



# Directory Models in the U.S.

*Exploring ways to leverage directory capabilities to facilitate the adoption of faster payments in the United States.*

The Directory Models Work Group (DMWG) of the U.S. Faster Payments Council (FPC) strives to identify directory capabilities that promote adoption of faster payments.

The following is a summary of work conducted by the DMWG to research existing directories in the U.S. market and consider options to leverage these directories to facilitate the adoption of instant payments.

## Introduction

In 2022, the Work Group researched six successful non-U.S. faster payments schemes to evaluate how they leveraged directories to fuel adoption of faster payments. The directory of these schemes had all the desired beneficial characteristics of a directory service previously documented by the Work Group.<sup>1</sup>

Directory best practices across the international schemes were also identified in the prior work. Some international networks leveraged a federated directory, while others took advantage of existing network architecture. Some found that providing directory access to third parties and non-financial institution payment service providers was key to driving adoption and innovation. Another found that QR Code payments are easily facilitated by integrating with a directory without having to share sensitive account information.<sup>2</sup>

## 2023 DMWG Research

As a follow up to the 2022 work, the DMWG turned its focus to the existing directories in the U.S. market. Research was conducted to understand what directories already operate in the United States. This research looked at the purpose of each directory as well as how the data is accessed, the sources and types of the data, and the likelihood of interoperability to facilitate faster payments adoption.

The DMWG identified fifteen U.S. companies that leveraged directories and conducted interviews with nine of them. Participants agreed to interviews but requested anonymity, so no company names are shared here. Regardless, the anonymized findings are insightful.

## Data

The research shows that robust P2P and C2B/B2B directories already exist in the United States. Some are over 20 years old and contain data on over 60 million directory entries.

Directories that enable person-to-person (P2P) payments are the simplest with just a few data points for each entity while consumer-to-business (C2B) or business-to-business (B2B) directories have richer data stores with more extensive information. There are other directories that do not hold data and either ping existing directories or leverage third party data. In the research the DMWG refers to the directories as "networks." Two of the companies interviewed had P2P directories, five had C2B/B2B and two were networks.

The DMWG compiled key research findings in the table below. While the table doesn't detail the metrics for each directory interviewed, it is intended to summarize the findings. For example, all P2P and C2B/B2B directories interviewed were very large and contained information on over 50 million entities (e.g., consumers or businesses). With respect to age, the P2P directories launched more recently than the C2B/B2B directories, many of which have been around over 20 years, so their age was characterized as "developing" vs. "mature" for the C2B/B2B directories.

Characteristics	P2P	C2B / B2B
Size (# entities)	>50M	>50M
# Data points per entity	Few	Many
Age	Developing	Mature
Data quality	Excellent	Excellent
Access – ability to reach the market electronically	Excellent	Good
Resiliency to attacks/misuse	Good	Excellent
Interoperability	Limited	Limited

## The Bottom Line

Many robust, privately-owned directories already exist in the United States that have the beneficial characteristics desired in directories and leverage many best practices found in the DMWG's 2022 work examining faster payment schemes outside the United States.

Given the existence of these directories, it could be impractical for any single entity to create an additional, separate centralized directory for use in the United States.

However, the U.S. directories generally operate within a closed community; interoperability is very limited. Creating a federated model, or one that enables cross-directory discoverability, is one approach to creating an industry-wide solution that can facilitate faster payments adoption.

There are technical and non-technical considerations that need to be resolved. For example:

- What is a shared definition of an alias?
- What are the minimal data requirements tied to that alias?
- What underlying technologies can optimize performance (e.g., blockchain, DNS)?
- What is the role of related databases that could enhance discovery (e.g., routing/BIN#'s)?
- What possible incentives might unlock the resistance to interoperability?

While these questions will take time to answer, a federated directory is technically feasible. The main barriers are the practical and strategic challenges of achieving cooperation among stakeholders, especially when they operate in overlapping or adjacent competitive markets. Those who have invested the most in a directory capability may be the least likely to want to participate in a federated model.

Creating a financial or strategic incentive for these companies to allow access to their directory is key. Even if just two or three of the companies with the most mature, robust datasets could create a mutually beneficial sharing agreement that is open to others, this would kickstart a federated directory for the United States to which others can be added.

As in any multi-lateral arrangement, governance will be needed to ensure fairness and facilitate trust among stakeholders. The makeup and operation of that governing body, its role and authority will be driven by the parties involved in getting this industry-wide directory off the ground to accelerate the adoption of instant payments.

Implementing a directory in the United States to facilitate faster payments likely requires creating an arrangement of "co-opetition" among existing directories. While this involves designing mutually agreeable operating terms for those involved and developing specific standards and technology, the benefits to the payments ecosystem overall will be enormous.<sup>1</sup>

## APPENDIX

For a federated directory to be successful, other considerations will need to be addressed. These include data ownership, privacy, standardization, economic models, and fraud information sharing. Any of these present opportunities for the DMWG to explore further and collaborate on with the industry.

### *Data Ownership & Control*

Who controls the federated directory? How is data shared, accessed, and potentially monetized, while protecting proprietary and confidential information?

### *Privacy & Security*

Effectively combining directories may increase the value of the directory from a cyberattack perspective. Stakeholders would need assurance that the overall system has the necessary security to participate.

### *Standardization*

Aligning on a common data structure focused on (i) minimal information sharing, (ii) supporting standardized lookup criteria, and (iii) supporting lookup across directories is desirable to structure a solution that connects them all.

### *Economics*

The economic model of how a federated system can be maintained would need to be resolved (e.g., subscription fees, transaction-based fees).

### *Fraud*

Alignment is required on whether to have the federated directory address fraud information sharing. Are the number of fraud incidents related to an alias tracked? Or are third parties going to be relied upon to manage fraud separate from the federated directory?

## Directory Models Work Group

Thank you to the members of the FPC Directory Models Work Group who contributed to this article.

## Directory Models Work Group Leadership

Peter Tapling (Work Group Chair), PTap Advisory, LLC

Lou Grilli (Work Group Vice Chair), PSCU

## Subgroup Members

Cory Barnes, Form3 US Inc

Sarah Hoisington, Matera Inc.

Gene Neyer, Finzly Inc.

Steve Wasserman, Photon Commerce

Debbie Smart, Q2 Software, Inc.

## Work Group Members

Margo Giles, Alloya Corporate FCU

Shane St. John, Corporate America Credit Union

Matt Kinne, Early Warning Services LLC

Andrew Gomez, Lipis Advisors

Michael Young, Photon Commerce

Paul Witt, SISA Information Security Inc

## About the Directory Models Work Group

Maps out how digital assets relate to the financial industry, focusing specifically on payments made with digital funds – central bank digital currency (CBDC), regulated liabilities and stablecoin.

## About the U.S. Faster Payments Council

The U.S. Faster Payments Council (FPC) is an industry-led membership organization whose vision is a world-class payment system where Americans can safely and securely pay anyone, anywhere, at any time and with near-immediate funds availability. By design, the FPC encourages a diverse range of perspectives and is open to all stakeholders in the U.S. payment system. Guided by principles of fairness, inclusiveness, flexibility, and transparency, the FPC uses collaborative, problem-solving approaches to resolve the issues that are inhibiting broad faster payments adoption in this country.

[1] [2] Faster Payments Council. (2022, October). *International Best Practices in Directory Models*.

[https://fasterpaymentscouncil.org/userfiles/2080/files/Directory%20Models%20WP\\_International%20Best%20Practices\\_03-14-2023\\_Final\\_Updated.pdf](https://fasterpaymentscouncil.org/userfiles/2080/files/Directory%20Models%20WP_International%20Best%20Practices_03-14-2023_Final_Updated.pdf).

[3] The DMWG investigated the key core and value-added characteristics that can strengthen the value of a directory service and highlighted several areas where a directory can provide efficiencies, revenue, and cost savings. Faster Payments Council. (2022, January). *Making the Case for an Interoperable Directory to Facilitate Faster Payments*.

[https://fasterpaymentscouncil.org/userfiles/2080/files/FPC%20DMWG%20Infographic\\_01-24-2022%20Final\(1\).pdf](https://fasterpaymentscouncil.org/userfiles/2080/files/FPC%20DMWG%20Infographic_01-24-2022%20Final(1).pdf).