Open Payment Framework

A library of component building blocks from which payments solutions can be derived.

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FIS offers world class solutions based on the Open Payment Framework (OPF); a Service-Oriented Architecture (SOA) delivering common, reusable services on which to build a wide array of payment solutions.

**Business Led Payment Environments**

From cutting cost to strategic advantage — It is no longer the question whether banks need to transform their existing payment infrastructures, but how. Their payment silos are rich in functionality and deeply embedded in the bank’s systems environment, yet rigid, expensive to maintain and lacking the agility to quickly respond to growing customer demand — particularly from large corporations. A big bang systems replacement is simply no option, yet approaching it piecemeal carries its own burden and risk. The answer is staged and managed migration towards a future-proof Service-Oriented Architecture, with some visible and client-driven quick-wins.

Financial institutions typically build and maintain their own custom applications to service their niche requirements. If banks do not build their own systems, they are forced to modify their procedures to match a packaged solution’s capability. Either way it is a costly exercise and wrestles control of the process away from those that know it best. Often, technical capability is duplicated across numerous departments and lines of business and any need for these diverse IT systems to actually communicate with each other results in a major project with significant cost and time delay.

**The Open Payment Framework**

The Open Payment Framework is a library of component building blocks from which payments solutions can be derived. The Open Payment Framework is built entirely on a Service-Oriented Architecture (SOA) delivering common, reusable services consisting of a comprehensive data model, choreographed payment business processes and configurable services including parsing, validation, cost based routing, warehousing security, auditing and many more.

From the Open Payment Framework, FIS has created pre-defined solutions around the Bank Payment Hub including Domestic Payments, International Payments, SEPA, Remittance, Imaged Check Processing and EBPP, as well as eBanking for retail, small business and corporate payments.
**Service-Oriented Architecture and Web Services**

Service-Oriented Architecture (SOA) and web services express a business-driven approach to software architecture that supports integrating the business as a set of linked, repeatable business tasks, or “services”. Services are self-contained, reusable software components with well-defined interfaces and are independent from the consuming application; composite SOA applications can invoke services that may, and often will, run on an entirely different infrastructure.

**Adaptive-SOA — a Grey Box Solution**

The OPF not only provides a set of callable black-box business services: each individual service can be fully customized and extended. This “Adaptive-SOA” approach offers the best of both worlds; the payment process flow can be fine-tuned by invoking a rich set of business services and each service can be adapted to the specific needs of the bank. The OPF allows the adaptation of the underlying data model; the Adaptive-SOA grey box approach enables the customisation teams to incorporate these extensions in the individual services. Metadata describing the underlying data model is used by the Adaptive-SOA services and can be fully extended.

**A Layered Approach**

The Open Payment Framework is built on the principle of independent layers and logically grouped services. FIS has defined a standard implementation with pre-built validation rules, routing options, notification properties, etc. which can be customised as required. The Data Access Layer (DAL) is a highly performant extensible persistency layer that provides a common set of services for accessing & manipulating elements of payment system domain models.

**The Software Development Kit (SDK)**

FIS’s OPF-based solutions ship with a comprehensive Software Development Kit (SDK). The SDK changes the paradigm of a “buy vs. build” decision to a “buy and build”. Through documented APIs, customisation patterns and a suite of reusable frameworks, the SDK offers our customers the ability to add, change and round out components to meet their unique requirements. Time to market is an essential ingredient of maintaining a competitive edge, so whether it is with a 3rd party Systems Integrator, the Bank’s own IT department or FIS, the SDK provides the Bank with all the necessary tools to implement a complete payments solution.
The Case for Open Frameworks

Embracing the Service-Oriented Architecture (SOA) and the open platforms and architectures that it underpins offers six primary returns:

- **Investment protection**
  Exposing existing legacy application code as web services reuses existing applications

- **Reusability**
  Publication of services through service registries allows resource sharing across the enterprise

- **Interoperability**
  Regardless of platform and vendor through a maturing set of Web Service Interoperability (WS-I) standards, etc.

- **Scalability**
  Replaces tightly coupled application-to-service environments with loosely coupled, asynchronous, coarse grained architectures, allowing for easier growth of clients and services

- **Flexibility**
  New business services easily added and extended

- **Cost efficiency**
  Customised solutions are expensive to build and maintain