

# ITS Strategic Roadmap – FY16

## *Enterprise Server*

Author: Heather Kennie

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### Background

Applications and systems are the core of the business that runs Metropolitan Government departments and agencies. These programs run on servers hosted within data centers that are a primary service of the ITS department. According to a 2013 study by Gartner, the demand for server workloads is currently increasing at an annual average growth rate of 10%.

ITS has established Microsoft Server Operating Systems as the primary standard to run servers supporting applications in use across the departments and agencies of Metro. We promote as current standard Microsoft's supportable Operating Systems Windows 2008, 2008 R2, 2012 and 2012 R2.

Based on requirements from Metro departments, ITS also adopted Red Hat Linux as a standard. This addition gives departments more flexibility to run a variety of applications that will in turn service the citizens of Davidson County.

Applications using IBM AS/400 technology, while commonplace in past, have moved from this technology onto a server platform. Only the Metro Health Department continues to work in partnership with the state of Tennessee in sharing data via an AS/400 system.

Services that are provided as part of the server support include:

- IT liaison on behalf of customers
  - New application purchases
  - Support between customer and vendor
  - Recommends best practices and IT standards
- Maintain system lifecycle from acquisition to decommission
  - Build, support, monitor and maintain server hardware
  - Build, support, monitor and maintain operating system
- Provide recovery documentation with customer sign off
- Identify and report on security vulnerabilities and work with customer to mitigate

Servers supported are hosted in Metro's primary data center and Metro's offsite storage location.

These services are provided for most general government departments with the exception of Metro Nashville Police Department. The Davidson County Sheriff's Office, Justice Integration Systems and Metro Nashville Public Schools also maintain separate and distinct server management for their departments and agencies.



## Current Strategic Drivers

1. **Legacy Departmental Software Support Requirements** (High) – In order to replace end of life hardware and software, we rely heavily on assistance from our customers and colleagues to plan and implement this type of modification. Some of the applications that reside on these servers are either out of date or homegrown, this makes it difficult to move them without careful planning and rely heavily on customers or vendors for assistance.
2. **Demand for Secure Government Systems** (High) – With massive data breaches in the news on seemingly a daily basis, we must strive at all times to protect the security, availability and integrity of all systems entrusted to our management.
3. **End of Life: Server Hardware** (High) - As the server hardware platforms reach their 5 year end of life, we work with our internal and external customers to replace that hardware.
4. **Technology End of Support: Server Operating System** (High) – Windows 2003 becomes unsupported by Microsoft in July 2015, which means no new patching for security or issues will be forthcoming.
5. **Business Continuity Capabilities** (Medium) – Due to the critical nature of many of the applications hosted by ITS-managed servers.
6. **Industry Demand: On Demand server provisioning** (Medium) – The widespread public acceptance of cloud for services that employees and citizens use every day, along with the potential for positive financial impact and increasingly effective cloud vendor security stance make a hybrid model a potential direction.

## On the Horizon Strategic Drivers

1. **AS400 Equipment and Maintenance reaching EOL** (Medium) – We purchased a new AS400 hardware purchased in FY2011 and it will reach end of life on 9/30/16. The Metro Health Department is still in need of the AS400 since the state still uses it, but the state has plans to replace the system with a server-based system in the future, timing undetermined.

## Short Term Goals (0-6 months) 7/1/15 – 12/31/15

#	Goal/Objective	Est. Start	Est. Duration
1	Rebuild servers to current supportable Operating System such as Win2008 or Win2012 in order to stay within Microsoft's support.	current	6 months
2	Plan, Build and create policies around a new infrastructure to house the Civic Brigade.	current	3-6 months
3	Deploy SCCM to server infrastructure and pull data automatically for Asset Management and Service Manager.	7/1/15	3 months
4	Track remediated vulnerabilities and document security exceptions.	7/1/15	Ongoing
5	Import assets and Inventory data into Cireson application.	7/1/15	3 months
6	Replace current EOL hardware for servers supported by ITS.	7/1/15	ongoing
7	Work in partnership with customers/metro entities to propose using space in our redundant data center.	7/1/15	ongoing



## Medium Term Goals (6-18 months) 1/1/16 – 12/31/16

#	Goal/Objective	Est. Start	Est. Duration
1	Through our SCOM monitoring tool, add additional monitoring for specific applications, follow consistent processes with Server, SAN and Virtualization to meet after hours requirements	1/1/16	6 months
2	Formally investigate opportunities for hosting services currently in-house via cloud-based systems, with a critical focus on information security regulation.	1/1/16	Ongoing
3	Assuming the State Health department has no new system in place, with Metro Health Department input plan, build and implement a new AS400 platform solution for end of life hardware.	1/1/16	3 months
4	Research and Implement Enhanced Mitigation Experience toolkit (EMET) on servers to add a layer of protection against vulnerabilities.	4/1/16	3 months
5	Replace current EOL hardware for servers supported by ITS.	1/1/15	ongoing

## Long Term Goals (18-36 months) 1/1/17 – 6/30/18

#	Goal/Objective	Est. Start	Est. Duration
1	Continuing management of end of live servers and operating systems	TBD	TBD

### Related Roadmaps:

- Data Center and Environmental Support
- Server Infrastructure
- Network Infrastructure
- Network Security

