

Cracker 3.0 User Guide



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Introduction

Universal Resource Cracker version 3.0 is a troubleshooting tool which lets you to test a client url in different environments and from different geographies. The tool supports URLs in Edgesuite, ESSL, VOD Streaming for WMS/Real/Flash/QuickTime, and LIVE Streaming for WMS/Real.

Some of the salient features of the tool are:

- User friendly interface
- Get the response for any url based upon certain parameters like http method, protocol, time out, custom request headers, caching options etc
- Option to select a server environment
- Option to select multiple "Test From" location and the response for individual request is shown in different tabs within the tool
- Get the DNS resolution and cache settings for the url entered
- Get the Metadata trace of the request.
- Traffic Tools (ESTATS and IP)
- Diagnostic Tools (Ping, MTR, Dig and Cert). The Cert includes Backend Cert, Edge Cert and Origin Cert.
- Option to view the Slot settings and Slot monitor
- Option to purge the cache in the current server and all the ESN servers.
- Option to save the request and current response for reference in future
- Mail notification to the user in case the objects(request or response) were saved
- Submitting a request automatically fetches crawl logs
- Option to copy, parse and fetch & view the crawled logs
- Crawl the logs using the reference number if the url threw some error.
- Wholesale delivery code support

How to Use the Tool

Home Page

A screen shot of the cracker's home page is shown below.

Input Parameters

Url or UUID : This is a mandatory field. the url which the user wants to send a request to should be entered here or if the user has a saved UUID , it can be directly entered in this field. The url should be valid including the protocol (Eg. <https://www.akamai.com>)

Server IP : The environment against which you want to test the url, for example etn1.akamai.com, ESN, ESN secure, Prod etc. The default value of this field is localhost, i.e the machine on which cracker is hosted.

Test From : The geography from where you want to make the request. You can provide comma separated IP addresses or host names from etn1.akamai.com to etn10.akamai.com directly in the input box or type in or search for the IPs based upon city code, state code or country code by clicking on the "choose" link. The default value of this field is localhost, i.e the machine on which cracker is hosted.

Universal Resource Cracker

(sas)

Provide URL or UUID: <https://www.goibibo.com>

Tools

Traffic Tools eSTATS IP
Diagnostics IP Ping MTR Dig Cert
SSL Slot Settings Slot Monitor

When you select "choose" option and provide a country code, then the tool fetches the list of servers mapped to that country. The tool displays the status for the first ten servers. For the remaining ones, it is recommended to check the status by clicking on "Check IP Status" button before going ahead with that IP.

Bypass : You can specify the cache setting with the help of this field.

HTTP Method : The HTTP method to be used for making the curl request to the url. Currently it supports GET, HEAD and POST. Only GET and HEAD is supported if the test from IPs are selected other than localhost.

Req Headers : Custom headers that you want to send along with the request can be pasted or typed in this field. For example, by default, tool includes the "Accept-Encoding: gzip" header with all requests and this is shown in the curl command. However, if you add a different "Accept-Encoding" header to the "Req Headers" box, then those headers will override the default ones.

Protocol : The protocol to be used for making the curl request to the url. If test from is given, allowed values are http1.1, sslv3. If test from is **NOT** given or **localhost** is given, allowed values are http1.0, http1.1, http2.0, tlsv1, tlsv1.1, tlsv1.2, sslv3

Support for "HTTP/3" is available in Cracker starting from 23rd March, 2023. If the target website supports HTTP/3, then the http response protocol will display HTTP/3. If the target website does not support HTTP/3, then cracker will show the default http response received from the site. Sample HTTP/3 response is shown below.

The screenshot shows the Universal Resource Cracker interface. In the left sidebar, under 'Protocol', 'HTTP/3' is selected. A yellow box highlights this selection. In the main panel, under 'HTTP response', the text 'HTTP/3 200' is visible, followed by various headers. An orange box highlights the word 'HTTP/3' in the header list. The URL entered is 'https://h3.carsnplanes.com'. The status bar at the bottom indicates 'HTTP/3 support in curl is considered experimental'.

Save Request/Response data : By enabling this option, you choose to save the request and response details for the url. If you enable this for a url and submit, the tool sends an email consisting of the UUID link through which you can revisit to the result page on cracker tool for next 7 days.

Connection timeout : The connection timeout value for the curl command if test from location is localhost. Default value is 6 seconds and maximum value is 32 seconds. In case, a test from location is given, this field is not applicable and the tool by default takes 300 seconds as a timeout value for connection + read.

Read timeout : The read timeout value for the curl command if test from location is localhost. Default value is 6 seconds and maximum value is 300 seconds. In case, a test from location is given, this field is not applicable and the tool by default takes 300 seconds as a timeout value for connection + read.

Response Body : The tool by default gives only the response headers in the result. In case the user wants to see the response body as well, this option can be selected.

Add get-extracted-values header : This can be used to on/off the get-extracted-values header. The default will be false.

Parse Reference Error # : This can be used if the user is expecting some reference number error in the response. Then cracker will analyze the response body and crawl the logs with the reference number found.

Collect Headers : When this is enabled, tool will try to fetch headers for a single r or s line.

Chase Redirects : If the server reports that the requested page has moved to a different location, this option will execute the curl request on the new place. The redirected request tabs are shown on the tool when this is enabled.

Get Edgeworker Enhanced Debug Headers : Enable this to receive enhanced debugging information about the Edgeworkers execution in the debug response headers.

Tool Result and Output Parameters

Below is the screen shot of the output in the home page.

The screenshot displays the Universal Resource Cracker interface with two tabs of results:

- Test From:** https://www.gobibo.com
- Request/Response UUID:** 172.27.101.200_1
- Tools:** Traffic Tools, New API Trace, Diagnostics, SSL, Purge URL
- HTTP Response:** Shows raw HTTP traffic and decoded responses.
- Logs:** Shows logs for crawl ID 20295e, indicating no logs found.

The second tab shows similar details for a different request or session.

Test From : In case you have selected multiple "test from" locations, then the individual responses would be shown in separate tabs labeled as "Result". The information which is common to all the "Result" tabs is :

The screenshot shows the Akamai Universal Resource Cracker interface. On the left, there is a configuration panel with various settings like Server IP, Test From, Bypass, HTTP Method, and Req Headers. A red arrow points from the text "3 IPs were given as input" to the "Test From" dropdown, which contains three entries: "Default", "choose", and three IP addresses: "61.9.129.140-1", "61.9.129.141-2", and "61.9.129.146-3". Another red arrow points to the "Request result tabs" section at the top right of the main panel. The main panel displays network statistics: DNS time, TCP time, SSL time, TTFB, and Total Time. It also shows the curl command used for the request and the raw HTTP response.

Total Requests : Number of request made with respect to the parameters given in the input. In the above screenshot, you can see Total requests as 3.

Request/Response UUID : In case you chose to save the request / response objects, you will receive an email with details of your request. The email would look like the image below.

Cracker Request Details

 o noreply@akamai.com <noreply@akamai.com>
 To: Rudraiah, Ujwala
 Yesterday at 11:58 AM

Your Cracker request details are -

Date of execution : Thu Sep 29 06:28:06 UTC 2022
 URL : <https://www.qantas.com.au>
 Server IP : 184.86.168.15
 Test from IP : [localhost]
 Request/ Response UUID : 02b7cf96-36f0-422c-8cbf-393f7953e223 **UUID**
 This data can be accessed using the url <https://cracker-aps.akamai.com/#/?url=02b7cf96-36f0-422c-8cbf-393f7953e223>. The saved response can be accessed using this URL for 7 days
 Your saved objects are available for 7 days only.

The UUID to be used for fetching the saved request and response is shown here.

The screenshot shows the Akamai Universal Resource Cracker (sas) interface. At the top, there's a navigation bar with 'Akamai' logo, 'Universal Resource Cracker', and '(sas)' status. Below it, there are 'User Guide' and 'Contact' links. A search bar says 'Provide URL or UUID' with 'https://www.qantas.com.au' entered. A 'Submit' button is to the right. An orange arrow points from the text 'Saved Request/Response UUID' to the highlighted 'Request/Response UUID' field in the search bar.

Saved Request/Response UUID

DNS time: 0.060408s	TCP time: 0.073194s	SSL time: 0.096413s	TTFB: 0.125658s	Total Time: 0.127193s
DNS Info		www.qantas.com.au -> www.qantas.com.au.edgekey.net -> e1629.x.akamaiedge.net -> 184.86.168.15 -> 184.25.157.185		
Cache Setting		CM (Obj, DNS)	CP Code	19356

Test IP: 172.27.101.200 Server Env. IP: 184.86.168.15 Server Env. Name: default

Curl Command

Tools

HTTP response

```
HTTP/1.1 301 Moved Permanently
Server: AkamaiGHost
Content-Length: 0
Location: https://www.qantas.com/us/en.html
Date: Thu, 29 Sep 2022 06:28:06 GMT
X-Cache: TCP_MISS from a184-25-157-185.deploy.akamaitechnologies.com (AkamaiGHost/10.9.4-44125806) (-)
X-Cache-Key: S/D/1629/19356/000/c021-01.qcpa.qantas.com.au/?akamai-transform=9
X-Cache-Key-Extended-Internal-Use-Only: S/D/1629/19356/000/c021-01.qcpa.qantas.com.au/?akamai-transform=9 vcd=2980
X-Akamai-Tapioca-Pearl-RPD: FACET_INDEX_0,,,6610650
X-Akamai-Tapioca-Pearl-RPD: SEC-API-PURPOSE_0,,,33150
```

Follow the [SAS](#) team on Aloha. To report a [Bug](#) or raise an [Enhancement Request](#).

The information which is relevant to a single tab are discussed below :

DNS Lookup time : The time shown in seconds, it took from the start until the name resolving was completed.

TCP Connection time : The time shown in seconds, it took from the start until the TCP connect to the remote host (or proxy) was completed.

SSL Connection time : The time shown in seconds, it took from the start until the SSL/SSH/etc connect/handshake to the remote host was completed.

TTFB : The time shown in seconds, it took from the start until the first byte was just about to be transferred. This includes time pretransfer and also the time the server needed to calculate the result.

Total time : The total time shown in seconds, that the full operation lasted. The time will be displayed with millisecond resolution.

DNS time: 1.510233s	TCP time: 1.518662s	SSL time: 1.537642s	TTFB: 1.558593s	Total Time: 1.560491s
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DNS Info : The DNS resolution path and the cache server

DNS Info	www.qantas.com.au -> www.qantas.com.au.edgekey.net -> e1629.x.akamaiedge.net ->
----------	---------------------------------------------------------------------------------

Cache Setting and CP Code : The cache settings and the CP code extracted. The CP code link can be used to get the details about the CP code.

Cache Setting	CM (Obj, DNS)	CP Code	19356
---------------	-----------------	---------	-------

You can view the cache manager object and DNS details by clicking on the links.

Test IP : The IP from which the request was made. (the default is the IP where the cracker is deployed)

Server Environment IP : The Environment IP against which the request has been made

Server Environment Name : The Environment name against which the request has been made



Curl command : The curl command internally used to get the response.

```
Curl Command
curl -k -S -D -o /dev/null -H "Pragma: akamai-x-get-cache-key, akamai-x-cache-on, akamai-x-cache-remote-on, akamai-x-get-true-cache-key, akamai-x-check-cacheable, akamai-x-get-request-id, akamai-x-serial-no, akamai-x-get-ssl-client-session-id, X-Akamai-CacheTrack, akamai-x-get-client-ip, akamai-x-feo-trace, akamai-x-tapioca-trace" -H "User-Agent: Mozilla/5.0-Akamai-Test-1664518318" -H "Accept: */*" -H "Accept-Encoding: gzip" --connect-timeout 6 -m 10 -w "%DNSLookup_time: %(time_namelookup) TCP_Connection_time: %(time_connect) SSL_Connection_time: %(time_appconnect) TTFB: %(time_starttransfer) Total_time: %(time_total)*" --http1.1 "https://www.qantas.com.au"
```

Copy Curl : This can be used to copy the curl command

Show Object: This will be used to view the response body. This will be shown only if the response body is selected in the input parameter while firing the request.

The screenshot shows the Akamai Universal Resource Cracker (sas) interface. On the left, there are configuration options for the test environment, including Server IP (Default), Test From (choose), Bypass (No Bypass), HTTP Method (GET), and Request Headers (including If-Modified-Since and Range). The Payload section is empty. On the right, the curl command is displayed at the top, followed by the response body. The response body includes headers like Date, Content-Length, and Location, and the full HTML content of the qantas.com.au homepage. A red box highlights the 'Show Obj' button next to the response body, with the text 'Click on "Show Obj" button to see the response body'.

Tools : A list of relevant tools are embedded within cracker for easy access. A screenshot of the same is shown below.

The screenshot shows the Tools section of the Universal Resource Cracker (sas) interface. It includes links to various traffic analysis and management tools: Traffic Tools (eSTATS, IP), New MD Trace (ARL_www.qantas.com.au_pm.162337.xml), Diagnostics (IP, Ping, MTR, Dig, Cert), SSL (Slot Settings, Slot Monitor), and Purge URL (Purge this Server, Purge ESN).

Traffic Tools : The link to eSTATS and IP

New MD Trace : The arl.data file will be shown as a link in the tools section. Once we click on the metadata file, the file will be shown with highlighted executed line numbers.

Cracker 3.0 | MD Trace

cracker-aps.akamai.com/mdtrace/mdtrace.html

(sas)

arlidata	Metadata file: ARL_www.qantas.com.au_pm.162337.xml (Production Metadata from /var/www/data/metadata/arl.data/ARL_www/qantas.com.au_pm.162337.xml URL: https://www.qantas.com.au The lines that are highlighted in dark yellow and in bold were applied for this request. TIP: Move your mouse on the left side of the nested blocks to see the appropriate nested tags! This does not include metadata that got applied after the creation of response headers.
logoverride	
wafipblock	
logconfig	
pearlbilling	
rumdata	
baseline	
origincertunderide	
wafdata	
appsec	
override	
config	

Stages		XML Doc
0	1	Line Version No :1562
-	-	1 <?xml version="1.0" encoding="UTF-8"?>
-	-	2
-	-	3 <configs xmlns:cache="uri:akamai.com/metadata/cache">
-	-	4
-	-	5 <comment:note value="Property Manager generated by SPM" />
-	-	6 <comment:note value="Catalog version: 22.7.0.1" />
-	-	7 <comment:note value="Product name: SPM"/>
-	-	8 <comment:note value="Property name: www.qantas.com.qa" />
-	-	9 <comment:note value="Asset ID: 6316352"/>
-	-	10 <comment:note value="File ID: 162337"/>
-	-	11 <comment:note value="AcgID: />
-	-	12 <comment:note value="AccountId: 1-1VPMJX"/>
-	-	13 <comment:note value="Hostnames: qantas.com qa" />
-	-	14 <akamai:edge-config version="5.0">
S	-	15 <edgeservices:product.name>SPM</edgeservices:product.name>
-	-	16 <config:metadata.fma>
S	-	17 <arl-version>1562</arl-version>
-	-	18 </config:metadata.fma>
S	-	19 <assign:variable>
P	-	20 <name>AKA_PM_FLAGS</name>
-	-	21 <value>-</value>

Diagnostics Tools : The Diagnostic tools include IP, Ping, MTR, Dig and Cert.

Ping : This can be used to ping to any URL from any IPs

MTR : This can be used to MTR to any URL from any IPs

Dig : This can be used to Dig to any URL from any IPs

Cert: This can be used to get the certificate details

Slot Settings : Slot settings can be accessed with this url

Slot Monitor : This link redirects to the slot monitor page

Purge Server : The cache will be purged from the current server

Purge ESN: The cache will be purged from all the ESN servers

HTTP response : The HTTP response received after successful curl command execution.



```
HTTP/1.1 301 Moved Permanently
Server: AkamaiGHost
Content-Length: 0
Location: https://www.qantas.com/us/en.html
Date: Thu, 29 Sep 2022 06:28:06 GMT
X-Cache: TCP_MISS from a184-25-157-185.deploy.akamaitechnologies.com (AkamaiGHost/10.9.4-44125806) (-)
X-Cache-Key: S/D/1629/19356/000/c021-01.qcpa.qantas.com.au/?akamai-transform=9
X-Cache-Key-Extended-Internal-Use-Only: S/D/1629/19356/000/c021-01.qcpa.qantas.com.au/?akamai-transform=9
vcd=2980
X-Akamai-Tapioca-Pearl-RPD: FACET_INDEX,0,,,6610650
```

Once the API gets the response from the curl execution, it will try and fetch the ghost logs for the request via [Crawly](#). You will see a message which would read something like "**Crawling request started for crawl id 2d5ca78. Requesting for logs in 5 seconds.**" The logs collection takes a few minutes and you will see the logs populating in a text box below the message. Once the logs collection is complete the output will look like the image below

The screenshot shows the Akamai Universal Resource Cracker interface. On the left, there's a configuration panel with fields for Req Headers, Payload, Protocol (HTTP/1.1), Number of requests (1), and various timeout and save options. The main right panel displays a curl command and its response. The response shows a 301 Moved Permanently redirect to https://www.qantas.com/us/en.html. Below the response, a message says "Waiting for logs to be generated. Request will be made in about 10 seconds...". A "Copy" button is available. To the right, a list of logs fetched by the cracker is shown:

Cracker fetches the following logs based on the URL:

- 1) Ghost ddc Logs
- 2) Cache Logs
- 3) Image Manager Logs
- 4) NetStorage Logs
- 5) Crypto Server Logs

As you can see in the above image, the logs are listed in the text box. You have options to "**Copy Logs**", "**Parse Logs**", "**Fetch & View**" and crawl for the logs based on response headers through "**Crawly**".

Cracker fetches the following logs based on the input url:

- (1) Ghost ddc Logs
- (2) Cache Logs
- (3) Image Manager Logs
- (4) NetStorage Logs
- (5) Crypto Server Logs

Reference number crawl support

There are some scenarios the output of the curl will be the reference number error page. If the user knows that the url can potentially throw the reference number error in response, he can tick the Parse Reference Error # or Response Body check box in the cracker UI. Both of these options will check the existence of the reference number in the response body if the response status code is 4xx or 5xx and not 404 and the pragma headers not present. If the reference error found, the logs will be crawled with this reference number.

Also the cracker is built with the intelligence that if the response status code is 4xx/5xx and not 404 and the pragma headers are not present in the response and the user didn't check Parse Reference Error # or Response Body check boxes, cracker will fire one more curl to check if the reference number present in the response body or not. If the reference error found, the logs will be crawled with this reference number.

Please find the sample url to get the reference number based crawl

The sample URL which gives the Reference number error:



Its cracker response:

Reference

<https://cracker-aps.akamai.com/#/>

Raising Bugs, Issues and enhancements

1. Go to [JIRA](#)
2. Click on Create Issue
3. Fill the required fields.
4. Specific values for some fields.
 - o Project – AkaTec Productivity Systems
 - o Issue Type – Bug/Issue/Enhancements
 - o Component – Cracker 3.0

Create Issue

Configure Fields ▾

Project *

Issue Type * Bug

Some issue types are unavailable due to incompatible field configuration and/or workflow associations.

Summary *

Component/s

Start typing to get a list of possible matches or press down to select.

Affects Version/s

Start typing to get a list of possible matches or press down to select.

Fix Version/s

Start typing to get a list of possible matches or press down to select.

Defect Severity *

The relative impact of this bug on the use of the software to the end-user, an organization, third parties.

Description *

Style

Create another

Global Services (GS) - Services Automation Solutions & Continuous Improvement

↳ 8 □ 29 ↗

Comments



Add a comment...

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Comment

MOST RECENT

**Ankush Kaul**

Is there any way to send <user:password> in the request similar to -u modifier in CURL?
Example: -u "hilton2:9D?Q2aXc"

[Translate into English](#)

July 20, 2023

...

[0 Like](#) [Reply](#)**Harish Madisetty**

Is there any API support for the tool?

[Translate into English](#)

September 13, 2022

...

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[Our Company](#) [Divisions & Organizations](#) [Culture](#) [HR Resources](#) [Finance Resources](#) [More](#)**Josh Cheshire**

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July 23, 2020

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...

Originally written by Daniel Dylag

Does Cracker support sending client certificates? Or any plans to add such feature?

[Translate into English](#)

May 9, 2019

[0 Like](#) [Reply](#)**_lumapps_mig Mig**

...

Originally written by Abhishek Amte

Hey [Daniel Dylag](#) - there are no enhancements open for this yet. Are you thinking of a generic cracker client cert that can be used when making requests? I would recommend that you open an enhancement request using [this link](#).

[Translate into English](#)

May 10, 2019

[0 Like](#) [Reply](#)[Display 1 more reply](#)

**Brett Sidebottom**

Will Cracker 3 be enhanced to choose Staging vs Production? That was a key feature in 2.0 that is missing (unless I'm blind) in 3.0.

...

You can always go to a "`*.edgekey-staging.net/[PATH]`" URL and add a "Host: [actual hostname]" header, but being able to quickly jump between environments to test is a worthwhile feature

⤓ [Translate into English](#)

March 15, 2019

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March 15, 2019

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**Hardik Patel**

Originally written by Hardik Patel

...

I don't see an option to send SNI headers. Is SNI supported in cracker?

⤓ [Translate into English](#)

October 12, 2018

⠇ 0 Like ⏪ Reply

**Sangmin Kim**

...

▼ [Show more](#)

⤓ [Translate into English](#)

August 2, 2018

⠇ 0 Like ⏪ Reply

**Ravi Ranjan**

...

This issue is already escalated and here is the link for further details- [Public IP for Cracker 3.0?](#)

⤓ [Translate into English](#)

August 2, 2018

⠇ 0 Like ⏪ Reply

▼ [Display 1 more reply](#)

**Vidyalakshmi Swaminathan**

I want to remove /modify certain pragma headers and rerun the request. So is there a way to modify the inbuilt curl that is being utilized for the tool? Does anybody have any pointers to this ?

...

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May 8, 2018

[0 Like](#) [Reply](#)**Eli Boxx**

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May 8, 2018

[0 Like](#) [Reply](#)[Display 4 more replies](#)**Eli Boxx**

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April 9, 2018

[0 Like](#) [Reply](#)**Ravi Ranjan**

...

Thanks Eli. Before LA launch, the Cracker#3.0 link will be available in APS portal.

[TRANSLATE INTO ENGLISH](#)

April 9, 2018

[0 Like](#) [Reply](#)[Display 1 more reply](#)**Patrick Walters**

...

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January 19, 2018

[0 Like](#) [Reply](#)

**Ravi Ranjan**

We have completed beta phase and currently working on parity release of Cracker#3.0 which will be available for testing in couple of months.

...

[Translate into English](#)

January 24, 2018

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