

Hardening WebKit2

Thiago Marcos P. Santos Intel Corporation

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example.com



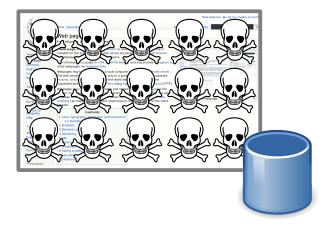


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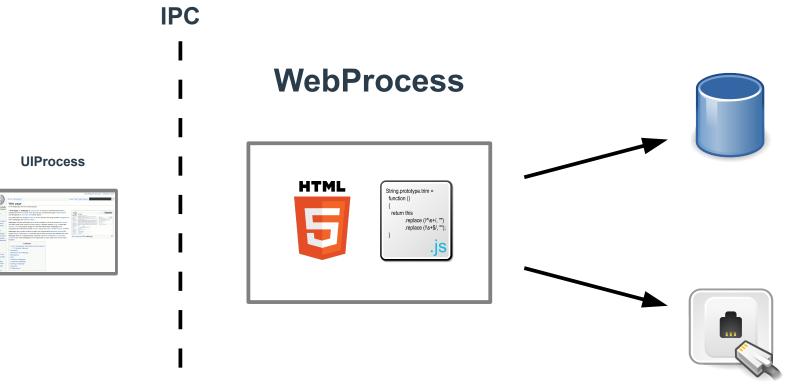
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WebProcess

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Navigation	suitable for the World Wide Web and can be accessed through a web browser
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Help	1 Color, typography, illustration and interaction 1.1 Dynamic behavior
Toolbox	2 Browsers 3 Elements of a webpage
What links here	4 Bendering
Related changes	5 UPL
Upload file	6 Viewing a webpage
Special pages	7 Creating a webpage
Permanent link	8 Saving a webpage
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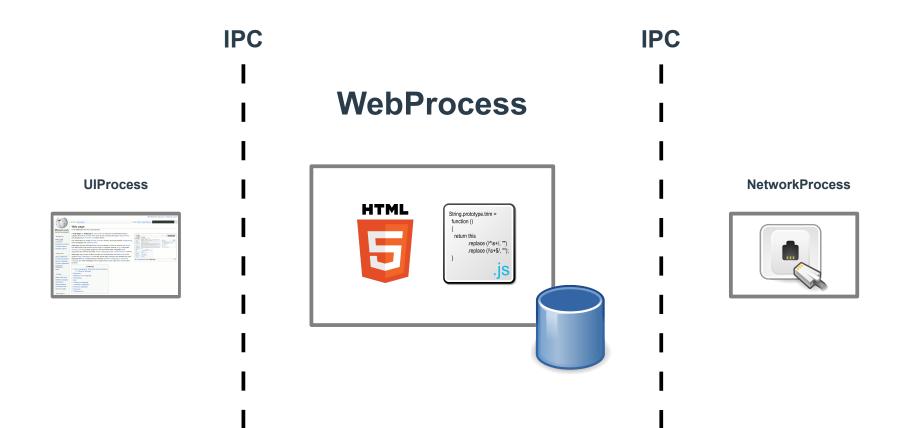




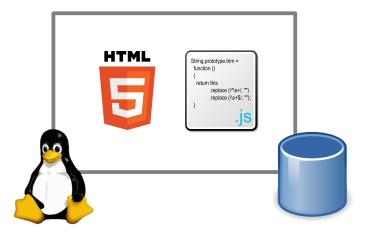


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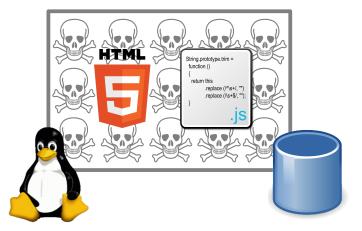




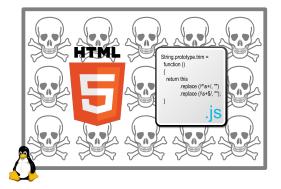




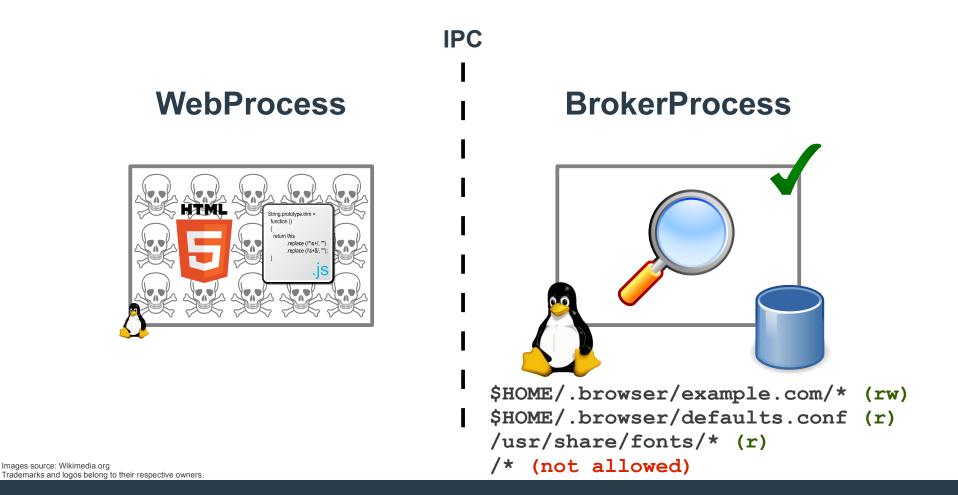










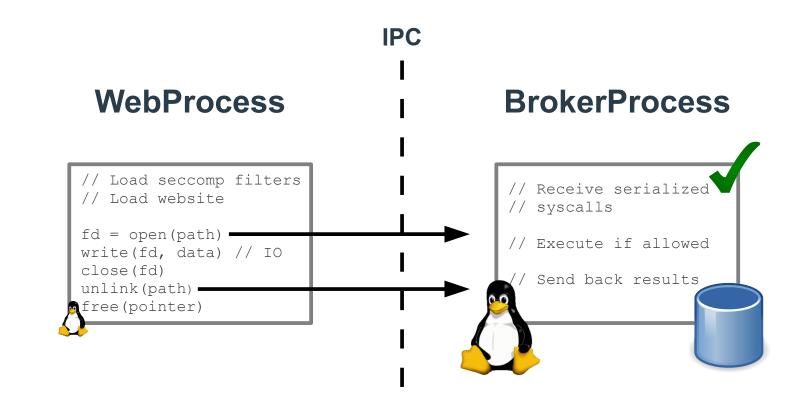


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Seccomp Filters

- Linux Kernel 3.5
- Ubuntu 12.04
- Whitelist syscalls
- Blacklist syscalls
- Trap syscalls and inspect its parameters
- Make it possible to emulate a syscall
- ~370 syscalls: libseccomp for the rescue







Additional information

Performance implications

- open() ~28x slower
- 15.000 open()'s in ~590ms

Source code

- # ls Source/WebKit2/Shared/linux/SeccompFilters/*
- How to build
 - # ./Tools/Scripts/build-webkit --efl -2 --seccomp-filters

Documentation

http://tinyurl.com/seccompwk2



Questions?

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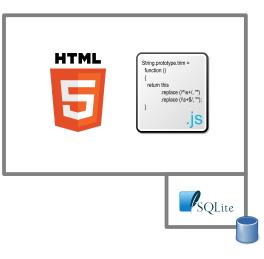


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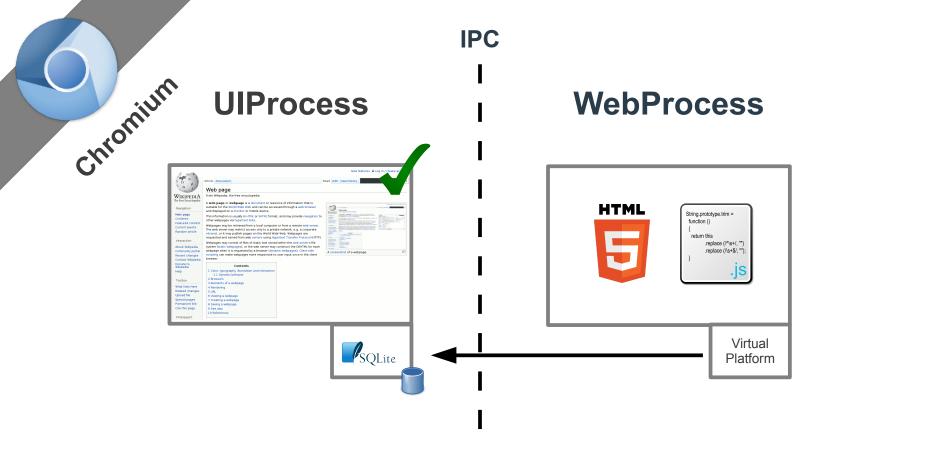
WebProcess

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