Technical Note

Admin By Request

Product Platform: **All platforms** Product Version: **All versions** Document Date: **4 April 2025** Document Version: **2.0**

API Overview

Public API

We offer a free REST API as part of your licensing. You can use the API to get your data into to your SIEM (security information and event management) system, such as Splunk or Power BI. Alternatively, you can offload the data into your own backend or integrate seamlessly into your ticketing system. You can read all data you can see in the portal and approve or deny requests through the API.

Pull (API) versus Push (WebHooks)

There are two ways you can get a copy of your data from us. The most typical way to get data is for you to call our public API in interval to download data (pull from your side). You can also subscribe to WebHooks (push from our side).

WebHooks

The advantage of WebHooks is that you get your data in real-time instead of pulling data in intervals. The drawback is that you have to have a public webserver to retrieve the data and you would still need the API to approve requests.

There are also many SaaS systems that allow you to integrate with WebHooks – such as getting notified in Teams or Slack by pointing a WebHook from Admin By Request to such a system.

WebHooks and public API have the same data structure. The difference is only in the delivery model – Push vs Pull. You configure WebHooks in your settings under **Settings > Tenant Settings > Webhooks > WEBHOOKS**.

API

If you use the API instead of WebHooks, you must first enable the API and set up an API key. This is done by logging into your portal account and navigating to **Settings > Tenant Settings > API Keys > API KEYS**, then clicking **Add New**:

Admin By Request					End	lpoint Privileg	e Manageme	nt 👻 Eric Ha	astie @ Admii	n By Requ	est Demo 👻
		Summary	Auditlog	Requests	Inventory	Reports	Settings	Download	Logins	Docs	Support
							Setti	ngs			
Tenant Settir	ngs					2	🥰 Tenant				
Settings here are glob	bal tenant settings on top of all other settings.	If you have	any questior	ns, feel free t	o contact us	here.	端 Produc	t Enrollment			
							d Window	vs Settings			
Lidentity				API KEYS	3		d Window	vs Sub Settings	5		
							🤞 Mac Set	tings			
Auto-Update				API Key	/S		🤞 Mac Sul	o Settings			
🌲 Privacy							🙏 Linux Se	ettings			
Detention				•			Å Linux Si	ub Settings			
Retention				• 5 5 1	5		d Window	vs Server Settir	ıgs		
API Keys	KEY 1			KEY 2			dim Window	vs Server Sub S	Settings		
♣ Webhooks	Active			Active			🥰 Integra		•		
							A Settings	Changelog			
🔤 Email Domain	API KEY: <u>Click to show</u>			Click to sh	: <u>ow</u>			<u>Click</u>	to show		
Policies											
	Last use: 23-01-2024		L	ast use: <mark>28-06</mark>	-2023			Last use	25-08-2022		
	Disable Key Edit description Delete Key		<u>Disable Ke</u>	<u>(Edit descript</u>	ion <u>Delete Ke</u>	X	Dis	able Key Edit o	lescription []	<u>Delete Key</u>	
	4 Add New							Save			
			Ab	out API	Keys						
	API Access allows you to extract	your data th	nrough our p	ublic API. Re	fer to <u>this pa</u>	ig <u>e</u> for docu	umentation.	Your API pret	īx is		
	https://dciapi.adminbyrequest.co	om.									

Once a key is generated, you can use <u>Click to show</u>, followed by <u>Copy to clipboard</u> in the api key window to copy and paste it.

Authentication

You can authenticate in two ways when consuming the API:

1. Send the api key as a header named "apikey":



2. Use standard basic authentication and send api key as the password (username is ignored).

Please refer to Using PowerShell to Query ABR for further screenshots.

Quota

These quota rules are enforced to avoid flooding the API. If quotas are passed, access will automatically be blocked for your tenant until next business day.

Daily quota: **100,000** API calls

Data

Data are returned in JSON format and standard http status codes apply (e.g. 200 = OK, 404 = Not Found, 500 = Internal Server Error).

The goal is to keep the structures as similar as possible to how they appear in the portal. If you need to do initial investigation or data mining, you can easily extract the data using Postman, Insomnia or other API tool of your choice. All you have to do is add the basic authentication password or add the apikey under "headers" and call a url, as shown above.

For more information on the available APIs from Admin By Request:

- Auditlog API
- Requests API

- Inventory API
- Events API
- PIN Code API

Emptying requests from an external system

This section demonstrates how requests can be retrieved and approved from an external system. The goal is to empty the request queue at an interval and approve or deny requests that are already stored in the external system. The scenario could be to create a recurring job in the external system (e.g. ServiceNow) and then add buttons on tickets to approve or deny requests.

NOTE

Integration connectors are added periodically between Admin By Request and other systems. At the time of writing, we have several integrations, including Jira, Teams and ServiceNow. If you use any of the integrations for which there is a predefined application, you do not need to use the API. Refer to Integrations for more information.

API tasks

The following tasks are covered in this section:

- Generate API Key
- Get requests
- Approve a request
- Track request state

Generate API Key

To interact with the API, you must first generate an API key. The API key acts as a unique identifier that authenticates your requests, ensuring that only authorized users can access the API.

The API Key has a number of security features:

- **Default Security Settings** By default, your tenant's data is not publicly accessible. This means that without an API key, external systems or users cannot retrieve data.
- **Queries and Updates** Once generated, the API key must be included in API requests (usually in headers or query parameters). This allows the API to verify your identity and access permissions.
- Brute Force Protection The API has security mechanisms in place to prevent excessive or unauthorized requests. Brute force protection helps prevent attackers from trying multiple API keys or requests rapidly. This protects your data from abuse and ensures the API remains available for legitimate users.
- **Safe to Open** Since the API has built-in security measures (such as rate limiting and authentication), it is considered safe to expose it to external use. You should still follow best practices like:
 - Keeping your API key confidential.
 - Using secure storage for credentials.
 - Enforcing least privilege access (restricting API access to only necessary data).

- Generate an API Key by logging into your portal account and navigating to Settings > Tenant Settings > API Keys > API KEYS, as described above ("API" on page 2).
- 2. Once we have this key, we can make a call to the API using the API key as the "apikey" header. This example uses the free Postman tool to demonstrate. Here we have called the Auditlog API to get entries:

4 GET • GET • GET • POST • POST •	OST	r • • • + ••• No Environment • •						
Auditlog Dev Examples 0 -								
GET • https://dc1api.adminbyrequest.com/auditlog	GET v https://dc1api.adminbyrequest.com/auditiog Send v Save v							
Params Authorization Headers (8) Body Pre-request Script	Tests Settings	Cookies Code						
Headers © 7 hidden								
KEY	VALUE	DESCRIPTION *** Bulk Edit Presets •						
✓ apikey	495e571a621440bab5b9e8e8c24b1a55							
Key	Value	Description						
Body Cookies Headers (9) Test Results		Status: 200 OK Time: 544ms Size: 54.95 KB Save Response 👻						
Pretty Raw Preview Visualize JSON V		a Q						
<pre> 7 ElevatedApDilations": [7 Path": "C:\\Program Files\\totalcmd", 7 File: "Total Commander" 7 Path": "Total Commander" 7 Path": "Total Commander" 7 Path": "Stala224 7 Path: "Stala22</pre>								

The next task is to use the API to get outstanding "Pending" requests.

Get requests

1. Requests will appear in the "Requests" top menu in the portal as shown here:

S?	Pending Ap Users will be not approve request	pproval Reque ified by email of app within two weeks, t	Əsts proval or denial. Req he approval will also	uests will drop ou o expire. You can	ut of the list after two week approve or deny requests u	s. If the user doesn't use an using the <u>mobile app</u> also.
		PENDING (1)	APPROVED (0)	DENIED (1)	QUARANTINED (0)	
08-06-202: Email: <u>suppor</u> Requesting File: <u>cmd.e</u> Reason: Ne	L 11:25:27 • Fast] Tafasttracksoftwar to run Windows C C • Metadefende ed to run a cmd	Track Software S e.com • Phone: 333, ommand Processor r: <u>Clean</u> • Virustota	Support 333,3333 • Computer 10.0.21390.1 (WinBu I: <u>Run check</u>	r: <u>FTWIN10-AALE</u> uild.160101.0800)	3ORG-DENMARK from Microsoft Corporation	Approve Deny

2. To get a list of pending requests for approval, we need to call the Requests API, indicating that we are only interested in "Pending" states. For this, you will need to know the data center to which you are connected.

To determine your data center, go to page Tenant Settings > API Keys in the portal and check which API prefix is shown under **About API Keys**. The data center (which is also the API prefix) will be one of the following:

- https://dc1api.adminbyrequest.com (Europe)
- https://dc2api.adminbyrequest.com (USA)

Make a note of your prefix - among other things, this is the domain used when an API Key is created.

You can also see your API prefix on the API web pages (e.g. Public API > Auditlog API). However, a small script runs in the background that determines to which data center you are attached, so JavaScript must be enabled in your browser for this to work.

Continued next page ...

The URL for our example is then:

https://dclapi.adminbyrequest.com/requests?status=pending

Submitting this via **Send** returns a list in json format with the same information that is shown in the portal:

GET ~ http	https://dc1api.adminbyrequest.com/requests?status=pending						
Params Auth Headers	aders (7) Body Pre-	-req. Tests S	Settings				Cookies
KEY		VALUE		DESCRIF	000	Bulk Edit	Presets ∨
apikey		b863e0ffc8994	18f98415e2622afa66f3				
Key		Value		Descripti	on		
Body Cookies Header	ers (9) Test Results		200	OK 519 m	s 1.31	KB Save	Response 🗸
Pretty Raw Pr	Preview Visualize	JSON 🗸	6 -				E Q
2 { 3 "scanRe 4 "id": 6 5 "tracel 6 "settin 7 "type": 8 "typeco 9 "status 10 "status 11 "applic 12 "fi 13 "na 14 "ve 15 "ve 16 "sh 17 "sc 18 "sc 19 "th 20 "vi 21 }, 23 "ac 24 "fu 25 "en 26 "ph 27 },	<pre>htty Raw Preview Visualize JSON > => { ("scanResults": [], "id": 65430027, "traceNo": "46142793", "settingsName": "Global", "type: "Run As Admin", "type: "Run As Admin", "type: "Run As Admin", "type: "Run As Admin", "typecode": 0, "status": "Pending approval", "statuscode": 4, "application": { "file": "cmd.exe", "name": "Windows Command Processor", "vendor": "Microsoft Corporation", "vendor": "Microsoft Corporation", "version": "10.0.21390.1 (WinBuild.160101.0800)", "sha256": "6.184C38792F586995F8E1B8E935B2DE1D6C7941A71A57FC1A1269D2E1E3164CD", "scanResult": "Clean", "scanResult": "Clean", "scanResultice": 0, "threat": null, "virustotalLink": "https://www.virustotal.com/latest-scan/</pre>						

The next step is to approve a request.

Approve a request

1. Notice that each request has an "id" field. This field is used to approve or deny a request as explained in Requests API:

Resources			
https://dc1api.adminbyrequest.com/requests	D	Returns an array of requests	GET
https://dc1api.adminbyrequest.com/requests/{id}	D	Returns one request	GET
https://dc1api.adminbyrequest.com/requests/{id}	D	Approve request. If request is already approved or started, nothing happens	PUT
https://dc1api.adminbyrequest.com/requests/{id}	D	Deny request. If request is already approved or started, nothing happens	DELETE

2. So all we have to do is to make a simple **PUT** request with the ID:

PUT ~	https://dc1api.adminbyrequest.com/requests/65430027	Send	~
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3. ... and the request is now approved and the user is notified accordingly. It's that simple!

See.	Pending Ap Users will be not approve request	pproval Requi ified by email of app within two weeks, t	<mark>ests</mark> proval or denial. Req he approval will also	uests will drop ou o expire. You can a	ut of the list after two weeks approve or deny requests u	s. If the user doesn't use an sing the <u>mobile app</u> also.
		PENDING (0)	APPROVED (1)	DENIED (1)	QUARANTINED (0)	
08-06-2021 Email: <u>support</u> • Requesting • File: <u>cmd.ey</u> • Reason: Ne	11:25:27 • Fastī @fasttracksoftward to run Windows C @ • Metadefender ed to run a cmd	Track Software S e.com • Phone: 333, ommand Processor r: <u>Clean</u> • Virustota	Support 333,3333 • Compute r 10.0.21390.1 (WinBu I: <u>Run check</u>	r: <u>FTWIN10-AALE</u> iild.160101.0800)	3ORG-DENMARK from Microsoft Corporation	Deny

Track request state

1. So how do you only get new requests? The easiest way is to store the highest id you have received before and use this for the next calls. Here are the filters for the Requests API:

Filters (query string para	imeters)				
status	Only get request of a certain type (possible values: Pending, Denied, Approved, Quarantined)	int			
startid	The starting ID you wish to receive. Can be used for incremental offload of data to your own system	int			
take	Maximum number of resources to return. Default is 50 to preserve bandwidth, maximum is 1000. For queries with more than 1000 records, pagination is mandatory	int			
last	Entries are retrieve in ascending order. Last returns the latest X number of entries in descending order. Maximum is 1000. Take and startid cannot be combined with last.	int			
wantscandetails	Use this filter, if you wish to receive detailed lists of scan results. The default is to give you the overall result only	bit			
reason	Can be passed when denying a request	string			
deniedby	Can be passed when denying a request - this has to be an email address that matches a portal user, otherwise it will be ignored	string			
approvedby	Can be passed when approving a request - this has to be an email address that matches a portal user, otherwise it will be ignored	string			
• Example url to get one pending request: https://dc1api.adminbyrequest.com/requests?status-pending&take=1&wantscandetails=1					

- Pagination works by using the last id in the list and feeding it as startid in the next query
- To copy new data to your own system, we recommend to store the highest id (last entry in list) you have retrieved from a previous call and pass this number plus 1 as "startid"

2. Let's say the last request we received was 65430930. Then we add one (since we already received 65430930) and use as startid, meaning that we only want to see any requests with an id higher than 65430930:

GET	~	https://dc1api.adminbyrequest.com/requests?startid=65430931	Send	~
UL1		ntps://ucrup.uuminsynequest.com/nequests.stat.tu=00+00001	Jenu	

Questions?

Feel free to ask any questions you might have. If you do not have a direct contact at Admin By Request, contact us with any questions you might have, or submit a support ticket.

Document History

Version	Author	Changes
1.0 28 November 2022	Sophie Alice Dodson	Initial document release (as "API Request Approval").
2.0 4 April 2025	Steve Dodson	Updated structure and layout. Updated screenshots and procedures to improve clarity and reflect changes to the Admin By Request portal.