

# Georgetown County, South Carolina

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## ADDENDUM #5 TO BID #15-009

BID NUMBER: 15-009

ISSUE DATE: Monday, May 11, 2015

**“REVISED” OPENING DATE: Wed., June 03, 2015    OPENING TIME: 4:00 PM (Eastern NIST)**

**Bid Opening Location: Georgetown County Courthouse, Suite #239, (Purchasing Conference Room)**

**MANDATORY Pre-Bid Conference/Site Inspection: Thursday, April 16, 2015 at 11:00AM on Site**

**PROCUREMENT FOR: IT Managed Support and Hosted Services Provider**  
**Commodity Code(s): 91828, 91829, 91895**

This addendum will amend **RFP #15-009, IT Managed Support and Hosted Services Provider** originally issued on Friday, April 03, 2015. This clarification is being provided to all known and registered correspondents in response to questions received. All addenda and original bid documents are also available online at: [www.gtcounty.org](http://www.gtcounty.org), select “Bid Opportunities” from the *Quick Links* box on the home page.

### **Time Line: Request for Proposal #15-009 (As of 05/11/2015)**

Item	Date	Time	Location*
<b>Advertised Date of Issue:</b>	Friday, April 03, 2015	n/a	n/a
<b>Pre-Bid Conference/Site Inspection:</b>	Thursday, April 16, 2015	10:30AM	Council Chambers
<b>Deadline for Questions:</b>	<b>Wednesday, May 20, 2015</b>	<b>3:00PM ET</b>	Suite 239
<b>Bids Must be Received on/or Before:</b>	<b>Wednesday, May 27, 2015</b>	<b>4:00PM ET</b>	Suite 239
<b>Public Bid Opening &amp; Tabulation:</b>	<b>Wednesday, June 03, 2015</b>	<b>4:00PM ET</b>	Suite 239
<b>County Council Consideration:</b>	<b>Tuesday, June 23, 2015</b>	<b>5:30PM ET</b>	Council Chambers
<b>Anticipated Agreement Start Date:</b>	<b>Wednesday, Aug. 1, 2015</b>	n/a	n/a

\*All locations in the Old County Courthouse, 129 Screven Street, Georgetown, SC unless otherwise stated.

The following items were discussed during the pre-bid conference, in no particular order.

- 1) The County is represented today by Sel Hemingway, the County Administrator, to whom the provider will report; by Joe Foster, the Virtual Chief Information Officer (VCIO) currently under contract to the County from VC3 Incorporated; and Kyle Prufer, County Purchasing Officer. Questions and requests for clarification should be directed to the Purchasing Officer who will coordinate and publish a response by addendum to all parties.
- 2) At the time of the conference, there two published addenda, and now are four (4). All addenda will be available for download without charge on the County website at [www.gtcountysc](http://www.gtcountysc), select "Bid

Opportunities" from the Quick Links box on the home page.

- 3) The County's original intent is to coordinate the start-up of a new provider concurrent with the beginning of the fiscal year, which will be July 1, 2015. Allowing time for discovery that may not be possible. If an award or start-up is delayed beyond the July 1<sup>st</sup> date, the incumbent contractor will coordinate for a smooth transition.
- 4) Rather than tell you what technical requirements are mandated for a successful system to meet the County's needs, we felt we should tell you what we have, what we need it to do, and expect you to propose the solution that is in Georgetown County's best interest.
- 5) Note that there is included a "Resident Certification for Local Preference". County Council prefers to "keep business at home". The County considers this a "Professional Services Agreement" and as such local preference will only come into consideration if any two providers are found equally qualified and responsive.
- 6) In terms of hardware and software replacement, renewal, and acquisition, other than that which is indicated it will be provided by the awarded provider, there should be no inference that the County will make those purchases from the provider. The County has access to WSCA/NASPO, GSA Advantage, and a multitude of competitively awarded nation cooperative agreements. If a price provided by your firm is in our best interest, we will certainly consider a purchase, but there is no "shoo-in" for ancillary purchases.
- 7) About a third or a half of the current PC assets are Dell Optiplex (3000 Series) or Latitudes (of varying devices). There are still an appreciable number of "white box" machines. Today all are "FAT" desktops or laptops. The county will provide a list of CPU and include the amount of memory into the count.
- 8) At the time the contract will begin, the IMB AS400 will still be in use. Maintenance of that unit will be expected to be covered in the RFP response. It would be preferred that this would be hosted in whatever cloud that would be provided. IE: move the current set of hardware to a hosting center.
- 9) Section E of the RFP references an end-of-life. What is the current end-of life schedule or policies? We are in the process of mediating the network end-of-life and have removed the majority of the Windows end-of-life. We do tend to sit with the manufacturer's end-of-life, however when budgets constrict we are not always able to get all of them out within that time frame. Is there a list of hardware that is under support? The County does not typically purchase extended warranty on devices with the exception of critical network and telephony. Of that, half are expected to be replaced to keep them in a fully covered mode in the next fiscal year (beginning July 1, 2015) and are already in the budget.
- 10) How many physical phones does the County have, how many seats. The number will not be scaled back. There will be no change in the number of telephone users, other than the normal ebb and flow of staffing.  
– **There are currently 547 registered phones with 360 voice mail accounts.**
- 11) The models of the Cisco desk sets are included in Addendum #3. The current call manager is CUCM v6.1.3.3000-1& Unity 5.0.1
- 12) The question regarding clarification of Termination for Convenience is addressed in the Q&A section that follows. Termination for Cause (non-performance) will remain. Termination for Non-Appropriation is self-explanatory; if County Council should chose not to fund MIS/IT services in an upcoming fiscal year, there would then be no monies for payment for any further services.

- 13) Can we receive a list of the help desk support tickets with their priority status and how many were after hours? The County does not track after hours requests, so that information is not available. We can, however, provide a one-month sampling of the help-desk tickets. **There were 240 tickets. 16 Critical, 31 High, 179 Normal, and 14 Low.**
- 14) The County currently uses the Jit-Bit ticket system, but this is not a requirement for the awarded provider to continue.
- 15) At this point the County's call manager is in the upcoming budget to be brought up to the appropriate support levels.
- 16) May we get a list of the models and operating systems for the on premise servers? There are currently (42) servers that are in-play, of which (7) are physical. All of the virtual servers are running on VMware. We need to confirm the current version. Please clarify the statement in the RFP which states the number of servers is (32). Which is correct? The server count and the host hardware is attached below.
- a. **Server count is now 38**
    - i. **2 physical**
    - ii. **36 virtual**
    - iii. **CCUM and Unity not included**
  - b. **VMware v5.5**
- 17) The seven (2) physical servers remain for specific reasons whereby the software that is being operated will not allow us to move into a contemporary version of an operating system, or that it is in the process of being de-commissioned.
- 18) The intent is for the County servers to be hosted in the provider's data centers in a private cloud.
- 19) Concerning physical storage, how much storage are you currently using now? We will confirm the exact amount, but it is in excess of ten terabytes today. – **11.4 Tb**
- 20) How many processors? - **90**
- 21) What are your data retention requirements? Right now, we retain two-weeks on dailies, monthlies, quarterly and annuals.
- 22) Can you tell us more about the AS400? Is it physical? It is a tower, it is possible, but not confirmed, that there may be a mounting kit available for the AS400. **It is an AS/400 9406, model 810.** The AS400 is currently being backed up on the premise based system. There is no theoretical objection to AS400 information going out to the cloud.
- 23) The County has elected officials that regulate what software is being used. The AS400 currently has (2) pieces of software remaining on it. One will likely be eliminated prior to the beginning of this contract; the second will not be eliminated at this time. The elected official will have to be part of the discussion as to whether that software does leave the premise. That software which will likely remain is the Family Court Software, which will require continued support.

- 24) The premise based back-up system is hosted on Seagate eVault. The County's current agreement runs through 09/23/2015. This is a robust premise based back-up vault that would probably be in the County's best interest to continue. This is not included in the count of the County's current servers. The eVault backs up both Windows and the AS400. The eVault system is tapeless, IE: disk. The backup is on premise at a different physical site that is County owned and operated. This is a bit-by-bit differential technology that does not conform to the classical tape structure; a bare metal back-up.
- 25) How are the County's (25) facilities connected? This is through a variety of point-to-point and VPN over best effort and fiber; it is a mix. The County can provide a detailed listing of the sites and the speeds they are on, which will also show the media type. There is not necessarily high speed fiber going to every building. Any building that has technology in it has, at the very least, a best effort cable connection through to a full fiber point-to-point in some varying degree. There is not an IPS at every building, though there is at the majority. It will be an expectation that the awarded provider will make recommendations on the pipeline(s).
- 26) Can we get the number of users at each site? The County will try to provide average or typical numbers. This can be a fluid number depending on which site is being addressed.
- a. See bandwidth in item #38 below.**
- 27) Are you looking to keep the current MIS/IT staff on site, or remove them to the awarded provider? There is no intent to relieve the existing seven (7) County employees from remaining at the site as employees.
- 28) In Item 2, Section K references the back-up of the items that are hosted on the provider's private cloud. Is it the intent to store data on the desk-tops? The County does not want to mandate the architecture of the solution. The expectation is that data be saved in a process driven manner. That is will be backed up.
- 29) Are printers networked or non-networked (local) printers? The majority are networked MFPs. The County does have a document management agreement with Ricoh-USA for the (69) networked devices. There are also a smaller number of "monitored only" devices, mainly inkjets, that are being replaced by attrition.
- 30) The County's expectation is that the awarded provider would be able to support all line-of-business applications that are currently being used by the departments included. This specifically excludes Public Safety, but at this point includes Fire. The balance of the line-of-business applications which includes the of main line of business software listed below. There are odd third party applications that are used by a small number of users, some by a single person. It is expected that the winning vendor would be able to work with the County to determine the best way to handle any odd third-party applications.
- a. New World Systems
  - b. SC State CMS
  - c. Fireprograms
  - d. Patriot Assess Pro
  - e. Sharepoint
  - f. ESRI ArcGIS
  - g. AutoCAD
  - h. Energov

- 31) Are there any scanners that process and send files back to remote disks? There are only a handful of departments that scan in bulk, however each of the MFP devices does scan to e-mail without an over-riding DMS. There are currently (69) networked MFP devices.
- 32) There is not a true time and attendance software used Countywide at this point. A third-party web-based system is used to report hours from employees to payroll.
- 33) **Wireless infrastructure will be included. There are no heatmaps, there are two brands of APs, Cisco and Ubiquity are being used by the County today. The majority of the Cisco (all but a handful) are managed, All the Ubiquity are managed. The wireless controller for the Cisco is 4400. For the Ubiquity, there is only the one Ubiquity controller model. The Counts by vendor are 65 Cisco and 8 Ubiquiti. The firewall model is ASA 5510 configured for VPN and firewall module in 6513 for client FW. This is a Cisco solution and there is a Cisco VPN in place, but the hope is that this will be going away with the hosted desktop. There are no substantial holes in the current wi-fi coverage.**
- 34) The County currently has an anti-virus solution and anti-spam, but the intent is that these will be provided by the awarded vendor in the future.
- 35) E-mail is currently on the web using MS Exchange 2010. How many mailboxes are on the Exchange system? An estimated 594 but will verify. There is no cluster environment currently operating in the County. **594 is the verified count.**
- 36) Are there dongle keys for AutoCadd and ESRI? Neither AutoCADD nor ESRI support downloads any longer. **There are no dongles. Both are licensed by normal license files.**
- 37) Does the County have a position or policy on internet filtering? There has been internet filtering in the past, but it was not robust and was abandoned because of that. The County would be willing to consider internet filtering, but this is not part of the current RFP process.
- 38) Can we get a list of the vendors who provide links to the sites and whether they have the capability to expand? Yes, the County will provide a list of the bandwidth with the media, however the expectation is that the bandwidth will not increase, but will be able to be decreased by the nature of this RFP.
- a. **Old courthouse – 50 mbps fiber DIA**
    - i. **Hub site**
    - ii. **Approx - 55 staff**
  - b. **Judicial complex – 50 mbps fiber DIA**
    - i. **Dark fiber to hub**
    - ii. **Approx - 40 staff**
  - c. **Parks and recreation 20 mbps fiber - twc**
    - i. **14 staff FTE**
  - d. **Main library**
    - i. **TWC 20 Mbps fiber**
    - ii. **22 staff**
  - e. **Facility Services**
    - i. **Dark fiber**
    - ii. **4 Staff**
  - f. **Administration**
    - i. **Dark fiber**

- ii. 6 Staff
- g. Emergency Operations Center
  - i. Dark fiber
  - ii. 3 Staff
- h. Litchfield
  - i. 10 mbps fiber
  - ii. 12 Staff
- i. Andrews summary court
  - i. 10 mbps fiber
  - ii. 6 Staff
- j. Fire Station 4
  - i. 10 mbps fiber
  - ii. 4 Staff
- k. Fire Station 10
  - i. 10 mbps fiber
  - ii. 4 Staff
- l. Fire Station 11
  - i. Cable modem 5x2
  - ii. 4 Staff
- m. Andrews Summary Court
  - i. 10 mbps fiber
  - ii. 6 Staff
- n. Bureau of Aging
  - i. 10 mbps fiber
  - ii. 12 Staff
- o. Magistrates Court
  - i. Dark fiber
  - ii. 6 Staff
- p. Fire station 81
  - i. 20 mpbs fiber
  - ii. 12 Staff
- q. Fire station 82
  - i. Cable 20x5
  - ii. 4 Staff
- r. Fire station 83
  - i. Cable 20x5
  - ii. 4 Staff
- s. Landfill
  - i. 20 mbps fiber
  - ii. 1 staff
- t. Mosquito Control/Airport
  - i. Dark fiber
  - ii. 8 Staff
- u. Pawleys Island Summary Court
  - i. 10 mpbs fiber
  - ii. 6 Staff
- v. Pawleys Island Recycling
  - i. Cable modem 5x2
  - ii. 1 Staff
- w. Pleasant Hill Summary court

- i. 10 mpbs fiber
  - ii. 6 Staff
- x. Veteran's affairs
  - i. Dark fiber
  - ii. 6 Staff
- y. Voter's Registration
  - i. Dark fiber
  - ii. 8 Staff
- z. Choppee
  - i. 10 mbps fiber
  - ii. 2-4 Staff

- 39) Are there any power pack requirements that we need to be aware of? Are there UPS devices in place already? With the intent of the RFP, those requirements should be diminishing, so the devices in place today should be sufficient.
- 40) What prompted this RFP? The County was originally staffed on site totally. The County did not feel that we were progressing to the point we needed to in keeping up with technology and the volume of use that we had. The County went out for an IT Assessment in conjunction with other government entities, and on the basis of the results of the audit we entered an emergency agreement to bring the standards up. This was not intended to be a long term agreement. We believe that we have progressed to the point where we are stable enough to proceed with the County's mandated approach to bidding contracts for a five-year maximum term. This is what County Council has indicated as the preferred way to do business.
- 41) The assessment was done by VC3, Incorporated, and the County will make the audit assessment results available on the basis of this being FOIA information. **This is attached hereto as Exhibit A.**
- 42) Do you intend that the responsibility of the licensing is on the awarded vendor for non-hosted desktops? Yes, if you are providing the equipment, the expectation is that you would provide the licensing as well.
- 43) The County website is not being hosted locally and is not part of this RFP.
- 44) Can you describe the cloud environment that you are expecting from a redundancy level and whether this could be multi-tenant, or a private cloud? Are you looking for 100% Harpy replication? The expectation would be a private cloud without further binding the provider, while providing the County with your best intended solution for the County. The requirement is mandatory this would not be a multi-use tenant cloud to protect public data.
- 45) Who will be reviewing the responses on the part of the County? Joe Foster is representing the County as the current contract provider who has the necessary technical knowledge of the existing system and equipment. While VC3 indicates they are providing a response, Mr. Foster is not part of the VC3 team making up the response, nor is he sharing proprietary County information with the VC3 team. The County Administrator has included an IT specialist from a university to assist in the reviewing of responses from a technical standpoint and to assist the County to determine what is in our best interest.
- 46) If the response for information as the result of the pre-bid conference is not answered promptly, it may be necessary to delay the bid opening, to assure adequate time for discovery. The existing contractor will coordinate with the incoming provider to ensure an orderly transition.

- 47) What type of certification will be required for the private cloud? Other than SSAE 16 compliance, there is not much alternate documentation available to certify the type of cloud you would be providing. It would be fair to expect a technical treaty on how you intend to provide a private cloud that should be able to be referenced. At the very least, there should be clear documentation of your data center and the manner in which you are hosting it. Feel free to include any certification of the data center as well.
- 48) There is no clustering on any of the blade-servers.
- 49) VC3 has been responsible for all server and network escalation issues for the past 2 ½ years. Only by involving Joe Foster to share his knowledge of the system, hardware and operating processes could the County share with you the knowledge necessary to make this RFP possible.
- 50) Does this mean that no one County employee on staff has touched or supported the servers? County staff has rudimentary server knowledge. (IE: password resets, user management, and specific line of business applications which are obviously server based.) There are no certified network or Windows certified engineers on County staff.
- 51) PRTG is currently the network monitoring software. This is a VC3 product, and any new provider would need to provide an alternate solution. You will monitor the network that you are responsible for.
- 52) Can you verify how many of the help desk tickets were resolved by VC3 versus those resolved by County staff? In answer, we can provide the number of local tickets created and the number of VC3 tickets created. There is no direct link between the two systems. However on the basis that all the tickets created by VC3 were escalations, you can determine the percentage of resolutions.
- 53) Are there custom events as part of the monitoring application, such as scripts, or anything we might need to be aware of? Nothing that would not be customary in any monitoring structure.
- 54) Those firms with representatives registered in attendance will be those qualified to submit a response. The sign-in sheets are posted on the County website under this RFP as the “Qualified Vendor List”.
- 55) If you have follow-up questions or requests for clarification, please send those to [purch@gtcounty.org](mailto:purch@gtcounty.org) or [kprufer@gtcounty.org](mailto:kprufer@gtcounty.org) so that I may post an appropriate response by published addendum for all interested parties. Thank you for your interest in working with us and your attendance today.

### **End of Pre-Bid Discussion**

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The following additional questions have been received and are answered below.

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**Question 1:** Is it possible to make an on-site visit to the county locations in order to make an accurate bid?

**Answer:** **I would say no, that gives that vendor an unfair advantage.**

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**Question 2:** What is the County’s expectations of the Incumbent vendor if they are not chosen to continue to support Georgetown County under this RFP?

**Answer:** **We expect the incumbent to work with the County and the selected provider to ensure a**

**coordinated, orderly and professional transition.**

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**Question 3:** Please provide clarification on whether the vendor will support the EMS/Fire Department and/or Police Department? Which of these entities would the vendor be supporting?

**Answer:** **EMS/Fire IT equipment will be supported by onsite County Staff. Guidance may be required.**

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**Question 4:** Will the vendor need to support IT Equipment/Applications inside PD squad cars?

**Answer:** **No, but guidance may be necessary.**

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**Question 5:** As per the Pre-Bid Conference, the incumbent is VC3. Given that, is the incumbent planning to bid on this opportunity? This would appear to be a conflict of interest, since they seem to be supporting the procurement process.

**Answer:** **As stated in the pre-bid meeting, County staff was unable to provide any substantial technical or operational requirements or statistics and could find no alternative but to rely on VC3 for this information to pass to prospective providers. The County has sought the assistance of a university computer science specialist to oversee the review and evaluation of the proposals that are received from the solicitation. It will not be the duty of incumbent to make a recommendation. While we were compelled to rely on the incumbent to provide current system specifications, the procurement process is being handled by County staff with the assistance of an independent outside advisor.**

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**Question 6:** To what extent is the vendor supposed to provide pricing and to what specs (Re: #2 under Additional Requirements)? The vendor will need more in depth specs for the County's desktops and laptops to provide pricing.

**Answer:** **Replacement devices should be based on Hosted Desktop requirements.**

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**Question 7:** How many licenses is the vendor supposed to provide? What is the total number for MS Office licenses (is it about 500)?

**Answer:** **Approx 547**

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**Question 8:** In regards to Addendum 3, Q and A #1, #11 and #12. The vendor is trying to clarify the quantity and skill set of personnel the County wants to procure as a result of this contract. Please confirm there are currently 10 IT Personnel conducting the requirements of this contract through the vendor and the County (One director (out-sourced), one network engineer, two AS/400 engineers and 4 desktop engineers, 2 FTE for network and server engineering). Please also confirm that currently 3 out of the 10 IT Personnel are provided by an outside vendor. Of these positions which are the County looking to fulfill through this contract? Which of these 10 provide the help desk support or is the help desk support personnel in addition

to the 10? Of the current IT Personnel, who works where (i.e. which department?) and please provide their specific roles?

**Answer:** **The County will provide application support and hardware support engineering for the AS/400 and local desktops. A network technician will be available as smart hands and base assistance on Telephony and Network issues.**

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**Question 9:** Please confirm that the vendor must provide anti-virus software? This does not seem to be listed in the RFP documents.

**Answer:** **Yes**

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**Question 10:** What is the current Active Directory functional level? (e.g. 2003, 2008 R2, 2012, 2012 R2, etc.)

**Answer:** **2003**

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**Question 11:** How many Virtual servers do you currently have?

- a) Are there any Business applications that are within scope that are not called out in the RFP? Current version? **Answered above and potentially some smaller Line of Business applications.**
- b) Status of manufacturer support/maintenance contract (e.g. valid till June 2015, or expired, or non-existent)? **All line of business applications the vendor will be required to support will be under maintenance.**
- c) Purpose of application? **N/A**
- d) Used by how many individuals? **N/A**

**Answer:** **See responses in bold above.**

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**Question 12:** Can you provide a full list of Network devices in current environment (i.e. Firewalls, Switches, Routers, Wireless Access Points / Controllers, Network Attached Storage devices, SANs, etc.)? For each please list the following:

- a) Make
- b) Model
- c) Serial Number
- d) Status of manufacturer supported warranty/maintenance contract (e.g. valid till June 2015, or expired, or non-existent)
- e) Site location for each

**Answer: This is not available.**

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**Question 13:** What type of backup solution is in place today?

- a) Brand - Evault
- b) Application name and version - Evault
- c) Frequency of backups - Daily
- d) Size of last full backup – N/A
- e) Backup storage medium (e.g. tape, disk, etc.) Local Vault

**Answer: As above.**

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**Question 14:** Current ISP provider and speed link up/down in Mbps?

**Answer: Southern Coastal Cable. Dual 50mpbs fiber.**

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**Question 15:** Are you utilizing any Software as a Service (SaaS) or other types of cloud hosted services for any business processes today? If yes, please explain

**Answer: Fire department uses SaaS RMS systems.**

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**Question 16:** Would Georgetown County Government be willing to use the existing and already approved Terms and Conditions from the State of South Carolina under the South Carolina WSCA Participating Addendum # 5000008961? This contract contains Terms and Conditions that have already been negotiated and approved by the State of South Carolina around indemnification and cancellation terms

- a) [http://www.mmo.sc.gov/webfiles/ITSUB/Dell\\_SC\\_Participating\\_Agreement.pdf](http://www.mmo.sc.gov/webfiles/ITSUB/Dell_SC_Participating_Agreement.pdf)
- b) [http://www.mmo.sc.gov/webfiles/ITSUB/Dell\\_Master\\_WSCA\\_Agreement.pdf](http://www.mmo.sc.gov/webfiles/ITSUB/Dell_Master_WSCA_Agreement.pdf)

**Answer: County staff thought an appropriate first option was to solicit solutions from experienced providers. If this does not result in an agreement determined to be in the best interest of Georgetown County, the County would then review the services available under the SC WSCA participating addendum.**

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**Question 17:** The awarded Vendor will incur set up costs in order to provide the services and hosting that would typically be recovered in the overall contract pricing for the intended term of the contract. Therefore, termination for convenience would pose a significant risk of loss to the vendor. Would Georgetown County Government be willing to negotiate termination provisions with the awarded vendor which will include the County's right to terminate for non-appropriation of funds but also

the County's compensation for Vendor's direct costs associated with set up and Services performed prior to the termination date?

**Answer:**      **The County Attorney has recommended that not to agree to set up (any vendor has to do that in the course of business, but would agree to services provided prior to termination as this is standard. This provides a balance as both sides assume an element of risk.**

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## ADDENDUM ACKNOWLEDGEMENT

### **Bid #15-009** **IT Managed Support and Hosted Services Provider** **Mandatory Submittal Form**

**To be returned with the final proposal submission to Georgetown County.**

COMPANY NAME: \_\_\_\_\_

- |                                     |                                  |                     |
|-------------------------------------|----------------------------------|---------------------|
| <input checked="" type="checkbox"/> | Addendum #1 Received Date: _____ | Initialed By: _____ |
| <input checked="" type="checkbox"/> | Addendum #2 Received Date: _____ | Initialed By: _____ |
| <input checked="" type="checkbox"/> | Addendum #3 Received Date: _____ | Initialed By: _____ |
| <input checked="" type="checkbox"/> | Addendum #4 Received Date: _____ | Initialed By: _____ |
| <input checked="" type="checkbox"/> | Addendum #5 Received Date: _____ | Initialed By: _____ |
| <input type="checkbox"/>            | Addendum #6 Received Date: _____ | Initialed By: _____ |

If your Bid submission has already been mailed, acknowledgment may be provided by faxing this form to (843)545-3500, or attaching a digital scan and sending by e-mail. .

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EXHIBIT "A"

# IT Assessment Findings & Recommendations

**Georgetown County, SC**  
*November 8, 2012*



# IT Assessment: *Table of Contents*

Section	Title
Introduction	Scope, Objectives, and Interview Process
Findings	Servers Network Infrastructure Security Telephony Support
Recommendations	Short Term Mid Term Long Term
Summary	Phased Deployment Plan Phase Costs



# IT Assessment: *Introduction*

## Project Scope and Objectives

Georgetown County has asked VC3 Inc. to provide an in-depth Technology Assessment and provide findings, summary analysis and recommendations based on the assessment.

The scope of the project included reviewing all data networks, IT systems and services utilized by the County. VC3 also conducted staff interviews with key departmental leaders. This information allowed VC3 to determine the status, topology, data connectivity, stability, and general readiness of the existing network systems.

The end result is that VC3 is able to provide a technology roadmap by which the County can chart a budgetary and technology plan for short, mid and long-term decisions.



# Georgetown County Assessment Team

Name	Role
Ryan Gallier	Lead Engineer
Larry Thompson	Network Engineer
Dustin Tucker	Telephony Engineer
Joe Foster	Virtual CIO
Scott Edwardsen	Virtual CIO
Amy McKeown	Project Manager
Joe Howland	Service Advantage Director
Larry Mattox	Government Sales
Sandy Reeser	President



# Process Review

- Performed 8 interview sessions
  - Understand the organization process flow
  - Understand the use of technology
- Performed 14 IT department staff interviews
- Performed onsite and offsite audit
- Identified areas of improvement

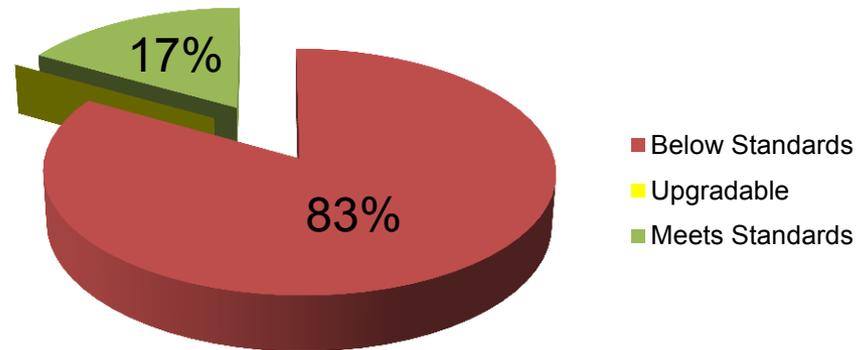


# Assessment: Servers / Storage

## High Level Overview

	Replacement Recommended	<b>30</b>
	Upgrade Recommended	<b>0</b>
	Meets Recommendations	<b>6</b>
	<b>Total</b>	<b>36</b>

Servers



*\* See Overview Table*



# Assessment: Servers

## Server Health

### Server Overview Table

EOL	PC Name	HW Platform	Service Tag	CPU	Speed	RAID	RAM	Drive Size (Gb)	OS	Service Pack
	gcg-acsc4-2	VMware Virtual Platform		Intel Xeon	2933 MHz		4.00 Gb	C:(Ntfs) 60.0 Gb (55.3 Gb free = 92.2%)	Windows 2003 Server Standard	Service Pack 1
	gcg-arcgis	VMware Virtual Platform		Intel Xeon	2934 MHz		2.00 Gb	C:(Ntfs) 40.0 Gb (27.8 Gb free = 69.6%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-avs	ProLiant DL320 G5p	USE906N16C	Intel Xeon	2666 MHz		3.37 Gb	C:(Ntfs) 30.0 Gb (17.3 Gb free = 57.7%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-bdc	eserver xSeries 346-[8840C1X]	KPARTG5	Intel Xeon	3400 MHz		2.00 Gb	C:(Ntfs) 32.0 Gb (22.3 Gb free = 69.8%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-dc1	ProLiant DL380 G4	USE641NFCC	Intel Xeon	3000 MHz		2.00 Gb	C:(Ntfs) 30.5 Gb (2.28 Gb free = 7.5%)	Windows 2003 Server Standard	Service Pack 2
	gcg-freemob	VMware Virtual Platform		Intel Xeon	2000 MHz		2.00 Gb	C:(Ntfs) 40.0 Gb (15.8 Gb free = 39.4%)	Windows 2003 Server Enterprise	Service Pack 2
X	gcg-gis	ProLiant ML350 G4p	USE643N0MC	Intel Xeon	3000 MHz		3.50 Gb	C:(Ntfs) 8.01 Gb (694.2 Mb free = 8.5%)	Windows 2003 Server Standard	Service Pack 2
	gcg-gis2	ProLiant ML370 G5	USE807N9JK	Intel Xeon	2000 MHz		12.0 Gb	C:(Ntfs) 29.3 Gb (3.80 Gb free = 13.0%)	Windows 2003 Server Enterprise	Service Pack 2
X	gcg-icon	ProLiant DL320 G5p	MX28100077	Intel Xeon	2666 MHz		3.37 Gb	C:(Ntfs) 19.5 Gb (7.15 Gb free = 36.6%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-landesk	ProLiant DL380 G4	USE644N7LT	Intel Xeon	3000 MHz		2.00 Gb	C:(Ntfs) 29.5 Gb (3.08 Gb free = 10.4%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-mail1	ProLiant DL320 G5p	MX28160087	Intel Xeon	2133 MHz		4.00 Gb	C:(Ntfs) 49.3 Gb (2.96 Gb free = 6.0%)	Windows 2003 Server Enterprise x64	Service Pack 2
X	gcg-mail2	ProLiant DL380 G5	2UX81506AC	Intel Xeon	2333 MHz		10.00 Gb	C:(Ntfs) 30.0 Gb (7.72 Gb free = 25.7%)	Windows 2003 Server Enterprise x64	Service Pack 2
X	gcg-mail3	ProLiant DL380 G5	021BFMQXF9G7	Intel Xeon	2333 MHz		10.00 Gb	C:(Ntfs) 30.0 Gb (11.1 Gb free = 37.0%)	Windows 2003 Server Enterprise x64	Service Pack 2
X	gcg-nas1	PowerEdge 2900	37Y4TB1	Intel Xeon	2990 MHz		2.00 Gb	C:(Ntfs) 12.0 Gb (2.04 Gb free = 17.0%)	Windows 2003 Server R2 Standard x64	Service Pack 2
X	gcg-nas2	PowerEdge 2900	17Y4TB1	Intel Xeon	2990 MHz		2.00 Gb	C:(Ntfs) 12.0 Gb (1.89 Gb free = 15.8%)	Windows 2003 Server R2 Standard x64	Service Pack 2
X	gcg-patriot	ProLiant DL160 G6	USE013N5PB	Intel Xeon	2520 MHz		16.0 Gb	C:(Ntfs) 49.0 Gb (20.0 Gb free = 40.7%)	Windows 2003 Server Enterprise x64	Service Pack 2
X	gcg-pdc1	ProLiant DL320 G5p	USE820N53Q	Intel Xeon	2400 MHz		4.00 Gb	C:(Ntfs) 30.0 Gb (15.3 Gb free = 51.0%)	Windows 2003 Server Enterprise x64	Service Pack 2
X	gcg-tandberg	Virtual Machine		Intel Xeon	550 MHz		512 Mb	C:(Ntfs) 16.4 Gb (9.32 Gb free = 56.9%)	Windows 2000 Server	Service Pack 4
X	gcg-unity	eserver xSeries 346-[8840C1X]	KQVMN3K	Intel Xeon	3400 MHz		2.00 Gb	C:(Ntfs) 12.0 Gb (3.34 Gb free = 27.8%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-web	ProLiant DL360 G5	USE909N66Z	Intel Xeon	2333 MHz		3.25 Gb	C:(Ntfs) 30.0 Gb (4.22 Gb free = 14.1%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-websense	ProLiant DL380 G4	USE641NFCB	Intel Xeon	3000 MHz		2.00 Gb	C:(Ntfs) 8.01 Gb (1.92 Gb free = 24.0%)	Windows 2003 Server Standard	Service Pack 2
X	gcg-wsus	ProLiant DL380 G4	USE516A354	Intel Xeon	3400 MHz		2.00 Gb	C:(Ntfs) 30.0 Gb (19.9 Gb free = 66.2%)	Windows 2003 Server Standard	Service Pack 2
	gcg-xmedius	VMware Virtual Platform		Intel Xeon	2933 MHz		4.00 Gb	C:(Ntfs) 50.0 Gb (40.4 Gb free = 80.8%)	Windows 2003 Server Standard	Service Pack 2
X	gcgovdbm	Virtual Machine		Intel Xeon	550 MHz		1.66 Gb	C: Local Disk(Ntfs) 16.4 Gb (10.6 Gb free = 64.6%)	Windows 2000 Server	Service Pack 4
X	gcgovdm	ProLiant ML350 G3		Intel Xeon	3066 MHz		3.00 Gb	C: Local Disk(Ntfs) 135.7 Gb (43.1 Gb free = 31.8%)	Windows 2003 Server Standard	Service Pack 2
X	gcgovpr	Virtual Machine		Intel Xeon	550 MHz		512 Mb	C:(Ntfs) 16.4 Gb (12.2 Gb free = 74.5%)	Windows 2000 Server	Service Pack 4
X	gcgovvs	ProLiant DL380 G4	EAAWMJG142	Intel Xeon	3600 MHz		4.00 Gb	C:(Ntfs) 9.38 Gb (1.07 Gb free = 11.4%)	Windows 2003 Server Standard	Service Pack 2
X	gclibdc	PowerEdge 860	BHLCYC1	Intel Xeon	1867 MHz		4.00 Gb	C:(Ntfs) 12.8 Gb (4.28 Gb free = 33.5%)	Windows 2003 Server Standard	Service Pack 2
X	gclibpdc	PowerEdge 860	9HLCYC1	Intel Xeon	1867 MHz		4.00 Gb	C:(Ntfs) 12.8 Gb (2.50 Gb free = 19.6%)	Windows 2003 Server Standard	Service Pack 2
X	gcso-dc	ProLiant ML350 G4p	USE642NFF9	Intel Xeon	3000 MHz		3.58 Gb	C:(Ntfs) 6.15 Gb (2.58 Gb free = 42.0%)	Windows 2000 Server	Service Pack 4
X	gcso-dig-ally	ProLiant ML110 G5	USE837N5QN	Intel Xeon	3000 MHz		2.00 Gb	C:(Ntfs) 148.1 Gb (133.8 Gb free = 90.4%)	Windows 2003 Server Standard	Service Pack 2
	gcso-oqs	Q57	140374-0711	Intel Core i3	2926 MHz		3.80 Gb	C:(Ntfs) 30.0 Gb (23.8 Gb free = 79.3%)	Windows 2003 Server Standard	Service Pack 2
X	gcso-pdc	ALR 7200		Intel Pentium III	600 MHz		1.00 Gb	C:(Ntfs) 74.5 Gb (66.0 Gb free = 88.5%)	Windows 2003 Server Standard	Service Pack 2
X	gcso-rms	ProLiant ML350 G4p	USE642NFF8	Intel Xeon	3000 MHz		3.58 Gb	C:(Ntfs) 30.7 Gb (0 bytes free = 0.0%)	Windows 2000 Server	Service Pack 4
X	mware	ProLiant ML350 G3	EA1FKZRZ3F	Intel Xeon	2800 MHz		3.00 Gb	C: Local Disk(Ntfs) 29.5 Gb (11.9 Gb free = 40.3%)	Windows 2003 Server Standard	Service Pack 2
X	navce	E-4500D	38636193	Intel Pentium D	2800 MHz		0.99 Gb	C:(Ntfs) 74.5 Gb (53.9 Gb free = 72.3%)	Windows XP Professional	Service Pack 3



# Findings: *Servers / General (definitions)*

Technical Term	Definition
Active Directory	<ul style="list-style-type: none"><li>• Microsoft's trademarked directory service</li><li>• Active Directory provides a central location for network administration and security</li><li>• Assigns and enforces security policies for all computers and users</li></ul>
Group Policy	<ul style="list-style-type: none"><li>• Allows administrators to define options for what users can do on a computer system. Example – Force users to have complex passwords. Example – Force users homepage to bcnv.org</li><li>• This is a VERY powerful tool for administrators</li></ul>
Domain Administrator	<ul style="list-style-type: none"><li>• A user who is a “Domain Administrator” generally has unrestricted access to all workstations and computers on an Active Directory domain</li></ul>
Domain	<ul style="list-style-type: none"><li>• A domain is everything that is joined to Active Directory; This includes all workstations, servers and users in an environment</li></ul>



# Findings: Servers / General

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>Mixed server environment<ul style="list-style-type: none"><li>HP, Dell, Cisco and Whitebox hardware</li></ul></li></ul>	<ul style="list-style-type: none"><li>Many vendors increases support costs</li></ul>
<ul style="list-style-type: none"><li>Most servers are end of life and/or no warranty</li></ul>	<ul style="list-style-type: none"><li>Failure is more likely</li><li>Increased window of recovery per failure</li><li>Higher cost to remediate</li><li>Replacement may take longer due to availability of parts</li></ul>
<ul style="list-style-type: none"><li>Centralized domain</li></ul>	<ul style="list-style-type: none"><li>Follows Microsoft best practices</li><li>Lowers management time</li><li>Ease of management through single interface</li></ul>
<ul style="list-style-type: none"><li>No server monitoring in place</li></ul>	<ul style="list-style-type: none"><li>No systematic monitoring of server infrastructure</li><li>Higher likelihood that failures will go unreported</li><li>Reduces time to resolution for server issues</li></ul>



# Findings: Servers / General

Summary of Findings	What this means....
<ul style="list-style-type: none"> <li>E-mail SPAM protection provided through Barracuda</li> </ul>	<ul style="list-style-type: none"> <li>Provides protection from viruses and unwanted email messages</li> </ul>
<ul style="list-style-type: none"> <li>Utilizing Windows Software Update Services (WSUS) for centralized patch management</li> </ul>	<ul style="list-style-type: none"> <li>This follows Microsoft Best Practices</li> </ul>
<ul style="list-style-type: none"> <li><b>Servers configured to notify on update availability</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Servers need to be manually updated by MIS staff</b></li> </ul>
<ul style="list-style-type: none"> <li>Utilizing Group Policy to redirect documents and files to servers</li> </ul>	<ul style="list-style-type: none"> <li>This follows best practices</li> </ul>
<ul style="list-style-type: none"> <li><b>Centralized anti-virus coverage is in place, however not all systems are covered</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Increases the County security and reliability risk</b></li> <li><b>Slows reaction time to virus outbreaks</b></li> <li><b>Some systems have no Anti-Virus at all or Anti-Virus disabled (eg. Gcgovpr1, mail1, mail2, mail3, gcgovvs2)</b></li> </ul>



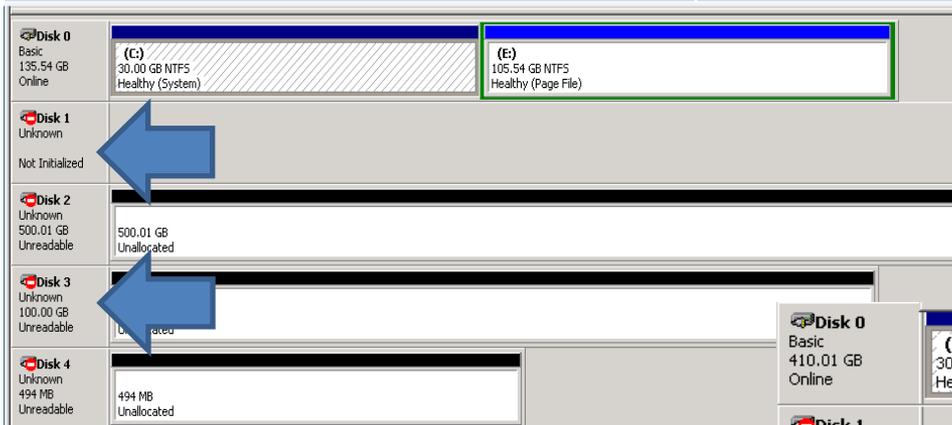
# Findings: Servers / General

## Summary of Findings

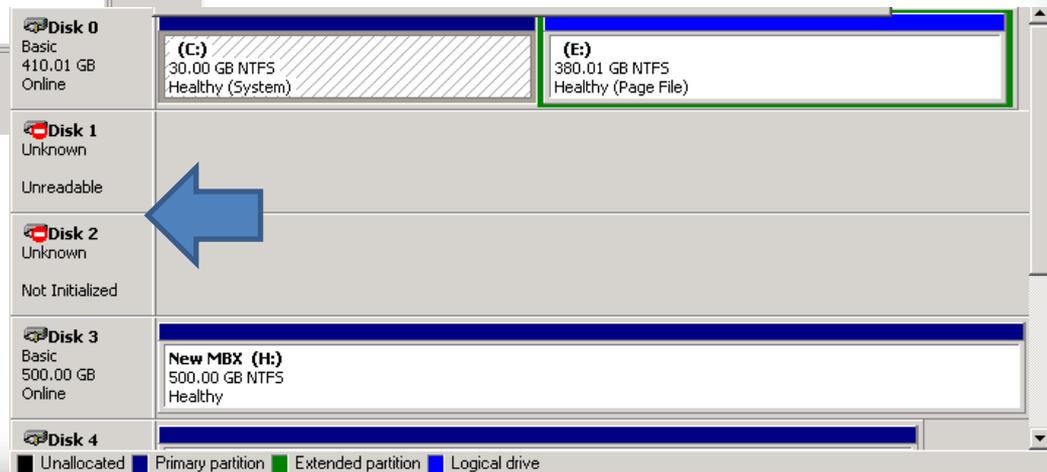
- Exchange High Availability configuration has broken
- Host physical servers cluster has failed
- Both servers have broken volumes

## What this means....

- High risk of email loss for County



MAIL3



MAIL2



# Findings: Servers / General

Summary of Findings	What this means....
<ul style="list-style-type: none"> <li>Active Directory is not fully leveraged</li> </ul>	<ul style="list-style-type: none"> <li>Potential for inefficiencies and downtime</li> <li>Increased effort to manage the environment</li> </ul>
<ul style="list-style-type: none"> <li>Not maximizing use of group policies</li> </ul>	<ul style="list-style-type: none"> <li>Best practices are not being followed</li> <li>Not making use of a powerful configuration tool in AD</li> </ul>
<ul style="list-style-type: none"> <li>Partially utilizing login scripts</li> </ul>	<ul style="list-style-type: none"> <li>Login scripts compliment Group Policy as well as perform functions that Group Policies cannot</li> <li>Using Login Scripts to map network drives</li> </ul>
<ul style="list-style-type: none"> <li>Disproportionate use of organizational units (OU)</li> </ul>	<ul style="list-style-type: none"> <li>Generally OUs are used to separate out users and computers so a logical Group Policy configuration can be used. There are excessive OUs without specific Group Policies assigned to them</li> </ul>
<ul style="list-style-type: none"> <li>Reverse DNS configured</li> </ul>	<ul style="list-style-type: none"> <li>This follows Microsoft Best practices</li> <li>Required for full Active Directory functionality</li> </ul>
<ul style="list-style-type: none"> <li>Services running as Domain Administrator</li> </ul>	<ul style="list-style-type: none"> <li>Not following Microsoft Best Practices</li> <li>These services will fail when Domain Administrator password changes (eg. Backup Exec, BlackBerry, SQL services)</li> </ul>



# Findings: Servers / Backup Strategy

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>• Incomplete backup strategy</li></ul>	<ul style="list-style-type: none"><li>• 15 out of 38 servers being backed up</li><li>• Exchange job has been failing as far back as the backup log goes (7-31-2012)<ul style="list-style-type: none"><li>• <i>This has been corrected since the assessment, however, the current configuration only has a 1 day retention of the County's email</i></li></ul></li><li>• No long term retention as tapes are not taken offsite</li><li>• Not testing for data consistency</li><li>• High likelihood of data loss</li></ul>
<ul style="list-style-type: none"><li>• No disaster recovery plan</li></ul>	<ul style="list-style-type: none"><li>• Risk of catastrophic data loss</li><li>• Potential for exceptionally prolonged recovery period</li></ul>



# Findings: *Infrastructure*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>Using managed network switches throughout environment.</li></ul>	<ul style="list-style-type: none"><li>Primary troubleshooting tool for network issues</li><li>Ability inspect network traffic</li></ul>
<ul style="list-style-type: none"><li>No network monitoring in place</li></ul>	<ul style="list-style-type: none"><li>No 24x7 systematic alerting on network issues</li><li>Outage resolution is stalled by lack of information</li><li>Users complaints maybe first indication of issue</li></ul>
<ul style="list-style-type: none"><li>Server room infrastructure meets needs of County</li></ul>	<ul style="list-style-type: none"><li>Adequate backup power</li><li>Sufficient cooling</li><li>Network and Server racks</li></ul>
<ul style="list-style-type: none"><li>EOL switches and routers being used<ul style="list-style-type: none"><li>CH-6513</li><li>MBL_MDF_3508</li><li>AND_MAG-3512</li></ul></li></ul>	<ul style="list-style-type: none"><li>Can't get Cisco SmartNET contracts</li><li>If devices fail they can't be replaced by Cisco</li><li>Will need cold spare strategy</li></ul>



# Findings: *Infrastructure*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>• Both County Storage Area Networks are out of warranty</li></ul>	<ul style="list-style-type: none"><li>• No firmware updates can installed</li><li>• Hardware failures may take up to 3-4 days longer</li><li>• GCG-SAN has a failed drive</li></ul>
<ul style="list-style-type: none"><li>• SAN Configuration does not meet best practices</li></ul>	<ul style="list-style-type: none"><li>• Both SANs have redundant controllers and only one is configured<ul style="list-style-type: none"><li>• Loss of redundancy</li></ul></li><li>• Misconfiguration of “Thin-Provisioned” LUNs</li></ul>
<ul style="list-style-type: none"><li>• vSphere host not connected to GCG-SAN4 with both network connections</li></ul>	<ul style="list-style-type: none"><li>• Loss of redundancy</li><li>• Loss of performance due to lack of throughput</li></ul>



# Findings: *Firewall / External Security*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>• Border security provided by vendor managed firewall</li></ul>	<ul style="list-style-type: none"><li>• The County is mostly protected against internet-based security threats</li><li>• The County has turned off all ports not in use and properly secured ports that are in use</li></ul>



# Findings: *Telephony*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>Utilizing Cisco Call Manager version 6.1.5 and Unity Voicemail 5.0.1</li></ul>	<ul style="list-style-type: none"><li>County is using an enterprise class voice technology</li></ul>
<ul style="list-style-type: none"><li>Software is out of warranty</li></ul>	<ul style="list-style-type: none"><li>Software is supportable at best effort</li><li>May lead to significant downtime</li></ul>
<ul style="list-style-type: none"><li>Backups are not being performed regularly</li></ul>	<ul style="list-style-type: none"><li>System configuration and voicemail is at a high risk of loss</li></ul>
<ul style="list-style-type: none"><li>SRST not configured correctly for a lot of sites (remote site survivability)</li></ul>	<ul style="list-style-type: none"><li>If main connection to Telco is lost many remote sites will lose the ability to use the phones</li></ul>
<ul style="list-style-type: none"><li>Voice gateways are End of Life</li></ul>	<ul style="list-style-type: none"><li>Support may be available at a high cost to the County</li></ul>



# Findings: *Support*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>• Help desk</li></ul>	<ul style="list-style-type: none"><li>• IT “Staff has an Accommodating attitude - want to make it right”</li><li>• Lack of measurable KPIs (Key Performance Indicators)<ul style="list-style-type: none"><li>• ITIL, ITSM, COBIT standards are not used</li><li>• Management cannot accurately gauge staff performance</li><li>• Customer expectations are not being set accurately or consistently</li><li>• “Ticket and project work is not completed on time”</li></ul></li><li>• “They will fix it but not check it”</li><li>• County departments are using alternate methods to support and implement IT related issues and projects<ul style="list-style-type: none"><li>• “I’m circumventing the system” - to get service</li></ul></li><li>• <b>Staff is often not accessible</b><ul style="list-style-type: none"><li>• Department door is locked</li><li>• “No answer at helpdesk”</li></ul></li></ul>



# Findings: *Support*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>• Communication</li></ul>	<ul style="list-style-type: none"><li>• Outage statuses are not communicated to County staff or kept apprised of their issue's status<ul style="list-style-type: none"><li>• "We had an email outage this weekend?"</li><li>• "Still don't have credit card payment and don't know why"</li><li>• "I don't want to be on the blacklist"</li><li>• "Every time you ask something you get the response "were so short staffed""</li><li>• "Credit card thing is kind of becoming a joke around here - cashier location cannot accept credit cards. I don't know the problem is"</li></ul></li></ul>



# Findings: *Support*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>• Skill set</li></ul>	<ul style="list-style-type: none"><li>• <b>Not focused on core IT</b></li><li>• “Spent months working on the audiovisual system work in the Council chamber”</li><li>• Installed video camera - “never been able to access it”<ul style="list-style-type: none"><li>• Council Chambers A/V</li><li>• Video Surveillance</li><li>• Proximity badge system</li><li>• Cell phone management / repair</li><li>• Mobile communications installation into County vehicles</li></ul></li><li>• Desktop level support skills most prevalent</li><li>• Inadequate server skill set</li><li>• Insufficient network or voice skill set</li><li>• “biggest issue - Finish the first time right”</li><li>• Issue resolution is delayed due to inexperience<ul style="list-style-type: none"><li>• “Phone system goes down a lot - not a weekly occurrence”</li></ul></li><li>• Ongoing IT health is in jeopardy due to lack of systems knowledge</li><li>• “I can't even update the website (CMS)”</li></ul>



# Findings: *Support*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>• Strategic Planning</li></ul>	<ul style="list-style-type: none"><li>• MIS follows other department's IT leadership<ul style="list-style-type: none"><li>• "we try to drive this thing (IT) ourselves and bring them along the way"</li><li>• "VPN on the iPad would be good"</li></ul></li><li>• Misunderstanding between MIS and departments of source funds</li><li>• Budget is not fully utilized annually</li><li>• Few examples of standardization found<ul style="list-style-type: none"><li>• Additional time is spent due to learning multiple systems</li></ul></li><li>• Excessive staff specialization<ul style="list-style-type: none"><li>• General support is given by five staff<ul style="list-style-type: none"><li>• Two are dedicated to specific departments</li></ul></li><li>• Server, application and network support are single threaded without escalation</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Monitoring and proactive support</li></ul>	<ul style="list-style-type: none"><li>• <b>Proactive monitoring is not enabled</b><ul style="list-style-type: none"><li>• Most issues must be reported by staff</li><li>• Loss of productivity</li><li>• "Email was down this weekend for the entire weekend, going down more and more"</li><li>• "we had no voicemail for two weeks"</li></ul></li></ul>

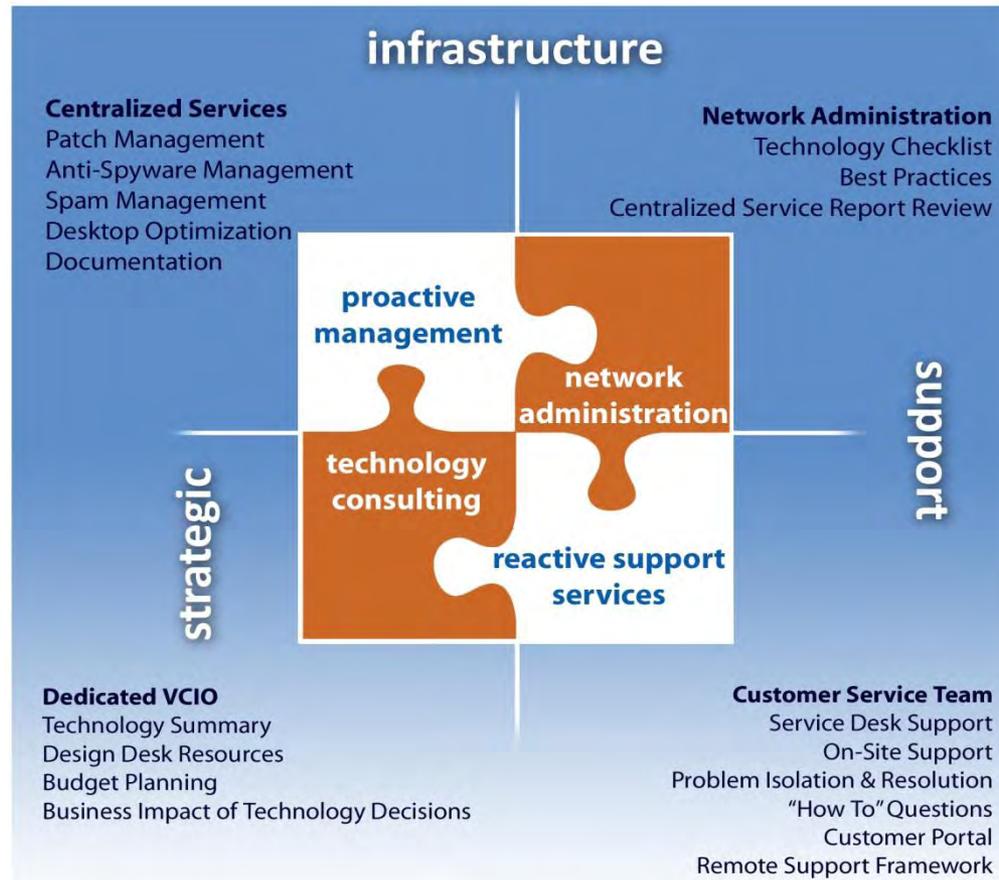


# Findings: *Support*

Summary of Findings	What this means....
<ul style="list-style-type: none"><li>Administration</li></ul>	<ul style="list-style-type: none"><li><b>Lifecycle replacement program not best practice</b><ul style="list-style-type: none"><li>Loss of productivity when systems are not functioning</li><li>Older systems decrease staff efficiency</li><li>Higher cost to the county in lost time for both staff and MIS<ul style="list-style-type: none"><li>“Servers and PCs are replaced when broken”</li><li>“Add a computer replacement program. We currently have a Seven-year-old Gateway”</li><li>“Very old PC in finance - eight years”</li></ul></li></ul></li><li><b>IT Management does not understand the County’s deployed technology</b><ul style="list-style-type: none"><li>Backup process</li><li>Virtualization</li><li>Monitoring</li><li>Server utilization (space and applications)</li><li>Security management (A/V, firewall, and Spam) No functional oversight of deployed technology</li><li>Risks cannot be properly assessed by management</li><li>Systems health can only be loosely estimated</li></ul></li><li>Escalation process not well defined</li><li>“I should be involved in whoever has access to County resources in my department (VPN)”</li></ul>



# Core IT Support Services



# Core IT Support Services - *Evaluation*

Proactive Management	
Patch Management	Poor
Anti-Spyware / Anti-Virus	Poor
SPAM Management	Good
Desktop Optimization	Poor
Documentation	Needs Improvement

Technology Consulting	
Strategic Planning	Poor
Budget Planning	Poor
Design Desk Resources	Poor

Network Administration	
Technology Checklist	Poor
Best Practices	Poor
Service Report Review	Poor

Reactive Support	
Service Desk Support	Poor
On-Site Support	Poor
Problem Resolution	Poor
"How To"	Poor
Remote Support Framework	Needs Improvement

## Legend

- Good ■
- Needs Improvement ■
- Poor ■



# Recommendations:

## Option 1:

*Traditional IT Infrastructure with supplementary managed services*

## Option 2:

*Premise based hosting with full managed services*



# Option 1: *Short Term*

Recommendations	Benefits
<ul style="list-style-type: none"><li>• Implement backup solution with offsite retention and include all servers in backup</li></ul>	<ul style="list-style-type: none"><li>• Assurance that data is recoverable</li><li>• Increased efficiency</li></ul>
<ul style="list-style-type: none"><li>• Implement Server Virtualization with Existing Cisco UCS Blade Chassis</li></ul>	<ul style="list-style-type: none"><li>• Reduces operating cost</li><li>• Saves warranty expense</li><li>• Simplifies management</li><li>• Reduces capital expense to accommodate growth</li><li>• Maximize virtual hardware</li><li>• Reduced management time/cost</li></ul>
<ul style="list-style-type: none"><li>• Complete centralized Anti-Virus deployment</li></ul>	<ul style="list-style-type: none"><li>• Single point of view into Anti-Virus environment.</li><li>• Rapid response to virus outbreaks</li></ul>



# Option 1: *Short Term*

Recommendations	Benefits
<ul style="list-style-type: none"><li>Utilize Active Directory to implement standards across workstations and servers</li></ul>	<ul style="list-style-type: none"><li>Home Directories/My Document Redirection</li><li>Login Scripts</li><li>Printer Mappings</li><li>Patch Management</li></ul>
<ul style="list-style-type: none"><li>Move to a full service 24x7x365 proactive support model</li></ul>	<ul style="list-style-type: none"><li>Improved customer support</li><li>Allows support of mission critical services such as Sheriff, EMS and Fire</li><li>Reduced downtime</li></ul>



# Option 1: *Mid Term*

Recommendations	Benefits
<ul style="list-style-type: none"><li>• Migrate email to Exchange 2010</li></ul>	<ul style="list-style-type: none"><li>• Corrects current Exchange Cluster problem</li><li>• More robust email and calendaring solution</li></ul>
<ul style="list-style-type: none"><li>• Consolidate server roles onto fewer server instances</li></ul>	<ul style="list-style-type: none"><li>• Maximize hardware utilization</li><li>• Lowers licensing cost</li><li>• Increased management efficiency</li></ul>
<ul style="list-style-type: none"><li>• Replace End-Of-Life network switches</li></ul>	<ul style="list-style-type: none"><li>• Increases uptime with current hardware</li></ul>



# Option 1: *Long Term*

## Recommendations

- Implement geographically separated Disaster Recovery Solution

## Benefits

- Ensures County can continue to serve it's residents and businesses



# Option 1 Phase 1: *Short Term*

Phase 1 Projects				
Priority	Description	Fixed Cost	Monthly Cost	Needed with Managed Services?
1	<i>New Backup Strategy</i>	\$ 164,884		
2	<i>Server Virtualization and Storage Implementation</i>	\$ 153,627		
3	<i>Complete Centralized Antivirus Deployment</i>	\$ 9,692		<i>N</i>
4	<i>Implement Active Directory Standards</i>	\$ 4,019		<i>N</i>
5	<i>24x7 Proactive Managed Services</i>	\$ 55,650	\$ 50,650	
	<b>Total</b>	<b>\$ 387,872</b>	<b>\$ 50,650</b>	



# Option 1 Phase 2: *Mid Term*

Phase 2 Projects				
Priority	Description	Fixed Cost	Monthly Cost	Needed with Managed Services?
1	<i>Exchange 2010 Implementation</i>	\$ 90,873		
2	<i>Server Consolidation</i>	\$ 53,187		
3	<i>Network Infrastructure Replacement</i>	\$ 215,247		
	<b>Total</b>	<b>\$ 359,307</b>		



# Option 1 Phase 3: *Long Term*

Phase 3 Projects				
Priority	Description	Fixed Cost	Monthly Cost	Needed with Managed Services?
1	<i>Disaster Recovery</i>	\$ 60,491	\$ 3,312	
	<b>Total</b>	<b>\$ 60,491</b>	<b>\$ 3,312</b>	



# Option 1 Total Costs

Total Projects			
Priority	Description	Fixed Cost	Monthly Cost
1	<i>Phase 1 with 24x7 Proactive Service Model</i>	\$ 387,872	\$ 50,650
2	<i>Phase 2</i>	\$ 359,307	
3	<i>Phase 3 Disaster Recovery</i>	\$ 60,491	\$ 3,312
	<b>Total</b>	<b>\$ 807,670</b>	<b>\$ 53,962</b>



# Option 2: Short Term

Phase 1 Projects				
Priority	Description	Fixed Cost	Monthly Cost	Needed with Managed Services?
1	<i>Server Virtualization</i>	\$ 153,627		
2	<i>Server Consolidation</i>	\$ 53,187		
3	<i>Premise Based Hosted Environment</i>	\$ 67,100	\$ 70,100	
	<b>Total</b>	<b>\$ 273,914</b>	<b>\$ 70,100</b>	

Phase 2 Projects				
Priority	Description	Fixed Cost	Monthly Cost	Needed with Managed Services?
4	<i>Network Infrastructure Replacement</i>	\$ 215,247		
	<b>Total</b>	<b>\$ 215,247</b>		



# Cost Summary

Option 1 Total Projects		
Description	Fixed Cost	Monthly Cost
<i>Option 1 with 24x7 Proactive Service Model and Disaster Recovery</i>	<b>\$ 807,670</b>	<b>\$ 53,962</b>

Option 1 Costs Matrix							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Average Yearly Cost
Monthly Cost	\$ 53,962	\$ 55,581	\$ 57,248	\$ 58,966	\$ 60,735	\$ 62,557	
Annualized Total	\$ 1,608,446	\$ 1,543,747	\$ 1,264,940	\$ 1,289,070	\$ 1,246,286	\$ 1,268,151	<b>\$ 1,438,107</b>

Option 2 Total Projects		
Description	Fixed Cost	Year 1 Monthly Cost
<i>Option 2 with Premise Based Hosted Environment</i>	<b>\$ 489,828</b>	<b>\$ 70,170</b>

Option 2 Costs Matrix						
	Year 1	Year 2	Year 3	Year 4	Year 5	Average Yearly Cost
Monthly Cost	\$ 70,170	\$ 72,275	\$ 74,443	\$ 76,677	\$ 78,977	
Annualized Total	\$ 1,328,624	\$ 1,225,048	\$ 1,035,820	\$ 1,062,620	\$ 1,090,223	<b>\$ 1,143,498</b>



# Questions?

