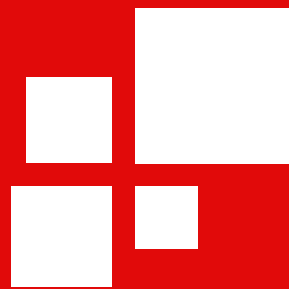# SEEBURGER

White Paper | SEEBURGER Business Integration Suite (BIS) Platform

Accelerate and Automate Business-Driven Innovation with Integration

Table of Contents

Discover the SEEBURGER BIS Platform

Secure connections. Process automation. Agile innovation.

The SEEBURGER BIS Platform is an agile, secure and scalable cloud-based integration platform that empowers any user to design, deploy, manage and support integrations between applications, people and processes.

BIS enables seamless connectivity of applications, people and processes in any cloud, in a hybrid environment and on-premises.

More than 14,000 companies worldwide power their integrations with BIS to connect and integrate apps and technologies, automate and digitalize processes, and inspire innovation.

Connect.
Integrate apps and technologies for secure data exchange.

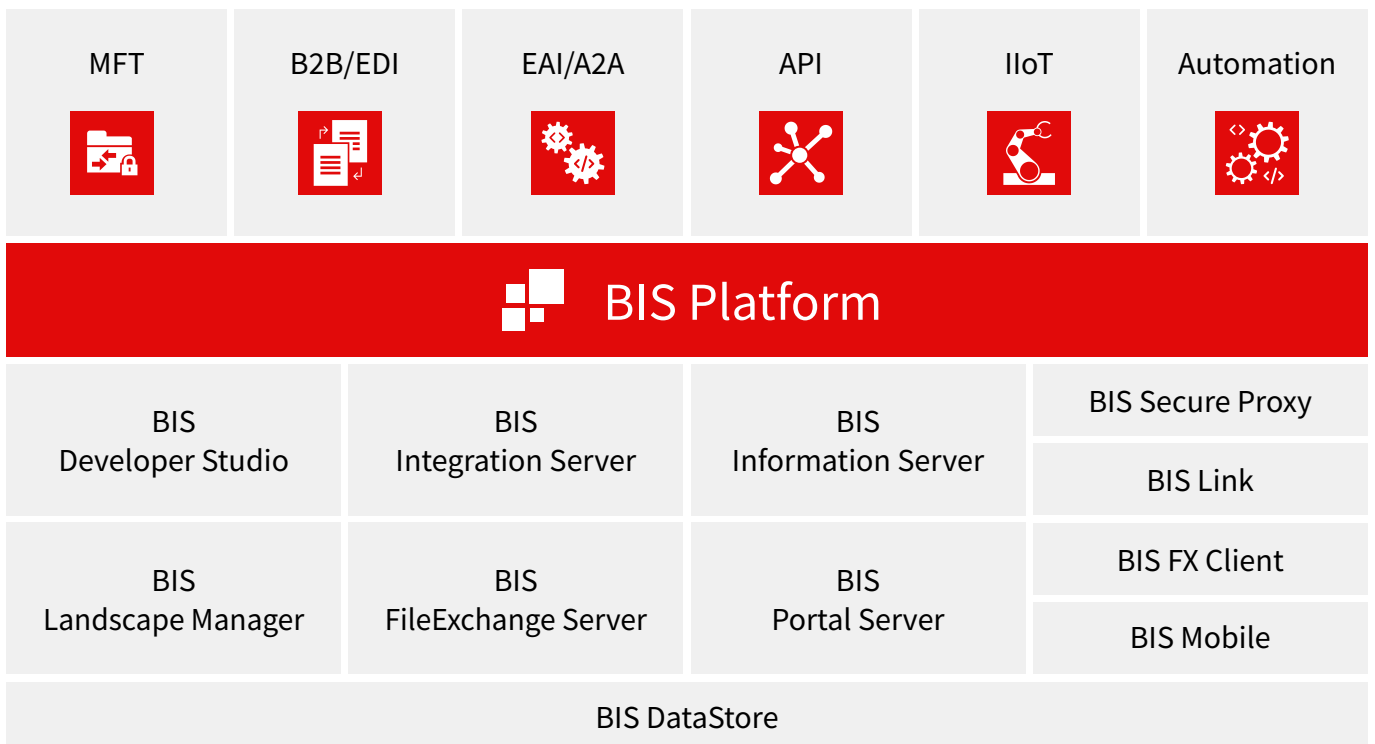### Automate.
Hyperautomate and digitalize processes.

Innovate.
Inspire innovation with agile integration and dynamic deployment models.

With BIS, anyone can design the easiest to the most complex integrations in one platform to achieve secure connections, process automation and agile innovation. BIS is continuously developed and maintained by SEEBURGER, and all BIS capabilities are designed to work smoothly together with an API-driven architecture.

BIS is REST API-enabled, allowing you to integrate, configure and monitor the platform remotely and seamlessly with your environment, your applications and your business processes. BIS also supports an active/active setup, which allows unparalleled scalability and fault tolerance, making it ideal for applications that demand continuous high performance.

MFT	B2B/EDI	EAI/A2A	API	IIoT	Automation

BIS Platform

BIS Developer Studio	BIS Integration Server	BIS Information Server	BIS Secure Proxy
			BIS Link
BIS Landscape Manager	BIS FileExchange Server	BIS Portal Server	BIS FX Client
			BIS Mobile

BIS DataStore

Platform Architecture

The BIS Platform comprises several server components that add critical functionality to support your business, technical and DevOps organization with the implementation of integration projects.

BIS Integration Server
Process orchestration and connectivity

The BIS Integration Server uses the BIS Process Engine and works in accordance with the Business Process Execution Language (BPEL) standard. The BIS Channel Engine is an in-memory variant of the BIS Process Engine. Together, they execute all integration processes, which are fundamental to all digital integration scenarios (MFT, B2B/EDI, API, IIoT, ERP and e-invoicing integration, regardless if asynchronous or synchronous). The BIS Adapter Engine ensures the secure and reliable exchange of messages, files and API calls with connectors for seamless application integration with a large number of protocols. The powerful BIS Mapping Engine offers high-performance, any-to-any conversion that handles all data integration mapping requirements (testing, splitting, merging and converting). The BIS Integration Server also includes queue management capabilities, a correlation engine, the BIS Virtual File System (VFS), a sophisticated job scheduler and services allowing to execute synchronous and asynchronous integration scenarios.

BIS Information Server
Back-end business and message monitoring

BIS Information Server is the data source for business and message monitoring use cases. It serves as the back-end for various BIS applications and includes a metadata store with a search index and functions for the aggregation of KPIs that are used by for example the BIS Message Tracking Application. Documented APIs provide access to the data, which allows third-party analytics tools to derive further information from the data.

BIS FileExchange Server
Central and secure mailboxes

The BIS FileExchange Server provides the basis for ad hoc data exchange (upload/download permits via link) with unregistered users and sharing of files and folders with registered user accounts. Access is made possible via FTP/S, SFTP and web APIs with a number of clients, such as Windows Explorer, Java API Client, Command Line Client and Microsoft Outlook add-ins or mobile apps for iOS and Android.

BIS Link
Endpoint connectivity

If systems need to be equipped with a communication endpoint in a B2B/EDI, EAI, IIoT or MFT integration scenario, BIS Link bridges the gap. BIS Link can be rolled out to hundreds of endpoints, preconfigured, monitored and updated when needed.

BIS Portal Server
One browser-based user interface

All web interfaces are based on the BIS Portal Server providing the BIS App Framework. The cloud-compliant user management integrates seamlessly with your LDAP/ Active Directory and also supports the administration of accounts for external users, such as your business partners, which is a prerequisite for state-of-the-art business community management and self-service applications for business units.

BIS Developer Studio
Extend the solutions provided by SEEBURGER

The BIS Developer Studio is the integrated development environment for BIS. It is based on the open source Eclipse platform and contains graphic tools (plug-ins) for processes, mapping and API design. You can transfer and activate created scenarios as hot deployments from the Developer Studio into the run-time environment with no operational interruptions. Alternatively, you can perform deployments offline. Integration with build automation systems (CI/CD) is also supported for the advanced developer, and we offer plug-ins for the integration of common source code version management systems (Git/GitHub, CVS).

The BIS Mapping Designer allows you to develop and deploy process mappings, direct mappings and customer partner mappings. To operate the BIS Mapping Designer, you need to install, configure and maintain the BIS Mapping Designer on your local machine. Installation files are delivered on a separate ISO image and ship a Java runtime for Windows operating systems (64-bit versions for AMD and Intel x64 compatible platforms). The BIS Mapping Designer is located in the BIS Developer Studio on this ISO image.

BIS Landscape Manager
Automated software installation

The BIS Landscape Manager manages BIS system landscapes and automates installation and maintenance based on recipes describing the landscape and the capabilities to be installed on each virtual server/machine in the landscape. This is especially effective when a BIS environment is distributed across several nodes, for example to achieve greater availability and higher performance or when a separate environment is required for development, testing and production.

BIS Landscape Manager integrates seamlessly with your infrastructure as code or a GitOps strategy, and it automatically downloads new software versions from the SEEBURGER Cloud. You can configure fully automated updates or an interactive mode, in which you choose when the updates are installed. For systems with an active/active setup, installation can be configured to perform automatic updates on all nodes with no additional user intervention and with no downtime. The configuration settings enable you to choose the best method of installing updates for your organization.

BIS Secure Proxy
Securely establish internet connections

BIS Secure Proxy connects communication adapters with the Internet. Secure, encrypted communication channels are provided by using the fence component, which is deployed in the DMZ (demilitarized zone) in order to avoid time consuming and frequent changes to the firewall configuration, such as when new business partners are activated.

BIS DataStore
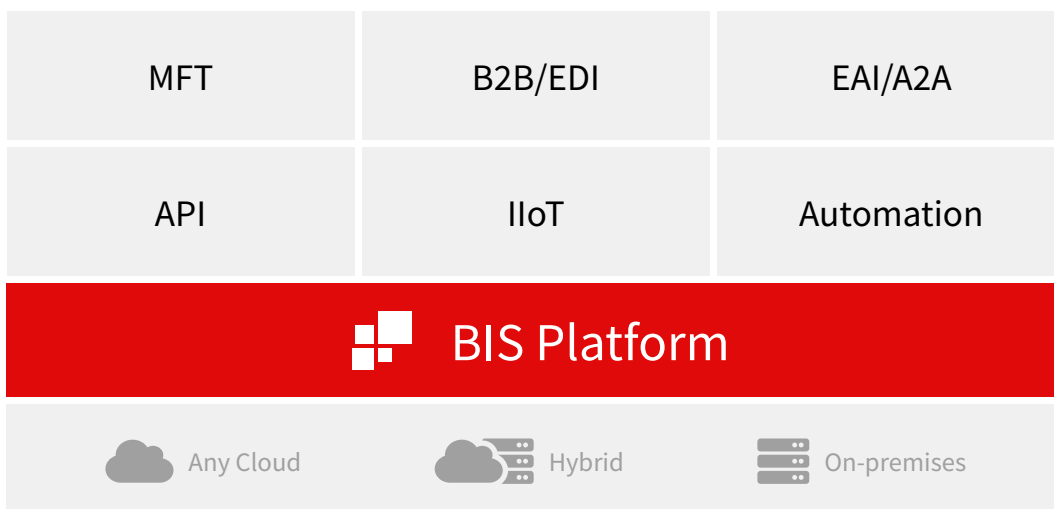### Management of data objects, payloads and attachments

BIS DataStore contributes to scaling BIS with advanced data and storage management for data processed within the integration platform. BIS DataStore helps lower operational costs, because no third-party tools, such as NFS tools, are required, and it interoperates with antivirus scan tools. BIS DataStore provides encryption of data at rest, ensuring compliance with data protection requirements, especially in the context of sensitive payload information.

Management capabilities enable users to address requirements for fine-tuning and managing the re-organization of different data and payload categories. With its capability to provide automated replication between multiple BIS DataStores, your distributed system landscapes stays consistent, which allows consistency in high-availability scenarios based on active/active clusters.

Platform Capabilities

One platform. One experience. Any integration style. Anywhere integration.

Seamlessly connect and integrate Managed File Transfer (MFT), B2B/EDI, API, EAI/A2A and IIoT and automation capabilities across your entire ecosystem. Discover the integration possibilities with BIS Platform capabilities in any cloud, a hybrid environment or on-premises.

MFT	B2B/EDI	EAI/A2A
API	IIoT	Automation

BIS Platform

Any Cloud   Hybrid   On-premises

Managed File Transfer

Enable and manage fast, reliable and secure file transfers

BIS MFT capabilities empower any user in your organization to transfer structured and unstructured data anywhere, in any size, in any format, with the speed and security your business requires. Lay a digital foundation for secure data exchange throughout your ecosystem in order to share valuable data of any volume between companies, people and applications with fully automated or ad hoc managed file transfers.

Discover the benefits of BIS MFT capabilities

+ Non-repudiation and authentication:
End-to-end monitoring and real-time audit logs

+ Confidentiality and integrity:
End-to-end channel encryption, encryption at rest and secure proxies for segmented networks

+ High availability 24/7:
Active/active clustering

+ Compliance with regulatory requirements:
PCI-DSS, HIPAA, ISO 20022, ISAE 3402, PSD2 and GDPR

+ Flexible integration patterns:
Multi-cloud environments and API-supported applications

+ Cloud readiness:
Seamless deployment in your choice of public or private cloud

+ Compatibility with legacy systems:
Enterprise Resource Planning (ERP) systems, Customer Relationship Management (CRM) systems, back-office applications and API-enabled solutions

+ Automated migrations:
Cost-effective and risk-free migration of users and master data from multiple third-party integration solutions

BIS MFT capabilities include the BIS MFT Gateway and BIS MFT Management, which facilitate the secure transfer of data while ensuring the efficient administration and control of all transfers.

BIS MFT Gateway

The BIS MFT Gateway controls and governs all processes around file, data and stream transfers, including the following four functions:

Integration patterns
- System-to-System
- System-to-External Partner
- System-to-Cloud
- System-to-Human

File routing and automation
- Protocol adapters: HTTPS, FTPS, SFTP, EDI INT AS2/AS4, OFTP2, Filesystem, REST, SOAP
- Technology, database and data storage adapters: HDFS, KAFKA, JMS, LDAP, MQTT, OPC UA, MSMQ, JDBC
- Public cloud access connectors: S3, Cloud Storage, Cloud Pub/Sub, File Storage, Blob Storage, Data Lake Storage, Service Bus
- Routing based on metadata and file content
- Any-to-any converter
- Ad hoc file exchange per email permit (secure upload and download links)

Security
- Data encryption at rest
- Transport security (transport level security SSL/TLS, configurable ciphers)
- File security (encryption and signature in accordance with SMIME, PGP and other standards)
- Integration of AV and DLP scanners (ICAP)
- Secure internet connection for all protocols with BIS Secure Proxy

Monitoring
- Central file tracking
- Statistics, including transfer times and volumes

BIS MFT Management

BIS MFT Management offers an overview of your own and third-party MFT mount points, users, authorizations and file transfers and supports self-service onboarding.
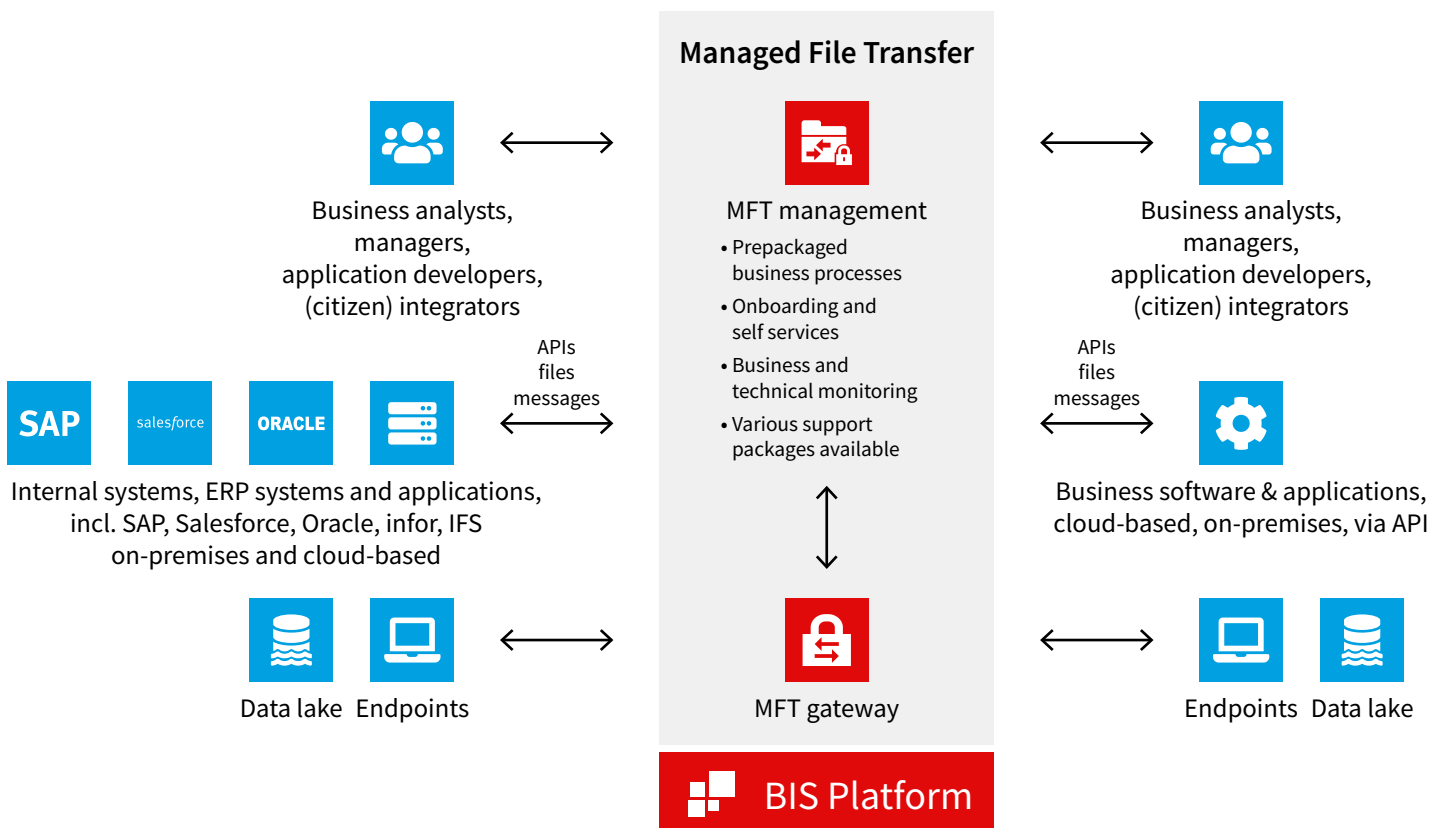
With role-based functions for users, communication partners, MFT integrators and MFT specialists, BIS MFT Management minimizes administration effort, reduces communication with users and also supports:

Onboarding
- Creation and management of assets (management layer, communication and service interfaces)

Self services
- Maintenance of certificates and passwords by business unit users and partners
- Configuration of recurring MFT processes by business unit users utilizing pre-defined templates
- Creation of templates for line of business use cases and scenarios for faster time-to-market
- File tracking for business unit users and external partners

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Managed File Transfer

Business analysts, managers, application developers, (citizen) integrators

APIs files messages

Internal systems, ERP systems and applications, incl. SAP, Salesforce, Oracle, infor, IFS on-premises and cloud-based

Data lake   Endpoints

MFT management
- Prepackaged business processes
- Onboarding and self services
- Business and technical monitoring
- Various support packages available

MFT gateway

Business analysts, managers, application developers, (citizen) integrators

APIs files messages

Business software & applications, cloud-based, on-premises, via API

Endpoints   Data lake

BIS Platform

B2B/EDI

Transform and enhance your approach to B2B/EDI

From onboarding new trading partners to securing B2B documents such as purchase orders, invoices, advance shipping notes and inventory lists, a modern EDI system with cloud-based infrastructure is critical for supporting communication standards across many industries.

The BIS Platform enables secure data exchanges, fast partner onboarding and workflow automation for all your B2B transactions. With scalable BIS B2B/EDI capabilities, you can connect your customers and business partners, integrate with SaaS applications, move B2B/EDI workflows to the cloud and be ready for tomorrow's challenges today.

Discover the benefits of BIS B2B/EDI capabilities

+ Automated onboarding processes:
Reduce time and effort with our automated EDI processes, including 20,000 mappings and partner connections available as templates in the SEEBURGER Cloud for on-premises deployment or as part of a cloud migration. BIS supports various types of data formats and structures, depending on the industry, applications and processes.

+ Transparent document flows:
Create transparency for your departments by providing easy access to digital document flows with your internal and external partners. Intelligent wizards enable each line of business to adapt data exchange processes to their needs.

+ API-led B2B integrations:
Connect and integrate EDI with APIs, ERP systems and cloud services across your ecosystem for secure B2B communication and flexible data exchange in real time.

+ Secure and efficient data exchange:
Achieve maximum reliability due to the highest system availability and process transparency through role-based monitoring.

+ Highest level of standardization:
SEEBURGER ensures compliance with all industry-specific regulations and standards. We adhere to the highest security standards to protect the integrity of your data. All relevant message standards, formats and processes cater to the specific requirements of your industry.

For the efficient B2B management of business partners, BIS B2B/EDI capabilities include a feature-rich BIS B2B Gateway and a BIS B2B Management portal/cloud application.

BIS B2B Gateway

The BIS B2B Gateway takes over the routing, processing and conversion of B2B/EDI messages in accordance with industry standards and includes the following functions:

Support for all key data formats
- EDI standards: UN/EDIFACT, ANSI X.12, Tradacoms, VDA, RosettaNet, HIPAA, SWIFT, EAIJ
- Generic syntactic standards: XML, CSV, EDIFACT, Flatfile, SWIFT

Connectivity for all key communication protocols
- EDI over Internet AS2, AS4
- ODETTE file transfer OFTP/OFTP2
- International VAN services and X.400 networks
- Web services (SOAP and REST), RosettaNet (RNIF), ebXML (ebMS)
- Generic protocols: FTP/S, SFTP, HTTP/S, JMS/ESB

Connectivity for all key application interfaces
- All ERP systems
- SAP connection via tRFC, RFC, SAP PI/PO, SAP IS, APIs
- Connection to any enterprise application via JMS, JDBC, File, SFTP, FTP/S, HTTP/S, APIs

Business tracking and reporting
- Messaging tracking
- Statistics and analysis
- Expectation monitoring

BIS B2B Management

BIS B2B Management allows you to set up and maintain B2B connections with a comprehensive set of features that you can combine to integrate complex business processes that deliver real business value, including:

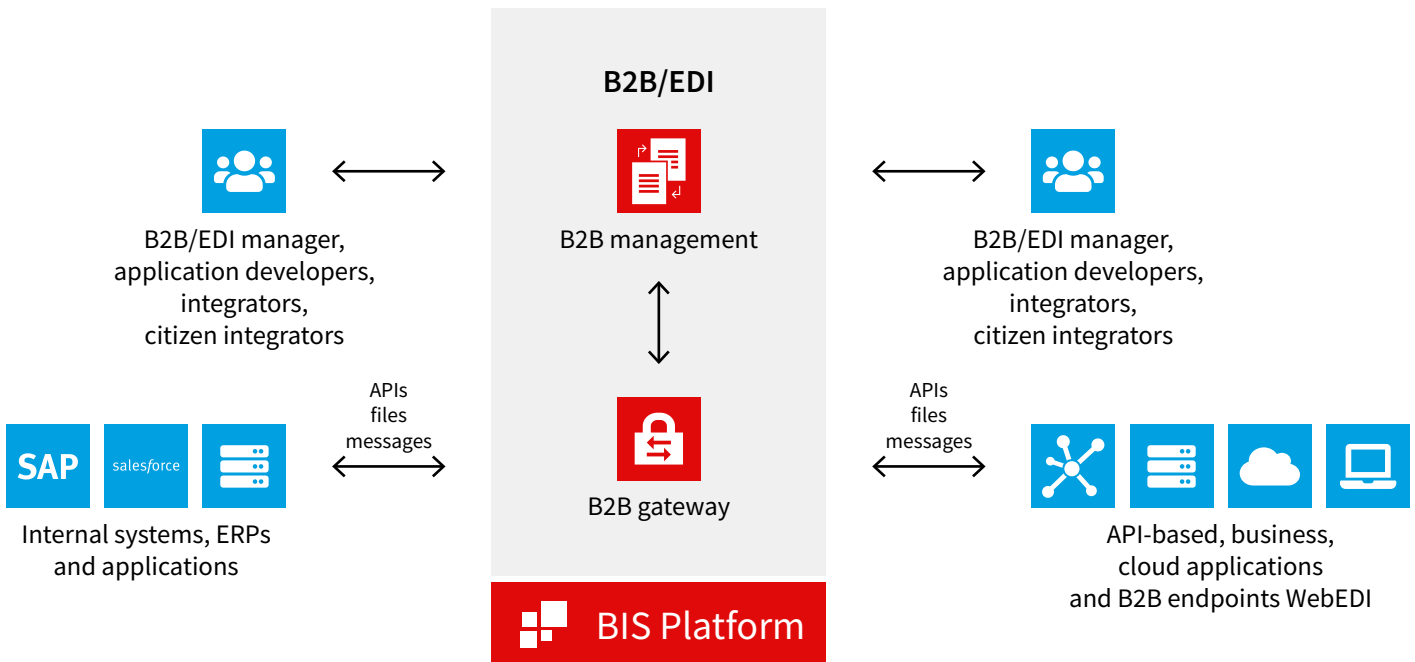### Onboarding with the SEEBURGER Community Management Application (CMA):
Comprehensive features for the administration of B2B processes, campaigns and communities. The CMA supports the complete process of onboarding new partners from qualification and message validation to communication self-testing. API Interfaces enable a smooth integration with the B2B Gateway and external applications where partner master data is stored.

External-facing EDI supplier services (WebEDI Supplier Portal):
Quickly and easily connect with smaller partners in our WebEDI Supplier Portal, which is configured as a cloud service. This portal supports the automated processing of all document types, including orders and invoices.

Engineering and Product Data Exchange (EPX):
For the engineers in your company, EPX offers a web GUI for exchanging CAD/CAM data in accordance with the ODETTE ENGDAT/ENGPART industry standard.

B2B/EDI

B2B/EDI manager, application developers, integrators, citizen integrators

B2B management

B2B/EDI manager, application developers, integrators, citizen integrators

APIs files messages

B2B gateway

APIs files messages

SAP · salesforce

Internal systems, ERPs and applications

API-based, business, cloud applications and B2B endpoints WebEDI

BIS Platform

EAI/A2A

Integrate apps and data

Go to market faster with connected applications and unified data with BIS EAI/A2A capabilities, which enable data and information to be reliably linked between multiple enterprise applications and any SaaS application. BIS EAI/A2A capabilities help save time exchanging data between applications and other sources by ensuring seamless connectivity between your business, your customers and partners, and the valuable data that runs your business.

Discover the benefits of BIS EAI/A2A capabilities

+ Out-of-the-box connectors:
The flexible process design of SEEBURGER Connectors enables the optimization of data and information flows between endpoints.

+ Monitoring and analysis:
BIS delivers end-to-end monitoring of messages and processes, as well as monitoring applications that allow business users to transparently track the processing status of all invoices.

+ iSeries Connector support:
BIS supports a native report program generator (RPG) application for imports to and exports from all IBM iSeries applications.

+ Pre-configured content for ERP systems:
BIS supports adapters for ERP systems with various interface technologies, such as database access (JDBC:SQL), file interfaces, ESB interfaces (JMS) and APIs (REST, SOAP, Java).

+ Integration of purchasing platforms:
Connect your customers with real-time API processes and batch-oriented B2B/EDI processes.
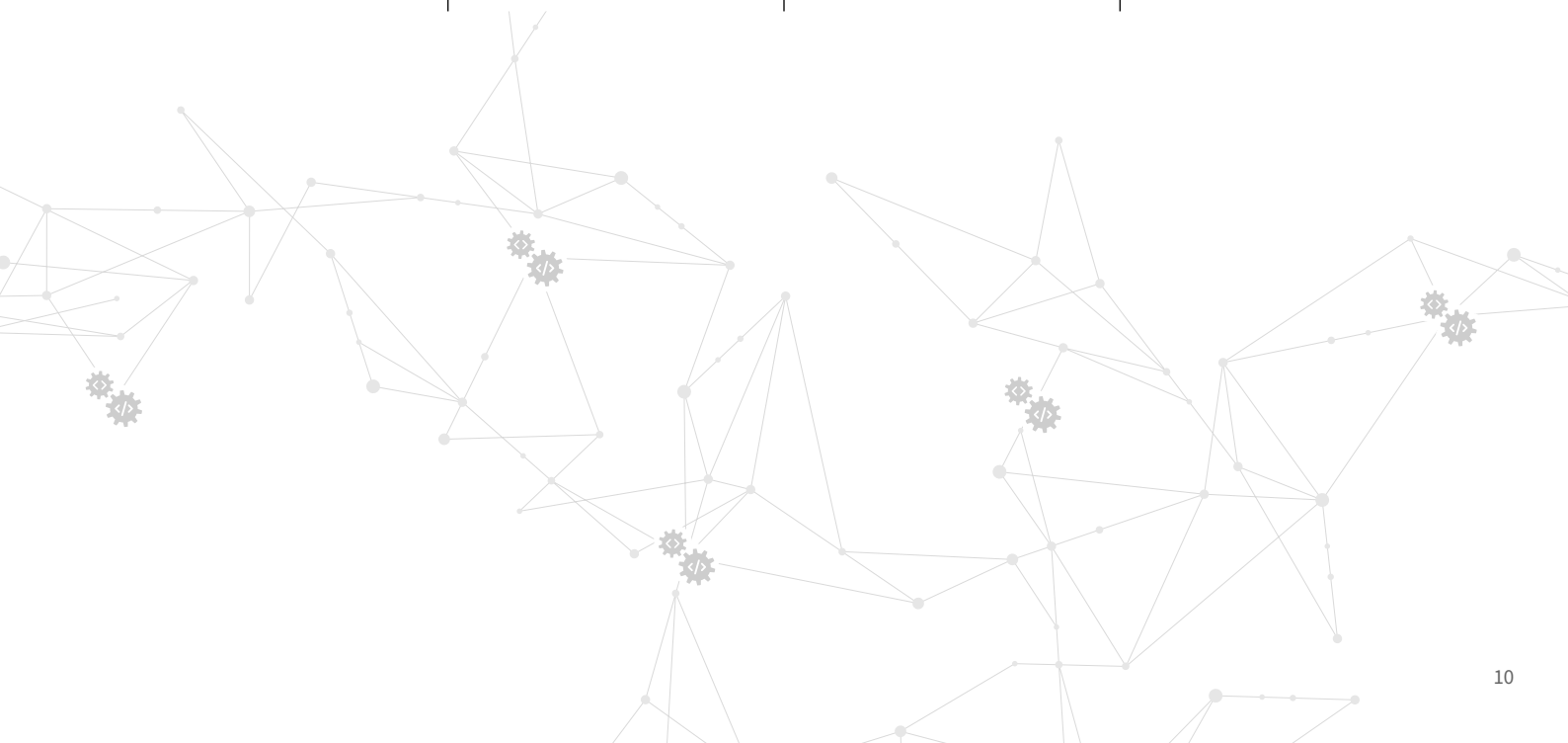
+ Integration of logistics systems:
Deliver real-time track & trace data with agile networking of your Order Management System (OMS), Transportation Management System (TMS) and back-end applications.

Process and data integration for all ERP systems

The BIS Platform supports ERP integration with major ERP system vendors, including:

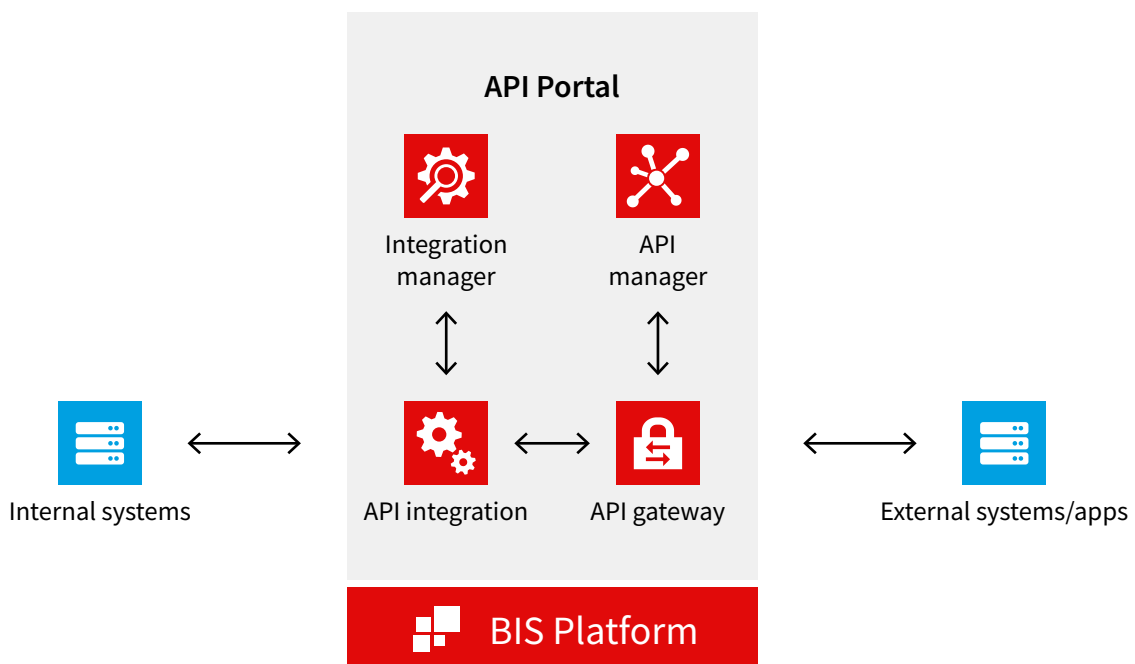|			
SAP	proALPHA	Abas	Infor
Oracle Fusion Cloud	Oxaion	Workday	PSIpenta
Microsoft Dynamics 365	QAD	Sage b7	Adobe Commerce (formerly Magento)
Oracle E-Business Suite	IFS	APplus	

API

API integration and management

Business applications need to provide and consume data in real time via APIs with security and transparency, which is why every integration project requires API integration and API management. The BIS Platform enables real-time integrations between applications, people, and processes using off-the-shelf communication adapters and SEEBURGER Connectors, ensuring secure and easy endpoint connectivity.

Discover the benefits of BIS API capabilities

+ Connect your web shop:
Integrate your online store with your ERP system.

+ Integrate your CRM:
Real-time data exchange between CRM and ERP systems, such as Salesforce to SAP, is a crucial aspect of modern business operations.

+ Give your partners access to services:
Provide API-based access to catalogs, complex price lists and product descriptions.

+ Open company apps for customers:
APIs provide secure, controlled access to company data for mobile apps, ensuring governed, transparent and monitored usage for business use.

+ Support automation initiatives:
Handle increasing API traffic with automated SOAP and REST API-based integrations. Also, allow re-usability of existing integrations by combining them with API integrations.

> BIS API Management and API Integration enable IT teams to implement innovative business models and API initiatives, managing full lifecycles through BIS API Portal, BIS Gateway, and BIS API Integration.

API Portal

Integration manager — API manager

Internal systems — API integration — API gateway — External systems/apps

BIS Platform

BIS API Portal

The BIS API Portal is a UI management layer on top of the API integration and API Gateway engines that offers user management, role and rights administration, and integrated identity management services. It includes functionality for easier master data – and integration management. It also allows you to create API interfaces and enablement for applications, including ERP systems, cloud endpoints, web services, and REST adapters. And finally, it ensures back-end infrastructure security, records API traffic, manages access control, and allows for easy extension of gateway groups with additional instances on demand.

BIS API Solutions provide the following technical functionality and specifications:

Full Lifecycle Management
- Integration with native API design tools, such as the SwaggerHub platform
- Simple mock creation with one-click data generation
- Fast versioning, provisioning and consumption all in one user interface
- API Product creation down to the methods with subscription models and fees
- Provide monetization data by combining API Products, subscriptions usage fees and metrics

Integration
- Manipulation of operations, headers, parameters and content
- Transformation for any-to-any content
- Easy access to other integration styles like B2B/EDI, EAI/A2A and MFT
- Easy and fast creation of interfaces without domain knowledge
- API modeling and creation approach

Control and Governance
- Content-based routing, blocking and processing
- Automated API testing and auditing for quality assurance
- SLA monitoring and enforcement
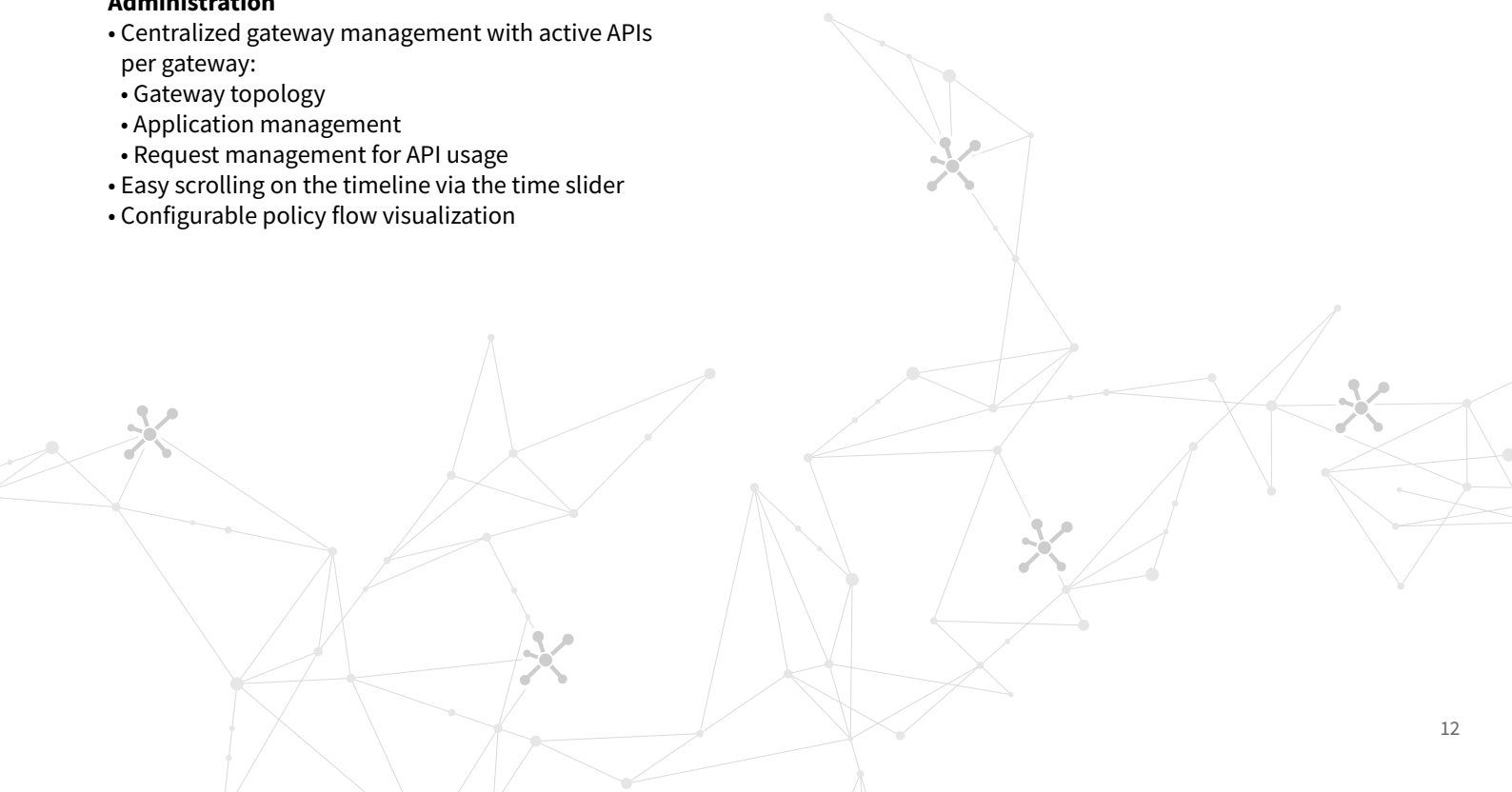
Administration
- Centralized gateway management with active APIs per gateway:
  - Gateway topology
  - Application management
  - Request management for API usage
- Easy scrolling on the timeline via the time slider
- Configurable policy flow visualization

SLA End-to-End Monitoring, Reporting and Metrics
- Dashboard for KPIs that provide a complete graphical overview of the current state of the system, processes and more, end to end
- Alerting and metrics framework for configuring notifications and alerts
- Keep track of API usage in a scalable and configurable metrics environment
- External monitoring includes the option of data lake ingestion
- Integration with widely used monitoring solutions, e.g. Graphana, Prometheus, Kibana

Policy Model
- Mediation: XML2JSON, JSON2XML, manipulation of operation, headers, parameters, check message size, string replacement, trace
- Traffic: throttling, IP caller restriction, Boolean operations, forwarding, concurrency, caching, URL masking, URL rewrite
- Security: Basic authentication, API Key, OAuth 2.0, JSON Web Token (JWT) validation, SAML, Kerberos, SiteMinder, LDAP validation, PKI-based authentication, database authentication, adapter SDK integration, Active Directory Federation Service (AD FS) claim validation

IIoT

Innovate your IIoT integration

The Industrial Internet of Things (IIoT), which includes machines, sensors and robots, offers enormous potential for greater productivity, process reliability and rapid innovation. To realize this potential, companies must connect to the cloud and legacy systems, such as Enterprise Resource Planning (ERP), Manufacturing Execution Systems (MES) and Product Lifecycle Management (PLM).

The BIS Platform is your foundation for agile integration that realizes the full business value of Industry 4.0 technology. BIS IIoT capabilities support Industry 4.0 standards, such as OPC Unified Architecture (OPC UA) and XML based companion standards, to secure communications and the quality of core master data.

IIoT integration possibilities with BIS include digital twin integration, data hub integration and smart services integration.

Digital twin integration	Data hub integration	Smart services integration
Build a bridge between digital twins and business processes across your ecosystem. Harmonize and contextualize your IT and OT data to meet new business requirements for transparency, efficiency and adaptability in manufacturing and operations.	Provide integration services to support your DevOps, DataOps and Machine Learning Operations (MLOps) teams in executing and optimizing the data value chain.	BIS IIoT capabilities integrate data from the shop floor to a digital platform, making data available to connect with smart services. Implement and manage APIs to consume and provide smart services in your applications and operations.

BIS IIoT capabilities include the BIS IIoT Gateway and BIS IIoT Management, which connect the business world with the machine world by converting proprietary interfaces into standard formats.

BIS IIoT Gateway

The BIS IIoT Gateway collects and stores data from IIoT devices, device management or control systems, and make data available to applications at the planning and administration levels while providing the following functions for analysis and process control:

Integration of IIoT devices (assets)
• Creation and management of assets (management layer, communication and service interfaces)

Integration of data and applications
• Backend application integration: SAP ERP, PLM, MES, JDBC:SQL-DB, JMS ESB
• Data integration for JSON and XML including the OPC UA specification (B2MML, AutomationML)
• API for pipeline and connector integration and management

Process support and security
• Business process orchestration and implementation
• IIoT data storage/aggregation for analysis and visualization
• Transport security (SSL/TLS)
• Authentication, encryption, certificates (PKI)

BIS IIoT Management

BIS IIoT Management bundles a number of web-based applications for the management of APIs and services for IIoT devices in production lines and in the field. This offers role-based features for asset and process data management, configuration, monitoring and analysis.
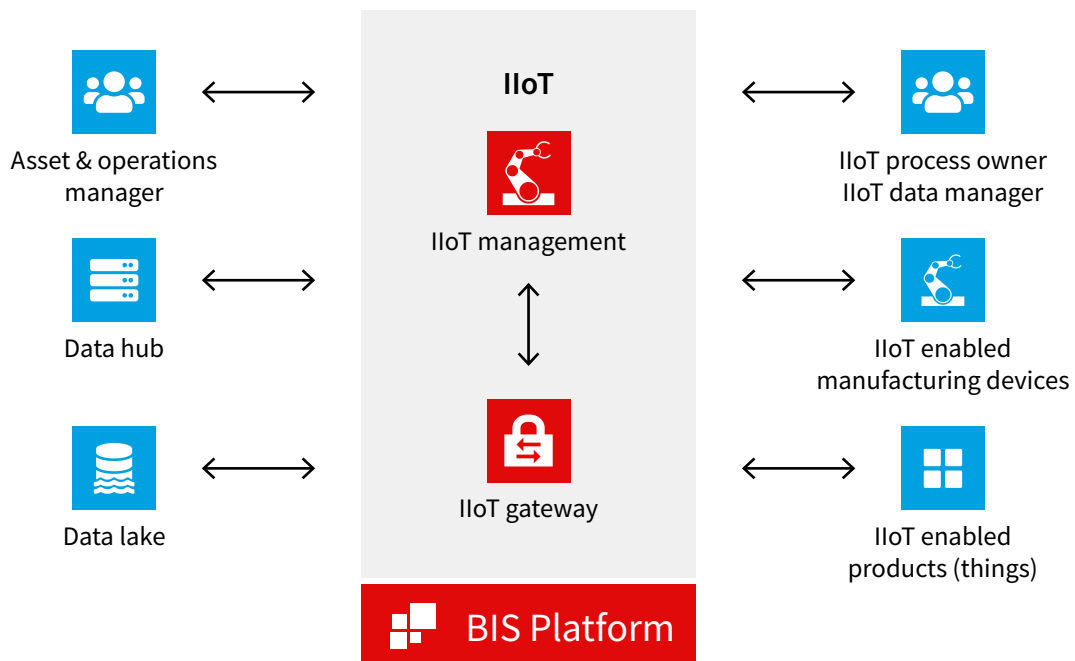
Asset & IIoT service configuration
• Creation and management of assets (management layer, communication and service interfaces)

Process and data management
• Asset Information Management
• Service configuration and management

Monitoring, tracking and alerting
• Data tracking and visualization
• Interaction Monitoring on dashboards and alerting

Automation

Hyperautomate and digitalize processes

Configure and track any automation scenario that you need, when you need it, using the BIS Platform's dynamic rules-based process engine. Reduce IT effort and costs, increase security and free your teams from repetitive manual tasks with intelligent automation.

Sample use cases for process automation with BIS

+ Smart Retry:
Self-healing transactions are supported by automatically resuming interrupted technical and business processes in case of a transmission error, independent of communication channel and endpoint. The Smart Retry feature assigns a unique scoring mechanism to each endpoint. When the score is high, data is promptly dispatched. In instances of endpoint inaccessibility, the score progressively diminishes, signaling the BIS Platform to intelligently cease transmission and queue the pending data. Upon reaching this status, the system employs a configurable time threshold, attempting to reconnect with the unresponsive endpoint at a measured pace-sending one message at a time. Upon successful reconnection, the system gradually increases data transmission, concurrently elevating the endpoint's score until normal operational speeds are reinstated, signifying the full restoration of functionality. This feature not only ensures data integrity but also optimizes resource usage, mitigating the impact of intermittent unavailability in target systems.

Smart Retry exemplifies our commitment to providing robust, adaptive solutions for seamless integration, empowering users to navigate challenges in real-world scenarios effectively.

+ Message Tracking Automation:
A dynamic feature designed to enhance your data analysis and processing efficiency, both business and technical. This functionality harnesses the information generated throughout the processing timeline stored in our Message Tracking system, allowing users to create tailored queries for insightful data exploration. It operates on a scheduled basis rather than relying on event triggers, offering flexibility and predictability. You can configure automated actions based on criteria matches or non-matches, ensuring a customized response to your unique needs. Additionally, convert frequently executed search queries into streamlined automations, perfect for tasks requiring routine attention. The outcome of these processes can be effortlessly exported in formats such as Excel or CSV, facilitating seamless integration with your preferred data analytical tool or service.

+ Onboarding:
BIS capabilities enable you to expedite partner onboarding, customer onboarding and employee onboarding in any industry with automation. For example, automate the onboarding process for new suppliers, distributors, vendors and customers. This includes automated contract generation, automated account creation, digital document sharing and signing, self-service sign-up options, personalized welcome messages and tailored product recommendations based on customer preferences.

+ Data transfers:
Automate the transfer of data files, documents and other information with pre-defined rules, workflows and schedules to initiate and manage data transfers. Automated data transfer using MFT enables organizations in the financial services industry, for example, to handle large volumes of data transfers efficiently and ensures that data is moved reliably and securely between systems.

+ API testing:
BIS capabilities enable API testing automation for ensuring the reliability, accuracy and security of APIs across your ecosystem. For example, ensure that open banking transactions are executed accurately, validate data integrity and promptly identify and resolve any issues before they impact the corporate customer experience or compromise financial information.

+ Supply chain:
Automate assembly line production and supply chain processes with the integration of IIoT technologies and robotic process automation (RPA). Supply chain automation facilitates the real-time tracking of parts and materials, as well as the reordering of parts and materials to reduce stock-outs and excess inventory.

Ecosystem Integration

Connect everything and everyone across your ecosystem

An integrated ecosystem starts with one cloud-based platform. BIS empowers any type of user to implement, manage and support cost-efficient and smarter integrations between applications, people and processes in your ecosystem.

> Connect everything and everyone across your ecosystem with our cloud integration services, packaged integration process and ready-to use mappings.
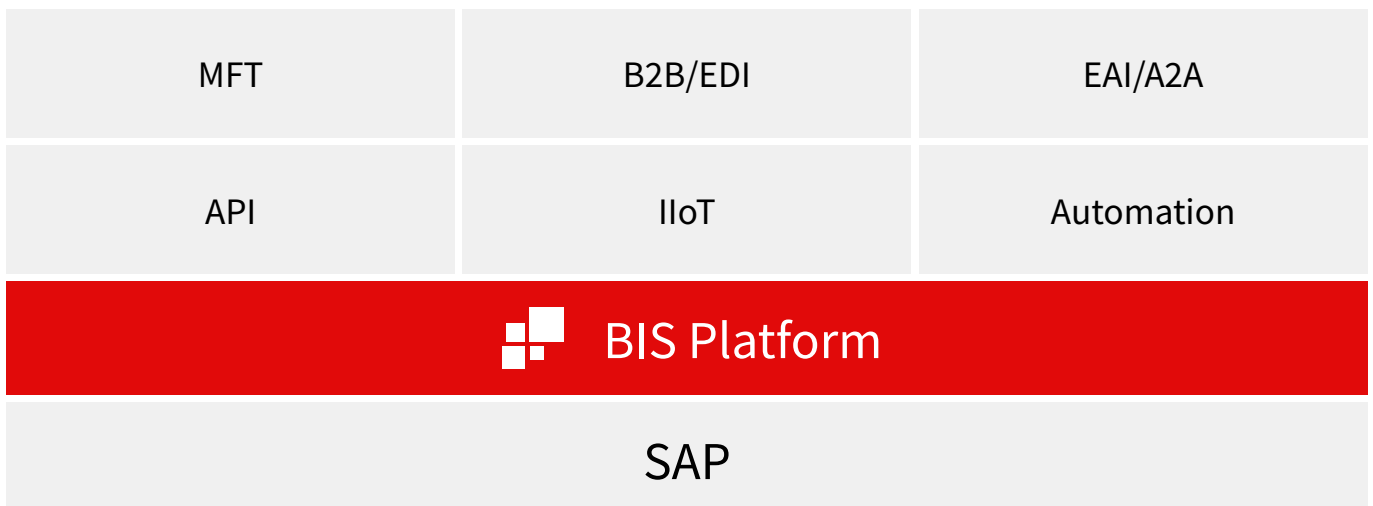
Manage your organization's ecosystem according to your needs while connecting and integrating your business processes with your customers, suppliers and partners. BIS combines MFT, B2B/EDI, EAI/A2A, API, IIoT and automation integration capabilities in one cloud-based platform.

SAP Ecosystem

Connectivity

The BIS Platform has been SAP-certified since 1995 with more than 50 individual certifications. BIS supports seamless integration with all SAP systems, including SAP R/3, SAP GTS, SAP ECC and SAP S/4HANA, using SAP standard interfaces such as:

IDoc via tRFC	BAPI or RFC call	XML IDoc via HTTP(s)	XML via SOAP via HTTP(s)
JSON via REST via HTTP(s)	ODATA protocol (REST API)	SAP Reliable Messaging interface (SAP RM, SOAP)	Business Events (SAP Event-Driven Architecture [EDA])

MFT	B2B/EDI	EAI/A2A
API	IIoT	Automation

BIS Platform

SAP

SAP Solution Extensions

The BIS Platform also enables and includes certified SAP Solution Extensions that allow you to extend your integrations deeply into SAP applications.

MFT	B2B/EDI	EAI/A2A
API	IIoT	Automation

BIS Platform

SAP

SEEBURGER Solution Extensions for SAP

Purchase-to-Pay	OmniChannel-to-Cash	Console	smart-eInvoice	Purchase Order Response Monitor	eDelivery Note Monitor

SEEBURGER Purchase-to-Pay

Process inbound invoices in SAP automatically with logging of all processing and approval steps, monitoring, invoice flow analysis and archiving interfaces.

SEEBURGER OmniChannel-to-Cash

Automate customer order processing, invoice delivery and accounting in SAP for all your order entry channels (EDI, XML, PDF, paper and fax orders).

SEEBURGER Console in SAP

Provide IT and business users with one consolidated view into production environments. Business users can track and process incoming and outgoing electronic documents in their SAP system, monitor processing times and imme-diately react to problems based on automated alerts.

SEEBURGER Purchase Order Response Monitor

Automate purchase order response processing and accounting in SAP for all your purchase order response entry channels (EDI, XML, PDF, paper and fax orders).

SEEBURGER eDelivery Note Monitor

Automate delivery note processing in SAP for all your delivery note entry channels (EDI, XML, PDF, paper and fax orders).
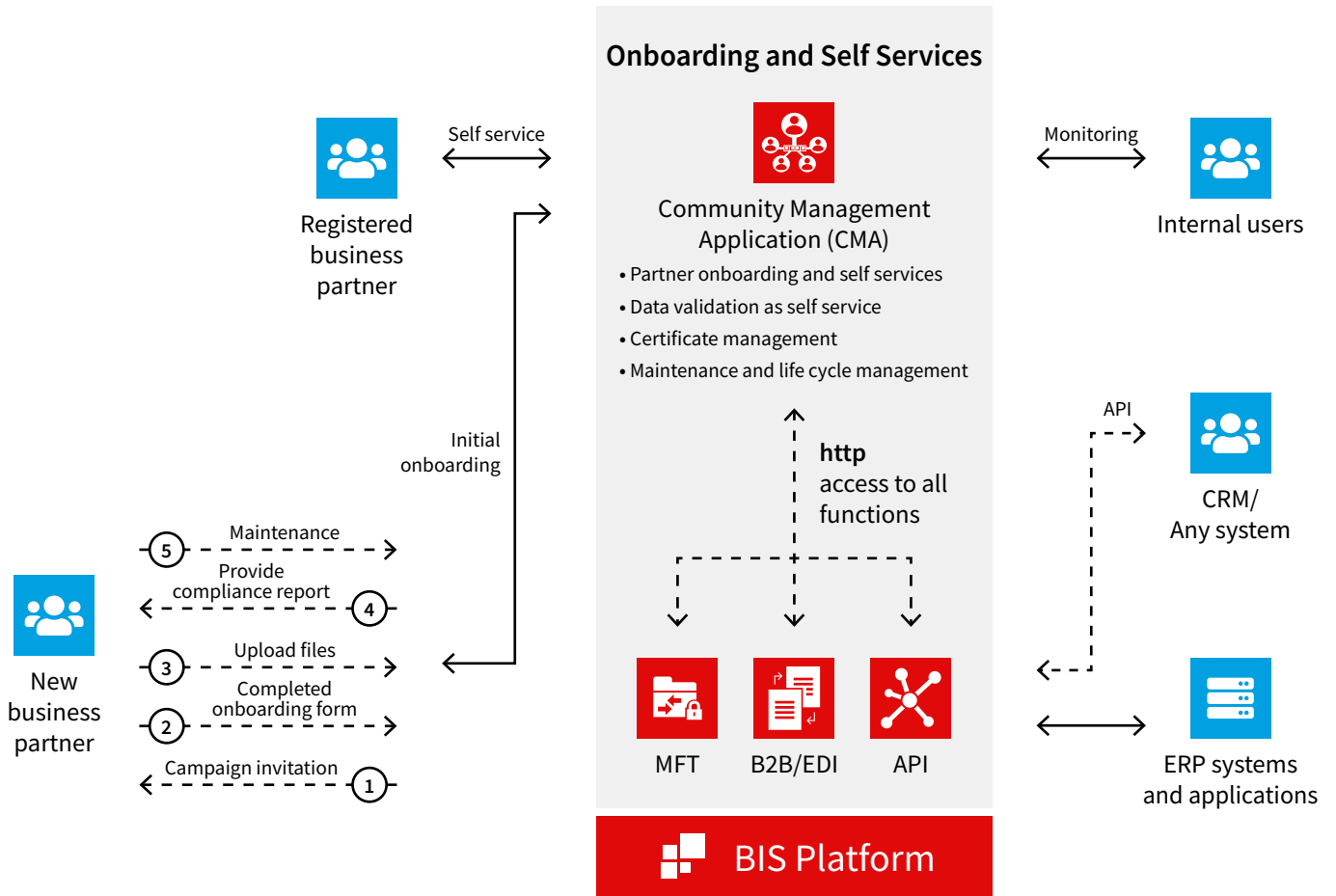
SEEBURGER smart-eInvoice

Process outbound invoices in SAP automatically with logging of all processing and approval steps, monitoring, invoice flow analysis and archiving interfaces.

Community Management

Onboarding of suppliers, customers and business partners

Automate your business processes, campaigns and trading partner communities with the SEEBURGER Community Management Application (CMA) powered by the BIS Platform.

Onboarding and Self Services

Community Management Application (CMA)
- Partner onboarding and self services
- Data validation as self service
- Certificate management
- Maintenance and life cycle management

http access to all functions

MFT   B2B/EDI   API

Registered business partner — Self service

Internal users — Monitoring

CRM/ Any system — API

ERP systems and applications

New business partner
- 5 Maintenance
- 4 Provide compliance report
- 3 Upload files
- 2 Completed onboarding form
- 1 Campaign invitation

Initial onboarding

BIS Platform

CMA facilitates the governed and fast onboarding of suppliers, customers and business partners, while additional document-centric monitoring apps provide transparency and control over document exchange flows with self-service capabilities.

For example, for a bank, that needs to onboard corporate clients, CMA can be utilized to simplify the account opening process by using automation to collect customer information, perform KYC checks and approve and activate new accounts.

Collect, integrate and keep data up to date

CMA utilizes a flexible and powerful form generator for campaign and task management. Business users can easily configure simple forms as well as more complex, multi-page surveys with wizard-driven page flows. Campaign surveys and reminders are sent automatically to participants, and the results are made available in a web interface and in a downloadable CSV format. Master campaign data can be entered manually or imported via Excel.

Connection to the BIS Integration Server is established via the CMA REST API, which accelerates the implementation of process-controlled workflows. In addition to BIS data, CMA can use data sources from any enterprise application, such as an ERP system.

CMA can be deployed in any cloud, in a hybrid environment or on-premises. You can also book CMA as a cloud integration service in the SEEBURGER Cloud.

SEEBURGER Integration Marketplace

Your marketplace for integration content

The SEEBURGER Integration Marketplace, powered by the BIS Platform, is a business integration content marketplace for customers and partners that offers ready-to-use integration content.

+ Boost efficiency and productivity by using our agile process and workflow engine, prebuilt connectors and industry templates.
+ Connect your ground-to-cloud and cloud-to-cloud with ready-to-use package integration processes (PIPs).

We offer 20,000 industry mappings, partner connections and application and technology connecters for quick and easy integration.

Mappings and partner connections

The BIS Platform provides ready-made integration assets, including mappings, process template packages and partner connections that support:

International EDI/B2B standards such as
- Europe's EDIFACT with its subsets EANCOM, EDIFICE and EDIFURN
- North American formats such as ANSI X12
- UK format such as TRADACOMS
- Regional automotive standards VDA, ODETTE, GALIA, CAP and ARUA

- Flat files (in-house messages)
- CSV/DSV formats
- XML schemas, including SEEXML, our own canonical format
- All DTD/SCHEMA-based XML messages such as JSON, ebXML, cXML, xCBL, openTrans, CIDX, PIDX and RosettaNet
- Financial services standards such as DTA, SWIFT, ISO 20022, IAT-ACH (NACHA), BAI, BACS, PGP and XMLDSig
- Aviation and Defense industry standard AECMA

SEEBURGER Connectors

Extend your business integrations across your ecosystem faster and easier by connecting to popular SaaS applications, interfaces, protocols, business services and cloud services. All of our connectors include pre-packaged documentation and templates to make connectivity even easier.

SEEBURGER functionality-rich connectors help you:
+ Securely connect any endpoint
+ Reduce implementation time
+ Easily integrate everything and everyone
+ Drive efficiency

Deployment and Service Models

One cloud-based platform – run by you or managed by us

Connect apps, integrate technologies, automate processes and inspire innovation with agile integration and dynamic deployment models powered by the BIS Platform. Rapidly deploy and manage integrations your way. We meet you where you need us.

BIS is based on an agile runtime environment for deployment in any cloud, a hybrid environment and on-premises. BIS is also deployable in container environments, supporting hyperscalers (AWS, AZURE, GCP, etc.) and Kubernetes-based environments. Choose the deployment and service models that provide optimal security and cost-efficiency for your agile architecture design.

Secure and agile deployment models – anytime, fully automated, anywhere

Any cloud	Hybrid	On-premises
Run BIS in any public cloud, such as AWS, GCP or MS Azure, or in the SEEBURGER Cloud. Reduce operational costs and drive efficiency with reliable business IT services. Bring your business into the data-driven world by making sure your data is where it needs to be, instantly and securely. We support you according to your needs and requirements.	Deploy BIS in a hybrid setup, which is a mixed computing environment where applications are run using a combination of computing, storage and services in different environments – the SEEBURGER Cloud, public clouds and private clouds, including on-premises data centers.	Deploy BIS in your data center, with your hardware, your team and your way or in your choice of private or public cloud, supported according to your needs and requirements.

Flexible service models

Integration Platform as a Service (iPaaS)

Choose iPaaS if you want to operate the integration platform in the cloud while your team handles all the integration tasks, such as developing mappings, configurations and business processes. We take care of securing the highly-available platform operations. With iPaaS, you can transparently connect data, applications, processes and systems and achieve the key benefits of modern and efficient cloud integration – seamlessly networked, reliable business and IT processes.

Fully Managed Services

We take care of all the integration tasks that are necessary for securing the highly-available platform operations. Whether you need data center operations, database maintenance, security updates or the connection of new partners, we offer fully managed services with clearly defined performance promises (SLAs).

Support, Consulting Services and Training

For the smooth and reliable operation of the BIS Platform

Integration is one of the most business-critical areas of an IT ecosystem, because the smooth and reliable operation of an integration platform directly affects business continuity. That's why SEEBURGER goes beyond what companies typically expect from an integration vendor's support services.

SEEBURGER Customer Support

We provide worldwide customer service and technical support with package options ranging from regular business-hour support to 24/7, around-the-clock availability.

+ Get help when you need it around the clock
We offer flexible and highly-qualified support expertise.

+ Selection of SLA options to meet your requirements
Our service and support options provide flexibility and speed.

+ Highly-trained specialists for operations
Benefit from our longstanding experience in service and support based on our successful work with thousands of customers.

+ Direct from the vendor
SEEBURGER develops, consults, trains and supports with one team.

Choose your individual level of support suited to your needs from the following service levels:

Service level	★ Basic	★★ Advanced	★★★ Premium	★★★★ Mission Critical Support
Service time	Monday - Friday 9:00 - 17:00*	Monday - Friday 7:00 - 20:00*	24/7	24/7
Max. reaction time by priority	Emergency 4 h Critical 8 h Non-critical 2 d Minor 4 d	Emergency 2 h Critical 4 h Non-critical 8 h Minor 2 d	Emergency 1 h Critical 2 h Non-critical 8 h Minor 1 d	Emergency 0.5 h Critical 2 h Non-critical 8 h Minor 1 d
Contact	Service Desk	Service Desk	Service Desk	Service Desk with priority phone line
Added value			• Preferred counterpart	• Preferred counterpart • Enterprise service manager • Collaboration handbook

Service Desk is the "Single Point of Contact" for SEEBURGER customers with access to support tickets, change requests, service news, knowledgebase and software updates.
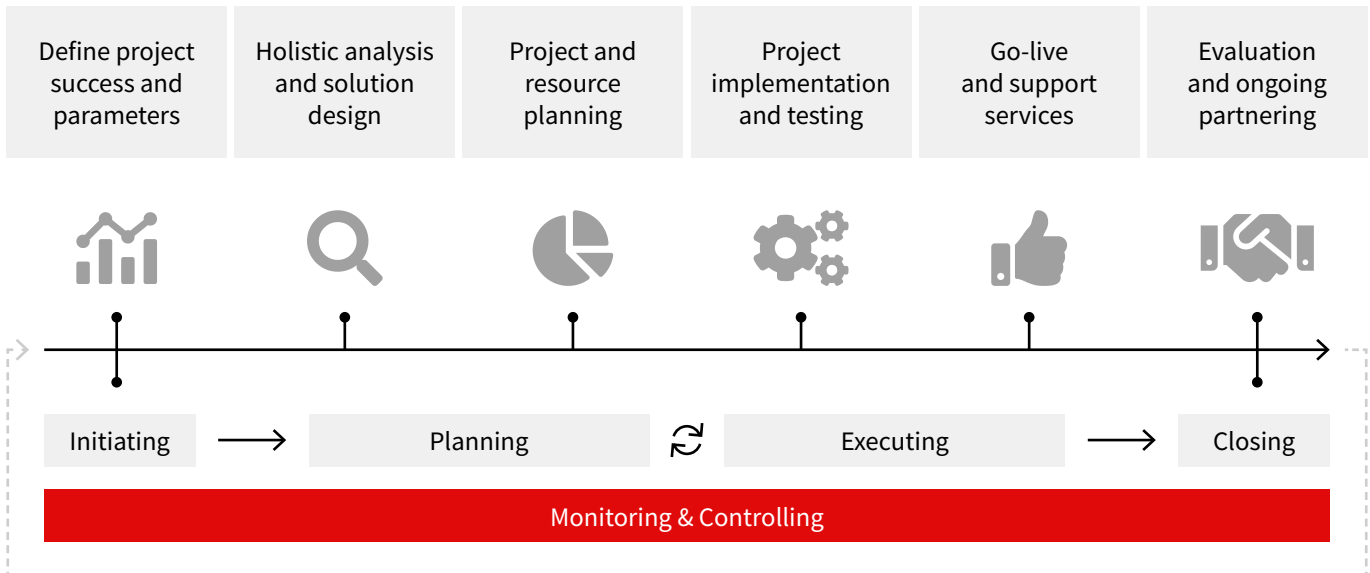* 3 time zones available (EST/Atlanta, CET/Bretten, CST/Shanghai)

SEEBURGER Consulting Services

Benefit from a partnership with business value

Our in-house consultants utilize industry knowledge, best practices and proven methodologies in setting up and configuring your BIS Platform, connecting BIS to any cloud and developing an iPaaS strategy.

From project planning to go-live, partner with SEEBURGER Consulting for continuity, reliability and expertise in designing, testing and implementing the most scalable and secure future-proof architecture for your business.

+ We empower our consultants to influence our software development road maps and to work closely with customers to drive business innovation.

+ We specialize in designing a complete integration solution for your requirements with agile, secure and scalable BIS capabilities with remote services and self services.

+ We have expertise across a variety of integration and application vendors and technologies to ensure simplified and secure migrations across your ecosystem.

+ We are product and industry domain experts who can solve any integration challenge with our in-house developed and supported technology stack.

+ We know how to integrate business processes in any industry by connecting systems, applications, clouds and people with one agile, secure and scalable integration platform.

Define project success and parameters	Holistic analysis and solution design	Project and resource planning	Project implementation and testing	Go-live and support services	Evaluation and ongoing partnering

Initiating	→	Planning	⟳	Executing	→	Closing

Monitoring & Controlling

SEEBURGER Training Academy

Become a BIS Platform Certified Integration Expert. Build the knowledge and skills you need for implementing, managing and troubleshooting the BIS Platform.

For a complete list of available training courses and content for self-paced knowledge building, visit our website.

SEEBURGER Cloud Integration Services

Discover ready-to-use packaged integration processes and services enabled by the BIS Platform

All SEEBURGER Cloud Integration Services are hosted and operated on the BIS Platform, using relevant B2B, EDI, API and Application Integration capabilities. Industry-standard functionality is used, where applicable, for data management and data exchange. Below are examples of our services.

B2B/EDI Communication Services, which enable reliable, quick and easy communication with your trading partners. Simply book your service and then leave it to us to connect to your B2B partners' EDI systems, manage the onboarding process, ensure delivery of all EDI messages from and to your B2B partners, and keep master data of all participating B2B partners up to date.

With our B2B Supplier Portal Service, you can deliver orders from your ERP system in a formatted view to your suppliers. Your suppliers log in to the WebEDI portal in order to create follow-up business documents and send them back to you via the SEEBURGER Cloud Integration Service. Documents are converted into the agreed target format, for example EDI or WebEDI.

Through Integration for SAP Global Trade Services (GTS), we provide fast and secure transfer of high-quality data with customs authorities of all countries covered by SAP GTS. The service supports export, import, transit and EMCS (Excise Movement Control System) customs processes. Your reports are received from your SAP GTS and translated into the national customs authority's required exchange format. Afterwards, the reports are delivered to the national customs authorities. Acknowledgements, such as export accompanying documents, are transferred to your SAP GTS. We provide a monitoring function so your personnel can maintain an overview.

Our Global E-Invoicing supports the automated exchange and compliance of e-invoices in more than 35 countries. Securely exchange any e-invoice while streamlining processes, lowering costs and improving the environmental footprint by using our global E-Invoicing service, powered by the BIS Platform, including capabilities for MFT, B2B/EDI, API and Application Integration.

Peppol Access Point – The Pan-European Public Procurement Online (Peppol) network supports Directive 2014/55/EU of the European Parliament on electronic invoicing in public procurement. For a quick and easy way to exchange invoices through the Peppol network, SEEBURGER deploys a certified Peppol Access Point.

Utilities – Our industry-specific services for market communication, reporting, confirmation matching and more will support you in meeting the energy market's regulatory requirements.

Conclusion

One central platform. One experience. All integrations. All deployment models.

In summary, the BIS Platform is a robust and scalable cloud-based integration platform, trusted by over 14,000 companies worldwide. Its comprehensive capabilities cover MFT, B2B/EDI, EAI/A2A, API, IIoT and Automation, providing a versatile, agile, scalable and unified platform for seamless connectivity and secure data exchange across diverse environments.

With deployment flexibility in any cloud, in a hybrid environment or on-premises, BIS empowers organizations to connect, automate and innovate within their integrated ecosystems. SEEBURGER's commitment to agile development ensures that BIS responds dynamically to diverse business needs, supporting organizations optimally in their integration journey and driving innovation that creates sustainable customer relationships.

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www.seeburger.com