

# **Defend Against Modern Cyber Threats**

## What is CHERI?

CHERI (Capability Hardware Enhanced RISC Instructions) is a revolutionary computer architecture improving software security while keeping performance intact.

### Why does CHERI matter?

- Prevents ~ 70% of the causes of cyberattacks (memory safety issues)
- Hardware protection to secure software can even protect existing code!
- Adds security with minimal impact and costs

#### **How It Works**

CHERI replaces traditional pointers with secure "capabilities," enforcing memory access rules and permissions to keep programs safe, and brings strong isolation between software functions

## **Key Benefits**

- 1. Memory Safety: Stops bugs and attacks like buffer overflows
- 2. Precision Control: Assigns specific permissions for data access
- 3. Compatibility: No need to rewrite code!

#### Where It Helps

CHERI can be applied to any system, from tiny embedded IoT devices to large data centres, and everything in between. It immediately brings a much higher level of security, by design.

## Join the CHERI Revolution!

Explore safer computing and built-in security at cheri-alliance.org

