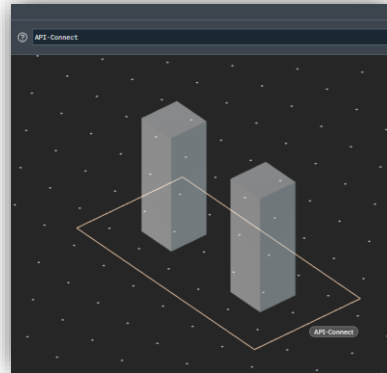
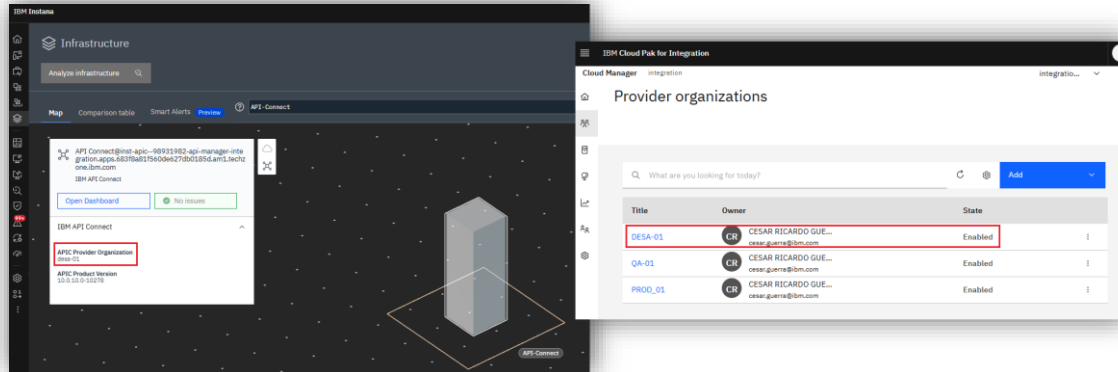


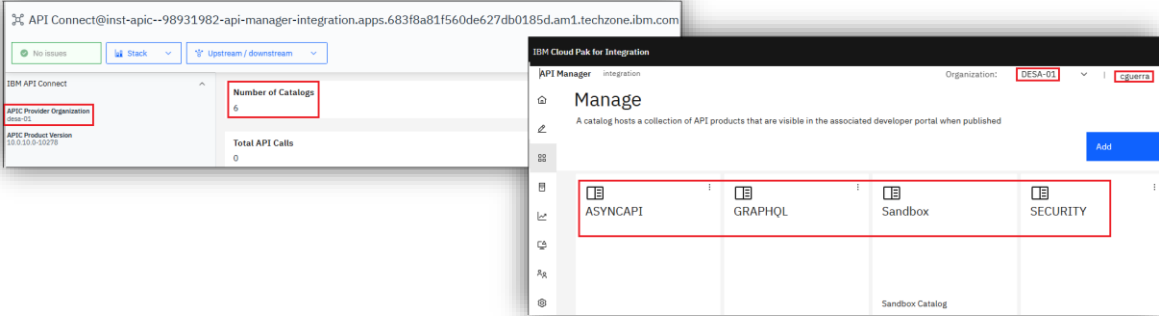
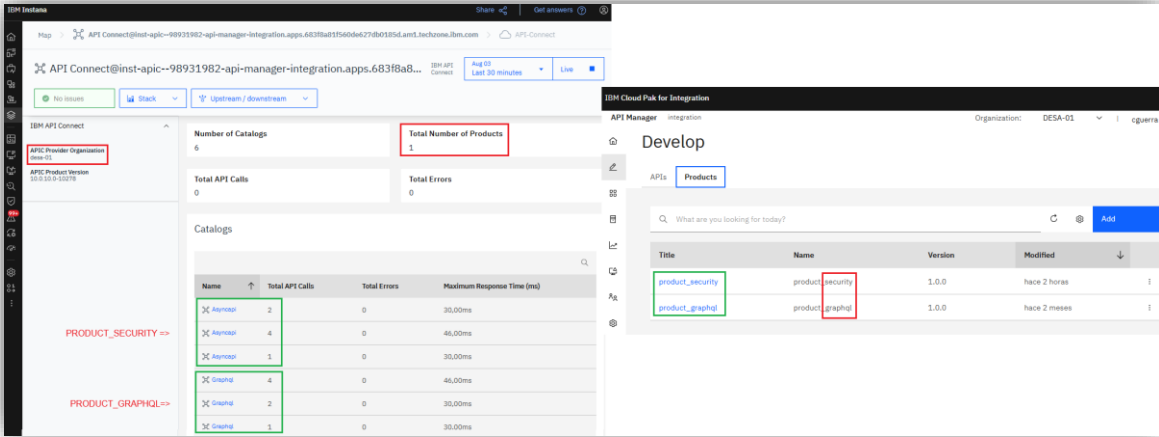
## TESTING: “APIC OBSERVABILITY WITH INSTANA”

The following document shows the tests performed after the **INTEGRATION** between the **IBM API CONNECT** and **INSTANA** capabilities.

### TEST SCENARIO:

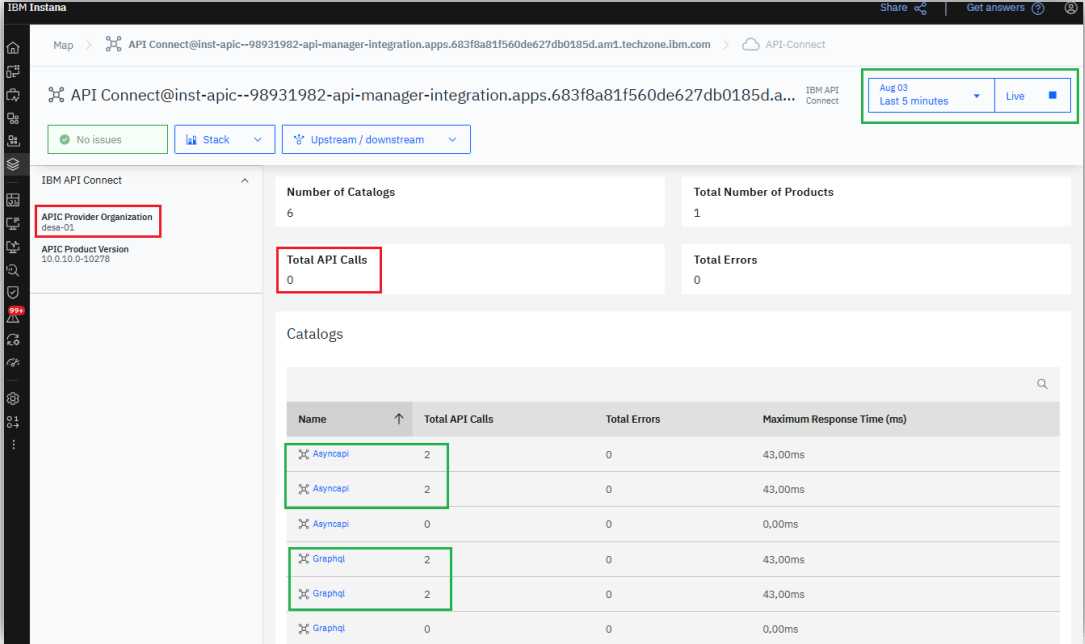
- ✓ **IBM API CONNECT:** v10.0.10.0
- ✓ **IBM API CONNECT OPERATOR:** v6.1.0
- ✓ **INSTANA:** <https://ibmdevsandbox-instanaibm.instana.io>
- ✓ **INSTANA OPERATOR:** v2.1.32
- ✓ **OPENSIFT:** v4.16.40

ORDER	VALIDATION DETAIL	EVIDENCE	RESULT												
1	Validate the connectivity between <b>INSTANA</b> and <b>APIC</b> , after the previous configuration has been performed.		<div>Correct</div> <div>Exist a <b>CONNECTION !,..</b> into <b>INSTANA</b> in the <b>INFRASTRUCTURE</b> option for the <b>TOWERS</b> associated with the <b>APIC</b> configuration appear.</div>												
2	Validation associated with the <b>RECOGNITION</b> of <b>APIC PROVIDER ORGANIZATIONS</b> within the <b>INSTANA DASHBOARD</b> .	 <table><tr><th>Title</th><th>Owner</th><th>State</th></tr><tr><td>DESA-01</td><td>CESAR RICARDO GUE... cesar.guerra@ibm.com</td><td>Enabled</td></tr><tr><td>QA-01</td><td>CESAR RICARDO GUE... cesar.guerra@ibm.com</td><td>Enabled</td></tr><tr><td>PROD_01</td><td>CESAR RICARDO GUE... cesar.guerra@ibm.com</td><td>Enabled</td></tr></table>	Title	Owner	State	DESA-01	CESAR RICARDO GUE... cesar.guerra@ibm.com	Enabled	QA-01	CESAR RICARDO GUE... cesar.guerra@ibm.com	Enabled	PROD_01	CESAR RICARDO GUE... cesar.guerra@ibm.com	Enabled	<div>Error</div> <div><b>INSTANA</b> on the <b>DASHBOARD</b> only identifies and displays the first <b>CONSUMER ORGANIZATION</b> created into the <b>APIC CLOUD-MANAGER</b>.</div>
Title	Owner	State													
DESA-01	CESAR RICARDO GUE... cesar.guerra@ibm.com	Enabled													
QA-01	CESAR RICARDO GUE... cesar.guerra@ibm.com	Enabled													
PROD_01	CESAR RICARDO GUE... cesar.guerra@ibm.com	Enabled													

3	<p>Validation associated with the <b>TOTAL</b> of <b>CATALOGS</b> identified by <b>INSTANA</b>, within the <b>PROVIDER ORGANIZATION</b> called: <b>desa-01</b>.</p>		<p><b>Error</b></p> <p><b>INSTANA</b> shows that there are: <b>6 CATALOGS</b> within the <b>PROVIDER ORGANIZATION: desa-01</b>, but into the <b>API-MANAGER</b> there are only: <b>4 CATALOGS</b>.</p>
4	<p>Validation of the <b>PRODUCTS</b> associated with the <b>APIs</b> being executed, within the <b>CATALOGS</b> into <b>PROVIDER ORGANIZATION: desa-01</b>.</p>		<p><b>Error</b></p> <p><b>INSTANA</b> shows only <b>1 PRODUCT</b> associated with the <b>APIs</b> that are being invoked, but <b>APIs</b> associated with <b>2 PRODUCTS</b> are being executed, shown on the same <b>INSTANA DASHBOARD</b>, but not recognized in: <b>TOTAL NUMBER OF PRODUCTS</b>.</p>

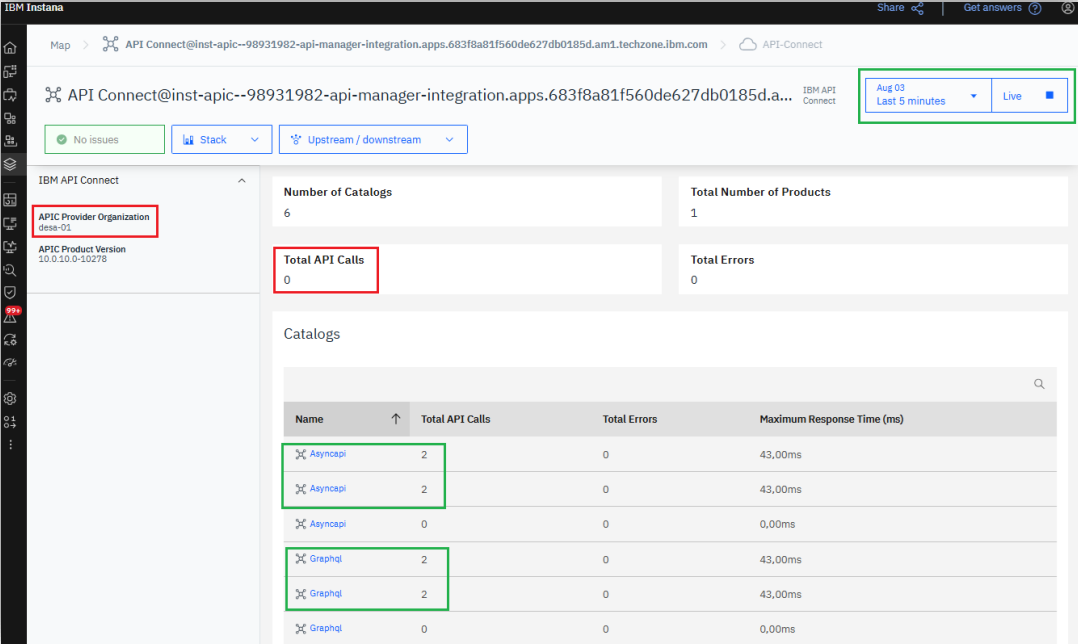
5

Validation of **API CALLS** identification  
running within the **PROVIDER**  
**ORGANIZATION:** **desa-01**.



Error

INSTANA shows that there are **APIs** being executed, but it does not count the **TOTAL REQUEST** (it always shows: **0 API CALLS**).

6	Validation of executed <b>APIs</b> running into the <b>PROVIDER ORGANIZATION: desa-01</b> .		<p><b>Error</b></p> <p>Manually, <b>30 REQUEST</b> were executed in <b>5 minutes</b>, from <b>3 different APIs</b> (associated with <b>2 different CATALOGS</b>).</p> <p>But <b>INSTANA</b> only showed <b>4 requests</b> from <b>APIs</b> in the <b>1st CATALOG</b> and <b>4 requests</b> from <b>APIs</b> in the <b>2nd CATALOG</b>.</p> <p>In addition, <b>INSTANA</b> only shows the number of requests, but doesn't show the <b>name</b> of the executed <b>API</b> (there's no way for the client to identify which one).</p>
7	<b>MASSIVE</b> validation of recognition of <b>APIs</b> executed within <b>PROVIDER ORGANIZATION: desa-01</b> .	<pre>for i in {1..100}; do     echo "Ejecución número: \$i"     curl -k -location https://inst-apic-01-gw-gateway-integration.apps.683f8a81f560de627db0185d.am1.techzone.ibm.com/desa-01/graphql/dummygraphql/service/graphql \     --header 'X-IBM-Client-Id: cf66646e1028d372ef505bc1078fc194' \     --header 'Content-Type: application/json' \     --header 'Cookie: 4d3003322ce62da5328bd823a77f8d43=e15c64c79bb35d82bb265fe542883e13' \     --data '{"query":"query{\r\n listarComidas{\r\n id\r\n nombre\r\n descripcion\r\n categoria\r\n precio\r\n ingredientes\r\n }\r\n listarClientes{\r\n id\r\n nombres\r\n apellidos\r\n edad\r\n dni\r\n direccion\r\n }\r\n}","variables":{}}'     echo -e "\n-----\n" done  for i in {1..100}; do     echo "Ejecución número: \$i"     curl -k -location https://inst-apic-01-gw-gateway-integration.apps.683f8a81f560de627db0185d.am1.techzone.ibm.com/desa-01/security/api-jwt-generate/gen-02' \     --header 'X-IBM-Client-Id: c642304aca85c378a368a8b538d26226' \     --header 'iss-claim: IBM' \     --header 'aud-claim: Workshop' \     --header 'sub-claim: Cesar Guerra' \     --header 'Content-Type: application/json' \     --header 'Cookie: 4d3003322ce62da5328bd823a77f8d43=e15c64c79bb35d82bb265fe542883e13' \     --data '{     {       "CAMPO": "nombre",       "VALOR": "Paul Vera"     },     {       "CAMPO": "edad",       "VALOR": "41"     },     {       "CAMPO": "pais",</pre>	<p><b>Error</b></p> <p><b>100 REQUESTs</b> were launched from <b>2 APIs</b> associated with <b>2 CATALOGS</b> within the same <b>PROVIDER ORGANIZATION: desa-01</b>.</p> <p>The result is that <b>INSTANA</b> didn't identify all the executed <b>REQUESTS</b>. Furthermore, it displayed them in <b>CATALOGs</b>, but there's no way to identify which <b>APIs</b> were executed.</p>

```
"VALOR": "Peru",
},
{
  "CAMPO": "direccion",
  "VALOR": "calle chinchero 121 La Molina",
}
}

echo -e "\n-----\n"
done
```

```
Ejecución número: 98
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
             Dload  Upload    Total   Spent    Left   Speed

100 1401    0 1124 100 277   2381    586 --:--:-- --:--:-- --:--:-- 2980["data":{"listarComidas":[{"id":1,"nombre":"Pa
50","ingredientes":"Masa, Salsa de tomate, Mozzarella, Albahaca"}, {"id":2,"nombre":"Ensalada César", "descripcion":"Lechuga r
ueso parmesano, Aderozo César"}, {"id":3,"nombre":"Tarta de Chocolate", "descripcion":"Postre dulce con base de bizcocho y col
te negro"}], "listarClientes":[{"id":4,"nombres":"Carlos Alberto", "apellidos":"Ramirez Soto", "edad":32, "dni":"12345678", "di
"direccion":"Jr. Las Flores 456, Arequipa"}, {"id":6,"nombres":"Jorge Luis", "apellidos":"Mendoza Quispe", "edad":45, "dni":"1
-----

Ejecución número: 99
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
             Dload  Upload    Total   Spent    Left   Speed

100 1401    0 1124 100 277   2433    590 --:--:-- --:--:-- --:--:-- 3039["data":{"listarComidas":[{"id":1,"nombre":"Pa
50","ingredientes":"Masa, Salsa de tomate, Mozzarella, Albahaca"}, {"id":2,"nombre":"Ensalada César", "descripcion":"Lechuga r
ueso parmesano, Aderozo César"}, {"id":3,"nombre":"Tarta de Chocolate", "descripcion":"Postre dulce con base de bizcocho y col
te negro"}], "listarClientes":[{"id":4,"nombres":"Carlos Alberto", "apellidos":"Ramirez Soto", "edad":32, "dni":"12345678", "di
"direccion":"Jr. Las Flores 456, Arequipa"}, {"id":6,"nombres":"Jorge Luis", "apellidos":"Mendoza Quispe", "edad":45, "dni":"1
-----

Ejecución número: 100
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
             Dload  Upload    Total   Spent    Left   Speed

100 1401    0 1124 100 277   2430    590 --:--:~ --:~:~ --:~:~ 3039["data":{"listarComidas":[{"id":1,"nombre":"Pa
50","ingredientes":"Masa, Salsa de tomate, Mozzarella, Albahaca"}, {"id":2,"nombre":"Ensalada César", "descripcion":"Lechuga r
ueso parmesano, Aderozo César"}, {"id":3,"nombre":"Tarta de Chocolate", "descripcion":"Postre dulce con base de bizcocho y col
te negro"}], "listarClientes":[{"id":4,"nombres":"Carlos Alberto", "apellidos":"Ramirez Soto", "edad":32, "dni":"12345678", "di
"direccion":"Jr. Las Flores 456, Arequipa"}, {"id":6,"nombres":"Jorge Luis", "apellidos":"Mendoza Quispe", "edad":45, "dni":"1
```

```
Ejecución número: 97
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
             Dload  Upload    Total   Spent    Left   Speed

100 618    0 353 100 265   788    586 --:~:~ --:~:~ --:~:~ 1370["jwt":"bearer eyJhbGciOiJIUzI1NiIsInR5cCI6ImlhbnRjuzUWtle
jQxliwifCpYi6ImlC3kxXlYmpb24101jYmksZS8jaGlvZ2hlcG9tIHR5bGUyS39lC3JlbnA10jE3NTQyQjE4QjpsImh0c19tC1ND11OD1yM000.q2u

-----

Ejecución número: 98
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
             Dload  Upload    Total   Spent    Left   Speed

100 618    0 353 100 265   722    542 --:~:~ --:~:~ --:~:~ 1268["jwt":"bearer eyJhbGciOiJIUzI1NiIsInR5cCI6ImlhbnRjuzUWtle
jQxliwifCpYi6ImlC3kxXlYmpb24101jYmksZS8jaGlvZ2hlcG9tIHR5bGUyS39lC3JlbnA10jE3NTQyQjE4QjpsImh0c19tC1ND11OD1yM000.q2u

-----

Ejecución número: 99
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
             Dload  Upload    Total   Spent    Left   Speed

100 618    0 353 100 265   809    607 --:~:~ --:~:~ --:~:~ 1420["jwt":"bearer eyJhbGciOiJIUzI1NiIsInR5cCI6ImlhbnRjuzUWtle
jQxliwifCpYi6ImlC3kxXlYmpb24101jYmksZS8jaGlvZ2hlcG9tIHR5bGUyS39lC3JlbnA10jE3NTQyQjE4QjpsImh0c19tC1ND11OD1yM000.q2u

-----

Ejecución número: 100
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
             Dload  Upload    Total   Spent    Left   Speed

100 618    0 353 100 265   628    471 --:~:~ --:~:~ --:~:~ 1103["jwt":"bearer eyJhbGciOiJIUzI1NiIsInR5cCI6ImlhbnRjuzUWtle
jQxliwifCpYi6ImlC3kxXlYmpb24101jYmksZS8jaGlvZ2hlcG9tIHR5bGUyS39lC3JlbnA10jE3NTQyQjE4QjpsImh0c19tC1ND11OD1yM000.q2u
```

