



**“ FEXEROX ” is a Secure & Lightweight Multi-OS Platform, can provide the following user benefits;**

- Multiple-OS** • RichOS and RTOS can operate on a single CPU  
(Additional OS can be loaded according to the memory bandwidth)
- Security** • Trusted application execution on secure domain (MIPS VZ)
- Cost Reduction** • Low Electrical BoM with multiple-OS operation on a single CPU  
• Low cost SW development using free SW IPs (Linux and OS Applications)
- Reusability** • Legacy RTOS (iTRON etc.) SW properties can be fully utilized
- Real Time Execution** • Real Time Signal Processing using an RTOS in parallel

**◆ “FEXEROX” Key Advantages**

- “Hypervisors as bare-metal tools (Type I)” Architecture
  - Specifically developed for Embedded System (Not reuse from full VZ technology for PC and Server systems)
  - Advanced abstraction design minimizes the overheads such as reading different memory domains caused by I/O virtualization, Inter-OS communications, System call and Context switching
- Lightweight / Fast Benchmark
  - 32 Kbytes of Footprint design
  - Achieved up to 99% performance with LMBench
- Minimize side effect against OS
  - Minimal code change and Kernel dependency
- Can be used as Secure platform (SecureOS)
  - Runs on the MIPS Warrior M-class M5150, an MCU-class CPU with hardware virtualization
  - Provides TEE (Trusted Execution Environment), a [Global Platform] compliant secure interface
- Flexible Platform
  - MIPS/ARM/Intel/PowerPC/SH/FPGA CPUs
  - Multi-Core/Single-Core (SMP/AMP)
  - RichOS~RTOS (combinations of more than two OSs)

