GUIDO DIRR

SENIOR SOFTWARE ENGINEER

BASEL - SWITZERLAND

KEY AREAS OF EXPERTISE

INTERFACE PROGRAMMER
Integration of ServiceNow, Remedy, and SAP via REST/SOAP APIs, **SQL**, and Kafka Data Streaming. Development of interfaces to **automate** and ensure data transmission through monitoring and alerting systems.

C# DEVELOPMENT
Development of complex **multi-layer** applications in **C#** with a focus on **.NET Core** web and **API** development. Implementation of modern DevOps principles such as CI/CD pipelines and workflow automation.

MS SQL SERVER SPECIALIST
Optimization of MS SQL Server environments through query tuning, index optimization, and data process automation. Development of **high-performance** database **solutions** for analysis and reporting.

FULL STACK WEB DEVELOPMENT
Development of scalable web applications using **ASP.NET** and **Angular**. Focus on performance, user-friendliness, and modern architectures like MVC and Microservices.

AI ENTHUSIAST
Certified Microsoft Azure **AI Solution Designer**. Development of innovative AI-based solutions using **Python** and C#. **Prompt Engineering** professional.

PROJECTS OVERVIEW

Guido Dirr - Architecture and Implementation

SCHEDULER
WindowsService.NET / ASP.NET / WinForms

TRA – TRANSFER APPLICATION
WinService C# / ANGULAR

ASSET & INVENTORY SOLUTION
ASP.NET / ANGULAR / C# Agents / .NET API / SQL

KAFKA CONSUMER AND PRODUCER
Python / .NET API / SQL

SELENIUM ROBOTS
WinForms C# / Python / Selenium

SHAREAPP
WinForms / .NET API / SignalR

APIMAN
C# Agent / SQL / JSON / XML

DATABASE VARIANCE TOOL
SQL / ETL / ASP.NET

SQL DEPLOYER
C# Agent / SQL

SCHEDULER

WindowsService.NET / ASP.NET / WinForms

Asynchronous Task Execution
Execute Windows commands, PowerShell scripts, SQL stored procedures, and specialized tools (e.g., data loads, report rendering) across multi-server environments.

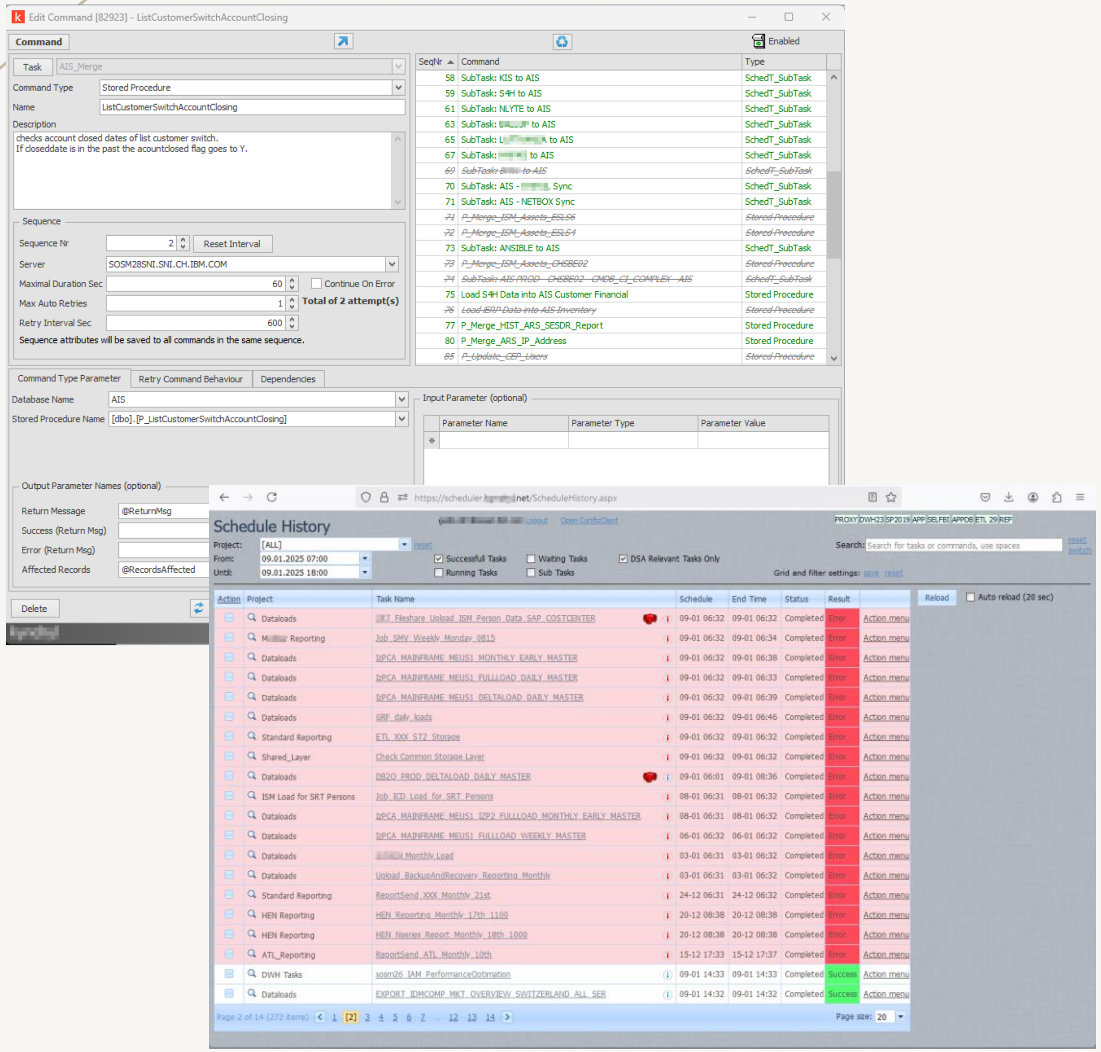
Multi-Server Task Coordination
Sequentially execute tasks, e.g., run Command 1 on Server X, then Command 2 on Server Y.

Dependency System
Ensure proper workflow by triggering reports only after successful data loads.

Self-Healing Automation
Automatically resolve the entire task chain when a failed data load is successfully retried.

Comprehensive Monitoring & Assignment
Web-based dashboard to search, filter, resolve, and edit tasks. Add comments, mass-resolve issues, and assign tasks to teams or individuals.

SCHEDULER



Edit Command [82923] - ListCustomerSwitchAccountClosing

Command

Task	AIS_Merge
Command Type	Stored Procedure
Name	ListCustomerSwitchAccountClosing

Description

checks account closed dates of list customer switch.
If closeddate is in the past the acountclosed flag goes to Y.

Sequence

Sequence Nr	2	Reset Interval
Server	SOSM28SNI.SNI.CH.IBM.COM	
Maximal Duration Sec	60	□ Continue On Error
Max Auto Retries	1	**Total of 2 attempt(s)**
Retry Interval Sec	600	

Sequence attributes will be saved to all commands in the same sequence.

Enabled

SeqNr	Command	Type
58	SubTask: KIS to AIS	SchedT_SubTask
59	SubTask: S4H to AIS	SchedT_SubTask
61	SubTask: NLYTE to AIS	SchedT_SubTask
63	SubTask: [redacted] to AIS	SchedT_SubTask
65	SubTask: L[redacted] to AIS	SchedT_SubTask
67	SubTask: [redacted] to AIS	SchedT_SubTask
~~69~~	~~SubTask: [redacted] to AIS~~	~~SchedT_SubTask~~
70	SubTask: AIS - [redacted]. Sync	SchedT_SubTask
71	SubTask: AIS - NETBOX Sync	SchedT_SubTask
~~71~~	~~P_Merge_ISM_Assets_ESLS6~~	~~Stored Procedure~~
~~72~~	~~P_Merge_ISM_Assets_ESLS4~~	~~Stored Procedure~~
73	SubTask: ANSIBLE to AIS	SchedT_SubTask
~~73~~	~~P_Merge_ISM_Assets_CHSBE02~~	~~Stored Procedure~~
~~74~~	~~SubTask: AIS PROD - CHSBE02 - CMDB_CI_COMPLEX - AIS~~	~~SchedT_SubTask~~
75	Load S4H Data into AIS Customer Financial	Stored Procedure
~~76~~	~~Load iERP Data into AIS Inventory~~	~~Stored Procedure~~
77	P_Merge_HIST_ARS_SESDR_Report	Stored Procedure
80	P_Merge_ARS_IP_Address	Stored Procedure
~~85~~	~~P_Update_CEP_Users~~	~~Stored Procedure~~

Database Name	AIS
Stored Procedure Name	[dbo].[P_ListCustomerSwitchAccountClosing]

Input Parameter (optional)

Parameter Name	Parameter Type	Parameter Value

Output Parameter Names (optional)

Return Message	@ReturnMsg
Success (Return Msg)	
Error (Return Msg)	
Affected Records	@RecordsAffected

https://scheduler.[redacted]net/ScheduleHistory.aspx

Schedule History

[redacted] Logout Open ConfigClient

PROXY DWH23 SP2019 APP SELFBI APPDB ETL 29 REP

Project:	[ALL] reset
From:	09.01.2025 07:00
Until:	09.01.2025 18:00

☑ Successfull Tasks □ Waiting Tasks ☑ DSA Relevant Tasks Only
□ Running Tasks □ Sub Tasks

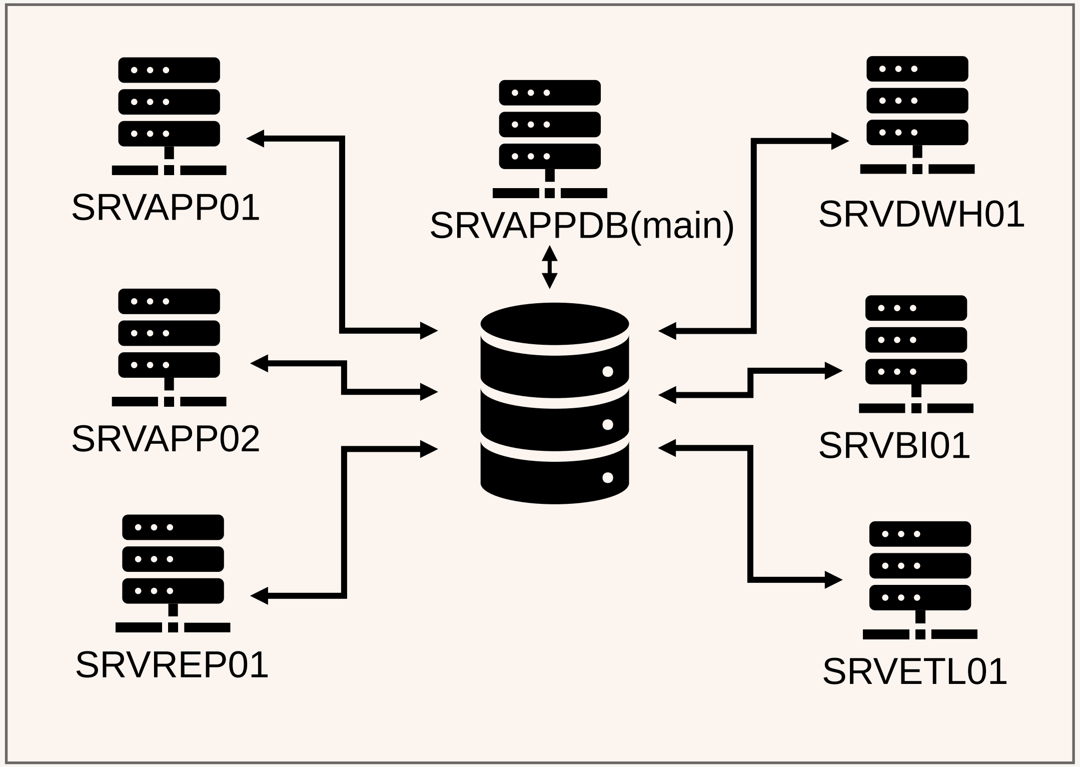
Search: Search for tasks or commands, use spaces reset switch

Grid and filter settings: save reset

Reload □ Auto reload (20 sec)

Action	Project	Task Name	Schedule	End Time	Status	Result	
	Dataloads	[redacted]T_Fileshare_Upload_ISM_Person_Data_SAP_COSTCENTER	09-01 06:32	09-01 06:32	Completed	Error	Action menu
	M[redacted]r Reporting	Job_SMV_Weekly_Monday_0815	09-01 06:32	09-01 06:34	Completed	Error	Action menu
	Dataloads	IzPCA_MAINFRAME_MEUS1_MONTHLY_EARLY_MASTER	09-01 06:32	09-01 06:38	Completed	Error	Action menu
	Dataloads	IzPCA_MAINFRAME_MEUS1_FULLLOAD_DAILY_MASTER	09-01 06:32	09-01 06:33	Completed	Error	Action menu
	Dataloads	IzPCA_MAINFRAME_MEUS1_DELTALOAD_DAILY_MASTER	09-01 06:32	09-01 06:39	Completed	Error	Action menu
	Dataloads	GRF_daily_loads	09-01 06:32	09-01 06:46	Completed	Error	Action menu
	Standard Reporting	ETL_XXX_ST2_Storage	09-01 06:32	09-01 06:32	Completed	Error	Action menu
	Shared_Layer	Check Common Storage Layer	09-01 06:32	09-01 06:32	Completed	Error	Action menu
	Dataloads	DB2O_PROD_DELTALOAD_DAILY_MASTER	09-01 06:01	09-01 08:36	Completed	Error	Action menu
	ISM Load for SRT Persons	Job_ICD_Load_for_SRT_Persons	08-01 06:31	08-01 06:32	Completed	Error	Action menu
	Dataloads	IzPCA_MAINFRAME_MEUS1_IZP2_FULLLOAD_MONTHLY_EARLY_MASTER	08-01 06:31	08-01 06:32	Completed	Error	Action menu
	Dataloads	IzPCA_MAINFRAME_MEUS1_FULLLOAD_WEEKLY_MASTER	06-01 06:32	06-01 06:32	Completed	Error	Action menu
	Dataloads	[redacted] Monthly Load	03-01 06:31	03-01 06:32	Completed	Error	Action menu
	Dataloads	Upload_BackupAndRecovery_Reporting_Monthly	03-01 06:31	03-01 06:32	Completed	Error	Action menu
	Standard Reporting	ReportSend_XXX_Monthly_21st	24-12 06:31	24-12 06:32	Completed	Error	Action menu
	HEN Reporting	HEN_Reporting_Monthly_17th_1100	20-12 08:38	20-12 08:38	Completed	Error	Action menu
	HEN Reporting	HEN_Nseries_Report_Monthly_18th_1000	20-12 08:38	20-12 08:38	Completed	Error	Action menu
	ATL_Reporting	ReportSend_ATL_Monthly_10th	15-12 17:33	15-12 17:37	Completed	Error	Action menu
	DWH Tasks	sosm26_IAM_PerformanceOptimation	09-01 14:33	09-01 14:33	Completed	Success	Action menu
	Dataloads	EXPORT_IDMCOMP_MKT_OVERVIEW_SWITZERLAND_ALL_SER	09-01 14:32	09-01 14:32	Completed	Success	Action menu

Page 2 of 14 (272 items) < 1 [2] 3 4 5 6 7 ... 12 13 14 > Page size: 20



TRA – TRANSFER APPLICATION

WinService C# / ANGULAR

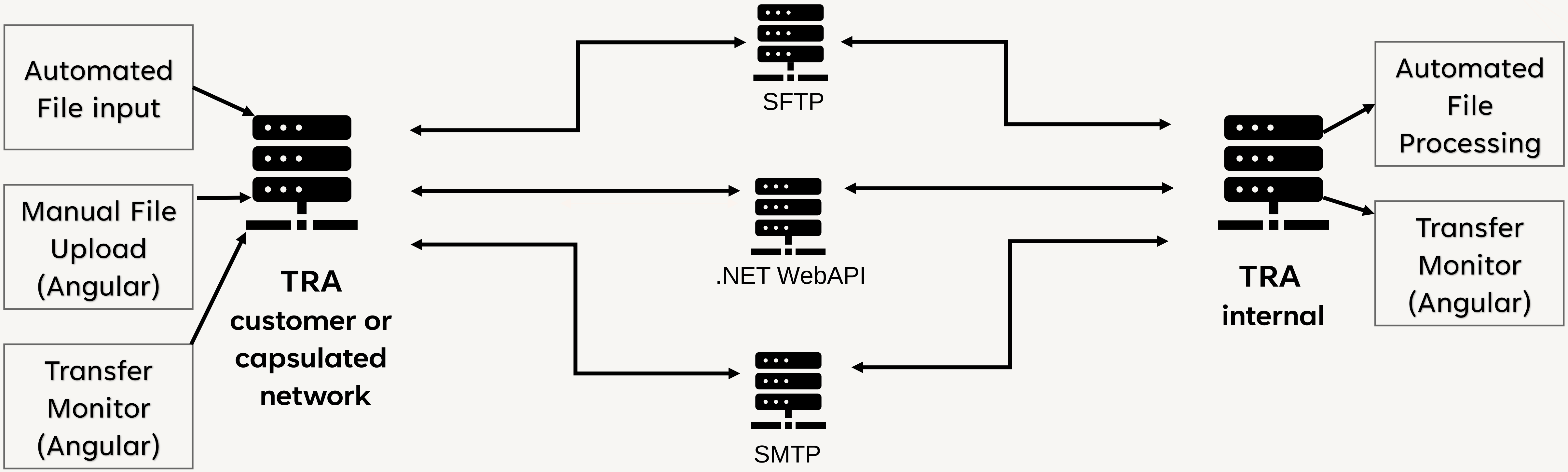
Automated Data Transfers
Built with C# for seamless data exchange between customer and internal isolated networks.

Efficient File Handling
Files, regardless of size, are chunked, encrypted, and transferred securely.
The receiving TRA instance reassembles the file based on metadata and triggers follow-up tasks if configured.

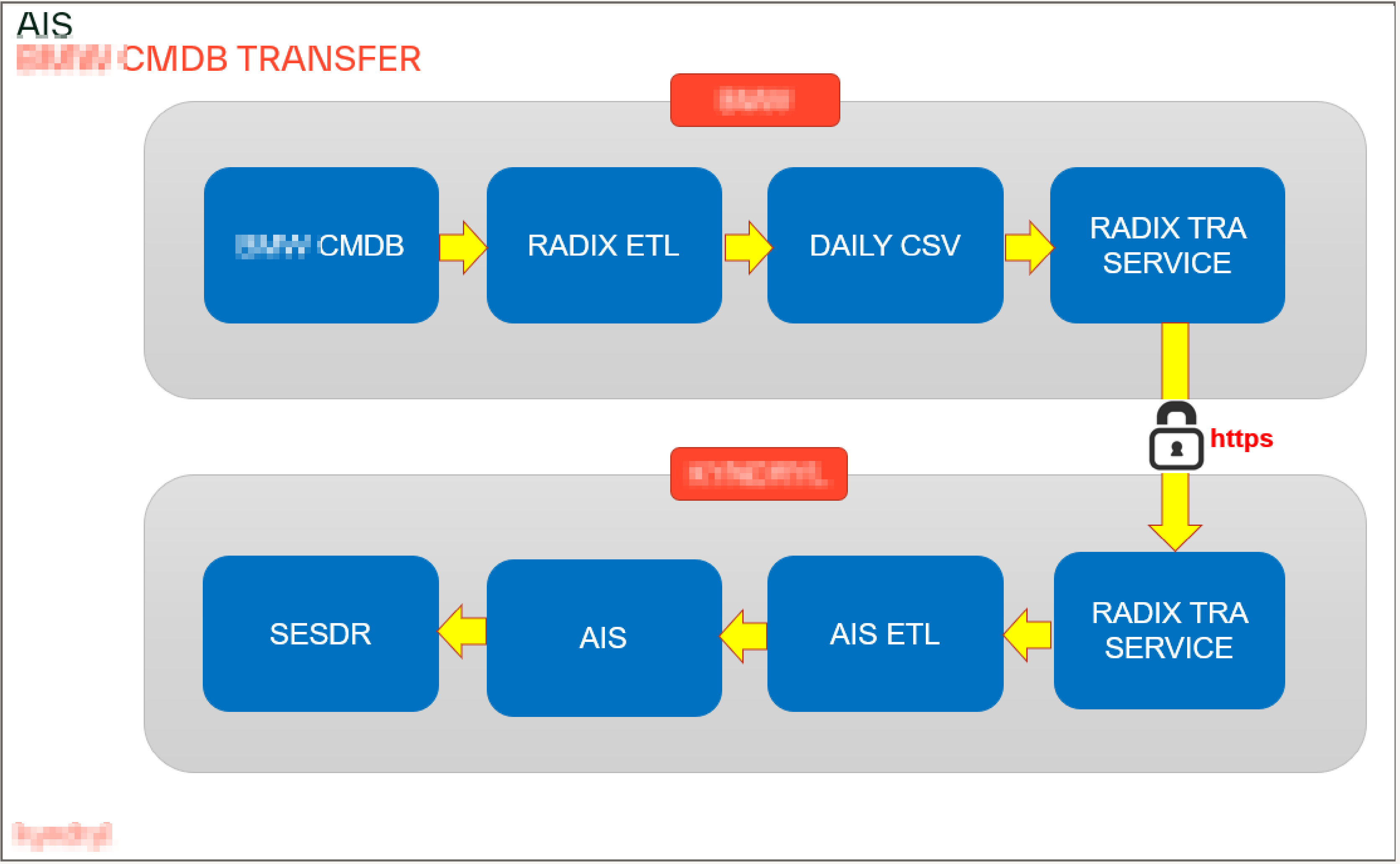
Flexible Protocols
Supports SFTP, WebAPI, and SMTP for versatile file transfer.

User-Friendly Monitoring
Angular-based UI for real-time monitoring of file transfers.
Manual file uploads can be initiated via the Angular app and processed by the TRA service.

TRA – TRANSFER APPLICATION


Automated File input
Manual File Upload (Angular)
Transfer Monitor (Angular)
TRA customer or capsulated network
SFTP
.NET WebAPI
SMTP
TRA internal
Automated File Processing
Transfer Monitor (Angular)

TRA EXAMPLE
-CUSTOMER CMDB PROCESSING -



AIS

[redacted] CMDB TRANSFER

[redacted]

[redacted] CMDB → RADIX ETL → DAILY CSV → RADIX TRA SERVICE

https

[redacted]

RADIX TRA SERVICE → AIS ETL → AIS → SESDR

[redacted]

Radix ETL automatically fetches the newest CMDB data daily, creates a CSV file, hands it over to the TRA service, it is picked up and handed over to the internal TRA instance over the internet, when the transfer is done, a task is automatically triggered to process the file and import it into AIS where it is enriched from other systems and rules and from there automatically transferred to SESDR system.

AIS – ASSET & INVENTORY SOLUTION

ASP.NET / ANGULAR / C# Agents / .NET API / SQL

Customer Management
Manages over 300 customers with robust integration capabilities for seamless data inflow and outflow.

Modern User Interface
Dynamic ASP.NET DevExpress UI as well as Angular components for a responsive and user-friendly experience.

Advanced Data Validation
Rule-based Data Validation Engine enabling automatic corrections or manual interventions through team assignments.

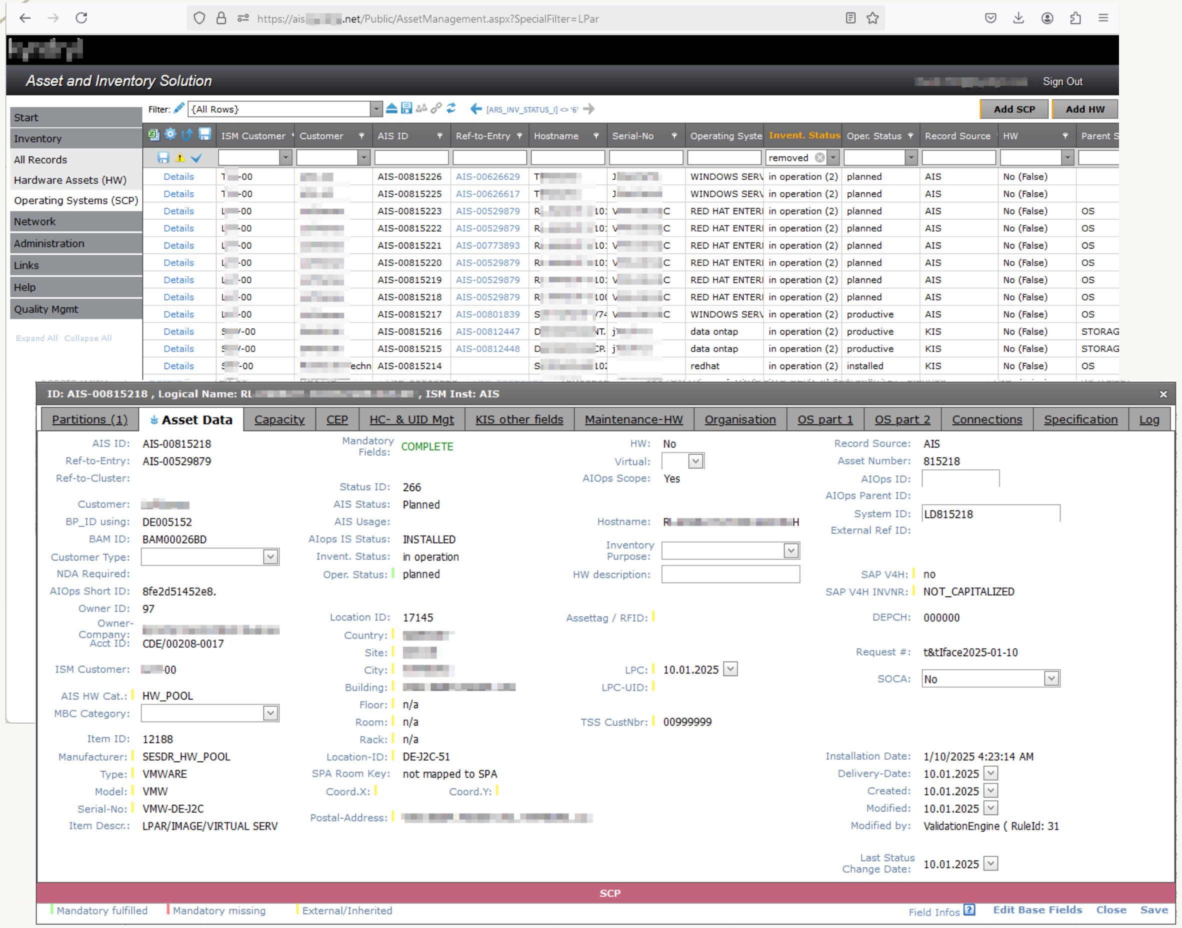
Flexible System Integration
.NET Web API for smooth interaction with systems like Ansible, supporting both data producers and consumers.

Dynamic Data Loading
Fully automated XLS/X-to-SQL web mass loader with ASP.NET, complete with post-load procedure triggers.

Automated Console Agents
Scheduled C# Console Agents for efficient data integration and validation processes.

AIS – ASSET & INVENTORY SOLUTION

ASP.NET DevExpress



https://ais[redacted].net/Public/AssetManagement.aspx?SpecialFilter=LPar

[redacted]

Asset and Inventory Solution [redacted] Sign Out

Filter: {All Rows} [ARS_INV_STATUS_I] <> '6'

	ISM Customer	Customer	AIS ID	Ref-to-Entry	Hostname	Serial-No	Operating Syste	Invent. Status	Oper. Status	Record Source	HW	Parent S
								removed				
Details	T[redacted]-00	[redacted]	AIS-00815226	AIS-00626629	T[redacted]	J[redacted]	WINDOWS SER\	in operation (2)	planned	AIS	No (False)	
Details	T[redacted]-00	[redacted]	AIS-00815225	AIS-00626617	T[redacted]	J[redacted]	WINDOWS SER\	in operation (2)	planned	AIS	No (False)	
Details	L[redacted]-00	[redacted]	AIS-00815223	AIS-00529879	R[redacted]10:	V[redacted]C	RED HAT ENTERI	in operation (2)	planned	AIS	No (False)	OS
Details	L[redacted]-00	[redacted]	AIS-00815222	AIS-00529879	R[redacted]10:	V[redacted]C	RED HAT ENTERI	in operation (2)	planned	AIS	No (False)	OS
Details	L[redacted]-00	[redacted]	AIS-00815221	AIS-00773893	R[redacted]10:	V[redacted]C	RED HAT ENTERI	in operation (2)	planned	AIS	No (False)	OS
Details	L[redacted]-00	[redacted]	AIS-00815220	AIS-00529879	R[redacted]10:	V[redacted]C	RED HAT ENTERI	in operation (2)	planned	AIS	No (False)	OS
Details	L[redacted]-00	[redacted]	AIS-00815219	AIS-00529879	R[redacted]10:	V[redacted]C	RED HAT ENTERI	in operation (2)	planned	AIS	No (False)	OS
Details	L[redacted]-00	[redacted]	AIS-00815218	AIS-00529879	R[redacted]10(	V[redacted]C	RED HAT ENTERI	in operation (2)	planned	AIS	No (False)	OS
Details	L[redacted]-00	[redacted]	AIS-00815217	AIS-00801839	S[redacted]/74	V[redacted]C	WINDOWS SER\	in operation (2)	productive	AIS	No (False)	OS
Details	S[redacted]/-00	[redacted]	AIS-00815216	AIS-00812447	D[redacted]NT.	j[redacted]	data ontap	in operation (2)	productive	KIS	No (False)	STORAG
Details	S[redacted]/-00	[redacted]	AIS-00815215	AIS-00812448	D[redacted]CP.	j[redacted]	data ontap	in operation (2)	productive	KIS	No (False)	STORAG
Details	S[redacted]-00	[redacted]echn	AIS-00815214		S[redacted]10:		redhat	in operation (2)	installed	KIS	No (False)	OS

ID: AIS-00815218 , Logical Name: RL[redacted] , ISM Inst: AIS

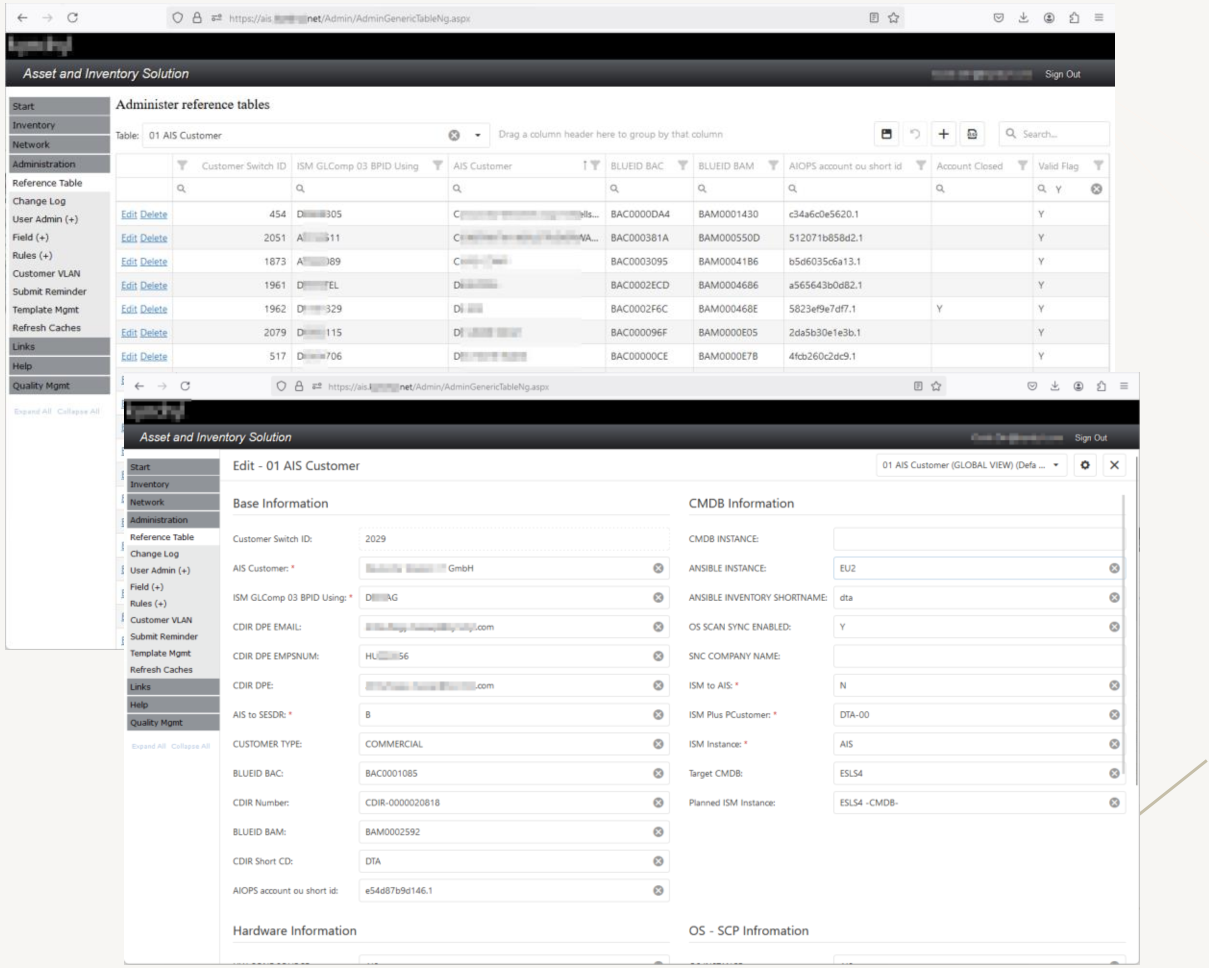
AIS ID: AIS-00815218
Ref-to-Entry: AIS-00529879
Ref-to-Cluster:
Customer: [redacted]
BP_ID using: DE005152
BAM ID: BAM00026BD
Customer Type:
NDA Required:
AIOps Short ID: 8fe2d51452e8.
Owner ID: 97
Owner-Company: [redacted]
Acct ID: CDE/00208-0017
ISM Customer: [redacted]00
AIS HW Cat.: HW_POOL
MBC Category:
Item ID: 12188
Manufacturer: SESDR_HW_POOL
Type: VMWARE
Model: VMW
Serial-No: VMW-DE-J2C
Item Descr.: LPAR/IMAGE/VIRTUAL SERV

Mandatory Fields: COMPLETE
Status ID: 266
AIS Status: Planned
AIS Usage:
AIops IS Status: INSTALLED
Invent. Status: in operation
Oper. Status: planned
Location ID: 17145
Country: [redacted]
Site: [redacted]
City: [redacted]
Building: [redacted]
Floor: n/a
Room: n/a
Rack: n/a
Location-ID: DE-J2C-51
SPA Room Key: not mapped to SPA
Coord.X: Coord.Y:
Postal-Address: [redacted]

HW: No
Virtual:
AIOps Scope: Yes
Hostname: R[redacted]H
Inventory Purpose:
HW description:
Assettag / RFID:
LPC: 10.01.2025
LPC-UID:
TSS CustNbr: 00999999

Record Source: AIS
Asset Number: 815218
AIOps ID:
AIOps Parent ID:
System ID: LD815218
External Ref ID:
SAP V4H: no
SAP V4H INVNR: NOT_CAPITALIZED
DEPCH: 000000
Request #: t&tIface2025-01-10
SOCA: No
Installation Date: 1/10/2025 4:23:14 AM
Delivery-Date: 10.01.2025
Created: 10.01.2025
Modified: 10.01.2025
Modified by: ValidationEngine (RuleId: 31
Last Status Change Date: 10.01.2025

Angular



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[redacted]

Asset and Inventory Solution [redacted] Sign Out

Administer reference tables

Table: 01 AIS Customer

Drag a column header here to group by that column

	Customer Switch ID	ISM GLComp 03 BPID Using	AIS Customer	BLUEID BAC	BLUEID BAM	AIOPS account ou short id	Account Closed	Valid Flag
								Y
Edit Delete	454	D[redacted]305	C[redacted]ells...	BAC0000DA4	BAM0001430	c34a6c0e5620.1		Y
Edit Delete	2051	A[redacted]11	C[redacted]VA...	BAC000381A	BAM000550D	512071b858d2.1		Y
Edit Delete	1873	A[redacted]89	C[redacted]	BAC0003095	BAM00041B6	b5d6035c6a13.1		Y
Edit Delete	1961	D[redacted]TEL	D[redacted]	BAC0002ECD	BAM0004686	a565643b0d82.1		Y
Edit Delete	1962	D[redacted]329	D[redacted]	BAC0002F6C	BAM000468E	5823ef9e7df7.1	Y	Y
Edit Delete	2079	D[redacted]115	D[redacted]	BAC000096F	BAM0000E05	2da5b30e1e3b.1		Y
Edit Delete	517	D[redacted]706	D[redacted]	BAC00000CE	BAM0000E7B	4fcb260c2dc9.1		Y

https://ais.[redacted]net/Admin/AdminGenericTableNg.aspx

[redacted]

Asset and Inventory Solution [redacted] Sign Out

Edit - 01 AIS Customer

01 AIS Customer (GLOBAL VIEW) (Defa ...

Base Information

Customer Switch ID: 2029
AIS Customer: * [redacted] GmbH
ISM GLComp 03 BPID Using: * D[redacted]AG
CDIR DPE EMAIL: [redacted].com
CDIR DPE EMPSNUM: HU[redacted]56
CDIR DPE: [redacted].com
AIS to SESDR: * B
CUSTOMER TYPE: COMMERCIAL
BLUEID BAC: BAC0001085
CDIR Number: CDIR-0000020818
BLUEID BAM: BAM0002592
CDIR Short CD: DTA
AIOPS account ou short id: e54d87b9d146.1

CMDB Information

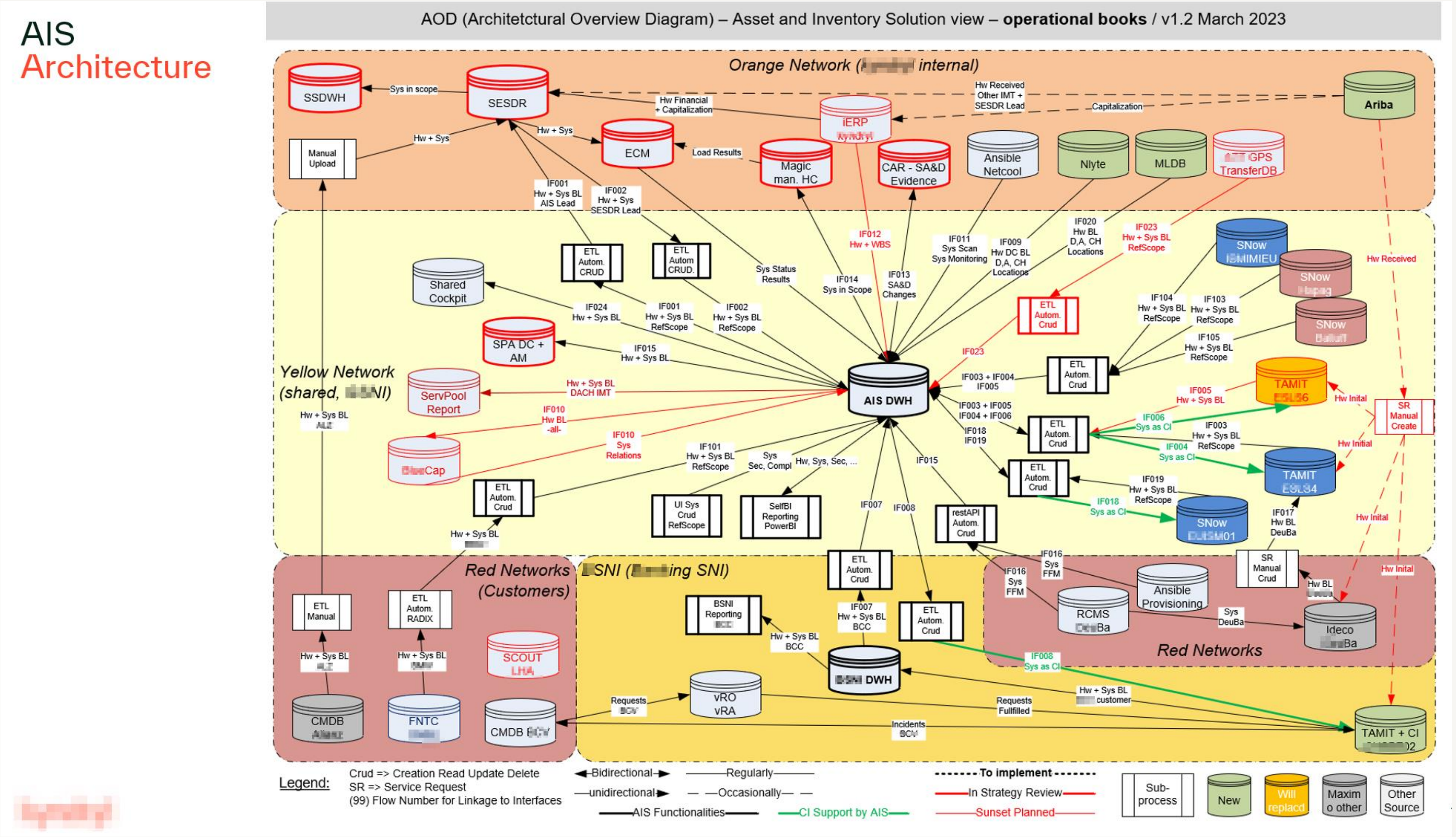
CMDB INSTANCE:
ANSIBLE INSTANCE: EU2
ANSIBLE INVENTORY SHORTNAME: dta
OS SCAN SYNC ENABLED: Y
SNC COMPANY NAME:
ISM to AIS: * N
ISM Plus PCustomer: * DTA-00
ISM Instance: * AIS
Target CMDB: ESLS4
Planned ISM Instance: ESLS4 -CMDB-

Hardware Information

OS - SCP Infromation

AIS – ASSET & INVENTORY SOLUTION

Massive Data Integration Layer for integration with Systems like ServiceNow and IBM Control Desk.



KAFKA CONSUMER AND PRODUCER

Python / .NET API / SQL

Community Engineering CERTIFIED

Python-Based Integration

Developed two Python applications (consumer and producer) to interface with the AIOps system using Kafka streams for seamless data input and output.

High Availability and Reliability

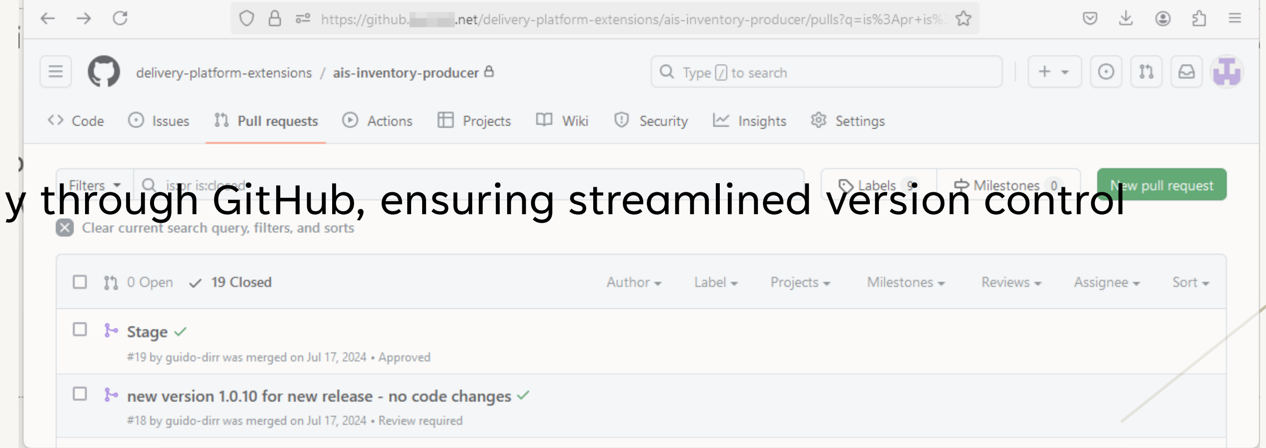
CE-certified Python applications run as Kubernetes containers 24/7 on a remote system, ensuring error-free operation and continuous data consumption for over 6 months.

.NET Web API

Facilitates seamless integration with the source application for enhanced data exchange and interoperability.

DevOps Best Practices

Source code and deployment managed efficiently through GitHub, ensuring streamlined version control and CI/CD pipelines.



https://github.[redacted].net/delivery-platform-extensions/ais-inventory-producer/pulls?q=is%3Apr+is%

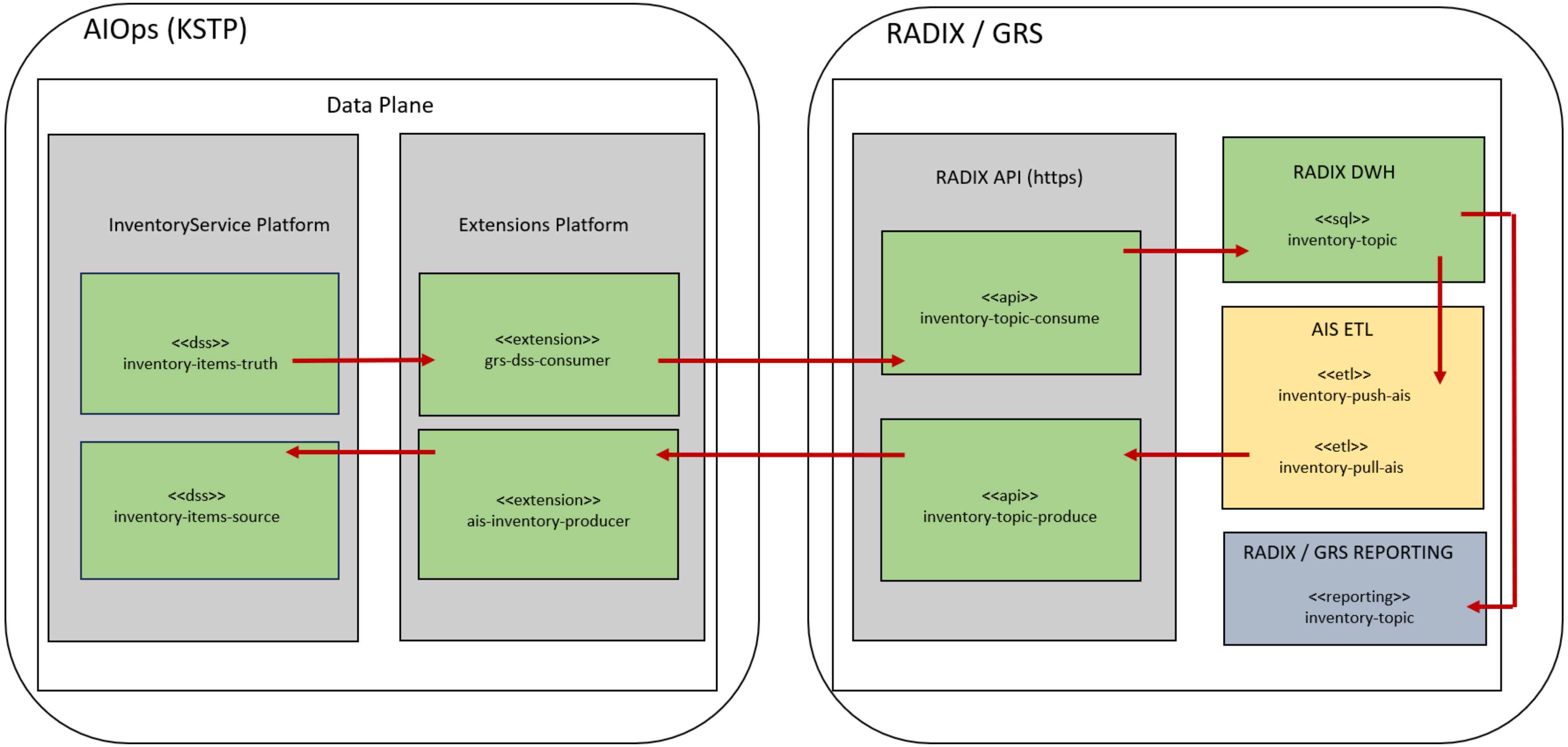
delivery-platform-extensions / ais-inventory-producer

□ Stage ✓
#19 by guido-dirr was merged on Jul 17, 2024 • Approved

□ new version 1.0.10 for new release - no code changes ✓
#18 by guido-dirr was merged on Jul 17, 2024 • Review required

KAFKA CONSUMER AND PRODUCER

RADIX/GRS API / AIS <-> InventoryService – AIOps Extension



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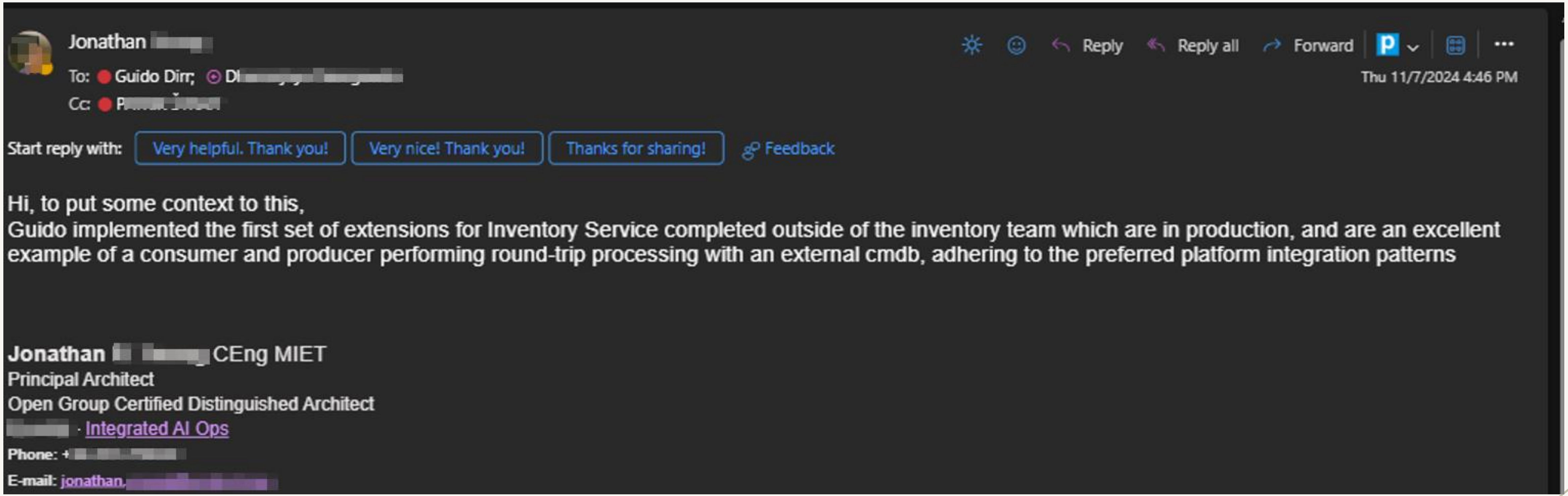
KAFKA CONSUMER AND PRODUCER

A comment from the main architect of the integrated system AI Ops.



Jonathan [redacted]

To: Guido Dirr; D[redacted]

Cc: P[redacted]

Thu 11/7/2024 4:46 PM

Hi, to put some context to this,

Guido implemented the first set of extensions for Inventory Service completed outside of the inventory team which are in production, and are an excellent example of a consumer and producer performing round-trip processing with an external cmdb, adhering to the preferred platform integration patterns

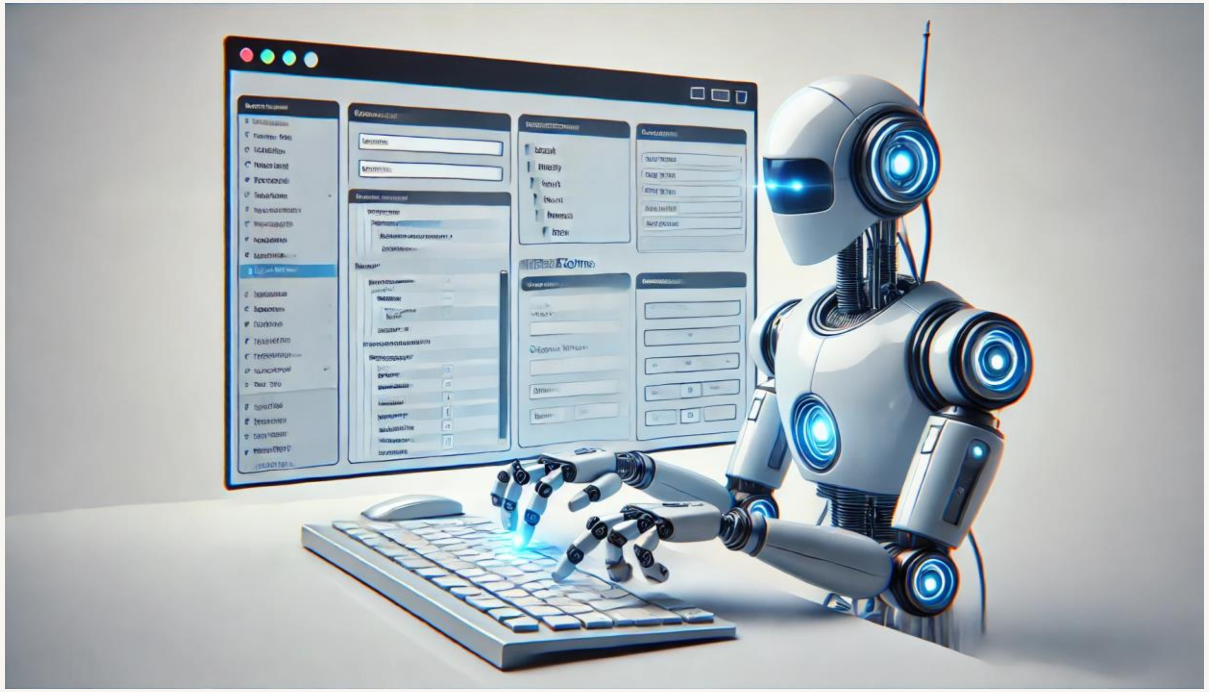
Jonathan [redacted] CEng MIET
Principal Architect
Open Group Certified Distinguished Architect
[redacted] · Integrated AI Ops
Phone: +[redacted]
E-mail: jonathan.[redacted]

SELENIUM ROBOTS

WinForms C# / Python / Selenium

Developed advanced **Selenium** robots for automating:

- Application **Integration** Testing
- Application and SharePoint **Manipulation**
- Data Feed Automation via **complex web forms**
- System **Warming and Preloading** to ensure seamless operations



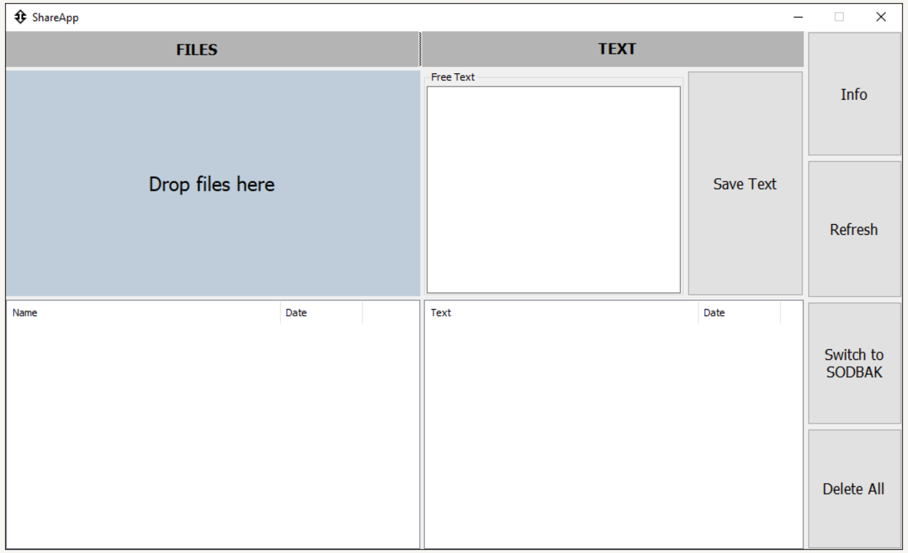
SHARE APP

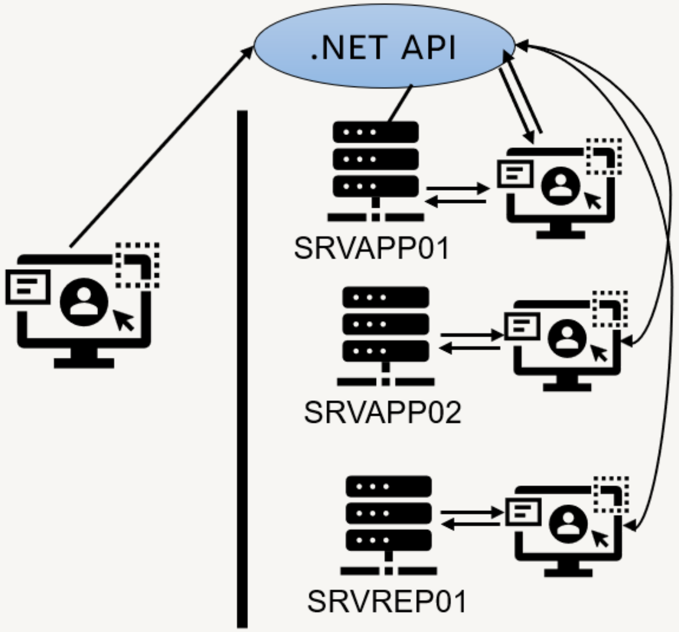
WinForms / .NET API / SignalR

Challenge:
With the file copy option via RDP removed by policy, our team of ~20 developers required an efficient method to transfer files between servers.

Solution:
Developed a WinForms.NET client integrated with a .NET API for seamless file transfers.

Real-Time Updates:
Leveraged SignalR to provide live progress updates and notifications during file transfers.





APIMAN

C# Agent / SQL / JSON / XML

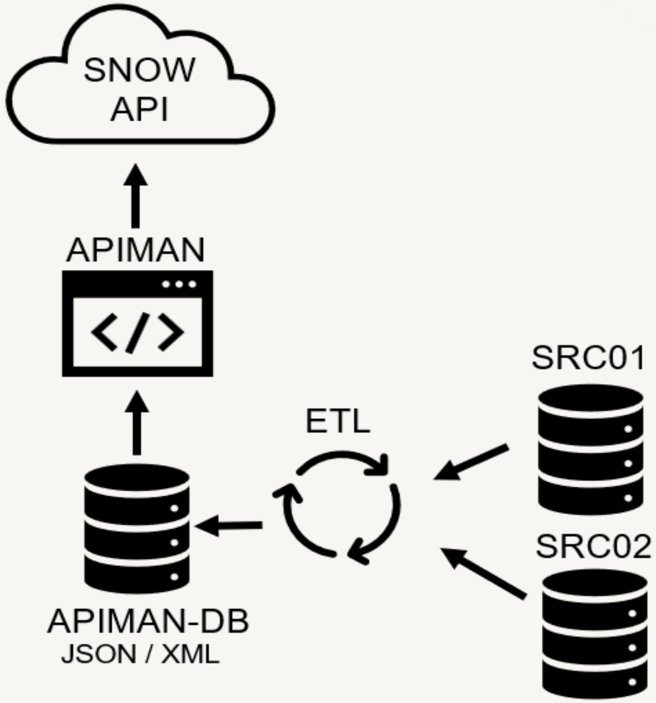
Automated Data Integration Framework

C# .NET Agent
Interacts with external systems like ServiceNow, uploading data via APIs using JSON or XML formats.

Scheduled SQL ETL Jobs
Prepares data entities for the target system, managing operations such as insert, update, and delete.

APIMAN

- Processes and uploads prepared entities
- Tracks upload states and performs error handling
- Monitors interface activity and notifies teams via email or ticketing in case of issues



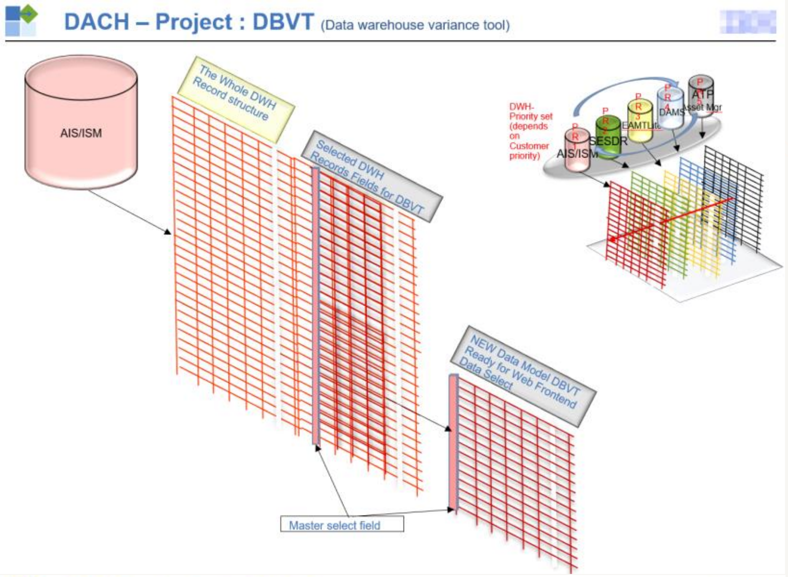
DATABASE VARIANCE TOOL

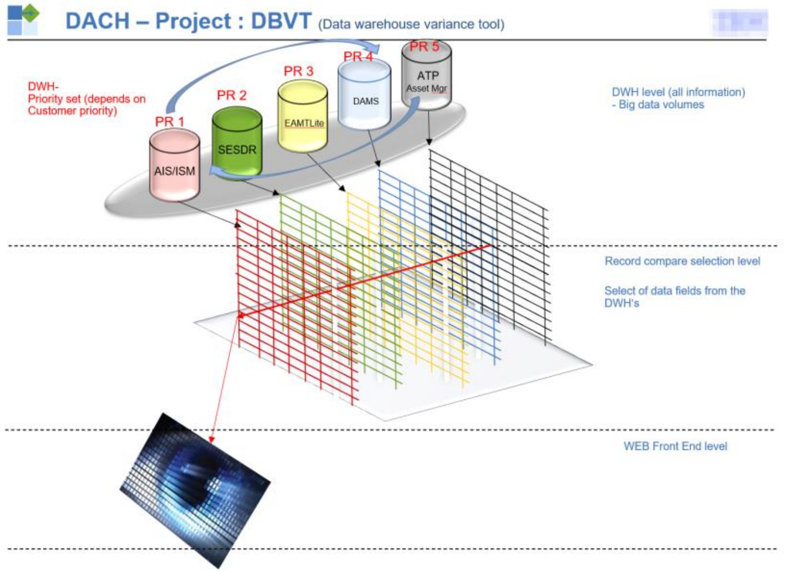
SQL / ETL / ASP.NET

Purpose:
Compare data across 5 different asset management systems that host varying data for the same entities.

Key Features:
Map and compare fields across data sources to identify discrepancies.
Trigger automated corrections based on identified variances.

User-Friendly Interface:
ASP.NET Wizard: Easily select master and slave systems for detailed analysis.
Powerful filtering capabilities for precise data comparisons.


DACH – Project : DBVT (Data warehouse variance tool)
AIS/ISM
The Whole DWH Record structure
Selected DWH Records Fields for DBVT
NEW Data Model DBVT Ready for Web Frontend Data Select
Master select field
DWH-Priority set (depends on Customer priority)
PR1
AIS/ISM
PR2
SESDR
PR3
EAMTLite
PR4
DAMS
PR5
ATP
Asset Mgr


DACH – Project : DBVT (Data warehouse variance tool)
DWH-
Priority set (depends on Customer priority)
PR 1
AIS/ISM
PR 2
SESDR
PR 3
EAMTLite
PR 4
DAMS
PR 5
ATP
Asset Mgr
DWH level (all information)
- Big data volumes
Record compare selection level
Select of data fields from the DWH's
WEB Front End level

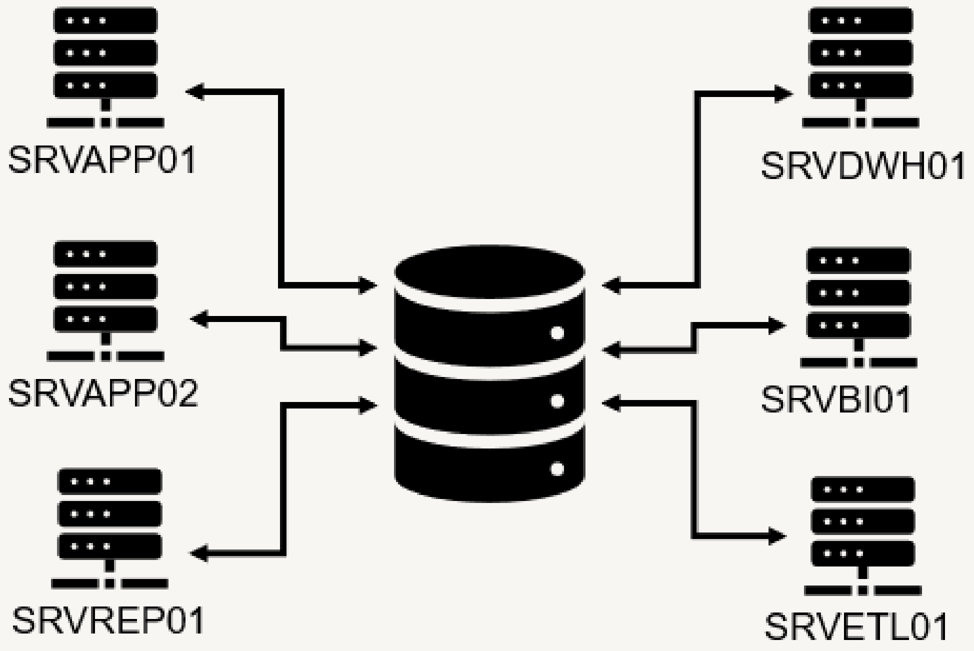
SQL DEPLOYER

C# Agent / SQL

Centralized Job Management
A C# Agent is installed on every server and polls a central database for jobs to execute, ensuring seamless task automation across the network.

Key Capabilities:
- Enable, disable, start, and stop services
- Deploy files using SQL binary streams
- Execute SQL and Windows commands in a sequential chain

Automation Use Cases:
- Automatically manage and update service user passwords
- Schedule automatic environment shutdowns on Sundays for server patching purposes



AI ENTHUSIAST

AI ENGINEERING / PROMPT ENGINEERING / MACHINE LEARNING FINANCIAL DATA PREDICTION PYTHON