



Unlocking New Capabilities: Authentication Exits and Kafka Integration with HPE NonStop LightWave

Gustavo Cavazos
Jun 2025



About NuWave

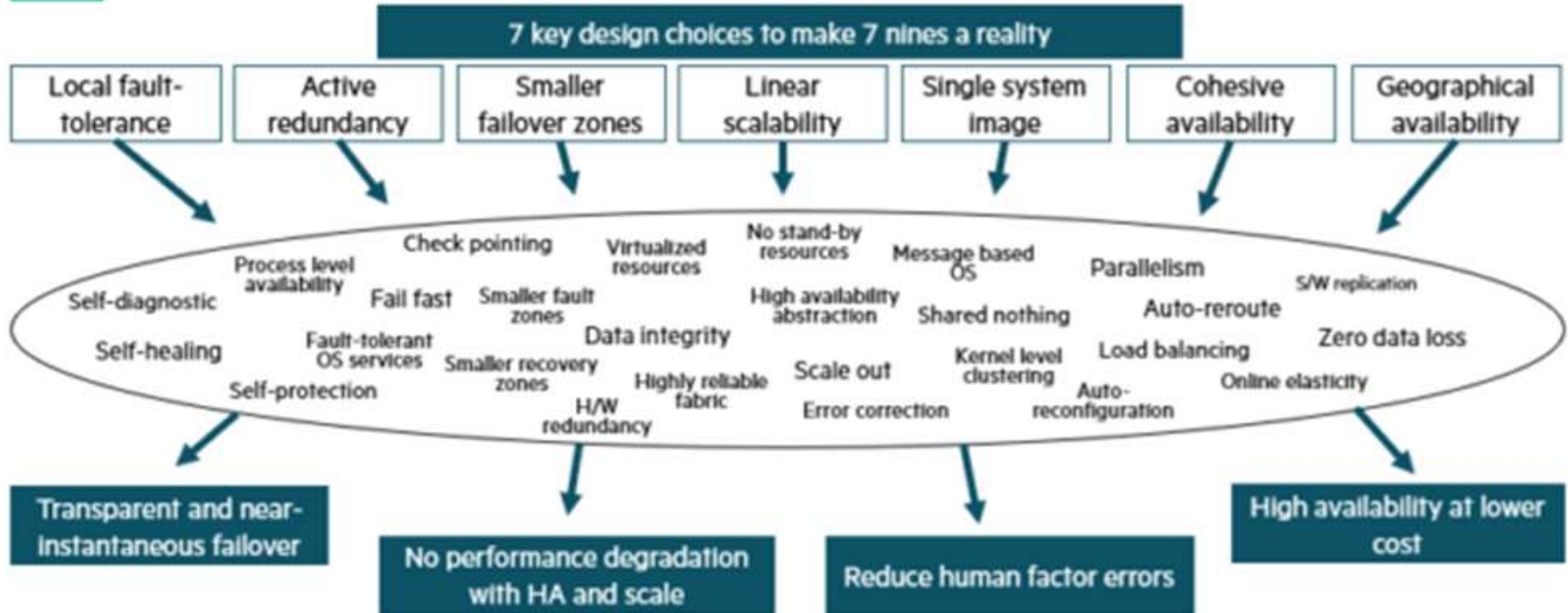
- In Business since 1999
- The leader in NonStop middleware and Web services integration
- Our products have enabled organizations to securely expand their NonStop connectivity to more businesses with continuous availability of services for over 25 years.
- We continue to deliver innovative, easy-to-use NonStop solutions to safely exchange information and services using current communication technologies.

Background...

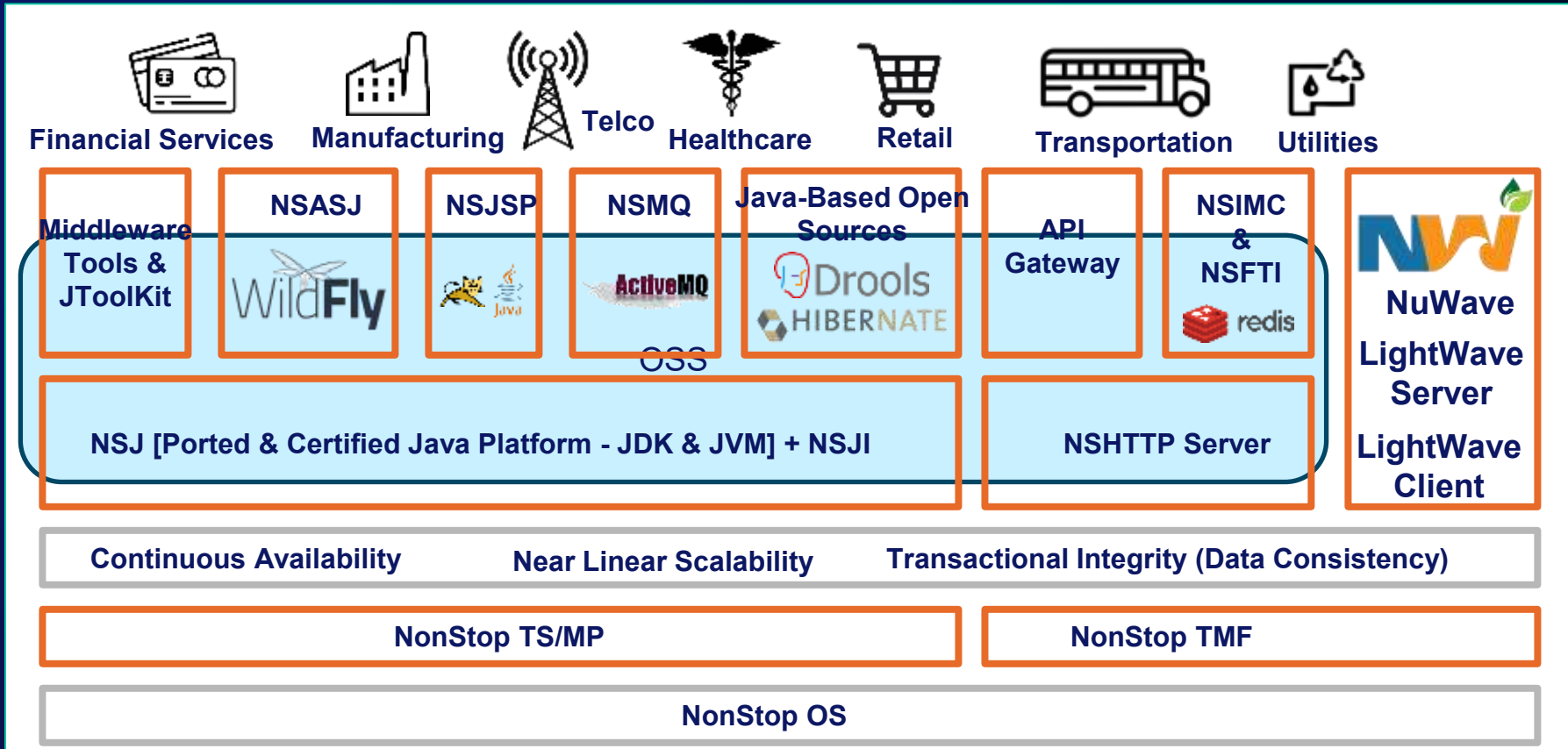
- A bit about Me.
 - Worked at several interesting places...
 - Telecoms - E911
 - Fleet Fueling
 - Banking – POS –ATM
 - EDI
 - Stock Exchanges

Integration of...

WHAT MAKES NONSTOP AVAILABILITY SUPERIOR



Where is LightWave in the NonStop?



LightWave: Mitigating Risk in a Volatile Landscape

- Unlocking Value and Reducing Costs
 - Cost Optimization: Leverage existing NonStop infrastructure instead of costly new systems. Integrate with cloud-based applications to reduce capital expenditure and operational costs.
 - Improved Efficiency: Streamline workflows by connecting disparate systems. Automate processes and gain real-time insights into your operations, optimizing resource allocation even during uncertain times.
 - Enhanced Reliability: LightWave's proven stability and integration with the reliable NonStop platform ensure continuous operation and minimize downtime risks – critical in a volatile economic environment.
- Secure your future. Invest in LightWave and build a resilient foundation for your organization's success, regardless of market conditions.



Integration Showcase

Easy access to ANY application running on HPE NonStop platform.

Integration Showcase
Application.

Payment mock-up

REST end-points

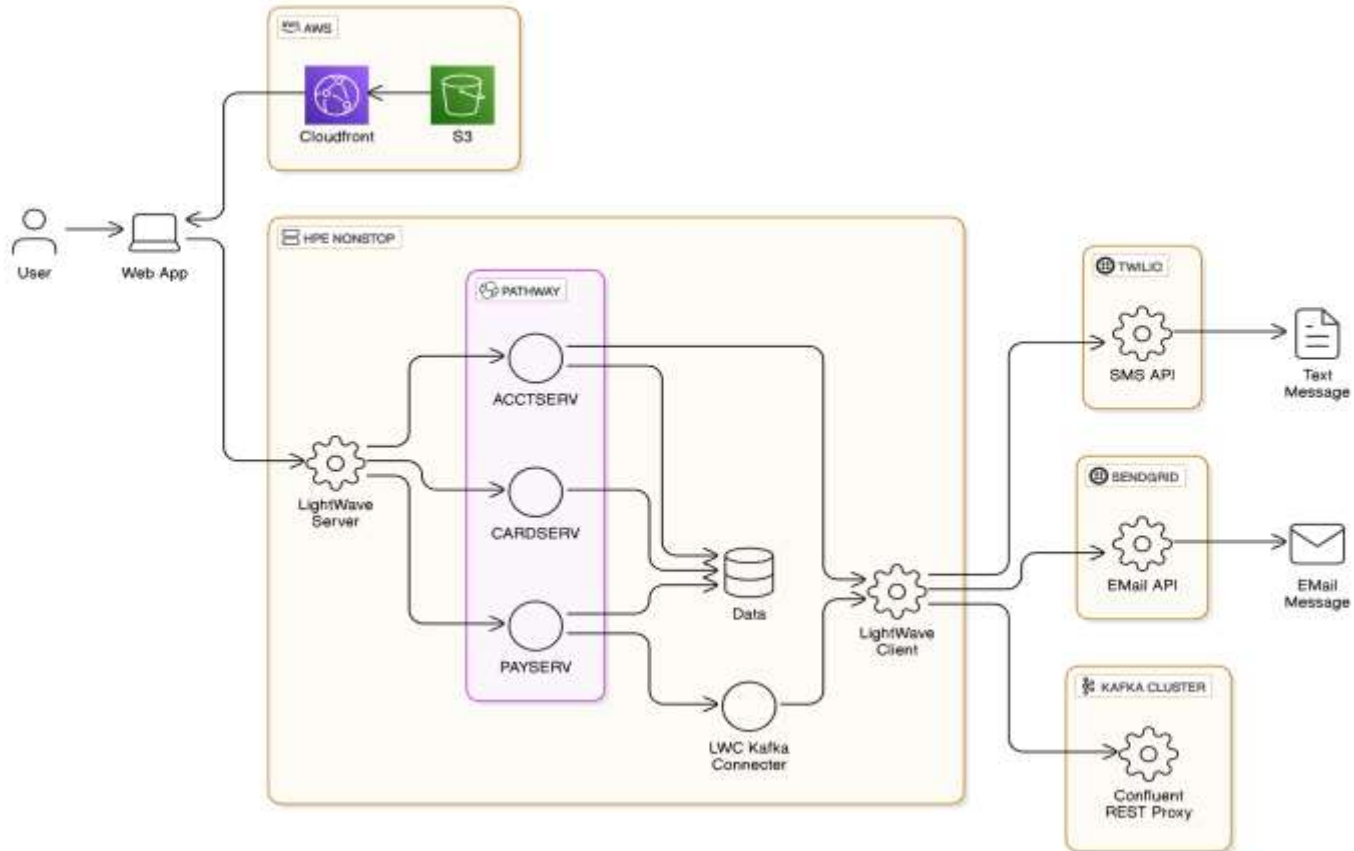
- SMS
- Email
- Kafka log

The screenshot displays the 'HPE NonStop Integration Showcase' application. The header includes the NuWave logo and the text 'HPE NonStop Integration Showcase' and 'Powered by the LightWave Solutions from NuWave Technologies'. The left sidebar contains a navigation menu with sections: 'PAYMENT CARD SIMULATION' (with links to Accounts, Cards, Payments, and Transactions), 'SHOWCASE TOOLS' (with links to REST API Log and Settings), and 'LEARN MORE' (with a link to About the Showcase). The main content area is titled 'Accounts' and features a table with two rows of account data. Below the table is a 'New Account' button.

Account #	First Name	Last Name	Address	City	State	Postal Code
9001	John	Doe	1 Main St.	Wakefield	MA	01880
9002	Gustavo	Cavazos	Test street	Tampico	Tamps	89218

[New Account](#)

Integration Showcase

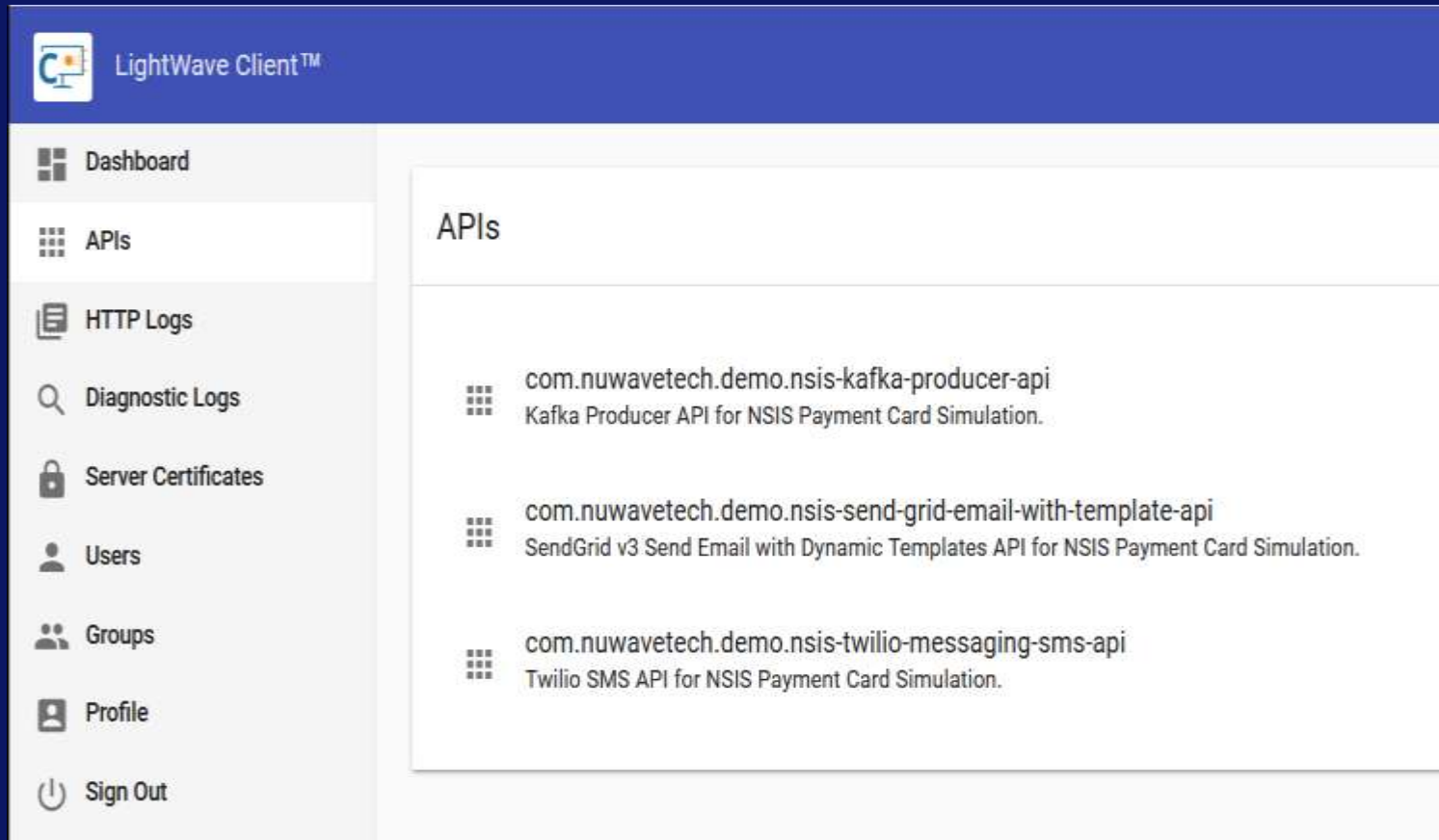


Integration Showcase

- Go to ACME.

Integration Showcase

Demo Web App
utilizes 3 APIs...



The screenshot displays the 'LightWave Client™' web application. On the left is a vertical sidebar with navigation links: Dashboard, APIs (highlighted), HTTP Logs, Diagnostic Logs, Server Certificates, Users, Groups, Profile, and Sign Out. The main content area is titled 'APIs' and lists three integrated APIs, each with a grid icon, a fully qualified domain name, and a brief description.

API Name	Description
<code>com.nuwavetech.demo.nsis-kafka-producer-api</code>	Kafka Producer API for NSIS Payment Card Simulation.
<code>com.nuwavetech.demo.nsis-send-grid-email-with-template-api</code>	SendGrid v3 Send Email with Dynamic Templates API for NSIS Payment Card Simulation.
<code>com.nuwavetech.demo.nsis-twilio-messaging-sms-api</code>	Twilio SMS API for NSIS Payment Card Simulation.

Integration Showcase

- Go to LWS.

A bit about Cryptography

- If one thing is to remember from presentation..
 - Who you are...
 - Eg: Finger Print- Face Scan- Voice print
 - What you have...
 - Eg: Token, Cell Phone, KeyFOB OTP number changing keyfob
 - What you know...
 - Eg: Passphrase, PIN>4, Password

Integration Showcase

- **Auth Exit LWS**--- Access Control Policy , and rules associated with a Services
- Sample Configuration Elements:
 - Token Provider :
 - providerType: serverclass
 - pathmon: =test^pathmon
 - ioRetryInterval: 3
 - ioRetryMax: 3
 - stringPadding: zeros
 - Token Options:
 - tokenSetName: "test-token-set-1"
 - tokenType: TB/OTP/

...

HTTP Request

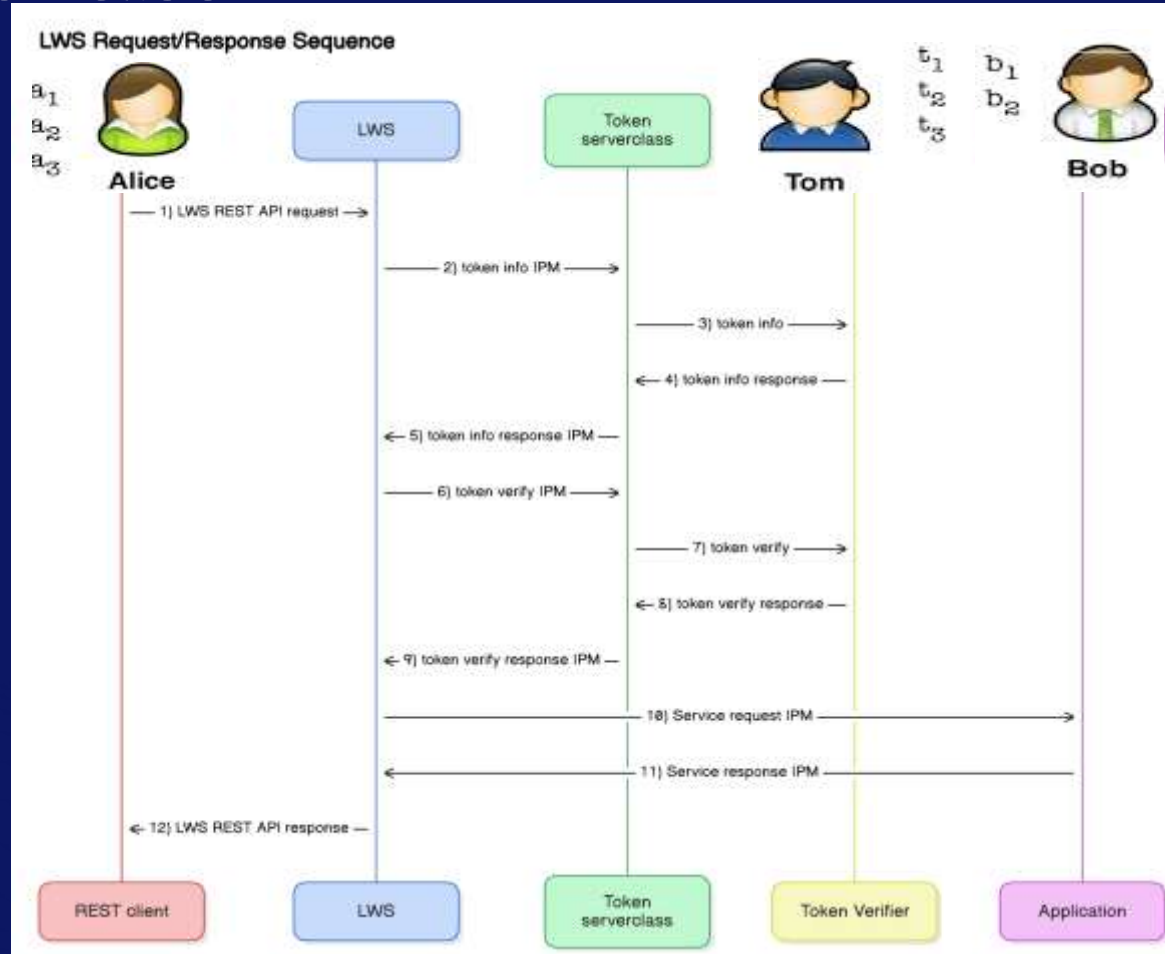
```
-----  
POST /api/kafka/v3/clusters/clusterid/topics/transactions/records  
HTTP/1.1  
User-Agent: LightWave Client -  
Content-Type: application/json  
Accept: */*  
Content-Length: 308  
Connection: keep-alive  
Host: nsis-kafka.demo.nuwavetech.com  
Authorization: *****
```

Usual payloads: Tokens, MACs, Kerberos,NTLM,PGP,etc

Eg: JSON
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJrZXkiOiJ2YWx1ZSI6ImtleTIiOiJ2YWx1ZTIiLCJpYXQiOiJlMzQxMTB9.vnXM0oxw05QH1Vs6RsvYp6LaEqFFqZ-NExQMXBgP7Mk

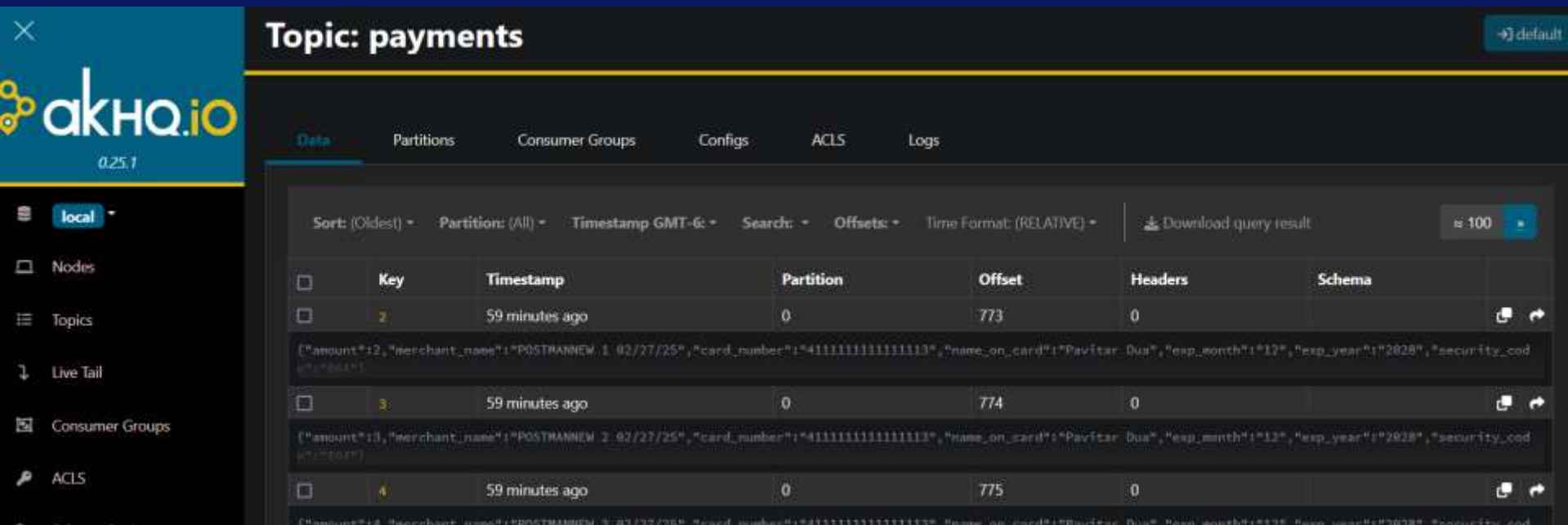
Integration Showcase

- LWS Auth Exit sequence
Diagram with BOB and ALICE



Integration Showcase

- Kafka



The screenshot displays the akhq.io web interface for monitoring a Kafka topic named 'payments'. The interface includes a sidebar with navigation options like 'Nodes', 'Topics', 'Live Tail', 'Consumer Groups', and 'ACLs'. The main panel shows the 'Data' tab for the 'payments' topic, with a table of message records. Each record includes a key, timestamp (59 minutes ago), partition (0), offset (773, 774, 775), headers, and a JSON schema. The schema details include fields like 'amount', 'merchant_name', 'card_number', 'name_on_card', 'exp_month', 'exp_year', and 'security_code'.

Topic: payments → default

akhq.io 0.25.1

local

Nodes

Topics

Live Tail

Consumer Groups

ACLs

Data Partitions Consumer Groups Configs ACLS Logs

Sort: (Oldest) • Partition: (All) • Timestamp GMT-6: • Search: • Offsets: • Time Format: (RELATIVE) • Download query result 100

	Key	Timestamp	Partition	Offset	Headers	Schema	
<input type="checkbox"/>	2	59 minutes ago	0	773	0		<input type="checkbox"/> <input type="share"/>
<pre>[{"amount":2,"merchant_name":"POSTMANNEW 1 02/27/25","card_number":"4111111111111113","name_on_card":"Pavitar Dua","exp_month":"12","exp_year":"2028","security_code":"5641"}]</pre>							
<input type="checkbox"/>	3	59 minutes ago	0	774	0		<input type="checkbox"/> <input type="share"/>
<pre>[{"amount":3,"merchant_name":"POSTMANNEW 2 02/27/25","card_number":"4111111111111113","name_on_card":"Pavitar Dua","exp_month":"12","exp_year":"2028","security_code":"5641"}]</pre>							
<input type="checkbox"/>	4	59 minutes ago	0	775	0		<input type="checkbox"/> <input type="share"/>
<pre>[{"amount":4,"merchant_name":"POSTMANNEW 3 02/27/25","card_number":"4111111111111113","name_on_card":"Pavitar Dua","exp_month":"12","exp_year":"2028","security_code":"5641"}]</pre>							

ISO20022 coming up...

- Nuwave looking for early adopters for Q4 2025
 - Process XML messages...
 - Re-use existing Intellectual Property

NonStop Integration Services

Many of you may not know, but NuWave also offers consulting services to clients such as:

- Architecture planning
- Systems Assessment Model
- Development Project Management
- Custom Development
- Guardian/OSS tuning.

Contact

Gustavo Cavazos
sales@nuwavetech.com

www.nuwavetech.com | @nuwave
See us on youtube for live product demos