Integration server ensures rapid access to timely, accurate data

iWay Service Manager (ISM) is an integration server that ensures rapid access to timely, accurate data across all systems, processes, and stakeholders – with unmatched interoperability between disparate systems and data. With ISM, all aspects of your 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 modern architecture support 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, big data, structured and unstructured information, cloud-based sources, social network, and machine-generated data.

API design and management

Application programming interfaces (APIs) are widely used as a connection mechanism to standardize communication between applications. They provide a documented, published interface in a secure and scalable environment for connecting multiple systems while enabling a high level of reusability and adaptation of services.

APIs expose a specific set of services as defined by the application for internal or external consumption via a secure RESTful interface. ISM offers integrated support for API design and management, while complying with the latest security standards.

ISM leverages a modern approach for cross-system and cross-application communication. An application’s author can expose the APIs, and hence the 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.
**Microservices**

Microservices architecture replaces the monolithic application approach with applications comprising independently deployed and managed services. Each service encapsulates the specific business logic needed for the application. This decoupling simplifies application maintenance, expedites the development of new services, and enables diversity of service implementations, while maintaining a unified interface. The adoption of microservices reduces cost and increases agility. iWay Service Manager delivers all the capabilities an organization needs to support a microservices architecture.

**Modern, intuitive design time**

iSM offers 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, it 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 reuse any applicable configuration component, from a simple connection definition to the entire business logic. The native integration with source management systems enables multi-developer teams to work in parallel, such as ensuring expedited application deployment. Intelligent process creation streamlines development and minimizes related costs.

A rich object pallet 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 such as Twilio. One-click access to any component accelerates and streamlines application design and reduces the likelihood of user error.

**Collaborative team development**

Because development teams are not always in the same place, the implementation of source management is vital for any enterprise-level development project. It strengthens code management and tightens control over application development, while fostering teamwork and collaboration on multiple levels.

Multiple team members can share in the development of the application, while ensuring the integrity and control of the artifacts. iSM’s current Eclipse-based design-time environment offers 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**

All-in-one dynamic application creation ensures completeness and eliminates the hassle of gathering required parts and components. iSM automatically builds an application package based on project artifacts, while enabling customization and updates and including additional components to meet the needs of more advanced users or support applications with externalized dependencies.

It ensures the integrity of an application across multiple environments by delivering an automated and scripted deployment model. 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**

Currently, hybrid application architectures combine service-oriented architecture (SOA), microservices, and other styles, deployed on a variety of platforms. It is vital to ensure accessibility and communication across applications that need to share information, while maintaining application integrity.

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. This renders the application’s location irrelevant, as components are always accessible. As a result, the application is movable across different environments without updating it or restructuring its logic.
Secure and scalable data processing

iSM offers scalable and secure data interchange through an array of features that enable streaming, real-time, batch, and delta data processing. Its unique data processing services 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 information 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 ensure only authorized access.

Support for Internet of Things (IoT) and big data

As we all generate growing volumes of sensory and social data, it has become critical to make large amounts of information available for consumption and analytics. We must not only gather data, but we must also ensure its accuracy and usefulness. iWay offers an array of services for big data integration, including support for both transactional and streaming data, as well as a host of IoT enabling components such as MQTT, RabbitMQ, ActiveMQ, CoAP, and others.

iSM enables data processing into and out of the Hadoop environment, and makes available an array of protocols, such as Avro, to facilitate streamlined communication. And, iSM’s ability to run within the cluster means you can handle resource management within the cluster itself.

Parallel order processing

Preserving arrival order is a common challenge for systems tasked with processing messages in parallel. The common technique of single-threading the ordered process implies performance hits. iSM’s patented approach focuses on parallelism and eliminates complex application logic. The ordered listener retains the required order, and the system dispatches messages as they become available in transactional or batched modes.

Unparalleled transformation services

Today’s applications call for great flexibility in relating data from various sources and making it consumable by other applications. This requires transformation services that enable the applications to manipulate not only the data format, but also the actual data. iSM’s rich transformation offering promotes the creation of complex, yet flexible transformations.

It provides transformation services that support an array of formats from standard JSON, FWF, and XML, to more system specific formats such as EDI, SWIFT, HL7, and more. The transforms are visually driven and enable the user to quickly map across various formats, while enriching the data from external sources. These services, a native part of data processing, are accessible as services or internally by the application.

Blockchain support

A blockchain is a distributed ledger that serves as a historical record of all transactions, from the first to the latest. Trust, accountability, transparency, and security are the foundations of blockchain technology, resulting in an autonomously managed database as well as a decentralized, unchallengeable, highly scalable, and resilient recording mechanism.
iSM offers integrated support for permissioned blockchains for business applications. Our proven integration capabilities work with and alongside Hyperledger Fabric-based applications. iSM process flows can introduce transactions to the ledger and can query and retrieve information from it. In addition, when joined with the WebFOCUS enterprise business intelligence (BI) and analytics platform from ibi, iSM simplifies and accelerates the integration of blockchain applications into enterprise applications.

**About ibi**

ibi is a data and analytics company that embeds intelligence into — everything. From the beginning, ibi has known the importance of data and insights to make better decisions. We help organizations get their complex and disconnected data in order, so they can build, embed, and automate intelligence into everything they do. By preparing organizations for the future and turning them into builders — information builders — everyone can use enterprise trusted data at scale to drive their growth. Whether our customers use pre-built applications or build their own solutions for their data and analytics challenges, ibi powers their innovation and reinvention. ibi’s open platform and industry-specific building blocks accelerate speed to market, improve operational efficiency, and enhance their customers’ experience.

ibi. build a better future.