

MEMORANDUM

TO: Jason E. Brown, County Administrator

THROUGH: Richard B. Szyrka, P.E., Public Works Director

FROM: Manny Cabo, Telecommunications Manager

SUBJECT: Forerunner Technologies Inc. - Proposal for EOL Upgrade of County PBX Network Systems

DATE: May 29, 2018

BACKGROUND

IRC staff recently met with representatives of Forerunner Technologies Inc., NEC America Inc., Basil Dancy - IRC IT Manager, and myself, to discuss available options for drastically reducing the cost to the County, to convert / upgrade all County PBX telephone systems to the NEC SV-9xxx hardware / software platform. This can be cost effectively accomplished by replacing the core PBX system hardware only, and by eliminating obsolete analog (single-line) telephone types. The proposed PBX network upgrade process is similar to what the Board approved roughly 4 years ago, when we upgraded to the NEC SV-8xxx hardware / software platform. At the time, that upgrade was required due to the previous NEC 2400 PBX telephone systems going to End-of-Life (EOL) support status, from the manufacturer / licensed service provider - NEC. Forerunner Technologies Inc. is the County's current licensed service provider, under the IRC PBX systems service / support agreement.

Existing County PBX telephone systems, contained within the County's PBX network, are located at the following IRC sites, operating on the following hardware / software platform levels:

IRC Administration Complex - NEC SV-8500 system
IRC EOC - NEC SV-8500 system
IRC Courthouse - NEC SV-8300 system
IRC Main Library - NEC SV-8300 system
IRC Sandridge Golf Course - NEC SV-8100 system

The IRC North County Library and IRC Brackett Library sites both operate on remote PBX nodes, from the IRC Main Library PBX telephone system. These two IRC locations are not independent PBX telephone systems. If the IRC Main Library PBX system goes down, so do the two remote PBX nodes at these IRC locations.

IRC Sheriff's Department - NEC SV-8500 system, is not managed or funded by IRC but is a PBX telephone system on the County PBX network, and is integrated within the County PBX systems network. IRC Sheriff's Department IT Division manages and funds their PBX system.

As of December 31st 2018 all of the NEC PBX telephone system hardware/software levels that the County is currently operating on, will go to EOL (End-of-Life) support status from NEC America Inc. This includes all NEC SV-8xxx PBX telephone systems listed above.

ANALYSIS

The term End-of-Life (EOL) support for the NEC PBX product line effectively means that repair replacement parts for the specified hardware and software levels, in this case NEC SV-8xxx phone system components will no longer be available from any viable source. This lack of readily available repair parts and any add-on capacity parts, results in a non-supportable telecommunications system which the County relies for normal day-to-day operations and for critical needs and emergency conditions to support our community in Indian River County.

In the event of a catastrophic County PBX telephone systems failure, while operating on unsupported EOL hardware and software levels, at locations such as IRC Administration Complex, IRC Courthouse, IRC Sheriff's Department, or IRC EOC; the PBX telephone systems affected by the catastrophic service outage could potentially be completely out of service for a week or more, while an unplanned emergency PBX system upgrade is performed. This will be very detrimental to the County and to the services these IRC locations provide to the general public.

An alternative to upgrading the existing County legacy PBX telephone systems would be to install an entirely new VoIP (Voice Over IP) corporate data network telephone system, such as the Cisco Call-Manager VoIP system. I have project managed enterprise-wide VoIP telephone systems installations and actively supported Cisco VoIP telephone systems in the past.

This option would be much more expensive to the County, as it would require what is known in the industry as a "forklift conversion". This means that the entire old telecommunications system goes out on a forklift and a completely new telecommunications system is brought in. All new VoIP telephones, servers, switches, routers, and in some areas re-cabling entire offices to new Category-6 Ethernet network cabling will be required for this type of Telecommunications systems conversion.

This option has been estimated to cost over \$500,000 depending on the system type and options chosen. VoIP telephone systems usually have a forklift upgrade cycle of 2 to 3 years, as an industry standard. While VoIP systems typically have a lower monthly operating cost, this is countered by the short life cycle replacement costs needed. EOL conversions are more aggressive in the full VoIP platform world, in my experience with Cisco VoIP telephone systems.

Forerunner Technologies Inc. has provided IRC Telecommunications Division with a proposal to perform the cost effective PBX systems upgrade described, (Core PBX systems - hardware & software only). The cost to perform this PBX systems upgrade, encompassing all County PBX telephone systems / locations is \$160,221.04.

FUNDING

Funding in the amount of \$160,221.04 will be provided by a future budget amendment from Optional Sales Tax fund balance.

RECOMMENDATION

Staff recommends that the Board of County Commissioners approve the Forerunner Technologies Inc. proposal for upgrade of the County PBX systems to the recommended and supported NEC SV-9xxx hardware / software level.

ATTACHMENT

NEC Bulletin
Forerunner Technologies Proposal

APPROVED AGENDA ITEM FOR June 12, 2018

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