Scope Applies to all City information technology purchases.

The Director of the Department of Technology and Innovation (DTI) can approve based on the following criteria:

- Items not on the commodities list and is currently in use by the City of Albuquerque

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**DESKTOP/LAPTOP COMPUTERS**

Minimum Configurations for: New Desktop Personal Computers

Recommended Brands:

- Hewlett Packard
- Panasonic (ruggedized models)
- Lenovo
- Dell
- Microsoft
- Apple

Tablets:
All tablets will be supported by the Department and Vendor

**SMART CITY INDUSTRIAL COMPUTERS**

- SmallPC

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**MOBILE TELECOMMUNICATIONS DEVICES**

Supplier:

- Verizon
- AT&T
NETWORK MULTI-FUNCTION DEVICES (e.g., printers, scanners, copiers, plotters)

Maintenance and Support Requirements:

- Must include device configuration with cost, if any, to be paid by requesting Department
- Three-years minimum preferable five-years on-site maintenance and support from the supplier

Approved Manufacturers:

- Hewlett-Packard
- Xerox
- Konica Minolta
- Canon
- Fujitsu

For high volume scanning, see IMAGING SYSTEM DOCUMENT SCANNING DEVICES section.

SERVERS AND STORAGE

All server configurations will need a DTI review before proceeding to TRC. DTI will review these items and how it fits into the current infrastructure.

Component Minimum Standards:

- Memory:
- Cache:
- Disk Configuration/Fault Tolerance: SCSI, FibreChannel, ATA/IDE (conditional), iSCSI.
- Operating System: local, hardware RAID (level may vary by platform).
- Data: local, hardware RAID (1, 1E, 5, 5E, 1+0) with on-board spare as necessary.

Storage platforms:

- IBM System Storage
- HP Storage
- Nimble
- NetApp

Network Attached Storage (NAS) platforms

- IBM System Storage: NetApp
Tape Backup/Library:
  - Quantum Tape Library

Power:
  - Redundant, UPS required if not DTI resident
  - Network Interface Card(s)

Monitor:
  - Required if not DTI resident, or KVM present, 15” minimum

Operating System:
  - Microsoft Windows Server (Microsoft Supported Versions and Approved Mitigated Legacy Versions)
  - Red Hat Enterprise Linux (RHEL)
  - Oracle Enterprise Linux (OEL)

Backup and Archiving:
  - Veritas Virus Protection:
  - Trend Micro

Maintenance:
  - 3-year minimum warranty 5 year preferred
  - 24-hour x 7-day support (tier-1)
  - 8-5 Work day (tier-2 or lower) or tier-1
  - 4-hour on-site response
  - parts and labor included

Preferred Platforms:
  - Lenovo
  - Dell
  - HPE
ENTERPRISE SYSTEM SOFTWARE

Component Standards

E-mail:

- Server - Microsoft Exchange
- Client - Microsoft Outlook
- Client (web) - Microsoft Outlook Web Access (OWA)
- Microsoft Office 365

Email Antispam and Encryption:

- 2FA and hardware compatible with 2FA

Instant Messaging:

- Microsoft
- Cisco

Remote Desktop Support:

- Bomgar

Team Collaboration:

- Microsoft
- Cisco

Web Application Server (Internal Development):

- Apache Jakarta/Tomcat
- Microsoft IIS

Web Application Server (COTS):

- BEA Weblogic/Tuxedo (PeopleSoft)
- Apache Jakarta/Tomcat, Geronimo
- Microsoft IIS
- Oracle Forms Server

Web Server:
- Apache HTTPd
- Microsoft IIS

Web Filtering:
- Trend Micro
- Cisco

Web Content Management:
- Plone

Database Management Systems:
- Oracle
- Microsoft SQL Server

DBMS Administration Tools:
- Embarcadero Technologies DBArtisan
- Quest TOAD

Directory:
- Microsoft Active Directory (COA Domain only)

Identity Management:
- Microsoft

Application Centralization:
- VMWare
- Microsoft

Production Scheduling:
- Appworx

Centralized Desktop Management:
- Microsoft Active Directory
- AdminStudio Professional
- KACE

Geographic Information Systems (GIS)
• Environmental Systems Research Institute (ESRI) Components

Operating System Virtualization/Hypervisor:
  • VMWare
  • Microsoft
  • Redhat
  • Oracle

System Monitoring:
  • Oracle Enterprise Manager (OEM)
  • WhatsUp Gold (WUG)

Network Monitoring
  • Cisco
  • Cacti
  • WhatsUp Gold (WUG)

Network VPN
  • Cisco
  • Netmotion

Intrusion Protection
  • Cisco
  • Trend

Service Desk (Ticketing System)
  • KACE

Password Reset Tool (For End Users):
  • Zoho Corporation
    o ADSelfService Plus
    o ADManager Plus

CITY COUNCIL
City Goals and Objectives Tracking
  • Envisio

DESKTOP SOFTWARE
Supported Software: (includes installation and limited how-to and problem-solving. No instructional courses are offered.)

- Microsoft Office Suite
- Office 365
- Professional (organization charts)
- Adobe Acrobat (current versions)
- activePDF, PrimoPDF, PDFWriter
- Microsoft Internet Explorer

Unsupported Software: (no installation, instructional, how-to or problem-solving support. If installation is required to perform specific job duties, it must be support.)

- Adobe PageMaker
- Mozilla Firefox
- Google Chrome
- Adobe Photoshop
- Centurion DriveShield (for public-access and training machines)
- Microsoft SharePoint Designer
- Eclipse Integrated Development Environment

Supported Operating Systems:

- Microsoft Windows Professional
- macOS

Unsupported Operating Systems: (no installation, instructional, how-to or problem-solving support. If installation is required to perform specific job duties, it must be provided by Department staff or through vendor support.)

- Windows (purchase license, but run Windows until compatible City standard security software is available)
- Red Hat Enterprise Linux WS or Red Hat Desktop
- SuSE Linux Enterprise Desktop
- MacOS

End of life

Legacy Operating Systems: (limited support available for existing installations; no new installations permitted)

- Windows
GLOBAL POSITIONING SYSTEM (“GPS”) DEVICES

- GPS devices should be compatible with ESRI data formats, such as a shapefile.
- At a minimum, the GPS device should be able to export an ASCII text file or other tabular format of the coordinates collected.
- Information collected on the GPS unit should be downloadable to a PC via USB or other connection.
- GIS SharePoint site: http://sharepoint.cabq.gov/gis/GPS/Forms/AlIt_ems.aspx

PARKING STATIONS

- Parkeon (electronic mid-block parking station)
- Duncan (electronic single head credit card capable)
- IPS (electronic single head credit card capable)

PHYSICAL SECURITY EQUIPMENT AND SOFTWARE

Video surveillance system

- System must be DVTel or DVTel Compatible.
- Alarm Detection System (such as intrusion and process monitoring, but not fire).
- Equipment must have an output associated to each alarm condition to interface to a Software House system by means of a Software House control panel.

OR

The system must be OpenEye RADIUS.

NON-PUBLIC SAFETY AUDIO LOGGING RECORDERs

- The following equipment is the City standard for digital audio logging recorders: Verin
PUBLIC SAFETY DIGITAL LOGGING RECORDERS

- The following equipment is the City standard for public safety digital logging recorders:
  - Mercom Audiolog

Public Safety Dispatch Consoles

Minimum standard requirements for a public safety dispatch PC console setup:

- 3 GHz Processor
- 2 GB Memory
- 160 GB Hard Drive
- 3 1/2 Floppy Disk Drive
- DVD +/- RW Disk Drive
- DB9 Male RS 232 Serial Port assigned to COM 1
- DB9 Male RS 232 Serial Port assigned to COM 2
- DB25 Male RS 422 Serial Port assigned to COM 3 (PartSeaLevel 7108)
- PS2 Port (Quantity 2)
- VGA Video Port
- USB 2.0 (Quantity 4)
- Windows operating system
- Keyboard or Mouse/Footswitch control
- Desktop Microphone
- Dispatch Headset
- Select and Unselect Speakers

GENERAL SERVICES RADIO SYSTEM

Minimum Standard Requirements: Harris Communications™ mobile (vehicle) and portable (handheld) radios.

- 806-870 MHz Enhanced Digital Access System (EDACS) compatible
- 30 Watt RF output power mobile
- 3 Watt RF output power portable
- 128 Channel minimum
- 800 MHz antenna
- FCC type-accepted
VHF/UHF ISOLATED REPEATER RADIO SYSTEM

Minimum Standard Requirements:

- Harris Communications™ mobile (vehicle) and portable (handheld) radios

IMAGING SYSTEM DOCUMENT SCANNING DEVICES

Approved manufacturers for high volume scanning used specifically for large volume document scanning projects:

- Xerox
- Konica Minolta
- Canon
- Fujitsu
- ColorTrac

For day to day infrequent scanning, see NETWORK MULTI-FUNCTION DEVICES (e.g., printers, scanners, copiers, plotters) section.

PUBLIC/EDUCATION/GOVERNMENT ACCESS (PEG)

- Need recommended brands

DIGITAL VIDEO BROADCAST SERVERS

LIBRARY AUTOMATION HARDWARE AND SOFTWARE

Vendor: Innovative Interfaces, Inc.

- Sierra integrated library platform. The Sierra system includes vendor-supplied configured servers and software that consists of the following modules:
  
  Acquisitions, Cataloging, Serials, Circulation, Patron database management, Program Event Registration.

- WebPacPro
Vendor: Bibliotheca Library Systems:
- Bibliotheca SelfCheck
- Bibliotheca Automated Materials Handling and Detection

Systems:
- Public Access Management System (PAMS): Comprise Technologies Smart Access Management system
- Point of Sale: Comprise Technologies Smart Money Manager: part of the SAM system and is compatible with Innovative Interfaces, Inc. Sierra library automation platform.

SIRIUSWARE SALESWARE KIOSK HARDWARE
- Lenovo ThinkCentre Tiny-in-one LED Monitor full HD (1080p)
- Lenovo ThinkCentre – tiny desktop
- Ingenico isc250 Credit Card Machine
- Star Micronics Receipt Printer (Model TSP650II and newer)
- Star Micronics Cash Drawer
- Zebra card printer and peripherals
- Zebra or Honeywell barcode scanners
- ID TECH MagStripe Reader
- Power strip surge suppression

EMERGENCY MANAGEMENT SOFTWARE
Vendor: EMSystems (Emergency Medical Software Services)
- Vendor: Records & Data Management
- Hyland OnBase
- Web EOC
- Vendor: RAVE
- Mass notification
- Vendor: Life Technologies/ThermoFisher Scientific
- Applied Biosystems/Genemapper
- Vendor: FARO
- 3D Scanning hardware and software
- Vendor: IDEMIA
- Biometrics Identification Solution (BIS)
• LiveScan

TRANSIT AUTOMATION HARDWARE AND SOFTWARE

Vendor: Trapeze Software Group

Paratransit service: trip booking, automated vehicle routing, onboard mobile data computers and computer aided dispatch modules and automated reminder calls.

Trapeze: online driver’s schedule information, online Paratransit trip booking, online trip planning tool, scheduled and real-time next bus information via text messages, interactive voice response or e-mail notification.

• **AVL:** GPS based automated vehicle location system and schedule adherence.
• **BB:** Fixed route automated blocking module.
• **BSM:** Software to track amenities, repairs and maintenance schedules for bus stops.
• **FX-Info-MON:** Estimated time of arrival at bus stops based on AVL data. Enhances FX-Info-IVR and FX-Info-SMS below with real-time information.
• **FX-Info-email:** Automated e-mail notification of next bus information.
• **FX-Info-IVR:** Automated interactive voice response module providing next bus information.
• **FX-Info-SMS:** Automated text message response module providing next bus information.
• **FX:** Scheduling module for the fixed route service.
• **Info-Agent:** Trip planning software for call centers.
• **Info-Publish:** Fixed route schedule publication module.
• **Info-Web:** Web based trip planning module.
• **MapMaker:** Import and conversion tool to utilize existing GIS maps.
• **OBS hardware:** Onboard mobile data computers for driver communication, on-time performance information, dynamic Paratransit manifest and fixed route directions.
• **Ops:** Software module to track drivers’ schedules, bid assignments vs. actual work, union rules and absences.
• **Ops-Web:** Web based communication tool for drivers.
• **PASS:** Automated routing, trip booking, and computer aided dispatch system for the Paratransit service.
• **PASS-IVR:** Automated telephone based scheduling system for the Paratransit service.
and reminder calls the day prior to customer’s travels. Also provides reminder calls on the day of travel 10 minutes prior to vehicle’s arrival.

- **Plan**: Fixed route analysis, planning and budgeting module.

**Vendor**: Hanover

- **Destination Sign**: Vehicle’s high-intensity LED signs. Integrates to the Digital Recorders onboard announcement system to reduce the number of logon devices for the driver.

**Vendor**: Seon

- **Mobile View**: Ruggedized onboard surveillance system with audio recordings, wireless download of data at bus yards, centralized management software, open architecture for interfaces to GPS receivers and other onboard devices.

- **Safe Fleet V-Max Commander**: Software that allows transit department to efficiently manage all on-board video surveillance systems through a single web-based application. A convenient, user-friendly dashboard gives an at-a-glance view of all video-related activities including alarms, video downloads, system health status, and connected vehicles.

**Vendor**: UTA

- Infordev provides automated passenger counters, including directional sensors, onboard data storage, infrared and radio frequency links, integration services on onboard network.

**Vendor**: GFI Genfare, BEA

- **Odyssey**: Onboard fare boxes for collecting revenue, recording use of passes and issuance of passes.

- **TVM**: Outdoor rated Ticket Vending Machines compatible with fare boxes.

- **PEM**: Printer Encoder Machine compatible with fare boxes.

- **DS**: Data System, automated data collection, reporting, backup, and archive components.

**Vendor**: Security Control Integration (SCI, Inc)

- **C-Cure**: Access control and logging of employee’s entries. Create and issue photo badges.

- **DVTel**: Video surveillance system for facilities.
Vendor: AssetWorks Inc.

- **FleetFocus**: Fleet management, inventory, bar coding, work orders, labor and repair tracking.
- **FuelFocus**: Fuel management, inventory and control module.

Vendor: Cummins Rocky Mountain

- **Insite**: Engine diagnostic and repair software

Vendor: Stuart & Stevenson LLC

- **ATDT**: Transmission diagnostic and repair software

Code Blue for Emergency Alert phones

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**MUNICIPAL DEVELOPMENT AUTOMATION SOFTWARE**

- VueWorks
- EdgeSoft
- ParkPro

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**POLICE AUTOMATION HARDWARE AND SOFTWARE**

Vendor: Central Square

- CommandCAD
- MobileCOM
- LawRECORDS
- TiburonCONNECT

Vendor: The Omega Group

- CrimeView
- CrimeView Server
- CrimeView Community

Vendor: Xanalys Limited

- PowerCase
- Link
- Indexer

Vendor: TASER
- Axon Flex Camera
- Evidence.com

Vendor: Public Safety Corporation
- CryWolf

Vendor: Innovative Data Solutions
- PowerDMS Policy Manual Software

Vendor: QueTel Corporation
- Bar Code Printers and Labels

Vendor: MorphoTrak/idemia
- Printrak Biometrics Identification Solution (BIS)
- LiveScan

Vendor: CAD Zone, Inc.
- CrimeZone

Vendor: LEFTA Systems
- LEFTA (Law Enforcement Field Training Application)

Vendor: CI Technologies
- IAPro
CONFIGURATIONS FOR SIRIUSWARE HANDHELD SCAN ACCESS HARDWARE

Required:

- Symbol Wireless Scanner
- Single slot communications & charge cradle
- Spare 1700 mAh battery
- Protective screen cover
- Symbol 3-year Service Center Bronze Service
- Siriusware Salesware Handheld License must exist for each device or be purchased at time of equipment purchase.

ENVIRONMENTAL HEALTH

- EIC – Vehicle Emissions Inspection System
- Envision Connect
- Agiare wire

PLANNING

- Avolve Software
- Posse Land Management Software

DATA COMMUNICATIONS/NETWORK EQUIPMENT/TELECOMMUNICATIONS STANDARDS:

Network Cabling

- Local Area Network (LAN) copper cabling must c with ANSI/TIA/EIA-568-B.1 2001 ("T568B") Cate 5e or better standards and must provide a 25-year application assurance and extended warranty.
- Cabling in new facilities must utilize Category 6ca
- Fiber-optic cabling shall be Optical Cable Corporate manufactured tight buffered fiber, installed by a certified installer, and must provide a minimum 10- warranty.
- All patch panels and wall plates shall utilize 110-bl type insulation-displacement
connections.
- Switch interfaces shall utilize IEC 60603 8P8C ("R connections for copper and IEC 61754 - 20 ("LC") or 61754-4 ("SC") connections for fiber.
- All cabling must be installed by a City of Albuquerque approved network contractor.
- DTI Telecommunications Group is responsible for the coordination of all network installations in City owned and leased facilities.

TELECOMMUNICATIONS EQUIPMENT

Minimum Standards:

- Siemens Hicom 300
- HiPath 4000
- Hicom 150
- Optipoint 500 Telecommunications switch
- Software release must be either at a 6.4 or 6.6 revision level.
- Cisco Palo Alto Exault Netformix

TELECOMMUNICATIONS SMALL/REMOTE SITE NETWORK AND EQUIPMENT

Minimum Standards:

- Siemens HiCom 300 Mod 80EX or Mod 30EX Release 6.4 to 6.6,
- Siemens Hicom 150E,
- Siemens HiPath 4000
- Siemens Optipoint 500.
- Cisco

HVAC SYSTEMS

Minimum Standards:

- Trane

PARKS AND RECREATION

Tree Plotter Software
• PlanIT Geo – TreePlotter Software Suite

AVIATION
• Infax FIDS (Flight Information Display System) Engage

TRAFFIC ENFORCEMENT SOLUTIONS:
• NovoaGlobal Software

INSPECTOR GENERAL CASE MANAGEMENT AND TRACKING:
• WingSwept Software

REMOTE CONFERENCING, COLLABORATION, PRODUCTIVITY, AND WORKFLOW MANAGEMENT:
• Cisco WebEx Meetings
• Cisco WebEx Teams
• Zoom
• DocuSign

RATIONALE

These standards are intended to satisfy the requirements of conducting daily business in an efficient manner. Departments must recognize, specify, and justify the need for purchasing new platforms. Recycle standards change as new operating systems and application software require more processing power and/or hardware changes.

These standards provide the following benefits:

• Facilitate the exchange and sharing of data electronically, by using the same programs (with related file formats) and platforms across City Government.
• Achieve substantial savings in person-time support costs, over a period of time, by reducing the number of products that are supported.
• Reduce training costs and facilitate staff transfers, by having the same software in use throughout City Government.
• Enable City Government to avail of volume purchase discounts from major hardware and software vendors