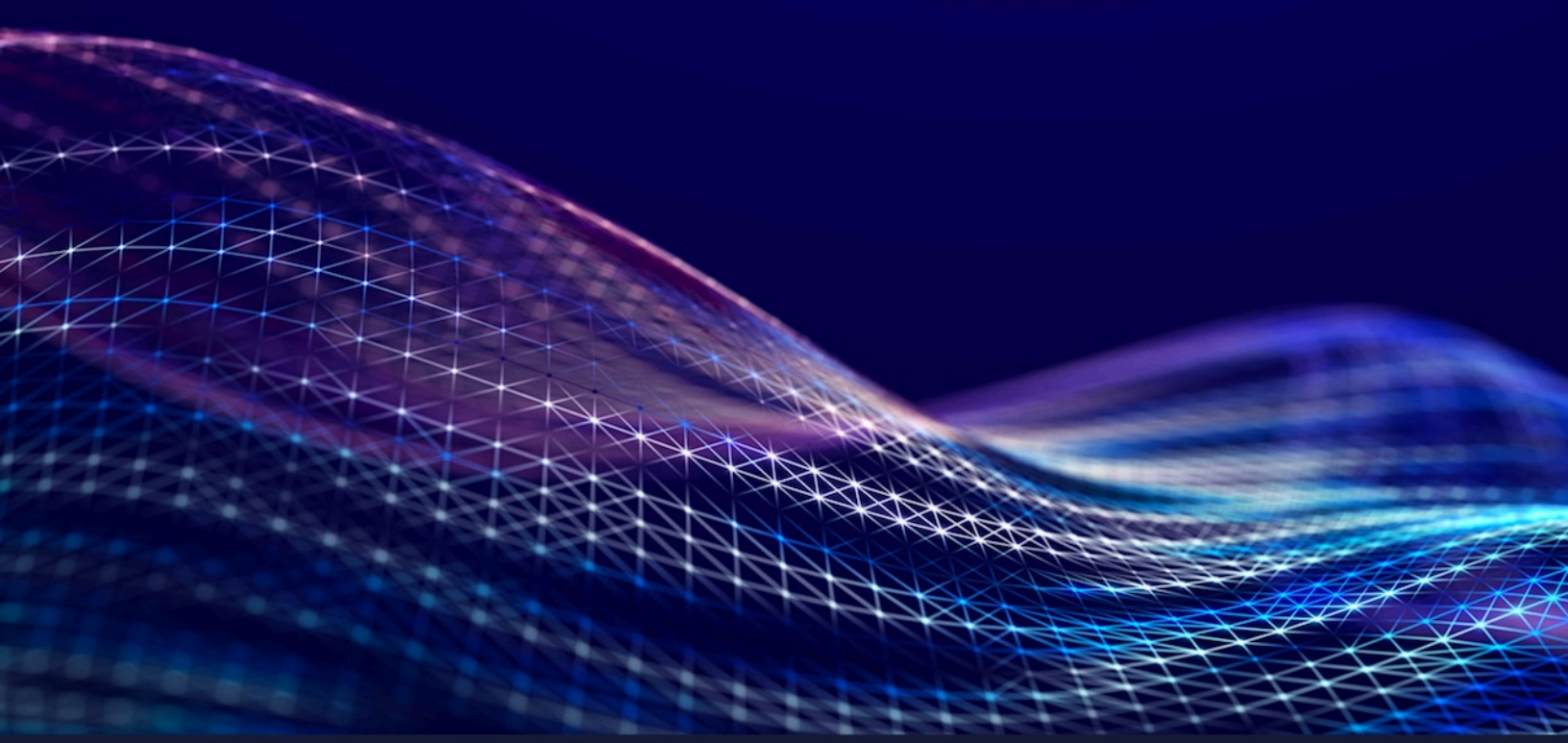

Tungsten e-Invoice Connect
Technical Specifications

Version: 2025.1

Date: 2024-12-03

TUNGSTEN AUTOMATION

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Document revision history

Date	Revision	Description
March 24, 2021	1.0	Initial version

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Chapter 1

About this document

This document provides technical specifications for Tungsten e-Invoice Connect 3.6.0.

Invoice Portal is a cloud service for sending and receiving electronic invoices. For users, this means that the product does not need to be installed on their computer. They can access Tungsten e-Invoice Connect online at either of the following addresses:

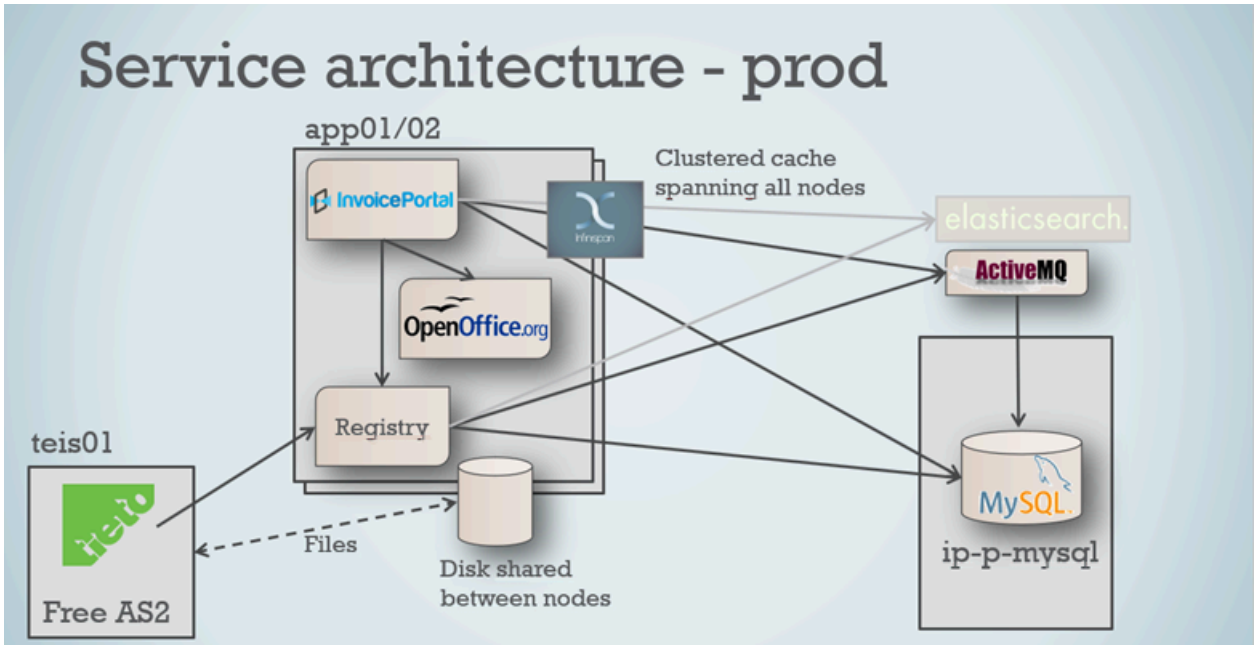
- web.invoiceportal.net
- web.fakturaportalen.se

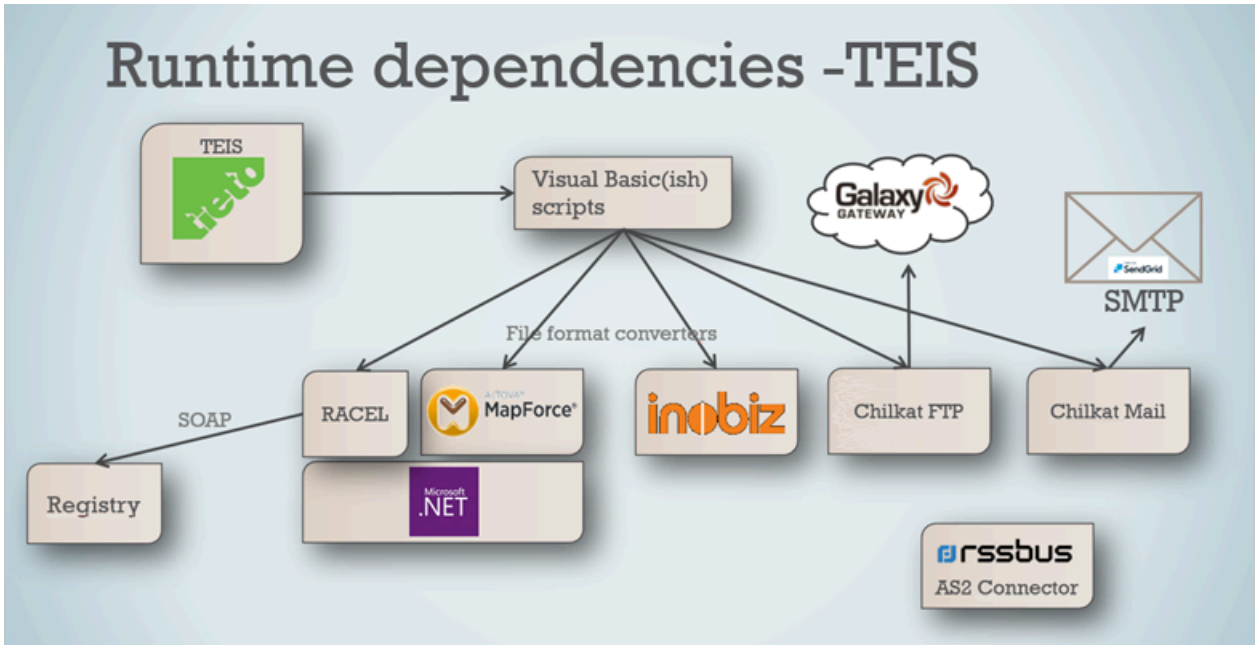
System architecture

The system consists of two major parts:

- The production environment that includes the application server cluster and a database
- The integration service, an ESB named TEIS (which stands for Tieto Enterprise Integration Service), which is a third-party proprietary product

See diagrams on the next page.




Runtime dependencies -TEIS
TEIS
Visual Basic(ish) scripts
Galaxy GATEWAY
SMTP
File format converters
SOAP
RACEL
MapForce
inobiz
Chilkat FTP
Chilkat Mail
Registry
.NET
rssbus
AS2 Connector

Chapter 2

Product requirements

Application/Web Server cluster

Specification	Description
Hardware (Azure)	• 16 GB of RAM for any VM node in cluster • 4 multicore server CPUs per node • 50 GB of disk space per node • 5 TB of disk space for a shared disk (x1)
Azure Services	• BLOB Storage to store 2 TB volume of binary data • SendGrid as an SMTP relay service • Main storage account for 125 GB volume of DB data • Backup storage account for 100 GB volume of DB data • Backup storage account for 1.5 TB volume of app data • Azure virtual machines to run ActiveMQ (x2) • Azure virtual machines to run Elasticsearch (x3) • VPN service • Azure Application Gateway
Accessibility	N/A
Browser	• Microsoft Edge • Mozilla Firefox • Google Chrome
Mobile Operating System	N/A
Client Operating System	N/A
Server Operating System	CentOS 8.2
Web Server/Web Application Server	• Resin 4.0.65 • Nginx 1.16.x

Specification	Description
DBMS	Azure Database for MySQL, engine version 5.6
Required Third-Party Technologies	• Java 8 (OpenJDK) • Spring 5.2 • Hibernate 5.4 • Elasticsearch 7.8 • Active MQ 5.8 • PrimeFaces 7.0 • Infinispan 6.0 • Quartz 2.3 • Apache FOP 2.5 • LibreOffice 6.1.4
Compatible Third-Party Technologies	N/A
Required Tungsten Automation Software	N/A
Compatible Tungsten Automation Software	N/A
Supported languages	• Danish • English • French • German • Norwegian • Swedish

TEIS (Integration Service, ESB) single machine

Specification	Description
Hardware	• 8 Core Intel ® Xeon ® Platinum CPU (or other from Dsv3-series) • 32 GB RAM • 1 TB disk
Accessibility	N/A
Browser	N/A
Mobile Operating System	N/A
Client Operating System	N/A
Server Operating Systems	Windows Server 2012 R2 Datacenter
Web Server/Web Application Server	N/A

Specification	Description
DBMS	N/A
Required Third-Party Technologies	• .NET Framework 4.5.2 • AS2 Connector 3.x • Chilkat FTP 9.x • Chilkat Mail 9.x
Compatible Third-Party Technologies	N/A
Required Tungsten Automation Software	N/A
Compatible Tungsten Automation Software	N/A
Supported Languages	English