



Perquè vols canviar, i canvies.

Application Performance Monitoring in Tryton

nan-tic

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1/Why?

1.1/Bugs/crashes?

- Usually crashes are pretty easy to fix
- Other kind of bugs

1.2/Performance

- It is hard to analyze specially on production because it's always **too late**
 - Lots of elements:
 - Server hardware
 - Virtualization & OS
 - PostgreSQL
 - Python
 - Trytond
 - Trytond Modules
 - Network
 - Client
-

1.3/Specialized instrumentation

- Ideally: should take into account as much layers as possible
- But, let's concentrate on **Tryton**



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2/What is apm.py?

2.1/The patch: Signals

- A patch/hack on trytond/protocols
 - Signals:
 - SIGUSR1: Print currently running RPC calls in the log
 - User ID
 - Object & RPC method
 - Postgres PID – APM!
 - Current total execution time of the request
 - SIGUSR2: Print backtrace in the log – great for finding performance issues
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2.2/The patch: Profiling

- Profiling using:
 - cProfile – A lot of overhead – should not be used in production (usually)
 - vmprof (from pypy project) – 2~3% overhead
 - When?
 - Criteria in trytond.conf (should it be dynamic??)
 - Criteria can include: user, rpc request
 - Storage of the trace based on criteria (same as above + total time of request) – stores a Transaction ID
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2.3/The patch: Logging

- Logging in JSON format:
 - Transaction ID
 - Time spent on transaction
 - RPC request
 - User
 - Only log based on criteria in trytond.conf
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2.4/The patch: Friendly user message for crashes

- Similar to **Sentry**
- Give the user a "**Transaction ID**" for tracking the error
- Maybe we should convert the Transaction ID into a docker-like string: adjective_name such as **angry_einstein**



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3/What about data gathering?

3.1/Recull

- Python
 - Send and store in JSON format
 - Pick information from servers to RabbitMQ server
 - Store that information and query from the command line
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