Shed Lights into Your Web Applications

Naser Ezzati
Polytechnique Montreal

Tracing Summit 2017 Prague, Czech

Motivations

- Challenges: root cause analysis of web applications performance problems
 - Several components and layers are involved
 - Web server problem?
 - Code problem?
 - Bad database design? No table indexes?
 - System resource limitation?
 - Various debugging tools
 - Unified way to analyse them
 - Trace-based approach
 - LAMP stack
 - MEAN stack

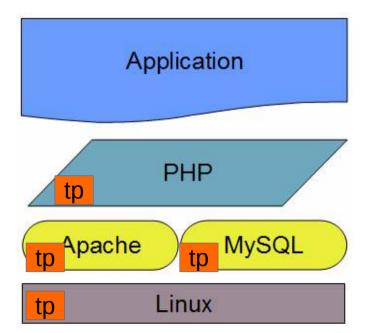




Userspace tracing

You can trace your application

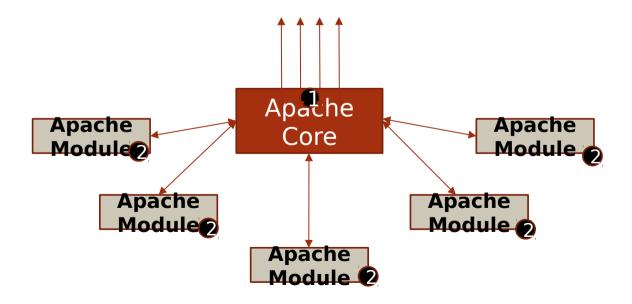
- tracepoints
 - LTTng-UST
 - FTrace



1- Apache

Apache LTTng module:

- Hooks LTTng probes into the Apache web server.
- These probes extract runtime information about the web requests and the apache itself
 - Web requests
 - Apache internals



Web Requests Tracing

Timestamp	Channel	CPU	J Event type		Contents				
<srch></srch>	<srch></srch>	<srch></srch>	<srch></srch>		<srch></srch>				
20:49:53.786 561 345	ss_3	3	ust_apache:close_connection		connection_id=16, contextvtid=4236				
20:49:53.786 584 375	ss_3	3	ust_apache:suspend_cor	nnection	connection_id=16, contex	tvtid=4236			
20:49:53.786 592 518	ss_6	6	ust_apache:accept_conn	ection	connection_id=20, client_i	p=132.207.72.9, client_host	name=(null), local_ip=132.2	07.72.37, local_hostname=(ทเ	
20:49:53.786 596 784	ss_3	3	ust_apache:accept_conn	ection	connection_id=16, client_i	p=132.207.72.9, client_host	name=(null), local_ip=132.2	07.72.37, local_hostname=(ทเ	
20:49:53.786 630 594	ss_3	3	ust_apache:request_ent	гу	connection_id=16, client_ip=132.207.72.9, method=GET, uri=/drupal, protocol=HTTP/1.0, request_info= request				
20:49:53.786 640 316	ss_6	6	ust_apache:request_ent	гу	connection_id=20, client_ip=132.207.72.9, method=GET, uri=/drupal, protocol=HTTP/1.0, request_info= request				
20:49:53.786 724 371	ss_3	3	ust_apache:request_exit	i .	connection_id=16, status=	=301, contextvtid=4236			
20:49:53.786 749 922	ss_6	6	ust_apache:request_exit		connection_id=20, status=	=301, contextvtid=4244			
20:49:53.786 751 414	ss_3	3	ust_apache:close_conne	ction	connection_id=16, contex	tvtid=4236			
20:49:53.786 763 635	ss_3	3	ust_apache:suspend_cor	nnection	connection_id=16, contex	tvtid=4236			
20:49:53.786 777 199	ss_3	3	ust_apache:accept_connection		connection_id=16, client_ip=132.207.72.9, client_hostname=(null), local_ip=132.207.72.37, local_hostname=(null)				
20:49:53.786 781 806	ss_6	6	ust_apache:close_connection		connection_id=20, context. vtid=4244				
20:49:53.786 798 980	ss_6	6	ust_apache:suspend_connection		connection_id=20, contextvtid=4244				
20:49:53.786 809 775	ss_3	3	ust_apache:request_entry		connection_id=16, client_ip=132.207.72.9, method=GET, uri=/drupal, protocol=HTTP/1.0, request_info=reques				
20:49:53.786 907 271	ss_3	3	ust_apache:request_exit		connection_id=16, status=301, contextvtid=4236				
20:49:53.786 933 238	ss_3	3	ust_apache:close_connection		connection_id=16, contextvtid=4236				
20:49:53.786 947 884	ss_3	3	ust_apache:suspend_connection		connection_id=16, contextvtid=4236				
20:49:53.789 370 776	ss_3	3	ust_apache:accept_connection		connection_id=4, client_ip=132.207.72.9, client_hostname=(null), local_ip=132.207.72.37, local_hostname=(null				
20:49:53.789 408 718	ss_3	3	ust_apache:request_entry		connection_id=4, client_ip=132.207.72.9, method=GET, uri=/drupal, protocol=HTTP/1.0, request_info= request:				
20:49:53.789 502 508	ss_3	3	ust_apache:request_exit		connection_id=4, status=301, contextvtid=4218				
20:49:53.789 528 073	ss_3	3	ust_apache:close_connection		connection_id=4, contextvtid=4218				
Properties 🗐 Bookmarl	k State Syst	🛂 Critical Fl	o ➡ Progress ≡ LAMP o	call ≡ Mysql quer 🁌	Flame Gra = LAMP dep				
ınction	▲ Depl Entry ti	ime	20:49	9:31.940	20:49:31.950	$ \begin{array}{c c} \uparrow^{\mathbf{a}}_{\mathbf{Z}} & \downarrow^{1}_{9} & \uparrow^{\bullet} \\ \hline 20:49:31.960 \end{array} $	20:49:31.970	→	
10000connection3/ust/u	ıid/1								
4214									
4215						_			
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a 4216									
4217						_			
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4218			•		'				

Apache Modules Tracing

Timestamp	Channel	CPU	Event type	Contents	
<srch></srch>	rch> <srch> dsr_apache:apache_module</srch>		<srch></srch>		
11:12:07.494 278 193	channel0_3	3	ust_apache:apache_module_complete	name=handler, src=mod_php7.c, result=0	
11:12:07.494 278 607	channel0_3	3	ust_apache:apache_module_exit	name=handler, result=0	
11:12:07.494 285 929	channel0_3	3	ust_apache:apache_module_complete	name=process_connection, src=http_core.c, result=0	
11:12:07.494 286 217	channel0_3	3	ust_apache:apache_module_exit	name=process_connection, result=0	
11:12:07.494 287 452	channel0_3	3	ust_apache:apache_module_entry	name=protocol_get	
11:12:07.494 287 781	channel0_3	3	ust_apache:apache_module_exit	name=protocol_get, result=0	
11:12:07.494 291 250	channel0_3	3	ust_apache:apache_module_entry	name=protocol_get	
11:12:07.494 291 447	channel0_3	3	ust_apache:apache_module_exit	name=protocol_get, result=0	
11:12:07.494 291 727	channel0_3	3	ust_apache:apache_module_entry	name=log_transaction	
11:12:07.494 292 316	channel0_3	3	ust_apache:request_exit	id=0, status=200	
11:12:07.494 292 703	channel0_3	3	ust_apache:apache_module_invoke	name=log_transaction, src=mod_log_config.c	
11:12:07.494 312 568	channel0_3	3	ust_apache:apache_module_complete	name=log_transaction, src=mod_log_config.c, result=0	
11:12:07.494 312 929	channel0_3	3	ust_apache:apache_module_exit	name=log_transaction, result=0	
11:12:07.494 320 420	channel0_3	3	ust_apache:apache_module_entry	name=suspend_connection	
11:12:07.494 320 695	channel0_3	3	ust_apache:apache_module_exit	name=suspend_connection, result=0	
11:12:07.496 537 029	channel0_3	3	ust_apache:apache_module_entry	name=resume_connection	
11:12:07.496 537 342	channel0_3	3	ust_apache:apache_module_exit	name=resume_connection, result=0	
11:12:07.496 537 627	channel0_3	3	ust_apache:apache_module_entry	name=process_connection	
11:12:07.496 538 076	channel0_3	3	ust_apache:apache_module_invoke	name=process_connection, src=mod_reqtimeout.c	
11:12:07.496 538 598	channel0_3	3	ust_apache:apache_module_complete	name=process_connection, src=mod_reqtimeout.c, result=-1	
11:12:07.496 538 849	channel0_3	3	ust_apache:apache_module_invoke	name=process_connection, src=http_core.c	
11:12:07.496 539 461	channel0_3	3	ust_apache:apache_module_entry	name=protocol_get	
11:12:07.496 539 721	channel0_3	3	ust_apache:apache_module_exit	name=protocol_get, result=0	
11:12:07.496 541 165	channel0_3	3	ust_apache:apache_module_entry	name=create_request	
11:12:07.496 541 497	channel0_3	3	ust_apache:apache_module_invoke	name=create_request, src=core.c	
11:12:07.496 541 942	channel0_3	3	ust_apache:apache_module_complete	name=create_request, src=core.c, result=0	

		process_conne	ection				
http_core.c							
post_r	map_to_storage	fixups	in	handler			
	core.c	mod_dir.c		mod_php7.c			
	diro	map_to_storage fi	ma fi				
	co = c I	соге.с	- C -				
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			_				

2- PHP

- LTTng probes in PHP
 - Provide detailed information about the PHP requests
- Monitor the entire PHP script execution:
 - 13 tracepoints
 - Start/close a request
 - Function calls
 - Line executions
 - db connections
 - errors/exceptions
 - New PHP function: trace_print
 - arguments
 - request info, function name, file name, class name, line number, etc.
- Trace Compass views:
 - CallStack, Flame Graph, Request lists/response time distribution

Tracepoints

Event	Description
request_entry	Fires when a request starts.
request_exit	Fires when a request exits.
compile_file_entry	Fires when a file compilation starts.
compile_file_exit	Fires when a file compilation ends.
function_entry	Fires when the PHP engine calls a function/method.
function_exit	Fires when the PHP engine returns from a function/method.
execute_entry	Fires when a line code is to be executed.
execute_exit	Fires after execution of a line code.
php_error_entry	Fires just before logging a PHP error
php_error_exit	Fires just after logging a PHP error
php_exception_thrown_entry	Fires just before logging a thrown PHP exception
php_exception_thrown_exit	Fires just after logging a thrown PHP exception
trace_print	A PHP function that you can call from your script to output a string in the trace

LTTng PHP exetnsion

Installation

You can build and install the LTTng extension from source which is straightforward:

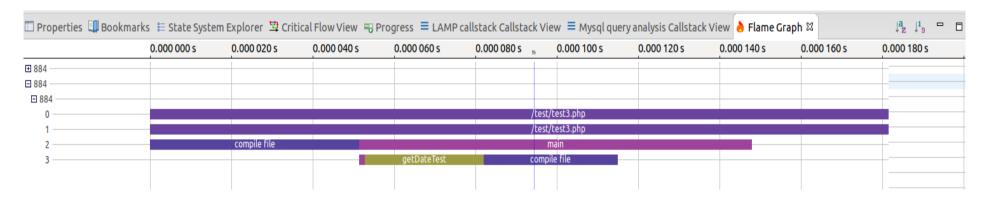
```
git clone https://github.com/naser/LTTng-php-tracing-module.git
cd LTTng-php-tracing-module
phpize

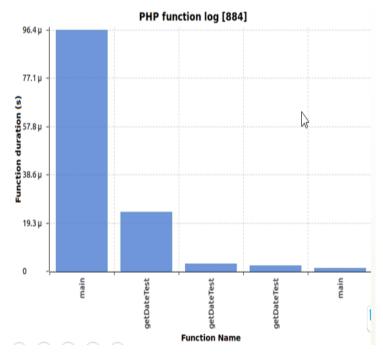
/* Before configuration, make sure you have LTTng 2.X installed in your machine. For installation manual
./configure
make
sudo make install
```

Example

```
果
    Hello
   Welcome!
    Today's date is:
                                                            ?php
  5 <?php
                                                           function getDateTest(){
  6 require once('include.php');
                                                              echo date('m/d/Y') . '.1';
    getDateTest();
                                                         5 }
    qetDateTest();
    getDateTest();
                                                         7 ?>
 10
 11 ?>
                                                       /usr/local/apache2/htdocs/test/include.php [FOR
usr/local/apache2/htdocs/test/test3.php [FORMA
                                                    /test/test3.php
                                                  /test/test3.php
                                                               execute line
                   compile file
                                                                main
                                                           compile file
                                                                            execute line
                                                                           getDateTest
                                                                            execute line
```

Example (cntd)

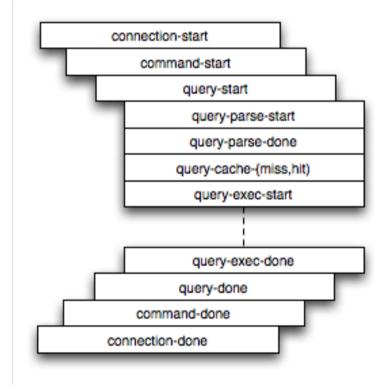




3- MySQL/MariaDB

LTTng probes in MySQL/MariaDB

- Provide information about query executions
- 60 tracepoints in 200 different locations
 - We hook to the existing probes.
- Monitor the full query execution process
 - DB connections
 - Query execution
 - Query type (select, update, insert, etc.)
 - Query parsing
 - Row-level operations in storage engines
 - Table R/W locks
 - File sorts
 - · Cache miss, hit
 - Network I/O
 - More information in the arguments
 - Connection ID, DB name, user, host, etc



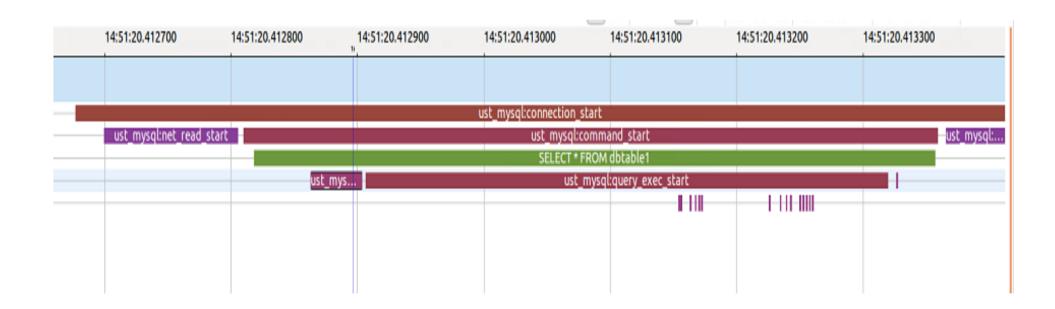
Installtion

./configure --enable-Ittng
cmake .
make
sudo make install

```
home/naserez $> lttna list ·u | arep "mysal:"
     ust mysql:net write done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               net write start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                :net read done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                net read miss (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
    ust mysql:net read hit (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
ust mysql:net read start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                :multi delete done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                :multi delete start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
    ust mysql:delete_done (loglevel: TRACE_DEBUG_LINE (13)) (type: tracepoint)
ust mysql:delete_start (loglevel: TRACE_DEBUG_LINE (13)) (type: tracepoint)
                :multi update done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                :multi update start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
    ust mysql:update_done (loglevel: TRACE_DEBUG_LINE (13)) (type: tracepoint)
               supdate start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                insert select done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               insert select start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
    ust mysql:insert done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
ust_mysql:insert_start (loglevel: TRACE_DEBUG_LINE (13)) (type: tracepoint)
               select done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                select start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
    ust mysql:filesort_start (loglevel: TRACE_DEBUG_LINE (13)) (type: tracepoint)
ust mysql:filesort_start (loglevel: TRACE_DEBUG_LINE (13)) (type: tracepoint)
               filesort done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               handler unlock done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
              l:handler unlock start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint
    ust mysql:handler wrlock_dome (toglevel: TRACE_DEBUG_LINE (13)) (type: tracepoint)
               L:handler wrlock done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               handler rdlock done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
             ol:handler rdlock start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint
    ust mysql:index read row done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint) ust mysql:index_read_row_start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               read row done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               read row start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
    ust mysql:delete row done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint) ust mysql:delete row start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                :delete row done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                update row done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                supdate row start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
    ust mysql:insert row done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint) ust mysql:insert row start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                query exec start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                query cache miss (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                :query cache hit (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                guery parse done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                query parse start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                query done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                query start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               command done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
               command start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint):
                connection done (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
                connection start (loglevel: TRACE DEBUG LINE (13)) (type: tracepoint)
```

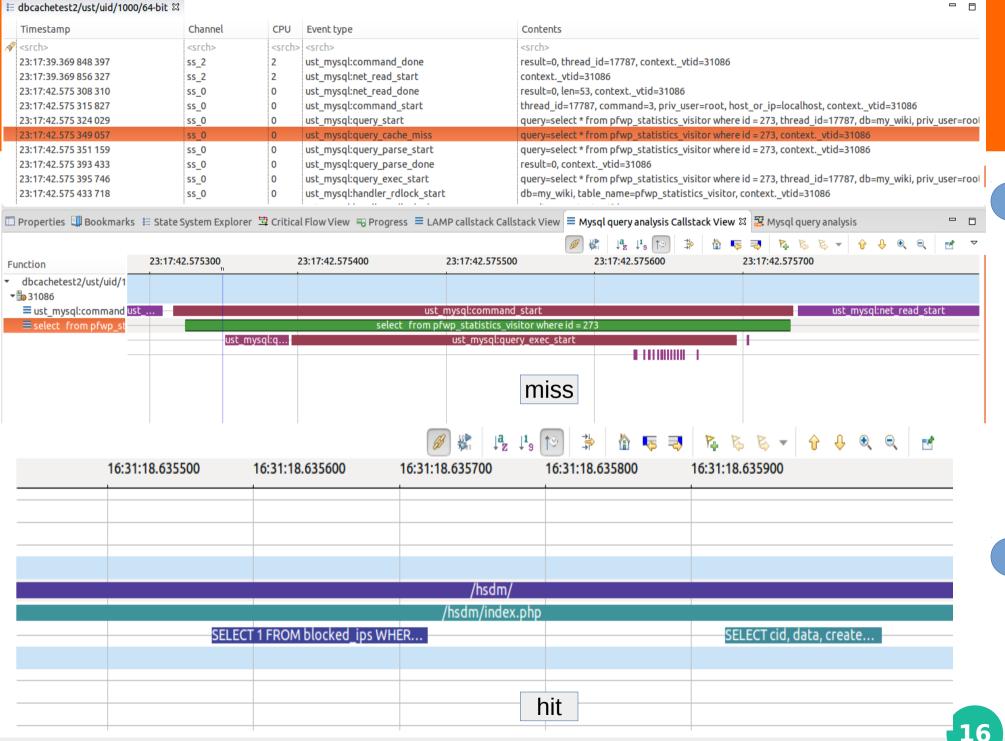
Example

Select * from dbtable1;

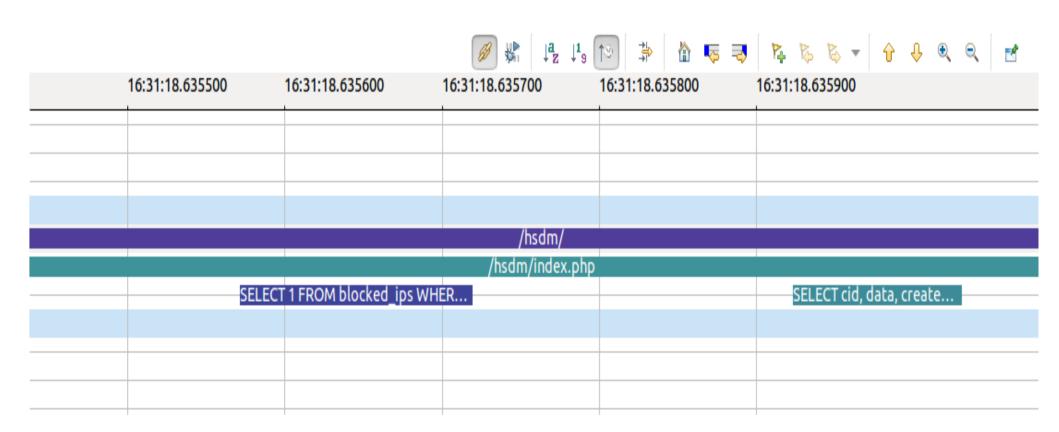


Example 2

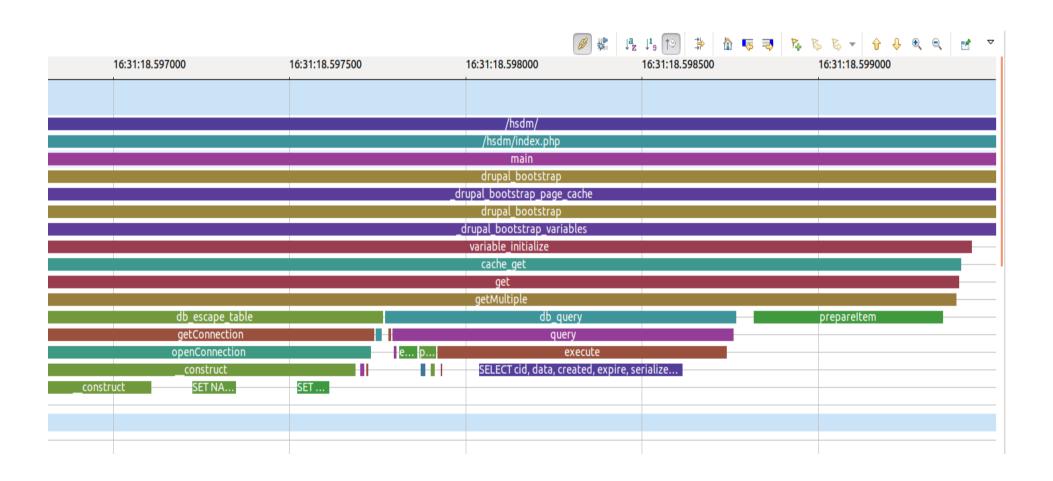
```
select * from pfwp_statistics_visitor where id = 273;
(no_cache) T: 407,792 ns
set global query_cache_size=2 * 1024 * 1024;
select * from <u>pfwp_statistics_visitor</u> where id = 273;
(cache_miss) T: 408,858 ns
select * from <u>pfwp_statistics_visitor</u> where id = 273;
(cache_hit) T: 42,708 ns
```



4- LAMP stack analysis

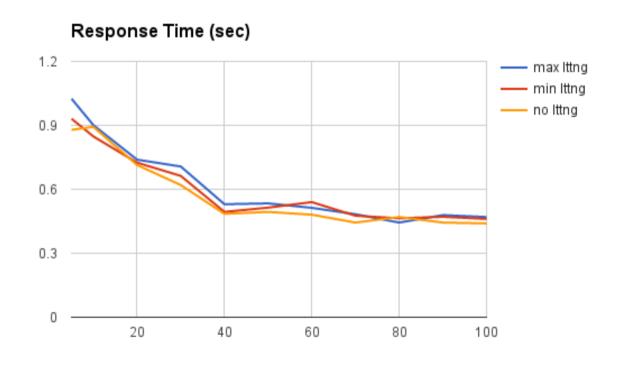


Flame chart



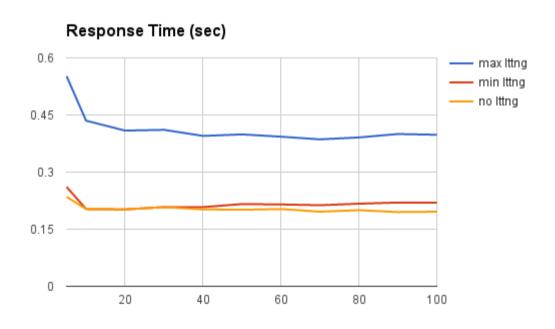
Performance

- ab -c [5-100] -n 5000 http://132.207.72.37/drupal
- 28000 lines of code



Performance (the worst case)

- ab -c [5-100] -n 1000 http://32.207.72.37/test/bench.php
- 65,000,000 lines of code



Usecase: PHP Compile prblem

- Multilevel lamp stack view
 - PHP compile problem
- Apache modules
- PHP compile time
- Mysql overhead view
- VM ovearhead view

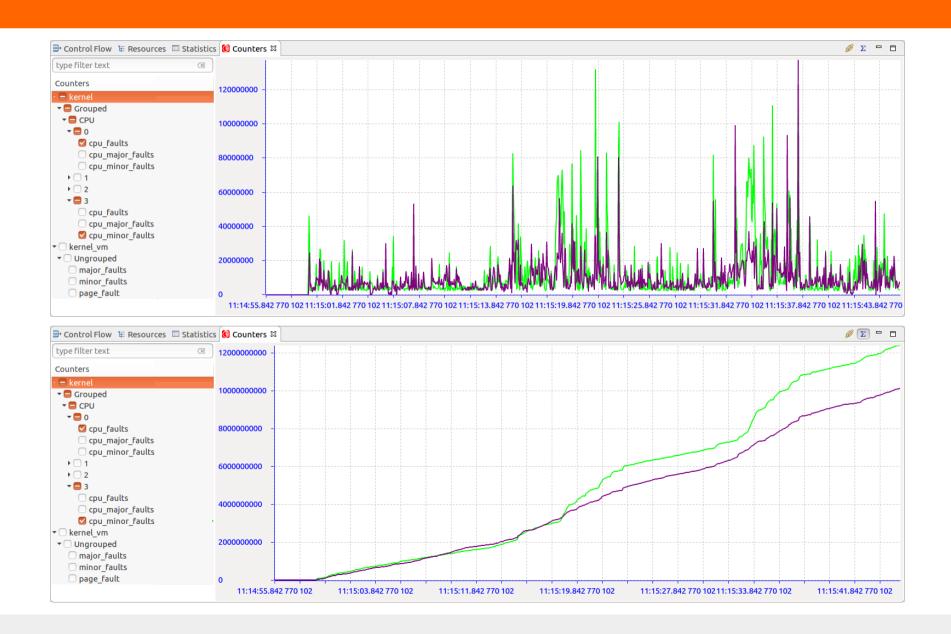
Trace Compass Updates

- Incubator
- Multilevel Flame charts
- Multilevel Flame graphs
- VM overhead view
- Critical path using Perf events.
- Counters Analysis

Trace Compass Incubator

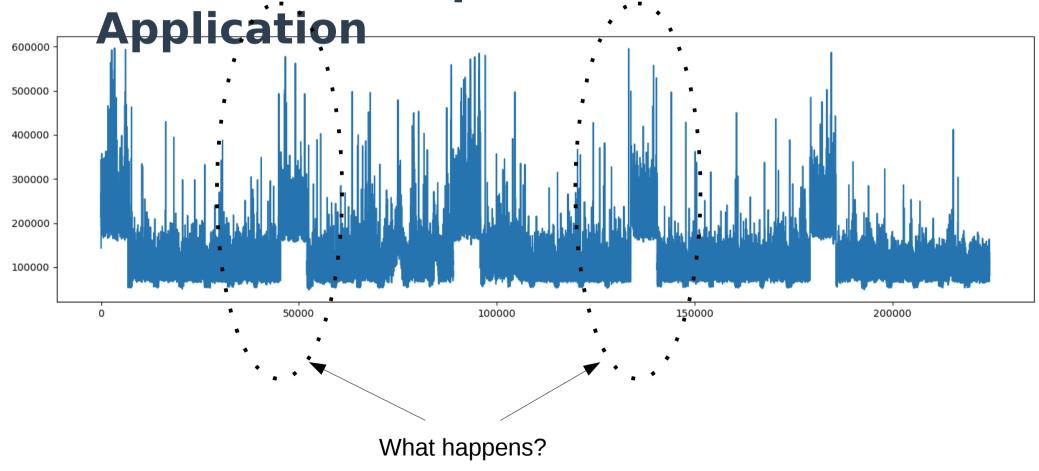
- The features that are under development, but still usable enough to be used and tested by users.
- Whose content relates to a specific trace type or domain of analysis (for example virtual machine analyses) and that no other plugin will depend on.
- The features will never be officially released with a specific version
- Some feature may eventually graduate to the Trace Compass project itself if required
 - https://wiki.eclipse.org/Trace_Compass/Contributor_Guidelines

Trace Compass Counters Analysis



Use-case: PHP OPCACHE Performance Analysis

Response Time of a Web



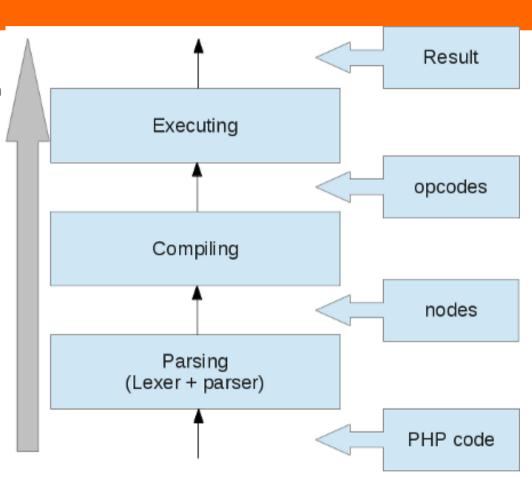
PHP Request Anatomy

PHP Is a scripting language

- compiles any file you ask it to run, obtain OPCodes from compilation, run them, and trash them away immediately.
- Parse, compile, execute, forget
 Parse, compile, execute, forget
 Parse, compile, execute, forget

PHP "forgets" everything it's done in request N-1, when it comes to run request N.

 Even if it calls the same scripts several times.

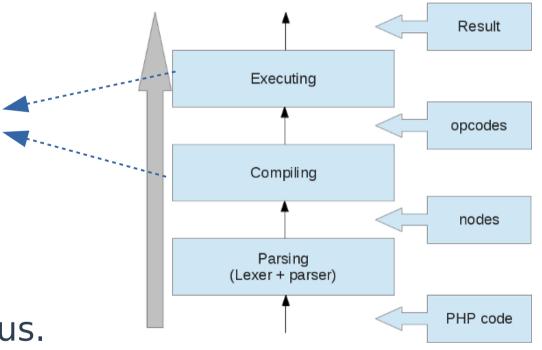


PHP Request Anatomy (2)

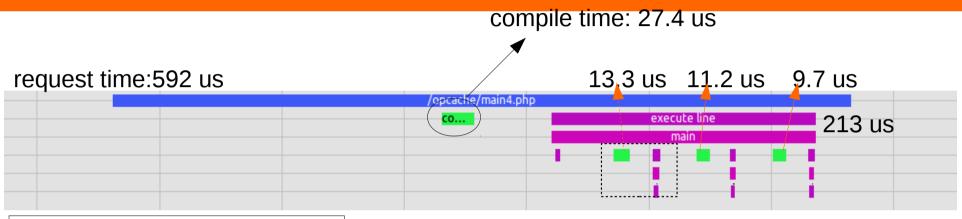
Which one is the longest?

- It depends!

 Let's see what trace data gives us.

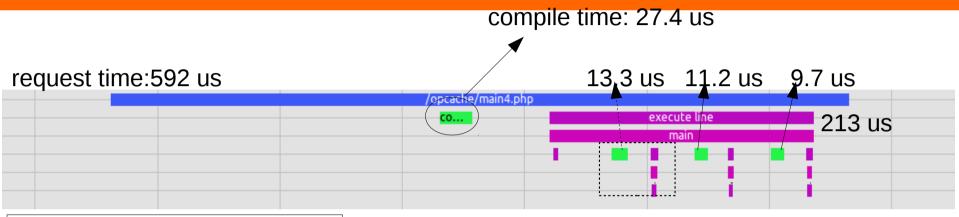


Compile Time Analysis



```
1 <?php /*main4.php*/
2
3 $x = rand(0,1000);
4
5 echo $x.PHP_EOL;
6 $xy = 123;
7 include 'folder1/'.$xy.'.php';
8 include 'folder2/'.$xy.'.php';
9 include 'folder3/'.$xy.'.php';
10
11 echo $x.PHP_EOL;
12 ?>
```

Compile Time: UST Events



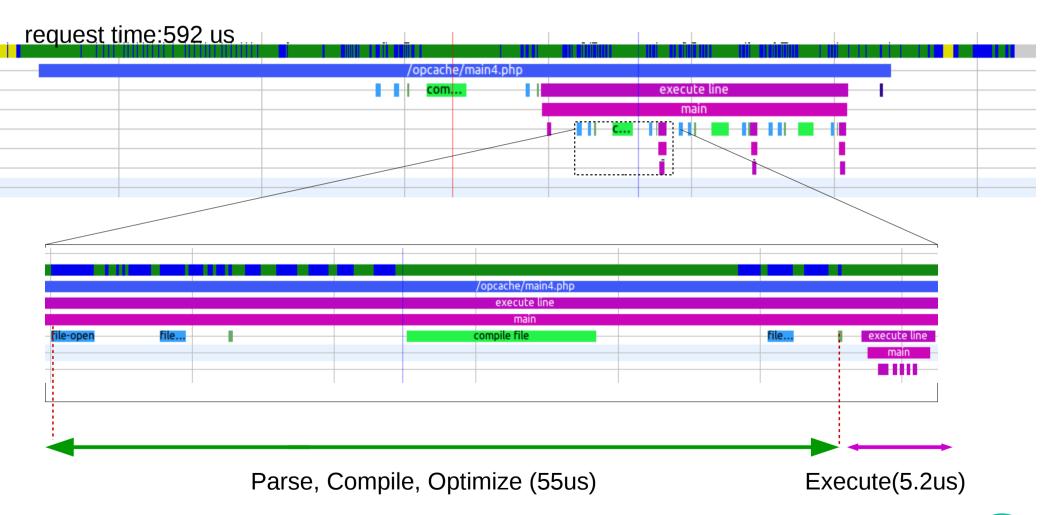
```
1 <?php /*main4.php*/
2
3 $x = rand(0,1000);
4
5 echo $x.PHP_EOL;
6 $xy = 123;
7 include 'folder1/'.$xy.'.php';
8 include 'folder2/'.$xy.'.php';
9 include 'folder3/'.$xy.'.php';
10
11 echo $x.PHP_EOL;
12 ?>
```

Compilation time: $60us (\sim 10 \% of the request time)$

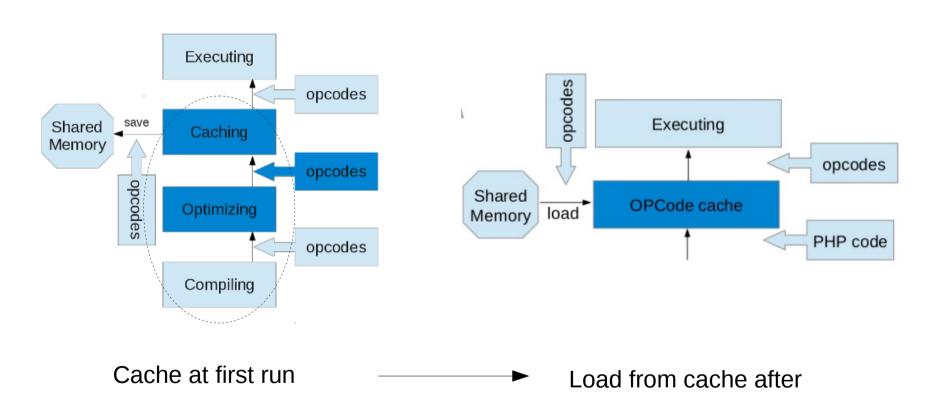
But, let's go deeper!

Kernel + UST Events

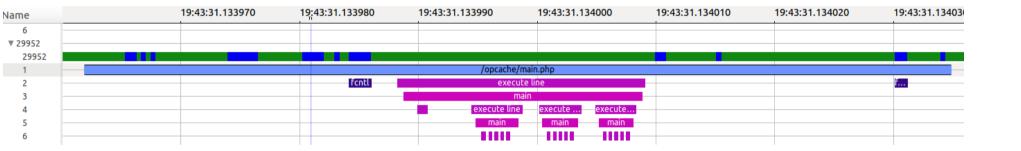




Solution: Opcode Cache (Opcache)



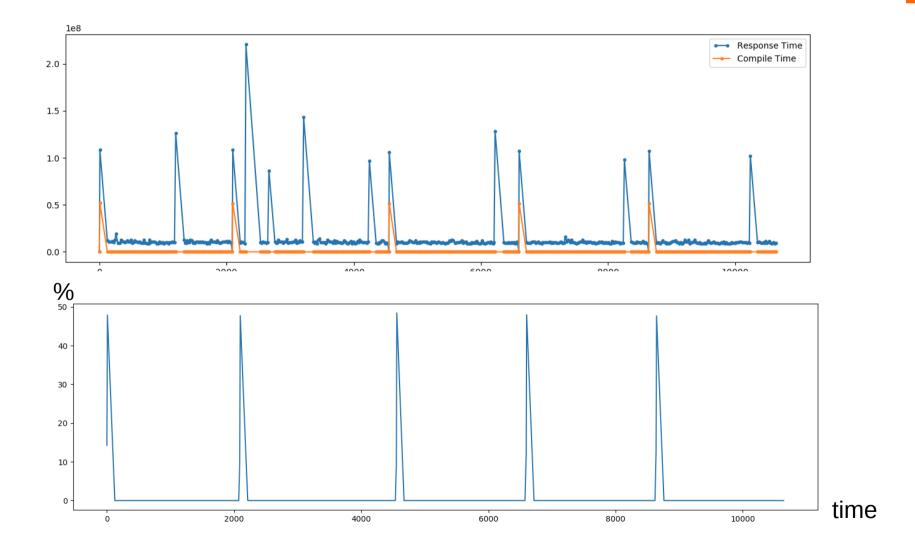
Solution: Opcode Cache (Opcache)



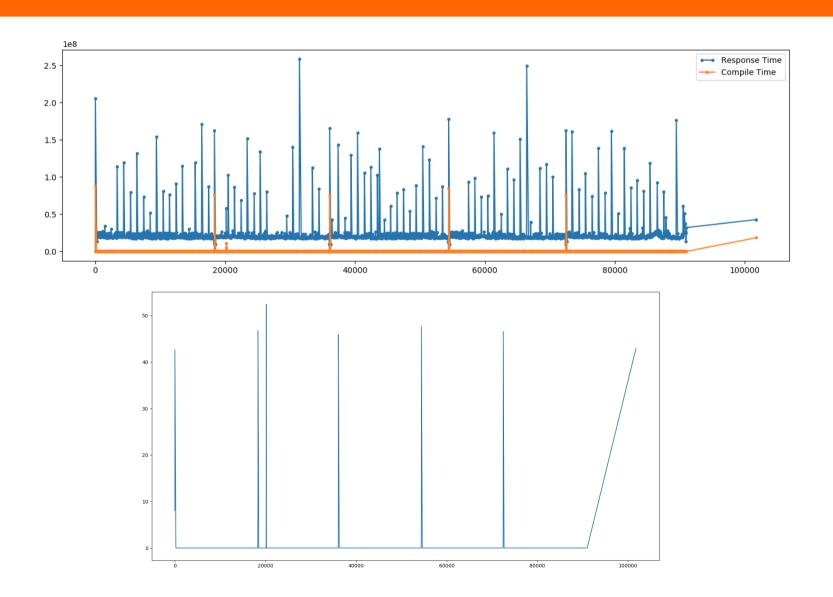
Loads from cache

Resoponse time: 592 us --> 73 us (with caching)

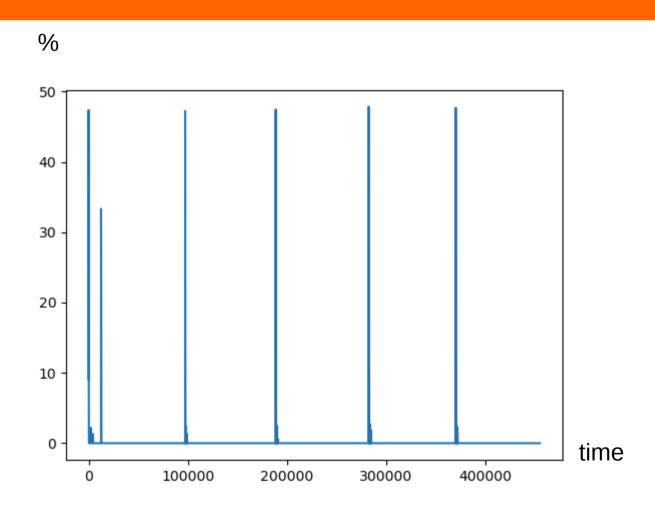
Compile Time: Drupal



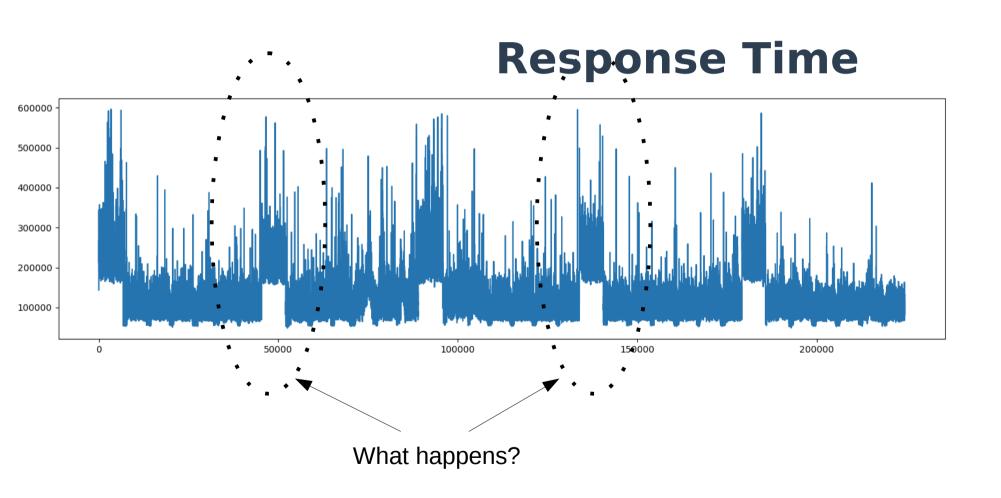
Compile Time: WordPress



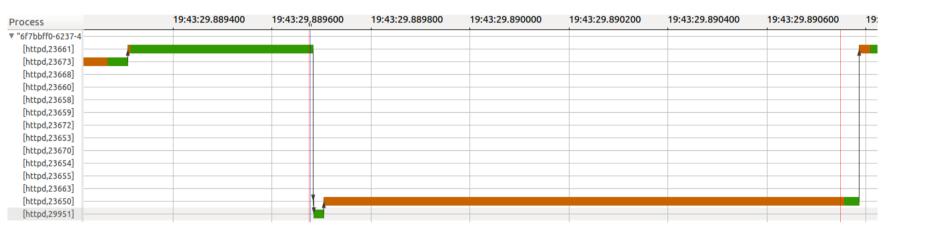
Compile Time: MediaWiki



Let's back to our example

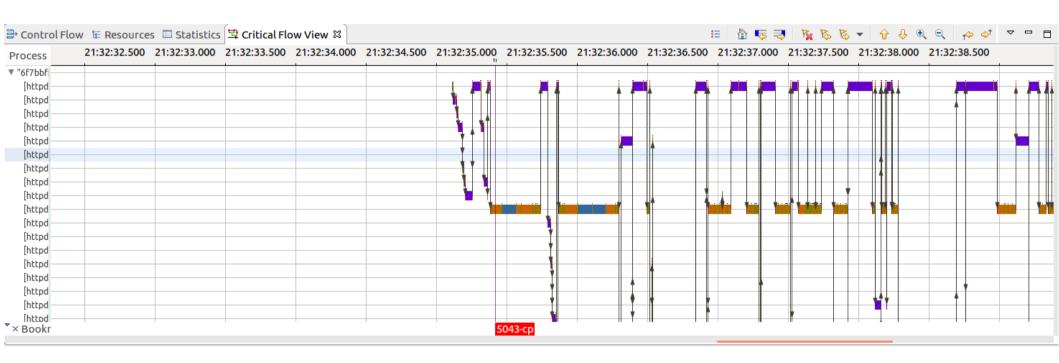


Critical Flow



Every PHP process that is willing to write into shared memory will lock every other process willing to write into shared memory as well.

Critical Flow



Resources

```
Modules to install:
   https://github.com/naser

Traces and XML files:
   https://github.com/naser/tracingsumit2017

Trace Compass:
   http://tracecompass.org

LTTng:
   http://lttng.org/
```

Thank you

n.ezzati@polymtl.ca

Other Slides

Python Analysis

```
imerange: [2016-09-14 20:40:37.751341541. 2016-09-14 20:41:29.596591398]
Apache Top:
                                                           (% Specifin php and mysql)
                                                                                                                               Method
Time Range
                                           Response Time
[20:41:20.984309151, 20:41:24.693434577]
                                            3709125.426
                                                              Pache: 0.020 %, php: 86.325 %, mysql: 13.65. %)
                                                                                                                     9111
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/load.php
[20:40:54.261234556, 20:40:57.787529428]
                                            3526294.872
                                                                                                                     8955
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/load.php
                                                             (apache: 0.022 %, php: 90.633 %, mysql: 9.344 %)
[20:41:14.983114689, 20:41:18.172910580]
                                            3189795.891
                                                             (apache: 1.529 %, php: 58.017 %, mysql: 40.454 %)
                                                                                                                     8929
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/index.php/Ressources
[20:41:09.021468218, 20:41:11.921474018]
                                            2900005.800
                                                                                                                     8927
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/load.php
                                                             (apache: 0.030 %, php: 91.352 %, mysql: 8.617 %)
[20:40:50.227325472, 20:40:53.077147564]
                                            2849822.09
                                                             (apache: 0.025 %, php: 66.012 %, mysql: 33.964 %)
                                                                                                                     8950
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/load.php
[20:41:20.989529057, 20:41:23.818049619]
                                            2828520.50
                                                             (apache: 0.148 %, php: 79.904 %, mysql: 19.948 %)
                                                                                                                     8931
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/load.php
[20:40:54.262046633, 20:40:57.076147767]
                                            2814101.13
                                                                                                                     8956
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/load.php
                                                             (apache: 0.035 %, php: 88.118 %, mysql: 11.847 %)
                                                                                                                                          132.207.72.37/polyfab/wiki/index.php/Informations
[20:41:03.544898170, 20:41:06.304035476]
                                            2759137.300
                                                             (apache: 0.076 %, php: 65.918 %, mysql: 34.006 %)
                                                                                                                     8916
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/index.php/Accueil
[20:40:48.142448383, 20:40:50.868722822]
                                            2726274.439
                                                             (apache: 0.130 %, php: 64.437 %, mysql: 35.433 %)
                                                                                                                     8946
                                                                                                                               GET
[20:41:17.789501232, 20:41:20.249221766]
                                            2459720.534
                                                             (apache: 0.050 %, php: 82.078 %, mysql: 17.873 %)
                                                                                                                     9041
                                                                                                                               GET
                                                                                                                                          132.207.72.37/polyfab/wiki/load.php
                                                           (% Spent in mysql)
                                                                                      TID
                                                                                                 Method
Time Range
                                           Response Time
                                                                                                             URI
                                                                                                                                                                 SQL TID(s)
                                                                                                                                                                              No of SQL Query
                                                                                                             /polyfab/wiki/load.php
                                                                                                                                                                 4407,4414
[20:41:20.984898904, 20:41:24.693296362]
                                           3708397.458
                                                           (mysql: 13.658 %)
                                                                                      9111
                                                                                                 GET
                                                                                      8955
                                                                                                 GET
                                                                                                             /polyfab/wiki/load.php
                                                                                                                                                                 4371,4376
[20:40:54.261875801, 20:40:57.787383105]
                                           3525507.304
                                                           (mysql: 9.347 %)
[20:41:15.031814970, 20:41:18.172828398]
                                           3141013.428
                                                           (mysql: 41.082 %)
                                                                                      8929
                                                                                                 GET
                                                                                                             /polyfab/wiki/index.php/Ressources
                                                                                                                                                                 4396,4397,4398 203
[20:41:09.022227546, 20:41:11.921356875]
                                           2899129.329
                                                                                      8927
                                                                                                 GET
                                                                                                             /polyfab/wiki/load.php
                                                                                                                                                                 4390,4395
                                                           (mysql: 8.620 %)
                                                                                                                                                                               49
[20:40:50.227976347, 20:40:53.077093164]
                                           2849116.817
                                                           (mysql: 33.972 %)
                                                                                      8950
                                                                                                 GET
                                                                                                             /polyfab/wiki/load.php
                                                                                                                                                                 4363,4365,4366 80
[20:41:20.993614041, 20:41:23.817945338]
                                           2824331.297
                                                           (mysql: 19.977 %)
                                                                                      8931
                                                                                                 GET
                                                                                                             /polyfab/wiki/load.php
                                                                                                                                                                 4410,4413
[20:40:54.262955699, 20:40:57.076061031]
                                           2813105.332
                                                           (mysql: 11.851 %)
                                                                                      8956
                                                                                                 GET
                                                                                                             /polyfab/wiki/load.php
                                                                                                                                                                 4372,4375
[20:41:03.546893396, 20:41:06.303932328]
                                           2757038.932
                                                           (mysql: 34.032 %)
                                                                                      8916
                                                                                                 GET
                                                                                                             /polyfab/wiki/index.php/Informations
                                                                                                                                                                 4377,4378,4379 159
[20:40:48.145928370, 20:40:50.868668015]
                                           2722739.645
                                                           (mysql: 35.479 %)
                                                                                      8946
                                                                                                 GET
                                                                                                             /polyfab/wiki/index.php/Accueil
                                                                                                                                                                 4358,4359,4360 167
[20:41:17.790576746, 20:41:20.249076101]
                                           2458499.355
                                                           (mysql: 17.882 %)
                                                                                      9041
                                                                                                 GET
                                                                                                             /polyfab/wiki/load.php
                                                                                                                                                                 4401,4405 49
Total:
```