

# Freedom® Integration Made Simple

## Client Integration Overview

### GETTING STARTED

**1**

#### Data Collection

- Technical Deep Dive With Engineers
- Define Modes of Operations

**2**

#### Freedom Integration

- Learn Freedom RESTful API
- Client API Library (Java & Python)

**3**

#### Freedom Pass Server Integration

- Dedicated Test Environment
- Site Hardware Configuration

**4**

#### Hardware Configuration

- How to use API + FPS Task Requests
- Test with on Orbit Satellites

**5**

#### ATLAS in a Box

- End-to-End Compatibility Test
- Portable Rack, Shipped to You

**6**

#### Production

- Smooth Transition to Production
- Scheduling of On-Orbit Contacts

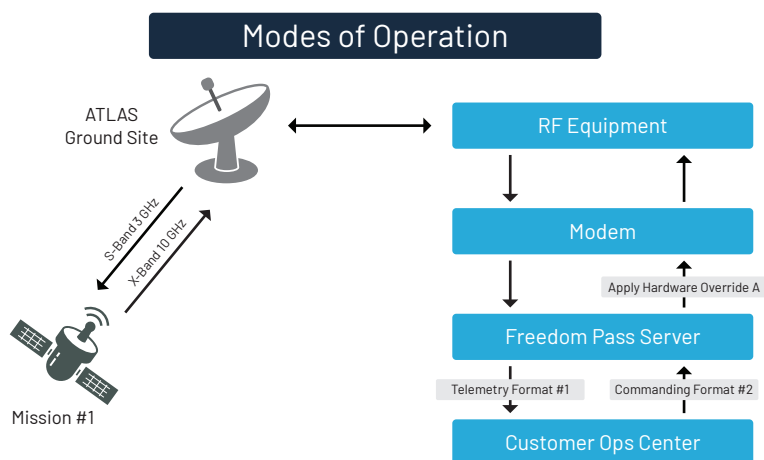


# PHASES OF INTEGRATION

## 1. Data Collection

Your journey with ATLAS starts with a deep-dive technical exchange with ATLAS' expert networking, software, and RF engineers to define your Modes of Operation.

The Modes of Operation diagram defines the roadmap for each of the RF Chains that ATLAS will build, test, and operationalize to ensure your mission success.



## 2. Freedom Integration

Learn about the functions offered by the Freedom Platform and how to exercise these functions in the ATLAS Test Environment. Practice executing critical endpoints like: adding satellites, satellite bands, satellite configurations and Task Requests.

For convenience and ease of integration, most of these functions are available in the Freedom UI, but many customers choose to integrate our API for machine-to-machine interfacing for speed and scalability to your mission. ATLAS accelerates integration by providing Client APIs (libraries) written in two languages, Java and Python, as well as Postman to explore the Freedom RESTful API directly.

## 3. Freedom Pass Server Integration

During this phase, you will integrate with the Freedom Pass Server (FPS) to support realtime commanding and telemetry, if needed. You will work with the ATLAS RF Engineering team to develop the configurations for each site hardware in your Modes of Operation. Then, ATLAS will tier the customer on a Virtual Test Site to enable scheduling Tasks and conduct additional testing, which leads closer to full integration with the Freedom Platform.

## 4. Hardware Configuration

During the Testing Phase, you will work with the ATLAS RF Engineering team to further develop the configurations for each site hardware in your Modes of Operation. Then, using the Freedom API, you will schedule contacts in our dedicated Test Environment and exercise test contacts with real site hardware in the loop and RF recording playback.

You will complete the Hardware Configuration Phase with near-flight-ready modem configurations and prepare for a full RF compatibility test. We iterate the process until everything works perfectly.

## 5. ATLAS in a Box

ATLAS-in-a-Box (AIB) is a portable ground site containing all of the RF equipment to satisfy each of the Modes of Operation. ATLAS will ship the AIB directly to your operations center for an end-to-end RF compatibility test exactly as you will execute on-orbit. Your FlatSat or simulator connects directly to the AIB; the AIB connects to Freedom in the cloud, and you control Freedom via the Client API.

## 6. Production

The Production Phase includes steps that allow for a smooth transition from the Test Environment to the Production Environment. ATLAS will ensure the transition is carefully coordinated to maintain quality of service across the network. Our job is not complete until the system is proven end-to-end and you are completely satisfied.



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