Case Study (9)

(1) Security Concern for the product team

Issues

- Data loss
- Security breaches
- Malicious attacks, such as hacking and virus
- Unauthorised access or damage

Problem Solving

- Use security devices (firewall, anti-virus software)
- Provide security setting in router or OS
- Take data encryption for sensitive data
- Take data backup and off-site backup
- Accept only authorised access
- Train staff to safe and secure use of equipment

(2) Client-Server Architecture (Network Architecture)

- Combination of physical design and logical design
- Include software, hardware, products, media and data transmission
- End users are defined as clients
- Central Controller is server
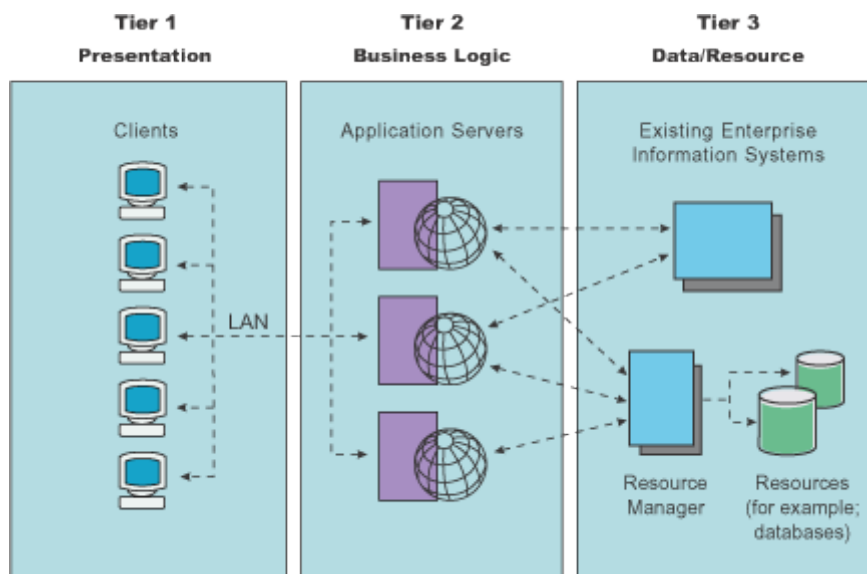- Include security and network management

Three-Tier Architecture

- Presentation tier for user interface, view, multitier architecture
- Logic tier for business logic and domain for the system
- Data tier for persistence data, logging and networking

(3) Why should product team use application architecture pattern?

- Creates a solid foundation for the system.
- Makes platform scalable.
- Increases performance.
- Reduces costs, avoids codes duplicity.
- Implementing a vision.
- Identifies areas for potential cost savings.
- Better for maintainability.
- Enables quicker changes in Systems.
- Increases quality of the platform.
- Helps manage complexity.
- Makes the platform faster.
- Higher adaptability.
- It helps in risk management. Helps to reduce risks and chance of failure.
- Reduces its time to market, reduces development time.
- Prioritize conflicting Goals.

(4) Advantages & Disadvantages of using Three – Tier Architecture

Advantages

- Clear module and interface
- Simple to implement
- Easy to maintain
- Flexible
- Scalable
- Portable
- Robustness

Disadvantages

- Data can overhead (duplicate functions)
- If you use the more layer, the more risk can become
- Some issues between high layer and lower layer
- Can cause complexity