SEEBURGER
BUSINESS INTEGRATION

SEEBURGER Business Integration Suite –
Your Central Platform for Digital Transformation

Content

" Successfully shaping the world of digital transformation has been our mission for 30 years. Our clients benefit from connecting various applications, processes and transactions on one platform, from one source – our German-engineered Business Integration Suite (BIS).

This holistic approach means that you will be able to onboard and manage your trading partners much more quickly – on-premise, in the SEEBURGER cloud, or in a hybrid model. "

Digitalization means Networking and Integration

In todays landscape we notice that modern day companies driven by innovation are rapidly earning billions by leveraging digital, data-based business models. For other's it's crunchtime and they have to catch up fast – or be left behind!

Digital technologies offer huge opportunities: Cloud Services, E-Commerce and mobile apps provide information in real time, new ways of generating value through closer interconnections with partners, clients and target audiences.

The prerequisite: Integrating all areas of your network, which collectively uses data, performs services, or carries out transactions – within your company and beyond your company's borders.

✅ **Control internal and external business processes more efficiently**
due to the availability of relevant data in real time

✅ **React more agile to new developments**
via high transparency, more flexible processes and faster communication

✅ **More revenue and faster business transactions**
via new business models, fast and easy partner onboardings and new digital distribution channels

Integration affects all areas of your company

Exchange documents and data (MFT)
Transfer files of any type and size securely and reliably – between systems or people, automated and ad hoc, internally and externally.

Integrate application systems in and between companies (API/EAI)
Networking in real time – online services, cloud applications or mobile apps – increasingly rely on modern API (Application Programming Interface) technologies (REST, SOAP, ...); however, it is also important to be able to continue supporting traditional batch/reporting interfaces.

Exchange of data with business partners (B2B/EDI)
Gain advantages from efficient business data exchange with clients and suppliers in accordance with industry standards.

Internet of Things (IoT)/Industry 4.0
Machines and systems are increasingly equipped with digital interfaces and can supply valuable data to business IT.

Paperless processes (E-Invoicing)
The automation of processes around receiving/sending invoices lowers costs and ensures compliance of statutory provisions.

ERP/SAP integration
ERPs (e. g. from SAP) remain the backbone of the company even in the age of digitalization as they control the value chain. The smooth integration of digital processes from/to ERP is crucial for any digitalization initiative.

Management functions to control digitalization initiatives

As integration increases so does the administrative workload – meaning additional interfaces, new partners and systems. It also means that more and more users want to exchange files and retrieve information. The importance lays in how to a. maintain control via access permissions, b. to automate administrative actions and c. design effective processes.

Interface Management
Set up, record, share and maintain interfaces.

User Group Management
Manage and address user groups – internal and external – allocate/provide interfaces and keep user groups informed.

Self-service functions for users
Lower the administrative burden of your IT department and enable end users: Provide them with role-specific self-service functions.

**Transparency**
Be able to provide information for questions such as: Who used which interfaces and how often? How can we identify trends or potential problems? Where could you avoid efforts and expenses if you would not lack data quality?

Security and traceability
Be in control of who has access to wich applications, functions and data. Trace and track who changed which interface settings.

SEEBURGER Business Integration Suite – Your Comprehensive Platform for Digital Transformation

All you need is one single platform – the SEEBURGER Business Integration Suite (BIS) – to implement digital business models and to universally interconnect all areas of your business. The Business Integration Suite controls and automates any form of data transfer for all integration scenarios:
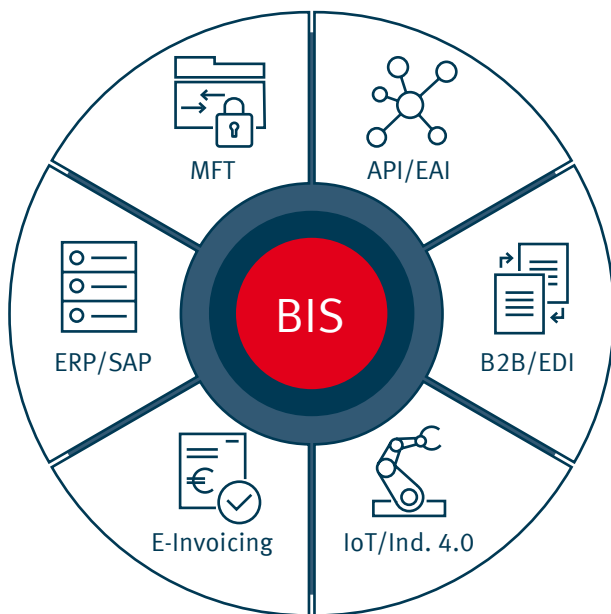
- ✅ **MFT** – Secure transmission of sensitive data between systems and/or people

- ✅ **API/EAI** – Connect applications and Cloud-Services in real-time

- ✅ **B2B/EDI** – Exchange of business documents in accordance with industry standards

- ✅ **IoT/Industry 4.0** – Embed machinery, plants and products into business processes

- ✅ **E-Invoicing** – Digitalization of inbound and outbound invoices

- ✅ **ERP/SAP** – Connect any ERP system seamlessly, take advantage of our deep SAP Integration

No matter the interface or data format, no matter which standard or communication protocol – you will successfully master all integration and management requirements for the digitalization of your business processes with the modular integration platform by SEEBURGER.

You will receive one homogeneous, complete solution from one source – without additional third-party purchased software components. Secure your company with SEEBURGER Business Integration Suite, giving your company the competitive advantage! More than 10,000 companies worldwide already power their connections with SEEBURGER BIS as the engine of their digital transformation.

Unlock the value of digitalization with the SEEBURGER Business Integration Suite

Better control of internal and external business processes
This one unified platform allows you to consolidate all of your B2B processes (e. g. Order-to-Cash, Purchase-to-Pay), to transmit large files securely and efficiently and it ensures improved and harmonized business processes within your value chain.

Respond more rapidly to changes within your company
SEEBURGER BIS makes it simple for you to implement new company structures and for example, to seamlessly integrate new business units after an acquisition. Regulatory requirements are implemented faster, without errors, and your business partners' networks are supported more efficiently.

Win more business – and faster
Connect new business partners faster, ensure processing of increasing business volumes simply, bring new products into the sales channels at the right time – SEEBURGER BIS puts your company in the position of flexibility, growth and agility.

Collaboration between IT and business departments
The BIS platform considers the requirements of your business units and your IT department. In providing technical and business views of your digital processes in real-time, you are able to act and seamlessly react to the constantly increasing information requirements of your various business units and partners.

BIS – The Tailored Solution for your Requirements

One flexible platform for all integration scenarios. The SEEBURGER Business Integration Suite fulfills high demands with a modular structure, a flexible service-oriented architecture and simplifies usage through standard solutions.

Modular structure

Are you looking for the competitive edge for your B2B/EDI integration and plan an API initiative? Start implementing the components which you need now with SEEBURGER BIS.

Architecture

The flexibility of the Business Integration Suite is enabled via an intelligent architecture: The server foundation and the BIS Core Platform provide all core functions for integration, file exchange, management and analysis. Preconfigured solution profiles for specific integration scenarios are built on these core functions: MFT, API/EAI, B2B/EDI, IoT, E-Invoicing and ERP/SAP integration.
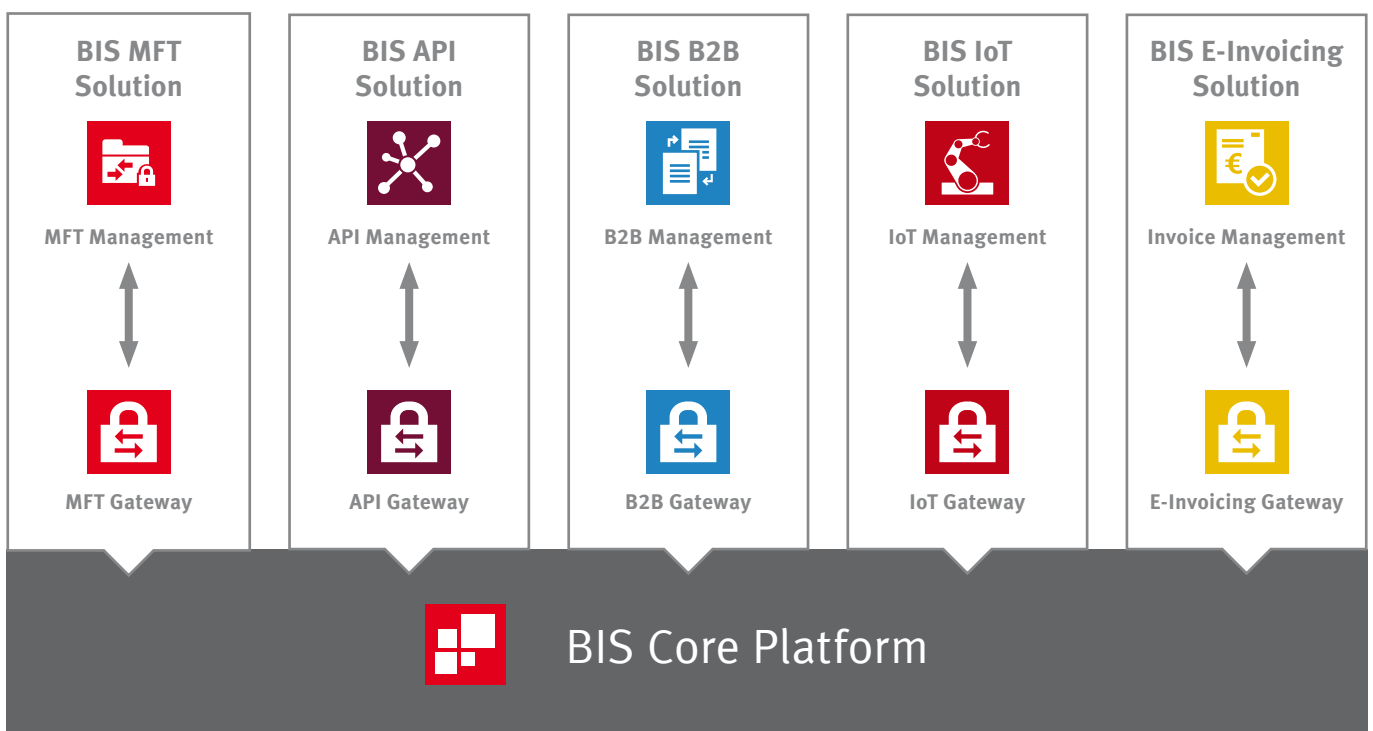
Flexible licensing

Additionally you have full freedom in licensing CPU or usage-based, permanent or limited in time, purchase or for rent.

Solution packages based on your needs

BIS is available in different versions for various requirements depending on the size of the company or industry. The "Enterprise" edition contains high-performance development tools, with which you are able to develop and configure any integration scenarios yourself. The "Standard" edition offers preconfigured functions and content for all necessary processes of your relevant integration scenarios. Furthermore complete industry profiles bundle industry specific functions and communication protocols. Thus you are able to configure your setup immediately after the installation.

Supplementary services

In addition to maintenance, support and implementation consulting, SEEBURGER offers BIS solutions for all integration topics also as a Cloud Service in certified data centers.

BIS MFT Solution	BIS API Solution	BIS B2B Solution	BIS IoT Solution	BIS E-Invoicing Solution
MFT Management	API Management	B2B Management	IoT Management	Invoice Management
MFT Gateway	API Gateway	B2B Gateway	IoT Gateway	E-Invoicing Gateway

BIS Core Platform

BIS MFT Solution:
File Transfer – Made Simple and Secure

A large number of processes within a company involve the exchange of files – information or documents – internally or with external business partners, between people and/or systems, ad hoc and interactive or even planned and automated. The BIS MFT solution (Managed File Transfer) is your tool for this.
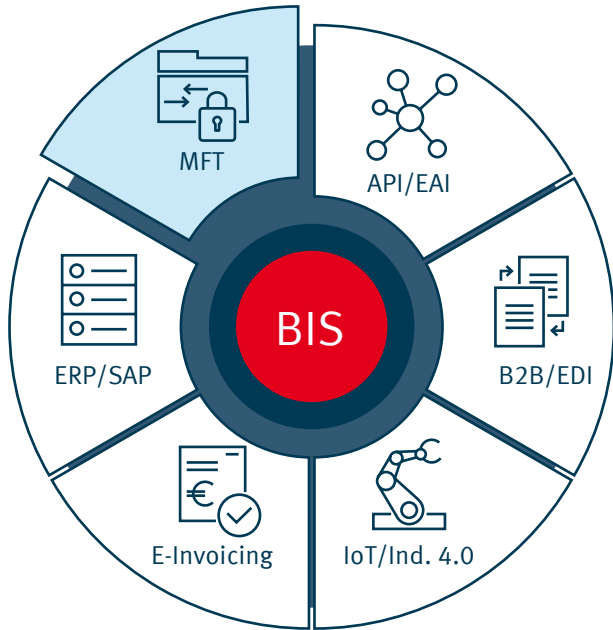
One platform for all MFT scenarios

The BIS MFT solution supports the implementation of any file transfer scenarios within the company as well as across companies. Regardless of the data type – offers, orders or invoices, construction or machine data, confidential reports or personal data - the reliable and secure electronic transmission of sensitive data is critical for business success.

Ad-hoc exchange of data between individuals made as simple as sending an email, yet secure! Employees are able to send sensitive documents securely and comfortably via the BIS MFT solution – since the solution integrates smoothly into usual workplace environments (Microsoft Outlook, Microsoft Windows Explorer, Internet browser).

Shared work on files is controlled and always available: The BIS MFT solution makes virtual data rooms available. Teams can therefore share files of any size – limited or unlimited in time, securely and with high performance.

Automated file exchange – time-driven or event-driven: Regularly recurring data transfers are efficiently automated via the BIS MFT solution – per time schedule or event-driven.

Integrated data exchange – coupling of systems
The BIS MFT solution is equipped with integrated application adapters for the file export and file import from or into application systems or databases. Applications can be connected simply even if they have a non-native file interface. Outside the reach of specific adapters a generic MFT agent software is available with SEEBURGER BIS Link. It comes preconfigured and allows connection of even the most remote system to the BIS MFT solution.

The advantages

✅ **Central control**
Controlled, traceable file transfer with any business partner, systems and applications via a central transaction management for all communication protocols.

✅ **Secure transmission**
Any files without size limitation.

✅ **Simple handling**
Integration into usual workplace environments, web portals for secure integration of internal and external project participants as well as mobile apps.

✅ **Transparency and compliance**
Controlled data transmission activities (who, when, to whom) while meeting compliance regulations.

✅ **Workflow controlled**
Individual automated/workflow-controlled scenarios for the pre or post processing of files.

The BIS EPX solution package

Combines the BIS MFT Gateway with a special SEEBURGER web application for Engineering & Product Data eXchange (EPX). It follows standardized processes under ENGDAT/ENGPART.

Sending of data becomes as easy as email. After the selection of the recipient the appropriate transmission method is chosen automatically in the background.

BIS MFT Solution: Building Blocks

The coordination of company-wide data streams require security, control and transparency. SEEBURGER's MFT Solution comprehensively ensures this via two core building blocks: The MFT Gateway ensures the secure transfer of data and the MFT Management ensures efficient administration and control.

BIS MFT Gateway

The BIS platform controls and governs all processes around file transfer in the MFT Gateway. The interactive functions are controlled by the BIS FileExchange Server:

- **Collaboration**
  - Interactive uploads/downloads
  - Share files and directories
  - Ad hoc file exchange per email permit (secure upload and download links)

- **File routing and automation**
  - Large number of communication protocols: HTTPS, FTPS, SFTP, EDI INT AS2, OFTP, …
  - Routing based on meta data and file content

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

- **Monitoring**
  - File tracking
  - Statistics, for example transfer times and volumes

BIS MFT Management

The BIS MFT management offers an overview of your own and third-party MFT mount points, users, authorizations and file transfers at any time and supports onboarding via self-service functions.
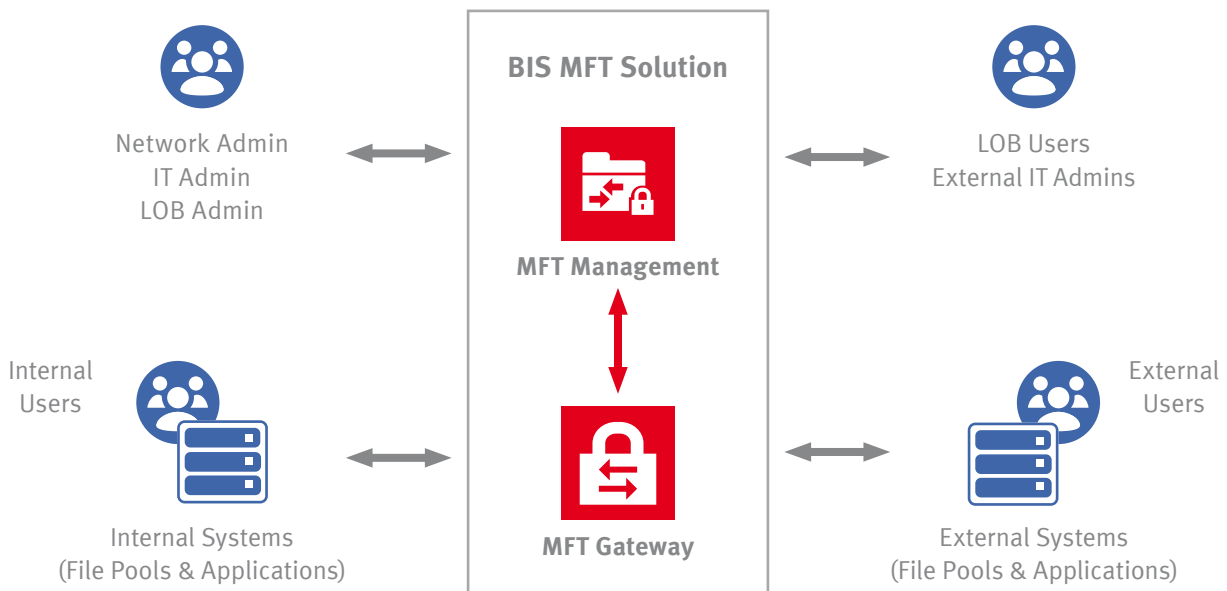
With tailored role-based functions for users, communication partners, MFT integrators and MFT specialists, the BIS MFT Management minimizes the effort for administration and communication with the users. The following functions are supported including:

- **Onboarding**
  - Account creation for new users
  - Connecting of external partners
  - Deploying of the BIS link software (MFT agent) to partners or your own offices

- **Self Service**
  - Maintenance of certificates and passwords by the business unit users and partners
  - Configuration of recurring MFT processes by the business unit users utilizing simple predefined data exchange templates
  - File tracking for business unit users and external partners

Network Admin
IT Admin
LOB Admin

BIS MFT Solution

MFT Management

LOB Users
External IT Admins

Internal Users

Internal Systems
(File Pools & Applications)

MFT Gateway

External Users

External Systems
(File Pools & Applications)

BIS API Solution:
Integration and Networking in Real-Time

Application Programming Interfaces (API's) provide selected system functions for use by other applications and thus enable interaction between any systems, devices or applications – the ability to provide and integrate APIs with the BIS API solution is your key to digitalization.
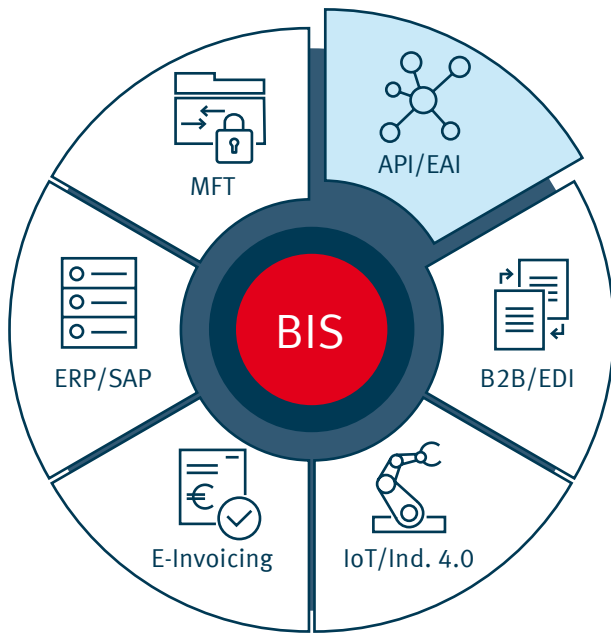
One platform for all API integration scenarios

The SEEBURGER BIS API solution supports a broad range of various API technologies and offers preconfigured building blocks, with which you can implement various real-time integration scenarios quickly and without great effort, for example:

Web shop connection: Integrate your web shop smoothly with your ERP (e. g. SAP).

CRM/ERP integration: Exchange data in real time between CRM and ERP (e. g. Salesforce – SAP).

Give partners access to services: for example, API-based access to catalogs, complex price lists and product descriptions.

Mobile apps: Even mobile apps require access to relevant company data for business use. APIs enable secured and controlled approval of data access.

Opening of company applications for customers: An API proxy protects the internal systems and provides customers secured and controlled information as a service. It enables central control and monitors the use of external APIs.

Cloud: Cloud-based services require sensitive information from internal systems.

The advantages

Native interfaces of application systems are often not optimally suited for digitalization projects. They are too complex or depend on certain technologies and hence are often not flexible enough. The BIS API Solution:

✅ **Reduces complexity**
APIs are made available externally and are decoupled from the interfaces of application systems.

✅ **Creates simplicity**
Due to decoupling, APIs can be optimally designed according to the needs of the API user and can be simply maintained.

✅ **Operates in real time**
Via efficient in-memory execution of the API calls.

✅ **Offers transparency**
Via the integrated logging of the API calls (who, when, which), of the execution times and results.

✅ **Is conveyed between worlds**
Via a comprehensive set of adapters for the connection of data-storing systems across various access protocols.

✅ **Is easy to manage**
Wizards support the API implementation and ease the management application rollout to the user groups.

EAI/SOA becomes API integration

Of course SEEBURGER BIS also supports all required functions of the Enterprise Application Integration (EAI) – from application adapters across file interfaces with data conversion to the integration of an Enterprise Service Bus (ESB). In addition modern API technologies were developed including REST or JSON, which offer more agility and performance compared to "classical" EAI technologies (BPEL) and also compared to SOA/Web-Services (XML, SOAP). API integration with SEEBURGER BIS supports the complete bandwidth of integration technologies, which you require for your business processes.

BIS API Solution: Building Blocks

Real-time integration means transparency – and transparency requires control. With the SEEBURGER API solution, the IT department stays in control of its own and third party interfaces, users, permissions and file access at all times. The API Gateway ensures secure connection and integration in real time; API management provides administration, control and fast roll-outs.

BIS API Gateway

SEEBURGER BIS API Gateway accepts API calls, checks the caller's access permission and redirects the requests to the internal services or translates them to internal interface calls. This way, the BIS API Gateway protects your data assets and applications from unauthorized accesses and decouples internal interfaces from the published API. In addition to this, the BIS API Gateway can also be used to control access to external services. In this way, their use can be controlled and traced by internal applications and users.

- **Connectivity**
  - Request-Routing and calling of API-channels
  - Supported API communication protocols: HTTP, REST, SOAP, XML RPC, JSON RPC

- **Security**
  - Transport security (SSL/TLS)
  - Message security (WS Security, PGP, S/MIME)
  - User authentication and authorization
  - Integration into existing authentication systems
  - Secure internet connection (via BIS Secure Proxy)

- **Monitoring**
  - Tracking of API calls
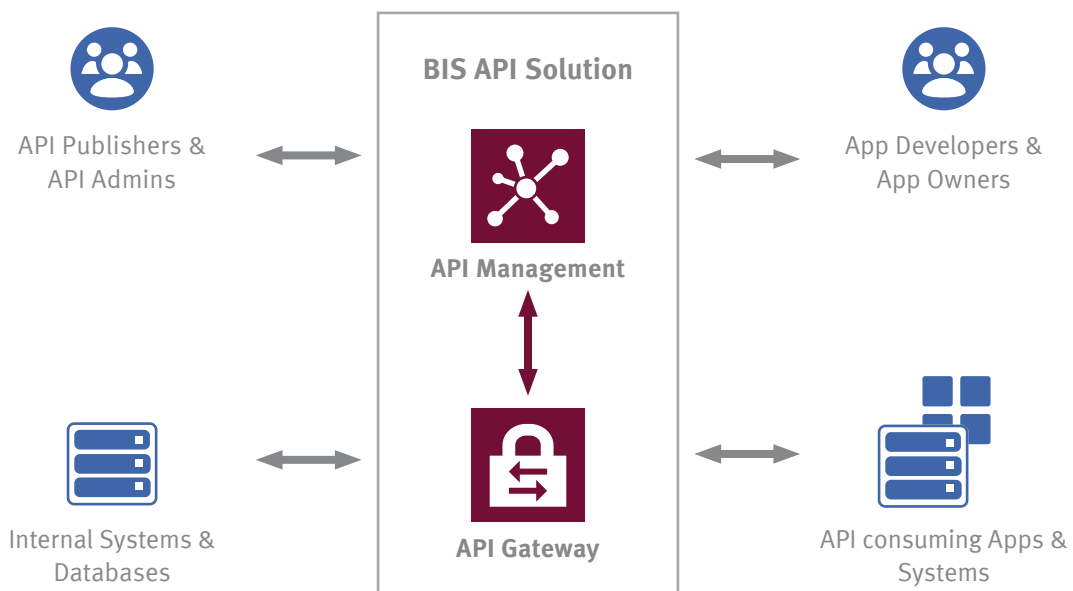 - Usage statistics

BIS API Management

The management applications of the SEEBURGER BIS API solution offer functions for API management and API rollout. With tailored, role-based features for API providers and API users, the API management applications minimize the effort for administration and agreements with API users (app developers). API providers are supported with deploying and maintaining APIs. From the web portal, API users get all required information around the clock, enabling them to work anytime, anywhere. The BIS API Management supports the following roles and administrative functions:

- **API providers can**
  - Document and publish APIs
  - Allocate access rights to APIs
  - Monitor API usage
 - Transmit information to API users

- **API users can**
  - Search the API catalog for APIs
  - Retrieve API information
  - Request API access permissions
  - Test API calls
  - Track API usage

BIS API Solution

API Publishers & API Admins

App Developers & App Owners

API Management

Internal Systems & Databases

API Gateway

API consuming Apps & Systems

BIS B2B Solution:
Digitalize Business Processes with Partners

The electronic exchange and automatic processing of business documents according to industry and cross-industry standards is critical in digitalization. Intensifying digital business relationships with all business partners – via the use of BIS B2B solution – will help your organization to run more efficient processes and thus to become more profitable.
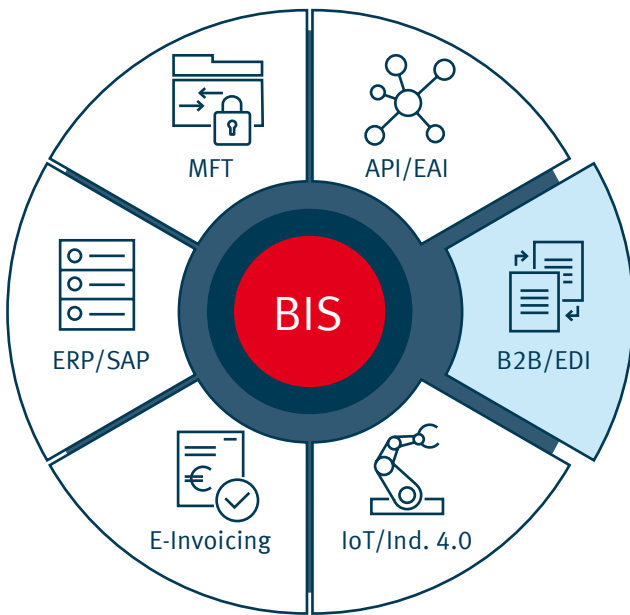
One platform for all B2B/EDI integration scenarios

SEEBURGER can handle all current and future market requirements with an integrated solution approach and offers one BIS B2B solution for all industries – Business Integration "to run!"

Tailored B2B industry solutions: 30 years of industry experience bundled into preconfigured and standardized industry solutions

Content for all industries and regions: Minimum project effort due to a unique directory of preconfigured business partner connections.

Transparency for business units: Business Process Monitoring in real time with drill down functionality.

Connect small partners: Modern WebEDI cloud-solution for quick use.

Engineering (CAD/CAx) – and product data exchange: 100 % engineering partner connections of the entire value chain.

The advantages

Efficient B2B processes offer enormous potential in saving time and cost as well as more stable business relationships. Companies therefore require a B2B solution, which integrates business partners of all sizes (B2B/EDI or WebEDI) and supports the exchange of logistics and technical (e. g. engineering) data. The SEEBURGER BIS B2B solution meets these requirements:

✅ **Preconfigured**
Fast and reliable implementation of a B2B/EDI system with preconfigured processes.

✅ **Just a mouse click away**
Connection of additional partners "by Click" through preconfigured profiles.

✅ **Low cost**
Continuous low overall operating cost due to consistent standardization.

✅ **Complete B2B/EDI libraries**
Complete and proven business partner and mapping library for many industries.

✅ **Partner Onboarding and self service functions**
Tools for the efficient onboarding of B2B trading partners.

B2B industry profile – fulfill your requirements

Preconfigured B2B industry solutions address all required industry-specific requirements and communication protocols for connecting your respective B2B partners. This will save you a lot of effort due to less manual configuration of partner settings. Preconfigured industry solutions are available for the following industries:

– Consumer goods & trade (CPG/Retail)
– Automotive
– Machine construction & manufacturing (discrete manufacturing)
– Utilities
– Healthcare & Life Science
– High tech & electronic industry
– Banking & Insurance

BIS B2B Solution: Building Blocks

Typically, the most important business partners are connected via B2B/EDI. This requires a comprehensive and feature complete B2B Gateway, enhanced by a portal/cloud application for the efficient B2B management of the often numerous important business partners.

BIS B2B Gateway

The SEEBURGER BIS B2B Gateway takes over the routing and the processing/conversion of B2B/EDI messages in accordance with industry standards and contains these building blocks:

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

- **Support of all important communication protocols**
  - EDI over Internet AS2, AS4
  - ODETTE file transfer OFTP/OFTP2
  - International VAN services and X.400 networks
  - Web-Services, RosettaNet (RNIF), ebXML (ebMS)
  - Generic protocols: FTP/S, SFTP, HTTP/S, JMS/ESB

- **Support of all important application interfaces**
  - All ERP systems
  - SAP connection via tRFC, SAP PI, SAP HCI/HCP
  - Connection to any enterprise applications via JMS, JDBC, File, SFTP, FTP/S, HTTP/S, APIs ...

- **Business Tracking & Reporting**
  - Tracking of messages
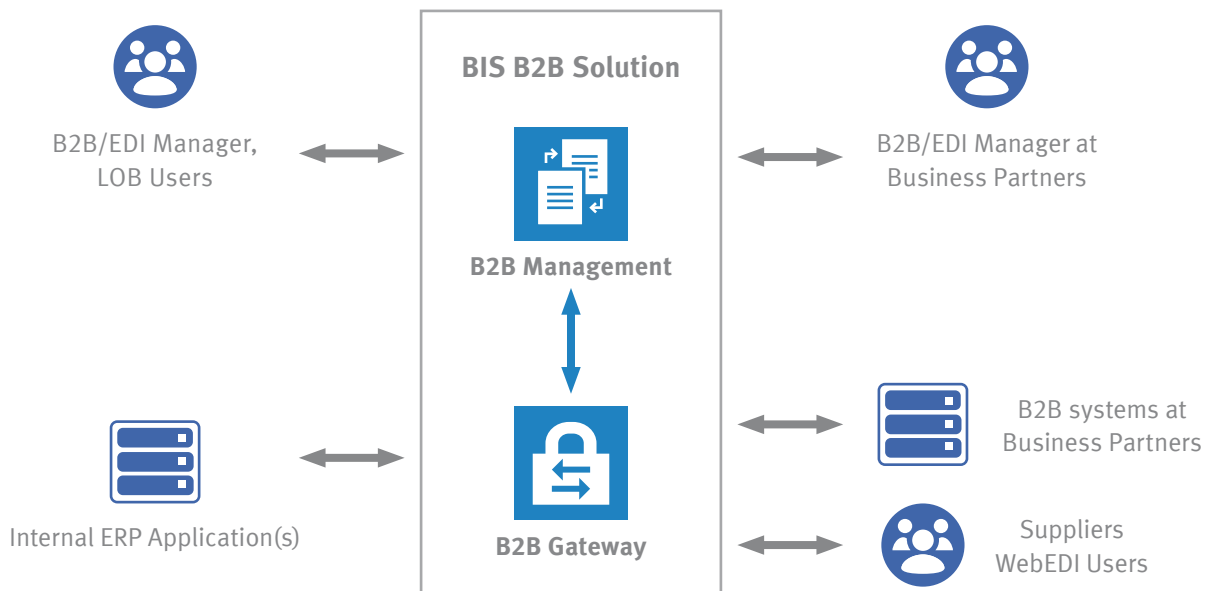 - Statistics and analysis

BIS B2B Management

The management applications of the SEEBURGER BIS B2B solution offer comprehensive features for the set up and maintenance of B2B connections:

- **Community Management Application (CMA)**
  Offer comprehensive features for the administration of B2B processes, campaigns and communities. The solution supports the complete process of onboarding new partners from qualification via the connection to the management of core data in a self service. The self service options include testing of B2B messages and communication connections as well as notification of configuration changes. The API-interfaces of the CMA application allow a smooth integration with the B2B Gateway and with external applications where e. g. partner master data is stored.

- **WebEDI supplier portal**
  The connection of smaller partners is quickly and easily achieved via a portal solution – ideally already configured as Cloud Service. The SEEBURGER Supplier Portal supports your suppliers in the processing of all document types from ordering to invoicing and ensures automated processes with these partners.

- **Engineering & Product Data Exchange (EPX)**
  For the engineers in the company, EPX offers a web GUI for the exchange of CAD/CAM data in accordance with the industry standard ODETTE ENGDAT/ENGPART (also see MFT).

B2B/EDI Manager, LOB Users

BIS B2B Solution

B2B Management

B2B/EDI Manager at Business Partners

Internal ERP Application(s)

B2B Gateway

B2B systems at Business Partners

Suppliers WebEDI Users

BIS IoT Solution:
Connect the Shop Floor with the Business IT

Industry 4.0 and the Internet of Things (IoT) offer companies enormous potential for more productivity and greater process reliability. The competitive advantages emerge from faster reaction on disruptive changes. The BIS IoT solution lays the basis for this.
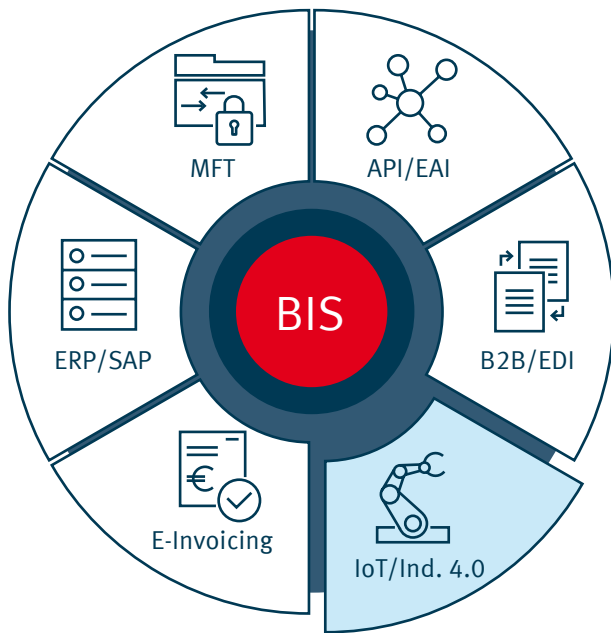
One platform for all
IoT integration scenarios

For companies, which are pursuing an industry 4.0 strategy the implementation can be quite complex. The real world of things (products and resources such as machines and systems) and the digital world of company applications (ERP/MES/PLM) must be brought together – often a challenge because standards are not accepted widely.

The BIS IoT solution therefore supports the new industry 4.0-standard "OPC-Unified Architecture (OPC-UA)" and associated XML-based "Companion Standards" such as AutomationML. This ensures secure communication and good quality of the core master data.

The BIS IoT solution is not only targeted towards companies which would like to optimize internal processes via the integration of data from their machinery with the company IT. BIS IoT is also targeted towards manufacturers, who intend to make their own products IoT capable, in order to offer added value services.

Even if major changes occur in this environment – companies using SEEBURGER BIS IoT solution are fully capable to adjust to those changes.

The advantages

All integration aspects in Industry 4.0 environments are supported:

✅ **Asset-/IoT Integration**
The SEEBURGER BIS IoT solution builds a bridge between the "things" of the real world – products, machines, systems – and of the digital world with its internal and external company business processes and the enterprise applications.

✅ **Horizontal and vertical integration**
The SEEBURGER BIS IoT solution offers the technical foundation for all data integration tasks with its modeling and integration options as well as a comprehensive set of communication adapters. This includes standardized data models (e. g. AutomationML) and communication paths (e. g. SOAP) as well as the adjustment to application specific standards or standards provided by the business partner.

✅ **Service orchestration and analytics**
The flexible adjustment of information logistics as well as the monitoring for decision making (monitoring and analysis) is supported by the Business Integration Suite via tools for process design, monitoring and evaluations.

✅ **Industry standards and transparency**
The BIS IoT solution translates the proprietary interfaces of products, machines and systems into uniform, standardized OPC UA compatible interfaces.

Protect your Investment

Integrate legacy machines and systems
Even if industry 4.0 triggers new budget for replacements you can use the BIS IoT Solution to secure past investment in the machine park!

Machinery and equipment, which was procured in the last 10-20 years already came with interfaces which the BIS IoT Solution can use to enable them for Industry 4.0.

BIS IoT Solution: Building blocks

The SEEBURGER BIS IoT solution supports companies which intend to solve integration tasks associated with Industry 4.0. The BIS IoT Gateway and the BIS IoT Management connect the business levels with the real world product and machine levels. Proprietary interfaces are thereby converted into standard formats in order to set a solid base for various integration projects.

BIS IoT Gateway

The SEEBURGER BIS IoT Gateway collects and stores data from IoT devices, device management or control systems, makes them available to applications at the planning and administration levels and offers functions for analysis and process control.

- **Integration of IoT 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, XML including OPC-UA Comp. Spec. (B2MML, AutomationML etc.)
  - API integration and management

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

BIS IoT Management

The SEEBURGER BIS IoT Management bundles a number of web-based applications for the management of APIs and services of the IoT devices in production lines or out in the field. It offers tailored role-based features for asset and process data management, configuration, monitoring and analysis.

- **Asset & IoT service configuration**
  - Creation and management of assets (management layer, communication and service interfaces)

- **Process and data management**
  - Asset Information Management
  - Service configuration and management

- **Roles and rights management**

- **Monitoring and analytics**
  - Data analysis and visualization (dashboards)
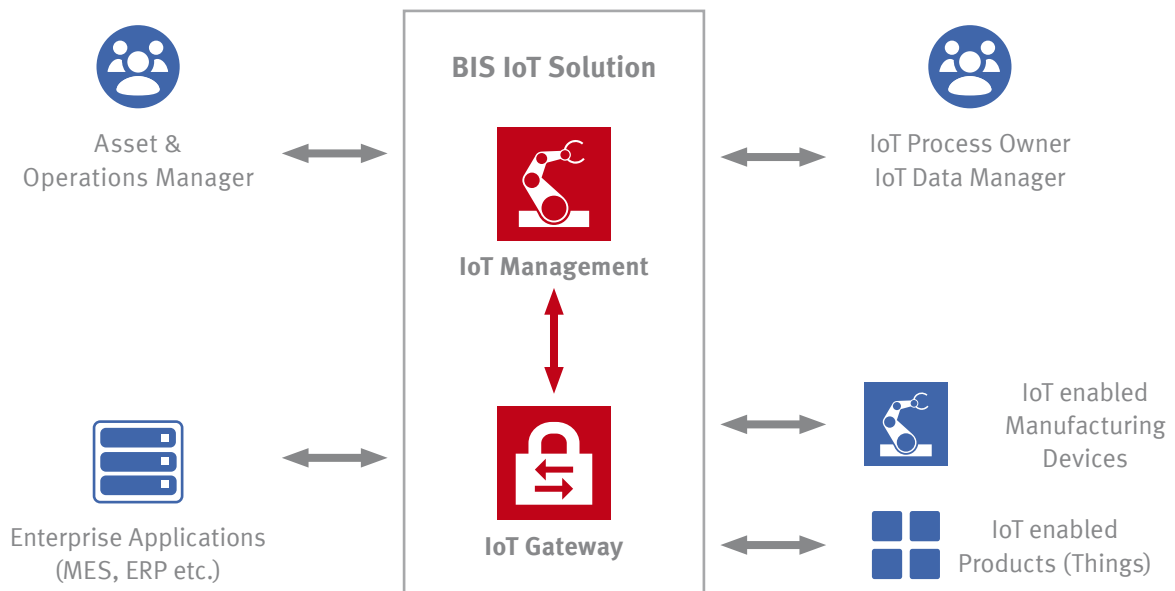
BIS E-Invoicing Solution:
Automated, Paperless Invoice Processing

Companies handling their invoice processes electronically and automatically, are able to save between 60 and 80 percent of cost compared to a paper-based process. Use the chance for reduction of effort though the BIS E-Invoicing solution.
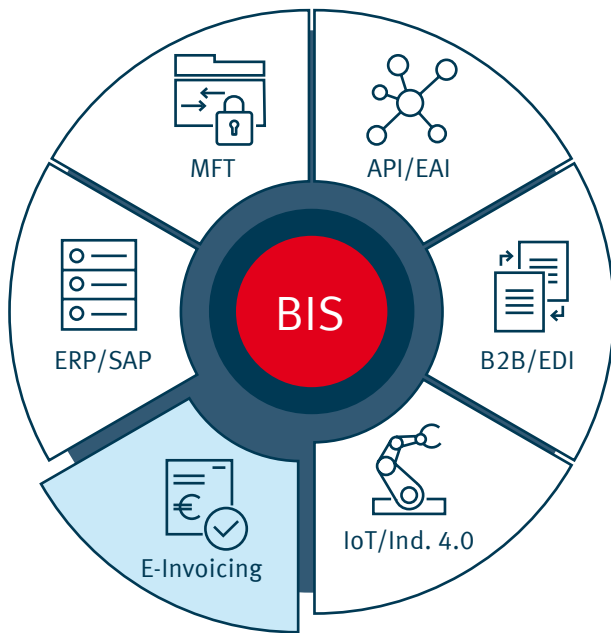
One platform for all relevant E-Invoicing formats worldwide

E-Invoicing initiatives have emerged in many countries in recent years to simplify invoice data exchange between companies (B2B) or between companies and authorities (B2G). The underlying E-Invoicing standards are diverse and are often mandated by legislators.

ZUGFeRD	*Germany (B2B/B2G)*
CFDI	*(Comprobante Fiscal Digital por Internet) Mexiko (B2B/B2G)*
SII	*(Suministro Inmediato de Información del IVA) Spanien (B2G)*
Facturae	*Spanien (B2G)*
DEMAT	*(EDI COMPLET) Frankreich (B2B)*
Chorus Pro	*France (B2G)*
FatturaPA	*(Sistema di Interscambio, SDI) Italien (B2G/B2B)*
PEPPOL	*Europe (B2G)*
ebInterface	*Austria (B2G)*

In general any E-Invoicing formats based on EDI formats such as EDIFACT, ANSI, XML, Tradacoms, VDA, CSV, flat files are possible too.

Inbound and outbound invoices – the SEEBURGER BIS E-Invoicing solution offers both.

The advantages

✅ **Lower costs and faster ROI**
Up to 80 percent savings.

✅ **More efficient processes & greater compliance**
Via automation and broader format support.

✅ **More security**
Encrypted transfer methods.

✅ **Better cash flow**
Immediate invoice delivery.

✅ **Complete transparency and fast accounting**
Automated processing with workflow-based approval processes.

✅ **Worldwide on the safe side**
Support of all relevant E-Invoicing formats.

E-Invoicing directly in SAP

SAP-certified solutions expand SAP with features for comfortable invoice processing directly in SAP:

SAP users with high invoice volumes receive a complete process for integrated processing of incoming electronic and paper invoices with SEEBURGER Purchase-to-Pay. SEEBURGER OmniChannel-to-Cash creates various E-Invoicing formats directly in SAP for sending out invoices.

BIS E-Invoicing Solution: Building Blocks

The SEEBURGER BIS E-Invoicing solution addresses all aspects and variants of the electronic exchange of invoices. The E-Invoicing Gateway supports B2B/EDI invoices as well as PDF invoices, and E-Invoicing Management ensures consistency in all inbound and outbound invoice processes.

BIS E-Invoicing Gateway

The BIS E-Invoicing Gateway receives, sends and stores electronic invoices, makes them available to back office applications and offers functions for process control and analysis.
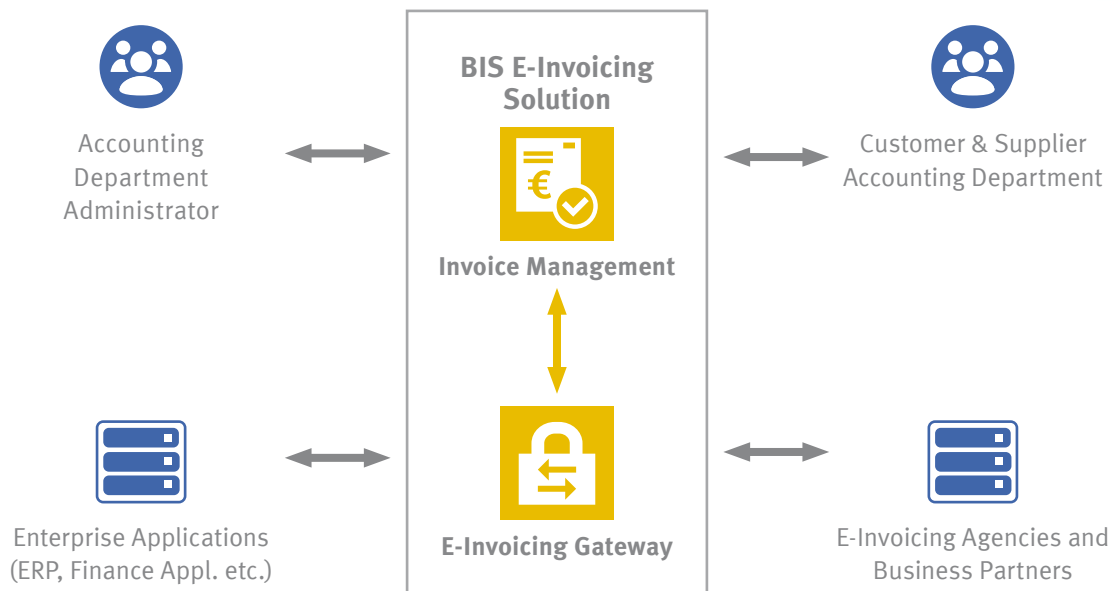
- **Support of all relevant E-Invoicing standards**
  - International invoicing standards
  - Conversion of any E-Invoicing formats
  - Creation of PDF documents for example in the ZUGFeRD format
  - Creation and validation of electronic signatures

- **Support of all relevant standards for invoicing data transport**
  - EDIINT AS2/AS4, OFTP, FTP/S, SFTP, HTTP/S
  - International VANs, Web-Services, Rosettanet, ebMS, and many more
  - Delivery via managed file transfer methods, for example email with secured attachments

- **Support of all relevant application interfaces**
  - Connection to all ERP systems
  - SAP connection via tRFC, SAP PI, SAP HCI
  - Integration with electronic archiving systems

- **Invoicing analytics**
  - Tracking of invoice documents
  - Central storage and analysis of invoice data

BIS E-Invoicing Management

The Community Management Application (CMA) – a BIS Core Module – is also available for E-Invoicing with its features for partner onboarding. The BIS E-Invoicing Management is supplemented by additional applications which are offered as a SEEBURGER Cloud Service:

- **SEEBURGER Invoice Portal Cloud Service – manage inbound invoices centrally**
  Medium-sized companies as well as companies with a heterogeneous IT environment nowadays need a central and easy to use cloud/portal solution for all types of electronic invoices. These are centrally managed here, accounting and (multi-level) approval are conducted and the subsequent handover towards the final booking takes place.

- **SEEBURGER Invoice Delivery Cloud Service – secure outbound invoice delivery**
  With the SEEBURGER Invoice Delivery Cloud Service, E-invoices can simply and securely be delivered in various E-Invoicing Formats and as PDF.

  The service is equipped with interfaces for integration with the BIS E-Invoicing Gateway, but can also be directly connected with the invoicing application of your company.

Accounting Department Administrator

BIS E-Invoicing Solution

Invoice Management

Customer & Supplier Accounting Department

Enterprise Applications (ERP, Finance Appl. etc.)

E-Invoicing Gateway

E-Invoicing Agencies and Business Partners

BIS ERP/SAP Integration:
The Backbone for Digitalization of your Processes

A company's ERP system is crucial for value generation and the backbone of all business processes. New digital processes therefore depend on a seamless integration with the ERP system. All integration scenarios described here require ERP integration.
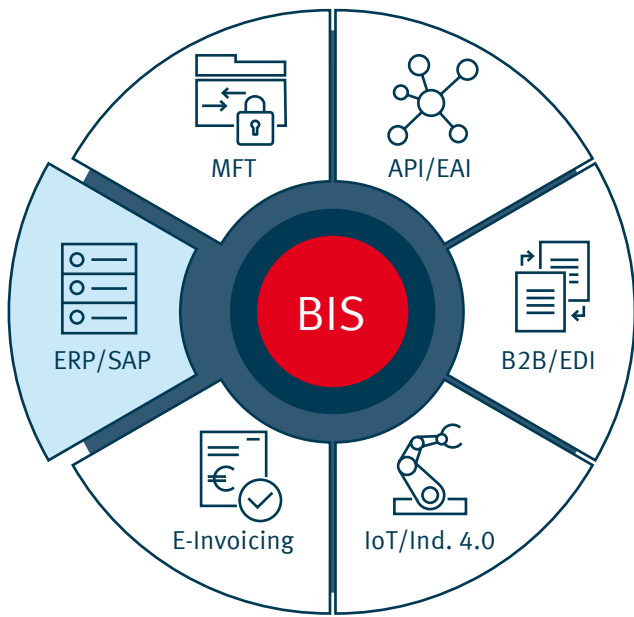
- Adapters for ERP systems with various interface technologies, for example database access (JDBC:SQL), file interfaces, ESB interfaces (JMS) and APIs (REST, SOAP, Java)

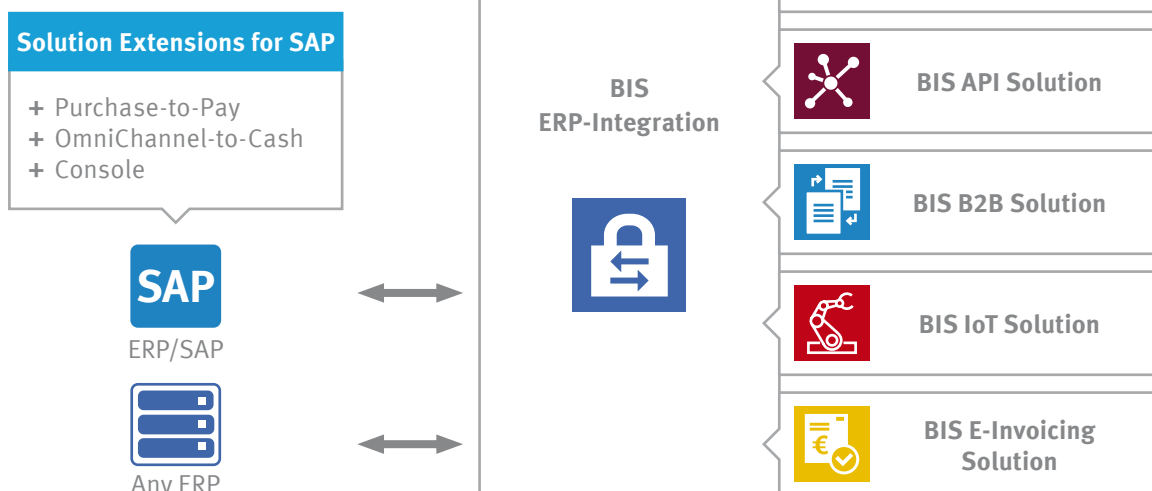- iSeries Connector (native RPG application) for import and export to or from all major IBM System i-applications

The advantages

✓ **Preconfigured content for numerous ERP systems**
ERP process mappings and configurations based on experience from thousands of projects reduce the connection effort up to 80 percent and ensure a quick ROI – due to lower cost!

✓ **Simple monitoring and analysis**
BIS delivers real end-to-end monitoring of messages and processes, up to the successful booking in the ERP system.

✓ **Transparency for the business unit**
Monitoring applications allow business users to track the processing status of all invoices.

ERP connection for all integration scenarios

The BIS ERP connection is a key part of many integration scenarios and certainly needed for B2B/EDI or E-Invoicing. Adapters offer flexible ways of a technical connection for various application systems, for example:

- Comprehensive options for the SAP connection (tRFC, BAPI, HCI/HCP, PI/PO) in all SAP ERP systems from R/3 to SAP S/4HANA®

Solution Extensions for SAP

+ Purchase-to-Pay
+ OmniChannel-to-Cash
+ Console

SAP
ERP/SAP

Any ERP

BIS ERP-Integration

BIS MFT Solution

BIS API Solution

BIS B2B Solution

BIS IoT Solution

BIS E-Invoicing Solution

Deep Process Integration in SAP ERP Systems

SEEBURGER is a long-time certified SAP partner with extensive SAP expertise. Our integration platform SEEBURGER BIS supports all systems and interface technologies, which SAP offers – from SAP ERP R/3 to SAP S/4HANA. Additionally, with the SEEBURGER Solution Extensions for SAP, the SEEBURGER Business Integration Suite also offers certified expansions of the SAP standard, which extend the integration process deep into the SAP applications.
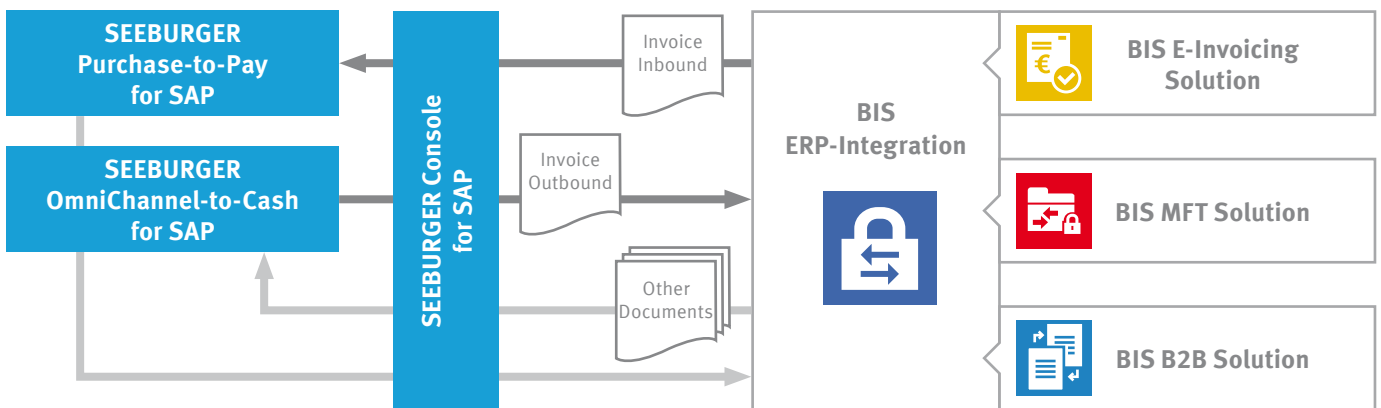
SEEBURGER Purchase-to-Pay

Process inbound invoices in SAP automatically, including review- and approval-workflow

Automation of inbound invoice collection and processing in SAP: Logging of all processing- and approval-steps, monitoring, analysis of the invoice flow, archiving interfaces. Active information and invoice approval on a mobile device or with a SAP Fiori application.

All BIS E-Invoicing formats and channels are supported (EDI-, XML, ZUGFeRD, PDF, paper and fax invoices).

All invoices (FI, MM) are checked in accordance with uniformly defined rules, their flow is actively monitored and deviations/exceptions are shown.

SEEBURGER Console

Central Business monitoring of all document types

Power users are able to track incoming and outgoing electronic documents in the SAP system and monitor processing times with the SEEBURGER Console.

The configurable document monitoring sends a notification in the event of a problem and offers the SAP business users features to quickly correct errors and ensure complete processing – without having to contact the SAP administration.

Investment in the SEEBURGER Console pays for itself, particularly in the case of time-critical processes, in which erroneous, delayed or missing EDI messages (for example dispatch notifications or JIT messages) may involve penalties or financial losses.

SEEBURGER OmniChannel-to-Cash

From order processing to automatic sending of invoices

Automation of order processing and booking in SAP: Logging of all processing steps, monitoring, analysis of the order flow, archiving interfaces and active information per mobile device.

Support of all order entry channels (EDI, XML, PDF, papier and fax orders): All orders are checked and processed in accordance with uniformly defined rules – up to the creation of the outbound invoice.

Delivery of the outbound invoice happens through the BIS E-Invoicing solution in EDI, XML, PDF, ZUGFeRD formats or in paper form, for example via the integration of a Lettershop service provider.

The SEEBURGER BIS Platform: Comprehensive Basis for all Integration Scenarios

With the SEEBURGER Business Integration Suite, you receive a comprehensive tool empowering you for integration – with building blocks, which enable close collaboration with business units and external partners. SEEBURGER BIS acts as foundation of your digitalization initiatives that can solve any integration requirements.

Based on open standards and developed in Java, the platform-independent SEEBURGER Business Integration Suite is available for operation on-premise as well as in the cloud. Customers may operate the Business Integration Suite on-premise on Microsoft Windows, Linux, AIX and other Unix derivatives or at cloud providers such as Amazon AWS or Microsoft Azure. Virtualization platforms, such as VMware or open source such as OpenStack, are also supported.

The Business Integration Suite is continuously maintained and further developed by the SEEBURGER development team – no third party patchwork. An agile development process, which also includes continuous delivery, ensures that new market and customer requirements are promptly met. In addition to customer feedback, knowledge and experience from SEEBURGER's own cloud operation are incorporated directly into the product. This ensures a practice-oriented product design, which in addition to all functional requirements also satisfies the needs of daily operation.

The advantages

✅ **One platform for all integration scenarios**
MFT, B2B/EDI, API/EAI, IoT, E-Invoicing, ERP integration – the BIS platform covers all requirements on one platform. This creates synergies because with BIS there is one fundamental platform. The platform is already known for the implementation of new integration scenarios and is integrated into your IT operating environment.

✅ **Secure operation and compliance with all regulations**
As a platform, BIS offers all necessary tools and interfaces to ensure operation and compliance with regulations.

✅ **High scalability and flexible deployment**
Due to the modular service-oriented design, the BIS platform can be distributed across several servers and network zones. This allows flexible setup with respect to performance, availability, security and functionality.

✅ **Role based user experience**
To increase organizational agility and innovation BIS provides modern user interfaces which can be customized by role. From IT specialists, who develop new integration scenarios, to business unit power users, who resolve issues and initiate the integration of new partners.

✅ **Predefined solution packages**
Reduce time and effort to ensure quick Return on Investment.

✅ **High-Performance development tools**
Allow users to implement complex individual requirements – via graphical orchestration of communication and data integration components . There are numerous additional building blocks, for example for the integration with services from the SEEBURGER Cloud.
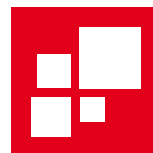
Business Integration Suite – Your central Platform for Digital Transformation

With BIS, your IT becomes a Business Enabler

The company IT is under heavy pressure through demand for digitalization. To meet the requirements from business untis, analysts recommend setting up a hybrid integration platform portfolio.

The SEEBURGER Business Integration Suite already covers a very large part of this required portfolio. In particular, the BIS Management applications offer comprehensive options for self-service for business units and external partners.

Business untis' increased need for digital information (as the foundation for business decisions) is successfully covered with the BIS Information Server. As a result, your IT department will become a Digital Business Enabler!

BIS Community and Information Management

Business Departments are a crucial part in any digitalization project. Their intelligent involvement speeds up implementation times and reduces the burden for the central IT. A key role here play BIS Portal tools which business users can easily control: With the BIS Community Management Application and BIS Information Manager Application the steps for onboarding, provisioning and change management can be handed to your business departments.

BIS Community Management Application
Collect, integrate and keep data up-to-date

The Community Management Application (CMA) combines a flexible and powerful form generator for campaign and task management. Business unit power users can easily configure simple forms as well as more complex, multi-page surveys which provide a wizard driven page flow. As part of the campaign surveys and reminders are sent automatically to participants. The results are made available in a web interface and in a CSV format for download. Master data for such campaigns can be provided either manually or via Excel lists import.

The application can be deployed as a stand-alone solution or can be booked with a few clicks in the SEEBURGER Cloud as a SaaS offer.

The connection to the BIS Integration Server is established via the CMA REST API and this empowers process-controlled workflows for implementation. Interactive steps (CMA forms and tasks) and automatic process steps (data integration) can execute in combination. Data sources can, besides BIS itself, also come from any enterprise application, for example the ERP system.

BIS Information Management
Data becomes information

Departments (and in certain cases external partners) must be able to derive information from the flood of data to allow them to take business decisions. The BIS Information Server acts as a central message/data store and provides methods for data aggregation and data visualization. This allows business users to create flexible views which can then be shared internally and with business partners. A modern and easy to use GUI with data search screens and data filters in the browser are tailored for business use. To create reports and dashboards a library with templates is available. Reports are configurable and can be provided in various output formats e. g. PDF or CSV – or simply in granting access rights to other users.
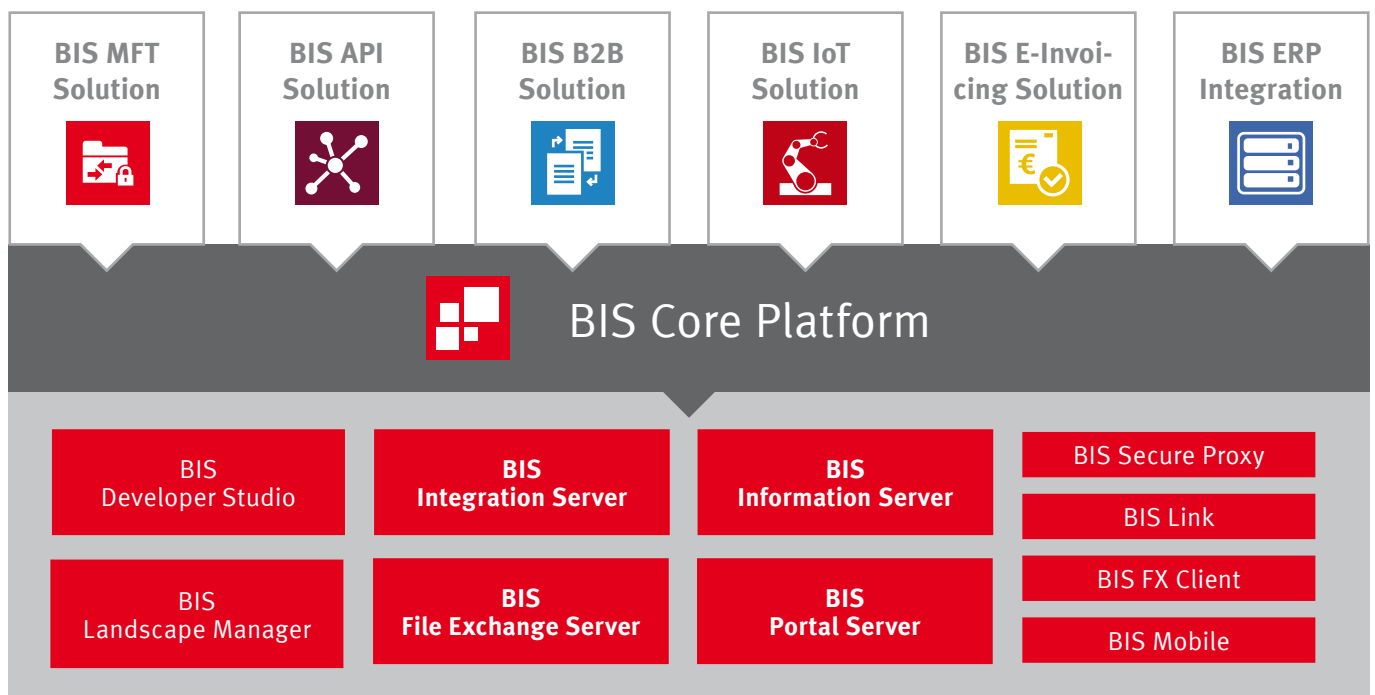
BIS Information Management offers open REST- and Database-interfaces. This allows to take data extracts and hand them to other analytics tools. This allows business departments to use BIS Information Management in combination with possibly already existing BI tools.

The advantages

✅ **Efficient and cost effective onboarding**
Accelerates the activation of business partners, employees and services with considerably reduced effort.

✅ **Increased customer satisfaction**
Improves customer services, since business partners have access to information and features at any time.

✅ **Improved data quality**
Improves the data quality due to "stay up-to-date" campaigns and form-based workflows for notification.

✅ **Increased employee satisfaction**
Allows the company's own business units to set up ad hoc/automated data exchange channels via self-services without having to rely on IT.

✅ **Increase process reliability**
Predefined and automated executing structures and processes ensure compliance with given standards.

✅ **Create transparency**
Interactive research options even in the case of very large data quantities (Google search) as well as reports automatically created and distributed ensure that a positive attitude of "being informed" emerges.

✅ **Recognize and react to trends faster**
Continuously track calculated operating numbers over the course of time and compare with expectations and thresholds – the quicker undesirable circumstances are uncovered the more time remains for targeted acting/reacting.

BIS Platform: Architecture building Blocks

The SEEBURGER Business Integration Suite is completely developed by SEEBURGER – designed in Germany. No software patchwork solutions by acquisition from 3rd party vendors is included. As a result, all BIS building blocks are designed to work together smoothly. The core consists of four server components. These are supplemented by tools for developers and administrators and components supporting the setup of communication channels.

| BIS MFT Solution | BIS API Solution | BIS B2B Solution | BIS IoT Solution | BIS E-Invoicing Solution | BIS ERP Integration |

BIS Core Platform

BIS Developer Studio	**BIS Integration Server**	**BIS Information Server**	BIS Secure Proxy
BIS Landscape Manager	**BIS File Exchange Server**	**BIS Portal Server**	BIS Link
			BIS FX Client
			BIS Mobile

BIS Integration Server
Save costs with process automation

The BIS Integration Server uses the BIS Process Engine and works in accordance with the BPEL standard. The BIS Channel Engine is an in-memory variant of the BIS Process Engine. Both together execute all integration processes, which are fundamental to any digital integration scenarios (MFT-, B2B-, API-, IoT-, E-Invoicing, ERP-integration). The BIS Adapter Engine ensures secure and reliable exchange of messages and files as well as seamless application integration with a large number of protocol adapters. The Business Integration Converter (BIC) is a high-performance Any-to-Any conversion which masters all data mapping requirements (testing, splitting, merging, converting).

BIS Information Server
Obtain information for decisions

BIS Information Server is the data storage of the platform. With big data methods, relevant business intelligence can be done to structure the flood of data generated by the digitalized processes. A few examples:

- Track & Trace from B2B-documents => SLA compliance for supplier evaluation
- E-Invoicing: Central control of invoicing processes => ideal starting point for business analysis
- API usage data => foundation to monetize API based traffic
- Machine data from the shop floor => only via intelligent aggregation events can be incorporated into the enterprise applications.

BIS Platform: Architecture building Blocks

One integrated development environment (Developer Studio), tools for system administration (Landscape Manager) and internet connection (Secure Proxy) as well as various client components for the inclusion of remote endpoints support you in the implementation of your digitalization processes.

BIS FileExchange Server
Collaborate more efficiently via file exchange

The BIS FileExchange Server is the foundation for Managed File Transfer. It offers secure data rooms and mailboxes which can be shared with other user(s)/group(s). There are no file size limits. Access to the server occurs per web service API, which offer functions for the acceleration of data transfer (for example, compression and "parallel TCP"). Access per FTP/S and SFTP is supported across gateways. The integrated web application permits interactive/ad hoc access.

BIS Developer Studio
Create any integration scenario yourself

The BIS Developer Studio is the Business Integration Suite development environment. It is based on the open source Eclipse platform and contains graphic tools (plug ins) for process, mapping and API design. Created scenarios (solutions) can be transferred and activated (Hot Deployment) from the Developer Studio into the runtime environment without interruption of operations. Alternatively you can also deploy offline. The Integration in Build Automation systems (BIS Deployment REST API) is also supported for the advanced developer. Plug ins for the integration of common source code version management systems (CVS, SVN, GIT/GITHub) are available for source code management.

BIS Landscape Manager
Automate software updates, gain security

The BIS Landscape Manager manages BIS system landscapes and automates installation and maintenance. This especially pays off when a BIS environment is distributed across several nodes, for example to achieve greater availability and/or higher performance or when a separate environment is required for development, testing and production. The BIS Landscape Manager automatically downloads new software versions from the SEEBURGER Cloud and is able to automatically install these (upon request and for systems with Active/Active-Setup) on all nodes involved during an update process without additional user intervention and without downtime.

BIS Portal Server
Reach departments and business partners

All web interfaces are based on the BIS Portal Server. The portal application SDK ensures the consistency of the look & feel. The cloud-compliant user management also supports the administration of external users which is a prerequisite for state-of-the-art Business Community Management and Self-Service applications for the business units.

BIS Secure Proxy
Securely establish connections over the internet

BIS Secure Proxy connects communication adapters and portal applications from the Business Integration Suite with the Internet. Using the "fence" component, which is deployed in the DMZ (demilitarized zone), secure communication channels are provided. Time consuming and frequent changes in the Firewall configuration, for example upon activation of new business partners, are avoided.

BIS Link
Create a connection at any time

BIS Link bridges the gap, if endpoints must be equipped with a communication device in a B2B, EAI, IoT or MFT scenario. The preconfigured Java application can also be efficiently distributed to many hundreds of end points. With the BIS Link Manager application, BIS Link is preconfigured, deployed, monitored and updated when needed. Additional data conversion is available with the BIS Link PLUS variant.

BIS FX Client und BIS Mobile
Integrate users at the workplace

These applications complement the BIS FileExchange Server. A Windows client enables simple desktop integration. Plug-ins for Windows Explorer and Microsoft Outlook allow the sharing of files, the synchronization of directories and also the sending of large files. The BIS FX mobile app for Android and iOS is available in the respective App Store.

Use In-House Operation or Cloud Service?

With SEEBURGER you have the freedom to choose: In-house operation of the SEEBURGER Business Integration Suite, full service in the SEEBURGER Cloud or a mixed operation (hybrid). When new digitalization requirements must be implemented Cloud Services are a good choice, for example as a supplement to the in-house operation.

In-house operation or Cloud – what is the better choice?

Business units usually have little interest in the "mode of operation" (on-premises, cloud, hybrid), however they have business requirements which must be covered. It is always a "service" from their point of view.

A cloud solution as an alternative to the in-house operation should be considered, particularly in the following scenarios:

- Shortages in staff and/or dependency on certain employees.
- Investments in new solutions or significant expansions are expected.
- Increasing operating requirements (real 24/7 operation) cannot be covered with current staffing levels.
- A large number of new partners or processes must be connected or implemented
- TCO of the in-house operation(HW, SW, staff training, support) exceeds the costs of a transparent, calculable Cloud Service.

The Cloud is one of the most important components in the context of the digital transformation
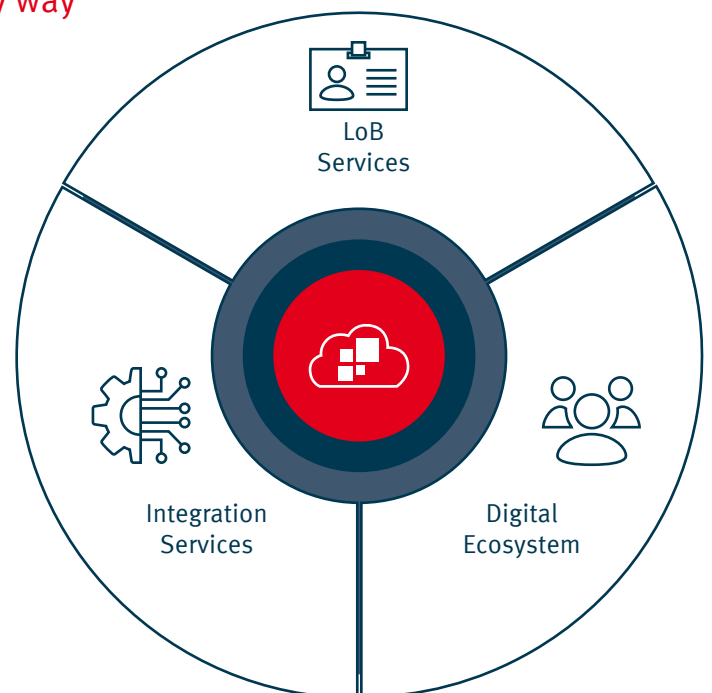
Cloud Services …

- ✅ are the ideal foundation for easy access to IT resources
- ✅ support the company's digital shift strategies
- ✅ provide pre-built, standardized, scalable, and adhoc-running process modules with clearly defined interfaces
- ✅ empower the business units to be more flexible and shorten the time-to-market ⋯❯ **more flexible!**
- ✅ speed up the so-called "old economy" ⋯❯ **quicker!**
- ✅ are the spark of new disruptive business models ⋯❯ **more innovative!**

The SEEBURGER Cloud is our approach to connect your organization with your business partners in a fast and easy way

Lower your investment costs in moving all or part of your Digitalization requirements into the cloud

- ✅ **Integration Services**

  exchange of business documents (EDI/B2B); secure Filetransfer (MFT); connect Cloud-Services (API); support adhoc all E-Invoicing Standards; control "things" (IoT).

- ✅ **Digital Ecosystem**

  self-service onboarding of many partners (B2B); provide API-interfaces; Portal-solutions for Partners of any size

- ✅ **Services for Line-of-Business (LoB)**

  From solutions for specific verticals (e. g. Utilities) to Portals for E-Invoicing

SEEBURGER Cloud Services

SEEBURGER Cloud Services comprehensively use the SEEBURGER Business Integration Suite as its technology foundation. Benefit from receiving "everything from one source" without having to operate the technical solutions yourself. You can easily book the SEEBURGER Cloud Services and adapt it to the needs of your company.

Integration Services

Networking and integration with business partners, systems, services and individuals can be a challenge for in-house operations. This may affect the connections to your most important partners.

SEEBURGER Integration Cloud Services are precisely specialized taking over all types of exchange of data as a full service:
- Exchange of business documents (EDI/B2B)
- Secure file transfer (MFT)
- Connection of Cloud Services (API)
- Immediate support of all E-Invoicing standardss
- Management of machines/systems ("Thing" in the IoT)

Services for business departments (LoB)

The business departments are the drivers of many digitalization projects. They are in daily contact with their customers, thus facing their demand for (new) digital services first – and of course want to provide these as quickly as possible.

The SEEBURGER LoB Cloud Services enable this agility with a broad range of immediately available Cloud Services:
- Incoming invoice portal for E-Invoicing (based on paper/PDF/EDI)
- Support for multiple E-Invoicing mandates: SII (Spain), FatturaPA (Italy), Chorus Pro (France), CFDI (Mexico) and many more
- Portal for the secure delivery of electronic invoices
- Engineering File Exchange Service – secure exchange of technical data with engineering partners of all sizes
- Secure data room for company-wide collaboration
- Services for special industries such as the Utility industry

Digital Ecosystem

A digital ecosystem is an interdependent group of enterprises, people and/or things that share standardized digital platforms for a mutually beneficial purpose (such as commercial gain, innovation or common interest). Digital ecosystems enable you to interact with customers, partners, and adjacent industries. (according to Gartner)

SEEBURGER Digital Ecosystem amplifies your reach to connect partners, systems, applications and even "things":
- Benefit from a large B2B community, allow fast onboarding of many partners and provide efficient community support
- Build your API community with your business partners based on API-interfaces
- Allow small partners to efficiently work electronically (WebEDI)
- Make use of our E-Invoicing network capabilities instantly

Cloud certification/security

The following applies to all SEEBURGER Cloud Services:
- ISO 27001 certified data centers in Germany, US and China
- ISO 27001 certified and ITIL-based operational procedures
- ISAE3402 (SOC 1) Type 2 audit for certain premium level services
- Services based on our own SEEBURGER Business Integration Suite
- Operation exclusively by our own experts 24/7
- Globally positioned with our own international service teams

Thousands of customers from all over the world already trust in SEEBURGER Cloud Services.

www.seeburger.com/global-offices