

Consumer Access At Scale

Manage Heavy Traffic with Asynchronous IIS Search

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Background

- Docket® is a free iOS and Android app
- IIS-agnostic consumer access
- CDC IZ Gateway architecture
- 2.2 million active users
- 6 IIS integrations



Project Impetus

- Docket® use not to interrupt existing MHC interfaces
- Query volume concerns, especially during launch
- Needs to handle rapid changes in volume



Minnesota launches smartphone app for digital copy of vaccines

Application includes COVID-19 vaccines as well as other immunization records



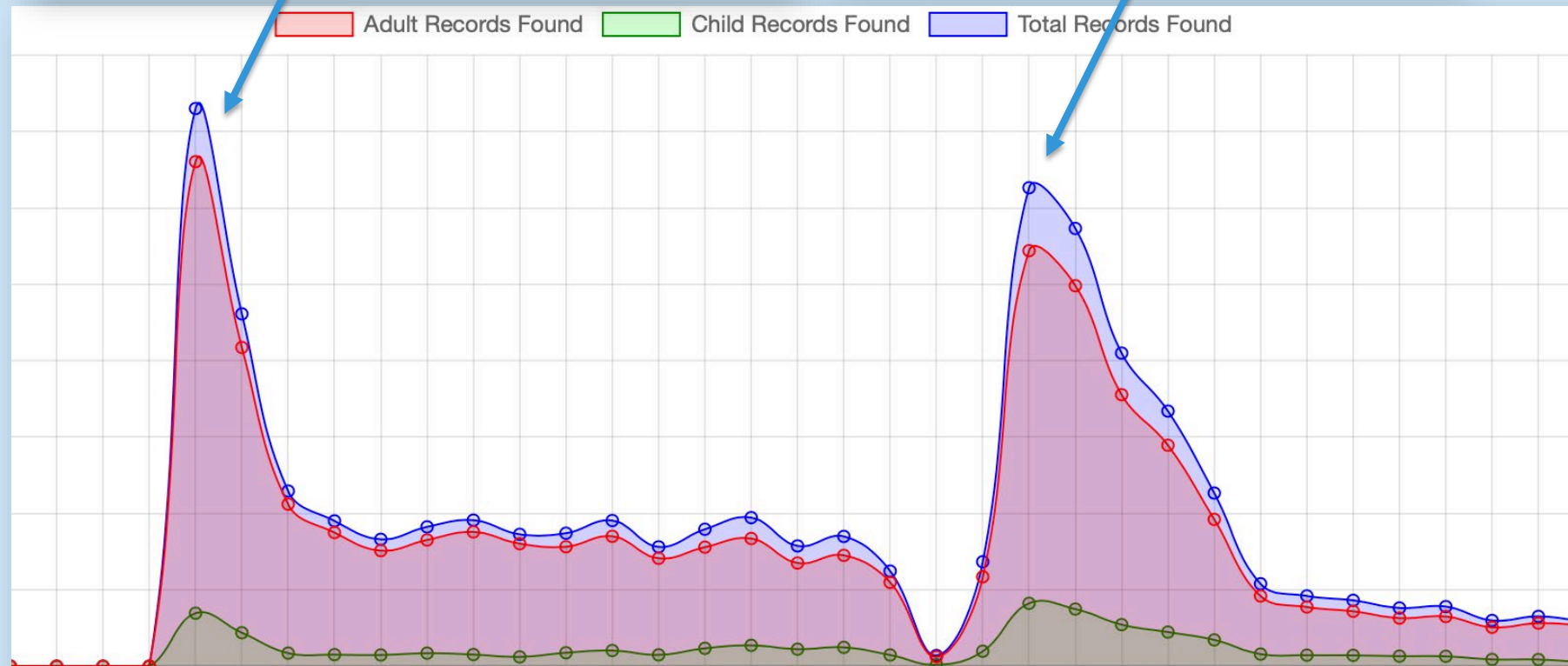
By **CHRISTOPHER MAGAN** | cmagan@pioneerpress.com | Pioneer Press
PUBLISHED: September 15, 2021 at 1:09 p.m. | UPDATED: October 12, 2021 at 2:18 p.m.

Minneapolis, St. Paul to require vaccine proof to get into bars, restaurants

The moves come as an increasing number of large, Democrat-led cities across the country are adopting similar rules.

By Katie Galioto, Liz Navratil and Faiza Muhamud Star Tribune |

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Note: the dip in new record requests is due to year-end reporting.

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“Your estimated wait time is 90 minutes.”

Synchronous:

- Long wait times
- High drop rate
- Frustrating!



<https://onholdmarketinginc.com/message-on-hold/medical-hold-messages-orthopaedic/>

“We’ll call you back when it’s your turn.”

Asynchronous:

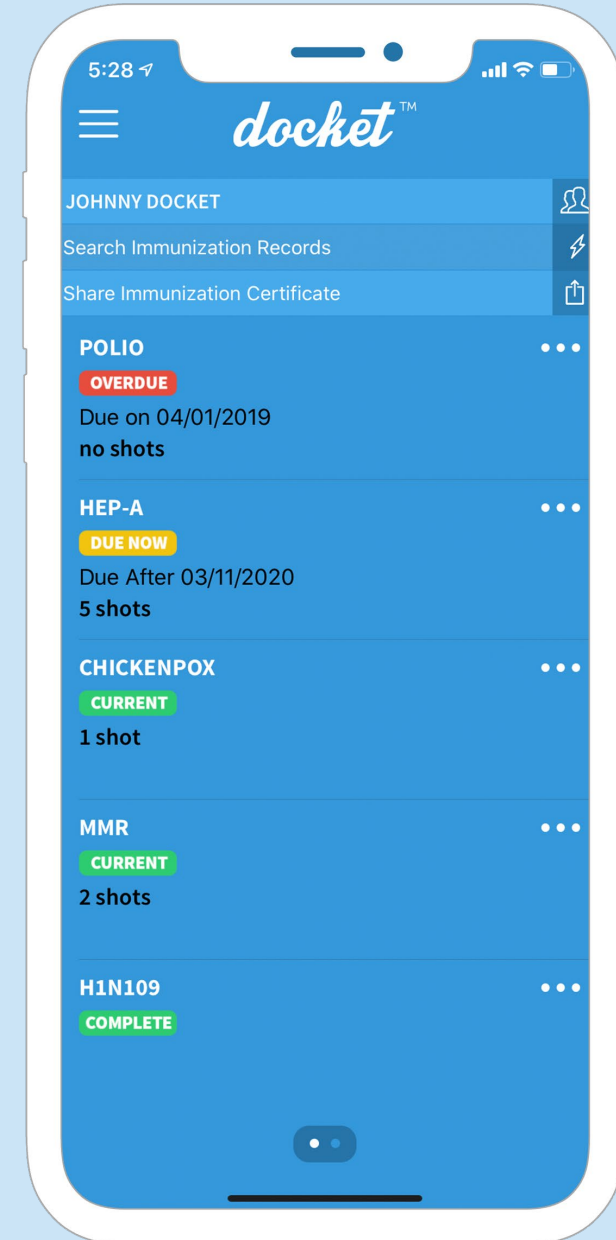
- Better service
- Fewer drops
- Predictable



<https://www.trizma.com/ask-us-anything-what-makes-an-excellent-call-center-agent/>

Synchronous App Version

- Timed out when IIS latency is elevated
- Might “break the internet” at launch
- Potential risk if everybody refreshes

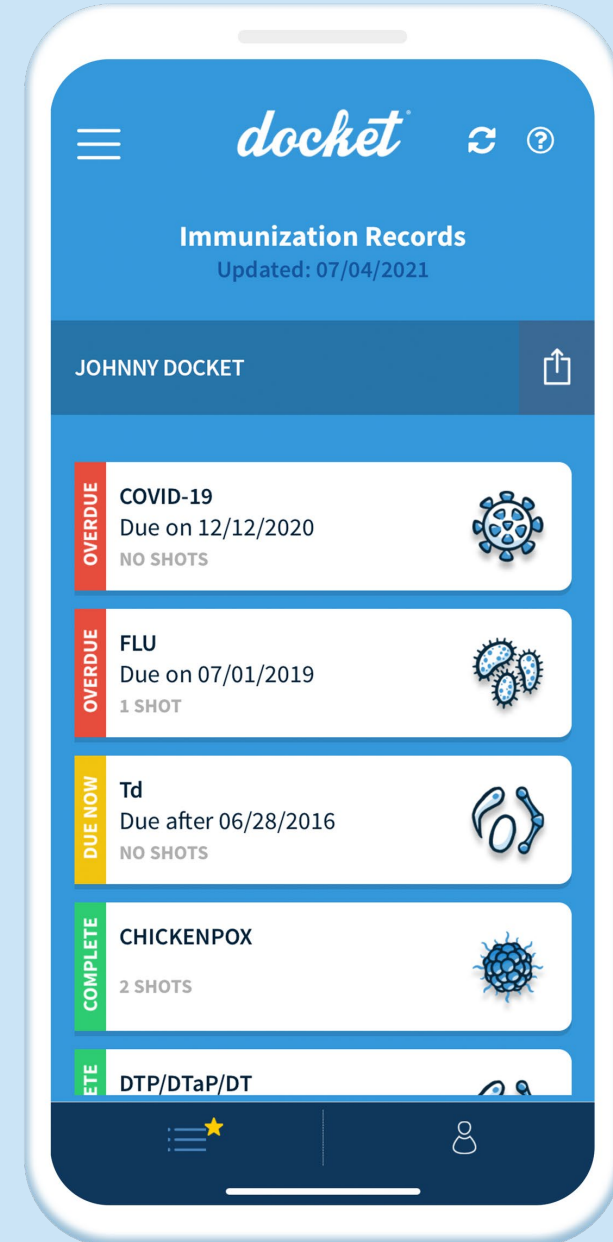


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Asynchronous App Version

- App doesn't drop user queries
- System is stable at launch
- Overall better experience

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Production App – Mock Data

@dockethealthapp
@dockethealthapp
dockethealth.com

New York

Key Advantages

IIS:

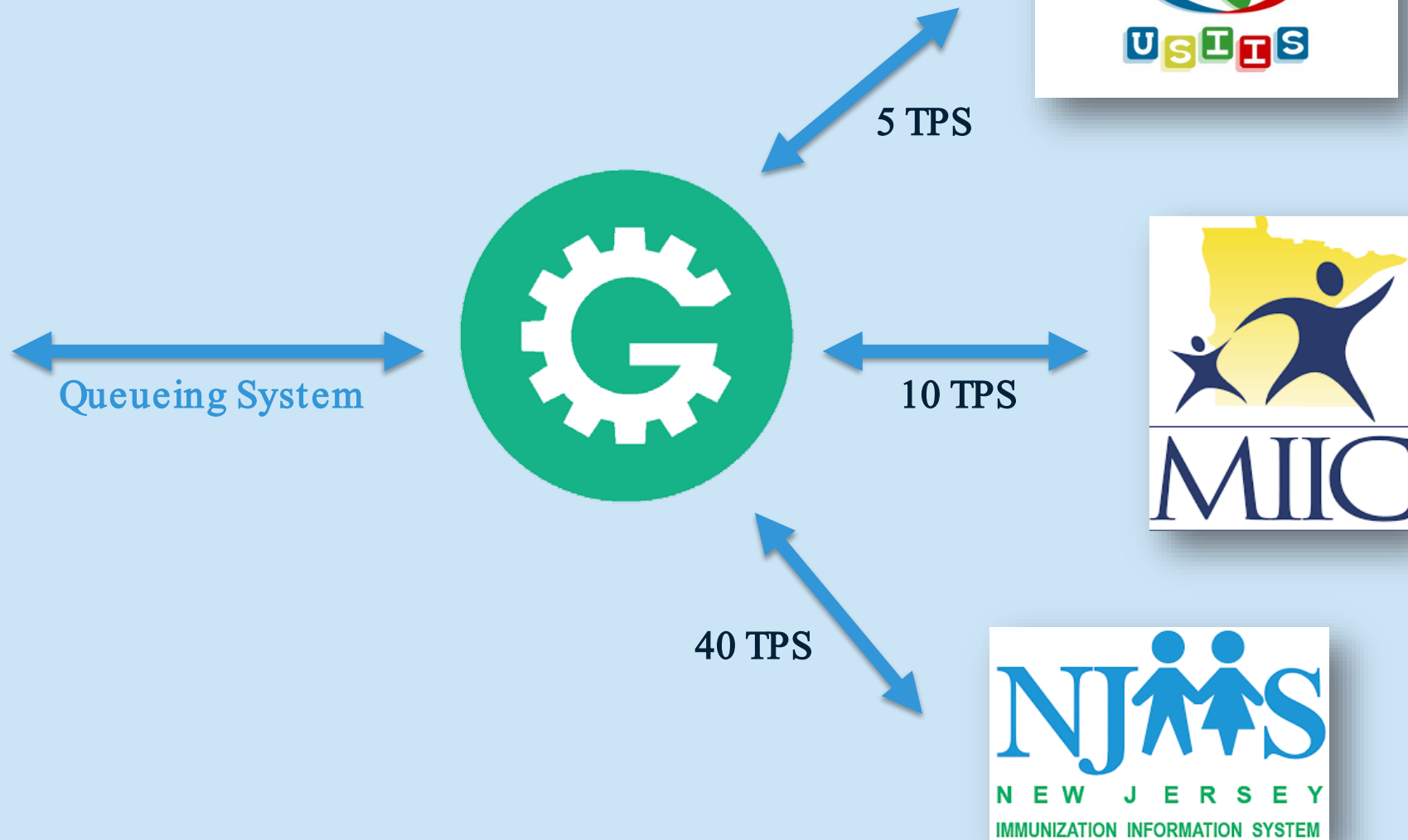
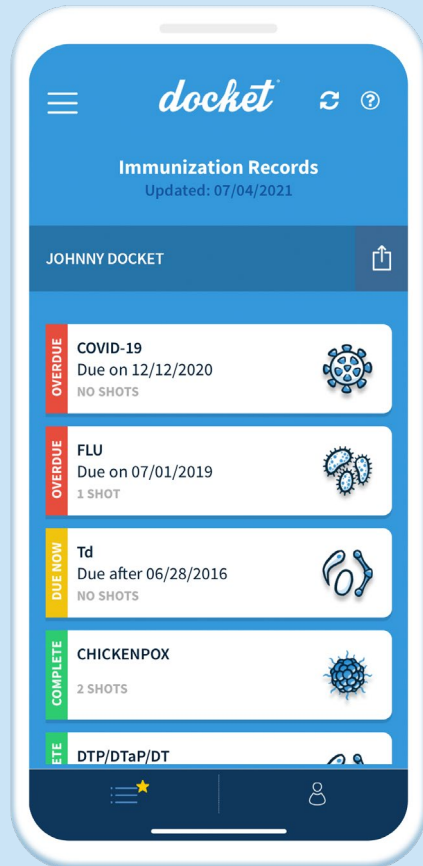
Hedge against risk of too many QBPs in a short period of time

Users:

Folks get their records (and record updates) eventually, even if IIS is temporarily offline

Example Configuration

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Queue

- Attempts to query IIS for up to 30 minutes
- No backlog typically

Dead Letter Queue (DLQ)

- Holds user queries until IIS recovers
- Admin can re-drive the DLQ manually

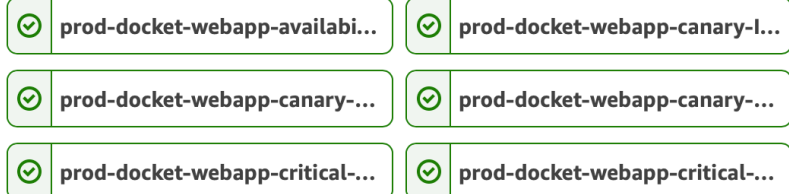
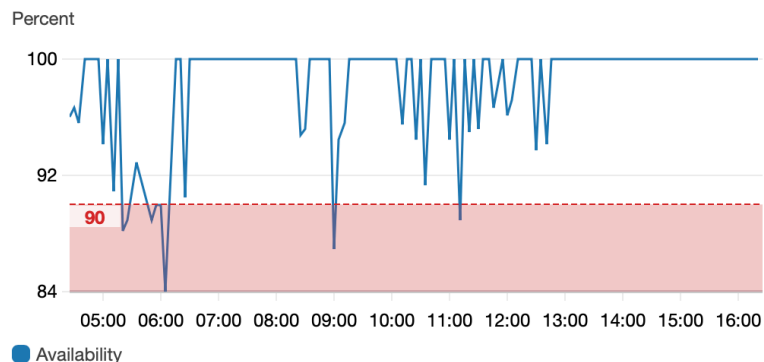
Faults Queue

- Stores queries that had been deleted

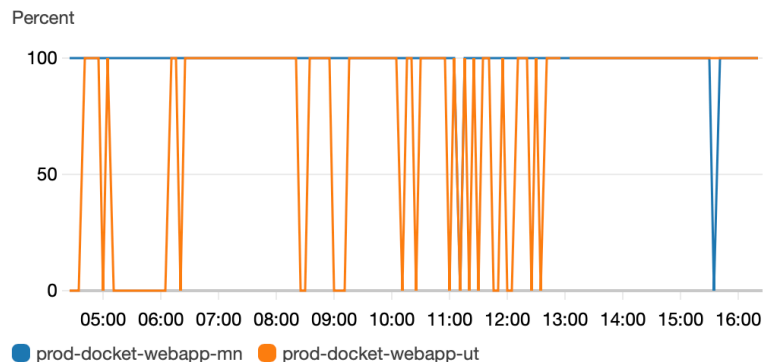
Queue Status

| IIS Provider | Queue Size | DLQ Size | Faults Queue Size | Action |
|--------------|------------|----------|-------------------|-------------------------|
| Alaska | 0 | 0 | 0 | Redrive |
| Idaho | 0 | 0 | 0 | Redrive |
| Minnesota | 0 | 3 | 2 | Redrive |
| New Jersey | 0 | 37 | 5 | Redrive |
| Utah | 0 | 116 | 3 | Redrive |

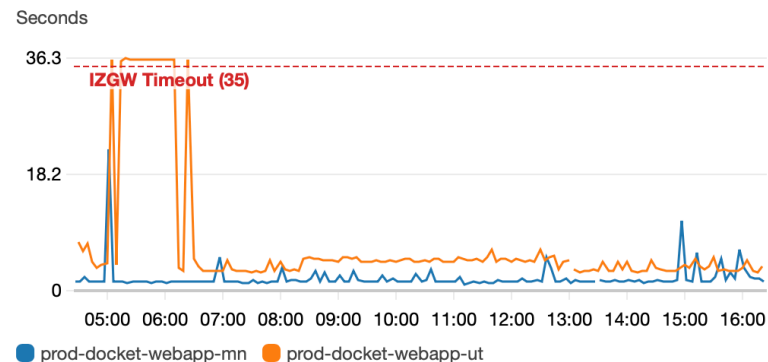
Docket™ Availability



Canary Success



Canary Latency p90 (secs)

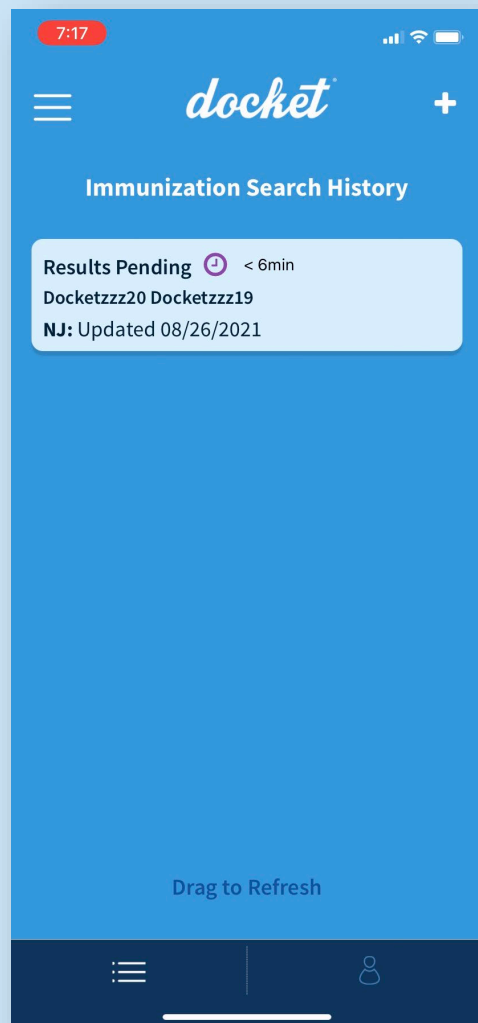


Docket® IZ Gateway and IIS System Monitoring Dashboard

Amazon Web Services

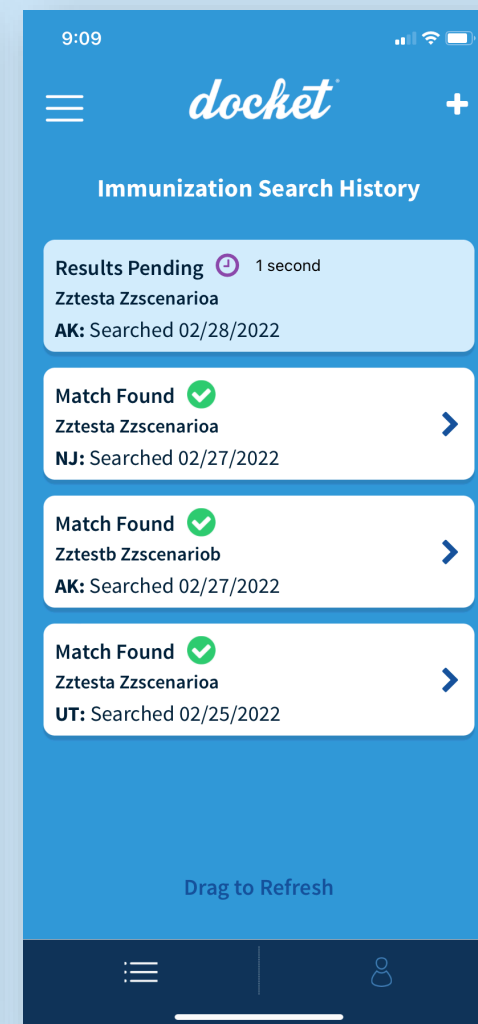
Estimated time of Arrival

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Before

After



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Questions?

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