31 March 2026

CHERI: quantifying the value of a strategic imperative

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Quantifying the value of a strategic imperative

We quantify returns

We evidence we have no better scaled strategy to address memory safety

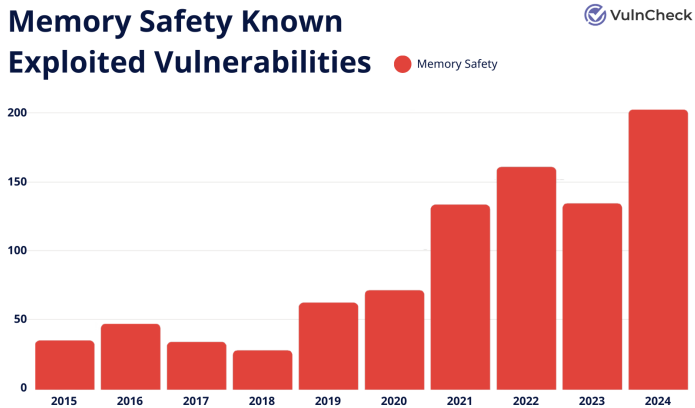
We quantify the cost of adoption and reduce relentlessly

Agenda

- The Strategic Imperative
- Quantifying The Value
- Barriers
- A Future To Aim For
- Closing

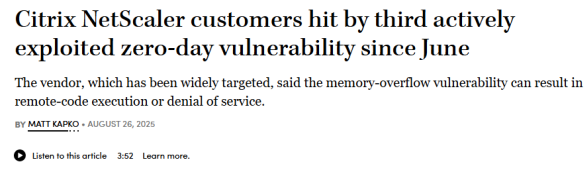
The Strategic Imperative

Strategic Imperative



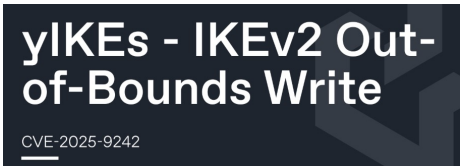
May 2025 - https://runsafesecurity.com/blog/memory-safety-kevs-increasing/

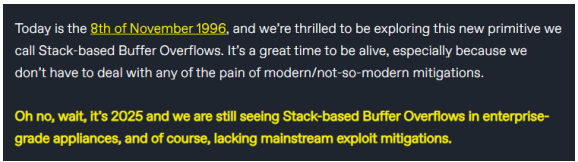
Strategic Imperative



https://cyberscoop.com/citrix-netscaler-zero-day-exploited-august-2025/

https://labs.watchtowr.com/do-secure-by-design-pledges-come-with-stickers-ivanti-connect-secure-rce-cve-2025-0282/





https://labs.watchtowr.com/yikes-watchguard-fireware-os-ikev2-out-of-bounds-write-cve-2025-9242/

Strategic Imperative

A 32-Year-Old Bug Walks Into A Telnet Server (GNU inetutils Telnetd CVE-2026-32746 Pre-Auth RCE)

https://labs.watchtowr.com/a-32-year-old-bug-walks-into-a-telnet-server-gnu-inetutils-telnetd-cve-2026-32746/

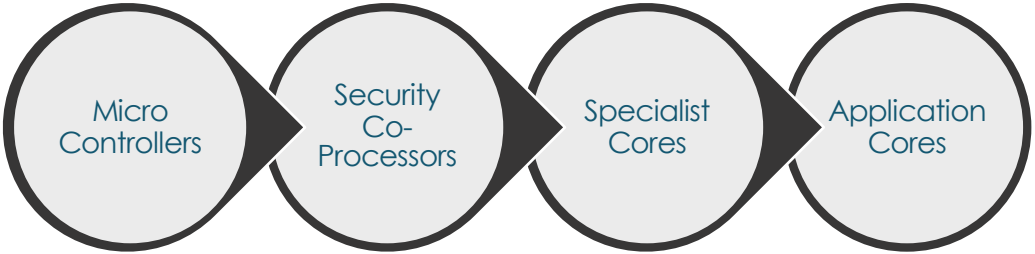
Strategic Imperative

CHERI

Strategic Imperative

we have time, but not limitless

Strategic Imperative



Quantifying The Value

Quantifying The Value - vendor

of the competitive edge

Quantifying The Value - vendor

of the increased velocity

Quantifying The Value – the vendor

of the human cost savings

Quantifying The Value – the vendor

of the patches that never were
(sustainment cost)

Quantifying The Value - vendor

of the cost saving compared to re-languaging

Quantifying The Value - vendor

of the technical debt management

Quantifying The Value - customer

of the extended life

Quantifying The Value – all

of the breaches that never were
(inc supply chain e.g. xz)

Quantifying The Value - all

of the impact which was reduced

Quantifying The Value – vendor & customer

of the reduced cost of compliance

Quantifying The Value – vendor & customer

of the reduced cost of liability

Barriers

Barriers

null hypothesis

Barriers

incentives

Barriers

transparency in technology

Barriers

availability

Barriers

bill of material cost

Barriers

test case coverage

Barriers

tooling availability and quality

A Future To Aim For

A Future To Air For

To prototype with CHERI cores is defacto

To uplift code at scale with confidence is efficient and easy

To not use CHERI is unavoidable

Closing

Closing..

We quantify returns

We evidence we have no better scaled strategy to address memory safety

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Questions

CHERI

THANK YOU

Contact olllie.whitehouse@ncsc.gov.uk

Web www.ncsc.gov.uk