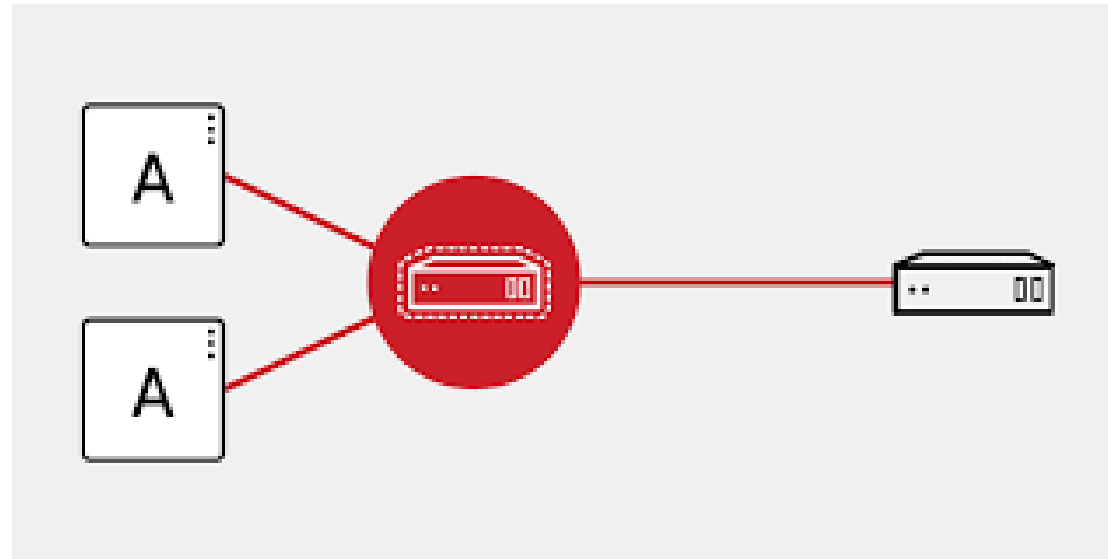




Middleware

What is Middleware

Is software that lies between an operating system and the applications running on it.



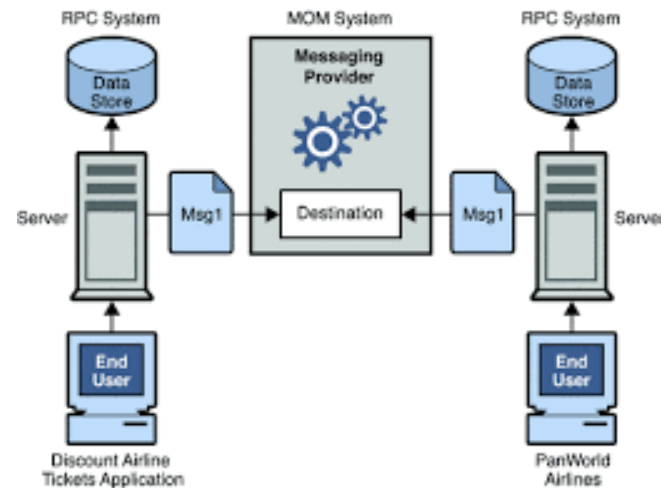
How Middleware works

Enables developers to build applications without having to create a custom integration every time they need to connect to application components. It does this by providing services that enable different applications and services to communicate using common messaging frameworks

Types

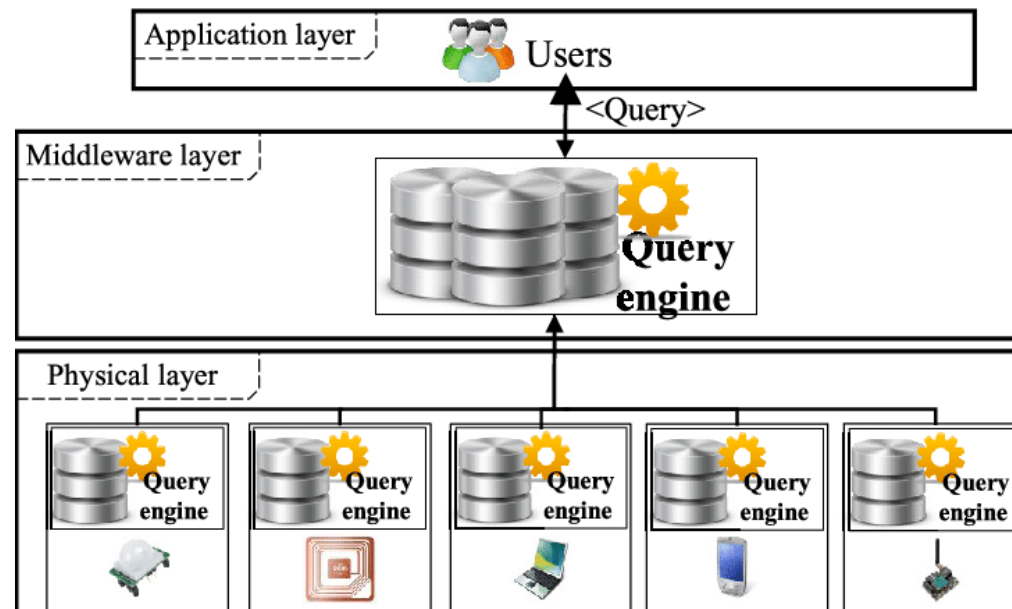
Message oriented middleware (MOM)

Enables application components using different messaging protocols to exchange messages in distributed applications and services.



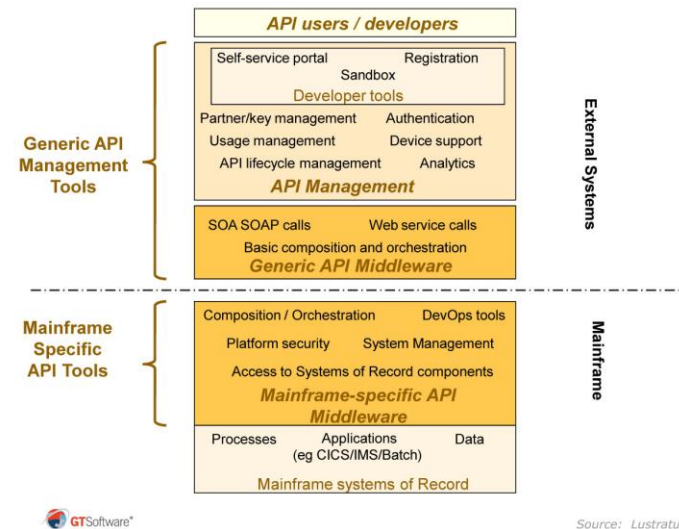
Data or database middleware

Simplifies access to, and interaction with, back-end databases.



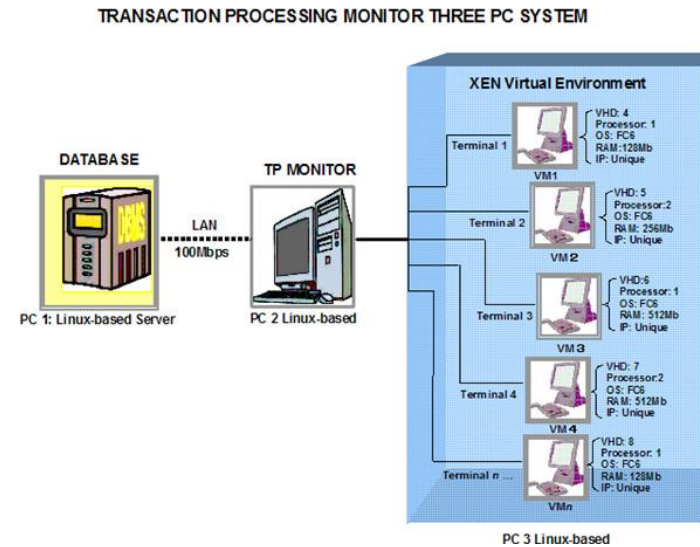
API middleware

Provides tools that developers can use to create, expose and manage APIs for their applications, so that other developers can connect to them.



Transactional middleware

Provides services to support the execution of data transactions across a distributed network.



Functionalities

Configure and control connections and integrations

Based on information in a client or front-end application request, middleware can customize the response from the back-end application or service.

Secure connections and data transfer

Middleware typically establishes a secure connection from the front-end application to back-end data sources using Transport Layer Security (TLS) or another network security protocol.

Manage traffic dynamically across distributed systems

When application traffic spikes, enterprise middleware can scale to distribute client requests across multiple servers, on premises or in the cloud.

References

- <https://www.ibm.com/cloud/learn/middleware>
- <https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-middleware/>
- <https://www.techtarget.com/searchapparchitecture/definition/middleware>