



SailPoint IdentityIQ

Version: 8.3.0.6000

File Access Manager v8.3 Service Pack 6 Deployment Guide



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IMPORTANT

Please read this Service Pack Guide carefully as this is a unique Service Pack and requires special considerations.

This service pack (8.3 SP6) comes with a Server Installer and Collector Installation Manager. After applying this service pack, any service installs/uninstalls will require use of the new Server Installer/Collector Installation Manager. Please reference File Access Manager Installation Guide Version: 8.3 SP6.

This service pack requires .NET 6.

You CANNOT directly upgrade; you will need to move through installing the general release(s) before applying this service pack. IE. If you are still on 8.1, the upgrade path would be 8.1 – 8.1 SP3 – 8.2 – 8.3 – 8.3 SP6.

Windows 2012R2 is no longer supported.

Chapter 1: Planning Your Service Pack Deployment

What is a Service Pack?

Service Packs are cumulative packages containing all released E-Fixes, to date, since the last Major or Patch release. Service Packs allow customers to stay up to date with the latest bug fixes and performance enhancements, with minimal down time and without the need to upgrade. Service Packs only update the File Access Manager components for which bug fixes or performance enhancements were issued, while the rest of the system remains untouched.

Service Packs Deployment Process

Starting from version 6.1, SecurityIQ (FAM) Service Packs deployment is done automatically. Service Packs are deployed by the File Access Manager update deployment mechanism. By simply uploading a Service Package through the Administrative Client, and pressing a button to initiate the deployment, the Service Pack will be deployed and will automatically update all relevant File Access Manager components.

All File Access Manager components, including Web Sites, Administrative Clients, Core Services, Activity Monitors, Permission Collection and Data Classification Engine and Collectors, Watchdogs and the File Access Manager Database, will be updated – provided that the service pack contains update for the specific component.

The only exception to that is the File Access Manager Collector Manager – used to deploy Collectors and Activity Monitoring Agents – which is a standalone application, and will need to be updated manually, if an update is available.

Version Numbers

The current version number is displayed on the bottom right corner of the Administrative Client screen.

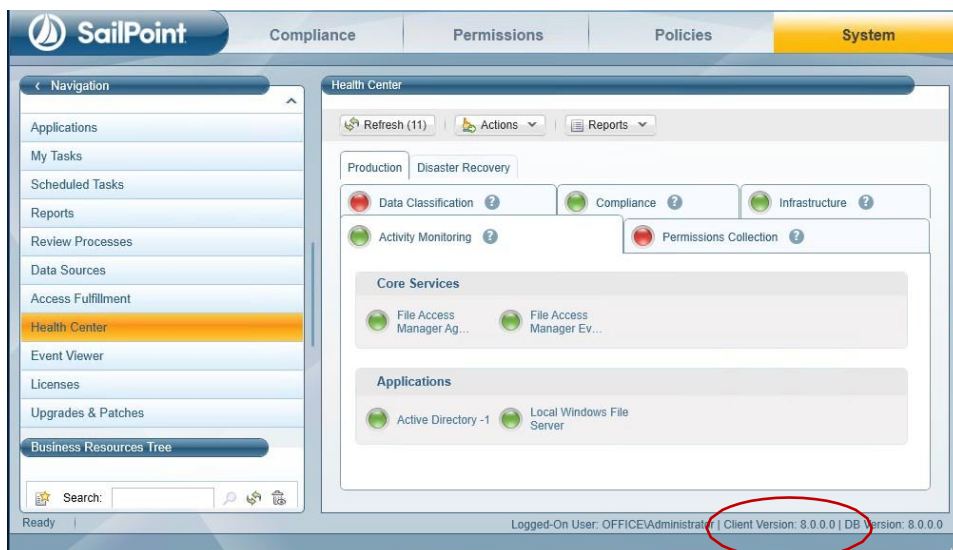


Figure 1 Application Monitors Screen



File Access Manager version numbers are represented by a four-section number, e.g., 8.3.0.6000.

The first two sections represent major releases. File Access Manager 8 GA release number is 8.0.0.0. whereas File Access Manager 8.3 release will be represented by the number 8.3.0.0.

The next section represents Patch Releases, e.g., File Access Manager 8.0P1 version number is 8.0.1.0.

Service Pack updates are reflected in the last section, and so File Access Manager 8.3 Service Pack 6 version number is 8.3.0.6000.

The Database version number will be updated with every service pack. For File Access Manager 8.3 Service Pack 6, the database version number is 8.3.0.6000.

The Client version number will be updated if the service pack includes changes to the Administrative Client. For File Access Manager 8.3 Service Pack 6, the Client version number is 8.3.0.6000.

Infrastructure components, such as Elasticsearch and RabbitMQ will retain the same version number, unless an update to the actual infrastructure components is applied, in which case their version number will be updated as well. 8.3 Service Pack 6 does not include any updates to such infrastructure components.

Versions included in this release:

Table 2 File Access Manager Component Version Details

Component	Version
File Access Manager Database	8.3.0.6000
File Access Manager Elasticsearch	5.1.1
File Access Manager RabbitMQ	3.7.4
File Access Manager API	8.3.0.6000
File Access Manager Web Client	8.3.0.6000
File Access Manager Administrative Client	8.3.0.6000
File Access Manager Data Classification	8.3.0.6000
File Access Manager Permission Collection	8.3.0.6000
File Access Manager Activity Analytics	8.3.0.6000
File Access Manager Agent Configuration Manager	8.3.0.6000
File Access Manager Collector Synchronizer	8.3.0.6000
File Access Manager Crowd Analyzer	8.3.0.6000
File Access Manager Event Manager	8.3.0.6000
File Access Manager Reporting Service	8.3.0.6000
File Access Manager Scheduled Task Handler	8.3.0.6000
File Access Manager User Interface	8.3.0.6000
File Access Manager Watchdog	8.3.0.6000
File Access Manager Workflow Service	8.3.0.6000
File Access Manager Activity Monitor	8.3.0.6000



Backup Measures

Backups are important. Having the original deliverable readily available will allow you to quickly and easily roll-back changes if needed. One of the great things about Service Packs is that they allow for small surgical changes to be made to the system, by changing only what is necessary. For that reason, they are also easy to roll back, provided that backup measures have been taken.

Database

As a rule, we recommend that regular backups be performed on the IdentityIQ File Access Manager database.

Service Packs can occasionally require changes to the database, either in the form of content modification on specific tables or in the form of schema changes to the tables and object in the database.

In the case of schema changes, we recommend that a copy of the original database object be taken. The simplest way of doing that is creating a backup object with a different name, using the script of the original object. In most cases, that would entail generating a Create script of the original object and renaming the object name in the script before execution.

You can consult your DBA on how to create such backup objects.

Other Components

The IdentityIQ File Access Manager updates' deployment mechanism creates a backup for every component updated by the service pack. Once the service pack package is loaded and its deployment started, before any changes are made, a backup copy of the updated component is taken and stored in the designated Backup folder. The Backup folder is located under the SailPoint home directory (set by the SAILPOINT_HOME environment variable and is by default at C:\Program Files\SailPoint\). A folder bearing the Service Pack name will be created in the main Backup folder, and a backup of each of the updated components will be created.

For SP6 the Backup folder would be `{%FILE_ACCESS_MANAGER_HOME%}\Backup\8.3.0.6000` (*the contents of the folder will be related to the pre-upgraded version*).

Chapter 2: Support Matrix

Table 3 IdentityIQ File Access Manager Server Support Details

System	Supported Versions
IdentityIQ File Access Manager Servers	Windows 2016/2019/2022
Workstation	Windows 8 and above
Browser	IE 11, Edge, Firefox, Chrome, Safari
Database	MS SQL Server 2012/2014/2016/2017

Chapter 3: Deploying Version 8.3 Service Pack 6

The deployment process consists of the following steps:

1. Downloading the Service Pack from this [Compass Location](#)
2. Read the Service Pack deployment guide thoroughly.
3. Pre-deployment Steps
4. Service Pack Deployment
 - a. Upload the Service Pack through the Administrative Client
 - b. Kick-Off the Service Pack deployment
 - c. Verify successfully deployment
5. Post Deployment Steps

Pre-upgrade Steps

Install EXO PowerShell module.

For those who use Exchange Online Connector please follow the installation prerequisites section: [Chapter 4, SIQSUS-881 – Modernize EXO Connectivity v3.0.](#)

Install .NET 6

Before starting the installation, gather the required data, open the required ports, and set up the servers, as described.

Communication Requirements

File Access Manager is a service-oriented solution, and as such, enables the distribution of its services on multiple servers. The model is flexible, and services can be shifted between servers to boost performance.

.NET

File Access Manager requires the latest ASP.NET Core 6.0.x Hosting Bundle. This bundle consists of .NET Runtime and ASP .NET Core Runtime.

You can download the latest 6.0.x Hosting Bundle version from [here](#).

WAIT to uninstall .NET Core 3.1 until after upgrade has completed.

Run apps - Runtime ⓘ

ASP.NET Core Runtime 6.0.13

The ASP.NET Core Runtime enables you to run existing web/server applications. **On Windows, we recommend installing the Hosting Bundle, which includes the .NET Runtime and IIS support.**

IIS runtime support (ASP.NET Core Module v2)

16.0.22335.13

OS	Installers	Binaries
Linux	Package manager instructions	Arm32 Arm32 Alpine Arm64 Arm64 Alpine x64 x64 Alpine
macOS		Arm64 x64
Windows	Hosting Bundle x64 x86 winget instructions	Arm64 x64 x86

Caution: Without completing this step, the installation will fail.

All servers hosting File Access Manager services, including all Activity Monitors must, have .NET Core 6.0.x installed as a prerequisite for the installation.

- a. The administrative client computer and Business Website service server must contain .NET Framework 4.7.2

Note: .NET Core and .NET Framework 4.7.2 can be installed on the same server.

Verifying .NET Core Settings

Complete the following steps to verify the version of .NET Core:

1. Open a CMD window.
2. Execute the following command:
 - a. `dotnet --list-runtimes`

The output should consist of at least these two:

- Microsoft.AspNetCore.App 6.0.x
- Microsoft.NETCore.App 6.0.x

If the command did not execute or the two runtimes mentioned above are not in the output list, reinstall or repair the hosting bundle.



Log4J Vulnerability

*This is only necessary from an upgraded environment from lower versions (ie. 8.2 with any/no service pack). If you have a fresh installation of 8.3 this is not necessary.

Critical vulnerabilities in the log4j library used in the Elasticsearch component of File Access Manager were announced and are being tracked by CVE-2021-44228, CVE-2021-44832, CVE-2021-45046, and CVE-2021-45105. Announcement can be found here: [Compass FAM Blog: File Access Manager log4j Remote Code Execution and Denial of Service Vulnerabilities](#)

SailPoint has reproduced these vulnerabilities and determined that File Access Manager is susceptible to remote code execution and denial of service vulnerabilities because of them.

These vulnerabilities can and should be immediately mitigated by updating the log4j library in the Elasticsearch instance that is part of the File Access Manager deployment to version 2.17.1 as documented in the content for the CVEs referenced above. An e-fix containing updated libraries and a README with installation instructions is included in the Service Pack deployment folder. The ElasticSearchLog4J.ps1 PowerShell script will remediate the vulnerabilities by replacing the vulnerable .jar files with libraries which do not contain the vulnerability.

Steps to apply the PowerShell script are as follows:

1. Login to the Elasticsearch server
2. Extract Log4jPatch.zip to your folder of choice
3. Open PowerShell as administrator
4. Navigate to the folder you extracted the log4j.zip
5. Run the following command `.\ElasticSearchLog4J.ps1`

Please note if you have already applied this fix manually there is no need to run this script; however, there is no negative effect if you choose to do so anyway.

Please note:

- Tool needs to be run on the server hosting the elastic search service.
- SAILPOINT_HOME environment variable needs to be correctly set to the 'SailPoint' folder containing the 'elasticsearch-5.1.1' folder.

Service Pack Deployment

- Extract the "File Access Manager v8.3.0.6000.zip" installation package.
- Navigate to the "Service Pack 5" folder.
- Log into the IdentityIQ File Access Manager administrative client Client
- Click **System >> Upgrades & Patches >> Load New Package**
This will open the **Load Package** dialog.
- Press **Browse** and load the file "**File_Access_Manager_v8.3.0.6000.wbxpkg**" from the Service Pack folder.
- Press **Upload Package**.
The system will upload and validate the file. This might take a few minutes.
- Once it is validated, press **Save**. This will add the upgrade package to the upgrades page.

#	Type	Name	Description	Issue Date	Size (in MB)	Upload Date	Status	Summary	See More
1	ServicePack	SecurityIQ v6.1.0.1000	Installs Service Pack 1 for SecurityIQ 6.1	07/04/2019 06:15:00	34.91 MB	18/04/2019 13:29:06	Pending start	35	See More

Figure 2: Upgrades & Patches table

- Right click the upgrade package and select **See More** from the menu.

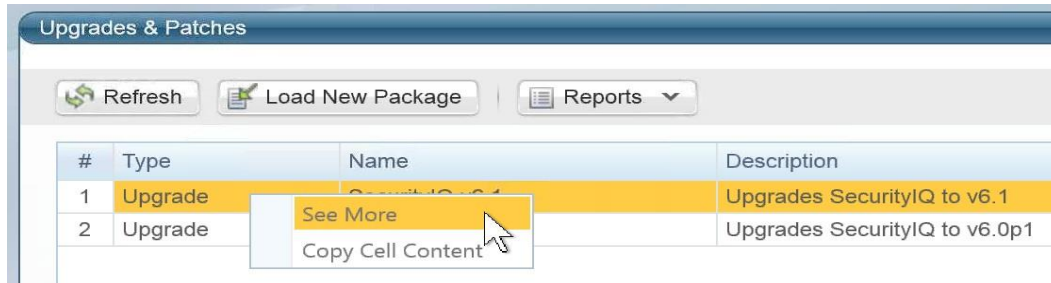


Figure 3: Expand Service Pack package - Details

This will open the upgrade detail panel, showing a list of the upgrade steps included in this package.

Each installation line is listed in “Pending” state when it is added to the upgrade/installation list.

#	Upgrade?	Service	Server	Type	Status	Status time	From Version	To Version	Setup File	Size (in MB)
1	<input checked="" type="checkbox"/>	SecurityIQ Agent Configuration Manager	siq-sustain01.office.whitebox.forest	Activity Monitoring	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXAgentConfigurationManager.zip	0.6242 MB
2	<input checked="" type="checkbox"/>	SecurityIQ Business Asset Control	siq-sustain01.office.whitebox.forest	Compliance	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXBusinessAssetControl.zip	0.6978 MB
3	<input checked="" type="checkbox"/>	SecurityIQ Event Manager	siq-sustain01.office.whitebox.forest	Activity Monitoring	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXEventManager.zip	0.6242 MB
4	<input checked="" type="checkbox"/>	SecurityIQ Reporting Service	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXReportingService.zip	0.7064 MB
5	<input checked="" type="checkbox"/>	SecurityIQ Scheduled Task Handler	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXScheduledTaskHandler.zip	0.7064 MB
6	<input checked="" type="checkbox"/>	SecurityIQ User Interface	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXUserInterface.zip	0.7038 MB
7	<input checked="" type="checkbox"/>	SecurityIQ Workflow	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXWorkflowService.zip	0.7846 MB
8	<input checked="" type="checkbox"/>	SecurityIQ Collector Synchronizer	siq-sustain01.office.whitebox.forest	Permissions Collection	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXCollectorSynchronizer.zip	1.7846 MB
9	<input checked="" type="checkbox"/>	SecurityIQ Central Permissions Collection - P	siq-sustain01.office.whitebox.forest	Permissions Collection	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	PermissionCollection.zip	1.1155 MB
10	<input checked="" type="checkbox"/>	SecurityIQ Business Website	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXBusinessWebsite.zip	2.1106 MB
11	<input checked="" type="checkbox"/>	SecurityIQ Crowd Analyzer	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXCrowdAnalyzer.zip	0.6244 MB
12	<input checked="" type="checkbox"/>	SecurityIQ Central Data Classification - DCT	siq-sustain01.office.whitebox.forest	Data Classification	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	DataClassification.zip	0.6431 MB
13	<input checked="" type="checkbox"/>	SecurityIQ Activity Analytics	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXActivityAnalytics.zip	0.6242 MB
14	<input checked="" type="checkbox"/>	SecurityIQ WatchDog - siq-sustain01	siq-sustain01.office.whitebox.forest	Infrastructure	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	WBXWatchDog.zip	5.9028 MB
15	<input checked="" type="checkbox"/>	Database		SecurityIQ DB	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	dba_index_defrag	0.0559 MB
16	<input checked="" type="checkbox"/>	Database		SecurityIQ DB	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	get_dfs_finet_dc_targets	0.0095 MB
17	<input checked="" type="checkbox"/>	Database		SecurityIQ DB	Pending	18/04/2019 13:29:15	6.1.0.1000	6.1.0.1000	kpl_calic_oversposed_folders	0.0097 MB

Figure 4: Review Service Pack package - Details

- Click **Start Installation** and **Confirm** to start the installation process.

The Service Pack deployment process runs a series of prerequisites checks before the Database update begins. Then proceeds to perform the Database updates.

Following the Database updates, the first component to be updated will be the Watchdog Service, installed on the server hosting the User Interface core service.

Following that, all other components will be updated.

What if an update line fails?

If a script or a component update fails, right-click the failed line in the **System/Upgrade and Patches** screen and click **Save** to save the log file. The system will download the log file where you can see error

messages describing the issues.

After you fix the issue, right-click the failed line and click **Retry** to rerun the script and continue the upgrade process.

#	<input type="checkbox"/> Upgrade?	Service	Server	Type
1	<input type="checkbox"/>	Database		Data Update
2	<input checked="" type="checkbox"/>	SecurityIQ Agent Configuration		Activity Monitoring
3	<input checked="" type="checkbox"/>	Database		SecurityIQ DB
4	<input checked="" type="checkbox"/>	Database		SecurityIQ DB
5	<input checked="" type="checkbox"/>	Database		SecurityIQ DB

Figure 5: Retry installation line

- Wait until all services have **Completed** or are in a **“Pending Restart”** status.
- If one of the services is in a **“Pending Restart”** status, restart the server on which this service is installed.
The Service Pack update will continue automatically after restarting.
- Wait until all services are in **“Completed”** status after restarting.

Note: See *Chapter 5: Troubleshooting* for further suggestions and information.

Post Upgrade Actions

IdentityIQ File Access Manager Client Upgrade

Please close and re-open all File Access Manager Administrative Client applications.

On the first run of the IdentityIQ File Access Manager administrative client after an update, a popup message displays, requesting that you update the client. During the update, you will be required to reenter the server on which the User Interface Service is installed.

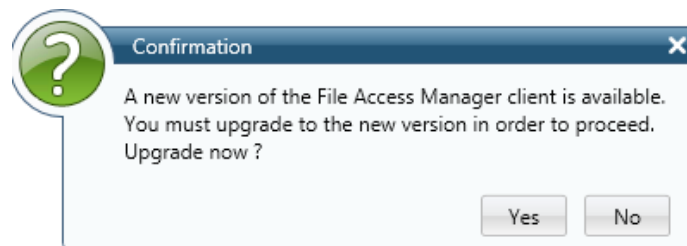


Figure 4: Message - Update File Access Manager Client

Validate the Service Pack update.

To validate the installation, and verify that the correct version was installed, check in the Windows Add/Remove programs in the control panel.

The versions of the IdentityIQ File Access Manager components should be set to 8.3.0.6000

The IdentityIQ File Access Manager Database version should be set to 8.3.0.6000

Note: See “Versions included in this release:” for a full list of components updated.



Optional: Uninstall .Net Core 3.1

After you have completed the installation, you optionally can uninstall .NET Core 3.1

Navigate to the Control Panel > Programs > Uninstall a program

Locate corresponding .NET Core 3.1.x program, right-click > Uninstall

Chapter 4: Important Information and Updates

SIQETN-3242 - Support custom port configuration for SharePoint On Prem Content Databases (extended).

Added out-of-the-box support for different SharePoint on-prem content database(s) (as sometimes it is FQDN, sometimes it is short name).

Currently, FAM's SharePoint connector only supports using a custom port in communication to the SharePoint configuration database. This enhancement will allow for custom port use as well for the content databases.

This is to support multiple custom ports for the content databases. I.E., if there is a need to have multiple content databases now FAM can utilize different custom port numbers.

SIQETN-3250 - Box and OneDrive permission collection invokes stored procedure to create user_role tables excessively.

Performance improvements have been made to Box and OneDrive Permission Collection tasks to decrease runtime.

NOTE: These improvements can be found in other Permission Collection tasks, not just Box or OneDrive.

SIQSUS-881 – Modernize EXO Connectivity v3.0

Microsoft will soon be deprecating legacy remote PowerShell sessions for exchange online.

For new tenants, basic authentication will be disabled by default on June 1, 2023, and will be forcefully disabled for all tenants by October 2023.

Microsoft is recommending all tenants to move all scripts, unattended or otherwise, to migrate to using the new Exchange Online PowerShell V3 module. The module name is ExchangeOnlineManagement, and it is also sometimes referred to as shorthand of EXO module, or EXO V3 module.

Microsoft advertises this new module as being more secure (built-in support for modern authentication), more reliable (handles transient failures with built-in retry), and more performant.

For more details consult Microsoft documentation here:

<https://techcommunity.microsoft.com/t5/exchange-team-blog/announcing-deprecation-of-remote-powershell-rps-protocol-in/ba-p/3695597>

<https://techcommunity.microsoft.com/t5/exchange-team-blog/exchange-online-powershell-v3-module-general-availability/ba-p/3632543>



8.3 SP5 Exchange Online Connector now utilizes the new V3 Module.

New Module Installation Prerequisite:

The new module will need to be manually installed by the customer on any machines running Exchange Online tasks: Activity Monitoring and the Permission Collection engine. The command to install the latest version of the module and should be run from an elevated administrator PowerShell prompt:

```
Install-Module -Name ExchangeOnlineManagement -MinimumVersion 3.1.0 -Scope AllUsers -Force -AllowClobber
```

The above command will install the latest stable version and will be included in the FAM documentation for this connector. Note that any upgrades of the EXO module will require a restart of the relevant activity monitoring and permission collection services, since it will have loaded different versions of internal module libraries.

To check which version of EXO module is installed, run:

```
Get-InstalledModule
```

Optimized Get-EXO* Cmdlets

We are now using the new Get-EXO* cmdlets where possible:

- Get-EXOMailbox (to replace Get-Mailbox)
- Get-EXOMailboxFolderPermission
- Get-EXOMailboxFolderStatistics
- Get-EXOMailboxPermission
- Get-EXOMailboxStatistics
- Get-EXORecipient
- Get-EXORecipientPermission

Mailbox Folder Statistics Collection Now Opt-In To Address Performance

As an optimization, we will make collecting the following statistics optional:

- LastLogonTime - Updates business_service_last_used table.
- ItemCount - Updates files_count in business_service table.
- TotalItemSize - Updates size in business_service table.

While this data may be useful to some customers, the performance penalty of collecting it causes crawls to run an order of magnitude slower, as a separate REST call must be made for each mailbox after getting the initial root collection. This will now be disabled by default but can be re-enabled by setting crawlCalculateSize from Never to Always row in bam_configuration_value table for matching bam and can create row if it doesn't exist. (There is precedent for this change as Exchange On-Prem already has this backend hidden switch but is always on.)

Exclude Internal Folders "SubstrateHolds" and "DiscoveryHolds"

Hidden folders created internally by Microsoft named SubstrateHolds and DiscoveryHolds are excluded from crawl results.

Memory Usage

Microsoft has noted usage of the new EXO V3 module does create a memory leak. Over time, across many re-runs of an Exchange Online crawl or permission collection task, you may experience a gradual increase in memory usage of the Permission Collection engine service.

There is a note about it on the [Microsoft EXO module about page](#):

ⓘ Note

Frequent use of the **Connect-ExchangeOnline** and **Disconnect-ExchangeOnline** cmdlets in a single PowerShell session or script might lead to a memory leak. The best way to avoid this issue is to use the *CommandName* parameter on the **Connect-ExchangeOnline** cmdlet to limit the cmdlets that are used in the session.

We are using the *CommandName* parameter to import any needed REST cmdlets to reduce memory usage. When this is corrected by Microsoft, we will include Microsoft updates/recommendations into the upcoming Service Pack

Overall Performance

With focused efforts on improving the speed of the crawl, we have made adjustments to no longer fetch statistic by default. Internal testing efforts see a decreased in the crawls time to completion.

Logging and Configuration

There is a way to enable Microsoft internal EXO V3 module logging by editing the NLog configuration file. Setting **writeTo= "logfile"** will enable this logger and new logs will be created beginning with EXO.



Local Disk (C:) > Program Files > SailPoint > Logs > Search Logs

Name	Date modified	Type	Size	File version
elasticsearch	5/31/2023 1:30 AM	File folder		
ActivityAnalytics-Statistics.log	5/31/2023 10:00 PM	Text Document	40 KB	
DataClassification_DC1.log	5/31/2023 9:52 PM	Text Document	32 KB	
EventCollector-Statistics.log	5/31/2023 9:59 PM	Text Document	54 KB	
EventManager-Statistics.log	5/31/2023 9:53 PM	Text Document	125 KB	
EXO_RESTCmdletLogs-20230531-215503562.csv	5/31/2023 9:57 PM	CSV File	10 KB	
EXO_RESTCmdletLogs-20230531-215520014.csv	5/31/2023 9:57 PM	CSV File	10 KB	
EXO_RESTCmdletLogs-20230531-215527600.csv	5/31/2023 9:57 PM	CSV File	8 KB	
EXO_RESTCmdletLogs-20230531-215534334.csv	5/31/2023 9:57 PM	CSV File	8 KB	
EXO_RESTCmdletLogs-20230531-215540905.csv	5/31/2023 9:57 PM	CSV File	6 KB	
EXOPowerShellModuleLogs-708-20230531-215512896.csv	5/31/2023 9:55 PM	CSV File	2 KB	
EXOPowerShellModuleLogs-708-20230531-215526817.csv	5/31/2023 9:55 PM	CSV File	6 KB	
EXOPowerShellModuleLogs-708-20230531-215533572.csv	5/31/2023 9:55 PM	CSV File	2 KB	
EXOPowerShellModuleLogs-708-20230531-215539960.csv	5/31/2023 9:55 PM	CSV File	2 KB	
EXOPowerShellModuleLogs-708-20230531-215546525.csv	5/31/2023 9:57 PM	CSV File	471 KB	
PermissionsCollection_PC1.log	5/31/2023 9:59 PM	Text Document	727 KB	
PermissionsCollection_PC1.Statistics.log	5/31/2023 8:10 PM	Text Document	1 KB	

C:\Program Files\SailPoint\Logs\EXOPowerShellModuleLogs-708-20230531-215546525.csv - Notepad++ [Administrator]

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

```
1 StartTime,Type,AssemblyVersion,TenantId,Cmdlet,Parameters,PipelineIndex,OutputObjectCount,ExecutionResult,ClientRequest
2 2023-05-31-21:55:47.795,2,,,,,0,1,Success,1d694446-8106-4606-8274-af252d43ed25,ef51148d-eed7-6b05-0086-26df8b0b6d78,0,G
3 2023-05-31-21:55:47.790,1,15.20.5966.023,154dccc9-b44e-4883-860c-8c4da5ceae46,Get-EXOMailboxPermission,Identity;Owner,1
4 2023-05-31-21:55:49.323,2,,,,,0,1,Success,ecc3956a-ed42-42b3-8294-9248aa2b9c29,432f7d09-fd16-0361-a926-ff0d811ca024,0,G
5 2023-05-31-21:55:49.323,1,15.20.5966.023,154dccc9-b44e-4883-860c-8c4da5ceae46,Get-EXOMailboxPermission,Identity,1,0,Suc
6 2023-05-31-21:55:49.916,2,,,,,0,1,Success,8139a981-6301-48ea-ae74-f4828a9d438a,36e0e03e-7fd5-d0a0-d723-db6a87963392,0,G
7 2023-05-31-21:55:49.915,1,15.20.5966.023,154dccc9-b44e-4883-860c-8c4da5ceae46,Get-EXORecipientPermission,Identity,1,0,S
8 2023-05-31-21:55:50.445,2,,,,,0,1,Success,1db209d0-8a6c-494f-b90e-4cc2b7102be3,c8b0f1b7-cbd6-3259-752e-dd560f509206,0,G
9 2023-05-31-21:55:50.445,1,15.20.5966.023,154dccc9-b44e-4883-860c-8c4da5ceae46,Get-EXOMailboxPermission,Identity;Owner,1
10 2023-05-31-21:55:50.457,2,,,,,0,2,Success,de0dde0b-d476-4bd7-8422-dd452fcb7655,f7fa306a-8021-3883-be42-64f94f0cbef5,0,G
11 2023-05-31-21:55:50.456,1,15.20.5966.023,154dccc9-b44e-4883-860c-8c4da5ceae46,Get-EXOMailboxFolderPermission,Identity,1
12 2023-05-31-21:55:51.463,2,,,,,0,1,Success,1f5c0ecf-2e53-4041-a7ae-e51167486f2a,4bad377b-bc57-5d31-96e3-52659314cd8e,0,G
13 2023-05-31-21:55:51.463,1,15.20.5966.023,154dccc9-b44e-4883-860c-8c4da5ceae46,Get-EXOMailboxPermission,Identity,1,0,Suc
14 2023-05-31-21:55:52.129,2,,,,,0,1,Success,767945b4-fdd3-4bf6-9b60-b260f4cfd5e4,eacda6ab-9a62-538f-b09c-ef8223cab204,0,G
15 2023-05-31-21:55:52.129,1,15.20.5966.023,154dccc9-b44e-4883-860c-8c4da5ceae46,Get-EXORecipientPermission,Identity,1,0,S
```

This may be useful to quickly capture and report Microsoft bugs, as EXO V3 is still undergoing development and stability fixes and should not yet be considered mature.

References:

- [Connect to Exchange Online PowerShell](#)
- [Deprecation of Remote PowerShell \(RPS\) for New Exchange Online Tenants](#)
- [Welcome to the Microsoft Tech Community](#)
- [App-only authentication in Exchange Online PowerShell and Security & Compliance PowerShell](#)
- [Use C# to connect to Exchange Online PowerShell](#)

SIQETN-3194 – IIQ SCIM API - Allow for more than 100K results to be returned in Permission Forensics Call

This feature is applicable to customers that utilize integration with IIQ and FAM.

Prior to this change, IIQ API queries would return a maximum number of one hundred thousand results.

This change increases the query's index limit to ten million. Restructuring was completed to improve performance and two additional indexes have been introduced to improve query plans.

Please note these queries still may require a significant time to return results. Additional work is planned for upcoming Service Packs (for both IIQ and FAM) to improve the performance of the results.



SIQETN-3204 – Support custom port configuration for SharePoint On Prem Content Databases

These changes will allow for custom port use for the SharePoint Content databases.

In order to enable this piece of functionality in your environment the following script should be applied to your specific FAMDB with the help of your DBA and SailPoint's Support team.

Please make sure to create a Backup of the DB prior to any changes.

```
DECLARE @bam_id int = -1,
        @port nvarchar(max) = '1433'
IF EXISTS (
    SELECT 1
    FROM whiteops.bam_configuration_value
    WHERE bam_configuration_id = @bam_id
    AND name = 'hasSpecificContentDatabasePort')
BEGIN
    UPDATE whiteops.bam_configuration_value
    SET [value] = 'True'
    WHERE bam_configuration_id = @bam_id
    AND [name] = 'hasSpecificContentDatabasePort'
END
ELSE BEGIN
    INSERT INTO whiteops.bam_configuration_value
    VALUES (@bam_id, 'hasSpecificContentDatabasePort', 'True')
END
IF EXISTS (
    SELECT 1
    FROM whiteops.bam_configuration_value
    WHERE bam_configuration_id = @bam_id
    AND name = 'specificContentDatabasePort')
BEGIN
    UPDATE whiteops.bam_configuration_value
    SET value = @port
    WHERE bam_configuration_id = @bam_id
    AND [name] = 'specificContentDatabasePort'
END
ELSE BEGIN
    INSERT INTO whiteops.bam_configuration_value
    VALUES (@bam_id, 'specificContentDatabasePort', @port)
END
```

After the script has been applied, the output should be this at the whiteops.bam_configuration_value table:

785	24	hasSpecificConfigDatabasePort	True
786	24	specificConfigDatabasePort	41232

Note - FAM only supports a single custom port for the Content Databases. If multiple content databases are used, they all should be utilizing the same custom port.



SIQSUS-850 – Migration to Microsoft Graph API

Microsoft made an announcement of their intentions to deprecate Azure AD Graph API starting June 2023: <https://learn.microsoft.com/en-us/graph/migrate-azure-ad-graph-overview>

With this announcement, the service pack now supports Microsoft Graph API.

Necessary steps:

After the upgrade has complete, please reissue new Authorization codes for:

- Azure Active Directory Identity Collector
- SharePoint Online application
- OneDrive application

If you need help performing this, please submit a support ticket. Or reference the **8.4** documentation to view details around Microsoft Cloud endpoints for further details.

If you are not utilizing any of the above, there are no needed changes which need to be performed.

Considerations:

A list of resources that are accessed by File Access Manager using the REST graph API include:

https://graph.windows.net/{tenant_domain_name}/tenantDetails
https://graph.windows.net/{tenant_domain_name}/users
https://graph.windows.net/{tenant_domain_name}/users/{user_id}
https://graph.windows.net/{tenant_domain_name}/groups/{group_id}
https://graph.windows.net/{tenant_domain_name}/directoryRoles
https://graph.windows.net/{tenant_domain_name}/directoryRoles/{role_id}

Please be aware of these changes and adjust access accordingly. Please reference **8.4** documentation to view details around Microsoft Cloud endpoints for further details.

SIQDEV-20473 – Website v1 JS XSS vulnerability fix

During internal testing, we've discovered a Cross-Site Scripting (XSS) vulnerability in the AngularJS component of our web application. This vulnerability can be leveraged by attackers to inject and execute HTML/JS code within the context of our web application, through certain fields. This issue is address in 8.3 SP3, 8.2 SP4 and all subsequent releases and services packs, including the upcoming 8.4.

CVSS Vector scoring 6.0 (Medium)

SIQSUS-709 – Event Manager File Category Cache to use SQLite

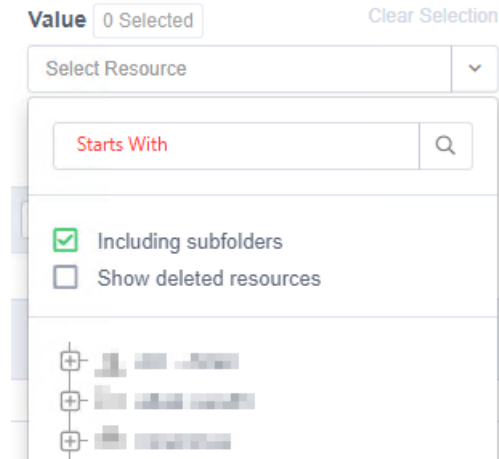
The Event Manager now uses SQLite as the local cache replacing LiteDB. Enhancements to the design with respect to the synchronization of data to minimize event processing blockages and lower memory usage due to event queue backup as well as improving overall performance. See SQLite Event Manager File Category Cache – Performance Test



Results documentation for more details located <https://community.sailpoint.com/t5/File-Access-Manager-Documents/SQLite-Event-Manager-File-Category-Cache-Performance-Test/ta-p/229048> .

SIQENT-3176 – Resource filter adjust to starts with instead of contains

To improve query response time performance without a significant increase in the size of the database, the resource field filter will now be limited to 'Starts With' searches.



SIQSUS-702 – SailPoint Rebranding

We have recently updated our branding which is now reflected in both the Admin Client and business website. Changes have not been made to other areas of the product (like reporting). This will be implemented with the next major release.

If, after the upgrade is complete, the updated branding is not displayed please clear your browser cache, relaunch the browser and sign back in - the new branding should now be visible.

SIQSUS-705 – Microsoft Changes to GCC URL Impact to O365 Applications

Starting Sept. 15th, 2022 Microsoft will restrict Government Community Cloud (GCC) accounts access to the Microsoft 365 Management Activity API endpoints through Enterprise Management API URL. For those account, Microsoft will enforce data collection using the Microsoft 365 Management Activity API through designated Government Community Cloud (GCC) URLs. You can find details regarding this change here: <https://learn.microsoft.com/en-us/office/office-365-management-api/office-365-management-apis-overview> Also communicated in announcements MC221116, MC223431 & MC395212.

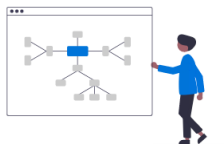
Please find more details here: [File Access Manager Blog: Update Notice for O365 Government Cloud Users](#)

There is now a new field for SharePoint Online and One Drive application configuration screens. This will allow you to select your plan type. On upgrade, it will default to Enterprise and will **not** delete any current authorization codes configured. If you have a GCC plan, you will need to edit your current application configuration to select the GCC from the Office365 Plan dropdown. Upon selecting the new plan type the codes will automatically be deleted which will allow for new codes to be entered.

If you are on an Enterprise plan reconfiguration of these applications is not necessary.

Connection Details - SharePoint Online

Enter the connection details. For further information refer to the connector installation guide or the application vendor.



Tenant Name
Enter a valid Tenant Name / Domain Name in order to display a link to the authorization code page

Tenant Name

Office365 Plan
Enterprise

SharePoint Online Authorization Code

SharePoint Online Admin Authorization Code

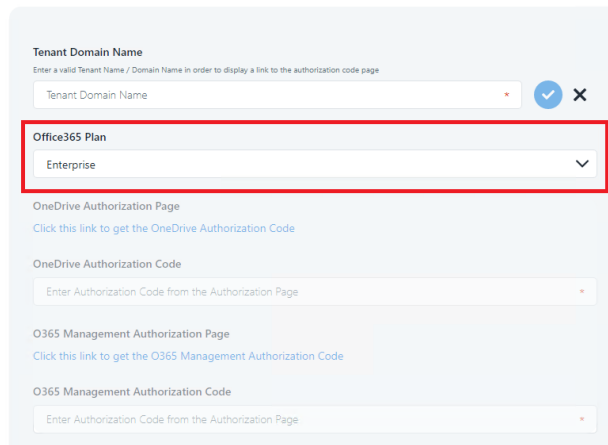
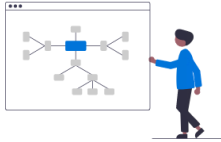
SharePoint Online My Authorization Code

Management Authorization Code

Analyze Permissions on Files

Connection Details - OneDrive for Business

Enter the connection details. For further information refer to the connector installation guide or the application vendor.



Tenant Domain Name
Enter a valid Tenant Name / Domain Name in order to display a link to the authorization code page

Tenant Domain Name

Office365 Plan
Enterprise

OneDrive Authorization Page
Click this link to get the OneDrive Authorization Code

OneDrive Authorization Code
Enter Authorization Code from the Authorization Page

O365 Management Authorization Page
Click this link to get the O365 Management Authorization Code

O365 Management Authorization Code
Enter Authorization Code from the Authorization Page

SIQETN-3104 – Implement Dynamic Memory Utilization for Data Classification

We have worked to improve how our data classification task runs. We now check and adjust memory usage while running to prevent out of memory exceptions. This optimization will override any manual configuration changes applied (such as changes to the `maxLuceneQueueSizeBytes`, `contentExtractionThreadsCount` set in the Data Classification Configuration and `Indexer_MaxThreads` located in the `DC_Parameters` table). These optimizations also include service level fault protection during text extraction.

Please note server resources may have high usage while data classification tasks are running.

SIQETN-3025 – Adjust Data Classification Forensics Report to Allow for more than 10K Results (included in 8.3)

Previously there was a hard coded limit of 10,000 results for Data Classification reports. This has been changed to match other reports which has the Excel limitation of 1 Million rows.

Please note this value was initially set to 10K to maintain performance; therefore if utilizing larger values please be aware the report may take significantly longer to generate based on the size of the report.

SIQETN-3075 – Deleted DEC Information in Forensic Search Parameters

Based on customer feedback, we adjusted forensics to no longer display deleted DEC information. However, we realize this may not be desired by all customers (as there may be a need to search older activities with this information). Therefore we added a configuration key to revert if desired.

To revert, update `<add key="includeDeletedTriggers" value="False" />` in the `<appSettings>` section of the `SiqApi.dll.config` file

By default this is set to "True" (to no display deleted application parameters)

SIQETN-3080 – IdentityIQ DEC Timeout (included in 8.3)

Timeout for IIQ DEC was too long blocking events while waiting for a response. This timeout was reduced and made configurable. A new key "IIQTimeoutSeconds" was added to the Event Manager configuration to allow for further adjustment if needed. The values unit of measure is in seconds.

Update `<add key="IIQTimeoutSeconds" value="{as desired}" />` to the file `EventManagerServiceHost.dll.config` in the `<appSettings>` section.

SIQETN-2976 – Adjusting Custom Fulfillment to Allow Cloud Based Apps (included in 8.3)

Allow cloud applications to use custom fulfillment.

Impersonation will be enabled by default for custom fulfillment. To control whether impersonation is used when running custom fulfillment scripts, add the following key to the file

`CollectorSynchronizerServiceHost.dll.config` in the `<appSettings>` section with the appropriate value:

`<add key="shouldImpersonate" value="true" />`

Chapter 5: Troubleshooting

Upgrade Package Loading Fails

Problem: During the package upload step, you receive a warning with the message "*Loading the package failed due to the following error: Signature is not valid*":

The problem is likely that the machine hosting the User Interface service does not have the necessary Root Certificate (or is missing part of the Certification Chains leading up to the root) to validate the signature of the upgrade package.

Suggested solution:

1. To resolve the issue you should check that the machine hosting the User Interface service contains the root certificate named "DigiCert Assured ID Root CA", which has a serial# 0C:E7:E0:E5:17:D8:46:FE:8F:E5:60:FC:1B:F0:30:39.
If this root certificate is missing, it can be downloaded from <https://www.digicert.com/digicert-root-certificates.htm> and installed as a trusted root certificate manually.
2. Another reason for this error would be that the machine hosting the User Interface service has been configured so that updating root certificates is disabled. To fix this, set the registry value HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\SystemCertificates\AuthRoot\DisableRootAutoUpdate to 0, and retry uploading the upgrade package.
This will allow Microsoft to restore the missing root certificate during validation.

NHibernate configuration

Problem: During the upgrade, the NHibernate configuration file or registry key do not display on one of the machines:

Suggested solution:

1. Copy the "hibernate.cfg" from another server to \SailPoint\Nhibernate.
2. Copy the "[HKEY_LOCAL_MACHINE\SOFTWARE\whiteboxSecurity]" key from another machine to this machine.
3. Run the ResetDBPassword utility, to reencrypt the database password with the current server's certification
 - a. Make sure the SecurityIQ Home environment variable is set to the correct location
 - b. Ensure that the folder named "External Tools", containing the "makecert.exe" executable, or copy that folder from the Core Services server (the server hosting the User Interface service), and place it in the SecurityIQ Home directory
 - c. Ensure that the folder named "ServerInstaller" exists in the "%SECURITYIQ_HOME%\File Access Manager" path, and within that folder you can locate the "Tools" directory or copy it from the Core Services server.
 - d. Navigate to the "DBResetPassword" folder
 - e. In a Command Line window (cmd) from the "DBResetPassword" directory path, run the following command:

```
C:\Program Files\SailPoint\File Access Manager\Server
Installer\Tools\DBResetPassword>
DBResetPassword.exe {YourPasswordGoesHere}
```

- f. After the NHibernate file is re-encrypted, resume the manual uninstallation and installation of the remaining service on that server.

Business Website

Problem: You encounter an “Access Denied” error message while logging in to the Business Website after the upgrade

Suggested solution:

1. Navigate to the wwwroot folder on the server hosting the Website at C:\inetpub\wwwroot).
2. Verify that the IdentityIQFAM and SiqApi folders are in the wwwroot folder.
3. If these folders are in the wwwroot folder, but there are still problems with the Business Website, contact support.
4. If these folders are **not** in the wwwroot folder, perform the following steps:
5. Open the Internet Information Service (IIS) manager (Server Manager ➤ Tools ➤ Internet Information Service (IIS) manager).
6. Select the Application Pools node.
7. Verify that the IdentityIqFamV1_ApplicationPool, IdentityIqFamV2_ApplicationPool and SiqApi_ApplicationPool are missing from the Application Pools node.
8. Create the new application pools, (naming them IdentityIqFamV1_ApplicationPool, IdentityIqFamV2_ApplicationPool and SiqApi_ApplicationPool), with the following parameters: .Net CLR Version: .Net CLR Version v4.0.30319 Managed pipeline mode: Integrated
9. Check the “**Start application pool immediately**” checkbox.
10. For each application pool, navigate to Advance Settings (Right-click ➤ **Advanced Settings**)
11. Under Process Model, set the “**Identity**” parameter to **LocalSystem**.
12. Under Recycling set the “**Regular Time Interval (minutes)**” to **720**.
13. From the Site panel (on the left), navigate to **IdentityIQFAM**, and click on it.
14. Click “**Basic Settings**” on the right. If this option is not available, right click **IdentityIQFAM** (on the left) and select “Convert to Application”.
15. On the newly opened screen, click **Select**, select the IdentityIqFamV1_ApplicationPool you created earlier, and click **OK** twice.
16. Double click “**Authentication**”.
17. Enable “Windows Authentication” and disable all other authentication methods.
18. Repeat Steps 11-15 for the SiqApi site and SiqApi_ApplicationPool.
19. Reset the IIS using the iisreset command.

Business Website

Problem: You encounter the following error, in the File Access Manager Server Installer log, when trying to uninstall the Business Website:

```
Unable to uninstall service: WBXBusinessWebsite System.InvalidOperationException:  
Sequence contains more than one matching element
```

Suggested solution:

1. Open the **Internet Information Services (IIS) Manager**
2. Expand the **Server Name**
3. Expand **"Sites"**
4. Expand **"Default Web Site"**
5. Select **"SecurityIQBiz"** and click **"Basic Settings"** on the right side
6. Click **"Select..."** then select **"SecurityIQ_ApplicationPool"** then click **OK**, then click **OK** again
7. Go to **"Application Pools"**
8. Select **"SecurityIQ_ApplicationPool"** and click **"View Applications"** on the right side
9. Right click **"/SecurityIQBiz/Whitebox_Rest"**, then click **"Change Application Pool"**, select **"DefaultAppPool"** and click **OK**
10. Right click **"/SecurityIQBiz/WhiteopsRest"**, then click **"Change Application Pool"**, select **"DefaultAppPool"** and click **OK**
11. Go to **"Application Pools"** and Confirm that the **"SecurityIQ_ApplicationPool"** application pool has only one application (in the **"Applications"** column)
12. Try to uninstall again.

Improper upgrade path

Problem: The improper upgrade path was taken. 8.3 SP4 was uploaded and upgraded was started but prerequisite of being on 8.3 failed.

Steps to "rollback" the failed installation.

PLEASE NOTE: whenever performing changes to the database we always recommend performing a backup prior to the changes and working with your DBA. We also recommend working with Professional or Expert Services to help perform these changes.

1. Find and note the *id* associated to the failed SP4 installation in the *whiteops.upgrade* table.
 - o `select * from whiteops.upgrade;`
2. Run the following delete queries in order, updating the `[[UPGRADE_ID_VALUE]]` with the *id* value noted above.
 - o `delete from whiteops.upgrade_state where upgrade_component_id in (select id from whiteops.upgrade_component where upgrade_id = '[[UPGRADE_ID_VALUE]]');`
 - o `delete from whiteops.upgrade_component_dependency where dependency_version = '8.3.0.4000';`
 - o `delete From whiteops.upgrade_component where upgrade_id = '[[UPGRADE_ID_VALUE]]';`
 - o `delete from whiteops.upgrade where id = '[[UPGRADE_ID_VALUE]]';`
 - o `delete from whiteops.wbx_file where id not in (select file_id from whiteops.upgrade_component UNION select certificate_wbx_file_id from whiteops.installed_service);`



3. Delete contents of the %SAILPOINT_HOME%\Packages folder

After the DB has been cleaned up and reloading the Client the 8.3 SP6 wbxpkg will no longer be listed in the 'Upgrades & Patches' screen. This allows for following a valid upgrade path to 8.3.0.000 and then retry SP6, Once FAM has been upgraded to at least 8.3.0.0000 there should be no issue reloading the SP6 wbxpkg and successfully completing the installation.

Chapter 6: List of Released E-Fixes

The following E-Fixes are included in this Service Pack and will be automatically deployed by the Service Pack:

Service Pack 6

SIQSUS-1023 – OneDrive Resource > Alerts are not triggering alerts/sending emails

Now Alert options checked trigger alerts/send emails to data owners.

SIQSUS-1024 – OneDrive Alerts, Default Email Templates Not Displaying Variable Values.

OneDrive Email alerts were not replacing variables with the appropriate values. This affected both the default emails sent from Resource Alerts and those from Alert Rules using the default OneDrive template.

SIQSUS-1156 – Incorrect Tooltip for "Specific Port" and "Specific Individual Port(s)" in "Connection Details - SharePoint" app configuration page.

Tooltips for "Specific Port" and "Specify Individual Port(s)" in the "Connection Details - SharePoint" application configuration page were flipped; this has been fixed.

SIQETN-2850 - In Forensics Data Classification resource filtering, "Including subfolders" doesn't stay unchecked.

Not all changes in the filter were checked after editing, this is fixed.

SIQETN-3045 - Import DC Results allows import of delete business resource.

An update to the DC import process was made to ensure deleted BRs are no longer imported.

SIQETN-3107 - "Not" Type Filters are Not Properly Filtering Results In Activity Forensics When Used with DEC Fields.

Fixed issue with ElasticSearch Query Filters on Forensics – Activities

SIQETN-3170 - Failed Cloud Data Classification Task Leaves Sensitive Temp Data.

This enhancement is included to ensure upon any failure of the data classification task, the temporary folder is also deleted.



SIQETN-3171 - Improve Readability of Box Errors/Add Information to Task Details.

Improved log messages by including Parent Path.
Box Crawler is reporting a warning message to Task Details when Crawler is not unable to access resources.

SIQETN-3173 - Remove obsolete config keys from RoleAnalyticsServiceHost.dll.config.

Removed unused keys *queueBusySleepTime* and *queueBusySleepTime* from RoleAnalyticsServiceHost.dll.config

SIQETN-3177 - Remove deprecated dependencies from whiteops.dependency table.

Some obsolete dependencies were still being registered during the FAM installation process, so another initial installation script was added to remove them.

SIQETN-3198 - Reports cannot tolerate FAM application names with leading zero character.

Updated the Reports logic to properly handle all application names.

SIQETN-3210 - Backslashes can't be allowed in application names if customer wants activity monitoring.

Update to the UI to validate application names to not allow backslashes.

SIQETN-3215 - Detailed Error/Debug Messages.

Removed unnecessary/detailed SQL error messages containing raw queries from API responses.

SIQETN-3232 - Reports for User Scope should use custom properties from auth store IDC.

Fixed report generation, it failed when there were multiple sample properties.

SIQETN-3234 - SCIM app memory leak when IIQ queries permissions.

Fixed SCIM app memory leak for every database query.

SIQETN-3238 - User Scope Report shows deleted resources.

Deleted resources were being included because they were not excluded in the database query, query was modified to exclude these resources.

SIQETN-3239 - High Memory Usage Between Permission Collection Task Runs With Rabbit (On-Prem Connectors).

RabbitMQ now explicitly unsubscribe, if subscribed, and remove action callback handler in RabbitMessageBroker.



SIQETN-3241 - Linux Permission Collector throws index out of range exception when passwd contains # sign.

Fixed Linux crawler error on parsing /etc/passwd when it contains # sign.

SIQETN-3242 - Support custom port configuration for SharePoint On Prem Content Databases (extended).

Added support for different SharePoint on-prem content database (as sometimes it is FQDN, sometimes it is short name).

SIQETN-3243 - Changes to ports utilized by services via server installer not taking effect.

Now the Server Installer properly updates the ports utilized by the services.

SIQETN-3244 - to_lower_invariant fails for some unicode characters.

A new mechanism was created to handle the exceptional cases (use of emojis) that fail due to this error in the SqlServerToLowerInvariant assembly.

SIQETN-3245 - GPOCache - refreshPolicyDisplayNames() method may be called too frequently on "problematic" GPO's of AD.

Stretched out the interval between refresh calls.

SIQETN-3246 - Forensics >Permissions > saved queries should save selected columns and columns chooser selection.

The column selector component was not updated after loading saved queries. Not this behavior has been fixed.

SIQETN-3247 - Excel format with wrong options.

Now code uses the correct option for xlsx creation.

SIQETN-3248 - EncryptStringForService fails to find WBX-Nhibernate certificate.

The EncryptStringForService was updated to use up-to-date encryption mechanisms.

SIQETN-3250 - Box and OneDrive permission collection invokes stored procedure to create user_role tables excessively.

Performance improvements have been made to Box and OneDrive Permission Collection tasks to decrease runtime.

SIQETN-3254 - Improve query time for DFS owners on login.

Improve performance of Database function that retrieves owner's information from Business Resources.



SIQETN-3259 - Composite Analyze task doesn't match files matching the necessary criteria.

FAM having issues when executing the Composite Analyze task, certain files are not picked up for PHI even if the file happens to meet the criteria. For the fix to work, the PII Global rule must be enabled within the PII policies.

Service Pack 5

SIQSUS-706 – Clarify Design & Implement/Make changes around Group Permission Staleness

This issue will update permission forensics to use business resource's last used if available otherwise current behavior will remain unchanged.

SIQSUS-881 – Modernize EXO Connectivity v3.0

Use latest EXO V3 module, and Get-EXO* optimized cmdlets where possible so that RPS (remote power shell) can be disabled for tenants.

SIQETN-3040 – Default SMTP SharePoint Online - Single Activity template does not pick up all template variables.

Changed several potential versions of Share Point Online to SharePointOnline in the SMTP response body via database script, user story.

SIQETN-3185 – Null Reference Exception in Activity Reporting Due to duplicate event IDs

Fix activity reports to discard duplicate events.

SIQETN-3194 – IIQ SCIM API - Allow for more than 100K results to be returned in Permission Forensics Call

Increase SCIM API's permission query's index limit to ten million.

SIQETN-3196 – Onedrive Activity Monitoring Errors Processing Events Due To Concurrent Dictionary Access

Make user drive lookup thread-safe, and do not allow querying users more often than every 3 minutes.

SIQETN-3197 – website dashboard - threshold alert widget - Elasticsearch query timing out.

Improve performance of "threshold alerts" website dashboard.

SIQETN-3199 – Event Manager DC categories do not sync if DC task is Inactive

Adjust the sync manager code to use different logic when querying bam last DC run infos.



SIQETN-3200 – Normalization fails when target folder contains security group with user assigned with "\" in their DN

Only the forward slash requires escaping. All other special characters are already escaped as the result of the LDAP 32queries.

SIQETN-3201 – SharePoint on-premise data classification failure to connect to HTTPS URL

Support SharePoint on-premise HTTPS endpoints during data classification.

SIQETN-3204 – Support custom port configuration for SharePoint On Prem Content Databases

This code enhancement allows for custom port use for the content databases.

SIQETN-3205 – lock update_ra_users_br_permissions while inserting

Prevent edge case where duplicate permissions can be created.

SIQETN-3206 – Composite Rule Policies Overrides one another so only one is tagged on qualifying resource

Added extra validations so now Composite Rules Policies are all now tagged accordingly within Forensics > Data Classifications menu.

SIQETN-3207 – Duplicates Not handled properly in gDrive crawl

Perform cleaned up for all duplicates vs in batches.

SIQETN-3208 – Dashboard Widget Calculation performance improvement

Performance improvement of 2 stored procedures within Dashboard calculation task.

SIQETN-3209 – Restore Raw Event From Backup using App Config Switch Fails

Fixed the change from log4net to nlog caused breaking changes to the RestoreBackedupEvents app config key switch feature.

SIQETN-3211 – Alerts to data owners not triggered off events on SPO when set through Resources->Alerts screen

Updated relevant tables with correct SPO events.

SIQETN-3212 – Some alerts to data owners not triggered off events on NetApp when set through Resources->Alerts screen



Updated relevant table with correct NetApp events and operators..

SIQETN-3213 – Token Refresh Server Resiliency Enhancement

Tokens refresh every 10 minutes before they are set to expire. If within this 10 minute window will keep trying to refresh every 1 minute until the token has completely expired.

SIQETN-3214 – Query Injection Provides Ability To Manipulate Database Queries

The vulnerable query was updated and validated along with the HTTP error message details.

SIQETN-3217 – Impersonation of users on the FAM WEBUI does not change user accounts during impersonation

Addressed failure of impersonation.

SIQETN-3218 – FAM.SCIM self referencing loop

Resolved "self referencing loop detected" exception in FAM SCIM API.

SIQETN-3221 – AWS S3 Connector Incorrectly Pages Results Causing Crawl Failure

Implemented proper paging for all AWS queries that return List responses with Marker or NextToken property.

SIQETN-3222 – Rename Resource Alerts 'File or Folder is modified' to 'File is modified'

Updated to 'File is modified' and remove 'Folder'.

SIQETN-3223 – Correct continuous append

Handle duplicates in GDrive and Box applications.

SIQETN-3224 – Identity collector failure during delete

Allow identity collectors with mapped data sources to be deleted.

SIQETN-3225 – Some alerts to data owners not triggered off events in several endpoints when set through Resources->Alerts screen

Updated policy_business_rule_type_wpc_field table with correct operators.

SIQETN-3226 – Typo in User Group Memberships report

Both reports updated with the correct wording.

SIQETN-3227 – SPO ans OneDrive not showing all resource info in alert email



Added missing fields + hyperlink to resource.

SIQETN-3230 – Content Type displaying Incorrectly for SharePoint On Prem

Fix code that the engine will distribute the content type map to crawler.
Fix UI to show each content type total size when mouse hover on them.

SIQETN-3233 – wbxadmin login failed with impersonation bug fix

Addressed failure of impersonation

Service Pack 4

SIQSUS-850 – Migrate to MS Graph API

Corrected inability to delete or modify campaigns configured with a 'by application' permission filter after the application reference is deleted.

SIQETN-857 – Support .NET 6 in version 8.3

Adjust to utilize .NET 6

Service Pack 3

SIQETN-3068 – Unable to delete campaigns referencing deleted applications

Corrected inability to delete or modify campaigns configured with a 'by application' permission filter after the application reference is deleted.

SIQETN-3155 – Netapp Failure Enumerating shares

For Netapps with hundreds of top level shares, corrected failure in ability to enumerate through those shares.

SIQETN-3156 – Primary Key Constraint in Database Cleanup task

Corrected uniqueness in index defrag stored procedure

SIQETN-3160 – KPI Resource calculation Error

Corrected issue of not being able to convert data type

SIQETN-3167 – Adjust media type return for integration between IIQ and FAM mismatched versions



Adjusted media type return to allow for integration of FAM and IIQ regardless of the version each product is on.

SIQETN-3168 – Primary Key Constraint error in Event Manager Bulk Writer

Corrected primary key constraint issue in Event Manager

SIQETN-3169 – Data Classification task Hanging if OCR enabled

Corrected when for certain image files when OCR scope is enabled the data classification task would hang.

SIQETN-3176 – Adjust Resource filter query from contains to starts with

See Chapter 4: Important Information and Updates

SIQETN-3179 – Box fails Retry on Throttling Error during Permission Collection

Corrected to properly retry if we receive throttling error during Box Permission Collection

SIQETN-3180 – Password ReEncryption Task Can Fail If IC configured by properties

Corrected constant key Trusted Domains

SIQETN-3181 – newtonsoft.json referencing incorrect version

Corrected newtonsoft.json version

SIQETN-3182 – EMC Isilon AM High Memory Usage

Corrected potential for High Memory usage for Isilon Activity Monitoring

SIQETN-3186 – DR services not activating after Production shutdown

Handle PROD server not reachable via discovery method. Change ES URL reference.

SIQETN-3189 – Improve Efficiency of Dashboard Widget Calc task

Adjusted stored procedure to improve efficiency while running

SIQETN-3191 – EXO AM not switching to individual mailbox queries

Corrected internal recovery mechanism was inadvertently disabled when app-only authentication was introduced

SIQETN-3193 – Improve Efficiency of Dashboard Widget Calc task (#2)

Adjusted stored procedure to improve efficiency while running



SIQSUS-709 – EM File Category Replication Store to use SQLite

See Chapter 4: Important Information and Updates

SIQSUS-851 – DC Collector Service Crash when stopping task

Corrected chance of logTimer callback occurring while task is stopping.

SIQDEV-20473 – Website v1 JS XSS vulnerability fix

See Chapter 4: Important Information and Updates

Service Pack 2

SIQETN-2996 – Activity Reporting in Resource Screen is Inaccurate for SPO

Corrected activity count for Resource and Activity Forensic screen for SharePoint Online.

SIQETN-3009 – Resource Tree Returns Resources with similar names

Adjusted filter to only display relevant information

SIQETN-3040 – Default SMTP SPO template does not pickup all template variables

Corrected to properly include variables in SMTP response

SIQETN-3105 – Normalization Failing on Large Groups

Added refresh cache to allow for groups larger than 1500 members

SIQETN-3109 – Adjust Box Crawl to Pick Up Unique Permissions

Box permission collection relies on data cached from crawl. Always run crawl task before permission collection for best results.

Made following changes to Box Crawl:

- fix bug relating to partial "calculation of resources' size" regardless of setting
- fix bug relating to setting: Analyze "shared link" permissions on files. It could interfere with analyzing folders.
- fix bug relating to setting: Analyze "collaborators" permissions on files. It could interfere with analyzing folders.

SIQETN-3117 – Permissions Marked Stale

Fixed forensics permissions view by "group & user direct permissions" option to align unused calculation with other view by options.

SIQETN-3127 – Policy Object For ABA Routing misspelled

Corrected spelling

SIQETN-3128 – DC Failing from Duplicate Resource

Addressed duplicate resources by using distinction upon fetching

SIQETN-3129 – Deleted BRs displaying in Resource / Data screen

Add where clause to remove delete users from being displayed

SIQETN-3132 – 8.3 SP1 UI Service displays Yellow

Include UI Services in components to upgrade

SIQETN-3134 – Activity resource name incorrect for Active Directory

Corrected name of resource in resource screens for Active Directory

SIQETN-3140 – Syslog sending emplate with Alert

Corrected to no longer include template when sending syslog alerts.

SIQETN-3141 – Response save is not updating syslog messaging

Updated response cache to check for message or severity changes.

SIQETN-3141 – reportStatistics can cause crawl crash with unhandled exception

Added try-catch to prevent service crash

SIQETN-3145 – Unused permission logic error

Correct logic error in Forensic page for unused permission calculation

SIQETN-3149 – Users with Special Characters Fail Normalization

Escape characters residing in groups



SIQETN-3150 – ResourceTypes endpoint missing scim part of Route

Corrected api path to include necessary path part

SIQETN-3151 – OCR Matches Do Not Return with Protected Extraction Enables

Corrected so OCR will trigger when Protected Extraction is enabled

SIQETN-3152 – Null Reference Exception in DEBUG

Allowed owner value to be null

SIQETN-3153 – Missing DC Categories in Events

Properly deserialize property from LiteDB

SIQETN-3154 – Retrieve data from DB for campaign report

Added missing report columns back to campaign report

SIQETN-3163 – Missing DC Category Under certain conditions

Corrected missing categories for mixed case files.

Service Pack 1

SIQETN-2752 – Crawler Duplicate Key Errors

Crawl would fail when encountering duplicate resources, adjusted for better handling of duplicates.

SIQETN-2791 – Unexpected characters in user input field cause 500 Error

Corrected the double quote meta-character causing internal server errors when present in the Forensic search filter

SIQETN-2959 – Alert Email Not Sent to Data Owner

Corrected alert emails to be properly sent to designated data owners.

SIQETN-3075 – Forensic Search Parameters Not Deleted with Associated Application



Fixed no longer displaying deleted DEC information after DEC has been deleted. See Chapter 4: Important Information and Updates for more information

SIQETN-3084 – Support NoLanguage mode when querying EXCH On prem

Exchange changed its PowerShell connection from FullLanguage to NoLanguage mode which resulted in issues when connecting with the current Exchange Activity Monitor. Fixed connection.

SIQETN-3085 – EM DC Results Sync Fixes and Enhancements

Performance enhancements related to data classification results synchronization and improved logging.

SIQETN-3089 – Exception crashes service

In rare cases, exception can be thrown during Permission Collection causing task to fail and service to crash. Ensured crash would not occur if exception was hit.

SIQETN-3093 – Dox DC authorize token not refreshing

Fixed Box data classification authorization errors that may occur when initial authorization token expires

SIQETN-3096 – Exch On Prem Crawl Not Recovering After Error for Statistics

Some PowerShell sessions were not recovering after folder statistics call. Changed to more resilient calls.

SIQETN-3103 – Behavioral Data Classification performance

Improved behavioral data classification task performance

SIQETN-3104 – Implement Dynamic Memory Utilization for Data Classification

See Chapter 4: Important Information and Updates

SIQETN-3112 – 'index.htm' should be changed to '#' in website URL

Corrected url

SIQETN-3113 – Deleted User can be selected as Data Owners

Deleted users appear in the Data Owner selection, and these deleted users can be assigned/saved as data owners. Corrected to not display deleted users.



SIQETN-3114 – Password is not Masked in AUDIT_LOG table

Changes in 8.2 displayed certain plaintext passwords in audit log table (only visible directly in database, not visible anywhere else in FAM). Updated APIs to hide in body parameter stored in database and delete any existing plaintext password.

SIQETN-3115 – View Missing Columns

Forensics page failing to load when querying DFS resource, fixed view.

SIQETN-3116 – GRPC Server-side components have default limit

Adjusted GRPC communication to no longer have size limit.

SIQETN-3121 – DB Script Needs to be compatible with SQL Server 2012

Changes made to SQL script for SIQETN-2752 needed to be adjusted to also be compatible with SQL Server 2012

SIQETN-3122 – Lock update_ra_roles_br_permissions while inserting

Add locking to not allow querying existing roles and inserting new roles.