

# **INFORMATION TECHNOLOGY SHARED SERVICES**

## **PRODUCTS AND SERVICES GUIDE**

**Release 1.0**

**County of Los Angeles  
Internal Services Department  
Information Technology Service  
9150 Imperial Highway  
Downey, CA 90242**

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## ATTACHMENTS

- A. Sample Memorandum of Understanding (MOU)
- B. ISD Standard #630 – Standard PC Hardware and Software

### **I. Executive Summary**

#### **A. Background**

Computers have become as integrated into our work environments as the telephone. All departments use computers for their core activities and when computers or networks fail, the impact on business is perhaps greater than when telephone service is unavailable.

Additionally, to ensure business continuity in the event of a disaster, a strong disaster recovery and business continuance program needs to be place. Typically, only those departments that have technical resources and a sizable technology budget are able to absorb the costs associated with hardware, software and information technology (IT) staff necessary to support an internal IT organization and infrastructure.

#### **B. Establishment of ITSS**

To meet the challenge of IT business continuity and rising IT costs for County departments, the Internal Services Department (ISD), in concert with the Chief Information Office (CIO), has formed a new service offering called Information Technology Shared Services (ITSS), described in this Products and Services Guide. ITSS has been designed to provide centralized information technology (IT) services that will provide departments with cost effective access to the ISD's IT infrastructure, technologies and expertise thereby leveraging the redundant tasks and costs associated with Desktop support, File/Print Services and Messaging Services.

#### **C. ITSS Mission**

The mission of ITSS is to provide reliable, available, and secure centralized IT services to customer departments in a responsive and cost effective manner for the following IT Services:

1. Implementation Support
2. Centralized Messaging and File/Print Services
3. Centralized Desktop Services
4. Business Systems Support

#### **D. Benefits**

By participating in ITSS, departments benefit by:

- Focusing their resources on their main mission tasks rather than on the IT back-office and desktop services.
- Freedom from having to recruit, hire and retain technical resources required to care for these types of services.
- Reducing costs and improving services through consolidation of hardware, software and staffing.

- Receiving 24/7 support from ISD's Customer Assistance Center.
- Being better positioned to take advantage of emerging Countywide IT services such as Voice over Internet Protocol (VoIP), Internet content filtering, managed instant messaging, wireless access, Secured Socket Layer (SSL) and Virtual Private Network (VPN) remote access and mobile device access.

### **E. Pricing Structure**

#### One Time Costs

Funding to upgrade and/or replace hardware and software, licenses and telecommunications, to meet ISD Standard #630, as required, will be provided by the client department.

However, at no cost, ISD will conduct an assessment of the client department's IT infrastructure, determine hardware/software, license and telecommunication upgrades required to join ITSS, and provide assistance to the client in completing the upgrade.

When the upgrades are completed and the data and files are ready for migration to ITSS, all transfer activities are performed by ISD at no cost.

#### Ongoing Costs

The rate for ITSS service is \$1,325 per client computing device for fiscal year 2007/08.

This rate provides all the IT Shared Services described in this Guide, including, but not limited to patch management, backup/recovery, security, network connectivity, 24x7 help desk and support. At periodic intervals, the client department will need to upgrade their hardware to meet changing ITSS standards or to keep pace as new technology emerges.

#### Additional Cost

There will be additional cost for supplemental services, such as additional mailboxes and data storage. Charges will be determined during the client assessment and added to the monthly ITSS rate.

Additional costs will also apply to discretionary software other than the Windows operating system and the Microsoft Office Suite as defined in Standard #630. Examples of discretionary software include other Microsoft products such as Visio and Project and other software such as WRQ Reflections Enterprise.

## **II. Business Description**

### **A. ITSS Overview**

Information Technology Shared Services (ITSS) will provide County departments, agencies and commissions cost effective access to ISD's infrastructure, technologies and expertise for the following centralized Information Technology (IT) Services:

1. Implementation Support
2. Messaging and file/print services using ISD servers
3. Desktop support
4. Business Support

### **B. Client Department Prerequisites**

#### **1. Engage ISD to Conduct an Information Technology Assessment**

The objective of this activity is to review the client department's information technology infrastructure to 1) identify all desktop computers targeted for ITSS enrollment, 2) document those computers requiring license and/or software-only upgrades, 3) document those computers requiring replacement in order to meet minimum ITSS requirements, and, 4) identify required telecommunication upgrades.

#### **2. Provide Minimum client Hardware, Software, License and Telecommunication Configurations**

To ensure that clients are able to join and take advantage of all ITSS services offerings, all client personal computer equipment must be at the level defined by ISD Standard #630, Standard PC Hardware and Software (Attachment B).

ITSS will advertise well in advance any changes to Standard #630. Additionally, ITSS will synchronize any changes to Standard #630 in alignment with the County's budget cycle to allow client departments ample time to incorporate computing upgrades as part of their budgeting cycle.

### **C. Pricing Structure**

#### **One Time Costs**

After an ISD Assessment and Gap Analysis, a department shall provide funding to upgrade and/or replace PC equipment, software, software licenses to meet ISD Standard #630 and any telecommunications upgrade required. However, ISD will assist the client in this activity.

Initial Assessment activities include, but are not limited to:

- identifying all desktop computers targeted for enrollment,
- documenting which computers require license and/or software-only upgrades,
- documenting which computers require replacement to meet a minimum hardware and software configuration,
- identifying required telecommunication upgrades, and,
- assisting departments in the acquisition, configuration and installation of hardware, software, license and telecommunication upgrades.

ISD will conduct the assessment at no cost.

When the upgrades are completed and the data and files are ready for migration to ITSS, all transfer activities are performed by ISD at no cost.

### **IT Shared Services Fee**

After a department migrates, ITSS will provide the shared services described in this Guide to each customer department for a flat annual rate of approximately \$1,325 per client computing device for fiscal year 2007/08. A brief listing of services follows:

- Centralized Messaging Services & File/Print Services
  - Central Server Management
  - Directory Services
  - Email & Calendaring Services (MS Exchange 2003)
  - Data Storage/Data Restoration
  - Disaster Recovery Services
  - Remote access to documents
  - Network printing services
  - Disaster Recovery Services
  - Data Storage/Data Restoration
  - Active Sync Connectivity for MS-enabled mobile devices
- Centralized Desktop Services
  - Managed Desktop (MS Office 2003, MS Windows XP)
  - Software Distribution
  - Asset and Software Inventories
  - Provisioning and Image Management
  - Roaming User Profiles
  - Remote Monitoring & Troubleshooting
  - Remote and Onsite Support and Repairs
  - Security

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- Contract monitoring & management
- Providing an ISD Microsoft Enterprise Agreement (optional)
- Business Support
  - Core liaison services
  - Account management
  - Service Level Monitoring

The ITSS service fee will vary based on the number of clients being supported. The service fee includes desktops, laptops and tablets that run the Microsoft Windows operating system and the Microsoft suite of products. The service fee may vary in the future, contingent upon the total number of devices supported. Incorporated in the fee are costs associated with data storage and data restoration costs.

A client computer is defined as any computing device connecting to Shared Services which ITSS is responsible for supporting. Individuals with multiple computers will need to enroll each computer in Shared Services for each computer to be supported by ITSS. ITSS will work with client departments to ensure that any computer connecting to ITSS conform to ISD's Standard #630 and have the appropriate security software installed.

Terms and conditions, such as confidentiality, term of service and responsibilities will be detailed in the Memorandum of Understanding (MOU) (Attachment A) prepared in the Client Initialization Phase.

At periodic intervals, the client department may need to fund and upgrade their hardware to meet ISD Standard #630 or, optionally, keep pace as new technology emerges. As defined in the MOU, specific Microsoft software upgrades will be provided either under the client's Microsoft License Agreement or by the ISD Microsoft Enterprise License Agreement.

### **Additional Pricing**

#### **Supplemental Services**

Any additional cost, such as charges for additional mailbox storage will be determined during the Assessment and added to the monthly ITSS rate. Costs will be documented in the Pricing Schedule (EXHIBIT 1). E-mail limitations and data storage limitations identified in the Assessment apply to each individual account. However, additional charges are only incurred if the aggregate e-mail storage or aggregate data storage for all enrollees in the client's organization is exceeded.

#### **Discretionary Software**

Discretionary software includes any licensed Microsoft software product (e.g. Visio) and/or Discretionary Licensed Software as shown in Standard #630, such as: WRQ Reflections Enterprise.

### III. Service Offering

#### A. Implementation Support

Much preparation is required to migrate a County department to full ITSS operation. An ITSS BSG Project Manager will prepare a project plan and manage the migration project throughout ITSS life cycle. ISD may, at times, engage an external vendor consultant to perform the migration. The BSG Project manager will collaborate with the vendor and the client to schedule all tasks.

##### 1. Customer Initialization

- Define the scope of the project.
- Review client's mission statement, line of business, Business Automation Plan and other departmental reports providing insight into the client's IT support needs for messaging, shared file/print and desktop support.
- Review the existing IT infrastructure including software, hardware and daily operations.
- Review IT documentation, procedures and protocols.
- Visit remote sites.
- Document the IT support requirements of the department.
- Ensure the client understands the ITSS migration project and range of services and define client expectations.
- Establish a common understanding of the proposed methods for implementation.
- Agree on the communication plan, client's responsibilities, and ITSS' responsibilities.
- Draft a Memorandum of Understanding (Attachment A).
- Define a baseline project schedule.
- Obtain Project Charter signoff from the client to proceed.

##### **Customer Initialization Deliverables:**

1. Project Plan
2. Memorandum of Understanding (MOU)

##### 2. Assessment Phase

- Install ALTIRIS client software on as many workstations and servers as possible to identify and document the following:
  - General existing site information
  - network infrastructure
  - server environment
  - desktop environment
  - business software applications
  - procedures/protocols
- Determine risks associated with a migration.



- Determine customer preferences.

### **Assessment Phase Deliverables:**

1. Software application infrastructure survey
2. IT infrastructure survey, including telecommunications
3. Final Infrastructure Assessment Report

### **3. Gap Analysis Phase**

- Identify the client's strengths and areas that need improvement to meet ITSS standards.
- Provide recommendations to upgrade areas needing improvement in order to meet ISD minimum computing standards to join ITSS.
- Develop cost/time estimates for license, hardware/software, and telecommunication upgrade requirements.

### **Gap Analysis Phase Deliverables:**

1. Gap Analysis Summary Report documenting the remediation requirements and cost estimates.

### **4. Pre-Implementation Review**

- Review all specifications new computing devices, software and MS license upgrades and telecommunication upgrades.
- Map and prepare client data files for transfer to ITSS.

### **Pre-Implementation Review Deliverables:**

1. Pre-Implementation Review Summary Report verifying a) specifications for all client software, hardware, licenses and telecommunication hardware and/or software that has to be procured or upgraded to meet ISD Standard #630, and, b) verification that all client data files are ready for transfer.

### **5. Remediation**

- Assist the client department to purchase new computing devices, software upgrades and new MS licenses.
- Assist the client to Implement infrastructure upgrades such as network devices, connectivity, and telecommunications equipment.
- Accomplish the "imaging" of the client department's desktop PCs and laptops, including:

- System parameters
- Security and anti-virus software
- Patch and system management software such as ALTIRIS to monitor, secure and manage the desktop environment.

### Remediation Deliverables:

1. A checklist will be utilized to document successful completion of each task.

### 6. Implementation

- Migrate the client department's files, calendars and historical e-mail to the ITSS environment.
- Perform comprehensive testing.

### Implementation Deliverables:

1. A completion report for each task required for ITSS migration
2. Implementation Summary Report indicating that all client ITSS operations are fully functioning.

### 7. Post-Implementation Review

- Monitor and evaluate all transfer activities performed in Implementation.
- Activate Helpdesk Procedures.
- Review resolution of Helpdesk trouble tickets.
- Track desktop maintenance coverage.
- Review Mid-Range and Network Systems statistics.
- Monitor system resource utilization.
- Evaluate system responsiveness, system functionality and reliability.

### Post-Implementation Review Deliverables:

1. Project Closure Report.

### B. Messaging and File/Print Services

#### 1. Centralized Messaging Service

- Provide a single, scalable Active Directory running on Windows Server 2003 enabling centralized, secure network management, including user accounts and network distributed resources.
- Each customer user will have a single logon to the central Active Directory environment.
  - Active Directory domain characteristics:
    - Enforce password history: 6 passwords remembered
    - Maximum password age: 90 days
    - Minimum password age: 1 day
    - Minimum password length: 8 characters
    - Password must meet complexity: Enforced
    - Allow users to encrypt files: Enabled with use of EFS (Encrypted File System)
    - Home directory size: 200 MB
  - The Active Directory credential is the key that automatically unlocks all of the MS applications, such as Outlook, that clients have been authorized to use.
- Any computer joined to the ITSS domain will allow the user to connect to their mailbox, to their network files and to local printers.
  - Users gain automatic access to local resources. When users log in to the network from a computer other than their regular computer, Active Directory will utilize group policies to make network resources, including local printers and file servers, available to the user without requiring manual changes to system configuration settings.
  - Roaming user profiles provide the ability to store unique user information such as user favorites, screen saver settings, desktop settings, etc centrally within Active Directory. This allows users to get the same desktop look and program settings when they use any other ITSS configured system on the network.
  - Offline file folders allow a user to have full access to their network files if they are disconnected from the network. Windows XP and Active Directory policies automatically keep network files synchronized to an offline folder on the each user's local computer. When the computer reconnects to the network, any files modified in the offline folder are automatically synchronized between the user's computer and the appropriate servers.

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- Provide a shared, scalable Microsoft Exchange 2003 environment to client enabling the centralization of departmental e-mail solutions. This environment will provide server-based anti-virus and anti-spam tools and will allow the client to access their e-mail remotely via Outlook Web access and Outlook Mobile access.
  - Exchange mailbox characteristics:
    - Maximum sent message size: 10MB
    - Maximum received message size: 10MB
    - Maximum recipients for a single email: 5000 addresses
    - Mailbox size warning issued at: 95MB
    - Mailbox send prohibited when mailbox size at: 200MB
- Server-based anti-virus and anti-spam protection for email is provided by Symantec's BrightMail AntiSpam product. This software stops spam attacks in real time without compromising accuracy and utilizes numerous different filtering technologies for maximum protection against spam, email-borne viruses, and other unwanted email.
- Customers will have remote web-based access to e-mail via Outlook Web Access (OWA) and Outlook Mobile Access (OMA).
  - OWA allows customers with a non-County Internet connection and web-browser to securely access their Exchange mailbox, public folders, rules and mailbox options.
  - Both methods provide remote access to e-mail, calendar, contacts, and tasks. Additionally, access is secured by use of RSA SecurID tokens. For customers needing remote access to their mailboxes, ITSS will coordinate customer purchase of SecurID tokens with Data Security.
- Provide administration for the Countywide LDAP directory. The LDAP directory is a centralized repository of County e-mail addresses which is searchable from computers on the County's Enterprise Network.
- Provide 24/7 monitoring, support and issue resolution for all Centralized Messaging component.

### 2. Centralized File/Print Services

- Provide a shared, scalable File and Print services environment centralized at the Downey data center. This service will allow customers to place their data within a highly secure, fault tolerant and redundant solution. Customers connecting remotely will have full access to any data they placed in this environment just as if they were working at their regular office computer.
- Provide remote access to documents. Each user has access to a "Public" network drive for sharing documents and a "My Documents" network drive for personal work files.

- Provide network printing services enabling more usage of centralized printing within client offices. Users will benefit from simplified common printing tasks, such as sharing, finding, and connecting to network printers. Windows Server 2003 includes intelligent print services: fault tolerant, discoverable, server-based printing that improves printer reliability, manageability, and security.
- Provide seamless access to network data and files. Windows Server 2003 also provides strong security.
- Provide backup and restore functionality and support to clients, including backup management and disaster recovery, for data stored in the "My Documents" folder and in the end-user's private network-based drives. All of the data is replicated to the Orange County local recovery center for disaster recovery purposes.
- Help Desk staff will troubleshoot messaging and shared file/print issues through the use of a Problem Priority scale support strategy with Urgent tickets receiving the most rapid response:

<u>Priority</u>	<u>Definition</u>
LOW	Component/service is unusable; bypass or work around is possible with no operational impact; non-critical; deferred maintenance acceptable.
MEDIUM	Component is down/degraded; service is unusable or difficult to use; non-critical but restricted function; some operational impact
HIGH	System component is down; service is unavailable; critical impact; alternative or bypass is unavailable
URGENT	Critical system component is down; service is unavailable; critical impact; alternative or bypass is unavailable

- Standard ISD account deletion policies will be followed.

### C. Centralized Desktop Services

The client is responsible for equipment inventory control, Internal Certifications Control Program (ICCP), and budgeting as needed for future equipment replacement. All new computing devices must be maintained according to ISD Standard #630. ISD will introduce new ITSS standards in alignment with the County budget cycle in order to allow departments to plan for the acquisition of new equipment or services.

- Provide 24/7 centralized support for client computers including: operating systems, office applications, telecommunications, anti-virus, patch management, system security and computer provisioning, deployment repair and disposition.
- Help Desk staff will troubleshoot desktop support issues through the use of a Problem Priority scale support strategy with Urgent tickets receiving the most rapid response:

<u>Priority</u>	<u>Definition</u>
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LOW	Component/service is unusable; bypass or work around is possible with no operational impact; non-critical; deferred maintenance acceptable.
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- Software supported for ITSS Customers will be as stated in ISD Standard #630.
- Provide a central software repository and software version control, central management of client software licensing, and assist procurement and provisioning of client computers.
- Provide ISD Microsoft Enterprise Agreement to cover MS products.
- Provide Asset and Software Inventories using Altiris Software.
- Provide Roaming User Profiles (client profiles, such as favorites, screen savers and desktop setting), are available from any location.
- Provide Image Management.
  - System parameters
  - Security and anti-virus software
  - Patch and system management software such as ALTIRIS to monitor, secure and manage the desktop environment.
- Provide on-site warranty repair. On site non-warranty repair will be billed on a time and materials basis.
- Provide Remote Monitoring & Troubleshooting from Customer Assistance Center.

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Shared Messaging, File Print, and Desktop Support Performance Objectives	
Service Availability	Objective
Server Availability	24 hours 7 days per week 99.5% uptime availability
Network Availability	24 hours 7 days per week 99.5% uptime availability
Customer Assistance Center (CAC) Availability.	24 hours 7 days per week 365 days/yr
Responsiveness	Objective *
CAC average speed to answer call	90% answered within one minute
Mean time to Respond <sup>1</sup>	5 minutes to 15 minutes
Mean time to Isolate <sup>2</sup>	1 hour to 24 hours
Mean time to Restore <sup>3</sup>	30 minutes to 48 hours. Plus troubleshooting time.
Mean time to Status/Notify <sup>4</sup>	1 hour to 24 hours
Mean time to Escalate <sup>5</sup>	1 hour to 24 hours
Disaster Recovery	Objective *
Single client restore of E-mail/Directory/File/Print	- Single mailbox or file system restored within 4 hours - Specific e-mails or files restored within 8 hours if on a recent backup. Restoring from backups more than a week old require time to retrieve the tape from offsite storage.
Multiple Client restore of E-mail/Directory/File/Print	- Current e-mail/directory within 8 hours - E-mail history within 48 hours - File/Print data within 48 hours
Notes: <ol style="list-style-type: none"> <li>1. <u>Mean time to Respond</u>: Time from customer call for CAC to generate Trouble Ticket and assign to appropriate ISD support group to start the isolation and resolution process.</li> <li>2. <u>Mean time to Isolate</u>: Time to isolate the problem to the most likely root cause.</li> <li>3. <u>Mean time to Restore</u>: Time to restore service and/or resolve the issue.</li> <li>4. <u>Mean time to Status/Notify</u>: Once the problem has been isolated, CAC will obtain status from the assigned ISD support group and notify customer.</li> <li>5. <u>Mean time to Escalate</u>: CAC will begin the escalation process if isolation or restoration is not achieved within the specified timeframes.</li> </ol> <p>* <u>Responsiveness Objectives</u>: These apply during regular business hours: Monday to Friday 7am-5pm. The Customer Assistance Center receives calls, opens tickets and conducts initial troubleshooting 24/7/365. However, issues requiring other ISD support groups may take longer to resolve after regular business hours. The range of time incorporates the Problem Priority scale listed in the previous section.</p>	

### D. Business Systems Support

- Provide core liaison services including:
  - New client interfacing
  - Account management:
    - Be the single point of contact for clients with non-Help Desk issues.
    - Review statistical reports from the CAC Help Desk Support unit for the evaluation and assessment of services
    - Monitor Mid-Range operations, telecommunications and any other area where ITSS services are provided to the client
  - Notification of new services offerings
  - Forecast ITSS changes, such as software upgrades
- Provide training coordination. Training coordination may include the registration and initialization to the county wide Learning Management System (LMS).
- Provide access to the CIO's Countywide equipment purchasing agreement discounts.



### IV. Microsoft Software License Strategy

For Microsoft Software Licenses, the major goals of ITSS are:

- to assume MS Software License management on behalf of customers,
- to incorporate all CLIENTS under a consolidated MS Enterprise Agreement, and,
- to preserve County investment in existing licenses.

Client licenses status and fees will be determined during the initial Assessment and Gap Analysis. The client must have valid Microsoft licenses that are current with ITSS software standards prior to joining ITSS. If the client does not have such licenses, the client will be responsible for the cost of a "True-Up" (upgrade) for all licenses to include a current Microsoft Software Assurance (SA) Plan. The timing and costs of any software upgrades, if required, will be determined during the initial phases of the migration effort.

Depending on license status, the client may continue to use an existing license agreement, if a valid agreement is in place that has been paid for, either in full, or on a multi-year payment plan. If the client does not have a license agreement or needs to upgrade, payment for participation in the ISD Enterprise Agreement will be required.

Specific terms, conditions and schedules will be detailed in each CLIENT department's MOU (Attachment A).

#### **Benefits of ISD of MS Enterprise Agreement**

- Simplified license management
- Standard software for all ITSS customers
- Reduced cost
- Software Assurance (SA ) included – guarantees upgrade (e.g. MS Office 2003 upgrade to MS Office 2007)
- Direct relationship with Microsoft instead of reseller

### GLOSSARY

**Active Directory** – Microsoft's trademarked directory service, an integral part of the Windows 2000 architecture. Active Directory is a centralized and standardized system that automates network management of user data, security, and distributed resources.

**Active Sync Connectivity** – Active Sync is a Microsoft product that acts as the gateway between the Windows-based PC and Windows Mobile powered device, enabling the transfer of MS Outlook information, MS documents and applications to and from the mobile device.

**ALTIRIS** – PC asset management software that analyzes content on PCs to determine applications, security software, patches, configuration, deployment, identification and other information necessary to determine ITSS compatibility.

**BrightMail** – Symantec BrightMail AntiSpam 6.0 provides enterprises with an advanced anti-spam and email threat defense system. Deployed at the Internet gateway, this award-winning solution makes email more secure and productive by leveraging multiple effective technologies, globally distributed operations centers, a patented spam detection network, and a real-time filter delivery mechanism.

**Business Automation Plan** – An annual plan required from each County department by the County's Chief Information Office (CIO) to document each County department's information technology status, plans and budget for the next fiscal year.

**CAC** – Customer Assistance Center. A division within the Internal Services Department's Computing Services Branch that manages Help Desk and other customer support functions.

**CIO** – Chief Information Office or Chief Information Officer. The County's department and executive overseeing County department information technology activities.

**Computing Services Branch** – One of three branches within ISD's Information Technology Service (ITS) responsible for central mainframe and server operations, ITSS, technology, data security and **CAC**. The other two branches are Telecommunications Branch and Customer Applications Branch.

**Customer Application Branch** – One of three branches within ISD/ITS responsible for developing and maintaining application systems for several County departments.

**DCERT** – Departmental Computer Emergency Response Team. Each DCERT has the responsibility of responding to and/or coordinating computer security threats within their organization. Representatives from each DCERT will coordinate with the CIO.

**Imaging** – Imaging is the process by which a computer is loaded with all software and configured to operate in the ITSS environment.

**Internal Certifications Control Program (ICCP)** – Each county department's written plan for information technology security including, but not limited to, physical security, data security, password management and internal controls for applications.

**Internet Content Filtering** – The use of a program to screen and exclude from access or availability Web pages or e-mail that is deemed objectionable.

**ISD** – The County's Internal Services Department.

**ISD/ITS (Information Technology Service)** – ISD's organization responsible for much of the County's information technology resources and support, including the County's Wide Area Network, central server and mainframe operations, and customer application development and maintenance.

**LAinternet** – The County's inter-networking service. It is a router-based network infrastructure which leverages a shared network architecture, while providing customized features as required such as LA-to-LAN and LAN-to-Host.

**LAN** – A local area network, such as within one building.

**LANet** – The County's high speed digital backbone telecommunications network which uses smart building technology. LANet enables installation and movement of workstations by just plugging from one outlet to another. It carries voice, data, image facsimile and video information.

**LDAP** – A central repository of County e-mail addresses which is searchable from computers on the County's Enterprise Network.

**Learning Management System (LMS)** – Administered by the County's Department of Human Resources (DHR), LMS handles every aspect of learning management with a county department by facilitating online registration of instructor-led courses, providing access to web-based courses, helping employees define career paths and matching employee skills to the needs of the organizations.

**Mid-Range** – A division within ISD's Computing Services Branch responsible for the operation of central servers supporting ITSS and many County department applications.

**MOU** – Memorandum of Understanding. This document defines the service provided by ISD for ITSS services and client responsibilities.

**Microsoft (MS) Enterprise Agreement** – The MS Enterprise Agreement is volume Microsoft software licensing for organizations that have 250 or more desktop PCs. It enables improved workplace productivity by standardizing the choices of Microsoft software on all desktops across the enterprise at discounted prices based on a three-year agreement term.

**MS Exchange 2003** – The Microsoft e-mail system. It will be the standard for ITSS.

**MS Office 2003** – The Microsoft Suite of software products including Word, Excel, Outlook, Power Point and Access.

**MS Windows XP** – Current Microsoft operating system that manages the PC Windows environment.

**Network Systems Division** – ISD's organization that is responsible for the County's wide area networks which include **LANet** and **LAinternet**.

**Outlook Mobile Access (OMA)** – Outlook Mobile Access provides users with access to MS Outlook from mobile devices. Using MS Exchange ActiveSync, clients can synchronize with high levels of security, directly to their MS Exchange mailboxes from Microsoft Windows® Mobile™-based devices.

**Outlook Web Access (OWA)** – Microsoft software that allows Outlook Exchange data to be accessed from the internet. Outlook Web Access provides Web browser access to e-mail, scheduling (including group scheduling), contacts, and collaborative information stored in Microsoft Exchange Storage System folders. Outlook Web Access is used by remote, home, and roving users.

**Patch** – A patch (sometimes called a "fix") is a quick-repair job for a piece of software. During a software product's beta test distribution or try-out period and later after the product is formally released, problems will almost invariably be found. A patch is the immediate solution that is provided to users; it can sometimes be downloaded from the software maker's Web site.

**RSA Secure ID Tokens** – To access resources protected by the RSA SecurID system, users simply combine their secret Personal Identification Numbers (PIN's) (something they alone know) with the token codes generated by their authenticators (something they have). The result is a unique, one-time-use pass code that is used to positively identify, or authenticate, the user. If the code is validated by the RSA SecurID system, the user is granted access to the protected resource. If it is not recognized, the user is denied access.

**Secured Socket Layer (SSL)** – Secure Socket Layer (SSL) technology protects County Web sites. An SSL Certificate enables encryption of sensitive information during online transactions. Each SSL Certificate contains unique, authenticated information about the certificate owner. Every SSL Certificate is issued by a Certificate Authority that verifies the identity of the certificate owner.

**Spam** – Spam is unsolicited e-mail on the Internet. From the sender's point-of-view, spam is a form of bulk mail, often sent to a list obtained from a list obtained by companies that specialize in creating e-mail distribution lists. To the receiver, it usually seems like junk e-mail.

**Software Assurance** – Software Assurance is part of the Microsoft Enterprise Agreement that assures product support and upgrades at no cost (e.g., MS Windows XP to Vista).

**Telecommunications Branch** – One of three branches within ISD/ITS responsible for the county's network systems, including **LANet** and **LAinternet**, local area network (LAN) administration, premises systems, radio systems, 9-1-1 support and voicemail.

**True Up** – Action taken by an ITSS client to acquire **Software Assurance**.

**Virtual Private Network** – A virtual private network (VPN) is a network that uses a public telecommunication infrastructure, such as the Internet, to provide remote offices or individual users with secure access to their organization's network.

**Vista** – Microsoft's latest release of the PC Windows operating system. Upgrade from Windows XP.

**VoIP** – Voice Over Internet Protocol. A telephony term for a set of facilities used to manage the delivery of voice information over the Internet. VoIP involves sending voice information in digital form in discrete packets rather than by using the traditional circuit-committed protocols of the public switched telephone network. A major advantage of VoIP and Internet telephony is that it avoids the tolls charged by ordinary telephone service.

**ATTACHMENT A**  
**SAMPLE MEMORANDUM OF UNDERSTANDING (MOU)**

**MOU**  
**BY AND BETWEEN**  
**INTERNAL SERVICES DEPARTMENT**  
**AND THE**  
**\_\_\_\_\_ DEPARTMENT**  
**FOR**  
**INFORMATION TECHNOLOGY SHARED SERVICES**

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- B. ISD Standard #630 - Hardware and Software Standards

## ITSS PRODUCTS AND SERVICES GUIDE

### INFORMATION TECHNOLOGY SHARED SERVICES Sample Memorandum of Understanding (MOU)

#### INTRODUCTION

Information Technology Shared Services (ITSS) has been established by the CIO and ISD to provide centralized Desktop Support, File/Print Services and Messaging Services. All ITSS services are described in the ITSS Products and Services Guide (Attached).

ITSS is administered by the ITSS Division of the Computing Services Branch (CSB) of the ISD Information Technology Service (ISD) and will either provide direct ITSS service to clients or assure that other organizations within ISD meet their obligations for ITSS service.

The mission of ITSS is to provide reliable, available, and secure centralized IT services to client departments and ISD divisions in a responsive and cost effective manner for the following IT Services:

- Implementation Support
- Centralized Messaging and File/Print Services
- Centralized Desktop Services
- Business Systems Support

This Memorandum of Understanding (MOU) is intended to be the documented agreement between ISD and the client for the products, services and responsibilities of ISD to deliver IT Shared Services to a client department or ISD division. For purposes of this MOU, client department and ISD division customers will be referred to as client. The ISD/ITS ITSS provider will be referred to as ISD.

#### 1.0 APPLICABLE DOCUMENTS

##### 1.1 Interpretation

Documents below are attached to and form part of this MOU. In the event of any conflict or inconsistency in the definition or interpretation of any word, responsibility, schedule, or the contents of any task, subtask, deliverable, goods, service, or other work, or otherwise, between the MOU and the Attachments, or between Attachments, such conflict or inconsistency shall be resolved by giving precedence first to the MOU and then to the Attachments according to the following priority:

- A. ITSS Products and Services Guide
- B. ISD Standard #630



## 2.0 ADMINISTRATION OF MOU

### 2.1 ITSS Liaison

The responsibilities of the ITSS Liaison include, without limitation, ensuring that the objectives of this MOU are met by providing direction to ISD staff engaged in delivering ITSS service to the client.

The ITSS Liaison will be the ITSS Business Systems Group (BSG) Manager. Detailed contact information will be provided during the Assessment.

The ITSS Liaison is not authorized to make any changes in any of the terms and conditions of this MOU without written approval from the client.

### 2.2 ITSS Project Manager

The ITSS Project Manager will be designated by the ITSS BSG Manager. The ITSS Project Manager will develop and manage the ITSS project for each client, using appropriate project management methodologies and tools, to migrate and deliver ITSS services to the client. The ITSS Project Manager will be responsible for ITSS day-to-day activities as related to this MOU and will meet and coordinate with the client ITSS Liaison.

The ITSS Project Manager's detailed contact information will be provided during the Assessment.

The ITSS Project Manager is not authorized to make any changes in any of the terms and conditions of this MOU without written approval from the client and the ITSS Liaison.

### 2.3 Client Liaison

The Client Liaison shall be the single point of contact representing the client and shall be responsible for client day-to-day activities required to acquire and monitor ITSS services.

The Client Liaison will be designated by the client department's administration. Detailed contact information will be provided during the Assessment.

The Client Liaison is not authorized to make any changes in any of the terms and conditions of this MOU without written approval from ISD.

## ITSS PRODUCTS AND SERVICES GUIDE

### 3.0 WORK

Pursuant to the provisions of this MOU, ISD shall fully provide, complete, and deliver all deliverables, goods, services, and other work set forth in the ITSS Products and Services Guide.

In summary, ISD will provide the following ITSS services:

- Implementation Support
- Centralized Messaging and File/Print Services
- Centralized Desktop Services
- Business Systems Support

### 4.0 SCOPE OF SERVICE

As defined in the ITSS Products and Services Guide, ISD will provide shared messaging, file/print and desktop service to client facilities. Other ISD services, such as Application System Support and Premises Systems Support are not included.

### 5.0 TERM

The term of this MOU shall commence on \_\_\_\_\_ and shall continue indefinitely, unless sooner terminated, in whole or in part, as provided in this MOU.

### 6.0 CLIENT PREREQUISITES

In order to participate in IT Shared Services, client must undergo an ISD IT Assessment and Gap Analysis. The Gap Analysis will include specifications and costs for required hardware, software, licenses and telecommunication upgrades.

#### 6.1 Information Technology Assessment and Gap Analysis

Upon client's request to join ITSS, ISD will review the client department's information technology infrastructure to: 1) identify and document all desktop computers targeted for enrollment, 2) identify and document those computers requiring license and/or software upgrades, 3) identify and document those computers requiring upgrade or replacement to meet minimum ITSS requirements, and, 4) identify and document required telecommunication upgrades.

#### 6.2 Provide Minimum Client Hardware and Software

Client shall fund, acquire and install personal computer equipment and software to meet the minimum requirements as defined by ISD Standard #630, Standard PC Hardware and Software. Costs will be documented pursuant to Paragraph 8 (CLIENT COSTS).

### **6.3 Upgrade Microsoft Licenses as Required**

ISD will determine client's current Microsoft Software License status and determine if an upgrade will be required. Requirements will be developed as a result of the Assessment and will be documented the Gap Analysis. Costs will be documented pursuant to Paragraph 8 (CLIENT COSTS).

### **6.4 Upgrade Telecommunications as Required**

ISD will determine client's current telecommunication infrastructure status and determine if an upgrade will be required. The basic standard is that the client be connected to the County's LANet or Enterprise Network. Any upgrade requirements will be developed as a result of the Assessment and will be documented in the Gap Analysis. Costs will be documented pursuant to Paragraph 8 (CLIENT COSTS).

## **7.0 ISD COMPENSATION**

Client will provide ISD with a billing account number for ITSS services. ISD will invoice client via ISD's BASIS financial billing system. ITSS costs are shown in the Pricing Schedule (EXHIBIT 1). In general, ISD charges to client will include:

### **7.1 Ongoing Cost**

The monthly rate for IT Shared Services for Messaging, File/Print and Desktop Support will be determined by the number of client department PC's times the annual ITSS rate per PC divided by 12 and is documented in the Pricing Schedule (EXHIBIT 1).

After migration to ITSS, any license fees required to be a member of the ISD Microsoft Enterprise Agreement will be added to the monthly rate.

### **7.2 Additional Cost**

#### **7.2.1 Premium Cost**

Any additional cost for premium services, such as charges for additional mailbox storage will be determined during the Assessment and added to the monthly ITSS rate. Costs will be documented in the Pricing Schedule (EXHIBIT 1). E-mail limitations and data storage limitations identified in the Products and Services Guide apply to each individual account. However, additional charges are only incurred if the aggregate e-mail storage or aggregate data storage for all enrollees in the client's organization is exceeded.

### 7.2.2 Discretionary Software Cost

Discretionary Software pricing will be for licensed MS software products and for items described in ISD Standard #630 for Discretionary Licensed Software, including:

- Front Page
- Microsoft Publisher 2003
- MS Visio 2003
- MS Project 2003
- WRQ Reflections Enterprise

## 8.0 CLIENT COSTS

Client will be responsible for the following costs:

### 8.1 **Acquisition, installation and testing of all hardware and software to meet ISD Standard #630**

Costs will be determined during the Assessment and Gap Analysis and will be included in the Pricing Schedule (EXHIBIT 1).

### 8.2 **MS license upgrade, as required**

Costs will be determined during the Assessment and Gap Analysis and will be included in the Pricing Schedule (EXHIBIT 1).

### 8.3 **Telecommunication upgrades as required**

Costs will be determined during the Assessment and Gap Analysis and will be included in the Pricing Schedule (EXHIBIT 1).

## 9.0 ESCALATION

ISD will make every effort to meet all Tasks, Deliverables and Performance Standards as defined in the Products and Services Guide. ISD will monitor ITSS migration progress and ongoing performance, and, if a problem is noted, contact the Client Liaison with a status and escalate the problem within ISD for swift resolution. Responsibility for resolution is with the ITSS Liaison, pursuant to Paragraph 2.0 (ADMINISTRATION OF ITSS).

Should the client determine a problem with ITSS service before ISD, client will call ISD's Customer Assistance Center (CAC). CAC will resolve and/or escalate the problem as defined in the ITSS Products and Services Guide. Responsibility for resolution is with the ITSS Liaison, pursuant to Paragraph 2.0 (ADMINISTRATION OF ITSS).

### 10.0 TERMINATION

Should the client elect to terminate this MOU, a written termination notice must be provided. ISD requires a thirty (30) day notification period.

Upon notification of client termination of ITSS service, ISD will determine the necessary steps to decommission the client and will provide rollback/backout support. Termination will include a plan for disposition of Microsoft License coverage.

ISD will prepare a final billing invoice that includes costs to terminate participation in ITSS. The client will be responsible for all costs related to the termination of the MOU.

### 11.0 CONFIDENTIALITY

ISD and client agree that during the term of this MOU and any and all renewals thereof, and for a period of ten years from the date of ISD expiration or termination, departmental confidential information, such as client data, shall be maintained in strict confidence, shall be used only for purposes of this MOU, and that no such confidential information shall be disclosed by ISD, ISD agents or employees without the prior written consent of the client unless such disclosure is required by law. confidential information will be defined to ISD by the client.

In the case of confidential information obtained from third party vendors (e.g., software), such use and restriction or disclosure will be in accordance with the Terms and Conditions of the applicable third party agreement and provisions of law. Each party agrees to take the same reasonable precautions to prevent the disclosure of confidential information, but in no event will either party provide less than a reasonable standard of care.

### 12.0 ALTERATIONS AND MODIFICATIONS

ISD shall not extract, manipulate, alter, modify or retire client data or programs without the client's written approval unless directed by governing agencies such as the Auditor-Controller, Sheriff's or other County policy that supersedes client's authorization.

### 13.0 RESPONSIBILITIES

#### 13.1 ISD Responsibility:

- 13.1.1 The ITSS Liaison will ensure that all objectives of this MOU are met and will designate responsibility to an ITSS Project Manager to develop and manage the Project Plan to migrate and deliver ITSS service to the client. ISD shall notify the client in writing within 10 days of the execution of the MOU of the ITSS Project Manager's name, phone number and e-mail address.

## ITSS PRODUCTS AND SERVICES GUIDE

- 13.1.2 Ensure that the client's scheduled ITSS project due dates are not unreasonably disrupted by other service priorities of either a continuing or special nature. Before a scheduled due date may be disrupted, concurrence must be obtained from the client. Wherever possible, notice will be provided to the client at least two (2) weeks in advance of the disruption.
- 13.1.3 Provide referral for ISD technical assistance and/or contracted services for existing or new projects, not related to ITSS, when requested by the client.
- 13.1.4 Perform full backup and data recovery to run messaging and shared file/print systems stored at the ISD Data Center.
- 13.1.5 Establish billing methodologies that recover allowable costs only and are subject to review as defined by the Los Angeles County Auditor-Controller.
- 13.1.6 Retains the right to evaluate and modify a client's migration project timeline associated with any delays or temporary holds placed by the client.
- 13.1.7 Should the client experience project delays, ISD will place the project on hold until client management requests, in writing, that the delay be removed.
- 13.1.8 Maintain a change control process to document the migration project life cycle.
- 13.1.9 Customer Assistance Center (CAC) responsibilities:
  - 13.1.9.1 Available 24-hours a day, seven days a week.
  - 13.1.9.2 Answer calls promptly and maintains a standard of answering calls within 90 seconds.
  - 13.1.9.3 Provide first point of contact for client experiencing ITSS hardware and/or software (MS Office) problem, as well as Wide Area Network connectivity.
  - 13.1.9.4 Analyze the description of the problem, make a determination regarding the cause of the problem, elicit the symptoms from the client, analyze the information using the available diagnostic tools, and asks the client to perform tasks via the telephone under CAC's direction, which will isolate or resolve the problem.
  - 13.1.9.5 Interface with appropriate technical support groups and vendors for problems that cannot be resolved quickly on the telephone.
  - 13.1.9.6 Track and follow-up on all problems until resolution, including coordinating the resolution of chronic problem issues between technicians and vendors.
  - 13.1.9.7 Monitor response times and maintenance service levels.

## ITSS PRODUCTS AND SERVICES GUIDE

13.1.9.8 Escalate and notify support groups and management if response times and service levels are not being met.

### **13.2 Client Responsibility:**

13.2.1 Client will identify and maintain a Client Liaison as their representative for all dealings with ISD within 10 working days after the execution of this MOU.

13.2.2 Institute and maintain an open line of communication with ISD and provide a 48-hour call back notification to ISD.

13.2.3 Maintain a hardware/software warranty of all computing devices supported by ITSS. Client may choose not to maintain warranties at the risk of having to pay for hardware break/fixes, not obtain software updates, thereby becoming non-compliant with ITSS standards when ISD performs an ITSS update.

13.2.4 Client agrees to implement additions, modifications, relocations and removals of equipment, facilities and personnel necessary for ISD to meet ISD ITSS commitments in a timely and efficient manner. This includes work performed at remote sites.

13.2.5 Client shall complete analysis and approval or disputation of ISD billings within 30 days after receipt of bill.

13.2.6 Client shall continue to provide departmental IT services, including, but not limited to:

- Application development and maintenance (does not include Microsoft Software product maintenance)
- IT Asset Management
- End-user training
- HARDWARE/SOFTWARE deployment/relocation
- User Administration, including password management
- Device security
- County network usage
- DCERT and Tier 0 Responsibilities
- Virus Analysis
- Preliminary analysis of Desktop problems

13.2.7 Client's IT support staff shall be available during the migration phases, and be considered the subject matter expert in the internal daily operation of the department.

13.2.8 Client is responsible for replacement or upgrading hardware and software in order to maintain compliance with ISD Policy #630. ITSS strongly recommends that the client maintain the appropriate warranty coverage for problems that fall outside the scope of IT Shared Services. It is permissible to replace a specific device component in order to meet ISD Standard #630.

## ITSS PRODUCTS AND SERVICES GUIDE

### SAMPLE ITSS MEMORANDUM OF UNDERSTANDING

#### EXHIBIT 1 - PRICING SCHEDULE

PRICING SCHEDULE			Page 1
ONE-TIME COST			
Cost Item #	Description	Calculation	One-Time Cost
1.	Hardware to meet Standard #630	1. New PCs: Units_____ x \$_____ 2. Upgrades: \$_____ 3. Installation: \$_____ 4. Other: \$_____	\$_____
2.	Software/Licenses to meet Standard #630	1. Windows XP: \$_____ 2. MS Office Suite: \$_____ 3. Other: \$_____	\$_____
3.	Telecommunication upgrade	1. Hardware: \$_____ 2. Software: \$_____	\$_____
4.	Other		
<b>ITSS Service – Total One Time Cost</b>			<b>\$_____</b>



## ITSS PRODUCTS AND SERVICES GUIDE

Page 2

### PRICING SCHEDULE

#### ONGOING COST

Cost Item #	Description	Calculation	Monthly Rate
1.	ITSS Ongoing Service	<p>_____ #PC x \$1325</p> <p>MS License Fee \$ _____</p>	\$ _____
2.	Supplemental Cost Items: 1. Additional Mailbox Space 2. etc.	<p>1. _____ MB x \$ _____</p> <p>2. etc.</p>	\$ _____
3.	Discretionary Cost Items: 1. MS Products 2. Other Discretionary SW	<p>1. Copies _____ x \$ _____</p> <p>2. Copies _____ x \$ _____</p>	\$ _____
<b>ITSS Service - Total Monthly Rate</b>			<b>\$ _____</b>



## ITSS PRODUCTS AND SERVICES GUIDE

This INFORMATION TECHNOLOGY SHARED SERVICES MEMORANDUM OF UNDERSTANDING (MOU) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the Internal Services Department Information Technology Service (ISD) and the \_\_\_\_\_ Department/Division (CLIENT).

### MEMORANDUM OF UNDERSTANDING FOR INFORMATION TECHNOLOGY SHARED SERVICES

Internal Services Department and Client caused this Memorandum of Understanding to be signed by their duly authorized officers on the day and year set forth above.

**CLIENT**  
**(Department/ISD Division)**

**Internal Services Department-**  
**Information Technology Service (ISD)**

By \_\_\_\_\_

Name:

Title:

By \_\_\_\_\_

Name:

Title:

**ATTACHMENT B**

**ISD STANDARD #630  
STANDARD PC HARDWARE AND SOFTWARE**

## ITSS PRODUCTS AND SERVICES GUIDE

### ISD STANDARD #630 STANDARD PC HARDWARE AND SOFTWARE

The Information Technology Shared Services (ITSS) Division of the Internal Services Department provides centralized messaging, centralized desktop support, and shared file and print services to County Departments. This document defines the minimum standards required to join the ITSS shared services program. The standard is segmented into new hardware purchases, upgrading existing equipment, software, and peripherals. The new hardware purchase standard is the highest level achievable because that hardware is expected to be in place for a number of years. The hardware upgrade standard is defined at a lower level requirement due to the anticipation that the hardware will be replaced within a short time after joining ITSS services. Software and peripherals are defined as minimum levels required.

#### NEW HARDWARE

#### Desktop Technology and Components Configuration

Processor (Minimums)	<b>Minimum</b> <b>Intel Pentium Based Processors</b> <ul style="list-style-type: none"> <li>Intel Pentium D960, Core 2 Duo – 3.4 GHz; or</li> </ul> <b>AMD Based</b> <ul style="list-style-type: none"> <li>AM2 dual core processors – 2.56 GHz; or</li> </ul> <b>Required</b> <ul style="list-style-type: none"> <li>Microsoft Vista Compliant</li> </ul>
Cache	<b>Minimum</b> <b>Intel</b> <ul style="list-style-type: none"> <li>2MB L2 cache</li> </ul> <b>AMD</b> <ul style="list-style-type: none"> <li>2MB L2 cache</li> </ul>
Flat Panel (Monitor)	<b>Minimum</b> <ul style="list-style-type: none"> <li>17" Digital Flat Panel TFT-LCD with Digital Inputs and multi-media speaker bar.</li> </ul> <b>Recommended</b> <ul style="list-style-type: none"> <li>20" to 24" Digital Wide Screen (Aspect) Flat Panel TFT-LCD with Digital Input and Multi-media speaker bar</li> </ul> <b>Required</b> <ul style="list-style-type: none"> <li>No Analog only input Flat Panels are to be ordered due to compatibility issues.</li> <li>No CRTs are to be ordered due to OSHA, HAZMAT, and hazardous reclamation issues.</li> </ul>
Memory	<b>Minimum</b> <b>Intel</b> <ul style="list-style-type: none"> <li>2.0 GB DDR2 Non-ECC 800 MHz</li> </ul> <b>AMD</b> <ul style="list-style-type: none"> <li>2.0 GB DDR1 553 MHz</li> </ul> <b>Recommended</b> <ul style="list-style-type: none"> <li>4.0 GB when dual core CPU and dual channel I/O configurations are selected.</li> </ul>

## ITSS PRODUCTS AND SERVICES GUIDE

Memory Slot/Front Side Bus	<b>Minimum</b> <ul style="list-style-type: none"> <li>Memory slots capable of supporting a minimum 4GB of RAM</li> <li>800 MHz Front Side Bus speed</li> </ul> <b>Recommended</b> <ul style="list-style-type: none"> <li>1066 MHz Front Side Bus speed</li> </ul>
Hard Disk Drive (HDD)	<b>Minimum</b> <ul style="list-style-type: none"> <li>80GB SATA-2 7,500 RPM 3.0Gb/s with 8MB DataBurst Cache</li> </ul> <b>Recommended</b> <ul style="list-style-type: none"> <li>80GB SATA-2 10,000 RPM with 16MB DataBurst Cache</li> </ul>
Floppy Drive (FDD)	<b>Optional</b> <ul style="list-style-type: none"> <li>3.5" 1.44 MB FDD either external or internal to the PC.</li> </ul>
DVD/CD	<b>Minimum</b> <ul style="list-style-type: none"> <li>CD/DVD +/- RW Dual Layer Capable combination 8X burner with software decode and 3<sup>rd</sup> Party OEM burning software</li> </ul>
Network Interface Card (NIC)	<b>Minimum</b> <ul style="list-style-type: none"> <li>Integrated Intel/Broadcomm/3Com equivalent operating at 10/100 Mbps</li> </ul> <b>Preferred</b> <ul style="list-style-type: none"> <li>Integrated or internal card must be the equivalent of Intel/Broadcomm/3Com operating at 10/100/1000 Mbps</li> </ul> <b>Required</b> <ul style="list-style-type: none"> <li>Every NIC must be enabled for Wake-On-LAN (WOL) in the BIOS. The BIOS boot sequence must be configured with the Preboot Execution Environment (PXE) as the primary, and drive 'C' as the secondary default.</li> </ul> <p>PXE is part of the "Wired for Management" (WfM) industry standard specification that enables the WOL feature to access, manage, and update PCs during off hours with server management software.</p>
Wireless	<b>Optional</b> <ul style="list-style-type: none"> <li>Intel 3945, or either BroadCom or Cisco based with A/G Compatibility</li> </ul>
Modem	<b>Optional</b> <ul style="list-style-type: none"> <li>Any compatible 56k V.92</li> </ul>
Video Graphics	<b>Minimum</b> <ul style="list-style-type: none"> <li>128 MB NVIDIA DVI Digital Video Adapter utilizing either AGP or PCIE(X16)</li> <li>128 MB ATI DVI Digital Video Adapter utilizing either AGP or PCIE(X16)</li> </ul> <p>Integrated NVIDIA or ATI video on the motherboard, that does not contain integrated 128MB video memory, must contain a minimum 224MB of shared motherboard memory with DVI out or equivalent.</p>
Sound	<b>Minimum</b> <ul style="list-style-type: none"> <li>Integrated Sound Blaster card, or equivalent, speaker, headphone and microphone jacks.</li> <li>Integrated speakers with monitor</li> </ul> <b>Optional</b> <ul style="list-style-type: none"> <li>Stand alone speakers not attached to the monitor</li> </ul> <b>Recommended</b> <ul style="list-style-type: none"> <li>Sub-woofer speakers should not be used in open office environments.</li> </ul>
Ports	<b>Minimum</b> <ul style="list-style-type: none"> <li>USB 2.0</li> <li>PCI - 3</li> <li>DVI or equivalent digital video display out</li> <li>PS2 Connector</li> </ul> <b>Optional</b> <ul style="list-style-type: none"> <li>S-Video In/Out port</li> <li>DVI or HDMI Video in/out port</li> <li>1 FireWire 400 or 800</li> </ul>

## ITSS PRODUCTS AND SERVICES GUIDE

Keyboard / Mouse	<b>Minimum</b> <ul style="list-style-type: none"> <li>Microsoft (MS) USB optical wheel mouse or ISD equivalent</li> <li>Windows XP USB mechanical keyboard or equivalent</li> </ul> <b>Optional</b> <ul style="list-style-type: none"> <li>Wireless USB keyboard and mouse that is MS compatible</li> </ul>
Warranty	<b>Recommended</b> <ul style="list-style-type: none"> <li>Full 4 years Parts &amp; Onsite Labor with next business day service</li> <li>Retain existing hard drive for data destruction when serviced per client departmental guidelines.</li> </ul>

### Laptop Technology and Components Configuration

Processor (Minimums)	<b>Minimum</b> <b>Intel Pentium Based Processors</b> <ul style="list-style-type: none"> <li>Intel Pentium Core Dual Processors 2.16 GHz; or</li> </ul> <b>Intel Centrino Chipset Based</b> <ul style="list-style-type: none"> <li>Pentium M 2.0 GHz; or</li> </ul> <b>AMD Based</b> <ul style="list-style-type: none"> <li>Athlon 64 X2 Dual Core; or</li> <li>Turion 64 X2 Dual Core.</li> </ul> <b>Required</b> <ul style="list-style-type: none"> <li>Microsoft Vista Compliant</li> </ul>
Cache	<b>Minimum</b> <b>Intel</b> <ul style="list-style-type: none"> <li>2MB L2 cache</li> </ul> <b>AMD</b> <ul style="list-style-type: none"> <li>2MB L2 cache</li> </ul>
Screen Size	<b>Minimum</b> <ul style="list-style-type: none"> <li>14" diagonal anti-glare WSGXA+ and WUXGA active matrix (TFT) displays or equivalent</li> </ul> <b>Optional</b> <ul style="list-style-type: none"> <li>14" to 17" diagonal anti-glare Wide Screen (Aspect) WXGA+ display or WUXGA active matrix (TFT) UltraSharp™ display or equivalent</li> </ul>
Memory	<b>Minimum</b> <b>Intel</b> <ul style="list-style-type: none"> <li>2.0 GB DDR2 553 MHz based</li> </ul> <b>AMD</b> <ul style="list-style-type: none"> <li>2.0 GB DDR1 based</li> </ul>
Battery	<b>Optional</b> <ul style="list-style-type: none"> <li>Extended Battery</li> </ul>
Network Card	<b>Minimum</b> <ul style="list-style-type: none"> <li>Integrated Intel/Broadcomm/3Com equivalent operating at 10/100 Mbps</li> </ul> <b>Preferred</b> <ul style="list-style-type: none"> <li>Integrated or internal card must be the equivalent of Intel/Broadcomm/3Com operating at 10/100/1000 Mbps</li> </ul> <b>Required</b> <ul style="list-style-type: none"> <li>Every NIC must be enabled for Wake-On-LAN (WOL) in the BIOS. The BIOS boot sequence must be configured with the Preboot Execution Environment (PXE) as the primary, and drive 'C' as the secondary default.</li> </ul> <p>PXE is part of the "Wired for Management" (WfM) industry standard specification that enables the WOL feature to access, manage, and update PCs during off hours with server management software.</p>

## ITSS PRODUCTS AND SERVICES GUIDE

Wireless	<b>Optional</b> <ul style="list-style-type: none"> <li>Intel 3945, or either BroadCom or Cisco based with A/G Compatibility</li> </ul>
Modem	<b>Optional</b> <ul style="list-style-type: none"> <li>Any compatible 56k V.92</li> </ul>
Video Card	<b>Minimum</b> <ul style="list-style-type: none"> <li>Integrated or slotted non-shared 128MB NVIDIA or ATI DVI for Digital Video Adapter (DVA).</li> </ul> <p>Integrated NVIDIA or ATI video on the motherboard, that does not contain integrated 128MB video memory, must contain a minimum 224MB of shared motherboard memory with DVI out or equivalent.</p>
Hard Disk Drive (HDD)	<b>Minimum</b> <ul style="list-style-type: none"> <li>60GB Serial ATA 7,200 RPM</li> </ul> <b>Recommended</b> <ul style="list-style-type: none"> <li>80GB Serial ATA 7,200 RPM</li> </ul>
Floppy Disk Drive (FDD)	<b>Optional</b> <ul style="list-style-type: none"> <li>3.5" 1.44 MB FDD either external or internal to the PC.</li> </ul>
DVD/CD	<b>Minimum</b> <ul style="list-style-type: none"> <li>CD/DVD +/- RW Dual Layer Capable combination 8X burner with software decode and 3<sup>rd</sup> Party OEM burning software</li> </ul>
Ports	<b>Minimum</b> <ul style="list-style-type: none"> <li>2 USB 2.0</li> <li>Available PCMCIA port</li> <li>S-Video out</li> <li>SVGA monitor out (for presentation)</li> <li>Sound out</li> </ul> <b>Optional</b> <ul style="list-style-type: none"> <li>S-Video In/Out port</li> <li>DVI or HDMI Video in/out port</li> <li>PS2 Connector</li> <li>1 FireWire 400 or 800</li> <li>Docking Station Attachment port per specs below</li> </ul>
Touch Pad/Mouse	<b>Minimum</b> <ul style="list-style-type: none"> <li>Built in Touch Pad or Pointer</li> </ul>
Port Replicator Notebook Stand	<b>Optional</b> <ul style="list-style-type: none"> <li>3 USB 2.0</li> <li>DVI out with SVGA for multimedia projector presentations</li> <li>S-Video In/Out port</li> <li>DVI or HDMI Video in/out port</li> <li>Sound In/Out</li> <li>PS2 Connector</li> <li>1 FireWire 400 or 800</li> <li>Serial hard drive connector for external device support</li> <li>Parallel port out</li> </ul>
Warranty	<b>Recommended</b> <ul style="list-style-type: none"> <li>3 years Parts &amp; Onsite Labor no later than next business day</li> <li>Retain existing hard drive for data destruction when serviced per client departmental guidelines.</li> </ul>

## ITSS PRODUCTS AND SERVICES GUIDE

### UPGRADING EXISTING DESKTOP and LAPTOP

This hardware and legacy equipment standard will change as technology advances are made. Clients will need to make the decision whether to purchase new hardware, or upgrade their existing hardware by replacing components in order to comply with minimum standards. All equipment must be maintained at, or above, the minimum levels defined in this standard in order to continue to meet the minimum allowable use of ITSS services.

Desktop Upgrade Requirements	<p><b>Minimum</b></p> <ul style="list-style-type: none"> <li>• Pentium 4 (P4) with 1.6 GHz processor (CPU)</li> <li>• 1 GB Memory (RAM)</li> <li>• 20 GB of available hard disk drive space</li> <li>• CD ROM Drive</li> <li>• SVGA video display</li> <li>• Integrated or internal sound card</li> <li>• 10 NIC Mbps</li> <li>• USB or PS2 Connector</li> <li>• Microsoft (MS) equivalent mouse</li> <li>• Windows XP equivalent mechanical keyboard</li> <li>• Parallel and serial port out</li> </ul> <p><b>Optional</b></p> <ul style="list-style-type: none"> <li>• Speakers for training</li> </ul>
Notebook Upgrade Requirements	<p><b>Minimum</b></p> <ul style="list-style-type: none"> <li>• Pentium 4 (P4) with 1.2 GHz processor (CPU)</li> <li>• 1 GB Memory (RAM)</li> <li>• 40 GB of available hard disk drive space</li> <li>• SVGA video display</li> <li>• 14" diagonal analog SVGA screen</li> <li>• DVD/CD ROM Drive</li> <li>• Integrated or internal sound card</li> <li>• 10 NIC Mbps</li> <li>• Built in Touch Pad or Pointer</li> <li>• PCMCIA card adapter</li> <li>• USB or PS2 Connector</li> <li>• Internal built in speakers</li> <li>• Parallel and serial port out</li> </ul>
Warranty	<p><b>Optional</b></p> <ul style="list-style-type: none"> <li>• Third Party support contract to cover remediation of Desktops and Laptops that become non-functional (Break and Fix.) This contract would include both Parts &amp; Onsite Labor with response time no later than next business day.</li> <li>• Establish a support contract with ISD's client Assistance Center in the vehicle of a fully funded PO. This PO would be build for all Break and Fix issues on a Time and Materials basis.</li> </ul> <p><b>Required</b></p> <ul style="list-style-type: none"> <li>• Retain existing hard drive for data destruction when serviced per client departmental guidelines.</li> </ul>



## ITSS PRODUCTS AND SERVICES GUIDE

### SOFTWARE APPLICATIONS STANDARDS

#### Office Applications

The applications listed are contained within the ITSS baseline software.

#### BASELINE SOFTWARE

Application	Product	Comment
Database Spreadsheets Presentation Graphics Word Processing	<b>Minimum</b> MS Office 2003 Pro <ul style="list-style-type: none"> <li>Access</li> <li>Excel</li> <li>PowerPoint</li> <li>Word</li> </ul>	Must be on all ITSS supported devices. These applications are all contained in Microsoft baseline software.  No MS OEM software versions are considered valid licenses within the ITSS environment.
Electronic Mail	<b>Minimum</b> <ul style="list-style-type: none"> <li>MS Exchange 2003</li> </ul>	Outlook 2003 with MS Office 2003 Professional
Internet Browser	<b>Minimum</b> <ul style="list-style-type: none"> <li>MS Internet Explorer (IE)</li> </ul>	

#### BASELINE CLIENT SUPPORT SOFTWARE

CLIENT	Product	Comment
ITSS Inventory Management & Remote Control	<b>Minimum</b> <ul style="list-style-type: none"> <li>Altiris CMS</li> </ul>	Most current Altiris Client Management Suite (CMS) client installed.
ITSS Patch Management	<b>Minimum</b> <ul style="list-style-type: none"> <li>PatchLink client</li> </ul>	Most current PatchLink Client installed.
Anti Virus / Spam / Firewalls	<b>Minimum</b> <ul style="list-style-type: none"> <li>Cisco Security Agent (CSA)</li> <li>McAfee Enterprise Anti Virus (AV)</li> <li>Enterprise Policy Orchestrator (EPO)</li> <li>SPAM</li> </ul>	No Anti Virus (AV), Spam, or Firewall software is to be installed by the manufacturer or user. This includes the internal firewall within MS XP Professional software. Only certified ITSS AV, Firewall, and Spam packages will be installed by ITSS on all managed PCs. MS Simple File Sharing must be disabled.
3270 Emulation & Mainframe Emulation & Connectivity	<b>Minimum</b> <ul style="list-style-type: none"> <li>QWS 3270</li> <li>ISD 3270 Web Portal</li> </ul>	Either QWS or ISD Web 3270 Portal can be used for simple access and data entry at no charge to ITSS clients.
TCP/IP	<b>Minimum</b> <ul style="list-style-type: none"> <li>Microsoft Client</li> </ul>	

## ITSS PRODUCTS AND SERVICES GUIDE

### Discretionary Licensed Software

Other discretionary software may be supported on a mutually agreed upon basis between ITSS and the supported department.

Application	Product	Comment
Desktop Publishing	<b>Optional</b> <ul style="list-style-type: none"> <li>FrontPage</li> <li>Microsoft Publisher 2003</li> </ul>	This is Discretionary (Optional) licensed software that is outside the scope of the ITSS Baseline software.
Diagram & Flowchart	<b>Optional</b> <ul style="list-style-type: none"> <li>MS Visio 2003</li> </ul>	Specialized and complex diagram and flowchart software.
Project Management	<b>Optional</b> <ul style="list-style-type: none"> <li>MS Project 2003</li> </ul>	Project Management software.
3270 Emulation & Mainframe Emulation & Connectivity	<b>Optional</b> <ul style="list-style-type: none"> <li>WRQ Reflections Enterprise</li> <li>QWS3270 32 bit</li> </ul>	These expanded versions are used for highly specialized data entry or complex mandatory print sessions.
Dial-up 3270 Emulation	<b>Optional</b> <ul style="list-style-type: none"> <li>RSA Dial-up access and token</li> </ul>	This software and token package are available through ISD'S Security and Business Recovery Division.

### PERIPHERAL STANDARDS

Other peripherals may be supported on a mutually agreed upon basis between ITSS and the supported department at additional cost.

Printers	<b>Minimum</b> <ul style="list-style-type: none"> <li>Hewlett Packard or equivalent compatible, LaserJet with integrated NICs.</li> <li>All new personal printers (e.g., InkJet) must attach via Universal Serial Bus (USB) or FireWire connections.</li> </ul> <p>ITSS clients are responsible for repair or replacement of peripherals, consumables, and support contracts.</p>
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