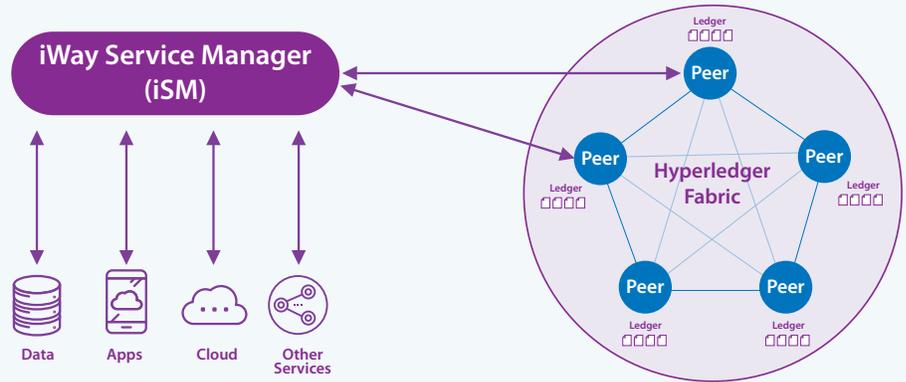**Information Builders**

iWay Service Manager With Blockchain Support

Features

- Secure, scalable environment supports microservices, big data, blockchain, and other modern integration strategies
- Synchronous and asynchronous blockchain posting
- Promotes collaboration and communication among developers
- Enables the creation of complex, yet flexible transformations

iWay Service Manager, a powerful integration engine that works with and alongside blockchain applications.

HYPERLEDGER
GENERAL MEMBER

Information Builders helps organizations transform data into business value. Our business intelligence, integration, and data integrity solutions enable smarter decision-making, strengthen customer relationships, improve performance, and drive growth.

WebFOCUS   iWay Software   Omni

iWay Service Manager (iSM) is a proven, unified solution that ensures rapid access to timely, accurate data across all systems, processes, and stakeholders – with unmatched interoperability between disparate systems and data. All aspects of an existing infrastructure – every integration, application, and development platform – work in concert with modernized architectures to rapidly develop new business applications, and create powerful, reusable business services from existing applications. This support for modern architectures ensures a highly optimized development environment and rapid creation of internally and externally consumable services.
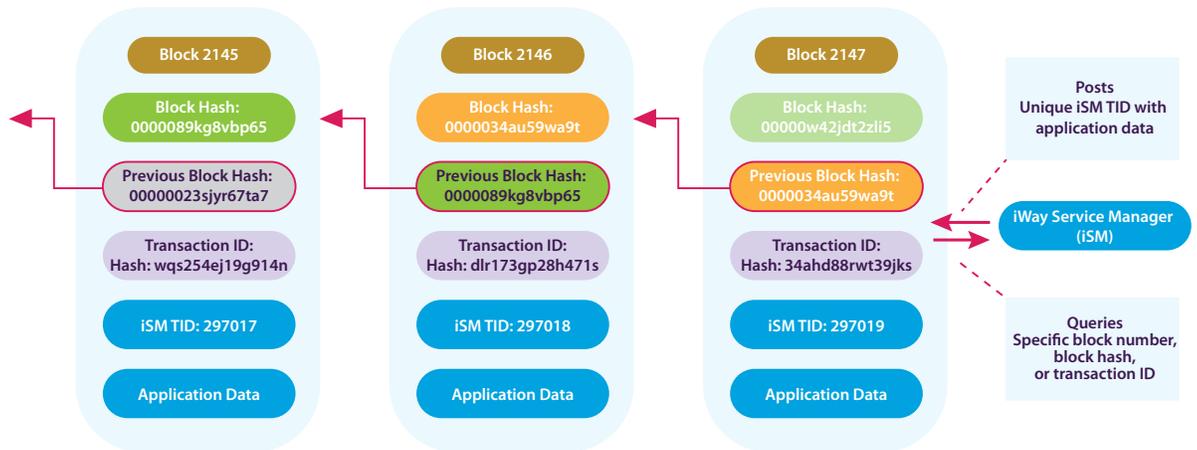
iWay Service Manager offers end-to-end integration of the widest variety of sources, including real-time, batch, streaming, blockchain applications, big data, structured and unstructured information, cloud-based sources, social network, and machine-generated data.

Blockchain Support

iWay Service Manager offers integrated support for permissioned blockchain applications. Our proven integration capabilities work with and alongside Hyperledger Fabric-based applications.

Using our blockchain application integration capabilities, iSM can acquire messages from the outside world, existing applications, or other sources; process them; and share the results with another application. iSM lays the foundation for a quickly deployable, easily maintainable service- and event-oriented blockchain architecture, as well as a mechanism to make configuration easier for a user to understand.

Block 2145

Block Hash:
0000089kg8vbp65

Previous Block Hash:
00000023sjyr67ta7

Transaction ID:
Hash: wqs254ej19g914n

iSM TID: 297017

Application Data

Block 2146

Block Hash:
0000034au59wa9t

Previous Block Hash:
0000089kg8vbp65

Transaction ID:
Hash: dlr173gp28h471s

iSM TID: 297018

Application Data

Block 2147

Block Hash:
00000w42jdt2zli5

Previous Block Hash:
0000034au59wa9t

Transaction ID:
Hash: 34ahd88rwt39jks

iSM TID: 297019

Application Data

Posts
Unique iSM TID with
application data

**iWay Service Manager
(iSM)**

Queries
Specific block number,
block hash,
or transaction ID

iSM posts a unique Transaction ID (TID) along with application data for that transaction within a block. The result of the selected query is returned to iSM from the blockchain for transaction analysis.

Some unique blockchain benefits include:

- Reduction in development cost and time, and faster implementation by incorporating iSM into the blockchain workflow
- Integration with peers (nodes) on the network, and ability to transfer detailed posts and queries between peers and iSM
- Ability to keep transactions in order prior to posting a sequence of transactions
- Better visibility of the workflow process with real-time exchange of events and documents
- Component customization via our Fabric Wizard simplifies component use
- Provides metadata and streaming analytics
- Unique queries and custom event handling

In addition, when joined with Information Builders' WebFOCUS enterprise business intelligence (BI) and analytics platform, iSM simplifies and accelerates the integration of blockchain applications into your enterprise.

Support for Internet of Things and Big Data

In addition to stand-alone deployment, iSM can also run natively in a Hadoop cluster under YARN or outside the cluster to feed data into Hadoop using HDFS and Avro. Our iWay data management tools natively ingest, cleanse, and unify big data from the Internet of Things (IoT). This eliminates the challenges of fragmented, inaccurate, or incomplete information, ensuring that the information you rely on is comprehensive and of the highest quality at all times. And because they seamlessly integrate and master raw data, iWay solutions can also help contextualize it, empowering users to interpret it in meaningful and relevant ways.

API Design and Management With REST and JSON

Application Programming Interfaces (APIs) expose a specific set of services, as defined by the application, for internal or external consumption via a secure RESTful interface. iSM provides integrated support for API design and management, while complying with the latest security standards.

An application's author can publish his or her APIs, exposing their application logic for consumption. iSM can also consume APIs as part of its standard business logic for data processing. Additionally, it expedites deployment with a library of highly reusable and easily maintainable APIs. iSM enables all of these services to interact with blockchains without requiring additional development.

Microservices

A microservices architecture replaces the monolithic application approach with applications comprising independently deployed and managed services. This decoupling simplifies application maintenance, expedites the development of new services, and enables a diversity of service implementations, while maintaining a unified interface. The adoption of microservices reduces cost and increases agility. iSM's multichannel architecture eliminates many design and performance bottlenecks, which helps support microservices deployments, including those that incorporate a blockchain.

Modern, Intuitive Design Time

iSM provides a modern and user-friendly design-time environment that expedites development and enhances usability. From the modern, graphical process designer to the in-place adapter configuration, iWay Service Manager gives developers a new platform that enables intuitive navigation and wizard-driven configurations, and allows them to create and manage the application from a single interface. New features promote high reusability, ensuring that developers can re-use any applicable configuration component, from a simple connection definition to the entire business logic. Intelligent process creation streamlines development and minimizes related costs.

A rich object palette exposes all available services to enable rapid access, user-friendly configuration, and modern design. It provides a wide array of common objects, including adapters, connectors, controls, data quality, and WebFOCUS integration, as well as unique objects like Twilio.

Collaborative Team Development

The implementation of source management is vital for any enterprise-level development project. iSM's design-time environment provides native integration with source management systems via the abstraction of team APIs. This delivers a unified view of a project, regardless of source management.

All-Inclusive Applications

iSM automatically builds an application package based on project artifacts, while enabling customization and updates, and allowing additional components to be included to meet the needs of more advanced users or support applications with externalized

dependencies. It provides an automated and scripted deployment model to ensure the integrity of an application as it is deployed across multiple environments. With the iWay Software Development Kit (SDK), application management becomes a native part of an existing enterprise-level operation, and seamlessly integrates into existing operations infrastructures.

Multi-Tenancy Support

As part of its multi-tenancy support, iSM enables applications to fetch runtime processes, transformations, and other shareable components from local or remote libraries, regardless of their location. As a result, the application can be moved across different environments without updating it or restructuring its logic.

Secure and Scalable Data Processing

iSM offers scalable and secure data interchange with unique data processing services that include native JSON support, XML, data streams, a vast library of data manipulation services, and support for numerous APIs. iSM's security capabilities support industry standards such as OAuth, SAML, SSL/TLS, AS/2, S/FTP, FTP/S, SMIME, XMLDSig, and AES. It supports high-volume data processing in a secure environment, with optimization features that promote memory utilization or transaction latency, to fit the application need.

Activity Monitoring

Developers can monitor applications and transaction-specific activity to obtain an end-to-end, non-invasive view into the transaction lifecycle. Activity monitoring features enable capture, analysis, and resolution of various error situations, as well as reprocessing of transactions from within a web-based environment. User- and role-based security control ensures only authorized access.

Parallel Order Processing

Preserving arrival order is a common challenge for systems tasked with processing messages in parallel. iWay's approach focuses on parallelism and simplifies complex application logic. The ordered listener retains the required order, allowing messages to be dispatched as they become available in transactional or batched modes.

Unparalleled Transformation Services

iWay's rich transformation offering promotes the creation of complex, yet flexible, transformations. It provides transformation services that support a wide array of formats, from standard JSON, delimited, and XML to more system-specific formats, such as EDI, SWIFT, HL7, and more. The transforms are visually driven, and enable users to quickly map across various formats, while enriching the data from external sources. These services are a native part of data processing, and can be exposed as services or used internally by the application.

Find Out More

We can help you succeed. Talk to your local Information Builders representative to learn how. Visit us at **informationbuilders.com**, e-mail **askinfo@informationbuilders.com**, or call **(800) 969-4636** in the U.S. and Canada. To improve your skills, visit **education.ibi.com**.

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