

# Handling the State of Disconnected Graphs

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# What's so Hard About Disconnected Graphs?

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# DbContext Instance

A is Unchanged  
B just got Modified  
C is Added  
D is Unchanged  
E is Unchanged



Application Instance

A

B

C

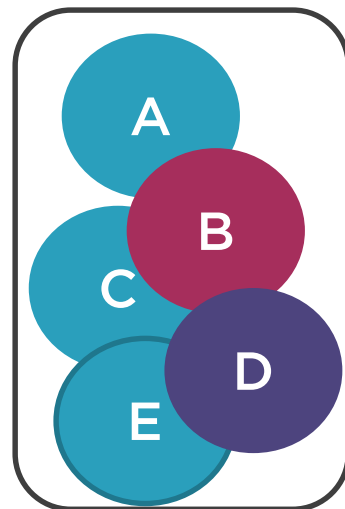
D

E





A is Unchanged  
B was Edited  
C is Added  
D is Unchanged  
E is Unchanged



DbContext  
Instance

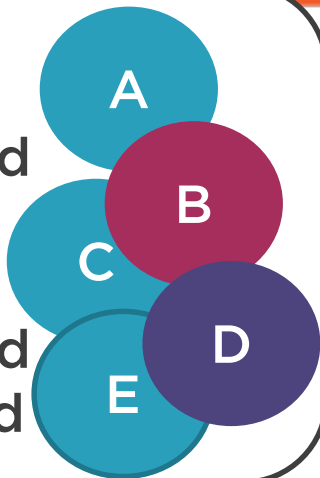


Help is on the way





A is Unchanged  
B was Edited  
C is Added  
D is Unchanged  
E is Unchanged



DbContext  
Instance



# Updating the Shopping Cart Graph

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# Update the Shopping Cart



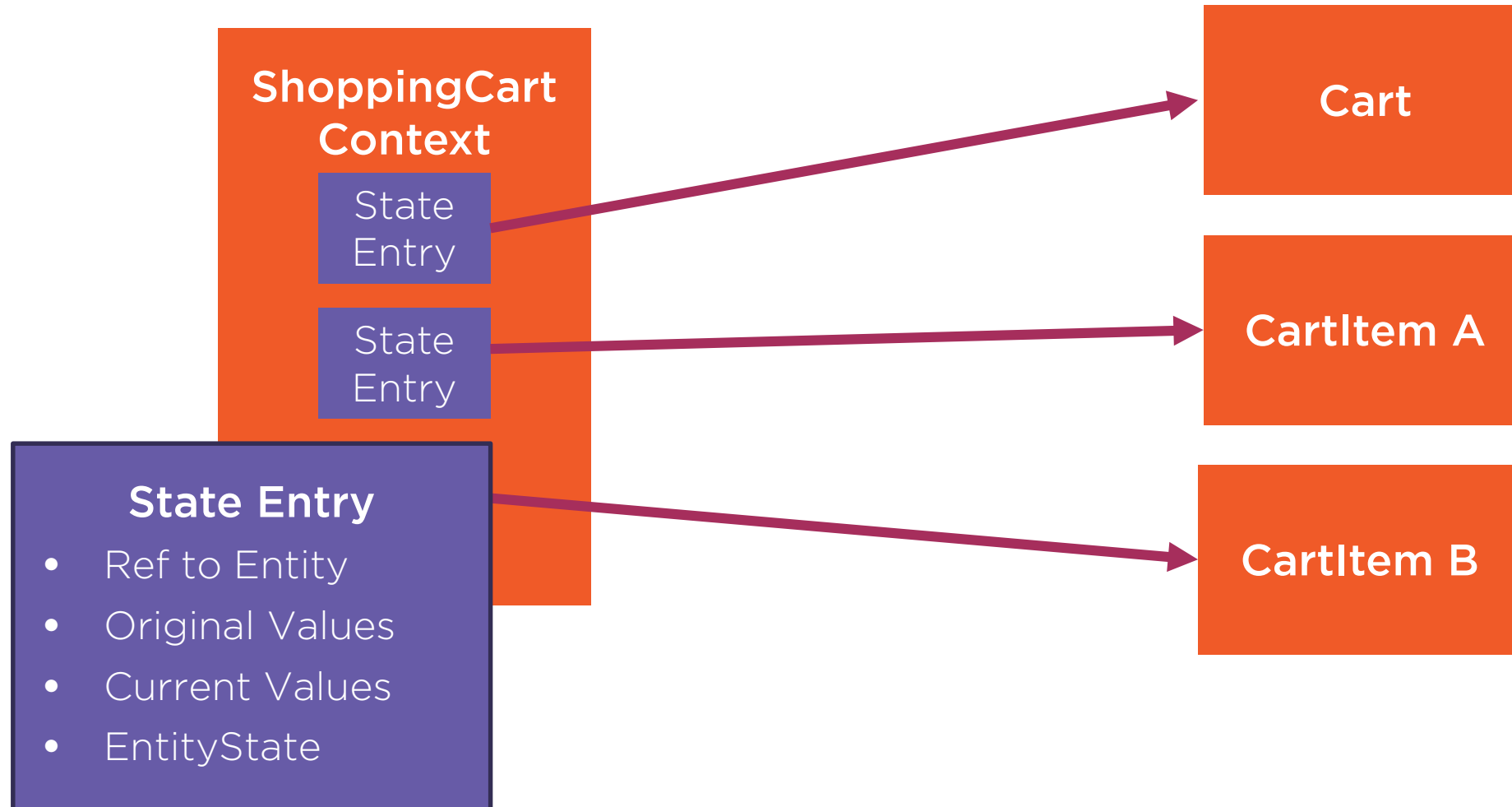


# Making EF Aware of Graph Changes: Overview

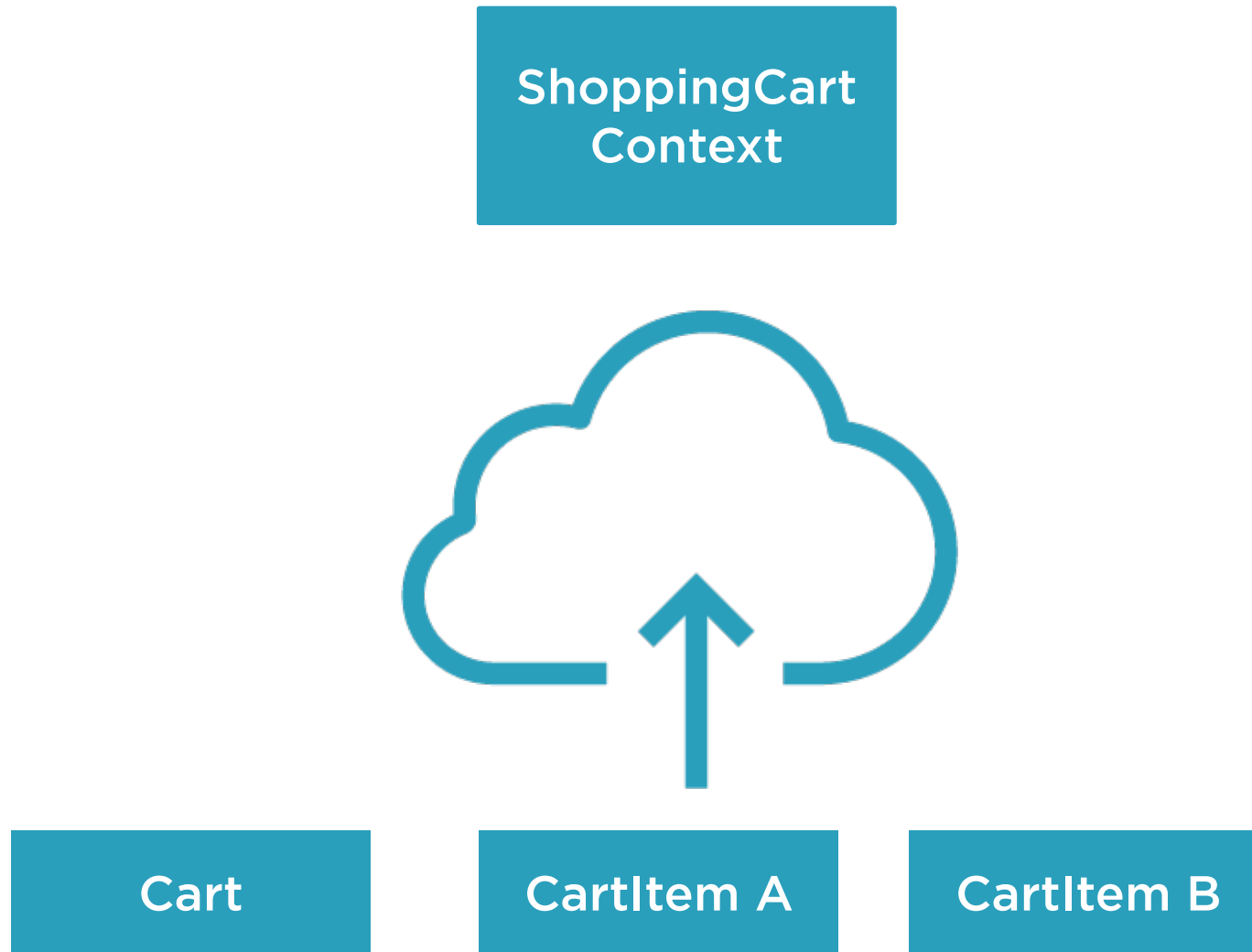
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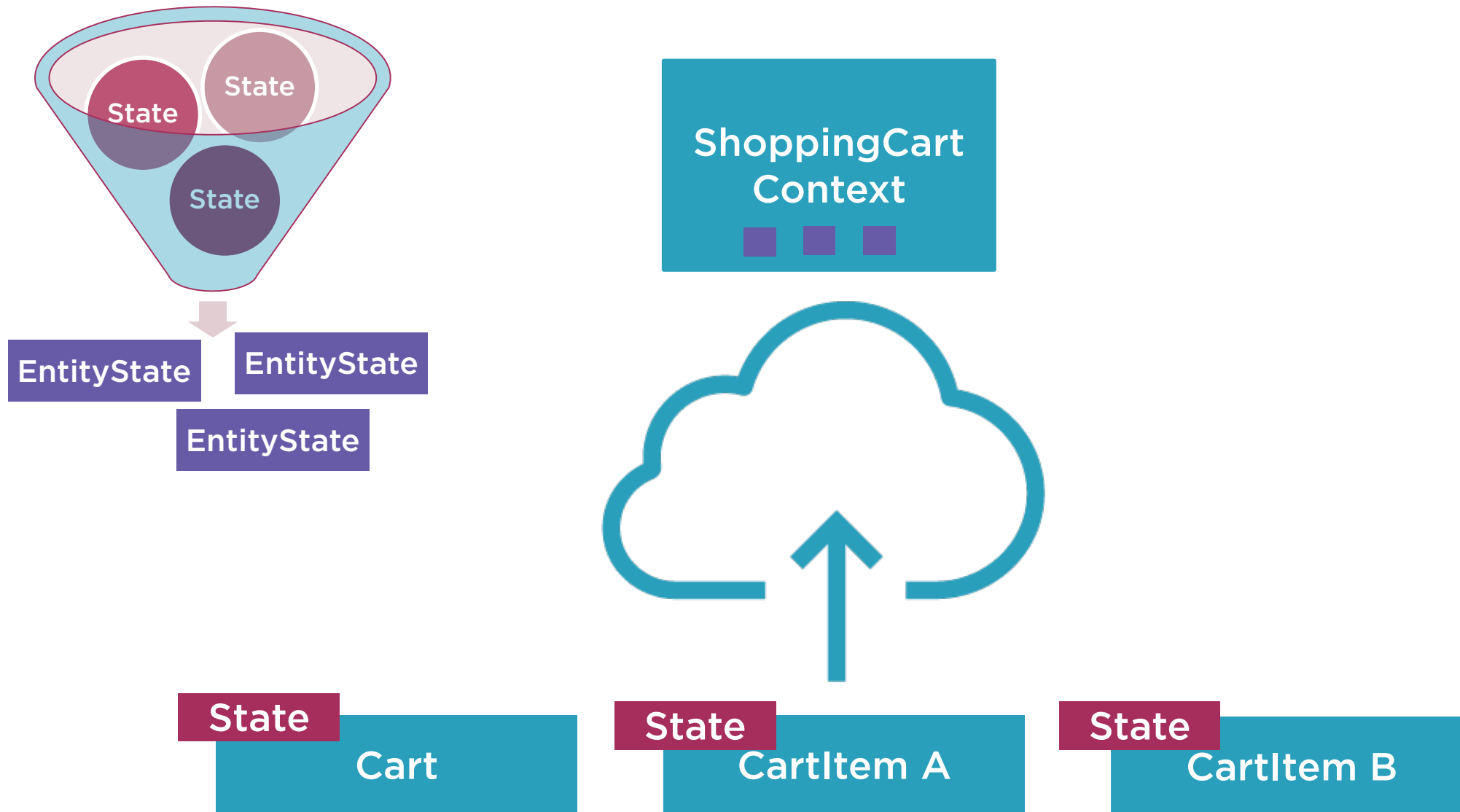
# When Context is Tracking Entities



# Disconnected Entities



# Disconnected Entities



## State Converter

# Disconnected Entities

ShoppingCart  
Context

**IStateObject**  
ObjectState State

**enum ObjectState**  
Unchanged=0,  
Added=1,  
Modified=2,  
Deleted=3

EntityState

EntityState

EntityState

State

Cart

State

CartItem A

State

CartItem B



# Making EF Aware of Graph Changes: The Code

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# Resources

## Helpful Pluralsight Courses

- EF6 Ninja Edition: What's New in EF6 [bit.ly/PS-EF6](https://bit.ly/PS-EF6)
- Refactoring Fundamentals [bit.ly/PS-Refactor](https://bit.ly/PS-Refactor)

Domain-Driven Design: Tackling Complexity in the Heart of Software  
Eric Evans, 2003, Addison-Wesley Press

Data Points - Handling the State of Disconnected Entities in EF  
MSDN Magazine, March 2016 [msdn.microsoft.com/magazine/mt694083](https://msdn.microsoft.com/magazine/mt694083)



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