

Opensource implementations

Eclipse Dataspace Components (EDC) & Dataspace Protocol implementation

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Eclipse Dataspace Components (EDC)



"A comprehensive framework for building dataspaces"



Open Source

started in June 2021 – Eclipse Incubation project – Apache 2.0 License



Community

long-term committers – active contributors – 20+ adoption projects - > 3500 issues and PR



Technology

based on Java – **modular** architecture



Architecture principles

decentralized - scalable – extensible



Current State

mandatory DS components – releases on mvn-central – samples available – growing community

EDC – Component overview



DataSpaceConnector (Core)

Contract negotiation, data transfer, authentication protocols, monitor



DataDashboard

User Interface for each participant



FederatedCatalog

prototype implementation of a Federated catalog



RegistrationService

Central Dataspace Authority



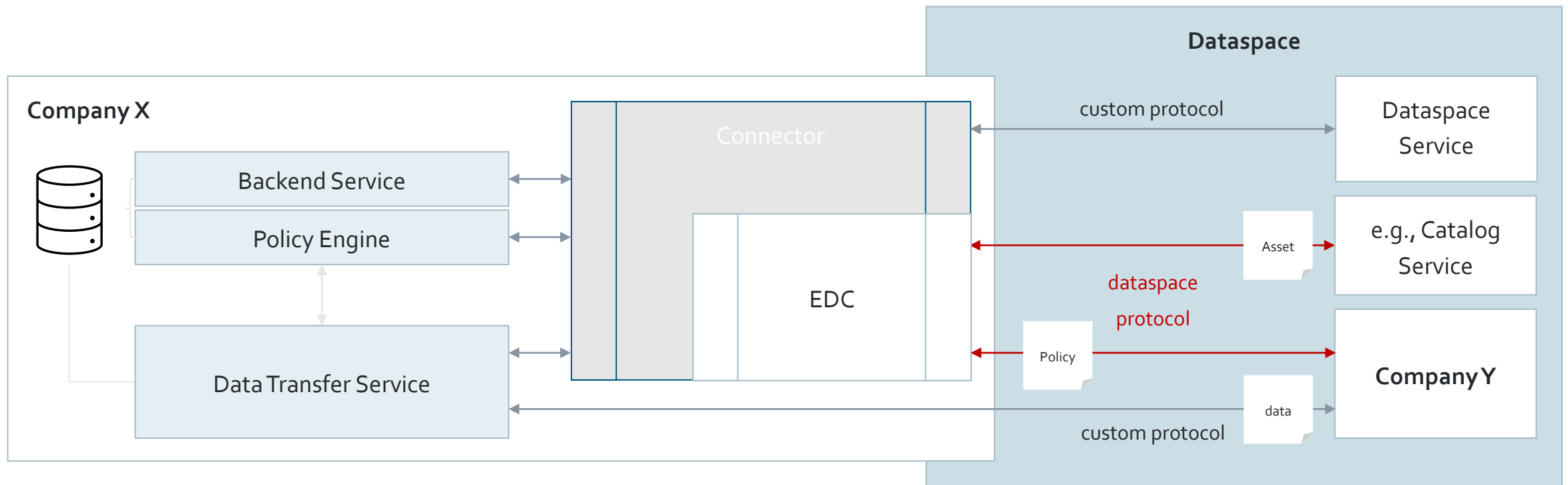
IdentityHub

W3c complained prototype implementation of a DID: web identity provider



<https://github.com/eclipse-edc>

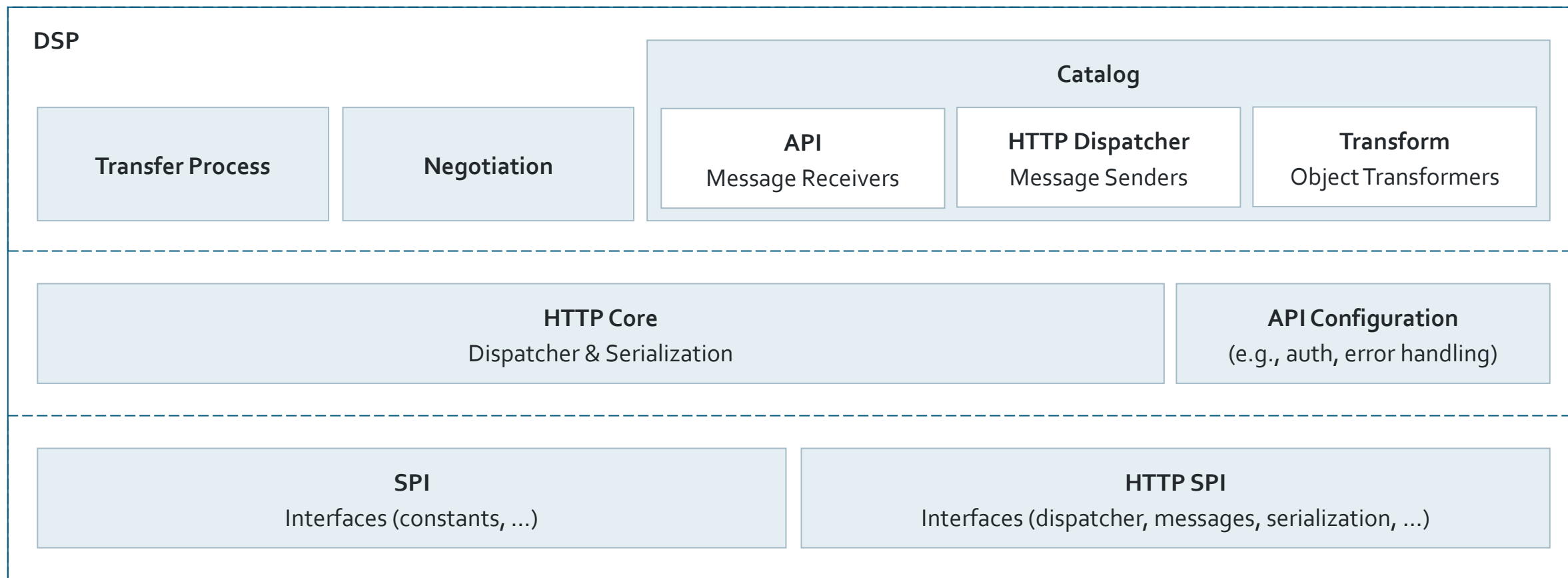
DSP Adoption with the EDC



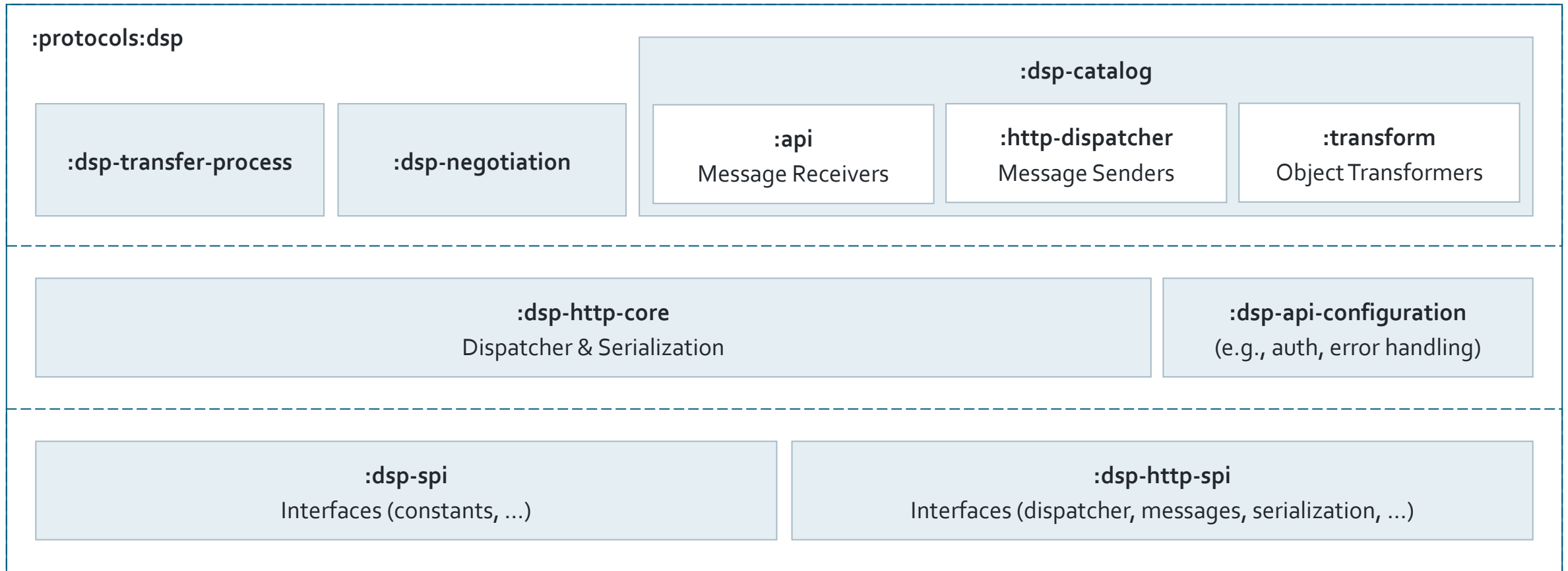
EDC Implementation of the DSP

- Implementation of the DSP Https binding
- Implementation as independent module(s)
- Minimal dependencies
- Registration of API endpoints via EDC's Web Service
- Registration of message dispatchers via EDC's Dispatcher Registry
- Registration of transformers via EDC's Type Transformer Registry
- Support of JSON-LD format also at EDC's Management API

DSP Modules



DSP Modules



Supported DSP Messages

Messages	Sender	Receiver	Comment
Catalog Request Message	x	x	
Dataset Request Message	x	x	
Transfer Request Message	x	x	
Transfer Start Message	x	x	
Transfer Suspension Message	-	-	
Transfer Completion Message	x	x	
Transfer Termination Message	x	x	
Contract Request Message	x	x	
Contract Offer Message	(x)	(x)	not as initial message by provider
Contract Agreement Message	x	x	no signatures yet
Contract Agreement Verification Message	x	x	no signatures yet
Contract Negotiation Event Message	x	x	
Contract Negotiation Termination Message	x	x	

Thank you!

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