## Application Performance Management 2.0

## **Best Practices**

 Issue
 01

 Date
 2024-06-14





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## **1** Locating the Causes of Request Errors

## Background

When the number of external requests increases sharply or the load changes abruptly, application performance problems occur frequently, for example, requests cannot be quickly responded or properly handled. Quickly identifying, locating, and handling these problems are required in routine inspection.

APM has powerful analysis tools for cloud application diagnosis. It displays application statuses, call processes, and user operations through topologies and tracing, so that you can quickly locate and resolve faults and performance bottlenecks.

For example, you can view the call relationships between services and quickly locate abnormal instances through topologies. You can also drill down to services and determine root causes based on method tracing.

## **Applicable Scenarios**

- Routine inspection, covering application metrics such as latency, throughput, and number of errors
- Quick locating of error calls

## Procedure

- **Step 1** Log in to the APM console.
- **Step 2** In the navigation pane, choose **Application Monitoring** > **Metrics**.
- **Step 3** Click the **URL** tab. On the page that is displayed, view metrics such as the number of calls, number of errors, and latency.

## Figure 1-1 Viewing URLs

Hide	💷 LubanApm / 🚞	App / 😚 apm-access / 🖂	wulan / More Nodes *							🗊 User Guide
Application Metric 💮	Topology URL	JVM Exception Cal	Socket SQL	Nebcontainer	MessageQueue					
💷 Application: 👘 👘 👘	ELA	* GI • 14	×		Aug 02	2023 14:02 OM	T+08.00 - 4uo 02, 2023-14	22 GMT+08.00 (0)	Lest 20 minutes	• C
👤 Region: (	w				1.19 1.					
🔖 Tag: Al 🔹 👻	URL Summary	Status Code Summary	Cluster Summary Over	view						
Enter a component or environment name. Q	URL Summary									
	Q Search for co	ontent in the two columns.								@ ±
- 📴 LubanApm	urt		method	Calls	Avg RT (ms)	Errors	Max Concurre	Max RT (ms)	apdex	
- 😑 😚 apm-access	X /apm2/healt	h/v1/health-check	GET	120	0.25	0	1	0	1.00	
🖾 wulan 🖾 🕲 🗓								(Bean Total D		
- 🛨 📀 apm-alarm							10	/ Page, Total H	Gecords: 1	<b>'</b>
🛛 🛨 😚 apm-api										

**Step 4** Click the abnormal URL to go to the tracing page.

Figure 1-2 URL details

Interface-base	d Summary	Status Code Sumr	nary Cluste	r-based summa	ry Overview	N						
Interface-based Summary - Last Data Time 2022-01-07 10:16:35												
urt	method	Number of I	Average	umber of	Maximu	Slowest I	0ms-10ms	10ms-10	100ms-5	500ms-1s	1s-10s	10s-n
/user/login	POST	14	128271.36	14	4	128332	0	0	0	0	0	14
/user/validate	POST	14	127265.21	14	4	127354	0	0	0	0	0	14

## **Step 5** Locate error or slow traces.

Figure 1-3 Viewing traces

Tracing @				💽 Last 20 minutes 🔻 🖸 🕊 User Guide
Search Criteria		Clear (	18 records	< 1 2 >
Business	default (Default)	*	Successful Request Failed Request Response Time 4# Generated 4#	
Region	• 3888	٣	> POST diservalidate am 67, 2022 10:17:13 GATHORED	0 500   127269 ms Trace ID: 60-1641521833087-67
Application	vmall-user-service	•	> <u>POST. 0xee/validate</u> Iwr 07, 2022 10:7:11 GMT-08:00	0 500   127281 ms Treer ID: 60-1641521831030-66
Environment	default	•	> POST inservalidate	9 500   127230 ms
Instance	apm-demo(192.168.0.222)	*	Jan 07, 2022 10.15:36 GMT=08:00	Trace ID: 60-1641521736872-61
			> POST ///set/validate Inn 07.2022 10:1530 CMT-98.00	500   127285 ms Trace ID: 60-1641521730160-57
URL	Rest URL	*		
Exact Search	0		POST_User/validate Jan 67, 2022 1014:00 GMT-08:00	<ul> <li>500   127281 ms</li> <li>Trace ID: 60-1641521640823-55</li> </ul>
	/user/validate		> POST /user/validate	9 500   127310 ms
Call Method	POST	*	Rin W, 2022 10:15:0 GMT+08:00	Trace ID: 60-1641521630047-49

**Step 6** Click the corresponding URL to obtain the trace details and determine the root cause.

Figure 1-4 Trace details

< Back Trace ID 60-1641521138226-14 Duration 1272	28ms Applications 3 Depth 5 Layers Start Time Jan 07, 2022 10:05:38:226 GMT+08:00				
	Mar     multi-product strates     multi-strate strates       (17722Bit(0707)(specification)     (177221)(17071)(specification)       (1772Bit(07071)(specification)     (17721)(17071)(specification)       (1772Bit(07071)(specification)     (17721)(17071)(specification)       (1772Bit(07071)(specification)     (17721)(17071)(specification)       (1772Bit(07071)(specification)     (17721)(17071)(specification)       (1772Bit(07071)(specification))     (17721)(17071)(specification)       (1772Bit(07071)(specification))     (1772Bit(07071)(specification))       (1772Bit(07071)(specification))     (1772Bit(				
All Spans 5 • vmail-product-service /default (2) • vmail-user-serv	ider (defsuit (2) • vmail-dao-service (defsuit (1)				
All Spans 5  • vmail-product-service /defoult (2)  • vmail-user-serv Action	Ker Johnsk (J) e vrakš dio verster johus (L) Response Time O as 12228 es	Application	API Type	Call Par	More In
All Spans 5 • vmail-product-service (default (2) • vmail-user-serv Action   Involat vcc01/(geostant/bag/54211223411)(500)	ker (richa (1) = * und des andre (richa (1)) Regions The 6 ms 12728 ms 17727 ms	Application vmall-product-se	API Type Torncat	Call Par	More In.
All Spans 5 • email-product-service / vielnuit (2) • vmail-ose-service Action Controls POSTPhysionachtografic11222411():000 Control POSTPhysionachtografic11222411():000 Control	ker (sich k) = * walf-dee-worker (sich k) (1)           Requests There & ms         127228 ms           127228 ms         127228 ms           127229 ms         127228 ms	Application vmail-product-se	API Type Torncat Jokhttpc	Call Par R	More In View De
Al Spen S e valie product service :rokus (2) e valie servine Action Profile	ker (shick (2))         *         ***elf-des-write (shick (1))           Reports The 6 min         102228 min           10228 min         10228 min	Application vmail-product-se vmail-product-se	API Type Torncat Jokhttpc	Call Par R R R	More In View De View De
Al Signer 5         • <td< td=""><td>kee (which (2))         *</td><td>Application vmall-product-se vmall-product-se vmall-user-service vmall-user-service</td><td>API Type Torncat Jokhttpc Jokhttpc</td><td>Call Par R R R R</td><td>More In View De View De View De</td></td<>	kee (which (2))         *	Application vmall-product-se vmall-product-se vmall-user-service vmall-user-service	API Type Torncat Jokhttpc Jokhttpc	Call Par R R R R	More In View De View De View De

----End

## **2** Searching for Span Information

## Background

In the distributed architecture, the calls between microservices are complex. If it takes much time to respond to external requests or some requests become abnormal, you can specify a trace ID or set other criteria on the **Tracing** page to view trace details.

## Procedure

- **Step 1** Log in to the APM console.
- **Step 2** In the navigation pane, choose **Application Monitoring** > **Tracing**.
- **Step 3** Enter the following search criteria and click **Search Trace**.

## Figure 2-1 Tracing search result

Tracing ③		Aug 22, 2023 00:00 GMT+08:00 — Aug 23, 2023 00:00 GMT+08:00 🕥 Yesterday 🔹 💽 🕼 User Guide
Search Criteria Ci	eH 🗿 348800 records	< 1 2 3 4 5 6 … >
Region • I	<ul> <li>→ <u>SET_M</u> (2)</li> <li>→ Aug 22, 2023 23:99:59 GMT+08:00</li> </ul>	200   0 ms Trace ID: 107-1692711999433-22823
Mora 👻	<u>GET.ftouting1</u> 82 Aug 22, 2023 23:59:56 GMT+08:00	200   12 ms Trace ID: 106-1092719906757-229384
URL Rest URL	<ul> <li><u>GET.insuitog1</u> 82</li> <li>Aug 22, 2023 23:59:56 GMT+08:00</li> </ul>	200   11 ms Trace ID: 106-1692719996537-229363
	<u>DET.Insuthol</u> 80 Aug 22, 2023 23:59:56 GMT+08:00	200   11 ms Trace ID: 106-1692719906316-223362
Mora +	SET Insulted 8 Aug 22, 2023 23:59:56 GMT+08:00	200   12 ms Trace ID: 106-160271906603-223561
Exception or All	SET Insulted 18 Aug 22, 2023 23:59:55 GMT+08:00	200 1 13 ms Trace ID: 106-1692719965868-223580
Trace ID	SET Insulted 8 Aug 22, 2023 23:59:55 GMT+08:00	200   18 ms Trace ID: 106-1692719905641-22359
Other search criteria	SET Insulted 8 Aug 22, 2023 23:59:55 GMT+00:00	200   11 ms Trace ID: 106-1692719905419-229358
Search Trace		200   13 ms Trace ID: 106-1692710905108-229357
	> GET muthol II	0 200   12 ms

Table 2-1 Search criteria of traces

Search Criterion	Description	Mandatory
Application	Application to which the trace belongs.	Yes
Region	Region where the trace is located.	Yes

Search Criterion	Description	Mandatory
Component	Component to which the trace belongs.	No
Environment	Environment to which the trace belongs.	No
Instance	Instance to which the trace belongs.	No
URL	Trace URL, which can be a REST or real URL. A REST URL contains a variable name, for example, <b>/apm/get/{<i>id</i>}</b> . A real URL indicates an actual URL.	No
Exact Search	Whether to perform exact match on URLs. If this option is selected, exact match is performed. If this option is not selected, fuzzy match is performed.	No
Call Method	HTTP method of the trace.	No
Status Code	HTTP status code returned by the trace.	No
Response Time	Response time range of the trace. You can specify the minimum and maximum response time to search for traces or leave them empty.	No
Exception or Not	Whether to filter the traces that are regarded as exceptions.	No
Trace ID	ID of a trace. If you specify this parameter, other search criteria become invalid and the search will be performed based on the trace ID you specify.	No

**Step 4** Click **Other search criteria**. **Custom Parameter**, **Global Trace ID**, and **Application Code** are displayed.

Search Criteria	a	Clear	
Application	· . )	•	
Region	• c	•	
	More 💌		
URL	Rest URL	•	
Exact Search	0 0		
	More 🔻		
Response Time	ms -	ms	
Exception or Not	All	Ŧ	
Trace ID			?
Custom Parameter			
Global Trace ID			
Application Code			

## Figure 2-2 Other search criteria

Table 2-2 Search criteria of traces

Search Criterion	Description	Mandatory
Custom Parameter	If you have configured <b>Key for Header</b> Value Interception, Key for Parameter Value Interception, and Key for Cookie Value Interception for URL monitoring, you can set key=value to search.	No
Global Trace ID	Global ID of a trace. If you specify this parameter, other search criteria become invalid and the search will be performed based on the trace ID you specify.	No
Application Code	If you have configured <b>Service Code</b> <b>Length</b> , <b>Key for Service Code Interception</b> , and <b>Normal Service Code</b> , corresponding application codes will be collected. You can search information based on the application codes.	No

## • Custom Parameter

Usage Instructions

- a. Configure **Key for Header Value Interception**, **Key for Parameter Value Interception**, and **Key for Cookie Value Interception** for URL monitoring. For details, see **Configuring the URL Monitoring Item**.
- b. In the **Custom Parameter** text box, set the parameters and values.
- c. Click **Search Trace**. The results are displayed on the right.

Figure 2-3 Results of querying traces based on the custom parameters

Tracing ③		Aug 22, 2023 00:00 GMT+08:00 — Aug 23, 2023 00:00 GMT+08:00 💿 Yesterday 🔻 🖸 🕼 User Guide
Search Criteria Clear	G 348800 records	< 3 2 3 4 5 6 … >
Application •	Successful Request Failed Request Response Time 4E Generated Time 4E	
Region •	> GET mi ℝ Aug 22, 2023 23:59:59 GMT+00:00	200   0 ms Trace ID: 107-1662719999433-22923
More 💌	> <u>SET routing1</u> [0] Aug 22, 2023 23:59:56 GMT+08:00	200   12 ms Trace ID: 106-1692719996757-229364
URL Rest URL *	> GET /nuding1 (6 Aug 22, 2023 23:59:56 GMT+08:00	<ul> <li>200   11 ms</li> <li>Trace ID: 106-1692719996537-229063</li> </ul>
Exact Search	> <u>SET_NOL8591</u> [E] Aug 22, 2023 23.59.56 GMT+08:00	200   11 ms Trace ID: 108-1692719996319-229362
More -	> GET.Noutino1 18 Aug 22, 2023 23:99:56 GMT +08:00	• 200   12 ms Trace ID: 106-169271999603-229361
Response Time ms - ms	<u>GET insuling1</u> Aug 22, 2023 23.59.55 GMT+00.00	● 200   13 ms Trace ID: 106-16927199955656-223060
Not All •	SEEL Insuling1 IR Aug 22, 2023 23 50 55 GMT+00:00	200   18 ms Trace ID: 105-1602719995641-223059
Custom http://ethod=GET	GET_foutient IR     Aug 22, 2023 23:59:55 GMT+08:00	• 200   11 ms Trace ID: 106-1692719995419-229358
Global Trace ID	> <u>SET routing1</u> [2] Aug 22, 2023 23 59:55 GMT+08:00	200   13 ms Trace ID: 106-1692719995166-229357
Application Code	> GET.avuited. 12 Aug 22, 2023 23 95:54 GMT+08:00	200   12 ms Trace ID: 106-1692719994077-229356
Search Trace	<u>OET insulina1</u> Aug 22, 2023 23 59:54 GMT+08:00	200   11 ms Trace ID: 106-16927 1999-4754-221055

• Global Trace ID

- .

Usage Instructions

a. Click  $\geq$  next to the target trace to view the global trace ID.

Figure 2-4 Obtaining the global trace ID

<u>GET./hi</u> Aug 22, 20	23 23:59:59 GMT+08:00		200   0 ms Trace ID: 107-1692719999433-22923
Component	apm2demo01 /lestErv01		
Instance	apmtest.testinstance01(1 ······ 7)	Global Trace ID 107-1692719999433-22923	
Real URL	🗇 (GET) /hi		

- b. In the **Global Trace ID** text box, enter the global trace ID.
- c. Click Search Trace. The results are displayed on the right.

Figure 2-5 Results of querying traces based on the global trace ID

Tracing @	
Search Criteria Clear	1 Incode     1 Incode     trade Repart Response Time at Generated Time at
Region C I V	A GEL (b) (R) 200 0 ms Aug 22, 1022 23 95 95 OMT+01 00 Theor ID: 107-1002/10090433-22823
URL Rest URL +	Compared #002480041 Atte51-04 Inthics @ #00248004 InterfaceAtte51-04 Interface @ (0021) Atte51-04 Interface @ (0021) Atte61
Exact Search	1 record
Response Time ms - ms	
Not All V	0
Custem Parameter	
Global Trace ID 107-1692719999433-22923 Application Code	
Search Trace	

## • Application Code

**Usage Instructions** 

a. Configure Service Code Length, Key for Service Code Interception, and Normal Service Code for URL monitoring. For details, see Configuring the URL Monitoring Item.

Figure 2-6 URL monitoring

Modify Url Monite	oring Configuration		^s × ×
	,	•	
	URL Collection Confi	Match Mode (Startwith, Endwith, I Match Expression Normalized URL Operation	
		⊙ Add	
	Slow Request Thresh	URL RT Threshold Operation	
		⊙ Add	
	Blocklist Configuration	Match Mode (Startwith, Endwith, Include, or Reg Match Expression Operation	
		⊙ Add	
	Service Code Length	- 0 +	
		Use default value. 🕥	
	Key for Service Code	bizcode 😑	
		resultcode	
		⊙ Add	
	Normal Service Code	C8C 0000 🗉	
		E	

- b. In the navigation pane, choose **Application Monitoring** > **Tracing**.
- c. Click 🖪 to view the value of the service code, which corresponds to the application code.

Figure 2-7 Viewing the service code

Tracing 🕥			Aug 22, 2023 10 03 GMT+05 00 Aug 23, 2023 10 03 GMT+	15.00 🛞 Last day 🔹 🖸 📴 User Gu
Search Criteri	ia C 1	View Call Parameter	×	< 1 2 3 4 5 6 … >
Region	• ••••• E	httpMethod:	Copy Command	200   6 ms Trace ID: v-1715173-1692796214288- 2752042
	More •	68T		200   4 ms
URL	Rest URL	x-user-type:	Copy Command	141606333 200   31 ma
Exact Search		system		Trace ID: 1724395-1692756214183-158920
		x-cse-src-microservice:	Copy Command	200   2 ms Trace ID: 1452447-1692756214138-3042609
	More *	CECCreleadervice		200 44 ms
Response Time	ms -	bizCode:	Copy Command	200 0 mm
Exception or	All	car. 0000		Trace ID: v-1715173-1692756214071- 2752038
Trace ID		prepare Time:	Copy Command	200   10 ms Trace ID: 1605701-1602756213067-1004241
		Oes		200   17 ms
Custom Parameter		handlersRequestTime:	Copy Command	Trace ID: 1715583-1692756214628-889680
Global Trace ID		0m		200 9 ms Trace ID: v-1691568-1692065535705-60
Application Code	CBC 0000	POST instalbackbockbockbockbockbockbockbockbockbockbo		200   2 ms Trace ID: 1695701-1692756213967-1004241
Search Trac	20	> GET Institute/boldbalgermissionsen/rev/licentration/waters		200   4 ms Trace ID: v-1715327-1692756213953- 2749681
		POST institutiobocrninforminformicio/v1/seconvicto_ans/     Aug 23, 2023 10:02:33 GMT+00:00		200   51 ms Trace ID: v-1715173-1692756213906- 2752032
		POST //estilibioichocrmikadservice/v1/lead/batch-suerv-leads/ D		200 4 ms

d. In the **Application Code** text box, enter the application code.

			5	1 5
Tracing ③				Aug 22, 2023 10:03 GMT+00:00 Aug 23, 2023 10:03 GMT+00:00 🔘 Last day
Search Criteri	ia Clea		) 28468193 records Successful Request Paled Request Response Time # Generated #	< 1 2 3
Region	• ( ) •		> GET./test/cbc/cbc/massfaale/service/r/list/ileoe/auecutess/Vist/ IS Aug 23, 2023 10:03:34 GMT+08:00	Trace ID: v-171
	More *		GET Avstickockobberninsionservice/v1/controlfieldvalues/ IB     Aug 23, 2023 10:03:34 GMT+08:00	Trace ID: 1150
URL	Rest URL +		> GET-itest/sbokbobiermissioners/sb/Houerusererermissionils/ R Aug 23, 2023 10:03:34 GMT+00:00	Trace ID: 1724395-11
Exact Search	0 0		> <u>DET institutiotutocustomerregennicaly/faccount/domain_isty</u> 02 Aug 23, 2023 10.03.34 OMT+08.00	Trace ID: 1452447-16
	More *		GET Avstickoldoloudbisevice/v16dstetch/report/themeDetal/     Aug 23, 2023 10:03:34 GMT+06:00	Trace ID: 1724305-11
Response Time	ms - ms		> <u>DET institute/tournetesaiessen/set/1/wsconfer(configurame)</u> / Aug 23, 2023 10:03:34 OMT+06:00	Trace ID: v-171
Not Trace ID		0	<u>GET Institichcicbccustmystervice/vilcustomer/coeration-data/customer_id/</u> Aug 23, 2023 10:05:34 CMT+06:00	Tracel ID: 1095701-101
Custom			POST Itestickockbocrmassisalesservice/v1/sustamenidetalls/     Aug 23, 2023 10:03:34 GMT+00:00	Trace ID: 1715583-11
Parameter Global Trace ID			> <u>QET institutionationationalise/ullocationaridentity-info/coatomer.idt</u> III Aug 23, 2023 10:03:34 OMT+08:00	Trace ID: v-16915
Application Code	CBC.0010		> POST Intellobol/baceutomemospervice/r1/accounti  Aug 23, 2023 10 03 34 GMT+06.00	Trace ID: 1095701-101
Search Trac			GET heskilokokokokemissionseniselv1kontrolfieldvalues/     Aug 23, 2023 10.03.33 GMT+08.00	Trace ID: v-171
			POST /real/sbockbccmintern/ce/r1/reasy/sbc_angl     Aug 23, 2023 10 03 33 GMT+06.00	Trace ID: v-171

Figure 2-8 Searching for the traces corresponding to the code

e. Click Search Trace. The results are displayed on the right.

----End

# **3** Connecting On-premises Services to APM

## Background

You cannot connect on-premises services to APM using Direct Connect. To access APM, configure a proxy.

## **Configuration Method**

If the network between your host and APM is disconnected, configure a proxy.

## **Step 1** Configure a proxy.

- 1. Log in to the AOM 2.0 console.
- 2. On the menu bar, choose **Collection Management**.
- 3. In the navigation tree on the left, choose **UniAgent** > **Proxy Areas**. The **Proxy Areas** page is displayed.
- 4. Click Add Proxy and set related parameters.

 $\times$ 

## Figure 3-1 Adding a proxy

Add Proxy	
★ Proxy Area	▼
★ Host	• C
	Tip: Select a host installed with a UniAgent.
★ Proxy IP Address	
★ Port	
	OK No

## Table 3-1 Parameters for adding a proxy

Parameter	Description	Example Value		
Proxy Area	Select the created <b>proxy area</b> .	region		
Host	Select a host where the UniAgent has been installed.	-		
Proxy IP Address	Set the IP address of the proxy.	-		
Port	Enter a port number, which cannot be greater than 65535.	-		

5. Click OK.

**Step 2** Configure the JavaAgent.

1. Download the JavaAgent package to any directory of the host to be connected to APM.

Example command:

curl -O https://xxx/apm-javaagent-x.x.x.tar
Download Agent 2.4.1: curl -k https://apm2-javaagent-cn-north-4.obs.cn-north-4.myhuaweicloud.com/
apm_agent_install2.sh -o apm_agent_install.sh && bash apm_agent_install.sh -ak {APM_AK} -sk
{APM_SK} -masteraddress https://xx.xx.xx.41333 -obsaddress https://apm2-javaagent-cn-
north-4.obs.cn-north-4.myhuaweicloud.com -version 2.4.1; history -cw; history -r

2. Run the **tar** command to decompress the JavaAgent package.

Example command: tar -xvf apm-javaagent-x.x.x.tar

3. Modify the **apm.config** file in the JavaAgent package. Add **apm.proxy** to the configuration file, as shown in the following figure.

## Figure 3-2 Configuration file

*apm.config -		-	×
naster.address=https:// access.key=ag7ł. secret.key=vRi	1333		^
og.level=debug event.thread.count=3 apm.proxy=			
¥access.address= app.name=helloworld #instance.name=			
#env={{env}}			
#env.tag=			
#decrypt.className=com.huawei.d	emo.DecryptDemo		
#decrypt.methodName=decrypt			

## **NOTE**

- Agents of 2.4.1 and later support access through a proxy. Format: apm.proxy=ip:port (Obtain ip:port from the AOM console.)
- To obtain an AK/SK, see Access Keys.
- To obtain the master.address, see Access Address (master.address).

### **Step 3** Restart the application.

1. Modify the startup script of the Java process.

Add the path of the **apm-javaagent.jar** package and the component name of the Java process to the end of the Java command in the service startup script. Example of adding **-javaagent** parameters:

java -javaagent:/xxx/apm-javaagent/apm-javaagent.jar=appName={appName}

2. Restart the application.

### ----End

## **4** Associating Traces with Logs

## **Application Scope**

Common log frameworks, such as Logback and Log4j.

## Example

<property name="LOG\_PATTERN" value="%d{yyyy-MM-dd HH:mm:ss.SSS}} | gtraceid: %X{apm-gtraceid} | traceid: %X{apm-traceid} | spanId: %X{apmspanid}">

</property>

## **Trace Parameters**

1. **apm-traceid**: unique ID of a trace collected by APM.

Figure 4-1 Unique ID of a trace

Search Criter	ia Clear	. (	1 record     1			
Application Region	APM (Default) *		Successful R POST A10 Oet 30, 2022	equest Failed Request Response approx/pagenapi/view/metric/trend	Time III Generated III	trace-id: unique ID of a trace collected by APM 200   32 ms 7mse 10: 1030077-1040003120300 200706
	More 👻		1 record			
URL	Rest URL +					
Exact Search	•					
	More 👻					
Response Time	ms - ms					
Exception or Not	Al v					
Trace ID	1833977-1698632129386-29076	0				
	<ul> <li>Other search criteria</li> </ul>					
Search Trai	2					

2. **apm-gtraceid**: unique ID of a trace which is not sampled.

## **NOTE**

APM has a certain sampling ratio. The **apm-gtrace-id** parameter is used to uniquely identify a trace that is not sampled.

3. apm-spanid: ID of a microservice called in a trace. Example:



## Figure 4-2 Calls between microservices