



<https://cloudblue.com>

Boomi 

Basic Concepts



This article has been generated from the online version of the catalog and might be out of date. Please, make sure to always refer to the online version of the catalog for the up-to-date information.

Auto-generated at December 18, 2025

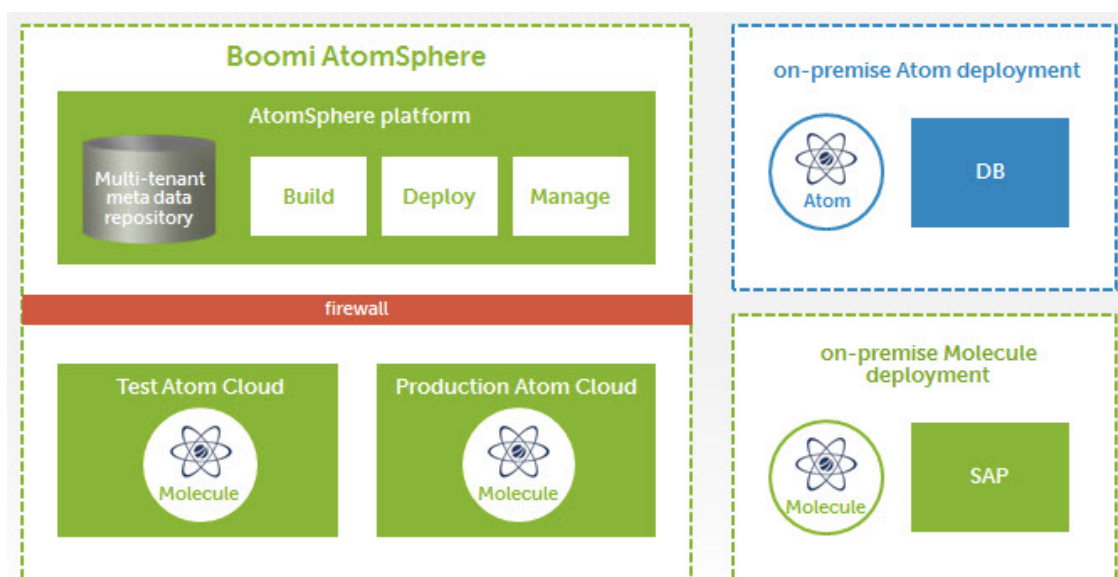


Before starting to work with the Boomi AtomSphere platform, it is important to understand the general terminology and concepts of this platform.

Atoms, Molecules, and Atom Clouds

AtomSphere provides a cloud-based integration platform. It supports two deployment models: an in-the-cloud deployment model that is used when all the integration endpoints are cloud-based and an on-premise deployment model that is used when any of the integration endpoints are within a corporate network.

- If you use the in-the-cloud model, you can deploy your integration processes via a Boomi **Atom Cloud**.
- In case your organization requires the on-premise model, AtomSphere allows you to create your **Atom**. This represents a lightweight Java application that is deployed on a host with the Internet access.
- If you use the on-premise model and want to have a highly available, load-balanced solution, in case you want to change your Atom's processing time or volume handling, or if you are worried that your Atom's processes may not run because of a computer outage, consider using a **Molecule**. It is an enterprise-grade version of an Atom that executes integration processes and that can be deployed on multiple servers.
- If you need a multi-tenant solution to accommodate multiple customer accounts, consider setting up your own *private Atom Cloud*.



Atoms, Molecules, and Atom Clouds use the same basic technology. Note, however, that to differentiate these terms. A *Molecule* represents an *Atom* with multiple nodes. An *Atom Cloud* is a *Molecule* that is available to multiple tenants.

Integration Lifecycle

The integration lifecycle on the AtomSphere platform consists of the three steps that are introduced and described below:



Build

By using the AtomSphere library of provided connectors and maps, it is possible to easily design your integration and required business processes. Thereafter, you can load your configuration into a lightweight, a dynamic run-time application that is called an *Atom*.



Deploy

Deploy your *Atoms* to the AtomSphere for SaaS, PaaS, or Cloud integration. You can also deploy your applications on-premise and use your firewall to protect your data.



Manage

By using a feature-rich web-based dashboard, you can monitor and maintain the status of all your deployed *Atoms*, integrations processes, and business partners, regardless of the location.

