

Avoka Customer Acquisition Platform Architecture



Avoka's Transact Platform is a System of Engagement that enables banks to rapidly deploy complex customer information collection processes. It solves the 4 key architectural challenges in building omnichannel customer onboarding solutions from scratch:

- Interoperability with existing Systems of Record
- Interoperability with 3rd party systems for actions like ID verification, scoring, and fraud
- Integration with existing DevOps pipelines and services for deployment
- Elimination of complex development cycles for front-ends

What is the Avoka Platform?

The Avoka Transact Platform is designed to create a seamless orchestration between the acquisition of customer data and the back-end system of record. It supports all the key facets of the customer acquisition process, by providing features to the front-end channels as functions, and simplifying the omnichannel experience for the end consumer. Avoka delivers the ability to maintain a loose coupling of the state, user data, and input actions of the consumer to the back-end system, which allows rapid deployment of customer initiatives without complex and costly changes to existing systems.

Avoka acts as a PaaS, providing a service platform for customers to deploy their web applications on. Inside the platform there are multiple services that run independently of one another, providing the platform functionality such as security, front-end services, management, and reporting and operational monitoring. These services can be independently scaled and adjusted to fit the need of the customer's applications. The Avoka PaaS architecture allows rapidly and simply deploying and scaling the services needed to deliver complex user experience orchestrations. Interacting with the

Avoka PaaS is made simple through the ability to make API calls from the front-end framework of choice, meaning that the complexity of building multiple platform services is eliminated for a set of standard REST API calls. This allows the customer to dictate the terms of engagement with the platform, choosing to either leverage in-house skills to build experiences or using Avoka’s tools for building customer interaction workflows, saving time and expense against having to build the entire set of services from scratch.



In the simplest terms, Avoka provides the “glue” that links together the customer’s experience while navigating the onboarding process, with the back-office system of record. In this way it prevents the need to create complex custom functionality to solve the issues associated with: complex customer information capture and orchestration, 3rd party data exchange, and overall management of making automated decisions based on your business rules. Just as frameworks like React, Angular, Django, Vue, and Laravel provide a set of established front-end capabilities, Avoka provides a platform that eliminates the need to build an entirely custom set of tools from scratch for this orchestration layer.

Where does Avoka fit into your existing architecture?

Avoka's platform lives in between your customer acquisition channels and your back-end systems, usually alongside your existing web CMS platform. This allows the Avoka platform to maintain the loose coupling between the customer channels coming in from multiple sources, and the back-end systems without needing major architectural changes to the existing infrastructure.

Avoka's platform simplifies this by addressing most of the key challenges associated with omnichannel customer acquisition. Specifically:

Customer facing process:

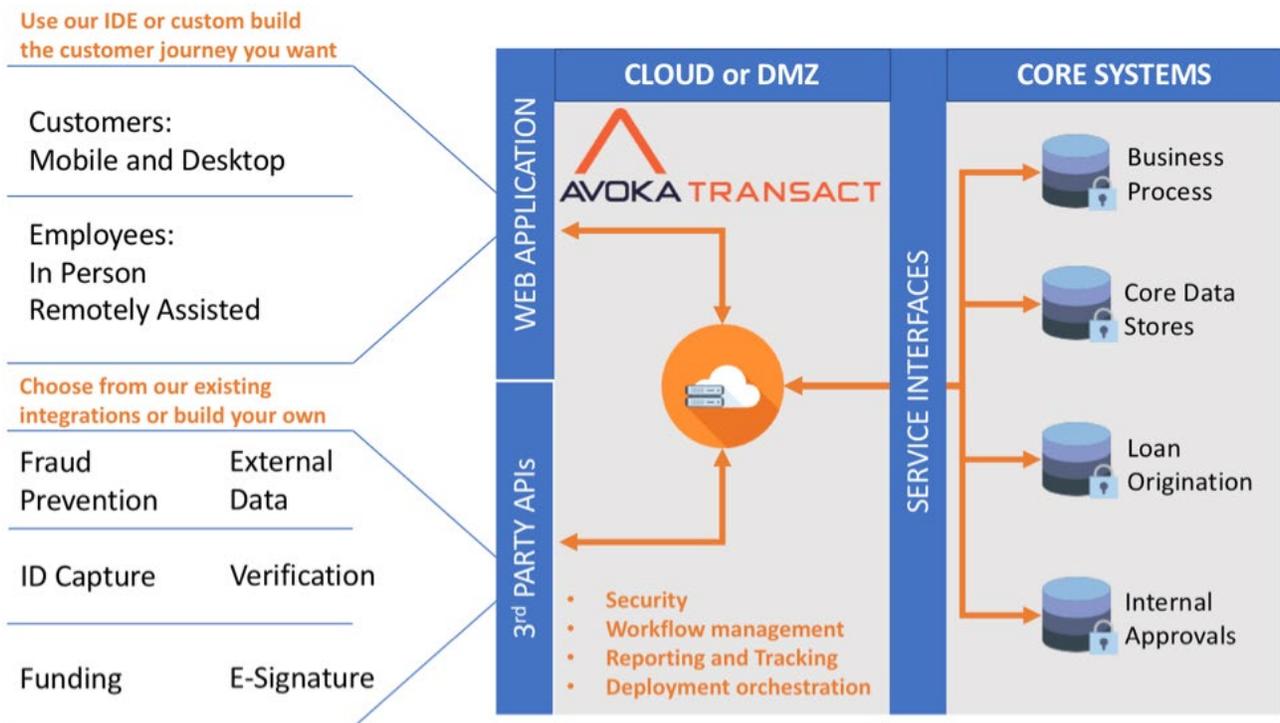
- 100% web-based with no download or prior registration required
- Integrated Template-based form design – design once, deploy anywhere
- Creates web applications for use across all onboarding experiences:
 - Direct digital access through the website
 - Assisted support with call center staff or in person staff
 - Responsive and consistent across all devices and channels

Overall Process Management:

- Token-based Save and Resume:
 - Stop and restart an application, through any channel, without loss of prior content.
 - Support Review and Approval for complex approval processes – with multiple documents, approvers, sections, and countries.
 - Manage the transient data storage for the transactions in flight
- Deep process analytics and testing:
 - Analyze friction points and identify places where the process is broken
 - Create A/B testing to evaluate changes and measure preferences.
 - View in-flight transactions and their current state
 - Error handling, monitoring and logging.
- Create fully compliant digital receipts that are emailed to the applicant
- Store a copy of the completed, signed forms in the System(s) of Record
 - Upload, storage and handling of attachments, bundling into completed application.
- Configuration and support for full redundancy, quality of service, and disaster recovery.

Security and Data Privacy:

- Provide the ability to have both anonymous and secured users and data policies
 - Supports both anonymous and previously identified applicants
 - Support for single-sign-on provisions across all processes for both consumers and staff
 - Encrypt and maintain security of all data while in process.
- Manage the complexity of securing PII during the application process
 - Integrates encryption key management solutions to control access to PII
 - Completely customizable configurations to ensure all PII is purged from the system to meet privacy and compliance requirements.
 - Access logging for security, audit, and compliance needs based on business requirements.



Avoka Transact Manager Instances reside in your DMZ or in the AWS cloud, and natively integrates with your existing back office, development, and CI/CD environments, as well as providing both native 3rd party integration and the ability to build any customization you need. Use our IDE, Maestro, for rapid development, or use your own framework to build your CX journey using ReactJS.

Solving the challenges

Once in place, the Avoka platform is uniquely positioned inside your environment to deliver on solving your key technical challenges to a truly comprehensive and agile omnichannel experience. Avoka eliminates many of the things that are difficult, cumbersome, and simply tedious to develop, and ensures that you can continue to provide the most complete solution without the complexity of building everything from scratch. Avoka's platform eliminates each of the 4 main omnichannel architecture challenges through its deep feature set focused on the 4 key challenge areas for any omnichannel project.

Interoperability with the System of Record

Avoka manages your integration point to the back-end system of record through the service API layer. It uses standards-based REST API calls and native XML to exchange data seamlessly to be processed, stored, or acted on by your existing systems. Specifically, Avoka:

Exposes a **standards-based API**

- Choose from a library of existing back office integrations including Scimitar, Oracle, and others
- Choose XML formatting or JSON, or even your own proprietary data exchange
- The freedom to develop your own custom integrations to fill any gaps in the back-office layer

Use existing back office systems to pull data forward

- Allows existing customers to **pre-fill** application forms, reducing time to complete
- Use pre-verified System(s) of Record data to eliminate errors in forms
- Integrates with **Salesforce for workflow and data population of forms**

Single-stream input process generates data streams in multiple formats

- Supports existing business process silos
- Specific system formatting
- Compliance and government requirements for data disposition

3rd Party Interoperability

Avoka supports integration to 3rd party systems that provide additional key functionality to the onboarding process through a library of pre-integrated services in the Avoka Exchange. This includes, but is not limited to, identity verification processes such as ID checking, location services, and other identity services as well as digital signature solutions and social media integrations for validation and security. Specifically, Avoka's 3rd party exchange platform:

Provides **pre-integrated connections** to external services from an integration hub, rather than having to integrate each individually. Examples include:

- **E-signature** such as DocuSign and eSignLive/OpenSpan Sign
- **ID Verification** solutions such as Mitek, SaleMove and Yodlee
- **Fraud Detection** - Danal, Trulioo, Experian
- **Funding** – Plaid, Vantive
- **External data** providers such as Google and LinkedIn
- **External CRM** engines like Salesforce
- **Orchestration** providers such as Amazon

DevOps and Operations support

Avoka supports integration with CI/CD and code control engines so that forms built through the Avoka Maestro system can be deployed into the existing developer environment without creating a separate CMS environment. Integration with SCM options allows forms to undergo the same development process as custom code including standard support for check-in and out and integration with continuous testing. Specifically, Avoka:

Integrates with existing SSO and LDAP authentication systems

- Direct integration with Active Directory
- Integration with 3rd party tools like Okta
- Native LDAP and SAML support

Provides integration with CI/CD tools

- Code pipelining with Mavis
- Automated testing and Q/A with Jenkins

- Supports integration with git for source code control

Provides a hybrid services model for operational flexibility

- AWS Native implementation for rapid build and deploy
- On-prem deployment to match your operational design

Complex Front-End Development

Avoka was designed from the start to simplify the customer on-boarding process by eliminating the tedium and complexity of custom development for acquiring customer data through all channels that it could occur. Increasingly customers demand that their experience be the same across any platform and even between digital and in-person transactions. This complexity of interaction means that the development process for collection of customer data increases in complexity as well, forcing additional development cycles to address all of the needs of the true omnichannel experience.



Summary

In an increasingly on-demand digital world, it is imperative that the customer experience delivers a friction-free and seamless process that doesn't impede the path to engagement. The challenges of building the entirety of this complex and critical functionality is a daunting task that can consume significant and impactful development cycles and takes away from other efforts around digital transformation and engagement of customers. Utilizing the significant functionality boost offered by the Avoka platform, you can integrate seamlessly into existing systems while delivery new customer engagement options in a fraction of the time of complete "build from scratch" options.

Avoka has already addressed the biggest hurdles facing any onboarding solutions project and offers a comprehensive feature set to address them while still offering the flexibility to create a truly unique and custom experience that caters to your specific customer. By eliminating the need to solve the technical issues around the 4 key challenges:

- Interoperability with existing Systems of Record
- Interoperability with 3rd party systems for actions like verification, scoring, and fraud
- Integration with existing DevOps pipelines and services for deployment
- Elimination of complex development cycles for front-ends

Avoka frees you up to build the customer experience you want without dealing with the integrations and the architectural limitations they impose.

Is Avoka right for your customer journey? Take us for a test-drive at [Avoka.com](https://www.avoka.com) and see our features in action. Your architecture will thank you!