

# Modernization of the register landscape in Germany

...with the help of confidential computing



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Solution Architect



# Agenda

**problem**

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barriers in today's  
administration

**goal**

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what we want to achieve

**architecture**

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blueprint for future  
register design



# ○ What is this register thing?



"A **register** refers to **data sets** of the **public administration** that contain **information** required for the **provision** of an **administrative service...**"

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End2end view

- > data administration process
- > storage
- > operation
- > governance (audit..)
- > ...

# Problems

- ! **heterogeneous infrastructure**  
• distr. systems, distr. infrastructures / physical separation



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- ! **not everything is digital yet**
  - analogue processes and data exist



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! **administration** > service interruption  
**citizen** > limited service offering  
**IT** > high cost operations



# Problems

! **heterogeneous infrastructure**  
• distr. systems, distr. infrastructure

! **heterogeneous datasets**  
• different data schemas for the same data

! **not everything is digital**  
• analogue processes and data exchange

work order 'by law'  
**Registermodernisierungsgesetz**  
(RegMo)

! **administration** > service interruption  
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Bildquelle /  
Image source:  
  
Weltkarte:  
AdobeStock\_223356857  
  
DACH-Karte:  
AdobeStock\_73517097



**...how to achieve...**

# ○ Goal / What if...

## ↘ design premises

### 1. Hyperscaler-like infrastructure

use given advantages, ensure logical separation



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### 2 harmonized datasets

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### 3 E2E (combined) digital processes

citizen, public administration

### 4 stay open

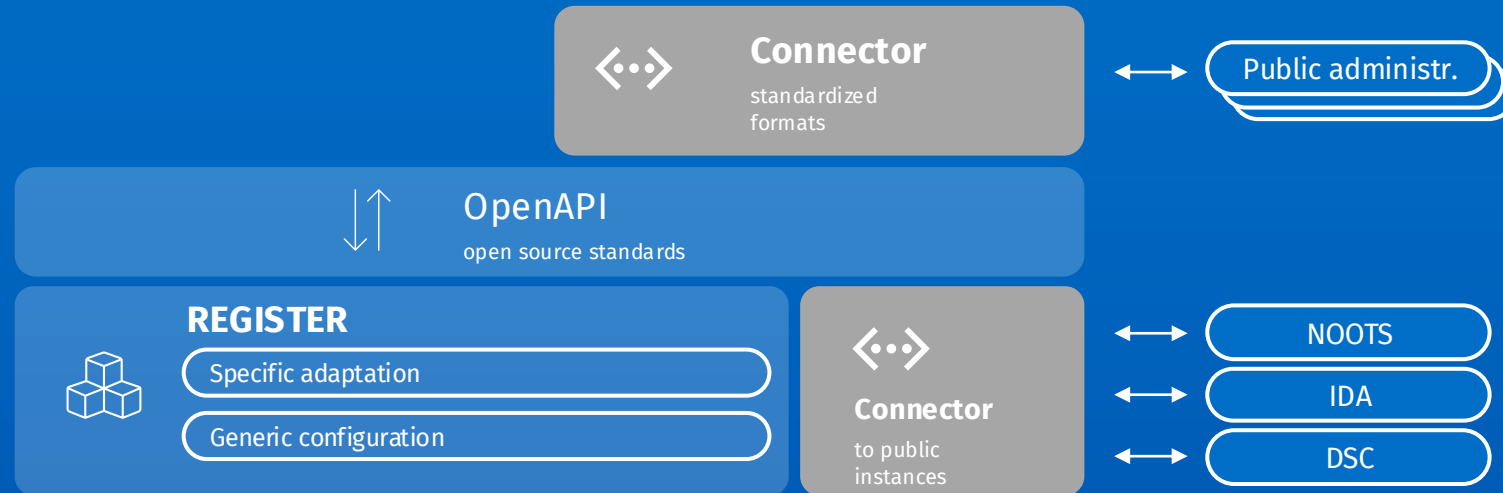
architecture reference (RaaS register as a service)..





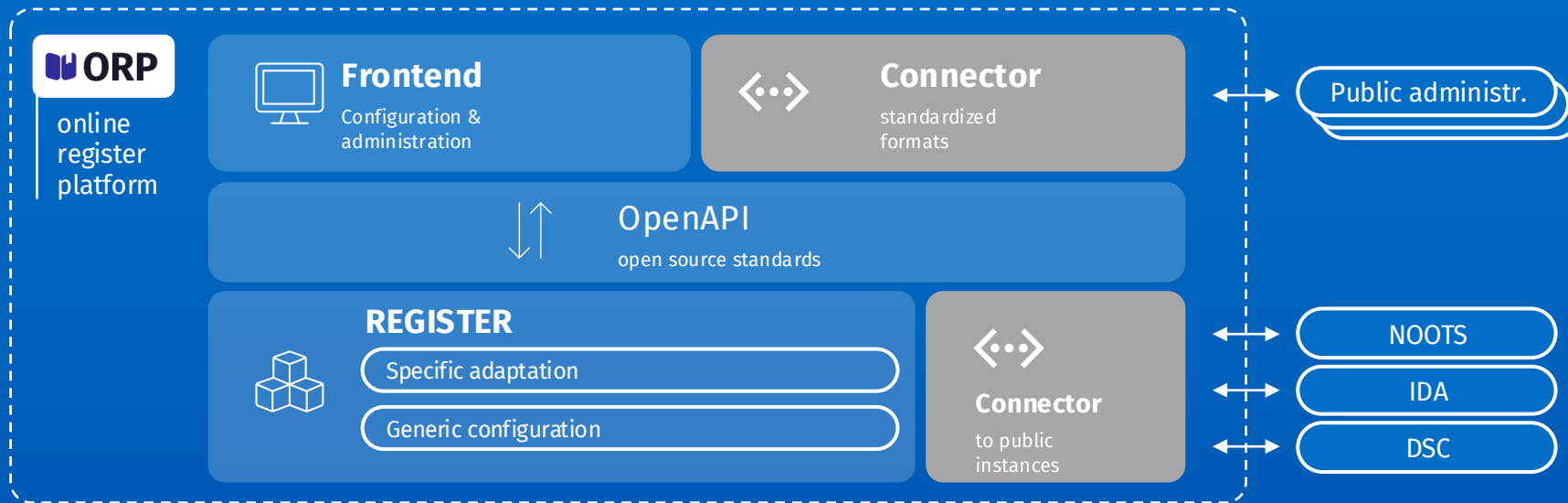
**...again...how to achieve...**

# Architecture is the foundation / modular approach



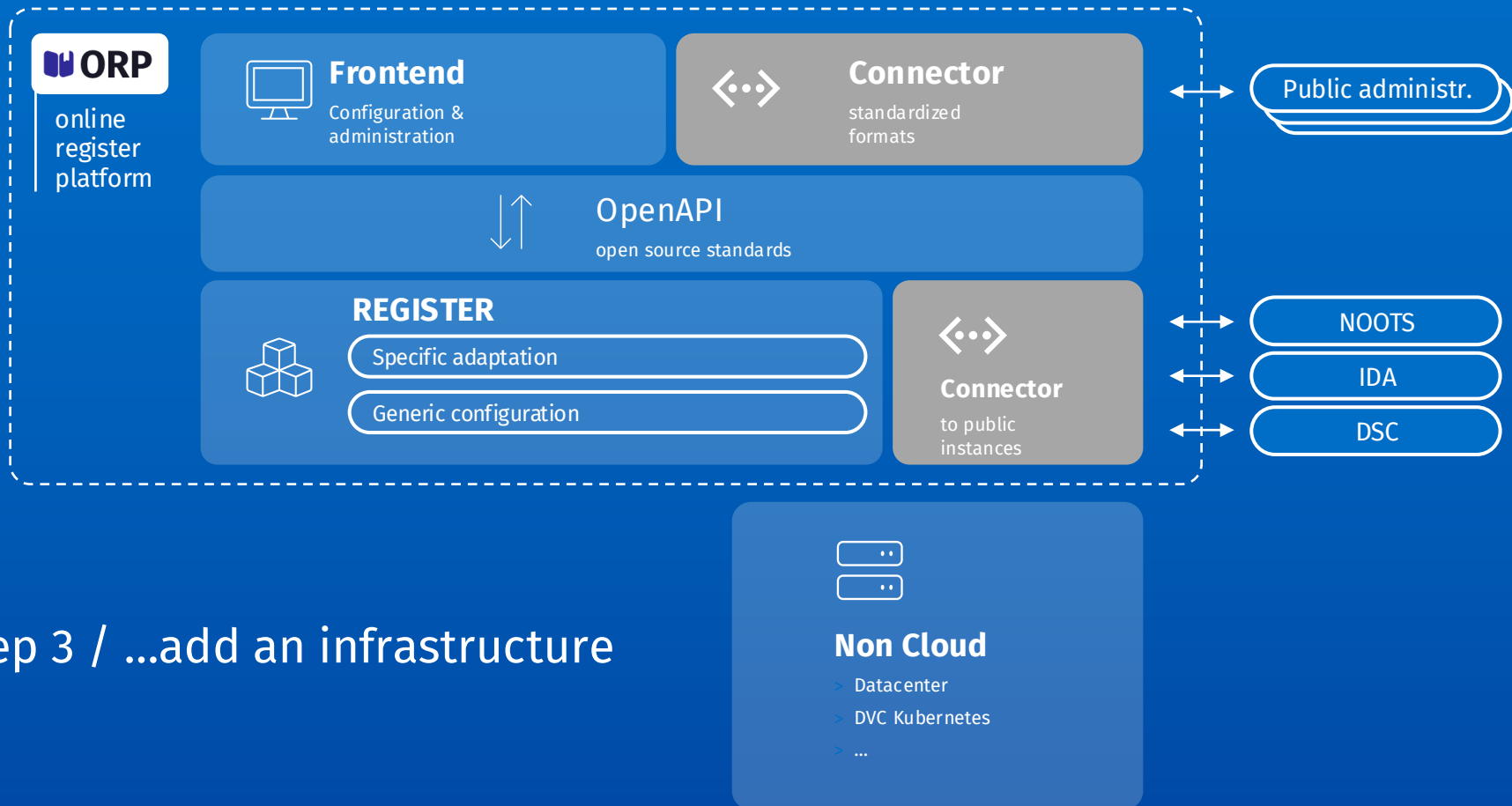
step 1 / register + API

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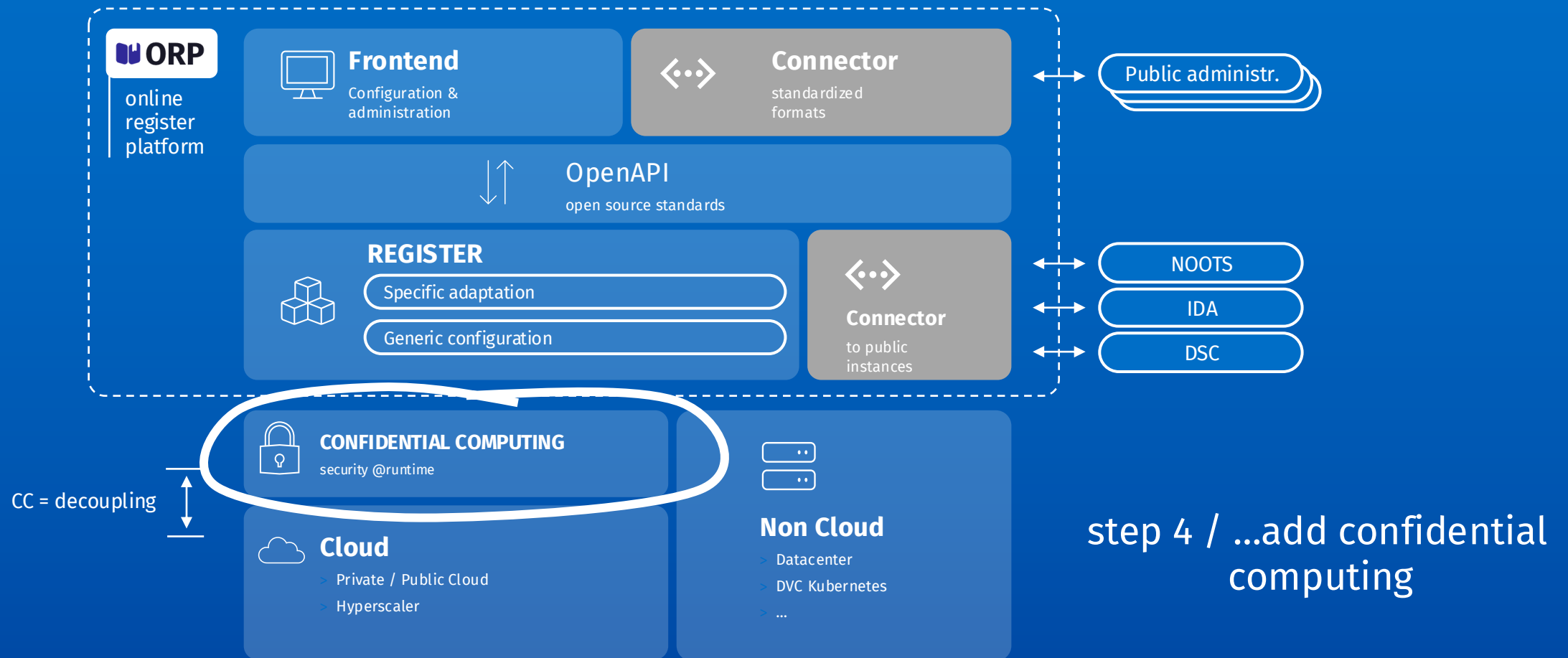
step 2 / ...add a frontend

# Architecture is the foundation / modular approach

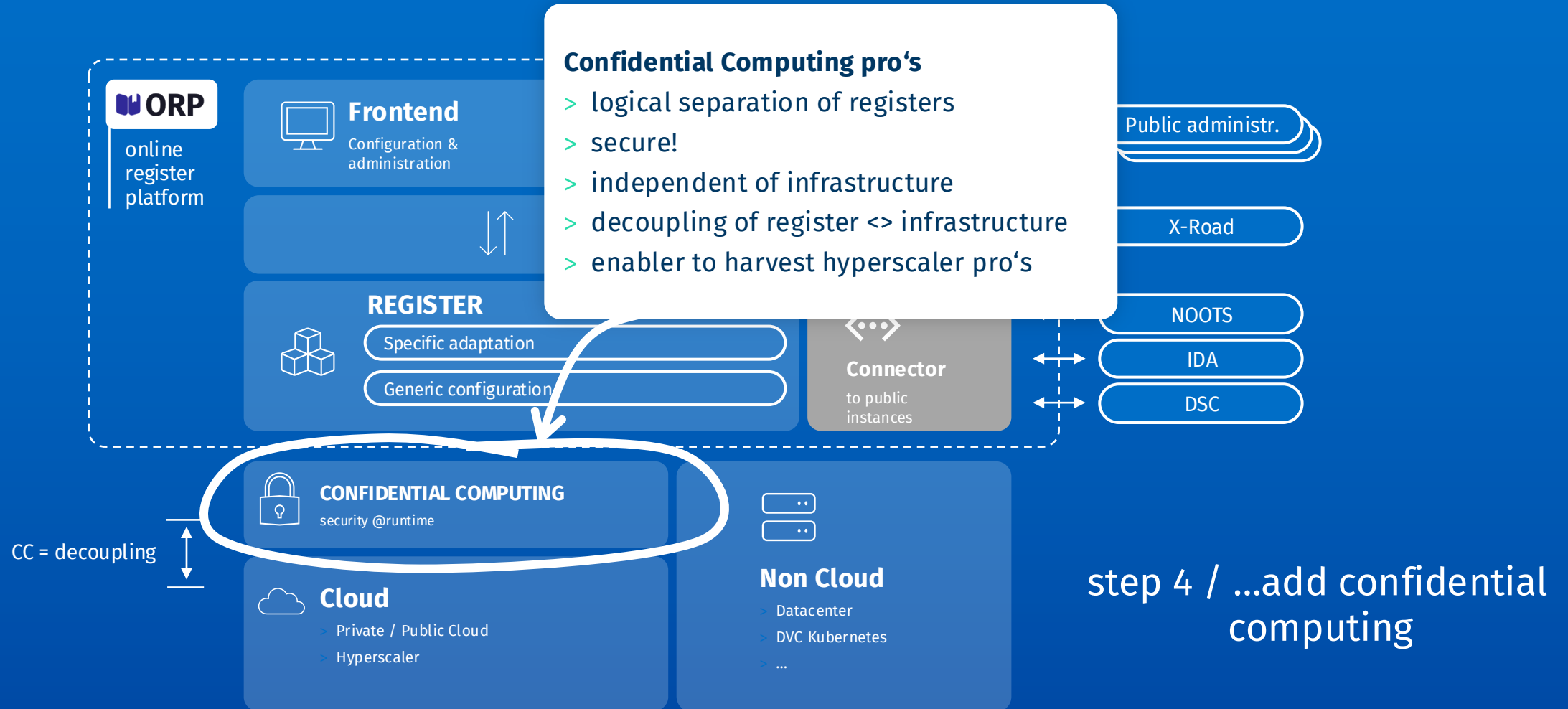


step 3 / ...add an infrastructure

# Architecture is the foundation / modular approach



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# What we get – degrees of freedom (dof)



dof1 / flexibility: infrastructure



dof2 / possibility: data harmonization



dof3 / decoupling: administrative task <> data storage

”

*...it's not just theory  
– it has been  
approved in praxis!*

adesso