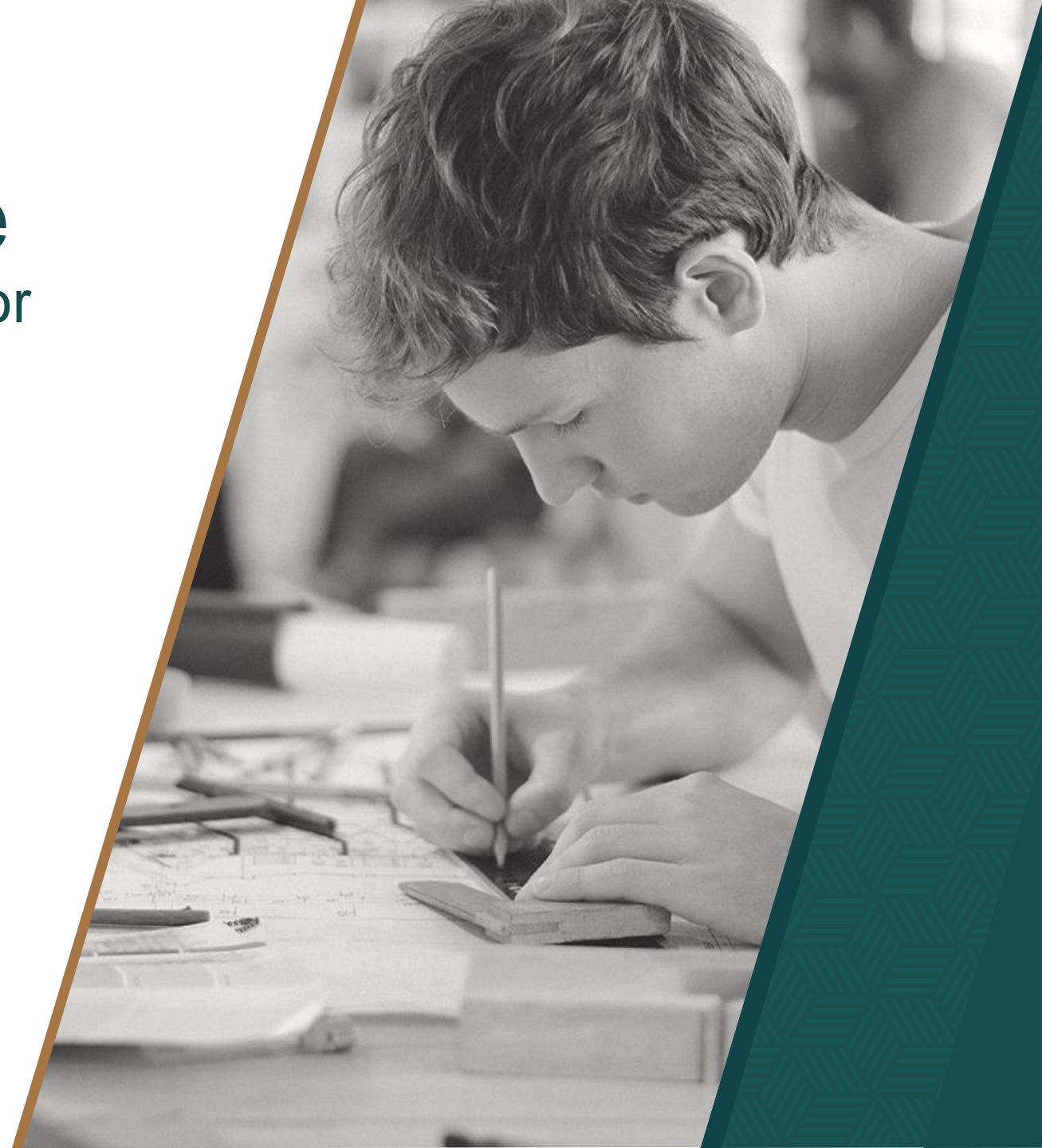# Credential Engine
Benefits and Opportunities for Federal Agencies

May 15, 2017

Credential
Engine

Transparency through Technology

-Develop common terms (Credential Transparency Description Language - CTDL) to describe key features of:

- Credentials
- Credentialing organizations
- Quality assurance (QA) bodies

-Create & populate voluntary, web-based credential registry with credential issuers and QA bodies

-Bring the registry to scale under non-profit governance

-Develop, test, & deploy prototype search app to facilitate use of the registry by stakeholders

-Foster competitive app marketplace

Credential Engine

Credential registry, descriptors, and applications are open-source.

Credentials Addressed by Credential Engine

Registry Includes All Kinds of Credentials, Credentialing Organizations, and Quality Assurance Bodies

Apprenticeship   Badge   Certificate   Certification   Degree   Diploma   License   Micro-Credential   QA Bodies

Credential Engine

Credential Transparency Description Language (CTDL)

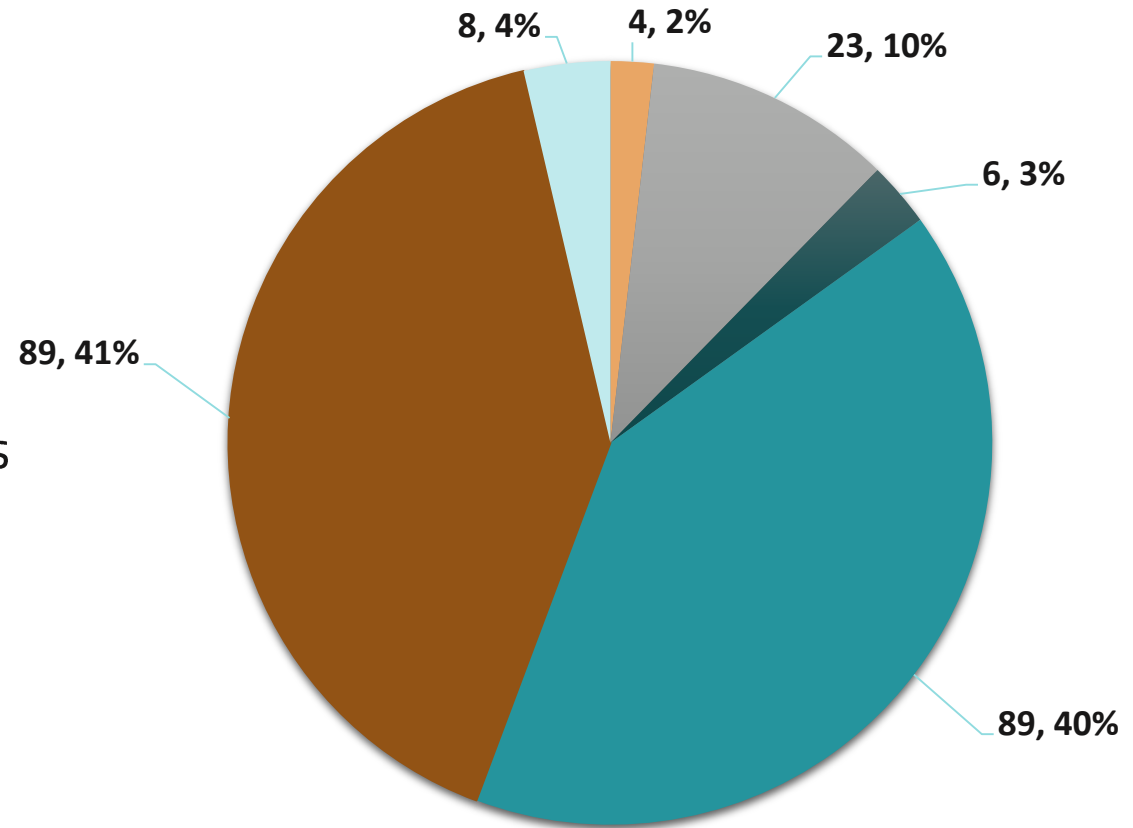| Declaring Name, Purpose, Type of Credential and Credentialing Organization	Declaring What Is Inside the Credential	Declaring Other Key Characteristics and Connections
▪ Credentialing organization identification ▪ Credential organization type ▪ Credential identification ▪ Credential type ▪ Purpose of credential ▪ Where credentialing is offered ▪ Jurisdiction	▪ Credentialing eligibility requirements ▪ Competencies/learning outcomes required to attain credential ▪ Assessments required to attain credential ▪ Education and training for the credential ▪ Time required to attain credential ▪ Credentialing costs ▪ Maintaining credential ▪ Credential removal ▪ Credential holder authentication ▪ Version management ▪ Employer engagement	▪ Primary scope of application: subject/discipline area ▪ Primary scope of application: career preparation and advancement ▪ Role of occupational regulation and licensing ▪ Geographic portability of credential use ▪ Connections to other credentials ▪ *Career Pathway Connections* ▪ External quality assurances ▪ Employer recognition ▪ *Number and characteristics of credential holders* ▪ *Employment and earnings of credential holders* *Italicized descriptors are not yet in use*

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Profile of Current Registry Participants

Participant Organizations (April 2017)

99 total participants
13 Private Colleges & Universities
4 For Profit Colleges & Universities
10 Public Colleges & Universities
17 Community Colleges
36 Industry Certification Bodies
9 Industry Certificate Granting Institutions
5 Quality Assurance Organizations
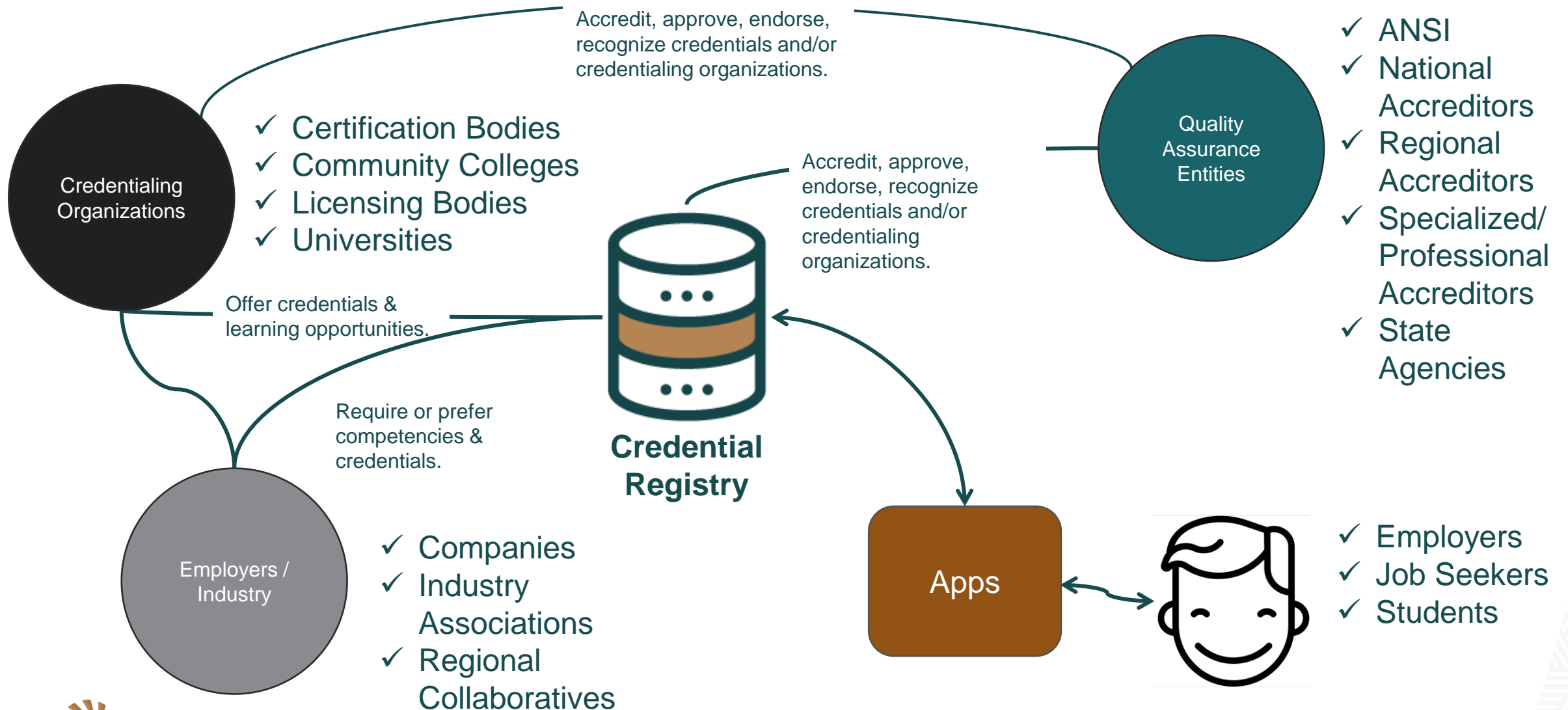5 Other

Credentials (as of April 17, 2017 = 209)

Pie chart data:
- 4, 2% — Associate's Degree
- 23, 10% — Bachelor's Degree
- 6, 3% — Master's Degree
- 89, 40% — Certificate
- 89, 41% — Certification
- 8, 4% — Badge

Legend: Associate's Degree | Bachelor's Degree | Master's Degree | Certificate | Certification | Badge
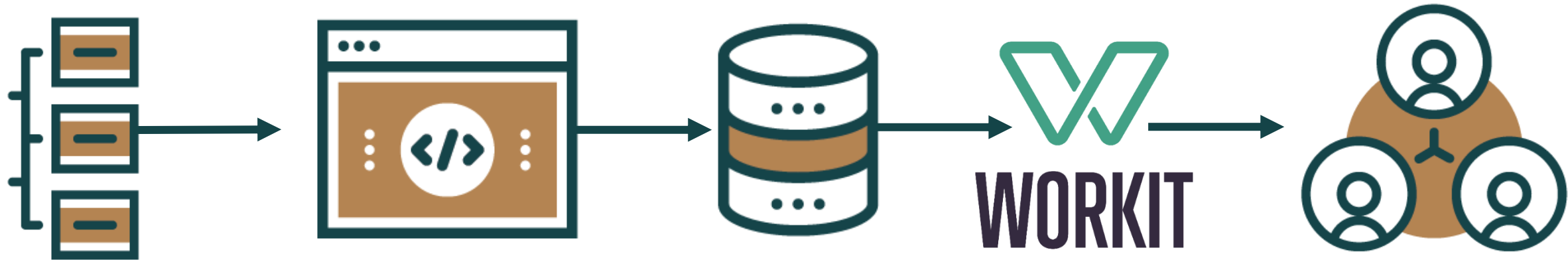
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Benefits to Participants

- ✓ Gain greater visibility to vast market of students, employers, others.

- ✓ Demonstrate commitment to credential and QA transparency.

- ✓ Be at forefront of groundbreaking technology effort driving new credentialing ecosystem.

- ✓ Receive suite of services beneficial to short—and long-term technology planning, including:

  - technical and non-technical materials

  - information about Web 3.0 technologies

  - roadmap document showing where they are now and what steps can be taken to enable W3C vision for Linked Data

- ✓ Influence initiative by providing feedback throughout the process.

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Example Stakeholder Relationships

Accredit, approve, endorse, recognize credentials and/or credentialing organizations.

Credentialing Organizations

- ✓ Certification Bodies
- ✓ Community Colleges
- ✓ Licensing Bodies
- ✓ Universities

Quality Assurance Entities

- ✓ ANSI
- ✓ National Accreditors
- ✓ Regional Accreditors
- ✓ Specialized/ Professional Accreditors
- ✓ State Agencies

Accredit, approve, endorse, recognize credentials and/or credentialing organizations.

Offer credentials & learning opportunities.

Credential Registry

Require or prefer competencies & credentials.

Employers / Industry

- ✓ Companies
- ✓ Industry Associations
- ✓ Regional Collaboratives

Apps

- ✓ Employers
- ✓ Job Seekers
- ✓ Students

Credential Engine

How it Works Now

Credential Transparency Description Language (CTDL) – Metadata Infrastructure

CTDL Editor – Converts **Partner's** credential and quality assurance information to CTDL and publishes it to the Registry.

Credential Engine Registry – Set of services and Registry.

Credential Finder Prototype App – Basic search to demonstrate, review, and get feedback.

Partners – Review, provide feedback, fill gaps.

Make updates.

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Moving from Pilot Sandbox to Live

Pushing
Credentialing organization pushes their CTDL descriptions to the *Credential Registry*.

Manual

- CTDL Editor
  - Small Quantity
  - Stable

Credential Registry

Automated

- Roadmap Guidelines
  - Large Quantity
  - Dynamic

Pulling
The *Credential Registry* pulls (harvests) the data from the credentialing organization either as page markup or as records.

Credential Engine

http://credreg.net/registry

Workit™ Search App Prototype

- Participants view information about the small number of credentials they have selected for testing on the registry in the context of an app.

- Shows the credential information from the Registry.

- Provides context for understanding the Credential Transparency Description Language (CTDL) and why it's important to have transparent and comparable credential information.

- Requires a password.

Benefits and Opportunities for Federal Agencies

- ✓ Become pilot partner

  - Publish one or more credentials on the registry.

  - Participate in technical webinars about Web 3.0 technologies

- ✓ Application Use and Development

  - Use Workit search app to find information on credentials for recruitment and hiring

  - Develop federal agency directories and other applications

- ✓ Provide input on CE development to meet federal agency needs

Credential Engine

Contact Information

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