

# Introduction and Ecosystem

XINA is an integrated data management platform, developed at NASA GSFC. XINA is provided as a managed service hosted on Amazon Web Services.

## Overview

The XINA platform provides five primary functions:

- Structured Database Storage (MySQL on AWS RDS)
- File Storage (AWS S3)
- Task Management (XINA Run on AWS EC2, XINA Lambda on AWS Lambda)
- Web Client (XINA Web, Angular)
- Direct API Access (XINA Tunnel)

XINA supports Launchpad and NAMS integration for user management and authentication.

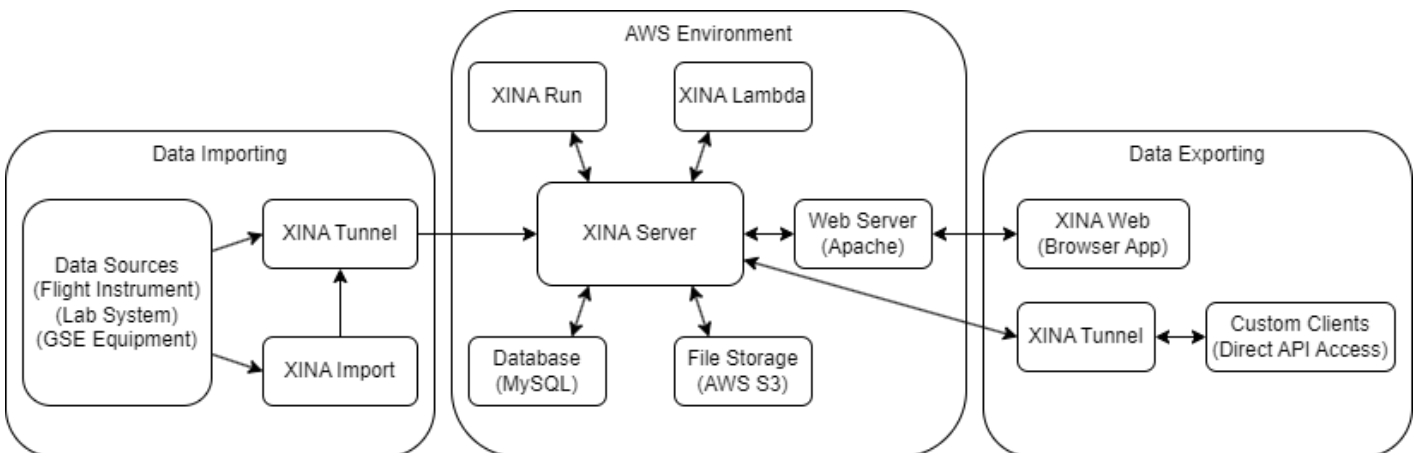
## Limitations

XINA is not a single standalone application, and cannot currently be installed locally. We provide the software as a service through a NASA AWS account integration. Specific AWS requirements and costs will vary depending on project parameters.

XINA is not recommended as a gold copy for data storage. Although AWS cloud services are highly reliable and XINA is often used as a valuable backup tool, a full gold copy should always be kept onsite.

## XINA System Components

The XINA platform is composed of several interconnected components and applications:



## XINA Server

The XINA server is the core application of the XINA platform. It manages all incoming and outgoing XINA data and provides API access. The server is built on a MySQL database backend and uses the AWS S3 service for large file storage.

## XINA Web

XINA Web (formerly XINA Online) is the primary XINA front-end application, written in TypeScript with Google's Angular web application platform. Authentication is integrated with NASA Launchpad and managed through NAMS.

## XINA Tunnel

The XINA Tunnel utility is a Java application intended to facilitate communication with the XINA API. The tunnel connects directly to the XINA server and manages connection security and authentication. It then opens a local webserver to which client applications can connect and communicate with the core XINA server. [Full reference is available here.](#)

## XINA Import

The XINA Import utility is a Java application to simplify importing data to the XINA server by importing XINA API actions from JSON files. [Full reference is available here.](#)

## XINA Run

XINA Run is a Java application for managing and executing asynchronous tasks through the XINA platform. [Full reference is available here.](#)

## XINA Lambda

XINA Lambda is an integrated service for executing asynchronous tasks from the AWS Lambda platform. [Full reference is available here.](#)

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