

Asynchronous operations with OpenSIPS 2.1

- *workshop* -

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Asynchronous script operations in OpenSIPS 2.1

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Description

- script functions which also have the ability to run “in the background”
- triggered via the **async()** script statement

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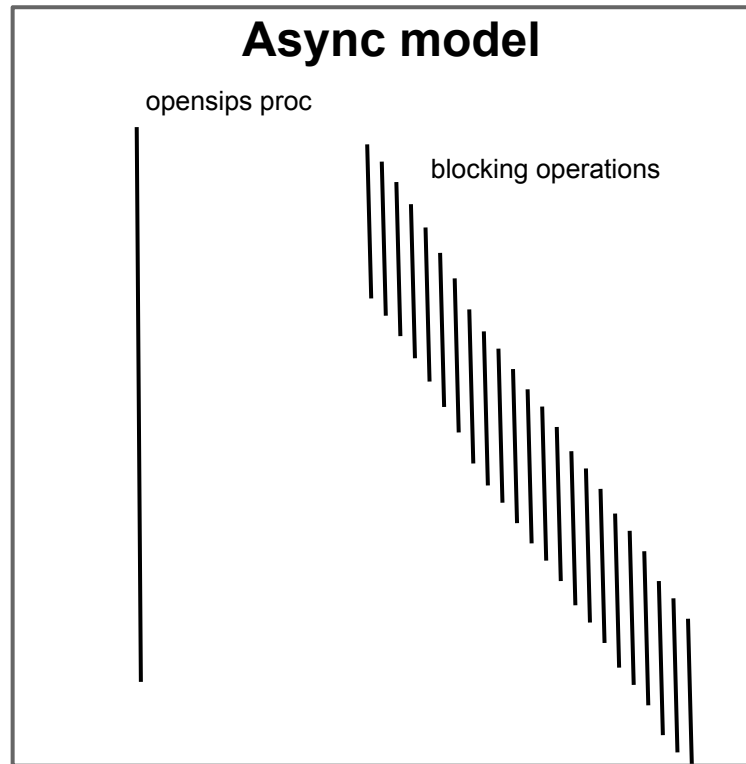
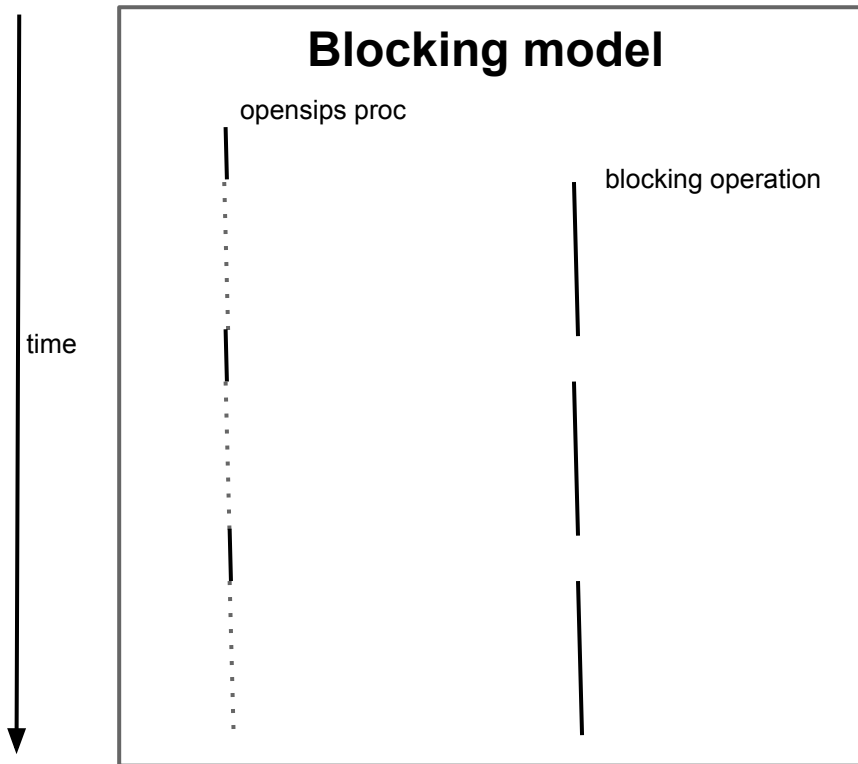
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Requirements (implementation details)

- all `async()` calls will automatically create the SIP transaction
 - `async()` will break the script!
 - *fun fact*: `async()` also absorbs UDP retrans - same as `t_check_trans()`
- event-driven: we need a file descriptor to poll upon
 - a **socket** file descriptor
 - **stdout** file descriptor of another process
- not all libraries have `async` support
 - YES: `libmysqlclient` (MySQL), `libpq` (PostgreSQL)
 - NO: `mongo-c-driver` (MongoDB)

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Pros

- dramatically improves scalability of OpenSIPS scripts with blocking ops
- better usage of system resources
 - no longer need to fork 100+ children
 - less memory required
 - better CPU usage

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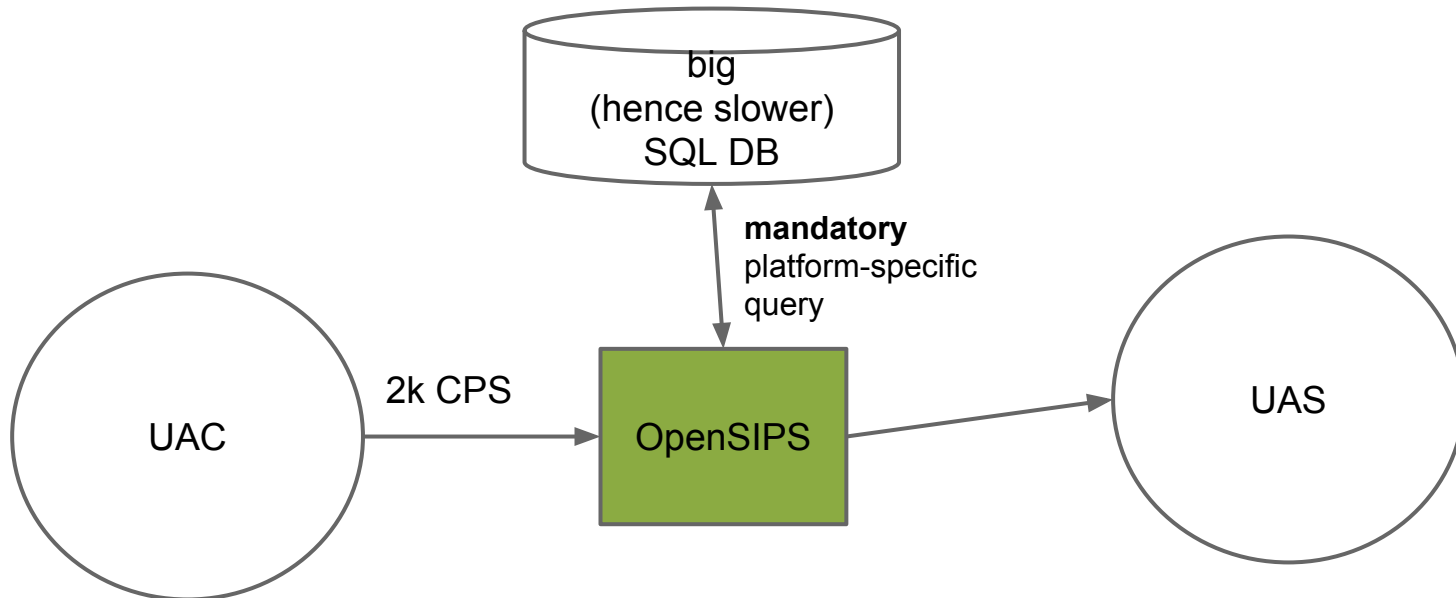
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Cons

- suspend-resume type of OpenSIPS script logic
- library support is usually limited with most databases
 - MySQL official documentation doesn't even mention async!
 - MongoDB recommend thread pooling techniques instead

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Resources

- async statement tutorial
 - <http://www.opensips.org/Documentation/Script-Async-2-1>
- core OpenSIPS parameters
 - <http://www.opensips.org/Documentation/Script-CoreParameters-2-1>
- module-specific: check for async function versions

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