

Questions and Answers (Q&A)
Concerning the Request for Proposal
ESB and API Manager for Application Data Integration

No .	Question from the Bidder				Answer from the IAEA Requesting Office/ Office of Procurement Services		
Q&A no. 1; Release date: 27 September 2019							
1.	<p>We are providers IT solutions that covers the scope of the tender, but we have a doubt regarding the understanding of the requirements. Let me please express our doubt in case you may provide clarification:</p> <p>In the description for the application it is required on-premise installation and also SaaS/iPaaS Solution (please see highlighted in yellow). Also in the Annex 2 it is stated that both on-site + SaaS are required for the ESB component (Lot 1):</p>				<p>On-premise and SaaS solutions are options that Bidders can bid either for one of them or both as indicated in the SoW and Special Instructions to Bidders. Regarding Annex 2 and Annex 3, please refer to the “Instructions to Bidders” section at the bottom of each table for guidance on responding to the requirements, last point of which states: “Depending on the bidding option selected by the bidder, only one or both of the requirements ESB-R001, ESB-R002 might be applicable.” Please respond accordingly.</p>		
	ESB-R001	ESB - Deployment	ESB Product shall support on-premise installation. (Please see Instructions to Bidder below)	Functional			Must-Have
	ESB-R002	ESB-Deployment	ESB shall provide a SaaS, iPaaS solution (monthly/yearly subscription-based licensing with all components running on a cloud data centre in Europe). (Please see Instructions to Bidder below)	Functional			Must-Have

	<p>However, in the SOW and in the PRICE SHEET it seems that on-premise Vs SaaS/iPaaS are options that the vendor may choose. In our case, WE DO NOT SUPPORT ON-PREMISE IMPLEMENTATIONS (on-premise ESB technologies is a quite obsolete technology nowadays) BUT WE DO PROVIDE SaaS / iPaaS Solution.</p> <p>We wonder if you may clarify whether On-Premise & SaaS/iPaaS are options that we as vendors may chose or they two both are compulsory to submit the offer.</p>	
2.	<p>I received your RFI "ESB and API Manager for Application Data Integration". Thanks for considering [Bidder's name removed] However, I could not see any Q&A session or even date proposals for a technical product demonstration.</p> <p>Could you pls. clarify how to ensure transparency for both sides?</p>	<p>Please send us your company's proposal and the IAEA will perform the technical evaluation. If your company's proposal fulfils the technical requirements, then the IAEA will schedule a demo presentation and notify the Bidder(s) accordingly.</p>
Q&A no. 2; Release date: 9 October 2019		
3.	<p>We are a provider of IT solutions that covers the scope of the tender, but we have a doubt regarding the understanding of the requirements. Let me please express our doubt in case you may provide clarification:</p> <p>In the description for the application it is required API Manager shall provide the capability to integrate with Swagger & API blueprint for the API documentation (created using Swagger and API Blueprint) for the API component (Lot 2).</p> <p>Can you please confirm that the "&" between Swagger & API blueprint <u>is meant to be an "AND" not an "OR"</u>. We have not seen customers asking for API Blueprint until now. Our research brought up apiary, which Oracle bought in 2017.</p>	<p>The preference is for the solution to support both; however, we will consider solutions that support one or the other.</p>
4.	<p>Do you have an allocated team for the project?</p>	<p>Yes, there is an allocated team.</p>

5.	Do you have a subscription with a cloud provider? or are you seeking for a solution with managed cloud (a separate team maintaining the infrastructure, PaaS etc) ?	The details of our requirements for the solution and for cloud providers are outlined in the SOW and the Annexes – we have no additional information to share here.
6.	Are you intending to replace an existing solution ? if so, do you require IAM (Identity and Access Manager) as well ?	We are not replacing an existing real-time integration solution.
7.	Can we get the Word version of the Documents?	Tender-related documents that require Bidder's response are provided in Microsoft Word or Microsoft Excel Format; all other materials are provided in PDF format.
8.	We have not received a draft contract. Will this be sent to us ?	Draft Contract distributed on 08-Oct-2019.
9.	ESB-R002 - By SaaS applications do you mean Webapps ? could you elaborate the types of applications more ?	It means that the ESB shall be provided in a Software as a Service (SaaS) model, iPaaS solution (monthly/yearly subscription-based licensing with all components running on a cloud data centre in Europe).
10.	ESB-R013 - Can you elaborate more on all the WS-* standards you expect the solution to support ?	ESB shall support Web Services Standards like WS-Security, WS-RM etc.
11.	ESB-R033 - Apart from having active-active setup within the DC, do you also intend to have a multi-DC active active. (i.e across DCs there will be geographical load balancing and both DCs will be active at the same time).	Yes, we intend having active-active across multiple data centres.
12.	What is the expected amount of load the ESB should handle (load in Transaction Per Second/TPS) ? also what will be the size of the messages the ESB should handle ?	<p>We do not have currently a precise indication of these performance parameters. Please refer to the ranges below.</p> <p>TPS → 500 - 1000 (and scalable).</p> <p>Message size → 50KB - 1MB (and scalable).</p> <p>In any case, the solution proposed should be scalable to accommodate any changes in such performance parameters. Please indicate in your proposal what are the implications for scalability.</p>

13.	<p>Could you elaborate more on the use cases the ESB should address (i.e how many SOAP/Rest services, number of JMS queues/topics the system should integrate with etc - this is to get an idea on the amount of effort which will be required to implement the integration flows)</p>	<p>The use cases for the ESB are still being elaborated; however, delivery of these use cases is not in the scope of this SOW.</p>
14.	<p>Do you have a Message Broker already ? do you intend to have a broker as a part of this solution ? (this would relate to JMS integrations specified in the ESB specification)</p>	<p>No – we do not have a Message Broker today. If one is necessary for the solution being proposed to deliver our requirements, please propose accordingly.</p>
15.	<p>Do you have a Business Process Server/Workflow engine already ? or do you require a workflow engine to be a part of the solution (this is related to approval flows specified in the API Management Specification)</p>	<p>If the question refers to requirement AMP-R020 in Annex 3 of the SOW, it is expected that basic workflow administration be part of the API Manager itself.</p>
16.	<p>AMP-R007 - By API catalog are we referring to API Store where API application developers could login and view the published APIs ? if not could you elaborate on this a little bit further ?</p>	<p>The API Catalogue would be part of the API developer portal of the dashboard. It should be the central place to manage which APIs the registered developers have access to.</p>
17.	<p>AMP-R001 - In addition to having hybrid API development with multi DC API management deployment, do you also intend to have a separation of traffic i.e internal API traffic should be diverted through an internal gateway and external traffic should be diverted through external.</p>	<p>This is not a current requirement; however, it could be a future scenario. Please provide your solution proposal and we will consider accordingly.</p>

18.	<p>Concerns</p> <p>Request for CV's of engineers</p> <p>Support - Generally when tickets are raised they are picked up by an available member from the support team at the time it is raised. We do not allocate members specifically to an account. Therefore we will be unable to share CV's of specific engineers. However you can visit our web page under below link where you can see the resource pool we have.</p>	<p>The CVs of the Contractor's core team personnel working on this engagement shall be made available. CVs of Help Desk staff have not been required in the RFP.</p>
19.	<p>Please provide details of PoC scope – Source system, target systems & details of operation.</p>	<p>The scope of this procurement does not include the delivery of a Proof-of-Concept. Vendor support for that effort will be done via a time and materials engagement.</p>
20.	<p>Please provide the details of expected deliverables from the PoC</p>	<p>The scope of this procurement does not include the delivery of a Proof-of-Concept. Vendor support for that effort will be done via a time and materials engagement.</p>
21.	<p>Please let us know details of key parameters/ criteria against which the PoC will be evaluated and based on which IAEA would decide its continuation or discontinuation?</p>	<p>The key criterion is successful implementation of the selected solution by fulfilling all the requirements as specified in the SOW.</p>
22.	<p>Is IAEA looking to receive just one option as a solution for both the Lots? In the event that a vendor suggests more than one suitable solution, does IAEA expect a PoC on all the options suggested?</p>	<p>Please refer to Section 2.2, paragraph 3 and Section 2.3, paragraph 6 of the Special Instructions to Bidders document. The IAEA will execute the Pilot integration project with one software component/solution from Lot 1 and one software component/solution from Lot 2; OR one software component/solution from Lot 3.</p>
23.	<p>How many environments are in scope for PoC and full implementation?</p>	<p>For the Pilot integration project, it is foreseen one environment. For the full scope implementation there will be at least two or more environments (e.g. production environment, DR environment, test environment, development environment).</p>

24.	How many integrations are in scope for PoC?	The scope of this procurement does not include the delivery of a Proof-of-Concept. Vendor support for that effort will be done via a time and materials engagement.
25.	Does Phase 2 scope include implementation also or limited to maintenance and support?	In Phase 2, based on the results of Phase 1 and subject to the Contractor's performance during that phase, the IAEA will have the option, to be exercised at its discretion, to purchase the software components/solution, upon which the Contractor shall provide maintenance and support for a period of five (5) years. Implementation of Phase 2 is not in the scope of this procurement.
26.	Please share the list of all integrations with applications and data source details.	The use cases for integration are still being elaborated; however, delivery of these use cases is not in the scope of this SOW. The SOW and its Annexes provide an overview of the types of integrations that will be implemented using this solution.
27.	Do you have any DB/app in scope from Azure cloud?	Yes.
28.	We understood that all non-ERP applications are hosted in Microsoft Azure. Is that understanding correct?	No. While some applications are hosted in Azure, IAEA supports multiple hosting models – on premises, off premises, MS Azure, SaaS, etc.
29.	Is IAEA planning to migrate the Oracle ERP to the cloud in the near future?	The IAEA has no immediate plans to migrate the entire Oracle ERP to the cloud; however, it is possible that we would consider moving some or all components of the ERP to the cloud in the future.
30.	What is the SQL Server version being used?	SQL Server 2016 is the most common version being used.
31.	Is there any middleware solution in place connecting the ERP with other applications? If so, please share the details.	There is no real time middleware solution in place currently. There is an ETL solution in place interfacing the ERP with other applications. The ETL solution is not in the scope of this procurement.
32.	Is IAEA expecting the vendor to provide solution and pricing for both on-Premise and cloud or is it okay for vendor to provide the recommendation?	Please refer to Section 2.2, paragraph 3 and Section 2.3, paragraph 6 of the Special Instructions to Bidders document. It is up to the Bidder to choose which option to bid for – or to provide options for both. The IAEA has left the options opened as described in the RFP documentation and will consider accordingly.

33.	Are there any performance SLAs for real-time transactions?	Please provide the performance indicators in the proposal and they will be considered accordingly.
34.	What is the volume of messages being exchanged through APIs?	We cannot provide you with an exact figure of the volume of messages; however, we would request that the solution is scalable to meet a growing utilization of the platform.
35.	Does IAEA have any preference for any tool(s) for ESB and API Manager?	The IAEA is expecting to receive proposals on software components/solutions as specified in the RFP documentation.
36.	Is IAEA open to a fully cloud based solution or would you prefer on-prem + cloud	Please refer to Section 2.2, paragraph 3 and Section 2.3, paragraph 6 of the Special Instructions to Bidders document. It is up to the Bidder to choose which option to recommend. The IAEA has left the options open as described in the RFP documentation and will consider accordingly.
Q&A no. 3; Release date: 10 October 2019		
37.	From the SOW its understood that ESB will expose the APIs with the data from source systems . Is there any inputs on how many number of API (in terms of methods / functions) that are required to be developed ?	The use cases for integration are still being elaborated and there is no specific number of APIs to be developed; however, delivery of these use cases is not in the scope of this SOW. The SOW and its Annexes provide an overview of the types of integrations that will be implemented using this solution.
38.	From SOW , its understood that the source system will expose API to the ESB platform . Is there any other form of interface (like database , File ,JMS etc) to be also considered ?	Please refer to Annex 2 – ESB Specifications of the SOW, requirement number ESB-R019.
39.	Shall we consider to expose API in ESB and API as RESTfull service ?	Please refer to Annex 2 – ESB Specifications of the SOW, requirement number ESB-R008 and ESB-R009.

Q&A no. 4; Release date: 15 October 2019		
40.	<p>Your must-have requirement ESB-R021 lists required compliance to DMARC, by using both DKIM and SPF for sending emails. Very probably to prevent automated workflow etc. emails sent in behalf of IAEA not to be treated as unsolicited Mail (Spam) by recipient's ISPs. As we fully understand that this requirement is mandatory for you, we assume this requirement to be out of scope for this RfP.</p> <p>From our understanding, both DMARC and SPF are Domain Name System (DNS) related, have to be applied to your IAEA domain / DNS settings. Additionally, we assume DKIM has to be part of your IAEA's Mail Transfer Agent (MTA) setup. In most of the other installations email processing from our solutions is always based as a SMTP client, connecting to your SMTP relay, mostly an MTA like Postfix, Exim, or MS Exchange, and delivering emails for further processing and delivery. Since we see this as a configuration topic of the email server environment we assume this is not in the scope of this RFP?</p>	<p>Any system sending emails on behalf of IAEA (XXXXXX@iaea.org) or any subdomain should be DMARC compliant. In order to setup this capability, there is an expectation that there will be configuration requirements on the solution proposed as well as on the IAEA side.</p>
41.	Please confirm that the planned throughput of the ESB is 500-1000 transactions per SECOND. This would sum up to 1.8 to 3.6 Mio. transactions per HOUR and 43-86 Mio. transactions per DAY	The throughput ranges listed in question 12 are an estimated range for peak throughput and not an indication of sizing.
42.	Should all the projected transactions be handled by the API Gateways – which means that you expect 500 to 1000 API calls per second?	All services will be deployed to the API Gateway(s) and exposed to consumers, however the TPS ranges listed in question 12 are an estimated range for peak throughput and not an indication of sizing. Please refer to AMP-R032.
43.	For the Pilot integration project, which throughput capacity should be available?	The throughput ranges listed in question 12 are an estimated range for peak throughput. This will be evaluated when the pilot is performance tested.
44.	ESB: In regard to ESB-R036 how will the performance be measured? ESB response times depend on backend systems that ESB invoke and it is sometimes impossible to time just the time spent inside ESB and since requirement is defined from ESB client perspective there should be a method that exclude backend systems.	Please refer to ESB-R036 and ESB-R040 for our requirements on performance measurement.

45.	ESB: In regard to ESB-R037 "Error Hospital" is it expected that feature is used in messaging scenarios only? Can this functionality be custom developed on top of ESB solution?	This feature is foreseen to be used in messaging scenarios, e.g. Messages that can't be processed after multiple redelivery attempts, where they can be viewed, corrected if necessary, and reprocessed. As long as ESB-R037 is fulfilled, custom developed or out of the box in the product is fine.
46.	ESB: In regard to ESB-R022 can you provide more technical info regarding Oracle ISG services? In our understanding Oracle ISG is based on SOAP and/or REST services. Are there any specific technical requirements that are not covered using SOAP and/or REST standards?	Please refer to: https://docs.oracle.com/cd/E18727_01/doc.121/e12169/T511175T513043.htm for more info on the Oracle E-Business Suite Integrated SOA Gateway. Please also refer to EBS-R008.
47.	ESB: How many environments will be deployed in target configuration (dev, test, production)?	For the Pilot integration project, it is foreseen one environment. For the full scope implementation there will be at least two or more environments (e.g. production environment, DR environment, test environment, development environment).
48.	ESB: Will there be any devops procedure developed? Does ESB need to have programmable interface for deployment and management?	<ul style="list-style-type: none"> • While there is not a DevOps procedure requirement for the pilot; it is expected that a DevOps procedure can be implemented in the full production rollout • Please refer to ESB-005, ESB-017, ESB-018 and ESB-039 on the deployment and management.
49.	ESB: In regard to ESB-R011 does business rules must be configurable in external repository or is it acceptable to have only have a possibility to include custom code inside ESB? (For example implement business rules in Java inside deployment artefact)	The ESB shall provide the capability to define/integrate/apply business rules and shall provide the appropriate tools to configure those.
50.	APIM: How many environments will be deployed in target configuration (dev, test, production)?	For the Pilot integration project, it is foreseen one environment. For the full scope implementation there will be at least two or more environments (e.g. production environment, DR environment, test environment, development environment).
51.	APIM: Will there be any devops procedure developed? Does solution need to have programmable interface for deployment and management?	<ul style="list-style-type: none"> • While there is not a DevOps procedure requirement for the pilot; it is expected that a DevOps procedure can be implemented in the full production rollout • Please refer to AMP-005 and AMP-006 on the deployment and management.

52.	In regard to AMP-R040 what caching strategy should be supported? (Cache-Aside, Read-Through, Write-Through, Write-Around, Write-Back)	The API Manager shall provide caching mechanism to reduce latency. API Management Portal shall provide the feature to configure caching of API Request/API Response. There is no specific requirement on the caching mechanism. Please propose the appropriate mechanism to best fulfil the requirement.
53.	Reading the RFP documents we didn't find any information about the needed number of environments. In most cases customers need more than one (productive) environment. As a SoW for this RFP do you see a need for additional environments? If so which ones?	For the Pilot integration project, it is foreseen one environment. For the full scope implementation there will be at least two or more environments (e.g. production environment, DR environment, test environment, development environment).
54.	In the RFP we didn't find any requirements regarding system capacity. Do you have a number of transactions that API management and ESB system must be able to serve during one month/day?	We cannot provide you with an exact figure of the volume of messages currently; however, we would request that the solution is scalable to meet a growing utilization of the platform. After the implementation of the Pilot integration project we will have better estimations. The throughput capacity for the Pilot integration project is expected to be low. We are planning to integrate one or two systems in the Pilot project; however, we do not have exact figures. Please refer to AMP-R032.
55.	Do we need to submit the Supplier registration form before the deadline or are we to submit it along with the proposal?	Please include your company's Supplier Registration form in the Technical Proposal (ref. Special Instruction to Bidders/2.2 Content of the Technical Proposal).
56.	Are we to submit the draft contract before submitting the proposal by the 18th?	Please see the Special Instruction to Bidders/2.3 Content of the Commercial Proposal, paragraph 5. We do not require to submit the signed draft of the IAEA Contract; however, please i) indicate your acceptance and ii) provide the Bidder's legal address, point of contact and the name and position of the legal representative that would sign the Contract on behalf of the Bidder, in the event of award.
57.	Does IAEA have a strategy towards container-based application development and integration?	Not at this time; however, a container-based strategy is being developed.
58.	Does IAEA also foresee the need for an in-memory cache to improve performance for consumers?	There is no specific requirement on the caching mechanism. Please propose the appropriate mechanism that best fulfils the requirements.