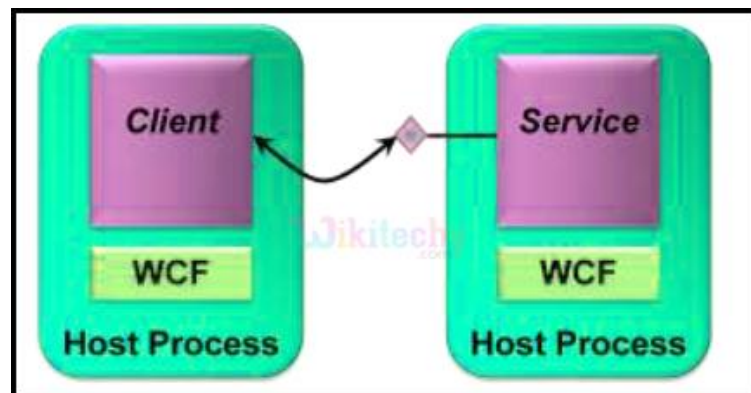


## WCF - Introduction

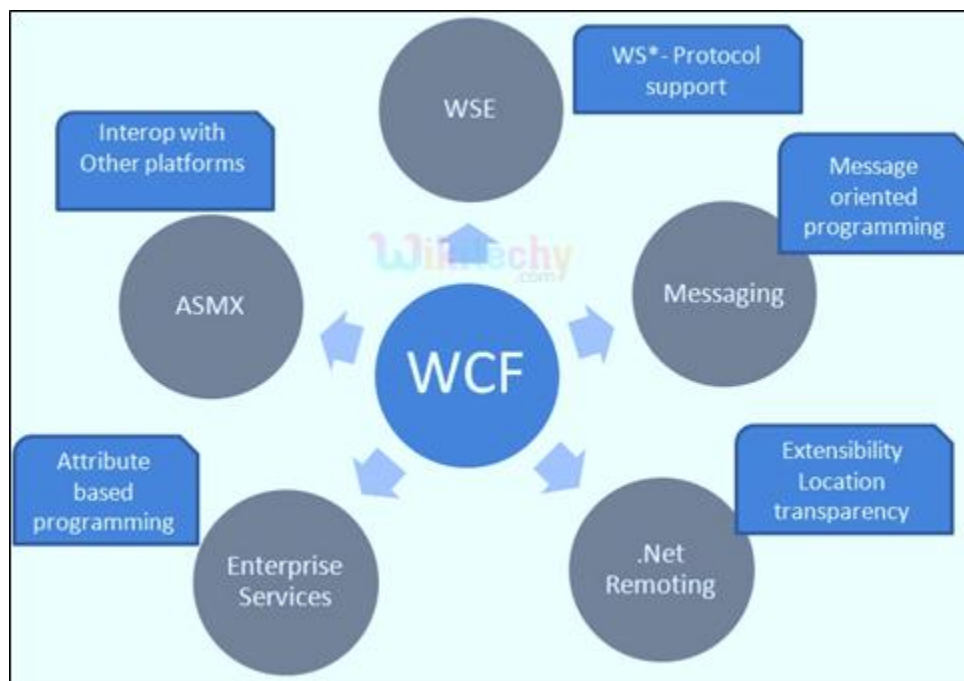
- ◆ **Windows Communication Foundation (WCF)** is a modern technology which is **part of web services** and was introduced in the year of 2006.
- ◆ It is a **framework** for creating the **service-oriented** applications.
- ◆ A **Service Operation** can be implemented asynchronously or synchronously without dictating to the client how to call it.
- ◆ WCF enables asynchronous messages transfers between endpoints.
  - ⌘ A **service endpoint** can be a service hosted by IIS(**Internet Information Services**).
  - ⌘ It can also be a service hosted in an application.
  - ⌘ An endpoint can be a client which is shown below.
- ◆ The exchanged messages can be a simple character or a word or an XML, or a complex binary stream.



**WCF Client and Server Hosts**

## WCF Benefits:

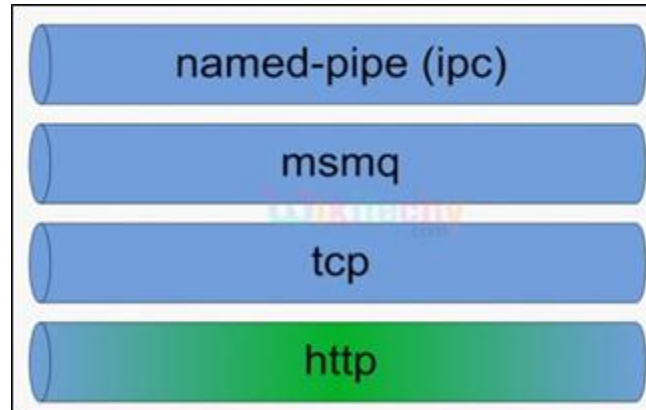
- ◆ WCF adds features to existing web services methodology, to develop and deploy the distributed services over the network based on the ethics of **Service Oriented Architecture (SOA)**.
- ◆ Interoperability forms the base of WCF concept that helps to create and utilize web services as shown above.
- ◆ WCF services are more reliable and secure.



**WCF Benefits**

- ◆ **ASP.NET** Web Services exchange SOAP messages over HTTP.
- ◆ But WCF exchange any message format which includes **SOAP and REST**.

☛ WCF uses various protocols such as **HTTP, TCP, MSMQ** and named pipes as shown below:



### WCF Protocols

☛ WCF components includes :

- ☞ WCF service
- ☞ WCF service host
- ☞ WCF service client