CloudSense AWS Migration Plan Highlights

Executive Summary

This document outlines the plan for migrating CloudSense's infrastructure from the Heroku platform which is hosted in the Amazon Web Services (“AWS”), directly to AWS. This migration will enhance our platform's reliability, performance, and scalability while ensuring minimal disruption to our customers' operations. Customer involvement level with this migration is expected to be minimal but critical to the implementation timeline, and involves changes to accommodate revised site endpoints, and testing of their specific environment.

Timeline and Implementation Schedule

Phase 1: Preparation (January 1-8, 2025)

- Infrastructure preparation and validation
- DNS routing configuration
- Initial customer communication
- Support team preparation

Phase 2: Prepare Sandboxes (January 9-February 21, 2025)

- Base infrastructure transition
- Sandbox service deployments on AWS
- Customer endpoint testing period begins

Phase 3: Sandbox Testing (February 24-March 1, 2025)

- All Sandboxes ready for testing by customers
- Roll-back available during this period
- Monitoring systems transition

Phase 4: Production Preparation (March 1-8, 2025)

- Integration validation
- Validate if anyone is still using old Heroku endpoints
- Final system validation

Phase 5: Migration Cutover (March 8, 2025)

- Stop all traffic
- Move databases over to AWS
- Restart traffic

- Migration completion verification

Phase 6: Post-Migration (March 9, 2025)

- Legacy system decommissioning
- Post-migration support

Service Changes and Deliverables

Service Improvements

- Enhanced regional routing capabilities
- Improved platform scalability
- Advanced monitoring and alerting
- Strengthened disaster recovery capabilities

Leadership and Support

Key Contacts

- Balaji Jayaraman - Customer Support Lead
- Elena Loghin - Customer Success Director
    - Aravind Asokan - Customer Success Lead (APAC)
    - Jo Wilkinson - Customer Success Lead (EMEA Telco)
    - Hrvoje Sunjic - Customer Success Lead (EMEA Media)
    - Diego Parima - Customer Success Lead (Americas)

Support Availability

- 24/7 customer support throughout the migration
- Regular status updates and communication
- All issues must be raised via our support portal, so we can track these properly
- Direct escalation paths for critical issues

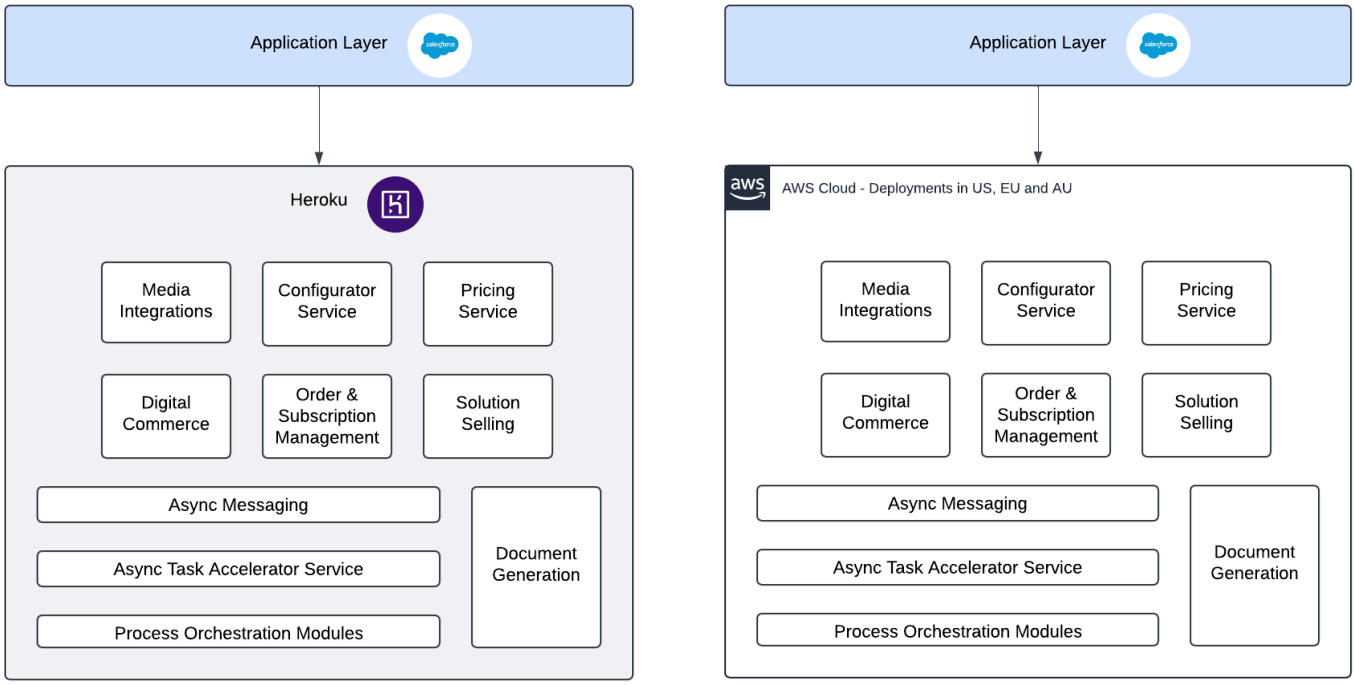
Impact Analysis

Technical Impact

Infrastructure Enhancements

The migration to AWS cloud infrastructure represents a significant advancement in our service delivery capabilities. This transition will establish a more robust and flexible foundation for our services, leveraging

AWS's global infrastructure network. The enhanced regional presence will be achieved through strategic placement of resources across multiple AWS availability zones, ensuring higher availability and reduced latency for our customers. Our security features will be strengthened through AWS's advanced security frameworks and compliance standards, providing enhanced protection for customer data and applications.



Before

After

Performance Optimization

Our new optimized regional routing system will intelligently direct traffic through the nearest AWS edge locations, and we expect this to contribute to significantly reduced response times and improving overall service performance. The enhanced scalability features will automatically adjust resources based on demand, ensuring consistent performance during peak usage periods. Through improved resource management, we'll optimize the allocation of computing resources, leading to more efficient operations and better service responsiveness. These improvements will be particularly noticeable in high-transaction scenarios and during periods of increased system load.

Operational Impact

Service Management

The implementation of enhanced monitoring capabilities will provide deeper insights into system performance and user experience, enabling proactive issue identification and resolution. Our improved incident response system will leverage AWS's advanced tooling to quickly identify, isolate, and resolve any service disruptions. Streamlined maintenance procedures will reduce the impact of routine updates and system modifications, while better service visibility will allow for more transparent operations and improved communication with customers regarding system status and performance metrics.
The SLA will remain the same on AWS after migration, as they were on Heroku.

Customer Experience

We have designed the migration process to ensure minimal service disruption, with most changes occurring transparently to end users. The improved regional performance will be achieved through AWS's global infrastructure, providing better response times and more consistent service delivery. Our enhanced support capabilities will include new tools and processes for faster problem resolution, while the simplified endpoint management system will make it easier for customers to maintain their integrations with our services.

The CloudSense platform architecture makes use of caching services to improve the performance of the provided services. It should be noted here that after the transfer of services from Heroku to AWS these caches will be initially empty and therefore initial users of these services may experience a slight performance degradation until the caches are replenished with data. To illustrate this, let's consider the following two scenarios:

- The CloudSense Configurator service caches the product definitions and their associated rules and business logic to speed up access and therefore improve the performance of the service when executing CPQ functions. A user using Configurator to configure a product definition for the first time (using the AWS based service) will experience a slight performance degradation. However, the same (or indeed another) user accessing subsequently the same product definition will not experience the performance degradation as the product definition with all of its rules and business logic would have already been stored in the cache after the initial use.

- The CloudSense security service uses caching of Salesforce org details, to improve the performance of authenticating access and connections for salesforce orgs using the CloudSense services. So the first user using a particular Salesforce org to access a CloudSense service (such as Solution Management) may experience a slight degradation in performance while connecting to the service. However, the same (or indeed another) user accessing subsequently the service from the same Salesforce org will not experience such degradation as the details of the Salesforce org they are accessing the service from would have been cached after the initial connection.

Risk Mitigation Strategy

Service Continuity

Migration Safeguards

Our comprehensive backup procedures include continuous data replication and point-in-time recovery capabilities, ensuring no loss of critical information during the migration. The parallel system operation strategy maintains both existing and new infrastructure simultaneously during the transition, allowing for immediate fallback if needed. Automated failover capabilities will provide instant response to any service interruptions, while our continuous service monitoring system will track performance metrics, system health, and user experience throughout the migration process.

Customer Protection

The extended testing period provides customers with ample time to validate their integrations with the new infrastructure, ensuring a smooth transition. Our phased migration approach gradually moves services and customers to the new platform, minimizing risk and allowing for careful validation at each step. Robust rollback capabilities enable immediate restoration of services to the previous state if necessary, while enhanced support coverage ensures expert assistance is available 24/7 throughout the migration period.

Integration Assurance

Customer Systems

Our early notification system keeps customers informed of all migration activities and timelines, ensuring proper preparation for the transition. Comprehensive technical documentation provides detailed guidance for updating endpoint configurations and testing integrations. The integration testing support includes dedicated technical resources to assist customers with validation and troubleshooting, while our migration assistance program offers hands-on help for customers requiring additional support during the transition.

Quality Controls

The systematic testing approach validates all aspects of the migration through a series of structured test cases and scenarios. Rigorous performance validation ensures that service levels meet or exceed current standards on the new infrastructure. Security verification processes confirm that all data protection and compliance requirements are maintained throughout the migration. Customer acceptance testing provides a final validation phase where customers can verify their specific use cases and integration requirements.

Steps that should be taken by Customers

1. End-point Updates

Type: Mandatory

When: Before March 1, 2025
What: Update Heroku service endpoints:

In the codebase

- Follow the details in our our Knowledge Base Article for the endpoint migration
- The API request and response formats remain unchanged

Remote Site Settings

1. As a salesforce administrator, login to the target org and open the ‘setup’ page.
2. In the setup Quick Find field, enter: Remote Site Settings
3. The Remote Site Settings page lists all the remote sites, including their URLs and whether they are active.
4. Where a CloudSense app URL is used, update the URL based on the KBA.
5. You can edit the URL for a remote site setting by clicking the Edit link on a row in the table, and then updating the form field Remote Site URL.

Dispatcher Service

- Verify the Remote Site Settings have been updated.

Configurator Service

- Configure the appropriate Configurator Service endpoint on org.

Solution Management Service

- Configure the appropriate Configurator Service endpoint on org.
- Configure the remote site setting for the endpoint.
- If using in-memory MACD, configure Orders and Subscriptions service.
- Configure the remote site setting for the Dispatcher service endpoint.
- Configure the Solution Management Service custom settings.

Orders and Subscriptions Service

- Check the custom settings.

Pricing Service

- Configure the remote site setting for the Dispatcher service endpoint.
- Configure the custom settings.

CloudSense Advanced Pricing Integration Package

- Configure Pricing Service.
- Configure the CloudSense Advanced Pricing Package custom settings.

Bulk Subscriber Management Service

- Configure the remote site setting for the Dispatcher service endpoint.
- Check the following services:
    - Configurator Service
    - Orders and Subscriptions Service
    - Pricing Service
    - Solution Management Service (only if Solutions are used)
- Configure the custom settings.

Commerce API

- Set the Elastic SFDC integration endpoint for the integration settings.
- Commerce API connectivity can be checked by clicking Check Org Configuration on the Elastic Console page.

Digital Fulfilment

- Configure the Digital Fulfilment service endpoint.
- Connectivity to Digital Fulfillment can be tested by clicking the Check Login button.

Digital Commerce Integration

- Configure the remote site setting for the Dispatcher service endpoint.
- Check the following services:
    - Configurator Service
    - Commerce API
    - Pricing Service
- Configure Digital Commerce Integration settings.

Async Task Accelerator Service

- Configure the remote site settings.

2. Sandbox Testing

Type: Optional
When: Between February 24, 2025 and before March 1, 2025
What: Please ensure that you have completed the end-point updates before proceeding with sandbox testing. Testing of the entire system in the sandbox environment may be performed at this point.

The following scenarios are a good guide as to what should be tested:

- Telco implementations
    - Full end to end new provide order capture process
    - Full end to end change request process (MACD)
    - Frame agreement negotiation and activation (if implemented)
    - Manage a mass change using CloudSense Bulk Subscriber Management (if implemented)
- Media subscription implementations
    - Full end to end new provide order capture process
    - Full end to end change request process (MACD)
- Media digital ad booking implementations
    - Full end to end new provide order capture including
        - Target browsing and selection
        - Availability check
        - Order placement
        - Order Fulfilment
- CloudSense Commerce API's
    - Catalogue publication
    - Catalogue browsing
    - Order capture for a new provide order
    - Browsing existing orders and subscriptions

Further to the above, it is recommended that customers do spot checks of their data that is stored in the CloudSense services, namely solution instances. This can be done easily by following the simple steps outlined below:

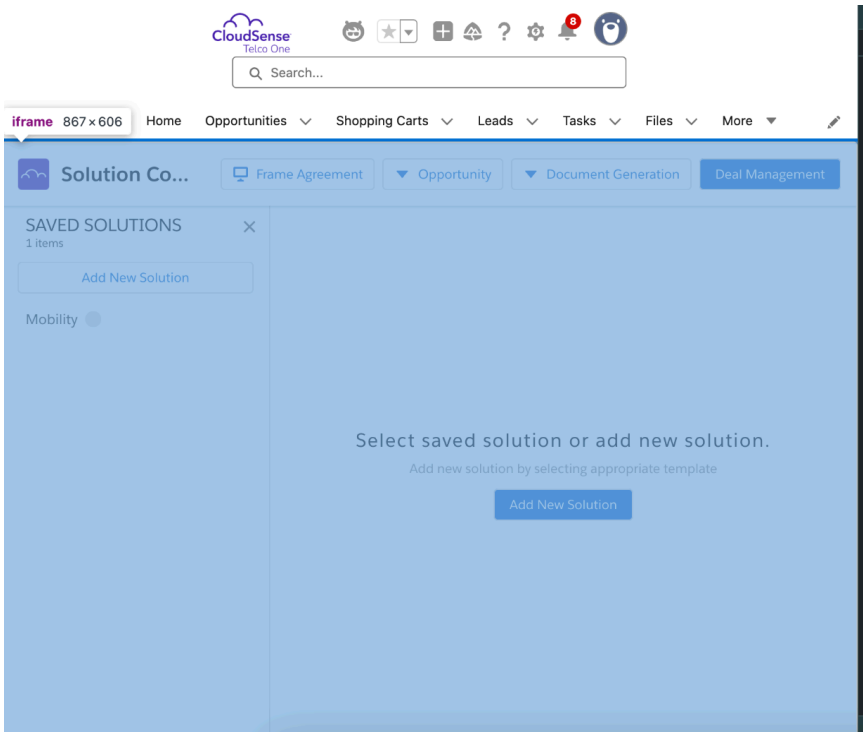
1. While still connected to the Heroku based CloudSense services:
    a. Identify a number of baskets that you would like to carry out the data comparisons on .
    b. Load the baskets in the CloudSense Solution Console.
    c. Invoke the browsers Javascript developer console.
    d. In the browser's developer console select the Javascript context that is relevant to the Solution Console (the context name will be something like "SCEditorReact" or the equivalent if still using the Angular version of the Solution Console).
        i. This will set the context to the Solution Console and will make available to you the complete JS API's that govern the Solution Console session and that communicate with the Solution Management service.
    e. In the developer console you can now (type and) execute the following function CS.SM.getActiveBasket();
        i. This will return a Promise object.
        ii. Expand the Promise object and you will see inside it a Basket object.
        iii. Right click on the Basket object and select "Copy object".
        iv. Paste the object (a JSON structure with the full details of the basket and all of its contents - solutions, configurations etc.) to a text document.
    f. If you prefer to carry out your check on a specific solution within the basket instead of all solutions within the basket, then:

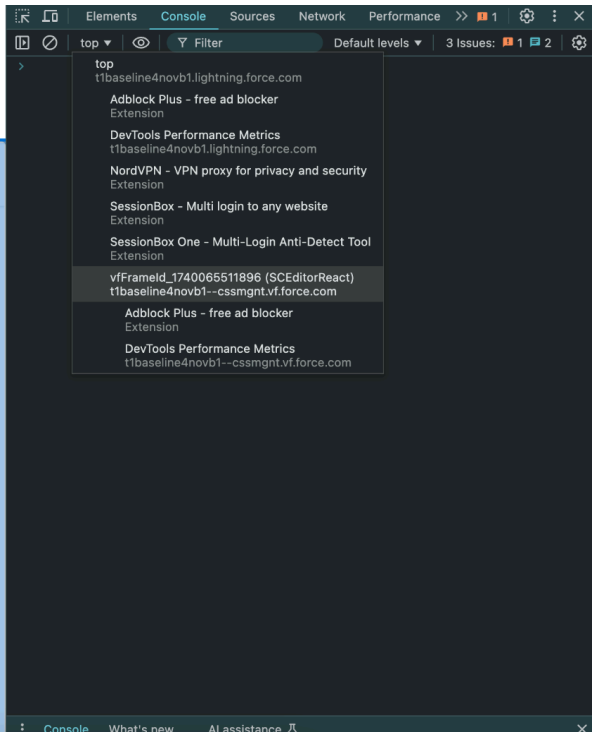
i. After step b above.
ii. Select the desired solution within the Solution Console.
iii. Repeat steps c and d.
iv. In the developer console you can now (type and) execute the following function CS.SM.getActiveSolution();
    1. This will return a Promise object.
    2. Expand the Promise object and you will see inside it a Solution object.
    3. Right click on the Solution object and select “Copy object”.
    4. Paste the object (a JSON structure with the full details of the selected solution. and all of its contents - configurations, order enrichment etc.) to a text document.

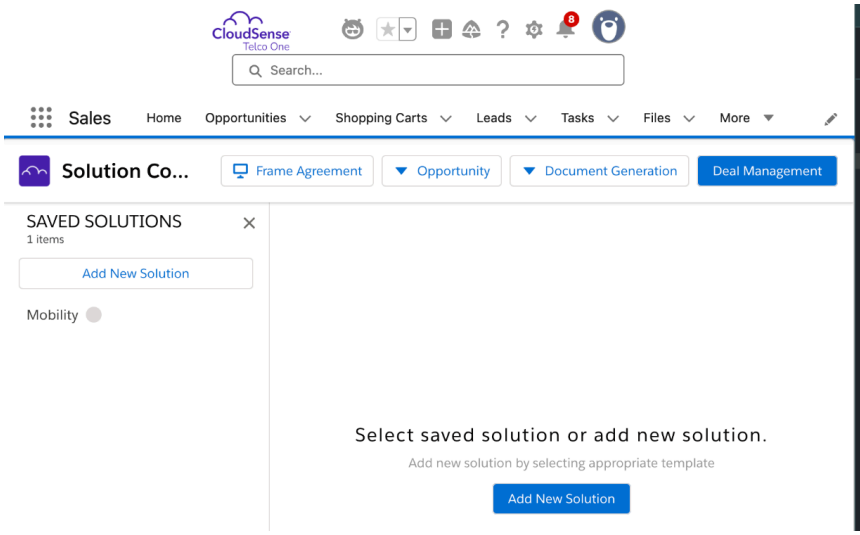
g. Repeat the above for as many baskets or solutions, that you would like to check for data consistency, as you would like.

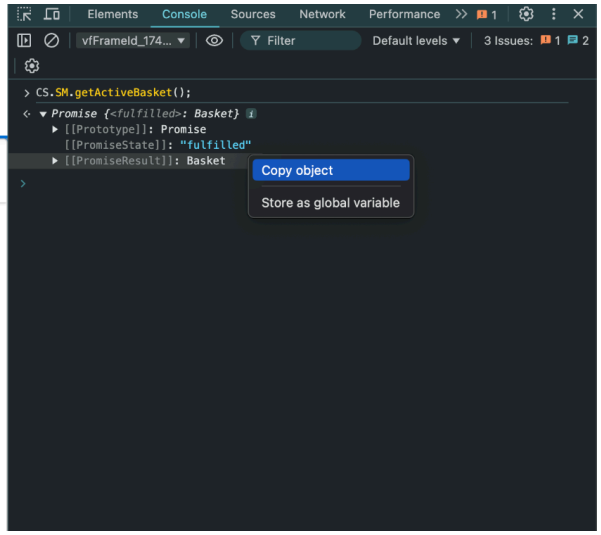
2. After connecting your org to the AWS based services
    a. Repeat the steps under 1 ensuring that you select the same baskets/solutions to compare to
3. Use any JSON diff service (e.g. jsondiff.com) to carry out a diff between equivalent baskets or solutions comparing data obtained from Heroku with data obtained from AWS (you should find no differences during this exercise.

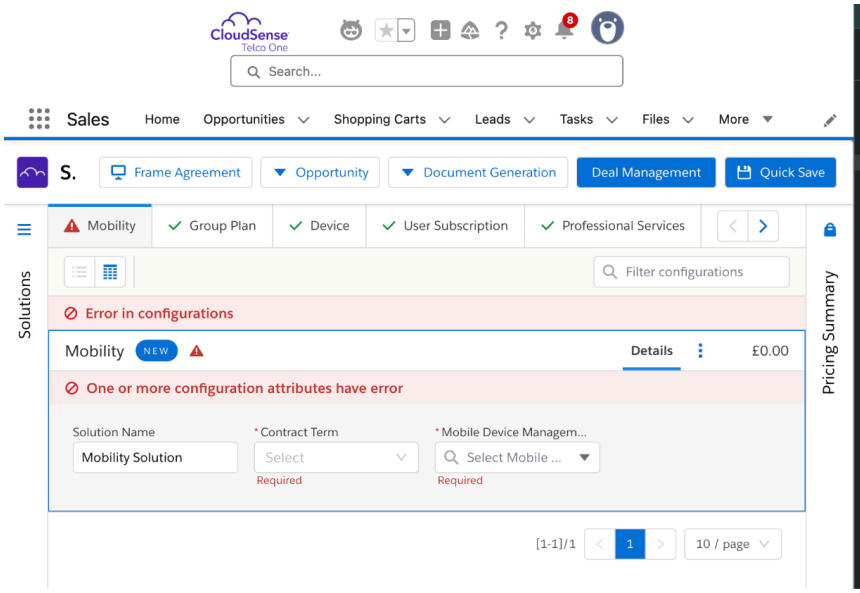
The following images show how to set the browser Javascript developer console context and the JS functions to execute as well as how to copy the JS objects.

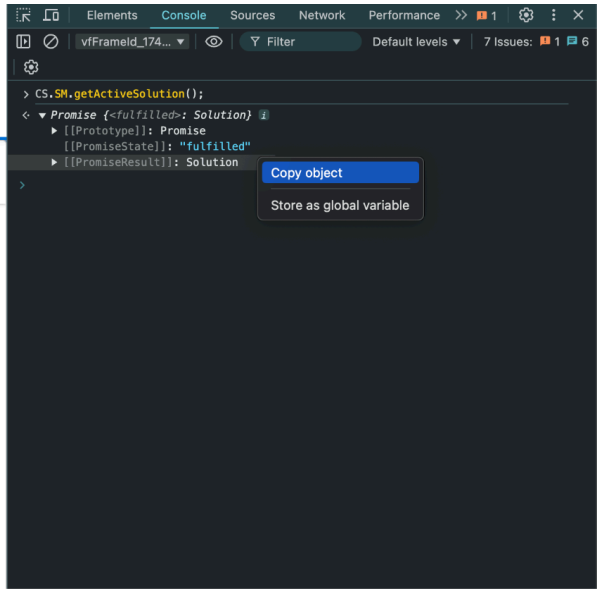












3. Production Check

Type: Recommended
When: March 9, 2025
What: All production services available on AWS for the production environment. Please immediately raise an issue with the highest priority if you encounter any problems.

Communication Plan

Customer Updates

- Initial migration notification
- Regular progress updates
- Technical guidance documentation
- Completion confirmation

Support Channels

- 24/7 support availability

Success Criteria

- Complete service migration
- Customer endpoint transition
- Performance maintenance
- Maintain service uptime

Contact Information

For migration support or questions:

- Support: 24/7 Support Portal
- Email for escalations: CustomerSuccess@skyvera.com