

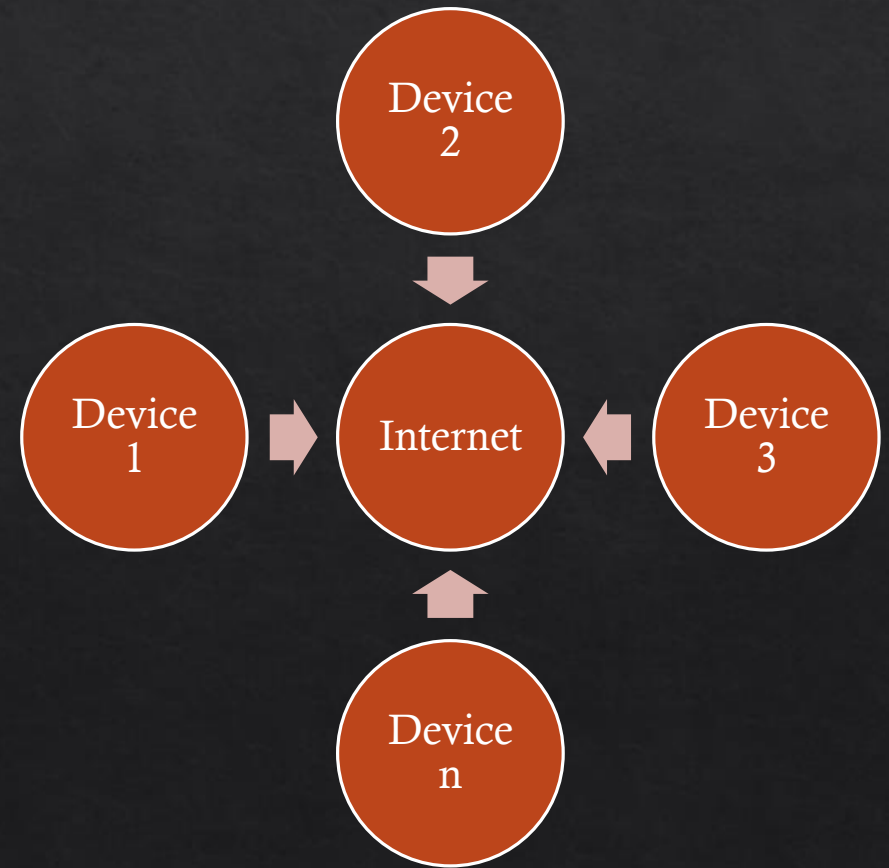
Generic Web-Based Protocols

Swathi N Shayana

4MH16CS106

Why do we need web based protocols in IoT?

- Communication is the key. 🗝️
- Consumer enterprise applications.
- Integration of data and devices.
- Real time data.

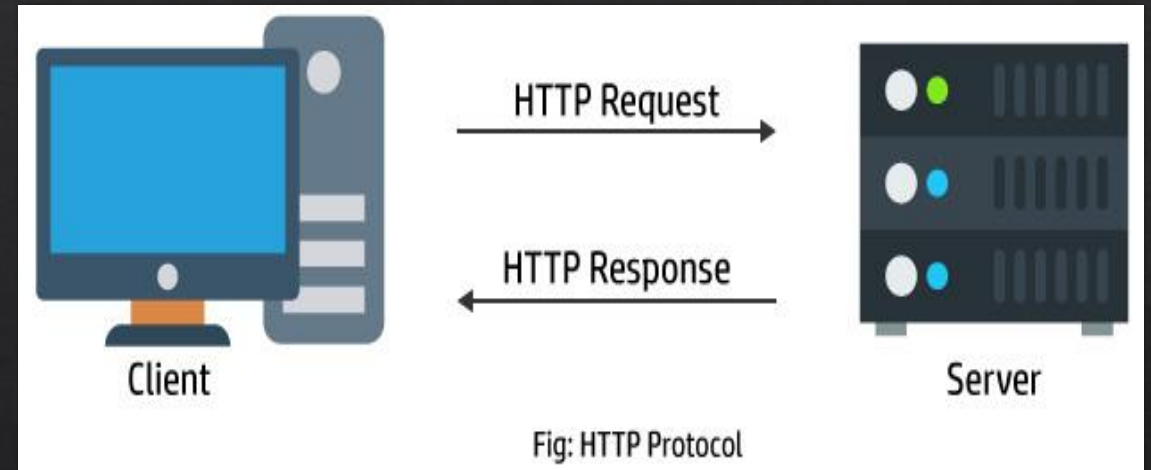


Protocols :

- HTTP/HTTPS
- XMPP
- SOAP
- REST

HTTP/HTTPS

- Stateless protocol.
- Application layer protocol.
- Client – server architecture.
- Data transportation
via http - JSON

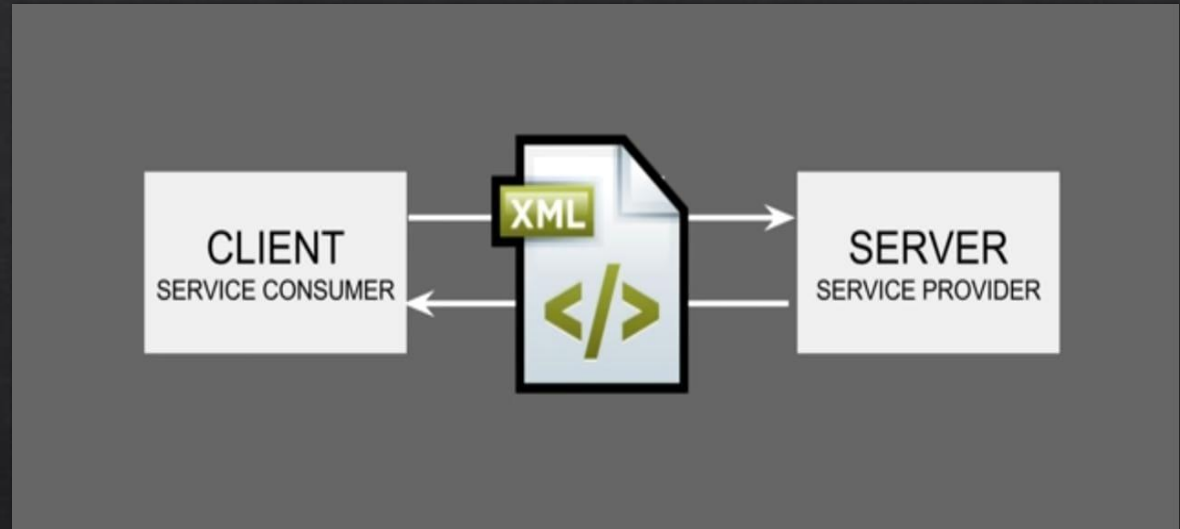


XMPP

- X – eXtensible
P – Presence
- M – Messaging
P - Protocol
- Simpler communication systems btw people and IoT devices.
- For real-time communication tools
 - Voice and video
 - Instant messaging
 - Chat rooms

SOAP

- Messaging protocol.
- Works with XML only.
- Slow parsing speed.
- Built-in error handling.



REST

- REST is an architectural style.
- Uses URI or JSON.
- JSON is easier to read and understand.
- REST is lightweight.
- Best suited for simple tasks.

SOAP vs REST

SOAP

- Protocol.
- Uses XML.
- For business applications.
- Slow.
- Requires more bandwidth.

REST

- Architectural style.
- Uses JSON.
- For simple tasks.
- Fast.
- Requires less bandwidth.

THANK YOU