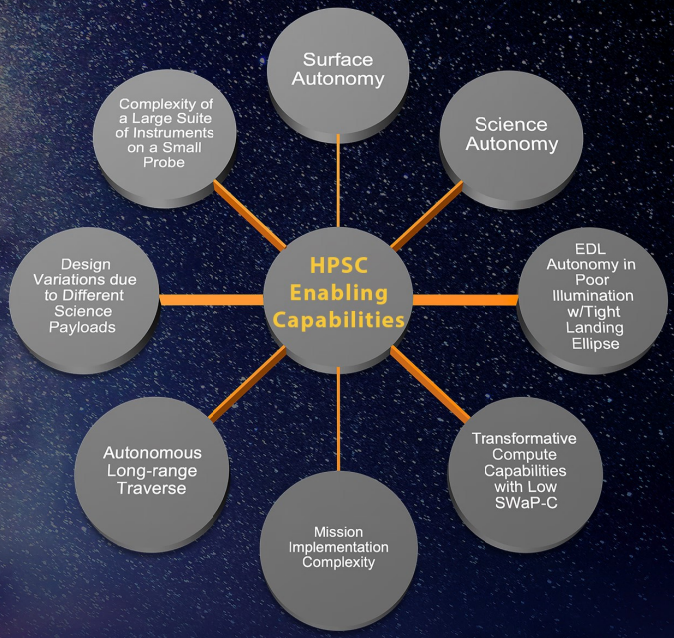
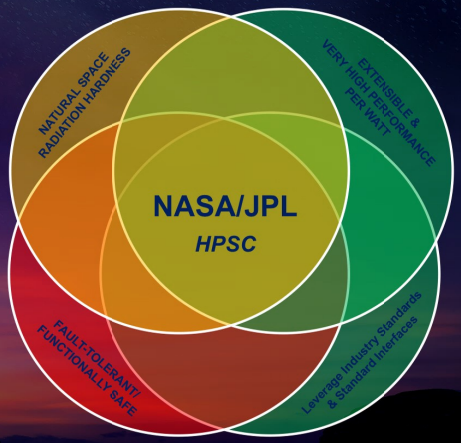
Jet Propulsion Laboratory
California Institute of Technology

HIGH PERFORMANCE SPACEFLIGHT COMPUTING

- HPSC is a NASA-led program
- Game changing 12-core RISC-V SoC that offers extremely high performance per watt.
- Fault Tolerant/Radiation Tolerant
- Purpose-built for harsh environments
- Developing the SoC, Eval Board, Software Stack, and training app notes.
- Public/private partnership with Microchip



- Game changing performance gain over current space compute with same power.
- Highly reliable space-qualified processor.
- Ground-up SEE radiation hardened
- Extensive built-in fault-tolerance
- Dynamically configurable between: performance, power, and radiation tolerance.
- Extensible performance & power, enabling mission customization.
- Reduced development time & cost
- Ease of implementation variations (support of software defined capabilities).
- Built-in AI/ML support
- Highly applicable for autonomy



HPSC Prime Directive:

Deliver modern disruptive and extensible performance, performance per watt, and fault-tolerance to enable NASA & JPL to support the ever-increasing levels of mission autonomy and complexity while simultaneously reducing development cost, risk, and time.

Radically Advancing the Capabilities of Space-based Computing

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