

Admin Reports

Functional Specifications

Abstract

This document contains the functional specifications of the "admin reports" feature.

Diffusion: Public (CC BY-SA 3.0)

Status: DRAFT

Change log

When	Who	What
26/03/2020	Kevin	First draft of scope
26/03/2020	Remy	Quick review
05/04/2020	Kevin	Added report content for MFA onboarding report

PUBLIC 1/40



Table of content

Introduction Approach for reports implementation	3 3
Report list	4
Admin reports	4
User reports	6
Reports properties	7
Branding	7
Reports capabilities	7
Report types	7
Simple report	7
Combined report	7
Technical specifications	8
Prioritization	8
Reports content	9
MFA Onboarding report	9
Meta	9
Styleguide	10
Simple reports included	10
mfa-activated-users-count	10
mfa-activated-admins-count	11
mfa-non-activated-users-count	12
mfa-non-activated-users-list	13
Users Onboarding report	14
Meta	14
Styleguide	15
Simple reports included	15
activated-users-count	15
logged-in-once-users-count	16
never-activated-or-logged-in-users-count	17
non-activated-or-never-logged-in-users-list	18
Users login report	19
Meta	19
Styleguide	19
Simple reports included	20

PUBLIC 2/40



20
20
21
21
22
22
23
24
24
24
25
26
26
27
28
29
30
30
32
33
34
34
35
37

Introduction

The goal of the feature is to provide administrators with reports about the credentials and activity inside their instance of passbolt. The aim of these reports is to provide a comprehensive overview of the health of a Passbolt instance and to inform the administrator(s) in case they need to take action.

Approach for reports implementation

The implementation will be done in 2 steps.

1. We will first focus on the admin reports

PUBLIC 3/40



2. Then we will implement the individual users report

Report list

Admin reports

Name	Description
Overview report (Dashboard)	Inspired from 1Password reports: User breakdown by status Number of activated users Number of inactive users (pending activation) In recovery Users that don't login (?)(future) Deleted users MFA enabled (?) Item breakdown Number of shared items Number of private items Number of devices (?)
Team reports	
Employee MFA onboarding report	List of all users who don't have 2FA enabled
Employee onboarding report	List of all users who have never activated their account, or never logged in
Employee churn report	List all users that don't use passbolt at least X times for Y duration.
Employee offboarding report	Report about - What passwords the employee had access to. - What passwords they solely own (and should be transferred)
Groups managers report	List of all the groups that do not have X administrators
Groups membership report	List all the groups and their membership composition
Group overview report	Number of: administrators, overall users, invited users, non-active users. Number of devices per user. Is 2FA enabled.

PUBLIC 4/40



Users evolution report	Growth of all users / active users over time
Users log in report	List of all log-ins in the past month, with the device used.
Users activity report	List of all users activity logs for the past month (can be configurable later)
Usage reports	
Passwords reach reports	List of all users and the percentage of passwords reach they have. (Example: if there are 100 passwords in database, and I can access 10, I have 10% reach)
Solely owned passwords	Report about passwords that are solely owned by a user
Passwords quantity report	Number of passwords created and evolution over months
Shared Passwords activity report	List of all shared passwords activity logs over the past month (configurable)
Shared passwords last usage report	List of all shared passwords and the last time they have been used, ordered by last use for the past month (configurable)
Unused shared password report	List all shared password that have not been used since X time.
Shared password individual usage report	List of all shared passwords accessible by a given user, and the last time they have been used, ordered by last use.
Security reports	
Security overview report	Overview of security (inspired by lastpass). Risky items, with the number (and list) of concerned users. • Accounts not activated • Solely owned passwords • Inactive passwords • Weak passwords • Duplicate passwords • Exposed passwords • Insecure websites (non-https) • Data breached websites
Weak passwords report	List of all weak passwords, with their owner
Exposed passwords report	List of all exposed passwords and their owners

PUBLIC 5/40



Re-used / duplicate passwords report	List of passwords that are used several times, with their owner.
Insecure websites report	List of all insecure websites (non https) with their owner
Data breach report	List of all websites with known data breaches
	Expired password / password that should be changed
	Password that don't respect the policy

User reports

These reports only concern a given user.

Name	Description		
User overview report	 Inspired from 1Password: Groups the user belongs to Number of items he owns Number of items shared with him Authorized devices Recent activity 		
Security reports	Security reports		
Weak passwords report	List of all weak passwords for the current user		
Exposed passwords report	List of all exposed passwords for the current user		
Re-used / duplicate passwords report	List of passwords that are used several times, with their owner.		
Insecure websites report	List of all insecure websites (non https) with their owner		
Data breach report	List of all websites with known data breaches		

PUBLIC 6/40



Reports properties

Branding

We believe it is important that the admins / users generating these reports feel a sense of ownership about them. When a report is printed and circulates in a company, having the company logo and name of the person who generated it would automatically give incentives to stakeholders to make it circulate.

In this purpose, each report should contain

- Name of the person who generated the report, email and date.
- Logo of the company (when white label feature will be available)

Reports capabilities

A user should be able to:

- Display a report on his screen
- Print a report (printer or pdf)

Report types

There will be 2 types of reports:

Simple report

A simple report is an atomic report. It contains a basic set of information, for instance:

- A count or a total
- A list of objects

The goal of a simple report is either:

- To be displayed individually as a widget (Could have)
- To be rendered individually as json (Must have)
- To be included in a combined report (Must have)

Combined report

A combined report is a collection of simple reports. It is the final result that a user will see in the UI.

The goal of a combined report is either:

PUBLIC 7/40



- To be rendered as json (Must have)
- To be rendered in HTML (Must have)

Technical specifications

The technical specifications are available here:

https://docs.google.com/document/d/1KE2wK6ENaqPOrMObsXMEtcHthGftdZKJyzi45za4Gl8/edit?usp=sharing

Prioritization

We will focus first on the reports that have the highest ROI in terms of value added for our users. Admin reports are the first priority.

Report name	Complexity (1-5)	Release #
Overview report (Dashboard)	2	1
Team reports		
Employee MFA onboarding report	1	1
Employee onboarding report	1	1
Employee churn report	1	1
Employee offboarding report	1	1
Group manager report	1	
Group membership report	1	
Group overview report	2	
Users evolution report	2	
Users log in report	1	1
Users activity report	2	3
Usage reports		
Passwords ownerships report		

PUBLIC 8/40



Solely owned passwords	1	
Passwords quantity report	2	
Shared Passwords activity report	2	
Shared passwords last usage report	1	2
Unused shared password report	1	2
Shared password individual usage report	3	2
Security reports		
Security overview report		
Weak passwords report	3	
Exposed passwords report	3	3
Re-used / duplicate passwords report	3	
Insecure websites report	2	3
Data breach report	2	

Reports content

MFA Onboarding report

Meta

Туре	Combined
Name	Multi-factor authentication users onboarding
Status	Completed
Description	This report shows the onboarding metrics for multi-factor authentication in Passbolt, and the list of users who still have not activated MFA for their account.
Slug	mfa-users-onboarding
Route	/reports/mfa-users-onboarding
Route params	N/A

PUBLIC 9/40



Filters	TBD
Contain	TBD
Sorts	TBD
Views	Json Html
Sub reports	 mfa-activated-users-count mfa-activated-admins-count mfa-non-activated-users-count mfa-non-activated-users-list

Styleguide

HTML is defined in the style guide.

https://gitlab.com/passbolt/passbolt-styleguide/-/tree/master/demo/reports

Simple reports included

mfa-activated-users-count

Туре	Simple
Name	MFA Activated Users Count
Status	Completed
Description	Provides the count of all Passbolt users that have activated MFA for their account.
Slug	mfa-activated-users-count
Route	/reports/mfa-activated-users-count
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	

PUBLIC 10/40



mfa-activated-admins-count

Туре	Simple
Name	MFA Activated Admins Count
Status	Completed
Description	Provides the count of all Passbolt admins that have activated MFA for their account.
Slug	mfa-activated-admins-count
Route	/reports/mfa-activated-admins-count
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	{ "mfa_activated_admins_count": 10, "activated_admins_count": 15,

PUBLIC 11/40



```
Statuses

• 0 < 100%: fail
• >= 100%: success

Visual representation

Text below the gauge: "Of the admins have MFA configured"
```

mfa-non-activated-users-count

Туре	Simple
Name	MFA Non activated users count
Status	Completed
Description	This report provides the count of all Passbolt users that haven't activated MFA for their account
Slug	mfa-non-activated-users-count
Route	/reports/mfa-non-activated-users-count
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "mfa_non_activated_users_count": 10, "activated_users_count": 15, "data": { "status": "success", "percentage": "90", }</pre>

PUBLIC 12/40



	}
Statuses	Same as for mfa-activated-users-count, but inverted. • 0 < 25%: success • 25% > 75%: in-progress • 75% >= 100%: fail
Visual representation	Type: Gauge (Integer) Text below the gauge: "Users need to configure MFA"

mfa-non-activated-users-list

Туре	Simple
Name	MFA Non activated users list
Status	Completed
Description	Provides the list of all Passbolt users that haven't activated MFA for their account
Slug	mfa-non-activated-users-list
Route	/reports/mfa-non-activated-users-list
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "users": [</pre>

PUBLIC 13/40



	Each user entity must include: User object (with is_mfa_configured field) Profile object
Visual representation	Type: Table list Columns Name Username Active since (xx days / months ago) MFA? (Yes or No) Role (User or Admin)

Users Onboarding report

Meta

Туре	Combined
Name	Users onboarding
Status	In progress (Json should be done / Html to complete)
Description	This report shows the list of all who have never activated their account, or never logged in
Slug	users-onboarding
Route	/reports/users-onboarding
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Views	JsonHtml
Sub reports	 activated-account-users-count logged-in-once-users-count

PUBLIC 14/40



- never-activated-or-logged-in-users-count
- non-activated-or-never-logged-in-users-list

Styleguide

TODO

Simple reports included

activated-users-count

Туре	Simple
Name	Activated Users Count
Status	In progress
Description	Count of all users with activated accounts compared to the total count of users.
Slug	activated-users-count
Route	/reports/activated-users-count
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>"account_activated_users_count": 10, "total_users_count": 15, "change_over_time": 15, "data": { "status": "success", "percentage": "90", } }</pre> Total_users_count means the total number of non deleted accounts.

PUBLIC 15/40



Statuses	 0 < 25%: fail 25% > 75%: in-progress 75% >= 100%: success
Visual representation	Type: Gauge (in percent)
,	Text below the gauge: "Of the users Have activated their account"

logged-in-once-users-count

Туре	Simple
Name	Logged In Once Users Count
Status	In progress
Description	This report provides the count of all users that logged in at least once, compared with the total number of users.
Slug	logged-in-once-users-count
Route	/reports/logged-in-once-users-count
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "logged_in_once_users_count": 10, "total_users_count": 15, "data" : { "status": "in-progress", "percentage": 10, }, }</pre> Total_users_count means the total number of non deleted accounts.
Statuses	• 0 < 25%: fail

PUBLIC 16/40



	25% > 75%: in-progress75% >= 100%: success
Visual representation	Type: Gauge (in percent)
	Text below the gauge: "Of the users have logged in at least once"

never-activated-or-logged-in-users-count

_	0: 1
Туре	Simple
Name	Never Activated Or Logged In Users Count
Status	In progress
Description	This report provides the count of all users that never activated their account or never logged in.
Slug	never-activated-or-logged-in-users-count
Route	/reports/never-activated-or-logged-in-users-count
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "logged_in_once_users_count": 15, "total_users_count": 15, "data": { "status": "success", "percentage": "90", } }</pre> Total_users_count means the total number of non deleted accounts.
Statuses	0 < 25%: success25% > 75%: in-progress

PUBLIC 17/40



	• 75% >= 100%: fail
Visual representation	Type: Gauge (in percent)
, and the second	Text below the gauge: "Users have never used Passbolt"

non-activated-or-never-logged-in-users-list

Туре	Simple
Name	Never Activated Or Never Logged In Users List
Status	In progress
Description	This report provides the list of all the users who never activated their account or never logged in.
Slug	never-activated-or-logged-in-users-list
Route	/reports/never-activated-or-logged-in-users-list
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "users": [</pre>
Visual representation	Type: Table list

PUBLIC 18/40



Users login report

Meta

Туре	Combined
Name	Users login report
Status	Review
Description	This report shows the list of all users logins over a period of time
Slug	users-login
Route	/reports/users-login
Route params	N/A
Filters	Date from: one month agoDate to: today
	These filters will later become configurable
Contain	TBD
Sorts	TBD
Views	JsonHtml
Sub reports	users-login-daily-countusers-login-list

Styleguide



PUBLIC 19/40



Simple reports included

users-login-daily-count

Туре	Simple
Name	Users Login Daily Count
Status	Review
Description	This report provides the count of all daily logins over a period of time
Slug	users-login-daily-count
Route	/reports/users-login-daily-count
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	N/A
Data	{ "2019-10-01": 10, "2019-10-02": 15, }
Visual representation	Type: Line Chart Chart title: Users login evolution

users-login-list

Туре	Simple
Name	Users Login List
Status	Review
Description	This report provides the list of all users logins over a period of time
Slug	users-login-list

PUBLIC 20/40



Route	/reports/users-login-list
Route params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "action_logs": [</pre>
Visual representation	Type: Table list Columns Name Username Role (User or Admin) Date

Technical note

It is currently not possible to know who logged in successfully from action_logs. For this report, we will need to fix this limitation.

We decided that the best technical approach to fix this is to add the user_id in the UserAction singleton after the login is successful.

Users churn report

Туре

PUBLIC 21/40



Name	User resources Secrets Access
Status	In progress - Sort, filters and pagination missing
Description	This report provides the list of all the resources the user accessed the secret after modification
Slug	users-churn-list
Route	/reports/users-churn-list
Route Params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>[<userentity>, <userentity>,]</userentity></userentity></pre>
Visual representation	Type: Table list Columns:

Employee offboarding report

This report is user-dependent. It can only be displayed after selecting a user in the filters.

Meta

Туре	Combined
Name	Employee offboarding report
Status	In progress - Sort, filters and pagination missing. Action log report

PUBLIC 22/40



	missing
Description	This report gives important information to help with an employee offboarding such as The resources reach percentage The count of resources shared with the user The count of resources secrets the user accessed since last rotation The count of personal resources The list of all the resources the user accessed the secret since last rotation The list of personal resources The list of groups the user is sole manager The actions the user had done
Slug	employee-offboarding
Route	/reports/employee-offboarding/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Views	JsonHtml
Contain	user: The target user the report has been generated for
Sub reports	 user-resources-reach user-resources-shared-with-count user-resources-secrets-access-count user-resources-personal-count user-resources-secrets-access-list user-resources-personal-list user-groups-sole-manager-list user-action-logs-list

<u>Styleguide</u>

TODO

PUBLIC 23/40



Simple reports included

user-resources-reach

Туре	Simple
Name	User resources reach
Status	Done
Description	This report provides the resources reach of a user
Slug	user-resources-reach
Route	/reports/user-resources-reach/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Data	{ "count": <integer> }</integer>
Visual representation	Type: Gauge Text: Resources shared with "user name"

user-resources-shared-with-count

Туре	Simple
Name	User resources shared with count
Status	Done
Description	This report provides the count of resources that are shared with a user
Slug	user-resources-shared-with-count
Route	/reports/user-resources-shared-with-count/ <user_id></user_id>

PUBLIC 24/40



Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Data	{ "count": <integer> }</integer>
Visual representation	Type: Gauge Text: Passwords shared with "user name"

user-resources-secrets-access-count

Туре	Simple
Name	User resources secrets access count
Status	Done
Description	This report provides the number of secrets a user accessed
Slug	user-resources-secrets-access-count
Route	/reports/user-resources-secrets-access-count/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "count": <integer> }</integer></pre>
Visual	Type: Gauge

PUBLIC 25/40



representation	Text: Accessed resources
----------------	--------------------------

user-resources-personal-count

Туре	Simple
Name	User resources personal count
Status	Done
Description	This report provides the number of resources a user didn't share
Slug	user-resources-personal-count
Route	/reports/user-resources-personal-count/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>{ "count": <integer> }</integer></pre>
Visual representation	Type: Gauge Text: Personal resources

user-resources-secrets-access-list

Туре	Simple
Name	User resources Secrets Access
Status	In progress - Sort, filters and pagination missing
Description	This report provides the list of all the resources the user accessed the secret after modification
Slug	user-resources-secrets-access-list

PUBLIC 26/40



Route	/reports/user-resources-secrets-access-list/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>[</pre>
Visual representation	Type: Table list Columns:

user-resources-personal-list

Туре	Simple
Name	User resources personal
Status	In progress - Sort, filters and pagination missing
Description	This report provides the list of resources a user didn't share
Slug	user-resources-personal-list
Route	/reports/user-resources-personal-list/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD

PUBLIC 27/40



Contain	TBD
Sorts	TBD
Data	<pre>[<resourceentity>, <resourceentity>,]</resourceentity></resourceentity></pre>
Visual representation	Type: Table list Columns:

user-groups-sole-manager-list

Туре	Simple
Name	User groups sole manager list
Status	In progress - Sort, filters and pagination missing
Description	This report provides the list of groups a user is sole manager but not the sole member
Slug	user-groups-sole-manager-list
Route	/reports/user-groups-sole-manager-list/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Data	[{ "group": <groupentity>, "members_count": <integer>,</integer></groupentity>

PUBLIC 28/40



```
Visual representation

Type: Table list
Columns:

Name

Members count
Modified
```

user-action-logs-list

Type	Cimple
Туре	Simple
Name	User action logs
Status	Todo
Description	This report provides the list of action logs for a user
Slug	user-action-logs-list
Route	/reports/user-action-logs-list/ <user_id></user_id>
Route Params	USER_ID: The target user to generate the report for
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>[<actionlogentity>, <actionlogentity>,]</actionlogentity></actionlogentity></pre>
Visual representation	Type: Table list Columns: TBD

PUBLIC 29/40



Users passwords reach list report

Туре	Simple
Name	Users resources reach list
Status	In progress - Sort, filters and pagination missing
Description	This report provides the list of users resources reach
Slug	users-resources-reach-list
Route	/reports/users-resources-reach-list
Route Params	N/A
Filters	TBD
Contain	TBD
Sorts	TBD
Data	<pre>[</pre>
Visual representation	Type: Table list Columns Name Username Role (User or Admin) Reach

Users resources personal

Туре	Simple
------	--------

PUBLIC 30/40



Name	Users resources personal			
Status	In progress - Sort, filters and pagination missing			
Description	This report provides the list of resources all users didn't share			
Slug	users-resources-personal-list			
Route	/reports/users-resources-personal-list/ <user_id></user_id>			
Route Params	USER_ID: The target user to generate the report for			
Filters	TBD			
Contain	TBD			
Sorts	TBD			
Data	<pre>{ "resources": [</pre>			
Visual representation	Type: Table list Columns: Name Username Uri			

PUBLIC 31/40



ModifiedUser nameUser role

Shared resources secret last touches list

Туре	Simple			
Name	Shared resources secret last touches list			
Status	In progress - Sort, filters and pagination missing			
Description	This report provides the list of all the resources secret last touches. When and what was the last operation that manipulated them.			
Slug	shared-resources-secrets-last-access-list			
Route	/reports/shared-resources-secrets-last-access-list			
Route Params	N/A			
Filters	TBD			
Contain	 user: to get the user who perform the associated operation user.profile: to get the user profile resource: to get the resource action_log: to get the action log associated to the operation 			
Sorts	TBD			
Data	<pre>[<resourcesecrettouchdto>, <resourcesecrettouchdto>,]</resourcesecrettouchdto></resourcesecrettouchdto></pre>			
Visual representation	Type: Table list Columns: Name Username Uri User full name Last touch Touch context (Resource create, secret update, share)			

PUBLIC 32/40



Overview report

TODO

PUBLIC 33/40



Appendix1: Competition analysis

Bitwarden

See all screenshots there: https://bitwarden.com/blog/post/vault-health-reports-released/

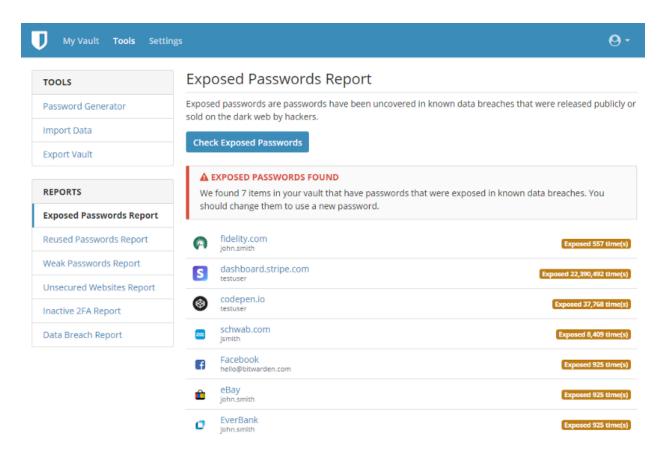
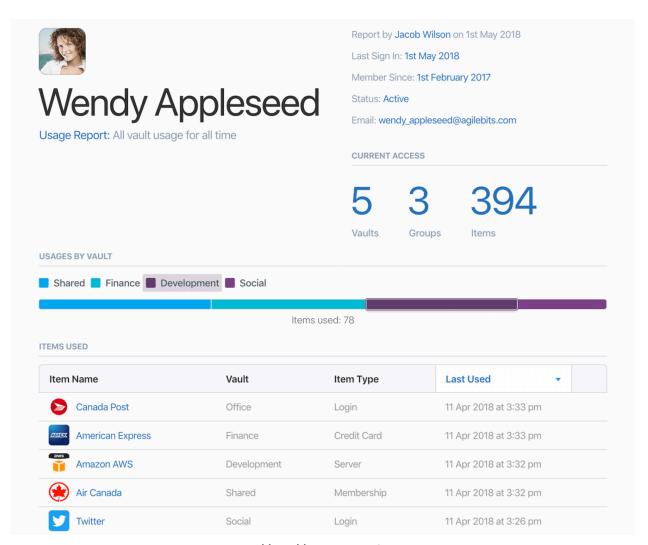


Fig. Exposed passwords reports in Bitwarden



1Password



User Usage report

PUBLIC 35/40





Vault Report: everyone's usage for the last 3 months

Report by Khad Young on January 17, 2020

Created: June 12, 2018

Last Updated: January 16, 2020

CURRENT ACCESS

13

People

3

Groups

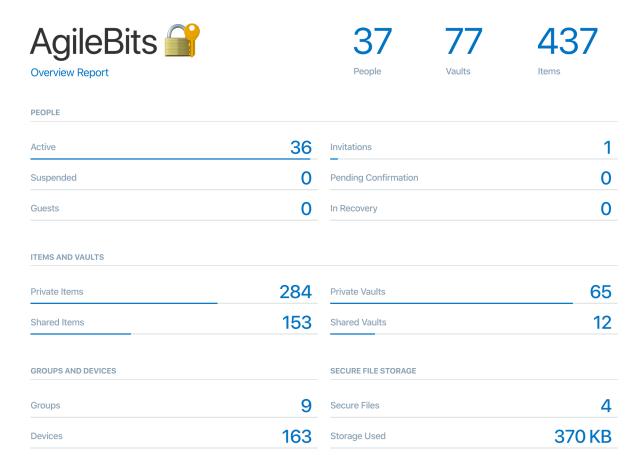
ITEMS USED

Item Name	Item Type	Last Used •	Used by
Citrix	Login	2020-01-16 at 5:36:51 PM	Khad Young
DigitalOcean	Login	2019-11-20 at 8:47:06 PM	Khad Young
Zoom	Login	2019-11-15 at 3:03:48 PM	Rob Hanslip

Vault report

PUBLIC 36/40





Usage overview report

LastPass

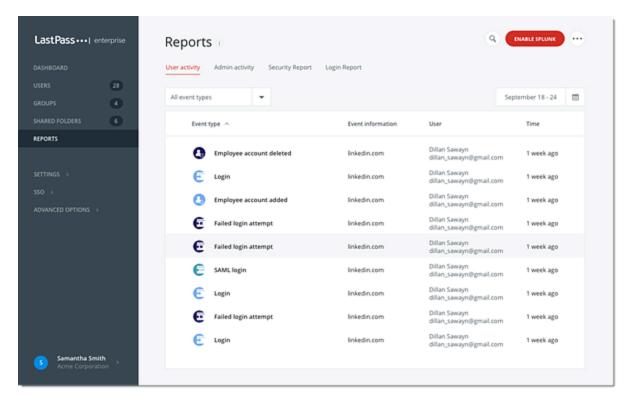
Blog article with screenshots can be found here:

https://blog.lastpass.com/2017/02/enhanced-reporting-features-for-lastpass-enterprise-admins.html/

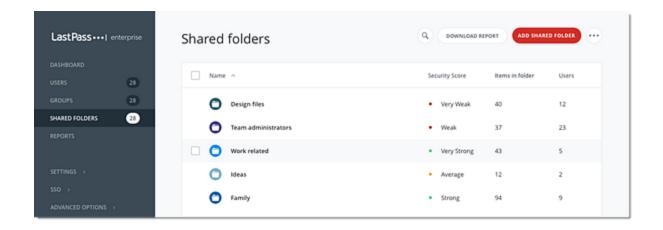
Overview

PUBLIC 37/40





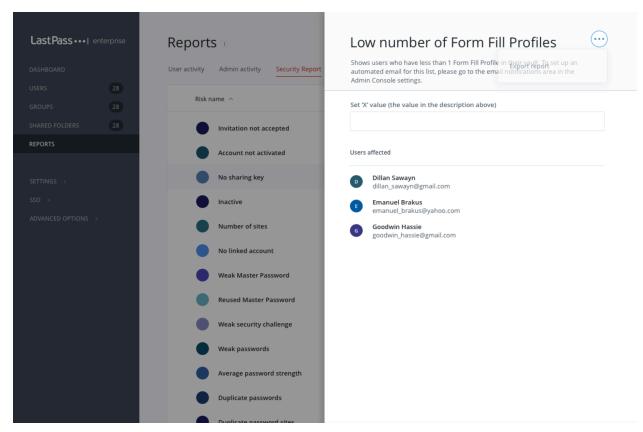
Reports dashboard



Shared folders report

PUBLIC 38/40

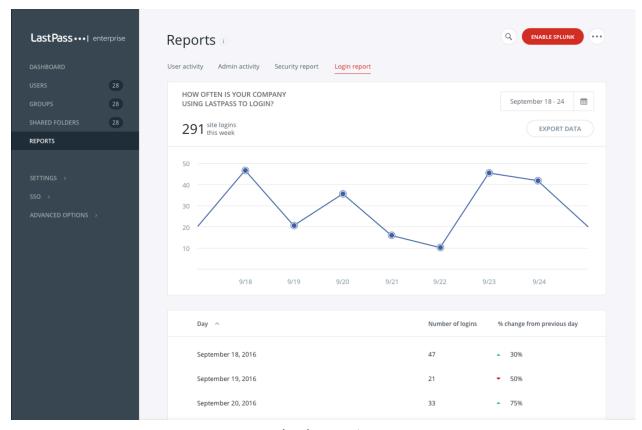




Security report

PUBLIC 39/40





Login report

PUBLIC 40/40