

ULSTER COUNTY

CENTRALIZED TAX COLLECTION DATABASE STUDY

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I. EXECUTIVE SUMMARY

Ulster County applied for and received a grant in the first quarter of 2008 to investigate the feasibility of implementing a county-wide database for the purpose of sharing tax collection information with all municipalities within the county. This document reports the findings of the study conducted in connection with the grant. There are a total of 39 tax collection entities within the county – 20 towns, 1 city, 3 villages and 15 school districts. With the exception of one town which keeps its records manually, all of these entities have their own tax collection software – 28 use a tax collection software package written and maintained by the county's Information Services Department; the remaining 10 entities use software supplied by outside vendors. None of the tax information can currently be shared among municipalities with the possible exception of five school districts that are using a vendor software package which does allow display of data on an internet site for public viewing (those five school districts could share information if they wished to do so as the data is available for public access). The county has its own system (for use by county departments only) which displays limited data, and no payment history – only the amount of tax still due on a parcel at the end of the collection period. The county also maintains a system, which was written in-house, for the management of unpaid taxes. Again, this information is viewable by county departments only and currently cannot be accessed by the individual tax collection entities.

Prior to our grant application being applied for and accepted, Ulster County Information Services was starting to look at enhancing its Tax Collection System as the program currently in use was written over ten years ago and there have been vast improvements in technology. Now it will be necessary to update the program so that it complies with the terms of the grant and that the data is sharable among municipalities.

As part of this study, we (representatives from the Ulster County Department of Finance and Ulster County Information Services) held informational meetings with the majority of collectors within the county. We also formulated and distributed a survey to all tax collection entities to get their input on the best way to implement a shared database. We presented different options which are discussed in more detail in Section III below; however the most favorable option was for each municipality to continue having their tax collection software housed locally with the ability to upload data on a nightly basis to a county-wide database that would be accessible via a secured internet site. This is the option that we are currently pursuing.

In addition to meetings held with collectors, a meeting was also held with Town Supervisors in late July. At this meeting the supervisors received a copy of the questionnaire that was distributed to all tax collection entities. A copy of a presentation given by personnel from the State Office of Real Property Services regarding the tax collection grant was distributed as well.

As a result of the informational meetings held with the collectors, a committee was formed with representatives from four towns, four school districts and one village within the county.

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We have been meeting periodically to discuss the requirements for the central, county-wide database as well as enhancements to the current UCIS Tax Collection System.

Section II below gives a description of the tax collection systems currently in use within the county (there are a total of five different systems used by the various municipalities as well as two separate systems used by the county only). Section III describes the proposed new county-wide database as well as proposed enhancements to the existing UCIS Tax Collection System and other changes which are being discussed. Finally, Section IV describes how we plan to implement these changes.

II. EXISTING SYSTEMS IN USE WITHIN ULSTER COUNTY

The following is an overview of the current tax collection systems in use throughout Ulster County. There is currently only one town in the county (consisting of 1,190 parcels) that is not utilizing any tax collection software – all records are kept manually. This town, however, is currently looking into purchasing the county's tax collection system (provided by Ulster County Information Services) and it is hoped they will be using this software for the 2009 collection cycle.

• Ulster County Information Services Tax Collection System

This system is currently being used by 19 out of 21 municipalities within Ulster County encompassing 76,831 parcels out of a total 86,740 within the county. It is also being used by 6 out of 15 school districts (encompassing 42,457 parcels out of 86,740) and all three villages (4,179 parcels).

The program resides locally at each municipality, either used stand-alone on a single workstation or on multiple workstations connected to a network server with the database residing on that server. Each individual tax collection entity is responsible for doing their own back-ups of the program and data. From 1997 to present, Ulster County Information Services has made numerous updates to the program based on user requests and state-mandated changes. It is the responsibility of the municipality/school district to install all new releases and/or patches.

The tax data that is loaded into the UCIS Tax Collection System comes from the bill extract and rate files generated by the RPS Version 4 system (RPS155D1 and RPS147D1). These files are distributed to the municipalities by UCIS at the same time the tax bills are generated. There is one school district that contains parcels outside Ulster County. For this district, UCIS obtains the bill extract and rate files from the other county and merges it with the Ulster County data prior to distribution to the school district. It is the responsibility of the using municipality/school district to load the data files provided by UCIS into their tax collection database.

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The tax payment data is entered by the tax collector or clerk(s) within the tax collection office. There is currently one school district utilizing this program that has a lock box agreement with JP Morgan and Chase. This district receives files from Chase containing payment transactions. The Tax Collection System contains a "lock-box" module that automatically posts the payments from the transaction file into the database.

The system has the ability to view individual parcel tax bill data and payment status. Parcel data displayed includes: SWIS, section-block-lot, bill number, parcel location, property classification, roll section, parcel dimensions/acreage, owner name and address, uniform % of value, full market value, land assessed value, total assessed value, total amount of tax due and bank code. In addition, it displays whatever exemptions exist on the parcel, including the type of exemption, exemption amount, tax purpose and full value amount. It also lists each individual tax levied against the parcel showing the type of levy, total amount to be raised for that levy, percent change from prior year, levy tax rate and levy tax amount. There is also an indicator that tells whether the parcel has taxes in arrears. Payment status includes the date the payment was received, date the payment was deposited, tax amount, penalty amount, any fees added (notice fees or return check fees), payment batch number, payment type (cash, check etc).

Currently information cannot be accessed via the internet. Bar coding and scanning is currently not being used.

User support is provided by Ulster County Information Services. The license fee for this system is \$250, with an annual maintenance fee of \$100.

- **Allen Tunnel Corporation – WINTAX**

WINTAX is used by five school districts within Ulster County encompassing 19,367 parcels. This parcel count is for Ulster County parcels only – all of these school districts span county borders.

This program uses the bill extract and rate files out of RPSV4 (RPS155D1, RPS147D1). These files are supplied by Ulster County Information Services (for the Ulster County parcels within that school district) and by the other counties or vendors that generate tax rolls/bills for the out-of-county parcels.

The program and database reside locally at each school district's server. Users have the ability to upload data to a website for public viewing, which can be accessed via www.taxlookup.net. Information available for viewing is: swis, sbl, bill number, parcel location, property dimensions/acreage, roll section, property classification code, deed book and page, land and total assessed values, STAR tax savings, bank code and account number, along with levy detail, exemption data and payment history.

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At least four of the five school districts currently using this software have lock-box agreements with a bank (JP Morgan and Chase) and this software contains functionality for processing transaction files from this bank. It can also handle bar-code scanning.

The software contains functionality for handling back-ups – which either can be done locally to the workstation (and then later copied to CD) or backed up to an internet site.

Allen Tunnel Corp provides all user support and also handles the loading of patches, new releases, etc.

The annual cost of this software is \$1,500 per year which is broken down as \$750 for software support and \$750 for internet hosting. To use this program you must have Windows 98 or better (Windows XP is preferred). Internet connectivity is required in order to upload data to their website (for public viewing). They also recommend the purchase of PC Anywhere so that they can dial in and provide support if needed.

- **SCA (Software Consulting Associates) Tax Collection System**

SCA Software is currently used by the City of Kingston (8,724 parcels) and the Kingston City School District (21,869 parcels).

This is a windows-based program that resides at the municipality level. It uses the bill extract and rate files produced by RPSV4 (RPS155D1, RPS147D1, RPS155D9) which are supplied by Ulster County Information Services. The data resides on a central file server at city hall (for the city) and on the district server (for Kingston City School District). The tax collectors or tax office personnel are responsible for all data input. The comptroller's office also has access (for the City of Kingston). Users can view updates immediately, and the system gives the user the ability to view individual parcel tax bill information including owner information, assessment and exemption data, special districts and payment history. Backups are done as part of the general city-wide server backups and nightly school district server backups. The system does support scanning of barcodes. The City of Kingston has a lock-box set up with M&T Bank, and this system supports automatic posting of transactions via file from that institution. The system also supports automated processing of files from tax service organizations and has the ability to produce reminder notices.

Functionality does not exist for making the tax bill information and payment status data available on the internet.

Software Consulting Associates is responsible for providing user support. They also take care of loading all patches and new releases.

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The annual maintenance fee is \$1320 per year. The software was purchased year's ago so the initial cost of purchase was unknown. It does not require any special hardware or software in order to run.

- **INFO-MATIC, INC - INFO-TAX**

Info-Tax (from Info-Matic, Inc) is currently being used by two school districts (encompassing 2,994 parcels).

This is a windows-based program, the database for which resides on a central server at the school districts data center. It uses as input the RPS bill extract and rate files (RPS155D1 and RPS147D). It has the ability to view all data pertaining to the parcel tax bill and payment status. Currently only the tax collector and business administrator have access along with the network administrator (for support purposes only). The school district's data center is responsible for performing data backups each night to a second server, with backups to tape during the day. The school districts technology services department is responsible for applying patches and upgrades and also provides the user support for the program. Neither school district currently utilizes a lockbox; however, the software does have the ability to accept an electronic file from JP Morgan and Chase. It also can handle electronic posting of payments from some of the larger tax service organizations. Functionality does exist for scanning of bar codes. Currently the tax bill information and payment status is not made available via the internet. The school district has been paying \$774 annually for maintenance fees. The software was purchased year's ago so the initial cost of purchase was unknown.

- **Info Systems Consulting**

This software is being used by one school district which has 58 parcels within Ulster County. This is a windows program with the data residing on a file server housed at the tax collector's office (tax collector in this case is a town collector who also collects for the school district). It uses as input the RPS laser bill extract file (RPS160D1). It has the ability to view all data pertaining to the parcel tax bill and payment status. Data entry is done by the Receiver of Taxes and Assistant Receiver of Taxes. At the end of the collection period, the data can also be viewed by the Assessor's office and the School District. Backups are done periodically to disk. The system does not support bar code scanning. User support is provided by the vendor. The cost of the system is \$550.

In addition to the above systems, Ulster County maintains a "Tax Amount Billed" file which is housed on the county's AS400 system and is accessible by all departments within the county. Town, village and school and city collectors currently do not have access to this system. This is a "green screen" application, written in COBOL, which shows the swis, parcel id, bill number, parcel location, owner information, tax amount due for general taxes

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(county/town) and tax amount due for school taxes. Village tax information is currently not maintained in this system. The RPS bill extract and rate files (RPS155D1 and RPS147D1) are loaded into this program at the time tax bills are generated. The towns provide the county with a listing and file for upload of their unpaid taxes twice during their collection cycle--once in April, at which time the county runs programs to generate and print reminder notices, and then again at the end of their collection cycle (usually received by county the first week in June). The schools also provide the county with a listing and file of unpaid taxes in November. Programs are then run to transfer the unpaid school tax amount over to the RPS V4 database so that the unpaid school tax amount (including penalties) appears as a re-levy on the County/Town tax bill that is generated in December. Depending on the tax collection system that the tax collection entity is using, the unpaid tax information is either loaded to the Tax Amount Billed file automatically by program or it is manually data entered by county personnel.

Twice a year the delinquent tax information from the Tax Amount Billed file is transferred over to the Unpaid Tax System, another AS400 'green screen' application which is also accessible by all county departments, but currently not accessible by the towns, school districts and villages and city. This system displays delinquent tax information and subsequent payments for all 20 towns within Ulster County. This system also includes delinquent school tax amounts.

III. PROPOSED NEW SYSTEM

Overview

Ulster County Information Services is planning on rewriting the current tax collection program used by the local municipalities and school districts. The existing system was written using Visual Basic 4.0 (16-Bit version). The database used is a Microsoft Access 2.0 Database. It also utilizes Crystal Reports Version 3.0.1.32. There is currently one source code project file which gets compiled into two separate executable files – one for the school districts and one for the towns and villages. This tax collection system is used by roughly 75% of the tax collection entities within the county for collection of current taxes, as well as several school districts outside of the county.

For this study we surveyed all the tax collection entities in Ulster County to gain insight as to what type of tax collection software they are currently using (for those not using the UCIS Tax Collection System), to get their opinion on making the data available among municipalities as well as the general public, and most importantly to see what type of tax collection system would be most desirable to them. We gave them two options. The first option was to have their database / tax program reside locally with the ability to upload transactions daily to a county-wide database. The second option was to have them update a database, housed on a county server via a secured web site. The majority of tax collection entities surveyed (23 out of 35) were in favor of the first option. There were

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concerns with the second option such as, not all tax collection entities have high speed internet access, reliability problems with internet services, etc. Based on the survey response, we are continuing with our plan to rewrite the existing UCIS Tax collection system. The system will continue to be housed locally at the municipality level. In addition, we will be developing and implementing a county-wide database, which all towns, school districts and villages within the county as well as the City of Kingston and certain county departments, will have read-only access to. This county-wide database will be accessed via a secured internet site. The RPS files (RPS155D1 and RPS147D1) that are generated when we process tax bills (in August for schools, May for Villages and December for towns) will be loaded to this database. The local copy of the UCIS Tax Collection system will contain new functionality to create a file of transactions, which collectors will upload nightly to a county FTP site. These transactions will in turn be loaded into the county-wide database.

It is also our plan to make unpaid tax information, currently only accessible to county departments, available to town, village, city and school collectors on a read-only basis.

Specifics of County-Wide Database

The proposed county-wide database, planned to be implemented following the study and after receipt by the county of the additional \$25,000 grant funds, will be a Microsoft SQL Server 2005 database and will be housed on a server at Ulster County Information Services. The programs used to browse and access the data will be developed using Microsoft Visual Studio.Net. There are currently no requirements to be able to run reports against the county-wide database as this will continue to be done by municipalities at the local level using their existing tax collection software. If needed and practical, reporting functionality will be added at a later time. The county-wide database is expected to contain the following information for all 86,000+ parcels within Ulster County: SWIS, SBL, Parcel Location, Owner Name and Address, Roll Section, Property Class Code, property acreage or dimensions (frontage x depth), bank code, the school district that the parcel resides in, the land assessed value, total assessed value, full market value and uniform % of value. It will also contain all tax information relative to the parcel – the type of tax (school, county/town or village), the bill number, amount of tax due, any exemptions that apply (including type of exemption, exemption amount, and full value of exemption), a description of all the individual tax levies (including type of levy, amount to be raised, percent change from prior year, taxable value, tax rate and tax amount due for that levy). It is also anticipated that it will contain the complete payment history for the majority of parcels within the county including the dates the payment was received and deposited, batch numbers, whether the payment was a full payment or a partial payment, the tax portion of the payment, the penalty amount (if any), any additional fees (return check or advertising/notice fees), the type of payment made (cash, check, money order, etc), the check number, and any additional deposit id or memo information. This information will be kept for multiple tax years (currently looking at keeping at least 6 years worth of data). In some cases payment history may be limited if we are unable to obtain transaction files from the school districts / municipalities not utilizing the "local" version of the UCIS Tax

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Collection System. It is our plan, however, to have these school districts provide us with a file daily that can be loaded to our database.

Ulster County Information Services will be responsible for maintaining the county-wide database. This includes performing all data back-ups, which will be done on a nightly basis, as well as user support, loading enhancements, fixes, etc.

UCIS Tax Collection System

This system will be the primary source of providing payment information into the county-wide database. This program will be re-written using Visual Studio.NET and the database will be a Microsoft SQL Server database. It will contain all of the same functionality that the existing system has along with a series of enhancements that have been summarized below:

- To comply with the grant requirements, ability to create a file of transactions that can be uploaded to county ftp site in order to update county-wide database
- Production of an audit trail report
- Improvements to process for creating a corrected bill and also handling of apportionments by multiple owners
- Improvements to existing reports
- New report to give totals by batch number
- More flexibility in generation of unpaid file to county
- Record searching improvements
- Ability to do print screens

Access to Unpaid Tax Information

The county wide database will also provide access (at the parcel level) to display data from the unpaid tax system, if the parcel has taxes in arrears. This will show the amount of tax that is in arrears along with any penalties, fees added and payment information. Since our unpaid tax system is currently a "green screen" application residing on our AS400 system, we will need to create a process to access the data in that system.

Public Access via Internet

While this will not be part of the initial release, it is our plan to make some or all of the data available for viewing to the general public via the internet. (See section on Implementation Plan on how we plan to phase in various aspects of the new system). This will be offered as an optional feature as based on our survey results, there are some tax collection entities that are strongly opposed to the public having access to this data. Other entities have some concerns about the types of data being made available; in particular, there was concern about making exemption data available. Prior to implementing this feature we will meet with the tax collection entities that wish to make their data available for public viewing so that a decision can be made as to what information should be displayed.

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We may also be exploring the possibility, for those tax collection entities that are interested, of having support for on-line credit card payments and payments on-line via checking account.

Tax Bill Generation

Currently the county takes care of generating tax bills (general, school and village) for 20 towns, 3 villages and 13 school districts. We do not generate tax bills for the City of Kingston, the Kingston City School District, and Tri-Valley School District. For these three entities, the county takes care of running the RPSV4 tax roll program; however the RPS147D1, RPS155D1 and RPS160D1 files are transmitted to a vendor for tax bill processing.

The county is currently maintaining a total of 6 tax bill forms: a two-payment form for county/town tax bills; a single payment, two-payment and three-payment tax bill for the school districts; and both a single payment and a two-payment village bill. The basic format of all six tax bills is pretty much the same, with the school district bills containing additional information related to STAR.

We are currently not planning on making any changes to our tax bill forms.

Handling of Unpaid Taxes

Initially, we do not plan to make any changes to our process for handling unpaid county/town and school bills. Currently that information is loaded to our "Tax Amount Billed" file which resides on the county's AS400 system. The reminder notices for the towns are generated from this file. A transaction file is also generated from this database of unpaid school taxes which gets loaded to the RPSV4 database prior to the county/town tax rolls being run, so that the unpaid school tax appears as a relevy on the county/town bill. The delinquent tax information from this file is also transferred over to our Unpaid Tax System twice a year.

However, going forward, it does seem feasible that the new county-wide database could be used as a replacement for our AS400 Tax Amount Billed file. This would involve adding functionality to the county-wide database that would:

- Create Unpaid Notices for the towns
- Create a transaction file of unpaid school taxes (including penalty amounts) which could be loaded into RPSV4 (for relevy on county/town bill)
- Create method of loading data into our Unpaid Tax System.
- Create a data entry screen for use by the Finance Department to do adjustments.
- Produce reports for collector's list, corporate billing, etc

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While this functionality would not be part of the initial release, it could be added in at a later phase (see Section IV, Implementation Plan).

IV. IMPLEMENTATION PLAN

All Ulster County tax collectors (city, town, school and village) were invited to an informational meeting regarding the tax collection grant and proposed countywide database. The meeting was conducted in two sessions for the convenience of the collectors – one held on April 25th and the other on May 7th. Representatives from the Office of Real Property Services were on hand to present information relative to the grant. The county gave a brief overview of the advantages of a consolidated database, which is currently being used by Assessors (via RPSV4 on Citrix) and also what is currently available for tax collectors. It was decided at those meetings that the next best course of action would be to distribute a survey / questionnaire to all tax collection entities to get their input on the proposed database. At the same time, we were able to gather volunteers from the various school districts, towns and villages to form a committee to also get input on the proposed new database. The committee met on several different occasions to review and add their input to the survey before it was sent; to hear the results of the survey, and to firm up requirements for the proposed new database.

As referenced in Section II, we currently have a total of ten tax collection entities that are using tax collection software other than the UCIS Tax Collection System (nine school districts plus the City of Kingston). We have contacted those vendors which supply the software for these entities: Info-Matic, Inc (contact: Barbara Tobin), Software Systems Consultants (contact: Jay Greenblat), Allen Tunnel Corporation (contact: George Allen) and Info-Systems Consulting (contact: Eric Lungstrom). We have been told by these vendors that either their software currently has the ability to create a transaction file, or if given the proper specifications, they would be able to make updates to their software which would allow the production of a transaction file that could be posted to our county-wide database.

A letter, signed by our committee, was sent to all tax collection entities on September 22, 2008. This letter again emphasized the advantages of a county-wide database and asked that the collector sign a "Verification Form" stating that they would be willing to transmit data to the county's Information Services department on a nightly basis so that it could be uploaded to a county-wide database. As a follow-up to the letter, each member of our committee was assigned a list of tax collectors to contact via phone to encourage their participation and answer any questions they may have. In addition, another informational meeting, to which all tax collection entities were invited, was held on October 8, 2008. The purpose of this meeting was to keep everyone abreast of the status of the tax collection study and to inform them of our recommendation as to how best to implement a county-wide database.

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To date, we have received signed verification forms (stating they would be willing to transmit data to the county on a nightly basis) from 37 out of 39 tax collection entities. The implementation will take place for the 37 agreeable entities in 2010. We are expecting participation from the other 2 collecting entities the following year.

When we proceed with the development and implementation of the new database, we think that in order to ensure a smooth transition, we implement the new system in multiple phases.

Phase I:

- Rewrite existing UCIS Tax Collection System to include all the functionality it currently has plus a number of new enhancements. This system will also need new functionality to produce a file of daily transactions that can be copied to a county ftp site and in turn loaded to our county-wide database.
- Create the county-wide database, with a browse program to display tax status and payment history of all parcels within the county.
- Create a program that will automatically load transaction files, generated by UCIS tax collection system, from ftp site to county-wide database.
- Create program(s) that will automatically load files from other (non-UCIS) Tax Collection Systems.
- Create a process to access the AS400 version of unpaid tax system so that the data can be viewed via county-wide database browse program.
- Allow read-only access to county-wide database to all towns, school districts, city and villages, along with county departments.

Phase II:

- For those tax collection entities wishing to participate, allow internet access by general public to view data.
- Add functionality to replace AS400 Tax Amount Billed File which includes:
 - Generation of Unpaid Notices and other reports produced by Tax Amount Billed file
 - Transaction file for School Reliefs
 - Method to transfer data to Unpaid Tax System
 - Data entry screen for adjustments made by the Finance Department
 - Produce reports for collector's lists, corporate billing, etc

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Phase III:

- Credit card payments and/or payments on-line from checking account

Development Time and Equipment Required

All development work on this project will be done by Ulster County Information Services personnel. We have estimated approximately 300 hours to complete Phase 1.

Ulster County Information Services already has the FTP server required for this. Additional purchase of a web server and database server may be required at a cost of approximately \$25,000. Specifications for a similar server which is being purchased for our GIS application are included below.

DATABASE SERVER:	QTY	Cost Ea	Tot Cost
HP PROLIANT DL380 G5 2.83GHZ RACK SERVER - 1P HP PN#458563-001	1	2,502.00	2,502.00
QUAD-CORE INTEL XEON E5440 2.83GHZ 1333 FSB PROCESSOR			
HP 2GB FULLY BUFFERED DIMM PC2-5300 2X1GB MEMORY			
HP SMART ARRAY P400/256 CONTROLLER			
HP REDUNDANT HOT PLUG FANS			
EMBEDDED NC373I MULTIFUNCTION GIGABIT NETWORK ADAPTER			
HP 1000 W HOT PLUG POWER SUPPLY			
INTEGRATED LIGHTS OUT 2 STANDARD MANAGEMENT			
HP 146GB HOT PLUG 2.5 SAS 10K RPM HARD DRIVE HP PN#431958-B21	9	263.00	2,367.00
HP SLIMLINE CD-RW/DVD ROM 24X COMBO DRIVE OPTION KIT HP PN#331903-B21	1	95.00	95.00
HP 8GB FULLY BUFFERED DIMM PC2 5300 2X4GB DDR2 MEMORY HP PN# 397415-B21	2	649.00	1,298.00
HP HP 512MB W/BATTERY SMART ARRAY BATTERY PACK HP PN# 405148-B21	1	255.00	255.00
WRITE CACHE ENABLER			
HP SMART ARRAY P400 BATTERY ATTACH KIT HP PN#417836-B21	1	29.00	29.00
HP 1.83M 10A C13-UL US POWER CORDS HP PN# AF556A	2	8.00	16.00
HP 350/370/380G5 REDUNDANT POWER SUPPLY HP PN399771-001	2	199.00	398.00
HP STORAGEWORKS 3U RACK MOUNT W/ULTRIUM 960 HP PN# Q1595B	1	2,541.00	2,541.00
HP SINGLE CHANNEL U320 PCI-EXPRESS HBA HP PN # 412911-B21	1	167.00	167.00
12 FT EXTERNAL OFFSET SCSI EXT CABLE HP PN#341177-B21	2	71.00	142.00
HP ULTRA 320 SCSI CABLE KIT HP PN# DW063B	1	57.00	57.00
HP LTO3 ULTRIUM 800GB RW DATA CARTRIDGE HP PN# C7973A	20	49.00	980.00
HP ULTRIUM UNIVERSAL CLEANING CARTRIDGE HP PN#C7978A	1	91.00	91.00
TOTAL DATABASE SERVER:			\$10,938.00
OPERATING SYSTEM:			
WINDOWS SVR ENT 2008 SNGL MVL HP PN P72-03254-DV	1	1477.12	1,477.12
WINDOWS SVR ENT 2003 R2 W/SP2 32-BIT/X64 ENG DISK KIT MVL HP PN#P72-02472	1	20.00	20.00
WINDOWS SERVER CAL 2008 ENGLISH MVL USER CAL HP PN# R18-02804-DV	5	18.27	91.35
TOTAL OPERATING SYSTEM			1,588.47

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DATABASE SOFTWARE:			
SQL SERVER STANDARD EDTN SNGL LIC/SA PACK MVL 1 PROCESSOR HP PN#228-05020-D1	1	4,493.27	4,493.27
SQL SVR STAND EDTN 2005 ENG DISK KIT MVL CD/DVD HP PN#228-005236	1	20.00	20.00
SQL SVR STAND EDTN 2005 X64 ENG DISK KIT MVL CD/DVD HP PN# 228-05237	1	20.00	20.00
TOTAL DATABASE SOFTWARE			4,533.27
 BACKUP SOFTWARE:			
VLA BACKUP SERVER 12.0 WIN BNDL STD LIC WITH 1 YR ESSENTIAL MAINT ASAP S/W PN# 2461531 MGF PN# 13570917	1	546.11	546.11
VLA BACKUP EXEC AGENT FOR WIN SYSTEMS 12.0 BNDL STD :OC W/1 YR ESSENTIAL MAINT ASAP S/W PN#2461493 MGF PN# 13571935	1	326.57	326.57
VLA BACKUP EXEC AGENT FOR MS SQL 12.0 WIN BNDL STD LIC W/1 YR ESSENTIAL MAINT ASAP S/W PN#2461945 MFG PN# 13572469	1	546.11	546.11
VLA BACKUP EXEC SERVER 12.0 WIN ML CD MEDIA KIT ASAP S/W PN# 2462490 MFG PN# 13122499	1	38.00	38.00
TOTAL BACKUP SOFTWARE			1,456.79
TOTAL DATABASE SERVER			18,516.53
 APPLICATION SERVER:			
HP PROLIANT DL360 3.00GHZ G5 HIGH PERFORMANCE SERVER HP PN#399524-HP6 2 QUAD CORE CORE INTEL XEON 5450 (3.00GHZ 1333MHZ FSB) SMART ARRAY P400I/256 CONTROLLER 2 EMBEDDED NC373I MULTIFUNCTION GIG NIC HP 1U SERVER 700W HOT PLUG POWER SUPPLY HP REDUNDANT FANS REDUNDANT POWER SUPPLY INTEGRATED LIGHTS OUT STANDARD MANAGEMENT	1	5,205.00	5,205.00
HP 8GB FULLY BUFFERED DIMM PC2-5300 2X4GB MEMORY HP PN#397415-B21	3		
HP 146GBGB HOT PLUG 2.5 SAS 15K RPM HARD DRIVE HP PN# 431958-B21	1		
SLIMLINE DVD-ROM DRIVE HP PN#264007-B21	1		
2HP 1.83M 10A C13-UL US POWER CORDS HP PN#AF556A-XX2	1		
TOTAL APPLICATION SERVER			5,205.00
 OPERATING SYSTEM:			
WINDOWS SVR ENT 2008 SNGL MVL HP PN# P72-03254-DV	1	1,477.12	1,477.12
WINDOWS SVR ENT 2003 R2 W/SP2 32-BIT/X64 ENG DISK KIT MVL HP PN#P72-02472	1	20.00	20.00
TOTAL OPERATING SYSTEM			1,497.12
LABOR COSTS	300	35.00	10,500.00
GRAND TOTAL			\$35,718.65