

Commissioner John Newman
Finance Committee Chairman
Madison County Finance
701 South Highland Avenue
Jackson, TN 38301

Re: Sheriff Woolfork 080107

August 6, 2007

Dear Commissioner Newman,

In response to the Sheriff's letter I have compiled the following information for you, the other commissioners, and others interested in resolving the listed issues. I understand that the Sheriff's Department has quite a list of issues listed in his letter; please note that Aeneas has received NO trouble ticket calls from the Sheriff from April 12, 2007 until August 1 when one instance was reported on 423-1320. This problem was identified as a switch vendor matter and directed to Main Street Connections (MSC). We have researched each of the Sheriff's issues and will do our best to respond to most of the listed items.

Fri. – Jan. 12

Communications division was not to be included in service change.

In his first paragraph the Sheriff states that orders to leave the communications division with BellSouth were ignored, and that the communications division was not informed of the change over. This statement is not entirely correct. The communications division (Dispatch) had to be included in the service changes. The five lines that serve the dispatch consoles were BellSouth Centrex lines and the costly Centrex system that served most offices of the County Government offices was being replaced per Finance Committee recommendation to reduce monthly cost and help pay for a new communications system. With the entire Centrex system being replaced those lines had to be serviced differently.

The county's consultant, Barbara Rawles, and I passed information to the 911 Manager that those five lines for the Sheriff's Department that terminated on her 911 system were scheduled to be replaced with standard type business lines, in place of the current Centrex lines. We informed her that she would need to contact BellSouth 911 System technicians to schedule and order any programming changes that might need to be made due to the change. Even though several notifications to her office were made, no order was placed with BellSouth technicians to make any required changes. Thus when the scheduled changeover took place on January 12th several issues and a period of service disruption took place while Aeneas and Main Street personnel worked diligently to put a valid temporary solution in place. This solution required the five lines be served as analog extensions of the new phone system with the five phone numbers pointed to the system. This allowed the inbound and outbound calls to work until an order could be placed by the system co-coordinator to allow us to connect the correct type lines to the dispatch

system. The dispatch lines were handling incoming and outgoing calls that evening with the temporary solution.

Sat. – Jan. 13

Unable to make outgoing calls phones not working properly.

Calls to some phone numbers did not route correctly due the fact that not all MSC systems were completely finished setting extensions and making programming changes.

MSC technicians arrived first thing to finish placement of phones and programming of extensions. By 10:00 am all programming in the Sheriff's Department building were completed and regular service was working.

Wed. – Jan. 17

One dispatch line not working properly.

Phone number 423-6109 – the fifth line pointed to the dispatch board - had reported problem not showing correct information on outgoing Caller ID. 423-6109 was an analog extension not a line. This was corrected when the county installed the correct lines to the dispatch system (see Jan 12 response).

Tues. - March 6

22:30 until 23:21 Could not receive incoming calls, dispatch cannot call out.

Five lines on dispatch were still analog extensions of the new phone system.

I have no knowledge of this report but there was no indication that the voice circuits serving the county had any service interruption. The four other county buildings were not experiencing this type of trouble.

Tues. - March 13

07:30 until 10:00 Incoming and outgoing calls on console not working.

The dispatch consoles could not make outgoing calls, and could not receive incoming calls. Aeneas and Main Street both responded to service call. The trouble was found to be neither an Aeneas service issue, nor Main Street system equipment issue. The problem was the ASA 400 computer that supports the computer based consoles for dispatch was locked up. Rebooting the dispatch's ASA 400 cleared the trouble.

Thurs. - March 15

08:44 Cannot transfer calls. Three incoming calls dropped.

No report to Aeneas of this event, I must assume Main Street responded and cleared the trouble report. All other county buildings were not experiencing trouble.

Mon. – March 19

15:17 Cannot call 423-6098 dispatch line one.

Aeneas responded to trouble report and could not find a problem with anyone calling 423-6098. 423-6098 was pointed to an analog port on the phone system. This was corrected when the county installed the correct lines to the dispatch system (see Jan 12 response).

Thurs. – March 22

08:30 until 09:24 Cannot receive calls to dispatch, or make out going calls.

14:05 Cannot call long distance to Williamson County from dispatch.

No report of this event to Aeneas, I can only assume MSC dispatched and corrected, or trouble ceased on its own. All other county buildings were not experiencing trouble. Could be call path busy condition due to system congestion. See Note below.

Tues. – April 3

13:05 until 13:49 Service down, cannot call out or receive incoming calls.

This was an Aeneas problem due to defective Day Light Savings software load. Services were restored within fifteen minutes; however various MSC switches took additional time to sync (this is normal). Aeneas reported issue to CO switch vendor and software update was loaded to prevent any other similar failure.

Wed. – April 4

14:28 *Sheriff's Secretary unable to transfer call to dispatch.*

Aeneas was contacted. Aeneas technician tried to replicate and was unable to replicate reported problem. No way to know what occurred on the one failed call.

Wed. – April 11

14:28 *Call to 423-6160 reached recording stating number no longer in service.*

Aeneas was contacted. Aeneas technician tried to replicate and was unable to replicate reported problem. Single event was likely a call routing table error in Main Street PBX.

Mon. - April 16

07:55 until 08:36 *Not able to make outside calls.*

Internal Aeneas analysis showed no service issues. No other county offices reported problems. Source of problem unknown. Aeneas suggests MSC direct further analysis to PBX routing and/or call path busy condition due to system congestion. See Note below.

Thurs. – April 19

08:48 *Attempted to call 988-2493 at CJC received recording number not in service.*

This was a call routing table error in Main Street PBX phone system.

Note: A call dialing 9 + number to another user in the system ties up one outbound path and one inbound path to the county system. There are a limited number of paths available. For this reason, all calls to phone numbers for extensions within the system should be dialed as their four digit extension number instead of dialing 9 + the number.

Fri. – April 20

9:50 *Dr. in Memphis received call and CLID displayed 423-1304 but not Madison County Govt. and he did not know who he was calling back.*

This was Aeneas' responsibility. Caller ID was updated on this number to show proper name.

Mon. - April 23

14:15 until 15:28 *JEA Power Outage phone systems out of service.*

The county's new phone system was installed without battery backup systems.

Both Aeneas and MSC urged that battery backup systems be installed with the system. Finance Committee and the County officials opted not to install battery back ups. MSC has now installed battery backup systems.

Tues. - June 12

09:12 until 11:30 *Sheriff's Dept Bldg can not make or receive calls except for dispatch.*

Aeneas was contacted by MSC and asked test all Aeneas circuits and services. No problems were discovered. Test calls to other County offices were without incident. An Aeneas technician was dispatched to the Sheriff's Dept. to advise Sheriff and Lt. Elston that the outage appeared to be only their building and to reroute 423-6000 to dispatch until phone system issue was resolved. MSC made several adjustments to restore service and finally service was restored at 11:30am.

Fri. – July 6

8:15 until 8:55 *Could not make out going calls or transfer to calls outside.*

Aeneas was contacted by MSC and asked test all Aeneas circuits and services. No problems were discovered. Test calls to other County offices were without incident. Aeneas suggests MSC direct further analysis to PBX routing and/or call path busy condition due to system congestion. See Note above regarding call paths being tied up. Could be phone switch issue in Sheriff's building.

14:25 until 14:50 *Calls dropped when answered.*

Aeneas was contacted by MSC and asked test all Aeneas circuits and services. Again, no problems were discovered. Test calls to other County offices were without incident. Aeneas suggests MSC direct further analysis to PBX routing and/or call path busy condition due to system congestion. See Note above. Could be phone switch issue in Sheriff's building.

15:08 until 15:15 *Dispatch console can not get dial tone.*

Aeneas was contacted by MSC and asked test all Aeneas circuits and services. Aeneas technician suggested the possibility that the ASA 400 had the console locked up. See Mar. 13 response. Dispatcher rebooted console and that corrected the problem.

Mon. - July 9 / Tues. - July 10 / Wed. - July 11

Incoming calls being dropped, outgoing busy.

No report of these events to Aeneas. Unknown cause. It is assumed these were reported to MSC and that they were repaired.

Fri. - July 20

Incoming call to 423-6081 (Sheriff's Secretary) reached Registrar's Office.

No report of this event to Aeneas. Clearly a MSC PBX call routing error. It is assumed these were reported to MSC and that they were repaired. Per the county phone system design, Aeneas routes all Sheriff's Department and CJC numbers to the CJC building. From there the MSC PBX routes all numbers to the correct extension in either the CJC or Sheriff's Department Building.

Tues. - July 31

Incoming call to 423-6081 (Sheriff's Secretary) and 423-6090 the caller is not able to hear us well.

No report of this event to Aeneas. Unknown cause. (This could also be a problem with an outside caller's line or MSC PBX extension).

Wed. - August 1

08:10 until 08:45 *Could not make outgoing calls but are receiving calls ok.*

Aeneas tested all circuits to county system and determined that all were working correctly. Test calls were made successfully to other County buildings. This type issue has been listed several times, and continues to be only reported in the Sheriff's Department. Cause unknown. Aeneas assumes it is a MSC PBX issue because no other County location reports this problem.

08:10 - In reference to the item listed call to 554-9232 #3.

That is not the proper Aeneas support number to call reporting a service issue. 554-9232s is a direct extension phone number of a specific Aeneas employee. Aeneas cannot guarantee specific staff member availability. The Sheriff's Dept. has previously been advised to call standard support line and escalation call list which are available 24x7.

Aeneas tested all circuits to county system and determined that all were working correctly. Test calls were made successfully to other County buildings. Aeneas contacted MSC to be sure they were aware of the report. Aeneas was informed that MSC had dispatched a technician on the issue and repaired it. Aeneas staff paid a courtesy visit to Sheriff Dept. at 8:35am and found the phones working properly after the Main Street technician had come and gone.

09:08 *Call transferred from dispatch to 423-1320 received recording of non-working number. Tried again and with same results.*

Aeneas was called and upon testing received same results. Aeneas had traces run on test calls and the numbers were delivered to the CJC per system design, but call was not routed by the MSC PBX. This is still the case with that number.

Aeneas personnel have always acted quickly to check any possible issues with the county's telephone service. Only once, on April 3rd, have any of the Aeneas provided circuits connecting the four Main Street PBX switches which make up the county's phone system been down or in trouble. Without charge to the County, Aeneas personnel have gone above and beyond to aid resolution of any issues with the county's communication services. Aeneas personnel have been, and are willing to assist in changes the vendor and/or county deems necessary to resolve existing or future issues.

It is a fact that the problems the Sheriff's Department experiences are unique to that location and are not experienced by all County locations served by Aeneas. This is indicative of problems either with the MSC PBX system, with programming or wiring, or with user habits/inadequate user training, or a combination of these items.

Aeneas staff observes that many of the Sheriff Department's personnel transfer calls and make calls to other departments by dialing the call 9+ the number, instead of dialing a four digit extension number. This dialing habit causes system congestion in the network and other possible service issues. The users do this either due to a lack of training, or lack of understanding of how improper dialing technique causes system congestion and service issues.

While the design of the network is not a poor design, it is not one Aeneas would have recommended. It creates a concentration of call traffic and amplifies service issues. Aeneas engineers have made our assessment of the network topology known to the Finance Committee and the County's Communications consultant, in advance of the service implementation, during Finance Committee meetings and after the acceptance of the bid for the system. Aeneas has suggested additional call paths and that a direct PRI circuit deliver calls to the Sheriff's Dept. and not first through the CJC. This is due to the Sheriff's high number of calls and call patterns.

The County PBX phone network was not designed, sold, nor is it serviced by Aeneas.

Aeneas has suggested the MSC PBX be programmed so that all County extension numbers be the last four digits of all County DID's following numbering pattern all County employees are familiar with from the past 15 years of usage. Such an extension numbering pattern would not only make it easier for users to remember others' extensions, it would be easier for them to transfer calls or to dial to other users in the system without requiring them to look up new extension numbers. This would allow calls to stay within the system without tying up incoming and outgoing call paths.

The accompanying drawing on the next page shows the basic network design of the county phone system service network. Information below describes how specific phone numbers reach their desired location. The network design has two circuits that comprise the forty-six call paths (23 each) for incoming and outgoing calls for all five buildings in the network. There are also four direct circuits that carry calls from building to building. Those four circuits are capable of carrying 24 calls each before they reach capacity. The county offices receive hundreds of calls per department each day.

All phone numbers for Sheriff's Department and CJC are routed to CJC per phone system design as Primary route; the Secondary route is to the Courthouse. All phone numbers for Courthouse, Tax

Assessor's Office, and Juvenile Court are routed to Courthouse per phone system design as Primary route; the Secondary route is to the CJC.

If either primary route fails, phone numbers are then to be routed to their secondary route. Once the phone numbers reach their appointed route, it is the county phone system that is responsible for delivery of numbers to the correct extensions they are assigned to regardless of the route they come in on.

Calls to Sheriff's Department main number 423-6000 are routed via call forwarding activated by the records division to the CJC route from 08:00 till 16:00 and then rerouted by records division via call forwarding to the five dispatch lines from 16:00 to 08:00. Calls to dispatch are routed via the five lines to the dispatch console. These five lines are not part of the county phone system.

It is important to note that Aeneas has provided telephone to Madison County Government offices for several years. The Sheriff's department has utilized Aeneas Telephone service since February 2006 *without problem*. The Sheriff Dept. began reporting telephone problems *only with the introduction of the new telephone PBX/system in January 2007*. Please compare the Sheriff's experience with other Madison County offices not experiencing troubles such as Parks & Recreation, Madison County Community Corrections, Madison County Health Dept., Madison County EMA Madison County Chancery Court, Madison County Finance, Juvenile, Jackson Madison County Airport Authority, et al. The difference in these County offices' experience has not been the telephone service provider, but rather in the *PBX equipment*.

Aeneas Internet and Telephone wants nothing more than to bring the Sheriff's department reliable service, and we are eager to do everything possible to correct any problems *within our area of service responsibility*. In this case, we have reviewed the recent complaints in the Sheriff's letter to the County Commission, and we believe they are a continuation of problems associated months ago with the County's internal network and telephone equipment - which was not designed, sold, nor serviced by Aeneas.

Because of the confusion emanating from the Sheriff's Department about the causes of these problems and the diverse responsibilities of Main Street Connections and Aeneas Internet and Telephone, we suggest an independent review of the system. We agree wholeheartedly with the Sheriff that reliable telephone service is of the utmost important to the Sheriff's Department, which is dealing with emergencies daily, and we believe every effort should be made to clear up the existing confusion so that the problems can be corrected once and for all.

Respectfully submitted,

Thomas E. Brewer Jr.
Complex Services Engineer
Aeneas Internet and Telephone

Cc: Mayor Harris
Mike Nichols
Sheriff Woolfork
Barbara Rawles
Media

