Adopting Scala: Lean Architecture and Clean Code
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Adopting Scala in a production environment is a larger decision than simply learning a new programming language. It's critical to understand the business value Scala brings, how it simplifies architecture, and how it transforms the workforce.

We are mostly talking about Scala as the ecosystem in this book rather than treating as a language in isolation. Scala ecosystem comprises frameworks, libraries and tools that help architects and developers to use Scala in enterprise settings with all accessories required.

This book simplifies the adoption of Scala by addressing multiple factors like ROI, architectural benefits, time to market and artful coding. The readers will be able to unlearn obsolete concepts and apply the new techniques, styles, and patterns in new way to better solve their daily design and coding problems while positively impacting the bottom line.

Many architects fail to embrace Scala's new architectural paradigm, including concurrent capabilities, patterns, coding style, functional aspects, and composing components etc. This book will make **architects** and **developers** more productive and efficient in applying Scala to solve practical daily design and coding problems.

Finally, to make Scala practical, one needs to be aware of its rich ecosystem - namely frameworks, libraries, and build tools. This book is not designed to teach a lot about them but will bring them in as appropriate.

- 1.2.1 Pushing Scala into Java ecosystem without friction
- 1.2.2 Making Scala work with Java based frameworks and libraries
- 1.2.3 Development Tool Support

1.3 Scala brings Functional capability into Java Ecosystem – a huge boost in productivity, simplicity, and new possibilities
1.4 Scala and other new languages – when Scala is more appropriate than others
1.5 Cost of adoption – you can make it almost free
1.6 Risk assessment – no other risk than changing the mindset
1.7 First step to adopt Scala in your enterprise
- 1.7.1 Convince yourself, your team, and your bosses
- 1.7.2 Introduce Scala into ongoing Java project right now – its easy, and 100% non-intrusive

1.8 Who is using Scala?
1.9 Summary

2 Scala ecosystem makes Architecture simple – leaner and cleaner

2.1 Introduction to Scala (as the) ecosystem
2.2 Distributed Application made easy
- 2.2.1 Actor System – distribute at will, be wise though
- 2.2.2 Low-level Message based contracts as opposed to API based contracts – Don't think JMS

2.3 Break free from Application Servers – this means simplicity and speed
2.4 Lets talk about traditional JEE enterprise Architecture
2.5 Lets see how Scala can simplify the JEE architecture
- 2.5.1 Lets see why it does not need application server in most places
- 2.5.2 Scalability comes naturally with Scala ecosystem and not with Application Servers

2.6 Let is crash - Let the system crash and recover quickly

3 Mini chapter on Getting started with Scala based Architecture and Prototype

3.1 Identify the type of the architecture
3.2 Choose the right framework to use
3.3 Divide the system into decoupled components – Scala really adds new paradigm in decoupling
3.4 Create the distribution strategy
3.5 Choose a good new build tool
3.6 Write the prototype

4 Integration

4.1 The Java and non-Java world
4.2 Messaging Systems

About the author: Chiradip is a Technologist at Chiradip.com, Technologist &Product Architect at Cisco, managing a large Scala project. Architected many successful commercial products in very quick succession. Technology evangelist – instrumental in promoting Scala, Clojure, Erlang and other modern languages, hands-on using various technologies including Scala, Akka, NodeJS, active in technology communities. Profile link: http://www.chiradip.com/chiradip-a-brief-profile.html