

# Trusted Ring

-A Security Enhancing Software Architecture

## Market Need

People rely on computers to protect their information, whether it be for online banking transactions, internet purchases, Supervisory Control and Data Acquisition (SCADA) systems, personal and medical information, or electronic voting. Ultimately, it is the operating system that is expected to supply this security, but operating systems are often the weak link in the chain. Trusted Ring provides a security enhancing software architecture that protects systems and sensitive data, even from a compromised operating system.

## APL Solution

JHU/APL's Trusted Ring provides a modular framework for inserting custom security services that can be tailored to protect the information that matters most. The primary goal of the Trusted Ring architecture is to provide a secure platform that is non-bypassable and tamper proof against attacks from all other code executing on the system, including the operating system. Thus, if the operating system is infected with malware (e.g., virus, worm, or spyware) the security service module can still protect the platform's mission critical data.

## Advantages of the Trusted Ring security enhancing software architecture

- Independent of the operating system
- Supports security service modules that can be customized to specific security needs
- Provides a high assurance base from which to assert that desired security properties hold true
- Based on hardware protection mechanisms

## Technology Status

Prototype

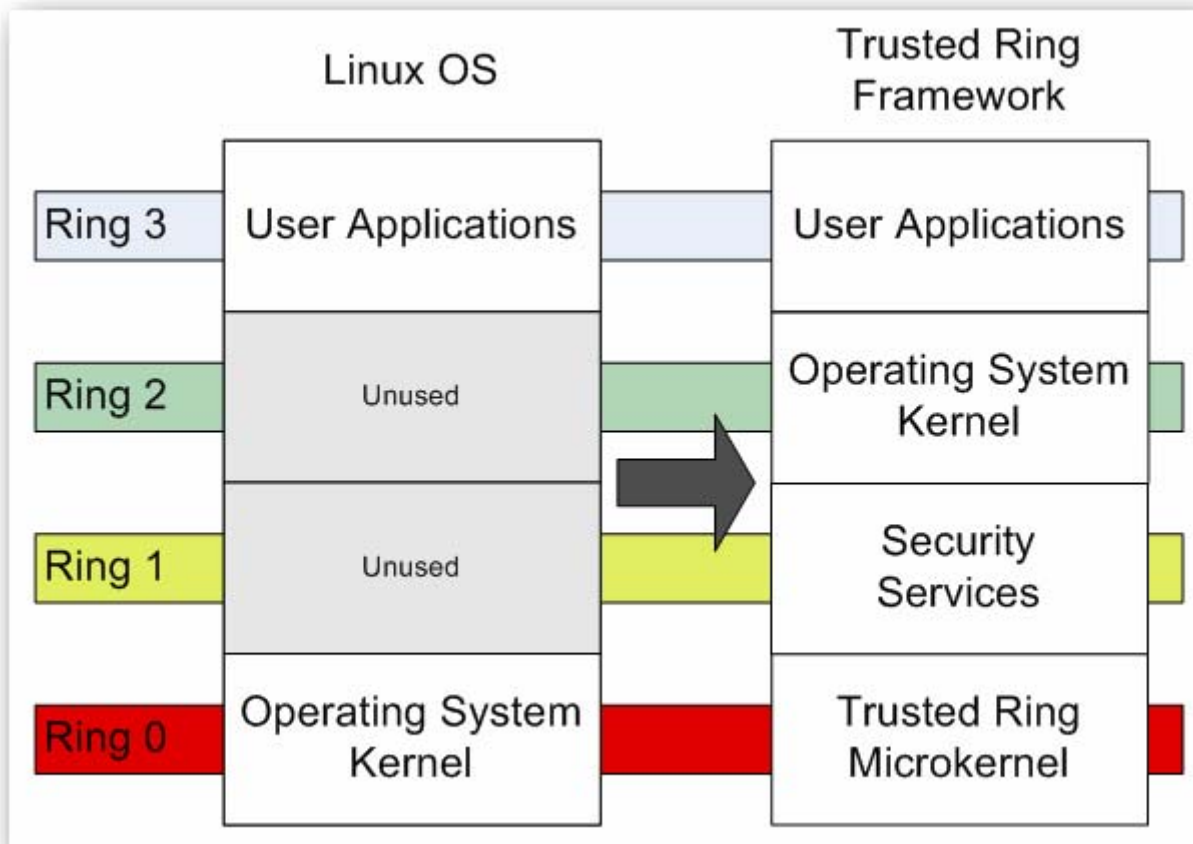


Office of Technology Transfer

# APL

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# Trusted Ring



## Commercial Applications

- *Banking*
- *Supervisory Control and Data Acquisition (SCADA)*
- *Government*
- *Electronic Voting*

## Intellectual Property

Copyright Protection

## Availability

This technology is currently available for licensing.

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