

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 MIIIC 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

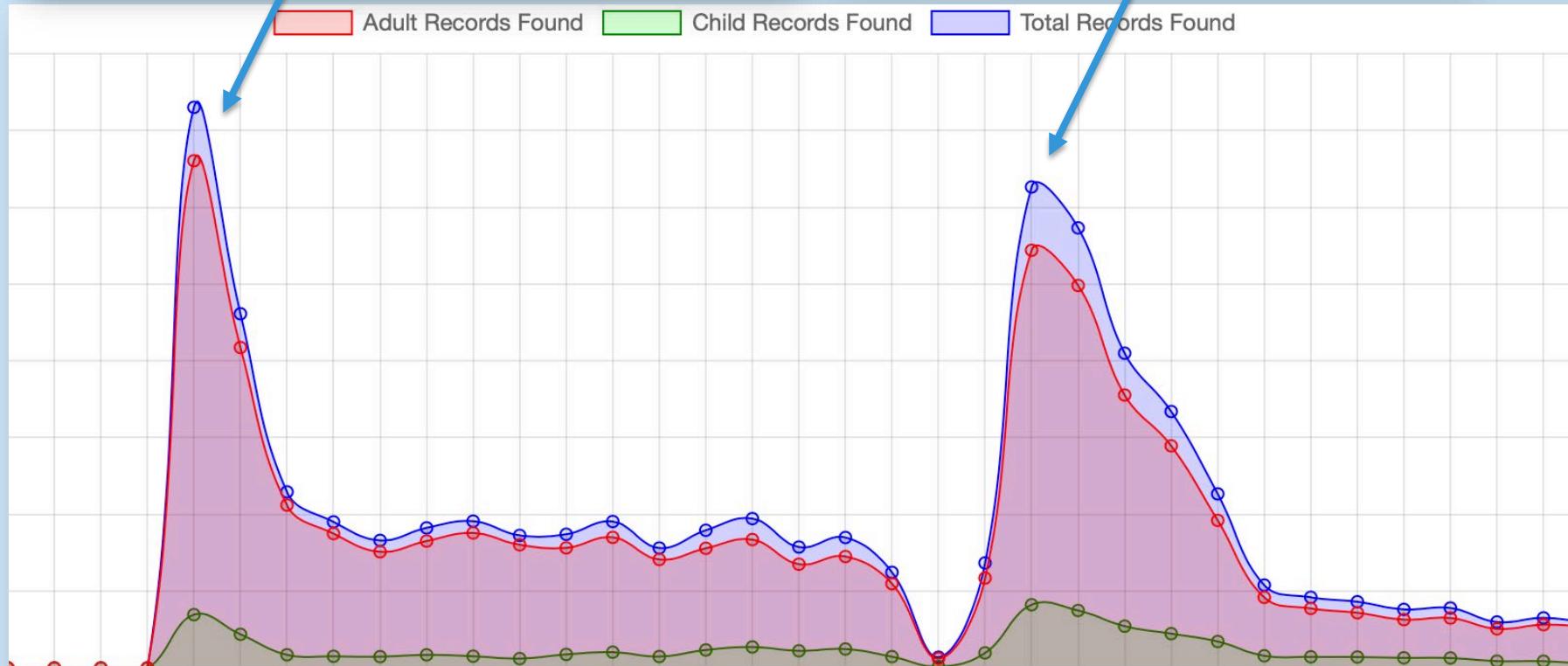
PUBLISHED: September 15, 2021 at 11:09 p.m. | UPDATED: October 12, 2021 at 2:18 p.m.

TA
LUE

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 |



“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:

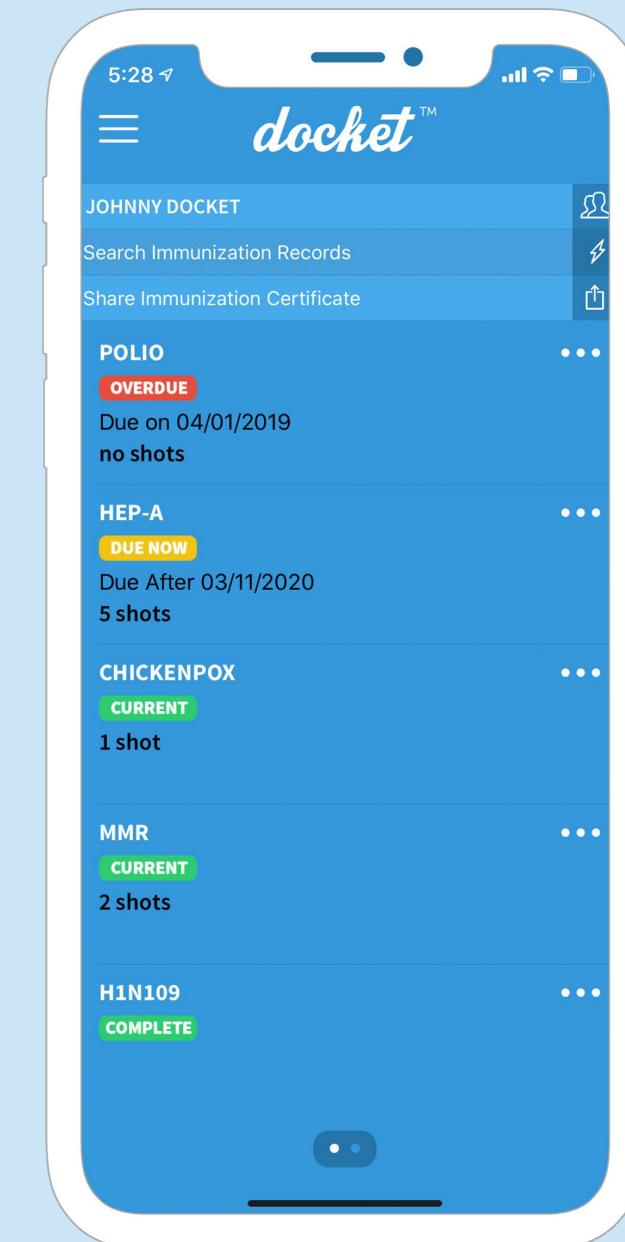
- Better service
- Fewer drops
- Predictable



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

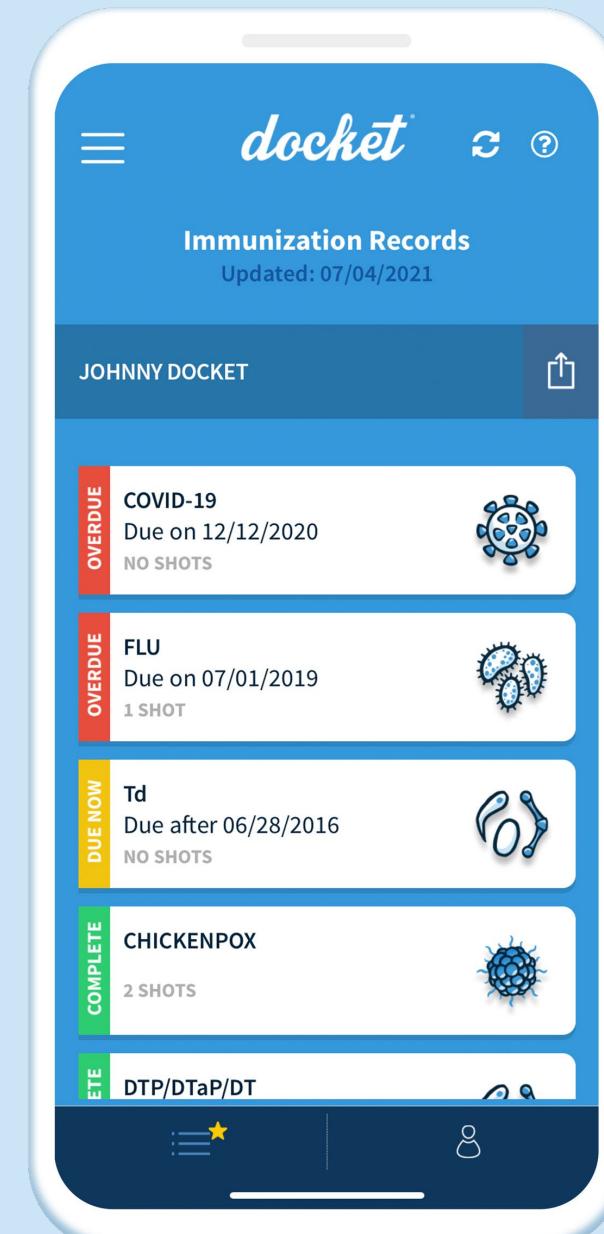
Synchronous App Version

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



Asynchronous App Version

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



Key Advantages

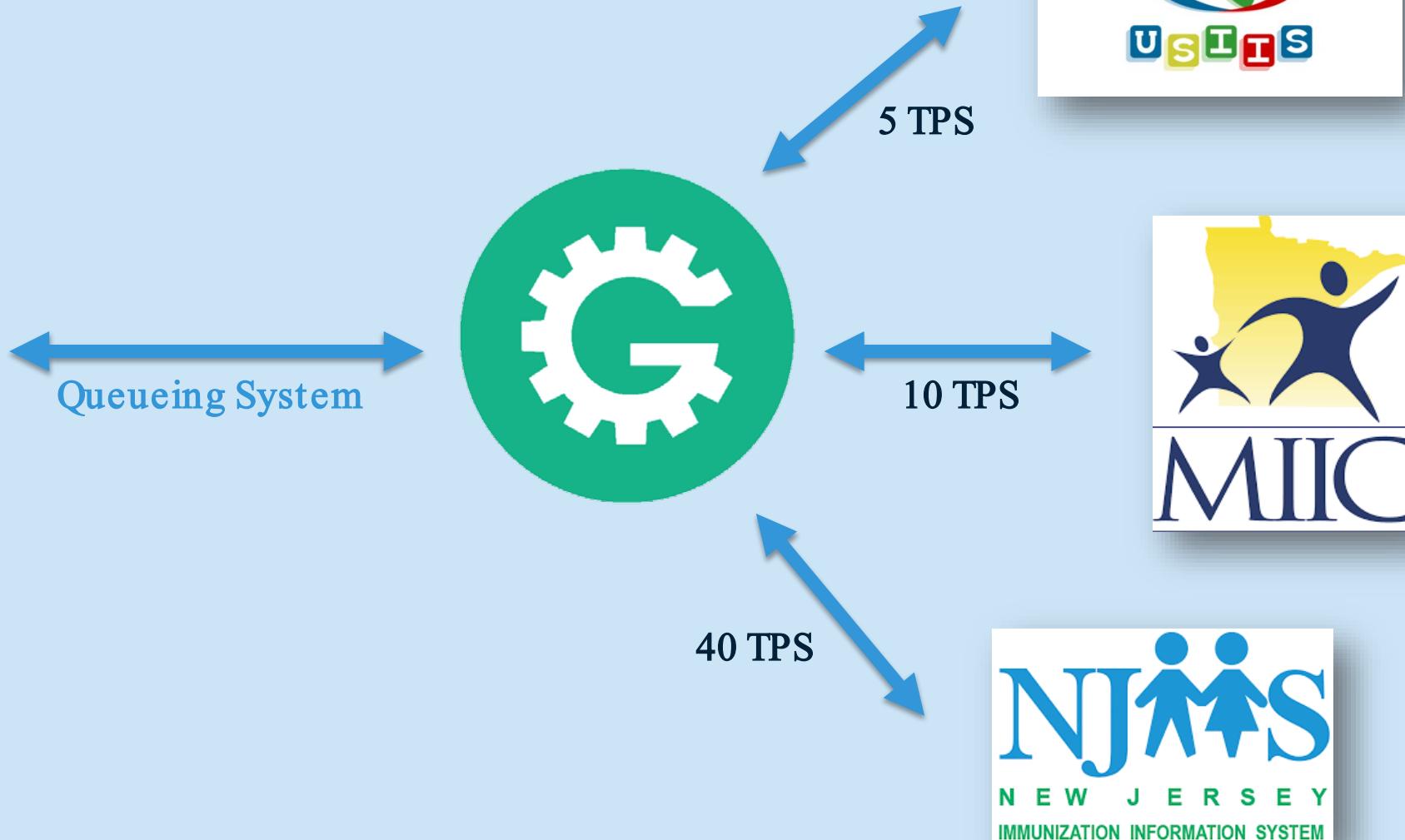
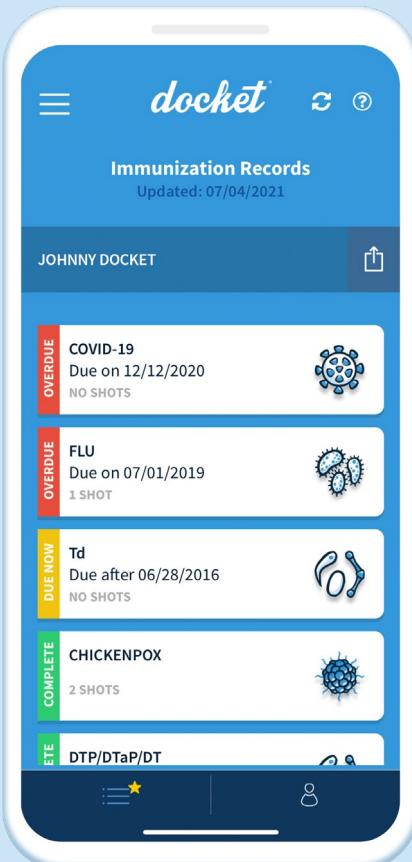
IIS:

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



Queue

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

Dead Letter Queue (DLQ)

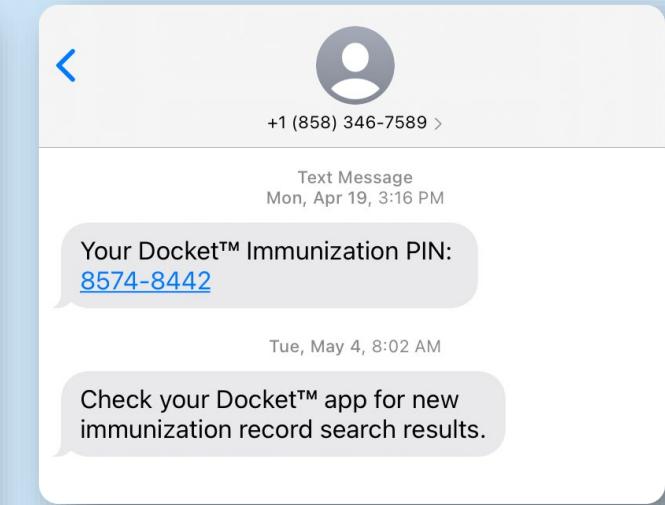
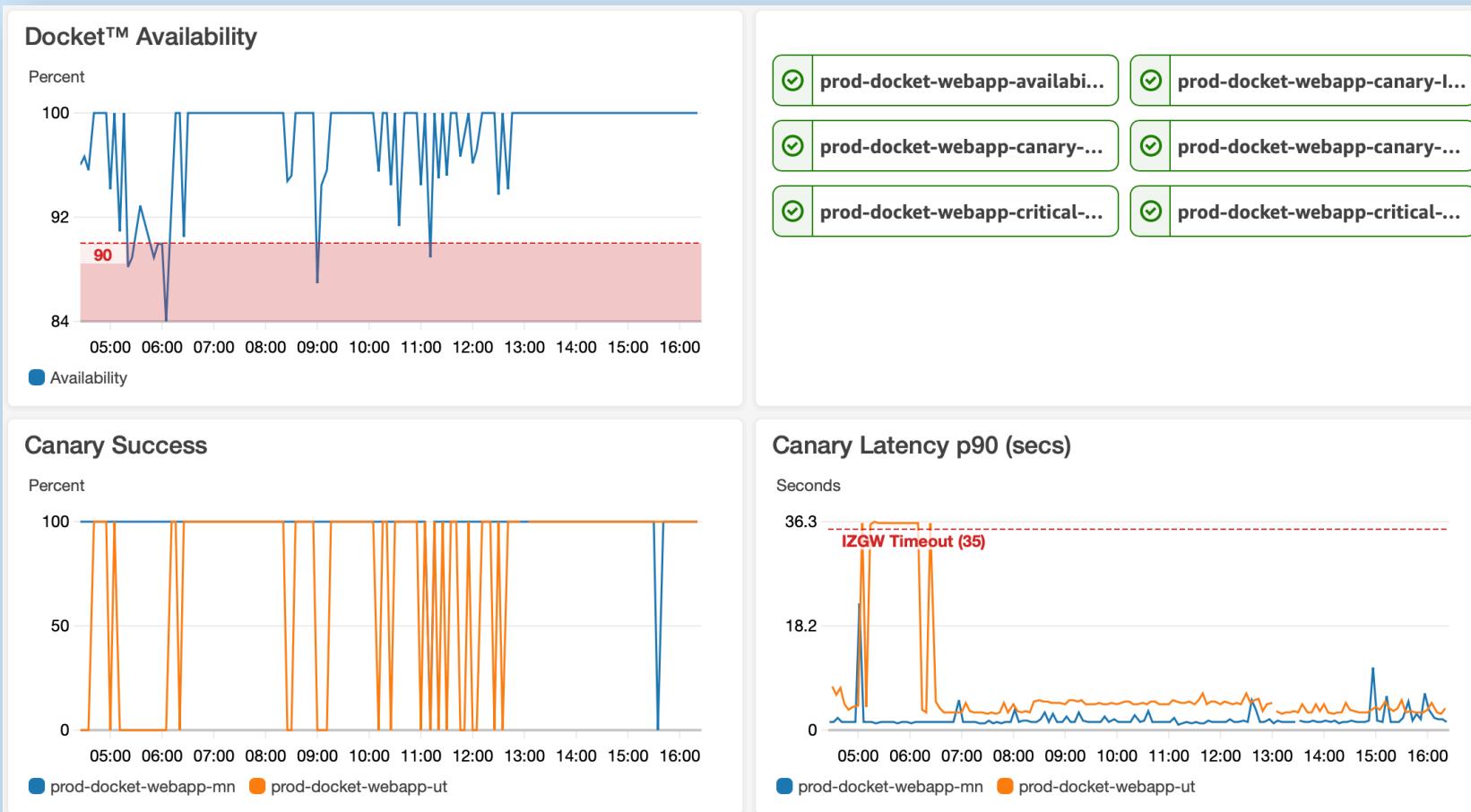
- Holds user queries until IIS recovers
- Admin can re-drive the DLQ manually

Faults Queue

- Stores queries that had been deleted

Queue Status

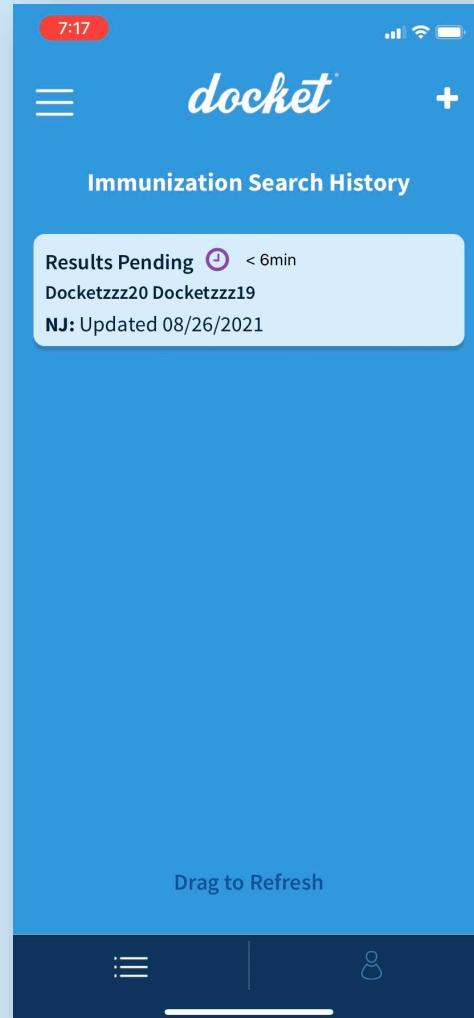
IIS Provider	Queue Size	DLQ Size	Faults Queue Size	Action
Alaska	0	0	0	Redrive
Idaho	0	0	0	Redrive
Minnesota	0	3	2	Redrive
New Jersey	0	37	5	Redrive
Utah	0	116	3	Redrive



Docket® IZ Gateway and IIS System Monitoring Dashboard

Amazon Web Services

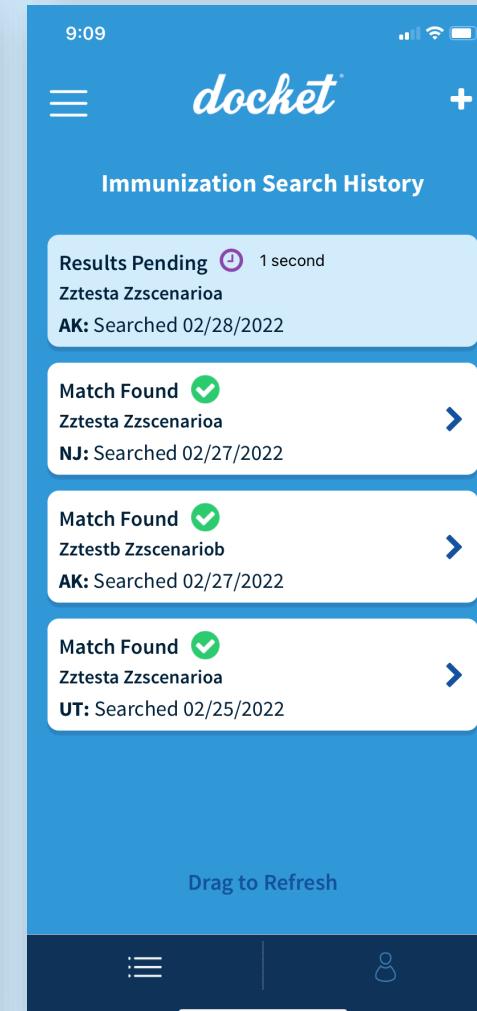
Estimated time of Arrival



Before



After



Questions?

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