist**. At this level IT is fully engaged and integrated in driving the business forward. Technology driven companies often create a CTO role to lead product innovation.

## PROGRESSION TO "WORLD CLASS IT" ORGANIZATION




***Gaps to Address:***

There are several current skill gaps that must be filled for Crook County to raise the bar in IT in order to become a fully functional department and take the next step to lead business transformation. Skills can be filled in various ways, including new hires, combined roles, or part-time consultants.

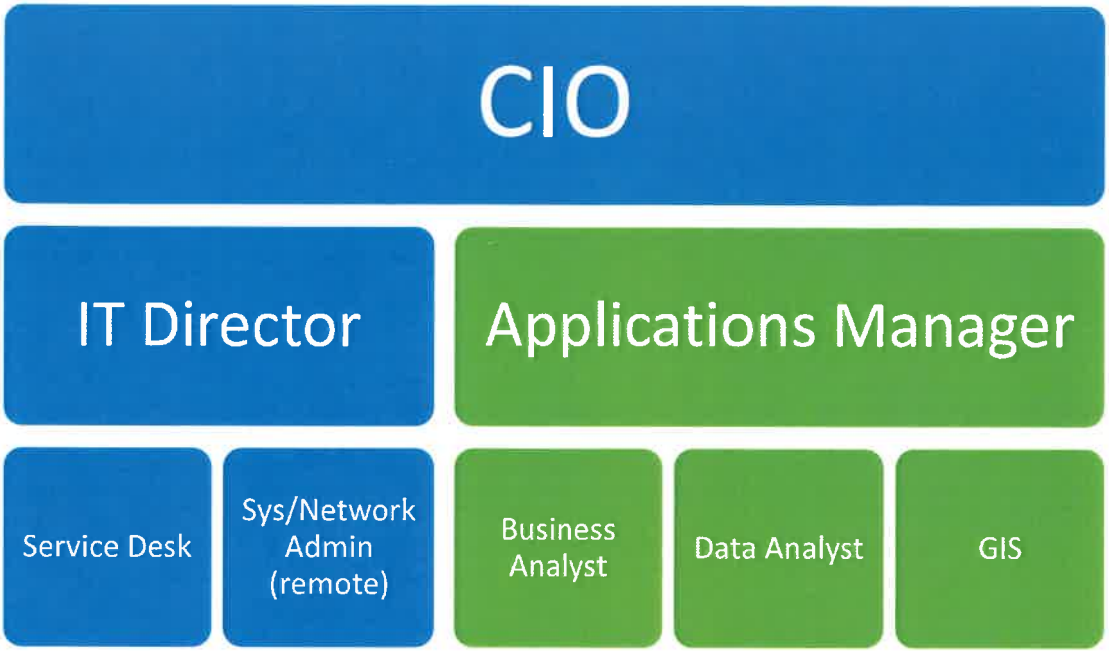
1. **Information Security.** If not well managed, information security is a huge threat to Crook County's business. IT needs skills to plan the right policies and tactics for reducing risk while making it easy to do business.
2. **Business Analysis.** BA's work directly with business units to understand key processes and devise ways to use information to work more effectively.
3. **Data Analysis.** Manage enterprise data and make it readily available for end-users and management reporting.
4. **Application Infrastructure.** Planning and management of the technology "plumbing" that enables disparate applications to work as an integrated, high-performing whole.
5. **Collaboration**. IT support for SharePoint as well as emerging communication, social and information sharing needs.

6. **Project Management**. Successful projects must be managed day-to-day to ensure value delivery.

## Recommendations

1. Hire permanent employees or on-site contracted resources for positions that must be "close to the customer". This includes front-line support, business analysis and direct management.
2. Hire generalists who are talented, versatile, and fit well with county culture. Train them to fill skills gaps.
3. Contract for highly specialized, part-time or commodity skills.
4. Retain a consulting resource for the CISO (Chief Information Security Officer) role. This resource should be tasked to create a security assessment for IT.
5. Contract for specialized skills to develop new SharePoint features as needed (such as workflow). Task existing staff to manage content, permissions, and routine maintenance.
6. Retain Sparksta to handle infrastructure support and conduct a Network Architecture Design (NAD). Prior to ending the engagement with Sparksta, take the following steps:
    a. Make insource/outsource decision for Infrastructure Manager and Service Desk positions.
    b. Negotiate revised outsourcing contract for desired footprint (e.g., all Infrastructure or only remote support duties such as System/Network Admin).
7. After the ERP implementation, build out the IT team as necessary to fill gaps and position the team to provide long-term support.
    a. Business Analyst skill set
    b. Data Analyst skill set. This should be a resource well versed in MS SQL Server, including Reporting Services (SSRS).
8. Transition all IT resources to report directly to a CIO.
9. If projects are kept relatively small Project Management can be part of role of line managers who are directly responsible for project delivery. Key IT personnel managing projects should receive training on formal project management skills as required. For larger or complex projects, contract for professional project managers as required.

Recommended IT Organization (2023):




### The CIO Role

The roles of CIO and IT Director are often confused. In VIE's view the roles are quite different. CIOs are 80% focused on leadership and 20% focused on management. Conversely the IT Director is 80:20 aligned to the management of the department. Both are critical to businesses but not necessarily at the same time. Businesses can operate a very long time without a dedicated CIO, especially if another resource can provide the right level of leadership. The IT Director is responsible for managing the day-to-day operations of the IT department, overseeing Infrastructure and Service Desk. The applications manager is responsible for managing Business Applications and Relationships. The CIO role is more externally focused, to help shape the future direction of the business using IT as an enabler.

Today, CIO functions can be met with experienced consultants. At some point in the county's growth a CIO position is called for. The current IT Director should be focused on supporting core infrastructure, Help Desk, and end user computing support. An interim or gap strategy is for the IT Director to report to the Business Consultant.

# IT Governance

## Definition

IT Governance is the effective prioritization, planning, and decision making around IT resources. The purpose of IT governance is to direct IT efforts to ensure that the following business objectives are being met:

- Strategic alignment of IT with the goals of the business
- Value delivery to the business and end customers
- IT resource management
- Risk management of initiatives and mandates
- Performance management of initiatives and mandates

## IT Governance at Crook County

Currently Crook County does not have a formal IT governance process. The current attempt at running an IT Technology Committee is new and still needs to gel. The development and publication of a charter document for that group will go a long way toward defining the role of that group. Additionally, a CIO or in the interim the Business Consultant, will help to focus the efforts of that group.

Since IT is a key enabling function at Crook County, it is important to have a centralized mechanism to align IT to business needs from an enterprise-wide perspective. There are IT applications projects being considered, all with great intentions to automate particular functions in a portion of the business.

However, what will truly enable the business to move forward is the selection and implementation of the right projects which maximize business value, with the right amount of business ownership and participation.

## Recommendations

1. Develop and publish a charter for the IT Technology Committee as a near-term priority. Adopt a written charter to guide the purpose and conduct of the group (see Appendix B for sample).
2. The IT Technology Committee should include senior department managers whose areas are strong consumers of IT services.
3. Since IT is a shared function, and since Crook County has limited resources, there is a need for effective prioritization of IT projects.
4. Effective governance efforts are collective efforts with input from multiple sources that can act as an objective group capable of understanding and making recommendations based on what's best for the enterprise.
5. Regular project reviews should occur, and risks should be actively managed with the assistance of the Technology Committee.
6. As a first order of business, adopt a process for chartering and sponsoring new initiatives.
    a. Every initiative should be chartered with a simple, often one page, document that outlines the key decision factors for an IT investment, covering Why, How, What and Who questions (See Appendix C for sample).

7. It is critical that this governance process apply to information technology in general, not just to the activities managed by the IT department - so initiatives such as ERP and HR-IS should be overseen by the same governance process.

# IT Service Management

## Service Culture

Crook County has a strong service culture, and IT has always viewed its role as a service provider. However, there has been little definition around those services.

IT Service Management is a customer-focused approach to delivering information technology. Service Management focuses on providing value to the customer, as well as on the customer relationship. "Customer" in this case is anyone who consumes a service, e.g., internal employees, contract partners, external customers, etc.

## What is a service?

A service is a coherent, ready-to-use function that is of value to the customer. Services allow customers to do business without worrying about underlying technology or IT infrastructure. Think of a service catalog as a menu of capabilities that can be assembled according to need.

The IT Infrastructure Library (ITIL) is the most widely accepted approach to service management. ITIL provides a cohesive set of best practices, drawn from the public and private sectors internationally (See Appendix D for an overview of ITIL). It's not practical to just "adopt ITIL" – rather, use it as a guide to help design practices at the level appropriate for Crook County, and implement those practices over time based on the benefits provided.

## Gaps to Address

- User service level expectations for IT support have been high, but in the absence of agreed-upon performance measures it's unclear exactly how IT services are performing.
- There is no formal service catalog or support policies. As the number of services grow and the methods for providing service multiply (help desk, internal expert, third party vendor, etc.) it will be critical to organize services to provide clarity and ease of access.
- There are some Key Performance Indicators (KPIs) need to be measured and reported. It's not clear how service level expectations are communicated to end users.
- IT service practices need to be developed to a higher maturity level. For example, Configuration Management (understanding of IT assets, standard configurations, and dependencies) in particular needs attention.

## Recommendations

1. Start building out the service catalog in 2023. Start with an overall inventory, and then build simple service policies for each (see Appendix E for a sample service policy). This can be done incrementally.
2. Using ITIL as a guide, develop Service Operations processes for Crook County (see Appendix D). These processes will guide day-to-day support and delivery of services.

## IT Performance and Operational Metrics

### Overview

Useful IT metrics fall into four categories: Customer Service, Operations, Applications, and Financial. Appropriate measures can help improve performance, morale, and service. Without some basic measures, it is difficult to manage with data and improve in a meaningful and sustainable way.

Meaningful IT performance metrics will have the following characteristics:

1. Guided by Crook County's culture and values
2. Proposed by IT Director or senior management and approved by the Technology Committee
3. Proven to be actionable and drive behavior in the right direction – "Metrics That Matter"
4. Reviewed with the Technology Committee on a regular basis – monthly or quarterly

### Challenges

We have seen many IT metrics programs over the years. Many have failed to help raise the bar. Here are some common pitfalls to avoid:

- Information Overload
    - Too many metrics, and including ones that don't really drive behavior, can be worse than too few. Consider dropping metrics that never spark discussion or action.
- Activity Metrics
    - Metrics that show how busy IT is tend to be interesting but irrelevant.
- Perverse Incentives
    - Often metrics end up driving behavior in the wrong direction – for example, closing tickets quickly at the cost of customer satisfaction. Avoiding this problem requires a balanced approach and management emphasis on team values.

### Recommendations

VIE recommends starting with a basic IT Performance Portfolio and phasing in measurement and reporting over the next 12 to 18 months. Work with the Technology Committee to keep measures simple and meaningful and allow them to evolve over time. As the role of IT in Crook County evolves, metrics must change accordingly. For example, as IT activities increasingly support Business Transformation and Innovation, performance measures should reflect those goals.

As a starting set of IT metrics, here is an overall framework:

#### Customer Service

- Employee Satisfaction across multiple measures - periodic survey.
- InfoTech provides an excellent IT Customer Satisfaction survey, which they will conduct on your behalf, and which is free with subscription.

#### Operations

- Service Availability. Defined as the percentage of time critical services (as defined in the service catalog) are up and running during scheduled hours of operation.
- Security. Can be measured by number of security incidents or by attainment of security compliance goals.

### Applications

- Project scorecard, based on achievement of project success metrics.
- Project backlog. Helpful for management to balance the cost vs. demand for project resources.

### Financial

- IT Spend as % of Revenue
- IT Spend per Company FTE

(Both of these should measure total IT spending, not simply IT departmental spending).

# IT Technology Infrastructure

## Infrastructure Overview

The IT Director gave VIE consultants a tour of Crook County buildings, Main Distribution Frame (MDF) and Intermediate Distributions Frame (IDF) locations. This provided a general envisioning of the physical network and server infrastructure and architecture at Crook County. In addition, much of the following infrastructure summary is taken from existing network diagrams and other documentation provided for review.

The general impression of the network from stakeholder interviews is that it is functional and stable (one department claimed the network "went down" regularly, but this was inconsistent with the general feedback). However, the physical tour of the infrastructure raised several concerns. This is a relatively complex network, given the physical footprint of the county, but appears to have grown organically over time, rather than designed specifically for purpose. Much of the network is now fiber-based, but there are legacy areas that need to be upgraded.

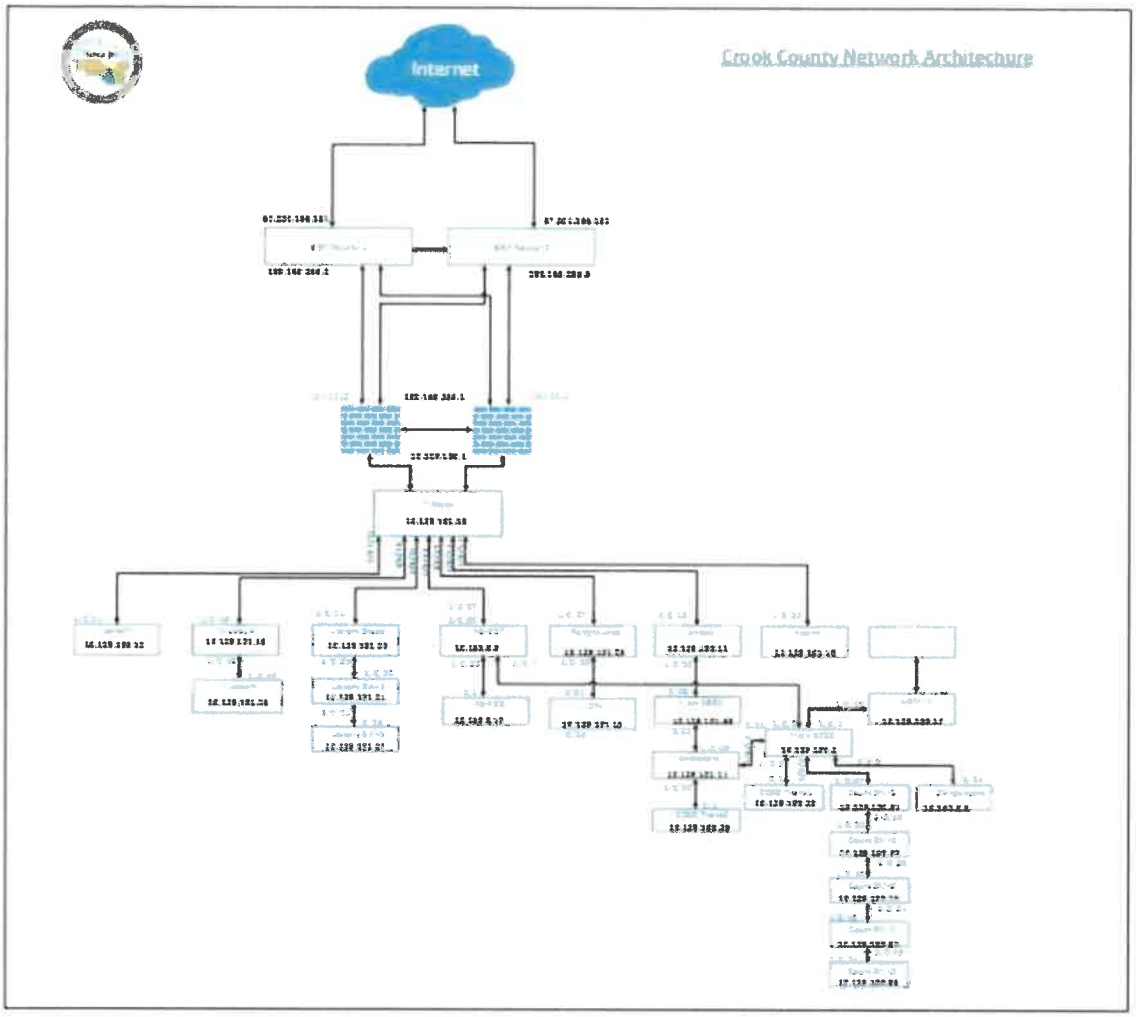
The physical conditions of the MDF and IDF rooms are unacceptable in terms of general industry standards. MDF and IDF rooms need to have dedicated space, clean and clutter free, with controlled access.

Our interview with Sparksta was productive and they agreed with our assessment that the county needed to do a complete network architecture design (NAD) and upgrade. This is particularly important in light of the new Justice Building project, which could be leveraged to be the core of an upgraded network, not just a "forklift" location for existing hardware/configuration. The new design should incorporate the fiber opportunities available at the county, as well as a federated, redundant, architecture that reflects the physical operations of the county – not the current "hub and spoke" design which is prone to single points of failure. Incorporated in any new network design should be a reassessment and/or cleanup of MDF/IDF rooms, racking and wiring – incorporating proper and consistent isolation, security, and HVAC.

We believe a network architecture design (NAD) and upgrade is a workstream in itself. Sparksta would be well suited to conduct this work, given their core competencies and existing knowledge of the Crook County environment and IT challenges.

## Current Network Environment

There is some documentation of the network, including a geographic "fiber route" document, network and fiber architecture diagrams, etc. For example:




It is important that such diagrams are reviewed regularly to ensure they capture any changes to the network and represent current state.

### WAN Diversity

The County currently maintains a one Gbps (Gigabyte per second) internet connection to PrineTIME and a 100 Mbps (Megabyte per second) internet connection to Lumen.

### Fibered LAN Expansion

The County currently owns the following fiber pathways:

- 422 NW Beaver St. to Health (Aerial)
- 422 NW Beaver St. to Annex (Aerial)
- 422 NW Beaver to Roads (Aerial)
- Annex to Courthouse (Aerial)
- Annex to Roads (Aerial)

- Courthouse to Admin
- Courthouse to Jail
- Courthouse to Finance

All aerials above are subject to changes with to pole agreements with Pacific Power. Pacific Power has increasingly been auditing these runs and many strands are out of compliance. The County has no means or knowledge that would allow it to maintain this resource long term. This will eventually cause issues with the power company and or service delivery over that fiber.

The County currently has an Irrefutable Right to Use (IRU) agreement with PrineTIME in place for the following fiber pathways:

- 422 NW Beaver to Library
- 422 NW Beaver to Museum.
- 422 NW Beaver to Fairgrounds.

These IRU runs come with a maintenance agreement and an addendum template for expanding access.

### Zero-Trust Network Policies

The County currently employs a strategy to limit access between client Virtual Local Area Networks (VLANs) and server VLANs as well as between all VLANs and specialized data & external host VLANs. Most of these include limiting ports where possible.

In many cases the County limits connections to only between hosts and client VLANs to further limit trust between any two network segments. Those connections in turn are limited to what ports are minimally necessary for any specific application to service to work.

There is still a major risk in that most server resources share one VLAN between each other. For the most part this is unnecessary, especially considering the Fortinet environment that has been deployed.

The County currently limits inbound Virtual Private Network (VPN) connections to clients who exist in a Network Policy Server (NPS) service provided by Fortinet and hosted internally. These VPN connections require a specialized credential based on their Active Directory (AD) credential, their AD password, and a Two Factor Authentication (2FA) token.

### Switched Network

The County is currently transitioning its switched network one location at a time. There is a mix of centrally controlled Fortinet Fortiswitches, standalone Fortinet Fortiswitches, and standalone Cisco switches.

There are three core switch locations acting as routing hubs for the network creating inefficiencies but reducing layer one paths between sites. These locations are the Network Operations Center (NOC) at 422 NW Beaver St, the annex, and the courthouse. Each intra-site link is limited to a 1 Gbps connection reducing overall bandwidth to sites beyond the core switch locations.

### Wireless Network

The County currently has a Cambium wireless network in place for the whole County. It was transitioned from a group of hidden networks to one Guest and one corporate network. The Guest network has no

access to internal resources at all and the corporate network has limited Active Directory (AD) only access to the internal resources. There are a handful of specialized Service Set Identifiers (SSIDs) in the schema to support limited use cases. Specifically, the HIPAA network for the Health Department and the public network for the Library. The County also has several Fortigate Access Points (APs) as a special project at the Museum and the Library.

## Recommendations - Network

As mentioned in the overview, Crook County will benefit from a NAD that should reconsider the current **"Hub and Spoke" network topography.**

That being said, the previous IT Director did document some general network improvement recommendations with which we concur. These would ideally be factored into any new design, but in lieu of such a review taking place, should be incorporated into any network upgrade roadmap that is developed.

The following recommendations are modeled on 422 NW Beaver remaining the hub, and do not factor in the role of the Justice Center MDF, or alternative topographies. Based on our recommendation that the county completes a full Network Architecture Design (NAD), including the role of the MDF at the new Justice Center, this current architecture is likely not representative of future state.

It is not feasible to make detailed infrastructure recommendations based on the scope of this current engagement, and the following are largely drawn from existing Crook County documentation and should **be viewed as "guidelines". We recommend that these "current state" recommendations are fully** reviewed by Sparksta, who are much closer to and familiar with the current environment at Crook County - preferably in the context of a larger design review.

1. WAN Diversity
    a. The County should contract with another major provider at 1Gbps speeds, advertise its Autonomous System Network (ASN) via Border Gateway Protocol (BGP) to both carriers and utilize Software Defined Wide Area Network (SDWAN) where possible to fully utilize all outbound and inbound connections.
    b. An alternate connection could be made to Lumen, but that circuit should stay separate from the current 100 Mbps data circuit intended for hosted Voice over IP (VoIP) traffic.
2. Fibered LAN Expansion
    a. The County should seek to expand its Indefeasible right of use (IRU) fiber paths while simultaneously dismantling its own fiber pathways.
    b. The County should also seek to cover the Landfill and Forest Service Helipad with a fibered connection.
3. Zero-Trust Network Policies
    a. VLAN/subnet topographies should be adopted to support individual departments.
    b. (Note: this basically reflects the same **"federated, redundant"** architecture concept that we recommend as the output of the proposed Network Architecture Design Review.)
4. Switched Network
    a. The County should focus on replacing all existing Cisco switches.
    b. All switch trunks should be increased to 10Gbps links.
5. Wireless Network

a. The County should migrate from the Cambium controller to an all Fortinet wireless solution (FortiGate and FortiAP in FortiOS 7.0)
b. Fortinet FortiAPs should be implemented as they natively integrate into the security fabric allowing for direct firewall control of clients and policy. The management console is already in place so would just need to change and configure to the new FG devices.

## Current Server Environment

### Telephony & Internet

- VOIP phones are leased from Lumen/CenturyLink with some internet provided by CenturyLink (failover).
- Verizon is the provider for county cell phones.
- The main Internet provider is PrineTIME Internet Solutions located in Prineville.

### Switching

- The main data center/switch room is located at the IT office 422 NW Beaver St, Prineville OR, with switch closets (IDF) at the other county buildings. These have a fiber or cable connection into the building and to the switch to feed all the needed devices.
- Both Cisco and Fortinet switches are in use, Fortinet being the newer of them and the preferred direction.

### Virtualization

- Nutanix is used as a hyperconverged, virtual server solution. It needs to be upgraded to have more space and be fully redundant.
- There are two legacy Dell servers - each has 1 HyperV virtual server on them due to those not being moveable without help from the people who set them up. They need to be migrated to Nutanix.

### Backup and Disaster Recovery (*see also:* "Risk" section)

- There are primary and secondary Cohesity devices for backups, that also have DRaaS (Disaster Recovery as a service) cloud access (Air Gap technology).
- One local Nutanix AHV (Advanced Hyper Visor) cluster is replicated to the disaster recovery cloud cluster run by Nutanix (Xi Leap). This allows for asynchronous replication of the virtual machine footprint to a geographically discrete resource that doesn't burden the County with direct, power, local technician, and bandwidth needs. The solution does not currently allow for auto-failover for the routing of the County's ASN nor does it allow for the County to run at full capacity.
- Generally, the County has exposure for data loss and/or compromise. Many systems rely on one source data or data that is vendor proprietary making it difficult to move platforms. Other systems rely on outside data being delivered from sources that are inherently untrustworthy and inefficient such as google docs and forms.

## Recommendations - Servers

1. Hypervisor
    a. Nutanix AHV represents a state of the art, scalable, hyperconverged technology. While arguments can be made for a Cloud-first strategy, that would need to be designed in conjunction with the necessary network architecture, which may not be the highest priority.

   b. In lieu of a fully Cloud-based server environment, the Nutanix AHV solution represents a sound investment as well as supporting a future migration path to the Cloud.
   c. We therefore feel, in this instance, the County is better focusing on upgraded network architecture supporting a fully redundant Nutanix AHV virtual server infrastructure, than rearchitecting to the Cloud at this time.
   d. A clear gap in the County's server strategy is that DR only supports data recovery. One strategy is to leverage Nutanix AHV to provide a full Cloud-based server recovery solution (which could also be a pathway to full Cloud hosting at some future time).
2. Legacy Systems
   a. Some HyperV hosts have been retained for legacy applications that cannot run on Nutanix AHV. A plan should be developed to review and deprecate/upgrade these applications such that all associated business functions can be migrated to the Nutanix AHV environment.
   b. Specialized staff will need to accomplish this work (e.g., on-staff programmer or a vendor supplied specialist to migrate these final applications).
3. Data Consolidation
   a. The County should move to a data centralization model for business Intelligence (see "Reporting / Business Intelligence" Section).
4. VOIP
   a. Explore purchase versus lease option for VOIP technology.

## Managed Services

In March 2022, Crook County engaged Sparksta as Managed Services Provider (MSP) in order to provide Network Operations Center (NOC) monitoring (termed Network Foundation Oversight Service) as well as some targeted network-related projects.

### NETWORK FOUNDATION *OVERSIGHT* SERVICE

| Service Type | Detail |
|---|---|
| **Intrasite Oversight** | Monitoring and support of VPN:WAN / Private line routing. |
| **Internet Oversight** | Monitoring and support of all office site internet connections |
| **Network Switching** | Monitoring of switching infrastructure including WAP infrastructure, |
| **Environment Monitoring** | Deployment of environment monitor sensors at all server locations, temperature, humidity, and floor water conditions. |
| **Hypervisor Infrastructure Cluster** | Monitoring and support of 5 node primary AHV Cluster |
| **Hypervisor Infrastructure Cluster DR** | Monitoring and support of 5 node primary AHV Cluster @ DR Site / Courthouse |
| **Standalone VSphere Infrastructure** | Monitoring of up to 3 node Hyper-V Auxiliary Cluster |
| **Guest VM Support** | Monitoring ONLY and restoration support of all guest VMs on Hypervisor |
| **Disaster Recovery Oversight** | Continuous monitoring with Backup Radar, bi-monthly validation of data disaster recovery process. |
| **365 Services Monitoring** | Provide monitoring and support to 365 Azure AD Connect |
| **365 Services Security Oversight** | Assist with deployment and monitoring of infrastructure |
| **Direct Tier II Network Support** | Provide outside advice and assistance to network administrators of up to 12 Hours per month |
| **Project Time Inclusion** | Provide credit 50 hours a year towards projects included, accrued monthly. |
| **Direct Tier II Help Desk Support** | Provide outside assistance direct to help desk staff, 10 hours per month |
| **Discounted project rate** | Projects billed at discounted rate of $150/hr |
| **Strategy Meetings** | Weekly IT strategy meeting participation. |
| **Remote Site Visits** | Provide for bi-annual 2 day site visits for remote office, travel expenses NOT included |
| **Emergency Resource Case Assistance** | Work directly with IT department to resolve downtime or contamination issues. 100 Hours / Year included |
| | |
| **Total Monthly Rate** | **$7250.00** |

### CURRENT IDENTIFIED PROJECTS

| Project Title | Detail | Costs |
|---|---|---|
| **Credential Management Deployment** | Deploy Shared 1Password Privileged Credentials DB | $0.00 |
| **Onsite Review / Documentation** | Monitoring and support of all office site internet connections | $5000.00 |
| **PRTG Deployment** | Deployment of 5 Node NUC Devices at data center sites | $3000.00 |
| **Environment Sensors** | Additional temperature / moisture sensor at data center sites | $500.00 |
| **Deployment of new Firewalls / Routers** | Mapping, documentation, configuration, deployment | $15000.00 |
| **Deployment of new WAPs** | Configuration of 802.1X | $5000.00 |
| **TOTAL Immediate Project Cost Estimate** | Estimated total of initial projects over next 6 months | **$28500.00** |

### ENGAGEMENT TARGETS

- Document for Familiarity:
  - Current network configurations
  - WAN / Vendor Relationships
  - Management Processes
- Assist IT Manager in increasing security configurations:
  - Network Segmentation
  - Edge Device \ Active Directory
  - Microsoft 365 Defender / Intune use
- Assist IT Manager in Systems Decisions:
  - New hardware purchasing
  - Software evaluation
  - Annual budgeting review
- Perpetual Improvement
  - Help direct innovation of controls
  - Provide mentorship and assist with issues.

Unneeded / Omissions:
- No administration of licensing agreements
- No onsite staffing
- No after hours management, emergency assist only
- No validation or certification of security alignments

### IT Documentation

While some useful IT documentation does exist, it is somewhat non-standard and inconsistent. In reviewing the IT operating documentation and policies, we found that there were a number of standards and policies that were incomplete or missing, including:

- Desktop Standards
- Data Center Standards
- LAN / WAN / VLAN documentation and standards
- Phone System documentation
- Mobile Devices were lacking a BYOD (Bring Your Own Device) policy as well as standards
- Role based security policies and configuration standards
- Incomplete acceptable use policies
- Network segmentation policies
- Backup and Redundancy policies, standards, and processes.

This is typical in small IT shops, where the priority is daily operational support and there may not be the time or expertise to create robust, consistent documentation.

## Concerns

Generally, the network and server infrastructure at Crook County is functional, but still contains several legacy components and may not be sustainable in its current state. We have concerns about the overall network topography and believe it is time to have a complete architecture review, particularly in the context of requirements for the new Justice Building. Improved network redundancy and segmentation should be key components of the assessment.

Some sound investments have been made in Information Security products and hyperconverged server technologies, but there remain legacy components that are not yet incorporated. Disaster Recovery currently only provides for data recovery, not operational recovery.

## Recommendations

1. Get a subscription to a research company such as Gartner or InfoTech, who can provide templates and libraries for most standard IT documentation.
    a. Our recommendation for Crook County would be InfoTech, as they are less expensive and more focused on IT templates and frameworks.
    b. InfoTech will also provide services such as Industry Research, Contract Reviews, and free services such as a managed Customer Service Survey.
2. The County should increase licensing with Nutanix to allow for full recovery in a disaster recovery scenario.
    a. As the County continues to modernize its application footprint it may make sense to consider auto-failover of the public ASN to prevent loss of potentially high impact decision making tools in the Health space (*see:* "Disaster Recovery" section)
    b. Regardless of future server strategies, a focused effort should be funded to migrate all outstanding components to the current virtual server architecture.

3. Given the general lack of documented standards and procedures, we recommend that documentation of the basic roles within the company be developed as the foundation for not only standards for equipment but also for security and data management.

By defining the various roles within Crook County, the appropriate standards can be applied for equipment, data access, and security more easily. We also recommend that the applicable best practices and standards found in the ISO 27000 Information Security Management Systems Standard be applied across the board within the company. These standards are internationally accepted and along with other international standards (e.g. ISO 9000) will provide a solid foundation for responding to any audit requests by Crook County compliance auditors.

### Policies

We recommend that Crook County review existing policies in relation to recommended ISO 27000 standards.

## Department Integration

### Document Management and Workflow

During our interviews with the Crook County staff, the recurring theme was work-flow inefficiencies. People use paper to transfer information from one department to another and the result is a lot of running around between departments with folders in hand. Many of the interviewees believed that there should be a better way to do this electronically.

### Recommendations:

First and foremost, we recommend that Crook County do a complete workflow process analysis. This will provide a foundation for formulating a redesign of the work flows that take advantage of electronic workflow applications that already are a part of the software suites that Crook County owns.

We also recommend that the common set of hardware and software standards be reviewed to help ensure that 1) systems can be adequately supported and 2) licensing issues can be avoided.

Pilot projects involving one or two departments developing common workflows should be undertaken to provide a benchmark against which follow on projects can be measured. We recommend that Crook County start with the basic invoice/payment workflow since every department has that type of work flow.

# Business Software Applications

## Overview

The effective management of business software applications is critical for any enterprise. Applications at Crook County have generally arisen as responses to departmental needs, with little centralized planning. As the organization grows, competing needs must be balanced – for example speed of adoption vs. long term viability.

VIE recommends taking a Portfolio Approach to applications. A Portfolio approach entails understanding how each application fits in an overall architecture to support business processes and services. Since there may be dozens of applications in use, it is helpful to categorize them based on the type of application and depth of support required.

We have identified the following categories of business software applications at Crook County

## Enterprise Business Applications

Enterprise Business Applications are a primary focus of IT due to their critical role in running day-to-day business. The IT department may provide direct support and administration for these applications. We define these applications at Crook County as those that support core business functions for Finance and Human Resource departments. (It could be argued that the applications used by some departments are also enterprise business applications, but for the sake of simplicity we address those in the "Departmental/Specialty Applications" section).

### Challenges

Although they support different functions, Finance and Human Resources are facing essentially the same technology challenge – an ERP/HRIS platform that is not "fit for purpose" and is an impediment to productivity and service levels. It was clear from our interviews that inter-departmental core services across the entire organization are largely paper/email-based, siloed and inefficient.

### Current Systems

Crook County is currently using an outdated ERP to support Finance and HR processes:

- SunGard Public Sector/Navaline/Central Square/ Greenscreen
- Everybody seems to call it something different, which adds to confusion, but generically referred to as "Navaline"
- Greenscreen is the old "control key" version preferred by experienced users
- CentralSquare is the newer product

A supplemental system, OpenGov, is used for budgeting. However, this is also not "fit for purpose" due to integration issues and significant training needs, as well as poor reporting capabilities.

The Tax Collector uses Helion, with occasional use of Navaline.

## ERP Deficiencies

Navaline

The functionality and usability of this platform requires considerable training and reporting is constrained. The system was deployed poorly nearly twenty years ago, with little improvement or implementation of the system capabilities, therefore literally all backup and support documentation is paper or email. Additionally, the data structure of the general ledger is poorly designed resulting in increased reporting challenges.

- Makes integration/support challenging
- Creates duplication, data loss, etc.
- Nobody outside of finance really understands the system
- Some access opened up, but staff are not trained.
- Electronic archiving and retrieval are a concern (currently have to dig through boxes)
- Both Finance and HR are limited in their ability to help staff due to limitations of access of the software.

OpenGov

- Not great functionality
    - Finish work in OpenGov > Excel > Navaline (manual entry)
- Push out budget reports to each dept.
- Ideally, OpenGov would be a single source for all budgeting activities, or replaced by ERP
- Don't use OpenGov for Financial Reporting
    - The data is good in Navaline, but reporting is not turned on

## Recommendations

Ideally, all these platforms (and related systems/manual processes) would be replaced by a fully functional ERP/HRIS that does the following:

Technology Features

- SaaS/Cloud hosted
- Accessed via HTML/Browser
- MFA (multi-factor authentication)
- Single sign on
- Built in Security
    - e.g., IP-limited access to internal workflows to prevent unauthorized login attempts
- Automated backup of all data in a format that doesn't require major modification outside of the ERP
- environment
- An employee portal
    - Allow employees to self-serve
    - Cut down on reports, phone calls and emails
- Paper-free workflow
    - Paper gets touched multiple times

  - Increases risk of error
  - Increases Information Security risk
- Integrated document storage (e.g., for policy and handbook)
- Analytics, Dashboards & Reporting

Business Features

- Intuitive employee administration, that allows for separation of duties for HR and Finance roles
  - For example, allow HR to create and modify employees which immediately informs Finance modules to facilitate accurate payment
- Hiring, recruitment and job boards
- Performance Management
- Automated Timekeeping
- Sophisticated recruiting (more candidate friendly)
- Self-service model where appropriate for employee-related functions
- Marries HR functions to the financial platform in a manner that doesn't require complicated plug-ins and/or third-party support.
- Full suite of Financial Services
- Intuitive Chart of accounts
  - Prepare for the new ERP within Naviline
    - Reduce the existing number of general ledger accounts
    - Reorganize the existing chart of accounts
      - Revenue categories
      - Expenditure categories and consolidation
      - Department/division organization
      - Asset and liability consistency and consolidation
      - Use pooled cash accounting
      - Reduce number of funds
      - Use project/grant accounting

### Guiding Principles

1. ERP projects can be notoriously difficult to manage and costly surprises are common. Make sure there is solid project governance in place to manage and monitor progress.
2. Building a Business Analyst skill set will be critical for Crook County to enable automation of business processes.
3. With disparate applications that must integrate with each other, IT should develop skill sets to support system integration.
4. Take a federated approach to application support, fostering business ownership of applications while IT works to provide a coherent, integrated architecture. Name Subject Matter Experts (SMEs) and empower them to help develop and support the solution. This approach is consistent with the values and culture already evident at CROOK COUNTY.
5. Task IT with application infrastructure to maintain coherent platforms and integration points among applications. Responsibility for this area may be shared between the Application and Infrastructure management roles.

## Departmental/Specialty Applications

### County Leadership and Administration

As would be expected, this group is mostly focused on IT strategy and oversight and their technology needs are light. The Executive Assistant/Communications Officer uses Agenda Builder from TownCloud to build the court session agendas.

### Facilities

Work is managed using a work order system, eMaint, which supports their needs.

### Health

- Communication and outreach are a challenge as there is no designated communication staffing – mostly conducted via social media and the website.
- Accreditation is important and managed via direct link to accreditation board using VMSG performance management system.
- Other systems used are SharePoint, Ochin EMR for Clinics (Epic practice management and electronic health records EHR - also does part of the billing).
- Power DMS is used for policy management.
- Currently investigating Compliance Secure Email – Virtru.
- Leverage State systems for Women & Children to track program, Nurse Home Visitors, etc.

### County Clerk

- Does livestreaming via YouTube using cameras throughout office and election room.
- Receives citizen input via County Website's "Text MyGov" (this is the Clerk's Office link, but the community is using it for general County communication). Text MyGov should be re-envisioned as a generic communication channel (e.g., be managed by the Executive Assistant/Communications Officer for distribution to the appropriate staff)
- Helion is used by several departments and supports 90% of County Clerk activities:
- Receipts, recording, eRecording, scanned image – all accounting and records.
- Document Management and Finance, budget, Marriage Licenses, County Court Minutes.
- OCR searchable.
- Board of Property Tax Appeals: external entities can subscribe to the system.
- FTP thru **FileZilla** (images, etc., stored locally)
- Clear Ballot is used for elections (Cloud) connects to State via Citrix.

### Juvenile Offenders

- State-wide Juvenile Justice Information System (JJIS)
  - Use JJIS because people move between jurisdictions
  - When data is in the state system it is easier to track individuals' records
  - Police report is scanned in email, eventually gets loaded into JJIS
- Also use state court systems:
  - Oregon Judicial Case Information Network (OJCIN) - Register of Actions and Judgment records and
  - Odyssey Case Management System (just started using - but no training!)

### Veterans Services

- Technology needs are low and all are met
- Currently working on a Virtual Briefing Room for virtual court appeals
- All records are stored in the Cloud (e.g., DD214, Death Certificate)
- Vetraspec Cloud-based veteran's claims management system
- VBMS (Veterans Benefits Management System) - serves as an electronic database of Veterans' claims files.

### County Legal Counsel

- IT needs are simple – prefer to read things on paper even though all documents are digital.
- Recently implemented Clio legal electronic records management system
  - File Share and Clio can be shared with other parties with help of IT
  - Secure email is handled through Clio
  - Currently scanning all old documents into Clio
- Subscription to LexisNexis

## Assessor

- Use Aumentum for tax, valuation, and records management
  - Data Dictionary standardization is key
- Helion for Oregon Property Assessment & Taxation
  - Two years into a migration from old system (implemented 2005) to Helion ORCATS
  - Planning Dept. enters permits in Acela and data is exported to Helion
- Supports CAMA (Computer Assisted Mass Appraisal)
  - Would like to see standardization across the State
- Interest in emerging technologies:
  - New technologies being used in appraising: Pictometry/Eagleview – 3D flyover of the county. Worked with IT on size and bandwidth.
  - Data Cloud (CAMA Cloud) solutions – iPad based appraisal system – link directly to ORCATS and photo and data out in the field will be transferred.

### Fairgrounds

- Use a separate website: https://www.crookcountyfairgrounds.com/
- Scheduling, contracts, etc. are either manual or in excel spreadsheets
- Use Desktop Publishing software for poster flyers (Adobe, ShowWorks, etc.)
- Currently implementing cameras
- Wireless connectivity challenges being resolved by fiber/wireless project
  - Partnered with FaceBook
  - Guest and Vendor WiFi provided by Prinetime.

### Bowman Museum

- The Museum is not a major user of IT services - current needs are met
- Primary software is PastPerfect for front desk and curator
- The new museum expansion will require additional networking (NAD)
- The audio-video system in the main area of the Museum is dated

- Redesign main AV space in the main museum area to meet current needs
- A new projector or very large monitor
- A centralized USB bus which can accept all wired and wireless inputs and output to an audio mixer

### Community Development & Planning

- Occasional use of SharePoint
- Use Excel for general tracking, maintenance, mileage
- Adobe Pro for pdf and record retention, timesheets, reporting.
- The State Building Codes Division provides ACCELA for permits, records and logging of inspections
  - IT will need to continue the work to backup all ACCELA data (ACELLA is licensed through the State but supported as a local instance)
  - County has the ability to manually pull all Oracle database data from Accella
  - This process needs to be automated and eventually uploaded to the central data structure as proposed above.
- BlueBeam is paid for by the State ACCELA license
  - iPads, iPhones provided to inspectors have ACCELA App for direct entry.
- They are currently seeking to set a scope for a software suite that allows them to perform their community role more efficiently:
  - The Oregon Department of Environmental Quality has tasked the County with backing up all septic inspections outside of the County's current Community Development application ACELLA
  - Work with Comdev staff to help set a scope that meets the County's data needs moving forward
  - All data should be locally backed up and made available to the data lake/warehouse

### Landfill Manager

- Workflow that moves customers through the scale house functions using a Radio Frequency ID (RFID) system SMSTurbo scale ticketing software from Creative Information Systems:
  - Integrates with QuickBooks for Invoice generation (note that County is replacing QB)
  - Maps commercial account billing to QuickBooks
  - Tracks category, weight, location, fee waivers etc.
  - Tracks Recycling materials – lightbulbs, appliances
  - Special Waste orders for each job are set up in SMSTurbo
- Installed a proprietary camera system (i.e. does not use IT supported camera system).
- Budget is done in Naviline

### Sherriff Department

- Supported primarily by City of Prineville IT
- Dependency on HR & Finance
  - All transactions with Crook County are paper/email based
- The two nurses in the jail use CC Health systems (Ochin EMR)
- Ideally would have better integration with:

- email and phone (primarily talking about forwarding)
- HR and Finance
- DA and Juvenile Offenders systems

### District Attorney Office

- Timesheets, invoices, paper/scan/email, budgets by spreadsheets based on a monthly paper report from County Finance.
- Use Attorney paperless file system
- Case Management is done in Karpel Cloud (most DA offices use Karpel)
- Do a lot of editing and file management with dashcam and body cam footage:
  - Just purchased Corel to edit (was using Hit Films but crashed a lot)
  - Corel is better, but had to research, purchase and train on their own
  - Videos (raw media) are downloaded to the J:Drive and edited locally, then uploaded to Egnyte for general access (this used to be an automatic synchronization, but broke in November)
- Challenge is streaming/display of information in court settings:
  - Would like an easy, standardized, way to display and stream in Court
  - Onsite A/V support
  - Use Elmo display system and document cameras in the Courtroom, but need better courtroom technology
  - The Court has Webex, but can't share Court system to Webex for general access (e.g. remote testimony).

## Library Department

- Use an Integrated Library System (ILS) called Sierra (partner with other counties)
  - Login through website to ILS to manage account
- Time/Print Management via Pharos
  - Gateway in to authenticate library patrons
  - Allows the public to use library lab computers
- eBooks, etc. managed using Hoopla and Libby by Overdrive
  - Authenticated through ILS for remote access through personal devices via App
- RFID (Radio Frequency ID) tags from FE Technologies are used for inventory management and theft (using Scanner gates).
- Network printers are managed by Xerox
  - Switched from Pacific Office through a bid process (need to address County-wide, not departmentally)
  - Coin OP machines for printers seem very outdated and clunky.
- Need a Program Registration software (looking at SpringShare)
  - Events like Storytime, Resume Building, art classes, reading, guest speakers, etc.

## Road Department

- Had a cheap CAD program: ProJCAD
  - Will need a better CAD program (county growth)
  - Support in GIS department is preferred for organization efficiencies and effectiveness

- Street Pix (film every mile of road)
- State IRIS through Oregon Association of County Engineers & Surveyors (OACES) for Cost accounting
    - Everything from nuts/bolts, billing, payroll…
    - Do own payroll, as payroll is job-based and also tied to inventory and audit
    - Paper timesheets – guys don't use computers
    - Also track inventory on jobs, as well as time (tell a story)
    - Has two clerks that interpret the staff worksheets
    - Send spreadsheet to payroll and they cut checks
    - State has access to IRIS for auditing!
- Street Saver maintenance monitoring
    - Filling in a pothole, tracks assets, etc.

## Recommendations

- Replace existing ERP for Finance & HR business units and general County productivity
- Create an Intake & Prioritization process for departmental IT project requests (see also: "Portfolio Management approach")
    - IT should create a transparent and generally available portfolio of projects
    - Requests should be reviewed, prioritized and approved at the monthly Technology Steering Committee
    - Requests that are not considered county priorities should be rejected on "put on hold"
    - Requests that cannot be properly funded or resourced should be rejected and the requestor notified
- Approved requests should be added to the portfolio, which should contain basic information like:
    - Priority Ranking
    - Requestor
    - Department
    - Request name
    - Request Date
    - Brief description (including business value)
    - Sponsor (budget owner)
    - Key Stakeholders
    - Target start date

The following are some examples of potential project requests based on our interviews:

| Project Name | Description | Department |
|---|---|---|
| Project Management Tool | Standardize on PM tool and training (e.g. SmartSheet, BaseCamp) | Facilities and other stakeholders |
| Consolidated File Management System, Scanning, and electronic workflow for County | Investigate SharePoint as standard unstructured data platform | County Clerk, Admin Executive Assistant, Legal Assistant (and others) |

| | | |
|---|---|---|
| Implement Compliance Secure Email – Virtru | Identify standard for Compliance Secure Email (Virtru, Clio) | Health |
| Office Productivity Training | Create training program for all staff on Office Productivity tools (MS365, email, SharePoint, etc.) | All |
| Improve A/V in election room | Upgrade Livestreaming technologies in the election room | County Clerk |
| Website Content Management | Improve "self service" content management on the website | County Clerk, Admin Executive Assistant, Health, Library, Fairgrounds (and others) |
| Upgrade IT Service Level | Invest in IT to provide application-level support for departments | IT for all departments |
| Cyber Training | Provide more training on Information Security behaviors (NINJIO) | Contract |
| Replace ERP | Select and implement new ERP for Finance & HR. Related to requests from other departments to automate administrative workflows (timesheets, budgets, etc.) | Finance & HR (County-wide initiative) |
| Drone Technology | Assist in evaluating and implementing emerging technologies (drones, mobile) | Assessor and others |
| Fairground WiFi and Cameras | Upgrade WiFi and camera capabilities at Fairground (in process) | Fairgrounds |
| Museum Upgrades | Improved A/V capabilities and support for Museum extension | Bowman Museum |
| Landfill Camera Support | Complete camera installations at Landfill | Landfill |
| Landfill Network | Network and Power redundancy (should be part of Network Architecture Design initiative) | IT |
| Improve A/V in Courtroom | Upgrade livestreaming and presentation technologies and A/V support in the Courtroom | DA |
| Video Editing | Rearchitect and improve all aspects of video editing and access | DA |
| Standardize Laptops | Standardize on laptops and docking stations for all DA staff | IT – for all departments/users |

| | | |
|---|---|---|
| Telephone Management | Upgrade capabilities and/or terminals for customer telephone service (currently library has less functionality than prior system and challenges with call routing and front desk calls ringing all phones) | Library |
| Managed Print Services | Review and replace Xerox MPS and improve customer printing experience | Library |
| Road Depot network and WiFi | Extend fiber link to out buildings and improve WiFi services at the depot | IT |
| Computer Aided Design | Establish a County capability for CAD | IT/GIS |

## Reporting / Business Intelligence

Reporting / Business Intelligence tend to be supported in organizations by the following mechanisms:

- Enterprise Resource Planning System (Structured Data)
  - A good ERP will support the majority of standard business reports, dashboards and workflows for Finance and HR business functions
- Specialized Applications (Structured Data)
  - Well designed, targeted functional applications, such as Helion, will support the necessary specialized reports, dashboards and workflows for the associated business function
- Data Warehouse/Data Lake (Structured/Unstructured Data)
  - Data Warehouse/Data Lake type technologies can be useful for consolidating key business data and metrics for Management Reporting purposes
  - These technologies have evolved beyond the traditional Star Schema Relational Data Warehouse to various sophisticated AI-based technologies, so thought must be given to the right fit for this type of reporting
- Unstructured Data/Document Management
  - Excel, Word, etc. are used in an ad hoc way, either supported by a legacy File System or a Document Management Platform such as SharePoint
  - In many organizations, this kind of reporting is prevalent due to the insufficiencies of the other methods. However, there will always be need for this type of reporting, so we strongly recommend going the Document Management Platform route (see also: "Office Productivity Tools")

## Recommendations

1. Implement a new ERP
2. Implement a Document Management Platform (see: "Office Productivity Tools")

3. Consider a Data Warehouse / Data Lake strategy

### Data Warehouse/Data Lake Strategy

Should the County adopt an internally hosted Data Warehouse/Data Lake strategy for business intelligence and management reporting, it should be based on carefully considered architectural principles.

These guidelines represent an ideal future state and would be a significant program of work, requiring specialized resources - it is a strategy that would need to be evaluated in the context of other IT Roadmap priorities.

- A data lake/data warehouse should exist in the cloud for purposes of co-mingling all County data to be used by all downstream applications as the County deems appropriate.
- That cloud resource should be backed up to Cohesity locally.
- Applications should be provided data either through direct connection to a sub-cloud resource provided by the cloud provider or via a hosted SQL resource that instantly and continuously keeps both the downstream data and source data in sync.
- All data ingested from outside resources and from primary resources should be added to the centralized data model through County created applications and forms to standardize data acceptance and move away from inefficient and insecure data sources.
- Data should be protected from any private commercial purpose.
- Data should be able to be shared with intergovernmental partners and non-profits who work in the public interest.
- Access would be subject to Court approved policy and limitations on use to protect the public.
- Data should be accessed via the least permissions possible to prevent unauthorized access to regulated data.

An alternative approach would be to contract with a SaaS provider. There are some clear advantages to this approach in terms of support, available skillsets, etc. However, *the above-listed principles should still apply* to any 3rd-Party solution.

Some disadvantages of using SaaS providers are:

- They can potentially hold County data hostage for payment, or migration purposes
- They represent an unmanaged Information Security risk - additional investment in Cloud data protection technologies may be needed
- They represent another layer of abstraction for backup and disaster recovery. Careful consideration of contract terms is critical if going this route!

## Office Productivity Tools

| Service | Current | Planned | Deployment | Transition Date |
|---|---|---|---|---|
| Office Suite | MS365 | MS365 | Cloud | n/a |
| Email | MS365 | MS365 | Cloud | n/a |
| Anti-virus | Webroot | Webroot | Desktop/Cloud | n/a |
| External File Sharing | Egnyte | Egnyte | Cloud | n/a |

| | | | | |
|---|---|---|---|---|
| Internal File Sharing | Shared Directories | SharePoint | Cloud | TBD |
| Document Management | Shared Directories | SharePoint | Cloud | TBD |
| Web Conferencing | Teams and Webex | Teams and or Zoom | Cloud | n/a |
| Social Media | n/a | TBD | Cloud | TBD |

One area where information technology can have a lasting impact on productivity is improving the ability of people to communicate and work together, regardless of location. Currently shared directories play a role in providing a central location for standard documents, such as policies, project files, departmental files and reports. Over time and with the help of outside experts, a document management platform like SharePoint should be implemented. A Document Management Platform,

- Provides better document management tools (Search, Sharing, Aliasing, etc.), better information security tools, better administration tools, integrated document workflow, organizational access and transparency, etc.
- Over time, as ERP and other capabilities improve, legacy unstructured reporting will be deprecated and a well implemented Document Management Platform will enhance organizational efficiency, productivity and communication.

***Gaps to Address:***

- SharePoint is the Swiss Army Knife of Microsoft products and includes features for document management, intranet/extranet, workflow, collaboration, and reporting/BI. But SharePoint can be difficult and frustrating to administer and manage – requiring specialized IT skills to go beyond basic functions.
- End users have requested functions like electronic workflow to ease the 'paper chase'.
- In the absence of better tools, Exchange/Outlook, shared directories and other tools have been used not only for business communication but also for messaging, communication, and as a filing cabinet. Finding the document you need, when you need it, is a challenge.
- Microsoft licensing compliance is a potential risk area.
- Desktop configuration policies are informal. Each user essentially has a unique desktop image.

## Recommendations:

1. Undertake an inventory and internal audit of Microsoft licensing. This is a large (6-figure) potential liability if not properly managed.
2. Establish ongoing software inventory practices and tools to support them.
3. Establish role-based profiles with software entitlements for each. Use this to ensure end-users are configured appropriately for their role.
4. Adopt SharePoint for what it does well while avoiding its pitfalls.
    a. Develop a contractor relationship for SharePoint technical support and development.

a. Continue to leverage SharePoint for inter-departmental content management. Don't

    b. leverage SharePoint beyond its core competency.
    c. Consider SharePoint for workflow management.
    d. Consider SharePoint for internal social collaboration.

5. Keep an eye on social media needs to respond quickly to respond to posts by county residents. Solutions such as Hootsuite or Buffer might be appropriate remembering that these solutions will need to be managed to ensure appropriate responses to various social media feeds (Instagram, Facebook, Twitter, LinkedIn, Pinterest, etc.).

## IT Budget and Financial management process / IT Spending

The County accounts for IT related costs as follows:

IT infrastructure, such as networks, cyber security, servers, and hardware, and office automation software used County-wide such as Office 365, and IT staffing for technical support and network monitoring, and Department specific software, overseen by the various departments are accounted for in department budgets, such as accounting and budgeting software (Naviline) is budgeted in finance, Helion is allocated between the Assessor, Finance, and the County Clerk, and so forth.

The County's present accounting structure needs improvement to ensure capture of all IT costs throughout the organization.

The present accounting methodology should be reviewed with the implementation of ERP solutions.

***Benchmarks:***

According to an Info-Tech Research Group benchmark study, mean IT spending for Government organizations is 5.6% of revenue. For 2023, with County anticipated revenues of $79M (without adjustment for capital grants and internal service and transfers which double count revenue) a benchmark for "steady state" IT spending would be $4.4 million. The current budget proposes $1.3 million, excluding departmental costs outside of IT. With an active ERP implementation and the need for IT to catch up to the needs of the organization, 2023 will be anything but "steady state". However, this is a good opportunity to establish forward-looking metrics and benchmarks. We understand the County has set aside $1.3 million in additional one-time funding to help address the highest priority items of the Roadmap.

A typical breakdown of budget dollars by category is as follows:

| Budget Category | Allocation |
|---|---|
| Employees | 41% |
| Hardware | 25% |
| Software | 17% |
| Facilities (including supplies and consumables) | 5% |
| Consultants | 5% |
| Cloud Services (SaaS, PaaS, IaaS, processes, etc.) | 5% |
| Other | 2% |

### Recommendations:

The amount of spending is less important than how the dollars are spent and the value derived from those expenditures. Aligning IT requires working alongside senior management to help decide which IT initiatives to invest in such that these investments will provide the maximum possible business value. We recommend Crook County establish a standard process to authorize and track IT spending holistically and establish budgets accordingly. Whether such budgets are assigned centrally to the IT

department or distributed across business functions, the same financial governance processes should apply and IT spending should be measured in total.

Much of IT spending (direct support, licenses, subscriptions, etc.) is tied directly to the headcount of technology-enabled employees. Therefore, IT spending per FTE is a useful tracking and planning metric.

The county should determine its appetite for increased short-term spending to bring IT up to desired standards, particularly in the context of potential increased tax revenues in the near future as Facebook and Apple tax abatements terminate.

# Risk Management

## Overview

Generally, risk is defined as the product of the likelihood of occurrence and the impact an event could have on an organization. In IT, risk is defined as the product of the asset value, the system's vulnerability to any defined risk and the threat it poses for the organization.

This section looks at Risk Management from the perspective of Information Security and Disaster Recovery. Of course, there are many other aspects to Risk Management, but these are the two that most directly impact IT strategy and operations.

### About Information Security

Information Security is the set of business processes that protects information assets regardless of how the information is formatted or whether it is being processed, is in transit or is being stored.

Information security is not a single technology; rather it is a strategy comprised of the processes, tools and policies necessary to prevent, detect, document and counter threats to digital and non-digital information. Processes and policies typically involve both physical and digital security measures to protect data from unauthorized access, use, replication, or destruction. Information security management can include everything from mantraps to encryption key management and malware detection.

The general trend in government, private industry and the public sector is to have a zero-tolerance attitude to information security compliance – due to the continuing escalation of financial and professional penalties and publicization of major breaches. This can be a daunting and expensive proposition for small organizations such as Crook County and may be the strongest argument for a Cloud-first policy (that effectively outsources core infrastructure services with appropriate contractual controls).

Regardless of internal controls, it is critical that Crook County leadership work with their insurance partners and legal counsel to ensure appropriate levels of Cyber Security Insurance are in place.

### About Disaster Recovery

Disaster Recovery (DR) is a sub-set of Business Continuity Planning (BCP) that addresses the ability of the IT organization to restore core IT business functions within recovery point objectives (time to recovery, data availability, etc.)

## Regulatory Requirements

Primary regulatory requirements for the County are:

- Health Insurance Portability and Accountability Act (HIPAA)
- Payment Card Industry Data Security Standard (PCI DSS)
- Criminal Justice Information Services (CJIS)
- Juvenile Justice Information System (JJIS)
- Department of Justice (DOJ)
- GLBA?
    - It is unclear the degree to which the county accepts and/or processes Federal Funds – this might imply GLBA exposure

### PCI DSS

The County uses a couple of different credit card processing services.

- Consumers pay by credit card, check or cash
- The County also makes purchases using check or credit card

PCI controls have not been focused on as a County function - currently the County relies on 3rd party processors to ensure PCI compliance. However, PCI certification is often mandated by partner banks if the institution *processes* credit card payments, even if the institution does act as a Merchant Servicer and does not store credit card data.

It is unclear if Crook County has been required to self-certify on an annual basis, but in the event that they are, they may face risk of service disruption if:

- PCI transactions traverse the network unencrypted
- Terminals are not on isolated, secure network segments
- Staff are not trained and/or are practicing inappropriate handling procedures
- Policies and procedures are not well documented
- Credit card data is being written down or digitally stored on Crook County hardware

Existing controls may be sufficient, but it was unclear from our interviews the degree to which internal PCI compliance is being overseen by the County.

### HIPAA

The County Health Department has benefitted from increased inter-VLAN rules and their network is better protected from outside attacks due to the migration to a modern VPN client with two factor authentication.

However, several issues still exist in the network:

- Usage of Google applications for Health Department business
- Usage of outside contractors and parties to collect and aggregate data
- Segmented similar data not being shared with Health Department users who could use that data
- Shared resources with standard County networks
- Reliance on lax HIPAA audits to guide controls

### CJIS & DOJ

The County implemented many controls to get closer to CJIS compliance. Chief among those was better inter-VLAN traffic restrictions and migration to a modern client-based VPN solution with two factor access at the barrier.

There are still issues:

- There is currently no encryption between the primary NOC and CJIS terminals.
- There are shared server resources for file access that could include CJIS data.
- NOC and IT closets are not currently deemed as needed to be audited as CJIS secure.
- The County relies on the State's lax auditing standards rather than a 3rd party to evaluate risk.

## General Security Exposure

- PII
  - Protection of Personally Identifiable Information (PII) and other critical/sensitive information
- Vendor Risk
  - The County leverages multiple 3rd Party software platforms that likely contain PII or other sensitive information.
- Assessor Information Security
  - Enterprise Zone info, new company info, etc. is highly sensitive.
  - There may be some PII in archived documents.
  - Assessor has been digitizing paper for several years – some work to do on commercial documents.
  - 12 years retention (Market info, valuations, ledgers, etc.)
- Legal Counsel
  - Identified Information Security as a concern – "what can I do as it relates to protecting information?"

## Policy

Crook County has developed a solid set of Information Security policies. However, these do not seem to be widely communicated or published anywhere and it is unclear how often they are reviewed and revised.

- CC_ConfidentialDataPolicy_v1.0.pdf
- CC_EmailPolicy_v1.0.pdf
- CC_GuestNetworkPolicy_v1.0.pdf
- CC_MobileDevicePolicy_v1.0.pdf
- CC_PasswordPolicy_v1.0.pdf
- CC_PublicRecordLaws_v1.0.pdf
- CC_RemoteAccessPolicy_v1.0.pdf
- CC_RemovableMediaPolicy_v1.0.pdf
- CC_SecurityIncidentPolicy_v1.0.pdf
- CC_SocialMediaPolicy_v1.0.pdf
- CC_UserAcceptancePolicy_v1.0.pdf
- CC_WirelessAccessPolicy_v1.0.pdf
- CROOK COUNTY HIPAA POLICY AND PROCEDURES (final).pdf

Ideally, these policies should be separated into:

- Information Security Policies (ISP): these govern what IT should do to protect the institution
- Acceptable Use Policies (AUP): these govern what users should do when accessing IT services

For example, an ISP might define that network traffic must be encrypted, whereas an AUP might prohibit password sharing. This way, staff only need to be trained in the AUP and not be burdened with technical policies.

## Current IT Controls

The IT team is fully aware that information security is a core function of their organization and have implemented solid strategies and technologies to address baseline protection of the Crook County environment (given their available budget and resources). Current technology solutions include

adequate controls on the Crook County data network, hardware systems and applications to restrict access to authorized use only.

While most of the components of a "Defense in Depth" strategy are implemented to some degree, there is no formal "Defense in Depth" strategy against which to measure maturity and/or progress.

Regardless, the IT team should be applauded for implementing some advanced and current cybersecurity technologies at Crook County.

These include:

- Albert Sensor (State Appliance) - 24x7x365 managed and monitored Intrusion Detection System (IDS) built to detect SLTT-specific threats.
- CISA scans (Vulnerability Scans - server)
    - CISA is currently doing weekly scans on external boundary
    - Sparksta has probes that report to them if something goes down or seems out of sorts
- Webroot (endpoint virus)
- Fortinet (Firewall) - firewall rules managed by Sydney and Chelsea.
- NINJIO– training and phishing campaigns.
- CISA report drives patching:
    - Kaseya patch packets (Tuesday) – patch schedule monthly, help desk.
- DarkTrace managed defense 24/7 – alerts and managed defense (limited)
- Windows Security
- Cohesity – "Air Gap" technology for ransomware protection

Recurring activities:

- Annual cybersecurity activities (Pen tests, Phishing campaigns, training etc)
- Weekly CISA cybersecurity scan
- Weekly Phishing Campaign (selected random people – NINJIO LLC)
- End-point patch management program in place

There has been no special training for IT for staff (other than sending off the Phishing emails)

### Security Operations

- Only one known attack was reported (a bot at the library).
- One "supply chain" incident was reported
    - Kaseya had a ransomware attack about 2 years ago
    - Shut down Kaseya server
    - Kaseya branded tool to run on the servers to regularly check until we could safely bring that service(s) back up

While this may sound like good news, this low incident count is in fact a little concerning. It may be an indicator that although many tools are in place, the monitoring and awareness best practices regarding the use of these tools may be inadequate.

It is unclear the degree to which Sparksta are monitoring these tools versus the internal IT team. We believe that Sparksta is only monitoring operational events, not cybersecurity events. It is difficult within the scope of this engagement to accurately determine whether Crook County is indeed escaping significant threats or whether threats are simply not being identified and additional training and procedures need to be put in place.

On the positive side, the team has implemented a Fortinet firewall, multi-factor authentication and some degree of network/data segmentation – all of which are cornerstones of a "Defense in Depth" strategy. They have also done an excellent job on outreach and education, leveraging ProofPoint for Phishing campaigns (the primary threat is still the human actor!)

In summary, the IT team has a strong awareness and understanding of the nature and importance of information security and the current threat landscape, and some solid tools and defenses in place.

### Areas of Concern

1. While excellent and well thought out work has been done to date, the program overall felt a little directionless and ongoing resources and expertise are a concern.
2. While existing solutions reflect standard practices, there is no overarching "Defense in Depth"
3. strategy in place.
4. While the team has a good technical grounding in information security, there is no specialist insight on the team coordinating the program (CISM, CISSP, etc. or technologists with broad experience of enterprise information security programs).
5. The provided documentation in this area was very high-level – we believe it was mostly implemented at the direction of the previous IT Director, which is problematic for those left to support it.
6. Initial investigation indicates that data at rest and in transit is unencrypted (this may be too broad a statement but appears to be true in at least some cases. This would be addressed best as part of the recommended Network Architecture Review).
7. Crook County uses Active Directory, so we assume user and system credentials are encrypted – but a full review of Access Controls, including application credentials and elevated privileges, is needed to fully assess vulnerability.
8. Although Crook County owns some good detection technologies, it is questionable whether the team has the time or training to fully leverage them to do in-depth forensics on the environment.

## High Availability, Data Backup and DR

High Availability (HA) and Disaster Recovery (DR) are related but different concepts.

### High Availability (HA)

- HA is achieved by increasing the reliability and redundancy of IT services
- It is measured as *the percentage of time critical services (power, network, ERP, etc.) are up and running during scheduled hours of operation*
- For example, if the County operates 260 days a year, 16 hours per day and experiences 20 hours of unplanned downtime for critical services during the year, availability is 99.5%.

### Disaster Recovery (DR)

- DR is achieved by providing the ability to recover from a full or partial loss of IT services within a specified timeframe
- DR represents a significant risk for the County as there is no documented and tested IT disaster recovery plan that we could find
- DR is predicated on a comprehensive Business Continuity Plan (BCP) being in place
- In case of major damage or loss affecting the business operations, it may be difficult or impossible to predict how long it will take to resume operations utilizing alternative equipment and/or communications
- The County currently employs a DR architecture intended to prevent loss of data during multiple failures
    - It is designed for data backup & recovery
    - It does not support full BCP/DR scenarios

### HA Architecture

- Cohesity, Nutanix VM data snapshot
- Two installations, one local and one in the cloud
- Restore file servers to a different location
- High availability and data recovery, but not full DR

### Data Backup Architecture & Process

- Data backups are currently set up to run periodically throughout the day
- Those backups are sent to a local Cohesity cluster in the primary NOC
- Once the primary backup is complete the backup set is replicated to a secondary Cohesity cluster that is housed in the Courthouse
- That secondary cluster is kept offline during the weekends and during and span of time greater than 2 days without most staff being onsite
- Cohesity backups are protected from ransomware in that they cannot be modified or deleted by any user including the local administrator
- This helps prevent a scenario by which the entire environment is encrypted, but there is no access to backed up data
- Disaster Recovery is provided by server replication from the primary AHV cluster to the Xi cloud
- This secondary cluster is physically remote and can run if the rest of the County is down
- Both systems are tested weekly

## Recommendations

### Adopt a Risk Management Methodology

**Information security at Crook County is currently seen as a "technology issue".** However, best practice is that information security compliance is driven from the County Court down as an *institutional* priority.

This will ensure policies and controls address all information security risk, not just the technology aspects, and that IT will have willing and informed business partners when implementing technology policies and controls.

The County should develop an institutional strategy that defines risks and risk tolerance, to provide IT a framework and guidance within which to implement appropriate solutions:

1. Review Cyber Security insurance.
2. Develop and publish (in partnership between IT and stakeholders) Information Security and Acceptable Use policies (incorporate all existing policies into these policies).
3. Implement a security training program for IT and all County staff.
    a. Crook County already has a contract with ProofPoint, the leading security training vendor – work with them to develop a customized program for the County.
4. Identify and document IT components of all regulatory requirements with which the County must comply.
5. Create a Data Asset Inventory
    a. Document Personally Identifiable Information (PII) and any other protected/sensitive data maintained by the County that is subject to compliance (both physical and digital).
    b. Identify where data is unencrypted at rest or transit.
    c. Include vendor-maintained data.
6. Identify all the ways in which data is accessed and do a full review of Access Controls.
7. Develop a risk tolerance profile for the County for the different data categories.
8. Document a "Defense in Depth" program within IT that addresses the defined regulatory risks (this would include a project "roadmap" to address all areas of cyber defense to the degree that is practical for the county in terms of budget, resource and risk profile).

Once this program is in place, Crook County should engage an independent outside resource with the necessary security expertise to perform periodic security audits. (IT currently schedules penetration tests and vulnerability assessments which are key operational controls, but do not look at the overall security posture of the County).

### Adopt a Programmatic Approach – don't "reinvent the wheel"

We recommend building an Information Security Management System (ISMS) based on a standard such as ISO 27000, NIST or other available standards. Crook County should determine which standard is most commonly used in county government - for the purposes of this document, we will discuss ISO 27000.

Adopting a standard will provide a framework against which progress and maturity can be measured.

The scope of the ISO 27000 standards includes many aspects of IT but does not stop there. The introduction to ISO/IEC 27002 states explicitly: "Information can exist in many forms. It can be printed or written on paper, stored electronically, transmitted by post of using electronic means, shown on films, or spoken in conversation. Whatever form information takes, or means by which it is shared or stored, it should always be appropriately protected."

An organization's most valuable information assets belong to business units other than the IT Department. IT typically owns, manages and is accountable for protecting the shared IT infrastructure (i.e. the main corporate IT systems and networks providing shared IT services to the business) which is a substantial information asset in its own right. However, IT typically acts as a custodian (but not owner) for most business data on the systems and networks, including content belonging to other business units and departments plus customers and business partners.

This distinction has important implications. Information asset owners are accountable for ensuring that their information assets are adequately protected, just like other corporate assets. While information asset owners generally delegate key responsibilities for information security to IT, they remain accountable and must ensure that information security is adequately funded, directed and supported to achieve the necessary level of protection. IT generally acts as an advisor and custodian with a duty to protect the information/data placed in their care, but they are not ultimately accountable for most information security incidents, breaches and impacts that occur as a result of unwise risk management

decisions (such as under-funding security or accepting risks) made by the actual information asset owners.

### Address known Cybersecurity Issues

*In the medium term:*

- PCI
  - The County should seek to isolate all PCI payment terminals - this should include creating a PCI VLAN with no layer 2 access to other hosts in the VLAN and no inter-VLAN access at all.
  - Outbound internet rules should be limited to only what is necessary for payment processing. PCI transactions that traverse the Crook County network must be encrypted.
  - Merchant Servicers should provide annual PCI certifications to the county.
- Personally Identifiable Information (PII) and other critical/sensitive information
  - Ensure appropriate access controls by role/function are implemented and reviewed
  - Ensure data is encrypted at rest and in transit
  - Identify need for secure external email (Health Dept. is investigating Virtru, but Legal already leverages Clio – is there opportunity for consolidation?)
  - There is considerable paper-based processing and archiving at the county - ensure physical disposition policies are documented and followed
- 3rd Party Platforms
  - Contracts should be reviewed to ensure that vendors provide adequate indemnity and/or have sufficient cybersecurity insurance to protect the County in the event of a breach.

*In the longer term:*

The following should be considered as part of the recommended Network Architecture Review:

- Develop a HIPAA dedicated security architecture
  - Contract with a vendor to aggressively audit HIPAA controls annually
  - Migrate existing Google application and form strategies to County-owned equipment and applications
  - Consolidate data collected by Health employees and outside parties
- Develop a CJIS/JJIS dedicated security architecture
  - Contract with a vendor to aggressively audit CJIS and JJIS controls annually
  - Assume all areas which host unencrypted traffic flow from these subnets need to be audited for CJIS/JJIS concerns and apply physical controls

### HA & DR

HA

- Set and communicate service levels and identify critical services. Set appropriate service levels and communicate expectations accordingly. This includes maintenance windows allowed for planned downtime. Create a Service Catalog and Service Policies to communicate service expectations. Some services cannot be down in order for business to be conducted. Identify those critical services, again leveraging the service catalog.
- Track all unplanned outages (where service is unavailable or significantly impaired), creating Outage Reports that detail the root cause for the outage and steps taken to prevent recurrence. (As soon as practical)
- Measure Service Availability, publishing results each month to monitor trends and to gauge effectiveness of improvements.
- Periodically review performance and trends at the Technology Committee level, addressing any actions and investment necessary, including process improvements and redundant equipment or services.

DR

*In the medium term:*

- The County does not currently back up its cloud resources
- Cohesity is capable and sized appropriately to backup Office 365 data and other ancillary application data
- This data should be routed and backed up with all other resources

*In the longer term (once all network and datacenter remediation are complete):*

- Develop a Business Impact Analysis
    - Identify disaster scenarios to protect against and the business risks Crook County faces
    - Use the BIA findings to quantify risk tolerance and set objectives for recovery time (how much time to resume operations) and recovery point (how much data loss is accepted)
    - External resources can be procured as necessary to facilitate this analysis
- Create a written Disaster Recovery Plan detailing how IT will protect information assets and recover in event of disaster
    - Balance cost vs. risk tolerance
    - Remediate Risks as necessary to implement the plan
- Test the DR plan annually (at a minimum)

## Appendix A – Personnel Interviewed

**Leadership & Administration**

| | | |
|---|---|---|
| County Court | Seth Crawford | Judge |
| County Court | Jerry Brummer | Commissioner |
| County Court | Brian Barney | Commissioner |
| Administration | Sarah Puerner | Executive Assistant/Communications Officer |
| Business Consultant | Andy Parks | GEL Oregon |

**County Services**

| | | |
|---|---|---|
| Finance | Christina Haron | Acting Finance Director |
| | Jamie Berger | Budget Analyst |
| | Stacy Bernard | Tax Collector/Accounting Technician |
| | Laura Fladung | Accounts Payable Deputy |
| | Kathy Puckett | Payroll/Benefits |
| Human Resources | Kim Barber | Director |
| | Amy Albert | Recruiting |

**Operational Departments**

| | | |
|---|---|---|
| County Clerk | Cheryl Seely | County Clerk |
| Assessor | Jon Soliz | Assessor |
| Sheriff's Office | John Gautney | Sheriff |
| | Bill Elliott | Undersheriff |
| | Stephanie Wilson | Administration Deputy |
| | Aaron Boyce | Lieutenant |
| | Andy Pearson | Emergency Manager |
| District Attorney | Kari Hathorn | District Attorney |
| | Shelly Phillips | Office Manager |
| Legal | Eric Blaine | County Counsel |
| Health | Katie Plumb | Director |
| Community Development & Building | Will Van Vactor | Director |
| | Randy Davis | Building Official |
| Library | Cindy York | Co-interim director |
| | Sean Briscoe | Co-interim director |
| | Amber Dozhier | Library Technician |
| | Kim Bales | Catalog Librarian |
| Fairgrounds | Casey Daly | Manager |
| Landfill | Jeff Merwin | Manager |
| Road | Bob O'Neal | Manager |
| Facilities | Joe Viola | Manager |

| | | |
|---|---|---|
| Veterans | Dennis Brewer | Veterans Services Officer |
| Juvenile Offenders | Erika Frickey | Juvenile Director |
| Bowman Museum | Sandor Cohen | Museum Director |

**Information Technology**

| | | |
|---|---|---|
| IT Management | Sydney Chandler | IT Director |
| GIS | Levy Roberts<br>Jack Colpitt | Manager<br>GIS Analyst |
| IT Support | Chelsea Watson<br>Kelli Yaakola | IT User Support Technician<br>IT User Support Technician |
| Sparksta (MSP Vendor) | Edward Hilder<br>David Okonewski<br>Jean-Paul (JP) Jordan | |

## Appendix B – Sample Charter for Technology Committee

### Technology Committee Charter

**1. Background**

Effective IT governance is critical to achieving the optimum benefits from IT investments at <COMPANY>. The <COMPANY> Technology Committee (ITC) is an evolution of efforts begun in 2014 to effectively prioritize IT initiatives. This charter refines and formalizes the role of the ITC.

**2. Purpose**

The ITC is chartered to support the IT governance function at <COMPANY>.

The purpose of IT governance is to direct IT endeavors to ensure that the following objectives are being met:

1. Strategic alignment of IT to <COMPANY> enterprise goals and objectives
2. Ensure delivery of IT value to <COMPANY> and its customers
3. Manage IT resources effectively
4. Manage risks associated with initiatives and IT assets
5. Manage performance of initiatives and IT assets

**3. Authority**

The ITC is chartered and sponsored by the President of <COMPANY>.

**4. Membership**

ITC membership is comprised of:

1.
2.
3.
4.
5.
6.

**5. Chairperson**

<Chairperson> will act as Chairperson of the ITC.

**6. Roles**

Roles of the ITC members include, but are not limited to:

1. Provide input and decision making on IT investments.
2. Ensure consistent communication leading to a uniform understanding.
3. Review performance of major initiatives. Provide guidance for corrective actions on IT projects not performing to expectations.
4. Provide input and decision making on IT direction and principles for <COMPANY>.

5. Set and monitor overall success metrics for IT.

**7. Scope**

The scope of governance by this committee is the entire set of IT services at <COMPANY>.

**8. Responsibilities of Members**

Members of the ITC are responsible to:

1. Attend meetings or send a representative that is empowered to exercise the authority of the member.
2. Provide resources and efforts to develop recommendations within the Scope of this Charter.
3. Communicate the business interest of their division balanced by an overall view of the best direction for the Company.
4. Act as Sponsors for IT initiatives, and communicate the reasoning and rationale for recommendations of the ITC within their division.

**9. Decisions**

The ITC shall make decisions or endorse decisions affecting IT investment priority and policies. A decision may only be made when a quorum of two-thirds of the members are present. Decisions shall be based on a consensus of the members when a quorum is present. If consensus cannot be achieved a decision shall also contain a minority report written by one or more ITC members appointed by the Chairperson.

**10. Meetings**

Unless otherwise determined by the ITC, it will meet monthly. Meetings may also be called by the Chairperson or a majority of the members.

**11. Meeting support**

<COMPANY> will provide an administrative resource to provide ITC Support. ITC Admin Support will prepare and distribute a meeting agenda at least two working days in advance of every meeting. Minutes will be taken at each meeting. Minutes of the previous meeting will be reviewed and approved by the members of the ITC at the beginning of each meeting.

**12. Changes to the Charter**

Changes may be made to the Charter based on a recommendation of the ITC. The ITC shall review and if warranted update this Charter at least biennially.

## Appendix C – Sample Initiative Charter

Template available for download here.

| Strategic Intent | | | Leadership | |
|---|---|---|---|---|
| Describe intended impact on business & relate to strategic objectives. State problem/opportunity addressed. Why pursue this initiative? | | | Sponsor | Name (Dept/Role) |
| | | | Project Owner | Name (Dept/Role) |
| | | | Project Manager | Name (Dept/Role) |
| **Business Proposal** | | | **Core Team:** | |
| Describe proposed project(s). What is to be done? | | | List of Names (Dept/Role) | |
| | | | **Key Stakeholders:** | |
| | | | List by name or dept/role | |
| **Deliverables** | | | **Key Assumptions** | **Key Dependencies** |
| **What** | **When** | | • List Key Assumptions – organizational, technical, other factors that must be true for initiative to succeed | • List pre-conditions or dependent projects |
| • Deliverable | • Deliverable | | **In Scope** | **Out of Scope** |
| | | | • Areas In Scope | • Areas Out of Scope |
| **Success Metrics** | | | **Benefits** | **Costs** |
| **Metrics** | **Today** | **To Be** | • Benefit / Quantify | • Cost / Quantify |
| Measure 1 | | | | |
| Measure 2 | | | | |
| Measure 3 | | | | |

## Appendix D - ITIL Overview

The IT Infrastructure Library (ITIL) V3 framework processes are organized into five volumes that provide comprehensive coverage of IT Service Management:

Service Strategy

This volume is the hub of the ITIL v3, and is a view of ITIL which aligns information technology and the business. It helps focus upon understanding, and upon translating business strategy into IT strategy, as well as selection of the best practices for the particular industry in question. The following topics are covered by this volume:

- Strategy and value planning
- Roles / responsibilities
- Planning and implementing service strategies
- Business planning and IT strategy linkage
- Challenges, risks and critical success factors.

Service Design

This volume provides guidance on the creation and maintenance of IT policies and architectures for the design of IT service solutions. This also embraces outsourcing, insourcing and co-sourcing. Included are the following topics:

- The service lifecycle
- Roles and responsibilities
- Service design objectives and elements
- Selecting the appropriate model
- Cost model
- Benefit and risk analysis
- Implementation
- Measurement / control
- CSF's and risks

Service Transition

This volume covers the longer-term change management and release practices. It provides guidance for the transition of IT services into the business environment. Fundamentally, it covers how to create a transition strategy from service design and transfer it to the production (business) environment. It includes the following topics:

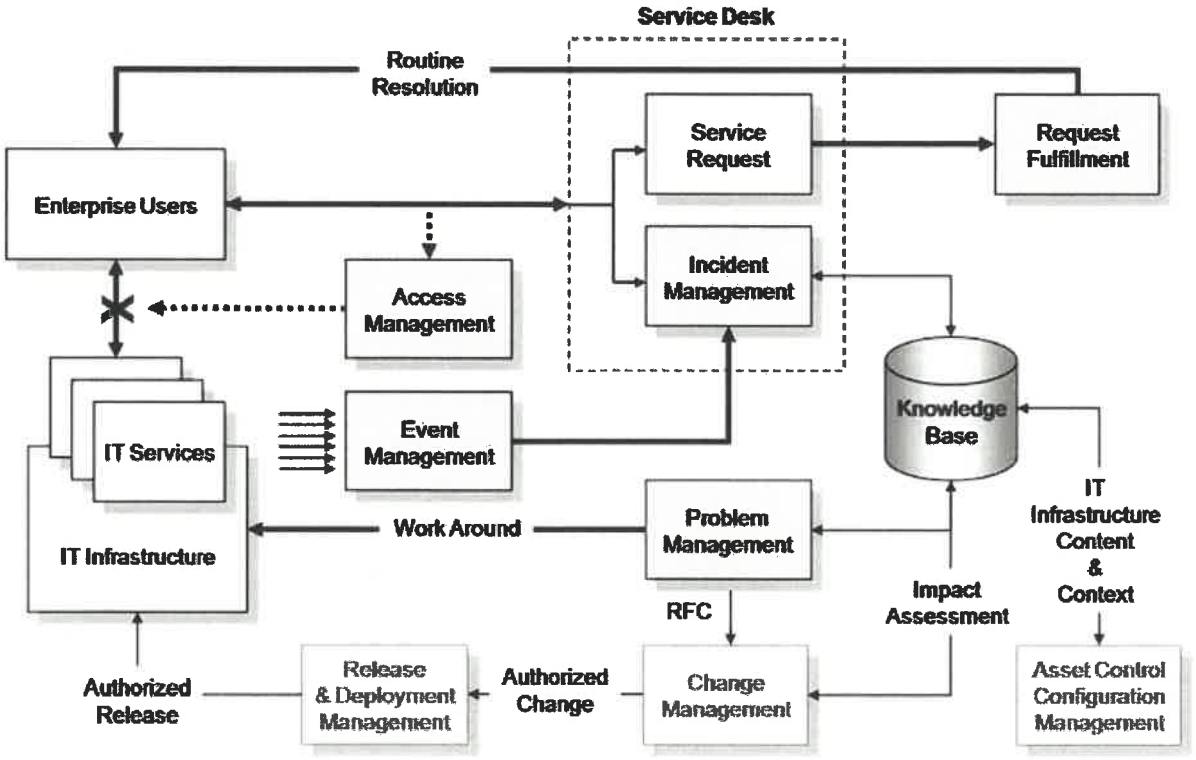
- Managing change (organizational and cultural)
- Knowledge management
- Risk analysis
- The principles of service transition
- Lifecycle stages
- Methods, practices and tools
- Measurement and control
- Other best practices

Service Operation

This volume covers delivery and control processes with a view to ensuring service stability. It embraces the familiar basics of how to manage services in the production environment, including day to day issues and fire-fighting. The following topics are included:

- Principles and lifecycle stages
- Process fundamentals
- Application management
- Infrastructure management
- Operations management
- Critical Success Factors and risks
- Control processes and functions

SAMPLE SERVICE OPERATION PROCESS MODEL:




Continual Service Improvement

This volume covers the processes involved in improving service management within the business, in addition to the issues related service closure or retirement. It basically describes how to improve a service after it is deployed. It includes the following topics:

- The drivers for improvement

- The principles of CSI
- Roles and responsibilities
- The benefits
- Implementation
- Methods, practices and tools
- Other best practices

## Appendix E –Service Policy Template

# Service Policy - <service name>

### About this Service

<service name> is a <describe what it is> and includes <describe features>

| Contact Information | |
|---|---|
| **Support Provider:** | |
| **Who Can Contact:** | |
| **Hours of Support:** | |
| **How to Contact:** | |

| Service Level Agreement | |
|---|---|
| **What's Covered:** | |
| **What's NOT Covered:** | |
| **Response Time Expectations:** | |
| **Escalation:** | If you do not receive a response or service is inadequate for any reason, please contact: |

# Agenda Item Request

**Date:**
*March 23, 2023*

**Meeting date desired:**
*March 28, 2023*

**Subject:**
*Goal Setting, Department Work Plans*

**Background and policy implications:**
*The County Court and Department Directors have provided information and participated in several sessions facilitated by Larry Patterson to help the Court prioritize its goals for the upcoming fiscal year and beyond. Additionally, through the process facilitated development of department work plans that support the goals and objectives and serve as the foundation for budget development in fiscal year 2024 and projections for fiscal year 2025-2028.*

**Budget/fiscal impacts:**
*The goals and work plans will impact the development of the fiscal year 2024 budget and subsequent years.*

**Requested by:**
*Andy Parks*

**Presenters:**
*Larry Patterson*

**Legal review (only if requested):**
*NA*

**Elected official sponsor (if applicable):**
*NA*

Draft

**Crook County**
**Department Work Plan Initiatives**
**Fiscal Year 2024**

**Assessor**

- CAMA software conversion items completed
- Ensure training plan for software and new technologies
- Prepare a strategic plan inclusive of
    - Succession plan -what that looks like in 5-10 years
    - 5-year plan: continuing to meet all Oregon requirements

**Clerk**

- Preparation for upcoming Presidential election year
- Add additional volunteer staffing for elections
- Additional equipment or election board expansion
- Plan/preparation to move to and from temporary offices during Courthouse remodel/renovation
- Prepare a strategic plan inclusive of
    - Succession planning
    - County-wide education program for record retention requirements
    - Coordinate/develop plan to digitize all County records consistent with records retention requirements
    - Contingency plans/options for election changes prior to next election

**Natural Resources**

- Prepare a strategic plan

**Juvenile**

- Number of mental health youth entering system and bed capacity
- Decreased number of treatment beds available to youth
- State-mandated automatic expunctions for all misdemeanors
- Dependable vehicles
- Funding for detention & psych exams/curriculum for groups & parents

**District Attorney**

- If possible, within staffing plan above add experienced prosecutor
- Draft moving plan and implement in Q3 FY 2024
- Need business analyst to help improve office efficiency and effectiveness
- Need technology improvements to improve efficiency and effectiveness
- Prepare strategic plan that is inclusive of
    - Examination of workload with staffing plan that aligns with workload demands
        - Flexible to labor market

Draft

  - Facilities utilization
  - Technology
  - Staff development
  - Integration with Community Justice partners – Sheriff and Juvenile

**Finance**

- Expand payroll processing to Sheriff's office (all county employees)
- Benefits administration within Finance, with HR input
- Select and implement ERP solution
  - Via Strategic Road Map process
- Cancel subscription to OpenGov
- Complete recommendations in Finance Department Assessment
- Expand use of accounts receivable application
- Assume responsibility of fees and charges schedule – County-wide
- Special Projects
  - Update fees and charges utilizing updated billing rates information – County-wide
  - Explore additional funding for roads
    - Transportation System Development Charge (SDC)
    - Transportation Utility Fee, Registration Fee or other revenue supplements
  - Full life cycle cost analysis overlays vs chip seal – collaboration with Road
- Draft strategic plan inclusive of the above together with
  - Relocation plan
  - Centralized purchasing
  - Financial models to support strategic plans of all departments/services
  - Staff development
    - CFO
    - Budget manager
    - Accounting manager
    - Cross training
  - Succession planning

**Human Resources**

- Update all job descriptions
- Compensation study update
- Secure SHRM certifications – all HR staff
- Move organization wide training to Administration
- Ergonomics budget to Facilities
- Evaluate, select and initiate implementation of HRIS solution
  - Via Strategic Road Map process
- Implement external exit interview process
- Expand background checks

Draft

- Assume responsibility of compensation committee
- Draft strategic plan inclusive of the above and
    - Develop standard recruiting process
    - Develop consistent compensation management practices
        - Eliminate ½ step pay adjustments
    - Evaluate review process and update to best practices

**IT/GIS**

- Implement Strategic Road Map
- Infrastructure for Justice Center
- Replace computers timely
- Develop strategic plan inclusive of
    - Use of framework included in Road Map
    - Organization wide training
    - Succession planning
    - IT staff training

**Legal**

- Facilitate transition to County Administrator
- Develop and present training as requested
- Offload the following non-legal functions
    - Fees and charges to Finance
    - Compensation committee to Human Resources
- Collaborate with Court, Administrator role, and directors to find solutions to offload and or update processes and practices of other non-legal functions
    - Property management
    - Purchasing
    - Public information requests
    - Other non-legal work activities that
- Transition to exclusively provide legal services and related training

**Facilities**

- Complete space needs assessment and facilities plan
- Initiate design for Courthouse renovation project
- Initiate design for other buildings
- Training to serve new Justice Center operation
- Asset management plan
    - Facilities
- Plan to repurpose/surplus buildings that will be vacated

**Roads**

- Evaluate options to address Juniper Canyon ingress/egress
    - Secure approval of improvements and financial plan

Draft

- Develop strategic plan inclusive of
    - Operating plan
    - Staffing plan
    - Succession plan
    - Develop detailed capital improvement plan (CIP)
        - Specific sections, miles, etc. for each project
            - Coordination with GIS to generate map(s)
                - Overlays
                - Chip Seal
                - Complete reconstructions, if applicable
        - Powell Butte Highway
        - Sharp Road
        - Johnson Creek
    - Identify and/or update annual costs to maintain County road system at or above target Pavement Condition Index (PCI)
    - Cost evaluation full life costing overlay to chip seal to complete reconstruction (finance)
    - Updated Transportation System Plan 2024 (Community Development lead)
    - Transportation System Development Charge (SDC) study 2024 (Finance lead)
    - Possible Transportation Utility Fee, Registration Fee or other revenue supplements (Finance lead)

**Community Development**

- Complete Transportation System Plan update (TSP)
- Finalize and implement strategic plan
- Research technology enhancements
    - Digital plan review (implement FY 2025)
    - Alternative document management software for better public interface and use by staff in field
- Review and update building fees
    - Financial analysis using billing rates from Tail Study
- Create plan for state-of-the-art community development facility
    - Leverage use of technology
    - Customer service
- Consider options for updating the Comprehensive Plan in fiscal year 2025
    - Alternatives to update the Comprehensive Plan
        - e.g., select chapters, or
        - Whole comprehensive plan update at once

**Sheriff's Office**

- Finalize and phase in strategic plan
    - Jail
    - Patrol

Draft

- Plan and execute move to Justice Center
- Justice Center security staffing
- Recruiting, retention
- Training and time to the street
- Determine funding gap to fulfill strategic plan
    - Staffing
    - Fleet replacement funding plan
- Determine alternatives to address funding gap

**Health and Human Services**

- Integration of Veterans Services
- Implement grant management software
- Improve efficiency and flexibility to meet staffing needs
- Identify space requirements and facilities plan
- Training for technology and operations
- Communications to engage community in care amidst distrust and disinformation
- Reorganization of chart of accounts
- Maximize reimbursement of federal and state funding sources
- Draft strategic plan inclusive of the above
    - Determine County sustainable amount/percentage contribution/funding

**Library**

- Update strategic plan
- Address facilities needs and issues
    - Tenant improvements
    - Aging major building improvements
- Retain adequate staffing
- Technology upgrades/updates

**Veterans**

- Reorganize into Health and Human Services
    - Leadership by Health and Human Services Director
    - Recruit Veterans Services Officer Lead position
- Draft strategic plan
- Office location
- Stabilize General Fund contribution
- Develop sustainable program

**Fairgrounds**

- Address minimum fund balance deficiency
- Address operational deficit
- Review existing RV agreement with Parks and Rec District
- Expand RV space rental

Draft

- Support additional revenue via State HB2510
- Pursue support from City Transient Room Tax
- Secure water rights from OID
- Funding for new community hall
- Utility flatbed truck
- Draft strategic plan inclusive of the above

**Landfill**

- Explore changes to facilities to reduce staffing needs on Saturdays and holidays
- Update Solid Waste Management Plan
- Outsource grinding
- Add webpage with camera during operating hours
- Utilize social media
- Update 20-year financial model and update rates accordingly
- Update capital schedule
- Explore Jefferson County needs
- Review Republic Agreement
- Explore Jefferson County waste

**Weed**

- Transition to new Weed Master
- Review Weed contracts and provide to finance
- Finance to bill all contracts
- Review services with County
- Recover full cost from new development
- Promote services via social media
- Implement key performance measures
- Draft strategic plan consistent with above

**Airport**

- Complete business plan – Q3 2023
- Implement business plan (pending adoption Q4 2023)
    - New ground lease
    - Capture additional ground rent from existing tenants
    - Secure full service FBO Q1 2024
    - County billing/collecting all leases
- Construct t-hangers
    - FAA funded – approximately $750,000 (8 units)
    - Additional units if demand exists

Draft

Draft

# Agenda Item Request

**Date:**
*March 23, 2023*

**Meeting date desired:**
*March 28, 2023*

**Subject:**
*Space Needs Assessment*

**Background and policy implications:**
*The County is moving forward with completion of the Justice Center with District Attorney, Juvenile and Sheriff's Office departments moving from existing facilities, including the Courthouse, in March 2024. The County has issued debt and is pursuing additional capital funding to remodel/renovate the Courthouse. Prior to designing the Courthouse, and potentially other buildings, a space needs assessment is needed to help inform the Court of building needs in your decision making.*

**Budget/fiscal impacts:**
*The fiscal year 2023 budget includes $50,000 for a space needs assessment. Courthouse improvements are anticipated to be between $10 and $25 million, with other buildings cost of $5 - $10+ million.*

**Requested by:**
*Andy Parks*

**Presenters:**
*Brian Barney, County Commissioner*
*Andy Parks*

**Legal review (only if requested):**
*NA*

Draft

# AGENDA ITEM REQUEST

**Date:**
*3.23.23*

**Meeting date desired:**
*3.28.23*

**Subject:**
*Public records fee waiver request from OPB*

**Background and policy implications:**
*The County received a public records request from Jonathon Levinson, a reporter for OPB, requesting the "full internal investigative file, 911 calls, radio transmissions and body camera footage for the Feb. 4, 2022 shooting of Nicholas Rodin by Deputy Steven Hatcher." After an extensive internal review, the County determined the only responsive docs in its custody are the docs with the litigation file for the case* Yoakum v. Crook County, *Case No. 2:23-cv-1. I responded to Mr. Levinson that such documents are conditionally exempt from disclosure as litigation documents under ORS 192.345(1), but the public interest for many of the documents may outweigh the County's need for an exemption and that my initial estimate for that review would be 8 hours at $66/hr for a total fee estimate of $528.00. Mr. Levinson subsequently called me and refined his request and asked for a fee waiver on the grounds that "the records are part of a larger look at police use of force in the state."*

**Budget/fiscal impacts:**
*$528.00*

**Requested by:**
*John Eisler, Asst. County Counsel*

**Presenters:**
*Same*

**Legal review (only if requested):**
*Legal is the requestor/presenter*