

# El problema C10K, la nube y la supercomputación

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PyConES

Zaragoza, 9 de Noviembre de 2014



# ROJADIRECTA

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## Today on Internet TV

UTC/GMT +1  24H  AM/PM 14:57:25

NBA

Search

- 07:00 Tennis (WTA Tour): **OEC Taipei WTA Challenger** (07:00-15:00)
- 09:35 Cricket (T20): **Australia - South Africa** (09:35-14:00)
- 10:00 Hockey (KHL): **Amur Khabarovsk - HC Dinamo Minsk**
- 11:00 Tennis (Challenger Bratislava): **Slovak Open** (11:00-21:00)
- 11:00 Tennis (Challenger Mouilleron-Le-Captif): **Internationaux de Tennis de Vendée** (11:00-22:30)
- 11:00 Basketball (KBL): **Seoul SK Knights - Busan KT Sonicboom**
- 11:30 Tennis (Challenger Ortisei): **Sparkassen Challenger** (11:30-22:00)
- 12:00 Basketball (PBA): **San Miguel Beermen - Alaska Aces**
- 12:00 UEFA Youth League: **Athletic Bilbao - FC Porto**
- 13:00 UEFA Youth League: **Maribor - Chelsea**
- 13:00 Cyprus Cup: **Ethnikos Achnas Fc - Aris Limassol**
- 13:00 Lithuania Cup: **Dainava Alytus - Silas**
- 13:00 UEFA Youth Champions League: **FC Shakhtar Donetsk - FC BATE Borisov**
- 13:00 UEFA Youth Champions League: **NK Maribor - Chelsea**
- 13:45 Egyptian Premier League: **Smouha - El Masry Club**
- 14:00 Albanian Cup: **Apolonia - Teuta**
- 14:00 Albanian Cup: **Bylis.B - SK Tirana**
- 14:00 Albanian Cup: **Elbasani - Laci**
- 14:00 Albanian Cup: **Kastrioti - KS Vllaznia**
- 14:00 Albanian Cup: **Lushnja - FK Partizani Tirana**
- 14:00 Albanian Cup: **Pogradeci - Kukes**

[twitter](#)

## Download last full matches

- NCAAB - 01/11/2014 - Thompson Rivers @ Gonzaga
- FUTBOL: Segunda B 2014/2015 (Gr.1) J11: SD Com...
- FÚTBOL: Serie A - Matchday 10 - Highlights Sho...
- PROGRAMA - Premier League Review - Jornada 10
- PROGRAMA - NFL en Acción - Episodio 9
- HOCKEY - NHL 2014-15 - 04/11/2014 - Calgary Fl...
- FUTBOL - UEFA CL 2014/15 - Group C J4: SL Benf...

## Last video highlights

- UCL 14/15 - Benfica v. Monaco 04/11/2014
- Scottish Championship: Cowdenbeath v Rangers 0...
- UCL 14/15 - Basel v. Ludogorets 04/11/2014
- UCL - Malmo FF vs. Atlético Madrid 04/11/2014
- UCL - Juventus vs Olympiakos 04/11/2014
- UCL - Borussia Dortmund vs Galatasaray 04/11/2...
- UCL - Arsenal vs. Anderlecht 04/11/2014



Rojadirecta

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MAXDEPORTV

<http://maxdeportvnew.chatango.com>  
TODO EL DEPORTE A SOLO UN CLICK

anon1822: KB solo imposible

Wed Nov 5, 6:56:52am

anon2339: kobe es un pitolero

Wed Nov 5, 6:57:09am

anon2339: esta como de -12-35

Wed Nov 5, 6:57:28am

tusexologo: no anon39. estoy esperando qe vengas a ordeñarme..

Wed Nov 5, 6:57:29am

anon2339: sexologo que tu mama te va a sacar la leche?

Wed Nov 5, 6:57:53am

anon2339: sexologo recuerda que eres un niño especial

Wed Nov 5, 6:58:05am

tusexologo: tu mama es mi clienta.

Wed Nov 5, 6:58:27am

tusexologo: todas las noches le aviento 1 litro. qe porque tu papa ni la verga se le para.

Wed Nov 5, 6:58:51am

anon1822: desastre

Wed Nov 5, 6:59:03am

anon8836: las mexicanas no se afeitan el culo guacala



Wed Nov 5, 7:03:35am

anon8836: y los mexicanos son gay

Wed Nov 5, 7:03:47am

anon5935: puta lakers miedaaaaaaaaaaaaaaaaaaaa

Wed Nov 5, 7:05:46am

 #   

# UNASUR Meeting

Broeders. We unitings dis day to celebrate peace and cooperation among us

may what we startings last forever!

into rich

peace

hue

cooperation

yes

friends

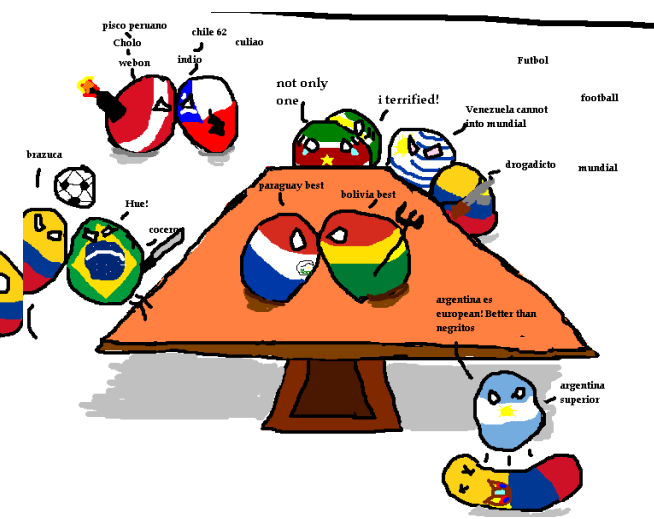
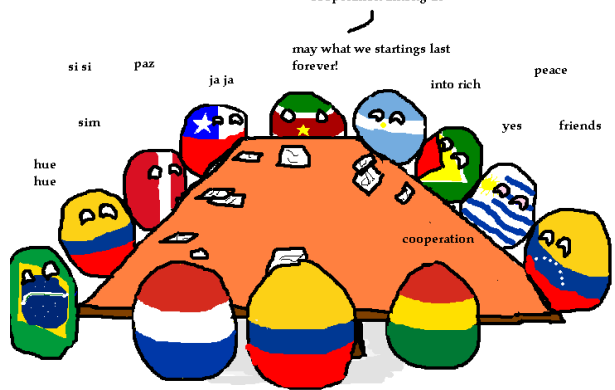
si si

paz

ja ja

sim

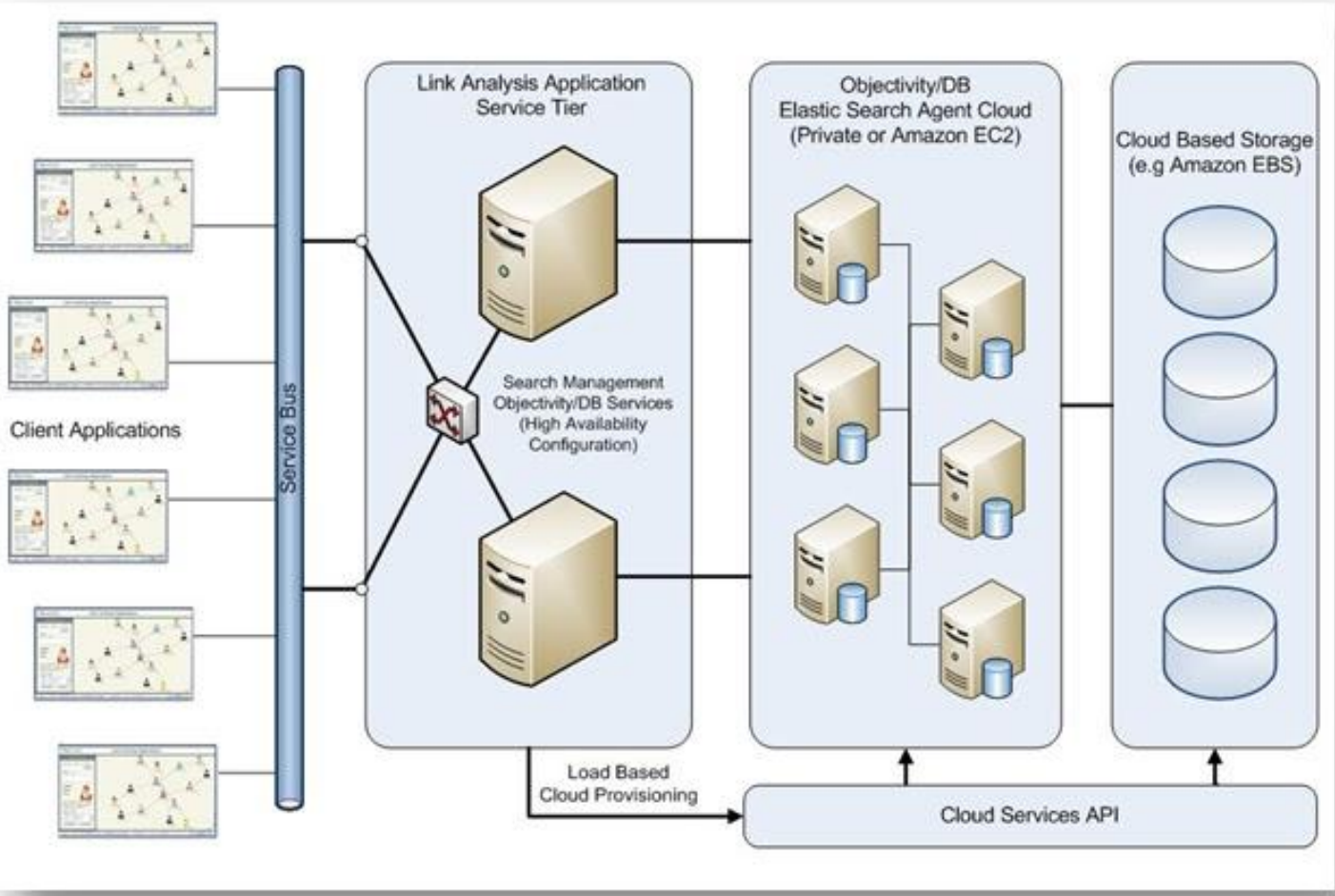
hue hue













# Cloudchat!

## Active public chats

Name	Owner	Active connections
<a href="#">PyConEs</a>	guillemborrell	0
<a href="#">Uno de prueba con todo</a>	guillemborrell	0
<a href="#">Guille aqui</a>	yoms.tf	0
<a href="#">W/Oprivate</a>	yoms.tf	0
<a href="#">W/=save</a>	yoms.tf	0
<a href="#">Prueba2</a>	yoms.tf	0



This repository Search

Explore Gist Blog Help



guillemborrell



# guillemborrell / cloudchat

Unwatch 1

Star 0

Fork 0

Minimalistic chat application for google appengine — Edit

115 commits

1 branch

0 releases

1 contributor



branch: master

cloudchat / +



Merge branch 'master' of https://github.com/guillemborrell/cloudchat



guillemborrell authored on Sep 30

latest commit 9343f9647e



css

Now names are colored in the embedded chat

3 months ago



js

No local push of messages.

2 months ago



templates

error in calling convention

2 months ago



.gitignore

Updated application and indices. Cleanups too.

4 months ago



LICENSE.txt

Create LICENSE.txt

4 months ago



README.md

Update README.md

4 months ago



app.yaml

Added css

3 months ago



index.yaml

Now the tool tracks previous activity

3 months ago



main.py

Improved connection handling and first connection

2 months ago

## Code

Issues 0

Pull Requests 0

Wiki

Pulse

Graphs

Settings

HTTPS clone URL

https://github.com



You can clone with HTTPS, SSH, or Subversion.

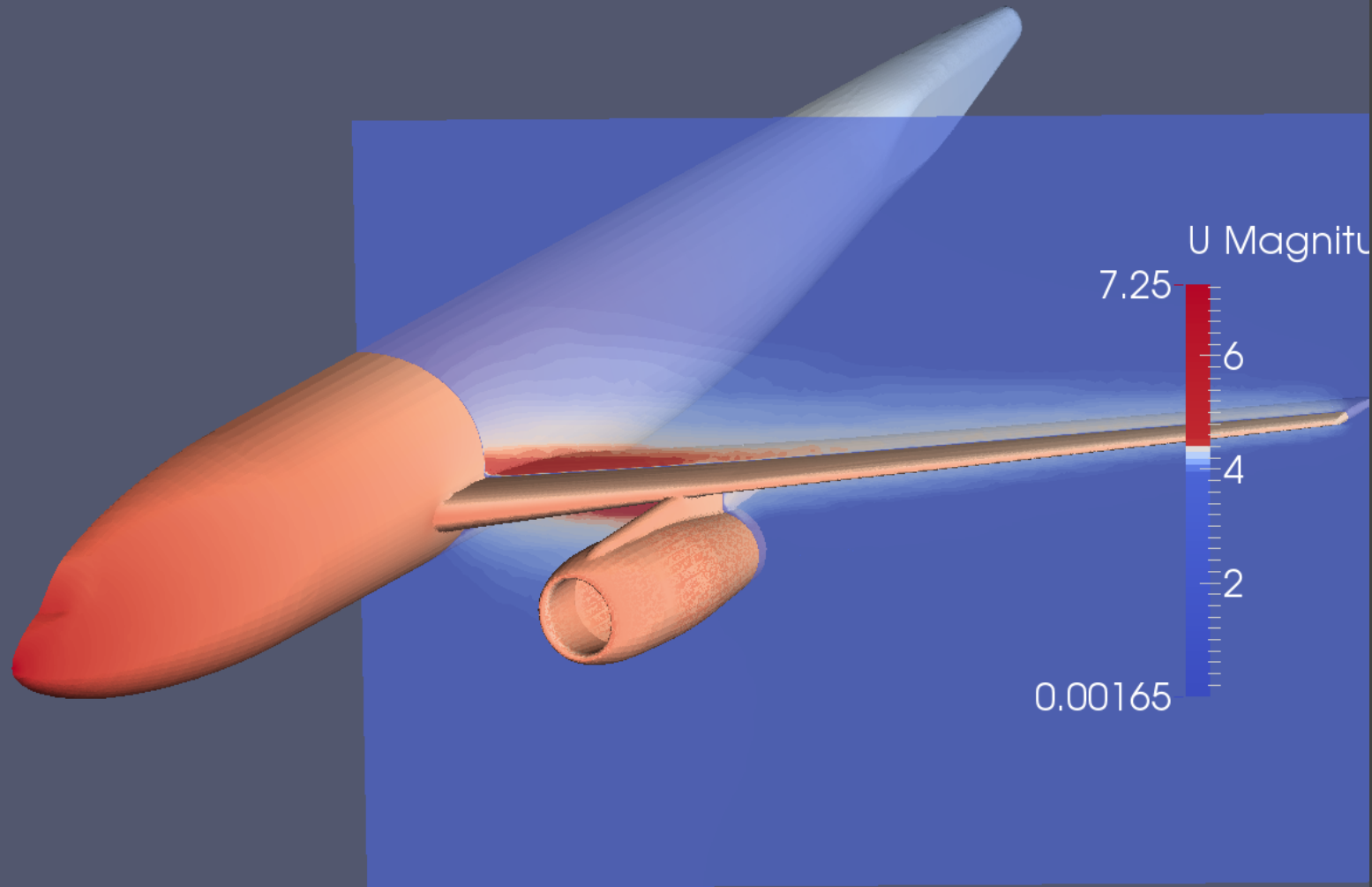
Download ZIP





**NO SMOKING  
EL NO A YOU SMOKO**

**FASTEN SEATBELTS  
PUTANA DA SEATBELTZ**



U Magnitude

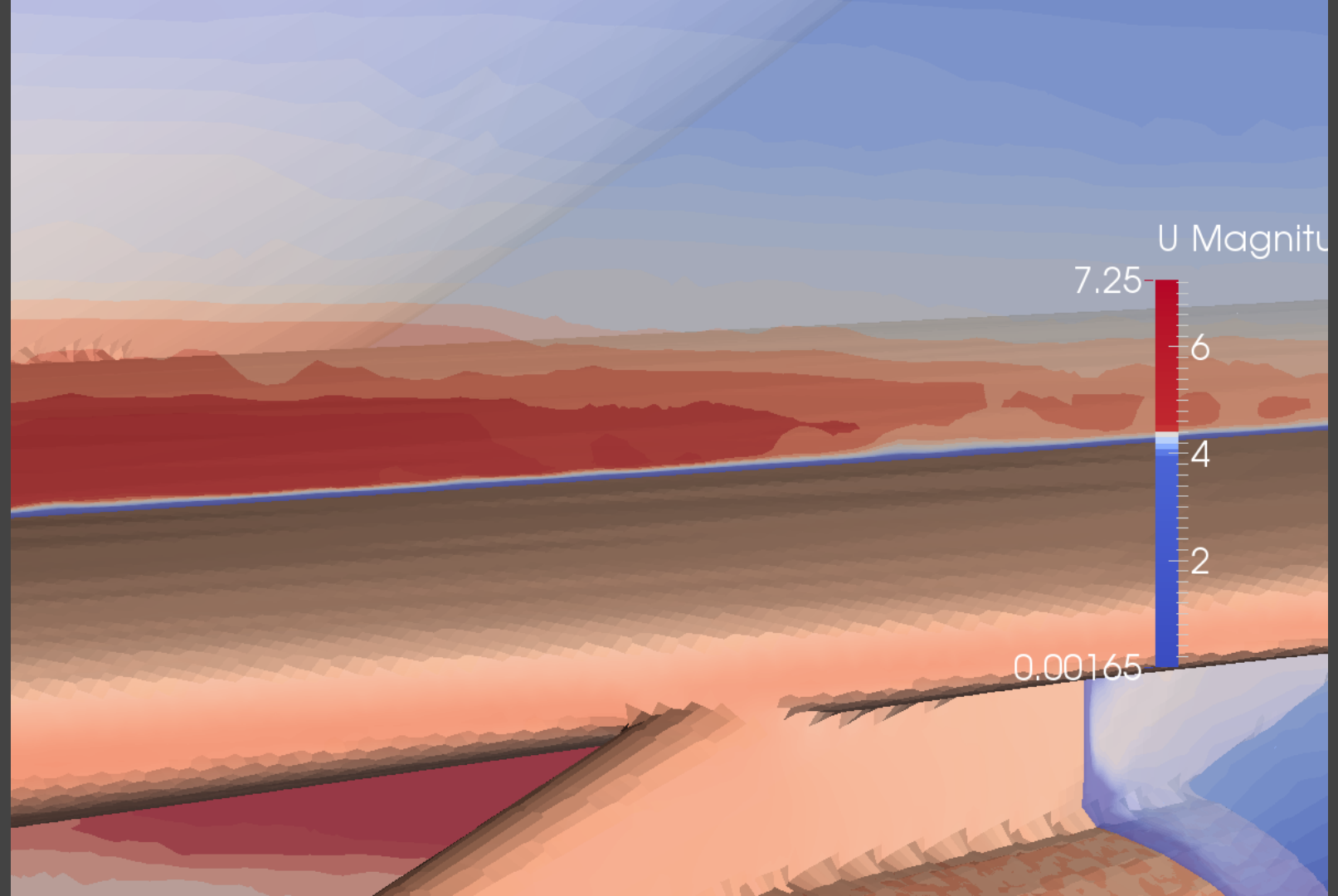
7.25

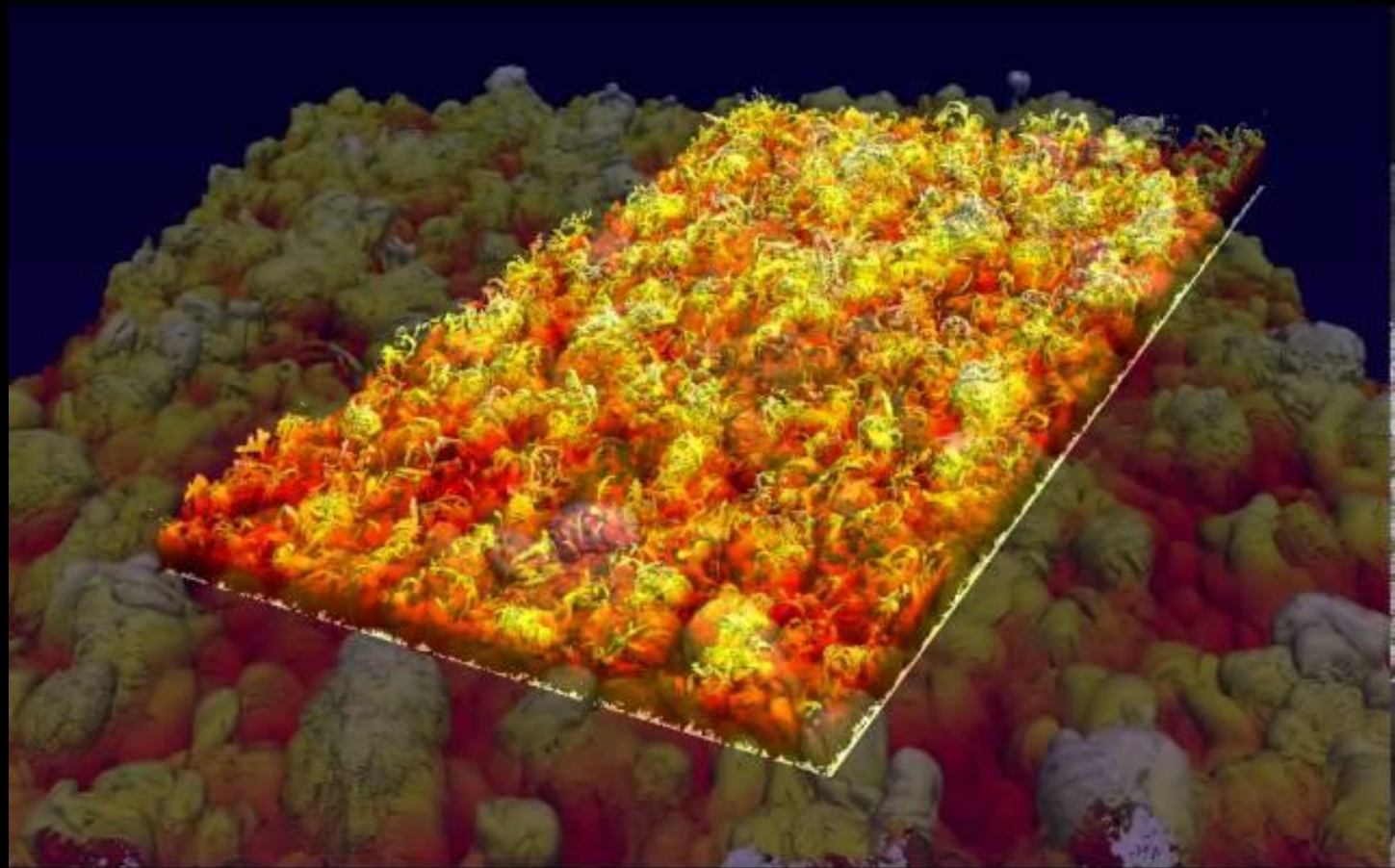
6

4

2

0.00165









The IBM logo is positioned in the upper left corner of the image, rendered in its characteristic eight horizontal stripes.

*Blue Gene/P*



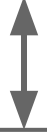


IBM

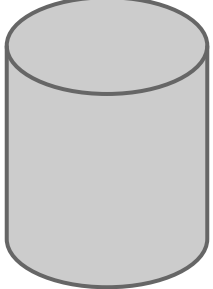
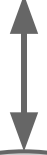
Blue Gene Q supercomputer

supercomputer Blue Gene Q

Cliente



Servidor

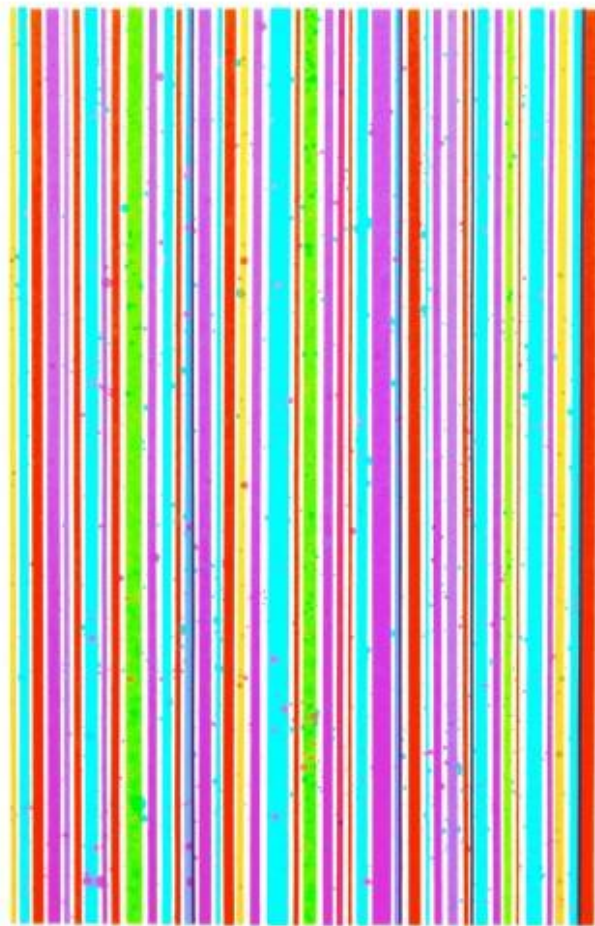


Cliente



Servidor





2010-2011

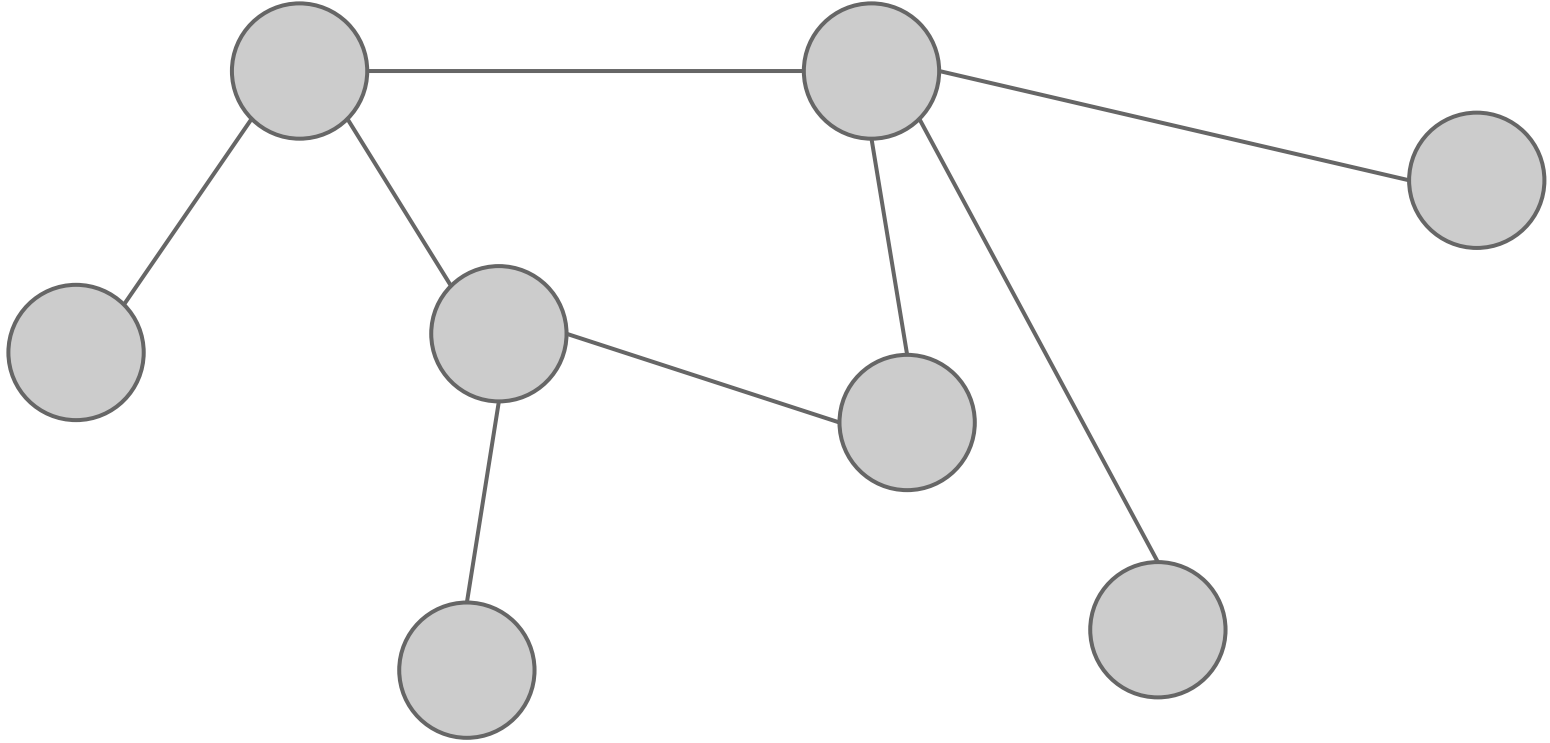
2011-2012

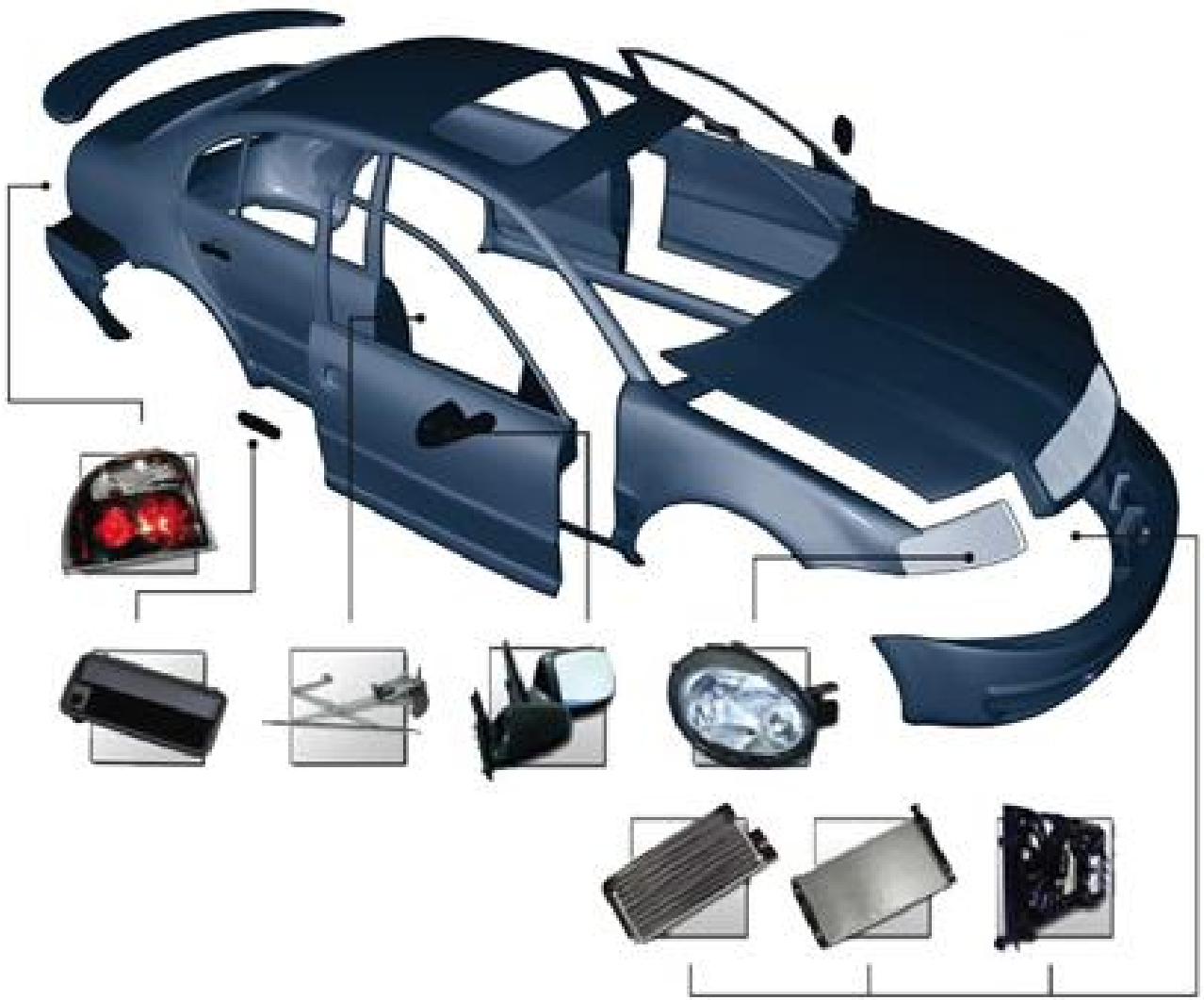
2012-2013



```
335     for i,client_id in enumerate(chat.clients):
336         message_string = json.dumps(
337             {"clients":len(chat.clients),
338              "name": chat.name,
339              "cursor": False,
340              "message": [{"author": author,
341                          "id": body['id'],
342                          "when": self.print_time(),
343                          "text": prettify(cgi.escape(body['text']))
344                          }]
345             )
346         threads.append(ThreadedMessage(client_id,message_string))
347         threads[i].start()
348
349
350     for thread in threads:
351         thread.join()
```









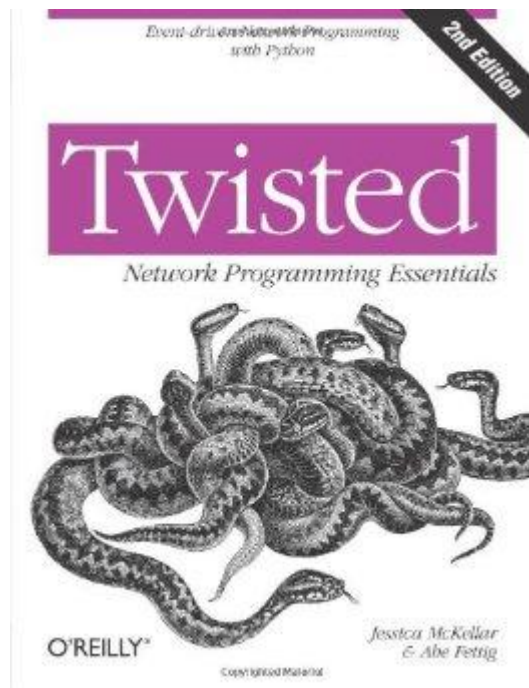
Gevent

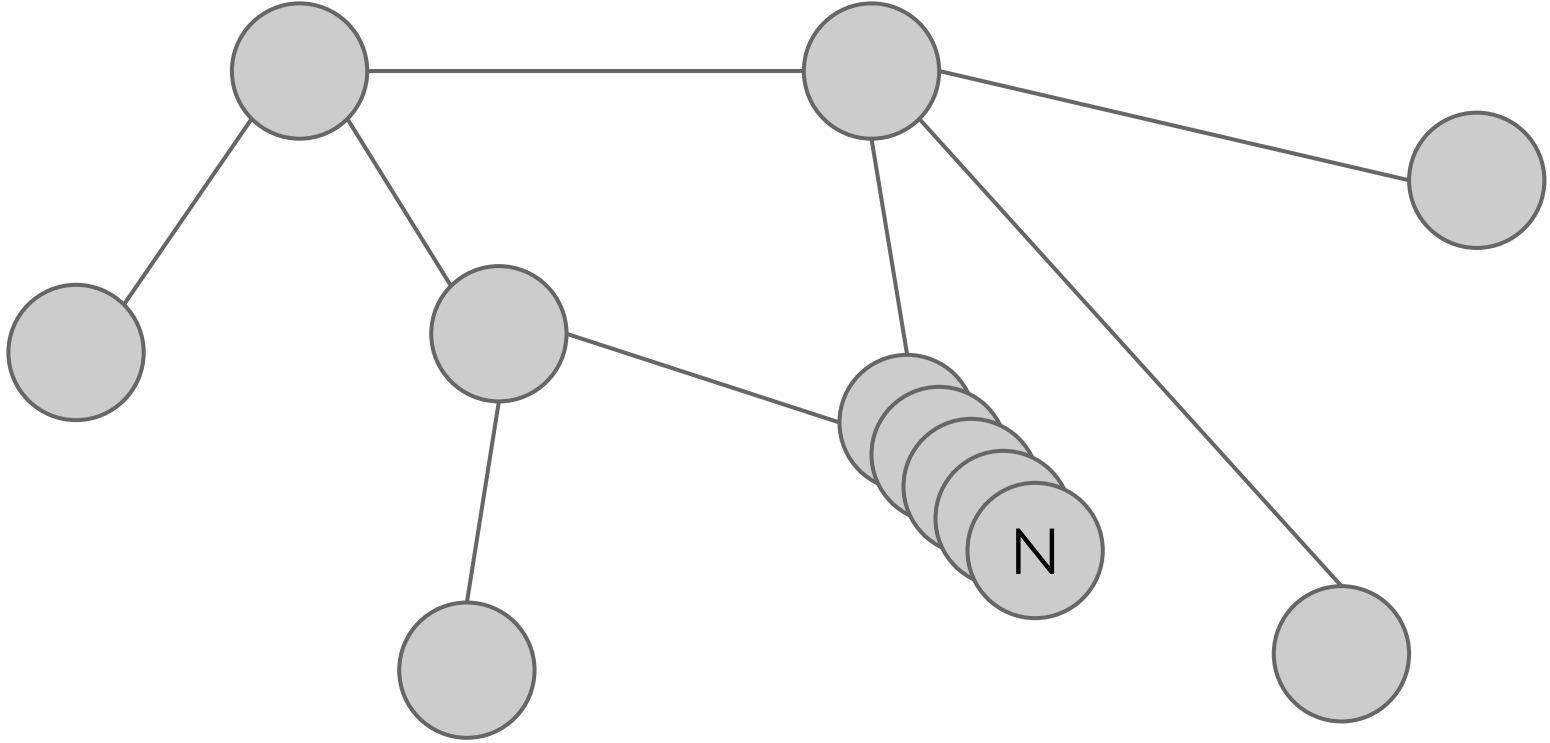


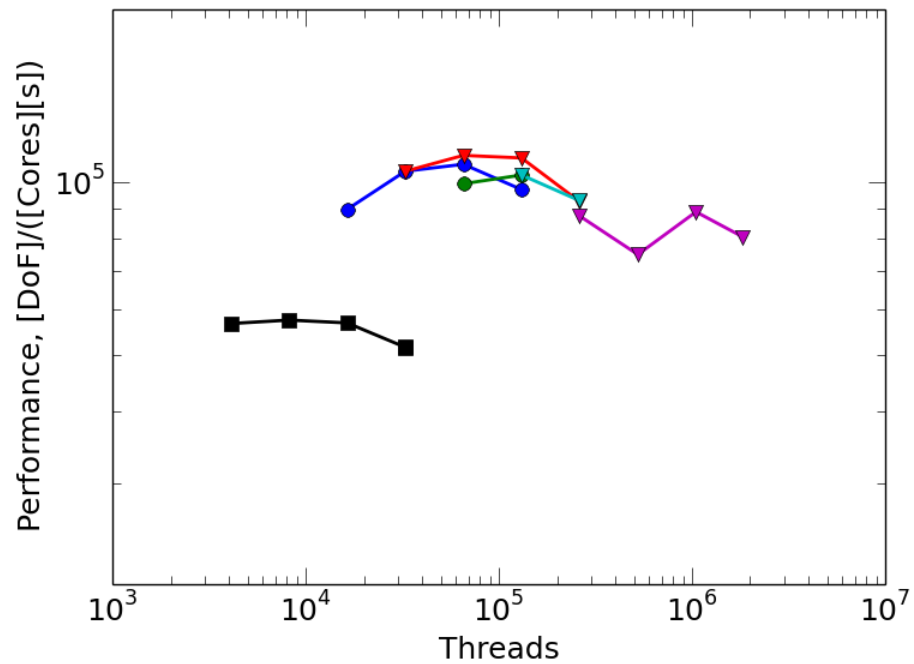
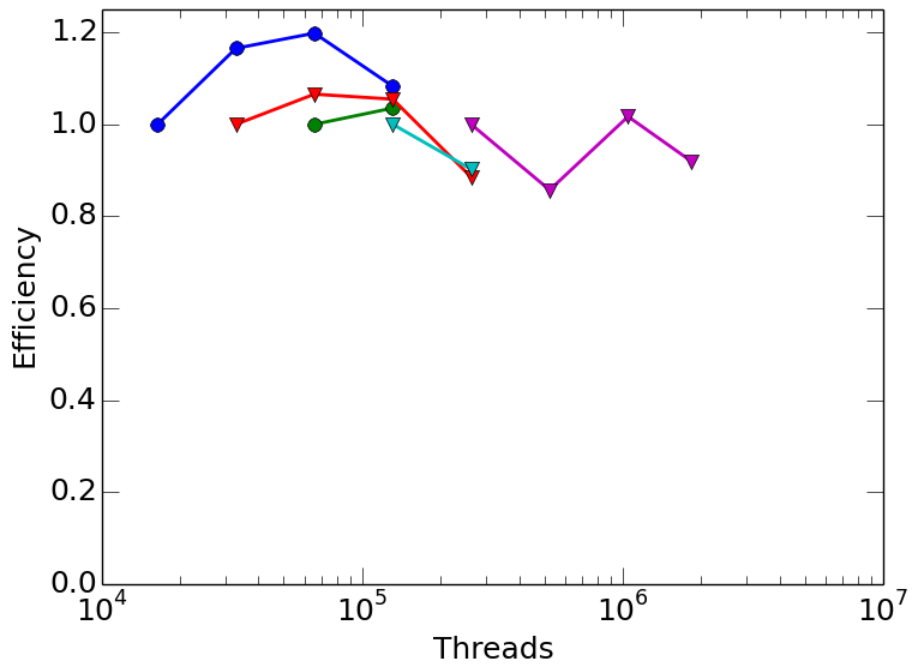
nanomsg



Websocketd











**OLDE FORTRAN**



MALT LIQUOR

**OLDE FORTRAN**

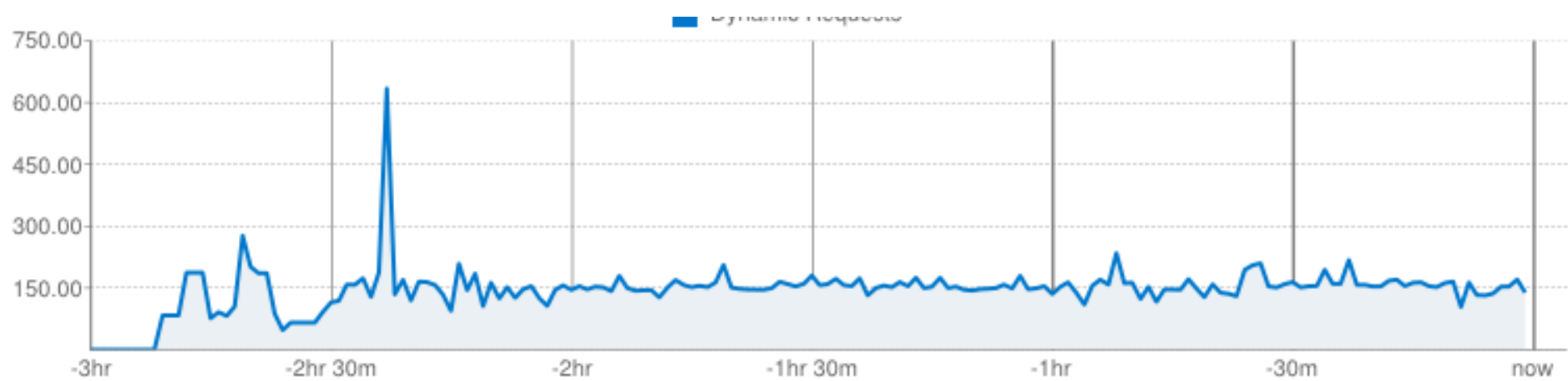


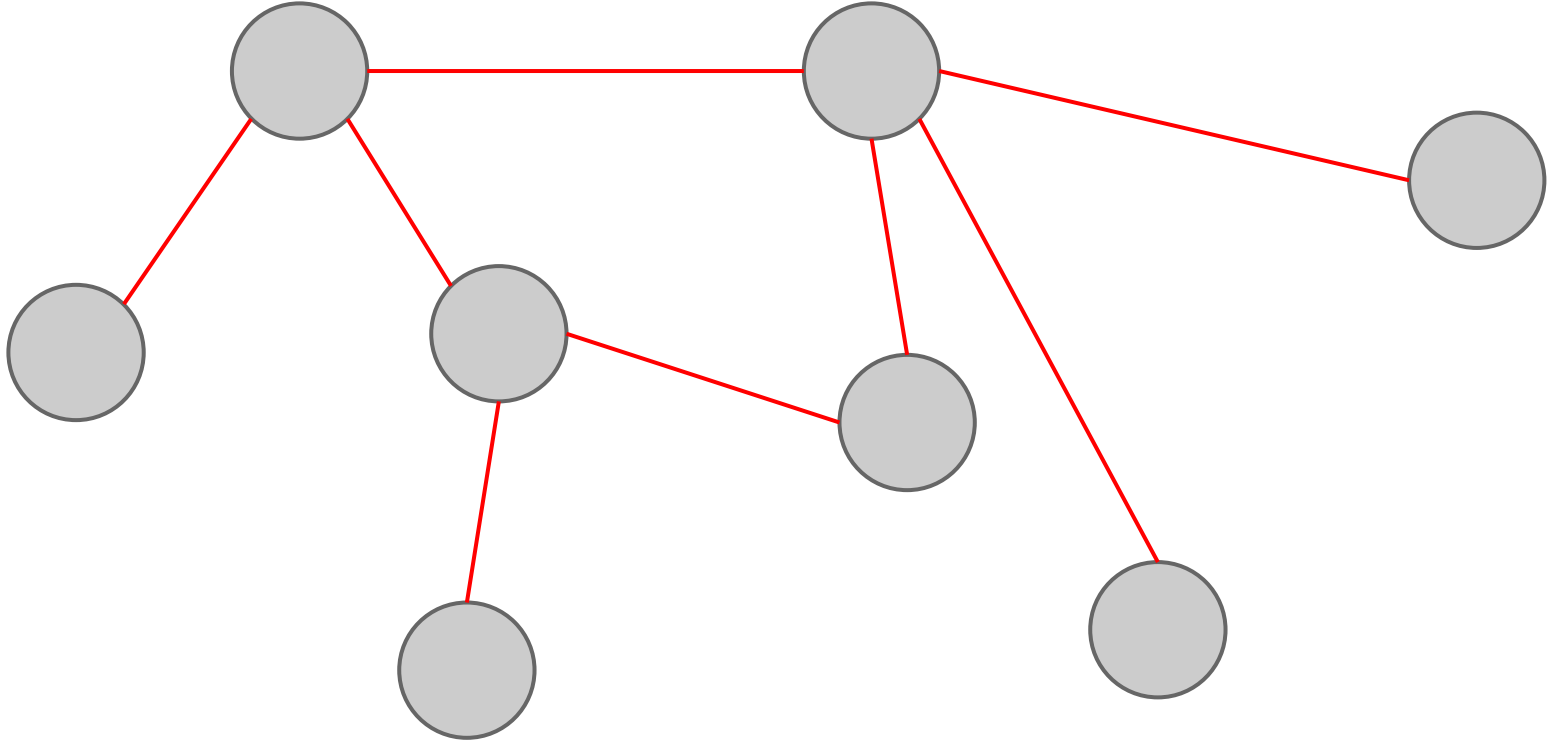
MALT LIQUOR

**Current Load** 

URI	Req/Sec current	Requests last 24 hrs	Runtime MCycles last hr	Avg Latency last hr
<a href="#">/API/message</a>	7.1	7.95K	46	360 ms
<a href="#">/</a>	0.0	88	28	136 ms
<a href="#">/API/chat</a>	0.0	53	16	183 ms
<a href="#">/chat</a>	0.0	50	28	98 ms
<a href="#">/_ah/channel/connected/</a>	0.0	47	41	240 ms
<a href="#">/_ah/channel/disconnected/</a>	0.0	47	215	461 ms
<a href="#">/is/controller.js</a>	0.0	39	0	104 ms
<a href="#">/new</a>		39	9	61 ms
<a href="#">/favicon.ico</a>		31	0	73 ms
<a href="#">/token</a>		26		
<a href="#">/opened</a>		26		
<a href="#">/API/token</a>	0.0	22	21	91 ms
<a href="#">/API/opened</a>	0.0	22	10	220 ms
<a href="#">/message</a>		9		
<a href="#">/robots.txt</a>		5		





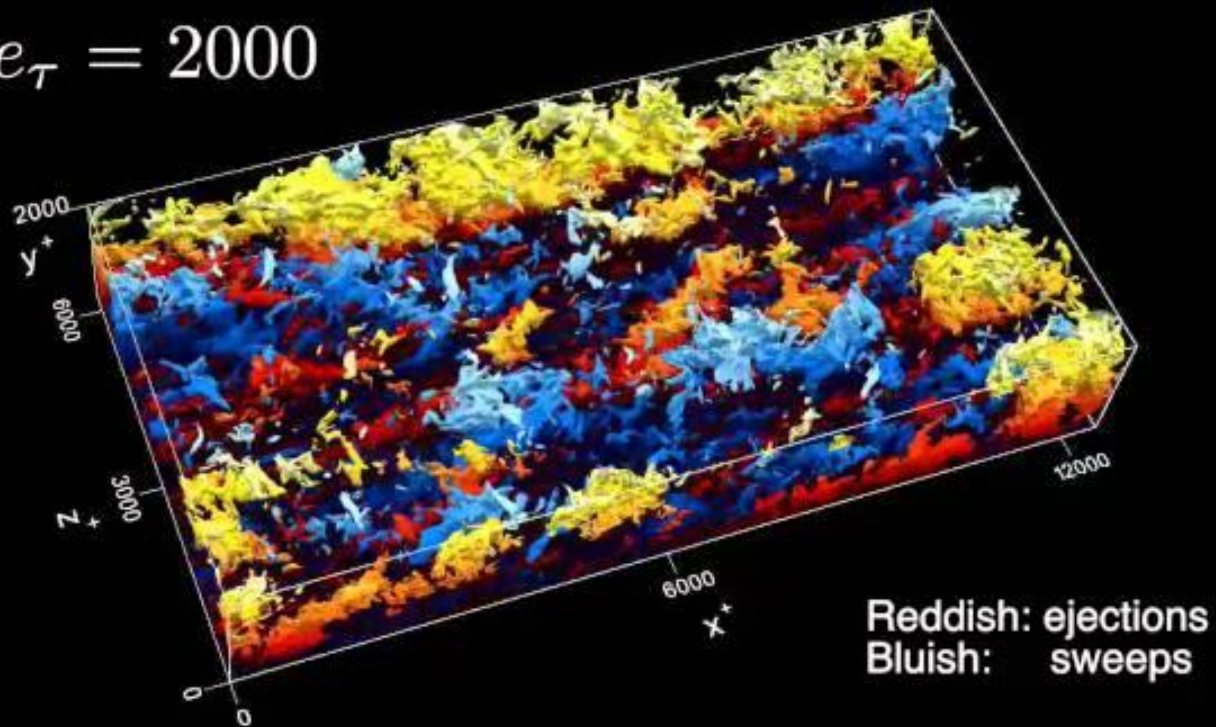




THE  
**FAST**  
AND THE  
**FURIOUS**

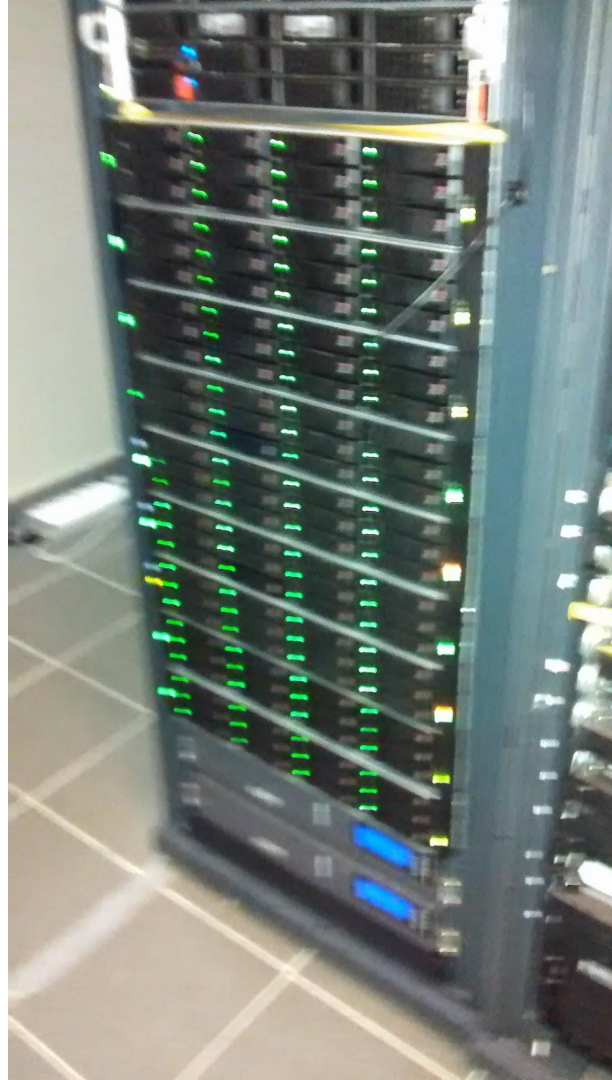


$$Re_{\tau} = 2000$$



“And finally sir... a 'waffer' thin mint?”





Cache

Índices / Metadatos

Datos

# Memcache Viewer

Statistics	
Hit count:	410
Miss count:	0
Hit ratio:	100%
Item count:	1 item(s)
Total cache size:	553 B
Oldest item age:	
<input type="button" value="Flush Cache"/>	

Top Keys by <input type="text" value="operation count"/> (last hour)		
Rank	Percentage of Traffic	Key
1	36.5%	NDB9:ag9zfmNsb3VkY2hhdHJvb21yFA5SC0NoYXRNYW5hZ2VyGlz4uAEM
2	30.7%	NDB9:ag9zfmNsb3VkY2hhdHJvb21yFA5SC0NoYXRNYW5hZ2VyGKG37wIM
3	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGlz4uAEMCxIHTWVzc2FnZRIEIAkM
4	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGKG37wIMCxIHTWVzc2FnZRjGnAEM
5	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGlz4uAEMCxIHTWVzc2FnZRII-AcM
6	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGKG37wIMCxIHTWVzc2FnZRIv-AcM
7	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGKG37wIMCxIHTWVzc2FnZRIh3AYM
8	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGlz4uAEMCxIHTWVzc2FnZRIjyqQM
9	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGKG37wIMCxIHTWVzc2FnZRIxowQM
10	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGlz4uAEMCxIHTWVzc2FnZRI63AYM
11	0.1%	NDB9:ag9zfmNsb3VkY2hhdHJvb21ylwsSC0NoYXRNYW5hZ2VyGKG37wIMCxIHTWVzc2FnZRIJtxggM



Cache

Índices / Metadatos


Datos

# Cloud Chat

🐾 × 1

**Guillem** Nov 09 2014 09:22:08:

Mensaje de prueba

[Load Older](#) 

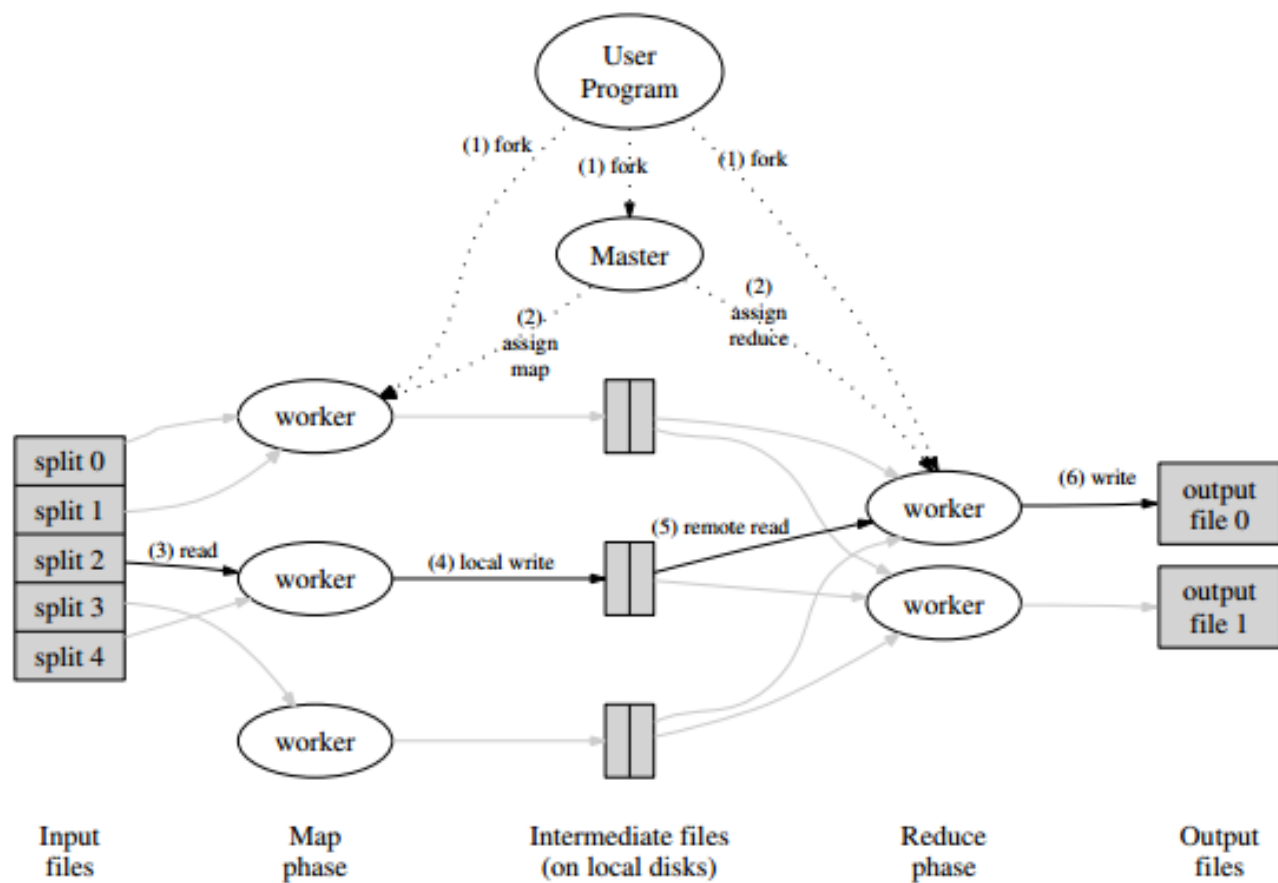


Figure 1: Execution overview

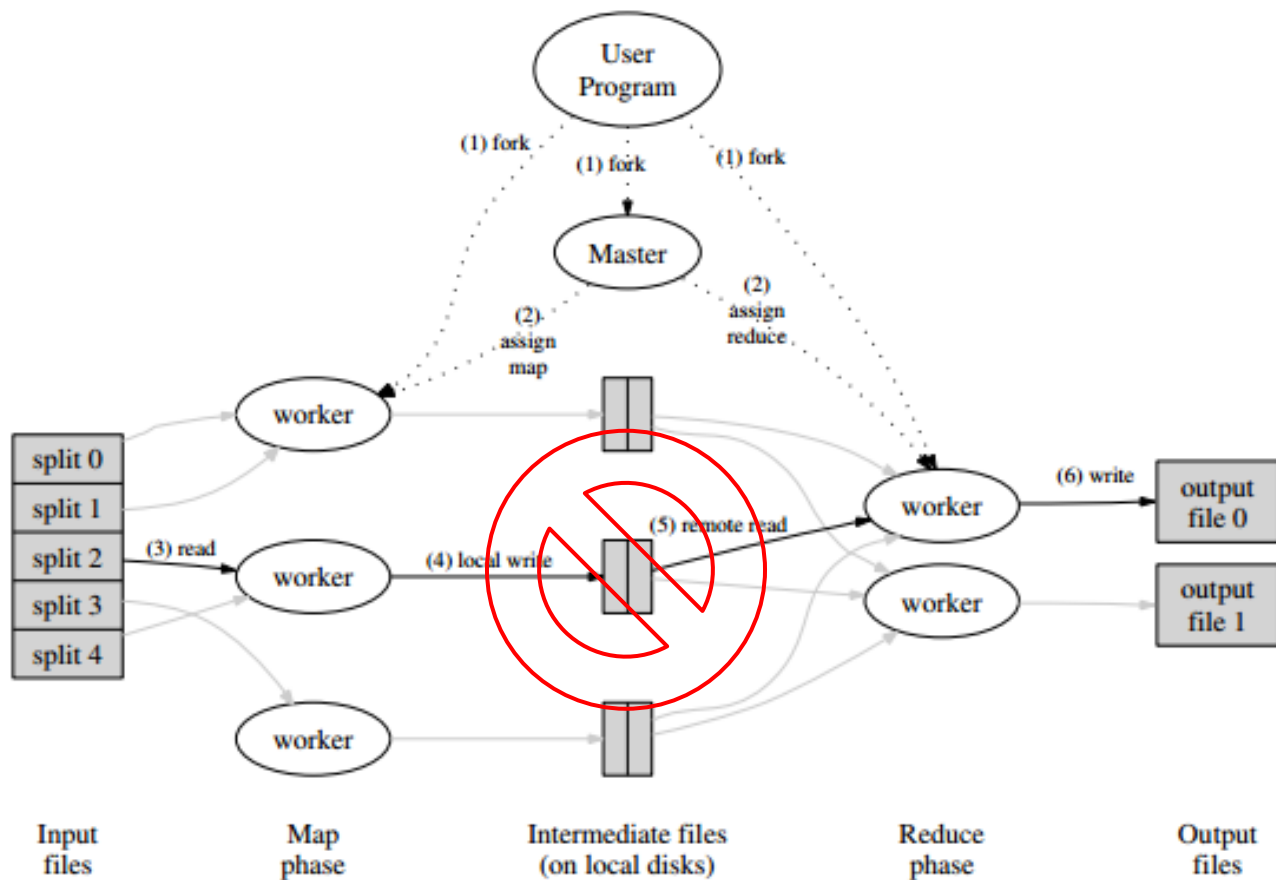


Figure 1: Execution overview

---

# An ILLIAC Program for the Numerical Simulation of Homogeneous Incompressible Turbulence

---

Robert S. Rogallo

November 1977

---

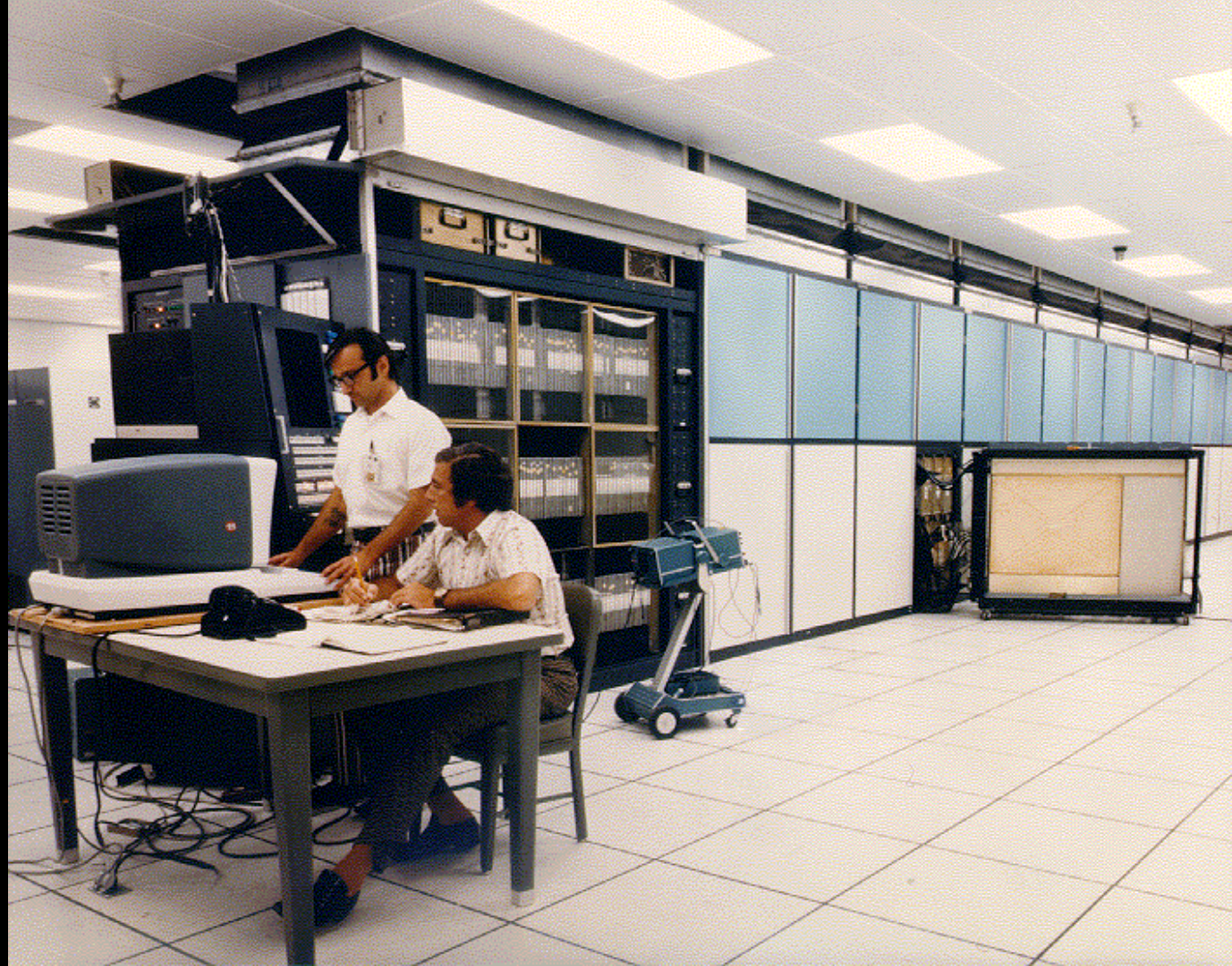
(NASA-TM-73203) AN ILLIAC PROGRAM FOR THE  
NUMERICAL SIMULATION OF HOMOGENEOUS  
INCOMPRESSIBLE TURBULENCE (NASA) 35 p HC  
A03/MF A01 CSCL 20D

N78-13367

Unclass

G3/34 55193





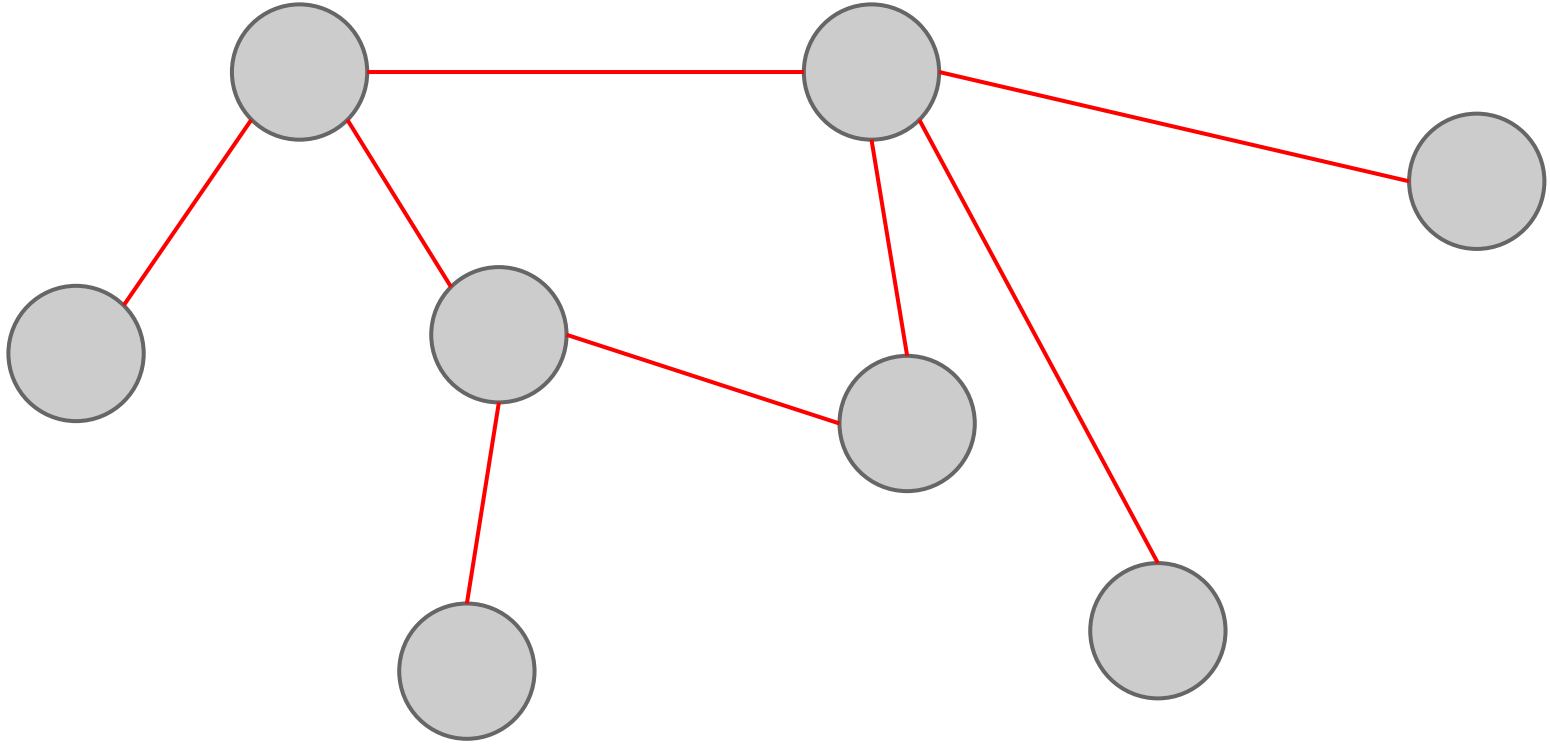
# op-ti-mal

/'ɒptə,mɑɪz/ [op-tuh-mahl] IPA verb, -mized, -miz·ing.

1. to make as effective, perfect, or useful as possible.
2. to make the best of.

€











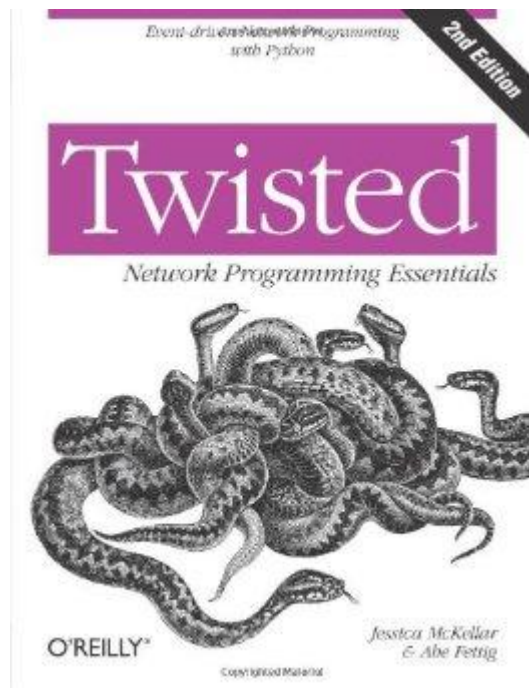
Gevent



nanomsg

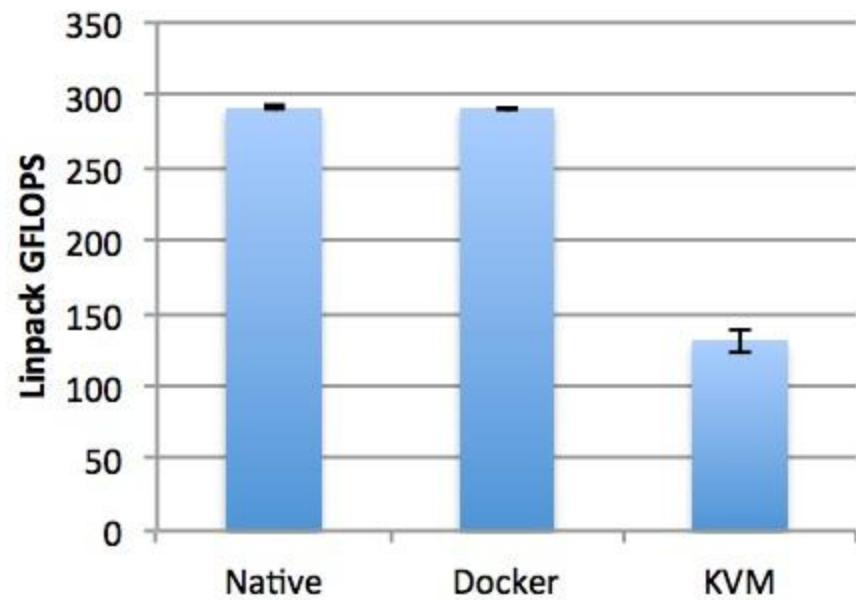


Websocketd





nanomsg



Cache

Índices / Metadatos

Datos



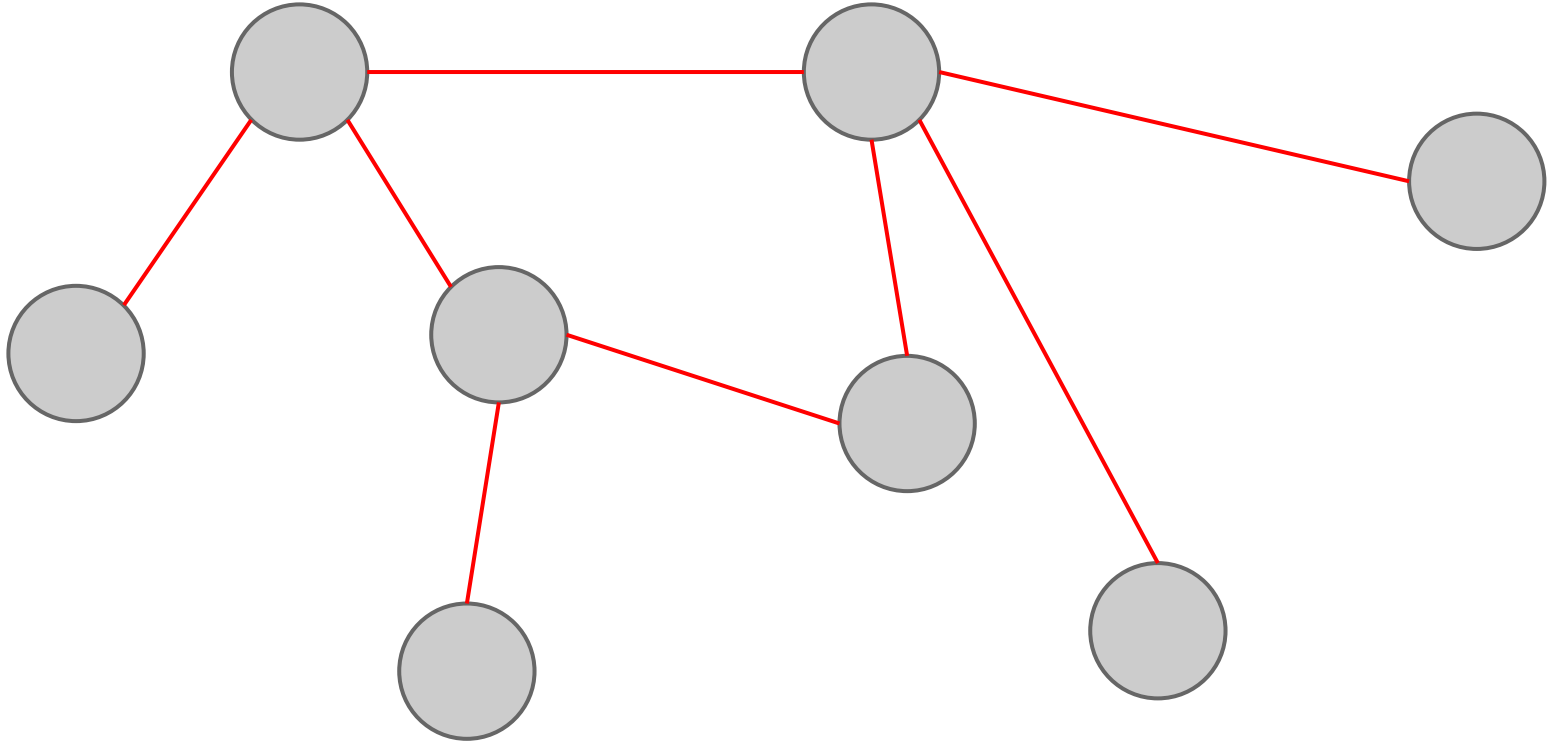


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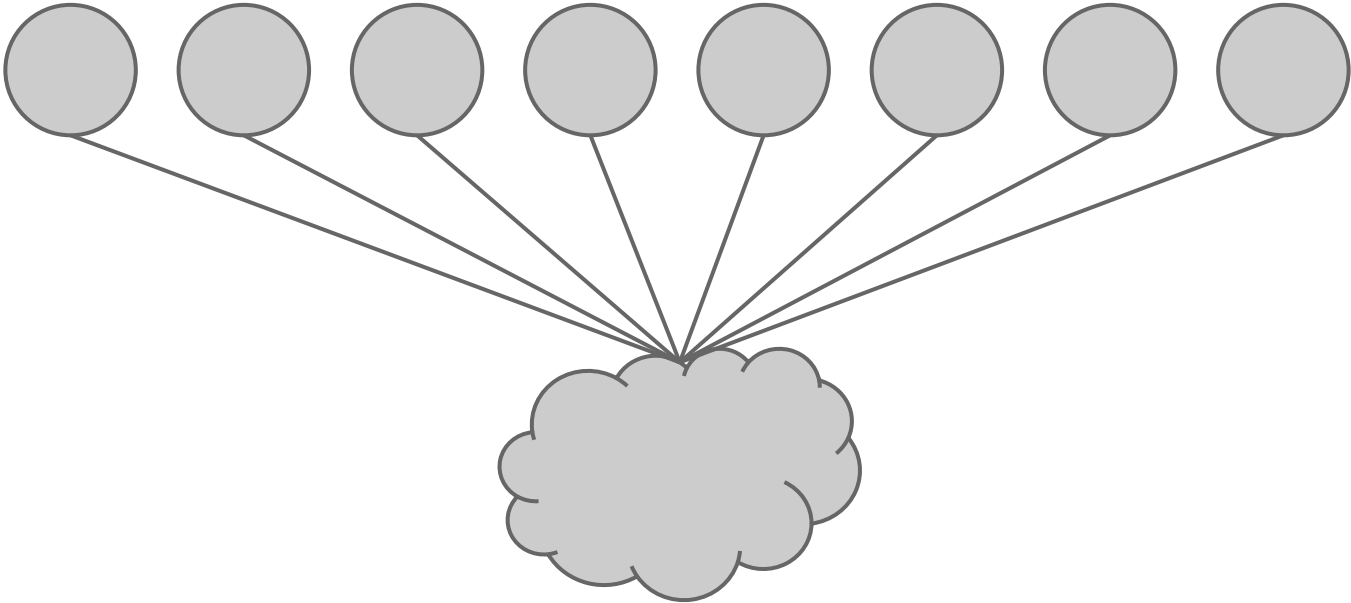


LATEX



€





# **...y han colaborado**

- Adrián Lozano
- Juan A. Sillero
- Miguel Hermanns

Muchas gracias