Web service **Foundation**

.msg

Definition

ER Evolution & Revolution
Web services are both an evolution of distributed computing and the launch point for revolution in the way we think about building large-scale-systems.

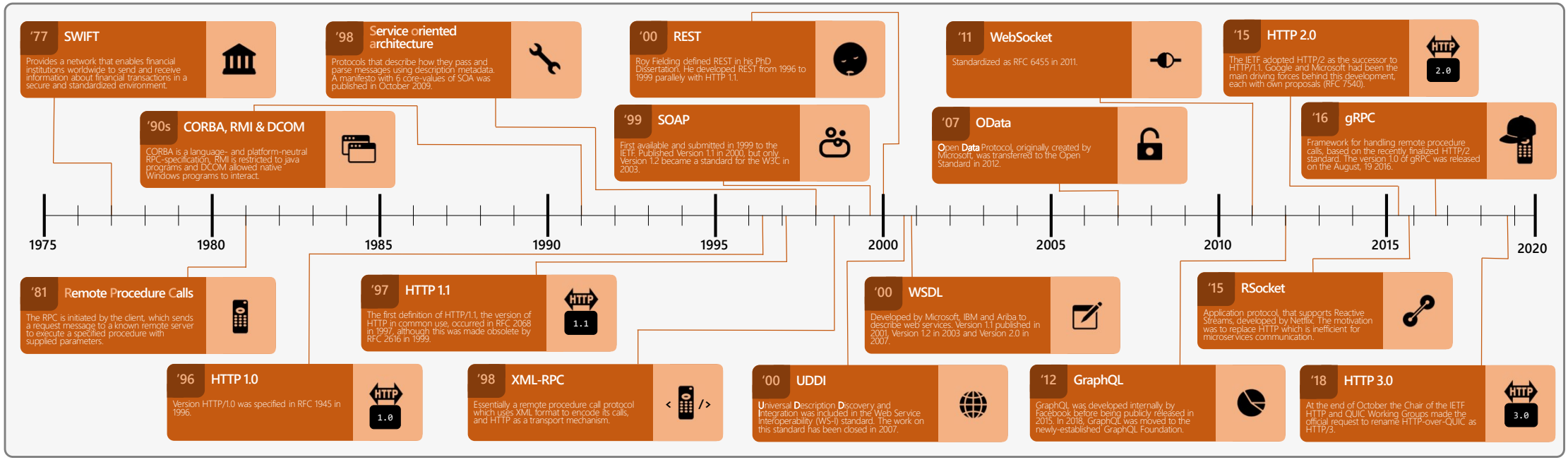
PI Platform-Independent
Web services are platform-independent software components for implementing distributed applications.

PY Proxy
A Web service itself is merely a substitute or intermediary for implemented functionality described in WSDL.

MM Machine-to-Machine Communication
Web services are designed for communication between computers and not between humans and computers.

AN Abstractness
There is a need for a concrete software or hardware implementation. Existing software components can also be connected upstream to web service interfaces.

SP Standard Internet Protocols
Web services describe the functionalities implemented by subsystems and make them available via standard Internet protocols.



Hypertext Transfer Protocol

IA Interaction ability
HTTP is the foundation of data communication of the World Wide Web. It is a distributed, collaborative hypermedia information system.

RC Reconcilability
HTTP was developed to facilitate hypertext and the World Wide Web, whose hypertext documents include hyperlinks to other resources that the user can easily access.

SZ Standardizability
Every web service uses the same standardized hypertext transfer protocol.

HTTP versions

0.9 HTTP 0.9
HTTP/0.9 defined the Hypertext Transfer Protocol (HTTP). No client profile information is transferred with the query.

1.0 HTTP 1.0
With HTTP/1.0, a new TCP connection is established before each request and closed by the server by default after the response has been transmitted.

1.1 HTTP 1.1
With HTTP/1.1, an additional header entry allows a client to express the wish not to close the connection in order to be able to use the connection again.

2.0 HTTP 2.0
Compared to HTTP/1.1, nothing has changed expect how the data is framed and transported.

QUIC QUIC
Experimental transport layer network protocol designed by Google. The main goal is to improve performance of connection-oriented web applications that are currently using TCP.

3.0 HTTP 3.0
Upcoming third major version of HTTP. HTTP/3 is based on previous RFC draft "Hypertext Transfer Protocol (HTTP) over QUIC".

WebSocket

OA Overall
Computer communications protocol, providing full-duplex communications channels over a single TCP connection.

FN Functionality
The WebSocket protocol enables interaction between a web browser and a web server with lower overheads, facilitating real-time data transfer.

MH Message-Handling
The server sends content to the client without being requested by the client and allows messages to be passed back and forth while keeping the connection open.