



Bureau of Technology

FY2018 Budget Presentation

November 1, 2017



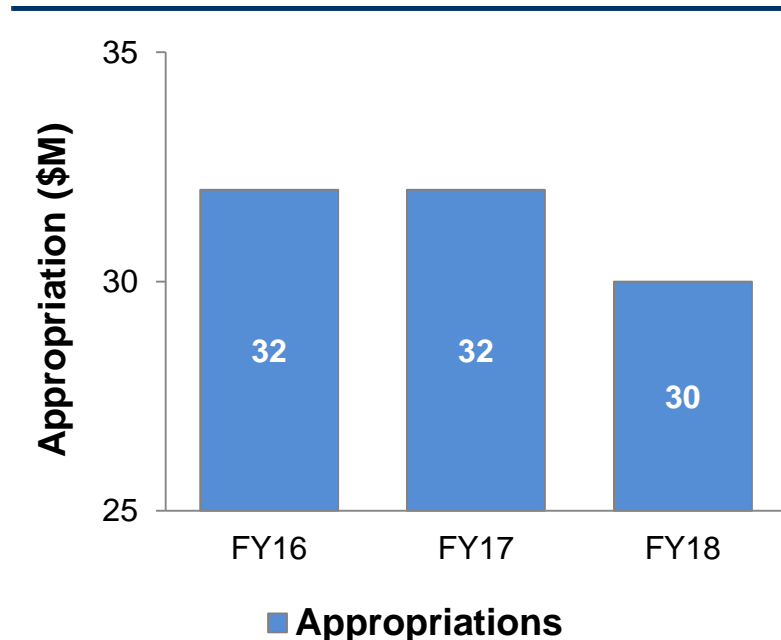
Bureau of Technology

FY2018 Budget Presentation

Mission

The Bureau of Technology (BOT) plans, develops and maintains enterprise technology services according to its guiding principles: lifecycle management, cloud-smart, shared-first, sustainability, transparency, continuity, Countywide standardization and reuse before buy and buy before build. BOT provides cost-effective and easy-to-use services for residents and County employees.

Budget



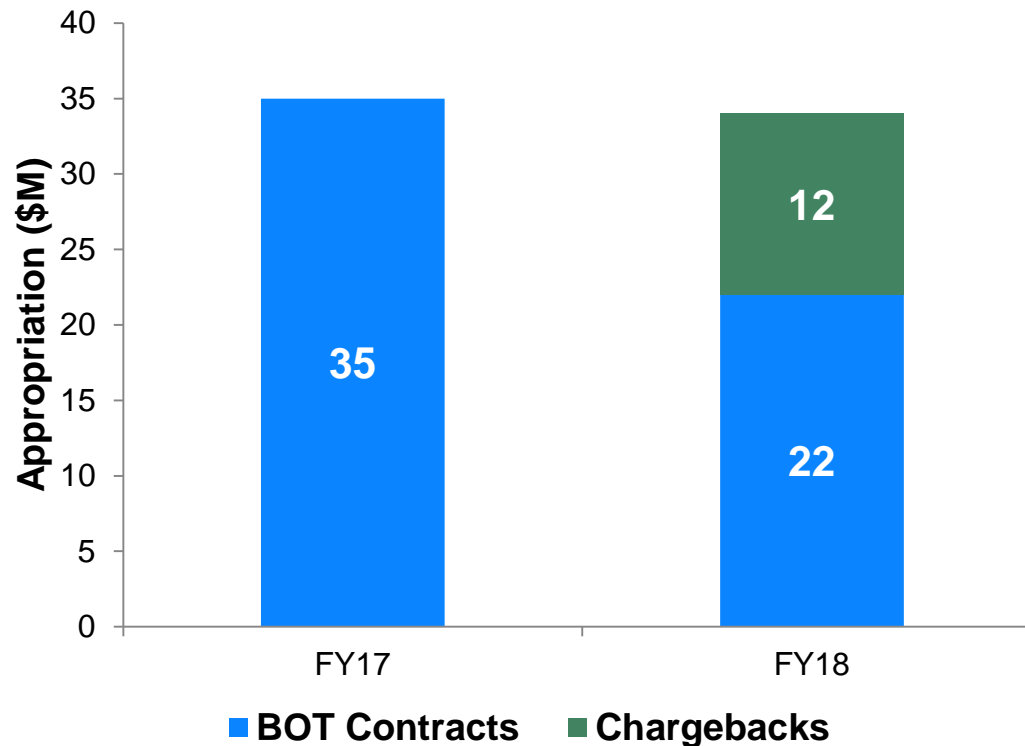
Bureau of Technology: BOT's Contract Reductions

FY2018 Budget Presentation



Savings and Chargebacks

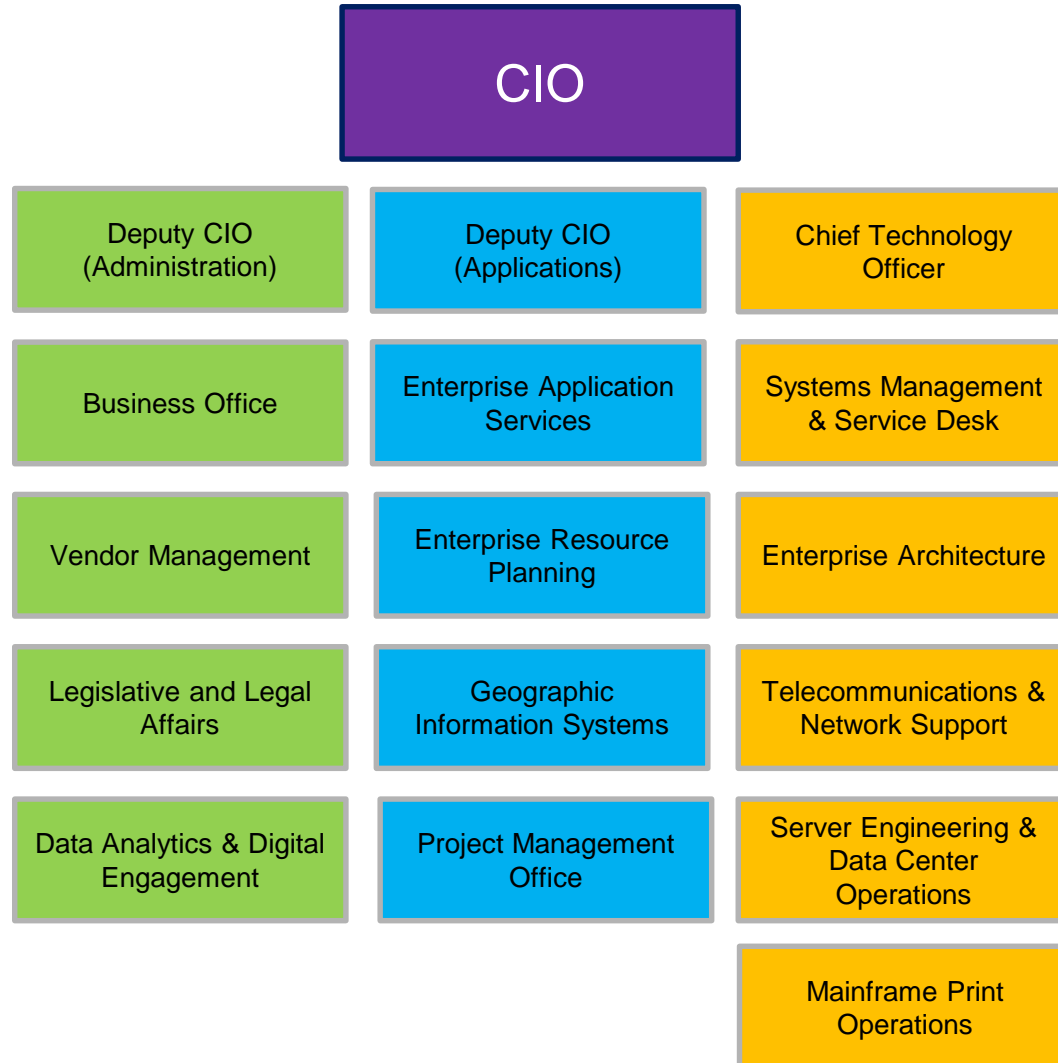
Through a combination of reduced spending and chargebacks to elected officials, BOT has reduced the technology contract spend for FY2018.





Bureau of Technology – FY2018 Organization Chart

FY2018 Budget Presentation



Dept.	FTEs
GIS (Sp. Purp. Fund)	16.3
BOT	148.8
Total	165



Bureau of Technology – Program Inventory (1 of 3)

FY2018 Budget Presentation

10155 – ADMINISTRATION (15.8 FTEs)

Establishes IT strategy, leads collaboration with elected offices, supervises bureau and departmental programs and manages administrative functions including legal counsel and legislation and policy. Manages accounting, payroll, procurement, and timekeeping activities; oversees contract negotiations and manages countywide IT contracts; engages in vendor management and orders capital equipment.

35620 - TELECOMMUNICATIONS AND NETWORK SUPPORT (30 FTEs)

Oversees administration and management of the County's voice and data telecommunication services.

33940 - SERVER ENGINEER TEAM AND DATA CENTER OPERATIONS (7 FTEs)

Oversees operations of and policy for IT systems architecture; provides advanced troubleshooting of, and support for, application servers; manages data center infrastructure.

35585 - SYSTEMS MANAGEMENT AND SERVICE DESK (13 FTEs)

Provides advanced troubleshooting of, and support for, technological equipment; packages software for deployment and implements deployment; engages in consultation and project work.



Bureau of Technology – Program Inventory (2 of 3)

FY2018 Budget Presentation

33900 - ON-SITE DESKTOP SUPPORT (9 FTEs)

Provides on-site troubleshooting of, and support for, technological equipment for various departments under the County Board President and other elected officials.

33885 - MAINFRAME PRINT OPERATIONS (8 FTEs)

Oversees the County's large-scale print jobs created from the mainframe, including: Assessor documents, accounts payable checks, Board of Review documents, jury summons, and revenue letters.

35005 - APPLICATIONS AND DEVELOPMENT (34 FTEs)

Provides consulting, development, enhancement, maintenance, and support of applications. Resolves application incidents.

33860 - INFORMATION TECHNOLOGY COMMUNICATIONS (5 FTEs)

Provides support for public website platform and hosting. Manages both public and internal digital communications and collaboration environments (e.g. SharePoint, online learning). Provides public information and community outreach services for the Bureau. Operates the County cable station/franchise. Manages video production, including live streaming and recording of all Board meetings and YouTube channel.



Bureau of Technology – Program Inventory (3 of 3)

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18100 - PROGRAM MANAGEMENT OFFICE (12 FTEs)

Provides technology program and project management services. Engages in business analysis, requirements development, risk management scope and proposal development and proposal development.

14385 - GEOGRAPHIC INFORMATION SYSTEMS (16.3 FTEs)

Provides maintenance of and access to the County's enterprise geographic information system. Engages in geospatial data management, analysis and modeling, training, and application development.



Applications & Project Management FY2017 Accomplishments

Geographic Information Systems (Special Purpose Fund)

- Completed Haul Permit enhancements for Department of Transportation
- Completed High Intensity Drug Trafficking Area (HIDTA) Opioid Data Sharing application for Medical Examiner's Office
- Implemented ArcGIS Online
- Implemented Cloud Failover Solution

Program Management Office

- Managed Office365 deployment for Clerk of the Circuit Court
- Initiated Project Governance improvements including cross-agency IT Steering Committee
- Completed Animal Control Content Management System Phase One: Rabies Tag Certification

Enterprise Application Services

- Launched Automated Court Reminder System Phase One: Email Messages
- Deployed Integrated Tax System (ITPS) Phase One: Tax Registration



Infrastructure FY2017 Accomplishments

Telecommunications and Network Support

- Wi-Fi availability added to Courthouses and 69 W. Washington
- Wide Area Network at Maywood

Server Engineers and Data Center

- Established Architecture Team
- Standardization & Tool Selection
- Change Advisory Board & Change Control Process established
- Enterprise Data Protection

On-site Desktop Support

- Systems Management and Service Desk
- Replaced Over 1,000 End-of-life Computers
- Increased service desk productivity, handling 2,400 more tickets than prior year with same headcount
- Reduced spending on paper in Platform Computing from \$64,480 in FY2016 to \$34,560 in FY2017
- New Service Desk IVR / Self-service Portal

Total Infrastructure Contract Savings

- \$3m annually



Administration FY2017 Accomplishments

Administration

- Implemented Policy Library, supporting policies including: Patching, Double-sided Printing, and One-to-one Computing
- Delivered First Annual Countywide Asset Management Report and Quarterly Justice Reports to Board in compliance with the 2016 Amendment to the Performance Based Management and Budgeting Ordinance 16-3977 and Resolution 13-2002 respectively
- Implemented Cross-charging methodology for 7 shared contracts
- Adjusted Microsoft User Licenses saving \$142K annually
 - Pay for what you use

Information Technology Communications

- Started Data Analytics Program
- Comcast Channel 900 broadcast added simulcast on Chicago Channel 22
- Developed new websites for: Public Defender's Office, State's Attorney's Office, Board of Review



Applications & Project Management FY2018 Goals

Geographic Information Systems

- Complete Consolidated Boundary Annexation Survey and update Cook County Atlas and Township Maps
- Launch Sheriff Civil Division Application
- Revenue Home Rule Tax Mobile Application Goes Live

Enterprise Application Services

- Launch Automated Court Reminder System Phase Two: Text Messages
- Integrated Property System (IPTS): Assessor's Office Go-Live
- Digitize Adoption Records
- Launch standardized document management solution for Medical Examiner and Environmental Control
- Single Sign-On: STEP ERP (Wave 5) Goes Live

- Implement eDefender for Public Defender's Office for Case Management
- Develop Integrated Tax System (ITPS) Phase Two to support remaining tax types

Program Management Office

- Configure and implement Microsoft Project Portfolio System (Project Online) to manage multiple projects across the County
- Expand use of the Enterprise Service Bus platform (eMittimus) to automate data sharing for case disposition
- Implement Skype for Business to standardize the platform for collaborative meetings
- Complete Animal Control Content Management System Phase Two: Other Business Processes
- Launch Cook County Time (CCT) for the Assessor's Office



Infrastructure FY2018 Goals

Telecommunications and Network Support

- Expand Wide Area Network service area
- Implement Wi-Fi Security Improvements
- Continue rollout of Unified Communications: Voice Over Internet (VOIP)
- Migrate Virtual Private Network to Two-factor Authentication for improved security control

On-site Desktop Support

- Systems Management and Service Desk
- Roll out Self-service Portal for Service Desk
- Establish IT Asset Management

Server Engineers and Data Center

- Architect Enterprise Video Management anticipating dramatically increasing storage needs due to public safety video requirements
- Implement a Cloud-based OneDrive storage solution to replace on-premises network drives
- Migrate County desktops to Windows 10 operating system standard
- Develop Countywide Disaster Recovery Plan
- Hyper-converged Infrastructure Introduced
- Single Sign-on



Administration FY2018 Goals

Administration

- Develop process for conducting quarterly performance reviews of large-scale contracts
- Develop and implement a data classification methodology
- Publish Revised Technology Concurrence Policy
- Work with Sheriff's office to complete Inmate Communications RFP
- Work with Human Resources Bureau to develop standard staff performance evaluations

Information Technology Communications

- Launch SharePoint Intranet platform
- Live broadcasting of Cook County Board Meeting on Cable Station 900
- Begin Data Catalog Inventory and Open Data Governance
- Launch analytics.cookcountyiil.gov



Bureau of Technology – 2018 STAR goals and targets

FY2018 Budget Presentation

Performance Metric	FY2016 Actual	FY2017 Projected YE	FY2018 Target
GIS Output Metric			
Number of visits to GIS public websites	475,900	663,443	600,000
GIS Efficiency Metric			
Number of GIS service requests closed	1,391	1,290	1,000
Systems Management and Service Desk Outcome Metric			
Percent of Service Desk incidents resolved within SLA	87%	87%	90%
Zero Based Budget Metric			
Cost per Tier One Ticket	\$28.37	\$30.94	\$28.77

Offices Under the President – 10% Reduction



A 10% reduction from the FY2018 Executive Budget Recommendation for the Offices Under the President totals **\$14,588,732** and covers the following Bureaus/Departments/Offices:

- Office of the President/Justice Advisory Council
- Bureau of Administration
- Bureau of Economic Development
- Bureau of Finance
- Bureau of Human Resources
- Bureau of Technology
- Bureau of Asset Management
- County Auditor
- Administrative Hearing Board
- Office of the Independent Inspector General
- Department of Human Rights and Ethics
- Secretary to the Board of Commissioners

- **Additional Reduction needed:** \$ 14,588,732
- **Personnel:**
 - 34 Layoffs and 14 vacancies to be eliminated @ \$6.7 million
- **Non Personnel:**
 - \$2.7 million in various non personnel reductions
 - \$0.4 non-personnel public safety related grants
 - \$4.7 million in revenue increases from additional enforcement efforts, investment income and sale of salvage medical equipment

Offices Under the President – 10% Reduction



Justice Advisory Council:

- Reduces critical resources needed to address unmet public safety needs and jeopardize the progress made on justice reform efforts

Medical Examiner:

- Accreditation at high risk due to potential Phase II deficiencies stemming from cuts and delays in hiring
- Resources for minor and indigent burials will not be appropriately budgeted

Environmental Control:

- Reduction in solid waste grants funding reimbursements as a result of not enough people to complete related projects to be eligible for the reimbursement
- Risks effort to right size Asbestos/Demo (greatest health impacts), as department will be unable to complete full federally regulated project workload with existing staff

Veteran Affairs:

- Reduction of outreach and support services providing educational, health and other benefits for veterans

Bureau of Finance:

- Procurement cycle times will be impacted along with reduced outreach to vendors to provide county business opportunities
- Increased risks of audit findings associated with accurate financial reporting

Bureau of Technology:

- Reduction of countywide contracts for maintenance and support for critical technology infrastructure resulting in risk to operations from system breakdowns and cyber threats

Economic Development

- Special Program Fund reduction will limit regional economic development efforts



Enterprise Resource Planning

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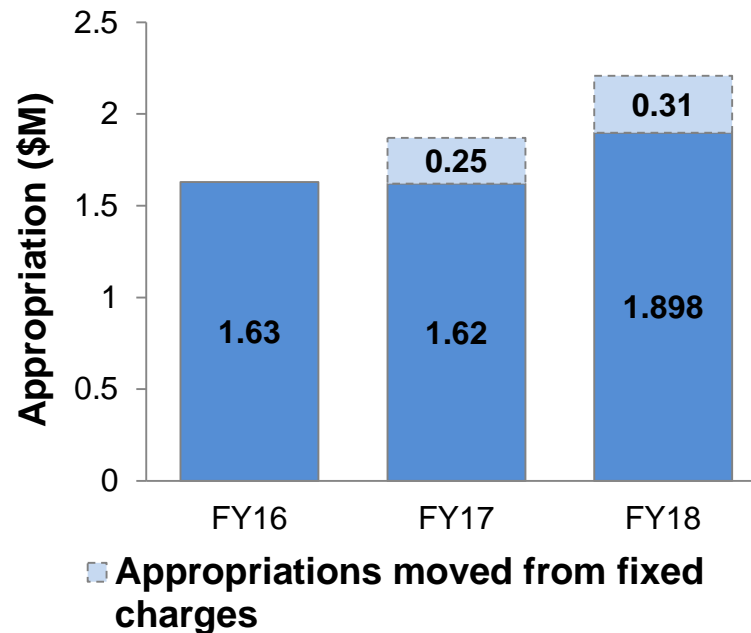
Enterprise Resource Planning

FY2018 Budget Presentation

Mission

Enterprise Resource Planning (ERP) is charged with implementing and supporting Countywide financial system projects to improve business operations. ERP serves as a County resource for the development and maintenance of new efficiency and accountability technologies.

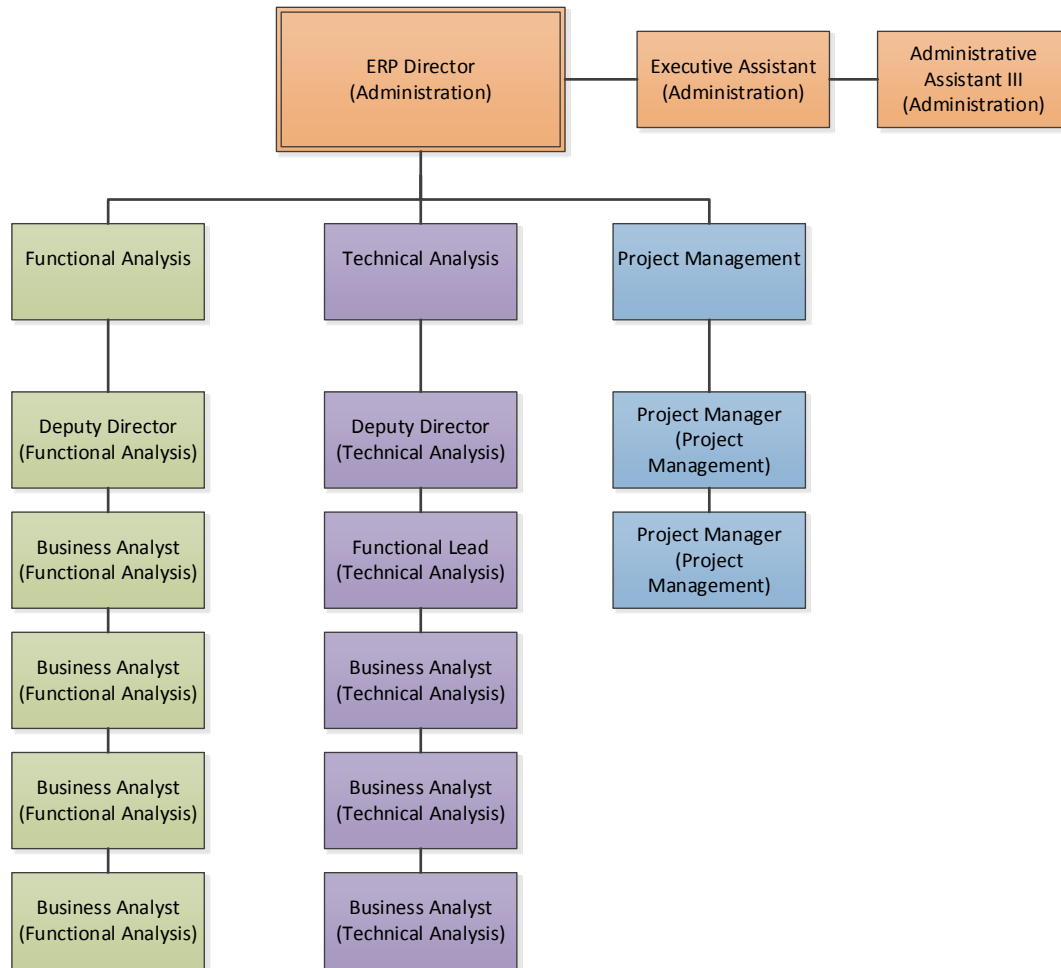
Budget





Enterprise Resource Planning – Organization Chart

FY2018 Budget Presentation



FY2017 FTEs	FY2018 FTEs
16.0	15.0



Enterprise Resource Planning – Program Inventory

FY2018 Budget Presentation

Administration (3 FTE) Supervises departmental programs and manages administrative functions including financial and human resources activities.

Functional Analysis (5 FTE) Responsible for the analysis of the current administrative and data processes in order to develop recommendations to be adopted during implementation of ERP, and time and attendance system.

Technical Analysis (5 FTE) Responsible for the development and testing of the user interface and applications of the ERP, and time and attendance system.

Project Management (2 FTE) Manages the project timeline of the development and implementation of the time and attendance system and countywide ERP system.

Enterprise Resource Planning

Discussion of 2017 Department and Program Outcomes

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- The CCT Time & Attendance project completed and migrated to steady-state Production in the first quarter of FY2017
- The STEP Enterprise Resource Planning Wave 1 (Core Financials) project migrated to steady-state Production migration Production in the first quarter of FY2017
- Completed implementation of the Business Intelligence analytical reporting solution for Financial Analytics in the first quarter of FY2017
- The STEP Enterprise Resource Planning Wave 2 (Budget Planning) project migrated to steady-state Production migration in the third quarter of FY2017

Enterprise Resource Planning

Budget, Cost Analysis, and 2018 Strategic Initiatives & Goals

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- Complete STEP Enterprise Resource Planning Wave 3 (Human Resources, Payroll, Benefits) project and migrate to steady-state Production migration by the second quarter of FY2018
- Complete STEP Enterprise Resource Planning Waves 4 and 6 (Inventory, Contract Management and Mobile Supply Chain) project and migrate to steady-state Production migration by the third quarter of FY2018
- Complete implementation of the Business Intelligence analytical reporting solution spanning Procurement & Spend, Project, and HR Analytics by the third quarter of FY2018

Enterprise Resource Planning

2018 STAR goals and targets

FY2018 Budget Presentation



Performance Metric	FY2016 Actual	FY2017 Projected YE	FY2018 Target
Technical Analysis Output Metric			
# of employees using Cook County Time (CCT)	TBD	22,237	22,237
Project Management Efficiency Metric			
# of project milestones competed per staff	TBD	25	10
Technical Analysis Outcome Metric			
% of eligible employees using CCT	TBD	100%	100%
Zero Based Budget Metric			
Cost per CCT user	\$583	\$153	\$153