ENTERPRISE APPLICATION INTEGRATION (EAI)

BY

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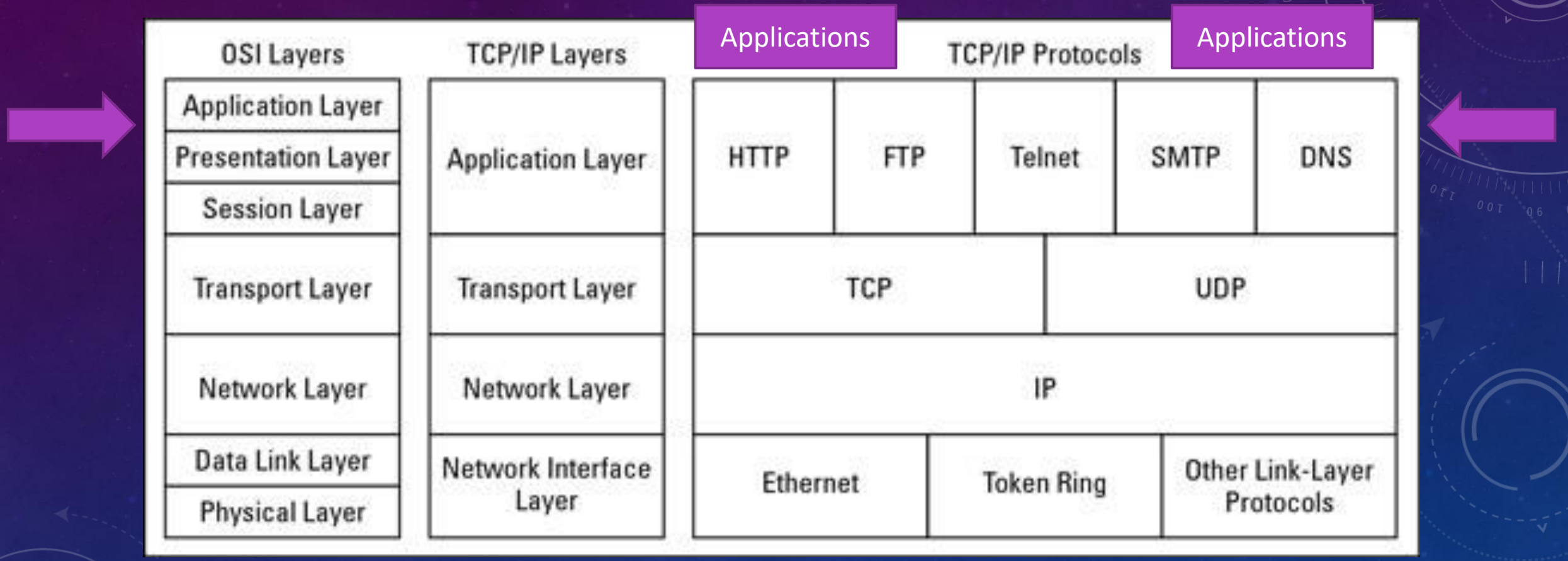
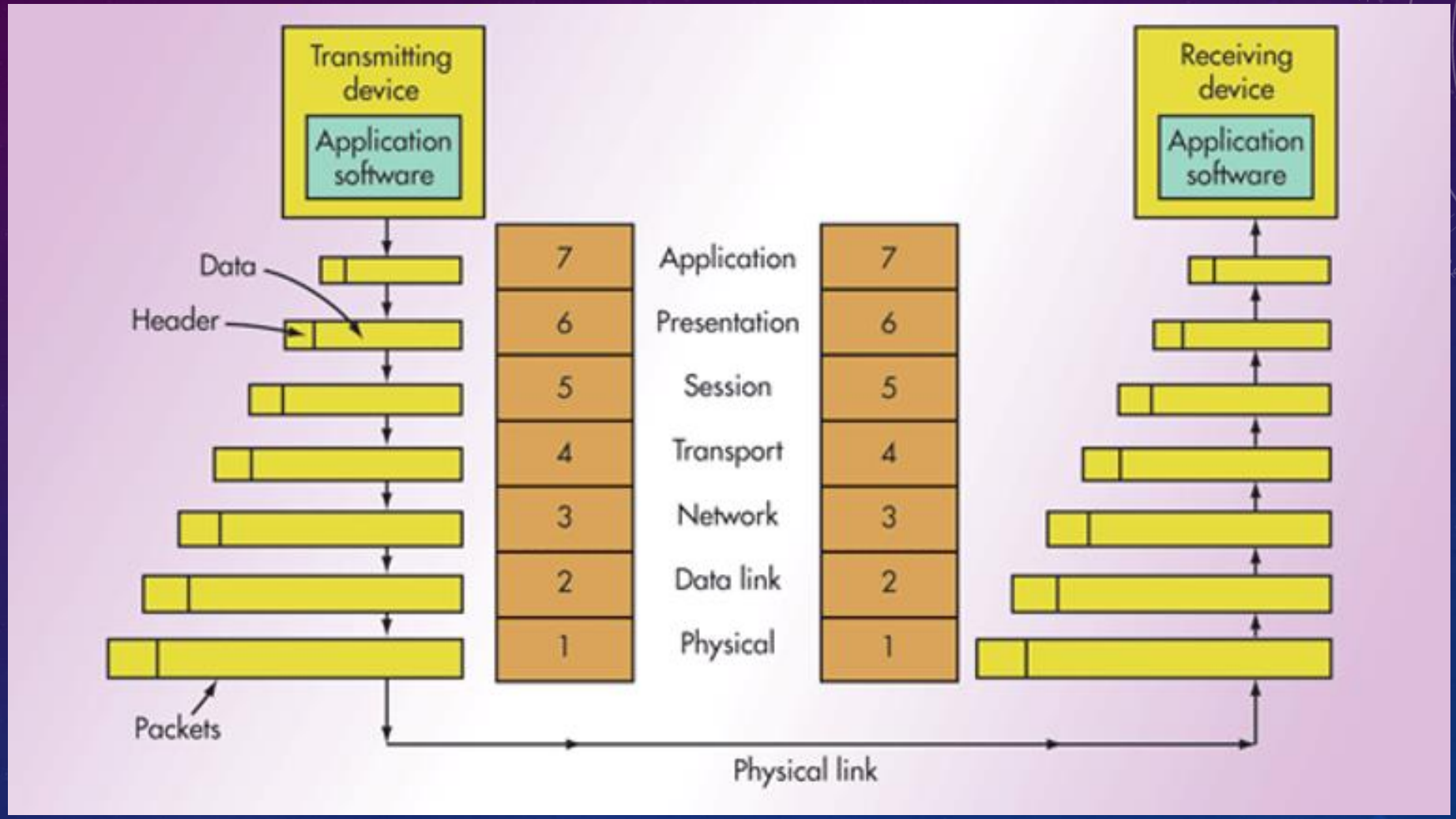
EAI :

Enterprise Application Integration = **Integration of Applications in Application Layer**

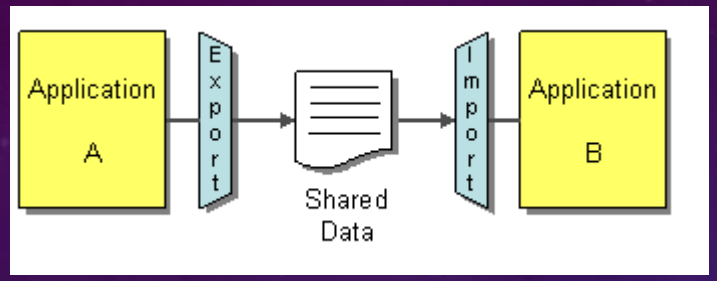


EAI contd.. :

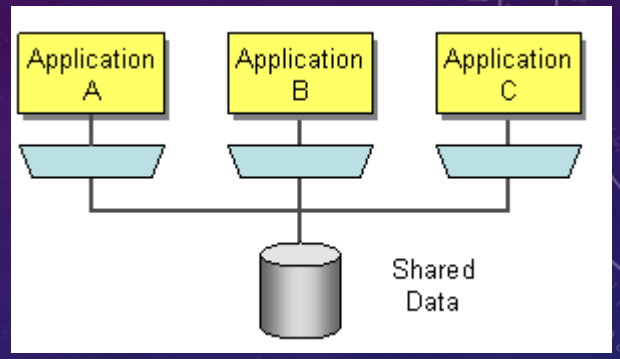

Transmitting device
Application software
Receiving device
Application software
Data
Header
Packets
7
6
5
4
3
2
1
Application
Presentation
Session
Transport
Network
Data link
Physical
7
6
5
4
3
2
1
Physical link

EAI contd.. : 4 Common Integration Styles

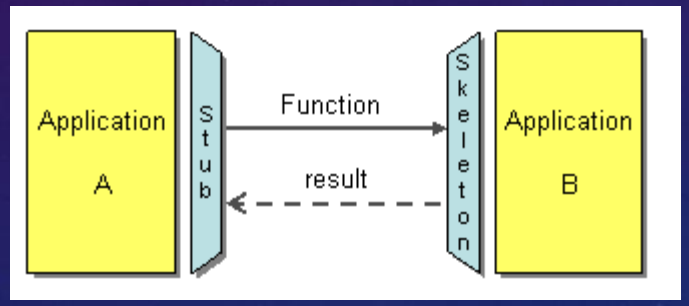
File Transfer



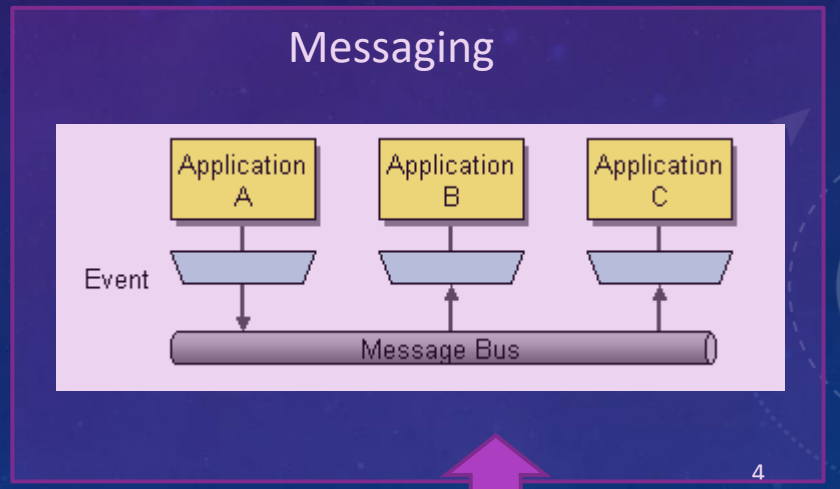
Shared Database



Remote Procedure Invocation



Messaging



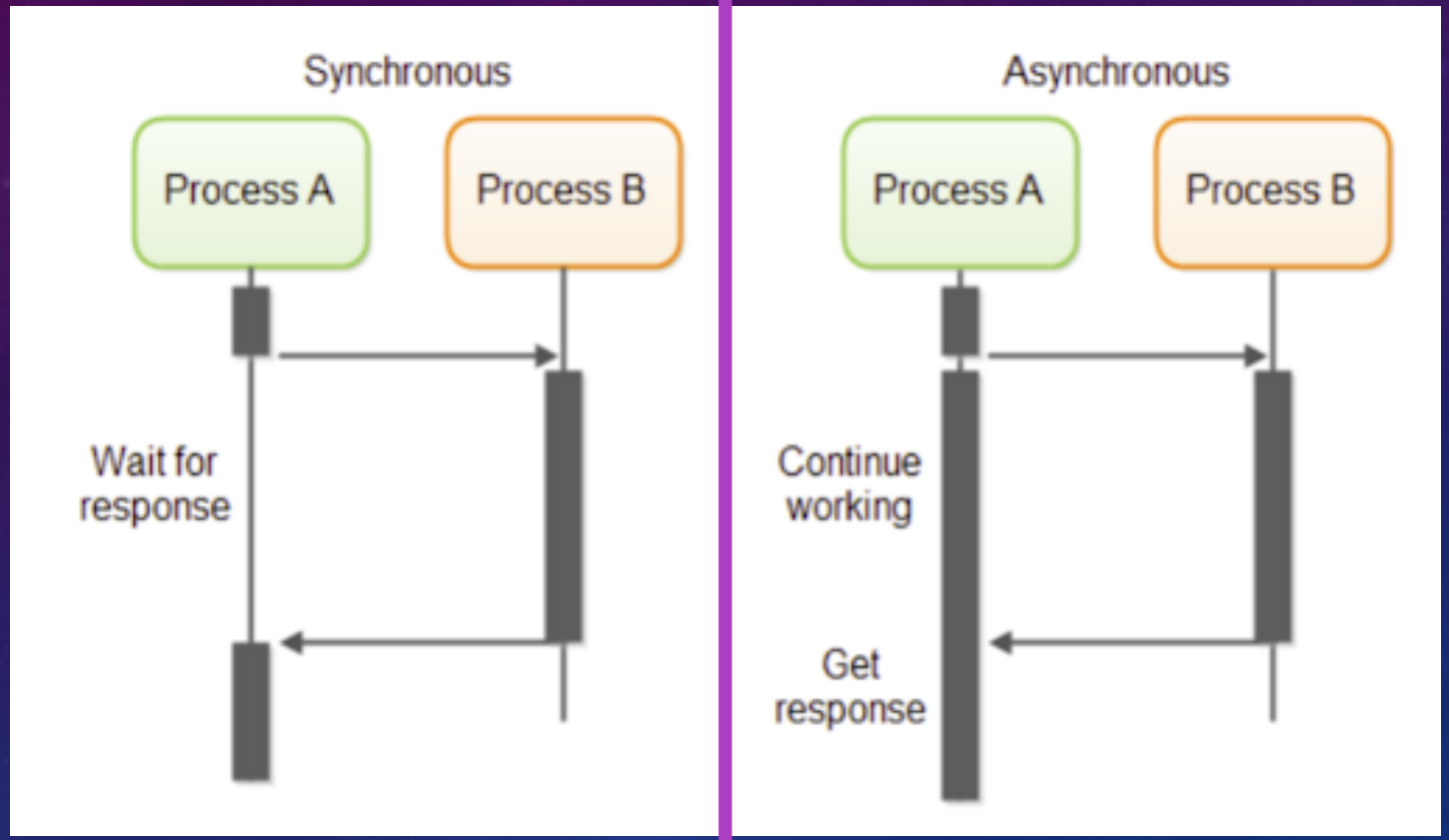
Popular method

Synchronous Vs Asynchronous : Decided by availability of application

Synchronous Communication :

→ Remote Procedure Invocation

Eg : Phone call



Asynchronous Communication :

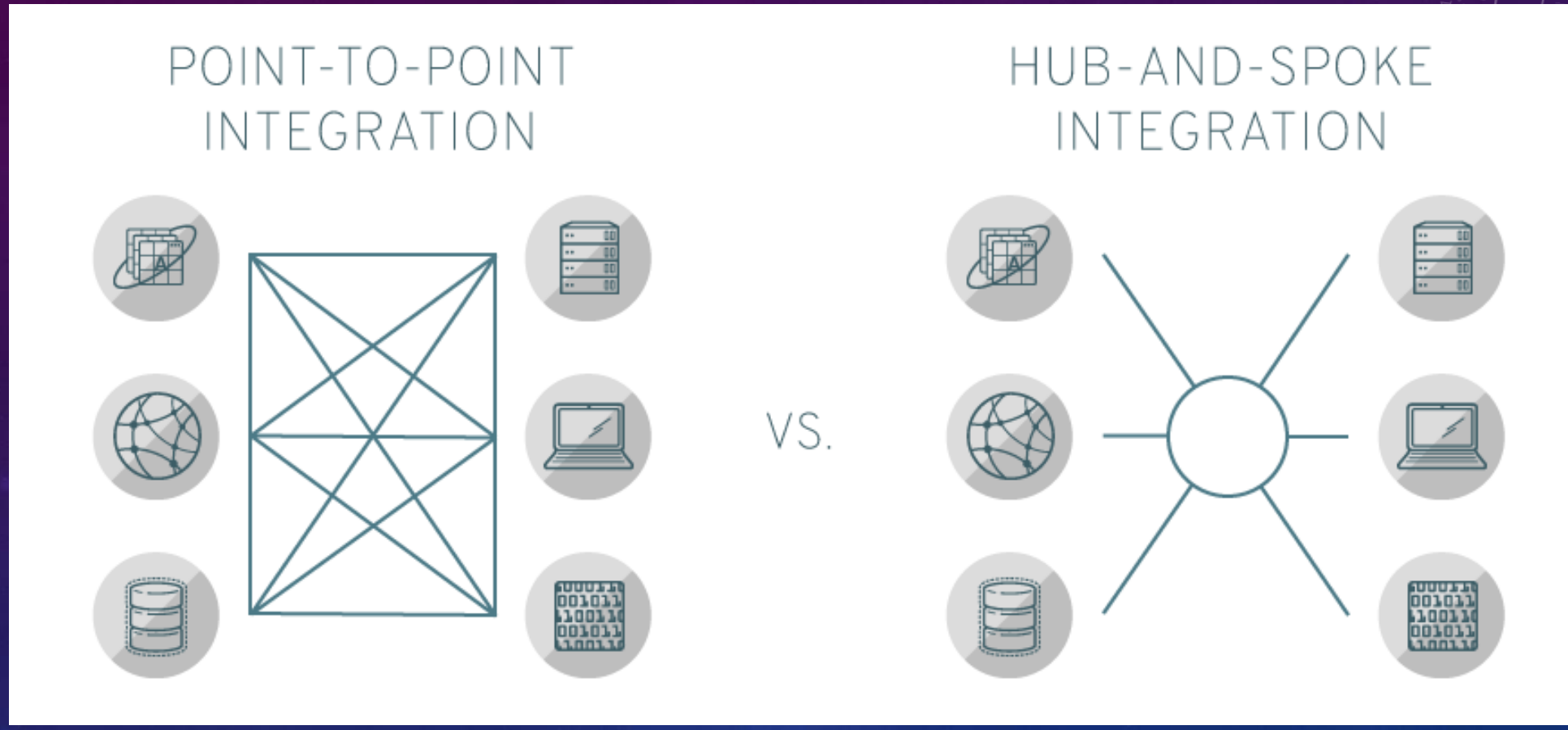
→ File Transfer

→ Messaging

Eg : Whatsapp

→ Shared Database

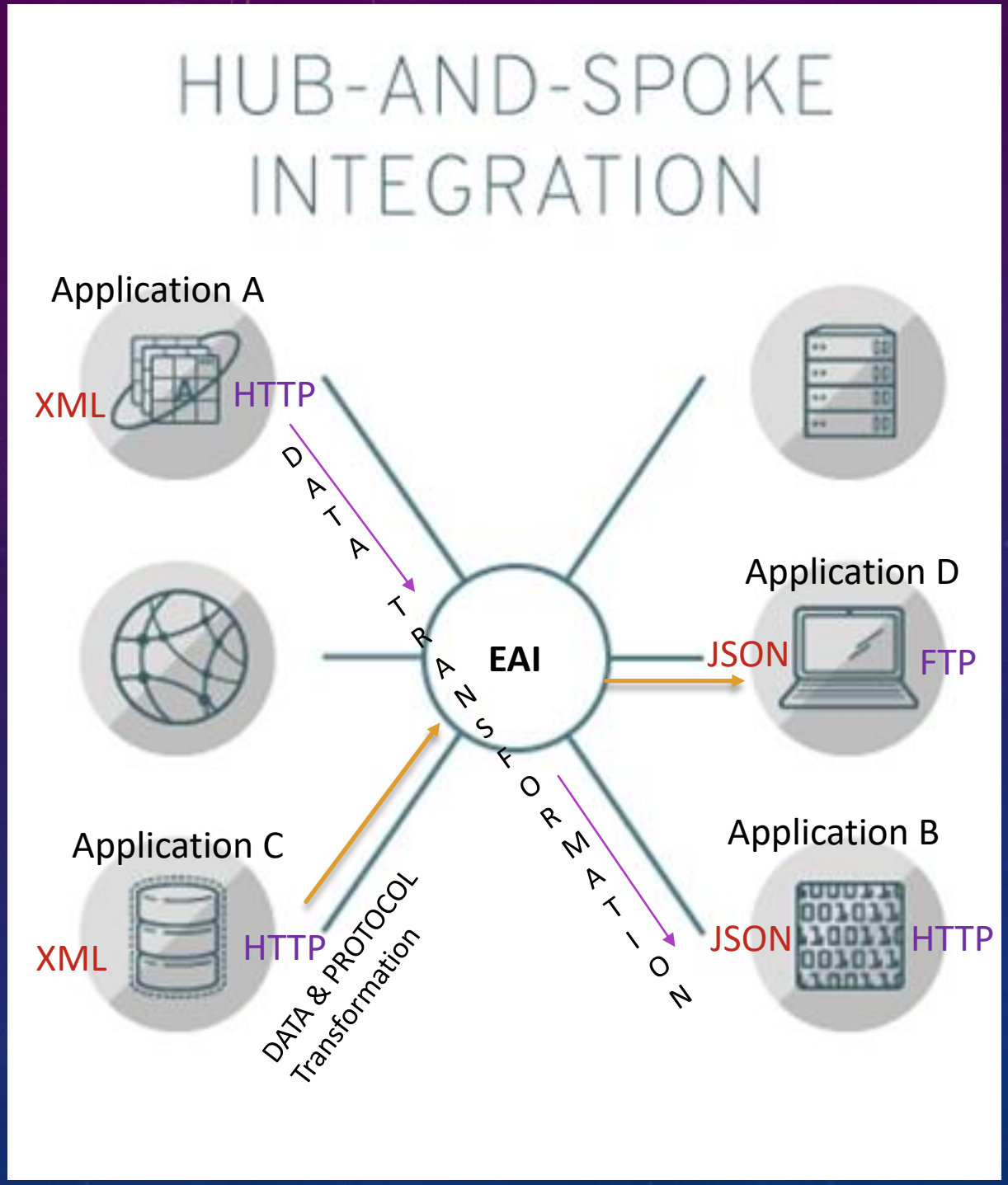
EAI contd.. :



Point to Point becomes difficult to manage
→ Not preferred

Hub and Spoke is preferred method of EAI

EAI contd.. :



EAI software main capabilities :

1. Routing
2. Transformation
   - → Data transformation
   - → Protocol transformation

Commercial EAI software :

1. IBM App Connect Enterprise (ACE)
2. Mulesoft
3. TIBCO

etc..

References :

1. https://www.enterpriseintegrationpatterns.com/
2. Book : Enterprise Integration Patterns: Designing, Building, and Deploying Messaging Solutions by Gregor Hohpe