

Town of Truro – Policy & Procedure Manual

Subject: Information Technology Master Plan
Policy Number: P100-008
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Departments: All Departments

NETWORKING STANDARD

Access to Town data must be available to all departments in order to realize the true benefits of centralized resources. The installation and maintenance of standard networking equipment and protocols across all Town departments enables communication and sharing of common resources, and lowers the total cost of the network infrastructure. The Town's standard network infrastructure is designed to provide all Town departments access to the IT resources that they require on a daily basis, and, importantly, prevents the development of multiple, duplicate solutions to meet departmental IT needs. The Town's network infrastructure will be installed and maintained according to these guidelines:

Where possible, only single mode fiber optic cable, or methods that provide the same or better reliability, security and performance, will be used between Town buildings to connect departments to the Town's network.

All network connectivity solutions installed will provide potential for bandwidth growth as improved electronics become available.

Fiber optic cable terminates in each Town building at Ethernet switches, which split the data into communication signals, destined for each PC over separate category five or better copper wires.

The Town standardizes on tier 1 supplier network switches, which can be managed remotely.

The Town uses a standard patch panel approach throughout all facilities. This approach calls for connecting wire between source (central resource) and destination (PC's and printers) through the installation of a patch panel.

Standard communication jacks will be installed and maintained in Town offices.

These jacks conform to the RJ-45 industry standard and provide connectivity over category five, or better, twisted pair copper wire, known as 100-Base-T, capable of 100 megabits per second.

At each personal computer, network wire terminates on an Ethernet network interface card manufactured by either 3com, Intel or the manufacturer of the computers motherboard.

The TCP/IP protocol is the industry standard and is a required feature of all network and computer equipment.

Network security will be controlled by the IT department to protect the sensitivity of all data transmitted via the Town's network. Security administration will take place at all access points including the firewall, at each server, and at individual file and folder levels. Access to the Town's network will be granted by IT only with signed acceptance by the end user and the signed approval of his or her department head on a completed Town of Truro Computer/Network Use Policy (see Appendix A).

Access to the Town's electronic data and resources residing on the network by non-Town users will only be granted for support and maintenance purposes, and must be approved by the IT Manager. Dialup is strongly discouraged as a method of accessing the Town's network. Access via the firewall will be used whenever possible.

COMPUTER STANDARD

To ensure universal access to resources from any location connected to the Town's network, and to minimize support and maintenance costs, the Town standardizes on one brand of personal computers and laptops. These computers are purchased with extended warranty, parts, and service agreements so that spare inventories can be kept to a minimum while uptime is maximized. This also ensures both financial and time savings when considering the collective life spans of all computers dispersed throughout Town buildings. Upon expiration of warranty, parts, and service agreements, the computers will be replaced with new computers according to the Town's Computer Equipment Replacement Plan.

The Town standardizes on IBM desktop computers and portable laptops. If IBM does not offer a computer that is suited for its intended purpose or does not supply features required, as long as the system does not compromise performance and reliability, the IT Manager will approve the system. If a computer with the specifications needed is available from other brand name manufacturers, consideration will be given to including those manufacturers in the request for quotes or tenders.

All systems purchased should include a minimum three-year warranty and support for all system parts.

All systems purchased will include an operating system consistent with the standard operating system section of this policy.

All systems will be purchased with the minimum hardware and software requirements to perform Town network functions for the entire term of the warranty.

Monitors are replaced when they fail or when deemed necessary by the Department Head and IT Manager.

- Employees using non-GIS and non-GPS applications will have monitors replaced with industry standard size monitor for basic desktop system. Currently this would be a 18.5" LCD monitor.
- Employees using GIS or GPS applications moderately and that have Department Head, Director of Finance, and IT Manager approval will have monitors replaced with the next size larger monitor. Currently this would be a 23"-24" LCD monitor.
- Employees working exclusively on GIS, GPS, CAD or similar graphical applications will be reviewed individually with Department Head, Director of Finance, and IT Manager to approve a suitable replacement.

These guidelines should be reviewed yearly to ensure we are purchasing current and cost effective technology.

OPERATING SYSTEM STANDARD

To minimize support and training requirements, and to foster common access to Town resources from all Town computers, the Town has standardized on the Microsoft Windows operating system. The Windows operating system is the highly recognized industry standard, and supports compatibility with a large majority of applications that may be installed to meet Town needs. Compliance with the current standard version of the Microsoft operating system installed on Town PC's is a requirement of all IT solutions purchased for installation on the Town's network and computers. Standardizing on the Microsoft Windows operating system ensures compatibility with many programs utilized by and information formats generated by Town business constituents and partners.

As of May 2002, the standard operating system installed on Town desktop computers is Windows 2000 Professional or Windows XP Professional. These are industry standard for Office environments and should not need replacement in the near future

For server the Town has been using Microsoft Windows NT Server 4.0, Microsoft Windows 2000 server, RedHat, Mandrake, and Slackware Linux and Open BSD or FreeBSD for its server operating systems. Due to the end of support for the NT line of server operating systems any future servers will use Windows 2000 server or Windows .Net server 2003 as its operating system for windows based servers and for UNIX based servers a Linux or BSD based distribution shall be used if appropriate.

The Redhat Linux firewall is due to be retired and a new firewall will be installed using one of several firewalls that will fit the needs of the town.

DESKTOP PROCESSING APPLICATION STANDARD

All new computers will be ordered with the Microsoft Office Suite as the standard desktop processing application. Where departments or staff need other programs in their daily activities, the IT Department will assist in providing a licensed copy of other programs if available. It will be the Department's responsibility to obtain a licensed copy of other programs if one is not available.

PURCHASING PROCEDURE

The goal is to make sure all IT related purchases are compliant with Town standards and to secure a maximum return on IT investments.

The town requires that all IT hardware, software and professional services be reviewed by the IT department, This will give the IT department an opportunity to 1) identify common needs between departments 2) ensure adherence to Town standards, and 3) use known vendors to get the best available prices for all products obtained for the Town.

Procedure

All purchase orders for the purchase of IT and telecommunications hardware, software, and services must be approved by the IT Manager.

The IT Department will analyze proposed purchases to ensure they meet all Town standards including the database, networking, computer, desktop processing application, and operating system standards.

The Finance Department will not process IT or telecommunications hardware, software or service purchase orders that do not have the authorization of the IT Department.

All departments are encouraged to seek the advice of the IT Department before researching potential hardware, software and service solutions. The IT Department will do everything possible to assist each department in finding solutions that meet their specific needs and comply with Town standards and business objectives.

Benefits

Ensures conformity with the Town's IT Master Plan in support of current and future IT objectives.

Ensures compliance across all IT and telecommunications purchases with Town established standards that support interoperability, minimal support costs, data quality, and optimal performance.

Centralizes awareness of all IT projects so that the IT Dept and IT Committee are able to identify areas where resources may potentially be shared rather than allowing costly redundant systems to be utilized independently in different departments.

COMPUTER EQUIPMENT PURCHASING PROCEDURE

The purchasing procedure used in the purchase and replacement of Town computer equipment (PC's, laptops, and printers) is referred to as the Replacement Plan. This plan provides funding annually to replace computer equipment according to a strategic schedule that makes both financing and managing the replacements reasonably feasible. By replacing equipment according to this schedule, Town staff are given equipment that meets their current and future performance requirements. Their work will not be limited by tools that are out of date.

Goal

To keep quality, reliable computer equipment that meets end user needs in all Town departments at the lowest total cost, while minimizing the capital expenditure impact.

Procedure

All PC's and laptops should be purchased with a minimum three-year warranty on all parts. This will minimize the cost of maintaining spare parts inventories.

Each year, based on a complete inventory of computers and printers, each department's budget will include funds for replacing 1/3 of the computers, and on the advice of the IT manager, printers and other related devices, based on a 3-year replacement plan. The replacement costs are calculated using the purchase price less any expected income from the sale or trade in of the equipment to be replaced.

Upon expiration of the later of the warranty period or 3 years, each PC and any other related device recommended by the IT manager will be replaced and, if not traded in, sold via standard Town practice, and revenue from these sales will be credited against the Computer Equipment being purchased.

Beginning with the Municipal Election in October 2004, and each Municipal Election thereafter, The Mayor and Councillors will be provided with a laptop computer for their 4 year term, to be funded by a 4 year lease through operating expenditures. At the end of the 4 year term, the Mayor and Councillors will assume title to the laptop computer.

MISSION CRITICAL SYSTEMS

In conjunction with the IT Committee, the IT Department will regularly review the Town's IT systems and classify those that are mission critical. These systems will be included in the Town's disaster recovery and contingency plans to ensure maximum reliability and availability of the tools that are deemed crucial to delivering Town services.

IT systems classified as mission critical meet one of two overall conditions. They are either systems whose omission would significantly inhibit 1) the Town's ability to

provide services for the public good in a timely, effective manner, or 2) operations internal to the organization which are critical to its existence.

As of January 2003, the Town's mission critical systems include:

- Telephone system
- Network infrastructure
- Internet service
- Server and data storage equipment in the IT Dept server room
- Environmental Control System in IT Dept server room
- IBM AS/400
- All Town PC's
- Lotus Domino application
- LDO application
- GIS Server
- Water Treatment Plant Server
- ArcView application
- AutoCad application
- Water treatment Plant Control applications
- AS/400 client assess application
- AS/400 finance application
- Police Information System

It is important to note that 1) this is only a small subset of the complete inventory of Town IT systems in place, and 2) this list is growing consistently as trends in the IT and telecommunications industries produce reliable information systems that omit the dependence upon backup manual and paper systems. There are many other systems installed in the Town's IT environment that deserve consistent support and maintenance. All systems, mission critical or not, will be maintained on a regular basis and receive the attention of the IT Department as needed. Mission critical systems will be tended to at the highest level of priority.

APPENDIX A: COMPUTER/NETWORK USE POLICY

The following guidelines have been established to assist users in determining what constitutes proper use and abuse.

1. Existing Town of Truro policies, which apply to employee conduct in other circumstances, also apply to conduct in relation to computer resources. This includes, but is not limited to, policies on intellectual property protection, privacy, misuse of Town of Truro assets and resources, harassment, information, data security, and conflict of interest.
2. Derogatory or inflammatory messages about a person's race, color, age, sex, disability, religion, national origin, physical attributes, or sexual orientation are strictly prohibited and will not be tolerated under any

circumstances. Such activity may constitute a violation of the Criminal Code and/or Human Rights Act.

3. The Town of Truro can monitor and record all computer usage and reserves the right to do so.
4. The Town of Truro does not guarantee the privacy of any user engaged in Internet or computer related activities including the sending and receiving of email.
5. Users of the Internet must identify themselves honestly, accurately, and completely, including Town of Truro affiliation and function when required.
6. Users shall use only the account assigned to them.
7. Users shall not use Town of Truro computer facilities or Internet resources to access materials that may be considered offensive, pornographic, illegal, or threatening. Users shall not send, intentionally receive, download, archive, store, distribute, edit, or record these materials using the Town of Truro's computer or Internet resources. Displaying these images may also be a violation of Town of Truro policy on harassment.
8. Users shall not use Town of Truro's Internet resources or computer facilities to:
 - a) Copy, download, or distribute computer files not created by Town staff or related to Town business, such as e-mail, text files, program files, image files, database files, sound files, or music files, without authorization by the Department Head and IT Systems Administrator.
 - b) Install any type of file sharing or file transfer protocol (FTP) software on the network
 - c) Intentionally propagate any virus, or other malicious code.
 - d) Knowingly disable or overload any computer system or network.
 - e) Circumvent any system intended to protect the privacy or security of another user.
 - f) Install software on any workstation or computer network without authorization by the Department Head and IT Systems Administrator.
 - g) Use the Town of Truro's email system for mass mailings without authorization by the Department Head and IT Systems Administrator.
 - h) Use the Town of Truro's computer systems for personal financial benefit.

