11. What are the real time problems API led connectivity is solving? What are the problems faced by IT?

Answer:

Rate of change in technology is increasing in modern world. IT delivery gap is more compared to past. Then it is difficult for organisations to deliver the products on time. So they are trying with a new operating model which is a production-consumption model. New model urges organisation to build assets that should be discoverable and reused by the entire organisation. Thus reduces the IT delivery gap.

12. New IT operating Model proposed by MuleSoft? Does it focus on Consumption?

Answer:

New operating Model proposed by Mulesoft is a Consumption-Production model. This model give more emphasis on consumption which means it will reuse the assets which are already available and will create new asset only when it is not available.

13. How is Modern API a core enabler of a new operating Model? What are the features of a Modern API?

Answer:

Applications are build using composible APIs in new operating model. These are known as Modern API is the core enabler of new operating model.

These APIs should be:

Discoverable and accessible through self-service

Productized and designed for ease of consumption

Easily managed for security, scalability and performance

14. What are the roles LOB IT / Central IT and Developers play in API led connectivity?

Answer:

Central IT unlock the data in the core system of record and produce System API.

LOB IT consumes or discover the System API, reuse assets and create another API called Process API by composing, transforming, aggregating data. These Process APIs can be reused by others as well.

Developers who build the actual application can discover, self-serve, reuse and consume all these API and create the experience layer of the application.

15. What are the major outcomes you think are driven by API Led connectivity?

Answer:

Project can be completed on time and within the budget

Designed in such a way that everything can be reused and can be modified easily

All the connections are exposed so that they can be secured and monitored.

Organisation will become more agile, productive and innovative

16. What is C4E? What is the goal for C4E?

Answer:

C4E (Cross-functional team) that drive the organisation to use API-led connectivity approach by ensuring that the assets are reused in all possible ways and will create new assets only when it is not already available.

17. How can you achieve Speed/ Agility with application networks?

Answer:

Application network emerges bottom up when new APIs are added to the network. The key to the success of this network is that all of the APIs are easily discoverable thus they can be consumed in a self-service fashion by the entire organisation

Application network is easily secured and monitored by central IT. They have complete visibility on who has access to what and what is being consumed when. This enables the entire organisation to rapidly innovate and respond to technology and market pressures providing the infrastructure for the speed and agility needed to transform business

18. What is an API? What is API Spec? Why do you need it?

Answer:

API(Application Programming Interface) provides information for how to communicate with a software component. It defines functionalities independent of implementations. Modern API follow spec driven development in which API is designed first and will be published. Thus it will provide a rapid feedback from the stakeholders.

19. Difference between API Interface definition file / Web service and API proxy?

Answer:

An API interface definition file (API Specification) defines what we call, what we send and what we get back. It is the specification of the API

Web services is the actual API implementation that we can make calls.

API Proxy is an application that control access to a web service, restricting access and usage through the use of an API gateway

20. What is a web service?

Answer:

Web service is a method of communication that allows two software system to exchange data over internet.

It’s a collection of open protocols and standards which are widely used for exchanging data between systems or applications.

21. Difference between Soap and Rest web services?

|  |  |
| --- | --- |
| SOAP | REST |
| SOAP stands for Simple Object Access Protocol | REST stands for Representation State Transfer |
| SOAP is a protocol | REST is an architectural model |
| SOAP can only work with XML format | REST permit different format such as plain text, json, xml, html etc. |
| Uses SOAP and HTTP protocol | Use HTTP protocol |
| Traditional, more complex type | Recent, simple type |
| Require more bandwidth since SOAP messages contain lot of information inside it | Does not require much bandwidth |

22. What are the different ways you can secure APIs?

Answer:

API security is the protection of the integrity of APIs—both the ones you own and the ones you use.

Multifactor Authentication: Multi-factor authentication is when an app requests a single-use token from the user after it’s already authenticated the user’s credentials. This method recognizes the weakness of username and password credentials alone.

Token based: The first time a user accesses an Identity Provider with their username/password credentials, a token is issued. From there, rather than having users share their credentials over the network — which can present a security risk — the app only needs to send the token.

Digital signature: an app creates a signature using an algorithm and a secret code. The API applies the same algorithm with a new secret code to produce its own signature, and compares it to the incoming signature

Public key cryptography: Public-key cryptography is the method of producing an encryption of a message that’s nearly impossible to decode without a corresponding key.

Digital certificate: A digital certificate is a way to facilitate secure transport-level communication between a client and a server over a network so that the server can authenticate itself to the client