



# Information Technology Strategic Plan (2017-2022)



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## **1. Executive Summary**

Governments at all levels are under pressure to deliver more for less, whether this pressure comes from Federal or State mandates or citizen needs. In particular, citizens are demanding from government, the service levels, convenience, and quality they have come to expect from the private sector. Considering the challenges that confront City government, information technology (IT) must deliver tangible business value by improving productivity while controlling costs. This information technology strategic plan (ITSP) presents the “roadmap” for how IT supports the mission and goals of the City of Colfax (City) as well as enables the City to provide cost-effective services to residents, businesses, visitors, and employees. The objectives, principles, and direction described in this plan is aimed at helping City leaders, technical staff, business users, vendors, and business partners to plan, implement, and manage value-producing IT for the City.

The IT strategy for the City rests on three pillars:

- (1) A digital foundation
- (2) A service oriented architecture (SOA)
- (3) Strategic partnerships

A digital foundation is the base upon which all other initiatives rest. That is, it is impossible to meet the technology needs of the City-whether telephones, computers, or software programs-without a capable, reliable, and cost effective IT “backbone.” This backbone consists of a modern IT architecture of hardware, software, tools, processes, and services. To that end, the City is replacing its legacy systems for one integrated technology infrastructure that meets the collective needs of all City departments and users. It supports information sharing, enhanced security, and ensures redundancy and continuity of network operations.

Second, it is much cheaper and more efficient to “reuse” than “recreate.” Rather than creating and maintaining custom software, the City will procure the “best of breed” services and solutions.

Third, it is not desirable for the City to build and maintain every IT solution it uses. The City seeks to borrow, use a broker, or buy an already existing commercial product.

On top of these three pillars, the City has created a Management Team (MT) to govern the selection, prioritization, and funding of IT projects. The MT is chaired by the City Administrator. The Police Chief, Fire Chief, Public Works Director, Finance Director, City Clerk, Records Clerk, and Building & Community Development Associate. The Management Team reviews and ranks proposed IT projects according to their recommended priority, estimated cost, and proposed benefits. The Management Team forwards its recommendations to the Mayor and City Council for final review and approval. The City Council approves a final list of projects as part of the annual budget.

## **2. Introduction**

### **A. Background**

For years, there has been pressure on governments to deliver more for less. Federal and State mandates add new City responsibilities. City customers-internal and external-increasingly demand the same level of service, convenience, and quality found in the private sector. Our City must use information technology (IT) to improve productivity in service delivery and control the cost of government.

### **B. Purpose**

The purpose of the City of Colfax (City) Information Technology Strategic Plan (ITSP) is to describe the “roadmap” being used to implement and deliver IT services that support the strategic mission and goals set by the City and to help the City government provide cost-effective services to its residents, businesses, visitors, and employees. The objectives, principles, and direction in this plan are aimed at improving the management, planning, and implementation of the City’s IT initiatives.

### **C. Vision and Goals**

The vision for IT use in the City includes:

- The use of enterprise-wide and business-specific technology, as appropriate
- A focus on serving the customer (i.e. residents, businesses, visitors, and employees)

- Control cost in business processes
- Business process redesign and reengineering efforts
- Enabling data-driven government
- The collaboration and sharing of IT services and solutions quickly, easily, and appropriately, inside and outside the City.



To support this vision, the City has the following goals for IT:

- Enhance customer service
- Increase efficiency
- Lead effective change management efforts
- Maximize cost/benefit
- Leverage resources
- Improve communication
- Improve employee productivity
- Increase workforce quality, skills, satisfaction, and loyalty
- Maintain high integrity
- Manage risks and anticipate new threats and opportunities to the city.

### **3. Information Technology Strategy**

The Information Technology Strategy has three strategic themes:

- **Digital Foundation**-establish and maintain a modern enterprise infrastructure from which to deploy business solutions that meet organizational needs.
- **Service Oriented Architecture**-establish and maintain a modular technology architecture that allows the City to develop and have flexible IT applications at lower costs delivered at the optimum economies of scale.
- **Strategic Partnerships** -establish relationships with external organizations to promote shared goals and take advantage of economies of scale and centers of excellence.

#### **A. Digital Foundation**

Deploying a sound digital foundation is a prerequisite for any IT strategy. Historically, much of the City's IT infrastructure was built in department-specific silos. The City of Colfax lacked an Information Technology Plan and thus the IT management was more about fixing than improving.

Establishing a digital foundation requires the sharing and reuse of a common, standards-based IT infrastructure. To that end, the City is implementing and sharing common services and leveraging the tools and processes needed to improve integration and interoperability across the enterprise. This first step in improving our IT infrastructure helps to ensure that the City can do a better, more cost-effective job in serving its residents, businesses, visitors, and employees.

IT infrastructure is being upgraded for capacity, reliability, redundancy, and efficiency. This digital foundation allows the City to develop and deploy fully integrated IT systems and services based on best practices and within the city budget. For example, telecommunications is the most critical technologies used by the City consisting of voice, data, and radio, as well as the connections to telecommunications networks and services. To achieve this digital foundation, the City integrated its telecommunications systems into a hybrid system based on Internet Protocol (IP) standards.

#### **B. Service Oriented Architecture**

Service-oriented architecture (SOA) is a widely accepted best practice in the IT industry. SOA is an approach to developing IT applications using independent, reusable modules and services. It seeks to "re-use" rather than "re-create" existing services delivered by third-party service providers, commercial off-the-shelf (COTS) software, or City systems. When these services are available via Internet, and constructed using a specified set of standards, they are called "web services." SOA provides interoperability, maintainability, re-use, lower cost, predictability, agility, and enables shared services between and among organizations. The City will procure or provide IT services and solutions according to the approach that delivers the optimum value to the organization. Special emphasis is placed on services that support services and solutions. Special emphasis is placed on services that support common

business processes and encourage creative approaches to meeting our business needs. This means that IT services are based on open standards in order to make integration with other products easier and less expensive. One significant benefit to the City with this approach is that IT personnel who were previously creating and maintaining these services are re-focusing on integrating commercial products and tailoring them to our needs.

### **C. Strategic Partnerships of Scale and Excellence**

The City will broaden its service delivery approaches. In priority order, the City will:

1. Share as much as possible from similar organizations that provide a service or solution well or from a different industry that performs a similar service or solution, or
2. Use a broker that meets the needs of the City or be a broker and provide the service to others if the City is the best provider, or
3. Buy a cost-effective COTS solution that meets the business need of the City, or
4. Build a custom solution in house or with contracted services as a means of last resort.

Fortunately, in an increasingly interconnected world, it is not necessary for the City to be the sole provider of IT services. Advances in cloud computing, SOA, and SaaS allow the City to procure IT services from a variety of providers that offer opportunities of scale and excellence. By seeking strategic partnerships with alternative providers who are large enough to achieve the economies of scale, we are able to shift costs and the risk of obsolescence to a larger pool.

Strategic partnerships of scale and excellence focus on identifying collaboration and teamwork opportunities and promoting the sharing of services and data across government agencies. In these strategic partnerships, the City serves as either the service provider or the participant in a shared service system. To be considered, a strategic partner's vision must align with our strategic plans. The partners must be able to solve our immediate business needs and demonstrate the potential to address our long-term goals. The partner must demonstrate a track records of quality customer service and customer satisfaction and possess financial stability. As well as technical expertise, and a commitment to the success of the partnership. This means that the partner must be committed to ongoing improvements to its services and solutions.

## **4. Existing System**

### **A. Department User Matrix**

To meet the diverse and complex needs of citizens and businesses in Colfax, the City provides services directly through operating departments. All departments have access to enterprise systems for productivity, communication, and collaboration. Each department's technology use is profiled below in Table One.

<b>Technology in City Services and Operations</b>		
<b>Department</b>	<b>Functions</b>	<b>Technology Used For</b>
Administration	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Building</li> <li>• Clerk</li> <li>• Courts</li> <li>• Information Technology</li> <li>• Economic Development</li> <li>• Finance</li> <li>• Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Case management</li> <li>• Content and records management</li> <li>• Web content management for City website</li> <li>• Enterprise resource planning (financial system)</li> <li>• Budget development and monitoring (Bias)</li> <li>• Online recruitment (Google Forms)</li> <li>• Work order system (Iworq)</li> </ul>
Fire	<ul style="list-style-type: none"> <li>• Emergency Management</li> <li>• Fire</li> </ul>	<ul style="list-style-type: none"> <li>• Fire dispatch and mobile access (provided as a service from WHITCOM, a regional 911 center)</li> <li>• Fire records management (provided as a service from WHITCOM)</li> </ul>
Police	<ul style="list-style-type: none"> <li>• Emergency Management</li> <li>• Investigation</li> <li>• Patrol</li> </ul>	<ul style="list-style-type: none"> <li>• Police dispatch and mobile access (provided as a service from WHITCOM)</li> <li>• Police records management system (provided as a service from WHITCOM)</li> </ul>
Public Works	<ul style="list-style-type: none"> <li>• Parks</li> <li>• Sanitary</li> <li>• Storm</li> <li>• Street</li> <li>• Water</li> </ul>	<ul style="list-style-type: none"> <li>• Parks, trails, and streetscape inventory and management</li> <li>• Maintenance management and work order tracking</li> <li>• Telemetry management</li> </ul>

Table 1: Technology in City Services and Operations

## **B. Hardware**

All servers across the City network are manufactured by Dell aged from 2008 to 2009. All computer across the City network are manufactured by Dell with an age ranging from thirteen years old to present. Printers across the City are manufactured by Hewlett-Packard (HP) dated from 2006 to present. Copiers are manufactured by Ricoh.

### **1. Servers**

The City operates four servers: three in City Hall and one in Public Works. The CH-DC1 server was retired and replaced in 2015 by the server model sited in the plan. The CH-Mail server was retired with the move of email services to Google Apps. The CH-Vision Server data was incorporated into the CH-DC 1 server and the CH-Vision server was retired. This avoided costly Microsoft Server and SQL upgrades. The specification of each server is located in Table 2 below.

City of Colfax: Servers						
City Server Name	Server Model Name	Location	Processor	Ram	Hard Drive	Year Replaced
CH-DC1	HP Proliant DL380p	City Hall	Intel Xeon E5-2620 2GHz 6c/12T	16 gb	3 (raid 5) 250 gb	2015
CH-Vision	Dell PowerEdge T-300	City Hall	Xeon X3323 2.5 Ghz single cpu 2 core 2 threads per core.	16 gb	3 (raid 5) hard drive 320 gb	Retired
CH-Mail	Dell PowerEdge 2600	City Hall	Xeon 3.06 ghz 2 cores 1 thread per core	4 gb	3 (raid 5) 136 gb hard drive	Retired
PW-DC1	Dell PowerEdge T3500	Public Works	Intel Core 2 Duo single cpu 2 core 1 thread per core	8 gb	2 (non-mirrored) 250 gb hard drives	2009

Table 2: City of Colfax: Servers

According to Dell (<http://www.dell.com/learn/us/en/04/smb/evaluating-the-useful-life-of-a-server>), the average useful life of a server is seven years if proper maintenance is performed. The City in 2015 purchased a Proliant Server to replace two the original CH-DC1 server and two outdated ones which ran email and financial software. The only remaining server which is beyond its useful life is the Public Works server.

## 2. Computers

All of the computers across the City were manufactured by Dell. Ages range from thirteen years old to present. Table three consists of a comprehensive inventory of computers Citywide.

City of Colfax: Active Computer Directory								
Computer Name	Model Name	Dept	Operating System	Processor	Hard Drive	Use	Age	Type
CH-Admin	Dell Optiplex 3020	Admin	Windows 7 Professional	Intel Core I5 4570 (3.20 GHZ)	500 GB	Advanced Office	2014	Desktop
CH-Council Chamber	Inspiron 15	Admin	Windows 7 Professional	160 GB	General Office	2014	2019	Labtop10 0+100
CH-ADM-Clerk1 (Lynda)	Dell Optiplex 3020	Admin	Windows 7 Professional	Intel Core I5 4570 (3.20 GHZ)	500 GB	General Office	2014	Desktop
CH-ADM-Clerk2 (Connie)	Dell Optiplex 790	Admin	Windows XP Professional	Intel i7 2600 3.4 GHZ	250 GB	General Office	2011	Desktop

CH-TREAS (Mark)	Dell Optiplex 760	Admin	Windows 7 Professional	Intel 2.8 Dual Core Processor 2.8 GHZ	160 GB	General Office	2009	Desktop
CH-Mayor	Inspiron 15	Admin	Windows 7 Professional	Intel Core 3	80 GB	General Office	2016	Labtop
CH-ADM-TREAS (Andy B.)	Dell Dimension 5150	Admin	Windows XP Professional	Intel Core I5	80 GB	General Office	2004	Desktop
COLFAXCITYCLERK	HP 15-r050nr	Admin	Windows 8.1	Intel Core i3 3217u	750 GB	City Meetings/ Records	2014	Labtop
Register	Dell Optiplex 760	Admin	Windows 7 Professional	Intel 2.8 Dual Core Processor 2.8 GHZ	160 GB	General Office	2009	Desktop
CH-FIRE-LABTOP	Dell Optiplex 3020	Fire	Windows 7 Professional	Intel I5	80 GB	Radio Programming	2016	Labtop
CAMERA-SERVER	Dell Dimension 8250	Fire	Windows XP Professional	Intel Pentium 4 2.4 GHZ	120 GB	Camera	2003	Desktop
CH-DELL	Dell Optiplex 3020	Fire	Windows 7 Professional	Intel I5	80 GB	Scuba Testing	2016	Labtop
CFPD-1	Dell Latitude E6510	Fire	Windows 7 Professional	Intel Core i7 620 M/2.66 GHZ	320 GB	Training & Radios	2010	Labtop
CFPD-2	Dell Optiplex 790	Fire	Windows 7 Professional	Intel Q65 Express 3.8 GHz Quad-Core	320 GB	CAD Program	2009	Desktop
CFPD-3	Dell Optiplex 755	Fire	Windows 7 Professional	Intel Core 2 Duo E4500	160 GB	Radio & Camera	2007	Desktop
CH-POL-CHIEF1	Dell Inspiron Small Desktop 3	Police	Windows 7 Professional	Intel J1800	1 TB	General Office	2016	Desktop
CH-POL-505A	Dell Optiplex 755	Police	Windows 7 Professional	Intel Core 2 Duo E4500 2200 MHz	160 GB	General Office	2007	Desktop
CH-POL-506A	Dell Optiplex 755	Police	Windows 7 Professional	Intel Core 2 Duo E4500 2200 MHz	160 GB	General Office	2007	Desktop
CH-PD-503A	Dell Optiplex 755	Police	Windows 7 Professional	Intel Core 2 Duo E4500 2200 MHz	160 GB	General Office	2007	Desktop

CH-PD-502A	Dell Optiplex 755	Police	Windows 7 Professional	Intel Core 2 Duo E4500 2200 MHz	160 GB	General Office	2007	Desktop
CH-POL-505	Dell E6410 Labtop	Police	Windows 7 Professional	Intel Core i5 520 M 2.4 GHz	250 GB	General Office	2009	Labtop
CH-POL-506	Dell E6410 Labtop	Police	Windows 7 Professional	Intel Core i5 520 M 2.4 GHz	250 GB	General Office	2009	Labtop
CH-POL-502	Dell E6410 Labtop	Police	Windows 7 Professional	Intel Core i5 520 M 2.4 GHz	250 GB	General Office	2009	Labtop
CH-POL-504	Del E6410 Labtop	Police	Windows 7 Professional	Intel Core i5 520 M 2.4 GHz	250 GB	General Office	2009	Labtop
CFPD-POL-505A	Dell E6410 Labtop	Police	Windows 7 Professional	Intel Core i5 520 M 2.4 GHz	250 GB	General Office	2009	Labtop
PW-LABTECH1	Dell Optiplex 755	Public Works	Windows 7 Professional	Intel Core 2 Duo Processor 2.33 GHz	80 GB	General Office	2010	Desktop
PW-CREW-D	Dell Dimension 2400	Public Works	Windows XP Professional	Intel Celeron Processor 2.40 GHz	40 GB	Telemetry/SCADA	2004	Desktop
PWSUPERVISOR	Dell Optiplex 760	Public Works	Windows 7 Professional	Intel 2.8 Dual Core Processor 2.8 GHz	160 GB	General Office	2012	Desktop
PW-CREW-1	Dell Optiplex 755	Public Works	Windows 7 Professional	Intel Core 2 Duo Processor 2.33 GHz	80 GB	General Office	2010	Desktop
PW-CREW-2	Dell Optiplex 755	Public Works	Windows 7 Professional	Intel Core 2 Duo Processor 2.33 GHz	80 GB	General Office	2010	Desktop
PW-CREW-3	Dell Optiplex 755	Public Works	Windows 7 Professional	Intel Core 2 Duo Processor 2.33 GHz	80 GB	General Office	2010	Desktop
PW-CREW-4	Dell Optiplex 755	Public Works	Windows 7 Professional	Intel Core 2 Duo Processor 2.33 GHz	80 GB	General Office	2010	Desktop

Table 3: City of Colfax: Active Computer Directory

### 3. Monitors

All computer monitors across the City are Dell 1907 FP's manufactured between 2006

and 2010. In August 2014 the City received 22 Dell UltraSharp 2007FP monitors that were donated to us from Whitcom. These monitors were manufactured in 2012 and have usb ports on the sides of them. Monitors will be deployed as old ones malfunction. As of October 2016 we have about 11 left.

**4. Printers**

Printers across the City range in age from 2004 to 2016. The Ricoh copier & scanner machine is leased. The lease was terminated by the servicer due to the age of the equipment. An active directory of all printers is located below.

<b>City of Colfax: Active Printer Directory</b>			
<b>Model</b>	<b>Department</b>	<b>Use</b>	<b>Age</b>
Tally Tally T2380	Court	General Printing	2016
HP Envy 4500 All in One	Public Works	General Printing	2016
HP Office Jet Pro K5400	Police	General Printing	2004
HP Office Jet Pro L7590	Public Works	General Printing	2004
HP Color Laserjet CP3505	Fire	General Printing	2006
Cannon Imageglass MF6530	Public Works	General Printing	2006
HP Officejet L7580	Administration	General Printing	2007
HP LaserJet 4240N	Administration	General Printing	2007
Brother Pocket Jet 6	Police	General Printing	2010
HP Laser Jet M1212nf MFP	Administration	General Printing & Fax	2010
HP Laser Jet M1212nf MFP	Public Works	General Printing & Fax	2010
Canon C52346A	Administration	Copier & Scanner	2016
Brother DCP 7065	Police	General Printing	2013

Table 4: City of Colfax: Active Printer Directory

**5. Backup Device**

The DC1 unit is backed up by a HP Proliant NAS device. The server in Public Works is not currently backed up.

**6. Surge Protection**

The CH-DC1, CH-Vision, and CH-Email servers are protected by an APC Smart-UPS 1500 VA surge protector. This protector was acquired in 2007 and has a useful life of seven years. Approximately, fifty percent of desktop computers across the City are equipped with an APC Smart UPS 1500 surge protector. However, all are at the end of their useful life by 2015.

**7. Projector**

The City has one projector, an Infocus LP350B. The unit is housed in the Fire Department. This unit type was manufactured in 2000. The city replaced this projector in 2015.

**8. Large Monitors**

The purpose of large monitors across the City is to provide a medium to show maps and other interactive materials before public meeting bodies. A directory of large monitors owned by the City is located below.

<b>City of Colfax: Large Monitor Directory</b>				
<b>Name</b>	<b>Diameter</b>	<b>Year</b>	<b>Type</b>	<b>Use</b>
Emerson LC501EM3	50"	2014	LCD HDTV	City Meeting Presentations

Table 5: City of Colfax: Large Monitor Directory

**9. Cameras**

The City recently purchased a system of six Qsee cameras that are motion activated and have night vision in 2016. Video from the devices is stored for three weeks on the main server.

**10. Water Meter Readers**

The City currently owns two Northrup Grumman VersaTerm CE water meter readers. The units date back to 2004. Per IRS guidelines the units have an average useful life of seven years. The units reached the end of their useful life in 2011. The City replaced the two units with Trimble Allegro 2 rugged units in 2015. The two Northrup Grumman units will be surplus in 2016.

**11. GPS Equipment**

The City purchased a Trimble Juno3D in 2015 to collect GPS coordinate information for municipal infrastructure.

**12. Hearing System**

The City obtained a ADA compliant hearing system with mixer in 2016.

**C. Email**

The city email system was switched from the Microsoft Exchange Server 2003 server supported version to Google Apps. This allowed the City to retire an antiquated server and avoid a costly upgrade of Exchange Server and continued support of Mail Foundry.

## D. Software

City staff use a number of software titles to accomplish daily operations. Table 6 is a database of software titles used by the City. The City maintains active licenses all software except ESRI and AutoCAD programs. Both programs were purchased with grants with no funds allocated for ongoing maintenance.

City of Colfax: Software Licensing Directory					
Name	Year	Version	Use	Number of Licenses	License Current ?
Microsoft Office	2003	2003-Standard	General Office	6	Yes
Microsoft Office	2007	2007-Standard	General Office	10	Yes
Microsoft Office	2010	2010-Standard	General Office	5	Yes
Microsoft Office	2013	2013-Standard	General Office	11	Yes
Vision Financials	2007	1.0.2.8	Finance	3	Yes
Vision Payroll	2007	1.0.2.8	Finance	3	Yes
Bias	2016	2016	Finance	4	Yes
Spillman	2012	6.2.1311.1043	Emergency Response	5	Yes
AutoCAD	1998	1998	Engineering	1	No
ESRI ArcInfo	2009	9	Mapping	1	No
Tokay	2012	Navigator	Backflow Prevention	1	Yes
Manager Plus Pro	2012	Small Business	Maintenance Management	1	Yes
Meeting Recording Software	2010	Standard Public Works & Building Modules	City Clerk	1	Yes
Iworq	2016		Public Works & Building	Unlimited	Yes

Table 6: City of Colfax: Software Licensing Directory

## E. Data

A database of Citywide data types is located in Table 7. General administrative data is held on the main CH-DC1 server. Public safety data (Police, Fire, and Court) is held on a server the City is hard wired to at Whitman County. Operational public works data is held on the PW-DC1 server. All demographic data currently retrieved by the City is derived from the United States Census Bureau.

City of Colfax: Data Directory		
Function Name	Document Search Interface	Location
Budget	Vision Financials (2016 Prior)	CH-Vision
Payroll	Vision Payroll (2016 Prior)	CH-Vision

Utility Billing	Vision Financials (2016 Prior)	CH-Vision
Budget	Bias (2017 onward)	CH-Vision
Payroll	Bias (2017 onward)	CH-Vision
Utility Billing	Bias (2017 onward)	CH-Vision
Building	Windows Explorer	CH-DC1
Court	Spillman	CH-Court (Whitman Co).
Police	Spillman	CH-Court (Whitman Co).
Fire	Spillman	CH-Court (Whitman Co).
Administration	Windows Explorer	CH-DC1
Planning	Windows Explorer	CH-DC1
Economic Development	Windows Explorer	CH-DC1
Public Information	Windows Explorer	CH-DC1
Demographics	Windows Explorer	CH-DC1
Code Enforcement	Windows Explorer	CH-DC1
Public Works Work Order	Manager Plus Pro	PW-DC1
Water	Tokay	PW-DC1
Public Works Admin	Windows Explorer	PW-DC1

Table 7: City of Colfax: Data Directory

## F. Internet & Wireless

The City of Colfax internet vendor is St John Cable (dba Colfax Cable Company) The cost of internet is approximately \$100 a month. In August 2014 the City established a wireless network in City Hall with one TP Link Router and two Cisco WAP 121 access points. All access points are password protected. The wireless network has private access which permits staff with access to the Citywide network. Public wireless access also exists. The public username is City Colfax Public and the WPA Code is Colfax 2902.

## G. Website

The current website was built in house via wix.com for \$149.04 a year. The website is available at colfaxwa.org. Wix has several templates and is very easy to use.

## H. Staffing

The City has no staff member dedicated to Information Technology planning and implementation. The City contracts with Colfax Computing for Information Technology services on an hourly rate of \$50. The City Administrator formerly was a Director of Information Services at a council-of-government. Personnel with an information technology background exist in all City departments.

## 5. SWOT Analysis

The aim of any Strengths, Weakness, Opportunities, and Threats (SWOT) analysis is to identify the key internal and external factors that are important to achieving objectives. SWOT is defined as:

- **Strengths:** attributes of the organization that is helpful to achieve the objective.
- **Weaknesses:** attributes of the organization that is harmful to achieving the objective.
- **Opportunities:** external conditions that is helpful to achieving the objective.
- **Threats:** external conditions which could do damage to the business’s performance.

The City Administrator administered a SWOT analysis with City staff to understand the perceived condition of the current system as shown in Table 9.

<b>Citywide SWOT Analysis</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Software partnerships (Spillman, Microsoft Office)</li> <li>• Finance and payroll software modernization (Bias)</li> <li>• NEC 8100 hybrid phone system (Blackbox)</li> <li>• Enterprise architectural planning</li> <li>• Updated technology portfolio</li> <li>• Commitment to data driven decision making</li> <li>• Commitment to organizational development</li> </ul>	<ul style="list-style-type: none"> <li>• Information technology budget</li> <li>• Ability to move fast enough to respond to accelerating technology changes</li> <li>• Information Technology knowledge gaps throughout organization               <ul style="list-style-type: none"> <li>○ Move to BIAS software</li> <li>○ Uneven GIS adoption</li> </ul> </li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Partnerships with Whitman County, WhitCOM, universities, SEWEDA, Whitman County Library, City of Pullman, City of Moscow, Port of Whitman, and the State of Washington</li> <li>• City initiatives that can be leveraged to enhance IT services</li> <li>• Technology trends in mobility, big data, cloud and social engagement bring new tools and methods to enhance service</li> <li>• Mature market for commodity information and technology services creates alternate sourcing opportunities</li> <li>• Abundant best practices</li> <li>• Learning organization</li> </ul>	<ul style="list-style-type: none"> <li>• Accelerating increase in digital information</li> <li>• Increasing inequity related to technology and connectivity</li> <li>• Security threats expanding beyond cybercrime into hacktivism and critical infrastructure</li> <li>• Multiple Software</li> <li>• Fragile economy impacting long-range planning</li> <li>• Reliance on regional partnerships for mission-critical services</li> <li>• Rapidly increasing demand for innovative technology services and increased consumerization of technology services outpace the organization’s ability to deliver</li> <li>• Service instability and lack of disaster recovery capabilities</li> </ul>

Table 9: Citywide SWOT Analysis

### **A. Strengths**

The City partners with Whitman County and Whitcom to utilize Spillman software. Spillman allows Police and Fire personnel to file and lookup case information on a shared system with minimal costs to participating parties. The City utilizes a contract the State of Washington has with Microsoft to obtain Office Suite. The large number of licenses purchased statewide allows the City to derive efficiencies. The City is in the midst of switching from Vision MS to BIAS software to administer budgeting, payroll, and utilizes due to software instability issues with Vision. The City should aspire to utilize best practice software vendors. The hybrid phone system also allows the City to have an efficient phone system using current technology at a low cost. A commitment by the City's leadership to pursue data driven decision making will allow the organization to adapt City operations based on current needs. The City's IT network has been upgraded over the last two years where it is setup in an enterprise format and low cost industry standard software is being used to manage and track assets.

### **B. Weaknesses**

Knowledge gaps exist across the City. Additionally, the limited budget for Information Technology limits the ability of the city to deal with such technology.

### **C. Opportunities**

The City has several opportunities available to improve its IT system. Colfax can capitalize on existing partnerships with Whitman County and the State of Washington to obtain software and shared IT services at a lower costs. Future City initiatives can be structured so elements of the IT system gets modernized over time. The latest technology trends include cloud computing and open source software applications. Cloud computing allows organizations to leverage IT private sector computing investment and infrastructure at minimum cost with greater reliability and security standards. Several free (open source) options exist to sole source software. Organizations such as MRSC, ICMA, and others maintain IT best practice documents that can be utilized for the organization. City staff are very open to learning new technology and leveraging that knowledge to be more efficient.

### **D. Threats**

The City must adapt to the changing conditions of municipal operations. The City receives digital information at a much increased level than ten or even five years ago. Protocols for this data must be established. Security threats to governmental agencies are expanding thanks to hacktivists. The recession caused many governments including Colfax to delay replacing IT infrastructure due to budgetary constraints. Non use of technology to manage records has created a backlog of work to organize our documentation.

## **6. Proposed System**

In this section the City shall establish a standard for the Information Technology system going forward. This plan shall be in effect thru December 2022. City staff (City Administrator and Department Heads) should review the plan for applicability at the end of each fiscal year. This is a living document and may be amended as operating conditions change.

### **A. Future Department User Matrix**

A directory of anticipated future technology uses per department is located in Table 10.

<b>Future Department User Matrix</b>		
<b>Department</b>	<b>Functions</b>	<b>Technology Used for</b>
Administration	<ul style="list-style-type: none"> <li>• Administration</li> <li>• Building</li> <li>• Clerk</li> <li>• Courts</li> <li>• Human Resources</li> <li>• Information Technology</li> <li>• Economic Development</li> <li>• Finance</li> <li>• Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Case management</li> <li>• Project management</li> <li>• Enterprise content management and records management</li> <li>• Web content management for City website</li> <li>• Permit application, review, and inspection management</li> <li>• Online permit application submittal and issuance, inspection scheduling, and status information</li> <li>• Enterprise resource planning</li> <li>• Budget development and monitoring</li> <li>• Business and occupancy tax performance management</li> <li>• Online recruitment</li> <li>• Systems monitoring and alerting</li> <li>• Online maps</li> <li>• GIS for finance, economic development, planning, and building</li> <li>• Utility billing</li> </ul>
Fire	<ul style="list-style-type: none"> <li>• Ambulance</li> <li>• Emergency Management</li> <li>• Fire</li> </ul>	<ul style="list-style-type: none"> <li>• Fire dispatch and mobile access (provided as a service from WHITCOM, a regional 911 center)</li> <li>• Fire records management (provided as a service from WHITCOM)</li> <li>• Permit tracking for fire inspection</li> <li>• Tracking of fire incidents</li> <li>• Equipment management</li> <li>• Training</li> <li>• GIS for emergency management</li> </ul>
Police	<ul style="list-style-type: none"> <li>• Emergency Management</li> <li>• Investigation</li> <li>• Patrol</li> </ul>	<ul style="list-style-type: none"> <li>• Police dispatch and mobile access (provided as a service from WHITCOM)</li> <li>• Police records management system (provided as a service from WHITCOM)</li> <li>• Equipment management</li> <li>• Training</li> </ul>

		<ul style="list-style-type: none"> <li>• GIS for emergency management</li> </ul>
Public Works	<ul style="list-style-type: none"> <li>• Parks</li> <li>• Sanitary</li> <li>• Storm</li> <li>• Street</li> <li>• Water</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance management, asset inventory, and work order tracking</li> <li>• Fleet technologies for diagnostics and maintenance</li> <li>• Customer-serving applications</li> <li>• Parks, trails, and streetscape inventory and management</li> <li>• Maintenance management, asset inventory, and work order tracking</li> <li>• Equipment Management</li> <li>• Training</li> <li>• Transportation modeling</li> <li>• GIS for utilities and traffic</li> <li>• Telemetry management</li> </ul>

Table 10: Future Department User Matrix

## B. Major Needs Facing Colfax

Technology is used in all City departments in the normal conduct of operations and services. It allows for enormous individual productivity gains for all employees, with readily available collaboration, communications, and connectivity tools as well as optimizing City services, such as with dispatching for public safety, utility billing for residents and businesses, or social media for outreach.

Table eleven shows the technology focus for the coming years. The table lists the upcoming technology needs for each department. It includes general time frame for when projects are expected to be done, whether funding currently exists, and relative priority compared to other projects on the list. These lists are not inclusive of all projects each department could do, but covers the larger, more resource-intensive efforts. Some of these are new investments that will require either budget proposals in the upcoming budget cycles or a reallocation of existing resources.

Department Needs				
Function	Major Challenges	Technology Focus	Year	Priority
Attorney	<ul style="list-style-type: none"> <li>• Burgeoning volume of digital information</li> <li>• Privacy and records policies that have not kept up with technology advances</li> </ul>	eDiscovery tool for search, hold, and disclosure (Google Apps)	2017	High
Building/Planning	<ul style="list-style-type: none"> <li>• Keeping up with building permit demand</li> <li>• Paperless permitting</li> </ul>	Paperless permitting	2016-2017	Medium
		eDiscovery for public disclosure (Google Apps)	2015	High

		Improved access by citizens to public records	2014-2021	High
		Improve open data on city website	2017-2022	High
Economic Development	<ul style="list-style-type: none"> <li>Site Selection</li> <li>Data &amp; Demographics</li> </ul>	Site selection tool (partnership)	2017	Low
		ESRI ArcGIS 10.2	2017-2022	High
Finance	<ul style="list-style-type: none"> <li>Develop GFOA recognized Budget and CAFR</li> <li>Continuing to increase internal efficiencies with more automation and system integration efforts</li> </ul>	Performance management system integration	2015	High
		Automation projects for increased efficiencies, such as timekeeping, integration, accounts payable, reports, etc	2016-2018	High
Fire	<ul style="list-style-type: none"> <li>Modernize Fire Department record keeping</li> <li>Training</li> <li>Personnel management</li> <li>Equipment management</li> </ul>	Transitioning away from paper-based work processes using more electronic forms	2015-2019	High
		ESRI ArcGIS 10.2	2017	High
		Building drawings (pre-fires) on mobile devices to aid in response	2017	Medium
		Mobile computer in fire vehicles as opportunity to outfit staff with right mobile tools	2017-2021	Medium
Human Resources	<ul style="list-style-type: none"> <li>Keeping up with changes in health care laws</li> </ul>	Performance evaluation system	2015-2017	High
		Recruitment system	2015-2017	Medium
Information Technology	<ul style="list-style-type: none"> <li>Effectively integrating major technology trends into IT portfolio</li> <li>Adapting to fast changing technology and keeping up with customer expectations</li> <li>Ensuring greater user adoption and productivity with existing tools</li> <li>Keep data, infrastructure, and applications secure</li> </ul>	User adoption-increase staff productivity with existing technology tools	2014	High
		Develop Citywide GIS system	2015-2017	High
		Deploy map gallery to centralize maps and GIS apps for public and staff	2015-2018	Medium
		Increase device choices and access to systems	2014-2017	High
		Develop ERP and permitting systems	2015-2018	Medium
		Develop and deploy open data portal to make City data (GIS, financial, transportation, etc) easily available to the public	2015-2018	High
		Address connectivity needs of the community	2015-2020	High
Maintenance	<ul style="list-style-type: none"> <li>Keeping up with demands from customers for better and readily available information</li> </ul>	Imaging of Fleet documents	2017	High
		CRM replacement with mobile reporting system	2017	High
		Smart building systems that can drive efficient energy use and preventative maintenance	2017	High

		Expand wireless connectivity to park facilities	2017	Medium
		Social media tools for engagement on planning efforts. Tools to enhance reach to diverse audiences.	2014-2016	High
Planning & Community Development	<ul style="list-style-type: none"> <li>Enhance public engagement</li> </ul>	Update Code Publishing website	2015-2022	High
		Open data portal and data analytic tools	2015-2022	High
		ESRI ArcGIS 10.2	2015-2021	High
		Social media engagement	2015	High
Police	<ul style="list-style-type: none"> <li>Growing needs for digital evidence (photos, videos, recordings, etc) that can quickly escalate with a minor incident</li> <li>Keeping up with new law enforcement technology that can prevent crime (predictive analytics) or protect officers (body cameras)</li> <li>Increasing demands for use of social media in engaging the public</li> <li>Leveraging systems to drive operational efficiencies</li> <li>Increasing transparency of data for internal and public use</li> </ul>	ESRI ArcGIS 10.2	2017	High
		Crime analytics tools for crime prevention	2015	High
		Replacement of mobile computer in vehicles	2016-2022	Medium
		Social media engagement	2014-Present	High
Public Information	<ul style="list-style-type: none"> <li>Social media and mobility tools that drive how citizens expect to interact with the City</li> </ul>	Mobile reporting system for citizens	2014-2015	High
		City website redesign to streamline content, enable mobile access, and support more languages	2014-2015	High
Utilities	<ul style="list-style-type: none"> <li>Needing to gain greater operational efficiencies</li> <li>Transitioning away from traditional paper-based work processes</li> <li>Responsiveness when events happen</li> <li>Make SCADA system reliable</li> </ul>	ESRI Arc 10.2	2015	High

	•	Virtualize SCADA system	2014	High
		Asset Management (utilities tracking)	2016-2018	High
		Mobile workforce-giving crews access to info, maps, and apps in the field	2016	Medium

Table 11: Future Function Needs

## C. Hardware

A directory of hardware proposed for the City Information Technology system is located below. This is subject to change based on technological trends and budgetary constraints.

### 1. Servers

According to the Internal Revenue Service (IRS) the useful life of a server is seven years. The City replaced the CH-DC1 server in 2015 with a HP ProLiant Model. That should last the City till 2022 with proper maintenance. It is recommended that the server in Public Works gets replaced in 2017 with one HP ProLiant DL 380 Gen9 rack server with Intel Xeon ES-2420 1.9 GHZ processor, 44 GB of RAM, and 600 GB of Raid 10 internal storage at a cost of **\$5,579.01**.

### 2. Computers

Internal Revenue Service (IRS) threshold guidelines set the useful life of a laptop and desktop computer at three years. However, per CNET the useful life of a desktop computer is five years. The City of Colfax will use the CNET definition of a useful life for laptop and desktop units. Computers across the City shall be classified into five categories: 1. advanced desktop, 2. general desktop, 3. basic desktop, 4. advanced laptop, and 5. basic laptop. The following models will serve as the default equipment within each category. Please note that default equipment may change as technology improves. A description of the computer model assigned to each category is in Table 12 below.

City of Colfax: Replacement Computer Directory							
Number	Classification	Model Name	Operating System	Processor	Hard Drive	Use	Cost
1	Advanced Desktop	Dell Precision T1700 Small Form Factor	Windows 8.1 Pro	Intel Core i7-4790 Processor (Quad Core HT, 3.6 GHz, 8 MB w/HD Graphics 4600	500 GB	GIS, AutoCAD, SketchUp, Adobe, and advanced graphics programs.	\$ 949
2	General Desktop	Dell Optiplex 3020	Windows 8.1 Pro	Intel Core i5 4570 (3.2 GHz, 4 GB, DDR3	500 GB	Vision, Spillman, and general office programs (Microsoft Office).	\$ 579
3	Basic Desktop	Dell Inspiron Small Desktop 3000 Series	Windows 8.1 Pro	Intel Celeron Dual Core J1800 Processor	500 GB	Basic office research, document development.	\$ 249
4	Advanced Labtop	Inspiron 17 5000 Series	Windows 8.1 Pro	4th Generation Intel Core i3-4030 U Processor 3M Cache, 1.9 GHz	500 GB	Memory intensive programs: Spillman and GIS	\$ 550
5	Basic Labtop	Inspiron 15	Windows 8.1 Pro	Intel Celeron Dual Core N2830 Processor	500 GB	Basic office research, meeting recording, and document creation.	\$ 250

Table 12: City of Colfax: Replacement Computer Directory

Table 13 represents the replacement schedule for computer terminals across the City. Based on budgetary constraints, a maximum of five computers will be replaced per year.

City of Colfax: Computer Replacement Schedule									
Computer Name	Model Name	Dept	Operating System	Hard Drive	Use	Age	End of Useful Life	Replacement Date	Replacement Classification
CAMERA-SERVER	Dell Dimension 8250	Fire	Windows XP Professional	120 GB	Camera	2003	2008	2017	2
PW-CREW-D	Dell Dimension 2400	Public Works	Windows XP Professional	40 GB	Telemetry/SCADA	2004	2009	2017	2
CH-PD-503A	Dell Optiplex 755	Police	Windows 7 Professional	160 GB	General Office	2007	2012	2017	2
CH-PD-502A	Dell Optiplex 755	Police	Windows 7 Professional	160 GB	General Office	2007	2012	2017	2

CH-TREAS (Mark)	Dell Optiplex 760	Admin	Windows 7 Professional	160 GB	General Office	2009	2012	2017	2
Register	Dell Optiplex 760	Admin	Windows 7 Professional	160 GB	General Office	2009	2014	2018	3
CFPD-2	Dell Optiplex 790	Fire	Windows 7 Professional	320 GB	CAD Program	2009	2014	2018	1
CH-POL-505	Dell E6410 Labtop	Police	Windows 7 Professional	250 GB	General Office	2009	2014	2018	4
CH-POL-506	Dell E6410 Labtop	Police	Windows 7 Professional	250 GB	General Office	2009	2014	2018	4
CH-POL-502	Dell E6410 Labtop	Police	Windows 7 Professional	250 GB	General Office	2009	2014	2018	4
CH-POL-504	Del E6410 Labtop	Police	Windows 7 Professional	250 GB	General Office	2009	2014	2018	4
CFPD-POL-505A	Dell E6410 Labtop	Police	Windows 7 Professional	250 GB	General Office	2009	2014	2018	4
CFPD-1	Dell Latitude E6510	Fire	Windows 7 Professional	320 GB	Training & Radios	2010	2015	2019	5
PW-LABTECH1	Dell Optiplex 755	Public Works	Windows 7 Professional	80 GB	General Office	2010	2015	2019	2
PW-CREW-1	Dell Optiplex 755	Public Works	Windows 7 Professional	80 GB	General Office	2010	2015	2019	2
PW-CREW-2	Dell Optiplex 755	Public Works	Windows 7 Professional	80 GB	General Office	2010	2015	2019	3
PW-CREW-3	Dell Optiplex 755	Public Works	Windows 7 Professional	80 GB	General Office	2010	2015	2020	3
PW-CREW-4	Dell Optiplex 755	Public Works	Windows 7 Professional	80 GB	General Office	2010	2015	2020	3
CH-ADM-Clerk2 (Connie)	Dell Optiplex 790	Admin	Windows XP Professional	250 GB	General Office	2011	2016	2020	2
PWSUPERVISOR	Dell Optiplex 760	Public Works	Windows 7 Professional	160 GB	General Office	2012	2017	2020	1
CH-CouncilChamber	Inspiron 15	Admin	Windows 7 Professional	160 GB	General Office	2014	2019	2021	4

CH-Admin	Dell Optiplex 3020	Admin	Windows 7 Professional	500 GB	Advanced Office	2014	2019	2020	1
CH-ADM-Clerk1 (Lynda)	Dell Optiplex 3020	Admin	Windows 7 Professional	500 GB	General Office	2014	2019	2021	2
CH-Mayor	Inspiron 15	Admin	Windows 7 Professional	160 GB	General Office	2016	2021	2021	4
COLFAXCITYCLERK	HP 15-r050nr	Admin	Windows 8.1	750 GB	City Meetings/Records	2014	2019	2021	5

Table 13: City of Colfax: Replacement Computer Directory

The City shall check with partner government agencies such as WhitCOM and Washington State University (WSU) for surplus computer equipment still within its useful life before making computer purchases.

### 3. Monitors

The City of Colfax has 22 surplus Dell Ultrasharp 2007 FP monitors from 2012 donated from Whitcom. It is estimated the surplus monitors will last until 2019. Once the surplus monitors are all utilized, the City will either acquire Acer-H6 Series 23" or comparable model at \$130 a piece or get surplus equipment from Whitcom, Avista Utilities, or Washington State University (WSU). It is estimated that the City will need to purchase four monitors at \$130 a unit for each year after 2017 for a total of \$520.

### 4. Printers

The useful life of a printer per the Internal Revenue Service (IRS) is seven years. A replacement schedule for printers across the City is located in Table 14. Improvements in technology may yield suggested replacement printer models obsolete. A comparable model should be acquired.

City of Colfax: Printer Replacement Schedule							
Model	Department	Use	Age	Useful Life	Replacement Date	Replacement Model	Cost
HP Office Jet Pro K5400	Police	General Printing	2004	2011	2017	HP Envy 4500 All-in-One	\$ 100
HP Office Jet Pro L7590	Public Works	General Printing	2004	2011	2017	HP Envy 4500 All-in-One	\$ 100
HP Color Laserjet CP3505	Fire	General Printing	2006	2013	2018	HP LaserJet Color 200	\$ 200
Cannon Imageglass MF6530	Public Works	General Printing	2006	2013	2018	OKI-Led MC361	\$ 361
HP Officejet L7580	Administration	General Printing	2007	2014	2018	HP-Envy 4500 All-in-One	\$ 100

HP Laserjet 4240N	Administration	General Printing	2007	2014	2018	Merge with one above	\$ 100
Brother Pocket Jet 6	Police	General Printing	2010	2017	2019	Brother Pocketjet 673	\$ 456
HP Laser Jet M1212nf MFP	Public Works	General Printing & Fax	2010	2017	2019	HP-Envy 4500 All-in-One	\$ 100
HP Laser Jet M1212nf MFP	Administration	General Printing & Fax	2010	2017	2019	HP-Envy 4500 All-in-One	\$ 100
Brother DCP 7065	Police	General Printing	2013	2020	2020	HP-Envy 4500 All-in-One	\$ 100
Canon C52346A	Administration	Copier & Scanner	2016	2022	2022	Canon	\$ 7000
HP LaserJet Color 200	Public Works	General Printing	2016	2023	2023	HP LaserJet Color 200	\$ 200

Table 14: City of Colfax: Printer Replacement Schedule

## 5. Backup Devices

In 2015 the City purchased a Dell Powervault RD 1000 removable disk storage device for the HP Proliant Server. A similar device should be obtained for the new server in Public Works. A Dell NAS device runs around \$579. NAS devices last for five years. A replacement will need to be purchased for the Main Server in 2020. Likewise, another will have to be purchased for Public Works in 2022.

## 6. Surge Protection

Twenty-two desktop computers which constitute the Citywide network shall have their surge protectors replaced with an APC-Back UPS 350VA at \$42.99.

## 7. Projector

The City of Colfax obtained a Epson EX3220 SVGA 3LCD projector that has wireless and USB capability in 2015. The projector has a useful life of around seven years. The projector will be in usable condition until 2022.

## 8. Large Monitors

The City acquired a 50" Emerson LED monitor in September 2014 to be used for training and City council presentation purposes. The useful life of the unit is seven years per IRS guidelines so a replacement will be needed in 2021.

## 9. Cameras

In 2016 the City purchased six QSee nightvision cameras with three week recording capability across the City Hall facility. In 2017, the City needs to obtain

a i4-POD camera for the Schmuck Park facility which is estimated to run \$8,000. The City in 2018 should look at obtaining a i4-POD for McDonald Park. In 2019, the City should get two i4-POD's for Downtown to lessen the number of vandalism incidents.

**10. Water Meter Reader**

The City needs purchased two Trimble Allegro 2 units for \$11,000 in 2015. The readers will last seven years with proper maintenance. Replacement units will need to be obtained in 2022. .

**11. Trimble Juno**

A Trimble Juno 5D unit was purchased in 2015 to locate utility manholes and other geospatial assets. Trimble devices have a useful life of seven years. The City will need to look at obtaining a replacement unit in Fiscal Year 2022.

**12. Court Hearing System**

The City obtained a ADA compliant hearing system for City Council Chambers with a mixer in 2016. The useful life of this unit is eight years and will not need to be replaced until 2024.

**C. Email**

The City migrated its email client from Microsoft Exchange Server 2003 to the Google Mail cloud service in late 2015. The email is held in the cloud but accessed locally via syncing. The cost for the City to host its email with the Google Mail service is \$1,450 a year all together for 29 licenses. The Google Vault (the ability to retrieve deleted email from city emails) has branched out into a separate service and will need to be budgeted for in 2017 onward. The cost of this is \$1,450 a year for all email.

**D. Software**

As the City moves into the digital age, staff will need to utilize a number of programs to complete day-to-day activities. Every two years the Management Team should review all software contracts to determine if the titles are still beneficial or if a new solution is needed. A directory of software titles that will likely need to be acquired over the next six years is located in Table 16. An explanation of all anticipated software and assigned priority is located below.

City of Colfax: Anticipated Software Directory								
Name	Fee Schedule	Version	Use	Number of Licenses	Funding Year	Cost Per License	Total Cost	Year-to-Year Cost
Adobe Creative Suite Cloud	Yearly	Creative Cloud	Community Development	1	2017	\$ 600.00	\$ 600.00	\$ 600.00
Asset Management	Yearly	Cloud	Admin, Fire, Police, Public Works	1	2016-2017	\$ 7,320.00	\$ 7,320.00	\$ 5,070.00
Autodesk 360	N/A	2014	Engineering & Public Works	1	N/A	Free	Free	Free
E-Bill Pay	Monthly		Customer E-Billing	1	2015	Free	Free	Free
ESRI ArcGIS for Desktop	Yearly	10.2	Mapping	3	2015-2016	\$ 1,290.00	\$ 3,870.00	\$ 900.00
Freedcamp	N/A	4	Project Management	19	N/A	Free	Free	Free
Norton/Malware Bytes (Network)	Yearly	2014	Security: Critical Computers	29	2015	\$ 62.00	\$ 1,799.00	\$ 1,798.50
Meeting Recording Software	One Time	Standard	City Clerk	1	2010	\$ 150.00	\$ 150.00	n/a
Microsoft Office 2013	One Time	2013-Standard	General Office	28	1998	\$ 84.00	\$ 2,352.00	na
Spillman	Yearly	6.2.1311.1043	Emergency Response	5	2012	\$ 805.00	\$ 4,025.00	\$ 4,998.00
Tokay	Yearly	Navigatord	Backflow Prevention	1	2012	\$ 270.00	\$ 270.00	\$ 270.00
Trimble SketchUp	N/A	2014	Planning, Public Works	1	2014	Free	Free	Free
Bias - Financials, Utilities, Pa	Yearly	1.0.2.8	Finance	3	2016-Present	\$12,548.33	\$37,645.00	\$ 4,297.50
<b>Total</b>								<b>\$ 13,636.50</b>

Table 16: City of Colfax: Anticipated Software Directory

### 1. Adobe Acrobat Pro (Low)

The Adobe Acrobat Pro DC allows creation of fillable pdf forms. This would be very helpful for city operations. . Website: <https://creative.adobe.com/plans>

### 2. Antivirus (High)

Microsoft Windows is equipped with a native firewall. However, it does not stop many malware and denial of service attacks. Antivirus vendors such as Norton and Malware Bytes have programs which kill spam, hacking attempts, and malware. Definitions of such programs are updated on a daily basis with new global antivirus definitions. Website: [www.norton.com](http://www.norton.com) and [www.malwarebytes.org](http://www.malwarebytes.org)

### 3. Asset Management (High)

Asset management programs can be defined as managing infrastructure capital assets to minimize the total cost of owning, operating, and maintaining assets at acceptable levels of service. These programs allow local governments to maintain history assessments, visual inspections, monitoring, and condition assessment to determine and gain insights regarding the level of asset deterioration to assess likelihood of asset failure. The City is in the middle of building out its asset management programs starting with the Iworq's Community Development and Public Works modules. Future modules to review obtaining include the asset management module. <http://www.iworq.com/>

### 4. Autodesk Civil 3D (High-)

Autodesk Civil 3D is needed to review building, fire, and other types of engineering plans. Website: <http://www.autodesk.com/products/autocad-civil-3d/subscribe>

## **5. ESRI ArcGIS (High)**

ESRI ArcGIS allows the end user to create maps of land use, zoning, infrastructure, transportation, and more. Color-coded market and statistical maps can be created. This program allows the end user to analyze data and author geographic knowledge to examine relationships, test predictions, and ultimately make better decisions. The City has obtained two licenses (1 for city hall and 1 for public works) to build out its GIS system. . Website: <http://www.esri.com/software/arcgis/arcgis-for-desktop>

## **6. E-Bill Pay (High)**

The purpose of this program is to allow customers to pay court, utility, building, and other fees online. The City has partnered with its past due collection company Armada to provide a e-bill pay system that is free for the city and low-cost to the resident to use. Website:

<https://secure.modpay.com/vterm/vterm1.cfm?an&ae=1&clientcode=1A2A3D7E>

## **7. Freedcamp (High-Free)**

This program is a free, online, cloud-based project management tool. End users can track project related tasks and time in this program. Website: <https://freedcamp.com/>

## **8. Microsoft Office (High)**

This suite of programs includes a word processor (Word), presentation (Powerpoint), spreadsheet (Excel), email (Outlook), database (Access), and basic flier (Publisher) functions. The City should install Microsoft Office Professional 2013 on all machines obtained. Website: <http://office.microsoft.com/en-us/buy-microsoft-office-professional-2013-FX102918381.aspx>

## **9. SketchUp (High-Free)**

This program enables the end user to create 3D models of structures, roadways, and communities. Website: <http://www.sketchup.com/>

## **10. Spillman (High)**

This program provides access to the county's Computer Aided Dispatch (CAD) system. All cases are entered into and statistics are pulled from the program. Website: <https://www.spillman.com/>

## **11. Tokay Backflow Prevention (High)**

This program is used by the Public Works Department to interactively control cross connections. Website: <http://www.tokay.com/>

## **12. TPR Meeting Recording (High)**

This program is used to audio record public meetings.

**13. BIAS (High)**

The City just switched to Bias software to track budgetary expenditures and revenues. City staff use the Payroll module to execute and track monthly payroll. Website: <http://biassoftware.com/>

**E. Data & Records**

**1. Data**

The City is aggressively working on economic development projects and comprehensive planning. As such, it is important to establish protocols on where data to develop grant applications and market the community to the private sector is derived from. A directory of data resources is located in Table 17.

City of Colfax: Potential Data Sources				
Source	Type	Link	Date	Cost
Federal Data	All	<a href="https://www.data.gov/">https://www.data.gov/</a>	2014	Free
Census: Decennial and American Community Survey	Demographics	<a href="http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml">http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml</a>	2014	Free
HUD: Location Affordability Portal	Demographics & Housing	<a href="http://www.locationaffordability.info/">http://www.locationaffordability.info/</a>	2014	Free
HUD: Data	Housing	<a href="http://www.huduser.org/portal/pdrdatas_landing.html">http://www.huduser.org/portal/pdrdatas_landing.html</a>	2014	Free
Stats America	Economic	<a href="http://www.statsamerica.org/">http://www.statsamerica.org/</a>	2014	Free
State of Washington Data	All	<a href="https://data.wa.gov/">https://data.wa.gov/</a>	2014	Free
State of Washington: Department of Archeology	Historical places & culture	<a href="https://fortress.wa.gov/dahp/wisaard/">https://fortress.wa.gov/dahp/wisaard/</a>	2014	Free

State of Washington: Department of Ecology-Databases	Brownfields	<a href="http://www.ecy.wa.gov/databases/tcp.html">http://www.ecy.wa.gov/databases/tcp.html</a>	2014	Free
State of Washington: Department of Ecology-GIS Data	Environmental & Planning	<a href="http://www.ecy.wa.gov/services/gis/data/data.htm">http://www.ecy.wa.gov/services/gis/data/data.htm</a>	2014	Free
State of Washington: Department of Revenue-GIS Data	Financial & Taxation	<a href="http://gis.dor.wa.gov/content/findtaxesandrates/downloads.aspx">http://gis.dor.wa.gov/content/findtaxesandrates/downloads.aspx</a>	2014	Free
State of Washington: Department of Transportation	Transportation	<a href="http://www.wsdot.wa.gov/mapsdata/geodatacatalog/">http://www.wsdot.wa.gov/mapsdata/geodatacatalog/</a>	2014	Free
State of Washington: Geospatial Portal	Natural Areas, Planning, Political, and Hydrography	-	2014	
State of Washington: Office of Financial Management	Population	<a href="http://www.ofm.wa.gov/pop/default.asp">http://www.ofm.wa.gov/pop/default.asp</a>	2014	Free
Trulia	Housing	<a href="http://www.trulia.com/real_estate/Colfax-Washington/">http://www.trulia.com/real_estate/Colfax-Washington/</a>	2014	Free
ESRI Business Analyst Online	Market Data	<a href="http://www.esri.com/software/bao">http://www.esri.com/software/bao</a>	2017	\$ 500

Table 17: City of Colfax, Washington Data Sources

Most data the City will utilize is free to use from federal and state government agencies. The only pay service the City would benefit from utilizing is ESRI Business Analyst Online. This program allows the end user to derive market and statistical data reports from any level of geography down to a census block group. The business community looks for such reports when making a site selection decision. The yearly fee for such

reports is \$500. The City should try to form a partnership with the Southeast Washington Economic Development Association (SEWEDA), Whitman County, and the Port of Whitman to split the cost of this software.

## 2. Data Sharing (Open Data)

The State of Washington maintains an open data portal powered by Socrata. The state allows municipalities to post data to this portal free of charge. To increase transparency of City operations and decrease the dependence on the City's information technology infrastructure, the City of Colfax should post budgetary and basic department statistical information on the portal. The website is: <https://data.wa.gov/>

## 3. Records Retention

The City of Colfax shall abide by the records retention schedule set forth by the Secretary of State and approved pursuant to RCW 40.14.070. The records retention schedule is located here:

<http://www.sos.wa.gov/assets/archives/RecordsManagement/CORE-3.0.pdf>

Documents whose age has eclipsed that set forth in the retention schedule shall be destroyed immediately.

## 4. File Organization

All electronic files developed on City information technology infrastructure shall be saved on the CH-DC1 server into folders named by function. Subfolders within each function folder can be created. No files will be submitted into a folder whose title is the name of the said employee. A summary of folder types is located below:

- **Administration:** Administrative.
- **Building:** Building inspection and permitting.
- **City Clerk:** City clerk.
- **City Council & Commissions:** Agenda bills, agendas, and minutes.
- **Code Enforcement:** Codes, inspections, and violations.
- **Economic Development:** Business recruitment, retention, expansion, and site selection.
- **Finance:** Accounts payable, accounts receivable, fees, and taxes.
- **Fire:** Inspections and trainings.
- **Grants Management:** All grant and sub-recipient documents.
- **Human Resources:** Job descriptions, recruitment, risk management, and insurance.
- **Mayor:** Mayor.
- **Pictures:** All photos
- **Planning:** Short range, long range, implementation, and zoning.
- **Police:** Criminal records and trainings.
- **Public Works:** Sanitary, storm, street, and water.

- **Visioning:** Future goals and objectives of community.

## **F. Internet**

The City of Colfax has sufficient internet service from St. John Cable Company (dba Colfax Cable Company) for \$100 a month. The City has property that is conducive for internet infrastructure siting. The City should explore offering siting privileges to local internet companies in exchange for free internet service or a rental fee. The City should review this contract every two years and solicit quotes from at least two other servicers to make sure the best value is being obtained. The Port of Whitman recently installed a 200 mile fiber network traversing Whitman County utilizing the Fiber to the home (FTTH) model. The City should investigate obtaining internet service via the fiber for letting the Port conduct construction through City right-of-way.

## **G. Website**

The City Administrator rebuilt the organizational website on the Wix content management platform in early 2015. The content of the website should be refreshed daily altogether taking about 0.2 of a FTE. The general look of the website should be refreshed every 18 months to keep visitors returning to the site.

## **H. Staffing**

The City has at least one staff member with basic IT skills in each department. To ensure this capacity is not diminished a comprehensive training program should be continued in coming years. The City Administrator holds Brown Bag lunches every couple months to train staff on IT technology. This should be continued. Most IT work in the City has been done through the cooperative effort of the City Administrator with the assistance of Shawn Burt IT Consultant at \$50 an hour. With the departure of the City Administrator it is unlikely someone will be hired with a deep IT background. It is suggested a part time IT coordinator be hired who works 16 hours a week. It is also proposed the City hire an intern for six months at twenty hours a week for thirteen weeks every summer at minimum wage to collect asset information. This practice started in 2015 and should continue in the future.

## **I. Finance**

A six-year Information Technology budget is provided below in Table 18. It is a synopsis of the entire strategy.

City of Colfax: Information Technology Budget						
Type	2017	2018	2019	2020	2021	2022
<b>Hardware</b>						
Server Replacement	\$ 5,579.01					
Server Rack	\$ 1,610.00					
Computer Replacement	\$ 2,895.00	\$ 3,948.00	\$ 1,657.00	\$ 2,645.00	\$ 2,878.00	\$ -
Monitor Replacement				\$ 520.00	\$ 520.00	\$ 520.00
Printer Replacement	\$ 200.00	\$ 761.00	\$ 656.00	\$ 100.00		\$ 7,000.00
Projector Replacement						\$ 400.00
NAS Backup	\$ 579.00			\$ 579.00		\$ 579.00
Surge Protection Replacement	\$ 450.00	\$ 900.00	\$ 150.00	\$ 100.00	\$ 100.00	\$ 100.00
Trimble Juno 5D						\$ 1,850.00
Water Meter Reader						\$ 11,000.00
Cameras (Schmuck-17, McDonald -18, Downtown - 19)	\$ 8,000.00	\$ 8,000.00	\$ 8,000.00			
<b>Totals</b>	<b>\$ 19,313.01</b>	<b>\$ 13,609.00</b>	<b>\$ 10,463.00</b>	<b>\$ 3,944.00</b>	<b>\$ 3,498.00</b>	<b>\$ 21,449.00</b>
<b>Software</b>						
AutoCAD	\$ 1,400.00	\$ 1,400.00	\$ 1,400.00	\$ 1,400.00	\$ 1,400.00	\$ 1,400.00
Adobe Pro	\$ 192.00	\$ 192.00	\$ 192.00	\$ 192.00	\$ 192.00	\$ 192.00
Spillman	\$ 4,998.00	\$ 4,998.00	\$ 4,998.00	\$ 4,998.00	\$ 4,998.00	\$ 4,998.00
Asset Management	\$ 7,320.00	\$ 5,070.00	\$ 5,070.00	\$ 5,070.00	\$ 5,070.00	\$ 5,070.00
Data (Aerial Imagery)	\$ 47.50		\$ 47.50		\$ 47.50	
ESRI ArcGIS	\$ 900.00	\$ 900.00	\$ 900.00	\$ 900.00	\$ 900.00	\$ 900.00
Norton/Malware Bytes	\$ 1,798.50	\$ 1,798.50	\$ 1,798.50	\$ 1,798.50	\$ 1,798.50	\$ 1,798.50
Tokay	\$ 270.00	\$ 270.00	\$ 270.00	\$ 270.00	\$ 270.00	\$ 270.00
Bias	\$ 11,826.50	\$ 11,826.50	\$ 11,826.50	\$ 11,826.50	\$ 4,297.50	\$ 4,297.50
<b>Totals</b>	<b>\$ 28,752.50</b>	<b>\$ 26,455.00</b>	<b>\$ 26,502.50</b>	<b>\$ 26,455.00</b>	<b>\$ 18,973.50</b>	<b>\$ 18,926.00</b>
<b>Email, Internet, &amp; Website</b>						
Google Apps Email, Backup, and E-Discovery	\$ 2,900.00	\$ 2,900.00	\$ 2,900.00	\$ 2,900.00	\$ 2,900.00	\$ 2,900.00
Colfax Cable-Internet	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00
Website Hosting and Domain Renewal	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00
<b>Totals</b>	<b>\$ 4,250.00</b>					
<b>Staffing</b>						
IT Consultant (Part Time 16 Hours a week)	\$ 20,800.00	\$ 20,800.00	\$ 20,800.00	\$ 20,800.00	\$ 20,800.00	\$ 20,800.00
PT-Intern (GIS and Asset Management)	\$ 3,250.00	\$ 3,250.00	\$ 3,250.00	\$ 3,250.00	\$ 3,250.00	\$ 3,250.00
<b>Totals</b>	<b>\$ 24,050.00</b>					
<b>Totals-IT</b>	<b>\$ 76,365.51</b>	<b>\$ 68,364.00</b>	<b>\$ 65,265.50</b>	<b>\$ 58,699.00</b>	<b>\$ 50,771.50</b>	<b>\$ 68,675.00</b>

Table 18: City of Colfax: Information Technology Budget

<b>City of Colfax: Information Technology Budget By Fund</b>						
<b>Fund</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Admin	\$ 7,731	\$ 5,942	\$ 5,713	\$ 5,747	\$ 6,036	\$ 5,787
Police	\$ 12,544	\$ 14,090	\$ 19,867	\$ 11,395	\$ 10,135	\$ 11,135
Park	\$ 8,000	\$ 8,000				
Fire	\$ 7,267	\$ 7,391	\$ 6,363	\$ 6,197	\$ 5,037	\$ 6,437
Water	\$ 12,148	\$ 9,447	\$ 9,287	\$ 10,499	\$ 7,942	\$ 21,012
Sewer	\$ 10,316	\$ 8,037	\$ 9,054	\$ 9,151	\$ 7,941	\$ 9,482
Storm	\$ 9,657	\$ 7,793	\$ 7,544	\$ 7,478	\$ 6,366	\$ 7,463
Street	\$ 9,819	\$ 7,687	\$ 7,558	\$ 8,591	\$ 6,532	\$ 7,627
<b>Total</b>	<b>\$ 77,480</b>	<b>\$ 68,384</b>	<b>\$ 65,386</b>	<b>\$ 59,058</b>	<b>\$ 49,989</b>	<b>\$ 68,943</b>

Table 9: City of Colfax Information Technology Budget by Fund

## 7. Conclusion

It must be noted that investments and improvements in Information Technology (IT) are not an end in themselves. IT must demonstrate value to the City by lowering the cost of government – to the City and its residents, businesses, visitors, and employees – as well as enabling business transformation. In 2004, the consulting firm McKinsey and Company published a research study showing that IT expenditures have little impact on productivity unless they are accompanied by first-rate management practices. Specifically, additional investments in IT alone only raised productivity by two percent. Improving management practices alone raised productivity by eight percent. Yet, doing both yielded the greatest benefit of twenty percent as shown in Image 1 below.

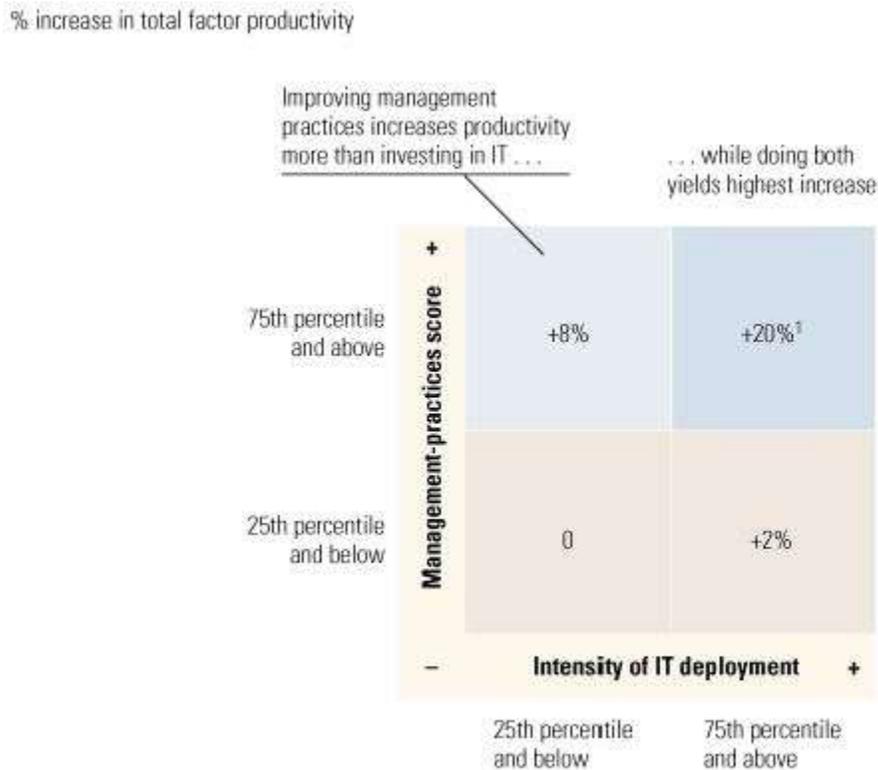


Image 1: % Increase in Total Factor Productivity

IT can enable substantial business transformation, but it cannot drive it. IT is not a magic bullet. The focus must remain with business leaders directing the efforts to improve City operations and services to our residents, businesses, visitors, and employees. Nevertheless, IT provides an invaluable foundation and capability that enables our business leaders to achieve tangible and significant results.