**Day 1**

1. **What is an Application Network?**

There is an evident IT delivery gap in the IT industry right now which needs a change in the approach to connect applications, data and devices to overcome the gap. An application network is a better approach to solve this issue. It is a way to connect applications, data and devices through APIs that exposes some or all of their assets and data on the network. That network allows other consumers from other parts of the business to come in and discover and use those assets. Building an application network involves developing reusable assets and then encouraging those in the business to reuse and self-serve those assets.

1. **What is API Led Connectivity?**

API-led connectivity is a methodical way to connect data to applications through reusable and purposeful APIs. These APIs are developed to play a specific role, like, unlocking data from systems, composing data into processes, or delivering an experience.

When the entire organization adopts this strategy, everyone in the business is empowered to access their best capabilities in delivering applications and projects.

Every asset in an API-led connectivity is a modern API categorised into System APIs, Process APIs and Experience APIs.

(API-led connectivity is becoming an important integration strategy because the technologies that enterprises are using are changing dramatically and the speed of these changes cannot be accommodated by traditional point-to-point integration methods.)

1. **What are the features of AnyPoint Platform?**

Anypoint Platform is a complete solution for API-led connectivity that helps companies build application networks of apps, data, and devices, both on-premises and in the cloud.

It is a hybrid integration platform which includes iPaaS, ESB, and a unified solution for API management, design and publishing.

The key features of Anypoint Platform are:

* **Unified connectivity** enabling companies to connect data, devices and applications anywhere.
* **User friendly tools and open standards,** where users can use drag and drop tools, pre-built templates and components, other re-usable building blocks.
* **A future proof platform,** that scales and adapts to meet current and future needs and initiatives, including Big Data, IoT, analytics and mobile.

1. **When would you use Any Point Studio?**

MuleSoft's Anypoint Studio is a user-friendly Eclipse-based IDE used for designing and testing Mule applications. We would use Anypoint Studio to develop an API or connector to be deployed as a reusable asset.

1. **How can you build Application Networks with AnyPoint Platform?**

Building an application network involves developing reusable assets and then encouraging those in the business to reuse and self-serve those assets. We can build reusable assets like modern APIs and REST connectors in Anypoint platform by designing specifications in Design centre, publishing APIs to Exchange to be discovered by other users and managing the APIs in API Manager.

An application network can be built by reusing assets like APIs, connectors, applications in other applications and APIs.

We can build a fully developed mule application deployed into a hosted environment in flow designer by reusing core components, published APIs and applications available in Exchange.

1. **What are the benefits of Application Network and API-Led Connectivity?**
2. Easy to migrate from on-premise to cloud (Eg: Sur La Table – US retail company)
3. Makes the applications globally discoverable (Eg: Addison Lee- London based car service company)
4. Easy to construct infrastructure to accommodate business growth (Eg: Spotify – music streaming service)
5. Enables to give real-time access to data (Eg: New Relic-Application monitoring company provides real-time information about prospective customers to field sales team by processing large volumes of Salesforce data and connect that data securely to Amazon RDS)
6. Easy to synchronize data (Eg: GANT – Apparel retailer benefitted by synchronizing their inventory data stored in disparate systems to correctly display their available stock on their websites)
7. **Why would you use AnyPoint Platform?**

I would use Anypoint Platform

* To design APIs, publish it to be discoverable and reused by other users.
* To combine batch and real-time processing for unified application and data integration
* To build reusable services across multiple trading partners and B2B processes
* To quickly build integrations using pre-built connectors and templates
* To connect and orchestrate data from enterprises and cloud to devices or applications
* To develop new solutions in a manageable, reusable, and governed way
* To enables fast, easy, and governed mobile access to any data from backend systems, legacy databases, and SaaS Applications

1. **How would you build an Application Network using API led connectivity?**

API-led connectivity is a methodical way to connect data, applications, devices through reusable and purposeful APIs. So, it is in other words a methodical approach to realise an Application network strategy.

To build an application network through API-led connectivity, we can develop purposeful modern APIs like System APIs to expose backend data, Process APIs to process data for processes and Experience APIs that deliver data and experience to the end-customers. These modern APIs integrate other applications or APIs as connectors in their development for delivering the needs of the business.

1. **What are APIs and Web services? What are the major differences?**

API or Application Programming Interface is a software interface that allows two applications to interact with each other without any user intervention.

A web service is a collection of open protocols and standards which are widely used for exchanging data between applications or systems.

The key differences of web services and APIs are:

* **Style of communication**: Web services are used for REST, SOAP or XML-RPC communication whereas APIs are used for any style of communication. An API can be used to communicate with any other product or services without knowing how they are implemented.
* **Transport protocol supported:** Web services supports HTTP protocol and APIs support both HTTP/HTTPS protocols.
* **Datatype support:** Webservice supports XML and APIs supports XML and JSON.

All web services are APIs but all APIs are not web services.

1. **How can you secure your APIs?**

There are three different options of securing APIs using the capabilities of Anypoint Platform and existing framework and services.

The most efficient way of securing API would be by using the out-of-the-box component, **API Manager** of the Anypoint Platform. APIs can be secured by creating API proxy for each API running on the platform. It secures the requests coming to the platform and thereby the API. Each API Proxy runs on the out-of-the-box API Gateway which acts as the point of enforcement of policies. So we can now attach API policies to the endpoints and secure them efficiently without changing underlying code. This is the most efficient way of securing the API as the components of API Manager are tightly integrated with Anypoint Platform and does not require us to worry about firewall or tunnels. The policies can also be added or removed easily without any custom coding or redeployments involved.

**Day 2**

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

API-led connectivity approach to integration increases agility, speed and productivity. This approach solves the problem of traditional approaches like Point-to-point integration unable accommodate dramatical changes in technologies that require several applications to integrate data, applications and devices.

API-led connectivity allows the developers to change or scale the applications quicker which would otherwise take a lot of time using traditional approaches. This in turn also solves the issue of delay in delivery to business time which is faster now. This also allows to increase the productivity which would otherwise be lower because it takes longer to develop a change.

There is always a constant change in the IT industry and the team of It is responsible to implement the new changes, and making necessary changes as well maintain legacy systems. The requests that the developers must fulfill are ever-growing even as the resources are constant. Eventually this results in IT delivery gap.

1. **New IT operating Model proposed by MuleSoft? Does it focus on Consumption?**
2. **How is Modern API a core enabler of a new operating Model? What are the features of a Modern API?**
3. **What are the roles LOB IT / Central IT and Developers play in API led connectivity?**
4. **What are the major outcomes you think are driven by API Led connectivity?**

re-usable assets

1. **What is C4E? What is the goal for C4E?**

Centre for Enablement, commonly known as C4E is a cross-functional team — typically staffed with members from central IT, line-of-business departments, and digital innovation teams. This group drives the cultural change in IT operating model. They are charged with productizing, publishing, and harvesting reusable assets and best practices. In simple words, C4E is monitors the consumption and production of reusable assets in the projects.

The Central IT team creates or fetches data and core assets for the organisation. This enables the Line of Businesses (LoB) the capability to deliver projects independently. Different businesses of an organization can have their own IT teams which use the core assets provided by central IT team. The Innovation team contribute by incessantly giving ideas to improve the operating model, KPIs, productivity and consumption.

Building a C4E in an organizations ensures shorter delivery cycles, faster time to market, reduced project risk, on-time delivery of integration projects, better adherence to standards and best practices, and higher quality deliverables.

1. **How can you achieve Speed/ Agility with application networks?**
2. **What is an API? What is API Spec? Why do you need it?**
3. **Difference between API Interface definition file / Web service and API proxy?**
4. **What is a web service?**
5. **Difference between Soap and Rest web services?**
6. **What are the different ways you can secure APIs?**