

2014

GMIN 309 - TAWeb

SYNCHRONISATION

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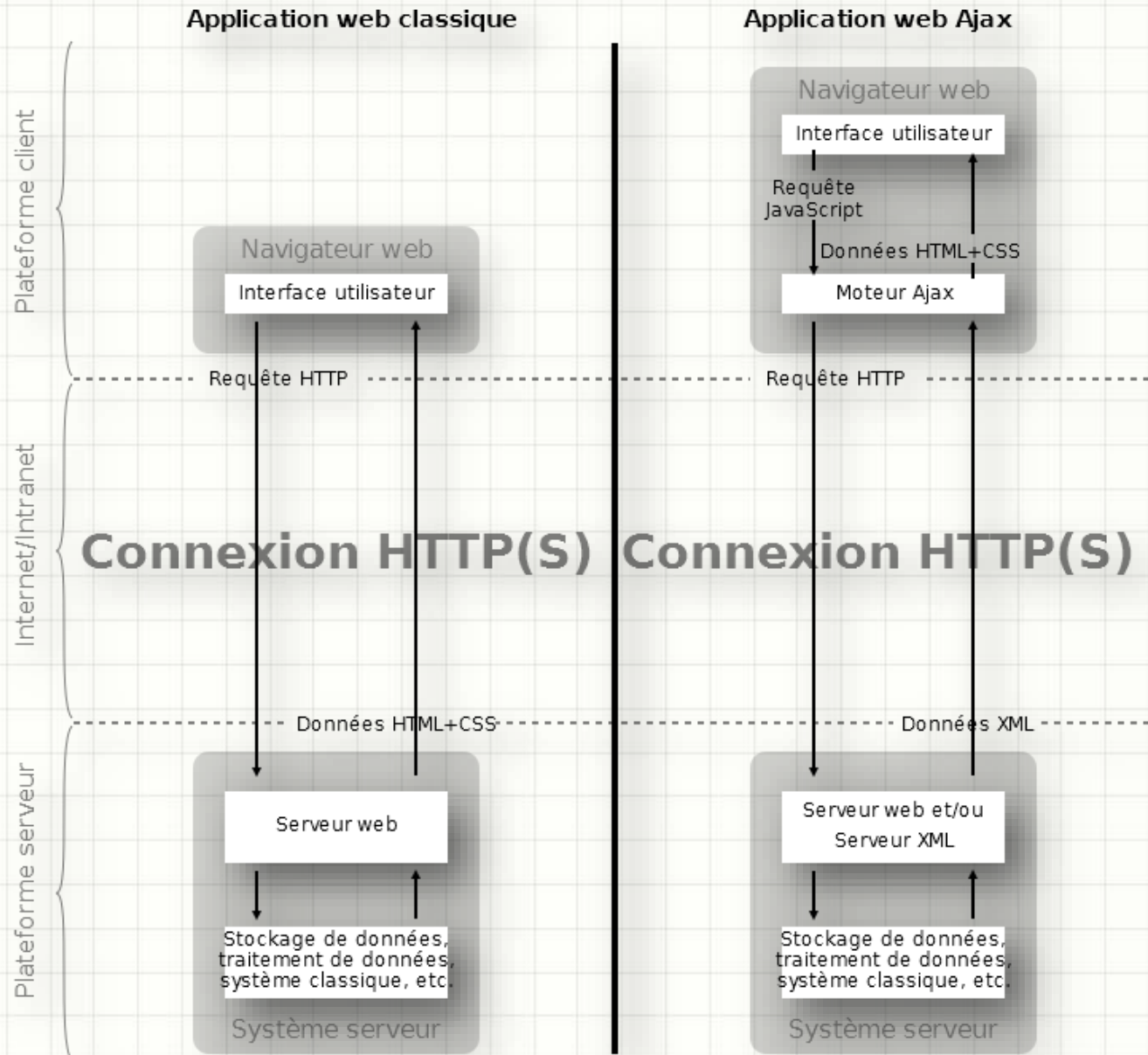
Sommaire (cours 6)

- retour des projets
- Ajax
- messaging
- formats
- qualité de service
- prochains projets



AJAX

Ajax

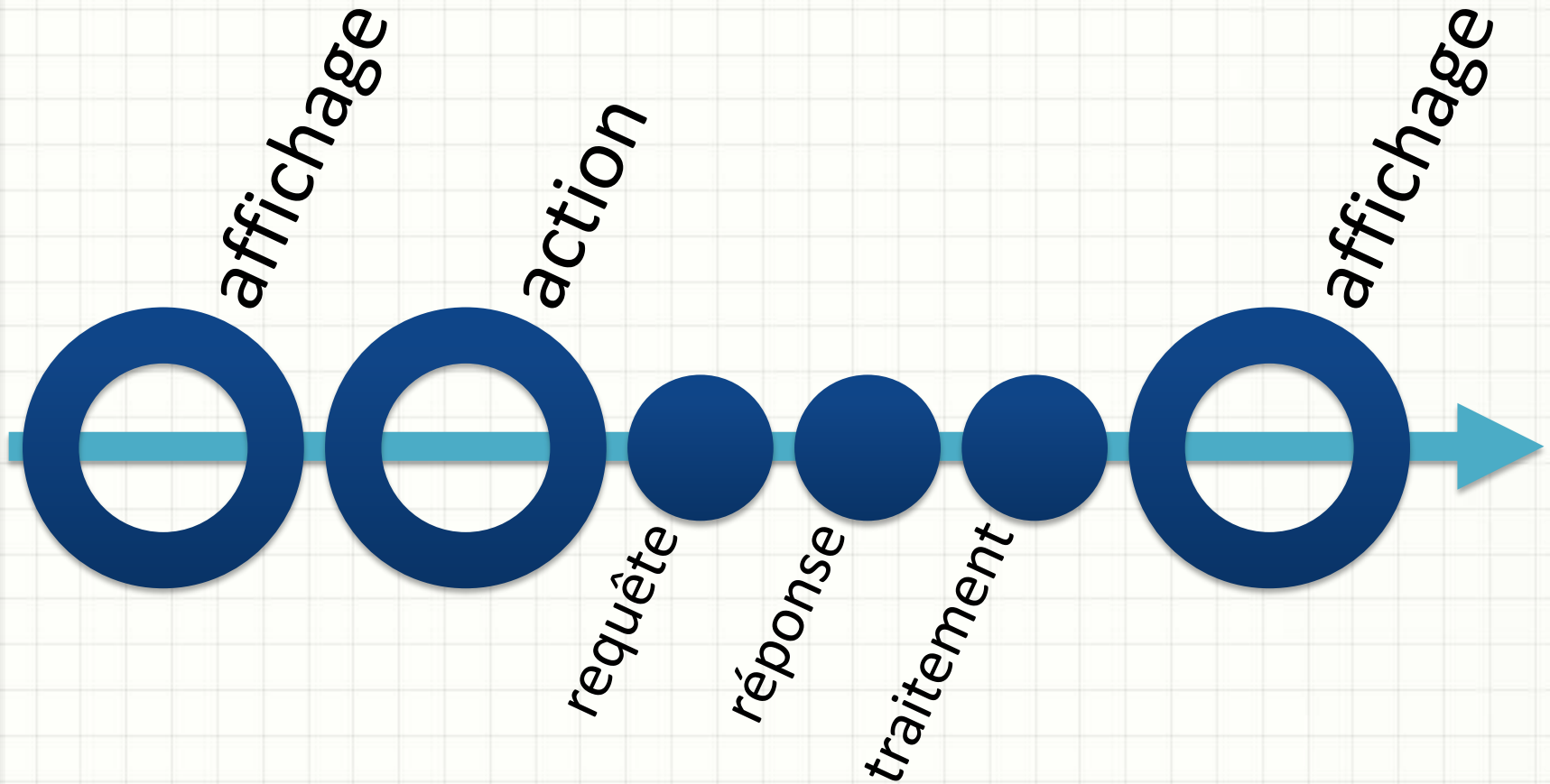


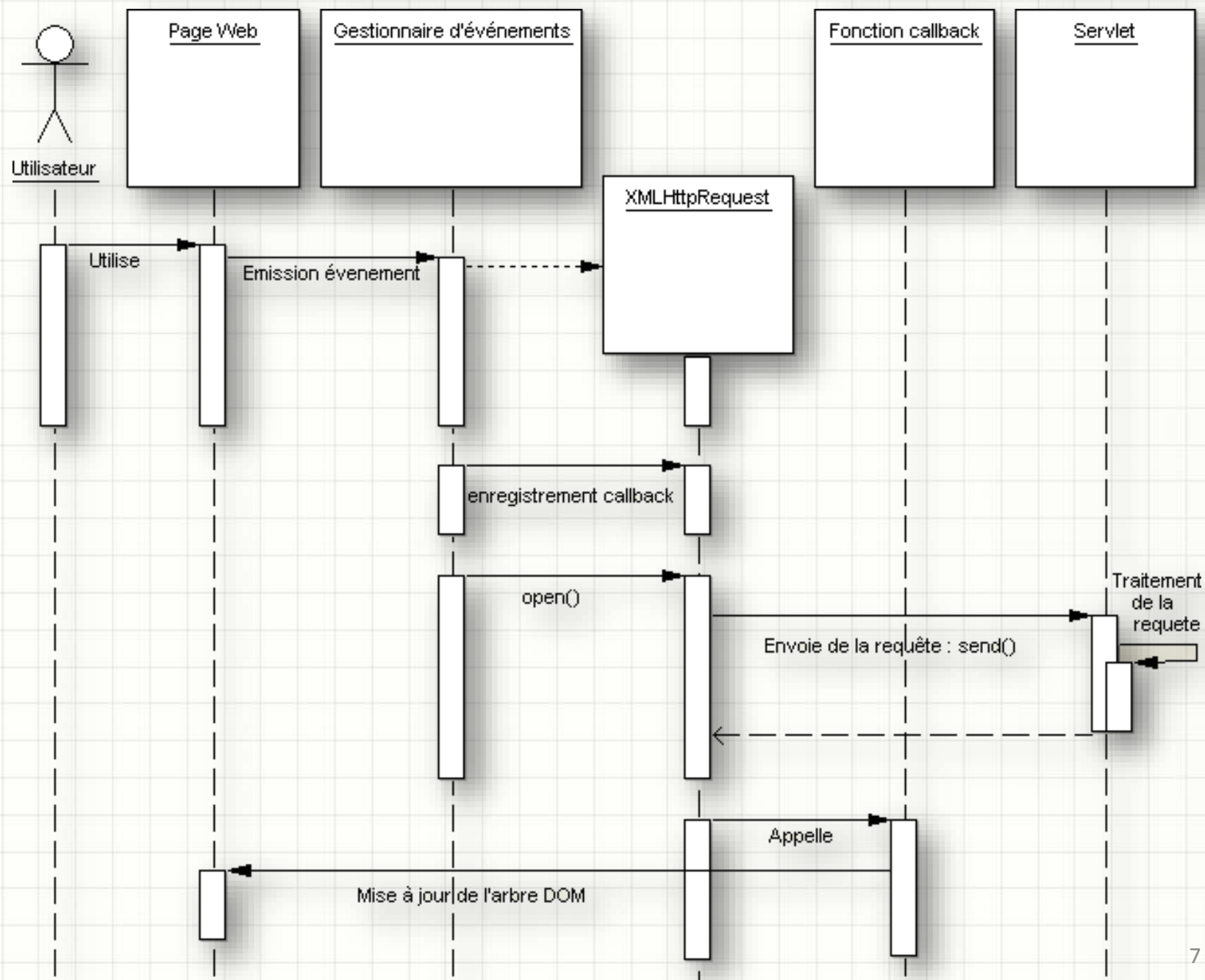
XMLHttpRequest

```
function createRequestObject() {  
    if (window.XMLHttpRequest)  
        return new XMLHttpRequest();  
  
    if (window.ActiveXObject) {  
        var names = [  
            "Msxm12.XMLHTTP.6.0",  
            "Msxm12.XMLHTTP.3.0",  
            "Msxm12.XMLHTTP",  
            "Microsoft.XMLHTTP"  
        ];  
        for(var i in names) {  
            try{ return new ActiveXObject(names[i]); }  
            catch(e){}  
        }  
    }  
    window.alert("Ajax non supporté.");  
    return null;  
}  
  
xhr = createRequestObject();
```

\$.ajax(...)

Asynchrone





Traitement asynchrone

- forcer en synchrone → **C'EST LE MAL !**
- →→→→ handler (*évènement*) ←←←←
- pointer sur fonction

Requête

```
var xmlhttp = new XMLHttpRequest();

xmlhttp.onreadystatechange = function() {
    if (xmlhttp.readyState == 4 && xmlhttp.status == 200) {
        myHandlerFunction(xmlhttp);
    }
}

xmlhttp.open("GET", "URL", true);
xmlhttp.send();

function myHandlerFunction(xmlhttp) {
    console.log(xmlhttp.responseText);
    console.log(xmlhttp.responseXML);
}
```

⚠ format et encodage

HTTP : POST et GET

issu de W3Schools

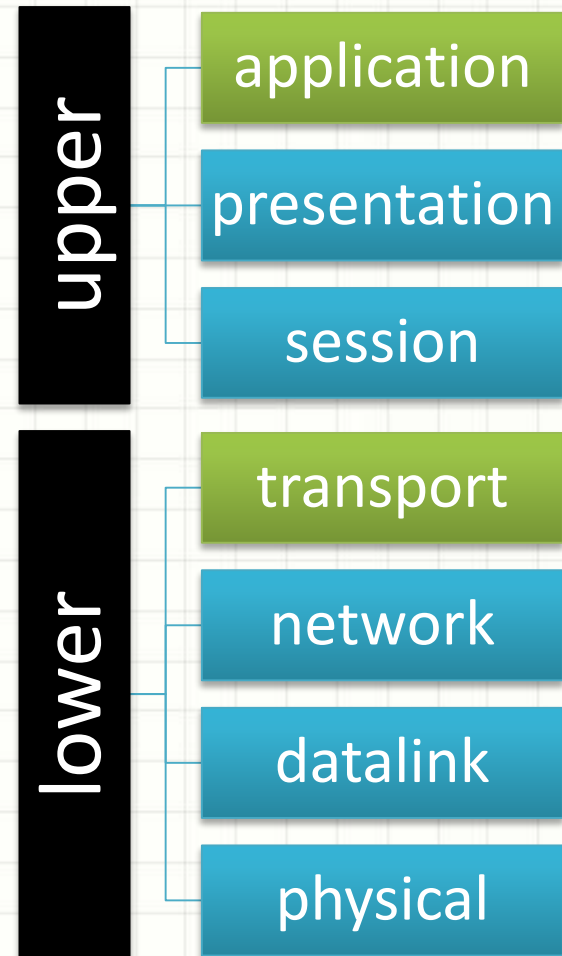
	GET	POST
Back/Reload	Harmless	re-submitted (should alert user)
Bookmarked	✓	X
Cached	✓	X
Encoding type	application/x-www-form-urlencoded	<ul style="list-style-type: none">• application/x-www-form-urlencoded• multipart/form-data
History	✓	X
Lenght restric.	max URL length is 2048 chars	X
Data restrict.	ASCII characters	X (binary allowed)
Security	data sent is part of the URL /! password	parameters not stored in browser history or in web server logs
Visibility	in URL	X

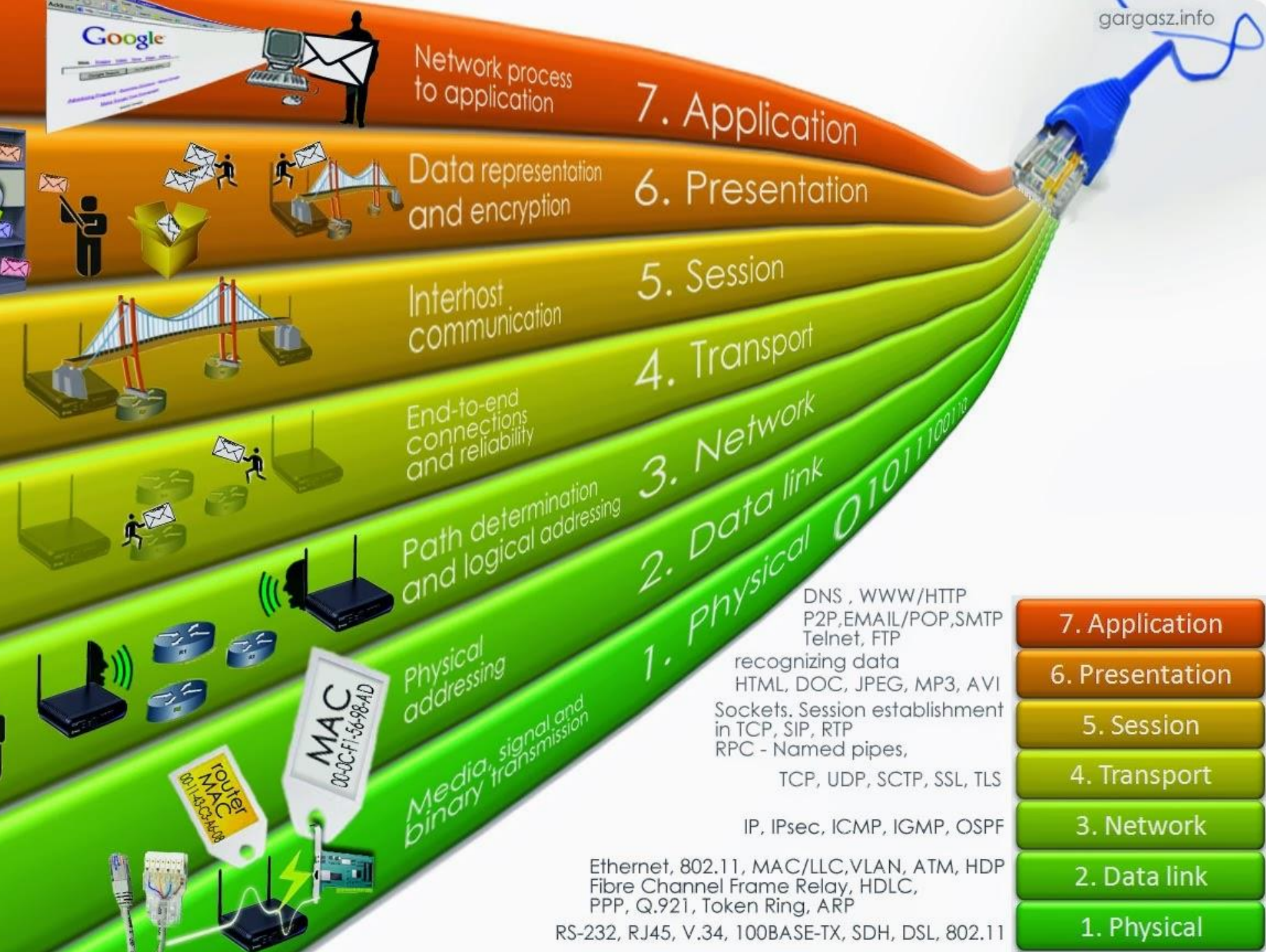


MESSAGING

Couches réseaux

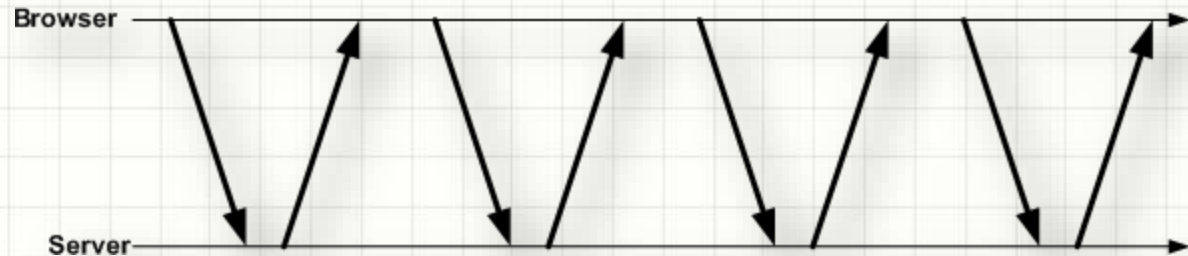
- 7 couches réseau
- spécifications
 - 9 méthodes HTTP
- TLS/**SPDY**/HTTP
- **Cross domains**



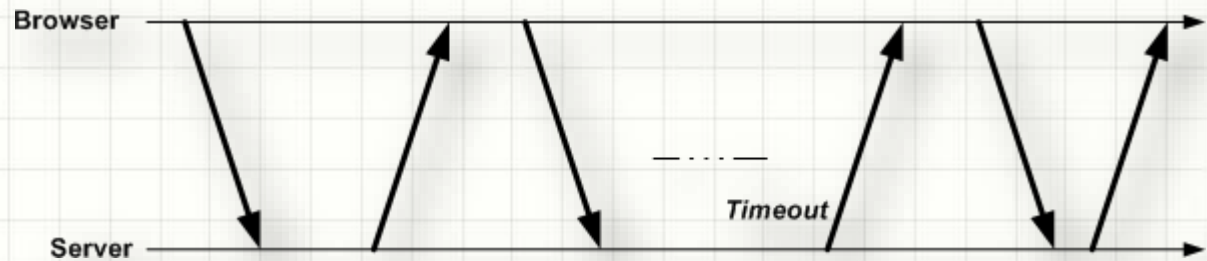


Réactivité du transport

Polling



Long-polling



Push





FORMATS

Formats

- Multimédia binaire : mp4, mp3, png, ...
- Streaming : spécifique, ...
 - Flash Media Serveur
- ...
- XML : Webservice, site web, ...
- JSON : PHP
- ...
- Binaire : CGI, Servlet, ...
 - BlaseDS, LiveCycle DataService, GraniteDS, ...
 - Zend Framework, AMP2PHP, ...
 - AMF2Ruby, AMF2Delphi, ...

Formats web

XML

```
<response>
  <item>
    <id>4</id>
    <fn>Mélanie</fn>
    <ln>Zétofraï</ln>
  </item>
  <item>
    <id>2</id>
    <fn>Guy</fn>
    <ln>Tarre</ln>
  </item>
</response>
```

E4X

```
(new DOMParser())
  .parseFromString( ... )
```

JSON

```
{
  {
    id: 4,
    fn: "Mélanie",
    ln: "Zétofraï"
  }, {
    id: 2,
    fn: "Guy",
    ln: "Tarre"
  }
}
```

objet

```
JSON.parse( ... )
```



QoS

Temps global

Ressenti utilisateur =

1. requête
2. traitement serveur
3. conversion serveur
4. téléchargement
5. traitement client
6. conversion client
7. rendu graphique



Qualité de service

- Réseau

- bande passante
- encodage
- streaming
- tolérance erreurs

- Données

- pré-chargement
- niveau de détail
- filtrage
- pagination

- Matériel

- simultanéité
- fréquence / pauses
- traitement



**VOUS AVEZ DES
QUESTIONS ?**