

MVVM Light Toolkit Fundamentals

Introduction to MVVM

Laurent Bugnion
@LBugnion
<http://www.galasoft.ch>



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Outline

- **Introduction to the MVVM Pattern**
 - Building a simple application without MVVM
 - No MVVM
 - Uses events → tight coupling
 - Listing the disadvantages
 - Understanding MVVM
 - The layers
 - The communication
 - Summary

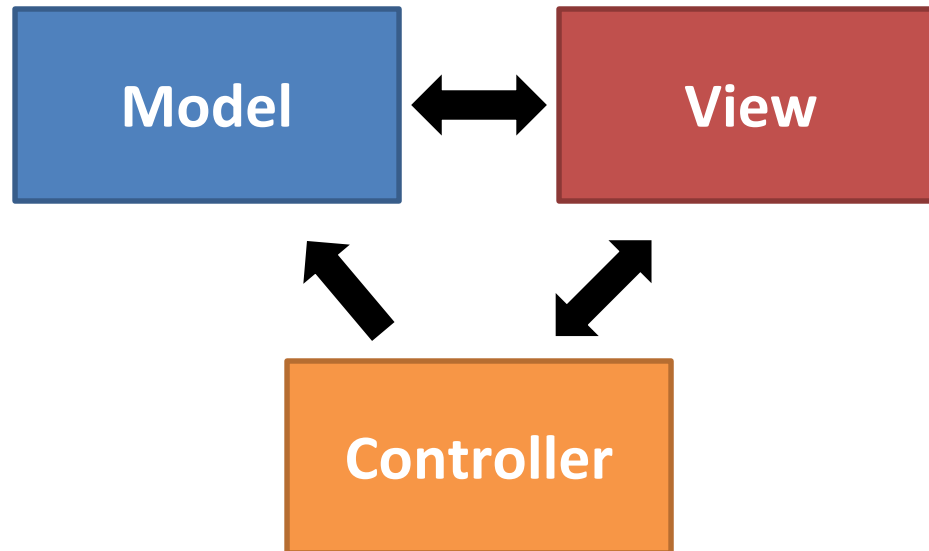
Listing the Disadvantages of Non-MVVM Apps

- **Code behind is difficult to maintain**
- **Tight coupling, moving/modifying XAML is hard**
- **A lot is done in code behind → requires a developer**
- **No design time data**
- **Hard/impossible to unit test**

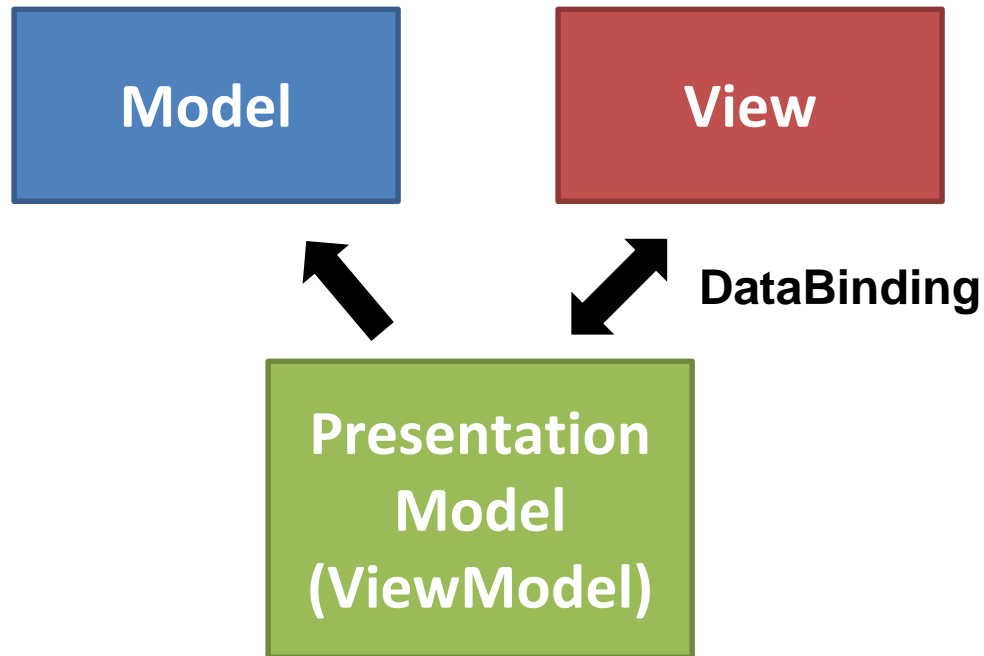
Understanding the MVVM Pattern



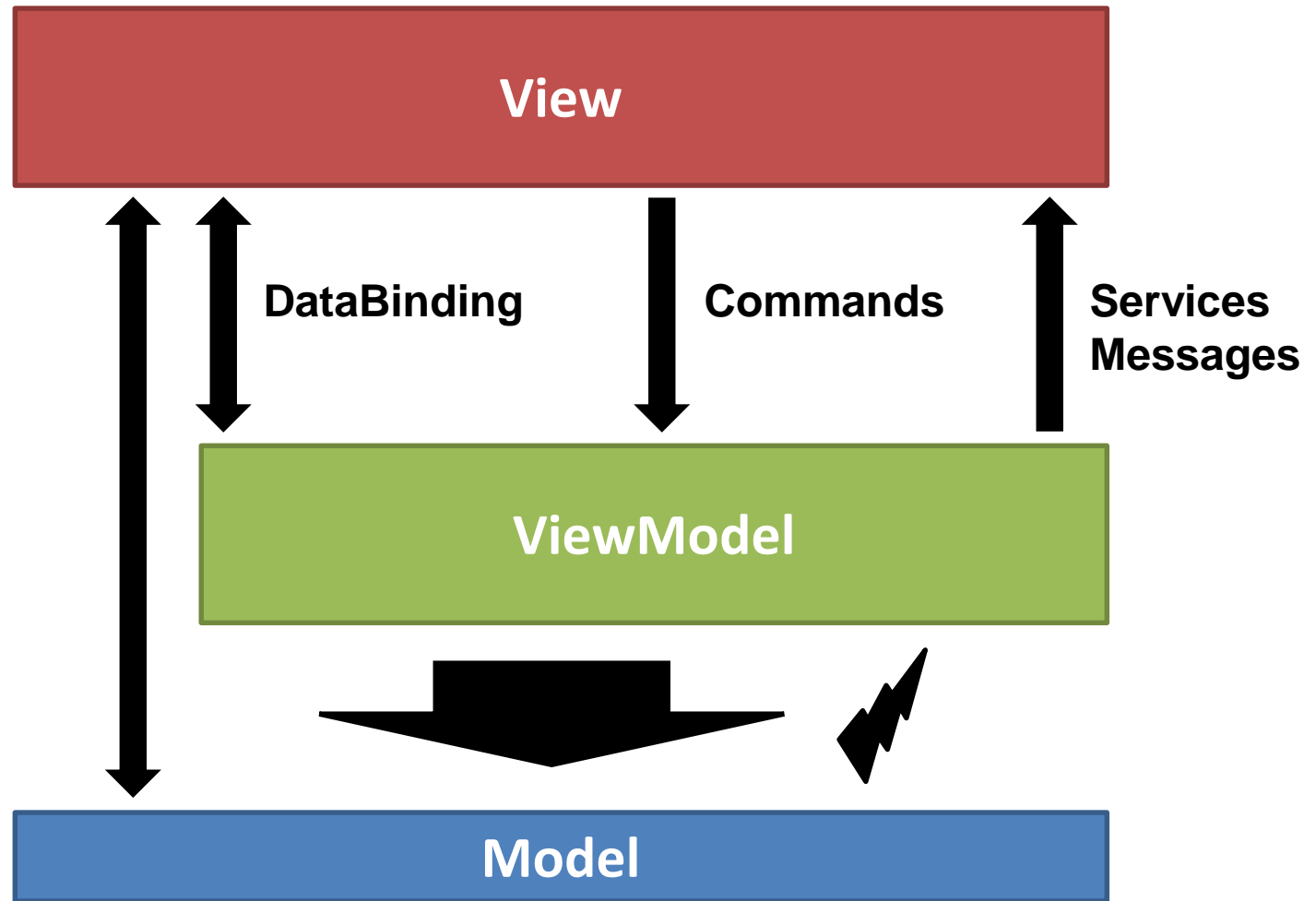
The MVC Pattern



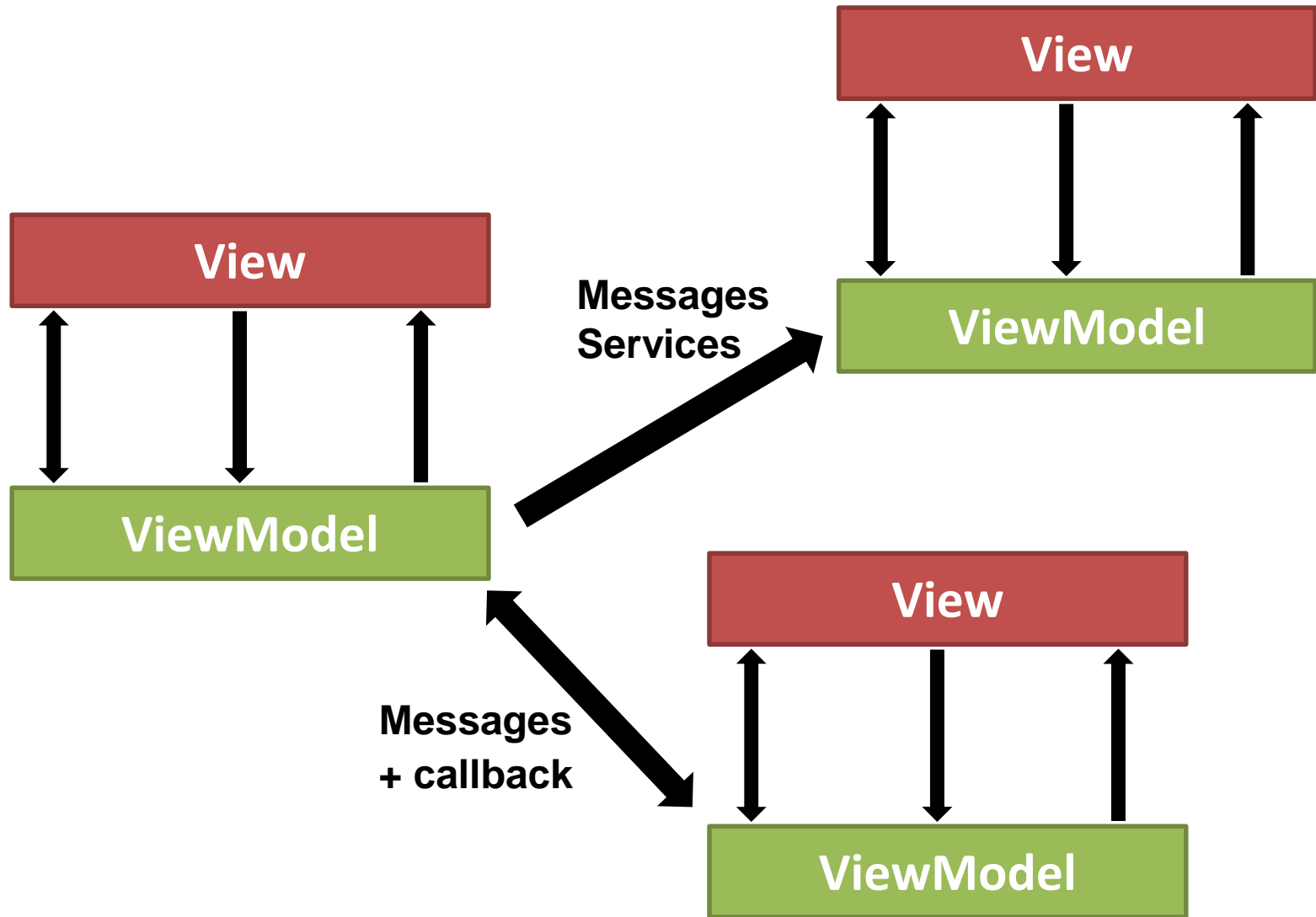
The Presentation Model Pattern



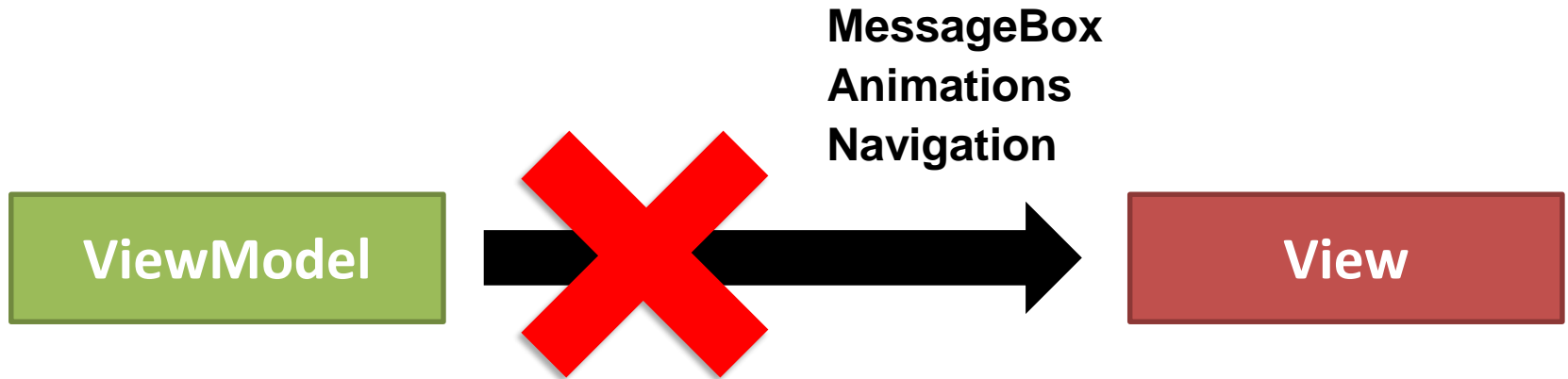
Bridging the Gap



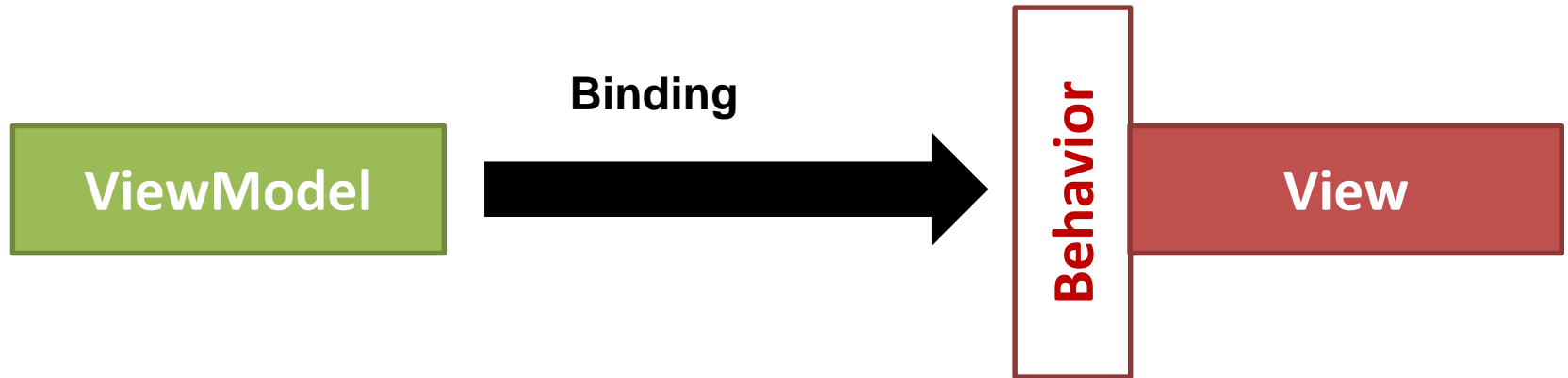
Bridging the Gap



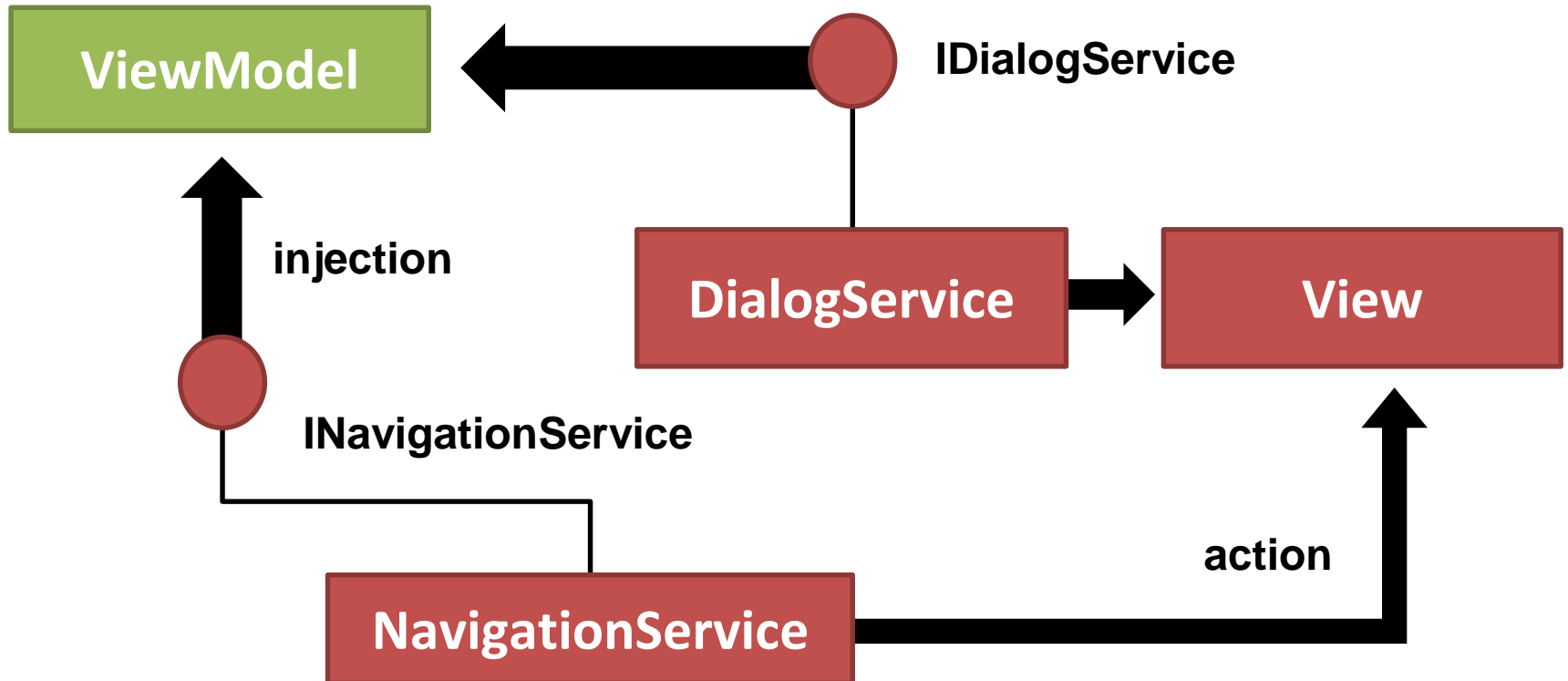
ViewModel → View Communication



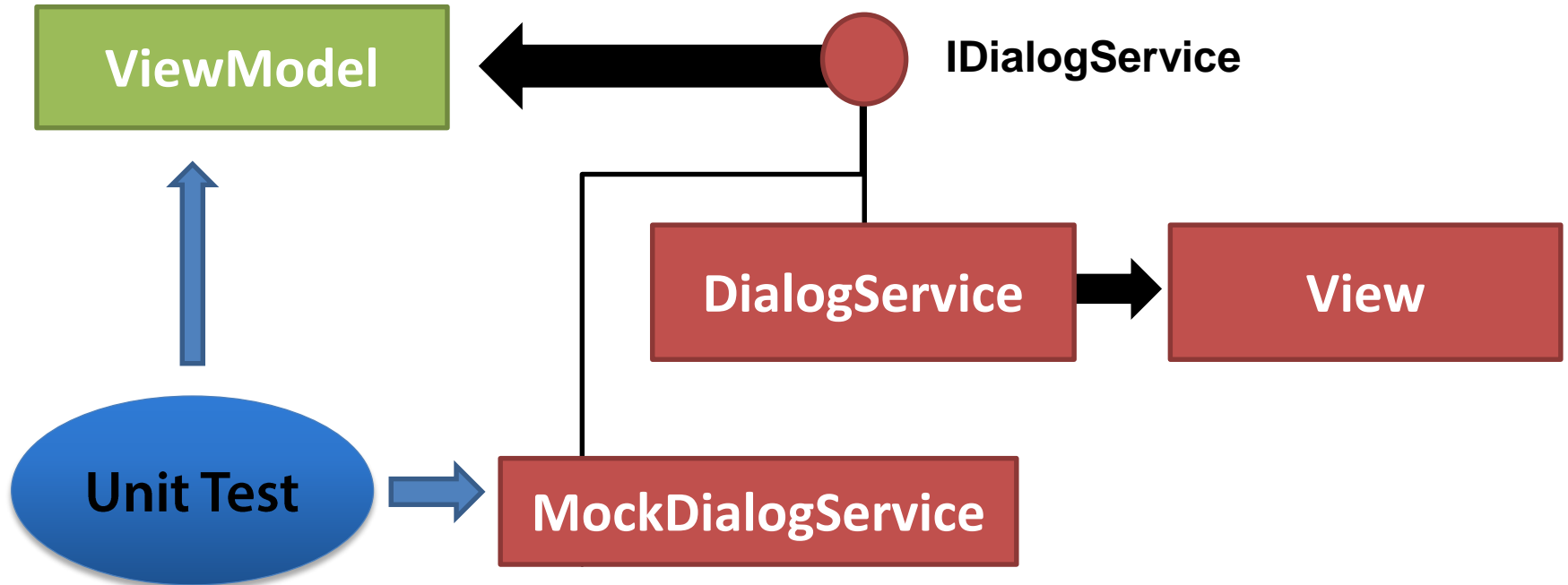
ViewModel → View Communication, Behaviors



Using View Services



Unit Testing the ViewModel



Summary

- Code behind is not always bad but can complicate things
- MVVM is a variation of MVC
- The goal is to decouple the View from the Model
- Easier to maintain
- Easier to test
- Allows to create design time data