| High Level Functionality | Actor | Test Type | What will be measured? | Original Performance Testing Metrics | | | New Thresholds | Scripts |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Thresholds | Test Results | Scenario |  |
| EIAM Data Publishing to PS-EIAM Interface (Write Back)   * Modify 100 personal emails of some employees * Modify 100 work emails of some employees * Modify 100 Work Phone (Landline) of some employees * Modify 100 Work Fax of some employees * Modify 100 Work Cell of some employees | System | Manual | Time from when the *PSWriteBackFeed* Policy is triggered to when it ends. | Less than 5 minutes | Back-end processing time: 3’ 34-39”  Front-end user experience time: 21-23” | 3 | Back-end processing time: ~3’ 34-39”  Front-end user experience time: ~21-23” | The initial creation of Employees can be done with the EIAM\_Create\_Employee script (first three steps only)  Build up a data set to get applied back to the employees with EIAM\_Set\_Write\_Back\_Data script  Once all users have been updated, run the EIAM\_Run\_Writeback\_Task script – this is what needs to be timed |
| Data Consumption by EIAM from PS-EIAM Interface (Forward)   * Update 150 employee payroll status from the interface table * Create 150 new employee records from the interface table | System | Manual | System performance (CPU, JVM Memory, etc.) while records are being processed from the PS\_EIAM interface (i.e. end-to-end measurement from consumption to creation, disabling, terminating, notification, etc.) | Threshold at 70% with (300 to 6000) of records being processed. | Update Payroll Status  Back-end processing time: 20’ 18”  Front-end user experience time: 22”  Create New Employee Records  Back-end processing time: 16’ 49”  Front-end user experience time: 21” | 5, 6 | Threshold at 70% with a load of 8,000 users  Update Payroll Status  Back-end processing time: ~20’ 18”  Front-end user experience time: ~22”  Create New Employee Records  Back-end processing time: ~16’ 49”  Front-end user experience time: ~21” | Create new employees with the EIAM\_Create\_Employee script (first three steps only) |
| Creating New Employee Account   * Create a new employee account via interface table (Employee is Hired, Payroll Status ="A") | System | Manual | Time from when the task is executed to when the AD account is created | 2-5 seconds (?) | Concurrent Account Creation  Back-end processing time: 1’ 17”  Front-end user experience time: 22”  Sequential Account Creation  Back-end processing time: 7-8”; 7.8” (avg)  Front-end user experience time: 10-14”; 11.9” (avg) | 8 | Concurrent Account Creation  Back-end processing time: ~1’ 17”  Front-end user experience time: ~22”  Sequential Account Creation  Back-end processing time: ~7.8-8.0”  Front-end user experience time: ~11.9-14” | Run EIAM\_Create\_Employee script (all steps) |
| Manual Disabling of an Employee Account   * Update the employee account via interface table | Human | Automated  HP LoadRunner for Sequential Users | Time from when task is executed to when the AD account is disabled | 2-5 seconds | 10 sequential virtual users  Back-end processing time: 4-7”; 5.3” (avg)  Front-end user experience time: 5.6-9.9”; 6.7” (avg) | 14 | 10 sequential virtual users  Back-end processing time: ~5.3-7”  Front-end user experience time: 6.7-9.9” | Run EIAM\_Disable\_Employee script (all steps) |
| Manual Terminating of an Employee Account   * Update the employee account via interface table | Human | Manual | Time from when task is executed to when the AD account is disabled/Security groups removed | 2-5 seconds | 10 sequential users  Back-end processing time: 20-25”; 22.3” (avg)  Front-end user experience time: 19-25”; 21.9” (avg) | 15 | 10 sequential users  Back-end processing time: ~22.3-25”;  Front-end user experience time: ~21.9-25” | Run EIAM\_Terminate\_Employee script (all steps) |
| Creating Contractor Account   * Create a new Contractor Account from EIAM | Human | Automated  HP LoadRunner for Sequential Users | Time from when the task is executed to when the AD account is created | 2-5 seconds | 10 sequential virtual users  Back-end processing time: 4-7”; 5.4” (avg)  Front-end user experience time: 5.3-9.5”; 7.3” (avg) | 18 | 10 sequential virtual users  Back-end processing time: ~5.4-7”  Front-end user experience time: ~7.3-9.5” | Run EIAM\_Create\_Contractor script (all steps) |
| Terminating Contractor Account Manually   * Terminate the contractor account manually from EIAM | Human | Automated  HP LoadRunner for Sequential Users | Time from when task is executed to when the AD account is disabled/Security groups removed | 2-5 seconds | 10 sequential virtual users  Back-end processing time: 5-12”; 7.6” (avg)  Front-end user experience time: 7.4-14.5”; 9.7” (avg) | 21 | 10 sequential virtual users  Back-end processing time: ~7.6-~12”  Front-end user experience time: ~9.7-14.5” | Run EIAM\_Terminate\_Contractor script (all steps) |
| Explore & Correlate   * Modify 80 employee account via the interface table * Set 20 contractor accounts to expire overnight | System | Manual | Completion time for the scheduled task: From AD to Provisioning Server; and from Provisioning Server to IAM (End to End) | Nightly runs ~ 100 users changed ~ 1 hour maximum |  |  | Nightly runs ~ 100 users changed ~ 1 hour maximum | May need to adapt EIAM\_Create\_Employee script to modify existing employees in the interface table (first three steps only)  Can use EIAM\_Set\_Contractor\_Expiry script to prepare contractors  Once data prep is done, run EIAM\_Run\_ExploreCorrelate\_Task script |
| Changing Password through the EIAM portal | Human | Automated  HP LoadRunner for Sequential Users  Apache JMeter for Concurrent Users | Time from when users submit newly entered passwords until propagated in AD | 2-5 seconds  Concurrent User Base: 50 max. load (to be added in increments) | 10 sequential virtual users  Back-end processing time: 1-2”; 1.4” (avg)  Front-end user experience time: 4.4-5.5”; 5.1” (avg)  50 concurrent virtual users  Back-end processing time: 3-34”; 21.9” (avg)  Front-end user experience time: 0.5-29.7”; 20.3” (avg) | 27 | 10 sequential virtual users  Back-end processing time: ~1.4-2”  Front-end user experience time: 5.1-5.5”; 5.1”  50 concurrent virtual users  Back-end processing time: ~21.9-34”  Front-end user experience time: ~20.3-29.7” | Users must exist and have a password before this test can be run  When data prep is done, run EIAM\_Change\_Password\_Portal script |
| Reset Password - Self Serve - Internal   * One (1) user resetting a password | Human | Automated  (HP LoadRunner – Sequential Users) | Time from when a user submits newly entered password until propagated in AD (i.e. from when the task is fired to when password in AD account is set) | 2-5 seconds | 10 sequential virtual users  Back-end processing time: 2-3”; 2.3” (avg)  Front-end user experience time: 5.2-6.3”; 5.7” (avg) | 28 | 10 sequential virtual users  Back-end processing time: ~2.3-3”  Front-end user experience time: 5.7-6.3” | Users must exist and have a password.  Once data prep is done, run EIAM\_Reset\_Password\_Internal script |
| Reset Password - Self Serve - External   * One (1) user resetting the password * Concurrent users resetting a password | Human | Automated  HP LoadRunner for Sequential Users  Apache JMeter for Concurrent Users | Time from when a user submits newly entered password until propagated in AD (i.e. from when the task is fired to when password in AD account is set) | 2-5 seconds  Concurrent User Base: 50 max. load (to be added in increments) | 10 sequential virtual users  Back-end processing time: 2-3”; 2.1” (avg)  Front-end user experience time: 4.2-9.3”; 6.1” (avg)  50 concurrent virtual users  Back-end processing time: 1-2”; 1.4” (avg)  Front-end user experience time: 2-5”; 2.9” (avg) | 29 | 10 sequential virtual users  Back-end processing time: ~2.1-3”  Front-end user experience time: ~6.1-9.3”  50 concurrent virtual users  Back-end processing time: ~1.4-2”  Front-end user experience time: 2.9-5” | Users must exist and have a password.  Once data prep is done, run EIAM\_Reset\_Password\_External script |
| Reset Password - Service Desk   * Concurrent: Simulate ten (10) service desk agents resetting passwords for users at the same time * Sequential: Measure the time when entered password reset gets propagated to AD | Human | Automated  HP LoadRunner for Sequential Users  Apache JMeter for Concurrent Users | Time from when a user submits newly entered password until propagated in AD (i.e. from when the task is fired to when password in AD account is set) | 2-5 seconds  Concurrent User Base: Capped at 10 (# of Service Desk Agents) | 10 sequential virtual users  Back-end processing time: 2-5”; 3” (avg)  Front-end user experience time: 5.5-8.7”; 7.1” (avg)  10 concurrent virtual users  Back-end processing time: 4-11”; 7.6” (avg)  Front-end user experience time: 0.4-11.3”; 7.4” (avg) | 30 | 10 sequential virtual users  Back-end processing time: ~3-5”  Front-end user experience time: ~7.1-8.7”  10 concurrent virtual users  Back-end processing time: ~7.6-11”  Front-end user experience time: ~7.4-11.3” | Users must exist and have a password.  Once data prep is done, run EIAM\_Reset\_Password\_Service\_Desk script |
| Unlock Account - Service Desk   * Unlock one (1) user account that was previously locked | Human | Automated  HP LoadRunner for Sequential Users  Apache JMeter for Concurrent Users | Time from when *Unlock* is clicked to when the account is unlocked | 2-5 seconds  Concurrent User Base: Capped at 10 (# of Service Desk Agents) | 10 sequential virtual users  Back-end processing time: 1-2”; 1.8” (avg)  Front-end user experience time: 2.9-4”; 3.1” (avg)  10 concurrent virtual users  Back-end processing time: 6-7”; 6.2” (avg)  Front-end user experience time: 1.6-8”; 2.3” (avg) | 31 | 10 sequential virtual users  Back-end processing time: ~1.8-2”  Front-end user experience time: 3.1-4”  10 concurrent virtual users  Back-end processing time: 6.2-7”  Front-end user experience time: 2.3-8” | Use the EIAM\_Lock\_Account script to cause a user account to get locked  Once the data prep is done, run the EIAM\_Unlock\_Account script |
| Setting Security Q&A's   * Simulate fifty (50) users accessing the Security Q&A screen, answering security questions then submitting | Human | Automated  HP LoadRunner for Sequential Users  Apache JMeter for Concurrent Users | 1. Time it takes for the page to load; 2. Time it takes from Submitting to save questions in User Store | 1. Time to load page: 2-5 seconds 2. Task submission: 2-5 seconds   Concurrent User Base: 50 max. load (to be added in increments) | 10 sequential virtual users  Back-end processing time: 2-4”; 3.2” (avg)  Front-end user experience time: 2.2-3.2”; 2.7” (avg)  50 concurrent virtual users  Provisioning server log: 2-5”; 3.1” (avg)  Front-end user experience time: 0.8-6.9”; 7.4” (avg) | 32 | 10 sequential virtual users  Back-end processing time: ~3.2-4”  Front-end user experience time: ~2.7-3.2”  50 concurrent virtual users  Provisioning server log: ~3.1-5”  Front-end user experience time: ~6.9-7.4” | Users must exist and have passwords  When data prep is done, run the EIAM\_Set\_Security\_QA script |

## Appendix: Original Performance Test Scenarios

Scenario 3: EIAM Data Publishing to PS-EIAM Interface (Write Back)

* 3.1 Modify 100 work emails of some employees
* 3.2 Modify 100 Work Phone (Landline) of some employees
* 3.3 Modify 100 Work Fax of some employees
* 3.4 Modify 100 Work Cell of some employees

Scenario 5: Data Consumption by EIAM from PS-EIAM Interface (Forward) - Create 150 new employee records from the interface table

Scenario 6: Data Consumption by EIAM from PS-EIAM Interface (Forward) - Update 150 employee payroll status

Scenario 8: Creating New Employee Account - Create a new employee account via interface table (Employee is Hired, Payroll Status ="A")

* 8.1 Create 10 employee accounts simultaneously
* 8.2 Create 10 employee accounts sequentially

Scenario 14: Manual Disabling of an Employee Account - Update 10 employee accounts sequentially via interface table. Steps:

* Navigate to Home Page
* Login
* Click Manage Employees
* Click Disable Employee
* Apply filter by employee last name
* Click Select for the employee
* Type Reason in textbox
* Click Submit
* Click OK on Task Completed
* Log out

Scenario 15: Manual Terminating of an Employee Account - Update 10 employee accounts sequentially via interface table

Scenario 18: Creating Contractor Account - Create 10 Contractor accounts sequentially from EIAM.

* Steps:
* Navigate to Home Page
* Login
* Click Users
* Click Manage Contractors
* Click Create Contractor
* Fill in all required fields
* Click Submit
* Click OK on Task Completed
* Log out

Scenario 21: Terminating Contractor Account Manually - Terminate 10 Contractor accounts sequentially from EIAM.

* Steps:
* Navigate to Home Page
* Login
* Click Users
* Click Manage Contractors
* Click Terminate Contractor
* Fill in all required fields
* Click Submit
* Click OK on Task Completed
* Log out

Scenario 27: Changing Password through the EIAM portal

* 27.1 (10) sequential users are changing password through the EIAM portal
* 27.2 (50) concurrent users are changing password through the EIAM portal
* Steps:
* Navigate to Home Page
* Login
* Click Change My Password
* Enter and Submit new password
* Click OK on Task Completed
* Log out
* Enter and Submit new password
* Click OK on Task Completed
* Log out

Scenario 28: Reset Password - Self Serve – Internal - 10 sequential users are resetting password from Internal Password Reset Page

* Steps:
* Navigate to Internal Password Reset Page
* Enter and submit user id
* Click Change My Password
* Submit answer to security question 1
* Submit answer to security question 2
* Submit answer to security question 3
* Enter and submit new password
* Click OK on Task Completed

Scenario 29: Reset Password - Self Serve – External

* 29.1 10 sequential users are resetting password from External Password Reset Page
* 29.1 50 concurrent users are resetting password from External Password Reset Page
* Steps:
* Navigate to External Password Reset Page
* Enter and submit user id
* Click Change My Password
* Submit answer to security question 1
* Submit answer to security question 2
* Submit answer to security question 3
* Enter and submit new password
* Click OK on Task Completed

Scenario 30: Reset Password - Service Desk

* 30.1 (10) sequential service desks are resetting password through the EIAM portal
* 30.2 (10) concurrent service desks are resetting password through the EIAM portal
* Steps:
* Navigate to Home Page
* Login
* Click Users
* Click Change User Password
* Search for user by id
* Select user
* Enter and Submit new password
* Click OK on Task Completed
* Log out

Scenario 31: Unlock Account - Service Desk - unlock 1 user account that was previously locked

* 31.1 (10) sequential service desks are unlocking 1 user account
* 31.2 (10) concurrent service desks are unlocking 1 user account
* Steps:
* Navigate to Home Page
* Login
* Click Users
* Click Unlock Change User AD Password
* Select user
* Click on Active Directory account button
* Click on Select <username> checkbox
* Click on Unlock button
* Click Yes
* Click Submit
* Click OK on Task Completed
* Log out

Scenario 32: Setting Security Q&A's - Users accessing Security Q and A screen, answering security questions then submit

* 32.1 (10) sequential users are setting security Q&A's
* 32.2 (50) concurrent users are setting security Q&A's
* Steps:
* Navigate to Home Page
* Login
* Click Users
* Click Set My Security Q&A
* Select 5 different questions from dropdowns
* Enter 5 answers
* Submit form
* Click OK on Task Completed
* Log out