

A photograph of the Chicago skyline at dusk. The Cloud Gate sculpture, also known as 'The Bean', is in the foreground, reflecting the city lights. In the background, several skyscrapers are visible, including the Willis Tower. The sky is a deep blue, and the city lights are beginning to glow.

Cook County
IT Consolidation Study
Board-level Summary

Final Report & Action Plan

July 11, 2018

Gartner
Engagement: 330048932

Seeking to realize additional cost savings and efficiencies, a resolution was passed to conduct a study and develop policy around IT investments

Drivers	Resolution Mandate
<ul style="list-style-type: none">• An urgent need to operate in a more cost effective and efficient manner• The County has already taken some steps to consolidate and modernize IT functions• Redundancies in IT functions and services still remain across agencies• Therefore; there is a belief amongst the Board and CIO that opportunities for further efficiency gains exist	<ol style="list-style-type: none">1. An IT consolidation study to evaluate for potential opportunities to consolidate and centralize functions and services, with a prioritized focus on:<ul style="list-style-type: none">• Information Security;• Help Desk;• Data Center and Server Management;• Default Productivity and Communications Software2. Draft and submit an ordinance that ensures:<ul style="list-style-type: none">• All Board-funded IT investments adhere to industry best practices and Countywide technology standards, strategic plans and policies; and• All agencies and offices are protected by up-to-date information security and privacy policies



Gartner, an IT research and advisory firm, was engaged to conduct a countywide study on further consolidation opportunities

The scope of Gartner's assessment was to:

- **Conduct a study** that prioritized information security, help desk, data center and server management, and default productivity and communication software
- Perform a comparative **cost and staffing benchmark** was conducted on the help desk function
- Include the following agencies within its assessment: BOT, Sheriff, Treasurer, Assessors, Recorder of Deeds, County Clerk, Clerk of the Circuit Court, Office of the Chief Judge, State's Attorney, Board of Review*
- Identify IT consolidation **peer best practices and lessons learned** through engagement with experts and project teams that have worked with some of the nation's most populous and complex states, counties and cities

Objectives are the Gartner engagement were to:

- **Identify high level efficiencies** that could be gained from further IT consolidation, informed by a detailed assessment of the IT Service Desk current state
- **Educate the County on common and leading practices** from other counties that have embarked on consolidation and centralization initiatives
- **Report findings and analysis, and provide an action plan** to achieve efficiencies identified and improve IT investment management; action plan will also include further assessment needs for the information security, data center and server management, and default productivity and communication software areas

**CCHHS was removed from the scope of initial consolidation recommendations*



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Gartner's methodology combined internal and external discovery and analysis to inform the resolution response



IT consolidation experiences from peers enabled our team to evaluate the County through the lens of best practices

Locales Engaged

State of Michigan
Ventura County
State of South Carolina
LA County
State of Arkansas
San Diego County
State of Indiana
City of Houston
State of Texas
Province of British Columbia
Government of Canada
Broward County
Clark County
Multnomah County
Santa Clara County

LA County

Issues

- LA County had 49 data centers utilizing more than 67,000 ft² of space and 2.4MW of utilized IT power in facilities that are not adequately secured or reliable to meet its business and technical needs
- Aging equipment, inconsistent physical security and only 50% usage of available space

Lessons Learned

- LA county utilized a phased approach where all departments, with the exception of hospitals, would fully consolidate into a virtualized, shared environment (with minimal exceptions)
- Each department was analyzed to ensure that specific regulations overseeing management and security were able to be customized (law, legal and hospital departments all eventually participated)
- Exceptions to the consolidation were allowed if recent high quality investments had been made recently and if key departmental systems needed to be managed on-site
- LA avoided up to \$20M dollars in investments for space, power, cooling and operational expenses

State of Arkansas

Issues

- State of Arkansas had inconsistent technical strategies and environments across all departments which led to financial inefficiencies, as well as heightened disaster recovery and cyber security risks

Lessons Learned

- Phased approach to consolidation enabled appropriate analysis preparation to occur
- Initial focus was on state-wide standardization of architecture, processes and skills prior to any transition
- Consolidation permitted existing staff to upgrade their skills
- Unique regulatory and operations requirements were carefully incorporated (state police participated)
- Arkansas avoided \$7M dollars in additional technical investments due to consolidation



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Countywide findings show the help desk function could be performed more efficiently, and that server management would benefit from standardization

Assessment Area	Key Findings
Helpdesk	<ul style="list-style-type: none"> ▪ Cost per service desk contact (\$33) are higher than peers in public sector and commercial (\$20), primarily drive by personnel costs ▪ Agency service desks provide support to external end users and their Tier 2 support can be operationally complex or driven by federal/state regulations (e.g. law enforcement agencies are governed by CJIS regulations)
Data Center and Server Management	<ul style="list-style-type: none"> ▪ Many agencies manage their own data rooms due to regulatory requirements (i.e. CJIS) or data privacy issues ▪ Disaster recovery processes and cloud/managed services strategies vary in detail and complexity across the agencies ▪ Some agencies are already co-locating with BoT's data center, although they are still managed separately
Information Security	<ul style="list-style-type: none"> ▪ BoT's CISO is already implementing a countywide strategy based on industry best practices, and currently chairs a working group that creates policies
Productivity & Communications Software	<ul style="list-style-type: none"> ▪ All but two agencies – Assessor and Treasurer – use the enterprise Office 365 license



There are a series of immediate actions the County can take to enable further consolidation and rationalization to drive efficiency gains

- Initiate a phased approach to enable and transition Tier 1 help desk function from the agencies to BoT; initial agencies should include State's Attorney, Treasurer, Recorder of Deeds and County Clerk, with remaining agencies assessed for transition after the first year
- Commission a study to understand the costs and benefits associated with server rationalization and data center consolidation
- Initiate activities to standardize server monitoring, server and network management processes, and physical data room security
- Acquire and implement a common employee directory solution to rationalize current disparate ones
- Continue implementation of the information security framework and onboarding of agencies
- Plan for the transition of the Assessor and Treasure to the enterprise Office365 platform

**** BOT access to agency active directories is a prerequisite and critical enabler to achieve the benefits with transition of the Tier 1 function**



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In addition to consolidation, there are other ideas the County should consider towards helping to drive cost savings and efficiency gains

- Institute Countywide IT staffing policies, incl. standard job classifications, and collaborate on future hires. This will enable the County to have more upfront visibility and control over its largest cost-driver: personnel
- Institute gate reviews for BoT CIO to provide advice on IT investments for technical strategies and increase of IT staff/ skills
- Leverage current functional capabilities to automate monitoring and control of spending on re-seller contracts
- Establish Countywide architecture standards, starting with hardware (e.g. desktops, laptops, servers), enabling further consolidation of demand on contracts to achieve greater volume discounts
- Institute vendor management mechanisms to ensure pooling of demand for enterprise vendors (e.g. Microsoft)



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