

CaseStudy (9)

Task (1)

Product teams need to incorporate security concerns into their product plans, not as an ancillary service, but as a core feature of their product.

For one, digital insecurity has become normalized. It is pervasive, multi-headed hydra. Each week brings news of new attacks and new vulnerabilities.

And for another, consumers, businesses, and government agencies are becoming increasingly concerned about the safety and privacy of networks, transactions, and data.

Product teams do not need to become experts in all areas of cybersecurity just the ones that touch your product. Here are three simple heuristics to consider:

1. Each new platform is a new attack vector.
2. Over time, attacks get more sophisticated.
3. Frequently, human behavior is the weakest link in the security chain.

Task (2)

In software architectural patterns, there are some patterns that we need to know.

- client-server architecture
- 3-tier architecture (N-tier)
- data flow architecture
- service oriented architecture
- micro-services architecture
- blackboard architecture
- peer-to-peer architecture

Client-server architectural pattern –This architecture is used when a server and clients are connecting through the internet.

In here, Server is the service provider. And the client is the service consumer.

Normally server is located in a local area network or in the internet.

If the server is located in a local area network, outsiders can't access the server but insiders can.

Task (3)

Business-process benefits impact enterprise architecture maturity and governance.

These controls act as a supporting framework for decision making.

Enterprise architecture improves organizational impacts through productivity, agility, product and service timeliness, revenue growth, and cost reduction.

Task (4)

Advantages of client -server architecture

1.Improved Data Sharing:

Data is retained by usual business processes and manipulated on a server is available for designated users (clients) over an authorized access.

2.Integration of Services:

Every client is given the opportunity to access corporate information via desktop interface eliminating the necessity to log into a terminal mode or processor.

3.Shared Resources Amongst Different Platforms:

Application used for client-server model is built regardless of the hardware platform or technical background of the entitled software (operating system software) providing an open computing environment, enforcing users to obtain the services of

clients and servers (database, application and communication services)

4.Data Processing Capability Despite the Location:

Client-server users can directly log into a system despite of the location or technology of the processors.

5.Easy Maintenance:

Client-server architecture is distributed model representing dispersed responsibilities among independent computers integrated across a network. Therefore, it's easy to replace, repair, upgrade and relocate a server while client remains unaffected. This unaware change is called as Encapsulation.

6.Security:

Servers have better control access and resources to ensure that only authorized clients can access or manipulate data and server updates are administered effectively.

Disadvantages of client -server architecture

1.Overloaded Servers:

When there are frequent simultaneous client requests, server severely get overloaded, forming traffic congestion.

2.Impact of Centralized Architecture:

Since it is centralized, if a critical server failed, client requests are not accomplished. Therefore, client-server lacks the robustness of a good network.

