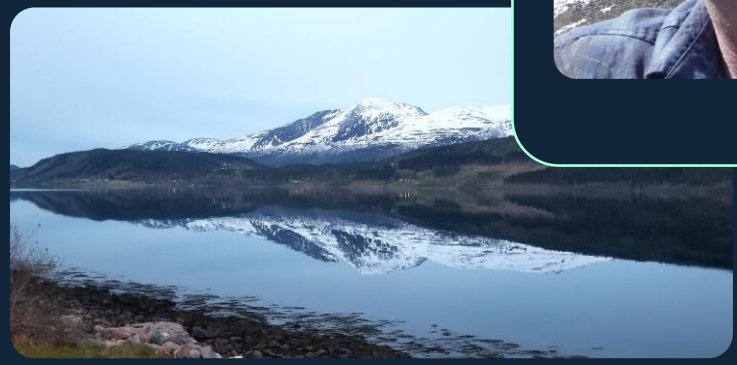
My Journey

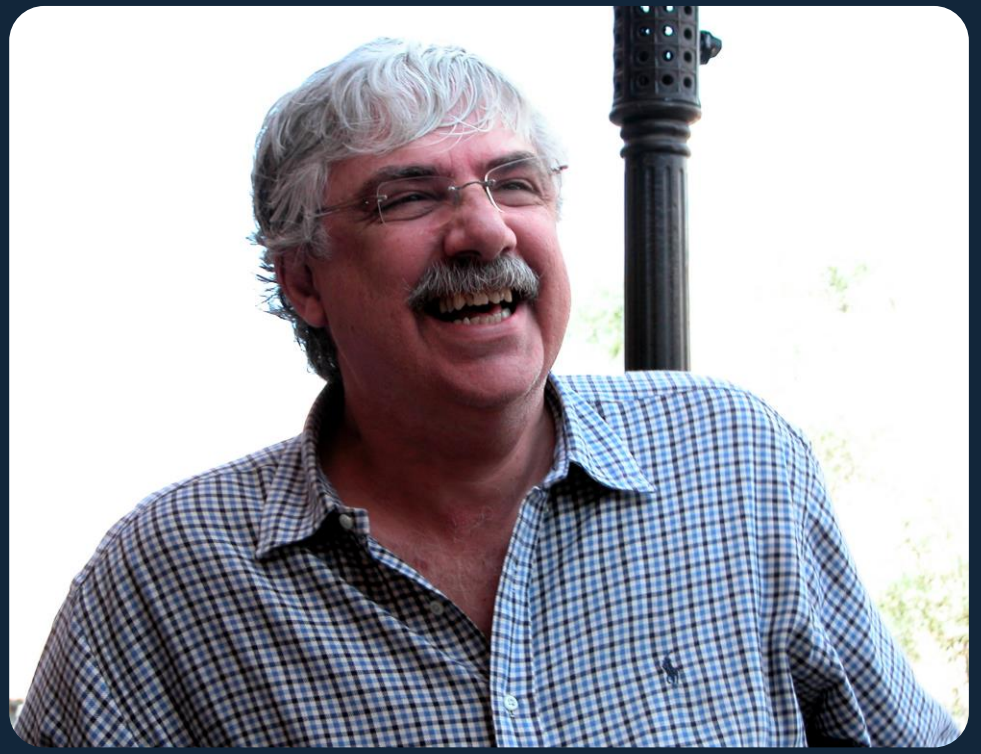
Dr. Michael B. Jones

Touchstones from my Identity Journey



Building the Internet's Missing Identity Layer

2005



Kim Cameron

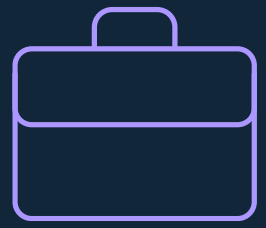
It's all about the people

2005

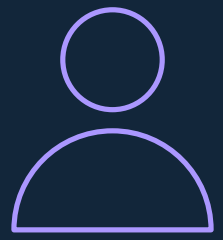
Building relationships

Success requires seeing the big picture

Cryptography



Business models

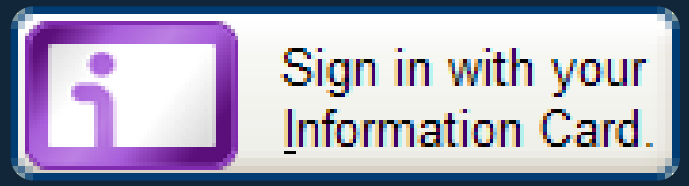


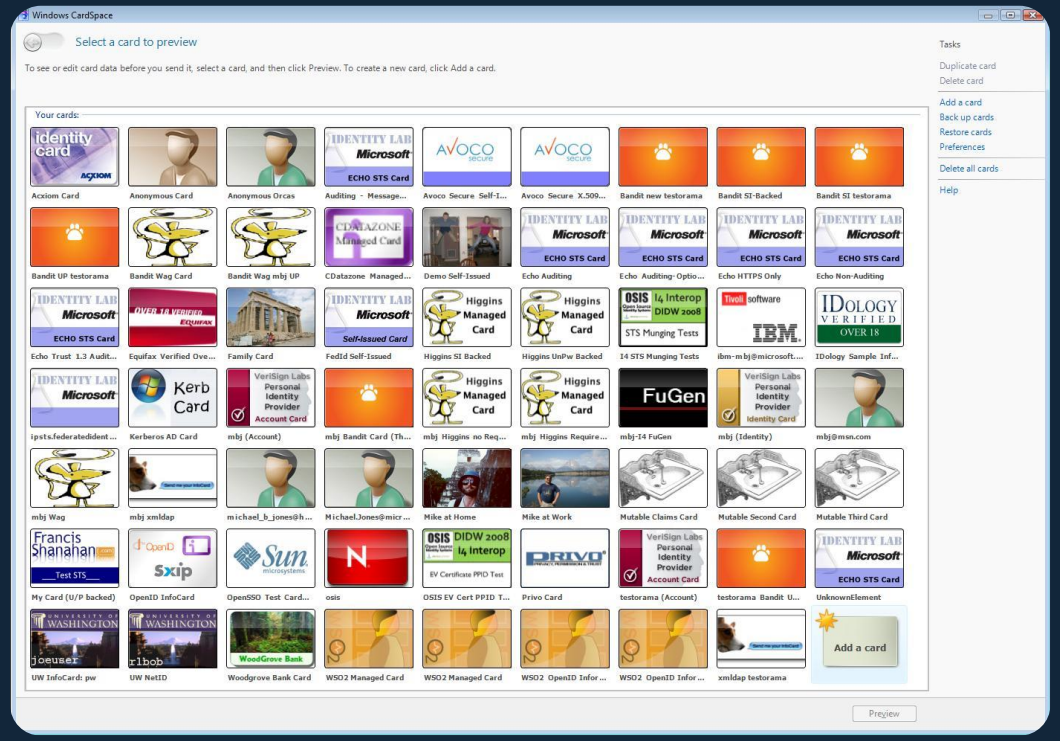
Usability

Privacy

2005-2011 Information Cards

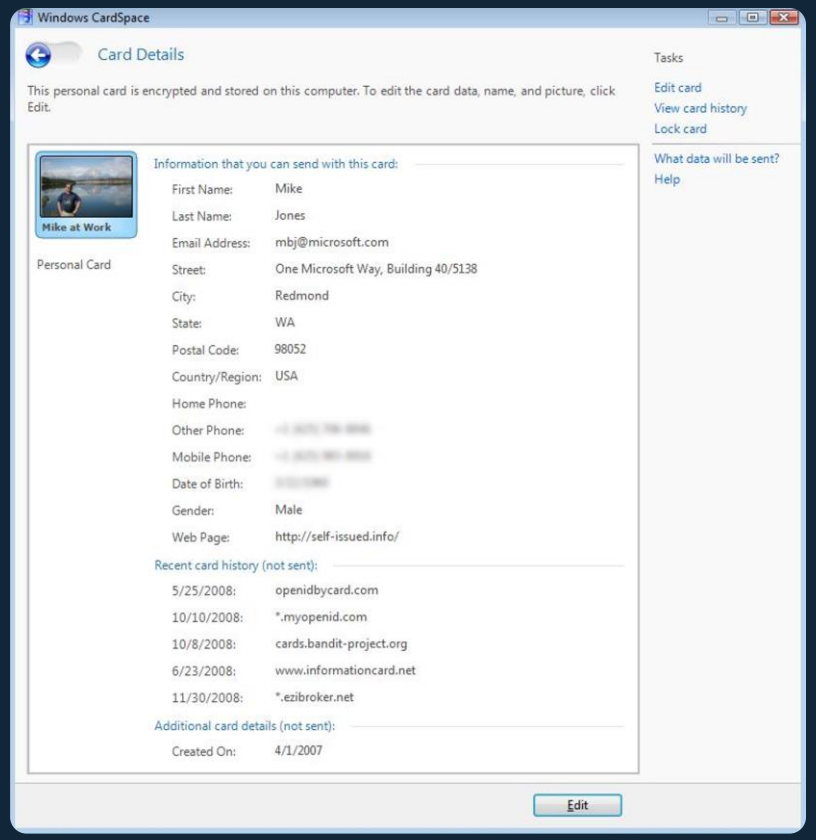
Information Card Logo



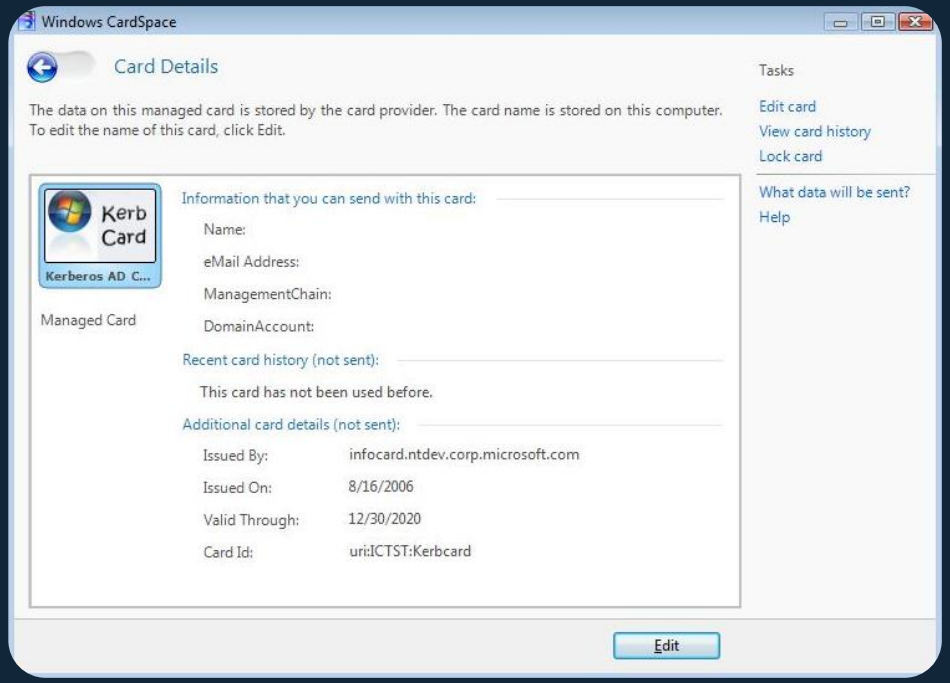


My wallet of cards

Actual Information Cards

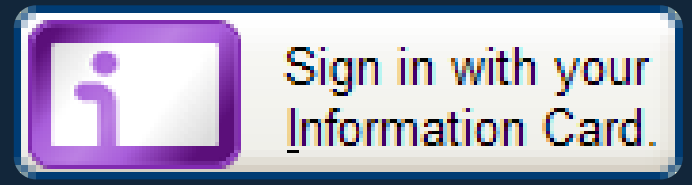


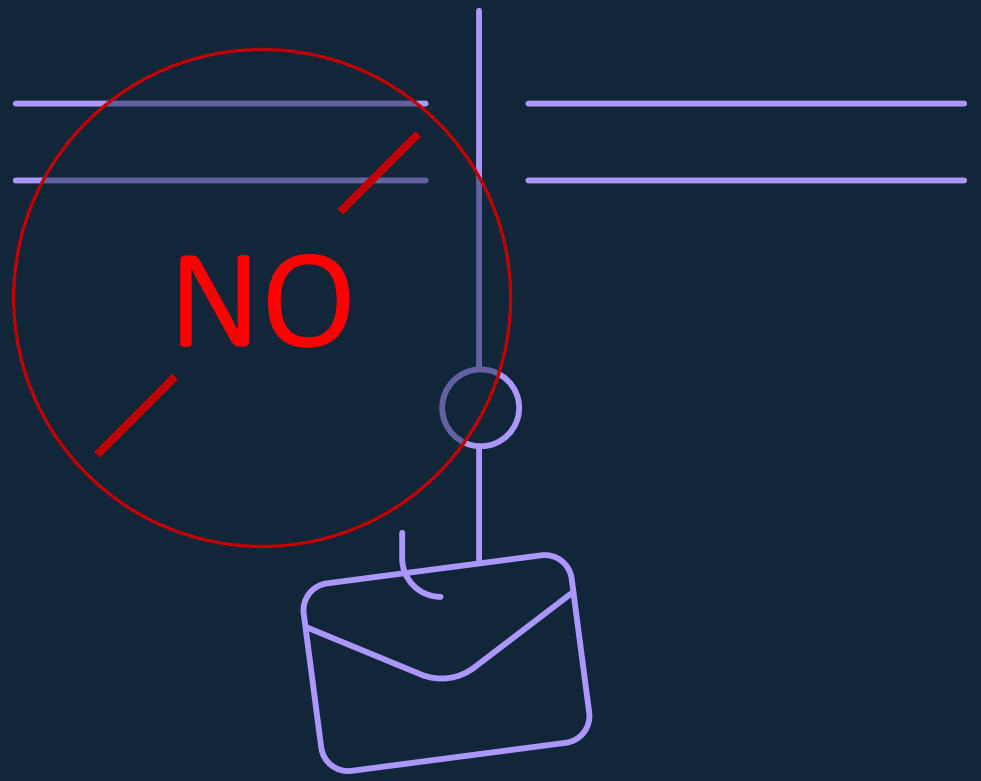
Self-Issued Card



Managed Card

Phishing-Resistant Authentication





Huge Industry Investment

2007 Catalyst Interop

2008 RSA Interop

Information Cards wins "Best New Standard" EIC award 2009

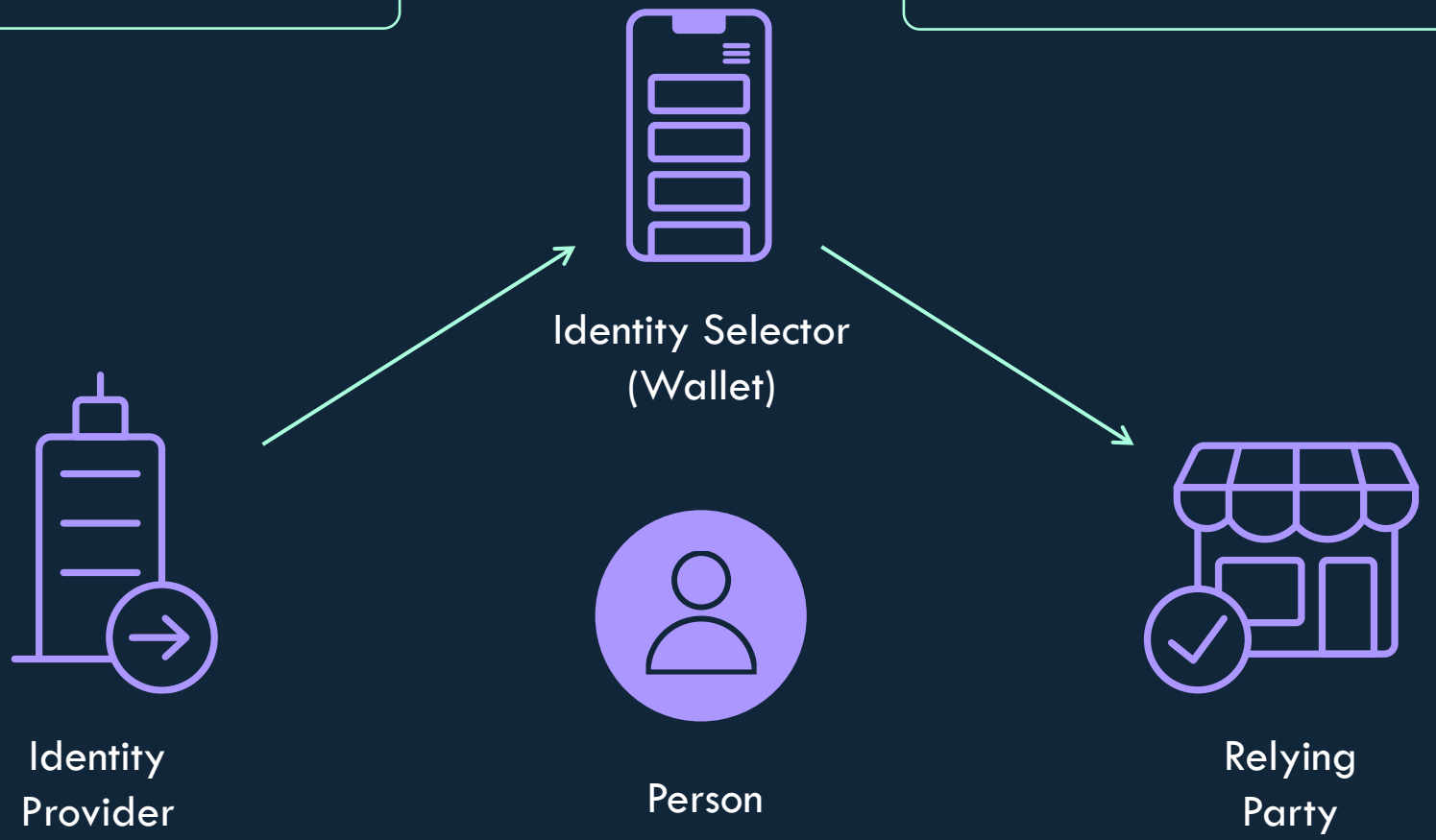
Huge Personal Investment

2009

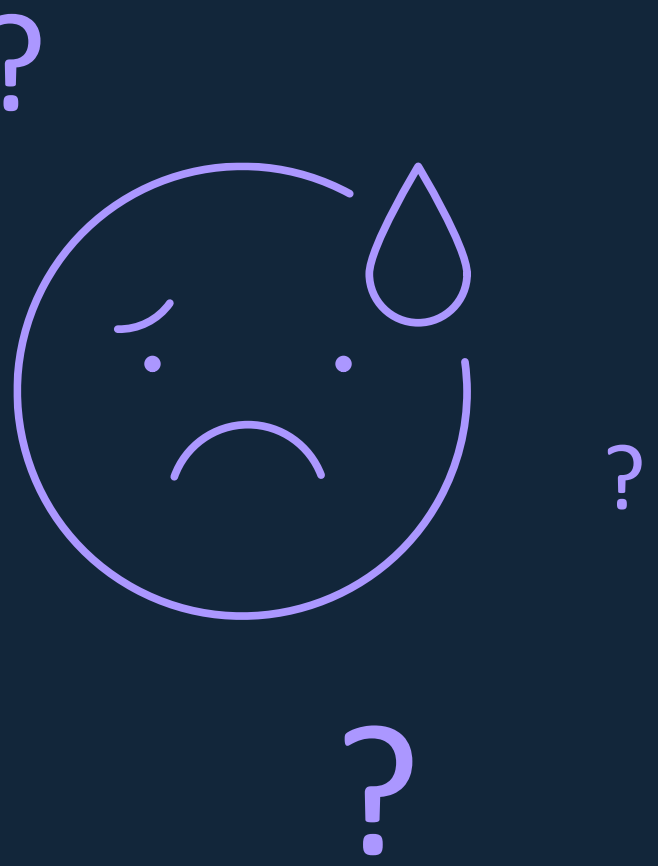
Coral Information Card Logo in Hawaii

Building ecosystems is hard

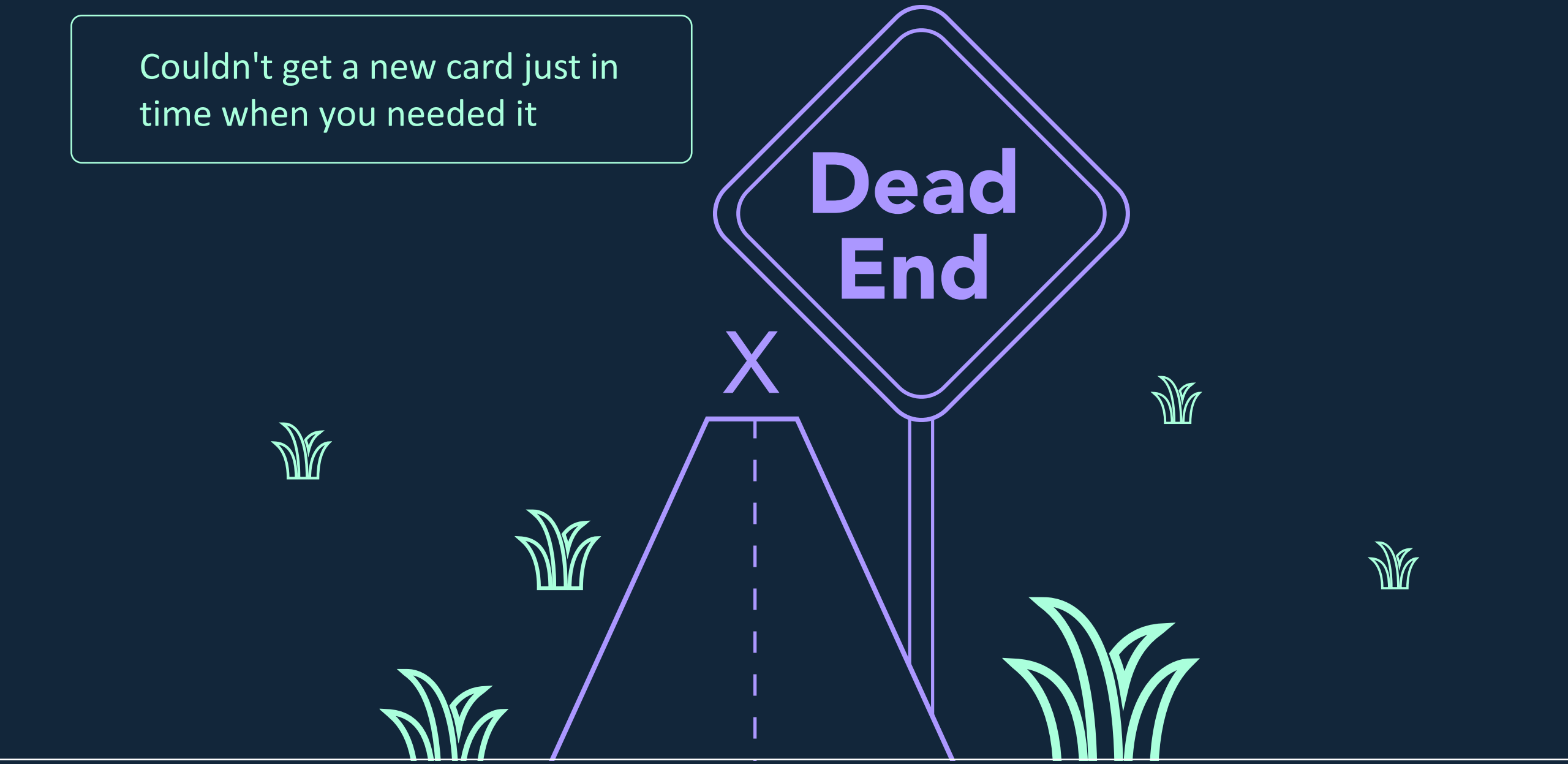
Everyone must have incentives to participate



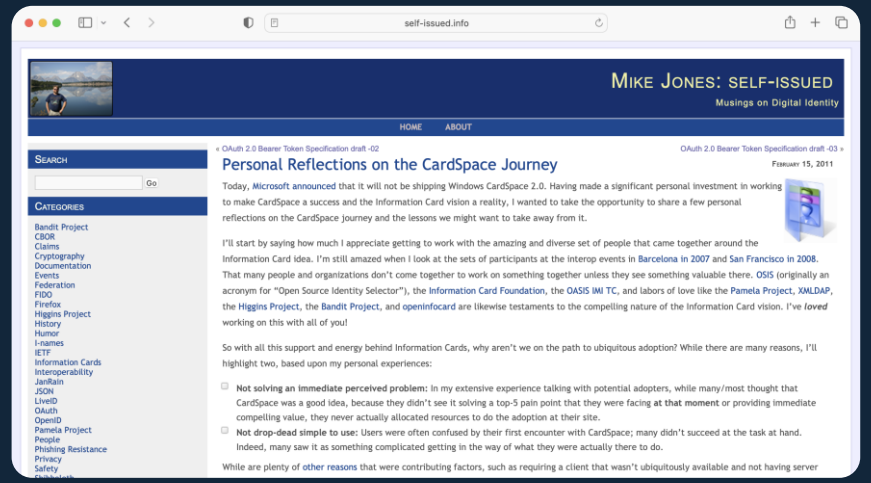
Usability is Everything



Couldn't get a new card just in time when you needed it



2011 The End of Windows CardSpace



As I blogged in 2011

- Not solving an immediate perceived problem
- Not drop-dead simple to use

Windows CardSpace

STOP

Yet the ideas and the relationships formed live on!

2005

OpenID 2.0 and the Internet Identity Workshop (IIW)

OpenID 2.0 started at first IIW

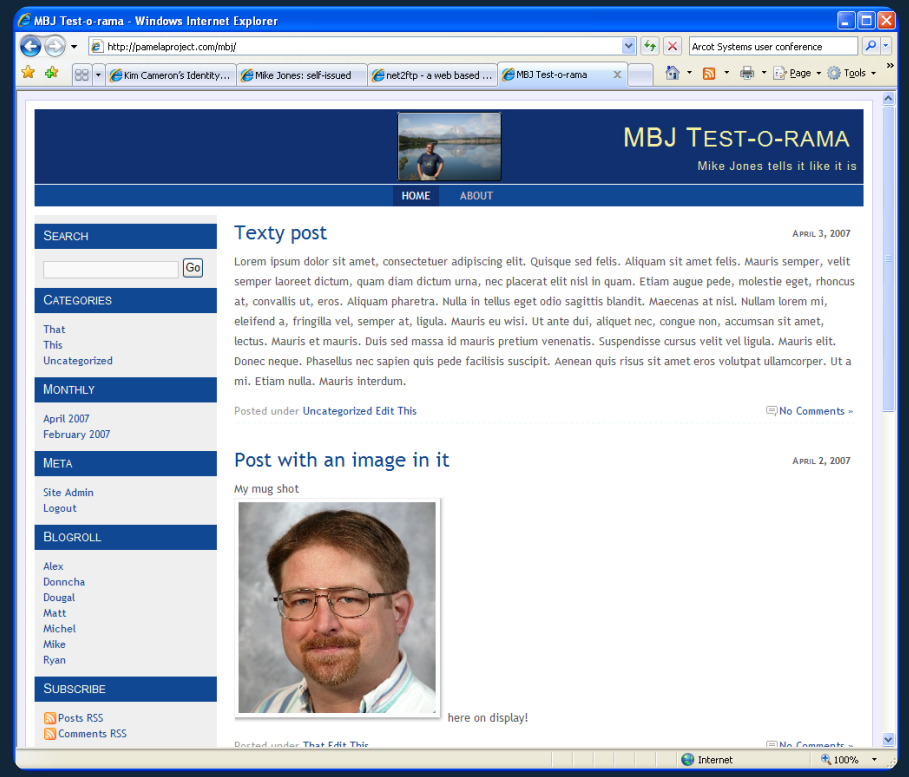
OpenID

IIW

2007

Identity by and for Bloggers

OpenID 2.0 identifiers were URLs like
`https://self-issued.info/`



2007

OpenID Foundation

Protects IPR of its specifications so anyone can use them

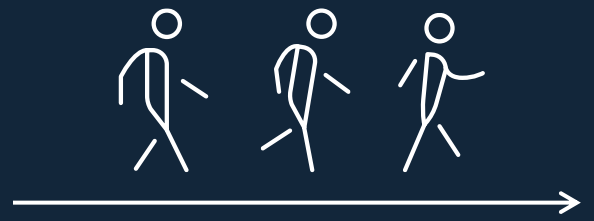
First ED
Bill Washburn

Some of the founders at IIW

2011

Developers Voting with their Feet

"XML/SOAP"



"JSON/REST"

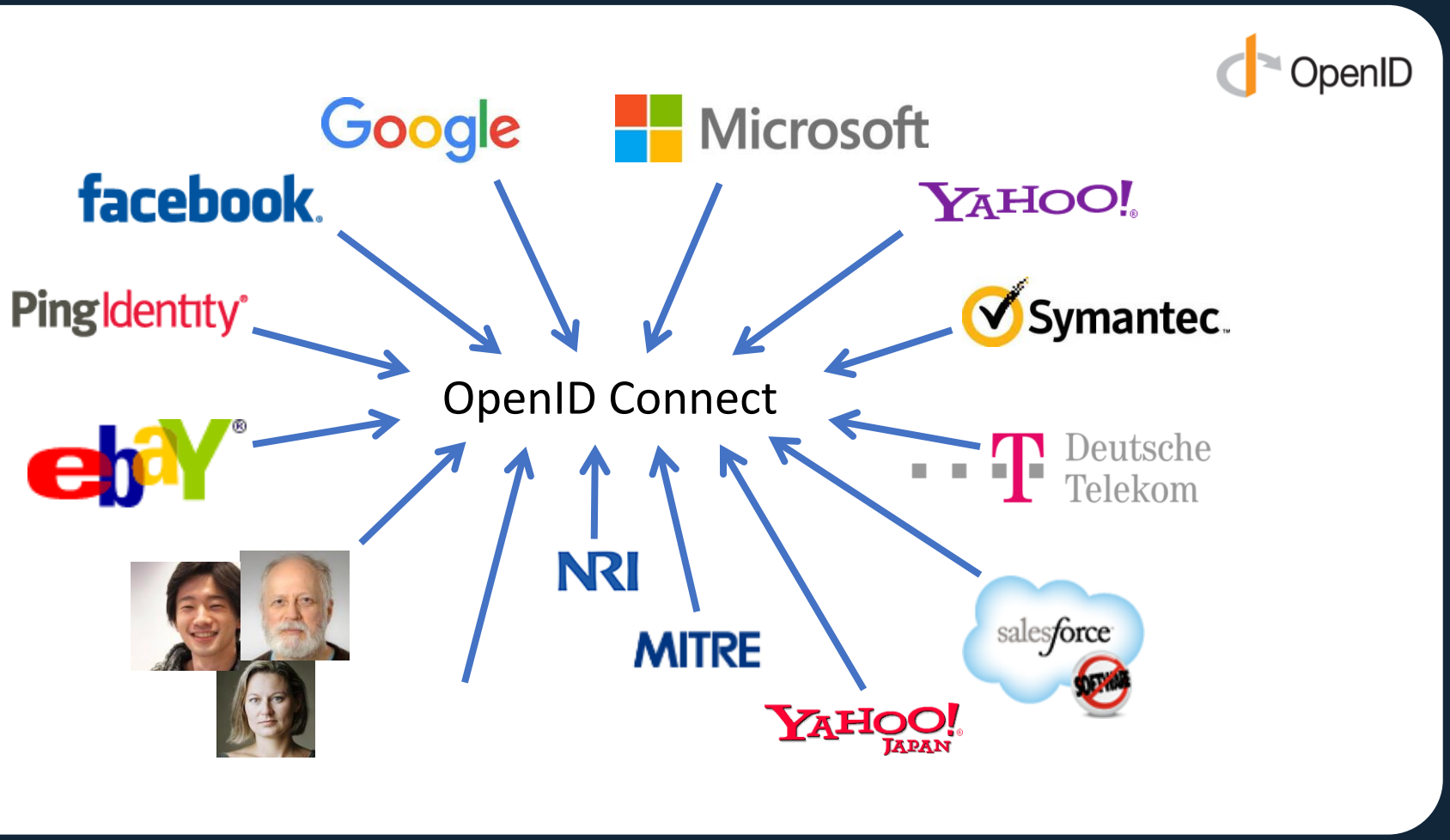
2011-2014 OpenID Connect (and IIW again)

OpenID Connect Protocol

Best New Standard Award 2012

Design Decisions at IIW May 2011

Working Together



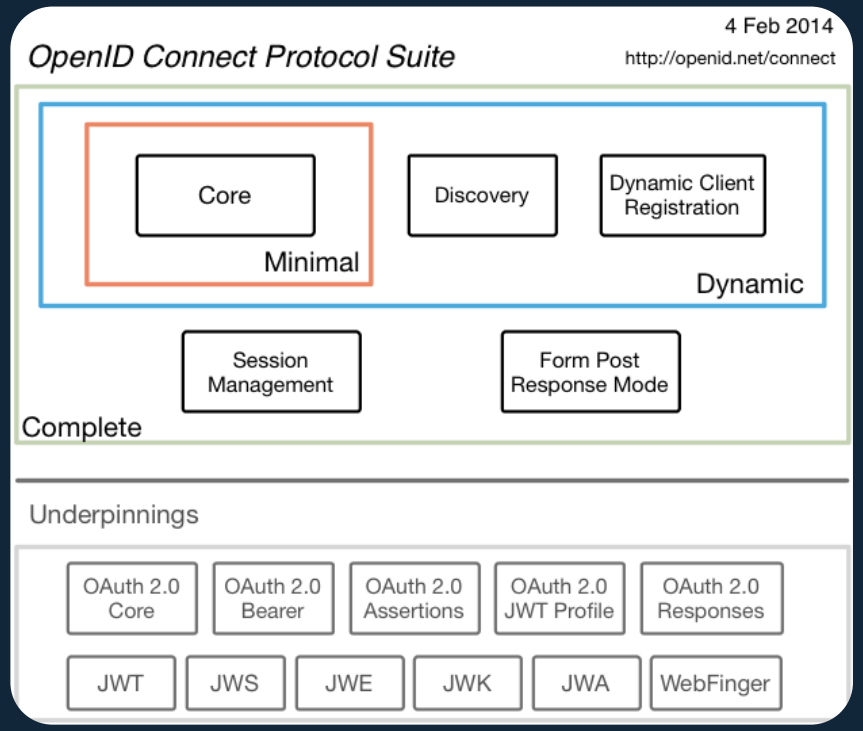
Keeping Simple Things Simple

2010-present

Nov Matake

2014

Focused Specs Working Together As One



OpenID and IETF Specs

2010-present

OAuth 2.0

Best New Standard Award 2013

Chuck, Mike, and John

2010-2015

JSON Web Token (JWT) and JSON Object Signing and Encryption (JOSE)

IETF

OAuth & JOSE

Special Award: Best Innovation for Security

The Importance of Interop Testing (Building Ecosystems is Hard!)

Five Rounds of OpenID Connect Interop Testing

2011-2013

In-Person Testing

OSIS
Open Source Identity Systems
identitycommons

Interop Org

2015-present OpenID Certification

2018 EIC Award

OpenID CERTIFIED

Certified Relying Parties

These deployments have been granted certifications for these Relying Party conformance profiles:

Organization	Implementation	Basic RP	RP Implicit	Hybrid RP	Config RP	Dynamic RP	Form Post RP	3rd Party-Init RP
Brock Allen	oidc-client-js 1.3		4-Feb-2017		7-Feb-2017			
Dominick Baier	IdentityModel.OidcClient 2.0	27-Jan-2017			6-Feb-2017			
Damien Bowden	angular-auth-oidc-client 1.0.2		21-Jun-2017		11-Aug-2017			
F5 Networks	BIG-IP 13.1.0 Evergreen	7-Jul-2017						
Thierry Habart	SimpleIdentityServer V1.0.1	17-Jan-2017	17-Jan-2017	17-Jan-2017	17-Jan-2017	17-Jan-2017		
Ilex International	Sign&go 8.0	10-Mar-2020						
Janrain	IDPD 2.6.0	7-Feb-2017						
Roland Hedberg	pyoidc 0.9.4	20-Dec-2016	20-Dec-2016	20-Dec-2016	20-Dec-2016	20-Dec-2016		
Roland Hedberg	oidcrp 0.4.0	16-Apr-2018	16-Apr-2018	16-Apr-2018	16-Apr-2018	16-Apr-2018		
IBM	Open Liberty 18.0.0.4	26-Oct-2018						
IBM	WebSphere Liberty 18.0.0.4	26-Oct-2018						
Tom Jones	TC.AUTHENTICATION 1.0	30-Jun-2017						
Karlsruher Institut für Technologie, SCC	oidcc 1.0.1	2-Feb-2017			2-Feb-2017			
KSIGN	KSign Trust Thing 1.0	2-Jan-2018						
KSIGN	KSign Trust Thing 1.1		3-Oct-2018					
KSIGN	KSign Trust Thing 1.2				10-Oct-2019			
Nomura Research Institute	phpOIDC 2016 Winter	7-Feb-2017	7-Feb-2017	7-Feb-2017	7-Feb-2017	7-Feb-2017		
Nov Matake	openid_connect rubygem v1.0.3	20-Jan-2017						
Ping Identity	PingAccess 4.2.2	26-Jan-2017						
Ping Identity	PingFederate 8.3.1	17-Jan-2017			31-Jan-2017			
Ping Identity	PingFederate 9.2.1	4-Feb-2019			4-Feb-2019		4-Feb-2019	
Filip Skokan	node openid-client ^1.3.0	15-Dec-2016	15-Dec-2016	15-Dec-2016	15-Dec-2016	15-Dec-2016		
Filip Skokan	node openid-client ^2.0.0	12-Apr-2018	12-Apr-2018	12-Apr-2018	12-Apr-2018	12-Apr-2018	29-Jun-2018	
Filip Skokan	node openid-client ^3.0.0	11-May-2019	11-May-2019	11-May-2019	11-May-2019	11-May-2019	11-May-2019	
Manfred Steyer	angular-oauth2-oidc 2.0.5		16-Aug-2017					
ZmartZone IAM	lua-resty-openidc 1.5.1	17-Nov-2017			17-Nov-2017			
ZmartZone IAM	mod_auth_openidc 2.3.1	21-Jul-2017	21-Jul-2017	21-Jul-2017	21-Jul-2017	21-Jul-2017		

Certified OpenID Relying Parties for Logout Profiles

These deployments have been granted certifications for these OpenID Relying Party logout conformance profiles:

Organization	Implementation	RP-Initiated RP	Session RP	Front-Channel RP	Back-Channel RP
Roland Hedberg	OIDCrp v.0.6.6	20-Mar-2020	20-Mar-2020	20-Mar-2020	20-Mar-2020

Certification Listings

2018

Ecosystems Can Be Built!

OpenID Connect succeeded!

Phishing-Resistant Authentication with WebAuthn and FIDO2

Ecosystem Being Built

Passkey Logo

2019 EIC Award

OAuth: The working group that keeps on giving

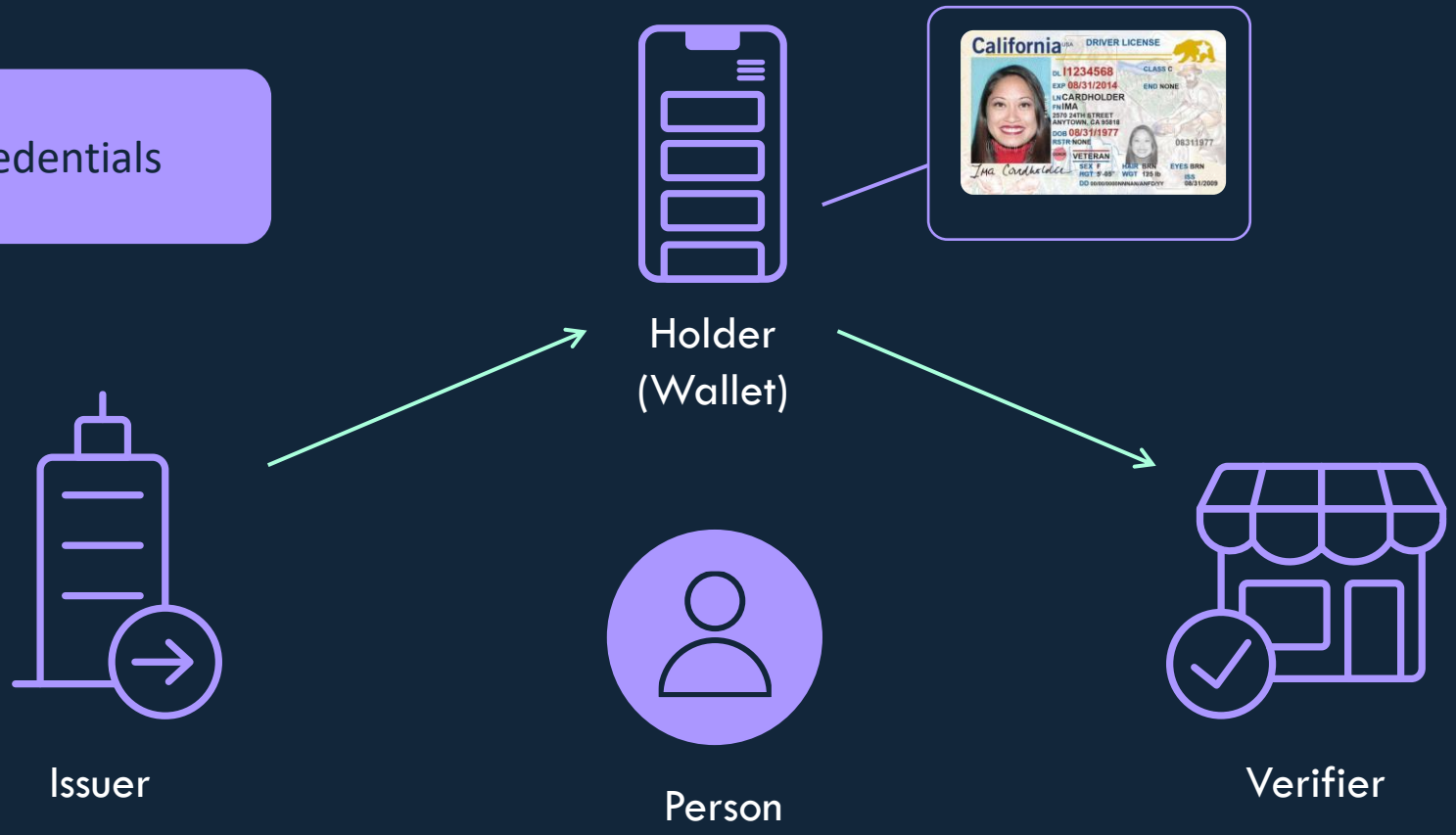
2010-present

DPoP Stuttgart 2019

DPoP Vienna 2022

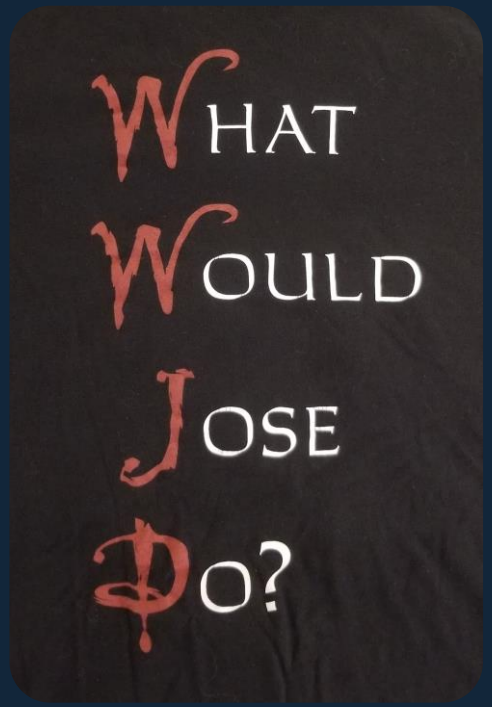
Issuer / Holder / Verifier Model

Verifiable Credentials



Selective Disclosure and Zero Knowledge Proofs (ZKPs)

Minimal Disclosure



CIS 2014

IETF 114 Philadelphia, July 2022

How do you know who to trust?

Deciding requires both identity and compliance

OpenID Federation

Touchstones

OAuth Security Workshop 2019

Touchstones from my Identity Journey

- Solve real problems
- Build things that get used
- Keep simple things simple
- Usability is everything
- It's all about the people

2005-present

... and we're still on the road!

Thank you for sharing this journey with me!

OpenID | MATTR