

Day 4

SAP Advanced Event Mesh – Distributed Tracing

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Day 4

Exercise: Enable Distributed Tracing

- Enable Distributed Tracing for your Default Env.

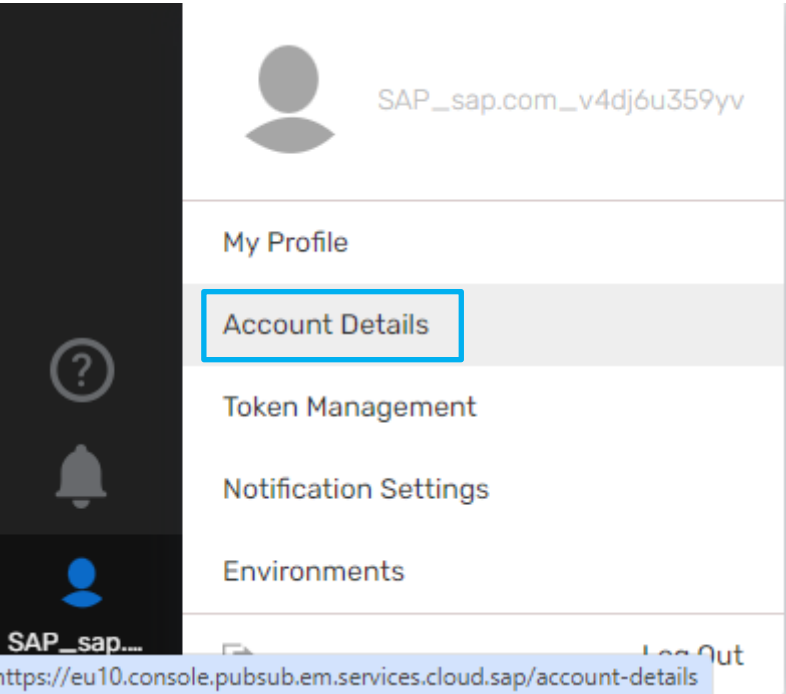
Prerequisites

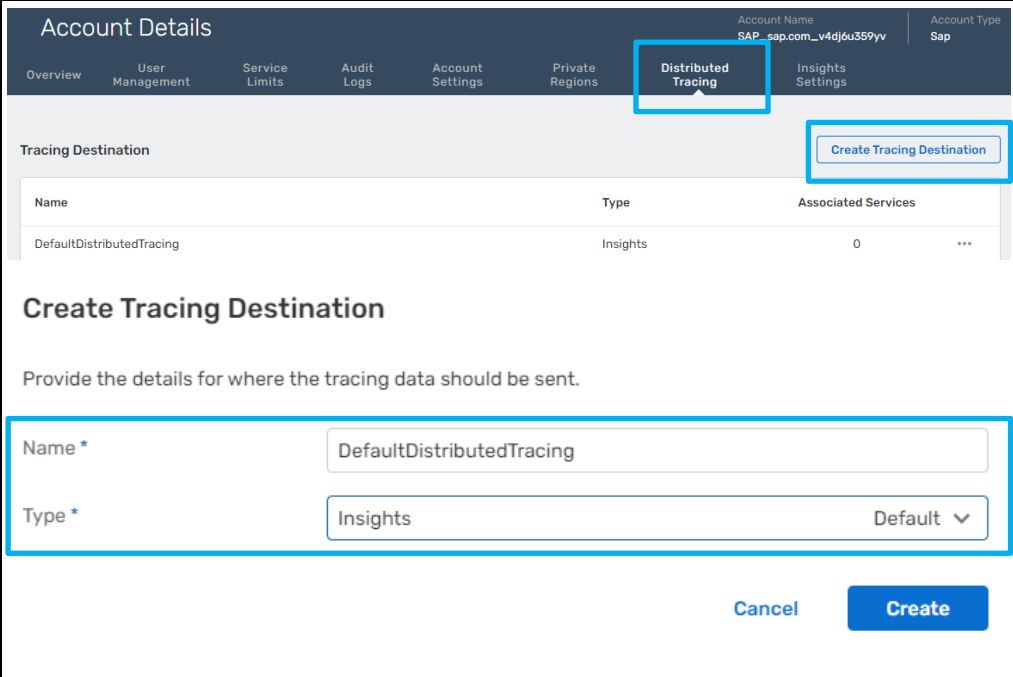
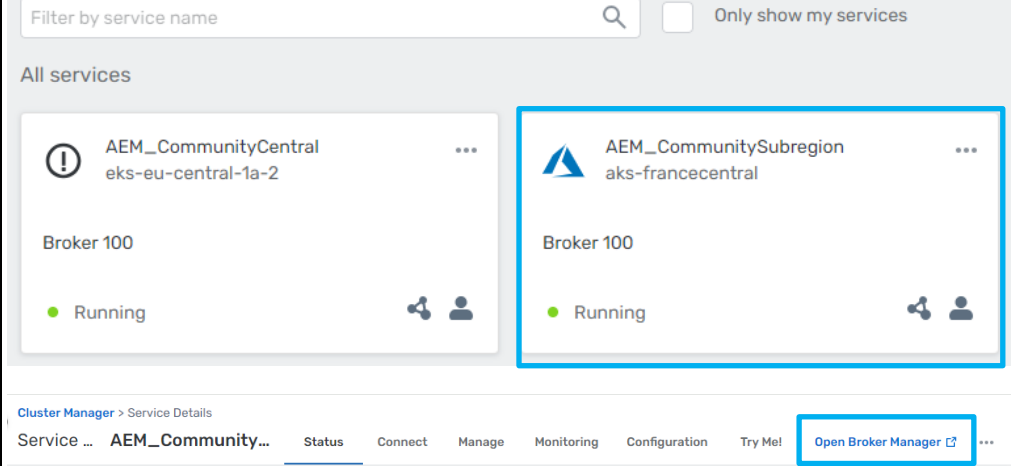
- You access and use the same broker you setup previously

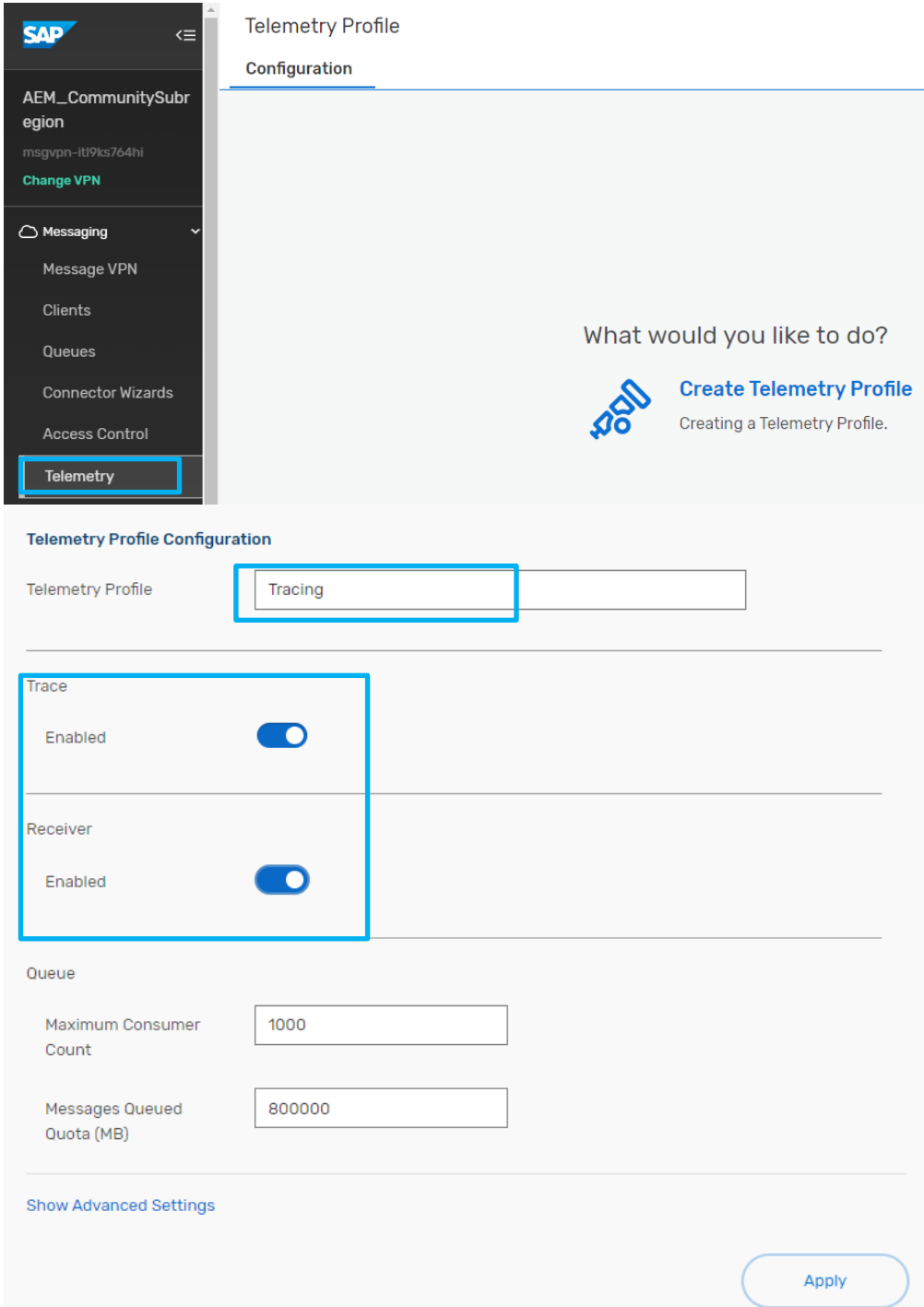
Day 4
Solution 1

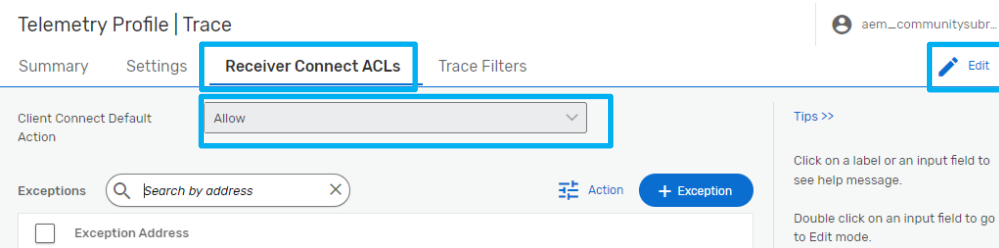
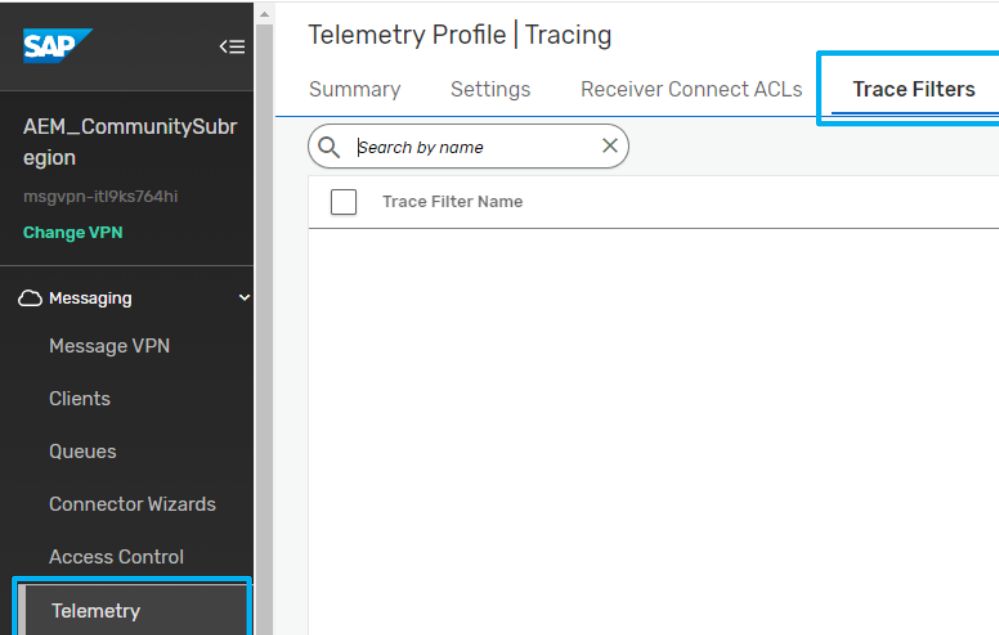
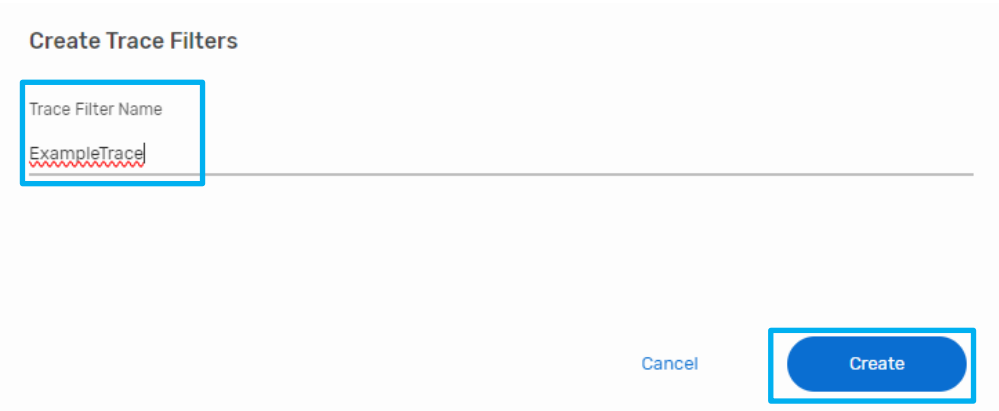
Solution 1: Enable Distributed Tracing

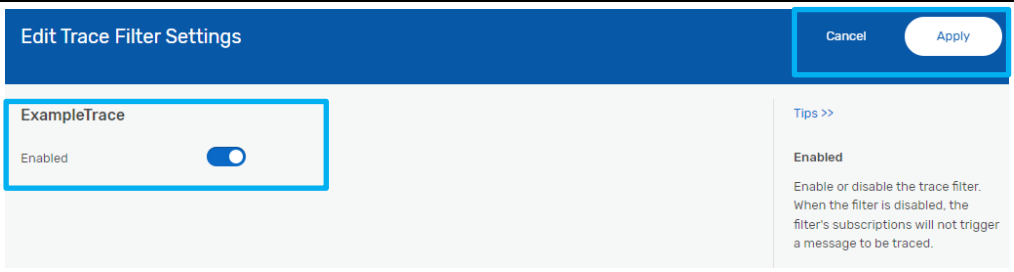
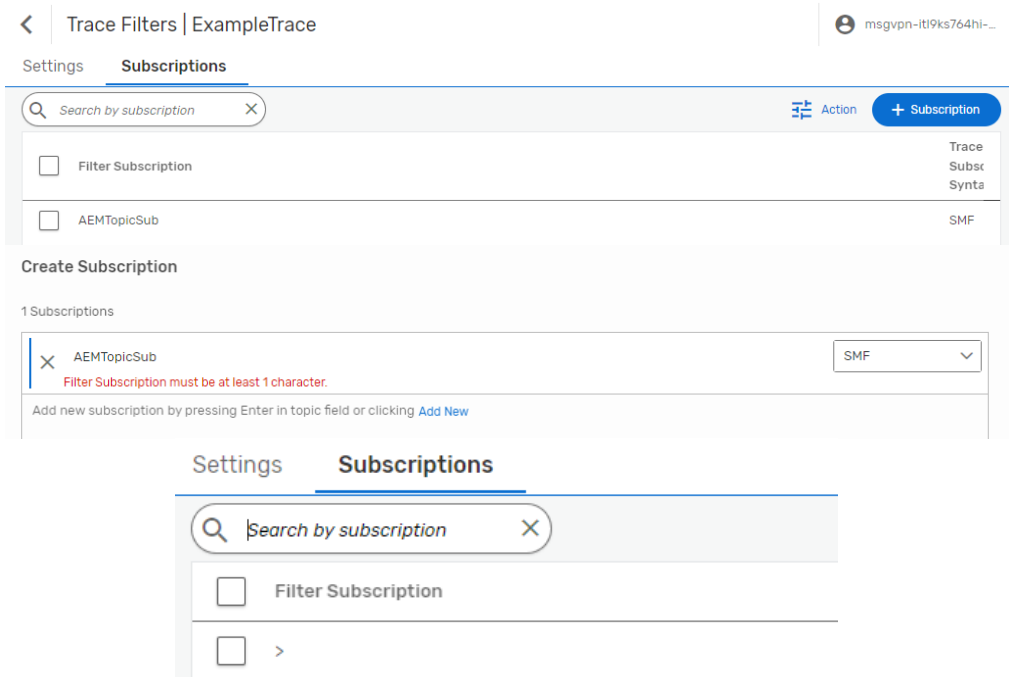
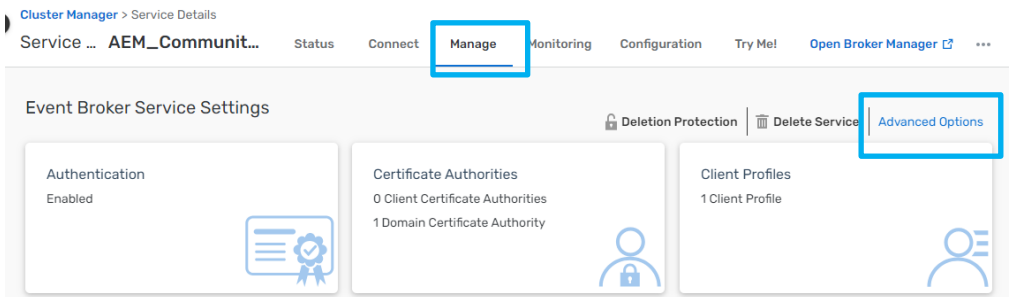
- Enable Distributed Tracing for your Default Env.
- Get an Understanding of Entry Points for Distributed Tracing across your Env.

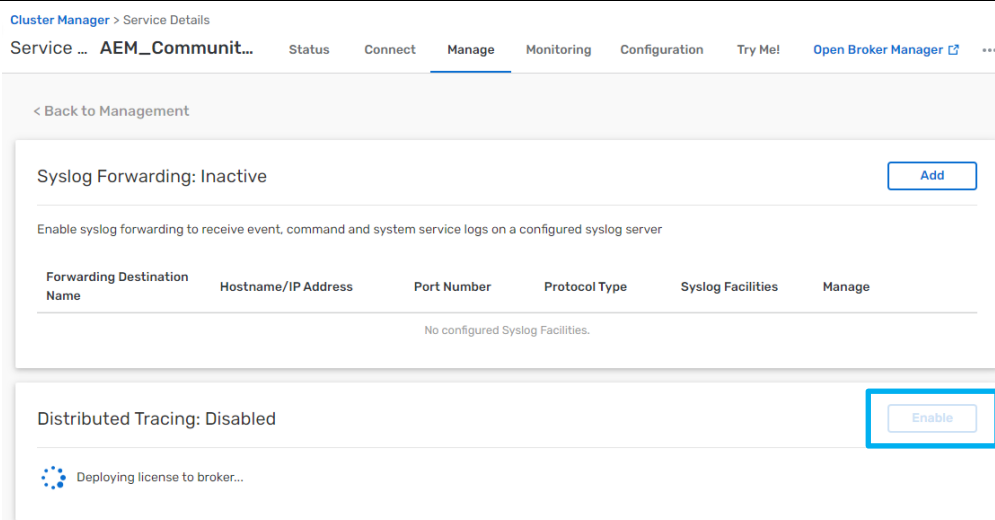
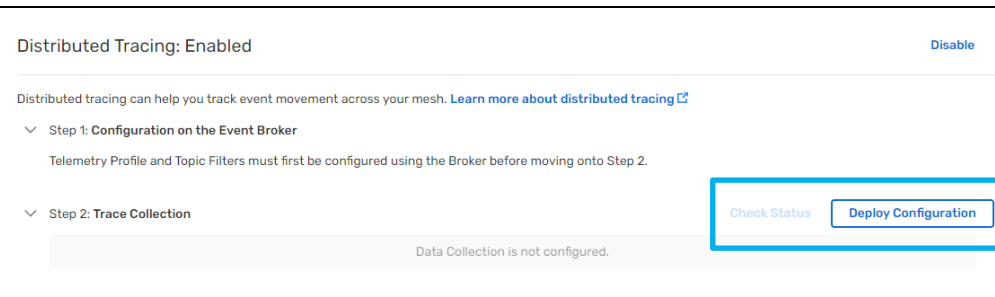
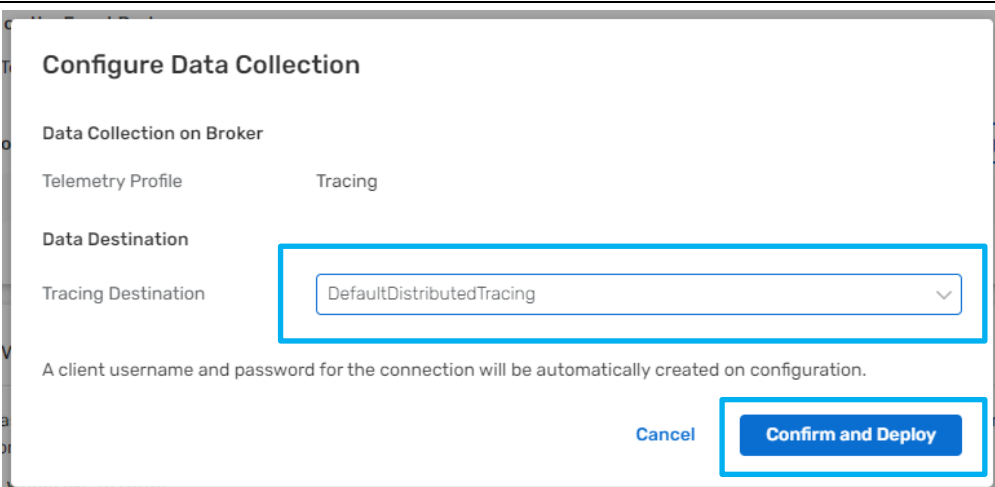
Explanation	Screenshot
Go to User & Account → Account Details	 A screenshot of the SAP User & Account interface. On the left is a dark sidebar with icons for a profile, help (?), notifications (bell), and a user icon. The main area shows a user profile for 'SAP_sap.com_v4dj6u359yv' with a 'My Profile' header. Below this is a list of menu items: 'Account Details' (highlighted with a blue box), 'Token Management', 'Notification Settings', and 'Environments'. At the bottom, there is a 'Log Out' button. A browser address bar at the very bottom shows the URL 'https://eu10.console.pubsub.em.services.cloud.sap/account-details'.

Explanation	Screenshot						
<p>Got to “Distributed Tracing” and create a new Tracing Destination.</p> <p>Per Default (with no additional configuration) it is AEM Insights.</p> <p>Name: DefaultDistributedTracing</p> <p>Type: <i>Insights</i></p> <p>External Tools can be also configured there. It is not party of the exercise.</p>	 <p>Account Details</p> <p>Account Name: SAP_sap.com_v4dj6u359yv Account Type: Sap</p> <p>Overview User Management Service Limits Audit Logs Account Settings Private Regions Distributed Tracing Insights Settings</p> <p>Tracing Destination</p> <table><tr><th>Name</th><th>Type</th><th>Associated Services</th></tr><tr><td>DefaultDistributedTracing</td><td>Insights</td><td>0 ...</td></tr></table> <p>Create Tracing Destination</p> <p>Provide the details for where the tracing data should be sent.</p> <p>Name * DefaultDistributedTracing</p> <p>Type * Insights Default ▾</p> <p>Cancel Create</p>	Name	Type	Associated Services	DefaultDistributedTracing	Insights	0 ...
Name	Type	Associated Services					
DefaultDistributedTracing	Insights	0 ...					
<p>Configure the Message Broker which needs to be included in Distributed Tracing</p> <p>Cluster Manager → Broker Service → Open Broker Manager</p>	 <p>Filter by service name</p> <p>Only show my services</p> <p>All services</p> <p>AEM_CommunityCentral eks-eu-central-1a-2</p> <p>Broker 100</p> <p>Running</p> <p>AEM_CommunitySubregion aks-francecentral</p> <p>Broker 100</p> <p>Running</p> <p>Cluster Manager > Service Details</p> <p>Service ... AEM_Community... Status Connect Manage Monitoring Configuration Try Me! Open Broker Manager ...</p>						

Explanation	Screenshot
Create a Telemetry Profile: Tracing	 <p>The screenshot shows the SAP AEM Telemetry Profile Configuration page. The left sidebar has a menu with 'Telemetry' highlighted. The main content area shows the 'Configuration' tab for a 'Telemetry Profile'. Under 'Telemetry Profile', the 'Tracing' profile is selected. Below this, the 'Trace' and 'Receiver' sections are both set to 'Enabled' with toggle switches. At the bottom, the 'Queue' section shows 'Maximum Consumer Count' set to 1000 and 'Messages Queued Quota (MB)' set to 800000. A 'Show Advanced Settings' link is at the bottom left, and an 'Apply' button is at the bottom right.</p>

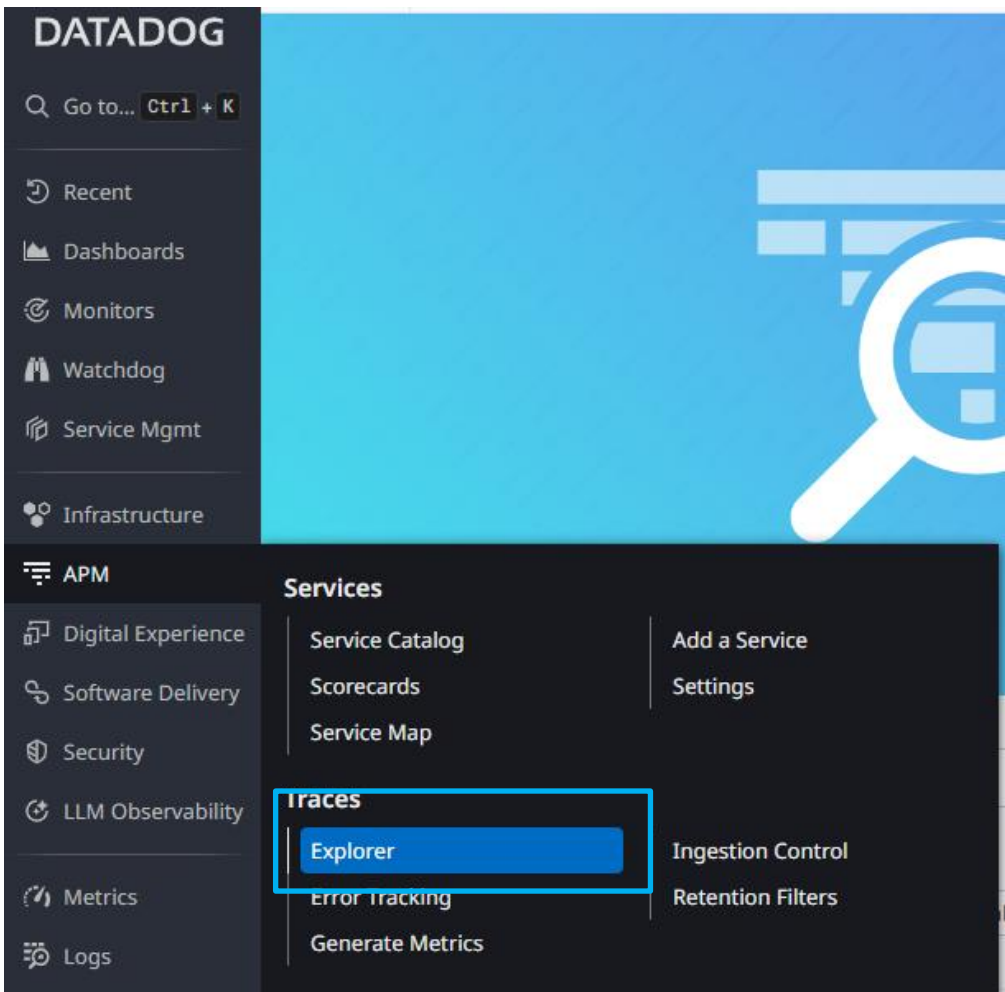
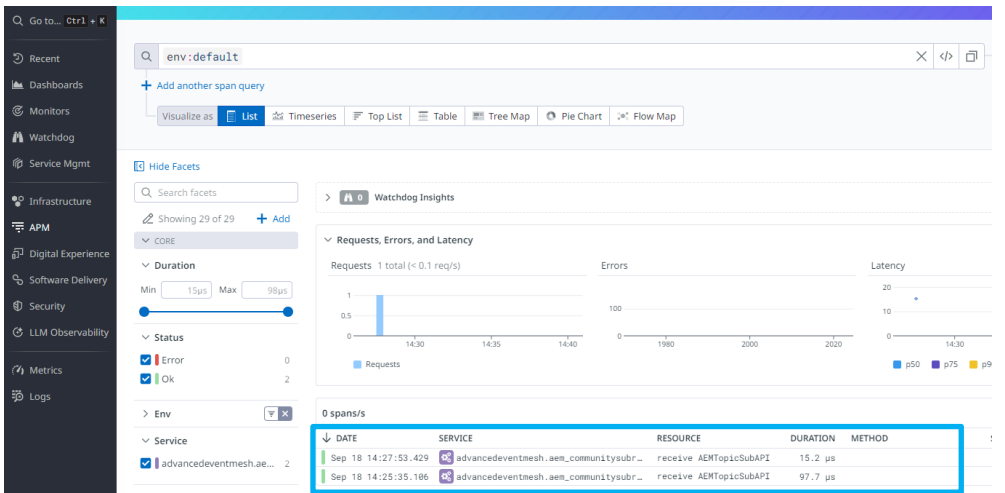
Explanation	Screenshot
Edit the Tab “Receiver Connect ACLs” to “Allow”	 <p>Telemetry Profile Trace</p> <p>Summary Settings Receiver Connect ACLs Trace Filters Edit</p> <p>Client Connect Default Action: Allow</p> <p>Exceptions <input type="text" value="Search by address"/> Action + Exception</p> <p><input type="checkbox"/> Exception Address</p> <p>Tips >> Click on a label or an input field to see help message. Double click on an input field to go to Edit mode.</p>
Go To TraceFilters	 <p>SAP AEM_CommunitySubregion msgvpn-iti9ks764hi Change VPN</p> <p>Messaging Message VPN Clients Queues Connector Wizards Access Control Telemetry</p> <p>Telemetry Profile Tracing</p> <p>Summary Settings Receiver Connect ACLs Trace Filters</p> <p><input type="text" value="Search by name"/></p> <p><input type="checkbox"/> Trace Filter Name</p>
Create new Trace Filter: ExampleTrace	 <p>Create Trace Filters</p> <p>Trace Filter Name: ExampleTrace</p> <p>Cancel Create</p>

Explanation	Screenshot
	
Add a new Subscription for example: AEMTopicSub Or to be more generic >	
Enable the Message Broker Service for Distributed Tracing Cluster Manager → Manage → Advanced Option	

Explanation	Screenshot												
<p>“Enable” Distributed Tracing</p>	 <p>Cluster Manager > Service Details Service ... AEM_Communit... Status Connect Manage Monitoring Configuration Try Me! Open Broker Manager > ...</p> <p>< Back to Management</p> <p>Syslog Forwarding: Inactive Add</p> <p>Enable syslog forwarding to receive event, command and system service logs on a configured syslog server</p> <table><tr><th>Forwarding Destination Name</th><th>Hostname/IP Address</th><th>Port Number</th><th>Protocol Type</th><th>Syslog Facilities</th><th>Manage</th></tr><tr><td colspan="6">No configured Syslog Facilities.</td></tr></table> <p>Distributed Tracing: Disabled Enable</p> <p>Deploying license to broker...</p>	Forwarding Destination Name	Hostname/IP Address	Port Number	Protocol Type	Syslog Facilities	Manage	No configured Syslog Facilities.					
Forwarding Destination Name	Hostname/IP Address	Port Number	Protocol Type	Syslog Facilities	Manage								
No configured Syslog Facilities.													
<p>Once enabled the system allows you to deploy the configuration from the step Configure the Message Broker (step before), therefore click on Deploy Configuration.</p>	 <p>Distributed Tracing: Enabled Disable</p> <p>Distributed tracing can help you track event movement across your mesh. Learn more about distributed tracing</p> <p>Step 1: Configuration on the Event Broker Telemetry Profile and Topic Filters must first be configured using the Broker before moving onto Step 2.</p> <p>Step 2: Trace Collection Check Status Deploy Configuration</p> <p>Data Collection is not configured.</p>												
<p>Select the Tracing Destination “DefaultDistributedTracing”</p> <p>Deploy</p> <p>The Message Broker will register itself top the underlying Tracing Destination. This setup can take some seconds.</p>	 <p>Configure Data Collection</p> <p>Data Collection on Broker</p> <p>Telemetry Profile Tracing</p> <p>Data Destination</p> <p>Tracing Destination DefaultDistributedTracing</p> <p>A client username and password for the connection will be automatically created on configuration.</p> <p>Cancel Confirm and Deploy</p>												

Explanation	Screenshot
Done	<div><div>Distributed Tracing: Enabled Disable</div><div>Distributed tracing can help you track event movement across your mesh. Learn more about distributed tracing</div><div>> Step 1: Configuration on the Event Broker</div><div>▼ Step 2: Trace Collection Active Check Status Update Configuration</div><div><div>Collector is running.</div><div>Connection to the service is active.</div></div><div><div>Tracing Destination</div><div>DefaultDistributedTracing1</div><div>Telemetry Profile</div><div>Trace</div></div><div><div>Tracing Client Username</div><div>sc-dt-trace-collector</div></div></div>
Part 2	
Publish via REST API on API Topic and on API Queue	<div><div>▼ Blogs - Advanced Event Mesh API share</div><div>> SEMP(v2)</div><div>> REST API(v2)</div><div>▼ Example REST Eventing</div><div>POST publish topic</div><div>POST publish on API topic</div><div>POST publish queue</div><div>POST publish on API queue</div></div> <div><div>Blogs - Advanced Event Mesh API share / Example REST Eventing publish on API topic Save Share</div><div>POST https://({broker}).messaging.solace.cloud:9443/topic/({TopicName})API Send</div><div><div>Params</div><div>Authorization</div><div>Headers (13)</div><div>Body</div><div>Scripts</div><div>Settings</div><div>Cookies</div></div><div><div>Auth Type</div><div>Basic Auth</div><div>The authorization header will be automatically generated when you send the request. Learn more about Basic Auth authorization.</div><div>Username</div><div>{{solace-cloud-client}}</div><div>Password</div><div>{{solace-cloud-client_pw}}</div><div>Heads up! These parameters hold sensitive data. To keep this data secure while working in a collaborative environment, we recommend using variables. Learn more about variables.</div></div><div><div>Body</div><div>Cookies (1)</div><div>Headers (4)</div><div>Test Results</div><div>Status: 200 OK Time: 284 ms Size: 160 B Save as example</div></div></div>

Explanation	Screenshot																					
	<p>Blog - Advanced Event Mesh API share / Example REST Eventing / publish on API queue Save Share</p> <p>POST https://((broker)).messaging.solace.cloud:9443/queue/((QueueName))API Send Cookies</p> <p>Params Authorization Headers (13) Body Scripts Settings</p> <p>Query Params</p> <table><thead><tr><th>Key</th><th>Value</th><th>Description</th><th>*** Bulk Edit</th></tr></thead><tbody><tr><td>Key</td><td>Value</td><td>Description</td><td></td></tr></tbody></table> <p>Body Cookies (1) Headers (4) Test Results Status: 200 OK Time: 46 ms Size: 160 B Save as example</p>	Key	Value	Description	*** Bulk Edit	Key	Value	Description														
Key	Value	Description	*** Bulk Edit																			
Key	Value	Description																				
Crosscheck in UI	<p>Queues Topic Endpoints Templates</p> <p>Search by name</p> <table><thead><tr><th>Queue Name</th><th>Incoming</th><th>Outgoing</th><th>Access Type</th><th>Partition Count</th><th>Messages Queued (%)</th><th>Messages</th></tr></thead><tbody><tr><td>#telemetry-Trace</td><td>Off</td><td>On</td><td>Non-Exclusive</td><td>0</td><td></td><td>0</td></tr><tr><td>AEMQueueAPI</td><td>On</td><td>On</td><td>Exclusive</td><td>0</td><td></td><td>4</td></tr></tbody></table>	Queue Name	Incoming	Outgoing	Access Type	Partition Count	Messages Queued (%)	Messages	#telemetry-Trace	Off	On	Non-Exclusive	0		0	AEMQueueAPI	On	On	Exclusive	0		4
Queue Name	Incoming	Outgoing	Access Type	Partition Count	Messages Queued (%)	Messages																
#telemetry-Trace	Off	On	Non-Exclusive	0		0																
AEMQueueAPI	On	On	Exclusive	0		4																
Result: at least 2 messages via API created Queues																						
Check trace in DataDog	<p>SAP Insights Account Overview</p> <p>Alerts & Warnings View in Datadog</p> <p>Current</p> <p>0 Alert 1 Warning</p> <p>Past 24h 1 Total Notifications</p> <p>Your Notifications History (24 hours) View in Datadog</p> <p>Alert Notifications Warning Notifications Resolved Notifications</p> <p>Sep 17 2PM Sep 17 3PM Sep 17 4PM Sep 17 5PM Sep 17 6PM Sep 17 7PM Sep 17 8PM Sep 17 9PM Sep 17 10PM Sep 17 11PM Sep 18 12AM Sep 18 1AM Sep 18 2AM Sep 18 3AM Sep 18 4AM Sep 18 5AM Sep 18 6AM Sep 18 7AM Sep 18 8AM Sep 18 9AM Sep 18 10AM Sep 18 11AM Sep 18 12PM Sep 18 1PM Sep 18 2PM</p>																					
Go to: Insights → View in Datadog																						

Explanation	Screenshot
<p>Navigate on the left side to: APM (Advanced Performance Monitoring) – Traces - Explorer</p>	
<p>Check your Trace files.</p> <p>Per default number of basis filters are available.</p> <p>Date & Time information Status: Error or Ok Error details (in case of errors) Span kind etc.</p>	
<p>Congratulations! You successfully completed the Exercise</p>	

