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# New source change events

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## Background

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- > Axis uses Gerrit Code Review for much of our source control.
- > The existing options for getting Gerrit to produce SCC and SCS were deemed inadequate and the choice was made to build a new plugin.
- > While doing so, a number of ambiguities and rough edges in the existing events were found, and [github.com/eiffel-community/eiffel#261](https://github.com/eiffel-community/eiffel#261) was filed.

## Problems with the current source change events

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- > Some of the event links have the wrong cardinality and/or wrong description. Probably hard to fix without a backwards incompatible change. Reported in [github.com/eiffel-community/eiffel#299](https://github.com/eiffel-community/eiffel#299).
- > The abstraction chosen doesn't model reality closely enough.
- > Missing SCC branch field causes ambiguity in a Gerrit context.

## **The new event types**

## New event: Source Code Change Created

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- > Models a Git commit very closely.
- > Hence contains no information about the branch name or even the repository.

## New event: Source Definition Change Request Created

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- > Represents a request to update a branch.
- > Could represent a Gerrit patch set or a GitHub PR.
- > Includes information about the source/target repositories and branches.
- > Links to a Source Code Change Created event.

## New event: Source Definition Updated

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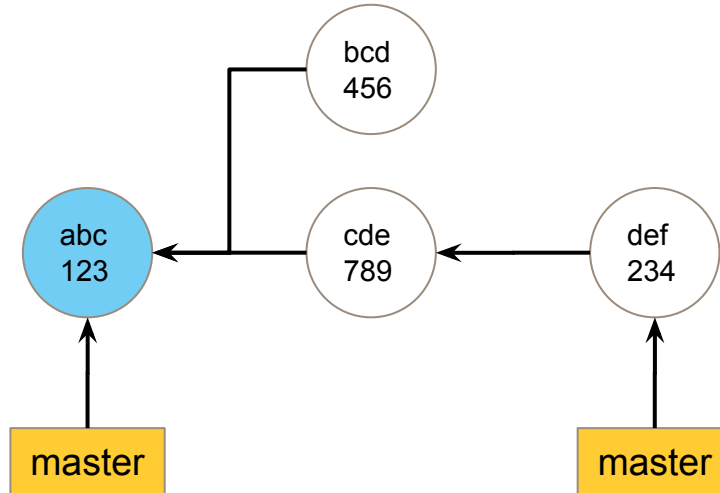
- > Announces that a branch has been updated to point to a new commit.
- > Links to
  - the previous state of the branch,
  - the commit the branch points to now, and optionally
  - the update request(s).

## Scenarios

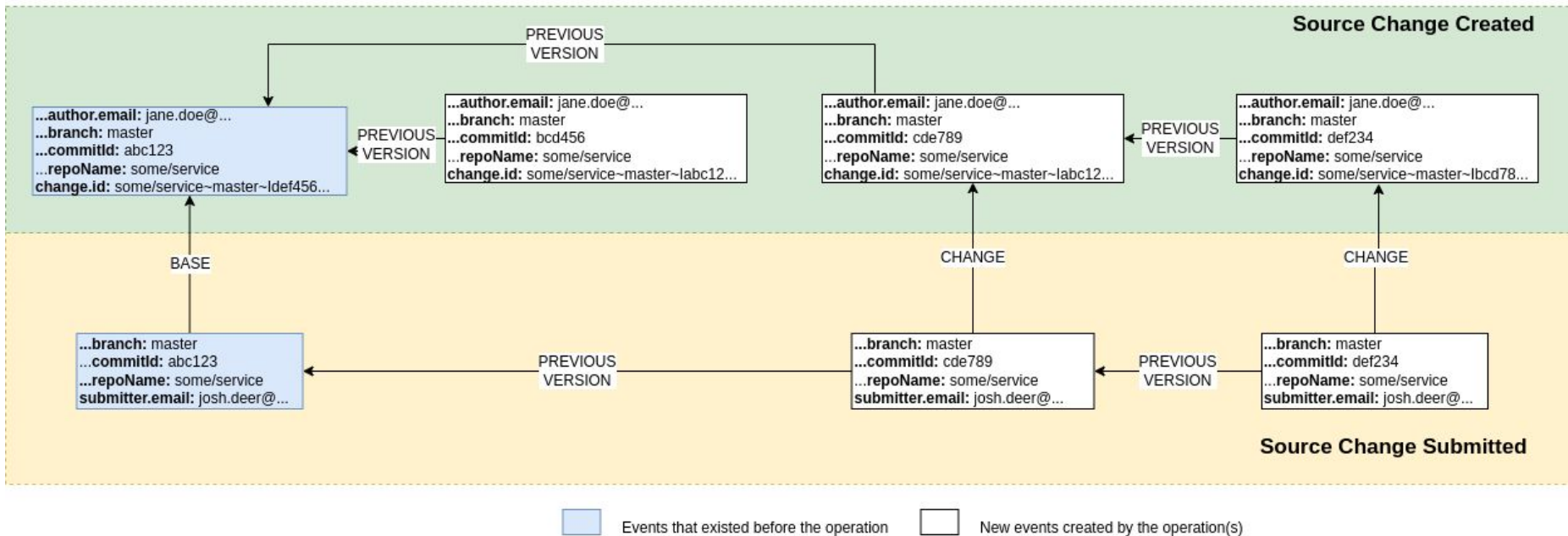


# Submit two stacked commits via fast-forward update

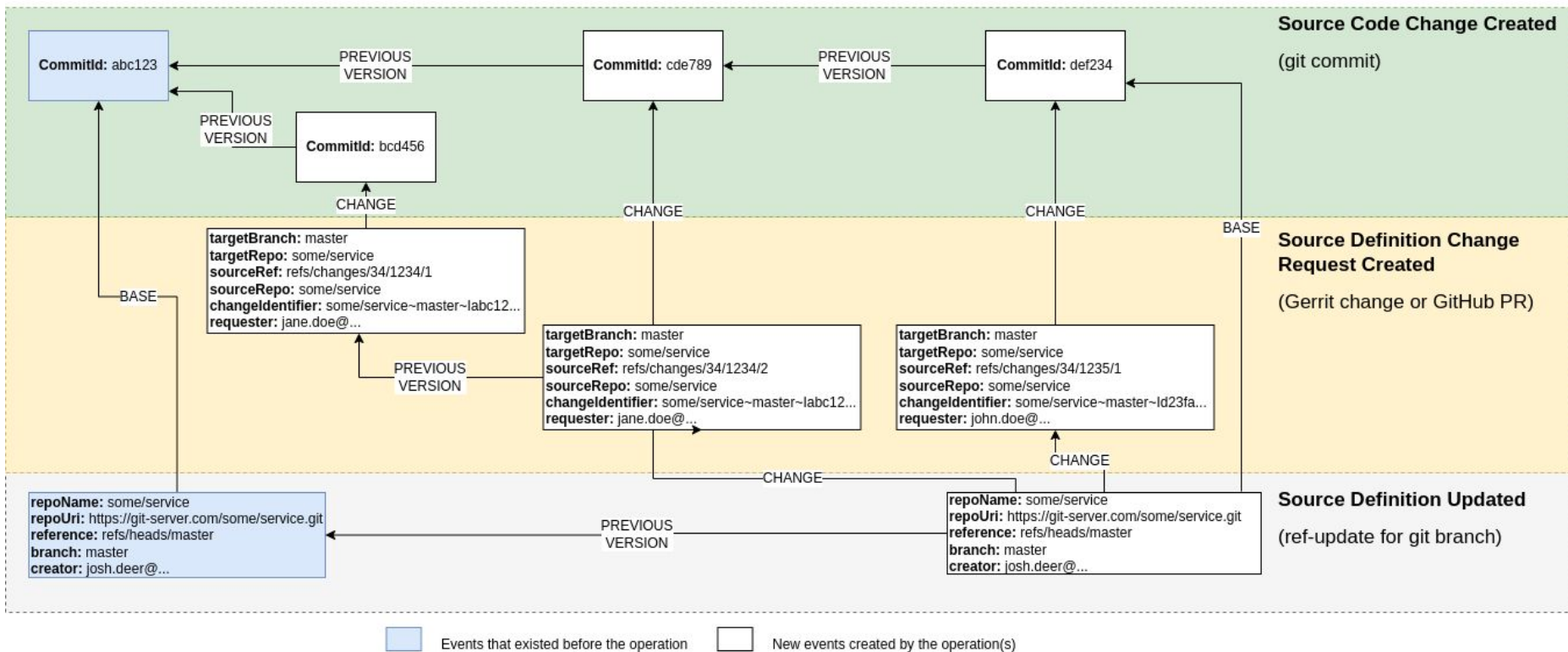
The first commit in the stack gets a second patch set before the stack is submitted as a single atomic operation.



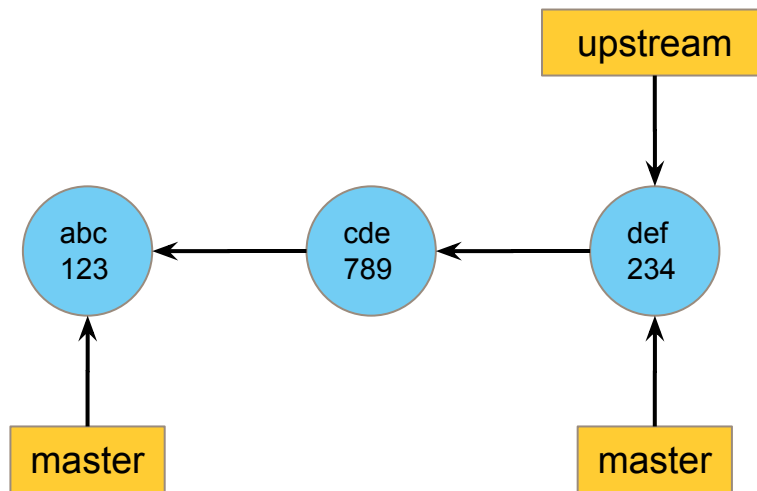
# Submit two stacked commits via fast-forward update (old events)



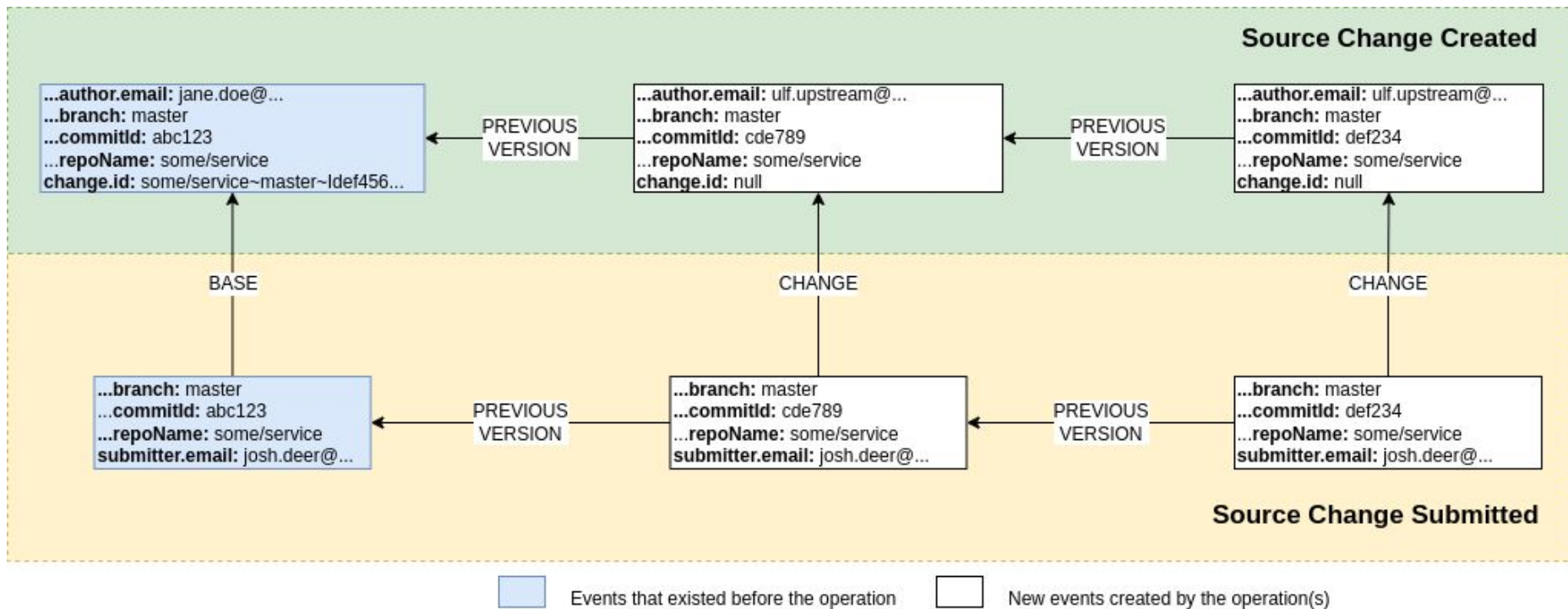
# Submit two stacked commits via fast-forward update (new events)



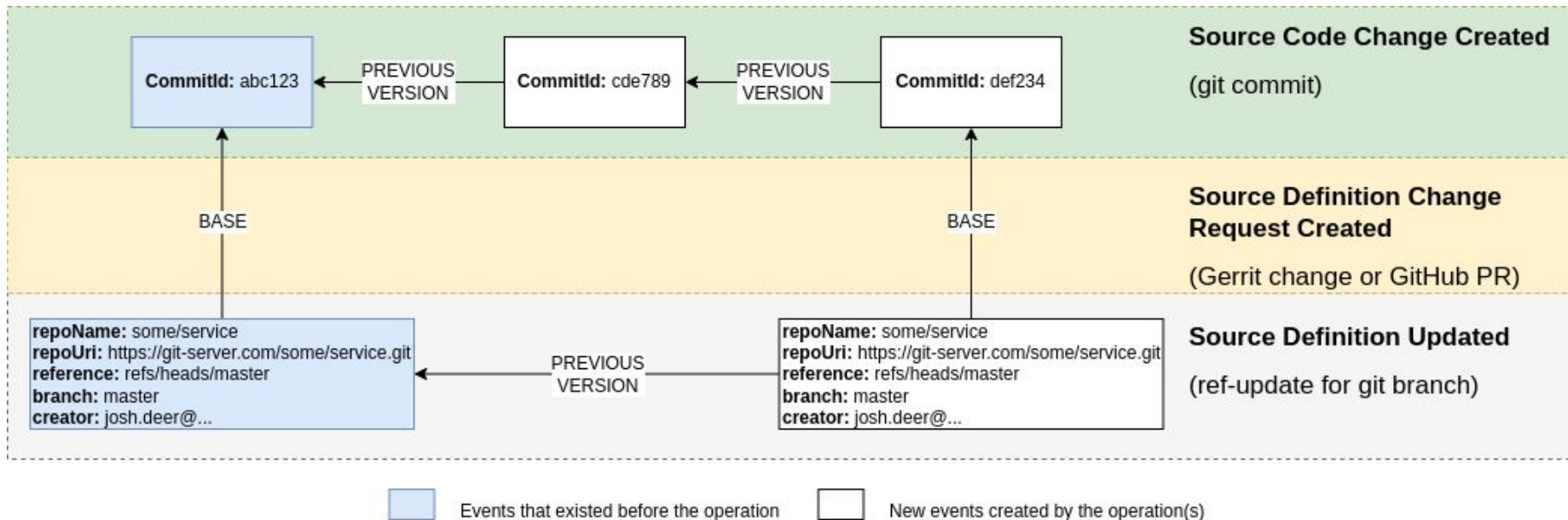
# Updating a branch from an upstream branch



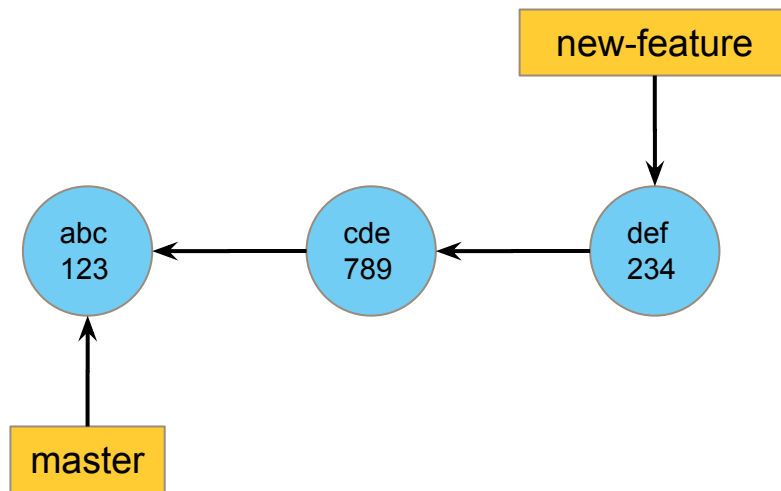
# Updating a branch from an upstream branch (old events)



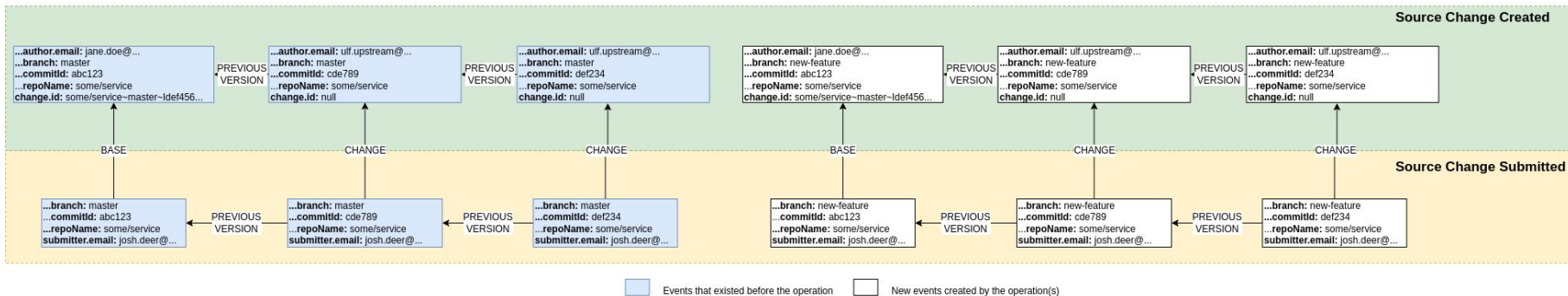
# Updating a branch from an upstream branch (new events)



# New branch based on an existing commit

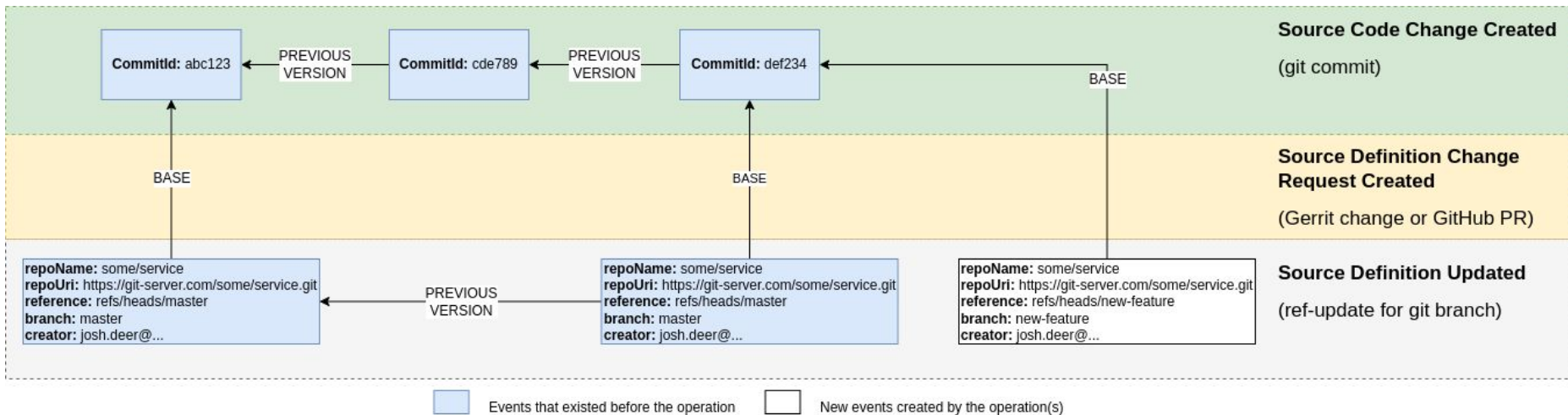


# New branch based on an existing commit (old events)

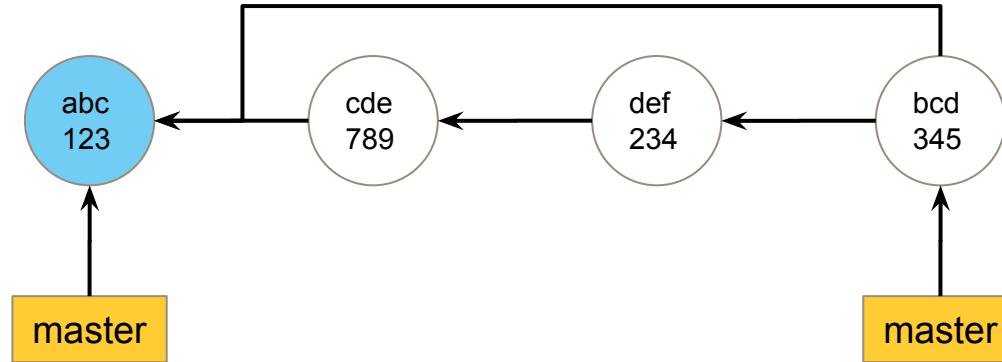




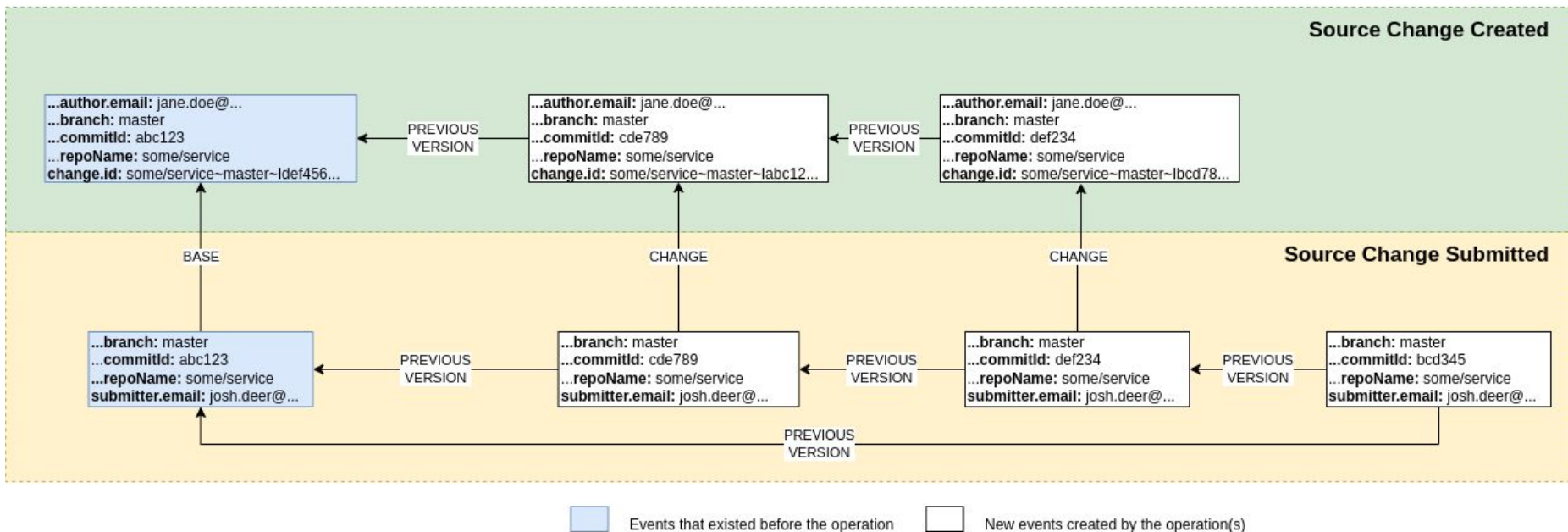
# New branch based on an existing commit (new events)



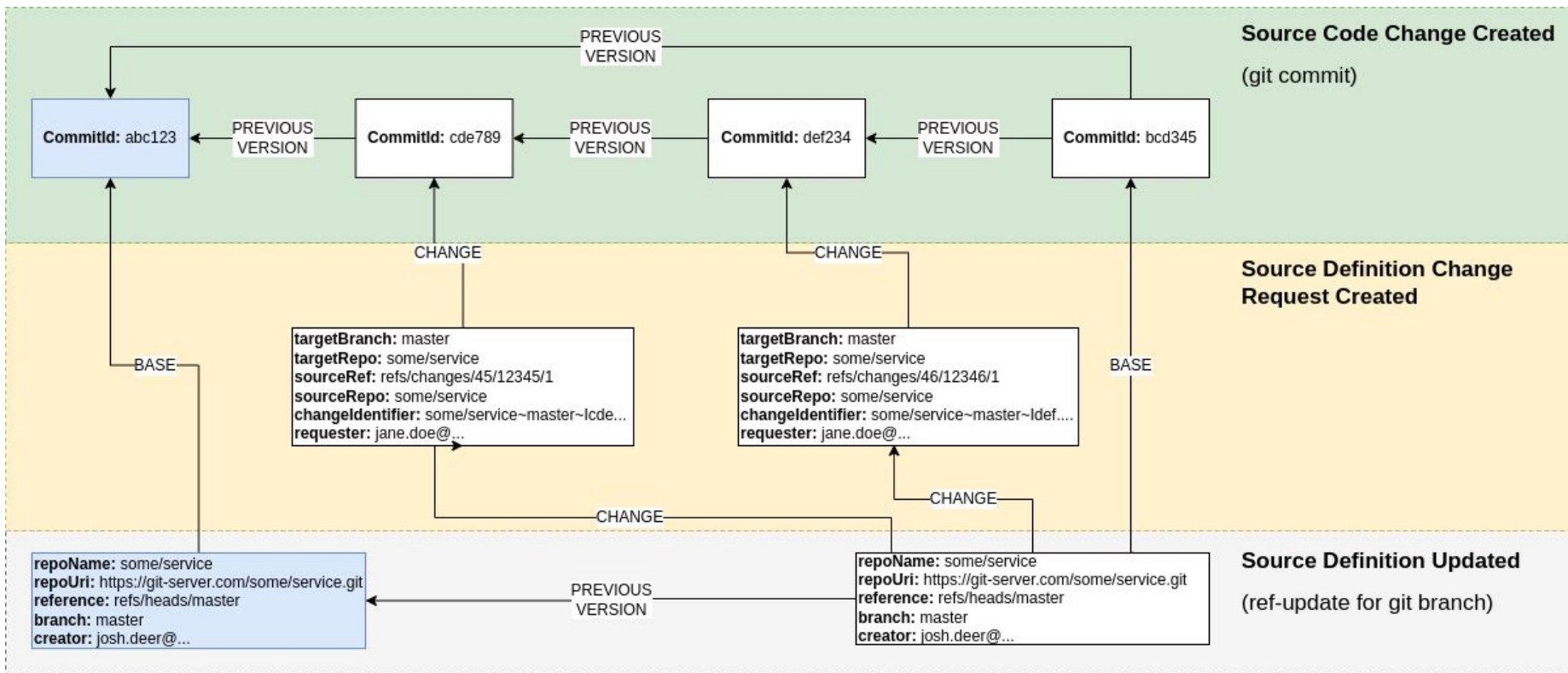
# Submit two stacked commits via a merge commit



# Submit two stacked commits via a merge commit (old events)



# Submit two stacked commits via a merge commit (new events)



## Tags

# Eiffel has no well-defined way to describe source control tags!

## **ArtifactCreated**

identity: pkg:generic/namespace/path/to/repo@1.2.3?vcs\_url=git%2Bssh://...%401.2.3

COMPOSITION

## **CompositionDefined**

name: scmtag/git/namespace/path%2Fto%2Frepo  
version: 1.2.3

ELEMENT

## **SourceChangeSubmitted**