IN THE UNITED STATES DISTRICT COURT
FOR DISTRICT OF DELAWARE

AMERANTH, INC.	)
	)
Plaintiff,	)
	) Civil Action No. _____
v.	)
	) **JURY TRIAL DEMANDED**
OLO INC.	)
	)
Defendant.	)
	)

COMPLAINT

For its Complaint, Plaintiff Ameranth, Inc. ("Ameranth"), by and through the undersigned counsel, alleges as follows:

THE PARTIES

1. Ameranth is a Delaware corporation having a principal place of business at 5820 Oberlin Drive, Suite 202, San Diego, California 92121.

2. Ameranth has developed, licensed, manufactured and sold, *inter alia*, multiple, award winning, hospitality industry systems and products, including, e.g., restaurant and food service information technology solutions.

3. Defendant Olo Inc. is a Delaware company, with, upon information and belief, a place of business located at One World Trade Center, 82nd Floor, New York, New York 10007.

JURISDICTION AND VENUE

4. This action arises under the Patent Act, 35 U.S.C. § 1 *et seq.*

5. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and 1338.

6. Upon information and belief, Defendant conducts substantial business in this forum, directly or through intermediaries, including: (i) at least a portion of the infringements

alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to individuals in this district.

7. Venue is proper in this district pursuant to 28 U.S.C. § 1400(b).

THE PATENT-IN-SUIT

8. On August 29, 2017, U.S. Patent No. 9,747,651 (the "'651 patent"), entitled "Application Software Based Information Management and Real Time Communications System Including Intelligent Automated Assistants (Bots) in a Computing Ecosystem Including Different Types of Remote Computing Devices with Different User Interfaces and with a Master Database that is Accessible from and Stored at a Central Location," was duly and lawfully issued by the U.S. Patent and Trademark Office. A true and correct copy of the '651 patent is attached hereto as Exhibit A.

9. The '651 patent specifies it is a continuation-in-part of U.S. Patent No. 8,146,077, which is a continuation of U.S. Patent No. 6,982,733, which is a continuation-in-part of U.S. Patent No. 6,384,850. The '651 patent contains significant new material not disclosed in these earlier patents.

10. The '651 patent's claims are directed to materially different concepts from those claimed in U.S. Patent Nos. 8,146,077, 6,982,733 and 6,384,850, and this is Ameranth's first litigation where it has asserted the concepts claimed in the '651 patent.

11. Ameranth incorporates in its entirety the Declaration of Dr. Ricardo Valerdi (the "Valerdi Declaration"), attached hereto as Exhibit B, into the pleadings here.

12. The Valerdi Declaration provides expert testimony defining a person of ordinary skill in the art.

13. The Valerdi Declaration provides expert testimony demonstrating, among other things, that the technologies described and claimed in the '651 patent were non-conventional at the time of the invention in 2005 and contain at least three inventive concepts that enhance computer technology: (1) as found in claim 1, element (a) and claim 3, element (a), the ability to understand and convert both fixed format and free format messaging; (2) as found in Claim 1, elements (f) and (g) and claim 3, elements (f), (g), and (h), the ability to concurrently handle both free and fixed format messaging through a variety of communication conversions; and (3) as found in claim 1, elements (a) and (f) and claim 3, elements (a) and (f), the ability to make and execute intelligent decisions by accessing and applying intelligent automated assistant technology; and the implementation of these inventive concepts is detailed in the specification and claims.

14. Ameranth's non-generic and non-conventional application software based communications control module, claimed in claims 1 and 3 of the '651 patent, improved "web servers" as of the time of the invention because it (a) concurrently handled both free and fixed format messaging from multiple and different remote wireless handhelds, (b) integrated with intelligent automated assistant technology, (c) enabled the performance of intelligent decisions in real time (considering multiple criteria and rules) for hospitality market users (e.g., placing orders or making reservations), and (d) enabled the use of multiple and different Application Programming Interfaces and between both hospitality and non hospitality applications.

15. The '651 patent claimed inventions were innovative and enhanced the operation of computer systems in multiple ways, including remote wireless handheld devices.

16. The ability for a system to use mobile devices to send, accept and understand unstructured, free text data, convert unstructured data, and leverage intelligence capabilities, including via remote, wireless handheld computers had not been integrated into a, consistent and

holistic ecosystem prior to July 2005.

17. The '651 patent claimed inventions were not available prior to July 2005, and they were neither routine nor conventional.

18. The preambles of claims 1 and 3 of the '651 patent are limiting.

19. The claims of the '651 patent, including the asserted claims, when viewed as a whole, including as ordered combinations, are not merely the recitation of well-understood, routine, or conventional technologies or components. The claimed inventions were not well-known, routine, or conventional at the time of the invention, over approximately fifteen years ago, and represent specific improvements over the prior art and prior existing systems.

20. The prosecution history of the '651 patent evidences that the inventor and the examiner at the U.S. Patent and Trademark Office ("USPTO") understood that the issued claims were directed to the inventive concept of "IAA [intelligent automated assistant] functionality," i.e., a rule capable intelligent automated assistants systems for use with remote wireless handheld computing devices and the internet, based upon rules functionality, which improve the communications and overall computer functionality of the claimed computer system when considered as a whole, and as an ordered combination and is thus further not an abstract idea.

> Thus, clearly, the claims as newly revised are directed to IAA functionality, based upon rules functionality, which improve the communications and overall functionality of the claimed computer system when considered as a whole and is thus further not an abstract idea.

Ex. C (Dec. 9, 2016 Response to Office Action) at p. 16.

21. The USPTO examiner further confirmed the non-conventionality and inventive concepts of the '651 patent claims in the Notice of Allowance:

However, Blinn et al. fail to teach the combination of the elements as recited in the claims. For example, Blinn et al. lack the hospitality software back-office application with at least one IAA-based interface and enabled to execute one or more rules while communicating via free format messaging and at least one interface with fixed format messaging communications for and with web browsers; and enabled to execute one or more rules while communicating via free format, or fixed format messaging and at least one interface with fixed format messaging communications for and with web browsers.

Ex. D at p. 7 (June 9, 2017 Notice of Allowance at p. 3).

22. Ameranth is the assignee and owner of the right, title and interest in and to the '651 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of them.

23. Ameranth developed and deployed its Magellan Restaurant Reservations System from the disclosures in the '651 patent, and deployed it into/with the thousands of Zagat restaurants in partnership with Zagat Survey, LLC, initially on November 7, 2005, which was the first deployment of an IAA integrated intelligent automated assistant system. Many of the numerous beneficial improvements and benefits of the Magellan System are shown in the Magellan Partnership Vision System Diagram, attached hereto at Exhibit E, as well as detailed and confirmed by Ted Zagat, Chief Operating Officer of Zagat Survey, in the November 7, 2005 joint press release with Ameranth, attached hereto as Exhibit F: "We are pleased to have partnered with Ameranth to provide web-based reservation services to our zagat.com users. We believe that Magellan's many positive attributes will provide a great solution for our customers."

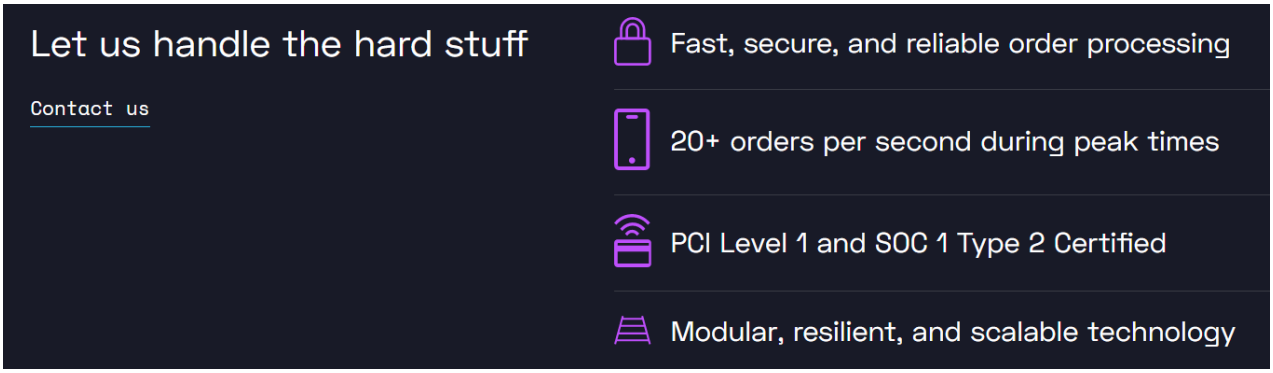
COUNT I – INFRINGEMENT OF U.S. PATENT NO. 9,747,651

24. Ameranth repeats and realleges the allegations of paragraphs 1 through 23 as if fully set forth herein.

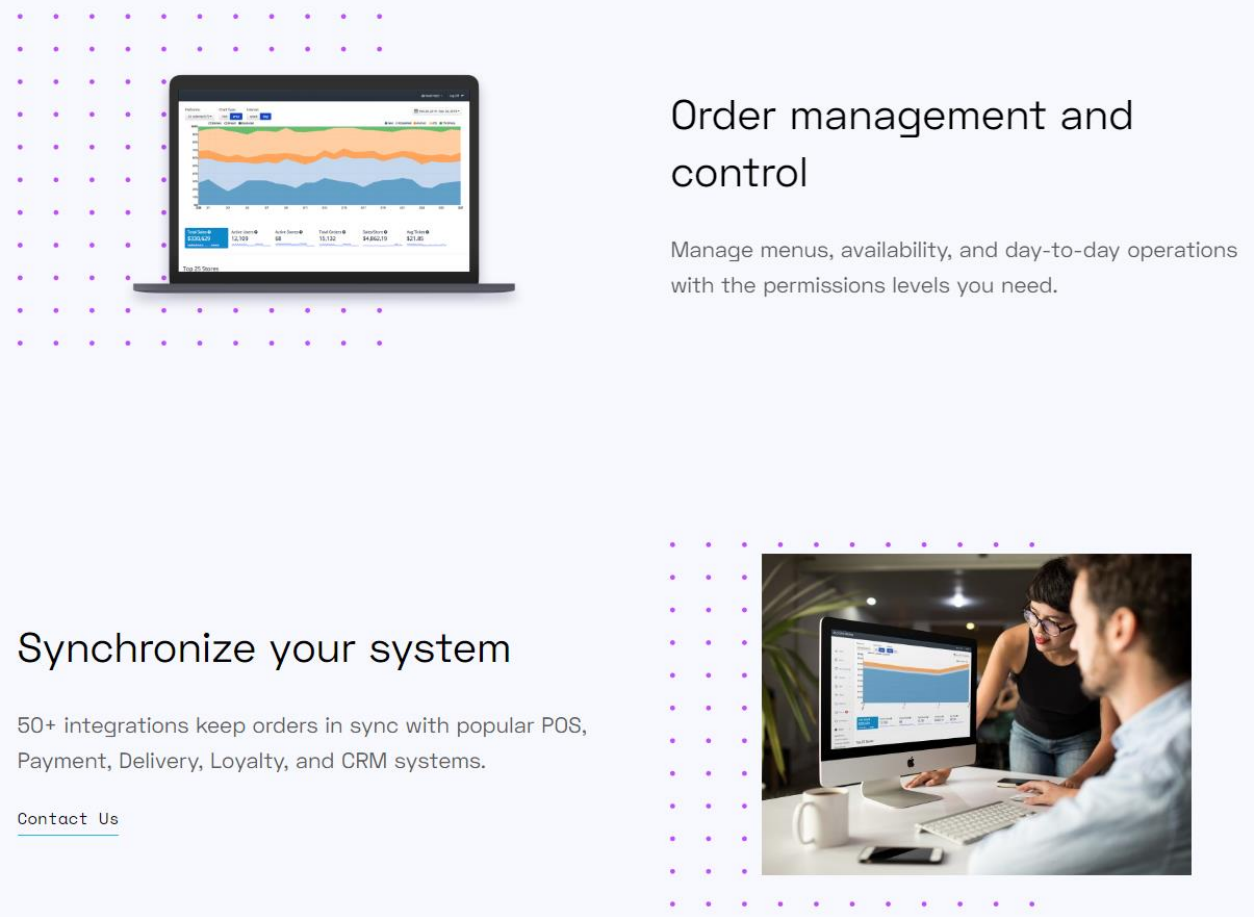
25. Without license or authorization and in violation of 35 U.S.C. § 271(a), Defendant is liable for infringement of claims 1, 3, 6 and 11 of the '651 patent by making, using, importing, offering for sale, and/or selling a rule capable intelligent automated assistants system for use with remote wireless handheld computing devices, including, but not limited to the Olo Digital Ordering Platform, because each and every element is met either literally or equivalently.

26. More specifically, multiple remote wireless computing devices, such as mobile phones or tablets, communicate with the Olo Digital Ordering Platform to e.g., enable digital ordering, and/or customer frequency/rewards and/or delivery or pick up (the "Accused System") that includes intelligent automated assistants technology, such as throttling, make time strategies, freshness logic and Dispatch's rules for real time selection of the best matched delivery service provider ("DSP").

27. The Accused System includes Defendant's Ordering API, Digital Ordering, Rails, and Dispatch.



Platform: An Enterprise Ordering Engine (available at https://www.olo.com/solutions/platform).



Id.

28. Upon information and belief, Defendant used, and regularly uses, the Accused System via its internal use and testing in the United States, directly infringing claims 1, 3, 6 and 11 of the '651 patent.

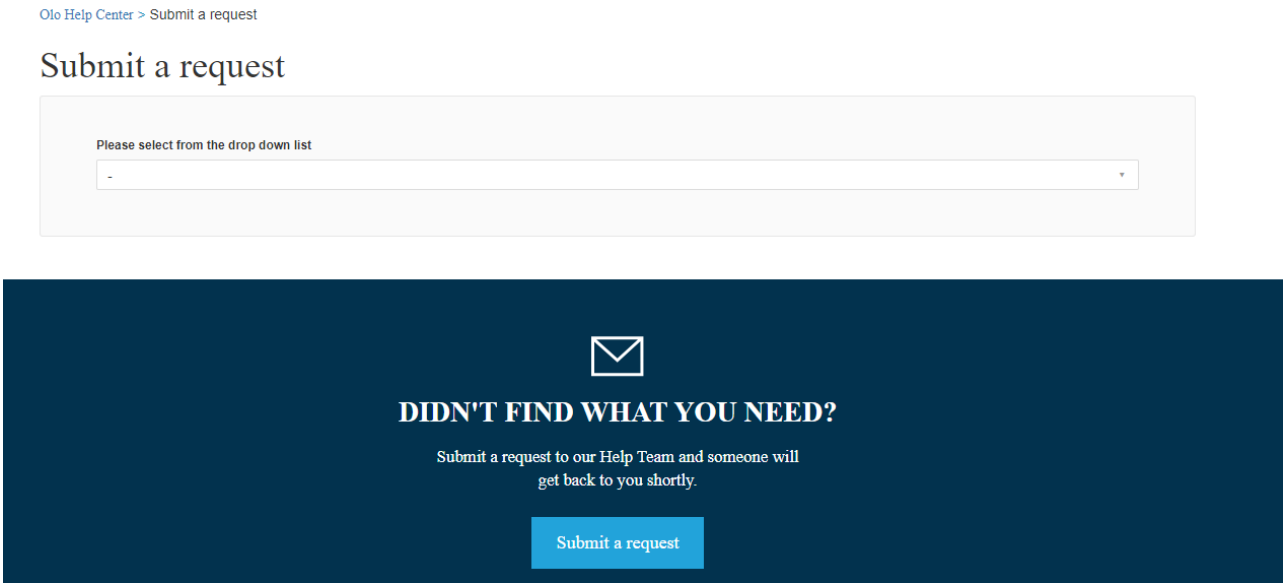
29. Defendant has "Test Engineers" that "work with developers and QA Engineers to prevent defects and performance issues through testing automation. This includes a variety of testing activities, not just updating or building frameworks, but whatever is needed to cast a wide quality net." https://jobs.lever.co/olo/d3b5e073-bc06-4fb1-84b4-2d3eb73b5d74l.

30. Defendant configures, installs, sets up and troubleshoots the Accused System for restaurant customers.

What are the requirements for configuring Rails?

1. To access Rails, the brand needs the Olo Dashboard to be fully set up. Once that is complete the brand can request Rails as an added product.
2. Olo will configure Rails on a store-by-store basis.
3. Olo works with third-party marketplaces and signs a mutual non-disclosure agreement (MNDA). The MNDA does not give the third-party marketplace any store-specific data through the Olo Ordering API.
4. Upon receipt of a signed MNDA, Olo provides the third-party marketplace with access to the Olo Ordering API to test the integration and make sure everything operates as intended.
5. A Rails amendment to the Master Services Agreement (MSA) is signed by the brand, which grants Olo permission to share the brand's designated store location's data via the Olo Ordering API.
6. Store locations inform Olo which third-party marketplaces are authorized to submit prepaid orders through Olo's Ordering API.
7. Third-party marketplaces are given access to specific store locations as covered in the MSA. If approved to transmit prepaid orders, the marketplace will be activated for that feature through Rails.
8. Third-party marketplaces pull the store info and menu then map everything to their menu structure.
9. Olo works with stores to configure the POS to display Rails-related info on the POS receipts when a Rails order is transmitted.
10. Third-party providers work with stores to send test orders and ensure proper setup of Rails.

Rails Overview (available at https://olosupport.zendesk.com/hc/en-us/articles/115005664963-Rails-Overview).



https://olosupport.zendesk.com/hc/en-us/requests/new.

Admin

- Olo's backend system where we enter store data, brand information, and settings.

Olo Terms for Partners at p. 1 (available at https://olosupport.zendesk.com/hc/en-us/article_attachments/360033571131/Olo_Terms_for_Partners.pdf).

31. Defendant controls and monitors the Accused System.

32. Online terms and conditions with end users available from Defendant's restaurant customers confirm Defendant's control of the Accused System.

33. For example, one of Defendant's restaurant customers is Benihana and Benihana's online terms and conditions with end users specifies Defendant – not Benihana – provides the online ordering system and related services, can suspend or terminate the end users' ability to use the online ordering system and related services, updates the online ordering system and related services, and that the terms and conditions are between the end users and Defendant.

User Agreement

TERMS AND CONDITIONS

Last Updated: May 17, 2017

Thank you for visiting our terms of use agreement (the "**Terms of Use**"). These Terms of Use govern your use of this website and any branded websites that link to these terms (each, a "**Website**"), the services and resources enabled therein (each a "**Service**" and collectively, the "**Services**"), and each branded application that includes links to these terms (the "**Application**" together with the Website and Services, the "**Properties**"), which are provided to you by Olo, Inc. ("**Olo**") on behalf of the company whose branding is displayed on the Properties (Benihana). This Terms of Use agreement is a legal agreement between you and Olo, and not Benihana.

PLEASE READ THIS TERMS OF USE CAREFULLY. BY ACCESSING OR USING THE WEBSITE OR SERVICES, CLICKING ON THE "I ACCEPT" BUTTON, COMPLETING THE REGISTRATION PROCESS, AND/OR BROWSING THE WEBSITE OR DOWNLOADING THE APPLICATION, YOU REPRESENT THAT (1) YOU HAVE READ, UNDERSTAND, AND AGREE TO BE BOUND BY THESE TERMS OF USE, (2) YOU ARE OF LEGAL AGE TO FORM A BINDING CONTRACT WITH OLO, AND (3) YOU HAVE THE AUTHORITY TO ENTER INTO THE TERMS OF USE PERSONALLY OR ON BEHALF OF THE COMPANY YOU HAVE NAMED AS THE USER, AND TO BIND THAT COMPANY TO THE TERMS OF USE. THE TERM "YOU" REFERS TO THE INDIVIDUAL OR LEGAL ENTITY, AS APPLICABLE, IDENTIFIED AS THE USER WHEN YOU REGISTERED ON THE SERVICES. **IF YOU DO NOT AGREE TO BE BOUND BY THE TERMS OF USE, YOU MAY NOT ACCESS OR USE THIS WEBSITE, APPLICATION OR SERVICES.**

User Agreement: Terms and Conditions (May 17, 2017) (available at https://order.benihana.com/help/useragreement).

b. **Updates**. You understand that the Properties are evolving. As a result, Olo may require you to accept updates to the Properties that you have installed on your computer or mobile device. You acknowledge and agree that Olo reserves the right, in its sole discretion, to modify the Properties from time to time, with or without notice. You may need to update third-party software from time to time in order to use the Properties.

Id.

3. **Termination**

If you materially breach the terms of this Terms of Use, Olo may suspend your ability to use the Properties or may terminate this Term of Use effective immediately, with or without notice to you. If you want to terminate this Terms of Use, you may do so by (a) notifying Olo at any time, and (b) closing your Account for all Services that you use. Your notice should be sent, in writing, to Olo's address set forth below. Upon termination of these Terms of Use, your right to use the Services will automatically terminate immediately. Olo will not have any liability whatsoever to you for any suspension or termination. All provisions of these Terms of Use, which by their nature should survive, shall survive termination of the Terms of Use, including without limitation, ownership provisions, warranty disclaimers and limitation of liability.

Id.

10. **App Stores**

You acknowledge and agree that the availability of the Application and the Services is dependent on the third party from whom you received the Application license, e.g., the Apple iTunes or Google Play app stores ("**App Store**"). You acknowledge that the Terms of Use are between you and Olo and not with the App Store. Olo, not the App Store, is solely responsible for the Properties, including the Application, the content thereof, maintenance, support services, and warranty therefor, and addressing any claims relating thereto (e.g., product liability, legal compliance or intellectual property infringement). In order to use the Application, you must have access to a wireless network, and you agree to pay all fees associated with such access. You also agree to pay all fees (if any) charged by the App Store in connection with the Properties, including the Application. You agree to comply with, and your license to use the Application is conditioned upon your compliance with, all applicable third-party terms of agreement (e.g., the App Store's terms and policies) when using the Properties, including the Application. You acknowledge that the App Store (and its subsidiaries) are third-party beneficiaries of the Terms of Use and will have the right to enforce them.

Id.

34. The Accused System includes rules executed by intelligent automated assistant technology.

35. For example, an order placed through the Accused System "has a make time associated with it depending on the 'Total Make Time' strategy and the items in the customer's cart," and Defendant's "throttling mechanism evaluates the total make-time of all orders in a 15-minute period and allows restaurants to cap the total number of make time minutes for all orders." "When a customer attempts to place an order during a time when the kitchen cannot support more

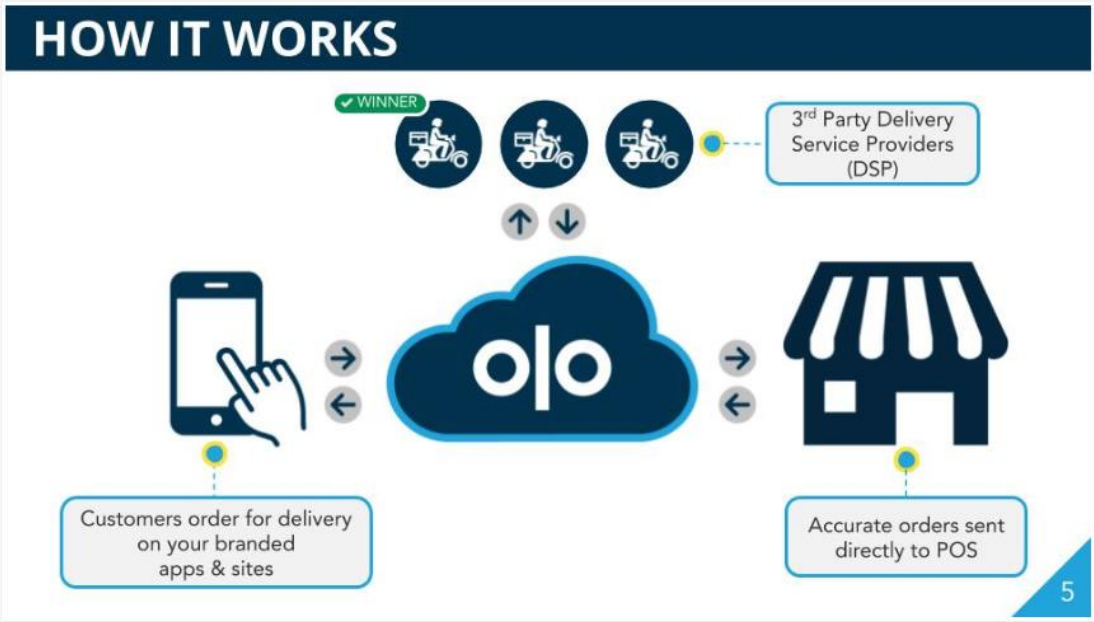
orders, they are 'throttled' into the next available time slot."

Throttling

- Every order has a make time associated with it depending on the "Total Make Time" strategy and the items in the customer's cart. Our throttling mechanism evaluates the total make-time of all orders in a 15-minute period and allows restaurants to cap the total number of make time minutes for all orders.
- When a customer attempts to place an order during a time when the kitchen cannot support more orders, they are 'throttled' into the next available time slot.
- For more information, please see here.

Olo Terms for Partners at p. 5 (available at https://olosupport.zendesk.com/hc/en-us/articles/360031083251-Olo-Terms-for-Partners).

36. The Accused System provides restaurant customers with the "best-matched" quote from available delivery service providers and optimizes delivery pricing and strategies to align with Defendant's restaurant customers' needs.



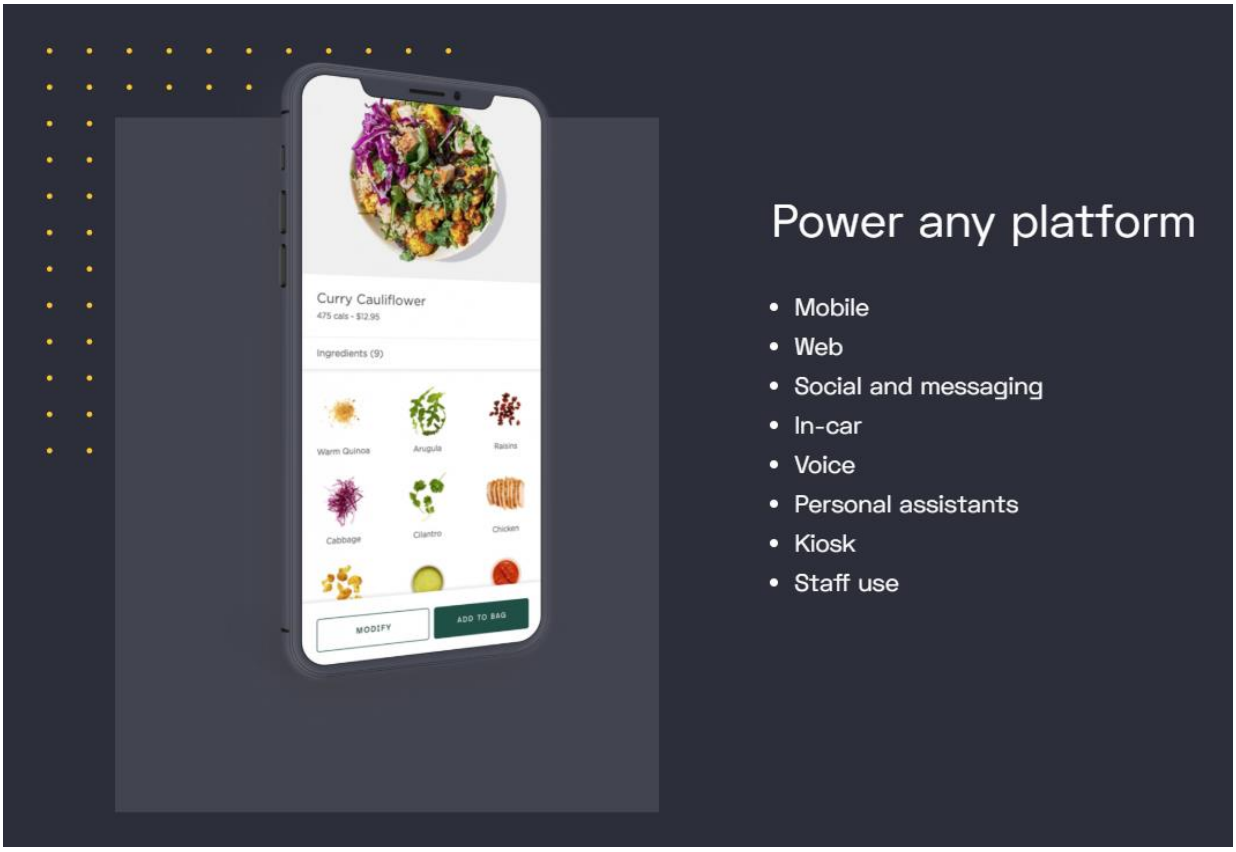
Here's a quick overview of how Dispatch works within Olo:

1. Customer visits your existing digital ordering site or mobile app, builds an order, and pays ahead
2. At checkout, the customer selects **Delivery**
3. Upon selecting **Delivery** the customer enters their delivery address and receives the best-matched quote from available DSPs. They will then be able to view the delivery fee and estimated delivery time returned from the DSP and can continue with the order
4. The order is then sent to the store like all online orders and the DSP will pick up the food and deliver it to the customer
5. The customer can track the entire delivery process from the courier traveling to the restaurant to the order being delivered – all live from the digital ordering website/app

What Is Dispatch? (available at https://olosupport.zendesk.com/hc/en-us/articles/115000835946-What-is-Dispatch-).

37. Defendant's Dispatch is integrated with the systems and the smart phone equipped drivers of multiple delivery partners, including e.g., Uber Eats, Waitr, Postmates, DoorDash and others. *See* Olo Powers Restaurant Order-Ahead From Google Maps, Search, Assistant (Oct. 2, 2019) (available at https://www.pymnts.com/google/2019/olo-powers-restaurant-order-ahead-google-maps-search-assistant/) (". . . Olo will further bolster its position as the technology interface for the restaurant industry. The company already has third-party integrations with UberEats, Postmates, DoorDash, Waitr, Caviar and others.").

38. The Accused System includes remote wireless handheld computing devices.



Digital Ordering: Right on Time, Every Time (available at https://www.olo.com/solutions/ordering/).

Id.

39. The Accused System includes at least one hospitality software back-office application with at least one intelligent automated assistant ("IAA")-based interface and is enabled to execute one or more rules while communicating via free format messaging and at least one interface with fixed format messaging communications with web browsers for communicating bi-directionally with two or more different remote wireless handheld computing devices.

40. More specifically, the Accused System includes an integrated back-office hospitality software application that includes Digital Ordering, Rails, and Dispatch and includes an IAA-based interface as part of Defendant's Ordering API that communicates with e.g., Google Assistant or Facebook Messenger. The back-office hospitality software application is enabled to execute one or more rules, such as throttling, make time strategies, freshness logic, and Dispatch's rules for real time selection of the best matched delivery service provider ("DSP"), while communicating via free format messaging via e.g. Facebook Messenger or Google Assistant and at least one interface with fixed format messaging communications with web browsers as part of Defendant's Ordering API for communicating bi-directionally with two or more different remote wireless handheld computing devices as to claim 1 and three or more as to claim 3.

41. The Accused System includes rules that are executed by the Accused System when orders are placed using free format messaging using e.g., Google Assistant or Facebook Messenger.

> Google and restaurant digital ordering platform, Olo, have joined to allow customers at more than 70,000 Olo-connected restaurant locations to order directly through Google Search, Maps and the Google Assistant. In fact, consumers can simply ask Google Assistant to place the order by first saying either "Hey Google, order food from (specific restaurant)," or "Hey Google, order food again from specific restaurant]."
>
> This is all possible now that Olo's Rails restaurant ordering and fulfillment platform has integrated with Search, Maps and the Google Assistant, allowing orders to go directly into the restaurant POS systems and ordering streams, a news release said.

Google-Olo Partnership Makes Ordering as Easy as a Google Voice Search (Oct. 2, 2019) (available at https://www.qsrweb.com/news/google-olo-partnership-makes-ordering-as-easy-as-a-google-voice-search/); *see also* Olo Teams with Google on Direct Ordering (Oct. 2, 2019) (available at https://www.qsrmagazine.com/news/olo-teams-google-direct-ordering).

> **Olo** has announced that it is integrating its rails platform with Google so that customers can order directly from restaurant brands across Google Search, Maps and Google Assistant.
>
> The integration allows Olo's network of more than 70,000 restaurant brand locations to be enabled on Google's platforms so that consumers can order directly on Google from Search and Maps. Users can also ask the Google Assistant for help on both Android and iOS phones. Each order is transferred directly into the restaurant's point of sale (POS) and ordering stream, allowing brands to maintain access to data that has become an important currency in the food ordering landscape.
>
> "Search is increasingly becoming the path to purchase in the **restaurant** space and we are thrilled to team up with Google to make ordering easy while allowing restaurants to own the digital relationship with their guests," Noah Glass, founder and CEO of Olo, said in an emailed press release. "Any consumer searching for a restaurant brand should have easy options to order from the restaurant directly with as few clicks as possible, which is what this integration enables."

Olo Powers Restaurant Order-Ahead From Google Maps, Search, Assistant (Oct. 2, 2019) (available at https://www.pymnts.com/google/2019/olo-powers-restaurant-order-ahead-google-maps-search-assistant/).

The Conversable-Olo integration is platform-agnostic, allowing brands to create conversational commerce experiences on the channels that resonate with their customers such as Facebook Messenger, Twitter and Kik.

"Olo's focus on innovation and commitment to constantly improving the end customer experience makes them a perfect partner for Conversable. Leveraging the Conversable platform will provide a new level of convenience for Olo deployed customers and allow ordering directly in the messaging channels their customers prefer," said Ben Lamm, CEO and co-founder of Conversable.

"As digital interactions get smarter and we see customers spending more time in messaging apps, we're thrilled to work with a partner that prioritizes both customer experience and complex business logic for our restaurant brands," said Marty Hahnfeld, Olo's Chief Commercial Officer. "The integration with Conversable manages to pull all of these gritty parts of a digital transaction into something that feels very natural to the customer."

Olo and Conversable Partner to Bring Conversational Commerce to the Restaurant Industry (Aug. 30, 2016) (available at https://www.businesswire.com/news/home/20160830005050/en/Olo-Conversable-Partner-Bring-Conversational-Commerce-Restaurant)

Results

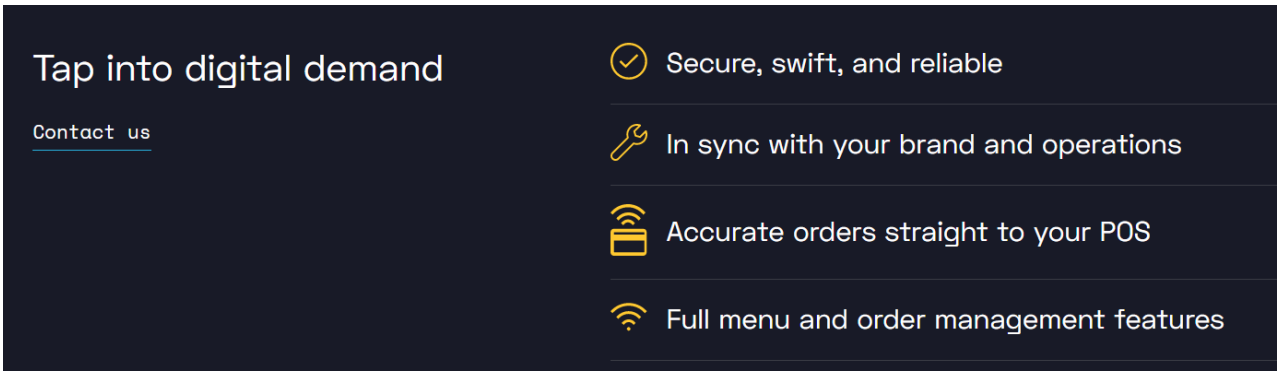
Since switching to Olo, Wingstop online ordering performance has more than quadrupled - with digital sales growing from less than 7% to over 36% today. Digital customers spend $5 more than those placing orders in-store. CEO Charlie Morrison said the app "has been rated best-in-class in terms of ease of use and functionality by our customers with an industry-leading 29% conversion rate." The Wingstop team is utilizing the flexible Olo commerce engine to develop new ordering opportunities such as conversational commerce, allowing customers to tap into integrated ordering with Facebook messenger and Twitter.

Wingstop: Working to Digitize Every Transaction (available at https://www.olo.com/customers/wingstop/).

42. The Accused System's technology platform includes e.g., Digital Ordering, Dispatch, and Rails.

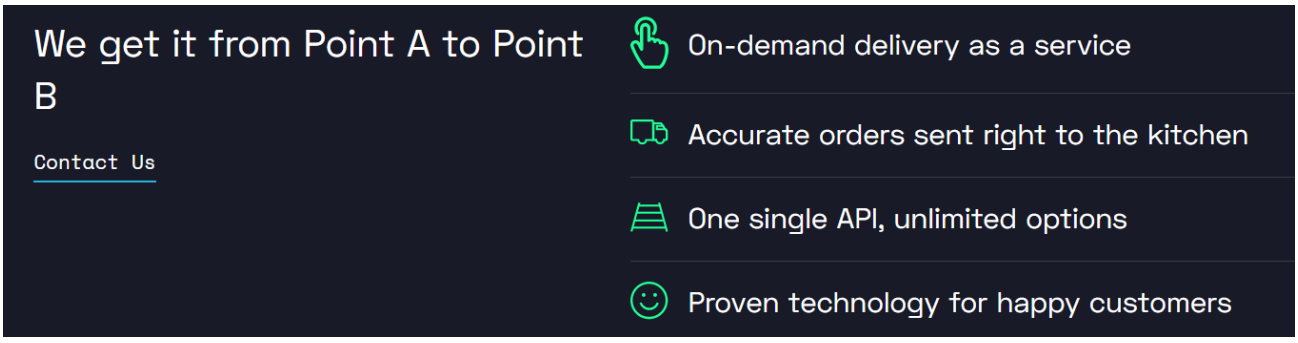
A powerful, open platform to enable direct digital ordering for your brand.

Digital Ordering: Right on Time, Every Time (available at https://www.olo.com/solutions/ordering/).

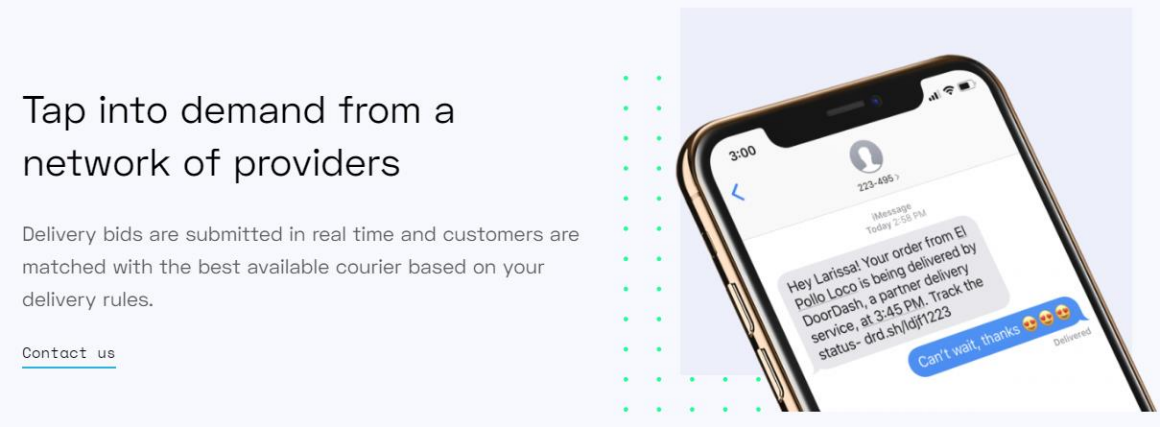


Id.

Delivery: An Integrated Network Unlike Any Other (available at https://www.olo.com/solutions/delivery).



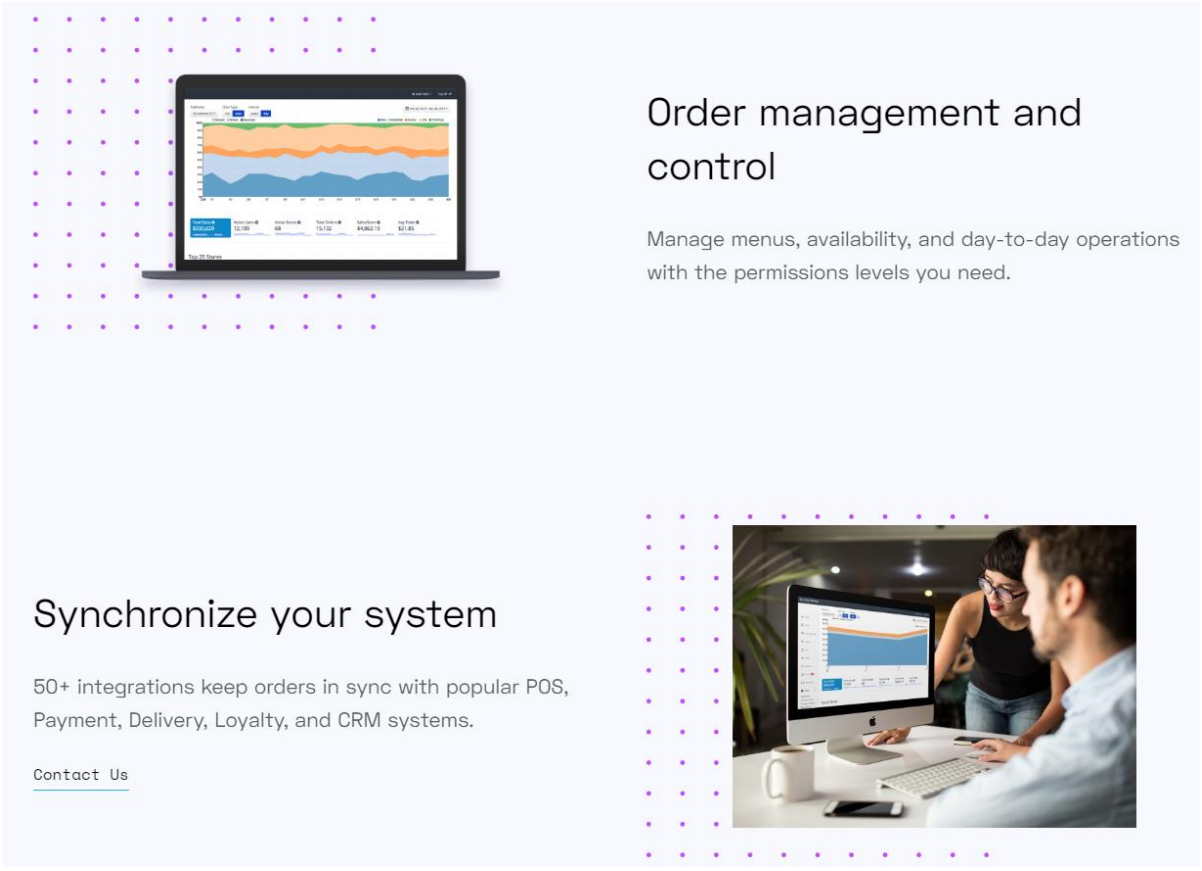
Id.



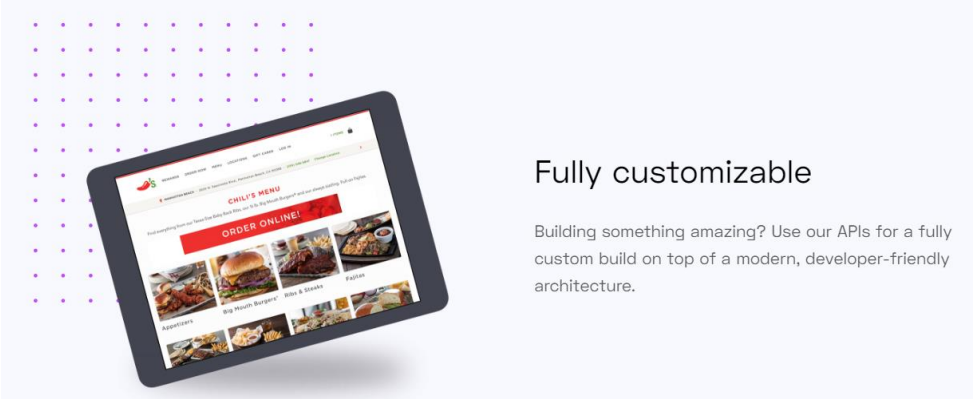
Id.

Powering millions of orders per week, Olo is the fastest and most reliable digital ordering engine on the market.

Platform: An Enterprise Ordering Engine (available at https://www.olo.com/solutions/platform/).



Id.

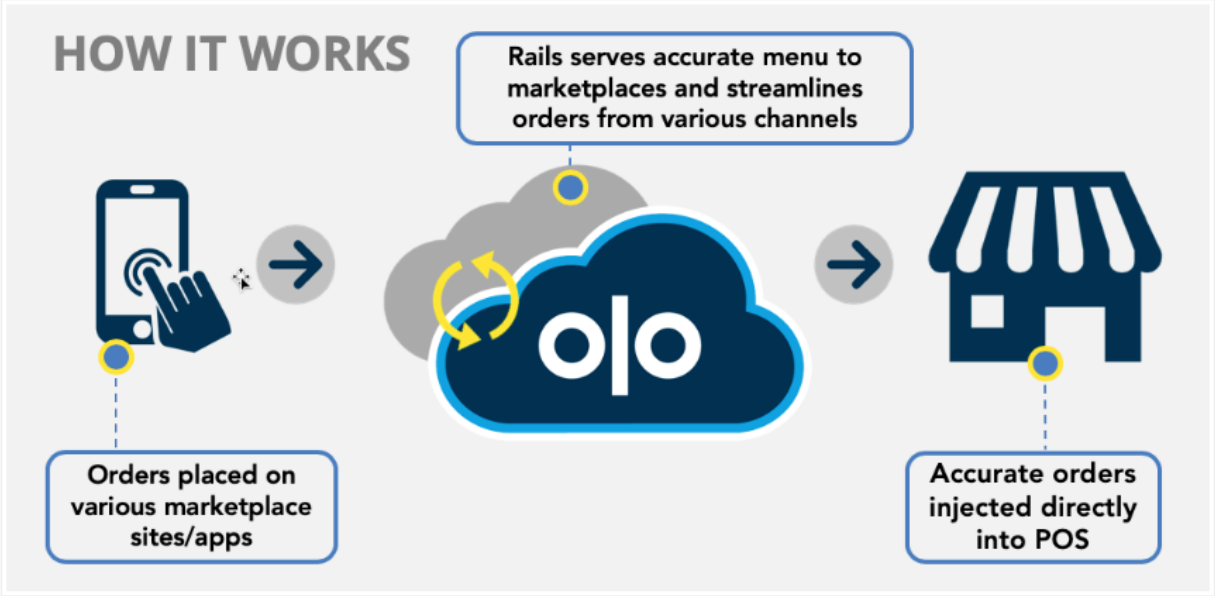


Id.

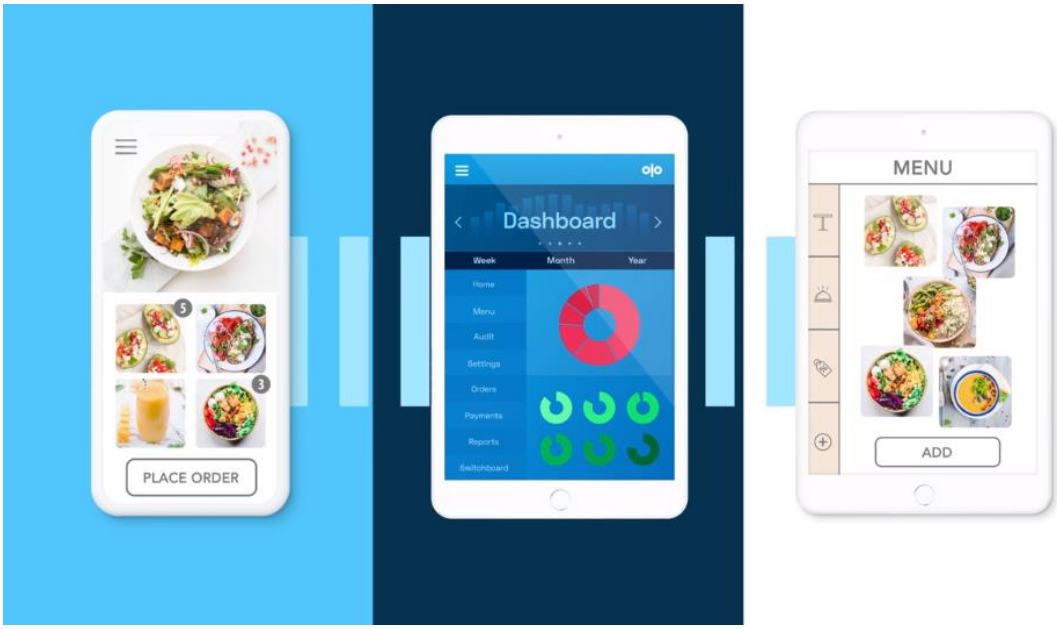
> Subway has integrated its systems and vast network of restaurants through Rails, Olo's platform that enables restaurants to efficiently process and integrate orders originating from third-party destinations. Orders are unified on Olo's platform and sent directly into the restaurant's point of sale to improve operations efficiency and guest experience. It is a two-way integration, allowing Subway to benefit from accurate pricing and menu, while inbound orders are automatically directed to the restaurant's point of sale and order management systems.

Subway Restaurants Partner with Olo to Integrate Digital Ordering Ecosystem and Drive Guest Convenience in U.S. Restaurants (Feb. 12, 2020) (available at https://www.businesswire.com/news/home/20200212005284/en/Subway%C2%AE-Restaurants-Partner-Olo-Integrate-Digital-Ordering); *see also id.* ("Rails makes it easy for restaurant operators to list menu items on third-party marketplaces and drive incremental sales without the need to manage multiple tables on the restaurant counter and disparate order flows.).

Rails provides stores with a solution that consolidates all digital orders into one location, regardless of the third-party interface. The holding receptacle could range from a highly-integrated source, such as the store's POS system or a non-integrated source such as a centralized tablet device, email, fax, or phone. Rails' two-way integration benefits everyone involved in the delivery process: customers receive accurate and real-time menu, price, and location information; delivery couriers are able to conduct more deliveries per hour without any lag time, and the restaurant brand and locations remain in control through a single integration to multiple marketplaces. Olo-powered restaurant locations now have a way to grant access, on a store-by-store level, to third-party marketplaces to receive real-time menu, price, and location information.



Rails Overview (available at https://olosupport.zendesk.com/hc/en-us/articles/115005664963-Rails-Overview:).



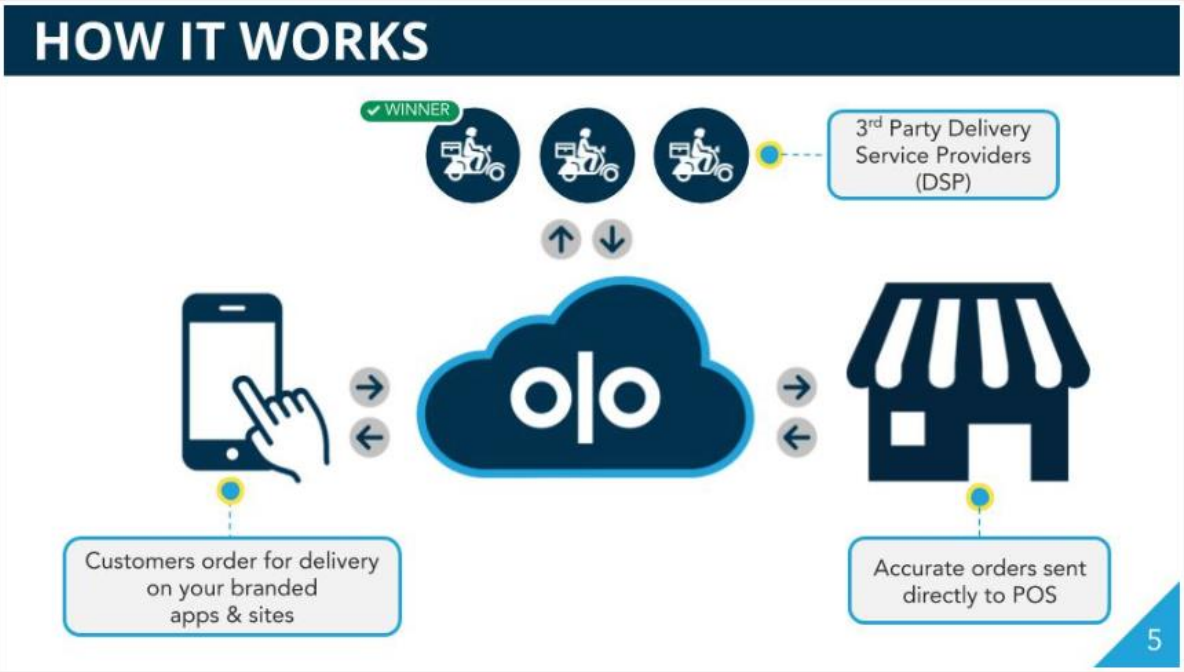
Rails Overview at 01:09 (available at https://vimeo.com/403098062).

Rails helps restaurant brands manage orders from third-party marketplaces in one place. Gone are the days of "tablet hell" and manually processing order data from different channels. Rails syndicates menu data to approved marketplace partners and sends the information directly to your POS system. Learn more about how Rails can streamline your third-party ordering operations at olo.com.

Rails Overview (available at https://vimeo.com/403098062).

How does Dispatch work?

Dispatch brings together a network of delivery service providers (DSPs) on one platform enabling your restaurant(s) to offer a consistent delivery experience through your website and app. Customers are able to order using your existing online ordering system and orders are prepared as usual, with a final hand-off to the DSP who fulfills the delivery.



Dispatch FAQ (available at https://olosupport.zendesk.com/hc/en-us/articles/360019209451-Dispatch-FAQ).

Dispatch

- Olo's white-label delivery product allowing brands to enable third-party delivery through their branded site and app. Dispatch leverages multiple Delivery Service Providers (DSPs) to complete orders. Read more about Dispatch here.

Olo Terms for Partners at p. 2 (available at https://olosupport.zendesk.com/hc/en-us/article_attachments/360033571131/Olo_Terms_for_Partners.pdf).

43. The Accused System's back-office application includes rule capable intelligent aspects.

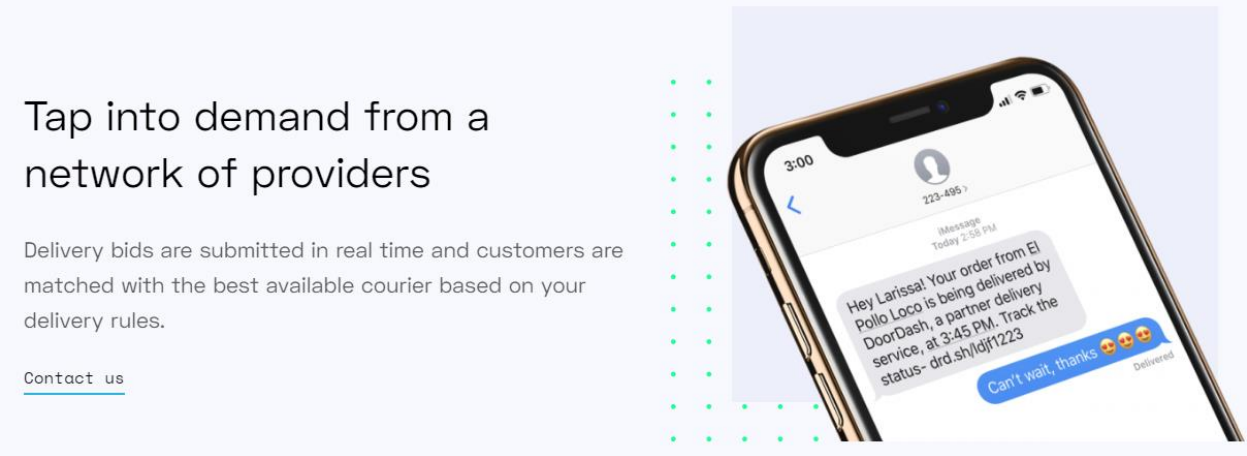
44. For example, every order placed through the Accused System "has a make time associated with it depending on the 'Total Make Time' strategy and the items in the customer's cart," and Defendant's "throttling mechanism evaluates the total make-time of all orders in a 15-minute period and allows restaurants to cap the total number of make time minutes for all orders." When a customer attempts to place an order during a time when the kitchen cannot support more orders, they are 'throttled' into the next available time slot."

Throttling

- Every order has a make time associated with it depending on the "Total Make Time" strategy and the items in the customer's cart. Our throttling mechanism evaluates the total make-time of all orders in a 15-minute period and allows restaurants to cap the total number of make time minutes for all orders.
- When a customer attempts to place an order during a time when the kitchen cannot support more orders, they are 'throttled' into the next available time slot.
- For more information, please see here.

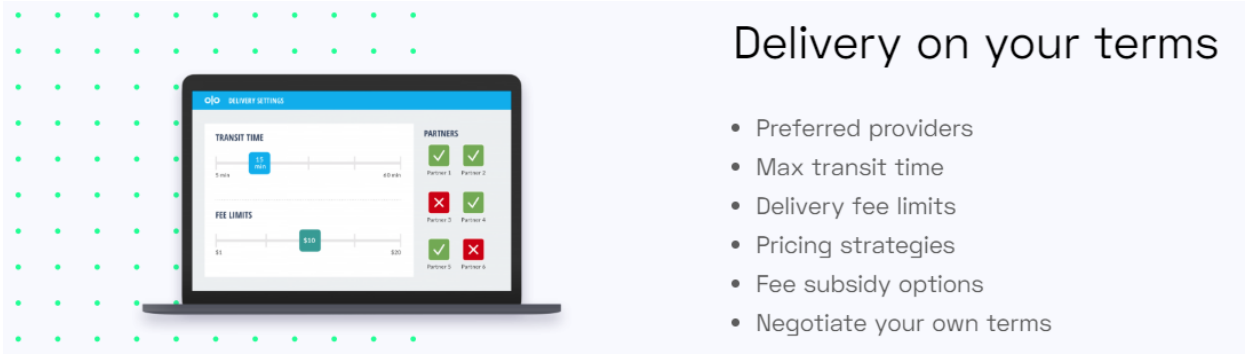
Olo Terms for Partners at p. 5 (available at https://olosupport.zendesk.com/hc/en-us/articles/360031083251-Olo-Terms-for-Partners).

45. Dispatch provides additional examples of rule capable intelligent aspects. For example, Dispatch provides restaurant customers with the best-matched quote from available delivery service providers – "Delivery bids are submitted in real time and customers are matched with the best available courier based on your delivery rules."



Delivery: An Integrated Network Unlike Any Other (available at https://www.olo.com/solutions/delivery).

46. Dispatch's delivery rules include "Preferred providers," "Max transit time," "Delivery fee limits," "Pricing strategies," "Fee subsidy options" and "Negotiate your own terms."



Id.

47. Defendant provides the following "quick overview" of Dispatch:

Here's a quick overview of how Dispatch works within Olo:

1. Customer visits your existing digital ordering site or mobile app, builds an order, and pays ahead
2. At checkout, the customer selects **Delivery**
3. Upon selecting **Delivery** the customer enters their delivery address and receives the best-matched quote from available DSPs. They will then be able to view the delivery fee and estimated delivery time returned from the DSP and can continue with the order
4. The order is then sent to the store like all online orders and the DSP will pick up the food and deliver it to the customer
5. The customer can track the entire delivery process from the courier traveling to the restaurant to the order being delivered – all live from the digital ordering website/app

What Is Dispatch (available at https://olosupport.zendesk.com/hc/en-us/articles/115000835946-

What-is-Dispatch-).

48. As another example of Dispatch's intelligent rules, Dispatch "leverages a freshness logic, also known as the food quality logic, which holds an order until the delivery driver is scheduled to pick up the food from the restaurant." Dispatch Freshness Logic (available at https://olosupport.zendesk.com/hc/en-us/articles/360025897932-Dispatch-Freshness-Logic).

49. Defendant provides an example of how the freshness logic works:

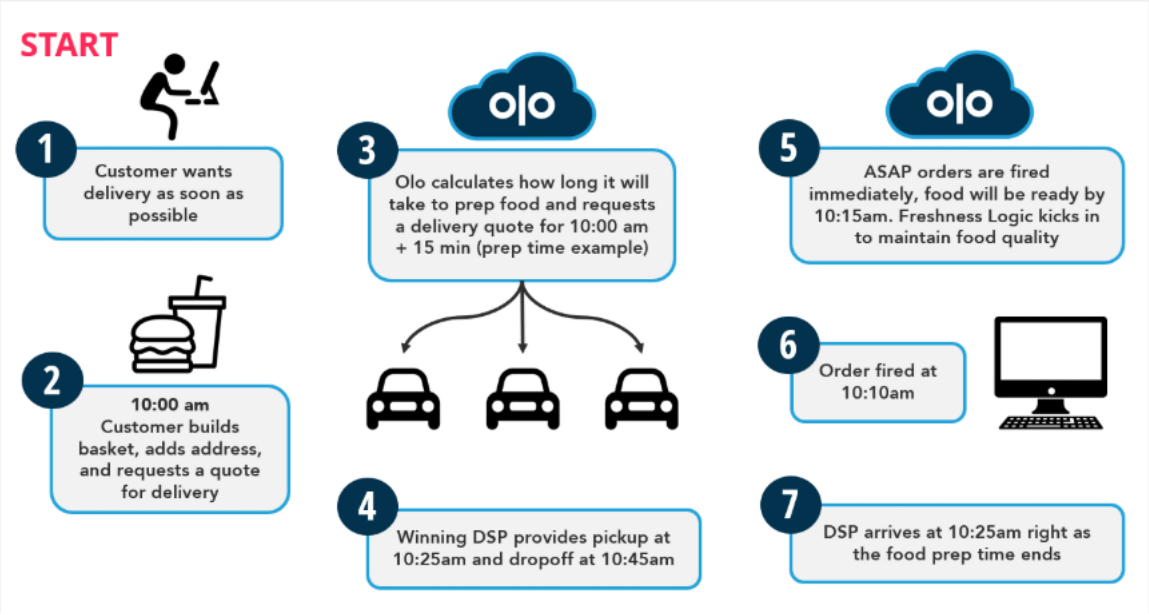
Using the freshness logic

Now, let's consider a scenario where the freshness logic is enabled.

- A customer requests food for delivery at 10:00 am again
- The restaurant's prep time for their order is 15 minutes
  - A Dispatch quote request is sent at 10:15 am
  - DSP provides an estimated pickup time of 10:25 am
- Handoff Gap: 10 minutes
- Fire Time: 10:10 am (ASAP is converted to Advanced Order)
- Time Ready: **10:25 am** (also pick up time by the DSP)

In this example, the 10 min handoff gap was recognized and the order was converted to an advanced (future) order and held back for that duration before being sent to the restaurant. We fired the order exactly when the DSP told us it was supposed to arrive to pick up the food. This all happens in the background and does not impact any store operations or customer experience.

To help understand this logic, we've put together a visual walkthrough to show how an order goes from being placed by a customer to being picked up by a DSP.



Id.

50. A touted benefit of Dispatch is that "[o]rders are managed via Olo's make-time logic to ensure food is fresh and ready to handoff when couriers arrive."

What are the benefits of Dispatch?

Dispatch gives restaurants the ability to offer branded-delivery directly through your site and app. Using Dispatch allows you to craft the best user experience and, most importantly, own the relationship with your customers. Our continually growing nationwide DSP network covers more than 50% of the US population and offers you flexibility when deciding which delivery providers to work with. Restaurants can choose to work with all DSPs that offer coverage in your area or a select few who meet your chosen criteria.

Dispatch integrates with your POS system so all delivery orders are sent directly to restaurants with no additional hardware needed. Orders are managed via Olo's make-time logic to ensure food is fresh and ready to handoff when couriers arrive. The best part? Delivery orders through Dispatch don't come with hefty commissions you would otherwise pay for orders originating on third-party marketplaces (Dispatch pricing details are covered below). Brands have the ability to control fees incurred by the customer based on market conditions or store-specific needs.

Dispatch FAQ (available at https://olosupport.zendesk.com/hc/en-us/articles/360019209451-Dispatch-FAQ).

51. Dispatch includes features such as "Priority Order Settings," which allows restaurants to "push large catering orders on Dispatch which require special attention to a specific provider," "manage your self-delivery (via Dispatch) experience," and "[m]ove large orders to self-delivery providers and smaller orders to delivery service providers (DSPs)."

To enable this setting in the Dashboard, follow the instructions in the Dispatch Store Settings.

- Use this setting to push large catering orders on Dispatch which require special attention to a specific provider.
- Use this to manage your self-delivery (via Dispatch) experience. Move large orders to self-delivery providers and smaller orders to delivery service providers (DSPs).
  - To learn more about enabling self-delivery via Dispatch, contact us at dispatch@olo.com

Dispatch Priority Order Settings (available at https://olosupport.zendesk.com/hc/en-us/articles/360031013991-Dispatch-Priority-Order-Settings).

52. Defendant explains that the Dispatch Priority Order Settings works as follows:

How does this feature work?

If you enable this setting by providing a **priority order value** and a **priority delivery service provider**, then during the quote request process, we will first check for order value.

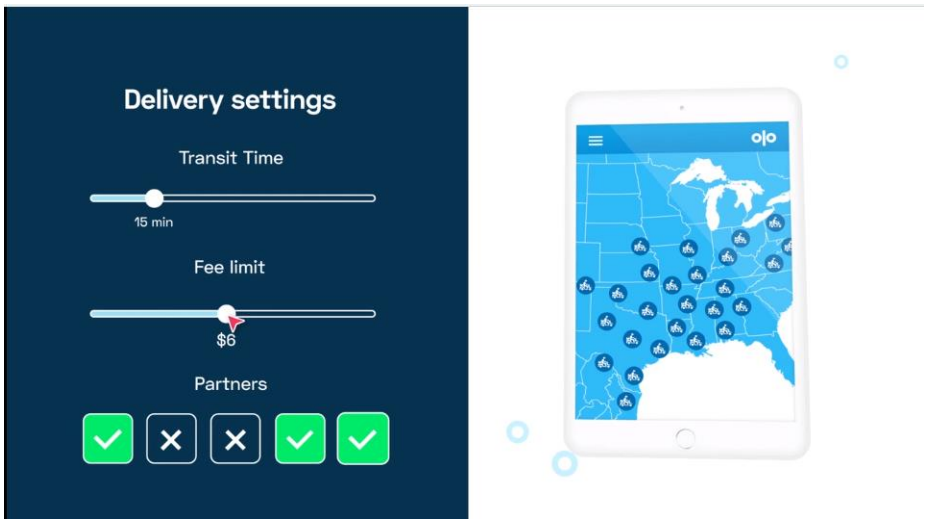
- If the order value is greater than or equal to the priority order value, we will "always" ask for a quote from the priority DSP. This will ignore the Preferred Provider setting unless the priority order delivery provider is also preferred.
- If the DSP provides a quote, the customer will continue with that option or we will notify the customer that delivery is not available at this time.
- If the order value is below the priority order value, we will use our standard logic to poll for the best DSP based on the Dispatch settings for the store.

Id.

53. The Accused System includes a master database containing data and parameters of the at least one hospitality software application pursuant to a master database file structure with predefined formats and specific fields and which is accessible through a database application programming interface ("API").

54. For example, the Accused System includes a database that has data and parameters including those for menus, ordering and the executed rules discussed above.

55. The image below shows "Delivery settings" parameters in Dispatch.



Dispatch Overview at 00:36 (available at https://vimeo.com/403094202).

56. The database includes a file structure with predefined formats and specific fields.

57. The database is accessible through an API.

58. Defendant's maintenance of its database confirms it is a master database and resides on a server since "all sites and services will be unavailable" during scheduled maintenance, and orders "scheduled to fire" at Defendant's restaurant customers will be queued during the maintenance.

Database Maintenance

Scheduled Maintenance Report for Olo

Completed

The scheduled maintenance has been completed.

Posted 1 year ago. Nov 14, 2018 - 05:56 EST

In progress

Scheduled maintenance is currently in progress. We will provide updates as necessary.

Posted 1 year ago. Nov 14, 2018 - 03:00 EST

Scheduled

On Wednesday November 14 between 3am and 6am ET, Olo will be taking scheduled downtime for an offline database maintenance operation. For a period during this window, all sites and services will be unavailable. Orders scheduled to fire during this period will queue until after the system is back up. If for any reason we need to back out of the maintenance, it will be retried the following day, November 15 during the same time window.

Posted 1 year ago. Nov 07, 2018 - 19:34 EST

This scheduled maintenance affected: Ordering API, Point of Sale API, Desktop Web Ordering, Mobile Web Ordering, Mobile App Ordering, Switchboard, Dashboard, and Scheduler.

← Current Status

Powered by Statuspage

Database Maintenance (available at https://olo.statuspage.io/incidents/84s4zj9j5p0c); *see also* Fixing Menu Mismatches (available at https://olosupport.zendesk.com/hc/en-us/articles/360025180392-Fixing-Menu-Mismatches); Olo Terms for Partners at p. 3 (available at https://olosupport.zendesk.com/hc/en-us/articles/360031083251-Olo-Terms-for-Partners) ("The Company Menu controls the menu at the Company Level. There is also a Store level menu where specific categories and menu items can be controlled at the Store level.")

59. Defendant also hires individuals to maintain the database, and the details of Defendant's job posting for "Senior Database Administrator" confirm the database resides on a server.

> As part of the team you will play a significant and visible role in helping us scale one of the most advanced food ordering platforms in the market. You will collaborate with our engineering team to guide database designs and query optimizations. You will help us ensure that our databases run smoothly across both Production and Development/QA environments. You will contribute to ongoing performance monitoring, alerting, and tuning. You will help us diagnose and resolve production incidents.

Senior Database Administrator (available at https://jobs.lever.co/olo/800a39d8-b428-4575-857a-672e7211ae5b).

> **Requirements**
>
> - Experience monitoring and tuning Microsoft SQL Server in a 24/7 OLTP environment
> - Experience monitoring and tuning PostgreSQL in a 24/7 OLTP environment
> - Experience operating, maintaining and troubleshooting Always on Availability Groups
> - Detailed knowledge of RDBMS internal workings
> - Solid expertise writing and optimizing complex SQL queries
> - Comfortable in the scripting language of your choice
> - Experience with Infrastructure as Code and Git
> - Experience running databases in a Cloud environment.Experience with data warehousing and ETL/ELT pipelines

Id.

60. Technologies such as SQL Server, PostgresSQL, RDBMS and DQL queries evidence the Defendant database(s) contain data and parameters pursuant to a master database file structure.

61. The Accused System includes at least one computer server, with associated data storage capabilities for the at least one hospitality software application, and the master database.

62. For example, the Accused System uses Amazon Web Services ("AWS") which includes a computer server that includes storage for the hospitality software application and the master database.

> Our technology stack is rooted in .NET and SQL Server running in an AWS infrastructure, and we leverage modern software engineering tools such as GitHub, TeamCity, Octopus Deploy, Datadog, and Sumo Logic, as well as heavy use of OSS.

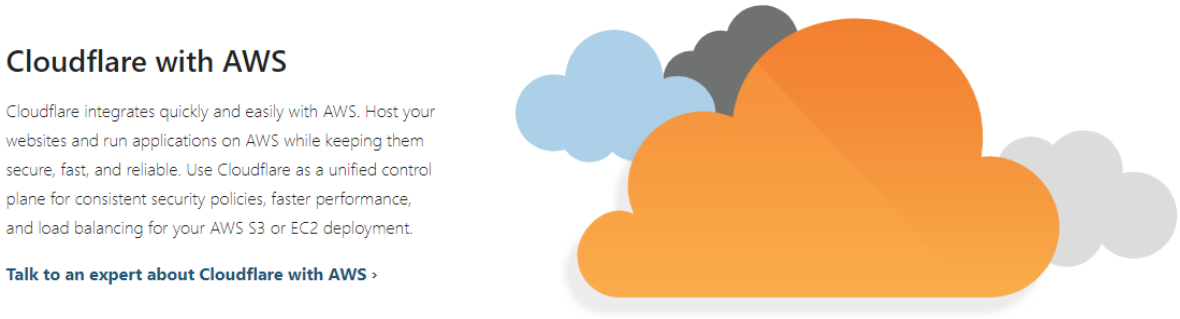
Director, Platform Engineering (available at https://jobs.lever.co/olo/5014fce8-d216-48b0-82d0-b59ddacfab53).

63. AWS uses servers. *See, e.g.,* Brink: What can I do when I am seeing Code 101 POSisOffline errors when my POS is online with Brink (available at https://olosupport.zendesk.com/hc/en-us/articles/360039668432-Brink-What-can-I-do-when-I-am-seeing-POS-is-Offline-errors-When-my-POS-is-online-with-Brink).

64. The Accused System uses Cloudflare which integrates with AWS.

> **Olo's Solution: SSL Certificates and Security Built for SaaS Companies**
>
> Today, Olo secures their white labeled webshops with SSL for SaaS and has entirely replaced their previous performance and security vendor with Cloudflare. "Our engineers were happy to say goodbye to the unwieldy code," Murray remarked. "With SSL for SaaS we have implemented a simpler flow because Cloudflare's API handles the provisioning, serving, automated renewal and maintenance of our customers' SSL certificates. Plus, end-to-end HTTPS now means we have bolstered privacy and performance for our customers, and can leverage browser features, like Local Storage, that we couldn't use before." Furthermore, these SSL improvements were made without having to change Olo's end-user implementation.

Olo: Secure, Branded Domains for Olo's Food Ordering Service Customers (available at https://www.cloudflare.com/case-studies/olo/).



Cloudflare with AWS (available at https://www.cloudflare.com/multi-cloud/aws/).

65. The Accused System's use of the HTTPS protocol in communicating information to and from various URLs, including Defendant's restaurant customers' websites, and use of other web technologies as discussed herein, evidence server and communications control module usage.

66. The Accused System includes at least one application software-based communications control module ("CCM") integrated with the hospitality application software and enabled to interface with at least one communications protocol.

67. For example, the Accused System includes a communications control module that is integrated with the hospitality application software and uses at least HTTP or HTTPS, which are communications protocols.

68. The Accused System includes at least one web server enabled by the communications control module to concurrently communicate via the internet with multiple different remote wireless handheld computing devices.

69. For example, a web server running HTTPS is enabled by the computer control module to concurrently communicate with multiple different mobile devices over the Internet via a web browser, such as Google Chrome, to access the ordering website to place an order for food delivery via the hospitality software application.

70. The Accused System includes at least one wireless handheld remote computing device with at least one IAA mobile application and user interface with free format messaging that enables access to and communications with the back-office hospitality software application and its IAA-based interface.

71. For example, the Accused System includes a mobile device with at least one IAA-based application such as e.g., Google Assistant or Facebook Messenger.

72. Google Assistant or Facebook Messenger enable access and communications with the hospitality software application and the IAA interface via Defendant's Ordering API to communicate.

73. The Accused System includes at least one other wireless handheld remote computing device which uses a web browser-based user interface with fixed format messaging to access and communicate with the back-office hospitality application software.

74. For example, the Accused System includes a mobile device with a web browser that accesses and communicates with the hospitality software using fixed format messaging.

75. The Accused System includes at least one external application programming interface for fully integrating via the internet the hospitality back-office software application with one or more non hospitality software applications.

76. For example, the Accused System is fully integrated over the internet to the hospitality software application to Google Search and Google Maps via an external API. *See* Google, Olo Partnership Gives Restaurants Control of Consumer Data (Oct. 1, 2019) (available at https://www.nrn.com/news/google-olo-partnership-gives-restaurants-control-consumer-data) ("Under a partnership announced Tuesday, Olo's network of more than 70,000 restaurants can opt-in to have their brands integrated with Google Search, Maps and Google Assistant for digital food

orders. The partnership means any brand working with Olo can now 'plug into' this frictionless ordering system without being re-directed to a third-party site."); *see also* Developer Support Engineer (available at https://remotify.me/remote-job/2757/developer-support-engineer) ("[T]he emergence of third party restaurant marketplaces and delivery services has opened new sales channels for restaurant chains, and Olo enables those channels via integrations to our APIs.").

77. The Accused System includes elements that are enabled to communicate bi-directionally in real time via the back-office hospitality application software and the database API and the communications control module while utilizing the parameters and data of the master database file structure in interfacing the back-office hospitality software application between and with the two or more remote wireless handheld computing devices with their different user interfaces while maintaining consistency with the master database.

78. For example, there is consistency with the master database using price updater and menu export.

Subway® joins Olo's customer base of 300 restaurant brands with access to new Rails features such as:

- **Price updater:** Allows restaurant brands to set and adjust pricing for each marketplace they work with, which is then syndicated out to partners.
- **Menu export:** An automated service that alerts marketplace partners when menu changes are made. A store or menu change within Olo's database will trigger the creation of a new store file along with a notification to marketplace partners.

Subway Restaurants Partner with Olo to Integrate Digital Ordering Ecosystem and Drive Guest Convenience in U.S. Restaurants (Feb. 12, 2020) (available at https://www.businesswire.com/news/home/20200212005284/en/Subway%C2%AE-Restaurants-Partner-Olo-Integrate-Digital-Ordering).

> Subway has integrated its systems and vast network of restaurants through Rails, Olo's platform that enables restaurants to efficiently process and integrate orders originating from third-party destinations. Orders are unified on Olo's platform and sent directly into the restaurant's point of sale to improve operations efficiency and guest experience. It is a two-way integration, allowing Subway to benefit from accurate pricing and menu, while inbound orders are automatically directed to the restaurant's point of sale and order management systems.

Id.

> · **Full menu integration.** Your OLO menu offering should mirror the POS menu, in other words, it should utilize the same database. That way, in case you ever need to change a price or menu item, you only have to change it once in the POS system. This minimizes confusion, and cuts down on potential for human error.

Providing Online Ordering (OLO) Through Your POS System (available at https://esspos.com/providing-online-ordering-olo-through-your-pos-system/).

79. The Accused System's back-office application includes food/drink ordering integrated with loyalty and rewards programs.

80. For example, the Accused System's back-office application integrates with third parties, such as Chepri, so that guests can "easily earn and redeem loyalty points and rewards."

> **Does your restaurant use Olo?**
>
> Today's tech-savvy consumers prefer to connect with brands through their smartphones and other digital devices. Chepri's® integrated omnichannel experience allows guests to easily earn and redeem loyaty points and rewards, increasing revenue by creating happier customers. A good way to attract and retain these consumers is through the Olo digital ordering platform.
>
> Here's how custom Olo loyalty & rewards integrations can benefit your restaurant, going beyond just retention, driving lifetime value by bringing customers back again and again.

Custom OLO Loyalty/Rewards Integrations For Restaurants (Mar. 24, 2019) (available at https://chepri.com/custom-olo-loyalty-rewards-integrations-for-restaurants/).

81. The Accused System enables staff members to utilize only smartphones for substantially all their interactions with the back-office hospitality software application.

82. The Accused System's back-office hospitality software application integrates with delivery service provider ("DSP") platforms.

Which DSPs are integrated with Dispatch?

We currently have over 20 DSPs currently live on Dispatch. Depending on each provider's coverage area, your restaurants may or may not have access to these 20 DSPs. Please email help@olo.com to get the full list of DSPs or run a coverage report.

Dispatch FAQ (available at https://olosupport.zendesk.com/hc/en-us/articles/360019209451-Dispatch-FAQ). Staff of the DSPs, such as delivery drivers, use smartphones with mobile applications integrated with the Accused System's back-office hospitality software application, such as via Rails and Dispatch. Such staff are enabled to utilize only the smartphones for substantially all of their interactions with the back-office hospitality software application.

83. As one example, the Accused System is integrated with Uber Eats.

CHICAGO & NEW YORK--(BUSINESS WIRE)--Uber Eats today announced it has partnered with Olo, the leading digital food ordering platform for the restaurant industry, to integrate directly into the point-of-sale (POS) of leading restaurant brands via Olo Rails. An important distinction for restaurant brands, this partnership allows orders placed by consumers on the Uber Eats website or app to be injected directly into the order stream at the restaurant, drastically improving order accuracy and operational efficiencies for restaurant operators.

Uber Eats Partners with Olo to Simplify Third-Party Delivery for Thousands of Restaurants (June 26, 2019) (available at https://www.businesswire.com/news/home/20190626005149/en/Uber-Eats-Partners-Olo-Simplify-Third-Party-Deliver). Uber Eats staff utilize smartphones with the Uber driver mobile app for their interactions with the back-office hospitality software application.

When you're ready to deliver, you can go online in the Driver app. The app will surface available delivery requests near you. You can tap to accept.

The restaurant will be expecting you, but you can let the staff know you're there to pick up an order from the Uber Eats app. Delivery people have told us they match the name and the order number in the app with the order to confirm they have the right one before leaving the restaurant.

Delivering Using the Uber Eats App (available at https://www.uber.com/us/en/deliver/basics/making-deliveries/how-to-deliver/).

84. As another example of the Accused System enabling staff members to utilize only smartphones for substantially all of their interactions with the back-office hospitality software application, the Accused System can include tools for restaurant personnel, such as Defendant's Expo.

Expo is our tablet-based software solution focused on enhancing the front-of-house (FOH) workflow in restaurants. Expo works whether you're using an Olo POS-integrated platform or a non-integrated POS platform, such as Olo's SSOS solution. Expo can be installed on any tablet and linked to your active Dashboard account. Once installed, it will let your in-store teams effortlessly manage online orders without leaving the counter.

Expo reduces a lot of the pain points associated with managing your digital programs. You won't need to run to the back-of-house (BOH) to manage orders saving you precious time during the busiest hours of the day.

Expo Overview (available at https://olosupport.zendesk.com/hc/en-us/articles/360029591351-Expo-Overview).

85. Expo currently can be installed on smart phones running iOS 12.2 or higher or Android 12.2 or higher.

Expo is a progressive web app, which means it runs in a browser. The website can be saved to your home screen to look like a native app. This gives brands the flexibility to use the hardware that works best for them and their stores.

The only requirements are that you must be using modern devices, browsers, and operating systems. Older devices may not support the latest operating system updates. Please note that only Chrome and Safari web browsers are supported at this time.

Software requirements:

- Minimum Software Version Requirements
  - iOS: 12.2 or higher
  - Android: 7.0 or higher
  - Windows: Windows 7, Windows 8, Windows 8.1, Windows 10 or later
- Browser Version Requirements
  - Safari: 12.1 or higher for iOS devices
  - Chrome: Evergreen (latest available) for Android and Windows devices

Expo Device, Browser, and Software Requirements (available at https://olosupport.zendesk.com/hc/en-us/articles/360029271212-Expo-Device-Browser-and-

Software-Requirements-.)

86. Ameranth is entitled to recover from Defendant the damages sustained by Ameranth as a result of Defendant's infringement of the '651 patent in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

JURY DEMAND

Ameranth hereby demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Ameranth requests that this Court enter judgment against Defendant as follows:

A. An adjudication that Defendant has infringed claims 1, 3, 6 and 11 of the '651 patent;

B. An award of damages to be paid by Defendant adequate to compensate Ameranth for Defendant's past infringement of the '651 patent and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Ameranth's reasonable attorneys' fees; and

D. An award to Ameranth of such further relief at law or in equity as the Court deems just and proper.

Dated: April 16, 2020

STAMOULIS & WEINBLATT LLC

/s/ Richard C. Weinblatt

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