



Spring Boot
and
WebSockets

WebSocket is a computer communications protocol,

providing **full-duplex communication** channels over a single TCP connection.

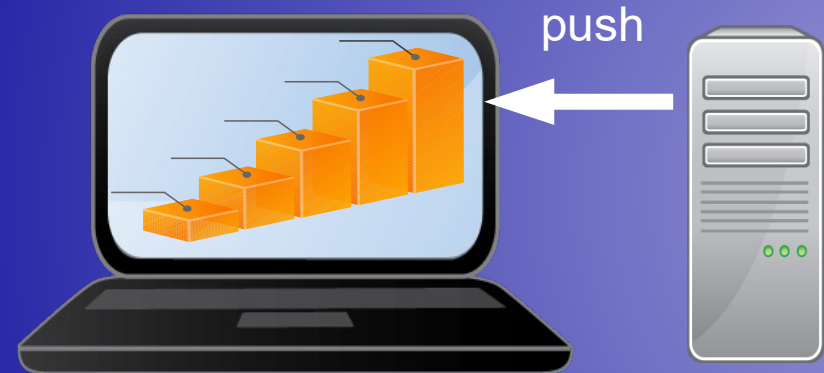
The WebSocket protocol was standardized by the IETF as RFC 6455 **in 2011**, and the WebSocket API in Web IDL is being standardized by the W3C.

The applications

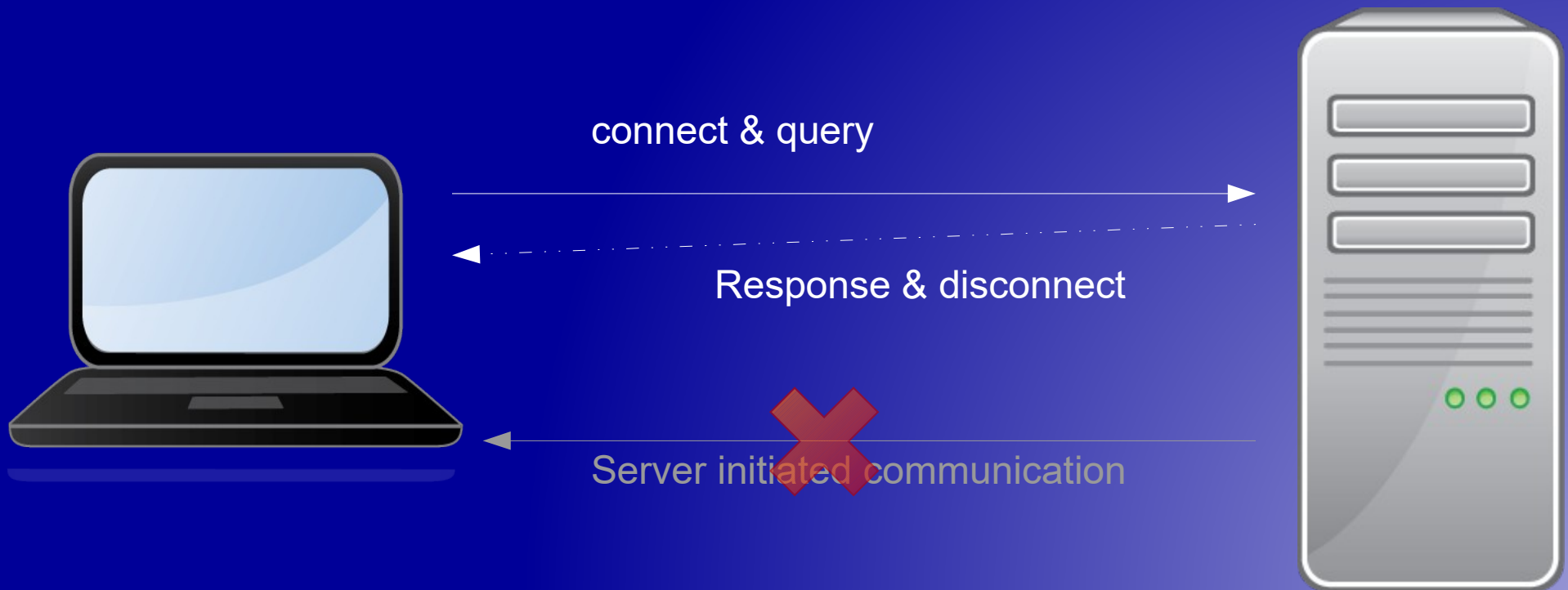
Chat



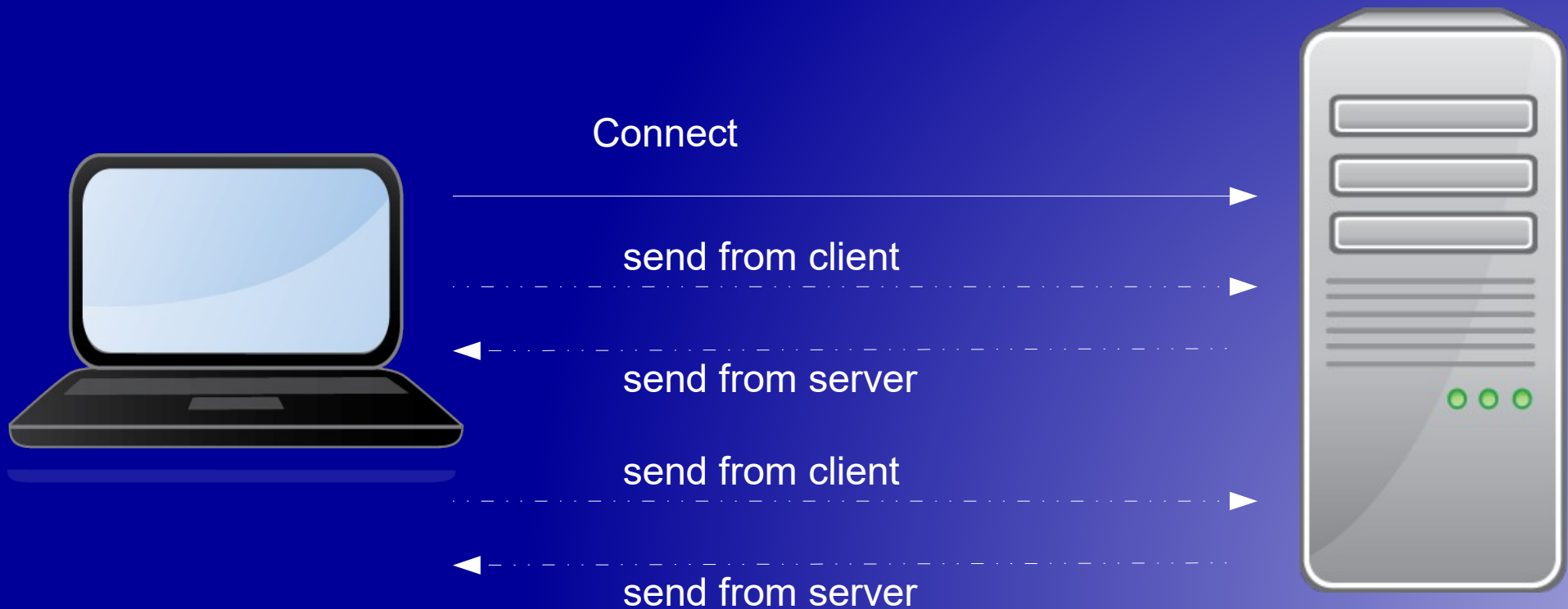
Stock market price



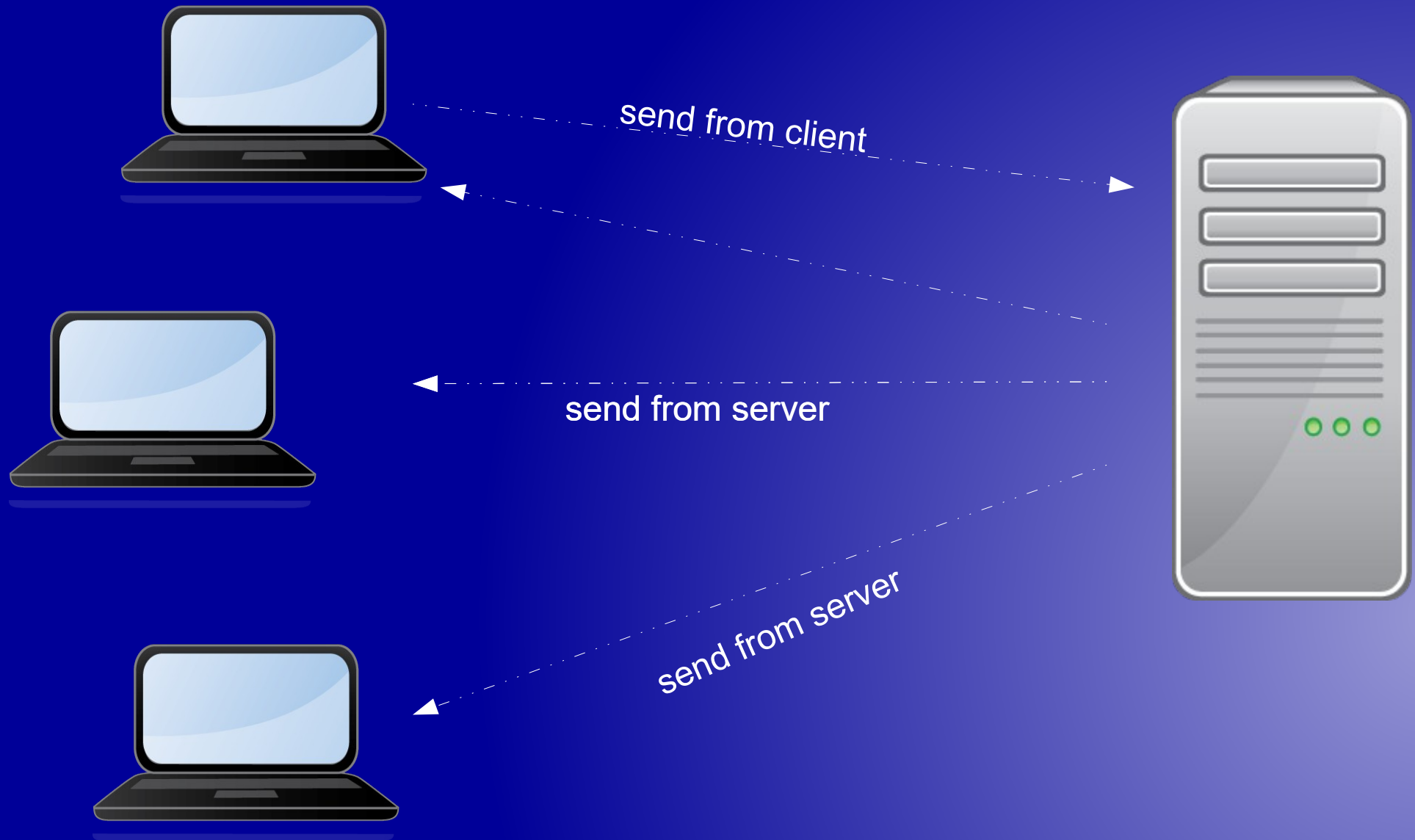
HTTP – unidirectional Communication



Websocket – bidirectional Communication

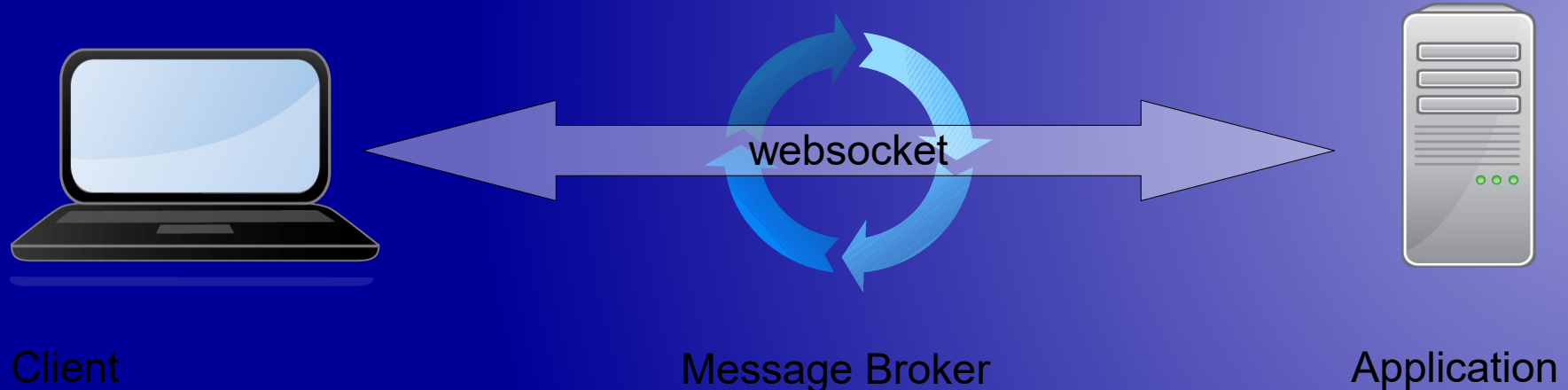


Websocket – send to multiple clients

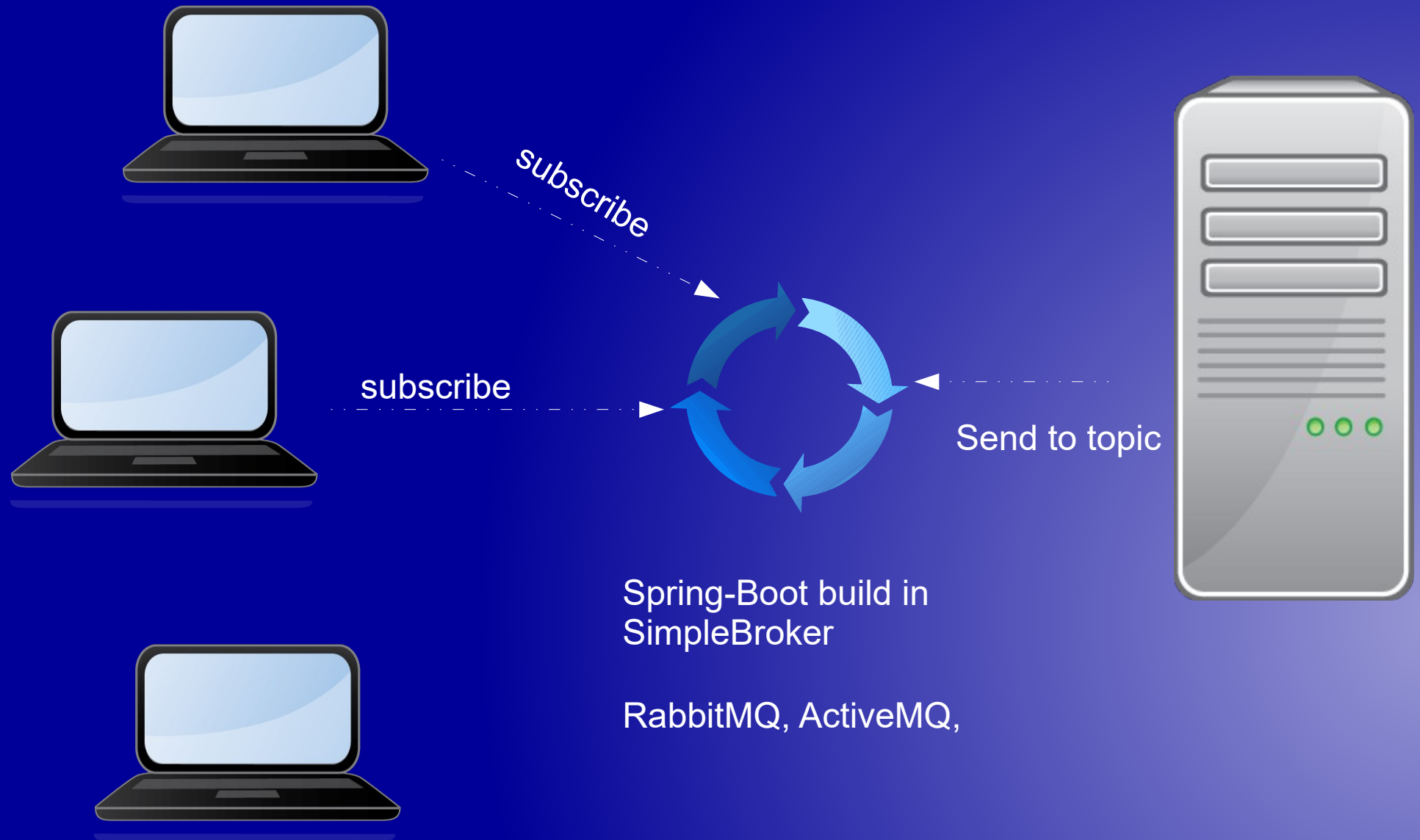


STOMP

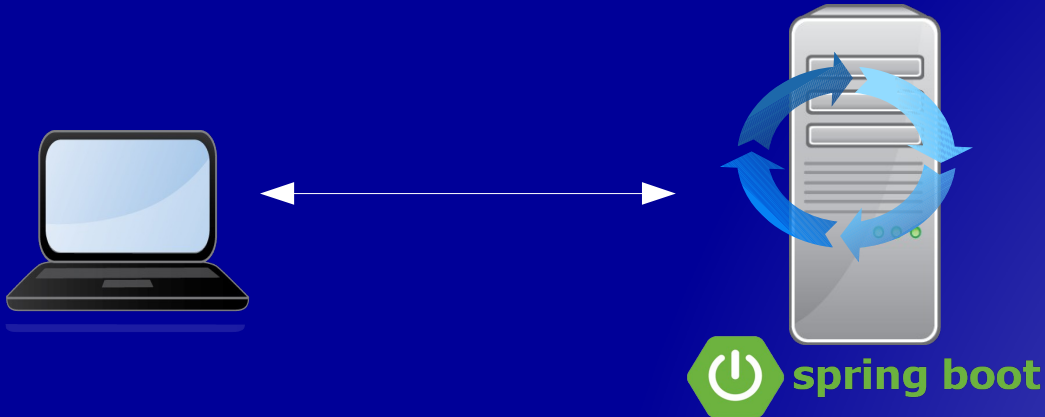
the Simple (or Streaming) Text
Orientated Messaging Protocol



Websocket – Stomp with message broker



Configure spring internal simple message broker



```
@Override
    public void configureMessageBroker(MessageBrokerRegistry
registry) {
    registry.enableSimpleBroker("/topic", "/queue")
    registry.setApplicationDestinationPrefix("app/")
}
```

Configure external message broker



```
@Override
public void configureMessageBroker(MessageBrokerRegistry
registry) {

registry.enableStompBrokerRelay("/exchange", "/topic", "/queue", "/
amq/queue")
    .setVirtualHost(rabbitProperties.getVirtualHost())
    .setRelayHost(rabbitProperties.getHost())
    .setClientLogin(rabbitProperties.getUsername())
    .setClientPasscode(rabbitProperties.getPassword())
    .setSystemLogin(rabbitProperties.getUsername())
    .setSystemPasscode(rabbitProperties.getPassword())
    .setSystemHeartbeatSendInterval(5000)
    .setSystemHeartbeatReceiveInterval(4000);
}
```