

Application Modernization with a Cloud Native Data Platform

Increase Velocity with a Self-Service Transformational Data Platform

Development at scale: Focus for developers to solve business problems efficiently across the entire enterprise landscape.

Millions of customers, hundreds of development teams, dozens of business units, hundreds of data sources. Enterprise development at scale requires API powered data access to solve problems fast and easy for developers. Using a cloud native data service to abstract the data operations allows more time for developers to create differentiated business outcomes.

Consistent data access approach for a variety of enterprise applications

Enterprises face a challenge of a diverse set of applications that each have their own approach and tools to deal with data. There is a need for a flexible yet powerful data platform that provides a familiar set of API's and capabilities around data while allowing developers to use the language and framework of their choice to build their applications without requiring them to become experts on operating a database. As older applications are modernized to take advantage of cloud based architecture, developers need a simple and consistent way to provide the data capabilities to their applications without the overhead of complex database management concerns.

Database as Service – Grab and Go Data – Managed Service

- **Accelerated development.** Today, using Astra, developers can quickly access a cloud native data platform with all of the power of Cassandra in less than 5 minutes. This gives the developer the ability to quickly start their project and begin delivering results right away.
- **Availability via APIs.** Developers have many options for how to utilize the data platform in their apps. In many cases, having powerful drivers that handle a lot of database specific capabilities in a clean and easy way gets them to production quickly. Increasingly, developers prefer to be abstracted away from the particular data technology and utilize standard API approaches such as REST, GraphQL, or other common API approaches. Astra supports all of these developers where they are so they can use the approach most familiar and helpful for their application.
- **Flexible platforming.** Let your business needs shape your application deployment profile and not your data platform. With Astra, you can quickly and easily develop against a cloud native platform, and later you may choose to take this application to production that may include multiple public or private cloud environments or even on-prem with a hybrid on-prem and cloud deployment leveraging standard Cassandra capabilities.
- **Complete No-Ops flexibility.** Astra brings all of this power and does not require any additional effort around provisioning instances, maintaining database software, or managing infrastructure upgrades and maintenance. Developers focus on innovation, and Astra takes care of the operations.

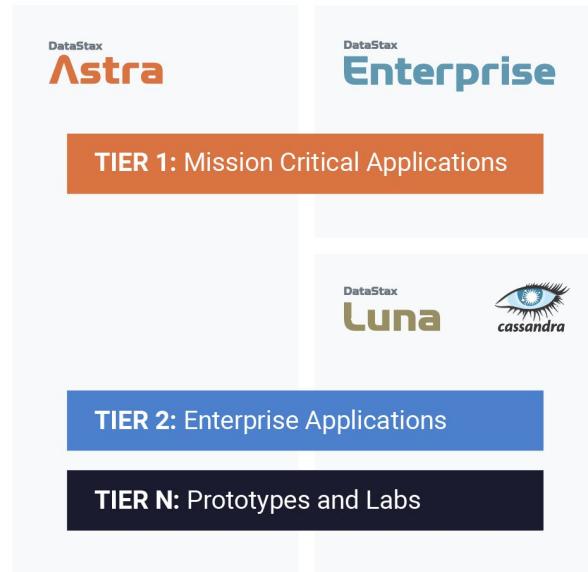
Pattern of Enterprise Data Architecture

Enterprises build out agile transformational data platforms to accelerate development teams and provide consistent data delivery across all business units. Data security rises to the top of enterprise needs as well as a predictable deployment process for data changes. Integration with existing enterprise components, and APIs ensure alignment of investments and a unified developer experience across enterprise applications.

To manage enterprise applications, a tiering methodology classifies applications based on criticality to the business, SLOs, data classification, and security requirements. Tier 1 applications end up being the mission critical applications and working down to Tier N applications which may be prototypes or labs applications.

Mapping the application tiers to the components of the Cassandra data platform aligns to a pattern:

Cassandra Enterprise Data Platform Pattern



- **DataStax Astra** to span all applications as a secure option for rapid application development, prototyping, testing as well as flexible consumption and billing for production workloads.
- **DataStax Enterprise** for Tier 1 applications that require additional capabilities such as enterprise security integration with external authentication systems, integrated search and analytics, and graph database capabilities to navigate the data based on relationships. With true multi-model support, DataStax Enterprise provides multiple workloads in one database so that developers can build an application that leverages graph data traversals utilizing the same repository as their transactional queries for example.
- **Apache Cassandra** for Tier 2 to N applications for the high availability, scale, and data distribution across many data centers worldwide. Use Cassandra with DataStax Luna to have all the benefits of an open source product with the enterprise backing you need including tools, expertise, and support.

Get Started Today

The beauty of Astra is that you can dive right in with a free account at astra.datastax.com. Here you will find that you can create your account and have a functional running database available all in less than 10 minutes. You will find loads of examples, documentation, and free resources to get your first Astra application up and running quickly.

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