RS DigitalEdge™

Unlocking the Power of Seamless Payment Orchestration

Modern Payments Need Modern Orchestration

As the global payment ecosystem evolves, banks and financial institutions are challenged with managing diverse, complex payment streams across multiple rails.

RS DigitalEdge™ delivers an advanced orchestration platform that unifies multiple payment methods, smart routing, real-time decisioning, and compliance — all through a single API.

The result: With event-driven workflows, smart routing, and composable architecture, RS DigitalEdge™ revolutionizes payment processing without disrupting existing systems, accelerating innovation while optimizing cost and performance.

RS DigitalEdge™ changes that.

What RS DigitalEdge™ Does

RS DigitalEdge™ is an API-first, cloud-ready payment orchestration platform designed to simplify connectivity across real-time, card, account-based, and alternate payment networks.

It acts as an intelligent central engine that manages the complexities of the payment lifecycle. It leverages a modular, composable architecture divided into three specific layers: a Core technical engine for low-code workflows, a Mantle layer for rail-specific business logic and APIs, and a Surface layer that enables customer-specific orchestration.

The platform operates dynamically, utilizing AI insights and business rules for smart routing decisions to maximize transaction success and minimize processing costs. Furthermore, it natively handles exception management, retries, and failovers, ensuring robust performance under any condition

Natively ISO 20022-ready, it ensures immediate compliance and interoperability, coming equipped with built-in adapters for ISO 8583 and native message formats. This allows institutions to modernize their payment capabilities rapidly without ripping out their existing core systems.

How RS DigitalEdge™ Works

The Three Core Participants

RS Digital Edge sit infront of all three and facilities payment orchestration for them

Debtor Bank
Send payment instructution via DE
Sending FI

Config

Payment Rail
Interbank Network - Swift, RTP, etc
Rail Network

Onboards

Creditor Bank
Receive Payment, sends pacs 002
Receiving F1

Tenant Onboarding & Platform Setup

Every organization using RS DigitalEdge™ is onboarded as a Tenant, representing the entity operation the platform

Tenant Setup and Access Control

Super Admin
Creates during setup
Full platform control

- Onboards additional participants (tenants)
- Manages users & access rights

Role-Based Access Control (RBAC)
Access based on roles/modules
Data restricted by role & responsibility

User Management Module
Admin creates & manages users and access rights

Participant Onboarding & Configuration

Participants Onboarded & Configured
Once tenant is set up, participants are onboarded & configured

Subscription Details
Defines connected & enabled workflows per participant

- How each participant connects to payment rails
- Workflows & services enabled per participant

Platform Ready to Process Payments
Seamless communication between RS DigitalEdge™ & participant systems

Internal Processing within RS DigitalEdge™ (RS Harmonica™)

API-first | ISO 20022 | multi-tenant | rail-agnostic | deployment-model agnostic

1. **Message Validation** — Ensures schema & business rule compliance
2. **State Persistence** — Stores transaction state for tracking & recovery
3. **Orchestration (DAG Execution)** — Determines next action and routing path
4. **Dispatch** — Sends transaction to next entity (Rail or Bank)
5. **Message Transformation** — Converts message formats as required

End-to-End Payment Journey — Step by Step

Every step is governed, traceable, and tracked-driven inside the platform

Payment Forward flow

01 Debtor bank **Instruction sent** pacs.008 inbound to DE	02 DE (sender) **Validate & Schema** Validation	03 DE → Rail **Route to rail** Orchestrate & dispatch	04 Rail **Forwards payment** To receiving DE instance	05 DE (receiver) **Deliver to creditor** Orchestrate to creditor bank
06 Debtor bank **Notified** Invoice closed, confirmed	07 DE (sender) **Delivers to debtor** Settled & confirmed	08 Rail **Routes response** pacs.002 to debtor's DE	09 DE (receiver) **Acks to rail** Forwards pacs.002	10 Creditor bank **Sends pacs.002** Acknowledgement to DE

Payment forword

Response / pacs.002

The Six Pillars

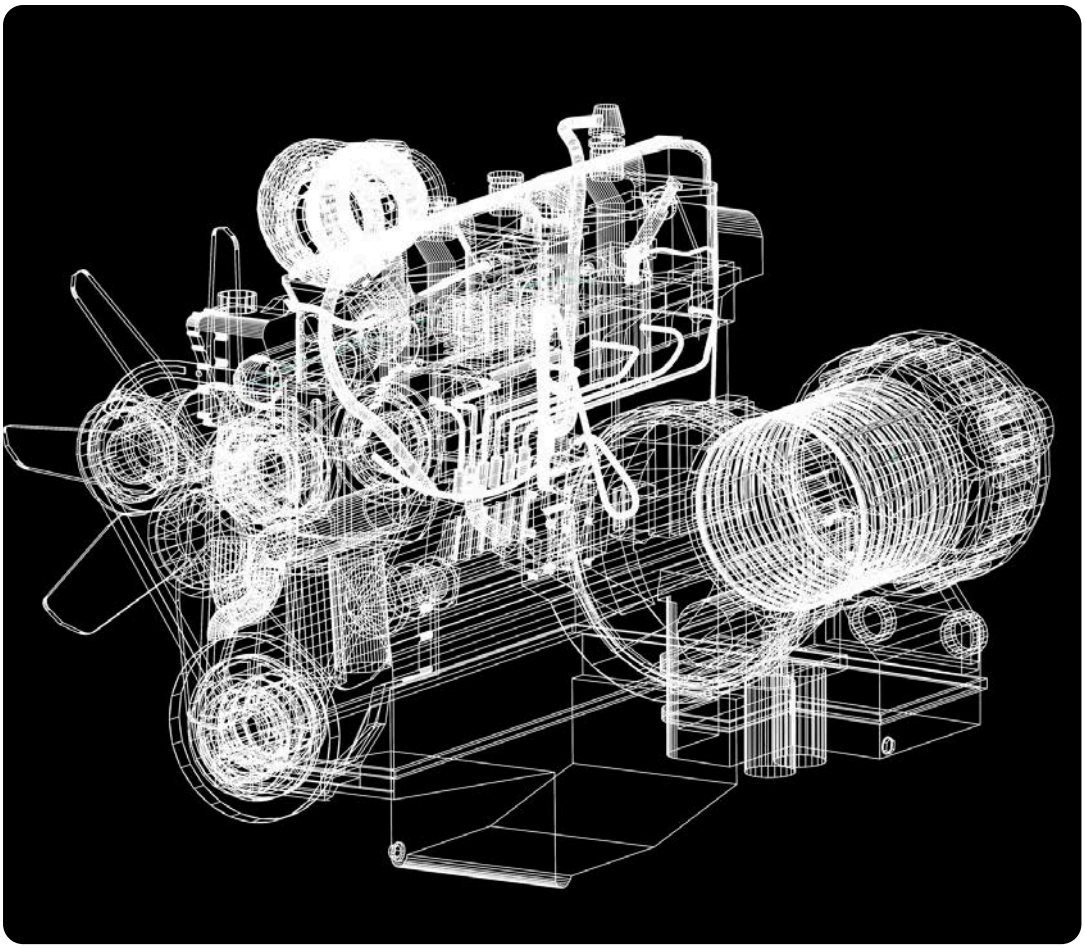
Intelligent Orchestration Engine

RS DigitalEdge™ acts as a highly dynamic central engine for your payment flows, executing smart routing decisions by analyzing real-time AI insights and configurable business rules.

Through event-based orchestration, the platform provides real-time decisioning and exception handling, with workflow triggers perfectly aligned to specific payment lifecycle events.

To guarantee uninterrupted service, it features built-in failover mechanisms, automated retries, and robust exception handling, ensuring peak performance under any market condition.

The outcome: Up to a 30% increase in transaction success rates with smart routing



Built for Agility with Low-Code

In a rapidly shifting financial landscape, the platform's low-code configurability empowers rapid deployment and continuous adaptation to market needs.

This approach drastically reduces engineering overhead, allowing institutions to seamlessly construct and modify payment workflows.

The outcome: Achieves 30% faster time to market through low-code orchestration.

Single API & Real-Time Integration

Fragmented integrations are a bottleneck to scale. To solve this, the platform utilizes an API-first and cloud-ready design that consolidates complex integrations into a streamlined gateway.

By providing a single API for multiple rails, it vastly simplifies connectivity across real-time networks, traditional card rails, account-based transfers, and emerging alternate payment methods.

It comes equipped with pre-integrated connectors for leading payment rails, enabling seamless, deep integration with existing core banking infrastructure, ERP software, and fraud or risk management systems.

The outcome: 10–20% reduction in processing fees through intelligent channel selection.

Modular, Composable Architecture

Flexibility is built into the foundation of RS DigitalEdge™ through a strictly modular, composable architecture divided into three distinct layers.

The Core Layer acts as the technical engine, flawlessly executing the low-code defined workflows.

Sitting above this is the Mantle Layer, a sophisticated business logic layer that houses rail-specific libraries, dedicated APIs, and stringent validation rules.

Finally, the Surface Layer operates as the external-facing interface, enabling highly customizable, customer-specific orchestration achieved through simple configuration.

The outcome: Revolutionizes payment processing without disrupting existing systems, accelerating innovation while optimizing cost and performance.

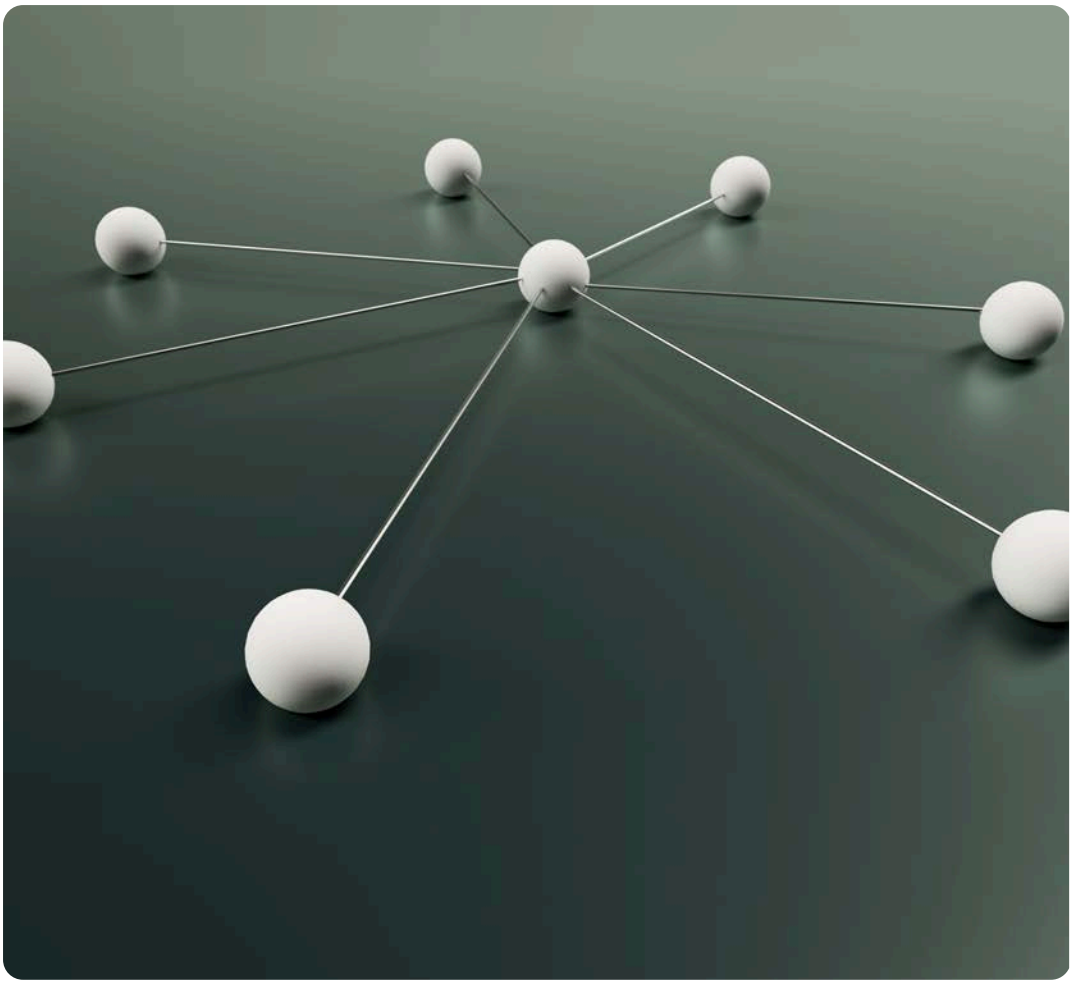
Native Compliance and Interoperability

RS DigitalEdge™ is built to be fully compliant and interoperable from day one.

The orchestration engine is natively ISO 20022-ready, future-proofing your payment communications for the global standard of financial messaging.

For backward compatibility and immediate interoperability with legacy infrastructure, the platform also features built-in adapters capable of translating ISO 8583 and other native message formats on the fly.

The outcome: Unifies multiple payment methods, smart routing, real-time decisioning, and compliance — all through a single API.



Robust Security, Resilience & Analytics

To ensure airtight transaction security at every stage, the platform utilizes end-to-end encryption, tokenization, strict authentication protocols, and digital signatures.

From an operational standpoint, it is resilient by design, boasting an active-active architecture that guarantees 99.999% availability for truly uninterrupted operations.

To turn payment data into strategic value, embedded reporting, operational analytics, and live telemetry allow your teams to continuously monitor, audit, and optimize orchestration performance.

The outcome: 99.999% availability with active-active deployment, ensuring end-to-end management of performance, failover, and NFR compliance.

What RS DigitalEdge™ Delivers

For Banks & Financial Institutions

Accelerated Innovation

Achieve 30% faster time to market through low-code orchestration. Revolutionize payment processing without the costly need to disrupt or replace existing core systems.

Cost Optimization

Realize a 10–20% reduction in processing fees through intelligent channel selection and optimized network routing.

For Enterprises & Merchants

Higher Transaction Success

Drive up to a 30% increase in transaction success rates. AI-driven routing and automated retries ensure payments clear on the best available path.

Uninterrupted Operations

Rely on 99.999% availability backed by an active-active deployment architecture, ensuring your business never misses a payment.

For Consumers

Seamless Payment Experiences

While operating invisibly behind the scenes, the orchestration engine ensures consumer checkouts are universally fast, secure, and successful across real-time, card, and alternate payment networks.

For Central Infrastructures & Ecosystems

Native Interoperability

Natively ISO 20022-ready, with built-in adapters for ISO 8583 and native message formats. This ensures immediate compliance and friction-free connectivity across diverse global rails.

Resilient Ecosystems

End-to-end management of performance, failover, and NFR compliance creates a highly secure, zero-interruption payment ecosystem built for scale.

Who RS DigitalEdge™ is Built For

Central Infrastructures

Deploy a foundational, interoperable orchestration layer built for global and national scale. Natively ISO 20022-ready , RS DigitalEdge™ guarantees 99.999% availability with an active-active architecture. It ensures end-to-end management of performance, failover, and NFR compliance to support resilient payment ecosystems.

Banks & Financial Institutions

Modernize payment architectures without the risk of "rip and replace". RS DigitalEdge™ empowers banks challenged with managing diverse, complex payment streams across multiple rails to unify them through a single API. It seamlessly integrates with existing core banking, fraud, and risk systems, delivering up to 30% faster time to market.

Enterprises & Large Merchants

Maximize revenue and operational efficiency. By leveraging AI-driven smart routing and seamless integration with existing ERP systems, enterprises can see up to a 30% increase in transaction success rates and a 10–20% reduction in processing fees through intelligent channel selection.

Fintechs & Payment Platforms

Accelerate innovation and get to market faster. The API-first, cloud-ready, and composable architecture paired with low-code configurability empowers rapid deployment and continuous adaptation to changing market needs.

99.999%
uptime delivered at national scale

49%
of global digital payment volumes processed on RS Software platforms

Demonstrated at Scale

RS DigitalEdge™ is engineered to support the massive scale required by global, national, and enterprise payment networks. Built on knowledge systems developed over 30 years, the platform handles complex, high-volume payment orchestrations, ensuring 99.999% uptime and zero-interruption performance even at peak capacities.

30%
increase in transaction success

10–20%
reduction in processing fees

30%
faster time to market

About RS Software

RS Software builds global, national, and enterprise payment platforms with presence across four continents. Our product suite combines knowledge systems built over 30 years, delivering mission-critical payment solutions that combine innovation and entrepreneurship to create the new gold standard for digital payments. With approximately 49% of global digital payment volumes in 2025 processed on platforms built by RS Software, our vision is to deliver **payments at the speed of thought**.

www.rssoftware.ai
North America I EMEA I APAC
ContactDigitalEdge@rssoftware.com