

CITY OF CORAL GABLES

- MEMORANDUM -

TO: DENNIS L. WEINER
CHIEF OF POLICE

DATE: JUNE 16, 2014

FROM: JASON E. SWIFT
RADIO SHOP
VIA CHAIN OF COMMAND

SUBJECT:
E-911 RADIO DISPATCH
CONSOLE CONDITION

ACTION / RECOMMENDATION:

Due to imminent failure; the immediate replacement of C3 Maestro Dispatch Consoles and, existing console switching gear.

BACKGROUND:

The City's E-911 Dispatch Center currently has eight C3 Maestro dispatch consoles. Five of them date to 1999 and, the others were new in 2009. These consoles are active and operating 24 hours a days, seven days a week. For a console that has been in service since 1999, this is 131,400 hours or 7,884,000 minutes of continuous operation. For a console from 2009 this is 43,800 hours or, 2,628,000 minute of operation.

These Maestro consoles consist primarily of a PC computer and, a specialized audio switching device called and Enhance Audio Enclosure (EAE). The oldest consoles utilize a Windows NT 4.0 operating system while the newer ones operate Windows XP. Windows XP was recently discontinued in terms of support and updates. Windows NT 4.0, on the other hand, went out of support, in a phased fashion, between 2003 and 2005. Being out of support means there are no further updates to the operating system. This is particularly problematic as it relates to new (replacement) hardware drivers.

Windows NT 4.0 and XP both operate on 32 bit operating systems. In 2008, Windows stopped releasing 32 bit software and consequentially, the accompanying hardware also ceased production. Computers have certain rotating parts inside of them such as cooling fans and, hard drives. It is now impossible to replace these rotating parts with new hardware. Simply put, there are no new 32 bit computers that have the capability to replace the Maestro's PC component.

Recently, due to a Windows XP error a 2009 Maestro had to be recovered. The PC's CD-ROM drive, used in the recovery procedure, failed and had to be replaced. A direct replacement was not available new; one had to be ordered off eBay.

These Maestro Consoles have soldiered on well beyond the reasonable period of time anyone would expect a PC to have survived, much less survived in a mission critical capacity. At any time, the power supply cooling fans, a \$20 part originally, could burn through it's sealed bearings and cause a catastrophic power supply overheating failure. Fortunately, thus far, when these fans have gotten loud, we have replaced them proactively with whatever parts could be salvaged from IT's castoff's. The other rotating part of concern is the computer's hard drive itself. These are certainly not available new. While fans are somewhat generic, hard drives can be more specialized in terms of size and performance.

Based on the current age and unavailability of replacement parts for these Maestro Consoles, I am deeply concerned that a major failure could result in a Maestro being unserviceable. Further, it is worth noting that many of these consoles are the same age, while there's no guarantee, it's not out of the question to experience domino effects as like parts wear out in these machines.

Simply put, as these consoles continue to wear out, it will become less possible to repair them. Parts will not be available new and, used parts, of approximately the same age, may not be reliable.

SYNOPSIS / CONCLUSION:

Due to the life safety nature of these consoles' mission, it is, in my opinion, time to replace them immediately. I have grave concerns about their safety and security in their current roles. I believe that a non-recoverable failure is imminent. I have attached a quote here that addresses replacing these consoles. This quote includes 9 Harris Symphony consoles and, the associated Vida Core switching gear to support it (eight plus one console to replace the existing maintenance console).

The Harris Vida Core is the only switch available that is compatible with our current radio system. Vida is based on an open architecture utilizing mostly off the shelf components. It can be upgraded periodically over the years. Further, this equipment is capable of operating in a P25 environment. P25 is the next iteration of Public Safety land mobile radio.

There is also an existing proposal to replace the entire radio network with a new P25 system. This specific proposal would be the best alternative to purchasing the Vida Core and Symphony Consoles alone. The proposal includes the Vida Core and a proprietary migration gateway which allows a transition from existing system to the new network. This migration gateway is not available from any other source, as our existing system is proprietary. A new network could conceivably take upwards of eight months to a year to deploy, after a Purchase Order (PO) has been issued. The Vida Core and consoles, according to the vendor, could be deployed almost immediately after issuance of PO.

APPROVAL

DATE

DISAPPROVAL



Michael Frevola, Lieutenant
Technical Services Division

6-16-14

Michael Frevola, Lieutenant
Technical Services Division



Scott A. Masington, Major
Technical Services Division

6/16/14

Scott A. Masington, Major
Technical Services Division



Dennis L. Weiner
Chief of Police

6/27/14

Dennis L. Weiner
Chief of Police

Copies to:

Marc Stolzenberg, Fire Chief

