



Tech introduction

About DOIs

Digital Object Identifiers



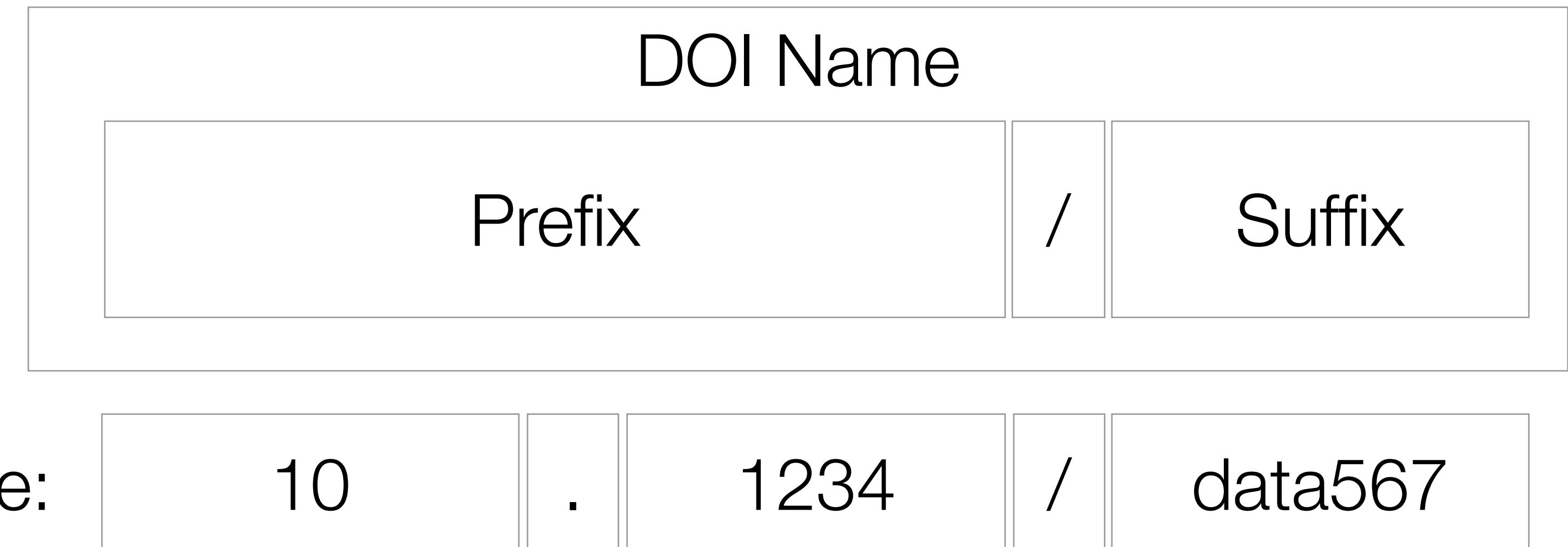
DOI: Digital Object Identifier

- A DOI is a serial code used to **uniquely identify** content of various types of entities. The DOI system is particularly used for electronic documents such as journal articles or datasets.
- What is digital is the identifier, not the object!



DOI Names

- Prefixes are assigned to different services. Each one of them manages the ‘suffix’ namespace freely.



URL

- The DOI name points to a URL, and it can be repointed as many times as needed.
- This URL can be the object itself or a landing page displaying metadata and how to access the object.



Metadata

- A metadata schema is a list of core metadata properties chosen for the accurate and consistent identification of a resource.

Mandatory	Recommended	Optional
Identifier	Subject	Language
Creator	Contributor	Alternate ID
Title	Date	Size
Publisher	Related identifier	Format
Publication year	Description	Version
Resource Type	GeoLocation	Rights

<https://schema.datacite.org>

Current version 4.0
XML examples available

Cool DOIs

- DataCite's display guidelines: DOIs should be displayed as HTTPS URLs
 - <https://doi.org/DOI name>
- Designing your suffix:
 - Human readable
 - Avoid semantic information
 - Make them easy to generate

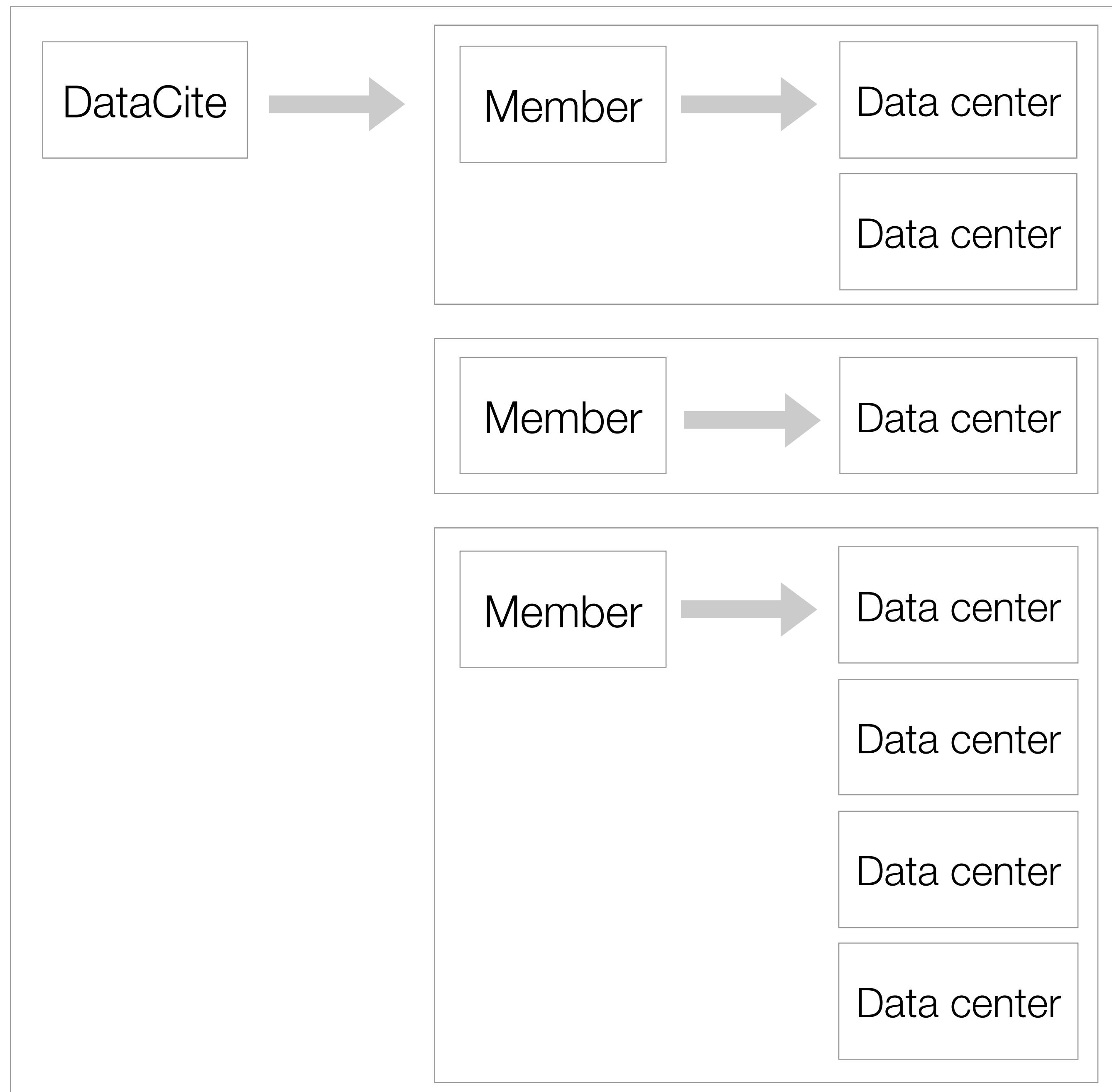


About the service



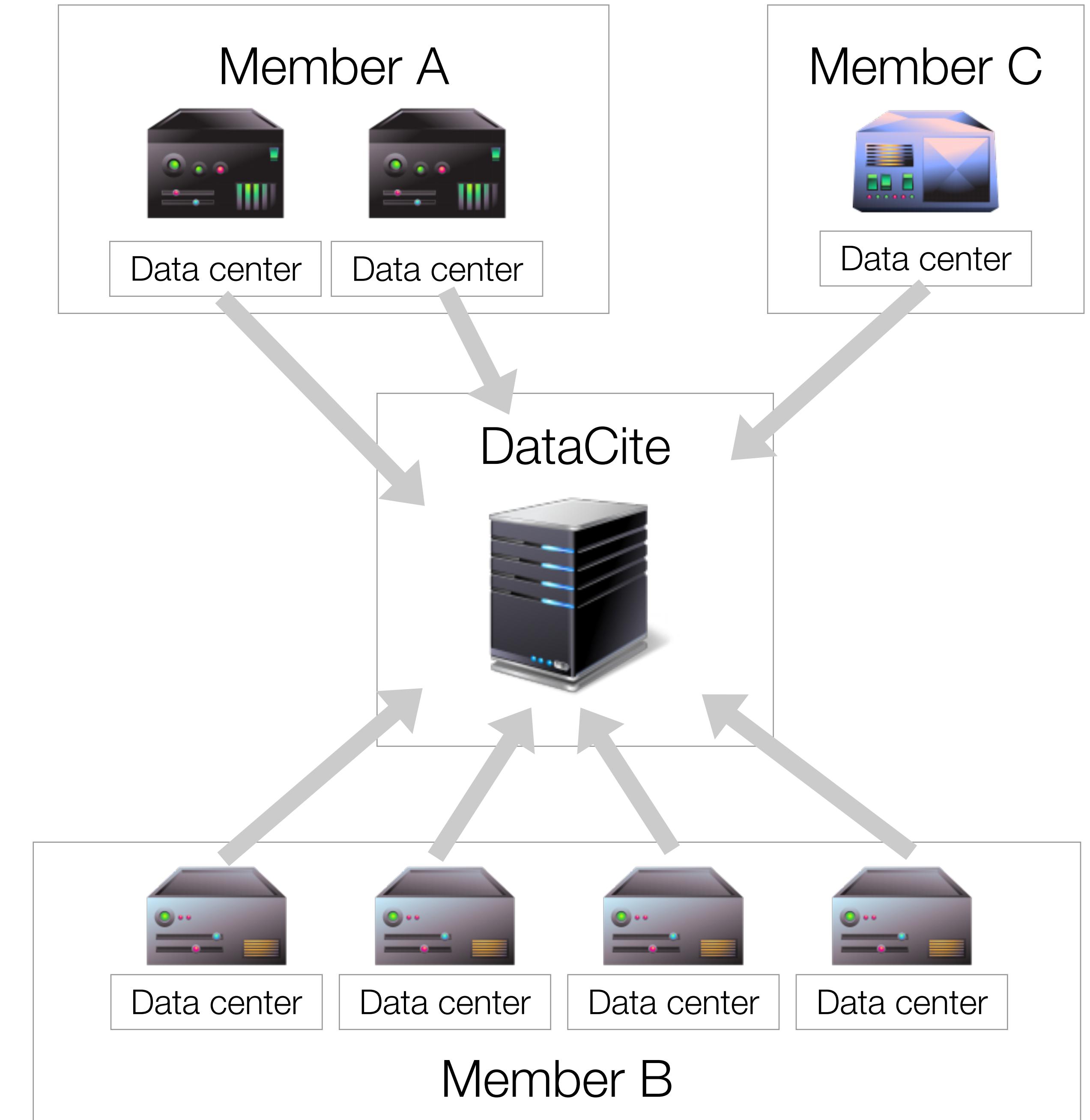
Service agreements

- DataCite serves its members
- Two types of members:
 - Allocating
 - Non-allocating
- Each member serves its affiliated data centers
 - With different business models



Technical infrastructure

- DataCite serves all the data centers using a centralized infrastructure
- Same end-point for all of them
- Becoming a member does not require to set up any technical infrastructure



About the MDS

MetaData Store



The MetaData Store

- The DataCite Metadata Store is a service for data publishers to mint DOIs and register associated metadata.
- Two ways to use it:
 - Web interface - <https://mds.datacite.org>
 - API - <https://mds.datacite.org/static/apidoc>

Web interface

- “Single” or manual operations.

Members

Datacentre

[Create new Datacentre](#)

[List all Datacentres](#)

[Find by Symbol](#)

[Find by Name](#)

Dataset

[Register new Dataset](#)

[List all Datasets](#)

[Find by DOI](#)

View

[API documentation](#)

Datacentres

Dataset

[Register new Dataset](#)

[List all Datasets](#)

[Find by DOI](#)

View

[API documentation](#)

Example: mint a DOI

▼ Register new Dataset

DOI latency: Be aware that it can take up to 24 hours until a DOI update is globally known. New DOIs should be resolvable after about 5 minutes.

For testing purposes please only use our dedicated test prefix 10.5072

DOI:	<input type="text"/>	Name
Url:	<input type="text"/>	URL
XML upload:	<input type="button" value="Choose File"/> No file chosen	Metadata
Please select an XML file. It must reference a schema located under the following base URL: http://schema.datacite.org/meta/		
XML:	<input type="text"/>	
SAVE		

- RESTful API.
- HTTPS with basic authentication.
- Example, first upload the metadata, then mint the DOI:

```
curl -u USER.NAME  
      -H "Content-Type: application/xml"  
      --data-binary @metadata.xml  
      https://mds.datacite.org/metadata
```

200 OK

```
curl -u USER.NAME  
      -d "url=http://page1.com"  
      -d "doi=10.1234/dataset567"  
      https://mds.datacite.org/doi
```

200 OK

Sandbox

- DataCite provides a test environment for developers.
- The endpoint is <https://test.datacite.org> and the resolver is <http://dx.test.datacite.org>
- A test prefix exists for all data centres 10. 5072

Distributed System

- The Handle system (the technical infrastructure of DOIs) is distributed.
- Newly minted DOIs should be resolvable in less than 5 minutes (normally no more than 1 minute).
- Updates to DOIs (URL/metadata) can take up to 24h before being distributed through the whole network.

Services around DOIs



Integrated search

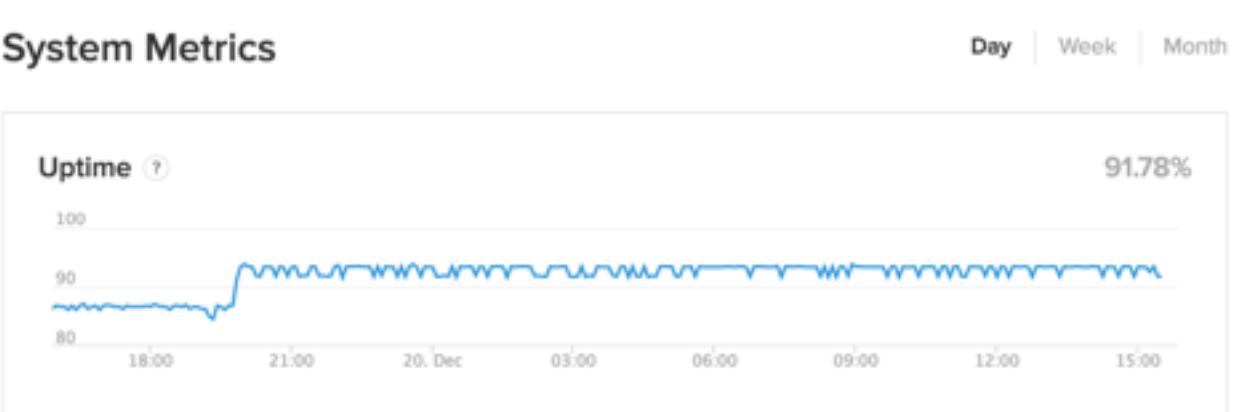
Search for work Search

3,545 Works

Characterization of the role of MrpC in *Myxococcus xanthus* developmental cell fate determination
Vidhi Bhardwaj
Doctoral thesis published 2013 via Philipps-Universität Marburg
Myxococcus xanthus is an excellent model system for multicellular prokaryotic behaviour and Gram-negative differentiation. Under nutrient-limited conditions, the population enters a complex multicellular developmental program wherein cells undergo at least three distinct known cell fates: sporulation within multicellular fruiting bodies; differentiation into persister-like state termed peripheral rods and cell lysis. A fourth distinct, relatively less understood cell type, called the cell clusters is also thought to exist. This starvation-induced developmental program is tightly regulated by...

<https://doi.org/10.17192/Z2013.0387> 66 Cite Add to ORCID record

Service status



Statistics

Allocator	DOI Registrations					Metadata			
	Total	This Year	Last 30 Days	Last 7 Days	Searchable	Held	Mixed	Ratio	
ANOD - Australian National Data Service	148 331	156 432	4 367	1 168	167 032	293	908	99%	
BIBSYS - Bibsys	384	334	227	3	362	2	0	100%	
BL - The British Library	947 238	91 209	9 037	1 940	960 217	4 967	122	99%	
CDL - California Digital Library	2 259 439	154 541	11 794	6 085	1 807 982	652 057	0	99%	
CERN - CERN - European Organization for Nuclear Research	383 292	311 014	43 840	11 274	349 767	3 539	0	100%	
CSN - National Research Council Canada	239 732	152 700	591	40	236 729	3 962	18	99%	
CRU - CRU0011	55 313	10 462	1 968	652	52 112	34	3 127	94%	
CSC - CSC	7 189	7 189	4	0	7 179	10	0	100%	
DATAcite - DataCite	109	93	60	60	108	0	0	100%	
DEUFF - TU Delft Library	54 295	8 482	529	68	53 895	35	306	99%	
DK - Technical Information Center of Denmark	245 652	136 391	11 484	2 278	245 967	64	1	99%	
ESTDOK - Tartu University	490 150	2 452	28	1	490 148	2	0	100%	
ETHZ - ETH Zurich	1 184 874	125 254	1 104	830	1 181 332	1	3 241	99%	
FIKOBIAKE - Agriphile	524 847	332 237	72 833	48 094	524 832	15	0	100%	
GESIS - GESIS - Leibniz Institute for the Social Sciences	918 450	90 491	23 105	5 912	918 220	430	0	100%	
INIST - Institute for Scientific and Technical Information	18 790	8 911	829	113	18 418	182	0	100%	
JALC - Japan Link Center	29	19	0	0	29	0	0	100%	
MTAKR - MTA Környéki	2 903	879	144	29	2 905	0	0	100%	
NRCT - National Research Council of Thailand	83 148	31 305	2 835	474	82 795	363	0	100%	

DOI Citation Formatter

Paste your DOI:

For example 10.1145/2783446.2783605

Select Formatting Style:

Begin typing (e.g. Chicago or IEEE.) or use the drop down menu.

re3data

re3data.org

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Filter

Subjects Content Types
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Configuration data (8)
Datasets (1)
Images (1)
Network-based data (4)
Plain text (16)
Raw data (3)
Scientific and statistical data formats (9)
Software applications (25)

Sort by

← Previous 1 2 Next →

Found 39 result(s)

Compendium of Protein Lysine Modifications

Subject(s) Life Sciences Biology Cell Biology General Genetics Plant Genetics Animal Genetics, Cell and Developmental Biology

OAI-PMH

OAI 2.0 Request Results

[Identity](#) | [ListRecords](#) | [ListSets](#) | [ListMetadataFormats](#) | [ListIdentifiers](#)

You are viewing an HTML version of the XML OAI response. To see the underlying XML use your web-browsers view source option. More information about this XSLT is at the [bottom of this page](#).

Datestamp of response 2016-12-20T15:00:54Z

Request URL <http://oai.datacite.org/oai>

Request was of type Identify.

Repository Name DataCite MDS

Base URL <http://oai.datacite.org/oai>

Protocol Version 2.0

Earliest Datestamp 2011-01-01T00:00:00Z

Deleted Record Policy persistent

Granularity YYYY-MM-DDThh:mm:ssZ

Admin Email admin@datacite.org

Questions?

support@datacite.org

References

- DOI Handbook:
<https://doi.org/10.1000/182>
- DataCite Metadata Schema Documentation:
<https://doi.org/10.5438/0012>
- DataCite Metadata XML Schema:
<https://doi.org/10.5438/0013>