



# Etanova Enterprise Solutions

Software Development » 2017-12-17

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# Software Development

## Software Development

Enterprise systems and web applications require more than a beautiful interface and some programming logic: They require carefully implemented software architecture. Software development and architecture is directly correlated to a system's overall performance. During the development stage of a project it may be tempting to overrate the importance of good architecture, as at this time the system is operating under very ideal conditions. However, when a system goes into production it must be able to handle new challenges:

- It must be accessible to simultaneous requests (to potentially equivalent resources) from multiple devices without reducing system performance.
- It must be scalable, to allow upgrades (potentially from other developers) to any system component without negatively impacting other components.
- It must be secure and must mitigate all potential risks for exploitation.
- It must be able to recover from a disaster in the possibility of a system component failure.

These challenges require good software development and architectural practices. Don't risk your project by collaborating with an inexperienced software developer. Etanova has years of experience in this domain: We will spend less time figuring out solutions to common problems, and more time creating an excellent product!

## Scalable Modular Architecture

Software system processes are the heart of the system, as every other part of the system is loosely concerned with managing the flow of information into and out of these processes. The goal of good project architecture is that it is maintainable and scalable, and to accomplish this goal we require architecture with a minimal complexity. We have a several issues to consider in creating business process architecture:

- The processes may change (i.e. the algorithms may be updated.)
- New processes may occur in future developments.
- System components may be updated or added, and this must be done without disrupting the rest of the system.

These challenges can all be solved through Modular Architecture: Creating important system processes as isolated entities and facilitating communication between them where necessary. This simplifies programming processes and allows larger teams of programmers to concurrently contribute to large projects.

## Service Oriented Architecture (SOA)

The traditional structure of most internet based systems involves a client-server model in which the client acts as the front-end interface terminal and the server holds and processes back end business logic. The front end will communicate with the back end through a Service Oriented Architecture, where the front end calls upon required services from the back end. This part of the project will connect the static GUI with the modules on the back end.

## External Services and APIs

Etanova is committed to creating a high quality projects by using a minimal amount of resources! In other words, we want to use whatever tools we have at our disposal without reinventing the wheel. In fact, Etanova has accumulated experience with a large collection of external services and APIs that are either free to use (open source) or present a minimal cost. These may occasionally present a compromise to the project in terms of quality, however oftentimes the benefits greatly outweigh the disadvantages. We are committed to presenting you with all the options and realizing the best solution together.