

# ELECTRONICSDEALS CASE STUDY

ElectronicsDeals Inc. is an e-commerce enterprise that specializes in selling and providing a marketplace for electronic products. The company has operations in North America, Asia-Pacific, and Europe. The company aims to provide the widest variety of electronic gadgets at the lowest price to its customers, through their new online platform.

Their existing online system is built on a legacy system and is not scaling. The new online platform also serves as a marketplace for other electronic product vendors and third-party merchants to sell their products on the ElectronicsDeals online platform. The company has set itself a target of 100 million USD within 1 year of its inception, from all geographies.

The company plans to enter other geographies after 1 year through joint ventures and acquisitions. Currently the company plans to use an in-house deployment architecture, while they are continuing to evaluate the cloud option.

For implementing its functionality, the ElectronicsDeals online platform must be integrated with the following systems:

1. External payment gateway for processing transactions
2. Internal pricing Enterprise Resource Planning (ERP) system to get product pricing
3. Internal product inventory database
4. Internal content management system (CMS) for marketing and web content
5. External social media and microblogging platform to create a collaboration platform consisting of product/user communities, forums
6. Support chat feature provided by a third-party vendor.

ElectronicsDeals online exposes the following functionality:

1. Product-posting functionality, which can be used by third-party merchants for posting the details of their products
2. Product search functionality for external clients to search for available products
3. Order products functionality for external clients to place the order.

The online application should be available 99.999% of the time across all the geographies where ElectronicsDeals Inc. operates. The services exposed by the ElectronicsDeals Inc. should

be available 99.99% of the time. The global gateway page and products home page of ElectronicsDeals should be available 99.999% of the time across all geographies.

All product pages should load within 2s in the North America region and within 5 s in the remaining geographies, on all desktop browsers, and on latest versions of mobile platforms.

The global gateway page and products home page should load within 2 s across all geographies. Product search transactions should execute within 3 s in all geographies. Order placement transactions should complete within 2 s in all geographies. Product search, product posting, adding to shopping cart, and order placement transactions should succeed 99% of the time.

The application should be able to handle a maximum 10,000 users per hour in peak load, 100 users per second average load. Moreover, it should support a maximum of 5000 concurrent users.

All confidential data such as user information and transaction information should provide transport-level security and 128-bit encryption. The application should not be vulnerable to injection, buffer overflows, or Distributed denial-of-service (DDoS) attacks.

## REQUIREMENTS

- Identify and classify important quality attributes of Electronics deals
- Suggest some design strategies/tactics to address these attributes