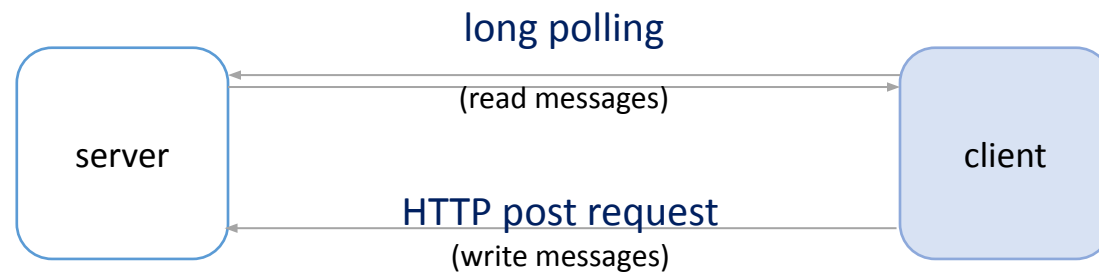


Push and pull technologies in real-life systems

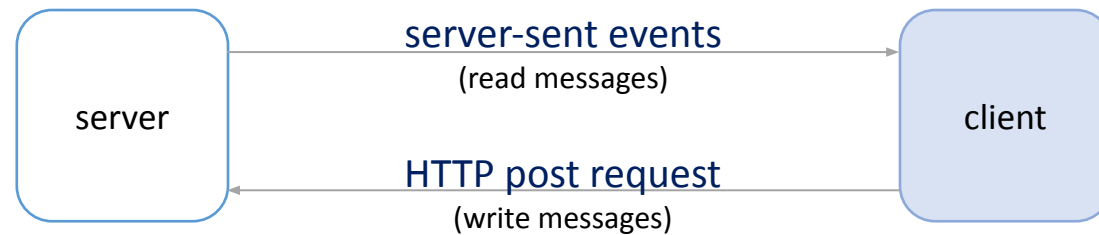
messaging system	available options
AWS SQS (pull-based)	short polling long polling
Apache Kafka (pull-based)	short polling long polling
AWS Kinesis (pull-based)	short polling
RabbitMQ (push-based)	WebSocket
Apache ActiveMQ (push-based)	WebSocket

Push and pull technologies in real-life systems

online chat



good option for older versions of browsers
(when WebSocket and SSE are not supported)



simple web chat app can be implemented in
about 1 hour using SSE

Push and pull technologies in real-life systems

online
chat

long polling

WebSocket

SSE

news
feed

short polling

long polling

WebSocket

SSE

stock tracking
app

WebSocket

SSE

browser
game

WebSocket

collaborative
code editor

long polling

WebSocket

SSE

Push and pull technologies in real-life systems

The screenshot displays the Gmail web interface on the left and the Chrome DevTools Network tab on the right. The Gmail interface shows the 'Compose', 'Inbox', 'Starred', 'Snoozed', 'Sent', 'Drafts', 'Meet', and 'Hangouts' sections. The DevTools Network tab shows a list of network requests, including font files and XHR requests, with a timeline at the top.

Name	Status	Type	Initiator	Size	Time	Waterfall
4UaGrENHsxJIGDuGo1OILL3Owp5eKQtG...	200	font	2?hl=en&origin=ht...	(disk cac...	6 ms	
KFOmCnqEu92Fr1Mu4mxKKTU1Kg.woff2	200	font	2?hl=en&origin=ht...	(disk cac...	6 ms	
log?format=json&hasfast=true&authuser=0	200	xhr	m= b, _tp:605	155 B	37 ms	
m=DmK2gd	200	script	m= b, _tp:633	437 B	10 ms	
m=A4UTCb,i5dxUd,m9oV,VXdfxd,RAnnUd,...	200	script	m= b, _tp:633	12.4 kB	16 ms	
4UabrENHsxJIGDuGo1OILLU94YtzCwZsPF...	200	font	2?hl=en&origin=ht...	(disk cac...	3 ms	
log?format=json&hasfast=true&authuser=0	200	xhr	m= b, _tp:605	155 B	19 ms	
s?hl=en&c=30	200	xhr	m=rn4kU,yWJZbc...	717 B	240...	
clear.dot.gif?zx=4lg178s4gbr0	200	gif	m=MHpzHf:13	64 B	29 ms	
log?format=json&hasfast=true&authuser=0	200	xhr	m=b:986	155 B	17 ms	
batchexecute?rpcids=WWoa8&f.sid=-8212...	200	xhr	m= b, _tp:605	1.3 kB	124...	
log?format=json&hasfast=true&authuser=0	200	xhr	m= b, _tp:605	155 B	21 ms	
log?format=json&hasfast=true&authuser=0	200	xhr	rs=AA2YrTtK23H8...	155 B	17 ms	
log?format=json&hasfast=true&authuser=0	200	xhr	m= b, _tp:634	155 B	21 ms	
log?format=json&hasfast=true&authuser=0	200	xhr	m= b, _tp:605	155 B	21 ms	
log?format=json&hasfast=true&authuser=0	200	xhr	m=b:986	155 B	20 ms	