SEEBURGER
BUSINESS INTEGRATION

SEEBURGER Business Integration Suite (BIS)

Group-Wide Digitalization and Flexible Integration as Strong Basis for Success

ams OSRAM is a global leader in optical solutions. Around 24,000 employees worldwide focus on innovation across sensing, illumination and visualization technology to enable key trends such as digitization, AR/VR, advanced biometrics in smartphones and wearables, automotive mobility, energy efficiency, the meta-verse, Industry 4.0/5.0, digital health, vertical farming.

Designing pioneering optical solutions that inspire customers is what ams OSRAM does best – known for imagination and deep engineering expertise.

As trusted partner serving the entire value chain of optical solutions, ams OSRAM enables customers in the consumer, automotive, industrial and healthcare sectors maintain their competitive edge. The company add intelligence to light and passion to innovation to enrich people's lives.

Real-time and automation as key competitive factors

Speedy, specialized and automated processes are key to efficient manufacturing and digital marketing. IT plays a crucial role here. It is responsible for suitable tools, technologies and services to reliably serve a company's business needs.

ams OSRAM uses the flexible, demand-driven SEEBURGER Business Integration Suite to optimally implement its company-specific processes. The integration and connection of relevant partners, applications and systems offers:

- **Information readily available through real-time integration**
  Up-to-the-minute information like product data from the product catalog or order statuses from the ERP System over API technologies

- **High data quality through preventing redundant data sets**
  Reliable data sources for various consuming systems or applications by synchronous interface technologies

- **Standardization in source systems through configurable interfaces**
  Provisioning of tailored formats and technical communication by partner specific configurations and mappings

About ams OSRAM

The work of ams OSRAM creates technology for breakthrough applications in the automotive, consumer, industrial and medical markets, which is reflected in over 15,000 patents granted and applied. ams OSRAM continually invests in their leading semiconductor expertise and world-class manufacturing network to live up to their reputation of reliably bringing top quality to the world at scale.

Headquartered in Premstaetten/Graz (Austria) with a co-headquarter in Munich (Germany), the ams OSRAM group achieved over EUR 5 billion combined revenues in 2021.

www.ams-osram.com

BIS for all types of business-critical integration demand

As digital integration platform, BIS handles numerous scenarios around integration patterns like API, EAI, EDI or MFT. BIS' modular design allows any other constellation too.

As BIS can deal with any type of format translation, communication technology or security method, it ensures the source and destination systems are compatible without customizing. BIS at ams OSRAM:

- Connects all SAP and various non-SAP systems to enable internal and external use cases, like
  — Status synchronization between MES and SAP systems over several adapters and connectors using EAI/MFT Integration
  — Data exchange between SAP and Oracle Database and Oracle Application Express based microservices
  — Provisioning data from Active Directory (LDAP) for production-relevant permission-activities
  — Time driven retrieval of market data via REST API and distribution to multiple SAP systems via RFC call
- SEEBURGER Cloud Integration Services to connect
  — Business partners via the E-Invoicing-Portal Cloud Service
  — Suppliers via the Supplier Portal Cloud Service (WebEDI)
- API integration of various cloud-based business services
  — Automatic synchronization of internal systems and cloud-based applications in real-time, like SAP SuccessFactors
  — Achieve API readiness for source systems w/o API capabilities

Benefits for ams OSRAM

- **Solution for incompatibilities**
  Combination of any data formats and communication technologies
- **Generic usage of technologies**
  Provisioning integration technologies for anything with no redundancy
- **Central integration library**
  Reusage of a high proportion of existing use cases as templates for new demand
- **High availability**
  BIS Active-Active prevents maintenance windows
- **Separation of critical data**
  Separation of critical data through logical systems based on one BIS
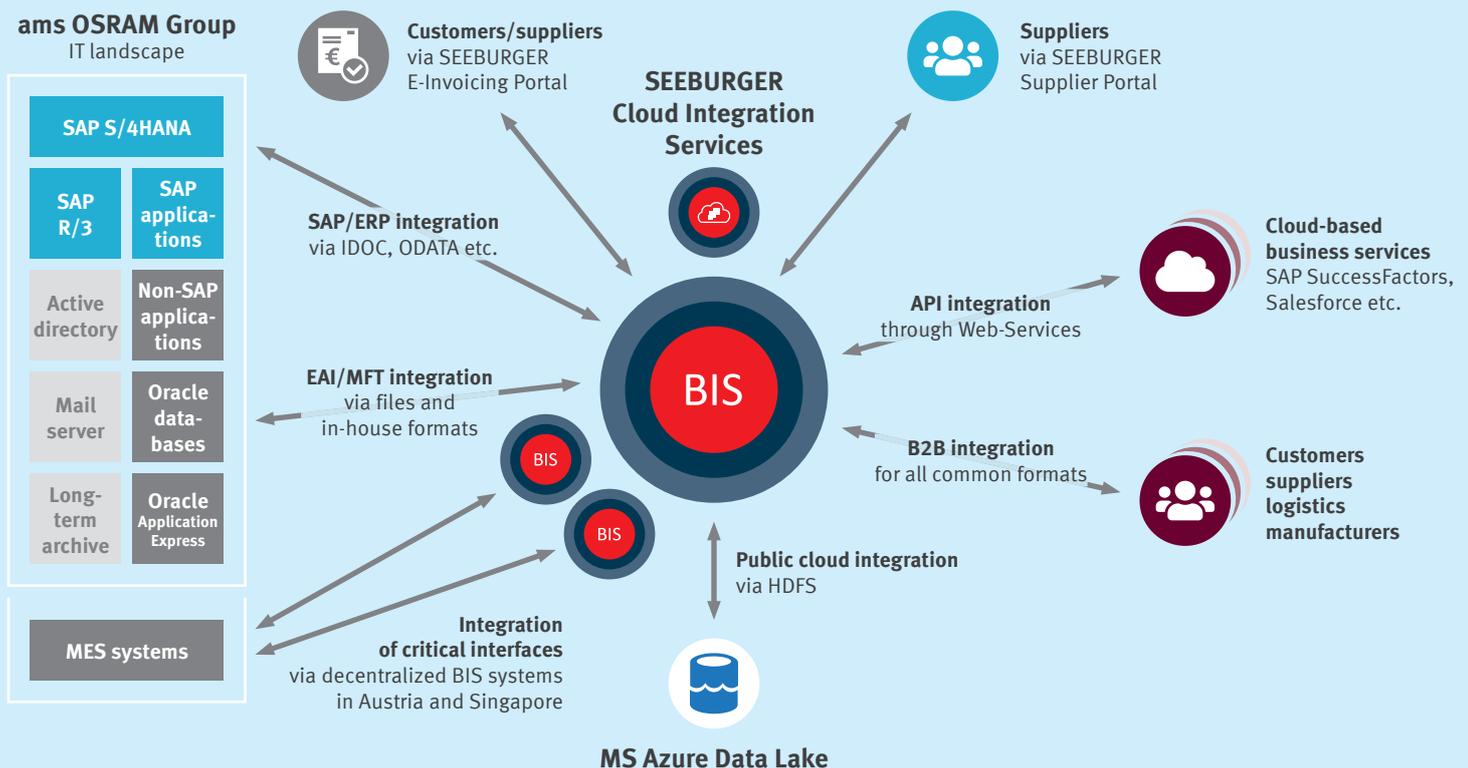- **Adoption to IT landscape**

Figure 1: SEEBURGER BIS is an integration platform to flexibly network any applications, partners, systems and services

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- B2B connections with business partners to reduce workload and processing times
  - EDI: EDIFACT or ANSI.X12 format via AS2, OFTP or VAN
  - API: XML or JSON format via REST or SOAP API
- Connects with the Microsoft Azure public cloud for analyzing purposes via Power BI
  - Data lake ingestion from several sources/technologies
  - Transmission to the data lake via an HDFS adapter

> " *Integration contributes significantly to the performance of modern IT landscapes. As applications become more specialized & services more distributed, integration moves further into focus, to guarantee highly integrated systems without having to duplicate data.*
>
> *More than ever, integration must be flexible, fast and user-friendly.* "
>
> *Dr. Marcus Harrich, CIO, ams OSRAM AG*

Real-time integration and automation to support business processes

Interfaces in real-time w/o redundancy
Due to use of numerous services, systems and applications, it is necessary to provide data from one data set in various data formats or communication technologies and security methods.

The BIS platform bridges technical difficulties and focuses on the business side of the process:

- **Provides product information:**
  API call with access management
- **Integration of web shops:**
  Transfers master data and exchanges order information (creation, status)
- **Integration of MES systems:**
  Exchanges order and status information with SAP and non-SAP applications
- **Fetch tracking information:**
  Extension of deliveries by status information from external APIs provided by logistics service providers
- **Provides quality data:**
  Retrieves and receives quality data including instant distribution to other systems

Automation as a performance booster
More and more use cases require short processing times, sometimes just milliseconds. This is necessary, for example, to provide users of web applications with a positive user experience.

For each interface the greatest possible level of automation must be picked:

- **Full automation:**
  Necessary work steps are bundled in one interface
- **Cross technology combinations:**
  On technical incompatibility, the interface contains various technologies
- **Event-driven processing:**
  Data is provided upon creation or called on demand
- **Scheduled processing:**
  Data is provided based on a scheduler with time series
- **Generic extensions:**
  Data is automatically passed to long term archive or data lake for data analytics using Power BI. Error messages are automatically forwarded to relevant business departments

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Tailored apps for administration, monitoring and checking business processes

The Business Integration Suite supports an uninterrupted 24/7 operation of the platform and all the integrations running on it – even during BIS maintenance. Along with that it is necessary, to serve user inquiries 24/7.

Specialized BIS apps mean users can help themselves and do not have to rely on IT support for standard use cases. Among others, the following apps are available to various groups as standard:

Business Users

- **Message Tracking:** Quick access to business information exchanged
- **Community Management:** Manual data transfer for (re)processing via file upload and permission requests using Self-Services
- **Alerting:** Automatic alerts on business-related errors

Power User
(Citizen Integrator)

- **API Manager:** Setup APIs based on standardized policies
- **API Monitor:** Statistics and monitoring of API calls
- **Community Management:** Guided instructions (for example setting up communication protocols) with configurable Self-Services

IT Users
(Integration Specialist)

- **API Catalog:** Access to descriptions and access requests for APIs
- **Mapping Designer:** Format translations – in the simplest case by "drag and drop"
- **Move-to-Production:** Transports productive configurations between multi-stage BIS land-scapes
- **Masterdata Navigator:** Set up integrations by selecting appropriate modules

IT Administrators

- **Landscape Manager:** Central administration of the BIS landscape
- **Process Monitor:** Monitoring all interfaces and processes
- **Developer Studio:** Create specific process solutions
- **Optional:** Automatically send data to long term archive as per regulations

At ams OSRAM, several user groups rely on the BIS apps for administration and monitoring of the business processes based on a flexible permissions concept. This means that for example both site-based production IT teams and a central 24/7 IT monitoring team can benefit from the BIS apps.

> *Integration of all applications, partners, systems and services into your existing IT landscape can be handled quickly and easily at any time with the standardized and flexible SEEBURGER BIS platform.*
>
> *Specifically combining existing and new scenarios, on-premises or in the cloud, becomes a routine activity instead of a challenge with BIS.*
>
> Oliver Rupprecht, IT Integration Team, OSRAM GmbH