

Request for Proposals

The Purchasing Division of Knoxville's Community Development Corporation (KCDC) will receive proposals for an **Information Systems Assessment** as detailed in the conditions and specifications listed herein.

Due Date: July 30, 2010

Due Time: By 11:00 a.m. (as shown by KCDC)

Quote Number: Q1102

Deliver Proposals to: Knoxville's Community Development Corporation
(Faxes/Emails are not acceptable) Purchasing Division
901 Broadway N.E.
Knoxville, Tennessee 37917

Award Results KCDC posts the tabulation to its web page web page as soon as practicable. Once the award decision is made, that information is also posted to the web page. Individual notices are normally not mailed or emailed-other than to the successful vendor. Please see <http://www.kcdc.org/en/DoingBusiness/SolicitationStatus.aspx> for the details.

MS Word Version: This document is available in MS WORD format. If you are interested in obtaining the Word document, please email purchasing@kcdc.org. Note that KCDC's Adobe copy of the document will remain the "official" version of the document. The Word version will not have some forms which are only available in Adobe format.



Special Instructions

1. **BACKGROUND AND INTENT**

- a. Knoxville's Community Development Corporation (KCDC) is the public housing and redevelopment agency for the City of Knoxville and Knox County in Tennessee. KCDC's public housing property portfolio includes 16 housing properties with approximately 3,900 dwelling units. KCDC also oversees approximately 3,500 Section 8 Vouchers and 21 redevelopment areas.
- b. KCDC has approximately 160 employees who perform work in support of these developments and their residents. KCDC's Information Services Division (IS), consisting of a director and three analysts provide the information systems infrastructure and services for the agency.

The Director of Information Services has announced his retirement and KCDC's management has determined that the timing is right to obtain an outside assessment of KCDC's Information Systems current operations with identification of strengths, weaknesses, opportunities and threats to provide recommended improvements.

2. **CONFIDENTIALITY**

- a. All reports, information, or data, prepared or assembled by the selected firm are confidential and the selected firm agrees that said reports, information or data shall not be made available to any individual or organization without the prior written approval of KCDC.
- b. In addition, KCDC may disclose certain information to the selected firm and the selected firm may have access to certain information that is not generally known to others and is confidential. The selected firm agrees not to use or disclose to any third party except in the performance of services hereunder any such confidential information. The selected firm further agrees to cause its employees and any subcontractors to undertake the same obligations of confidentiality. These provisions shall survive the termination of the contract.

3. **EVALUATION**

KCDC will evaluate each proposal based upon a weighted evaluation system. The categories and points assigned for each category are:

Cost For the stated scope of services	30 points maximum
Work Plan Proposal responsiveness, a clear understanding of the scope of the project, the proposed approach and the detailed work plan, including a timeline.	30 points maximum
Firm's experience and qualification In providing consulting services of a similar nature and the firm's experience with providing these services to units of government.	25 points maximum
Personnel assigned to this project Education, quality and experience, in Information Systems assessment of the individual(s) selected to perform the project as demonstrated in the resumes submitted in response to this solicitation.	15 points maximum
GRAND TOTAL POINTS	100

- a. All proposals are subject to a determination of “responsive” and “responsible” prior to award.
- b. Award will be made to the responsive, responsible firm who complies with the requirements and scores the highest total on the evaluation criteria and interview (if any) as it pertains to the overall needs of KCDC.
- c. Oral presentations may be required of selected finalists at the vendor’s expense. The selected finalists will be notified of the date and time of the presentation.
- d. The Evaluation Committee will evaluate the submittals and submit its recommendation to the KCDC Purchasing Manager. A short list of firms may be invited to make oral presentations. After oral presentations, the Evaluation Committee will evaluate the submittals again. Afterwards the Evaluation Committee will make a final evaluation and submit its findings to the Purchasing Manager. Price negotiations will then commence. If the negotiations are successful, the Purchasing Manager will prepare the contract for Board approval. If not, negotiations will commence with the next highest scored firm.
- e. KCDC reserves the right to check or not check references.
- f. Firms may be excluded from further consideration for failure to comply fully with KCDC's requests for additional information and the requirements of this RFP.
- g. Discussions may be conducted with firms, whose submittals have a reasonable possibility of being selected or they may be asked to respond in writing, for the purpose of clarification to assure full understanding of and responsiveness to the RFP requirements. Firms shall be accorded fair and equal treatment with respect to an opportunity for discussion of their submittals. Any such revisions may be permitted after submissions and prior to determination for the purpose of obtaining clarifications. In conducting these discussions, there shall be no disclosure of any information derived from the proposal by competing firms.
- h. KCDC reserves the right to accept or reject any, some, or all proposals, to take exception to parts of proposals and to request written clarification of responses, and supporting materials. KCDC further reserves the right to negotiate with any firm relative to amendments to its proposal. KCDC may award a contract based on initial proposals received.
- i. KCDC reserves the right to negotiate with the highest scoring proposer in order to reduce the scope of work should that be necessary for budgetary purposes.

4. **GENERAL INSTRUCTIONS**

KCDC no longer inserts “General Instructions to Vendors” in the solicitation document. Instead these instructions may be found at www.kcdc.org. Please click on “Doing Business With KCDC” where you will find the instructions. By submitting a response to this solicitation, the vendor accepts the responsibility for downloading, reading and bidding by the terms and conditions set forth in KCDC’s “General Instructions to Vendors.” The vendor may wish to review certain applicable HUD instructions which can also be found on KCDC’s web site.

5. **INSURANCE**

Upon award, Certificates of Insurance must be provided to KCDC indicating that the bidder carries at least the following minimum levels of insurance. Contractor shall at its sole expense obtain and maintain in full force and effect for the duration of the resulting contract and any

extension hereof at least the following types and amounts of insurance for claims which may arise from or in connection with this resulting contract. All insurance must be underwritten by insurers with an A.M. Best rating of A-VIII or better.

- a. *Commercial General and Umbrella Liability Insurance:* occurrence version commercial general liability insurance, and if necessary umbrella liability insurance, with a limit of not less than \$2,000,000 each occurrence for bodily injury, personal injury, property damage, and products and completed operations. If such insurance contains a general aggregate limit, it shall apply separately to the work/location in this resulting contract be no less than two times the occurrence limit.

Such insurance shall:

- 1. Contain or be endorsed to contain a provision that includes KCDC, its officials, officers, employees, and volunteers as additional insureds with respect to liability arising out of work or operations performed by or on behalf of the contractor including materials, parts, or equipment furnished in connection with such work or operations. The coverage shall contain no special limitations on the scope of its protection afforded to the above-listed insureds.
 - 2. For any claims related to this project, contractor's insurance coverage shall be primary insurance as respects to KCDC, its officers, officials, employees, and volunteers. Any insurance covering KCDC, its officials, officers, employees, and volunteers shall be excess of contractor's insurance and shall not contribute with it.
 - 3. At the sole discretion of KCDC, dedicated limits of liability for this specific project may be required.
- b. *Automobile Liability Insurance:* including vehicles owned, hired, and non-owned, with a combined single limit of not less than \$1,000,000 each accident. Such insurance shall include coverage for loading and unloading hazards.
- c. *Workers' Compensation Insurance.* Contractor shall maintain workers' compensation insurance with statutory limits as required by the State of Tennessee or other applicable laws and employers' liability insurance with limits of not less than \$500,000. Contractor shall require each of its subcontractors to provide Workers' Compensation for all of the latter's employees to be engaged in such work unless such employees are covered by Contractor's workers' compensation insurance coverage. Such insurance shall include a waiver of subrogation in favor of KCDC.
- d. *Other Insurance Requirements.* Contractor shall:
 - 1. Upon award, furnish KCDC with original certificates and amendatory endorsements effecting coverage required by this section and provide that such insurance shall not be cancelled, allowed to expire, or be materially reduced in coverage except on 30 days' prior written notice to KCDC's Contracting Officer.
 - 2. Provide certified copies of endorsements and policies if requested by the KCDC in lieu of or in addition to certificates of insurance.
 - 3. Replace certificates, policies, and endorsements for any such insurance expiring prior to completion of services.

4. Maintain such insurance from the time services commence until services are completed. Failure to maintain or renew coverage or to provide evidence of renewal may be treated by KCDC as a material breach of contract.
 5. Require all subcontractors to maintain during the term of the resulting contract Commercial General Liability insurance, Business Automobile Liability insurance, and Workers' Compensation/Employer's Liability insurance (unless subcontractor's employees are covered by Contractor's insurance) in the same manner as specified for Contractor. Contractor shall furnish subcontractors' certificates of insurance KCDC without expense immediately upon request.
 6. Any deductibles and/or self-insured retentions greater than \$50,000 must be disclosed to and approved by KCDC prior to the commencement of services. Use of large deductibles and/or self-insured retentions will require proof of financial ability as determined by KCDC.
 7. The insurer shall agree to waive all rights of subrogation against KCDC, its officers, officials, and employees for losses arising from work performed by the contractor for KCDC.
 8. All policies must be written on an occurrence basis. Use of policies written on a claims made basis must be approved by KCDC and retroactive dates and/or continuation dates must be provided to KCDC prior to commencement of any work performed.
 9. Completed Operations Insurance. Contractor shall procure and shall maintain liability coverage that shall include completed operations coverage. Contractor shall maintain such coverage for a period of two (2) years from the date of KCDC's final acceptance of the project.
- e. *Excess Liability Insurance:* The contractor shall maintain excess liability insurance in addition to the insurance specified above with a limit of not less than \$2,000,000.00 each occurrence. This coverage shall be on a follow form basis.
- f. *Professional Liability:* The contract shall maintain professional liability insurance of \$1,000,000.
6. **OWNERSHIP OF DOCUMENTS**
All documents, data, studies and reports as instruments of service are to be the property of KCDC. The selected firm will be responsible for any loss or damage to the documents herein enumerated while they are in their possession and any such document lost or damaged shall be restored at the expense of the selected firm.
7. **QUESTIONS**
Questions pertaining to this document should be submitted via email with "Questions about the Information System Assessment" in the subject line no later than seven days prior to the due date to purchasing@KCDC.org. The answers to substantial questions will be posted as addenda on KCDC's web page for all interested parties to review.

Scope of Work

1. **INTRODUCTION AND OBJECTIVES**

KCDC is soliciting proposals for an Independent Contractor (IC) to provide consulting services by conducting an Information Systems Assessment to:

- o Identify strengths, weaknesses, opportunities and threats
 - o Improve information technology effectiveness and efficiency
 - o Enhance quality of services and customer satisfaction
 - o Minimize support costs
 - o Maximize return on investment to insure future investments in technology promote an environment supportive of the agency's evolving business needs.
 - o Receive recommendations to improve Information Services and KCDC's technology.
- a. This assessment will be used to coordinate, guide and maintain the implementation and utilization of a variety of technologies for internal and external customers in the most efficient and cost effective manner possible. KCDC values its external customers and their satisfaction with our services is important. In addition, internal staff requires an appropriate set of technology-based tools to allow them to satisfactorily achieve their respective customer service delivery objectives. Technology use has become so interwoven into the daily performance of job duties and service delivery, that the availability of reliable and usable technology tools has become a presumptive framework for staff performing their most basic duties. This assessment initiative will deliver a basis for ensuring KCDC has a four to five year view into the future for technology issues and associated capital investment.
- b. KCDC's current IS Director has plans to retire within the next three months. He has prepared a five-year plan for future IS needs which includes several major projects. One of the objectives of this assessment is to review the current five year capital plan and provide recommendations as to the appropriateness and adequacy of these future resource needs as well as to establish priorities in development of an Information Systems strategy that aligns best practices for governance, security, operations, funding, and accountability of technology and related investment with KCDC's operational cultures and operational business plans. KCDC's goal is to be able to develop, maintain, support, upgrade and/or improve a cost effective, responsive, secure and stable technical environment. From an administrative standpoint, KCDC's objective is to improve the process for the prioritization and funding of information systems initiatives, incorporate selection and management of environmentally friendly technology products where possible, and implement an efficient purchasing model for information technology equipment, software and services.
- c. An additional objective is to determine the most effective and efficient method of IS service delivery to include evaluation of staff resources to accomplish needs and maximize productivity.

2. **ASSUMPTIONS**

Assumptions associated with the proposed work plan are as follows:

- a. IC will be directly responsible to the Vice President of Finance and Administration.
- b. IC is responsible for activities directly related to the development of deliverables.

- c. IC will provide appropriate introduction and preparatory materials to division representatives during project initiation to ensure these representatives are informed and educated prior to project commencement
- d. IC will be responsible for the identification and acquisition of data and materials required for input to the development of the various deliverables to be produced.
- e. KCDC will assist in the identification of division representatives and assist in the coordination of access to divisions.
- f. KCDC will provide all available technical and resource documentation to the IC.
- g. KCDC will provide workspace, access to telephones and copiers to the IC.

3. **DELIVERABLES**

Upon completion of the scope of work, the final IS Assessment shall include, at a minimum, reporting of the following information:

- a. Assessment of the current state of KCDC's Information Systems environment including:
 - o Capability
 - o Capacity
 - o Operational procedures
 - o IS staff resources
 - o Software and Hardware assessment and determination of appropriateness to desired outcomes
 - o Evaluation of current five year capital plan
- b. Technical advice and recommendations (as applicable) on areas identified under the Current Information Systems Environment in Exhibit A.
- c. Identification of any gaps or areas of concern where the current information technology environment is insufficient (or inappropriate) to meet the computing needs and requirements of KCDC for both current requirements and for the next five years.
- c. Recommendation concerning any current identified technological issues, such as virtualization.
- d. Identification of the key cost drivers that are expected to influence the costs of the architectural and technical needs of KCDC including a methodology to measure cost savings and cost avoidance.
- e. Recommendation as to the implementation of Microsoft's Office 2010 software product.
- f. Assessment and recommendations (as applicable) of KCDC's wiring needs and structure as it relates to Information Systems.
- g. Recommendations for business processes to improve and streamline business performance including a standardized procurement model.

- h. Identification of best practices for standard technology equipment, network infrastructure, servers, network security, and disaster recovery.
- i. Recommendation as to the best means of service delivery in areas identified under the current Information Systems Environment in Exhibit A.
- j. Recommendation to align any applicable and necessary IS employee training with the Information Systems technological priorities and agency needs.
- k. Recommendations for innovative and cost effective, environmentally friendly information technology solutions where possible.
- l. Prioritization of current and future IS needs as it relates to this assessment.
- m. Recommendation of an approach and any alternatives for technology supported by a return on investment that identifies duplication of resources and investments and opportunities for internal and external collaboration that will result in operational improvements and cost effective solutions to business requirements. This is to ensure funds spent are focused in areas where the most business value will be returned.
- n. Establishment of an annual information systems process that will allow the IS Division and internal staff they support, to clearly make strategic decisions based on existing standards, evolving technologies, solutions and data integration opportunities.

4. **SCOPE**

The IC shall provide consulting services to KCDC in the development of a detailed information systems assessment. The scope of the assessment will include, but not be limited to:

- a. Develop a comprehensive assessment of the current state of the KCDC's information systems environment, including capability, capacity, operational procedures, staff and other resource assessment and appropriateness to desired outcomes, and evaluation of current five year capital plan.
- b. Provide technical advice and recommendations (as applicable) on areas identified under the current Information Systems Environment in Exhibit A.
- c. Review, analyze, and identify any gaps where the current information technology environment is insufficient (or inappropriate) to meet the computing needs of KCDC for both current requirements and for the next five years.
- d. Review, analyze and provide a recommendation concerning current identified technology issues, such as virtualization.
- e. Identify the key cost drivers that are expected to influence the costs of the architectural and technical needs of KCDC including a methodology to measure cost savings and cost avoidance.
- f. Provide a recommendation as to the implementation of Microsoft's Office 2010 software product.
- g. Provide an assessment and recommendation (as applicable) of KCDC's wiring needs and structure as it relates to Information Systems

- h. Identify business processes that may be improved or streamlined as a result of the above review efforts including a standardized procurement model.
- i. Identify best practices for standard technology equipment, network infrastructure, servers, network security, and disaster recovery
- j. Provide a recommendation as to the best method of service delivery in the areas identified under the current Information Systems environment in Exhibit A. Provide a recommendation to align any applicable and necessary IS employee training with the Information Systems technological priorities and agency needs.
- k. Provide recommendations for innovative and cost effective, environmentally friendly information technology solutions where possible.
- l. Prioritize current and future IS needs as it relates to this assessment.
- m. Recommendation of an approach and any alternatives for technology supported by a return on investment that identifies duplication of resources and investments and opportunities for internal and external collaboration that will result in operational improvements and cost effective solutions to business requirements. This is to ensure funds spent are focused in areas where the most business value will be returned.
- n. Recommend an annual information systems process that will allow the IS Division and internal staff, to clearly make strategic decisions based on existing standards, evolving technologies, solutions and data integration opportunities.

5. **SUBMITTAL REQUIREMENTS**

- a. Proposals are to be prepared simply, economically and provide a straightforward, concise description of the proposer's capabilities to satisfy the requirements of this RFP. Emphasis should be on completeness and clarity of content. Excessive and/or fancy bindings, brochures, advertisements are not discouraged.
- b. The proposed cost and technical proposal shall remain valid for at least 90 days subsequent to the date of proposal opening and in accordance with any resulting contract between the proposer and KCDC.
- c. Submit one original (so marked), three paper copies and one electronic copy of the proposal.
- d. Number all pages consecutively.
- e. Place the firms's name on each page.
- f. Firms are encouraged to be thorough yet succinct in responding to the above requirements. The use of tables in presenting information, where appropriate, will facilitate the Evaluation Committee's review.
- g. Firms are to use the format on the rest of the pages for the preparation and submission of their proposals.

This and the preceding pages do not need to be returned to KCDC.

Information Systems Assessment Q1102

Proposal Document A	General Response Section
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General Information about the Bidder

Sign Your Name to The Right of the Arrow



Printed Name

Company Name

Federal EIN/Social Security Number

Dun and Bradstreet Number

Street Address

City/State/Zip

Contact Person (Please Print Clearly)

Telephone Number

Fax Number

Cell Number

**Bidder's email address
(Please Print Clearly)**

Please acknowledge addenda have been issued by checking below as appropriate:

None Issued ☐ **Addendum 1** ☐ **Addendum 2** ☐ **Addendum 3** ☐ **Addendum 4** ☐ **Addendum 5** ☐

Addenda are not mailed but posted at <http://www.kcdc.org/Pages/Purchasing/OpenSolicitations.aspx> . Please check for addenda prior to submitting your proposal.

Statistical Information

This business is owned & operated by persons at least 51% of the following ethnic background:

White 1 ☐ **Black 2** ☐ **Native Americans 3** ☐ **Hispanic 4** ☐ **Asian/Pacific 5** ☐ **Hasidic Jew 6** ☐

As defined on KCDC's webpage, this business qualifies as being:

Small Business ☐ **Section 3** ☐ **Woman Owned & Operated** ☐

- a. Summarize your understanding of the RFP requirements and provide information and documentation to support sufficient existing knowledge of all areas included in KCDC's current Information Systems environment as identified in Exhibit A.
- b. Indicate who will be the Independent Contractor's authorized representative. Indicate their:
 - ☐ Name
 - ☐ Title
 - ☐ Address
 - ☐ E-mail
 - ☐ Phone
 - ☐ Fax

The person identified shall sign this letter and be empowered to make binding commitments for the IC.

- a. Provide a brief narrative description of the organization submitting the proposal.
- b. Include as part of the description:
 - o Organization Size
 - o Organizational structure
 - o Financial stability
 - o Years in business
 - o Mergers and/or acquisitions within the last five years
 - o Pending litigation detail
 - o Legal status (corporation or partnership, et cetera)
 - o Major type of activity or areas of consulting
 - o Experience in the performance of similar projects in the past three years.
 - o Experience in the performance of similar projects for governmental entities in the past three years.
- c. Identify the number of Information Systems assessments that have been developed by your firm (and the specific team proposed for this job) in the last three years
- d. Identify the individual(s) in your firm responsible for managing and overseeing this type of project to assure that due diligence has been exercised and compliance with the requirements is met.
- e. Describe any unique approaches or techniques developed and used by the firm that would give it an advantage in this specific type of project.
- e. Using the format below, provide the name of each referenced firm or agency. It is desirable that a minimum of two references are from a governmental agency.

Entity	
Nature of work conducted by the entity	
Number of Employees in the Entity	
Number of IS Employees	
Contact Person	
Phone	
Email	
Beginning Date of the Project	
End Date of the Project	
Description of the Project	

Provide information on the personnel who will be handling this project listing pertinent experience and technical qualifications. Include for each individual the capacity they would serve on this project. The format of individual resumes for key personnel is as follows.

- o Name
- o Position title
- o Total years experience with current firm
- o Total years in this field
- o Education (degree, major, institution, year)
- o Summary of relevant experience and qualifications
- o Identify the number of studies/plans that have been done together by the individuals who will handle the KCDC project.
- o Give a representative sample and number of Information Systems assessment projects that were handled and whom they were done for.
- o Complete the chart below in order to explain the role each person will play on this project

Name	Title/Skill Set	Role on this Project	Hours on this Project

- a. Describe, first in summary, then in detail, the approach and methodology recommended by your firm to insure the timely and accurate delivery of the Information Systems Assessment and written report. This plan should highlight all milestones and deliverables and include for each task, the individual to be assigned and the number of hours that will be contributed to the task.
- b. Provide a detailed description of the work plan, approach, methodology and timeline that you propose using to meet the objectives, including phasing and staffing.
- c. Specify the level of involvement, number of hours and specific tasks you will require of the Information Systems Staff (or end users) of each objective.
- d. Provide an estimate of the time commitment to be expected from departments in participating on this project.
- e. Identify the Project Leader(s) to be committed to this project and the conditions of the individual's continued availability for follow on work. Once identified, the project leader(s) cannot be changed without the approval of KCDC.
- f. Please describe the Subject Matter Experts (SME) that your firm would be willing to commit to this engagement.
- g. If the Project Leader(s) is not the primary SME, please describe the working relationship with the Project Leader(s).
- h. Describe the intellectual resources that would be utilized in this plan, including best practices, case studies, or empirical works authored by your firm.
- i. Describe the IT planning tools commonly used by your firm in this type of project.
- j. Identify to what extent any process, models, and/or tools are proprietary products of your firm, remembering that as a governmental agency, price and proposal content cannot be protected.
- k. Provide examples of the processes and models generally used by your firm in guiding client staffed planning and/or consensus building initiatives, particularly in governmental environment.
- l. Describe the staffing and time frames typically involved in performing an Assessment for the Information Systems at a high or summary level.
- m. Identify the key risks that you expect on this project and your ability to contain them.
- n. Indicate any exceptions you are taking to the terms and conditions, contractual and other requirements defined in the RFP. If exceptions are taken, cite the paragraph involved, the exception taken, and state alternate language acceptable to the IC. Alternative language is subject to negotiation and/or approval.

Part One:

The total cost for this project inclusive of all fees, labor, travel and expenses is	\$
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Part Two:

The information requested below provides a basis for additional work and travel –if requested by KCDC.

Details of Personnel Assigned to the Project. The hourly rate is requested in case KCDC authorizes additional work.

Name	Title/Skill Set	Hourly Rate
		\$
		\$
		\$
		\$

Travel Costs (if additional travel is authorized by KCDC)

Hotel	\$	Per night
Meals & Incidentals	\$	Per day
Airfare	\$	Per trip
Rental Car	\$	Per day
Local Transportation	\$	Per day

Part Three:

Provide a price breakdown for each deliverable. KCDC will award the project on a lump sum basis. However, this information will be used in the event that the project must be scaled back to remain within the budget amount.

Conditional use of selected KCDC networks or systems may be granted subject to the following terms and conditions:

1. Description of access:

The Independent Contractor (IC) will be granted access to the KCDC's facilities and the Information Systems Division during normal business hours, and additional hours as agreed to in advance. The IC will be allowed remote access to systems via VPN connection. For purposes of this agreement, the point of contact for the KCDC Information Systems Division is Bruce Roberts (865) 4031199 or broberts@kcdc.org.

2. Single Point of Contact:

The IC shall provide KCDC with the name of an individual who will serve as the single point of contact and that individual will be responsible for receiving and disseminating information and maintaining the security of user ID's, passwords and networking and configuration information. This individual may be subject to a background investigation under the provisions of this access agreement.

3. Non-Disclosure:

The IC shall not disclose any elements of IDs, passwords, and/or configuration or security information related to KCDC networks or systems without the prior knowledge and approval of KCDC. All accounts, systems, and account information is and shall remain the property of KCDC, exclusively.

4. Term:

The term of this access agreement shall be for the period of the review and report.

5. Access Characteristics:

KCDC reserves the right to approve or amend as necessary, any engineered or recommended connections requested or required by the IC and to dictate connection protocols and standards. The IC will determine the required access characteristics and transmit those requirements to the KCDC's Information Systems contact identified above, which shall retain all rights to deny any portion of the requested access characteristics.

6. Access Restrictions:

Access shall be restricted to the systems and for the purposes described in paragraph one above. Any access, which is not expressly permitted, is denied. KCDC networks shall not be used by the IC to access the Internet, other systems or networks, or personal Email. In addition, KCDC networks shall under no circumstances be used to sweep, scan or attempt to determine the topology or security of other systems or networks. In the event that accidental or unintended intrusion does occur, the connection will be terminated immediately, and KCDC will be notified the next business day.

7. IC's Corporate Security Policy:

As a part of this agreement, the Contractor will provide KCDC with a copy of its corporate security policy-prior to KCDC granting access.

8. KCDC's Information is Proprietary:

All information, including but not limited to: phone numbers, IP addresses, login ID's, passwords, configuration information, system names, server counts, model numbers or uses, applications names or information, volumes, network topology, security devices programs and practices, storage locations, file and folder structures and all information therein is considered proprietary and confidential property of KCDC and may not be disclosed to business partners, subcontractors or any other entity without KCDC's prior written approval.

9. Privacy:

KCDC does actively monitor and record information on network activity. IC should therefore have no presumption of privacy when using the KCDC network.

10. Compensation for Loss:

By signing the agreement, IC agrees to compensate KCDC for any loss, damage or denial of service caused through its connection to KCDC systems and/or networks. IC shall also agree to participate fully in any security; privacy or acceptability of use investigation such as may be required during the course of this contract, whether or not fault or liability has been established.

11. Security:

IC shall ensure that it is fully protected from viruses, spyware, Trojans, and other malicious programs or files before attempting to connect to KCDC networks. If IC detects a virus or security incident within its enterprise at any time during its connection, IC is required to terminate the connection and notify KCDC immediately.

12. Installation:

IC shall make no attempt to implant code, cause the connected network, workstation or system to sniff or collect packets, create additional user accounts (or unauthorized access methods, commonly known as "backdoors"), or in any way alter or record the activities of KCDC systems. Only those things specifically allowed in paragraph 1, above, may be accomplished, installed or altered.

13. IC Employees:

All connections require authentication, which must be unique to each user. Users may be subject to background checks and prior approval in order to be granted access. KCDC must be notified in writing or by acknowledged Email of the full names of anyone requiring access or receiving the login information or password. KCDC must be notified immediately if any employee having access is terminated from employment with or voluntarily leaves ICs organization so that passwords can be changed or accounts closed.

14. Background Checks:

KCDC will notify IC of all background checks required. IC shall confirm in writing to the KCDC's Information Systems contact identified above that they have conducted the background checks and that IC will not use any personnel for whom background checks have revealed factors that make them unsuitable for the activity to be undertaken for KCDC.

15. Remote Access:

Remote access will be suspended when not in regular use, and at the discretion of KCDC. It will be reestablished on an as needed basis and only when required. KCDC requires password changes on a regular basis.

I agree to the terms of KCDC’s Business to Business Network Access Agreement. Any violation of the agreement may result in contract cessation and civil and/or legal penalties as determined by KCDC.

Signed: _____

Printed Name: _____

Title: _____

Company: _____

Date: _____

Notarized by: _____

The undersigned agrees that the following conditions are or will be met.

NON COLLUSION AFFIDAVIT

1. He/she is fully informed respecting the preparation and contents of the attached proposal and of all pertinent circumstances respecting such proposal;
2. Such proposal is genuine and is not a collusive or sham proposal;
3. Neither the said firm nor any of its officers, partners, owners, agents, representatives, employees or parties interest, including this affiant, has in any way colluded conspired, connived or agreed, directly or indirectly, with any other responder, firm, or person to submit a collusive or sham proposal in connection with the contract or agreement for which the attached proposal has been submitted or to refrain from making a proposal in connection with such contract or agreement, or collusion or communication or conference with any other firm, or, to fix any overhead, profit, or cost element of the proposal price or the proposal price of any other firm, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against KCDC or any person interested in the proposed contract or agreement; and
4. The price or prices quoted in the attached proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the firm or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

AFFIDAVIT OF ELIGIBILITY

1. The responder is not ineligible for employment on public contracts as a result of a conviction or guilty plea or a plea of nolo contender to violations of the Sherman AntiTrust Act, mail fraud or state criminal violations with a contract let by the State of Tennessee or any political subdivision of the State of Tennessee.
2. No commissioner or officer of KCDC or other person whose duty it is to vote for, let out, overlook or in any manner superintend any of the work for KCDC has a direct interest in the responder.

ILLEGAL IMMIGRANTS

1. The State of Tennessee amended the Tennessee Code Annotated, Title 12, Chapter 4 to prohibit contracting with firms that knowingly utilize the services of illegal immigrants in the performance of a contract for goods or services in the performance of a contract with the state or a state entity. Additionally such firms may not knowingly contract with subcontractors who utilize the services of illegal immigrants.
2. By signing below the proposer agrees that:
 - a. The firm does not knowingly utilize the services of illegal immigrants in the performance of contracts.

Solicitation Document H Affidavits Continued
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- b. The firm agrees that the State may conduct random checks of personnel records as it pertains to this issue.

- c. Violation of this requirement shall be grounds for monetary and other penalties, up to and including termination of the contract. Additionally violation of this requirement may result in the firm being prohibited from submitting proposals for a period of one year.

The undersigned proposer hereby acknowledges receipt of the above applicable law and verifies that the proposal he/she has submitted in response to this solicitation is in full compliance with the listed requirements.

_____ (Name)	_____ (Signature)
_____ (Title)	_____ (Date)

Subscribed and sworn before me this ____ day of _____ 20____.

Notary Public My commission expires: _____

KCDC'S CURRENT INFORMATION SYSTEMS ENVIRONMENT

A. OVERVIEW:

1. The Main Office at 901 North Broadway houses 39 employees. Eleven property offices have from two to six employees who have their own personal computers, and additional maintenance staff who share a kiosk computer. The Section 8 staff located at a remote office has 15 employees.
2. The property offices and the Section 8 office are connected to the Main Office by T1 data lines. The predominate connections are through Cisco routers and switches, although there is one Ascend Pipeline Router in use.
3. The main server room is located on the second floor of the Main Office. There are no servers at any of the remote offices. The servers, IS staff, and a few selected clients are on a Gigabit Ethernet backbone. All other clients are served with 100 base-T speed.
4. The Purchasing staff (4 people) is housed in a separate building connected to the Main Office by fiber on the same campus.
5. Physical servers are all Dell equipment. The majority of KCDC's production servers now run in a virtual environment, hosted on four Dell PowerEdge M600 Blade servers in a Blade cabinet with room for 16 blades. In addition, our main industry software system runs on SQL housed in a Dell R6000. KCDC has additional Dell physical servers not in use.
6. All operating systems are Microsoft, mostly Windows Server 2008, Data Center or Enterprise. The industry system runs on Windows Server 2003.
7. Clients are running Windows XP SP3, with a few Windows 7 experimental installs on clients in IS and a few laptops with Windows Vista.
8. There are approximately 140 Client computers, including 10 Acer laptop computers used for training and another 6-8 laptops used by employees at their desk and on the road.
9. For employees who do not use the computer as part of their daily work, kiosk computers are installed at the 11 property offices. These give access to individual email accounts and to the company Intranet.
10. KCDC has 27-leased multifunction printers (Canon) on the network through out the company. These range from 20 Pages Per Minute (PPM) to 35 PPM and can scan, print, copy, and act as fax machines where needed.
11. The industry software used by up to 90 of KCDC's employees is ELITE, created by Emphasys Software in Petoskey, MI (www.emphasys-software.com). This is a proprietary system running on SQL.

12. Office productivity software is Microsoft Office with around 100 copies of Office 2003 and a dozen copies of Office 2007 installed.
13. Adobe Acrobat versions 7 and 9 are used by about 20 employees to create and manipulate documents.
14. EMC's Application Extender document management is used to house scanned document images and photos. KCDC has over four million images in storage.
15. KCDC maintains its own on-premise Domain and DNS.
16. KCDC hosts its own Email on a Windows Exchange 2007 server. KCDC has around 150 email accounts.
17. KCDC hosts its own Website, both Internet and Intranet, using Telerik controls and Sitefinity software as the basis for the site. KCDC does no e-commerce through the website.
18. The IT staff consists of four employees. Their job duties are divided as follows (detailed later):

One expert in WAN, networking, and the Emphasys software, Crystal Report writing, HUD reporting and HUD data submission.

One expert in server creation and maintenance, SQL databases, web site creation and support and support for web-based portions of the Emphasys software, crystal reports, and kiosk computers for employees who do not have their own.

One expert graphic artist, who provides all graphic work for the entire company as well as any outside partners when needed. Provides client support, constructs new client machines, installs computers, printers and sets up and troubleshoots all scanner hardware. He also supports the cell phones, KCDC's Blackberry Server, as well as providing repair/maintenance on cells when needed. In addition, he provides all audio/visual support (setup of equipment, running cameras, downloading and editing of media).

The director who is responsible for the telephone system, all purchasing (through the Purchasing Division), backup tapes, supervision and planning, and support for other members of the staff.

All four people assist the employees as needed in all areas of the system.

B. KCDC WIDE AREA NETWORK (WAN)

1. KCDC has a star-topography WAN. The Main Office at 901 North Broadway is the hub, with data connections coming from all the remote offices. Connection to the Internet through a Comcast cable is provided at the Main Office for all remote locations.
2. Each office is connected using a T1, non-channelized, 1.5 MBS nailed up connection.
3. T1's are delivered from the AT&T Central Office in downtown Knoxville to KCDC over fiber. T1's from the Central Office and from secondary Central Offices to the offices are copper.
4. All T1's connect at the Main Office to one Cisco 7200 VXR, except at the Vista Maintenance office.
5. Traffic on the WAN, both internal and external is monitored using a Watchguard Firebox 1250E.
6. The following are the remote connections, routers in use, and the circuit numbers.

Remote Site	Street Address	Remote Site Router	AT&T Circuit ID	Main Office Router
Cagle Terrace	515 Renford Road	Cisco 2650	80.DHDG.510728	Cisco 7200 VXR
Northridge Crossing	712 Breda Drive	Cisco 2620	80.DHDG.510729	Cisco 7200 VXR
Section 8 office -#1	400 Harriet Tubman Street	Cisco 2650	80.DHDG.510512	Cisco 7200 VXR
Section 8 office -#2	400 Harriet Tubman Street	Cisco 2650	80.DHDG.517957	Cisco 7200 VXR
Isabella Towers	1515 Isabella Circle	Cisco 2650	80.DHDG.510730	Cisco 7200 VXR
Lonsdale Homes	2020 Minnesota Avenue	Cisco 2650	80.DHZX.545049	Cisco 7200 VXR
Love Towers	1171 Armstrong Avenue	Cisco 2650	80.DHDG.510727	Cisco 7200 VXR
Northgate Terrace	4301 Whittle Springs Road	Cisco 2650	80.DHDG.510733	Cisco 7200 VXR
Montgomery Village	4530 Joe Lewis Road	Cisco 2650	80.DHDG.510734	Cisco 7200 VXR
Vista/Austin Homes-office	957 East Hill Avenue	Cisco 2650	80.DHZX.541925	Cisco 7200 VXR
Vista/Austin Homes-Maintenance	801 Howard Baker Junior Blvd.	Cisco 2650	80.DHZX.550480	Ascend Pipeline
Taylor Homes	317 McConnell Street	Cisco 2650	80.DHDG.510732	Cisco 7200 VXR
Western Heights	1621 Jourolmon Avenue	Cisco 2650	80.DHDG.510725	Cisco 7200 VXR
Virginia Walker	6333 Pleasant Ridge Rd	Cisco 2650	80.DHZX.556.840	Cisco 7200 VXR

Two sites will be added in the foreseeable future:

- o Eastport Apartments (Summer 2011)
- o Valley Oaks Apartments (Summer 2010)

At each location, Remote and Main Offices, Cisco Switches are in place. The following models of Cisco's Switches are used within the network.

- Catalyst 2940
- Catalyst 3500
- Catalyst 3524
- Catalyst 3550
- Catalyst 3750

C. KCDC HARDWARE LIST

Servers: Physical Servers are all Dell products. The following servers are in use.

Server Model	Purpose	Memory	CPU
Blade servers are mounted in a Dell M1000E, PowerEdge Blade Server Enclosure. It contains slots for up to 16 blade servers			
Dell PowerEdge M600 (4)	Cores for Virtual Servers	32 GB	2xIntel Xeon E5450 processors
Dell PowerEdge 6800	SQL for KCDC's Accounting software	8 GB	Intel Xenon 3.66 GHZ
Dell PowerEdge 2950	Domain Controller	8 GB	2 x Intel Xeon L5310
Dell PowerEdge 2950	Backup Exec Backup Server	4 GB	Intel Xeon 3.8 GHZ
Dell PowerEdge 2850 (3)	Run Citrix Presentation Server	4 GB	4 x Intel Xeon 3.8 GHZ
Dell PowerEdge 1850	Run Citrix Presentation Server	3 GB	Intel Xenon 3.6 GHZ
Dell PowerEdge 1750	Runs EMC Application Extender	3.75 GB	Intel Xenon 3.0 GHZ

Storage Area Networks

KCDC has three Storage Area Networks.

EMC AX4 fully populated with 16 disks	Used as the SAN for the Virtual Servers and their data
Promise VTRAK 500	Used as disk to disk backup location, also storage for KCDC's EMC Application Extender images
Promise VessRAID 1840i w/16 x 1TB drives	Will replace the VTRAK in the next two months.

Tape Drives

KCDC has two Quantum SuperLoader 3 tape systems. These work with the Backup Exec server and the VTRAK 500 and receive daily and monthly backups.

Client Computers-Tower machines

Desktop client computers have been assembled on site by KCDC IS employees for many years.

Generally, when an upgrade of client computers was done, a single motherboard, CPU chip set, memory chip combination was used, and an image of the company workstation setup was copied and replicated to each of the new workstations.

The great majority of KCDC workstations are less than four years old.

Most Desktops have 512 K of memory, but some have up to 4 GB of memory.

Local hard drives are generally small, at 60 GB since file storage is on the network not locally.

The following is a list of components appearing in many of the client computers.

Mother Boards	CPUs
ASUSTek Computer	AMD Athion 64 3500+
Giga-byte Tech Co	Intel Celeron 2.5 GHZ
4 x Intel Pentium III Xeon	8X Intel Pentium III Xeon
Intel Pentium 4 1.5Ghz	Intel Pentium 4.3 GHZ
AMD Athion 64 3200+	AMD Athion 64 3000+
Nvidia	

Laptop Computers

Laptop computers have been purchased from various manufacturers over the last 10 years. They were generally purchased with off-the-shelf configurations. The following are examples of the laptops in use.

Manufacturer	Model
Acer	Aspire 3000
ASUS	G73J
Dell	Inspiron i8100
Dell	Inspiron 1100
Dell	Inspiron 6000
Dell	Inspiron 9100
HP	Pavillion dv6
HP	Pavillion dv9000
Lenovo	ThinkPad X61S

D. KCDC SOFTWARE

KCDC servers and computers have hundreds of software installations. The following are the most numerous, but there are other specialty programs in use.

Server Software

Servers are both Virtual and physical. The following is a list of the most prominent software, and does not list many maintenance and sub-modules by name.

The Dell PoweEdge 600M servers on which the virtual servers run have the following software:

Microsoft Windows Server 2008 Datacenter (3) and Enterprise (1).
--

Within this software is the Hyper-V module used as the hypervisor for the virtual servers.
--

EMC Powerpath 5.3 for connection to the EMC AX4 San.
--

Melio File System (from SanBolic) used to allow each virtual server access to the entire SAN.

LaScala Volume Manager

MS Visual C++ 2005

Navisphere Server Utility

The domain controller physical server is running:
--

EMC Powerpath

MS .Net Framework 3.5 SP1

MS Office 2003 resource kit

MS Offline Virtual Machine Servicing Tool

MS Report Viewer Reditributable

MS SQL Server 2008 and related modules
--

MS System Center Virtual Machine Manager 2008 R2
--

MS Visual C++ 2005

MS Visual Studio Tools

Specops Deployment software and related modules

Windows Server 2008 Enterprise

The Citrix Presentation servers are running:

Adobe Reader

Citrix Metaframe Presentation Server for Windows 4.07

Crystal Reports XI and related modules
--

Connection to Emphasys Elite, KCDC's proprietary Public Housing Accounting software

Java

MS .Net Framework 2.0

MS .Net Framework 3.5

Windows Imaging component

Windows Internet Explorer

Windows Server 2003

The Backup Domain Controller, a virtual server, is running:

Diskeeper 2010 Server

MS .Net Framework 3.5 SP1

Specops Deployment software and related modules

Windows Server 2008 Enterprise

The Blackberry server KCDC uses to connect its Blackberry SmartPhones is running:

Adobe Acrobat

Blackberry Desktop Manager

Java

Messaging API and Collaboration Data Objects

MS Office 2003 professional

MS SQL Server 2008 Native Client

Windows Server 2008 Enterprise

The Physical Server that houses KCDC's Backup Exec software is running:

Adobe flash play & reader

Dell on line diagnostics and related software

Messaging API & Collaboration Data Objects

MS .Net Framework 2.0, 3.0, and 3.5

MS Exchange server client

MS iSCSI Initiator

MS SQL Server 2005 and related modules

MSXML 4.0

Symantec Backup Exec 12.5 for Windows Servers

Windows Server 2003 Enterprise

The Physical Server that houses KCDC's Emphasys Proprietary Industry Software is running:

Broadcom Management Programs

Crystal Reports XI

Diskkeeper 2007 Server

Emphasys ELITE all modules + Crystal plug-ins

Satori Mailroom

Macromedia Coldfusion X

MS .Net 2.0, 3.0 and 3.5

MS Office 2003 Excel Viewer

MS Office 2003 Outlook

MS SQL Server 2005

MSXML 4.0

An interface to KCDC's Payroll System

Symantec Backup Exec 12.5 remote agent

Windows Internet Explorer

Windows Server 2003

The Virtual Server that connects to KCDC's EMC Application Extender document storage is running:
EMC Application Extender 5.4 and related modules
Diskeeper 2007 Server
MS .Net Framework 2.0,3.0, and 3.5
MS iSCSI Initiator
MSXML 4.0
SnagIT Version 6
Symantec Antivirus
Symantec Backup Exec Remote Agent for Windows V12.5
Windows Server 2003 Enterprise

The Virtual Server that serves at the file and print server is running:
Diskeeper 2010 Server
MS .Net Framework 3.5
Symantec Backup Exec Remote Agent for Windows V12.5
Windows Server 2008 DataCenter

Client Computer Software

The operating system software on nearly all tower clients is Windows XP SP3. Notebooks have XP, and Windows Vista.

There are literally hundreds of software packages running within KCDC's system. Many are utilities and add on's.

The list on the next page is the most prominent software items in use at KCDC, by number of copies in use.

Acronis TrueImage
Adobe Acrobat Versions 6, 7, 8 & 9
Adobe Acrobat Reader
Adobe Creative Suite 3, Dreamweaver CS3, Encore CS, Fireworks
Adobe Flash CS3, Player ActiveX, Player 10 ActiveX
Adobe Illustrator, InDesign C3, Linguistics, MotionPicture Color Files, PDF Library files
Adobe Photoshop with many modules
Adobe Reader
Adobe Spelling Dictionary for Adobe Reader
Adobe Shockwave Player
Advanced Network Diagramming
AdventureWorksDB
Aegis 9000 Management System
Application Extender, AX Desktop
Blackberry Desktop Manager
Ccleaner
Citrix Access Management Console
Citrix On-Line Plug-in
Crystal Reports 2008, XI
Defraggler
Diskeeper, several versions
Emphasys Elite
Google, Toolbar, Earth, Update
Java and related
LogmeIn
MS .Net Framework from 1.0 to 3.5
MS Office 2003 Professional
MS Office 2007 Professional
MS Publisher
MS SQL server native client
MS SQL Server VSS Writer
MS Visio 2003 Professional
MS Visual C++ 2005
MS Visual J# 2.0
MS Windows-Journal Viewer
Mozilla Firefox
MSXML 4.0
Nero Suite
Norton Ghost
QuickTime
RealVNC
Seagate Report ActiveX viewer

Real Player
Realtek Audio
SnagIT Version 9
Soundmax
Specops Deploy Client
Specops Inventory Client
Spybot
Symantec Antivirus
Symantec EndPoint Protection
Team Viewer
VNC Free Edition
WaveReader Ver 3.1
WebEx
Windows Internet Explorer
Windows Media Player
Windows XP Pro SP3

E. SOFTWARE LICENSE INFORMATION

The following summarized major software licenses in effect in May 2010. All software with expiration dates have support in place from the manufacturer.

Name	Copies	Expires	Renewal Cost for support (last time)
Adobe Acrobat			
Adobe 9 Professional	11		
Adobe 6.0 (upgraded to 7.0 in some cases)	46		
Application Extender			\$6,800
AX Server Licenses V5.4	1	Sept 2010	
AX Connection Licenses	5	Sept 2010	
Backup Exec 12.5			\$2,700
BE 12.5 for Windows	1	21-Dec 2011	
Agent for MS SQL	1	21-Dec 2011	
Advanced Disk Backup	1	21-Dec 2011	
Option Library Expansion	1	21-Dec 2011	
Agent for MS Exchange	1	21-Dec 2011	
Agent for Virtual Server	4	15-Apr-2012	
Citrix			\$8,100
Xenapp Enterprise	140	11-23-2010	
Diskkeeper 9.0			\$946
Premium Licenses	10	11-Sept-2010	
Server Licenses	10	11-Sept-2010	
Enterprise Server	1	11-Sept-2010	

Microsoft Licenses			
Office 2003 Professional	103		
Office 2007 Standard	4		
Office 2007 Professional	2		
Office 2007 Ultimate	1		
Exchange Server 2007	2		
Exchange User CALs	200		
Project Server 2002	1		
Project 2002 user cals	28		
Windows Server 2008 Enterprise	1		
Windows Server 2008 Datacenter	3		
Win Server 2008 User Cals	140		
Server Management Suite Enterprise	4	4-30-2011	Not charge-new
Server Management Suite Datacenter	2		
SQL Server 2005 Standard-1 processor	2		
Visio 2003-User CALS	5		
Visual Studio/MSDN	1	7-31-2011	\$2,500
Symantec Protection Suite			
Enterprise Edition 3.0 per user	150	4-8-2013	\$4,350
Teamviewer			
Premium	1		
Varonis			
DatAdvantage Windows	1		
Watchguard software for FireBox			
UTM Suite	1	6-25-2012	
Web Controls Software			
Telerik Controls		6-7-2011	\$1,168
Sitefinity software		4-20-2011	\$269

F. **EMPHASYS ELITE SOFTWARE**

KCDC uses ELITE software from Emphasys Software Inc. in Petoskey Michigan. ELITE is software written for Housing Authorities to provide the record-keeping needed both for financial purposes, and to meet the requirements of the Housing and Urban Development (HUD) federal agency which provides most of KCDC's money.

ELITE runs on Microsoft SQL. There are over 1,000 tables underlying ELITE. The software is subdivided into modules as follows:

Module Name:

Accounts Payable

Accounts Receivable

Bank Book

Family Self Sufficiency

General Ledger

Inspections

Low Income Public Housing (LIPH)

Rent Reasonableness

Section 8

Waiting List

Work Orders

In addition KCDC uses two 3rd party additions to the ELITE software:

ProcureIT, a product of Verian Technologies located in Charlotte, NC , is used for purchasing, inventory, warehouse transfers, et cetera.

VISTAHRMS, a product of PDS Software in Blue Bell, PA, is our Human Resources and payroll software system.

Emphasys has written an interface between each of these systems to transfer financial and inventory data to Elite GL.

Emphasys financial model consists of charging their clients high yearly support costs, but promising that all future software upgrades are "free". In FY11, KCDC will pay \$76,457.56 for this support.

G. TELEPHONE

Landline Voice and Data systems

The current landline voice system was installed following an RFP for phone service in October 2007. This is presumed to be a five year contract. The data lines in use are paid at the rate of a contract that AT&T has with the State of Tennessee, so KCDC has no long-term commitment to this arrangement

Voice Landlines
KCDC uses the Centrex system from AT&T. This is an analog system requiring relatively inexpensive phone instruments.
There are 107 voice extensions, 21 FAX lines, and 55 security, elevator and tele-entry lines in the system.
The Centrex system allows three digit dialing between locations at KCDC.
All but 18 of the voice lines have voice mail boxes hosted by a Mitel Mail Sever at the Main KCDC Office.
The Mitel VM server has eight incoming Centrex lines to handle call transfers and voice mail box interaction.
The remaining lines, in the Section 8 office, that need voice mail use the Centrex voice mail server hosted by AT&T.
Phone instruments in use are generally manufactured by AASTRA or AT&T.
Features such a caller ID, a message light indicator to signal VM is available, and others are ordered on a line by line basis, and cost extra.
At the time of the RFP, a flat fee was paid to make the entire KCDC Centrex network appear to originate from the AT&T Central Office, even though about 20% of the lines must be run from secondary CO's miles from downtown. This greatly reduces the monthly charge for the outlying lines.
Support for KCDC's Centrex system is obtained from an AT&T group in Nashville.
In addition, the main KCDC phone number and four rollover lines are delivered to a receptionist console via an ISDN line.
Data Lines
KCDC uses AT&T T1 (1.5 gbs) non-channelized leased lines to connect each remote office to the Main Office.
KCDC's connection to the internet is made using Comcast Cable, with Comcast as KCDC's ISP. All locations connect through this one point.
There are 14 T1 lines as described on the WAN page of this Workbook.
Pricing for T1's is based on a contract between AT&T and the State of Tennessee and is based on total mileage from the remote site to KCDC's Main Office.
KCDC also has an ISDN line that connects the fiber cabinet in which the T1 lines terminate at the Main Office back to the AT&T central office.
There is an SMDI data circuit connecting KCDC's Mitel Voice Mail Server to the Centrex voice mail system. This tells the VM server what VM box should receive an incoming call, and allows the Mitel VM turn on and turn off the message-waiting signals for individual telephones.

Cellular Phones and Radios
KCDC uses the Sprint/Nextel cellular phone + radio system for all employees. There is no long-term contract with Sprint/Nextel and indeed monthly changes are made for the phones depending on their total minutes of use to minimize the expenses to KCDC. KCDC uses the Metro Nashville contract.
KCDC has 111 cell phones. This includes:
98 Cellular phones with radio
13 Blackberries
KCDC hosts its own Blackberry server.
Cellular phone models currently in use:
Motorola i560, i570, i580, i680
Sanyo Pro-200, 700
Blackberry, 9630, 8830, 8350i
In addition, KCDC has 4 Sprint/Nextel AirCards for data connections for laptop users.

H. PERSONNEL

The KCDC Information Services Division has four employees. The following is a summary of the work performed by each member. All four staff members provide front line support to the employees in addition to their specialized areas of work.

IS Director
Reports to the Vice President of Finance and Administration.
Administration of the IS Department.
Long Term Planning and Research on changing technology.
Support for the other members of the IS staff, providing what they need to accomplish their jobs.
Meeting with KCDC Executives to discuss technology and communications needs and opportunities.
Job reviews with staff.
All technology and telephone purchases, receiving and invoice approval for all areas of KCDC.
Liaison with outside technology vendors.
Arranges appropriate technical training for self and staff.
Prepares the yearly budget for the IS Division, and prepares monthly variance reports to explain deviations from budget.
Holds biweekly staff meetings.
Serves as the communication liaison with Emphasys management staff.
Responsible for Landline voice, data, and long distance phone system.
Liaison with AT&T for all moves, adds ,changes and new technology.
Maintains the Mitel Voice Mail Server.
Monitors and approves the AT&T invoices for landlines, data lines, and long distance monthly, corresponding with AT&T to fix discrepancies.
Prepares a detailed spreadsheet each month that distributes landline, T1 and long distance charges to the appropriate accounts.
Provides new hires with instruction on use of the phone system.
Receives telephone user problems and works to fix with onsite visits, new equipment or checks on cabling.
Uses the Mitel Voice Mail server to setup automated answering and transfer systems such as the emergency workorder line.
Responds to any network outage due to loss of signal in the T1 data lines.
When needed, periodically helps prepare RFP information for rebidding the telephone system for KCDC.
Responsible for Backup Tape rotation and storage.
Provides a fire proof off site storage area for backup tapes.
Insures weekly tapes are rotated to and from fireproof storage and that, enough tapes are available for all tape jobs.
Removes month end full backup tapes and stores a safe distance from the Main Server Room.
Purchases additional tapes as needed.
Assists with troubleshooting the Quantum Tape Libraries as needed.
Helps plan long-term data backup strategies.
Maintains KCDC's Document Storage system.
Maintains access to and use of the EMC Application Extender document storage system.
Provides training for new users of the AX system.

Works with KCDC's AX support company to install updates, solve support problems, and view new components of the system.
Plans long range changes and installations of document management systems as needed.
Obtains, installs, and trains users on stand-alone scanners used to scan documents for AX.
Encourages managers to scan more and copy less, and discusses scanning applications where they would be of benefit.
Responsible for the Leased Multi-function printers used throughout KCDC.
Works with managers to determine their printing, faxing, copying and scanning needs.
Determines the size of MFP needed for each location.
Prepares RFP for leased networked MFPs as needed.
Assists the leasing company in placing MFP's, arranging data cable pulls as needed to accommodate the printers.
Reviews MFP usage each month, and watches for usage changes that might require a change in machine size.
Periodically sends usage data of leased printers to the managers to assist their printing planning.
Encourages the use of the leased MFP's over use of personal printers.
Conducts an annual physical inventory of all the computer-related equipment owned by KCDC.
Assists in administration of KCDC.
Serves as a member of the KCDC Continuous Improvement team, helping to form and carry out the KCDC strategic plan.
Serves on other KCDC committees such as the Pandemic committee, providing advice and suggestions about KCDC communications.
Helps prepare the yearly budget for all accounts in the areas of computer support, telephone and cell phones, and cabling needs.
Provides the Vice President of Finance and Administration with information, data, and answers concerning KCDC's Information Systems.
Assists property managers and Executives when they are planning new construction or remodeling that impacts phone lines and service.
Coordinates training in software of all kinds for KCDC employees.
Serves as a member of the Help Desk, helping to solving any problem in the system brought by an employee.

IS Systems Analyst III
Responsible for the Wide Area Network and the network inside each KCDC building.
Provides specifications for the purchase of routers and switches.
Installs and maintains routers, switches, firewall appliances, and other network components.
Can program the Cisco routers and Cisco switches used throughout KCDC.
Troubleshoots any connection problems involving routers or switches anywhere in KCDC.
Programs the firewall appliance to allow the traffic needed over KCDC's network.
Installs updated firmware for Routers, Switches and the Firewall as needed.
Liaison with KCDC's Internet Service Provider and works on any problems with Internet connectivity.
Does long range planning for wide area connections, is aware of technology changes that impact KCDC's network.
On-Site Expert in KCDC's Emphasys Public Housing Software.
Installs Emphasys software modules as they are purchased.
Applies all patches, updates, custom programs, SQL scripts and other modifications to the Emphasys Software.
Understands the structure of the SQL tables holding Emphasys data, and the other data containers, such as the Data Hub.
Assists Emphasys employees in the initial setup of the software, and maintains security setups for each KCDC employee.
Serves as the "Help Desk" for employees using Emphasys software, solving problems of login and use of the software.
Consults with managers as to application of the Emphasys software in their areas of control.
Is the main liaison with Emphasys support members, submitting support tickets as needed, following up on tickets, and assisting with solutions.
Is proficient in writing reports from the Emphasys data using Crystal Reports as well as SQL report writer. Prepares reports as requested by employees.
Manages HUD Program PIC for S8 maintaining a 98% or higher submission rate.
Maintains the Backup Software system and backs up the KCDC data in a timely manner.
Installs and maintains the Backup Server software used to maintain backup copies of all KCDC data.
Sets up backup jobs within the software that insure that critical data is backed up often enough to provide protection against loss of a server or database.
Monitors the progress of backup jobs each day, and troubleshoots any that do not finish successfully.
Works with the IS director in planning long term data safety and Disaster Recovery.
Assists in maintaining the Quantum Tape Libraries.
Maintains the Citrix Presentation Servers.
Specifies and installs servers that can run the Citrix XenApp software.
Applies all updates, patches and other software changes on the Citrix Servers.
Uses the Citrix server system to present Emphasys ELITE and other software to users.
Troubleshoots all problems related to the Citrix Server system.
Serves as the liaison with Citrix support and sales.
Suggests ways to use the Citrix Server system to assist KCDC employees.
Assists with the management of the other servers in the KCDC IS Division as needed.
Maintains the centralized software that monitors the use of the Networked Multifunction Printers.
Assists in Administering the IS Division.
As asked provides data, reports, purchasing suggestions and other assistance to the Director.

Attends IS staff meetings and leads discussion on projects, problems, ideas, or plans in his areas.
Helps prepare the annual budget for the IS Division.
Watches for technology developments that have application at KCDC, bringing them to the IS staff attention, and researching them as needed.
Serves as a member of the Help Desk, helping to solving any problem in the system brought by an employee.

IS Systems Analyst II
Maintains all the servers in the KCDC system except the Citrix Servers.
Specifies hardware and software operating systems for KCDC servers, including storage, memory, CPU, and other components.
Installs and maintains both physical servers and virtual servers.
Applies all updates, patches and other software changes on the servers.
Monitors server health and uses, "tuning" server systems as needed. Uses appropriate Server Manager Software.
Troubleshoots all server problems and is liaison with outside support for KCDC's servers.
Determines what services will be located on each server, and moves services as needed for network efficiency.
Creates and maintains the KCDC websites, both Internet and Intranet.
Determines the needs of all KCDC employees for information presented via the world wide web.
Is proficient in a wide variety of software used to construct and maintain websites.
Constructs the KCDC Internet Website, presenting information about KCDC to the exterior world.
Constructs the KCDC Intranet, providing KCDC employees with data and information needed to complete their jobs.
Writes and posts reports to the website using Crystal Reports and other reporting tools.
Troubleshoots any problems with the Website or any web pages.
Works with managers throughout KCDC to insure the information on both sites is up to date and accurate.
Continuously works to improve the web sites, applying new software and new ideas to make the KCDC websites outstanding.
Assists IS staff and other employees place data and arrange page information on the Intranet.
Does long range planning on the use and improvement of the website and the software used to maintain it.
Serves as a liaison with people from outside KCDC for problems, ideas, and projects involving the websites.
Is the expert in the database and web based software system used in KCDC's PDS HR/Payroll system, assisting to maintain the software, and troubleshooting problems.
Maintains KCDC's SQL databases, other than Emphasys, and applies SQL to solve problems.
Specifies and installs Microsoft SQL Server software as needed to support KCDC programs.
Assists employees in the creation and use of SQL databases.
Is an expert in writing reports from SQL databases including use of Crystal Reports, SQL report writer, and others.
Prepares reports for employees in a timely manner, using Crystal Reports and other SQL reporting tools.
Assists the System Analyst III with the SQL system used by Emphasys Elite to include SQL scripts and Crystal Reports.
Utilizes other programming software and skills to improve commercial software and software written for KCDC by third parties.
Architects and Develops in house .NET C# applications to fill gaps in applications needs that cannot be filled by other third party applications (i.e. KUB Exporter, Fixed Asset Tag Importer, Property Tracker, et cetera).
Uses AGILE programming methods to develop solutions for the Web and Windows.
Utilizes the latest in programming patterns, MVC and MVVM, to keep in house software current and extensible.

Works with third party vendors to interface their products with the products in use at KCDC.
Subscribes to Microsoft MSDN program for developers and experiments with early releases of software to anticipate and prove applications to benefit KCDC.
Constructs and maintains the KIOSK computers located at remote offices to give access to the KCDC Intranet and email system to employees who have no personal computer.
Serves as a member of the help desk, helping to solving any problem in the system brought by an employee.
Assists in Administering the IS department
As asked provides data, reports, purchasing suggestions and other assistance to the Director.
Attends IS staff meetings and leads discussion on projects, problems, ideas, or plans in his areas.
Helps prepare the annual budget for the IS Division.
Watches for technology developments that have application at KCDC, bringing them to the IS staff attention, and researching them as needed.

IS Systems Analyst I
Prepares all Graphic designs, displays, and reports for KCDC and handles all Audio and Visual projects.
Is a proficient graphic artist.
Meets with KCDC employees who need graphic art prepared for their projects, discussing details and suggesting the best approaches.
Uses a wide variety of graphics software to produce high quality graphics.
Is familiar with the capabilities of the color printer used at KCDC, maintaining the printer and working with the support company when the printer needs repairs.
Works with property managers on quarterly newsletters for residents
Completes graphics projects on time as KCDC needs demand, standing ready to accept last minute assignments if necessary.
Takes high quality pictures of KCDC projects, meetings and other assignments and uses the pictures in reports and other graphics.
Maintains a database containing photographs taken of KCDC activities.
Records KCDC Board Meetings with a digital camera, transferring the recording to media for long term storage, and for distribution to news outlets and other interested parties.
Maintains the audio and visual equipment used in the KCDC training room, setting up the room for various uses as requested.
Works with the Systems Analyst II on the website graphics.
Constructs and maintains the Client Computers used throughout KCDC.
Has completed A+ and Net+ technical training.
Specifies the components of the client computers to be constructed.
Prepares and maintains a stored image of the software installed on each Client Computer so that clones of the system can be applied quickly to new machines.
Builds computers as needed by KCDC employees.
Maintains backup stock of hard drives, power supplies and complete computers, to replace failed systems in the field and minimize downtime for employees due to component failures.
Ensures that the Fixed Asset inventory listings for all Client Computers is kept current during moves, adds, or disposal of machines.
Is familiar with the operating system software used on the computers, and can assist users with operating system problems.
Serves as the main Help Desk contact in IS, except for Emphasys, travelling to client sites, or using remote connect software to assist with any problems they have.
Answers calls and responds to emails requesting assistance with hardware and software problems.
Is proficient in using remote desktop software and other software that allows connection to the computer giving trouble.
Makes decisions as to what the best course of action is, with the goal of getting the employee back to work in minimal time.
Requests purchases of parts or software as appropriate to solve the problems, and installs new parts and software as they are received.
Prioritizes problems when faced with more than one employee having difficulty. Asks other IS staff members for assistance as needed.
Keeps appropriate records of work done, and anticipates the cause of problems when he has seen them before.
Assists the IS Director with the annual inventory of all computer equipment owned by KCDC.
Checks the function of all servers at the beginning of the work day, correcting minor problems and

notifying other IS staff immediately of serious problems that would disrupt workflow.
Administers the Cell Phone/Radio system at KCDC.
Is the Primary Liaison with Sprint/Nextel.
Is familiar with the currently available cell phones and makes recommendations as to which phones should be obtained as needed.
Handles requests for new cell phones and keeps track of the location of all KCDC cell phones.
Works with Sprint to analyze cell phone usage and move cell phones between "plans" at SprintNextel to minimize the cost to KCDC.
Reviews the monthly bill from Sprint/Nextel, investigating discrepancies and preparing a spreadsheet distributing costs to the appropriate accounts.
Works with the Systems Analyst II to maintain the Blackberry server used to link Blackberry users to email and data within the KCDC network.
Performs needed maintenance, repairs and support for various cell phones.
Assists in Administering the IS Division.
As asked, provides data, reports, purchasing suggestions and other assistance to the Director.
Attends IS staff meetings and leads discussion on projects, problems, ideas, or plans in his areas.
Helps prepare the annual budget for the IS Division.
Watches for technology developments that have application at KCDC, bringing them to the IS staff attention, and researching them as needed.

I. Audio/Visual Hardware

Cameras
Sony fd mavica Digital Camera
Nikon 100 Digital Camera
Sony dsr-250 Digital Recorder

Projectors
Proxima overhead projector in Training Room
Infocus lp 640 portable projector

Personal Printers	
KCDC has installed networked multifunction printers throughout KCDC and encouraged employees to use them because they are much less expensive per copy than personal printers. However, there continues to be a large number of personal printers in use. Here is a partial list	
Printer Model	Number in Use
HP BusinessJet 1100	2
HP DeskJet 970cxi	1
HP DeskJet 990cxi	1
HP LaserJet	2
HP LaserJet 1020	1
HP LaserJet 1200	19
HP LaserJet 2055dn	1
HP LaserJet 2300dtn	15
HP LaserJet 4, 4 Plus	2
HP LaserJet 4000N	1
HP LaserJet P1006	1
HP LaserJet P1505	2
HP Photosmart C7180	1
Brother DCP-7040	1
HP DeskJet 825c	1
Canon MX850	1
Canon MX860	1
HP LaserJet 5M	1
Total	54

J. Hardware Support Contracts.

The Dell core servers are covered with a three year all-everything agreement from Dell as part of their purchase as is the EMC AX4 SAN attached to the cores. This will run until Jan 21, 2012.

KCDC purchases yearly support for the two Quantum tape drives. This renews in April 2012, and costs \$2,700.

KCDC has a time and parts support contract with Catalyst Technologies for SUN and Titan physical servers. This is only charged as needed.

The recently purchased VessRAID SAN has a year's warranty that will be up in March 2011. A support contract may be purchased at that time.

The Watchguard Firebox Firewall appliance was purchased with three years of support, in June 2009. In the past, after three years, technology has advanced to the point that purchasing a new firewall appliance made more sense than buying support. This will be up June 2012.

K. COST INFORMATION FOR ON-GOING SUPPORT

KCDC pays annual or in some cases bi-annual or tri-annual charges for Hardware and Software support. The following figures are for the most recent payments. Costs may increase with time.

Software Support Costs

	Annual	Bi-annual	Tri-annual
Emphasys Software support	\$76,457.62		
Citrix Annual Maintenance	\$8,093.00		
EMC Application Extender	\$6,800.00		
Backup Exec	\$1,955.00		
Diskkeeper Support	\$1,025.00		
Fleenor Galaxy (Door fobs)	\$600.00		
Himatchi Annual License	\$50.00		
Infragistics-2 years		\$850.00	
MSDN annual membership	\$1,600.00		
Symantec Enterprise Protection		\$8,000.00	
SpecOps annual support	\$1,350.00		
Teleric Controls-2 yrs		\$1,168.50	
Tenmask QuickPIC	\$715.00		
Digicert Web Certificate-3 year			\$1,185.00
Varonis DataAdvantage	\$1,100.00		
Total	\$99,620.62	\$10,018.50	\$1,185.00

Hardware Support Cost

KCDC recently purchased blade servers that have three years of support and eliminated support costs for nine standalone servers.

	Annual	Biannual	Tri-annual
Firebox Firewall			\$4,800.00
Sanbolic Melio support for our SAN OS	\$4,500.00		
Quantum Tape drives-2 year support		\$2,700.00	
Total	\$4,500.00	\$2,700.00	\$4,800.00

Costs for continuing operation. (Not all charged to Information Services)

IS has to purchase materials for computer construction and new software licenses for users as they are needed. The following are recent purchases that give an idea what this on going cost can be.

Hardware supplies and replacements

Power Supplies for field computers that fail	\$74 - \$135 each. Buy 10 - 15 of these a year.
LCD monitors for monitors that fail or to make dual monitors	\$145-\$175 each. Buy 8-12 per year
Hard drives for preparing images so they can be quickly installed:	\$32-\$40 each. Buy and use about 15 per year
Patch Cables of various sizes	\$6-\$20 each depending on length. Buy 20-30 per year
Single line Telephones for failures	\$60-\$80 each. Buy 3-5 a year
Multi-line Telephones for failures	\$125-\$200 each. Buy 5-7 a year
SCSI drives for our servers, can hot swap out failures	\$400-\$900 each depending on system. Buy 3-6 per year
New complete computers without monitors	\$1,200 each and six to ten replaced a year

Software purchases	
Adobe Acrobat 9-Have purchased six copies this year	\$125 each
MS Office 2007	\$200-\$445 depending on version. Purchased five copies in August 2009.
Leased Printer Costs	
KCDC leases a black and white multi-function printer for the IS office area. The cost is about \$32 per month.	
KCDC owns an HP color printer, but pays for support that includes all color ink, parts & labor. This is based on the number of copies run each month. This costs about \$2,000 - \$2,500 a year. Much of the printing work is for newsletters for the property offices. At this time, the cost of these is not charged to the offices, but this is something that should be considered if HUD allows it. KCDC's in-house costs are a fraction of that charged by commercial printers.	
ISP Costs	
KCDC pays Comcast for their fastest available Internet connection, including the modem and the IP addresses KCDC needs. This costs \$190 a month. (\$2,280 per year).	
IS Staff Internet Costs	
Since three of the IS staff routinely connect to KCDC's network and KCDC wants them to be available to make connections and correct problems 24/7, KCDC pays the Internet portion of their cable bills. This costs approximately \$1,700 a year for the three.	
Telephone and Cell Phone costs	
The IS Director's landline costs \$16.63 per month (\$199.56 per year)	
The charge for cell phones for the other three staff members varies each month. April 10 = \$242, March 10 = \$299, Feb 10=\$250	

L. DOCUMENT STORAGE - APPLICATION EXTENDER

Application Extender Software

In 1998 KCDC began to scan and store images of the files left when tenants moved out or left KCDC's housing. KCDC used software made by a company called OTG. Initially images were scanned to a hard disk and then burned onto CDs. The CD's were kept in a "juke box" that could hold and load 24 CDs. OTG was purchased about 2000 by a company called Legato. They were later purchased by EMC. The product is now known as EMC-Application Extender. Beginning in 2001, KCDC has received support for Application Extender from InfoTek, a Knoxville company. Infotek has certified support techs trained by Legato and EMC.

Storage of Scanned Documents

In 2006 KCDC purchased a Promis VTRAK 500m Storage Area Network (SAN). The main purpose of this SAN was to provide disk-to-disk backup for data backup process. However, KCDC set-aside 1 TB of storage on the SAN for the AX documents. KCDC migrated all previously stored images from CDs to the SAN. This greatly increased access speed and image availability. In June 2010, KCDC had just over 71,000 individual documents, containing over 4 million pages of information in storage.

Scanning and accessing the documents

KCDC has four scanning stations. One is in Customer Service, one in Purchasing, one in Section 8, and one in an Executive Assistant's office. Each of these stations has locally installed AX software and a dedicated Fujitsu scanner capable of scanning 41 pages a minute. Scanners are given the rights to the AX databases into which they need to scan. Employees at the scanning station can view and print stored data using the local software. All other employees who need access to the stored data use an AX client delivered virtually using Citrix XenApp server. This access is read-only; users can view and print documents, but not modify them. Documents can also be added from files and as photographs, so more than scans can be stored. In May 2010, 54 employees were able to access one or more of the AX databases.

Application Extender Databases

The following databases, called "Applications" in AX are in use at KCDC

Accounts Payable Checks and supporting documents	FY97
	FY98
	FY99
	Vendors -FY97-2003 IN ONE DATABASE
	FY2004
	FY2005
	FY2006
	FY2007
	FY2008
	FY2009
	FY2010
Bids	Purchasing Dept Bid Documents
Budgets	Scans of Budget Documents
CD Images	
Closed Lawsuits	
Contract	Contract files
Ericphotos	KCDC photographs of all kinds
GenLedg	Scans of General Ledger reports including digital "COLD" reports
HOPE6&99006	Documents related to KCDC's HOPE 6 project, 1998-2003

JV	Journal Vouchers by fiscal year
	JV-FY08
	JV-FY09
	JV-FY10
Moveout	The major database with move out records on thousands of former tenants
New Horizon Homes	Documents related to KCDC's New Horizon homes, 1998-2000
Purchase Order	Databases containing scans of our various PO records
	PO-Field
	PO-Emergency
	PO-Regular
Surplus Records	
Telephone Bills	Scans of complete AT&T billing images, 2006-2010
Tenant AR	Tenant Accounts Receivable documents
Wage Compliance Forms	

Web-Internet and Intranet

KCDC hosts its own web site. The domain is www.kcdc.org. KCDC has an outward facing Internet page and an Intranet internally to supply our employees with Reports, Forms, Information and links to email and other websites.

Web-site software

The web site uses the Sitefinity 3.7 CMS framework from Telerik. Changes and edits can be easily made using the software and pre-programmed controls that are available using this software. For example, the Sitefinity site also has a custom purchasing module built that allows solicitation management, vendor registration, document downloads, and vendor email capabilities, allowing our outside vendors to directly register on our Internet site and see our RFP and bidding documents real time.

The Internet pages

The Internet pages present the history of KCDC, and the main activities of interest to the public, including our Public Housing properties, Section 8 Housing Choice Voucher program, Redevelopment activities, and news of residents and others. Pages are available that show how to do business with KCDC, job openings and how to apply, and main contacts. The Section 8 internet page also has an in-house written "portal" that allows landlords to look up HAP payments and to see checks distributed to them. KCDC does no e-commerce through the website; e.g. sales.

The Intranet Pages

KCDC's Intranet, built using the same software, provides our employees with a central location to get information about KCDC, each individual department, and a phone directory. The intranet is the main repository for Crystal Reports and uses an in-house developed module for displaying and managing the reports. The Intranet also contains the departmental forms and allows users to go to a department's page to quickly find the forms they need. KCDC also has a birthday calendar, weather, daily comics, departmental news, departmental events and various departmental newsletters.

The Intranet is also the main gateway for our Kiosk users out in the field. They login to the website and are able to access most of the information employees with full desktops can access. With the migration to the new Citrix version they will also be able to run any distributed apps that KCDC deploys through Citrix through the Intranet as well, i.e. Elite, Application Xtender, et cetera. They also use the Intranet to access Outlook Web Access which is their email client.

M. KCDC INFORMATION SERVICES DIVISION-LONG RANGE PLANS

1. Disaster Recovery

KCDC's current tape backup process allows KCDC to protect against data loss of individual files, folders, or even the loss of a whole server. The backups on disk and tape allows KCDC to restore files or folders in a matter of minutes or hours, and restore a single server in less than a day. However, in the event of a major disaster such as a tornado, or a gas explosion, that destroyed the entire server room, and perhaps killed members of the IS staff, the tape backups would not allow KCDC to return to operation in an acceptable time. The reasons:

a. The server infrastructure to which files would be restored would be gone.

b. Possibly the people who understood the server and file structures would be dead.

c. The entire hardware and software configurations that existed before the disaster would have to be recreated before data could be restored from tapes. This could take weeks or even months.

KCDC needs a more complete Disaster Recovery solution, one that could have portions of the company working again within 24 hours, and perhaps have all company IS functions working again within a week. Current technology allows for such a solution.

These are the elements of the Disaster Recovery solution that need to be put into place. This should be done as soon as possible.

All critical servers such as ELITE, email, SQL, and file servers must be virtualized. This makes it possible to store the entire server, including its operating system, patches, network connections, et cetera as a large file. The server can thus be brought back into production by someone with no knowledge of its previous configuration. All of our current servers except ELITE and the Application Extender server have been virtualized. These last two are awaiting our upgrade of ELITE and Citrix to 64 bit SQL 2008.

A remote location, such as the closet at Section 8, or a suitable space at one of the other housing property offices must be prepared as a Disaster Recovery site. The location is controlled by the compression and transmission rate of the data that KCDC changes each day. The data must be able to be transmitted through the data line connecting the main office to the remote site. KCDC is still investigating what existing technologies can allow this. If our data changes too much, and the total amount to be transmitted exceeds the data path, then a DR site will have to be constructed in the warehouse. This will not be ideal since it is too close to the server room, but may be the only choice. It might be wise to choose a location where executives could move and work temporarily.

At the DR site, KCDC needs to purchase and install two physical servers that will be the basis for running the virtual servers and their data in event of need. It would not be expected that all the servers would be running simultaneously as they did at the main office. This would be a site to run the most critical functions.

Also at the DR site would be the appliance synchronizing with an appliance at the main server room, moving each days changed data to the DR site. KCDC would also need a client computer and a printer that could process things like paychecks, major reports, and anything else that KCDC might need printed.

The DR site would need an alternative connection to the Internet. This connection could be used routinely by the people at the DR location, and would become the connection for the email server in the event of Disaster at the main office.

Once the main office server room was restored, the appliance at the DR site would be used to synchronize back all the data collected at the DR site.

The system would have to be tested several times a year to be sure it worked.

The Disaster Recovery site would not be the location for long-term tape storage, or long-term data storage. All KCDC wants at the site is the servers and data needed to bring up the company data as it appeared just before the disaster.

The cost estimate for all hardware, software and site preparation is around \$90,000

2. Email and File Archiving and Indexing.

Most of KCDC's critical company data is currently unstructured and unprotected from user decisions with respect to copying, deleting and alteration. Unlike data in SQL servers, which has structure, and which can be protected from changes and deletes, unstructured data is created, organized and deleted in haphazard ways that are controlled by the users. The data also is mostly unindexed and often difficult to locate buried in the file structure. KCDC needs an email and file archiving and indexing system for the following reasons:

a. Legal Exposure and Legal Response Requirements

KCDC is a company in the public eye, and deeply involved in activities throughout Knoxville, Knox County and even in other counties in Tennessee. KCDC's exposure to lawsuits can be significant.

The main repository of company information sought by both opposing counsel and KCDC's legal representatives will be in the email system. Recent legal decisions support opposing counsel's request for extensive review of electronic documents; KCDC will be expected to produce all emails and other documents related to a case, and in a very timely (read days) manner. No excuses are being accepted for not having the communications requested, and fines for not providing the data can run into the millions.

An email archiving system insures that all emails that have been in the system will be retained for their legally required time, even if users "delete" the email from their email boxes. Also, when a legal case is threatened, a "legal hold" can be put on all email in the system, and nothing can be permanently deleted from that point forward. Also, since all email are indexed, it is easy to find and produce for counsel the emails specific to the case in progress. Even modifications to existing documents are logged.

Adjunct to this, KCDC can create an enforceable retention time policy. All document types have had identified a legal time they must be retained (no company is expected to keep all documents forever). Therefore, documents that are no longer needed by KCDC can be marked and deleted permanently at the end of their mandated lifetime.

b. All archiving of email is taken out of the hands of the users.

Currently each mailbox at KCDC must be periodically archived by the users. This is done very unevenly throughout the company. The archiving process reduces the size of the mail store on our exchange server. Since KCDC is not getting all the email archived the mail store keeps growing and will eventually bump up against storage limits. With an email archive system, KCDC can have all email archived centrally and no employee will need to be involved in the future. Also the PST files that contain the archives will be removed from the client computers and laptops where they represent a security threat for lost data.

c. All data, both email and user files will be indexed.

Once the email and file archive system completes indexing, any item in the system can be found by key word. This includes information contained in email attachments. Some systems have a single interface for searching both emails and files for a keyword. Productivity will increase when employees can find what they are looking for in seconds.

Email and file archive systems cost between \$10,000 to \$30,000 depending on the system. Some systems also require a separate server or appliance that adds another \$4,000-\$6,000 in cost.

N. FINANCIAL PROJECTIONS

The following are estimates (from the IS Division) of the money to be spent on software and hardware in the next couple of years. At the bottom are the costs associated with several major projects not yet approved.

SOFTWARE					
License renewals and support costs					
	Annual	Bi-Annual	Tri-Annual	Next Due	Note
Application Extender Annual Support	\$5,800			10/10	
Backup Exec Annual Support	\$4,200			11/10	
Citrix Annual Maintenance	\$8,500			1/11	
Diskkeeper Licenses	\$1,100			4/11	
Emphasys Annual Support	\$77,000			7/10	Quarterly payments
McKaye-Christian Reports writing	\$20,000			6/10	Monthly bills. The amount is based on recent experience.
Firebox Firewall			\$5,000	4/12	
Fleenor Galaxy (Door FOB) support		\$625		10/10	
Himatchi annual license		\$50		1/11	
MSDN Membership		\$2,500		11/10	
Symantec Enterprise Protections			\$6,800	3/13	
Sitefinity web software support	\$250			3/11	
Telerick Controls		\$1,200		3/11	
Web Security Certificate			\$1,850	9/11	
New Software Purchases					
Second copy of MS SQL server 2008 R2 to upgrade all other SQL activities beside Elite					\$10,000
MS Office 2010 for the entire company					\$32,000

Hardware			
Item	Cost	Frequency	Note
Replacing about 20 computers per year to keep speed up with new software	\$25,000	Year	
Hard Drives and Power Supplies to keep current computers running	\$3,000	Year	
Additional monitors, replacement monitors	\$1,500	Year	
Two additional Blade Core servers over the next year or so (\$5500 ea)	\$11,000	Year	
Support for our Two Quantum Tape Drives (2-years)	\$2,700	Bi-annual	April 2011
20 Quantum tapes for storing our data (buy 40-60 a year)	\$2,000	Year	
Need to replace all our training laptops very soon	\$14,000	--	Soon

Future Plans	
A. Disaster Recovery Site, Hardware and Software	Cost
1. Assume that KCDC can synchronize data through data lines like a T1. Site- If we find it is possible to synchronize our data across existing data lines the Disaster Recovery site should be setup at the Virginia Walker office. There is room there to construct the DR room, and room there for executives and others to work in case a disaster actually makes work at the Main Office impossible for an extended period.	
Site Preparation	
No specific cost analysis for preparing a room at Virginia Walker for a DR site has been done. However, the site would require adequate cooling, beefed up electrical circuits and security (door locks, et cetera). A quick estimate is about \$6,000 to fix up a DR site at Virginia Walker.	\$6,000
Cable pulls-All cable work needed to connect the system together and to the internet	\$1,200
Hardware	
The DR site needs to be able to "run the company" in a miniature way. So the following components are needed:	
Air Conditioning Unit- Large enough to cool for the equipment below, probably can be free standing.	\$5,400
Servers-Two Dell servers beefy enough to run the various virtual servers KCDC would need up for email, ELITE, company data and Web services. To avoid the expense of a Storage Area Network, KCDC would buy servers with about 4 TB of attached drive space.	\$10,000
Router and Switch-Needed to connect computer and server together, and a router to the internet	\$3,000
Rack to hold servers, switch, router, keyboard, monitor, KW switch, UPS, et cetera.	\$1,000
UPS to support the two servers, monitor, et cetera.	\$650
Client computer will all clients and software needed to interact with servers (This could be virtual and run on one of the servers, but we may want it stand alone).	\$1,350
Laser Printer to produce reports, print checks, and any other printing.	\$800
Furniture to support the Client computer and printer.	\$100
Appliances for the data de-duplication and synchronization of our daily data changes	
Two Exabyte Appliances or equivalent, one at the main site, one at the DR site.	\$30,000
Annual support, engineering assistance, et cetera.	\$4,000
Software	
Operating system for the two servers - MS Windows Server 2008 DataCenter Edition	\$10,000
The virtual servers are self-contained and KCDC does not need to buy additional licenses for email, SQL, ELITE, etc. as long as they are not running at the same time the main servers are up.	

Internet Connection	
Need an internet connection up and running. This provides email connection to the outside world, and can serve as second internet route for KCDC full time	\$2,300 per year
Second data line dedicated to moving our data to VW	\$1,050 per year
Approximate Cost for a DR site at Virginia Walker	
One time costs	\$69,500
Annual expenses	\$7,350
Five Year Cost	\$106,250
2. Assume that KCDC cannot transmit its data across the data lines at a speed that allows all data to move to the DR site in a good time.	
Now KCDC has to prepare a DR site in the warehouse, so it can be connected by optical cable, which handles high-speed data transmission. Since KCDC is expecting an explosion or tornado type disaster, this location would have to be build like a bunker and be much more expensive than the setup at Virginia Walker.	\$25,000
In addition to the costs above, strong walls and ceiling have to be provided in the warehouse, with reinforced doors. The room needs to be built to withstand a tornado. The costs of such a room is not known nor is what would have to be done to the structure already in place. There are ads on the internet that offer to build small, above ground rooms into your house that would withstand a category F5 storm, so it can be done.	
KCDC would no longer need a second data line. Nor would KCDC have a second internet connection since it would likely be destroyed along with the regular connection. KCDC would just have to get Comcast to put in a new connection as soon as possible after the disaster.	
So the 5-year cost for this arrangement would be about the same	\$108,500

B. Virtual Desktop Presentation	
New computers that have operating systems costs about \$1,200 each. Hence replacing even 20% of KCDC's 140 PC's will cost around \$33,000. Virtual desktops can be implemented for than this amount. This allows current PC's to be used additional years and maximizes funds.	
This will require two more blade servers which are indicated above.	\$11,000
KCDC needs additional Citrix software for this function.	\$15,000
Whether KCDC decides to move this way should be decided in meetings between IS staff and Executive staff where the pros and cons are ironed out.	

C. Email and File Archiving	
KCDC is at risk for legal discovery requests that would require email related to a case, or all email covering a certain topic be made available in a short period of time to opposing lawyers (as well as our own). Our current tape data backup system works well for restoring individual files, but is not indexed well and would be a nightmare to try to search and recover emails or other files that met legal criteria in a short time.	
Software that archives emails, prevents email destruction, indexes all emails for easy discovery, and allows "time to live" criteria to be applied to both email and regular files like word and excel, exists and KCDC should buy some soon.	
Email and file archive software costs between \$10,000 and \$22,000 depending on the version and the features desired. It can run as a virtual server, so no added hardware cost is needed. KCDC should have plenty of storage space for the archive. KCDC definitely wants software that indexes email, the file system and MS SharePoint should that be installed on the server system in the future.	

Exhibit B KCDC Employees by Department

Location	Number of Employees
Austin Homes/The Vista	8
Cagle Terrace	5
Isabella Towers	5
Lee Williams Center	1
Lonsdale Homes	10
Love Towers	5
Main Office-Accounting	9
Main Office-Customer Relations	4
Main Office-Development	1
Main Office-EMT and Supports	9
Main Office-HR	3
Main Office-IS	4
Montgomery Village	8
Main Office-Public Housing Management	5
Main Office-Purchasing	4
North Ridge Crossing	6
Northgate Terrace	5
Resident Services	4
Section 8	15
Supportive Maintenance	17
Taylor Homes	11
The Manor at Northgate	1
Virginia Walker/Bakertown	5
Western Heights	12

[The exhibit pages need not be returned](#)

Certifications and Representations of Offerors

Non-Construction Contract

U.S. Department of Housing and Urban Development Office of Public and Indian Housing

Public reporting burden for this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

This form includes clauses required by OMB's common rule on bidding/offering procedures, implemented by HUD in 24 CFR 85.36, and those requirements set forth in Executive Order 11625 for small, minority, women-owned businesses, and certifications for independent price determination, and conflict of interest. The form is required for nonconstruction contracts awarded by Housing Agencies (HAs). The form is used by bidders/offers to certify to the HA's Contracting Officer for contract compliance. If the form were not used, HAs would be unable to enforce their contracts. Responses to the collection of information are required to obtain a benefit or to retain a benefit. The information requested does not lend itself to confidentiality.

1. Contingent Fee Representation and Agreement

(a) The bidder/offeror represents and certifies as part of its bid/offer that, except for full-time bona fide employees working solely for the bidder/offeror, the bidder/offeror:

(1) ☐ **has**, ☐ **has not** employed or retained any person or company to solicit or obtain this contract; and

(2) ☐ **has**, ☐ **has not paid** or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(b) If the answer to either (a)(1) or (a) (2) above is affirmative, the bidder/offeror shall make an immediate and full written disclosure to the PHA Contracting Officer.

(c) Any misrepresentation by the bidder/offeror shall give the PHA the right to (1) terminate the resultant contract; (2) at its discretion, to deduct from contract payments the amount of any commission, percentage, brokerage, or other contingent fee; or (3) take other remedy pursuant to the contract.

2. Small, Minority, Women-Owned Business Concern Representation

The bidder/offeror represents and certifies as part of its bid/offer that it:

(a) ☐ **is**, ☐ **is not a small business concern**. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR 121.

(b) ☐ **is**, ☐ **is not a women-owned small business concern**. "Women-owned," as used in this provision, means a small business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

(c) ☐ **is**, ☐ **is not a minority enterprise** which, pursuant to Executive Order 11625, is defined as a business which is at least 51 percent owned by one or more minority group members or, in the case of a publicly owned business, at least 51 percent of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more such individuals.

For the purpose of this definition, minority group members are:

(Check the block applicable to you)

- | | |
|---|---|
| ☐ Black Americans | ☐ Asian Pacific Americans |
| ☐ Hispanic Americans | ☐ Asian Indian Americans |
| ☐ Native Americans | ☐ Hasidic Jewish Americans |

3. Certificate of Independent Price Determination

(a) The bidder/offeror certifies that—

(1) The prices in this bid/offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder/offeror or competitor relating to (i) those prices, (ii) the intention to submit a bid/offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this bid/offer have not been and will not be knowingly disclosed by the bidder/offeror, directly or indirectly, to any other bidder/offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the bidder/offeror to induce any other concern to submit or not to submit a bid/offer for the purpose of restricting competition.

(b) Each signature on the bid/offer is considered to be a certification by the signatory that the signatory:

(1) Is the person in the bidder/offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above (insert full name of person(s) in the bidder/offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the bidder/offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

- (c) If the bidder/offeror deletes or modifies subparagraph (a)2 above, the bidder/offeror must furnish with its bid/offer a signed statement setting forth in detail the circumstances of the disclosure.

4. Organizational Conflicts of Interest Certification

- (a) The Contractor warrants that to the best of its knowledge and belief and except as otherwise disclosed, it does not have any organizational conflict of interest which is defined as a situation in which the nature of work under a proposed contract and a prospective contractor's organizational, financial, contractual or other interest are such that:
- (i) Award of the contract may result in an unfair competitive advantage;
 - (ii) The Contractor's objectivity in performing the contract work may be impaired; or
 - (iii) That the Contractor has disclosed all relevant information and requested the HA to make a determination with respect to this Contract.
- (b) The Contractor agrees that if after award he or she discovers an organizational conflict of interest with respect to this contract, he or she shall make an immediate and full disclosure in writing to the HA which shall include a description of the action which the Contractor has taken or intends to eliminate or neutralize the conflict. The HA may, however, terminate the Contract for the convenience of HA if it would be in the best interest of HA.
- (c) In the event the Contractor was aware of an organizational conflict of interest before the award of this Contract and intentionally did not disclose the conflict to the HA, the HA may terminate the Contract for default.
- (d) The Contractor shall require a disclosure or representation from subcontractors and consultants who may be in a position to influence the advice or assistance rendered to the HA and shall include any necessary provisions to eliminate or neutralize conflicts of interest in consultant agreements or subcontracts involving performance or work under this Contract.

5. Authorized Negotiators (RFPs only)

The offeror represents that the following persons are authorized to negotiate on its behalf with the PHA in connection with this request for proposals: (list names, titles, and telephone numbers of the authorized negotiators):

6. Conflict of Interest

In the absence of any actual or apparent conflict, the offeror, by submission of a proposal, hereby warrants that to the best of its knowledge and belief, no actual or apparent conflict of interest exists with regard to my possible performance of this procurement, as described in the clause in this solicitation titled "Organizational Conflict of Interest."

7. Offeror's Signature

The offeror hereby certifies that the information contained in these certifications and representations is accurate, complete, and current.

Signature & Date:

Typed or Printed Name:

Title:
