CHERI provides fine-grained protection within address spaces, complementing protection scalability. Compartmentalizing applications using IPC-linked processes current hardware and software. Today's CPU instruction set architectures (ISAs) sandboxes – is constrained by performance and programmability limitations of However, to exploit more vulnerabilities to accomplish the same goals.

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CHERI tablet and rack-mount CheriCloud array, based on Terasic’s DE4 FPGA board. CHERI CPUs

- Temporally Enforced Security Logic Assertions (TESLA)
- Capability Hardware Enhanced RISC Instructions (CHERI)

main

# Call fillArray
andi
clw
# Load the value (causing capability violation trap)
csetlen
# Set the length of the capability
ld

in the coming months, we plan to implement further CheriBSD features including

security. SOAAP is a set of techniques to assist with compartmentalization.

We are now applying CHERI features in off-the-shelf applications such as tcpdump, composed slide decks from many sources.

TSSA is a stand-alone engine in Linux. Any language that targets Linux can be instrumental. TSSA is capable of detecting and reporting violations.

In the example below, the pessimistic assertion that the X509 certificate passed to the OpenSSL library was valid. The certificate validation function returns the value of the certificate verification function output (ie, the field in the return value).

```c
...