



City of Milwaukee  
Employees' Retirement System

Bernard J. Allen  
Executive Director

David M. Silber, CFA, CAIA  
Chief Investment Officer

Melody Johnson  
Deputy Director

January 12, 2018

Mr. Jim Owczarski  
City Clerk  
Room 205, City Hall

Dear Mr. Owczarski:

Please be advised that an Administration & Operations (A&O) Committee Meeting of the Annuity and Pension Board has been scheduled for **Thursday, January 18, 2018 at 9:00 a.m. in the Employees' Retirement System Conference Room at 789 N. Water Street, Suite 300.** If a quorum of the Board is present, this meeting will convene as a Special Board Meeting. The agenda is as follows:

- I. Approval of the Contract Amendment with Wells Fargo.
- II. IT Projects Portfolio/IT Strategic Plan.
- III. Organizational/Personnel Update.

Sincerely,

A handwritten signature in black ink, appearing to read "Bernard J. Allen", is written over the typed name and title.

Bernard J. Allen  
Executive Director

BJA:jmw

PLEASE NOTE - Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through sign language interpreters or other auxiliary aids. For additional information or to request this service, please call 414-286-3557.



Thomas M. Harkless  
Senior Vice President

\_\_\_\_\_  
Bernard J. Allen                      Date  
Executive Director, Employees'  
Retirement System

COUNTERSIGNED:

\_\_\_\_\_  
Comptroller                              Date

Approved as to form and execution:

\_\_\_\_\_  
Office of the City Attorney      Date

1054-2017-765:246088.1

## TARGET BALANCE ACCOUNT SERVICE DESCRIPTION



1. **Introduction.** The Service Documentation contains the terms governing the Wells Fargo Bank, N.A. ("Bank") Target Balance Account service ("Service") and includes:
  - (a) the service agreement between Bank and Employee's Retirement System of the City of Milwaukee ("Company") to which this document is attached as an Exhibit ("Service Agreement"); and
  - (b) the Master Agreement for Treasury Management Services ("Master Agreement");
  - (c) this Service Description;
  - (d) the Commercial Deposit Agreement governing the account(s) Company uses in connection with the Service; and
  - (e) User Guides which include Terms of Use, software, software licenses, price schedules, specifications, instructions, and notices;

This Service Description and the Master Agreement are posted at Bank's Commercial Electronic Office® (CEO®) portal. If there is a conflict among the documents comprising the Service Documentation, they will govern in the order listed above. Company's use of the Service confirms Company's receipt of and agreement to be bound by the applicable Service Documentation. If an enhancement to the Service or other change requires a change to this Service Description, Bank will post an updated Service Description on the CEO® portal. Bank will notify Company of the update. If Company continues to use the Service after the update takes effect, Company will be deemed to have agreed to the update.

2. **Description of Service.** If Company maintains multiple accounts at Bank, Company may designate in writing one such account as its "Principal Account" and one or more additional accounts as "Target Balance Accounts". For each Target Balance Account, Company will separately specify to Bank in writing the Ledger Balance or Collected Balance which Company wishes to maintain in such account (the "Target Balance"). At the end of each Business Day, Bank will determine the applicable balance on deposit in each Target Balance Account. If the applicable balance in a Target Balance Account exceeds its Target Balance, Bank will transfer from the Target Balance Account to the Principal Account such funds as are necessary to bring the applicable balance to the Target Balance. If the applicable balance is less than the Target Balance, Bank will transfer from the Principal Account to the Target Balance Account such funds as are necessary to bring the applicable balance to the Target Balance. Bank may, but will not be required to, transfer funds if the transfer would create an overdraft or exceed the Collected Balance then on deposit in the Principal Account.

## PAYMENT AUTHORIZATION SERVICE DESCRIPTION



1. **Introduction.** The Service Documentation contains the terms governing the Wells Fargo Bank, N.A. ("Bank") Payment Authorization service ("Service") and includes:
  - (a) the agreement between Bank and Employees' Retirement System of the City of Milwaukee ("Company") to which this document is attached as an Exhibit ("Service Agreement"); and
  - (b) the Master Agreement for Treasury Management Services ("Master Agreement");
  - (c) this Service Description;
  - (d) the Commercial Deposit Agreement governing the account(s) Company uses in connection with the Service; and
  - (e) User Guides which include Terms of Use, software, software licenses, price schedules, specifications, instructions, and notices;

This Service Description and the Master Agreement are posted at Bank's Commercial Electronic Office® (CEO®) portal. If there is a conflict among the documents comprising the Service Documentation, they will govern in the order listed above. Company's use of the Service confirms Company's receipt of and agreement to be bound by the applicable Service Documentation. If an enhancement to the Service or other change requires a change to this Service Description, Bank will post an updated Service Description on the CEO® portal. Bank will notify Company of the update. If Company continues to use the Service after the update takes effect, Company will be deemed to have agreed to the update.

2. **Description of Service.** Company may, by executing and delivering to Bank a Payment Authorization Service Set-up Form, elect to utilize the Service for deposit accounts which Company maintains at Bank (each an "account"). Under the terms of the Service, Bank will without Company's specific approval as to any particular Item, (a) automatically return unpaid (marked "REFER TO MAKER") Items drawn against the account which are presented to Bank, and which exceed the "Maximum Dollar Authorized Payment Amount" specified on the Setup Form, (b) refuse encashment of Items drawn against the account which are presented to Bank through its branch/store network, and which exceed the "Maximum Check Cashing Amount" specified on the Setup Form, (c) refuse withdrawal requests against the account which are presented to Bank through its branch/store network, and which exceed the "Maximum over the Counter Withdrawal Amount" specified on the Setup Form, and/or (d) refuse encashment of Items drawn against the account which are presented to Bank through its branch/store network, and which are made payable to an individual.

## ACH ORIGATION SERVICE DESCRIPTION

1. **Introduction.** The Service Documentation contains the terms governing the Wells Fargo Bank, N.A. ("Bank") ACH origination service ("Service") and includes:
  - (a) the service agreement between Bank and Employee's Retirement System of the City of Milwaukee ("Company") to which this document is attached as an Exhibit ("Service Agreement"); and
  - (b) the Master Agreement for Treasury Management Services ("Master Agreement");
  - (c) this Service Description;
  - (d) the Commercial Deposit Agreement governing the account(s) Company uses in connection with the Service; and
  - (e) User Guides which include Terms of Use, software, software licenses, price schedules, specifications, instructions, and notices.

This Service Description and the Master Agreement are posted at Bank's *Commercial Electronic Office*® (CEO®) portal. If there is a conflict among the documents comprising the Service Documentation, they will govern in the order listed above. Company's use of the Service confirms Company's receipt of and agreement to be bound by the applicable Service Documentation. If an enhancement to the Service or other change requires a change to this Service Description, Bank will post an updated Service Description on the CEO® portal. Bank will notify Company of the update. If Company continues to use the Service after the update takes effect, Company will be deemed to have agreed to the update.

2. **Description of Services.** The Service enables Company to originate automated clearing house ("ACH") credit and debit entries in accordance with the National Automated Clearing House Association Operating Rules and any applicable local ACH rules (collectively, the "ACH Rules"; see section 3). Company will maintain one or more deposit account(s) at Bank or Bank's affiliate (each, an "Account"), that Bank may use to process such Entries. An "Entry" is an ACH debit or credit entry issued in Company's name, and a "File" is the data file or batch release used to transmit one or more Entries to Bank. Section 6 of this Service Description describes (a) the means Bank offers to Company for transmitting Files to Bank (each, an "Initiation Method") and (b) the means Bank will use to verify Company's authorization of a File or a communication amending or canceling an Entry or File (each, a "Security Procedure"). When Bank acts with respect to an Entry as both the originating depository financial institution ("ODFI") and receiving depository financial institution ("RDFI"), as ODFI and RDFI are defined by the ACH Rules, the Entry is an "on-us Entry."
3. **ACH Rules.** Company (a) authorizes Bank to originate Entries on behalf of Company to Receivers' accounts; (b) agrees to be bound by the ACH Rules; and (c) agrees not to originate Entries that violate the laws of the United States. In addition, Company agrees Bank may audit Company's compliance with the Service Documentation and the ACH Rules.
4. **Preparation of Entries and Files; Processing Schedules.** Company will prepare each File in accordance with the ACH Rules and the guidelines Bank separately makes available to Company. Bank will process each File in accordance with Bank's then current processing schedule and any instructions regarding the date an Entry is to be settled that Company furnishes with the Entry provided (b) Bank receives the File by Bank's applicable cutoff time on a Business Day and (b) the ACH is open for business. Files will be deemed received by Bank when the transmission of the File to Bank is completed

and authenticated in compliance with the Security Procedure. If Bank receives a File after Bank's applicable cutoff time or on a day when the ACH is not open for business, the File will be treated as having been received prior to Bank's applicable cutoff time on the next Business Day on which the ACH is open for business. A "Business Day" is every day except Saturday, Sunday and federal holidays.

5. **Inconsistency of Name and Number.** If an Entry describes a "Receiver" (as defined in the ACH Rules), both by name and identifying number, the RDFI may pay the Entry on the basis of the identifying number, even if the number identifies a person different from the named Receiver. If an Entry describes the RDFI both by name and identifying number, Bank, a gateway operator or another financial institution handling the Entry may rely on the identifying number to identify the RDFI, even if the identifying number refers to an institution other than the named RDFI.
6. **Initiation Methods and Security Procedures.** This section lists the Initiation Methods and describes the Security Procedures Bank offers for ACH origination. Company's elections regarding Initiation Methods and Security Procedures are set forth in the Acceptance.

**6.1. Commercial Electronic Office<sup>®</sup> (CEO<sup>®</sup>) Initiation Method.**

The CEO<sup>®</sup> portal is Bank's electronic banking portal that is accessed via the Internet. The CEO<sup>®</sup> security procedures are log-on credentials specified by Bank including a company ID, user ID, password, token, and any other authentication or authorization process Bank requires from time to time. Bank's standard CEO<sup>®</sup> security procedures also include dual custody for select, high-risk ACH activities. With dual custody, an authenticated second user approves these activities. There is no additional charge for dual custody.

**6.2. Wells Fargo Gateway Initiation Method.**

Through the Wells Fargo Gateway, Company accesses a Bank-owned Application Programming Interface ("API") to securely (a) request that Bank originate ACH credit and/or debit Entries on behalf of Company and (b) receive periodic updates from Bank as it processes Entries for Company. The Gateway uses tokenized transmission methods for direct communication between Company's internal payment system(s) and Bank's payment system. The Gateway security procedures require digital authentication of Company and Bank using tokens, API keys, mutual authentication of digital certificates and any other authentication or authorization process Bank may require from time to time. Company's tokens, API keys, digital certificates, and Company's instruction to Bank do not identify an individual user initiating any request through the Gateway. Bank validates only that Company is authorized to request ACH origination and receive periodic updates via the Gateway, not whether a particular user is authorized to initiate the request.

**6.3. Direct Origination Initiation Method.**

**Secure Application File Exchange Transmission ("SAFE-T").** This transmission platform offers a variety of transmission protocols including hypertext transfer protocol secured (https), FTP over SSL (FTP/S), secure FTP (S-FTP), and Applicability Statement 2 (AS2).

**IBM<sup>®</sup> Connect:Direct<sup>®</sup> with Secure Plus+.** Secure Plus+ is an add-on to Connect Direct to enhance security by means of Secure Socket Layer ("SSL") or Transport Layer Security ("TLS"). Connect Direct<sup>®</sup> is a registered trademark of Sterling Commerce, Inc. an IBM Company.

**SWIFT<sup>®</sup> FileAct.** SWIFT has established procedures for controlling access to SWIFT messaging services that may include access codes, message authentication codes, secure card readers, digital signatures, and Hardware Security Modules. In addition, SWIFT authenticates certain messages including without limitation Files based on SWIFT message type prior to accepting them for routing as SWIFT messages. This authentication may include confirming the sender and recipient of the message have exchanged bilateral keys ("BKE"),



entered into a relationship management application ("RMA") agreement, or taken other steps to secure the transmission of SWIFT messages between them as SWIFT requires from time to time.

#### **6.4. Payment Manager® Initiation Method.**

**Secure Application File Exchange Transmission ("SAFE-T").** This transmission platform offers a variety of transmission protocols including hypertext transfer protocol secured (https), FTP over SSL (FTP/S), secure FTP (S-FTP), and Applicability Statement 2 (AS2).

**Machine-to-Machine ("M2M").** This transmission method may use an XML message interface that is based on the Interactive Financial eXchange (IFX) message standard using SOAP structured messages or other formats and protocols such as JSON and REST. Data is communicated via the Internet using 128-bit encryption and Secure Socket Layers (SSL).

**IBM® Connect:Direct® with Secure Plus+.** Secure Plus+ is an add-on to Connect Direct to enhance security by means of Secure Socket Layer ("SSL") or Transport Layer Security ("TLS"). Connect Direct® is a registered trademark of Sterling Commerce, Inc. an IBM company.

**Value-Added Network ("VAN").** With this transmission method, a third party serves as an intermediary for transmitting data between Company and Bank. Procedures for transmitting Payment Orders may vary by VAN. Bank follows the procedures of the VAN selected by Company to authenticate each File transmitted to Bank through the VAN in Company's name.

**SWIFT® File Act.** SWIFT has established procedures for controlling access to SWIFT messaging services that may include access codes, message authentication codes, secure card readers, digital signatures, and Hardware Security Modules. In addition, SWIFT authenticates certain messages including without limitation Files based on SWIFT message type prior to accepting them for routing as SWIFT messages. This authentication may include confirming the sender and recipient of the message have exchanged bilateral keys ("BKE"), entered into a relationship management application ("RMA") agreement, or taken other steps to secure the transmission of SWIFT messages between them as SWIFT requires from time to time.

#### **6.5. Security Procedure Elected by Company's Third Party Service Provider.**

Company does not utilize a Third Party Service Provider.

#### **6.6. Non-Standard Security Procedure.**

If Company has refused to utilize any of the security procedures described above, then the Security Procedure Company will use is described on Attachment B to the Treasury Management Product Enrollment form.

- 7. Company's Payment Obligations.** As of the applicable settlement date, Company will maintain available funds in each Account sufficient to cover the credit Entries originated against it. Company's obligation to pay Bank for each credit Entry matures when Bank transmits the credit Entry to the ACH or gateway operator or posts an on-us Entry. Bank is authorized to debit the Account for the total amount of all credit Entries originated from it at any time. If requested by Bank, Company will pay to Bank, in immediately available funds, an amount equal to all credit Entries Company originates through Bank before the date Bank delivers the credit Entries to the ACH or gateway operator or posts an on-us



Entry. If Company fails to comply with Bank's request, Bank may refuse to send the Entries to the ACH or gateway operator or post an on-us Entry. Bank may take such other actions as it deems necessary or appropriate to ensure Bank receives payment for Company's credit Entries including without limitation (a) upon notice to Company, placing a hold on funds in any account at Bank or any affiliate of Bank that Company owns in whole or in part sufficient to cover Company's credit Entries and (b) setting off against any amount Bank or an affiliate of Bank owes Company. In addition, Bank may charge the Account or any other Company account at Bank or any affiliate of Bank for any debit, correcting or reversing Entry which is later returned to Bank.

8. **Provisional Credit.** A credit to Company's Account for an Entry is provisional until Bank receives final settlement for the Entry. If Bank does not receive final settlement, Bank is entitled to debit Company's Account or any other accounts Company owns in whole or in part at Bank or any affiliate of Bank for the amount of the Entry. Company will pay any shortfall remaining after such debit to Bank immediately upon demand.
9. **Rejected Entries.** Bank may reject an Entry or File if Company fails to comply with the terms of this Service Description. Bank will attempt to notify Company promptly so Company may cure the defect but will have no liability to Company for rejecting an Entry or File or any loss resulting from Bank's failure to provide notice. If Company requests Bank repair an Entry or File and Bank attempts to do so, Bank will not be liable if it is unable to make the requested repair. Company will pay all charges and expenses Bank incurs in connection with any repair or attempted repair.
10. **Cancellation, Amendment, Reversal.** Company has no right to cancel, amend or reverse an Entry or File after its receipt by Bank. If Company requests Bank cancel, amend or reverse an Entry or File, Bank may, at its sole discretion, attempt to honor such request but will have no liability for its failure to do so. Company will reimburse Bank for any expenses, losses or damages Bank incurs in effecting or attempting to effect Company's request.
11. **Returned Entries.** Bank will have no obligation to re-transmit a returned Entry or File to the ACH or gateway operator, or to take any further action with respect to a returned on-us Entry, if Bank complied with the terms of this Service Description with respect to the original Entry or File. Company will reimburse Bank for any returned debit Entries on the same day Company receives notice of such returned Entry.
12. **Reconstruction of Entries and Files.** Company will retain sufficient records to permit it to reconstruct each Entry and File it delivers to Bank for a period of five (5) Business Days after the applicable settlement date and will submit the reconstructed Entry or File to Bank upon request.
13. **Audit.** Company grants Bank ongoing access to Company's Files and the right to audit periodically such Files and Company's ACH processes and controls so Bank can verify Company's compliance with this Service Description.
14. **Bank's Internal Risk Parameters.** Bank establishes internal risk parameters to identify out-of-pattern or suspect Entries or Files and protect Company and Bank from potential losses. These parameters may include without limitation limits on debit and credit settlements on a single Business Day and/or over multiple consecutive Business Days. Bank may pend or delete an Entry or File exceeding the applicable parameters. In addition, any transaction TYPE (debit or credit) or SEC (standard entry class) as defined in the ACH Rules may, at Bank's option, be conditioned upon Bank's prior approval. Upon notice to Company, Bank may discontinue processing a TYPE and/or SEC of transactions Bank has previously processed for Company.
15. **International Entries.**
  - 15.1. **General.** This section contains additional terms applicable when the financial institution holding the account designated to receive an Entry is in a jurisdiction ("Receiving Country") other than the United States (each, an "International Entry"). Bank will process each International Entry in

accordance with (a) the laws and payment system rules of the Receiving Country (b) any agreement governing International Entries between Bank and the gateway operator through which Bank processes the International Entry, the terms of which Bank communicates to Company prior to Company's use of the Service or from time to time thereafter, and (c) the ACH Rules. If there is a conflict among these three clauses, they will govern in the order set forth in this subsection.

**15.2. Credit Entries.** With respect to credit Entries Bank agrees to originate in the currency of a designated foreign government or intergovernmental organization ("Foreign Currency"), Bank will convert the amount to be transferred from U.S. dollars ("USD") to the Foreign Currency at Bank's sell rate for exchange in effect on the Business Day the Entry is transmitted by Bank to the ACH or gateway operator. If the financial institution designated to receive the funds does not pay the Receiver specified in the Entry, or if the Entry is subsequently determined to be erroneous, Bank will not be liable for a sum in excess of the amount of the original Entry after it has been converted from the Foreign Currency to USD at Bank's buy rate for exchange at the time the Entry is returned to Bank.

**15.3. Debit Entries.** With respect to debit Entries Bank agrees to originate in a Foreign Currency, Bank will convert the amount of each Entry from the Foreign Currency to U.S. Dollars at Bank's buy rate for exchange in effect on the settlement date of the Entry. If the financial institution designated to receive the Entry subsequently returns it, Bank may charge the applicable Account (or any other accounts Company owns in whole or in part at Bank or any affiliate of Bank) for the amount equal to the value of the returned Entry, after Bank has converted the Foreign Currency to USD at Bank's sell rate for exchange at the time the Entry is returned to Bank. Bank will not be liable for a sum in excess of the original amount of the Entry after conversion.

**15.4. Acts or Omissions of Third Parties.** Bank will not be liable for any failure or delay by a gateway operator, any intermediary financial institution, or the financial institution designated to receive the Entry in the Receiving Country in processing or failing to process any Entry Bank transmits to the Receiving Country, or for acts or omissions by a third party including without limitation the delay or failure of any third party to process, credit or debit any Entry.

**16. Third-Party Sender Activities.** This section contains additional terms applicable when Company is a Third-Party Sender, as defined by the ACH Rules.

**16.1 General.** Prior to originating any Entry on behalf of a customer of Company, Company will (a) notify Bank in writing of any other financial institution Company is using to originate transactions as a Third-Party Sender and thereafter notify Bank before Company adds any new financial institution for this purpose; (b) provide Bank with the information Bank requires to enable it to understand the nature of Company's customer's business including without limitation the name, Taxpayer Identification Number, business activity and geographic location of Company's customer; (c) if specifically required by Bank, obtain Bank's written approval to initiate or continue to initiate Entries for that customer, which approval Bank may rescind upon written notice to Company; and (d) enter into a written agreement with that customer whereby that customer agrees:

**16.1.1.** to assume the responsibilities of an originator under the ACH Rules and to be bound by the ACH Rules as in effect from time to time;

**16.1.2.** ACH entries may not be initiated in violation of the laws or regulations of the United States including without limitation the regulations issued by the Office of Foreign Assets Control;

**16.1.3.** to grant Bank ongoing access to audit it and any ACH entry that it has transmitted to Company for transmission to Bank; and



**16.1.4.** Bank may at any time refuse to process an ACH entry for that customer.

**16.2. Representations and Warranties.** Company represents and warrants to Bank Company (a) has conducted due diligence with respect to each customer of Company for which Company is originating transactions through Bank and determined that each such customer is engaged in a legitimate business and that the type, size and frequency of transactions that each such customer is originating is normal and expected for the customer's type of business; and (b) will, in accordance with reasonable commercial standards, monitor each customer's business and transactions on an ongoing basis and notify Bank promptly if Company identifies any unusual activity by Company's customer.

**17. Perfect NOC Service.** This section contains additional terms applicable to Bank's Perfect NOC Service. Bank maintains a database of Notifications of Change (each, a "NOC") that Bank receives and uses this database to update Company's Entries in accordance with the Service options Company selects from time to time. Bank will notify Company of each NOC Bank receives in connection with Company's Entries.

**18. Smart Decision Service.** This section contains additional terms applicable to Bank's Smart Decision Service. Bank will process for credit to the Account specified by Company checks and other instruments payable to Company (each, an "Item") that Company delivers to Bank. Company will use the depository channels through which Bank offers the Service including electronic channels and other channels specified by Bank through which Bank accepts Items for processing. When Company uses electronic depository channels, Company transmits an "Electronic File" to Bank that includes electronic images of Items (each, an "Electronic Image") and other information regarding Items in the Electronic File. Each Business Day, Bank processes Company's Electronic File and other Items according to the processing criteria Bank has on file for Company, the issuer of an Electronic Image or Item, and Bank (each, respectively, a "Company Preference," an "Issuer Preference," or a "Bank Preference.") Based on these Preferences, Bank will (a) convert each eligible Electronic Image and Item to an ACH debit Entry on the deposit account on which it was drawn; (b) process remaining Electronic Images in accordance with Bank's separate Service Documentation governing the electronic depository channel Company used to deliver the Electronic Image to Bank; or (c) process remaining Items in accordance with Bank's Commercial Account Agreement. If a Company Preference or an Issuer Preference conflicts with a Bank Preference, Bank will follow the Bank Preference.

**19. Warranties.**

**19.1 General.** Company acknowledges Bank makes certain warranties under the ACH Rules with respect to each Entry. Company will reimburse Bank for any loss Bank incurs, including Bank's reasonable attorneys' fees and legal expenses, as the result of a breach of a warranty made by Bank in connection with any Entry Bank originates upon the instructions received from Company, except to the extent that the loss resulted from Bank's breach of the duty of ordinary care, Bank's own gross negligence or intentional misconduct.

**19.2 Smart Decision Service.** If Company subscribes to Bank's Smart Decision Service, Company warrants Company (a) will transmit to Bank only Electronic Images that are suitable for processing, including, but not limited to, Electronic Images that are legible and contain machine-readable MICR data; (b) will not deposit to the Account or otherwise negotiate any original Paper Item from which Company has previously created and submitted to Bank an Electronic Image, unless Bank has notified Company the Electronic Image is not legible or contains MICR data that is not machine readable; and (c) has received copies of the then-current ACH Rules and Reg E and will comply with both at all times Bank provides the Service.

**20.** In addition to those indemnification obligations set forth in the Service Agreement, Company agrees to reimburse Bank for the amount of any transaction for which Bank sustains a loss as a direct result of (a) a negligent or intentional act or omission by the Company, (b) Company's material breach of its obligations under the Service Documentation, or (c) any breach of warranty by Bank under the Uniform

Commercial Code or other law, rule or regulation applicable to payment processing due to Bank following Company's instructions.

- 21. Termination.** In addition to the termination provisions contained in the Master Agreement, Bank may terminate the Services immediately upon notice to Company if Bank determines in its sole discretion: (a) the number of returned debit Entries originated under this Service Description is excessive; or (b) Company has breached a warranty provided under the ACH Rules or this Service Description or otherwise failed to comply with the ACH Rules.
- 22. Survival.** Sections 4, 5, and 7-20 will survive termination of the Services.



Administration and Operations Committee

## ERS IT Portfolio Report

January 18<sup>th</sup>, 2018

## Agenda

- Information Technology 5 Year Strategic Plan
- What's Next
- IT Portfolio
- 2017 Year End Metrics (Appendix)

# IT 5 YEAR STRATEGIC PLAN

(FY2018-FY2022)

January 18th, 2018





# EMPLOYEES' RETIREMENT SYSTEM MISSION STATEMENT


*"Administer the Plan as provided under the City Charter, maintain member records, pay the benefits to which members are entitled, and invest and manage the funds of the Trust in a prudent and vigilant manner."*

## ERS-IT MISSION STATEMENT

*"Enhance pension services through innovative technology solutions to provide superior customer service to members of the ERS, ERS staff, and the annuity and pension board."*



# WHY HAVE AN IT STRATEGIC PLAN?

- ▶ Aligns the IT goals with the business needs
  - ▶ Defines a path forward
  - ▶ Creates team synergy while working towards defined goals
  - ▶ Communicates the goals of the section to all stakeholders
  - ▶ Manages and streamlines resource utilization
  - ▶ Measure IT success/failures in a prudent manner
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# IT STRATEGIC PLAN FY2018- FY2022

The IT Strategic Plan for 2018-2022 has a set of defined goals that align with the vision for the next 5 years

For each goal there are tactical projects aimed at accomplishing those goals




# VISION FOR 2018-2022

- ▶ The vision of the ERS Information Technology section over the next five years is to focus on the following six key areas:
  - ▶ Security
    - ▶ Continue to improve our security framework and eliminate breaches and protect the integrity of ERS data
  - ▶ Customer Service
    - ▶ Continue to strive to meet the needs of its customers both internal and external
  - ▶ Innovative Solutions
    - ▶ Working under the direction of management to collaboratively develop new tools, automation, software or processes that enhance the business operations at ERS
  - ▶ Staffing
    - ▶ Balanced in-house capabilities with reliance on subject matter experts (SMEs) and contractors as appropriate, and build skills that serve the ERS's environment
  - ▶ Continuity of Operations
    - ▶ Continue to enhance the Business Continuity Plan (BCP)
  - ▶ Financial
    - ▶ Meet financial goals within time and budget expectations

# GOALS FOR 2018-2022

1. MERITS Infrastructure and Application Improvements
  2. Improve Business Continuity/Disaster Recovery Objectives
  3. Provide a balanced organizational structure to provide necessary expertise and ensure continuity of service
  4. Enhance customer service for end-customers of ERS
  5. Use technology to improve ERS business units (Members services, Investments, and Finance)
- 

# GOAL 1: MERITS INFRASTRUCTURE AND APPLICATION IMPROVEMENTS


- ▶ Vision Alignment
    - ▶ Security
    - ▶ Continuity of Operations
    - ▶ Innovative solutions
  - ▶ Key Projects / Initiatives
    - ▶ SAN Replacement
    - ▶ Network Re-architecture
    - ▶ MERITS 2.0
    - ▶ Continue MERITS Product Lifecycle Management (MPLM) – upgrades of IT software and hardware to meet requirements of vendor support
- 

# GOAL 2: IMPROVE BUSINESS CONTINUITY/DISASTER RECOVERY


- ▶ Vision Alignment
  - ▶ Continuity of Operations
- ▶ Key Projects / Initiatives
  - ▶ Conduct regular DR and BCP tests
  - ▶ Assess backup strategy and implement improvements if possible
  - ▶ Network Re-architecture
  - ▶ SAN Replacement
  - ▶ Enhance security awareness training



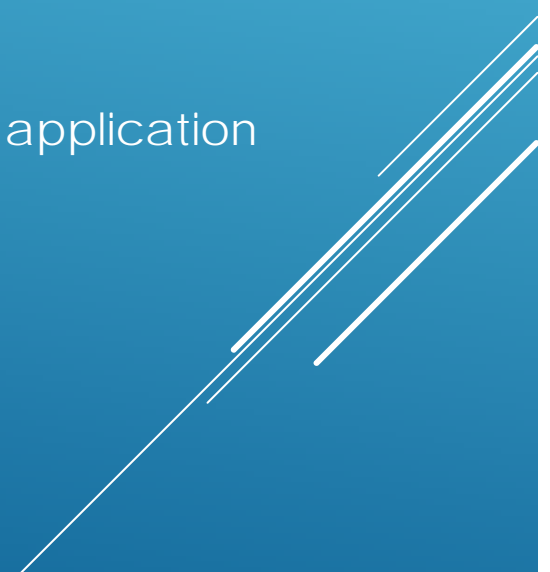
# GOAL 3: BALANCED ORGANIZATIONAL STRUCTURE

- ▶ Vision Alignment
    - ▶ Customer Service
    - ▶ Staffing
    - ▶ Financial
  - ▶ Key Projects / Initiatives
    - ▶ Continue utilizing a rotating support plan
    - ▶ Provide training to staff, including encouraging staff to achieve and maintain IT certifications
- 

## GOAL 4: EVALUATE CUSTOMER SERVICE AND SECURITY OF INFORMATION TO PRODUCE A REPORT FOR RECOMMENDATIONS

- ▶ Vision Alignment
    - ▶ Customer Service
    - ▶ Innovation
  - ▶ Key Projects / Initiatives
    - ▶ Complete Responsive Design for cmers.com and MSS
    - ▶ Update ERS Phone System in collaboration with member services
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# GOAL 5: USE TECHNOLOGY TO MEET BUSINESS NEEDS AND ENHANCE SECURITY

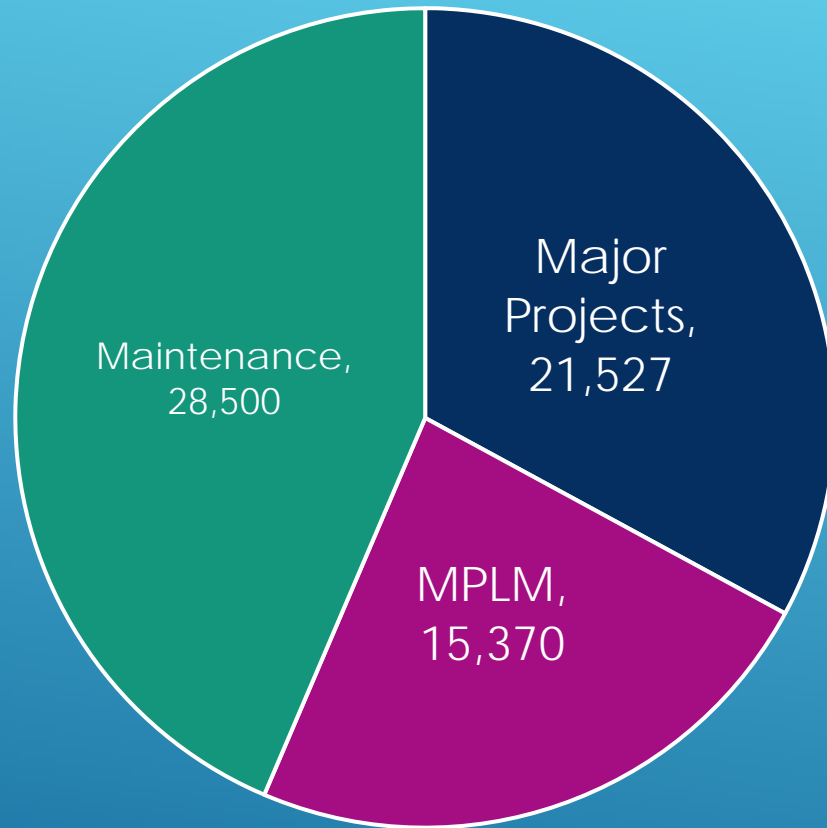
- ▶ Vision Alignment
    - ▶ Innovation
    - ▶ Customer Service
    - ▶ Security
  - ▶ Key Projects / Initiatives
    - ▶ Create an Intranet
    - ▶ Create a vendor management module to MERITS application for better control/secured access
    - ▶ Enhance Web conferencing capabilities
- 

# CONCLUSION

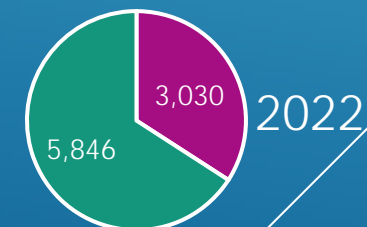
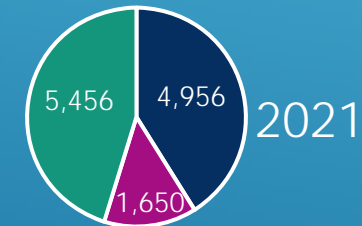
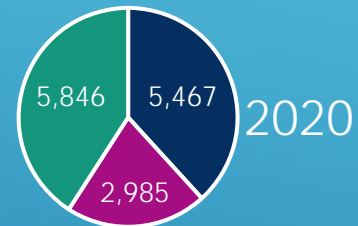
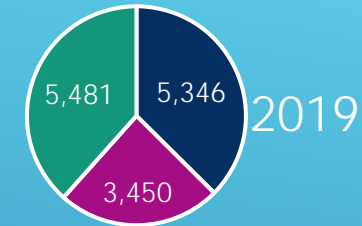
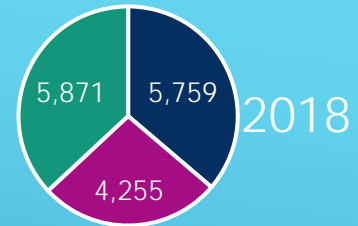
## The IT Strategic Plan:

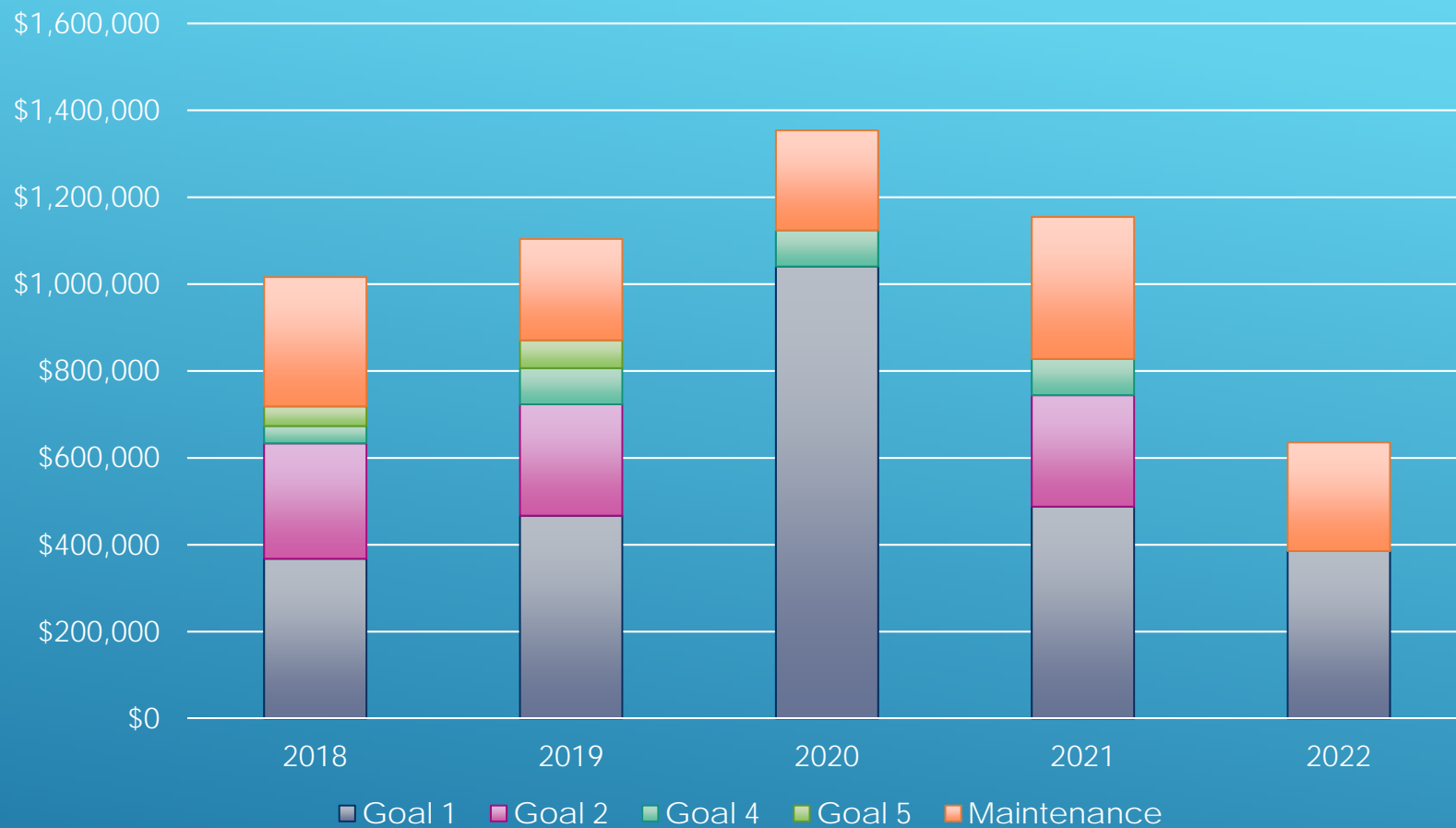
- ▶ Continues to provide excellent and responsive service to all its customers (internal and external)
- ▶ Remain proactive in protecting data using the latest tools and techniques available, including monitoring, reporting and validating
- ▶ Build skills within the department needed to maintain the IT infrastructure
- ▶ Ensures the ERS and it's sponsors that sensitive information is protected and meets the security policies of the agency.

Total Hours: 2018 - 2022



## EFFORT PROJECTIONS BY CATEGORY





# FINANCIAL CONSIDERATIONS (ESTIMATE)



QUESTIONS?





# WHAT'S NEXT...

- ▶ Security Awareness Training for ERS Pension and Annuity Committee and Board members (February)
- ▶ Continue current IT projects and tasks in process

# APPENDIX

## 2017 IT METRICS

# COMPLETED PROJECTS 2017:

## Hours and Budget Reconciliation

<u>Projects</u>	Estimated Hours	Actual Hours	Hours Variance = Estimates - Actuals	Budgeted Amount	Within Budget
BAA / PAP Optimization	4343	3,129	1,214	N/A	N/A
MAM Struts 2 Upgrade	1313	967	346	\$33,418	Yes (\$33,294)
HCP Optimization	1406	958	448	N/A	N/A
2017 Desktop Rotation	193	262	-69	\$34,425	Yes (\$34,213)
CMERS.com Upgrade & Redesign	146	150	-4	\$22,080	Yes (\$18,600)
Member Education Videos – proof of concept	183	67	116	\$2,500	Yes (\$1,889)
<b>Total Projects</b>	<b>7,584</b>	<b>5,533</b>	<b>2,051</b>	<b>\$92,423</b>	

“N/A” – No external vendors, hardware or software required.

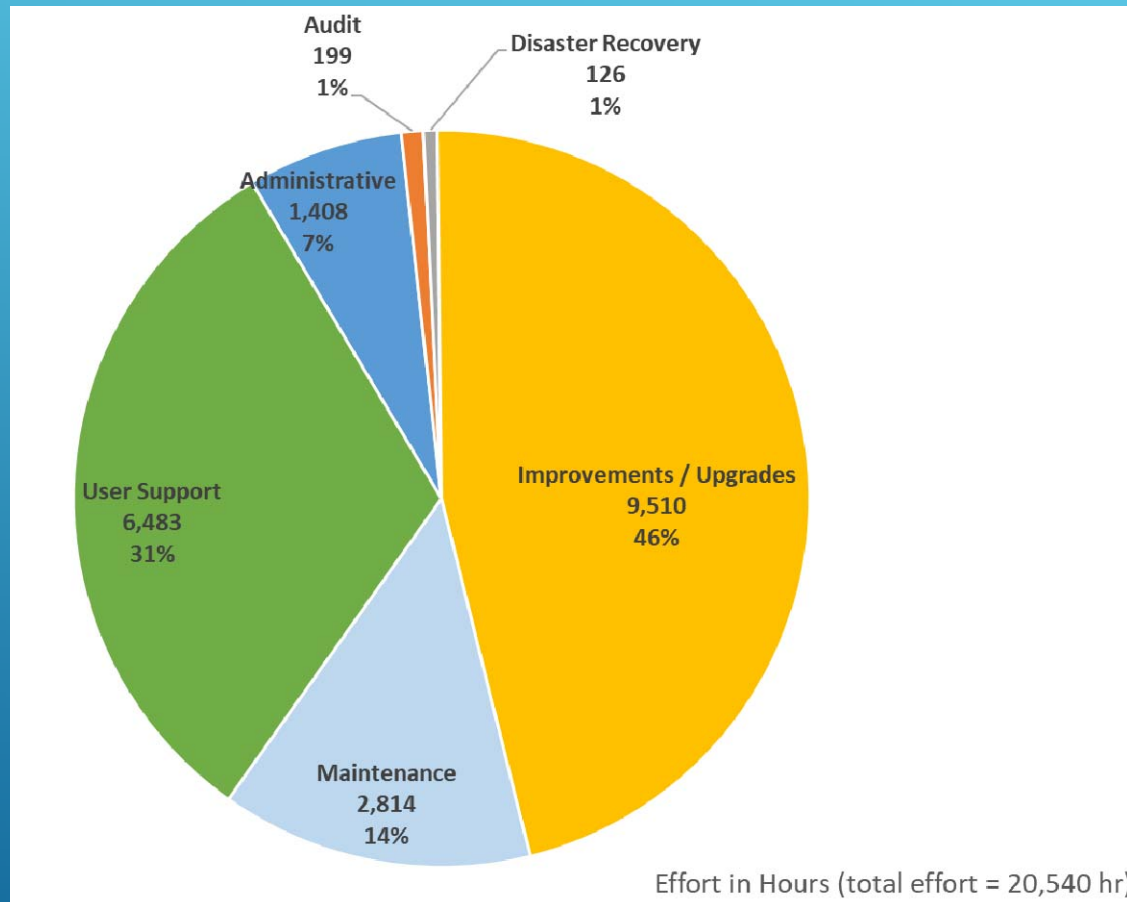
# COMPLETED ACTIVITIES 2017:

## Hours and Budget Reconciliation

<u>Activity</u>	Estimated Hours	Actual Hours	Hours Variance =Estimated - Actual	Budgeted Cost	Within Budget
FileNet P8 Patching	90	87	3	\$13,330	Yes (\$13,330)
Websphere Server Patching	115	81	34	\$10,212	Yes (\$7,992)
VMware vSphere Upgrade	100	73	27	N/A	N/A
DR Test (IT Only)	120	68	52	N/A	N/A
Printer Maintenance Contract	80	65	15	N/A	N/A
Install Print Monitoring Software	60	58	2	N/A	N/A
Upgrade Network Firmware/OS	90	48	42	N/A	N/A
IT General Controls Audit	80	39	41	N/A	N/A
BCP Test	40	17	23	N/A	N/A
<b>Total Activities</b>	<b>775</b>	<b>535</b>	<b>240</b>	<b>\$23,542</b>	

"N/A" – No external vendors, hardware or software required.

# 2017 – IT TEAM EFFORT BY CATEGORY



## Descriptions:

**Improvements / Upgrades:** Includes application and infrastructure upgrades such as optimization, updates to the application, projects such as the FileNet upgrade, upgrades of the VMware Hosts, desktop rotations, upgrades of network equipment and software, etc.

**Maintenance:** Includes application and infrastructure maintenance activities such as bug fixes, windows operating system patching, DNS and IP review and cleanup, disk space management, etc.

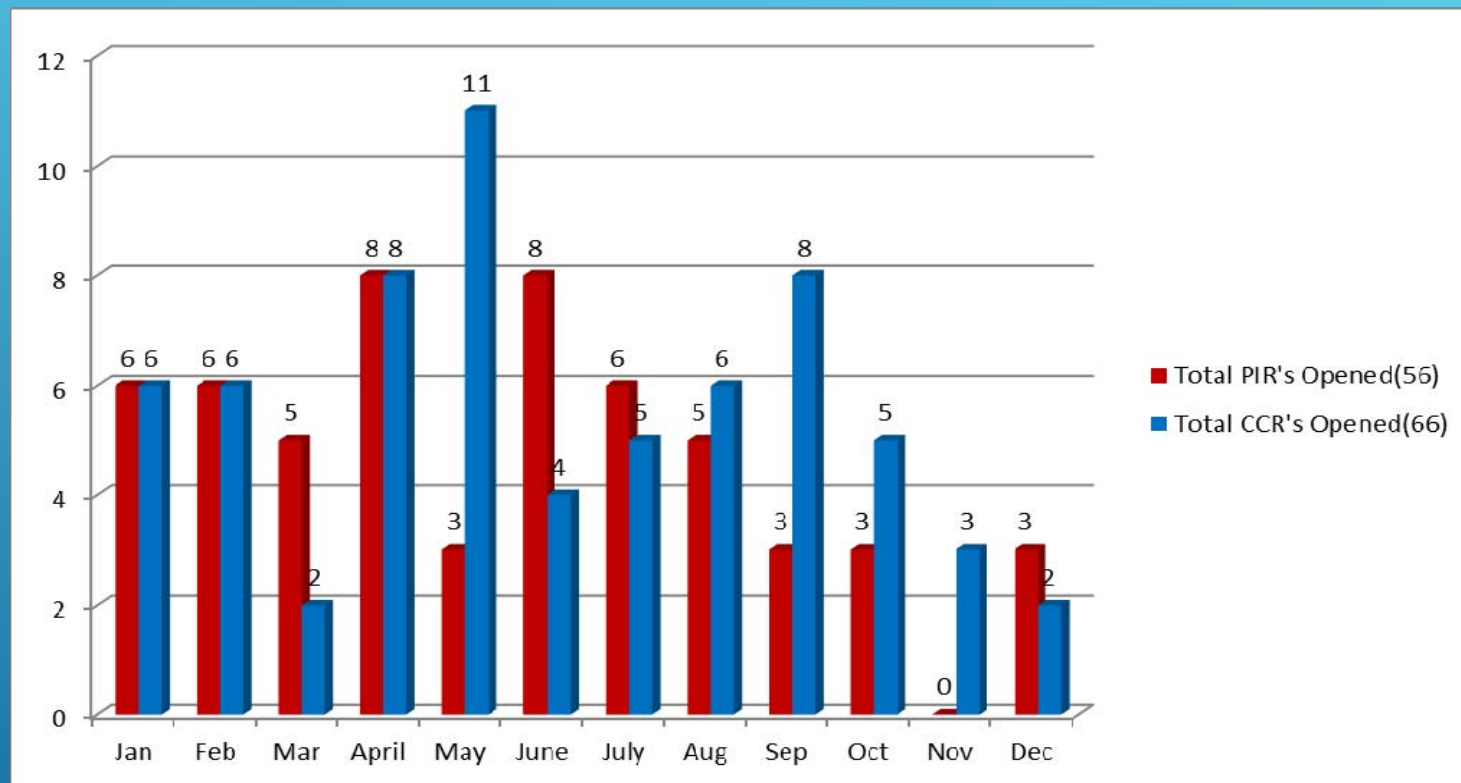
**User Support:** Includes assisting users with issues and questions related to the application as well as other hardware/software issues, and working with agencies related to contribution reporting

**Disaster Recovery:** Includes working with our backup and recovery environments, maintenance and upgrade of the equipment at the remote office, and the execution of disaster recovery and business continuity tests

**Audit:** Includes activities performed in conjunction with our internal and external auditors

**Administrative:** Includes administrative tasks performed by IT staff such as process updates, updates to the website, development of support plans, SPI documentation, reporting, etc.

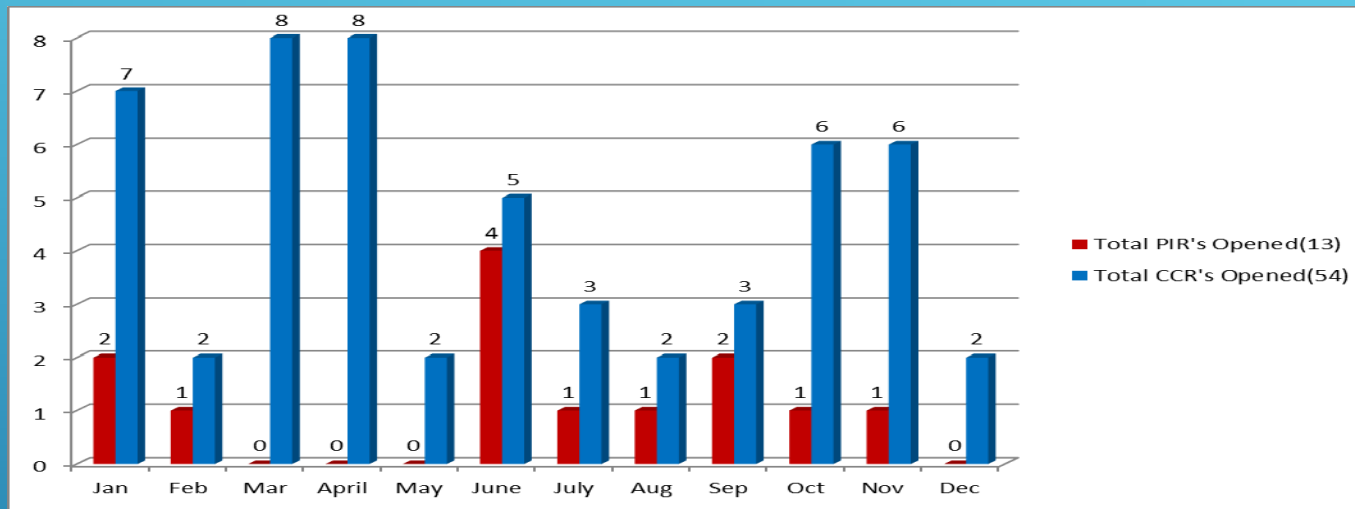
# APPLICATION TICKETS ACTIVITY IN 2017



A total of 122 tickets were opened for enhancements/fixes;  
Overall, staff has closed more tickets this year than were opened.

- Closed - 128
- Canceled - 2

# INFRASTRUCTURE TICKETS ACTIVITY IN 2017



A total of 67 tickets were opened for Infrastructure related tasks  
50 were for upgrades, disaster recovery, and improvements  
17 were for maintenance activities

- Closed - 67
- Canceled - 2

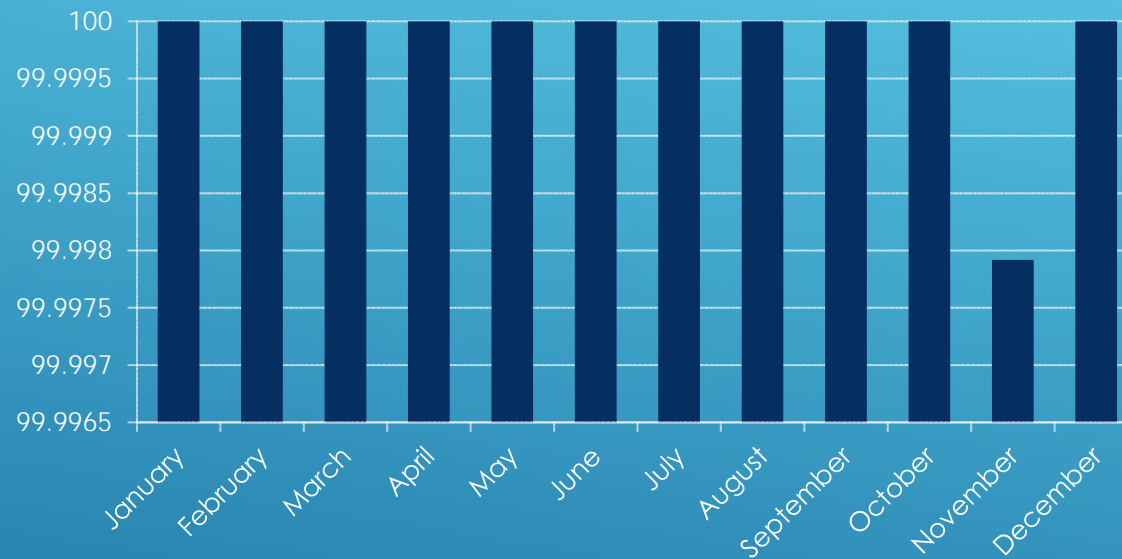


# 2017 BATCH JOBS...

- ▶ A total of 6,369 application batch jobs were run in 2017:
  - ▶ 5,827 completed successfully
  - ▶ 6 failed and were successfully remediated (no critical jobs failed)
- ▶ Examples of batch jobs:
  - ▶ Payroll
  - ▶ Reports for users
  - ▶ Monthly COLA job
  - ▶ Wage and contribution reports
  - ▶ Eligibility reports for retirement
  - ▶ Open enrollment
  - ▶ Interest posting
  - ▶ Health care policy updates
  - ▶ Tax updates and 1099 reporting
  - ▶ Member statements
  - ▶ Actuarial extracts
  - ▶ Work queue reports
  - ▶ Disability reports
  - ▶ Ad hoc reports

# 2017 UPTIME

## ERS Uptime Percentage 2017



Amazon = 99.9995% (3 outages)

Google = 99.9989% (1 outages)

ERS = 99.9998% (1 outage) vs IBM = 99.9733% (1 outages)

Microsoft = 99.9995 (21 outages)

RackSpace = 99.9896 (11 outages)

Portfolio as of January 1, 2018

Project Health	% Complete	Project Priority	Complexity (S / M / L)	Project Name	Project Mgr	Description	Strategic Goal: G1 - G7	Status	External Vendor Required: Y/N	Actual Start Date	Target Completion Date	Estimates (Hours)	Actuals (Hours)	Hours Variance = Estimates - Actuals	Hardware/Software & External Labor Budget (\$)	Actual Spent-to-Date on Hardware /Software & External Labor (\$)	Estimate to Completion (ETC) (of Hardware/ Software & External Labor Costs)
G	75%	1	S	Social Engineering Audit @	Reid	Testing staff's resistance to phishing.	G2	IP	Y	12/1/17	12/31/17	60	45	15	\$9,600	\$6,500	\$3,100
G	20%	2	H	2018 Network Re-Architecture	Benedict	Create a more resilient network with all gear under support.	G7	IP	Y	10/11/17	7/31/18	642	317	325	\$381,618	\$452,676	(\$71,058)
G	75%	3	L	IT Strategic Planning @	Reid	Create a 5 year plan for IT	G1	IP	N	5/15/17	8/31/17	100	100		N/A	N/A	N/A
G	75%	4	M	Altiris Upgrade	Raynal	Software tracks our IT assets	G6	IP	Y	6/6/17	2/9/18	657	218	439	\$4,500	\$4,500	\$0
G	46%	5	L	Struts 2 Upgrade (functional areas besides MAM)	Manchu	Software development upgrade all functional areas but MAM.	G7	IP	Y	10/17/16	8/15/19	11,438	4,226	7,212	\$730,290	\$201,469	\$528,821
G	65%	6	L	OSC Optimization	Manchu	MERITS optimization & clean-up of Optional Service Credit	G7	IP	N	5/4/17	4/12/18	1,331	853	478	N/A	N/A	N/A
G	29%	7	L	CAD/CAR/GL Optimization	Manchu	MERITS optimization & clean-up of Cash Dispersements, Cash Receipts, and General Ledger	G7	IP	N	10/6/17	12/27/18	1,738	356	1,382	N/A	N/A	N/A
G	10%	8	S	Video Conferencing Options	John	Investigate our video conferencing options	G7	IP	N	12/1/17	2/15/18	80	3	77	\$2,000	\$0	\$0

Pipeline Projects (Next 6 months)

- Build & Deployment Process Review (Manchu)
- Phone Replacement (Zaffiro)

- Green = On Target - No Significant Issues
- Yellow = On Watch List – Issues Being Addressed
- Red = Project cannot move forward as planned without management attention or approval.

- NS = Not Started
- OH = On Hold
- @ = Activity (no charter)
- IP = In Process
- C = Completed

Completed Projects & Tasks in Last 12 Months

	Finished	Hours / \$ Spent
Physical Inventory @ (Rogers)	12/20/2016	10 hrs / \$265
FileNet P8 Patching @ (Manchu)	1/7/2017	87 hrs / \$13,330
MAM Struts 2 Upgrade (Manchu)	1/25/2017	967 hrs / \$33,294
2017 Desktop Rotation (Powell)	5/8/2017	269 hrs / \$39,520
Member Education Videos [POC] (Zaffiro)	5/19/2017	67 hrs / \$1,889
Websphere Server Patching @ (Manchu)	5/26/2017	81 hrs / \$8,762
VMware vSphere Upgrade @ (Raynal)	6/15/2017	73 hrs / N/A
IT General Controls Audit @ (Reid)	6/20/2017	39 hrs / \$13,320
Printer Maint. Contract @ (Zaffiro)	6/21/2017	64.5 hrs / N/A

Special Note: Struts 2 Upgrade costs are part of the 3-year HP maintenance contract.		
	Finished	Hours / \$ Spent
BAA / PAP Optimization (Manchu)	7/7/2017	3,129 hrs / N/A
DR Test (IT Only) @ (Dugan)	7/11/2017	67.5 hrs / N/A
Install Print Monitoring Software @ (Xiong/Zaffiro)	9/21/2017	57.7 hrs / N/A
Upgrade Network Infrastructure Firmware @ (Benedict)	9/22/2017	48 hrs / N/A
BCP Test @ (Siddiqui)	9/28/2017	17 hrs / N/A
HCP Optimization (Manchu)	10/2/2017	958.3 hrs / N/A
CMERS.com Upgrade & Redesign (Zaffiro)	11/13/2017	149.75 hrs / \$18,600
100 Meg Femrite Cutover @ (Xiong)	1/5/2018	18.5 hrs / N/A

# Organizational/Personnel Update

Administration and Operations Committee

Thursday, January 18, 2018

- ERS is working with DER to fill the following vacancies: Pension Accounting Manager, Accounting Assistant I, Database Administrator and Records Technician II.
- DER is working with ERS to reclassify the Pension Accounting Specialist position.
- Daniel Gopalan was hired as ERS Chief Financial Officer. Vamsidhar Lolugu was hired as ERS Software Developer.

