SEEBURGER Business Integration Suite – Your Central Platform for Digital Transformation
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 today’s landscape we notice that modern day companies driven by innovation are rapidly earning billions by leveraging digital, data-based business models. For others 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 onboarding and straightforward 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**
The use of data in leading ERPs (e.g. from SAP) remains the backbone of the company even in the age of digitalization and controls the value chain.

**Controlled integration:**
**Management functions**

As integration increases so does the administrative workload – meaning additional interfaces, new partners and systems. It also means an increase of file exchange users and more information retrieval. The importance lies 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**
Release the administrative burden of IT department via integrating technical end users by assigning role-specific application 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 the available applications, functions and data. Trace and track who changed which interface settings.

**INTRODUCTION**

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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:

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.

Enhance the potential 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), transmit large files securely and efficiently. 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.

**Implement business transactions more often**
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 all business units and your IT department. Thanks to technical and specialized real time views of your business processes, you are able to act and seamlessly react to the constantly increasing information requirements of your various business units and partners.
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: 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.

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.

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.

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 other 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
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.

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.

- **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.

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.

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 und Aufruf von 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 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. Extending business relationships with all business partners – via the use of BIS B2B solution and more efficient processes – will help your organization become more profitable.

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.

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 “ready to run!”

**Well-developed 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 during the entire value chain.

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**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 & electrical industry
- Banking & Insurance
The most important business partners are connected via B2B/EDI. The requirements for a feature complete B2B Gateway are accordingly high including a portal/cloud application for the efficient management of the numerous 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, EAI, ...
  - 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 application integrates with the B2B Gateway via API interfaces. The open interfaces allow the management of core master data which is available via integration with the ERP system.

- **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 surface for the exchange of CAD/CAM data in accordance with the industry standard ODETTE ENGDAT/ENGPART (also see MFT).
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.

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.

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.

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, IMS 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.

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.

One platform for all relevant E-Invoicing formats worldwide

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

- **ZUGFeRD** Germany (B2B/B2G)
- **CFDI** (Comprobante Fiscal Digital por Internet) Mexico (B2B/B2G)
- **SII** (Suministro Inmediato de Información del IVA) Spain (B2G)
- **Facturae** Spain (B2G)
- **DEMAT** (EDI COMPLET) Germany (B2B)
- **Chorus Pro** France (B2G)
- **FatturaPA** (Sistema di interscambio, SDI) Italy (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.

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.

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**Integration Scenarios**

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- **Worldwide on the safe side**
  Support of all relevant E-Invoicing formats.
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 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, amongst other things
  - 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 archive systems

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

### BIS E-Invoicing Management

The Community Management Application (CMA) from the BIS B2B solution 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.

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![Diagram](attachment:image.png)

**Accounting Department Administrator**

**Customer & Supplier Accounting Department**

**Enterprise Applications (ERP, Finance Appl. etc.)**

**E-Invoicing Gateway**

**E-Invoicing Agencies and Business Partners**

**Invoice Management**

**BIS E-Invoicing Solution**
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 individual 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
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
Consistent automation of inbound invoice collection and processing in SAP: logging of all processing and approval steps, monitoring, analysis of the invoice flow path, archive 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 user in the department 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
Consistent automation of order recording and order processing in SAP: logging of all processing steps, monitoring, analysis of the order flow, archive interfaces and active information per mobile device.

Support of all order entry channels (EDI, XML, PDF, paper 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.

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 with 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 based in Germany and Bulgaria. 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.

- **User-group-specific operation**
  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.

- **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 graphically orchestration of communication and data integration components.
  There are numerous additional building blocks, for example for the integration with services from the SEEBURGER Cloud.

The company IT is under heavy pressure through demand for digitalization. To meet the requirements from business units, 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 units’ increased need for digital information (as the foundation for department decisions) is successfully covered with the BIS Information Server. As a result, your IT department will become a Digital Business Enabler!
BIS Portal Applications

The efficient integration of departments enable an agile, quick implementation that reduces the burden for the central IT in many implementation projects. With the BIS Community Management Application and BIS Information Manager Application onboarding, provisioning and change management processes can be created as fully automated processes, including message-validation and communication testing.

BIS Community Management Application

Collect, integrate and keep data current

The Community Management Application (CMA) combines a flexible and powerful form generator for campaign and task management. The solution is completely operated over a web interface. 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. Data input occurs 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 and data warehouses 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 offers the corresponding methods for this which are accessible via REST APIs and via database views. With its interface, the application offers various options for visualization and for researching information provided by the BIS Information Server. In this way, users from the business unit can simply use data search screens and data filters in the browser and share with others users inside the company and/or with business partners. A library of business graphic elements is available for the presentation of operating numbers which can be grouped and displayed on dashboards and made visible for various user groups.

Reports – created in the BIS Developer Studio with the Report Design Plug-in – can be configured from the department and released for access. Power users can activate interfaces in the BIS Information Server in order to grant 3rd party tools from the business analytics field access to data extracts for further analysis.

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 various manufacturers is included. As a result, all BIS building blocks are created 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 Integration Server
**Save 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
**Acquire 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:

- Nachverfolgung von B2B-Belegen ⇒ SLA-Einhaltung für die Lieferantenbewertung
- Zentrale Steuerung der Rechnungsprozesse ⇒ idealer Startpunkt für Business-Analysen
- Aufzeichnung von API-Nutzungsdaten ⇒ Basis für „API Monetization“
- IoT Maschinendaten sammeln ⇒ erst durch intelligente Aggregation entstehen Ereignisse, die von Business-Applikationen „verstanden“ werden können.
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. Make yourself independent from the manufacturer's consulting capacities and solutions from third-party providers.

**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. Secure communication channels are provided for the individual applications by means of the “fence” components which are installed in the DMZ (demilitarized zone). Timeconsuming 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 the large files. The BIS FX mobile app for Android and iOS are 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 suitable, 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 advantages of Cloud Services

- Form the ideal foundation for easy access to IT resources.
- Offer optimal conditions, in order to support the digitalization strategy of companies.
- Offer preconfigured, standardized, scalable and immediately executable process building blocks with clearly defined interfaces.
- Can often be booked as a self service.
- Meets the requirements of business units for more flexibility and shorter time to market.
- Enables the so-called “old economy” to act with agility.
- Proves itself more and more frequently to be the driver of new and partly disruptive business models.

SEEBURGER Cloud Services

React flexibly, quickly and innovatively to the digital transformation

You can connect your organization with business partners quickly and simply via the SEEBURGER Cloud: Lower your investment cost by moving your digitalization project into the Cloud in part or in whole.

Integration Services

Use the SEEBURGER Cloud for all types of integration (B2B/EDI, API, MFT, E-Invoicing, IoT).

Digital Ecosystem

Use the advantage of an established network for the quick activation of many partners (B2B) to provide API interfaces or to be able to offer portal solutions for partners of all sizes.

Services for business units (Line-of-Business – LoB)

Use the SEEBURGER Cloud standard solutions for specific industries (for example, power industry) or for individual departments (for example, invoice portals).
SEEBURGER Cloud Services

SEEBURGER Cloud Services comprehensively use the SEEBURGER Business Integration Suite as its technology foundation. Profit 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 standards
- Management of machines/systems (“Thing” in the IoT)

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

The SEEBURGER LoB Cloud Services enable this agility for the departments with a large number of immediately available Cloud Services:
- Services for special industries such as the Utility industry
- Incoming invoice portal for E-Invoicing (based on paper/PDF/EDI)
- National E-Invoicing services: SII (Spain), FatturaPA (Italy), Chorus Pro (France), CFDI (Mexico)
- 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

Digital ecosystem
Digital ecosystems emerge for promoting the collaboration of many companies for mutual benefit (economic benefit, innovation, mutual interests) (according to Gartner).

With the SEEBURGER Cloud digital ecosystem, you will primarily benefit from our existing network so that you will be able to more quickly connect with partners, systems and applications (and even “Things” in the future):
- Use our large B2B community to simplify the integration/activation and the support of partners
- Connect yourself with business partners based on APIs using our API Management Portal
- Also work efficiently together with small partners electronically (WebEDI)
- Use our E-Invoicing network options which support all E-Invoicing standards

Cloud certification/security
The following applies to all SEEBURGER Cloud Services:
- ISO 27001 certified data centers in Germany
- ISO 27001 certified and ITIL-based operational procedures
- Services based on our own SEEBURGER Business Integration Suite
- Operation exclusively by our own experts 24/7
- Cloud contracts in accordance with German law and pursuant to the German Federal Data Protection Act (BDSG).
- Globally positioned with our own international service teams

Bereits mehrere Tausend Kunden aus aller Welt vertrauen auf die SEEBURGER Cloud Services.