

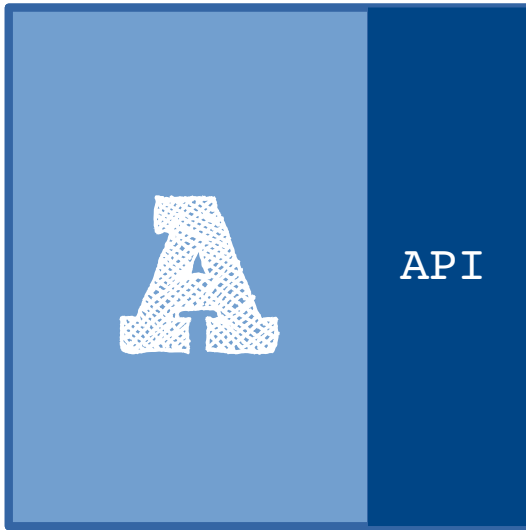


Wenn

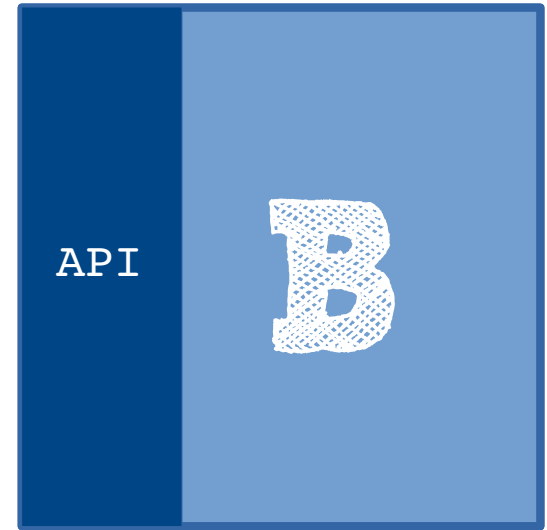
# SCHNITTSTELLEN

alt werden...

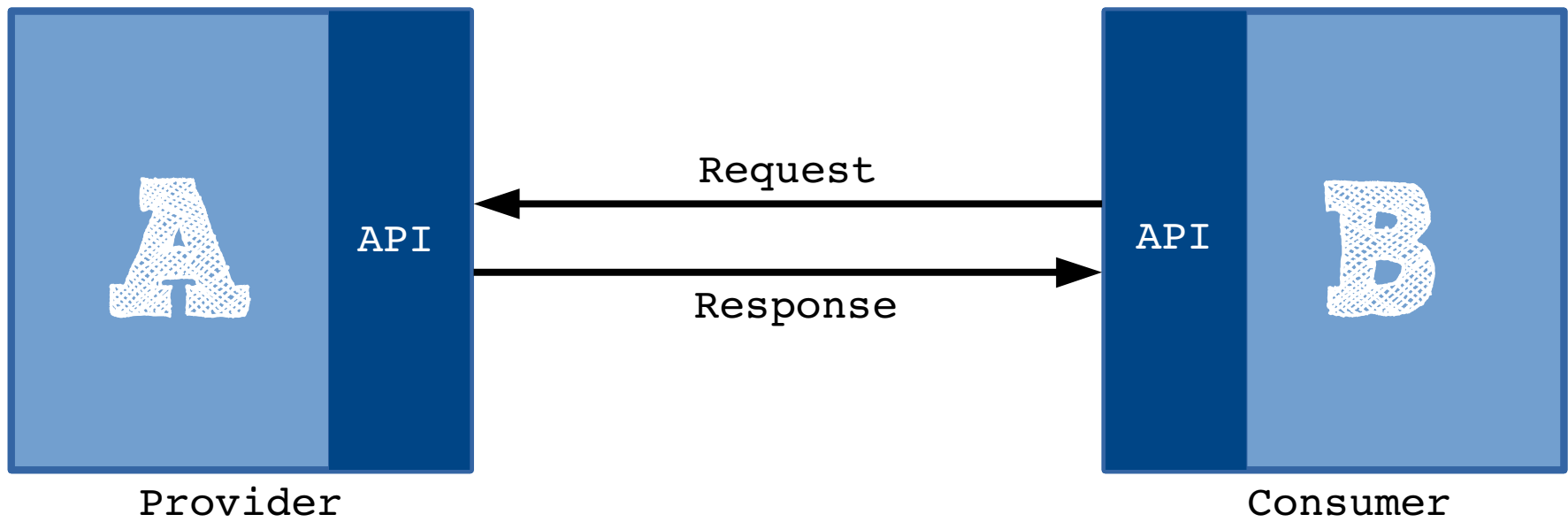


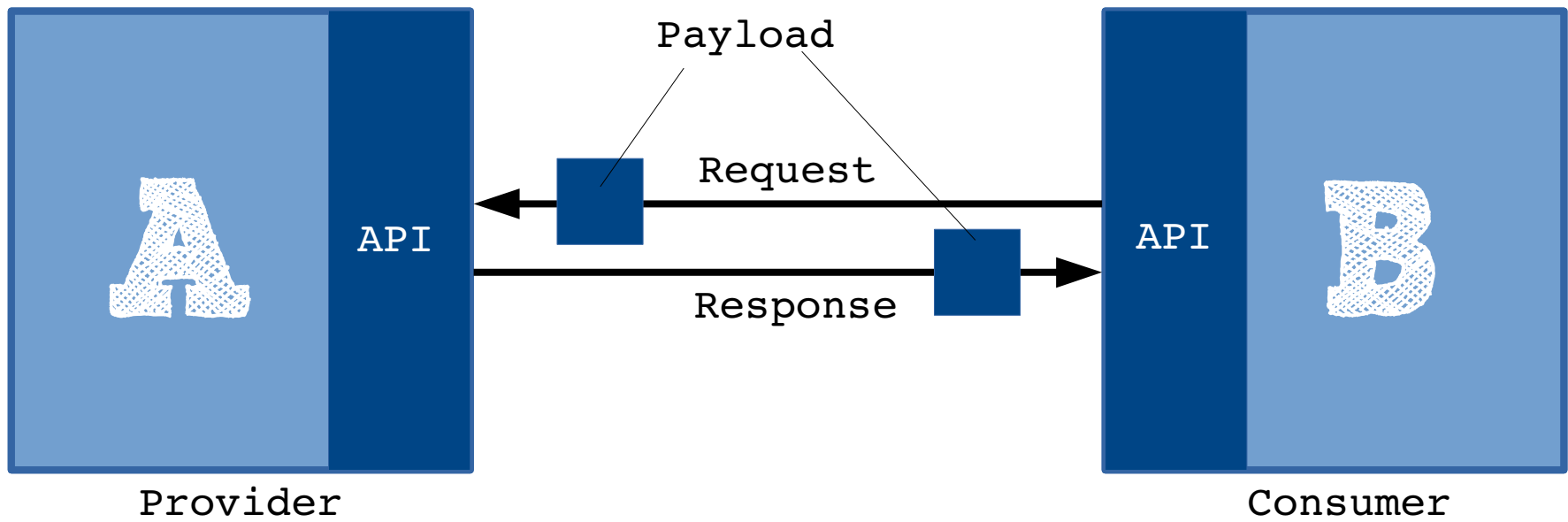


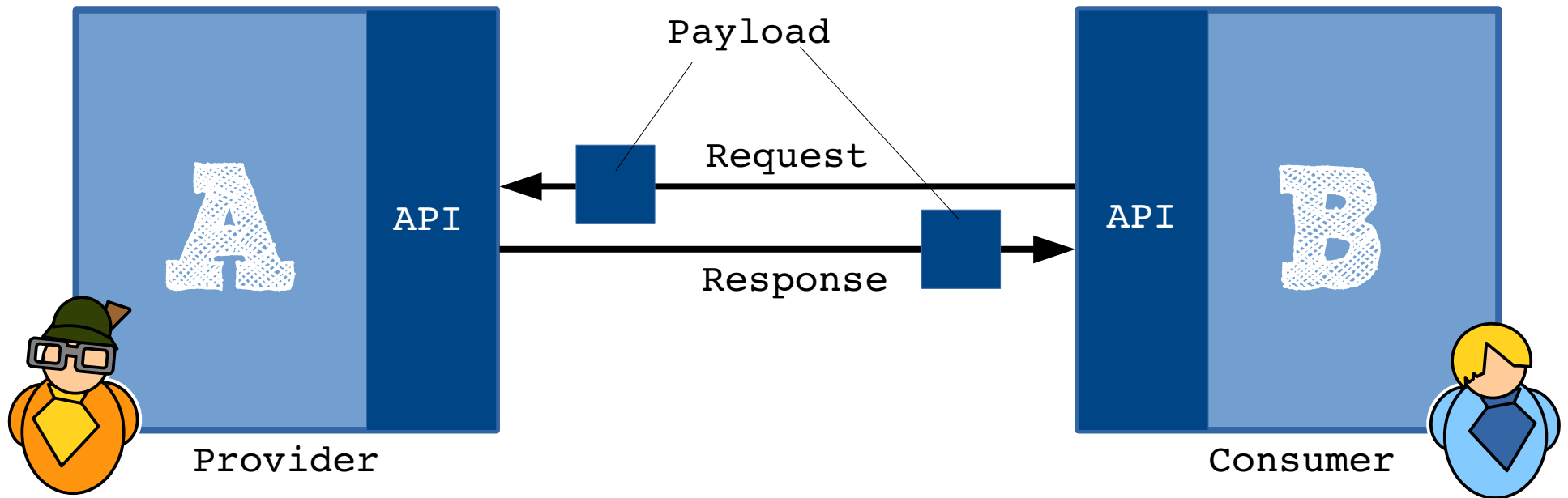
Provider

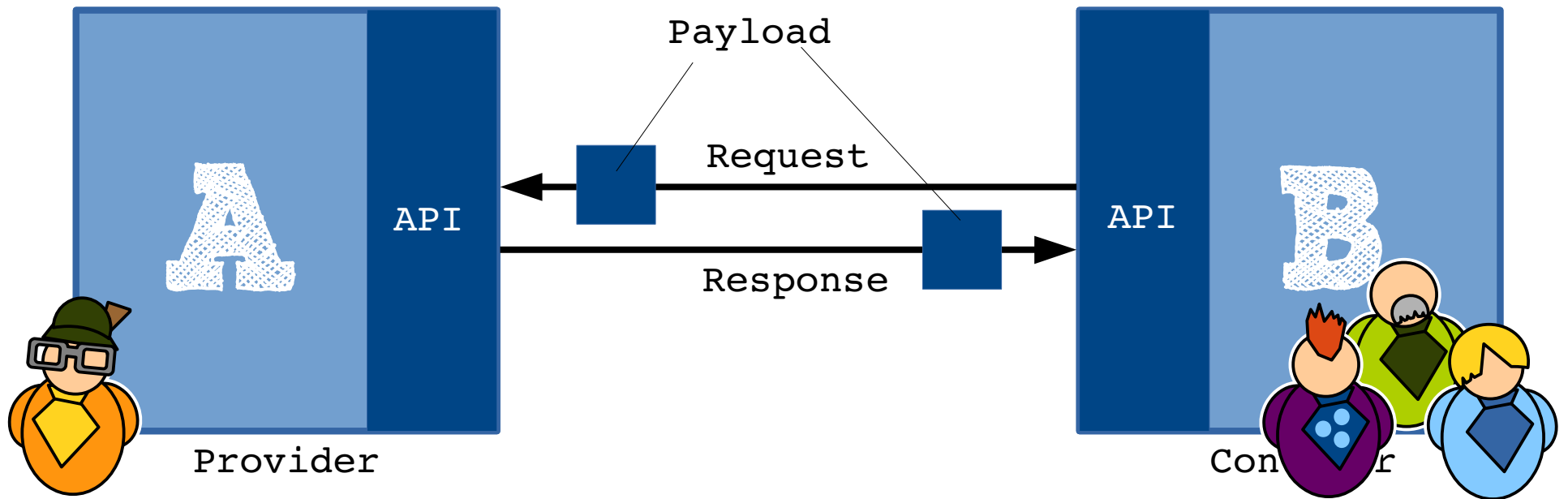


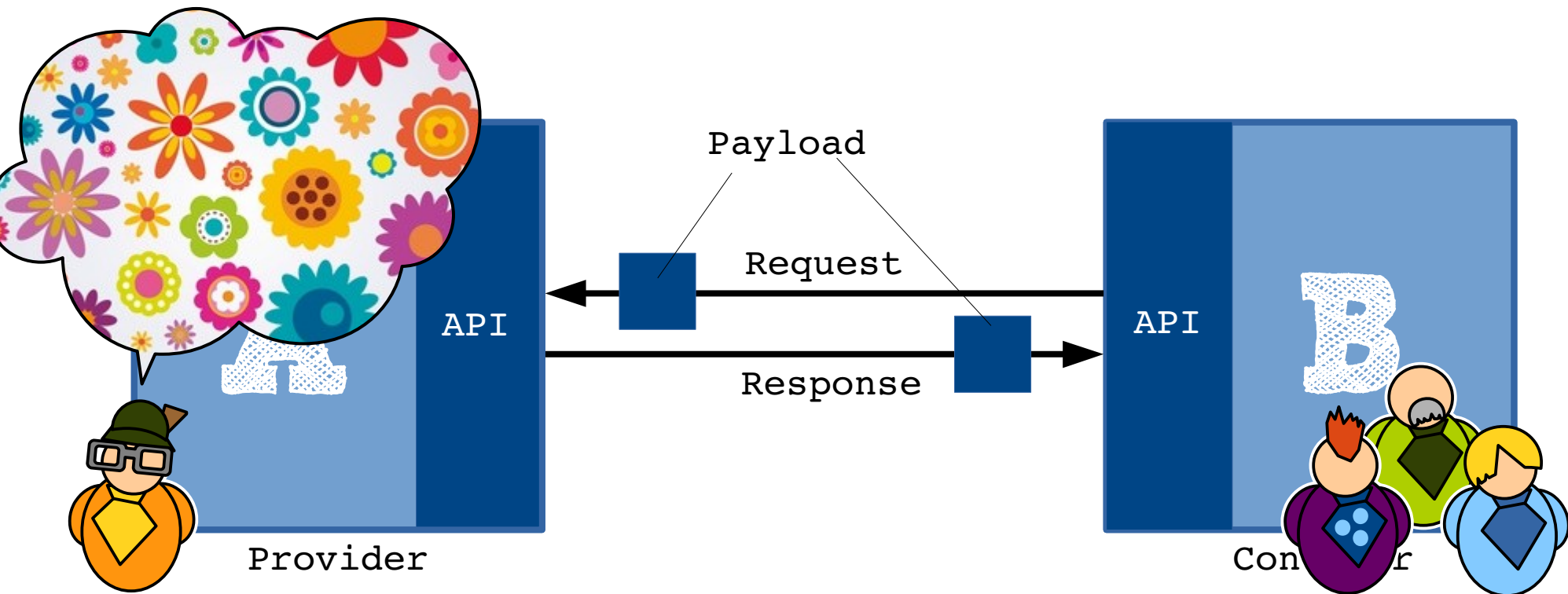
Consumer

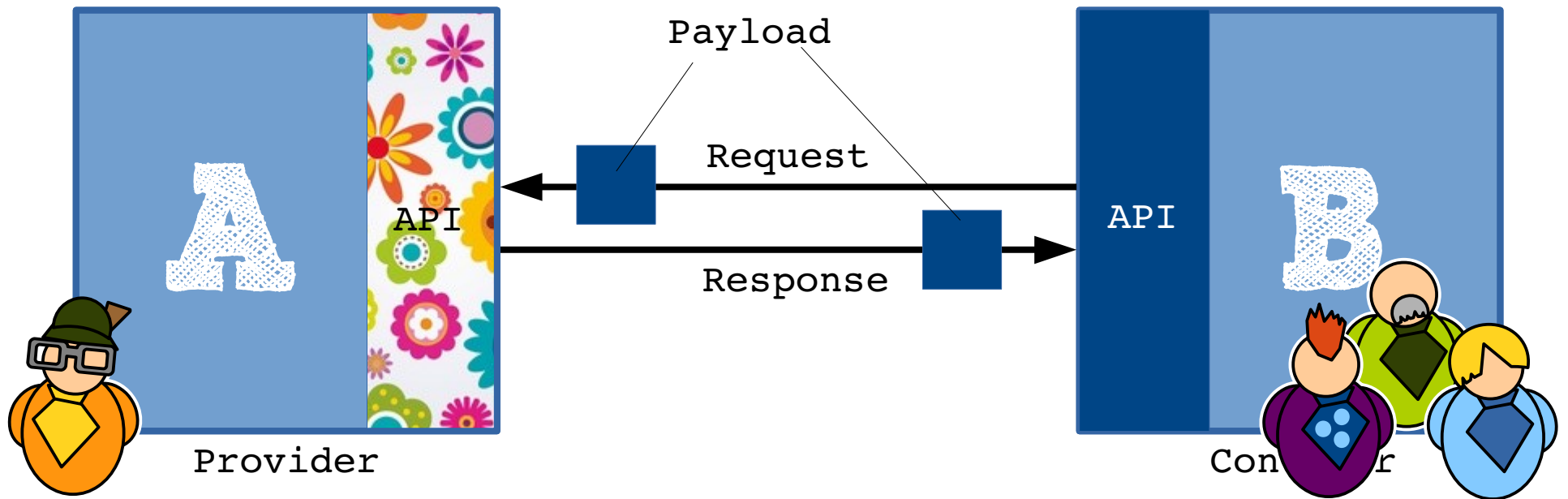




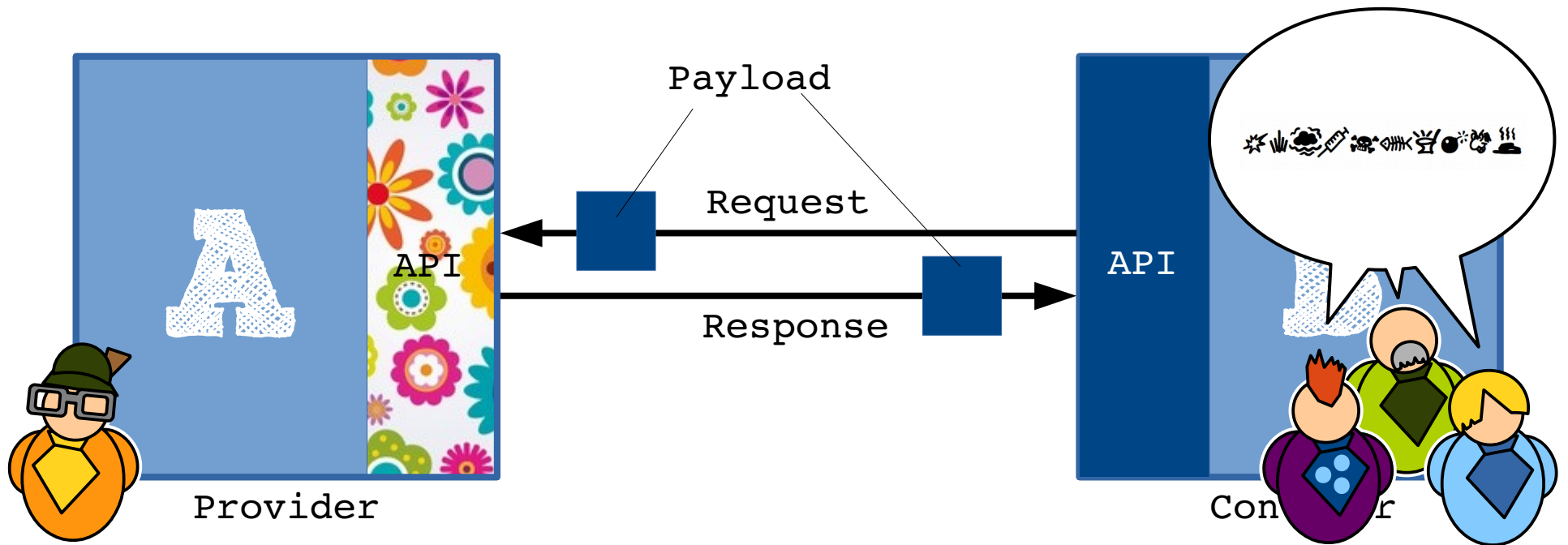


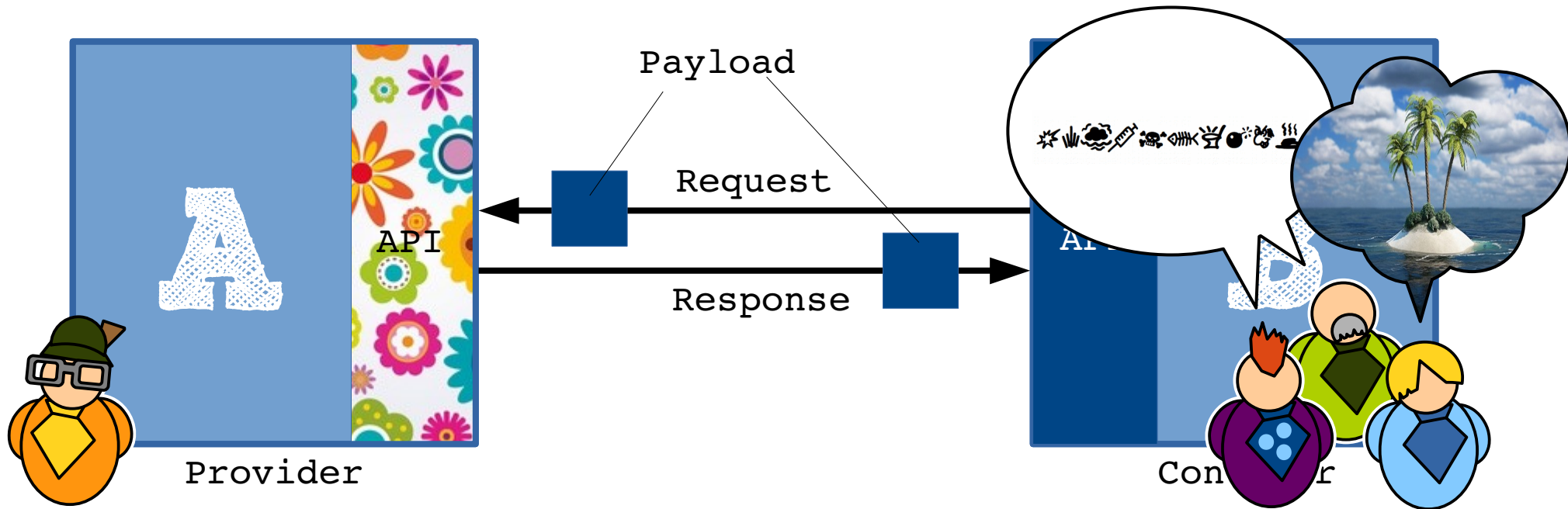


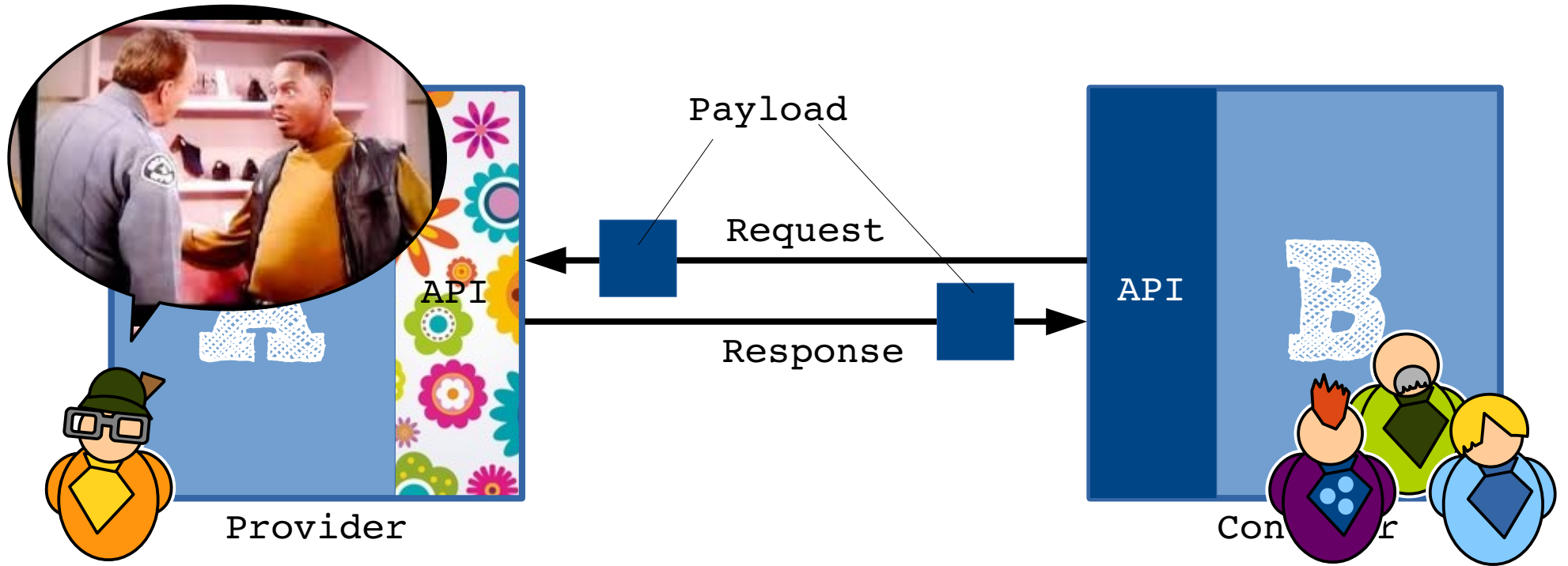


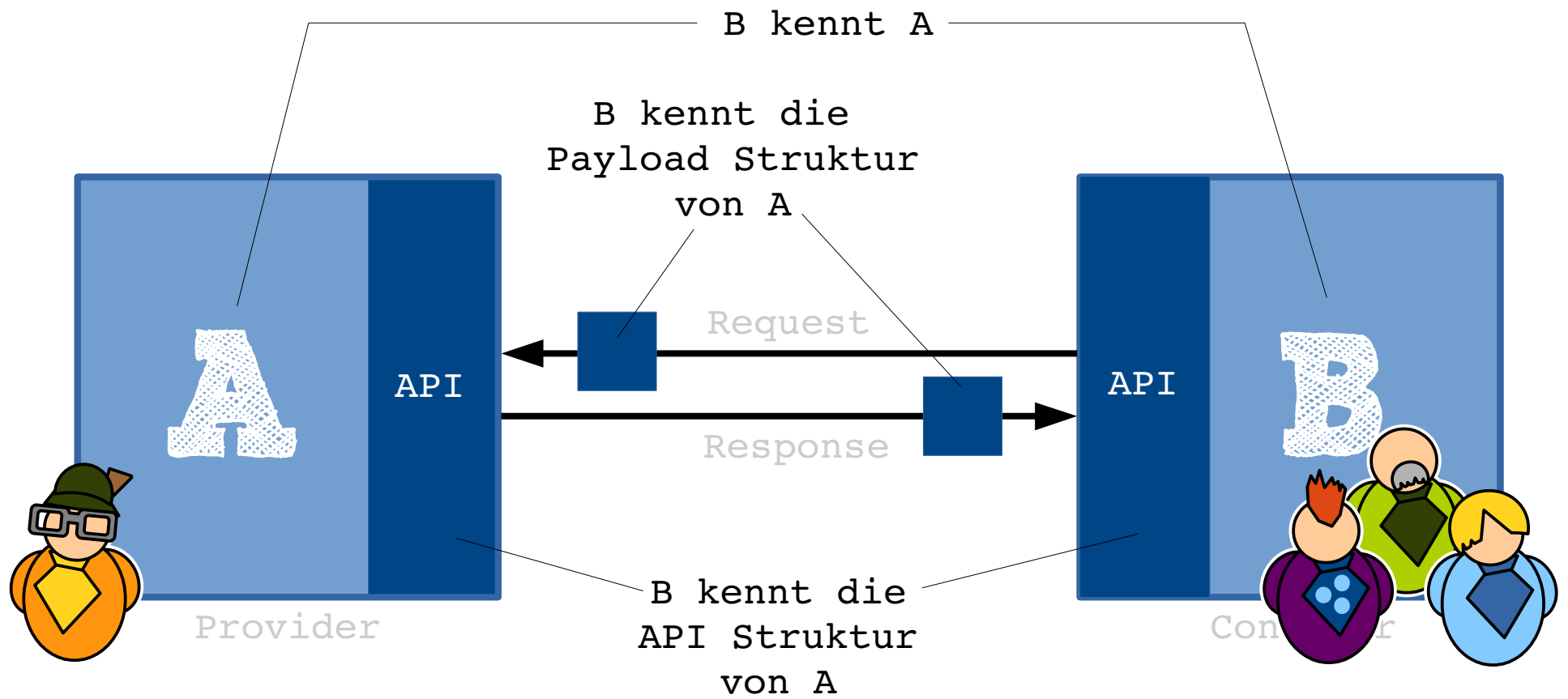






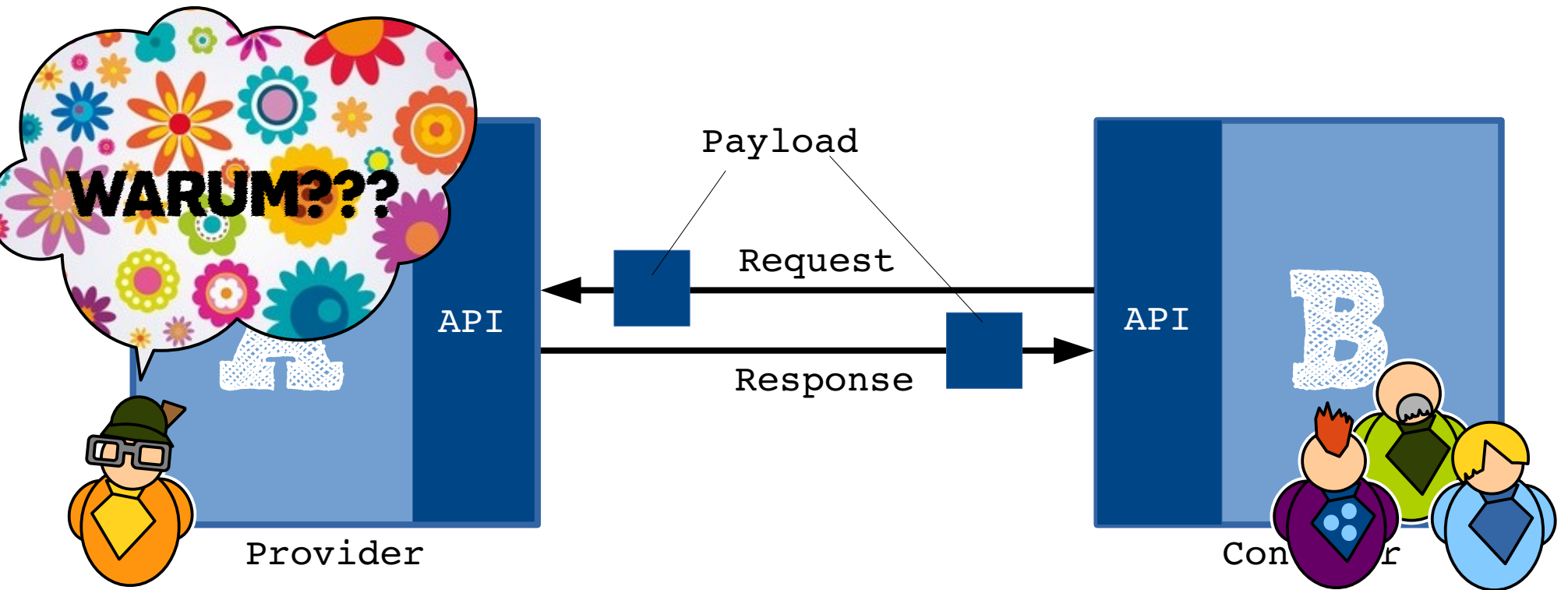


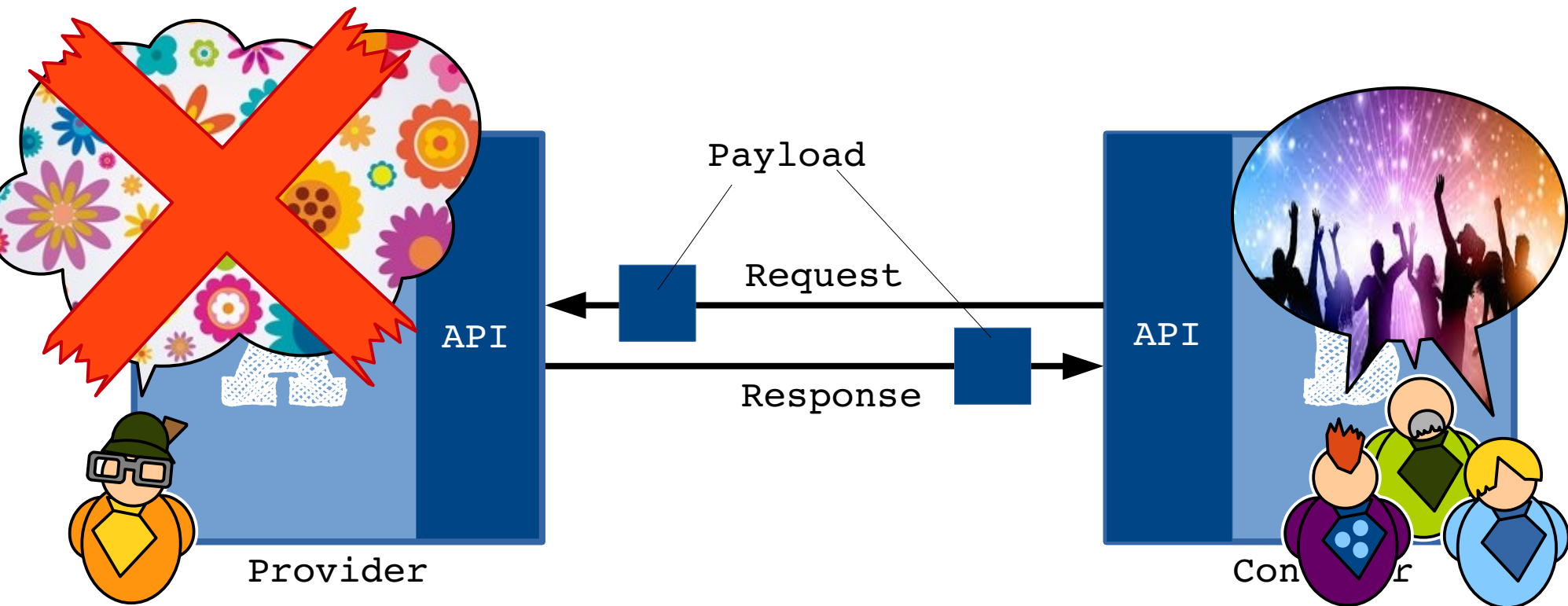




System **B** muss ziemlich viel von System

**A** kennen, damit die Kommunikation funktioniert!





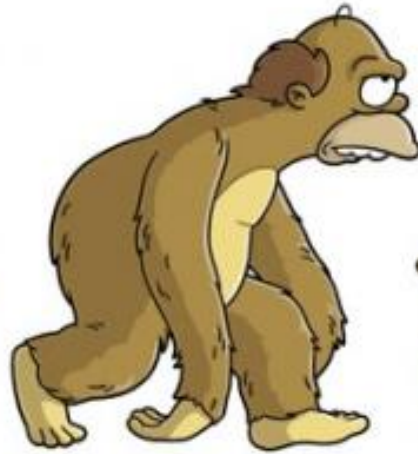
# EVOLUTION



MONKIUS EATALOTIS



CHIMPUS IMBECILUS



APEIS STUPIDIUS



NEANDERSLOB



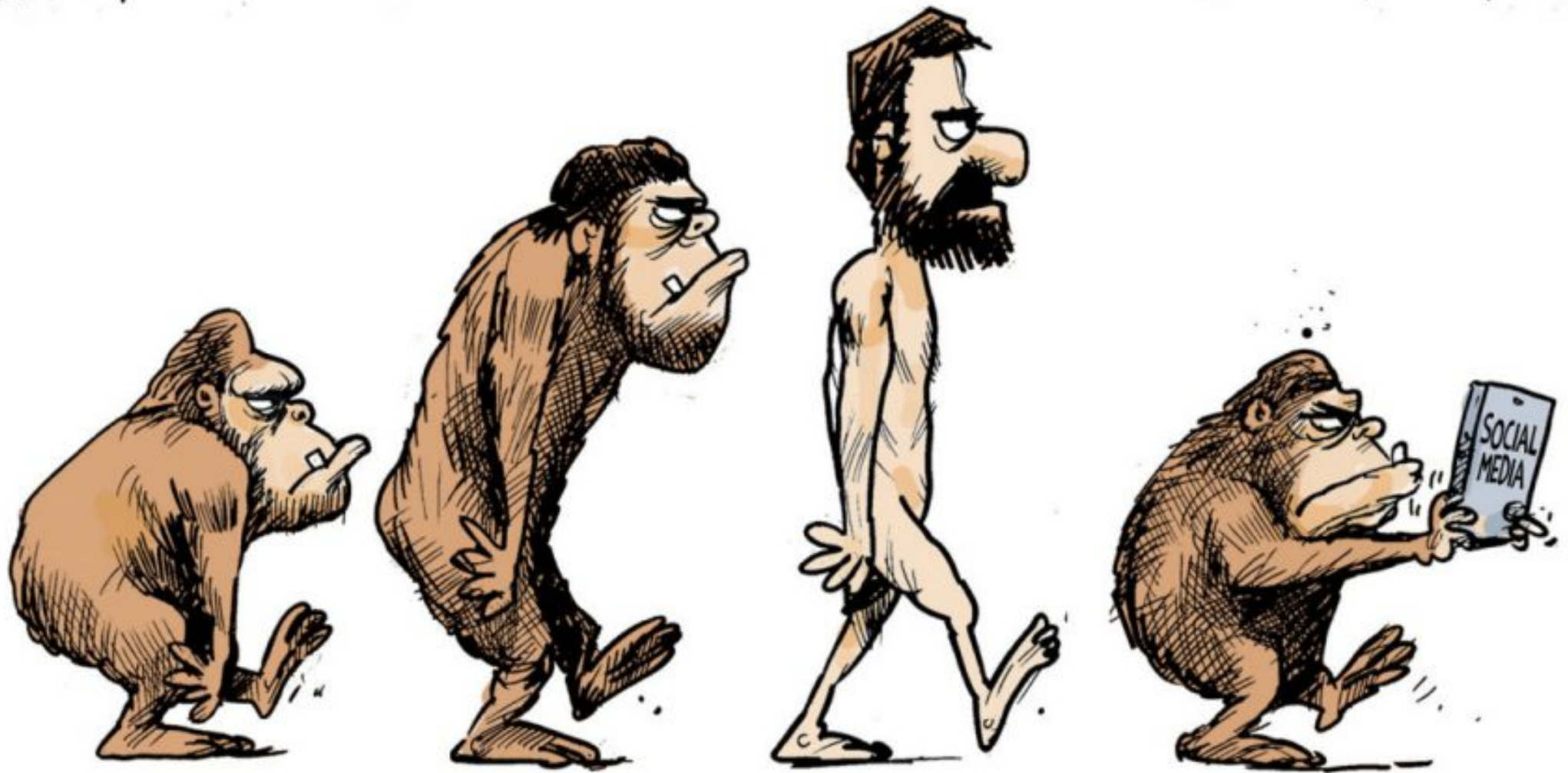
HOMERSAPIEN

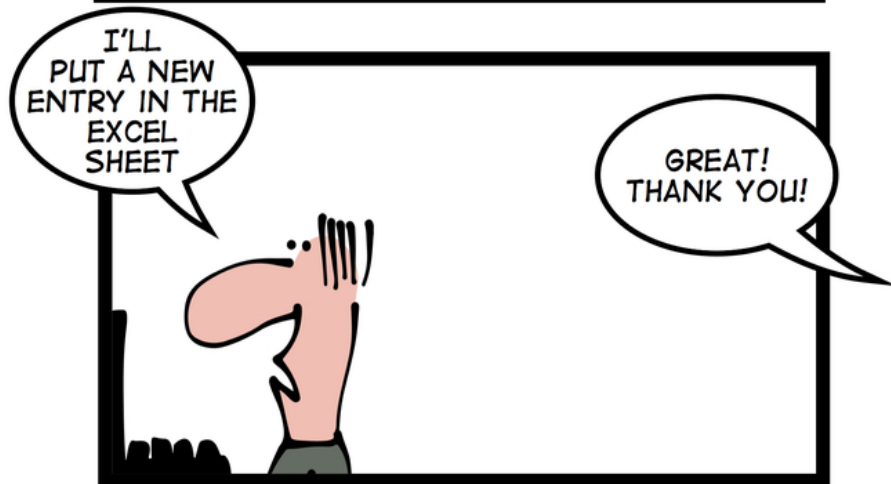
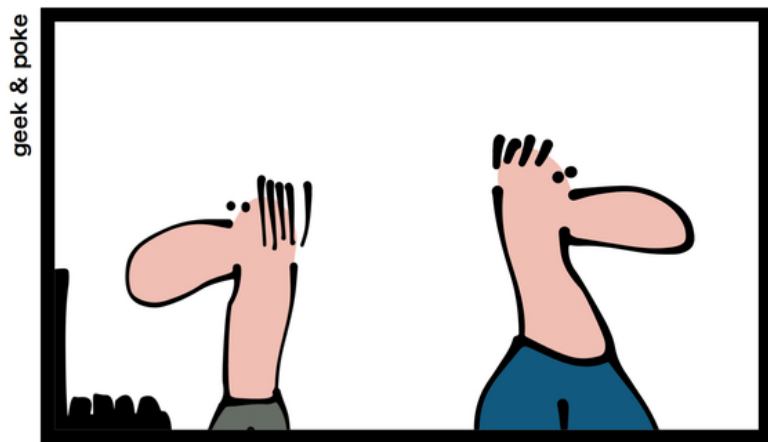
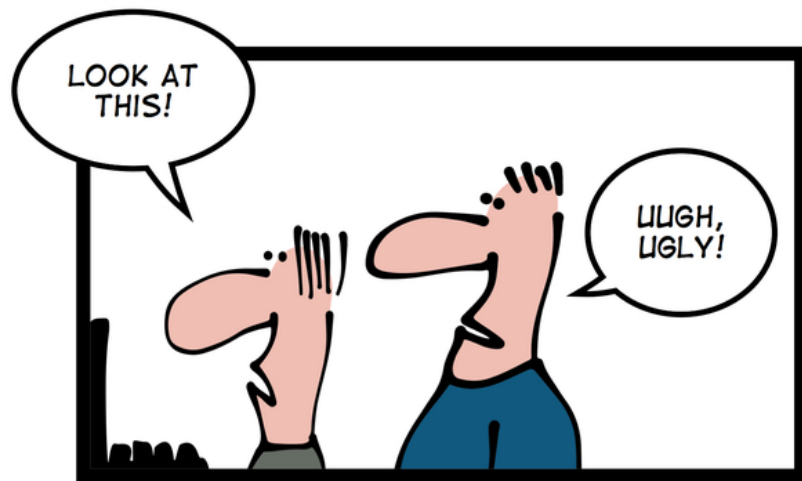
HOMERSAPIEN

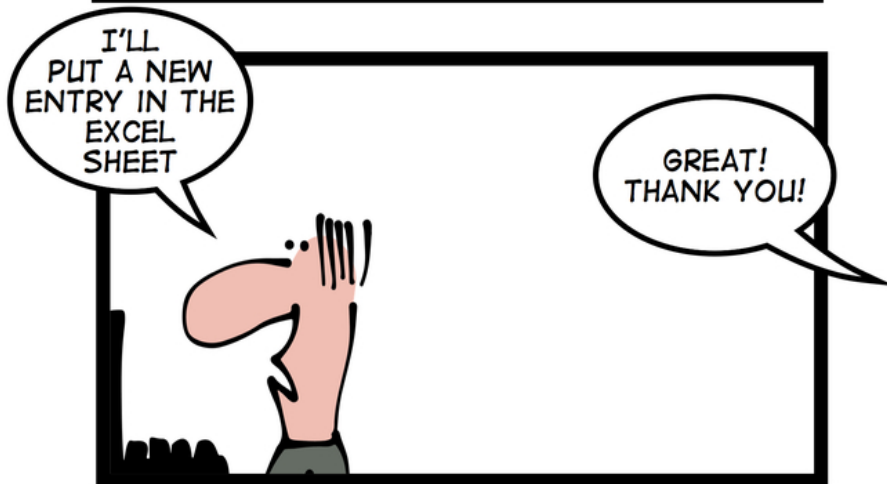
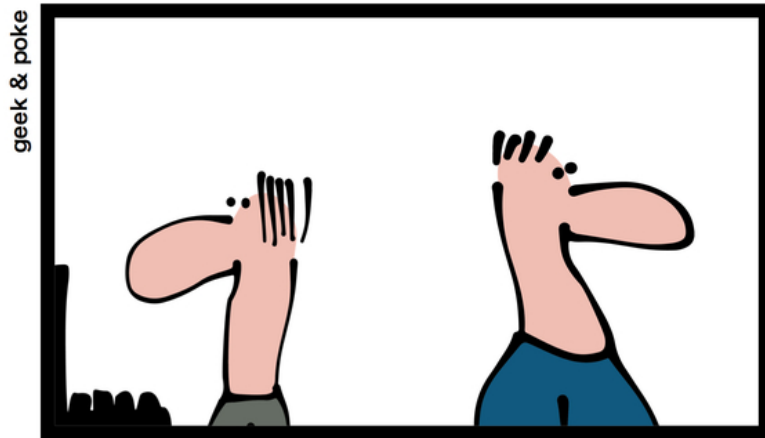
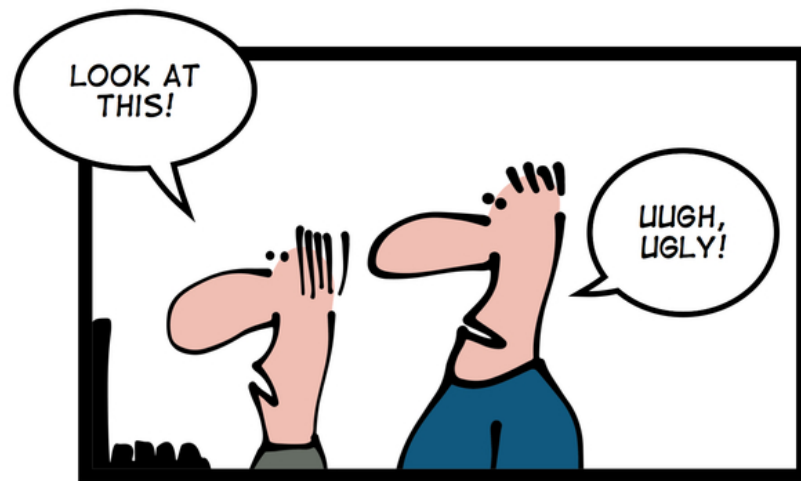


# EVOLUTION 2.0

GREG  
PERRY

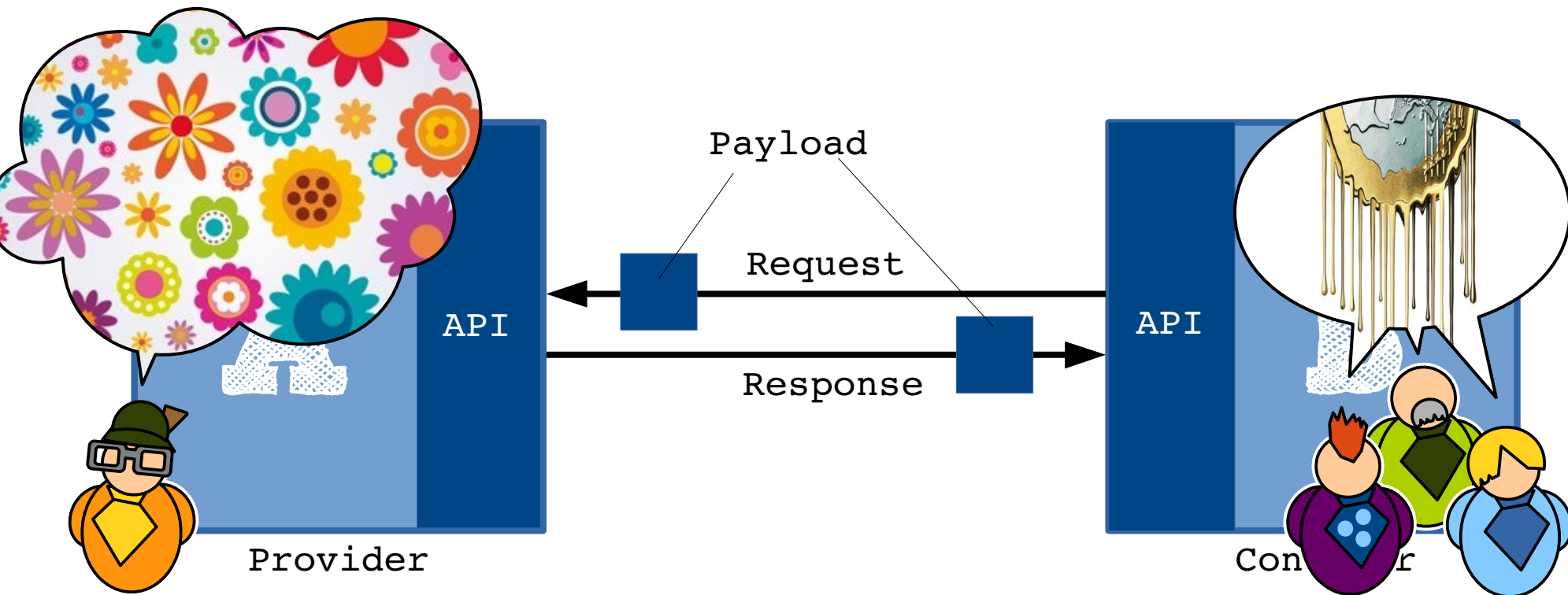


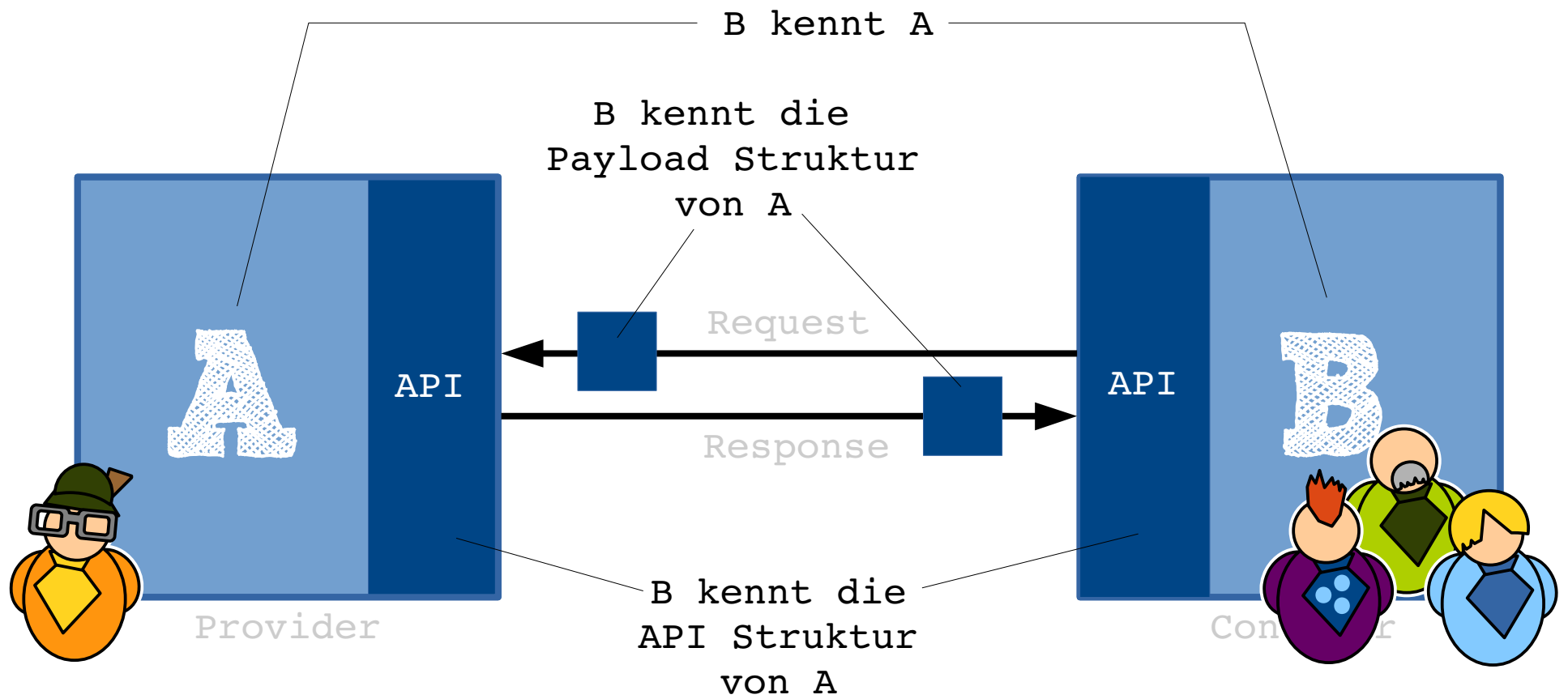


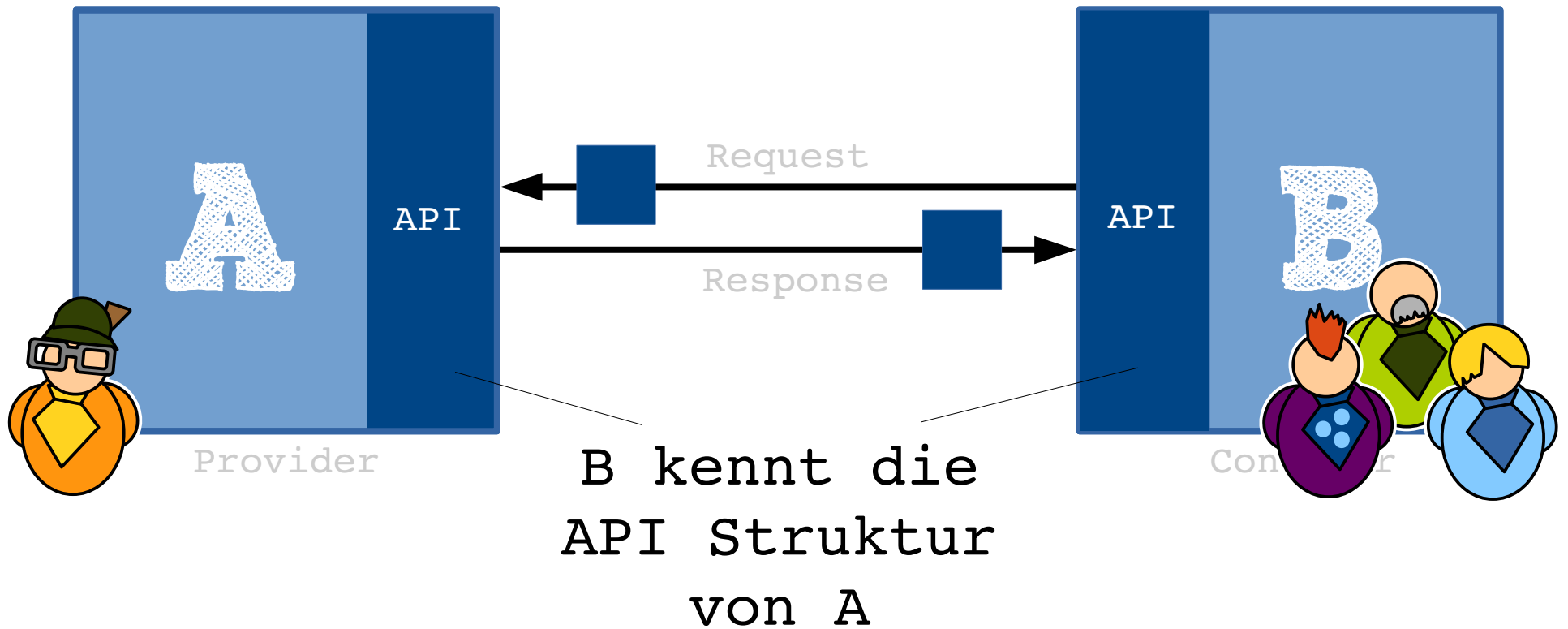


technicalDebts.xls

# TECHNICAL DEPT









# RESTBUCKS, THE SAMPLE



<http://codebetter.com/glennblock/2011/06/06/rest-in-practice-the-book-restbucks-the-sample>

<https://github.com/olivergierke/spring-restbucks>

<https://speakerdeck.com/olivergierke>

<http://olivergierke.de/2016/04/benefits-of-hypermedia/>



[\*\*https://RESTBUCKS.IO/V1/CREATE\\_ORDER\*\*](https://RESTBUCKS.IO/V1/CREATE_ORDER)

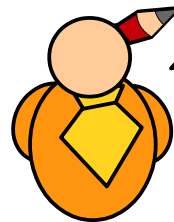




[\*\*https://RESTBUCKS.IO/V2/CREATE\\_ORDER\*\*](https://RESTBUCKS.IO/V2/CREATE_ORDER)



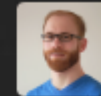
<https://RESTBUCKS.IO/V2/ORDER/{ID}>



POST = create order  
PATCH = update order  
DELETE = delete order  
GET = read order

Speaker Deck

Published on Apr 19, 2016



Oliver Gierke  
70 Presentations

★ Star this Talk 5 Stars

Published in Programming

Stats 6,187 Views

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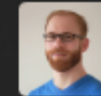
Direct Link

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## Domain-Driven Design & REST by Oliver Gierke

Published April 19, 2016 in Programming

Method	URI	Action	Step
POST	/orders	Create new order	1
POST/PATCH	/orders/{id}	Update the order (only if "payment expected")	2
DELETE	/orders/{id}	Cancel order (only if "payment expected")	3
PUT	/orders/{id}/payment	Pay order (only if "payment expected")	4
Barista preparing the order			
GET	/orders/{id}	Poll order state	5
GET	/orders/{id}/receipt	Access receipt	
DELETE	/orders/{id}/receipt	Conclude the order process	6



Oliver Gierke

70 Presentations

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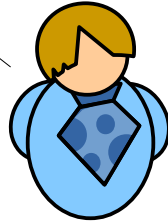
Direct Link

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# Domain-Driven Design & REST by Oliver Gierke

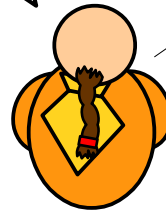
Published April 19, 2016 in Programming

Kunde



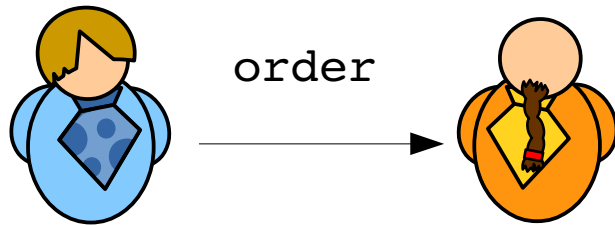
Hi

Hallole

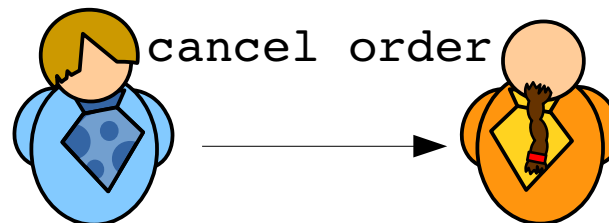
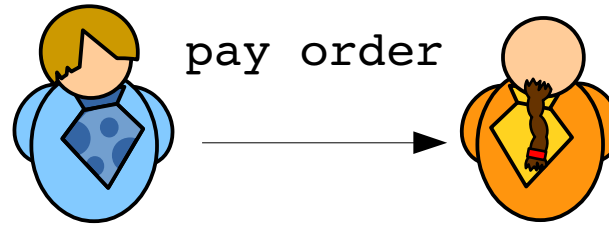
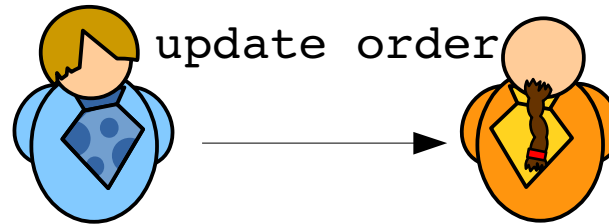


Barista

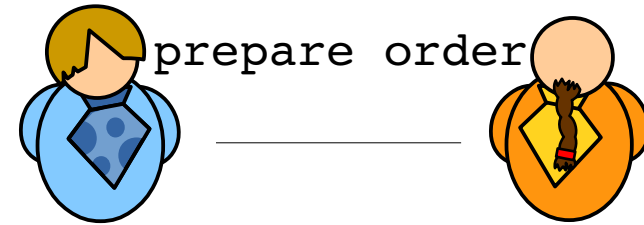
# SCHRITT 1



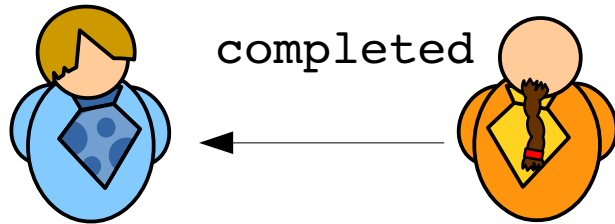
# SCHRITT 2



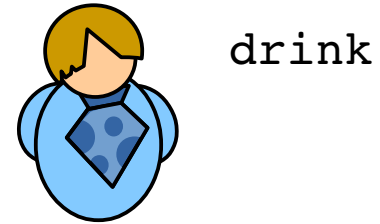
# SCHRITT 3



# SCHRITT 4



# SCHRITT 5



# HATEOAS

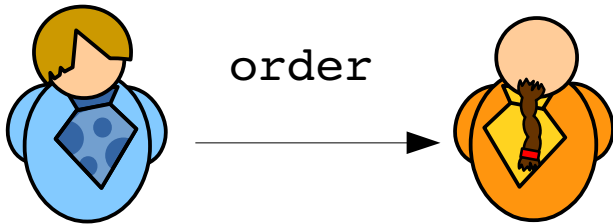
Hypermedia  
As  
The  
Engine  
Of  
Application  
State



# SCHRITT 1

## Request

## Response



POST: RESTBUCKS.io/v2/order

self

GET: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

update\_order

POST/PATCH: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

cancel\_order

DELETE: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

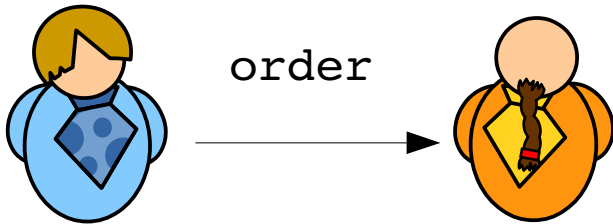
pay\_order

PUT: RESTBUCKS.io/v2/order/1/payment  
RESTBUCKS.io/v2/order/{id}/payment

# SCHRITT 1

## Request

## Response



POST: RESTBUCKS.io/v2/order

### self

GET: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

### update\_order

POST/PATCH: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

### cancel\_order

DELETE: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

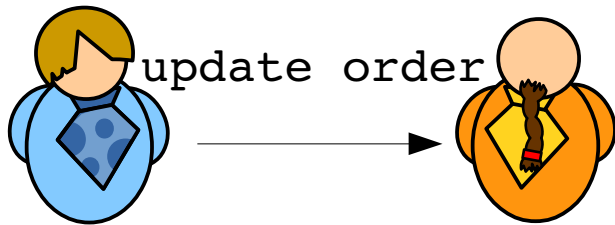
### pay\_order

PUT: RESTBUCKS.io/v2/order/1/payment  
RESTBUCKS.io/v2/order/{id}/payment

# SCHRITT 2

Request

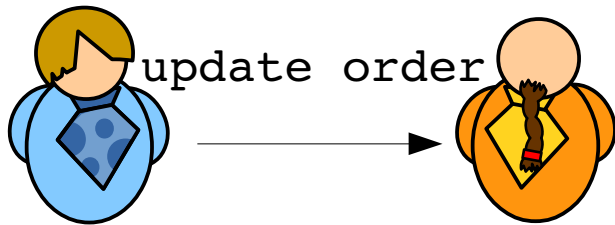
Response



PATCH: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

# SCHRITT 2

## Request



PATCH: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

## Response

### **self**

GET: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

### **update\_order**

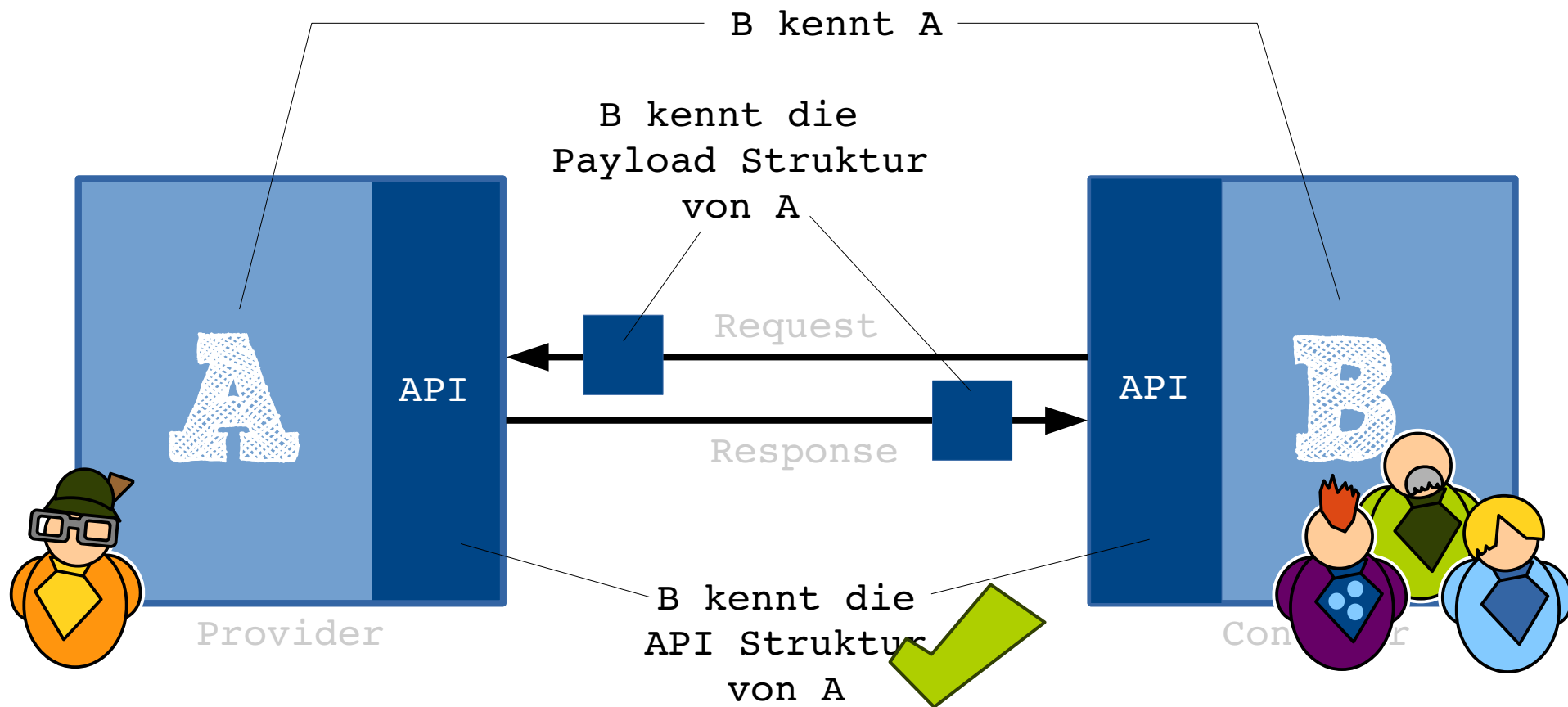
POST/PATCH: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

### **cancel\_order**

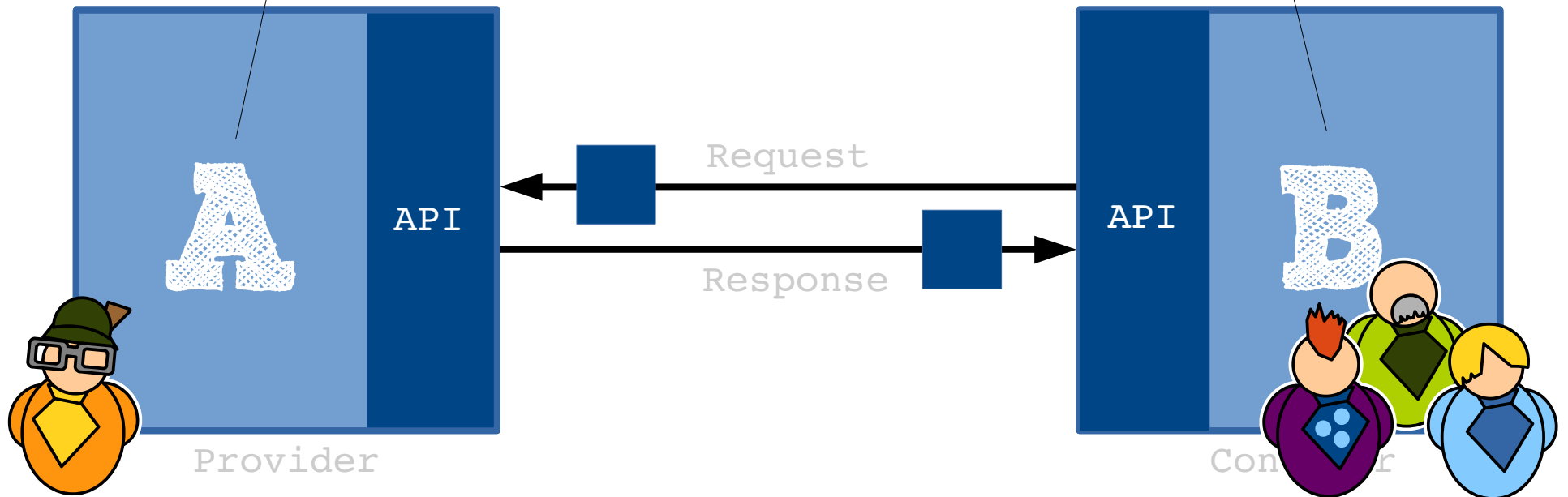
DELETE: RESTBUCKS.io/v2/order/1  
RESTBUCKS.io/v2/order/{id}

### **pay\_order**

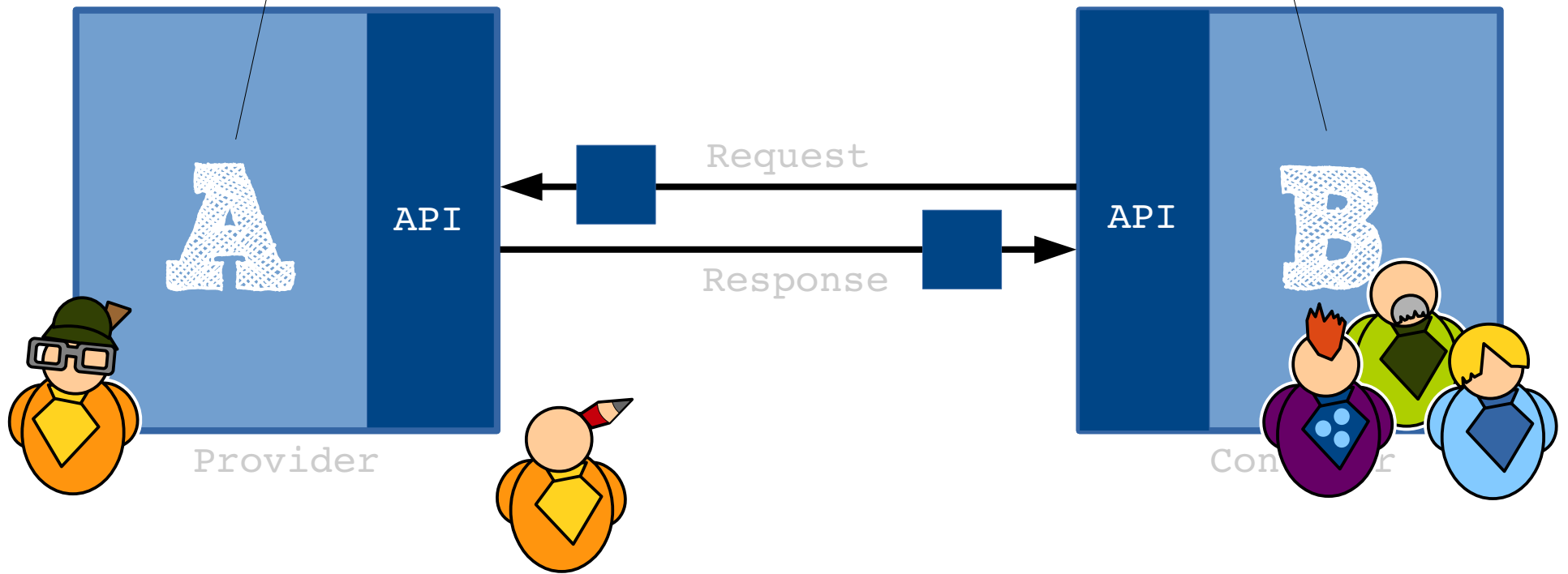
PUT: RESTBUCKS.io/v2/order/1/payment  
RESTBUCKS.io/v2/order/{id}/payment

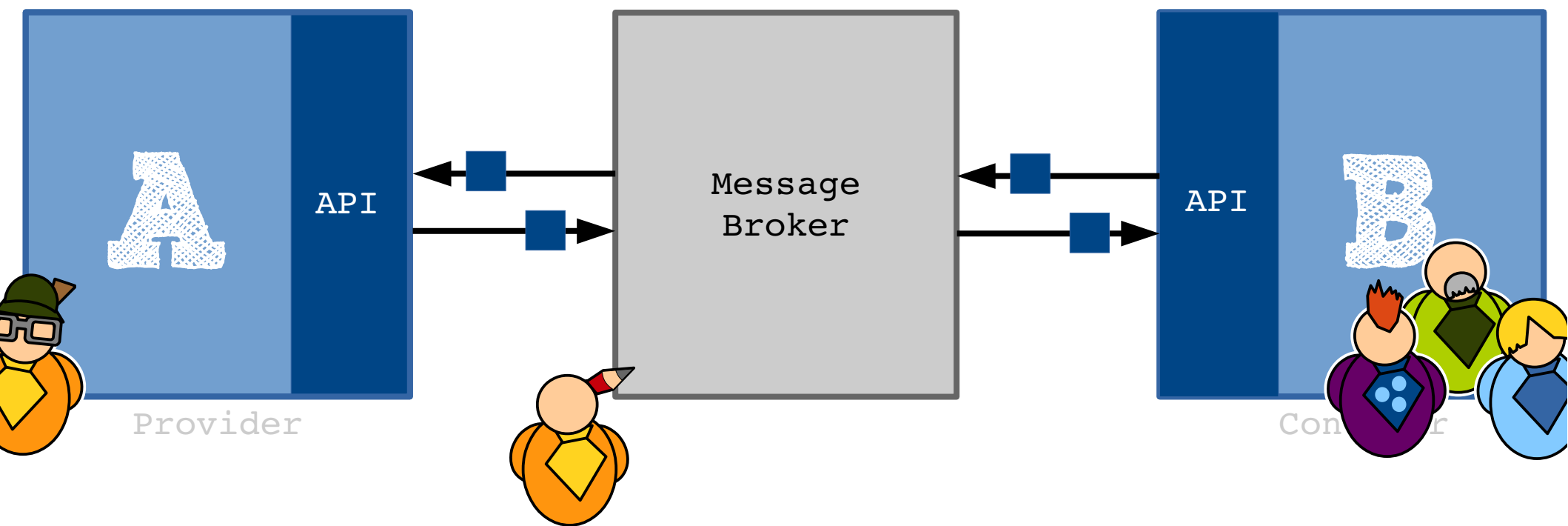


B kennt A

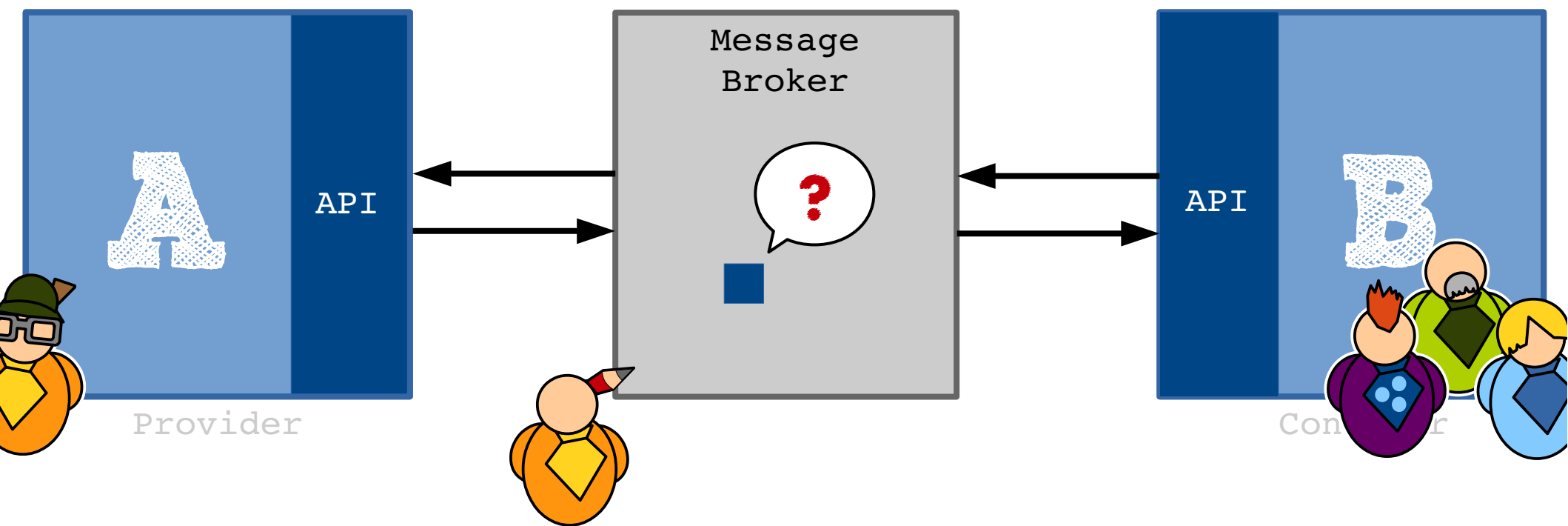


B kennt A

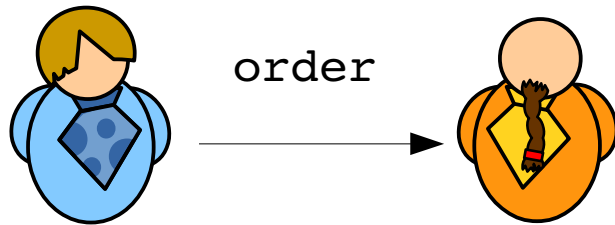




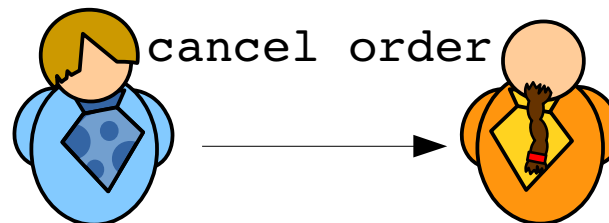
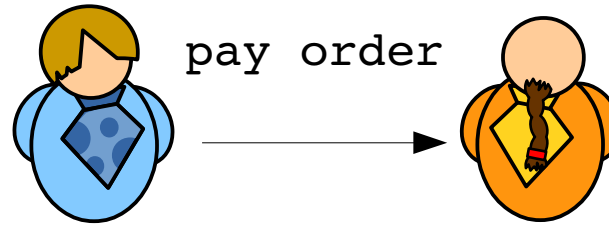
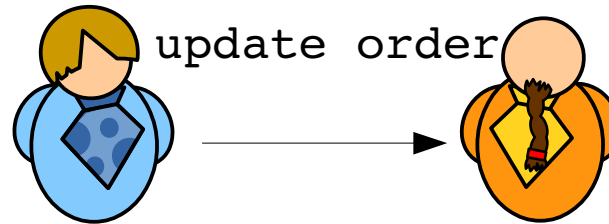




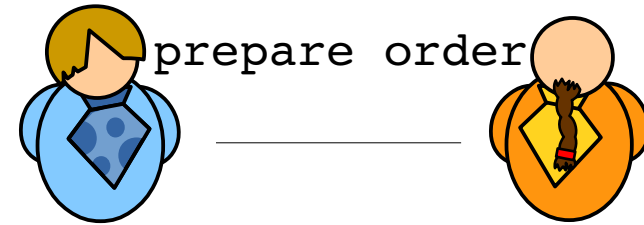
# SCHRITT 1



# SCHRITT 2



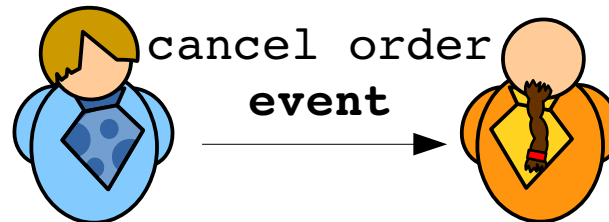
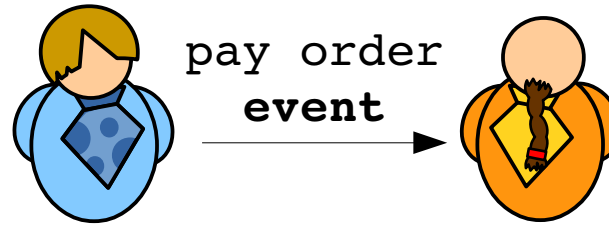
# SCHRITT 3



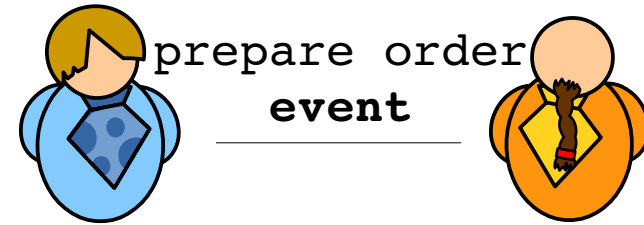
# SCHRITT 1



# SCHRITT 2

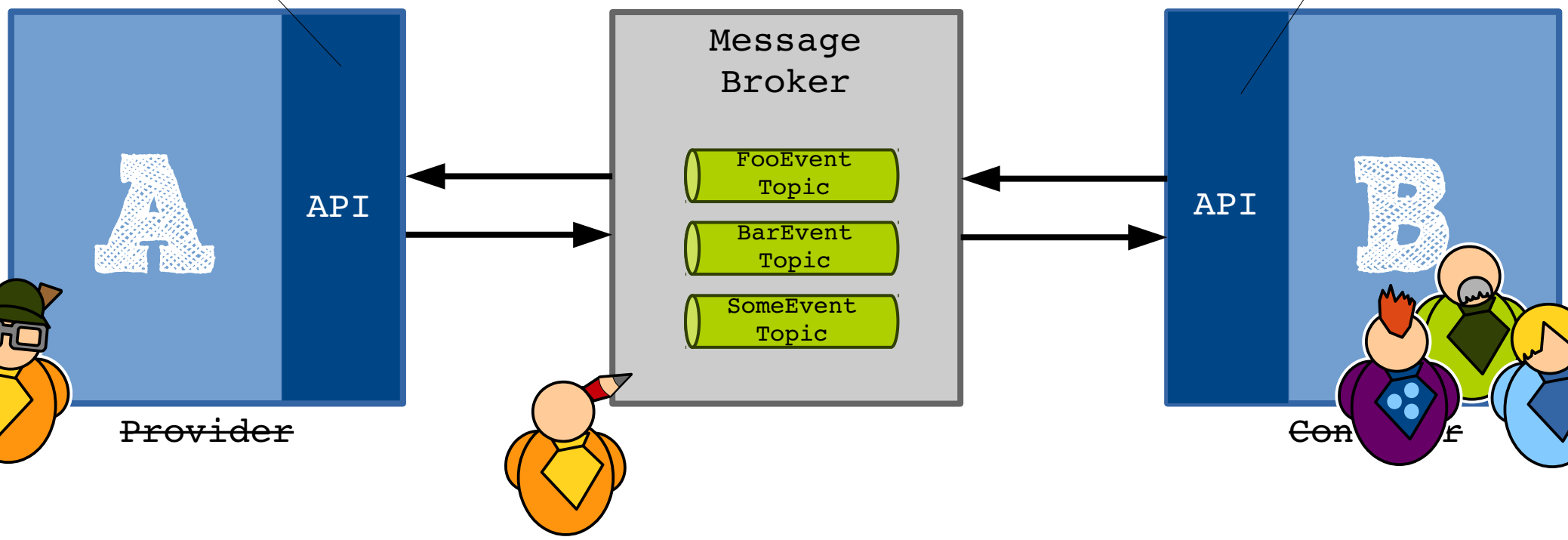


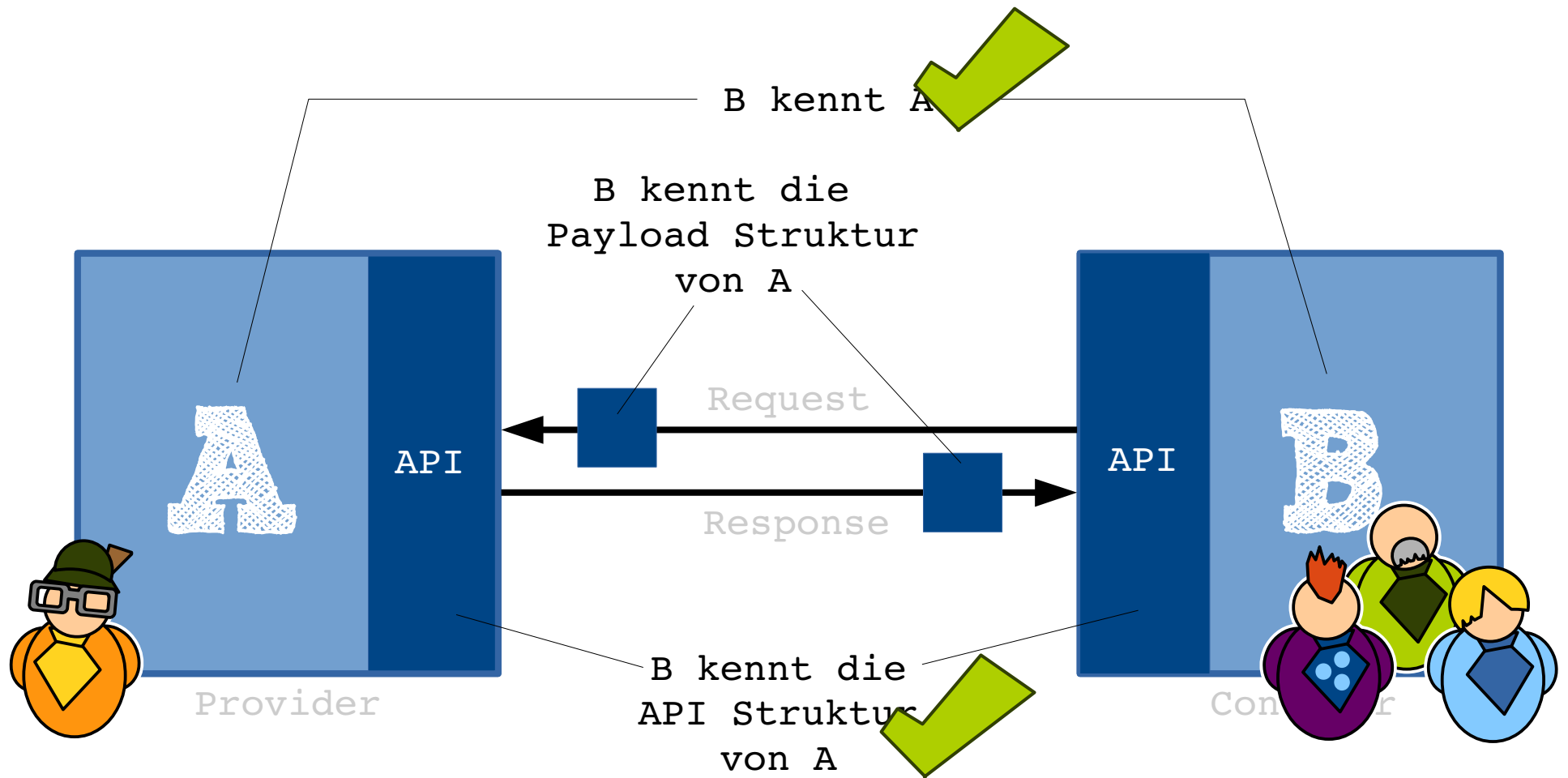
# SCHRITT 3



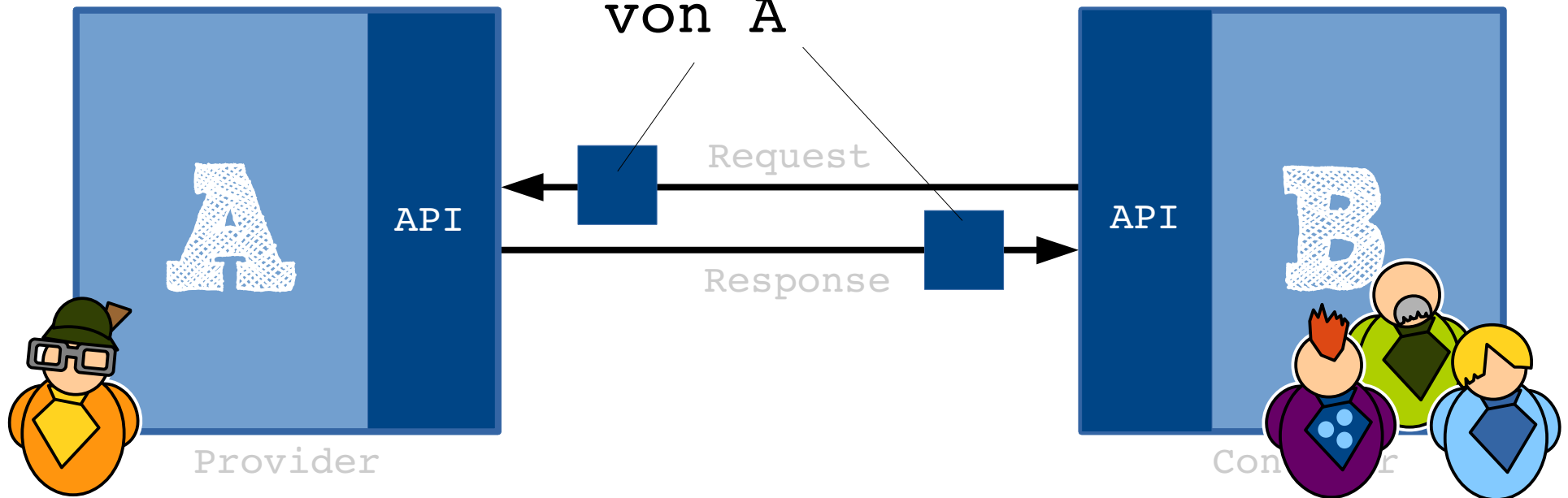
FooEvent-Listener  
SomeEvent-Listener

BarEvent-Listener  
SomeEvent-Listener





B kennt die  
Payload Struktur  
von A

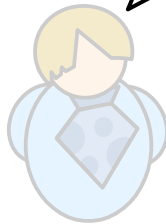




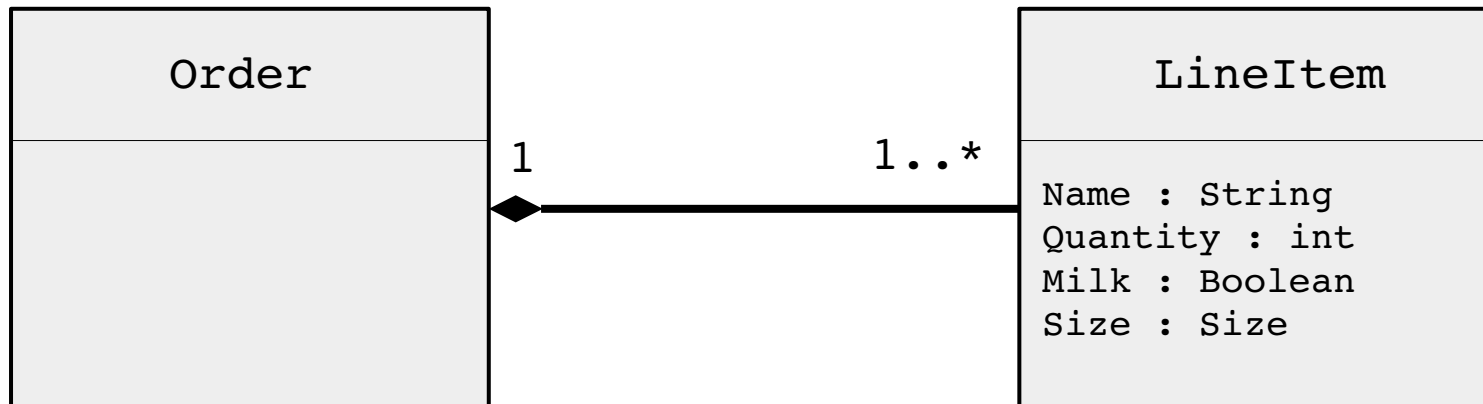
Order

LineItem

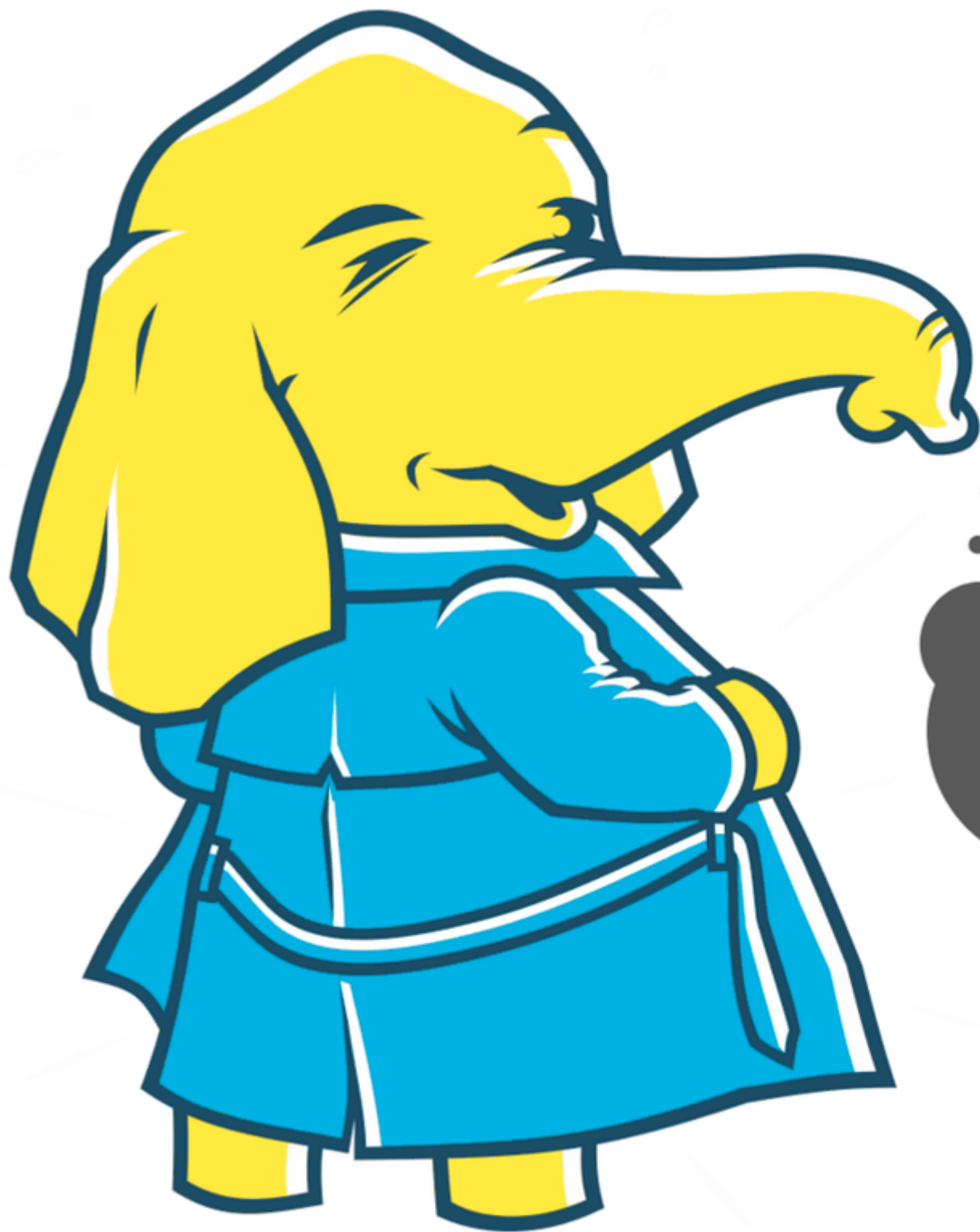
1 Kaffee ohne Milch  
2 Kaffee mit Milch



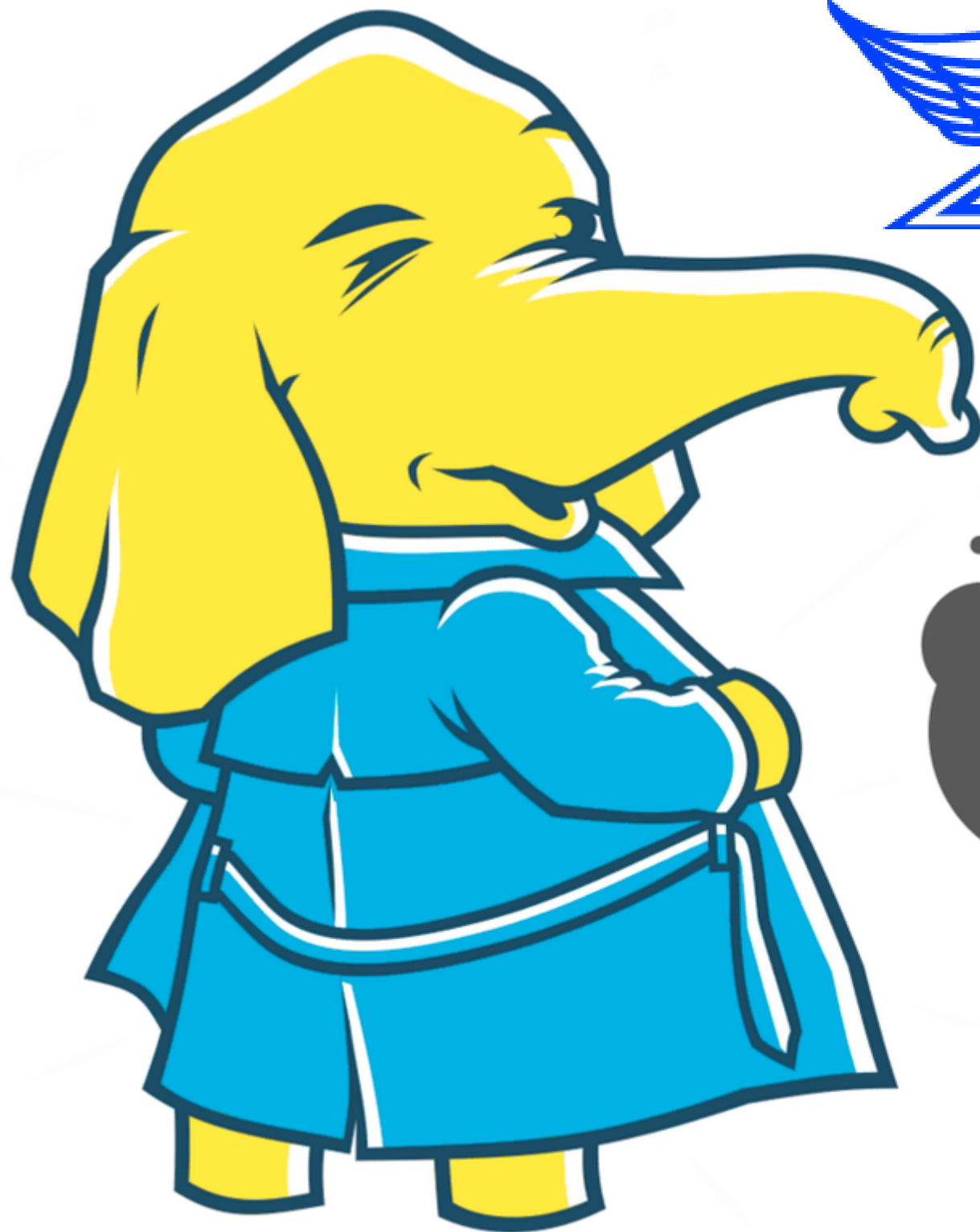




# SCHEMA EVOLUTION

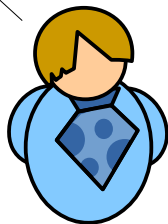


MY HADOOP  
IS **BIGGER**  
THAN YOURS...



MY HADOOP  
IS **BIGGER**  
THAN YOURS...

Writer

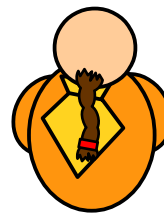
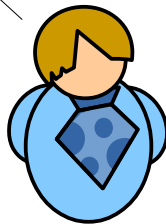


Reader

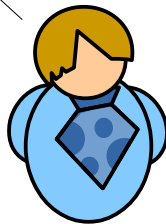
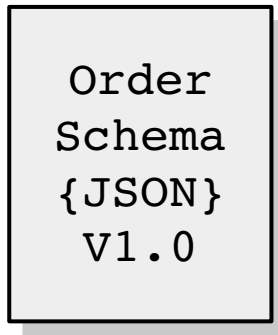


Writer

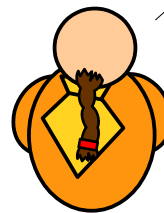
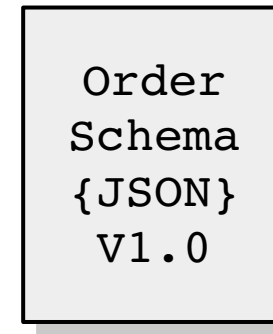
Order  
Schema  
{JSON}  
V1.0



Writer



Reader



Version 1.0

```
[
  {
    "namespace": "de.muenchen.jfs17",
    "type": "record",
    "name": "LineItem",
    "fields": [
      {"name": "name", "type": "string",
        "default": "coffee"},
      {"name": "quantity", "type": "int",
        "default": "1"},
      {"name": "milk", "type": "boolean",
        "default": "false"}
    ]
  },
  {
    "namespace": "de.muenchen.jfs17",
    "type": "record",
    "name": "Order",
    "fields": [
      {"name": "item", "type": "LineItem"}
    ]
  }
]
```



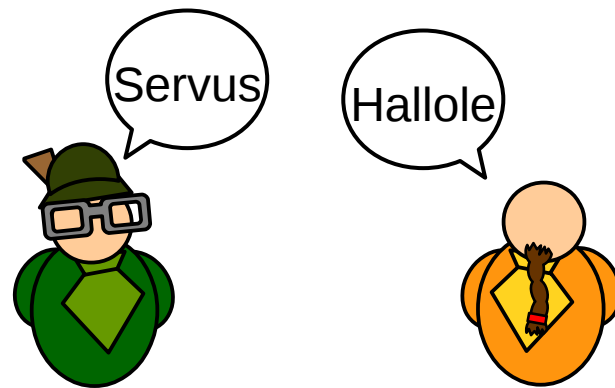
```
[
  {
    "namespace": "de.muenchen.jfs17",
    "type": "record",
    "name": "LineItem",
    "fields": [
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        "default": "coffee"},
      {"name": "quantity", "type": "int",
        "default": "1"},
      {"name": "milk", "type": "boolean",
        "default": "false"}
    ]
  },
  {
    "namespace": "de.muenchen.jfs17",
    "type": "record",
    "name": "Order",
    "fields": [
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    ]
  }
]
```

LineItem Type

Version 1.0

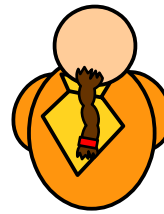
```
[
  {
    "namespace": "de.muenchen.jfs17",
    "type": "record",
    "name": "LineItem",
    "fields": [
      {"name": "name", "type": "string",
        "default": "coffee"},
      {"name": "quantity", "type": "int",
        "default": "1"},
      {"name": "milk", "type": "boolean",
        "default": "false"}
    ]
  },
  {
    "namespace": "de.muenchen.jfs17",
    "type": "record",
    "name": "Order",
    "fields": [
      {"name": "item", "type": "LineItem"}
    ]
  }
]
```

Order Type



Writer

Order  
Schema  
{JSON}  
**v2.0**



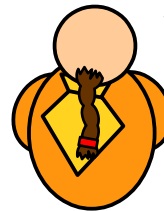
Writer

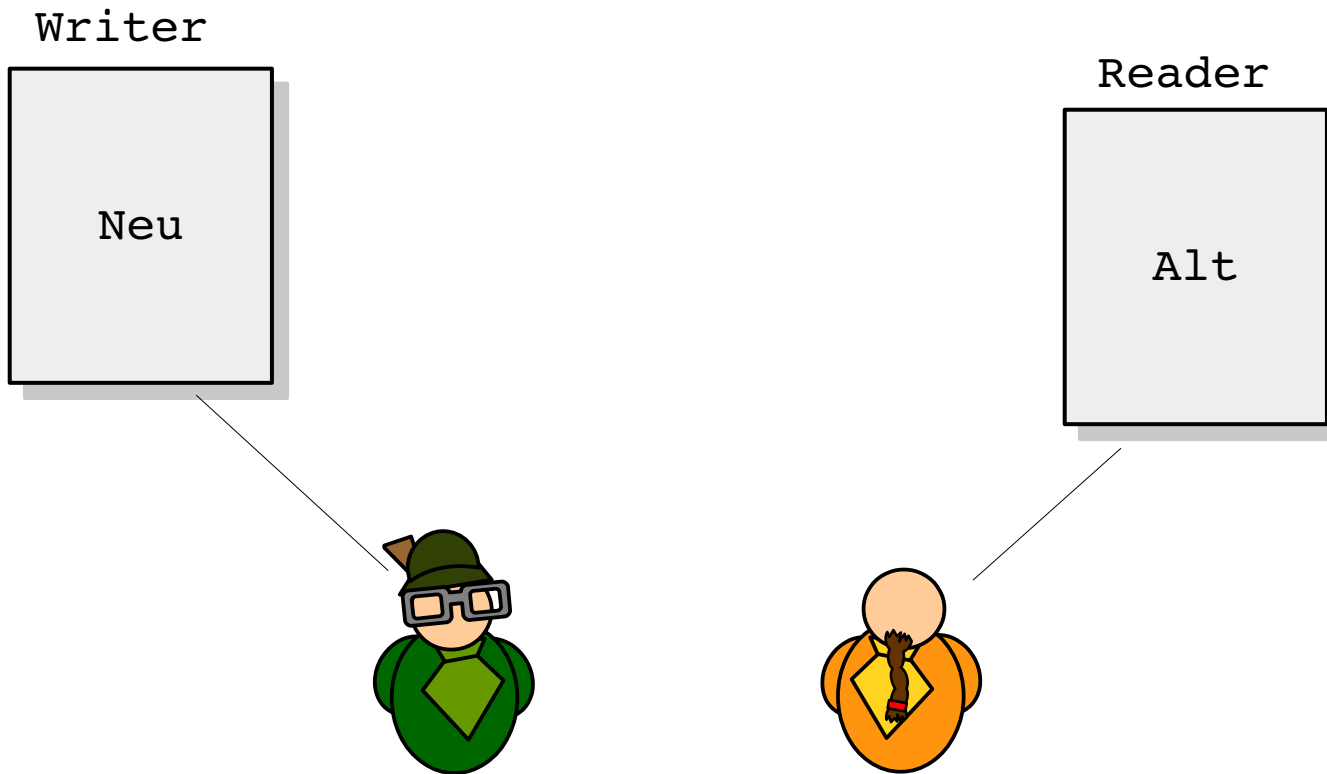
Order  
Schema  
{JSON}  
**v2.0**



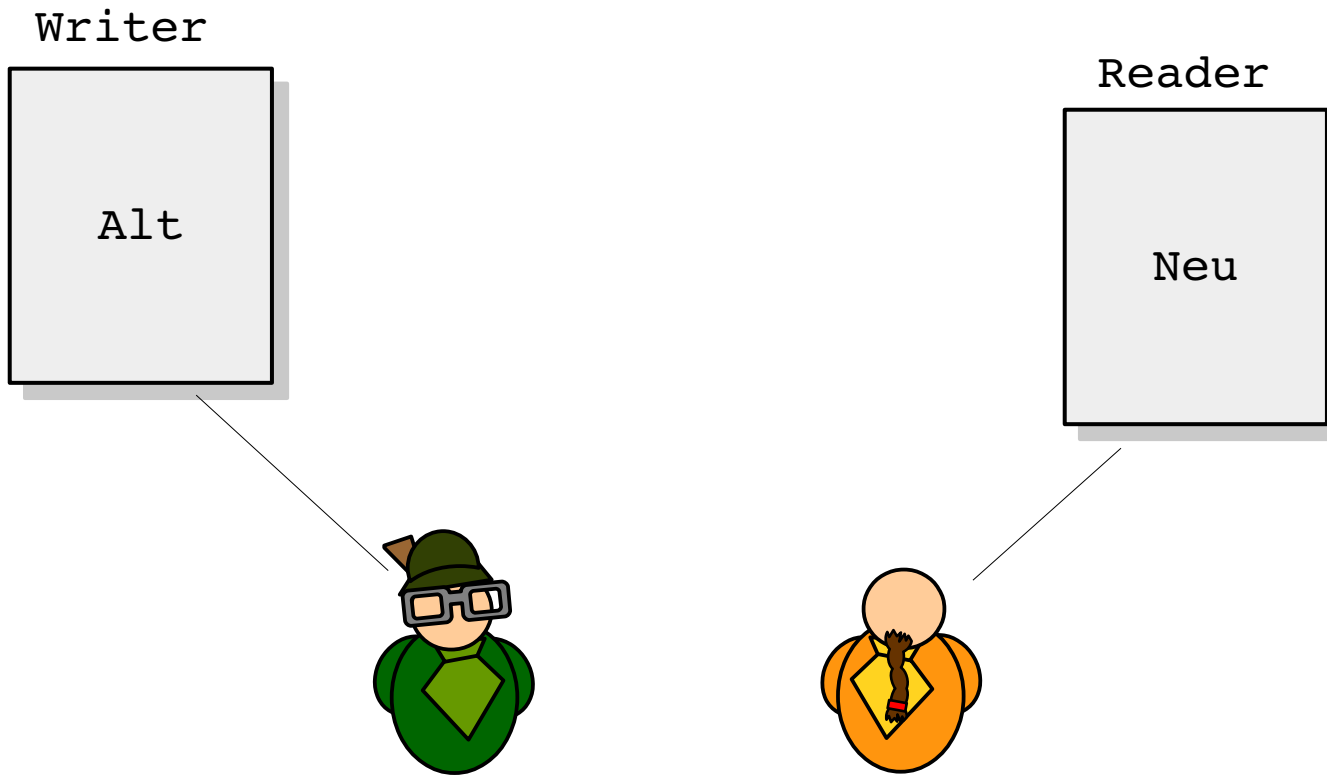
Reader

Order  
Schema  
{JSON}  
**v1.0**





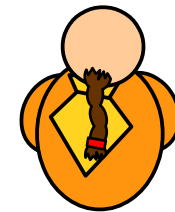
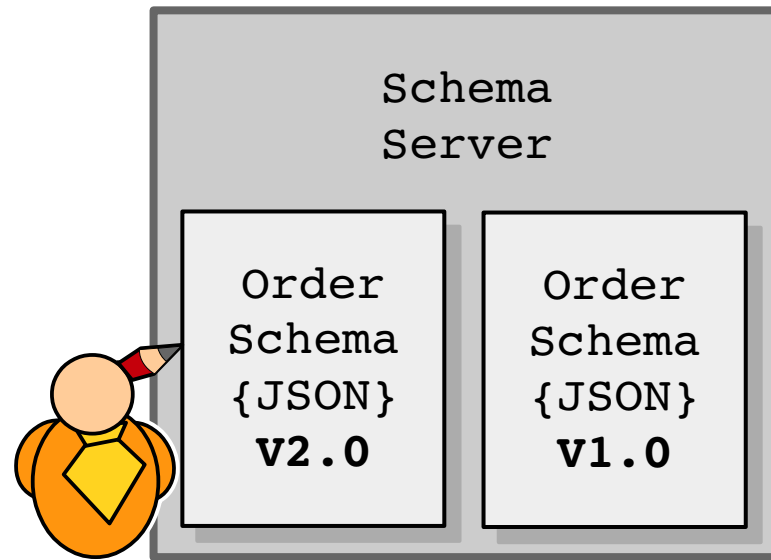
Vorwärtskompatibilität

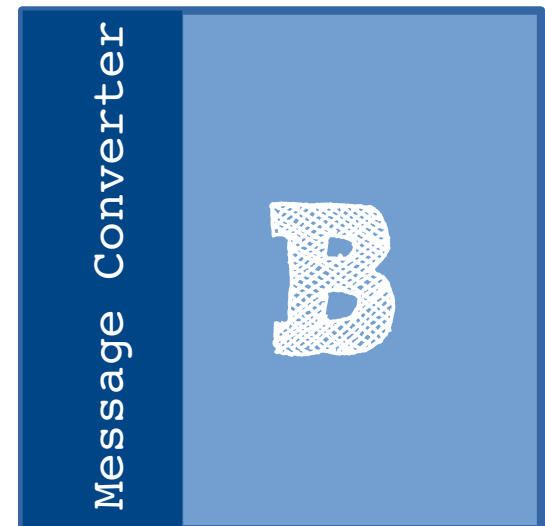
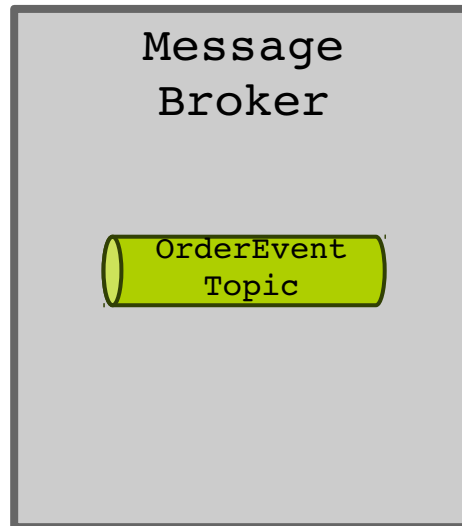
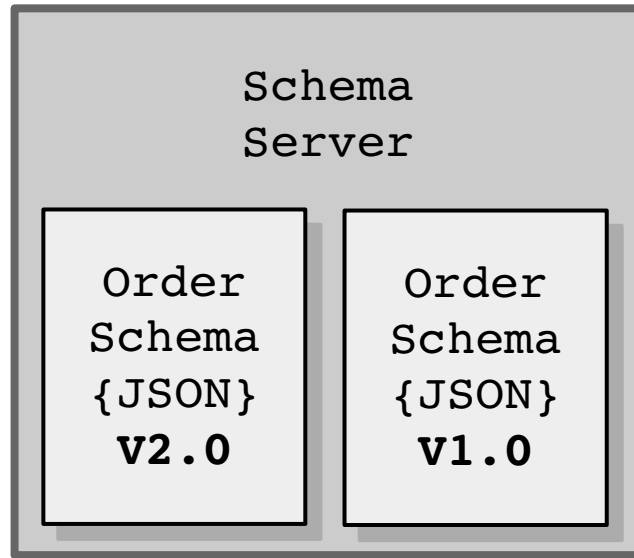


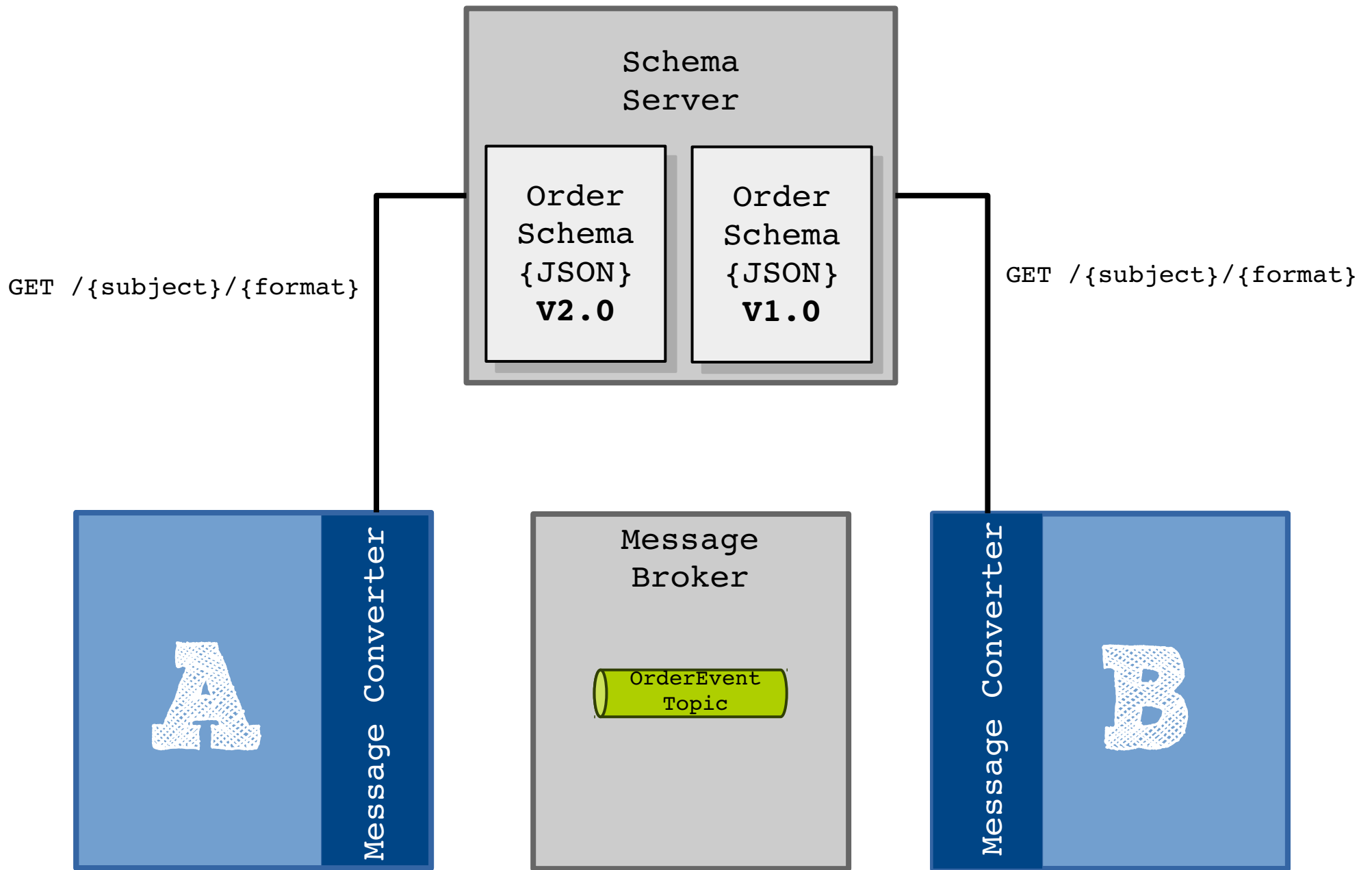
Rückwärtskompatibilität

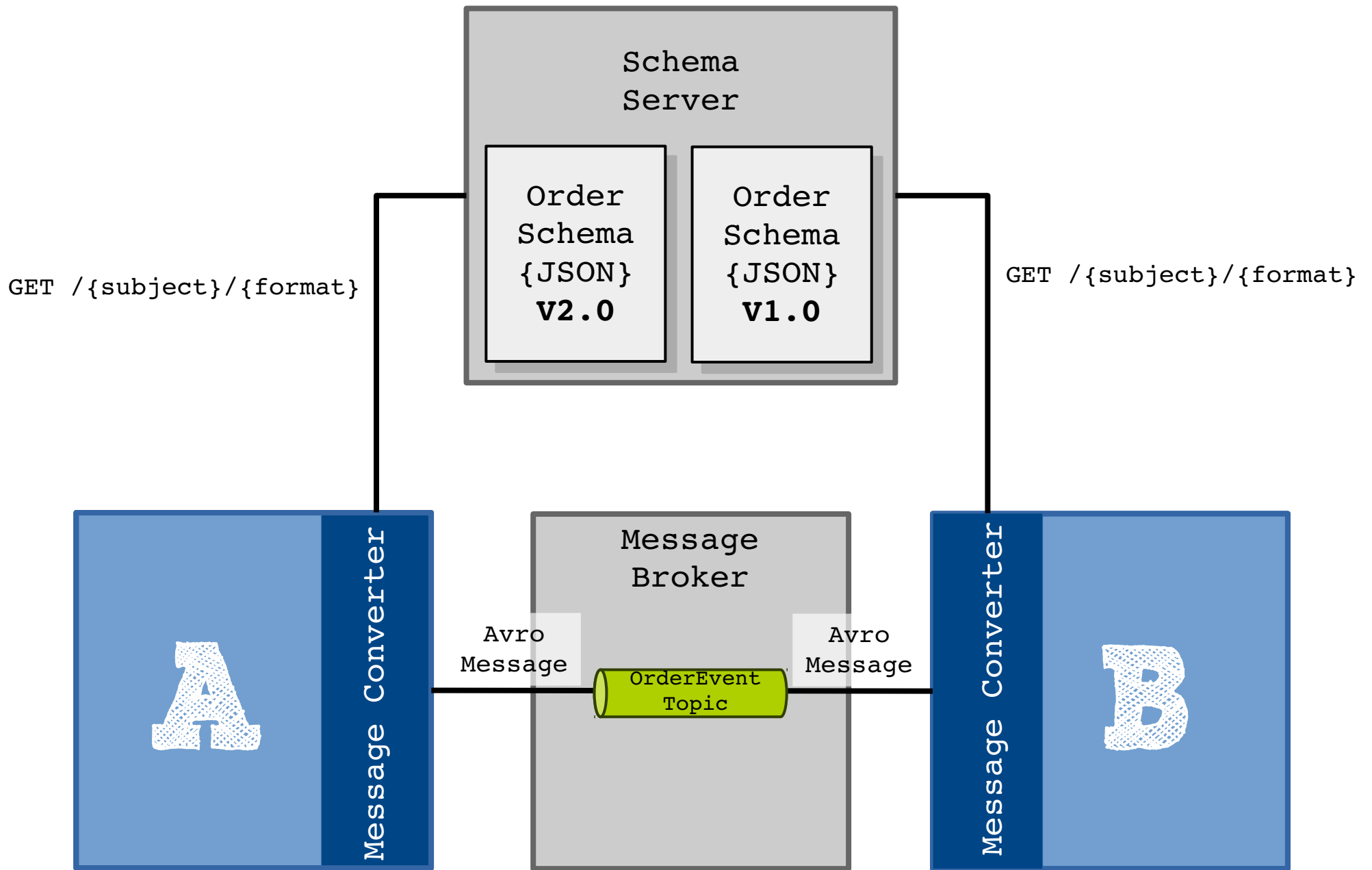
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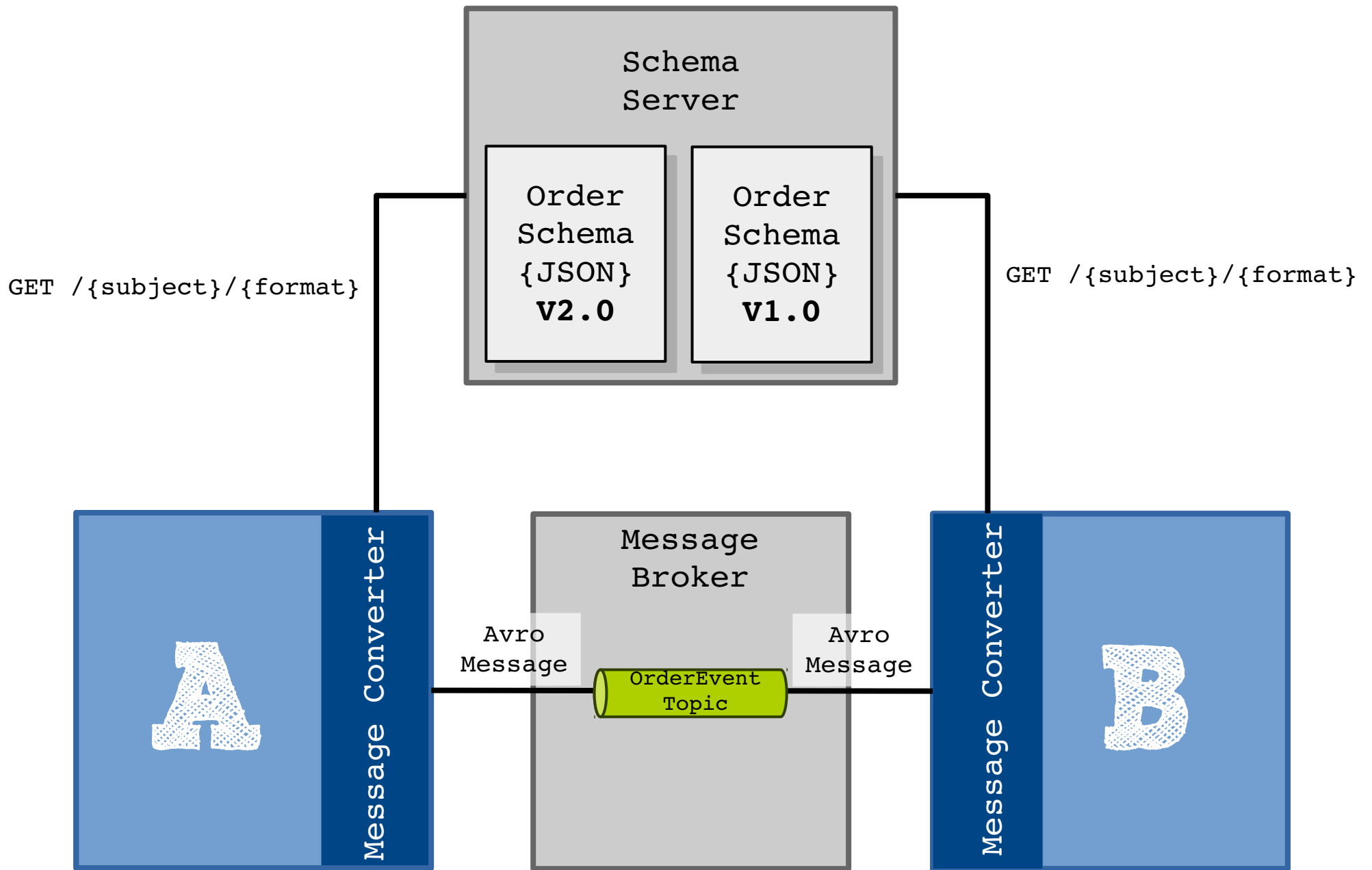












<https://cloud.spring.io/spring-cloud-stream/>

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# Designing Data-Intensive Applications

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Martin Kleppmann





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