

AD10: Integrating Isolated Clinical Trial Systems with RESTful APIs

Enhancing Data Accessibility and Collaboration

PHUSE EU Connect 2023

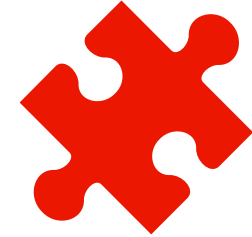
Introduction



Clinical trials are pivotal in medical research.

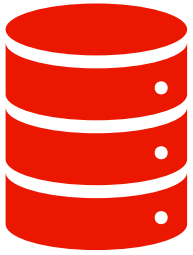


Isolated clinical trial systems pose data access and collaboration challenges.



We explore how RESTful APIs address these issues.

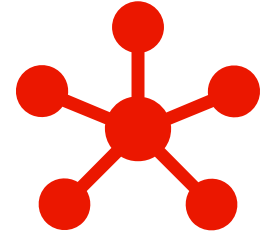
Exploring Integration Challenges and Benefits



Database Access and
Learning New Technology



Abstraction of Backend
Details



Scalability and
Interoperability

Components of REST APIs



Endpoint
URL



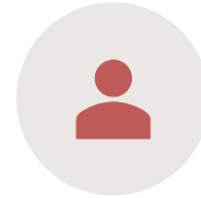
HTTP
methods
(GET, POST,
PUT,
DELETE)



Authenticati
on



Headers



Request
payload



Query
parameters

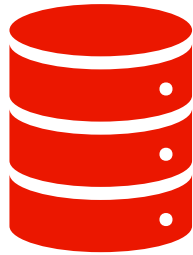


Response



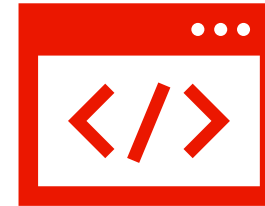
Status codes

Use Case 1 - SCE and MDR Integration (1 of 2)



Problem: Data transfer between Statistical Computing Environment (SCE) and Metadata Repository (MDR).

While metadata is defined in MDR there is a constant need to access it in SCE and user needs to download from MDR and upload in SCE manually.



Solution: Leveraging RESTful APIs.

Methods GET

Endpoint URL: /ui/api/mdr/adam/adamig-1-3

Headers

"accept"="application/vnd.openxmlformats-officedocument.spreadsheetml.sheet"

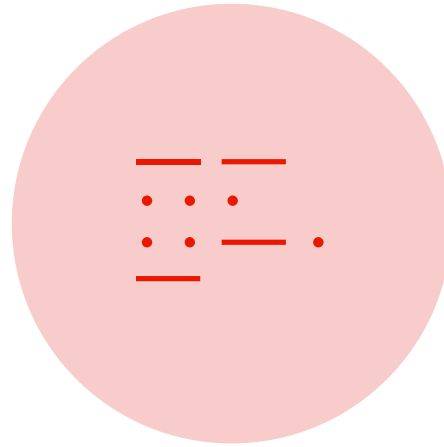
Headers "authorization"="Bearer QifQ.MjczfQ.MZ--

VTIambgpT06tSJ0lq16jtbT-t4ZLXCA temporary.token "

Implementation in Statistical Computing Environment (2 of 2)



Find end point and methods in
developer tools

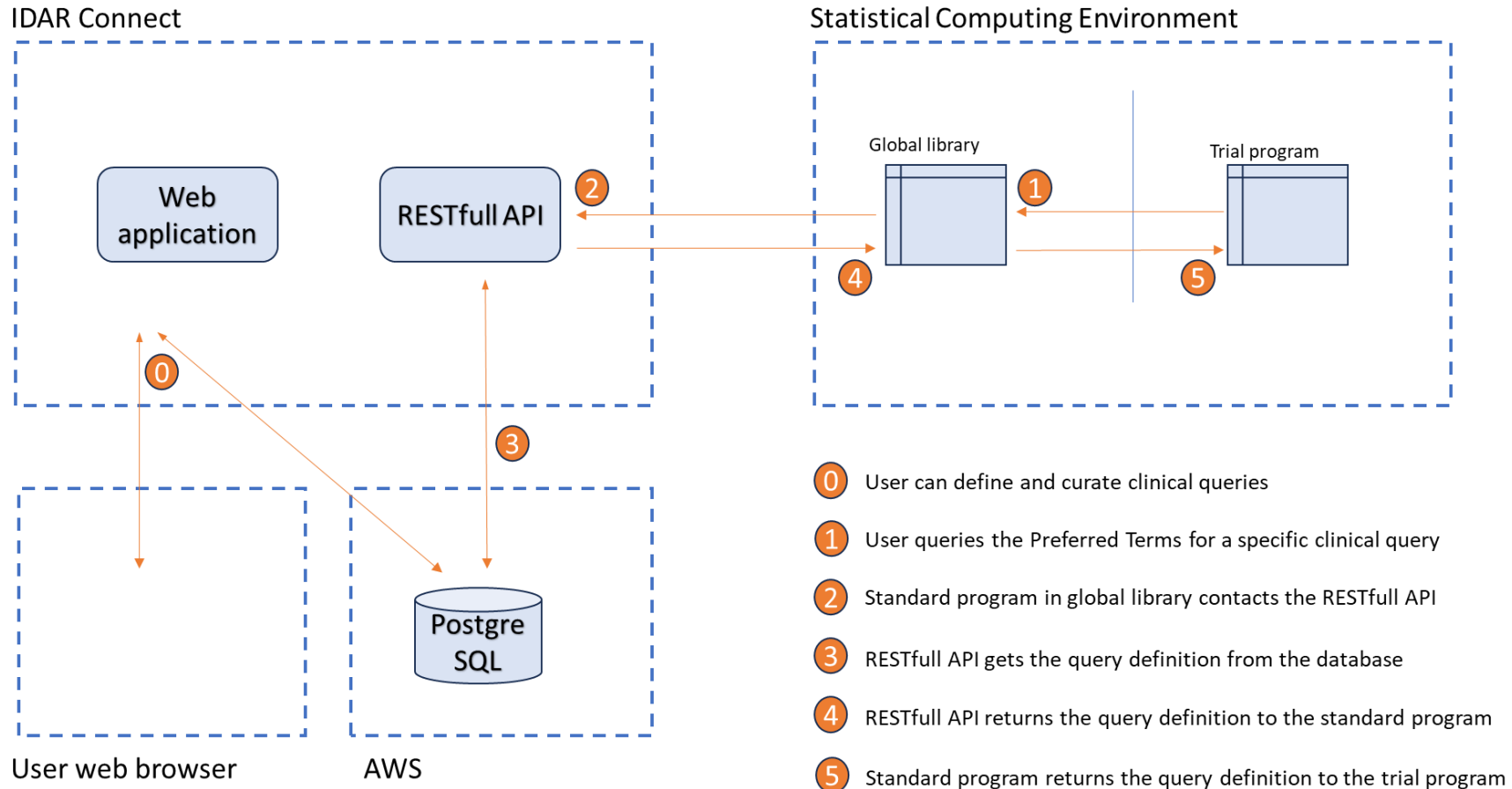


Copy request headers and convert
to programming language of choice



Retrieve excel response

Use Case 2 – RSConnect platform and SCE



Conclusion - Transforming Clinical Research

01

Accelerating
timelines

02

Enhancing
productivity

03

Fostering
collaboration

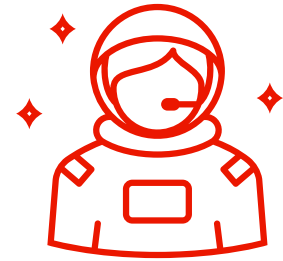
Final Thoughts



Significance of RESTful
APIs in clinical research



Considerations for using
RESTful APIs



Exploring Other
Alternatives

Thank you