

CHIMERA

Chimera Framework

- Collection of modular components
- Networked applications for each mission
- Enables improved testing and reliability

Chimera is Robust, Reliable, Resilient, and Stable

Chimera Features

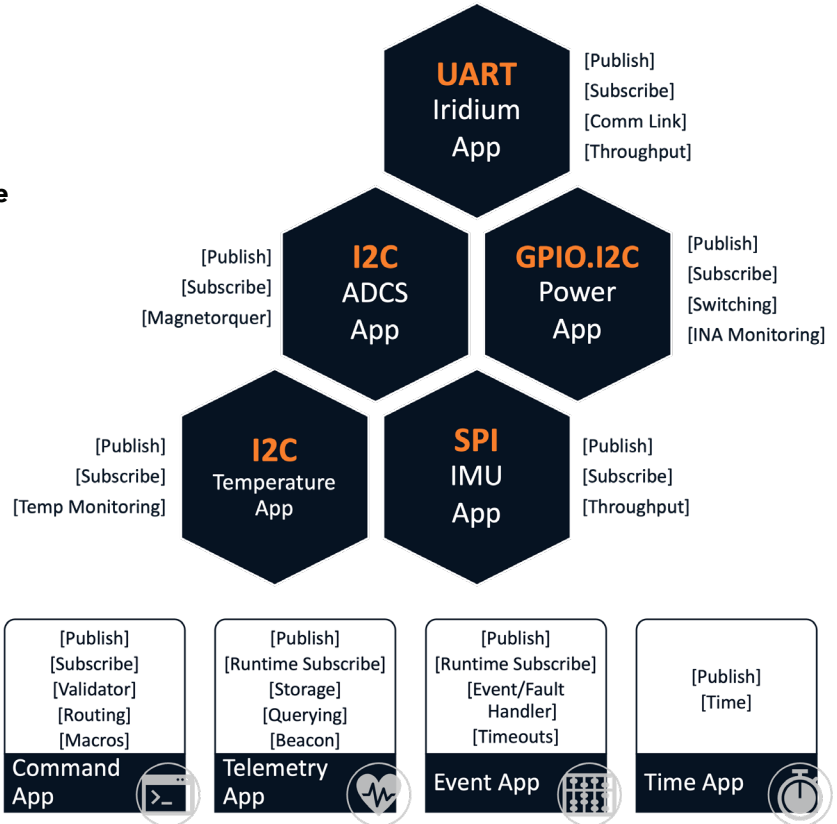
- Chimera is a resilient collection of distributed services that allows for graceful degradation.
- Chimera's modular architecture makes it easier for external developers to implement new features without requiring a complete understanding of the whole system.

Leash Testing Environment

- Testing environment for flight software apps
- Able to connect over ethernet
- Acts as another app in the network
- Facilitates hardware in the loop testing
- Other features:
 - Scripting interface
 - Command sequence editor
 - Telemetry extraction/parsing of files
 - Writes to a database (e.g., PostgreSQL)
 - Visualization with Grafana
 - Commanding through these same AI&T tools
- Future development and support for ground operations

"SimSat"

- Experience Chimera without a full license or purchase. Key features:
- Simulated spacecraft environment
 - Contains core Chimera apps with simulated hardware
 - Use Leash to interact as you would with real hardware
 - Gives user ability to command and view simulated telemetry
 - Shows accept and reject accounts
- Examples of simulated commands
 - Switch simulated GPIOs
 - Simulate temperature sensors
 - Simulate power sensors



Chimera Enables Mission Success

- **PORTABLE:** Primarily written in C#, Chimera can run on any hardware and the operating systems that .NET runtime supports, such as x86, Arm, Linux, Windows, etc.
- **RESILIENT:** Each app can adapt to the presence or absence of other components, as necessary.
 - Has your central command scheduling app gone down? No problem. We can distribute the schedule amongst the destination apps.
 - Chimera being developed in C# helps to prevent certain types of bugs and errors such as memory leaks.
- **FLEXIBLE:** Developing new functionality in Chimera is easy. We can develop new features in house, or you can utilize the software development kit to develop your own components and apps yourself.