OpenTelemetry On-Orbit

Leveraging an Open Standard for Spacecraft Telemetry

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Spacecraft Telemetry is Just Telemetry

Every satellite has telemetry, but not all telemetry comes from satellites!

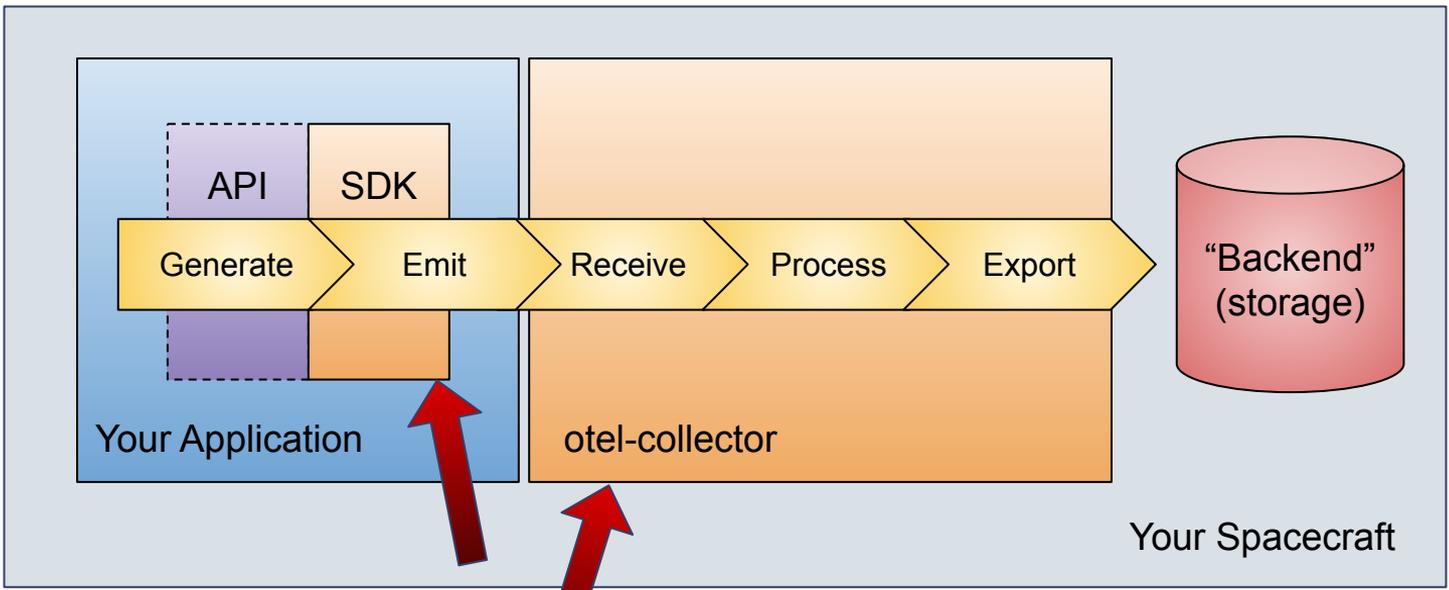OpenTelemetry has 80% of what we need for space applications out of the box

OpenTelemetry Supports:
- Flexible deployment
- Data replication
- Telemetry visualization
- Filtering and processing

OpenTelemetry Architecture

GigRouter: Why We Chose OpenTelemetry

- **Less Busy Work:** Telemetry format is a defined standard (OTEL)

- **Integration:** Integrating telemetry with other systems is straightforward

- **Flexible Deployment:** Many use-cases simply require software configuration

- **Languages:** (Rust, C/C++, Python, etc)

- **Open Source:** No vendor lock-in!