



**FISCAL SERVICES DEPARTMENT
PURCHASING DIVISION**

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SOLICITATION

Requesting Agencies	Kent County
Solicitation Type	Request for Proposal (RFP)
Solicitation Number	1073
Description	Information Technology Services (John Ball Zoo)
Date of Issuance	6/1/2012
Open Date	6/22/2012
Open Time (local)	10 AM
Buyer Name:	Brinks
Purchasing Website	www.accesskent.com/purchasing

INTRODUCTION

John Ball Zoological Garden and Park located in Grand Rapids, Michigan houses 245 species and more than 2,000 individual animals. Annually more than 410,000 guests visit the zoo, and 500,000 visit the park, making it one of the most popular recreational attractions in the West Michigan region.

John Ball Zoological Garden is a publicly-owned County facility. Under the current governance and management structure, operation and management of the zoo facility, animal care and education are the responsibility of the County; fundraising and development (including membership), and guest services (gift shop, concessions, special events) are managed by a separate, non-profit organization, the John Ball Zoo Society.

In April 2011, the County and Zoo Society approved a Strategic and Governance Plan that would move all operations under the responsibility of a single, newly-created, private, non-profit management corporation on or about February 1, 2013. A copy of the plan can be found at http://www.accesskent.com/CultureLeisureAndTransit/Zoo/pdfs/Strategic_Plan_2011.pdf

As a part of the reorganization, the John Ball Zoo will also be reorganizing the delivery of IT services to coordinate and update IT systems. Currently, the Zoo is supported by the Kent County Information Technology Department and is responsible for connectivity to the County software and application services. The County provides connectivity to the Kent County network via a series of fiber optic and wireless connections, which do not provide reliable connectivity due to the geographic location of the zoo. In addition to the County's IT support, the Zoo Society also manages and maintains its own IT Services to support specific operations at the zoo. Each entity owns its own hardware and software, and each has individual and corporate licensing agreements.

In early 2012, a study was completed to assess the current IT infrastructure, software and applications, and staffing and to make appropriate recommendations regarding IT services for the new John Ball Zoo.

As a result of the study, the County desires to contract with an individual/firm to manage the planning and transition of IT services for the new John Ball Zoo.

A copy of the IT assessment is attached to this RFP.

SCOPE OF SERVICES:

- Work in coordination with the Management of the Zoo and Zoo Society as well as the IT Steering Committee of the John Ball Zoo to develop and implement efficient and effective IT systems to support the operation of the Zoo under one governance and operational model.
- Develop a comprehensive plan for the integration of IT systems and/or the procurement and installation of new systems which will support the effective operation of the new John Ball Zoo.
- Oversee the design and implementation of the zoo network and computing resources; ensure that the availability and responsiveness of the communications network meets the goals and requirements of the Zoo; monitor and identify trends on the network utilization, anticipate future demands and provide necessary capacity to maintain service levels; responsible for the day-to-day operation of the Zoo's communications network.
- Develop proposals and requests for proposals; review project bids received from external consultants and contractors; and recommends the selection of consultants and contractors for design, renovation, expansion and alterations projects.
- Serves as the Zoo's representative in administering contracts, ensuring compliance with all contract specifications; initiating and/or approving change requests; monitoring work in progress; accepting or rejecting completed work.
- Build and maintain vendor relationships and manage the purchase of hardware, software, and other IT supplies at the Zoo; review and recommend purchase requests from areas or departments for computer equipment or related products and makes recommendations regarding desirability of the proposed purchase; attends Zoo board meetings, Commission and Committee meetings or other meetings as may be required.
- Identify strengths and weaknesses and suggest areas of improvement in internal processes along with possible solutions; looks for ways to improve and promote quality; provide guidance to the Zoo IT Steering Committee, Zoo and Zoo Society staff in the examination and definition of objectives for existing or proposed systems; apply significant knowledge of industry trends and developments to improve service to Zoo

staff and customers; assist in the resolution of problems and errors where the technology is not the problem; manage end-user staff expectations effectively.

- Effectively communicate relevant IT-related information to management; resolve and/or escalate issues in a timely fashion; understands how to communicate highly technical information to less tech-savvy individuals; Identify and provide standards for gathering information for use in trend analysis and reporting information to Zoo management; effectively present information and respond to questions from managers, staff, and the general public.
- Plans and assist in the implementation of technology within the departments; train and instruct Zoo staff on the use of equipment and systems; coordinate the installation of all computers and peripheral equipment.
- Develop policies and procedures for consideration by the John Ball Zoo IT Steering Committee which will standardized procedures for system users and will also implement security, recovery, retrieval, storage and data integrity processes for users.
- Direct day to day equipment and software maintenance and Trouble shooting to ensure uninterrupted activity. Diagnose problems as they occur and are reported, implement solutions and/or calls in outside assistance as required; maintain consistent and confident 24/7 operation and maintenance of Zoo IT systems.

TIMELINE

It is anticipated that the initial term of the contract will be August 1, 2012, through March 31, 2013. The contract may be extended through mutual agreement.

INQUIRIES

Questions regarding this solicitation are to be submitted on the Requests for Bids, Proposals, & Quotes or Reverse Auctions page of the Kent County Purchasing Division's website by clicking the "inquiries" icon for this solicitation posting.

From date of issuance to the award announcement, all communication (including requests for information, comments, speculation, etc.) regarding this solicitation between Kent County and the Respondent or any of their individual members, shall be formal and only with the Kent County Purchasing Division. Formal communication shall include, but not be limited to: (1) general inquiries, (2) pre-submission written questions and answers, (3) site visits, and (4) addendums addressed to contact information provided.

Kent County reserves the right to publish and respond to an inquiry, respond directly to the inquirer without publishing, or not respond to the inquiry at its sole discretion. Kent County's decision to respond or not respond to an inquiry shall not be the basis for a protest of award.

Opportunity to submit questions is provided until forty-eight (48) hours before Request for Proposal, Request for Information and Invitation for Bid opening times and twenty-four (24) hours before Request

for Quote and Reverse Auction opening times. It is the Respondent's sole responsibility to monitor all inquiries to properly prepare for this solicitation.

It is the Respondent's responsibility to become familiar with and fully informed regarding the terms, conditions, and specifications of this solicitation. Lack of understanding and/or misinterpretation of any portions of this solicitation shall not be cause for withdrawal after opening or for subsequent protest of award.

ADDENDUMS

Addendums will only be published on the Requests for Bids, Proposals, & Quotes or Reverse Auctions page of the Kent County Purchasing Division's website.

Published responses to inquiries or Kent County published comments on the Requests for Bids, Proposals, & Quotes or Reverse Auctions page of the Kent County Purchasing Division's website are hereby incorporated into the solicitation specifications in lieu of an addendum.

It is the Respondent's sole responsibility to monitor the website until forty-eight (48) hours before the scheduled opening for addendums and/or all posted responses to inquiries to properly prepare for this solicitation.

STANDARD TERMS AND CONDITIONS

Kent County reserves the right to require that its standard terms and conditions apply to any actual order placed in response to a Respondent's submission. No attempt to modify Kent County's Standard Terms and Conditions shall be binding, absent agreement on such modification in writing and signed by Kent County. The Purchasing Standard Terms and Conditions are located on the Vendor Resources page of the Kent County Purchasing Division's website.

Each payment obligation of Kent County is conditioned upon the availability of government funds appropriated or allocated for the payment of this obligation. If funds are not allocated and available for continuance of the services or product performed herein, either party may terminate the agreement at the end of the period for which funds are available. Kent County shall notify [other party] at the earliest possible time of the services that will or may be affected by the shortage of funds. No penalty shall accrue to either party in the event this provision is exercised, and neither party shall be obligated or liable for any further payments due or for any damages as a result of termination.

No payment shall be made to the Respondent for any extra material or services, or of any greater amount of money than stipulated to be paid in the contract, unless changes in or additions to the contract requiring additional outlay by the Respondent shall first have been expressly authorized and ordered in writing by contract amendment or otherwise furnished by the Kent County Purchasing Division.

The Respondent shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.

The Respondent shall observe and comply with all applicable federal, state, and local laws, ordinances, rules and regulations which shall be deemed to include, but not be limited to, the Elliott-Larsen Civil Rights Act and the Persons with Disabilities Civil Rights Act.

Kent County encourages and solicits participation of qualified minority and women businesses consistent with the principle of utilizing the most highly qualified and competitive firms.

Kent County is tax exempt. A copy of the Tax Certificate of Exemption is posted on the Documents page of the Kent County Purchasing Division's website.

Vendor Representation and Warranty Regarding Federal Excluded Parties List: The Respondent acknowledges that the County may be receiving funds from or through the Federal Government and that such funds may not be used to pay any Respondent on the Federal Excluded Parties List (EPLS). The Respondent represents and warrants to the County that they are not on the Federal EPLS. If the Respondent is in non-compliance at any time during execution or term of this agreement (including any extensions thereof), the Respondent shall be in breach and the County shall be entitled to all remedies available to it at law or equity, specifically including but not limited to recovery of all moneys paid to the Respondent, all consequential damages (including the lost of grant funding or the requirement that grant funding be returned), and attorneys fees (including the costs of in-house counsel) sustained as a result of the Respondent's non-compliance with this warranty and representation.

Insurance requirements are posted on the Documents page of the Kent County Purchasing Division's website. Document "Insurance Requirements, Standard" applies to all responses other than professional services. Document "Insurance Requirements, Professional Services" applies to professional services.

Unless otherwise provided in the request, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand, make or manufacturer named; it conveys the general style, type, character and quality of the article desired and any article which Kent County in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation and suitability for the purpose intended shall be accepted. If the Respondent chooses to substitute, it shall be the Respondent's responsibility to demonstrate that the substitute equals or exceeds brand name item specified in all relevant aspects and it must be provided at the time of submission. When a solicitation contains a specification which states no substitutes, no deviation will be permitted and the Respondent will be required to furnish articles in conformity with that specification.

The County is primarily seeking responses which meet the solicitation specifications. Responses which do not meet these specifications will be considered if the response is marked "Alternate", the deviations from the specifications are clearly noted, and detailed alternate specifications are included to allow sufficient evaluation. In case of dispute concerning the true intent and meaning of the specifications, the County shall interpret the same, and this interpretation shall be accepted by the Seller.

The County reserves the right to terminate the contract, at its sole discretion, should the Respondent fail to provide services to the sole satisfaction of the County. No penalty shall accrue nor will the County be obligated or liable for any further payments due or for any damages as a result of termination under this agreement.

Respondent warrants that they are an authorized provider of products or services of his/her submission.

The County reserves the right to award by line item if applicable, and to accept or reject any or all parts of this request.

Kent County offers an electronic payment program with due date processing for vendors. The electronic payment program allows vendors to either expand their existing financial EDI activities, or to gain introductory experience with electronic payments. Vendors receive payment electronically in their designated account the same day payment is issued and are notified by email of the deposit.

The Respondent awarded this contract is required to apply for Electronic Fund Transfer payments. The Electronic Fund Transmission Form application is available at the following URL: http://www.accesskent.com/YourGovernment/Departments/Fiscal/fiscal_epayment.htm

MICHIGAN FREEDOM OF INFORMATION ACT

The Michigan Freedom of Information Act (FOIA) provides the public body with five (5) business days to respond to the request with a provision for an additional ten (10) day extension. The Kent County Purchasing Division may request an extension for any FOIA request received during a solicitation process. The FOIA Request Form for Purchasing is located on the Freedom of Information Act (FOIA) Requests page of Kent County's website under Online Services.

Information submitted in this solicitation is subject to the Michigan Freedom of Information Act and may not be held in confidence after the Respondent's submission is opened. A submission will be available for review after staff has evaluated it, or fifteen (15) business days after the opening date, whichever comes first.

Kent County cannot assure that any of the information submitted as part of or peripheral to the Respondent's submission will be kept confidential. Any Respondent submission language designated as confidential is considered automatically invalid and void. Kent County is subject to the Michigan Freedom of Information Act, which prohibits it from concealing information on or associated with responses, successful or unsuccessful, once they are opened.

INTENT

The intent of these specifications is to have a properly designed and all-inclusive response. Any requirements not in the specifications, but which are needed for such a response, are to be included in the submission.

REQUEST FOR PROPOSAL SUBMISSION

GENERAL INFORMATION

To be considered, complete submissions must be received in the Kent County Purchasing Division, 300 Monroe Avenue, NW, Grand Rapids, MI 49503 no later than the due date and time specified (local time).

Submissions may be submitted electronically by selecting the Submit Online icon on the Requests for Bids, Proposals & Quotes page of the Kent County Purchasing Division's website. The Respondent must include their complete proposal as an attachment to the online form containing one file in PDF format unless otherwise designated.

Kent County confirms electronic responses by email following successful submission (contact the Kent County Purchasing Division prior to solicitation opening if confirmation is not received by the Respondent). The Respondent is responsible to view the confirmation to confirm their submission is received and accessible.

The time required to upload attachments following submission may vary. The Respondent assumes all risks associated with electronic submission (including all possible technical issues) and deems the County and its service provider harmless and without fault regardless the reason.

Submissions not submitted online shall be submitted in an envelope to the designated location prior to the scheduled opening. A CD/DVD ROM or USB flash drive marked "original" containing the proposal consisting of one file in PDF format shall be submitted unless other arrangements are made prior to the scheduled opening. The PDF file must not be password protected. The media will not be returned to the Respondent.

All submissions must be submitted to the designated location in an envelope or package unless otherwise specified or submitted electronically. The outside of the envelope or package and enclosed media must be clearly labeled with the solicitation number, opening date and time, and Respondent's name, telephone number, and company name.

If the submission is delivered by an express mail carrier, electronic submission when applicable, or by any other means, it is solely the Respondent's responsibility to ensure delivery to the Kent County Purchasing Division. Kent County is not responsible for deliveries made to any place other than the designated address or for any failure associated with any mode of delivery selected by the Respondent.

Kent County is not responsible for delays caused by any occurrence. The time/date stamp clock located in the Purchasing Division (or any other designated area) shall serve as the official authority to determine lateness of any proposal. Under no circumstances shall submissions delivered after the time specified be considered. The decision to refuse or consider a submission that was received beyond the date/time established shall not be the basis for a protest.

Late, faxed, or emailed response will NOT be considered. To be considered timely, a complete response must be submitted before the stated due date and time.

The Respondent's submission must include any contract which Kent County may be asked to sign. Kent County reserves the right to present its own contract document in lieu of accepting the standard offered by the Respondent.

The Respondent certifies that the response submitted has not been made or prepared in collusion with any other Respondent and the prices, terms or conditions thereof have not been communicated by or on behalf of the Respondent to any other Respondent prior to the official opening of this request. This certification may be treated for all purposes as if it were a sworn statement made under oath, subject to the penalties for perjury. Moreover, it is made subject to the provisions of 18 U.S.C. Section 1001, relating to the making of false statements.

Sales and Marketing material beyond the scope of this request will not be used to determine award and is not desired. Each submission should be simply and economically prepared providing a concise description of the Respondent's ability to perform the product or services requested. Emphasis should be on completeness and clarity of content.

Submissions may be withdrawn by written request only if the request is received on or before the opening date and time.

Submissions submitted not meeting these criterion may be deemed non-responsive.

Kent County is not liable for any costs incurred by any prospective Respondent prior to the awarding of a contract, including any costs incurred in addressing this solicitation.

While cost is a consideration, the County will not use it as the sole determining factor in awarding this contract.

A submission shall constitute an irrevocable offer for a period of sixty (60) days from the opening date or until the date of award, whichever is earlier. In the event that an award is not made by Kent County within sixty (60) days from the opening date, the Respondent may withdraw his/her submission or provide a written extension of his/her response.

Each submission must be signed by a person authorized to sign contracts on the behalf of the Respondent. The name of the person signing must be followed by title.

SUBMISSION FORMAT (Submissions must be submitted in the format outlined below)

Section 1 – Executive Summary – One (1) page maximum

Summarize the Respondent's strong points and how his/her education and experience, particularly with similar projects, will benefit the John Ball Zoo. Identify similar projects completed.

Section 2 – Business Organization – One (1) page maximum

State the full name and address of the organization and, if applicable, the branch office, consultants, or other subordinate elements that will provide or assist in providing the service. Include phone number(s), email address(s) and Respondent's website address.

Indicate whether Respondent operates as an individual, partnership, or corporation; if as a corporation, include the state in which Respondent is incorporated. State the names of the principals of the Respondent who are licensed to practice in the State of Michigan.

Section 3 – Experience – Two (2) pages maximum

State in succinct terms the Respondent's experience in managing similar projects and the outcomes of those projects.

Section 3 – Problem Statement, Project/Process Outline and Deliverables – Five (5) pages maximum

State in succinct terms the Respondent's understanding of the major components of this request. Identify the steps that will be taken to develop an understanding of the current and future needs for the effective operation of IT services at the Zoo. Please identify the manner and extent to which the consultant will involve zoo staff, zoo society staff, and current County IT staff in this process.

Section 4 – Timeline & Project Deliverables – Four (4) pages maximum

Provide a tentative time line complete with associated tasks to accomplish the recommendations outlined in the January 2012 John Ball Zoo IT Assessment.

Section 5 – Project Staffing – Two (2) pages maximum

If applicable, provide a chart with the staff you are committing to the solicitation. Show lines of authority and communication, and provide a brief role description with responsibilities for each person as they relate to the solicitation. Provide a description of each staff members experience working with similar studies.

Section 6 – References – Two (2) page maximum

Provide a minimum of three (3) relevant references preferably of similar scope and complexity. Include the names of the projects, location, completion date, project cost, and specific challenges; identify project team members and references for each project including telephone numbers and email addresses. Attach a sample or provide an internet link to a sample of a product of a similar nature

Section 7 – Pricing Methodology

Provide a proposed pricing methodology. Include payment points only associated with deliverables and accomplishment of tasks based on the pricing methodology.

EVALUATION, STATUS UPDATES/AWARD NOTIFICATION

Kent County reserves the right to request additional information it may deem necessary after the submissions are received. Kent County will not be liable for any costs incurred by the Respondent as a result of this request.

As part of the evaluation process, Respondents may be requested to make an oral presentation, at the Respondent's expense, to an evaluation committee. Staff to be assigned to this project must participate in this presentation unless otherwise waived by Kent County. The presentation may be followed by a question and answer session.

Kent County reserves the right at its discretion to waive irregularities of this solicitation process.

In the event of extension errors, the unit price shall prevail and the Respondent's total offer will be corrected accordingly. In the event of addition errors, the extended totals will prevail and the Respondent's total will be corrected accordingly. Respondent must check their submission where applicable. Failure to do so will be at the Respondent's risk. Submissions having erasures or corrections must be initialed in ink by the Respondent. Respondents are cautioned to recheck their submissions for possible errors.

Kent County reserves the right to reject any and all submissions as a result of this solicitation. Kent County, at its sole discretion, reserves the right to award to the Respondent whose response is deemed most advantageous to Kent County.

Any errors, omissions or discrepancies in the specifications discovered by a prospective Respondent shall be brought to the attention of the Kent County Purchasing Division as soon as possible after discovery. Further, the Respondent shall not be allowed to take advantage of error, omissions or discrepancies in the specifications.

Kent County, at its sole discretion, shall select the most responsive and responsible Respondent and evaluate all responsive responses based on the requirements and criterion set forth in this solicitation. Kent County reserves the right to reject any and all submissions as a result of this solicitation.

Kent County reserves the right to award by line item when applicable and to accept or reject any or all parts of a submission.

Accelerated discounts should be so stated at the time of submission. If quick-pay discounts are offered, Kent County reserves the right to include that discount as part of the award criterion. Prices must, however, be based upon payment in thirty (30) days after receipt, inspection, and acceptance. In all cases,

quick-pay discounts will be calculated from the date of the invoice or the date of acceptance, whichever is later.

Award notifications are posted on the Solicitation Status Page of the Kent County Purchasing Division's website. It is the Respondent's responsibility to monitor the website for status updates.

Kent County appreciates the interest, effort, and time spent in responding to this solicitation.

Introduction

A. Objectives

Kent County engaged Plante & Moran to provide assistance to the County with the evaluation of the Information Technology (IT) at the John Ball Zoo site ("County Zoo") and the John Ball Zoological Society ("Zoo Society"). The objectives of this evaluation were to:

1. Complete an inventory of the current systems used by both the County Zoo and the Zoo Society.
2. Determine which information technology systems are properly positioned, managed and functional and are providing strong support to the business' operations and long-term combination strategies
3. Provide an analysis and recommendation related to consolidation (or re-creation) of the individual systems (including infrastructure, directories and applications) of both organizations to fulfill the information technology needs - including consideration of telecom needs - of the new organization in an efficient and cost-effective manner.
4. Develop a plan to achieve the recommended approach by no later than February 1, 2013.
5. Provide an estimate of any one-time or start-up costs, including personnel, for implementation of the approach envisioned in above.
6. Review existing infrastructure on County Zoo property and determine which are economically viable to scale.
7. Provide recommendations of the personnel (including job descriptions), hardware, software and other requirements to operate and maintain the information technology approach envisioned above, which will be used in the development of the annual budget.
8. Determine cost models and project budgets to assist the County with transition planning and long term capital budgets.

B. Nomenclature

The naming of the various stakeholders should be noted throughout the report in the following sections. In addition to references to the requirements for the "new John Ball Zoo", the following naming was used to describe *current* stakeholders:

County (governmental entity, formally "Kent County")

- County Zoo (department/staff)
- County IT (department/staff)

Zoo Society (non-profit entity, formally the "John Ball Zoo Society")

- Zoo Society IT (department/staff)

C. Scope

As the County is a governmental entity with many functions and departments, County Zoo technologies are a small portion of the overall County IT portfolio and support responsibility. Zoo Society IT staff and the existing technology at the Zoo Society however, solely focus on supporting Zoo Society operations. As such, specific focus was placed in the assessment on all aspects of Zoo Society technology, assuming all such assets will be transferred to the new John Ball Zoo. Additionally, we assessed the relevant aspects of County IT support of County Zoo operations, as well as County Zoo use of "Countywide" County IT systems. Subsequently, we provided findings and recommendations where appropriate; to

the extent they may influence the future technical environment of the new John Ball Zoo. These aspects focused on network, end user hardware, and certain applications.

Plante Moran conducted a series of meetings with County IT, Zoo Society IT, Zoo Society and County Zoo personnel, observations of the current IT environment, a review of documentation provided by both entities, and meetings with Management. The engagement focused on the following scope of the entities, as appropriate:

1. IT Planning. This assessment focused on what technology exists onsite today, what projects are in place and proceeding in the near term, and what will be required to reach the desired longer term IT Vision as a “standalone” entity.
2. IT Administration. This assessment focused on the IT policies, procedures and practices that have been placed into operation. This included the following topical areas: backups, disaster recovery, budgeting, procurement, help desk operation, and refresh policy.
3. IT Assets. This assessment focused on the specific information technology assets that have been placed into operation. This included the network (LAN/WAN), wireless, server rooms, servers, storage, security devices, Departmental Applications, remote access, and Internet.

Executive Summary

A. Background

John Ball Zoological Gardens is one of the most popular recreational attractions in the West Michigan region. Annually more than 410,000 guests visit the Zoo, and 500,000 visit the park. Under its governance and management structure, operations are a joint effort between Kent County and a separate, non-profit organization, the John Ball Zoo Society.

A plan was approved in April 2011 to combine all County and Zoo Society operations into a single, newly created non-profit. The joint management team is targeting the creation of this new John Ball Zoo as of February 1, 2013. As part of the transition process, Kent County engaged Plante Moran on behalf of the new John Ball Zoo's IT Assessment committee. The consulting services focused on a review of the current IT structure and services, and assisting the committee in identifying a cost-efficient approach for managing information technology under this new organization.

The overall environment at the Zoo site is as follows:

- Staff desire to be technologically advanced
- Near completion of a long-term capital campaign to assist with future funding
- Extensive construction projects underway
- Weak network connections for "County Zoo" users to the Kent County network
- Site is located on the side of a hill, making wireless communications problematic

B. Current Environment

Currently, Kent County's Information Technology Department (County IT) is responsible for all IT systems for the County Zoo's financial (including purchasing, accounting), human resources management (including payroll), and Internet applications including website and reservations. Also in the application portfolio are systems that are specific to County Zoo operations, such as animal management. The County provides connectivity to the Kent County network via a series of fiber optic and wireless connections that, although improved from their initial installation, continue to provide unreliable connectivity due to the geography of the Zoo grounds and the amount of tree canopy that exists on the property.

The John Ball Zoo Society (Zoo Society) runs its own, separate management information systems and is responsible for its own financial and human resources management (including payroll), donor tracking and management, membership, and Internet applications including additional website, reservations, on-line sales, on-line donations and social media. The Zoo Society also has IMS/POS systems for retail management, and food and gift inventory systems. The Zoo Society currently dedicates 1 FTE specifically to Zoo Society IT operations. The Zoo Society internet connectivity is currently being achieved through the use of Leased Digital Subscriber Lines (DSL), and there is no central network to all locations.

Each entity owns its own hardware and software, and each has individual and corporate licensing agreements.

Telecommunications for the entire Zoo site are achieved through the use of analog Centrex lines that are leased through AT&T and provided to the buildings, mostly through AT&T owned wiring and are billed to the County Zoo and Zoo Society, respectively.

Plante & Moran, PLLC provided an assessment of the County Zoo and Zoo Society's IT functions during a two-day on-site visit. Prior to the visit, documentation was requested and reviewed. During the on-site visit, Plante & Moran participated in an overview by County Zoo and Zoo Society management, interviewed Kent County IT management, Kent County IT staff, Zoo Society IT Staff, stakeholders from both organizations, and participated in a tour involving observation of systems in use.

C. Opportunities and Recommendations

The successful deployment of an appropriate IT environment for the new John Ball Zoo will require interim resources both in planning and establishing the new environment prior to the creation of the new John Ball Zoo, as well as sustained and ongoing operations. We recommend that a qualified IT contractor be engaged in the near term to manage the planning and transition process. We also recommend the hiring of two IT staff positions, which will report to the new John Ball Zoo's Director and believe that the IT contractor's engagement should overlap the IT staff for two months for knowledge transfer purposes.

It will be important to immediately transition the IT Assessment Committee into an oversight role or IT Steering Committee to guide the IT resources during the period of change. This team should include representation from all key stakeholders to guide the acquisition and deployment of IT in support of strategic goals of the County, County Zoo, the Zoo Society, and the new John Ball Zoo. This IT Steering Committee should guide the tactical decisions through the transition period as well as provide support through the first year of the new John Ball Zoo's existence. Once established, the new John Ball Zoo should evolve this committee to include internal staff, and thereafter leverage it to guide future IT decisions.

There is an assumption and fundamental necessity, to transfer Zoo Society IT assets to the new John Ball Zoo as well as the related County IT assets specific to County Zoo operations. There will be a need to plan and deploy the implementation of several major capital projects. Mostly, investments will be related to the technical infrastructure, which will provide the foundational support for the later deployment of software and end user systems.

We recommend the replacement of the current Zoo/County connectivity with a fiber network backbone to join the critical buildings. A wireless redeployment should also be planned and implemented in conjunction with the fiber project. The new John Ball Zoo will need to establish the necessary space and technical components of a data center / server room which is supported by the new network connection. In conjunction with these infrastructure improvements, we recommend the replacement of current phone systems with an on-premise IP phone system with advanced features to meet the anticipated needs of the new John Ball Zoo.

Additionally we recommend that the transition team continue to evaluate the possibility of deploying an integrated suite of Zoo operations / entertainment system software, as the Steering Committee plans staff operational responsibilities and practices of the new John Ball Zoo,. County Zoo and Zoo Society staff are together, currently administering an RFP evaluation of these systems and obtaining / refining

cost estimates. We have noted this activity in the report, however, future budget forecasts will need to supplement the preliminary project budget projections provided in this assessment with the final results of that RFP evaluation, as they become available.

IT policies and procedures will need to be developed and implemented, including a framework for systems refresh. Various back office technical tools are recommended as well to assist with better management of the future IT environment at the new John Ball Zoo. Many tactical and software based IT decisions will focus on determining standards and involve staff of the new John Ball Zoo. Additionally, many of the initiatives are targeting an implementation time prior to the first year of the new John Ball Zoo's existence and in conjunction with the operational and staffing decisions.

The stakeholders will have multiple options to consider regarding timing and extent of implementation of the recommendations of this assessment. Where appropriate / feasible, we have provided input on options to consider throughout the assessment. For budgetary planning purposes, we anticipate that the required capital IT investment over the next two years will range from \$300,000 to \$500,000 and that the estimated annual IT operating budget will be approximately \$250,000 per year after the permanent IT staffing is established. Further details are provided in the Appendix.

In closing, we recommend that the new John Ball Zoo establish an organizational culture which includes IT strategic planning processes to perform an ongoing evaluation of the success of IT deployment and accordingly adjust capital and operational budgets over time.

Information Technology Assessment

1. IT Assessment Summary

Existing IT assets, staffing and administrative processes in place both at the County Zoo and Zoo Society have been designed and implemented to serve the two separate organizations and are doing so quite successfully. The unique one time initiative to establish the new combined standalone entity creates circumstances whereby the two technology environments need to be transferred into one future sustainable environment. Based on the noted findings and Plante & Moran's industry experience, a current state assessment of the combined County Zoo / Zoo Society technology environment was developed, using the following scale:

Current Ability to Meet New John Ball Zoo Future Needs	Maturity	Risk	Level
Best Practice in the Industry	★★★★★	Low	▲
Mature or Fully Implemented	★★★★☆	Moderate	▲
Generally Sufficient	★★★★☆	High	▲
Improvements Identified	★★★☆☆		
Needs Significant Future Focus	★★★☆☆		

It should be noted that we have provided the maturity and risk assessments below *in context of the new John Ball Zoo's requirements, not based on how the existing environment has served the County Zoo and Zoo Society.*

Maturity Rating Summary by Topical Area

IT Organization	Maturity Rating	Risk Rating
Governance	★★★★☆	▲
Management	★★★★☆	▲
IT Staffing	★★★★☆	▲
IT Budget	★★★★☆	▲
IT Administration	Maturity Rating	Risk Rating
End-User Services	★★★★☆	▲
IT Operations	★★★★☆	▲
IT Management Processes	★★★★☆	▲
Technology Management	★★★★☆	▲
IT Assets / Technology	Maturity Rating	Risk Rating
Infrastructure	★★★★☆	▲
Telecommunications	★★★★☆	▲
Departmental Applications	★★★★☆	▲
Custom Developed Applications	★★★★☆	▲

2. IT Organization Assessment

2.1.1. Governance	Maturity Rating	★★★★★
	Risk to Zoo	▲
Selected Topical Areas		
- IT Decision Making - Technology Vision - Technology Planning		
Finding / Observation		
IT Decision Making		
- The Zoo Society IT staff member outlines plans for changes and presents to the Zoo Society Director for consideration and decisions. Items are prioritized if they add value, and are generally purchased. - There is no formal IT committee at the Zoo Society. The Zoo Society IT member works closely with different staff and management to understand their request and advises on solutions. Projects are undertaken and managed by the Zoo Society IT staff member. - County IT decision making processes exist, however are managed by County IT and are not fundamentally transferable to the new John Ball Zoo.		
Technology Vision & Planning		
- There is no formal technology plan for the Zoo Society. There is an informal IT committee. The Zoo Society IT staff member keeps a listing of projects underway. These are simply listed in a spreadsheet. There is no cost, timing or other information associated with them. - A list of technology accomplishments was provided by Kent County IT and the Zoo Society IT staff member. - There is no technology committee currently in place to provide direction for IT for the new John Ball Zoo. - Other than routine upkeep and perhaps operational improvements fueled by Zoo Society IT, there is no long range vision for the new John Ball Zoo's IT needs. - Anticipating the transition, collaborative project planning has increased.		
Opportunities		
Immediately create a technology IT Steering Committee with representation from all key stakeholders to guide the acquisition and deployment of IT in support of strategic goals of the County, County Zoo, Zoo Society, and the new John Ball Zoo. This committee should guide the tactical decisions during the transition period as well as provide support through the first year of the new John Ball Zoo's existence. Additionally, the IT Steering Committee will need to determine the division of how costs will be paid for during the transition period. The new John Ball Zoo should evolve the IT Steering Committee to include internal staff, and thereafter leverage it to guide future IT decisions.		

2.1.2. Management	Maturity Rating	★★★★★
	Risk to Zoo	▲
Selected Topical Areas		
- Communication - Leadership and Mgmt. - Current IT Initiatives		
Finding / Observation		
Communication		
The Zoo Society IT staff member provides updates on status to customers on an ad-hoc basis. The primary Zoo Society IT contact method by users is via personal visit, email or telephone. The Zoo Society IT staff member communicates on status of projects to the Zoo Society Director.		
Leadership and Management		
- The Zoo Society IT staff member reports to the Zoo Society Director and regularly communicates (daily) regarding the status of projects and what they're working on. - The Zoo Society IT staff member exhibits a broad understanding of the technology and is trying to focus on developing plans for technology. He also appears to have solid understanding of the IT priorities for the Zoo Society.		
Current IT Initiatives		
- The County Zoo had originally budgeted \$73,500 for a Ticketing System. A Ticketing System RFP, currently under a detailed evaluation, has been developed and issued by the County Zoo staff and included participation of Zoo Society staff. - The current Zoo site construction project includes accommodations to provide connectivity the buildings. - County IT is planning for Implementation of the Fiber Connection from MDOT via the I-196 freeway.		
Opportunities		
- The vendor selected from the current Ticketing system RFP should be reviewed for qualifications not just for the ticketing system, but for the ability to provide an entire suite of Zoo operational and entertainment technologies. The RFPs responses received for the ticketing system ranged from approximately \$109K to \$138K. The recurring costs are \$10K-\$13K annually. We recommend that the evaluation be all inclusive of the other modules in an integrated entertainment / operations system and that such expanded cost estimates should be included in future budgets. In the RFP evaluation, considerations should be given to the feasibility of evaluating vendors based on their overall operations / entertainment system capabilities, but selecting and implementing ticketing as a first phase, planning a longer term phased approach of the full integrated suite. - The IT Steering Committee should begin planning the transition from Kent County and Zoo Society and determine the best, most feasible approach for filling the staffing requirements of the new John Ball Zoo.		

2.1.3. IT Staffing	Maturity Rating	★★★★★
	Risk to Zoo	▲
Selected Topical Areas		
▪ Staff Development ▪ Organization Structure ▪ External Service Providers ▪ Staff Competency ▪ Job Descriptions		
Finding / Observation		
Organization Structure ▪ The Zoo Society IT staff member reports to the Zoo Society Director. The staff member is the sole IT support for the Zoo Society and its systems and he is responsible for all IT areas, including: ○ Systems & network management ○ Break/Fix at desktop level and printing ○ Zoological applications ○ First level support for application issues ▪ The Zoo Society website is currently hosted at an outside provider. ▪ There is no Zoo Society IT support staff available on weekends.		
External Service Providers ▪ CPR, a local IT contractor, is used for advanced technical resources and Network Engineering for the Zoo Society IT. ▪ Gmail is used as the email provider for the Zoo Society under the “non-Profit” program at no cost. This program allows for 50 users total at no cost. ▪ All applications used by County Zoo and Zoo Society are still under support agreements by their respective vendors.		
Staff Development ▪ Zoo Society staff have expressed an interest in obtaining additional supplemental training on existing applications in order to better utilize these applications.		
Staff Complement & Competency ▪ The Zoo Society IT Staff member that maintains the Zoo Society systems appears knowledgeable around the basic technology needs of the Zoo. The new John Ball Zoo may require different skills to grow the IT operation into an enterprise IT organization, with the addition of sites and staff. ▪ Planning skillsets and process should be improved for any staff member who is hired into the new John Ball Zoo.		
Job Description ▪ The Zoo Society has an IT job description that appears appropriate for the current Zoo Society IT environment.		

Opportunities

- Redefine the IT positions for the new John Ball Zoo. Based upon and in conjunction with organizational changes which are currently occurring, the IT Steering Committee should consider and develop plans over the next year that will help implement improvements to IT decision processes, and assist with balancing priorities and establishing resource allocation for the large projects ahead.
- Creation, and staffing of the following two new positions for the new John Ball Zoo.(see Appendix G. for sample job descriptions):
 - Creation of IT Manager position, reporting to the Director of the new John Ball Zoo. Responsibilities should include formalizing key processes, automation of routine tasks and the installation of the necessary IT management systems when the operation doubles in size. This position would be charged with providing oversight, guidance, and centralized management for the IT function within the new John Ball Zoo.
 - Creation of IT Analyst / User Support Specialist position which would be responsible for many aspects of systems management and user support.
- Ideally, the permanent IT Manager should be hired and in-place for the both design and implementation of the new John Ball Zoo's IT systems. Much of this work will need to be performed prior to the new John Ball Zoo being established (targeted for 2/1/2013). If that is not possible, a contract position should be funded for a period of approximately 9 months leading up to the hiring of the permanent position, with an approximate 2 month overlap of these resources for purposes of knowledge transfer.
- Provide clearly defined IT support of the new John Ball Zoo on the weekends. External vendor support hours can be allocated through CPR for weekend support.
- A training plan may be needed to train IT staff on the various applications. For example, the new John Ball Zoo IT Manager will need training to support Zims, which is currently a application supported by County IT.

2.1.4. IT Budget	Maturity Rating	★★★★★
	Risk to Zoo	▲
Selected Topical Areas		
▪ Capital Budget	▪ Operating Budget	▪ Projected Spending
Finding / Observation		
Budgeting		
There is no formal budgeting process for IT capital expenditures in place for the new John Ball Zoo.		
Capital Spending		
No significant capital expenditures were identified in recent years for the County Zoo or for County IT related to the County Zoo.		
The Zoo Society spent approximately \$5,000 on capital expenditures in 2010.		
Operating Budget		
Kent County IT's cost for County Zoo IT operations are not tracked in such a way that make such costs easily identifiable. Historically, Kent County had an IT cost allocation for the County Zoo of approximately \$90,966.		
The IT operating expenses of the County Zoo approximate \$33,000 annually.		
The Zoo Society had \$137,529 of IT operating expenses (projected) in 2011 and \$114,907 in 2010. Current Zoo Society IT operating costs are at expected levels. Based on operating costs of approximately \$2M documented in the Schultz & Williams study and confirmed through document submission, the Zoo Society's IT operating expenses represent approximately 6.5% of total operating costs for 2010. Typically, IT costs for public sector organizations range between 3% and 6% of total operations, but this percentage tends to be incrementally higher in smaller environments, such as at the Zoo Society.		
Projected Spending		
Future capital expenditures on IT will depend largely on how the Zoo network and environment is expanded, through the extent and timing of implementation of the recommendations from this assessment. Key, major initiatives which will significantly influence funding requirements include:		
- Fiber Connectivity and related hardware to relevant buildings is approximately \$75,000 - \$100,000. These buildings include:		
- New Gift Shop		
- Tree House		
- Brown Barn		
- Red Barn		
- Concession Stand		
- Learning Center		
- Connectivity to the Ticket Booths is necessary, but twisted pair copper		

2.1.4. IT Budget	Maturity Rating	★★★★★
	Risk to Zoo	▲

wiring to the Learning Center or Gift Shop would be sufficient.

- Copper connectivity is required to the Tree House where analog phone service is required for the funicular railway and for 911 services.
- The projected capital budget for IT is dependent on the recommendations implemented in the report. Based on this assessment, the IT capital budget over the next two years combined could range from approximately \$300,000 to \$520,000.
- Future operating expenditures for the new John Ball Zoo IT will also depend largely on which of the recommendations are implemented. Please see the Appendix to review cost estimates. Annual software maintenance and support costs are typically 18-20% of software license costs.

Opportunities

- Establish an IT budget as part of an IT strategic plan that the new John Ball Zoo should formalize in its first year and maintain thereafter.
- The IT Steering Committee should establish an IT capital budget based on the network option chosen.

3. IT Administration Assessment

3.1.1. End-user Services	Maturity Rating	★★★★★
	Risk to Zoo	▲
Selected Topical Areas		
▪ Documentation ▪ End-user Training ▪ End User Policies ▪ Helpdesk Operation ▪ SLA		
Finding / Observation		
Documentation		
▪ There is some documentation regarding the Zoo Society applications, network, and servers.		
End-user Training		
▪ There is no end-user training provided by Zoo Society IT to Zoo Society staff, but there does appear to be some need to train some staff on basic computer operations and with Microsoft Office.		
Service Level Agreements (Internal & External)		
▪ The Zoo Society IT Department does not have an SLA with end users. ▪ The Zoo Society has external SLA's with the phone service provider, Blackbaud, a software provider, and CPR, the local IT contractor.		
"Helpdesk" Operation		
▪ Within Zoo Society IT, there is no formal ticketing system to track user's requests. ▪ County Zoo employees utilize the County IT Help Desk which tracks problems and requests through Magic. ▪ Oftentimes, County Zoo and Zoo Society employees will try to solve IT issues first. Sometimes this results in IT items being moved or changed without notifying either IT department. ▪ Zoo Society employees can email, call, or walk-in for support by the Zoo Society IT. ▪ Approximately 30 requests are received on a weekly basis by Zoo Society IT. ▪ There appears to be little, if any "after normal business hours" Zoo Society IT support. Support after hours appears to rely on whether or not staff voluntarily responds. ▪ There were 182 calls for service on the County Zoo operations side. Most problems were related to network outages of the wireless and email issues.		
Opportunities		
▪ With multiple IT staff, a rotating on-call schedule should be implemented as		

3.1.1. End-user Services	Maturity Rating	★★★★★
	Risk to Zoo	▲

operational requirements grow within the new John Ball Zoo. After the implementation of ticketing and other systems, outages would be critical to the new John Ball Zoo operations, the busiest of which are anticipated to occur outside of 8-5, Monday through Friday business hours.

- A tracking system needs to be implemented for the new John Ball Zoo IT to manage and meaningfully report IT activities.

3.1.2. IT Operations	Maturity Rating	★★★★★
	Risk to Zoo	▲

Selected Topical Areas

- Application Development
- Database Management
- Disaster Recovery Planning
- IT Asset Management
- Data Reporting
- Application Deployment
- Security Management

Finding / Observation

Application Development and Deployment

- The County has developed two Java based applications for County Zoo reservations which are hosted on the County's "Access Kent" website. These applications are for reservations into two programs: Summer Discovery and Zoo Park Reservations.
- There are several Access databases that will need to be moved to the new John Ball Zoo servers as part of the migration of the existing County Zoo staff's files to the new John Ball Zoo.

Database Management

- None.

Security Management

- There is an existing Cisco firewall/VPN appliance that is in use at the Zoo Society. The VPN appliance is currently licensed for 2 users. The Zoo Society IT staff member is the only one who uses this.
- There is an Active Directory structure in place for the Zoo Society.
- Application passwords are sometimes still written down on paper. While the Zoo Society has implemented a secure spreadsheet tool to keep passwords, some Zoo Society staff members continue to avoid using the tool.

3.1.2. IT Operations	Maturity Rating	★★★★★
	Risk to Zoo	▲

Disaster Recovery Plan

- There is no formal, tested Disaster Recovery Plan (DRP) for the Zoo Society or the new John Ball Zoo. There is some degree of protection of some parts of the business, such as email and Raiser's Edge, where the application is hosted elsewhere and is secure.

Opportunities

- A formal password policy and enforcement of that policy needs to be implemented immediately for the Zoo Society, and later transitioned to the new John Ball Zoo.
- A decision needs to be made regarding the outcome of the two applications based on Access Kent. If possible, these should be moved to the new John Ball Zoo's website or they need to be replaced with other applications. There is a possibility that the ticketing system will have this functionality.
- The firewall/VPN appliance will need to be upgraded to handle the additional internet traffic and the remote access needs that will occur as a result of the merger.
- Active Directory should be engineered to be redundant and provide a structure that will support the new John Ball Zoo.
- The new John Ball Zoo should develop an appropriate DRP/BCP strategy. This process should begin by identifying various business goals critical to the new John Ball Zoo. Using the goals, various processes need to be identified and an appropriate DRP/BCP developed. Using the DRP/BCP as a blue print, the network and server infrastructure should be evaluated along with the process and modified accordingly so as to meet the objective of the DRP/BCP. The established business goals would determine the needs of the new John Ball Zoo. The Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO) would also determine the criticality of the infrastructure that needs to be planned. The development of a BCP/DRP should be considered as long term project as it requires considerable planning and implementation.
- Recovery procedures for the new John Ball Zoo IT components and applications should be documented and periodically tested. Testing results should be reviewed with the new John Ball Zoo Director.

3.1.3. IT Management Processes	Maturity Rating	★★★★★
	Risk to Zoo	▲
Selected Topical Areas		
▪ Project Management ▪ Research and Development		
▪ Budget and Funding ▪ Policies & Procedures		
▪ Technology Standards		
Finding / Observation		
Project Management		
▪ Formal project management is not followed for Zoo Society IT Projects. ▪ The Zoo Society IT employee typically serves as project manager and typically spends time up-front working on scope such that the end user expectations are met.		
Research and Development		
▪ Most research performed by Zoo Society IT staff is accessed via the web. ▪ CPR (local IT contractor) provides IT with information regarding specific products for the Zoo Society. For example, setting up the Cisco equipment.		
Budget and Funding		
▪ The Zoo Society IT staff member handles the operating budget. Capital budget items are requested by Zoo Society IT through the Zoo Society Director, but the Zoo Society Director establishes the budget. ▪ Zoo Society IT is responsible for all Zoo Society IT procurement.		
Policies and Procedures (IT and End User)		
▪ There are some formalized IT Policies at the Zoo Society and the users sign off on them.		
Technology Standards		
▪ There appears to be few formal standardizations of equipment, apart from using major manufacturers for the Zoo Society. ▪ The following are the Zoo Society IT equipment standards.		
Equipment	Standard	
Servers	Dell /HP Servers	
Workstations	Dell/HP	
Printer	No Standard on Standalone printers, but the MFP's are Xerox	
Network & Telecom Equip	Cisco Networking	
Directory Services	Microsoft AD	
Office Productivity	Office 2003 for legacy PC's 2007 for new	

Opportunities

- The new John Ball Zoo should consider formalizing the policies associated with IT. *Appendix A* lists sample IT related policies that should be considered for review and formalization.
- Inventory IT infrastructure components as the new John Ball Zoo is created, then pick a standard for each technology that makes sense when it is complete. For example, for ease of support and reducing total cost of ownership, a single vendor should be chosen for PC's.
- Examine Kent County's IT policies and procedures and determine whether or not some can be leveraged and / or implemented for the new John Ball Zoo.

3.1.4. Technology Management

Maturity Rating

★★★★★

Risk to Zoo



Selected Topical Areas

- Network Management
- Server Management
- Workstation Management
- Virus & Patch Mgmt.
- Backup and Recovery

Finding / Observation

Network / Server Management

- There is no Network or Server Management System in place for the Zoo Society.

Backup and Recovery

- Backups are performed daily using Symantec Backup Exec and "Protect" online disk backup service through Corp Tech at the Zoo Society.
- Full backups of the server are performed weekly to tape, but are not taken off site for the Zoo Society.

Workstation Management

- There are no workstation management tools (i.e., no formalized group policy) at the Zoo Society.
- All workstations are loaded individually by hand; no workstation imaging is taking place at the Zoo Society.

Virus and Patch Management

- Patch management is handled on an individual basis at the workstation for the Zoo Society.
- Symantec Antivirus Endpoint Protection is used on almost all workstations, with the exception of the Concession Stand Manager's PC at the Zoo Society.

3.1.4. Technology Management	Maturity Rating	★★★☆☆
	Risk to Zoo	▲
Opportunities ▪ Microsoft Windows System Update Server (WSUS) server should be implemented to address workstation updates in the new John Ball Zoo. ▪ Institute an “offsite” backup methodology so that full backups of the server are not kept onsite. ▪ Consider the implementation of a Desktop Management package, such as Alteris, or Microsoft Configuration Manager for the new John Ball Zoo. ▪ Add licenses to accommodate the proposed transfer of County PCs in the Symantec Antivirus Endpoint Protection for the new John Ball Zoo. ▪ Develop and implement tactical plans to transfer licenses/ownership of IT assets to the new John Ball Zoo, as necessary.		

4. IT Assets Assessment

4.1.1. Infrastructure	Maturity Rating	★★★★★
	Risk to Zoo	▲
Selected Topical Areas		
▪ Data Center ▪ Servers ▪ Telecommunications ▪ Network Infrastructure ▪ Wireless ▪ Network Security ▪ Workstations		
Finding / Observation		
Zoo Society Server Environment		
Server Environment Characteristic	Room	
Access Security	Semi-Secure room that doubles as a shared office. The room is approximately 10x15 feet. The IT staff member and his office mate have access to this facility. The room is protected by a lock and key but appears to be left unlocked during business hours.	
Raised Floor	There is no raised floor; all equipment is located on a desk in the corner of the room. The rack that houses all of the network equipment and firewall is on the wall above the servers. There are other rooms that are shared with Utility rooms that function as the telecommunications demark room which also houses furnaces, air conditioning units, and other building systems.	
Camera Monitors	There are no cameras monitoring the environment.	
Cable Management/Cable Tray/Ladder	There is no need for a ladder rack or cable tray.	
Fire suppression	There is no fire suppression equipment.	
Energy Management	None.	
UPS	There is small, device based APC Smartups 1000 UPS in place. Both servers and the other network switches and firewall are fed off this system.	
Generator & Emergency Stop	There is no generator is in place.	

Server Environment Characteristic	Room
Electrical Circuits	The Server space is on building power.
A-B Corded Servers	A-B cording has not been implemented because the servers are not capable.
HVAC (Dedicated)	Temperature in the room is maintained with the rest of the building, no separate cooling exists.
HVAC (Redundant)	There is no redundant HVAC unit.
Temp/Humidity/Water Sensor	There is no system in place to monitor these environmental factors.
General	The backups that are stored to tape are performed on site, and are not removed.

Network Infrastructure

- Overall, the network performance is deemed to be acceptable by the Zoo Society staff. County Zoo staff who work at the Zoo site find the connectivity to the County problematic and undependable.
- As a result of County Zoo employees lacking confidence in the current infrastructure, the network is not fully utilized. County Zoo employees often save work to their desktop and move work as needed to the County network for sharing among other staff.
- Zoo Society end users cannot work remotely using the VPN appliance, as there are only 2 licenses in existence.
- Kent County IT and Zoo Society IT have standardized on a Cisco environment for networking
- There is no VLAN internal to the Administration building related to the Zoo Society. The Zoo Society operates as a flat network.
- There is no network between physical Zoo buildings. The Concessions building and the Learning Center house staff and require internet access. They have Digital Subscriber Lines (DSL) that allow them internet, email and Raiser's Edge access paid for through the Zoo Society.
- The Zoo Society membership booth has no network access. As a workaround, membership data is updated on a laptop every two weeks and stored at the membership booth. This summer, the Zoo Society will have a membership office at the front entrance which will have network access
- The Zoo Society website is hosted offsite by CMC/Grandnet.

Wireless

- Connectivity for County Zoo employees to the County network is provided via a network of (9) Cisco 1522 Access Points using the 5.9 MHz spectrum. These access

points are also capable of providing 802.11 b and g signals for end users access and some do so to facilitate coverage in buildings without network access. The coverage and reliability of this network is severely hampered by the initial design of access point density, topography of the Zoo, and the density of trees on the site.

- Wi-Fi is available in some parts of the Administration building from the Zoo Society and is accessible by a passphrase.

Servers

- There are 2 servers in the Zoo Society IT Department that have an average age of 3 years and have extended warranties.
- The Zoo Society servers are not part of the same Active Directory.
- There is one Windows 2003 server and Windows 2008 server in the Zoo Society operation. All appear to be patched to the current level, though no formal patching schedule exists.
- There is no SAN at the Zoo Society, but RAID arrays are configured on servers. There is no centralized storage.

Workstations

Zoo Society:

- There are 21 workstations (5 laptops and 16 desktops, and 1 netbook).
- Approximately 70% of the workstations in operation are on Windows XP and the remaining 30% operate on Windows 7. As new machines are installed, they are deployed with Windows 7.
- The machines' ages are split down the middle, with approximately ½ of the fleet under 3 years and ½ over 3 years old. The systems are purchased with 3 year warranties initially and the warranties are extended as they expire.
- There is a four year refresh policy for network, workstations, and servers.
- The standard workstation consists of the following programs: Windows XP / Windows 7, MS Office 2003/2007, Symantec Endpoint Protection.

County Zoo Staff:

- There are 21 workstations (7 Laptops and 14 Desktops).
- 100% of the workstations in operation are on Windows XP, Service pack 3. Windows 7 licenses are purchased for all of the machines; they are just not in use.
- The machines' ages are an average of 3 years old and most will require a RAM upgrade to run Windows 7.
- The standard workstation consists of the following programs: Windows XP and MS Office 2003, McAfee Antivirus, and ZENworks.

Email & Collaboration

- Gmail is used for email access to the Zoo Society employees under a program that Non-Profit entities receive the service for no cost. This service is available to not for profits up to 3000 users. (<http://www.google.com/nonprofits/eligibility.html>)

- Gmail also provides mobile functionality which is utilized by Zoo Society staff.
- Some Zoo Society staff have had difficulty sending large files by email. Oftentimes, these staff members use programs such as You Sent It or use their personal email to send files.

Telecommunications

- AT&T provided Centrex analog service is used extensively throughout the Zoo site. All Zoo Society and County Zoo staff and management both voiced concern over the lack of capabilities of the current system.
- Most every building on the Zoo property that has telephone service has its own AT&T Demarcation Point. It is unlikely that AT&T would expand phone service individually into other buildings on the site by installing its own cable. The new John Ball Zoo would be expected to furnish the cabling if additional sites were desired.

Opportunities

- The Wireless Network that connects the Zoo property and County Zoo employees to Kent County and provides connectivity through a great deal of the Zoo property and is operated by Kent County IT needs to be replaced with a hard-wired, fiber optic network throughout the property.
- The Centrex based telephone Infrastructure should be replaced with an "On Premise" IP phone system to provide consistent, modern service to the campus for the new John Ball Zoo. The fiber network is a prerequisite to this being possible.
- During the transition period Kent County IT and the Zoo Society IT staff should work collaboratively at formalizing IT processes and procedures for the new John Ball Zoo to ensure a successful transition of the current IT operation to an Enterprise Operation for the new John Ball Zoo.
- The new John Ball Zoo should implement a fiber backbone network to most buildings that house employees. Numerous connectivity options exist today and some are being implemented via the Zoo Society capital program to make this more affordable. This step is the foundation of the IT vision for the new John Ball Zoo.
- The new John Ball Zoo should implement system refresh policies for key resources such as servers, network, workstations etc. If critical systems are used beyond their expected life expectancy, extended warranty should continue to be carried on these resources.
- If the Fiber network is installed as the backbone of the new John Ball Zoo Infrastructure, the existing Cisco 1522 Wireless Access points should be re-deployed to provide secure coverage for mobile employees that need to operate throughout the property as well as public, unsecured access for visitors to the new John Ball Zoo.
- The planned connection from Kent County IT needs to be implemented to provide dependable communication from the County to the Zoo Administration building and outlying properties.
- A dedicated room needs to be identified to house servers and network equipment for the new John Ball Zoo. This room needs to be secure, provide environmental

controls, and foster a professional IT environment. Alternatively, Kent County IT could be engaged to house the new John Ball Zoo's equipment in their data center for a total cost of approximately \$6,500-\$7,000 annually for space for one rack, heating, cooling, and power. A phased approach could alternatively be considered which preliminarily leverages the County's data center.

4.1.2. Applications: Packaged Software

Maturity Rating

★★★★★

Risk to Zoo



Selected Topical Areas

- Functionality
- Scalability
- Utilization of Solution
- Timeliness of Reporting
- IT Infrastructure to Support
- Level of Integration

Finding / Observation

Functionality

- There are several key applications that are used by County Zoo and Zoo Society staff including PeopleSoft, ARKS/MedARKS, Raisers Edge, Quickbooks. A full list of applications is available in Appendix E.
- While access to some of these databases are available, there are still examples of business processes with duplicate data entry and / or use of paper forms.

Utilization of Solution

- Raisers Edge is used by multiple Zoo Society departments for marketing, development, and membership within the Zoo Society.
- There are multiple Point of Sale Systems being used: KMware and Food Track within the Zoological Society.

Timeliness of Reporting

- Reporting is often done through Excel 2003.
- Users find it difficult to report on inventory as it is done manually.
- Google Analytics has been used by the Zoo Society for marketing decisions.
- Some dual entry of data is completed. For example, at the gift shop a department report is printed to get a list of items sold. This information is then reentered in another system.

Level of Integration

- There are multiple Point of Sale Systems being used between all departments with some type of sales function. As part of the consolidation, consolidation of point of sale systems would help with increased integration between departments of the new John Ball Zoo.
- In the near term, access to Raisers Edge would be beneficial for all Zoo Society Departments. Then later with the consolidation into the new John Ball Zoo, while a future Zoo operations system may be the primary repository for membership

information, other departments still may also benefit from donor information stored in Raisers Edge.

- The County is in the process of a migration from ARKS and MedARKS to Zims. Once this migration is complete, there will be increased integration between several County Zoo departments.

Configuration Tools

- Customization within Raisers Edge can be difficult. For example, setting different prices for members vs. non-members cannot be done. Recent updates have been helpful towards improving this.

Scalability

- The Zoo Society currently uses QuickBooks for finance functions. Staff are interested in looking at other financial software since QuickBooks may not be robust enough after the consolidation.
- The County currently uses PeopleSoft for its finance functions. However, it is anticipated that the County will consider its replacement in future years.

Opportunities

- The Implementation of the HR Flexchecks module should take into account any requirements that will need to be implemented as part of the consolidation.
- Proceed with migration of MedARKS and ARKS data to Zims. This will reduce duplicate data entry.
- Consolidate or implement a point of sale system that is used by ticketing, gifts, food and other departments that have customer contact. Additionally, the point of sale system should have integration within central zoo registers and registers at satellite locations.
- Research additional options on specific future needs of Raisers Edge functionality. Some Zoo Society staff expressed an interest in additional training on the software.
- Automate inventory, perhaps through the use of handheld scanners.
- A training strategy will need to be developed for new John Ball Zoo staff, as they will need to learn how to use additional applications.
- Determine the specific financial software needs of the new John Ball Zoo and further research options for more robust financial software that can accommodate growth: The Zoo Society is starting the investigation of procurement of a finance system. This selection process should be lead by the IT Steering Committee and include County Zoo participants, as PeopleSoft will not be a County IT asset which transfers to the new John Ball Zoo. As HR Flexchecks is expected to address the payroll / personnel management requirements, financial system software requirements for the new John Ball Zoo will likely focus on core accounting functions such as general ledger, budgeting, accounts payable, financial reporting, etc. The Committee may wish to consider low cost solutions such as those available from Sage, Peachtree, etc. or other more robust options such as Blackbaud Financial Edge. The replacement of the Quickbooks system in use today by the Zoo

Society was not included in the budget forecasts in the Appendix. The use of spreadsheets and / or manual process may assist the new John Ball Zoo in leveraging the Zoo Society's Quickbooks implementation as this evaluation is performed. Future budgets should be updated as a result of systems evaluation and technology planning.

- Conduct a review of existing business processes that are being duplicated and determine what the new process will be under the new migration.
- As additional software is procured and utilized, consideration should be paid to mobile functionality. Employees expressed interest in being able to utilize mobile devices in their daily duties.
- Develop and implement a plan to consolidate the various databases currently being used. Through the assessment process, determine which important requirements for each organization can be met through the consolidation; upgrade process, or the procurement of a new system. Remaining gaps will need to be addressed through process changes.

4.1.3. Custom Developed Applications

Maturity Rating

★★★★★

Risk to Zoo



Selected Topical Areas

- Functionality
- Utilization of Solution
- Development Tools

Finding / Observation

Functionality

- The County Zoo has several Microsoft Access Database for the following functions:
 - Education programs database which is also used for scheduling
 - Financial deposits database
 - Animal handling database for educational programs
 - School field trips database
 - Admission gate information

Utilization of Solution

- These databases are heavily used by the County Zoo's Education department. However, there is sometimes a need for other departments to have access to these databases.

Development Tools

- Only one IT person in the County IT support the County Zoo's Access databases function. If that person leaves the County IT, that knowledge will be gone.

Opportunities

- As part of the consolidation, research should be conducted on whether other existing applications have functionality that can accommodate data stored on these



databases. For example, could Google Calendars be used for school field trips?

- Develop documentation that describes each custom developed database.
- Cross train the necessary staff on the details of the County Zoo's Access databases, during and after the transition period.