The Magic of Secure Processing

Richard Jaenicke
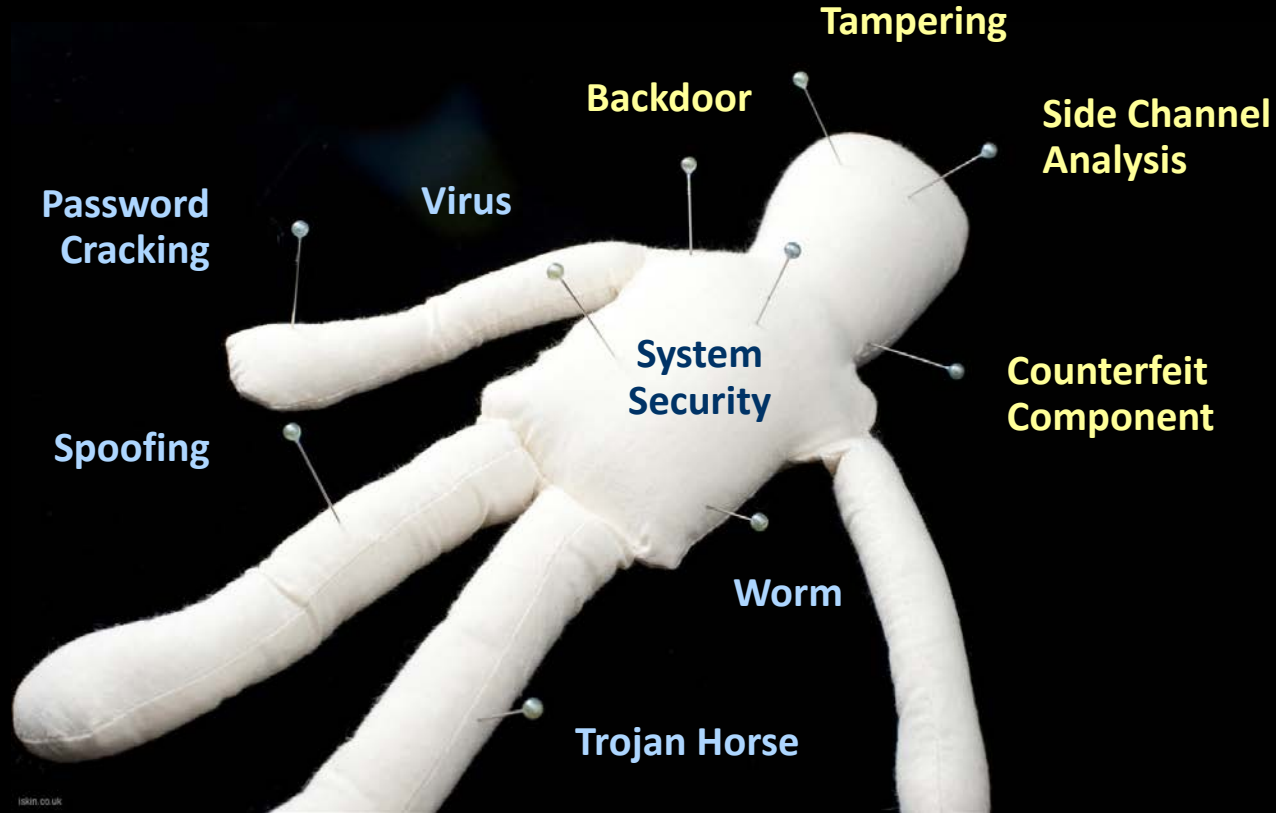
Director, Strategic Alliances & Market Development

Embedded Tech Trends

January 23-24, 2017

Systems are Under Attack!

Tampering

Backdoor

Side Channel Analysis

Password Cracking

Virus

Counterfeit Component
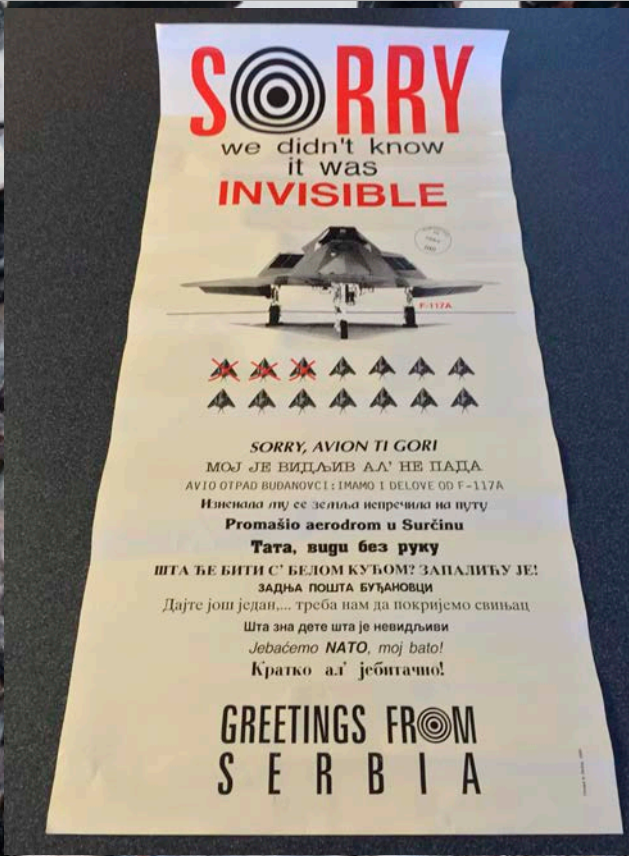
System Security

Spoofing

Worm

Trojan Horse

EP-3 Emergency Landing in Hainan China

F-117 Nighthawk

F-117 Wreckage

F-117 Canopy & Helmet in Belgrade Museum

Aren't We Already Covered?

What is the Cure?
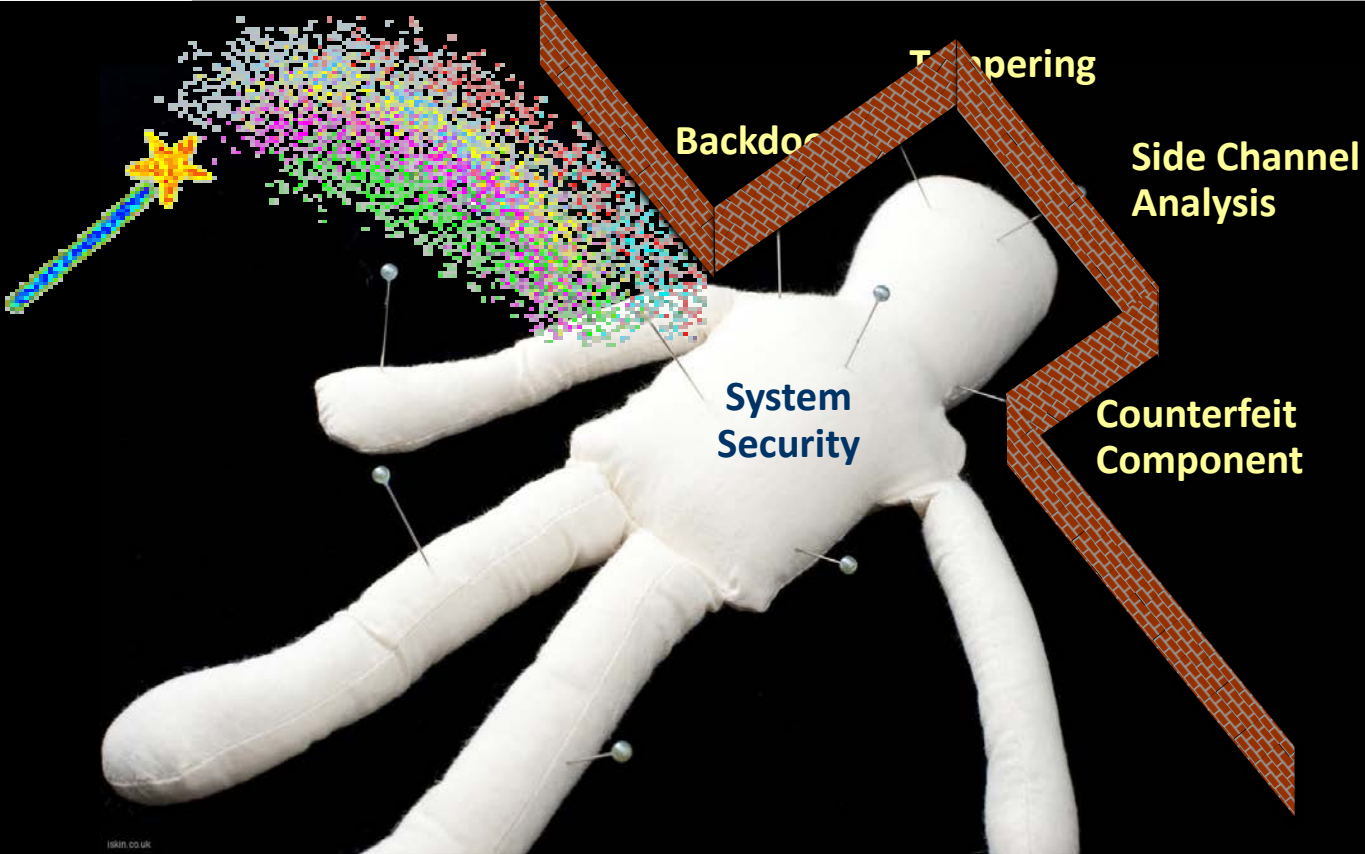
3 Elements of Secure Deployed Systems

System Integrity
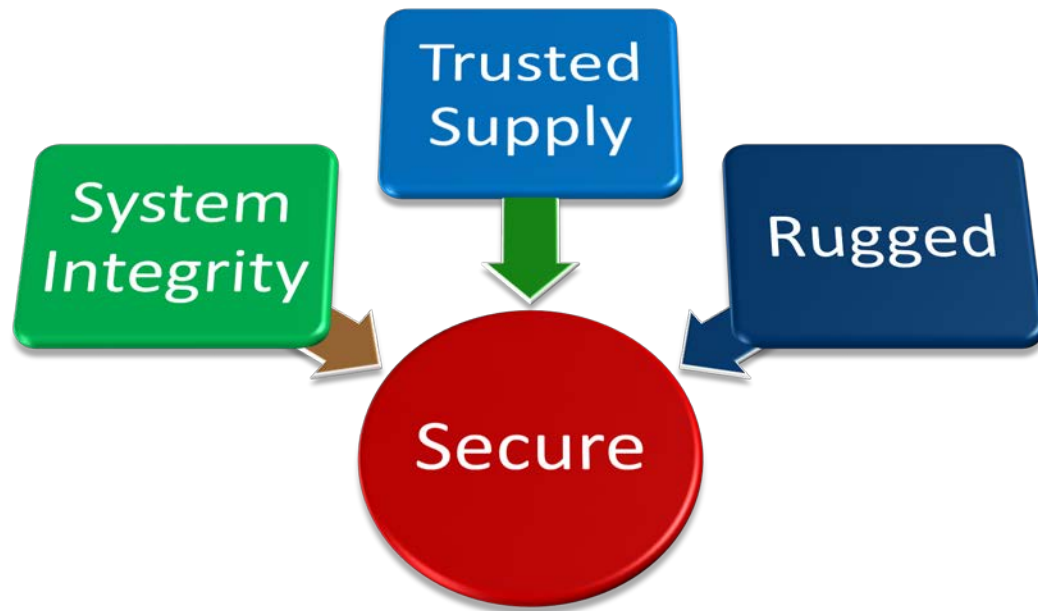
Protection Against Reverse Engineering
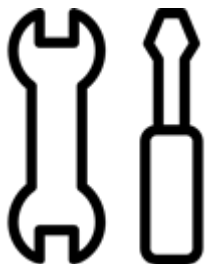
Physical Access
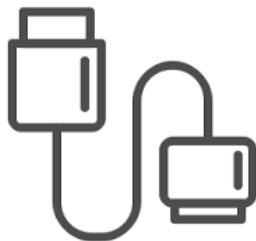
Debug Port

Side Channel Analysis

Modified Boot Structure

Trusted Supply

Design

Domestic DMEA-certified design facility

Robust IT security posture

Supply

Trusted & managed supply chain

Inspectable BIOS and network stack

Manufacturing

Domestic DMEA-certified manufacturing

Robust IT security posture

INNOVATION THAT MATTERS ™
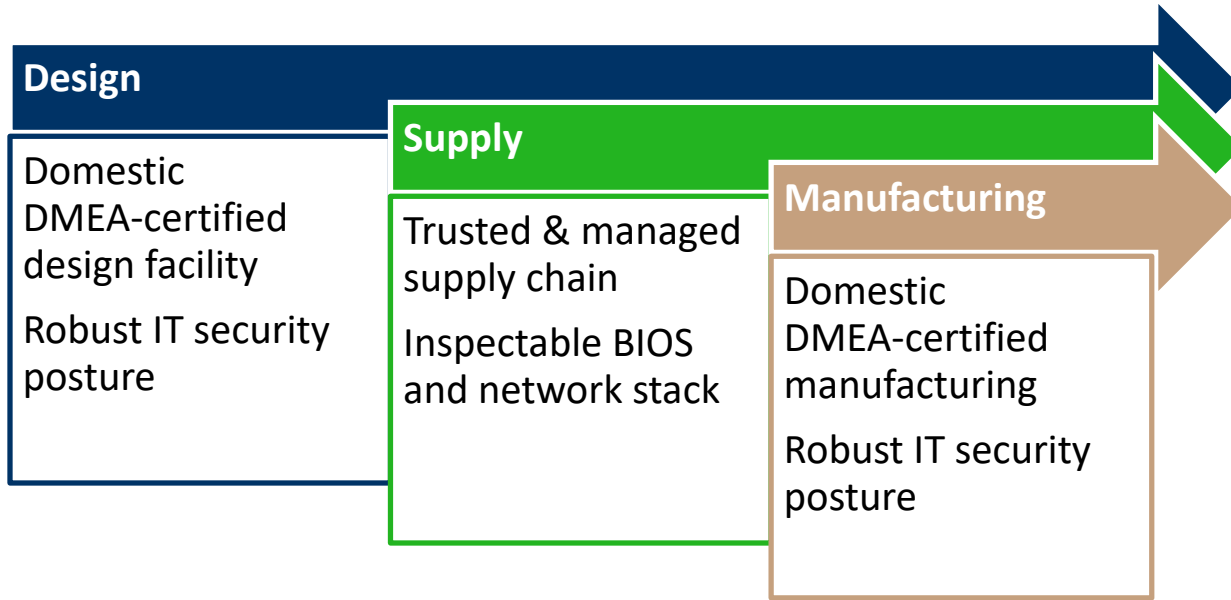
Putting it All Together
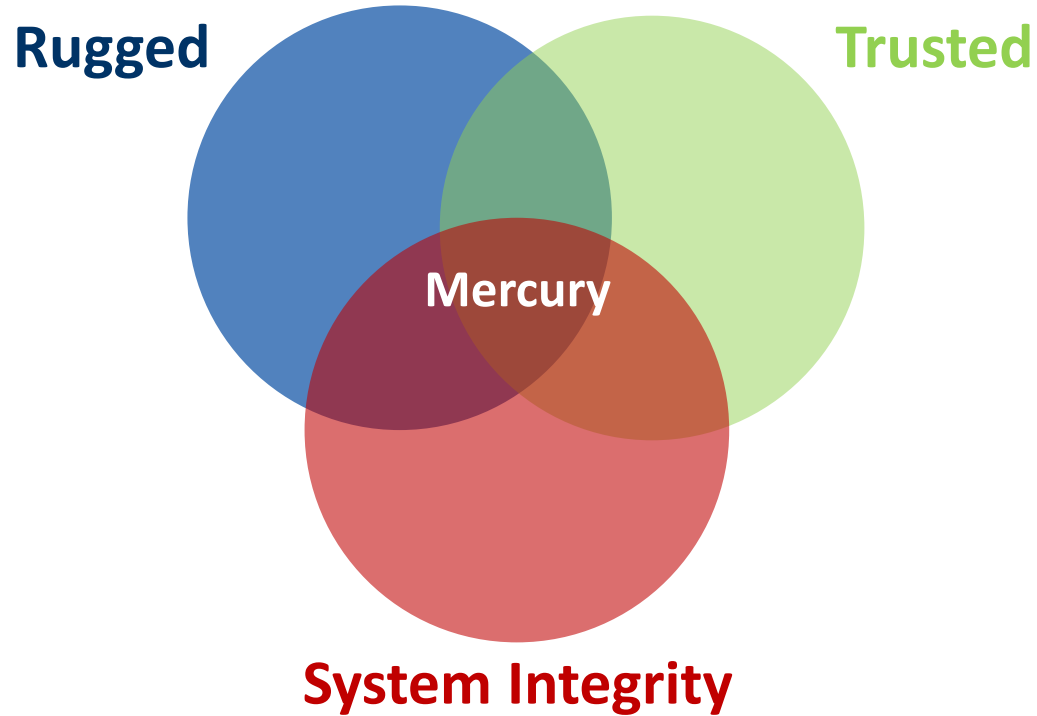
Example Secure Solutions: VPX & ATCA

Land

Air

Sea

Secure Solutions can be Open & Modular!

INNOVATION THAT MATTERS ™

Now Available as a Secure Rackmount Server
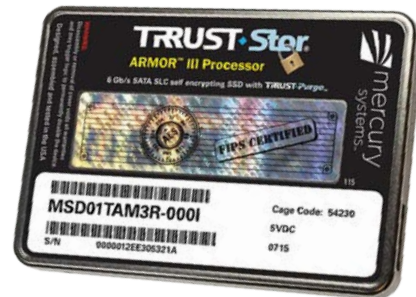
Secure Solutions can be Highly Affordable!

INNOVATION THAT MATTERS ™

It's Like Magic!

Counterfeit Component

Backdoor

Tampering

Side Channel Analysis

INNOVATION THAT MATTERS ™

Secure Deployable Xeon Servers

Secure

- No reverse engineering

Trusted

- No backdoors, no counterfeits

Rugged

- No failures at temperature, shock, or vibration

INNOVATION THAT MATTERS ™

Thank you!

mercury systems™