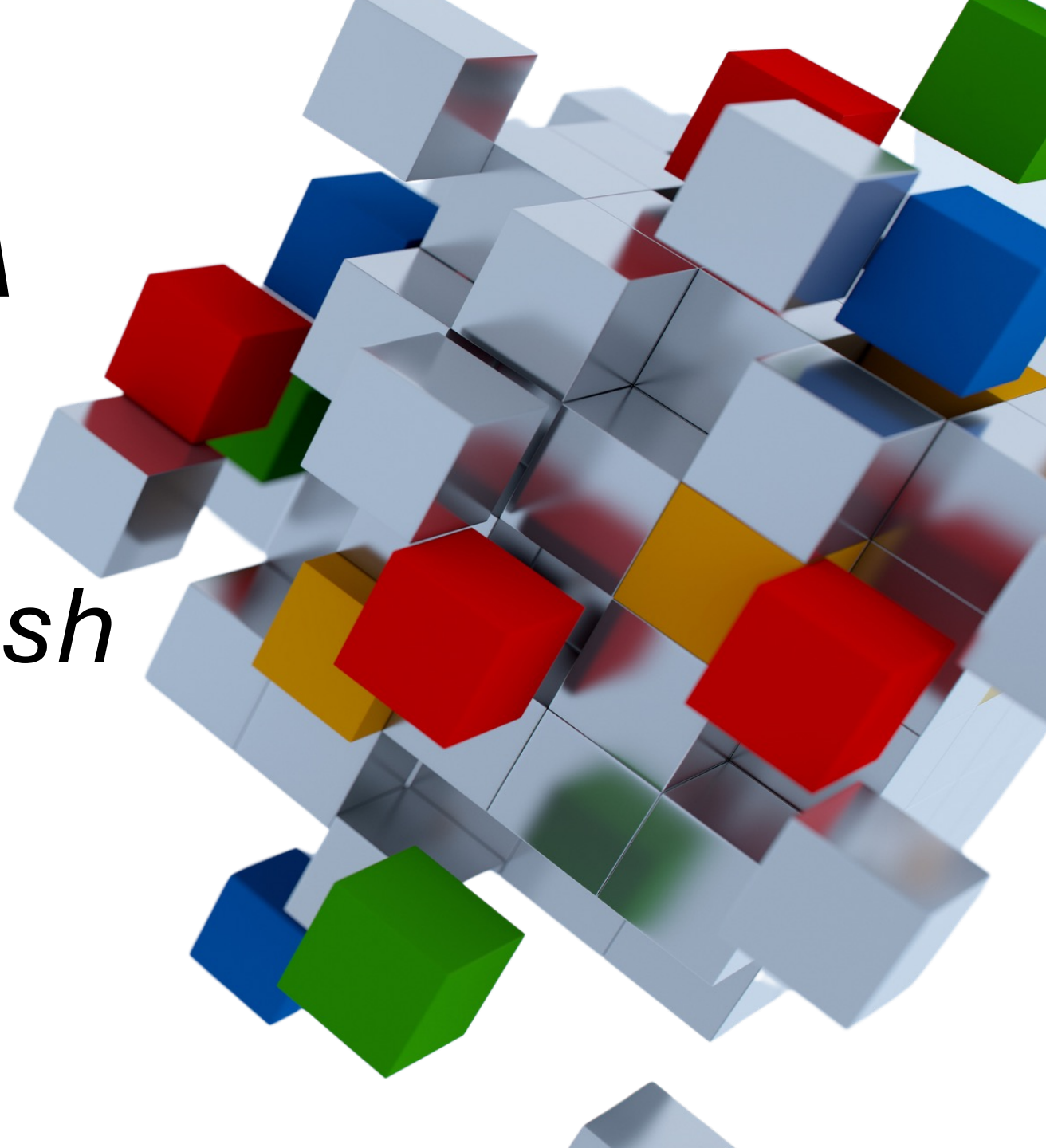
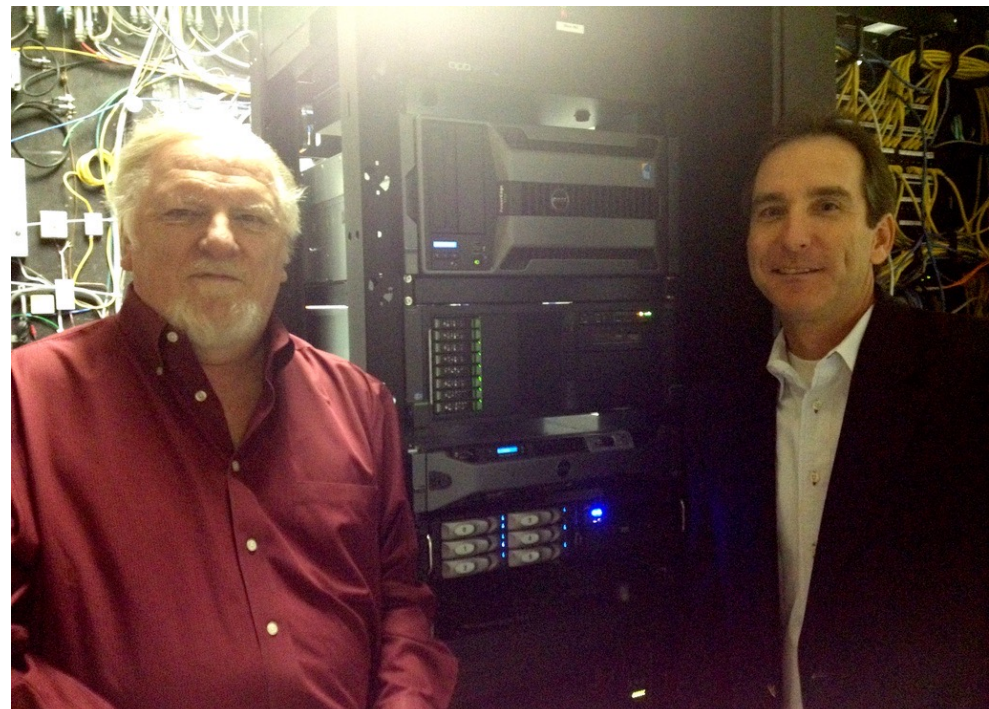
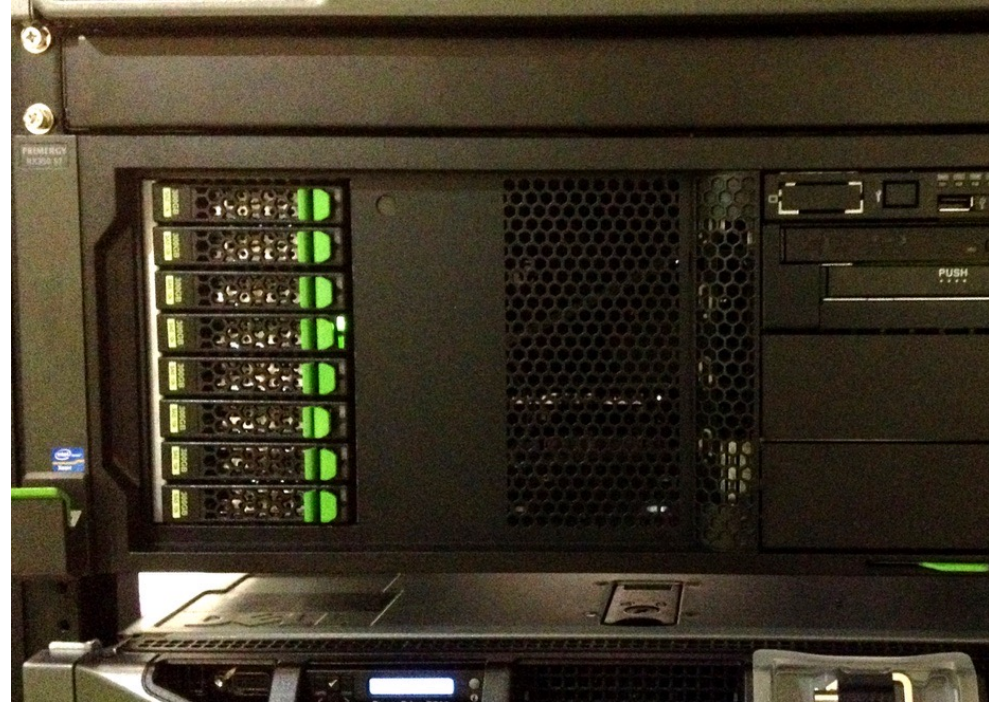


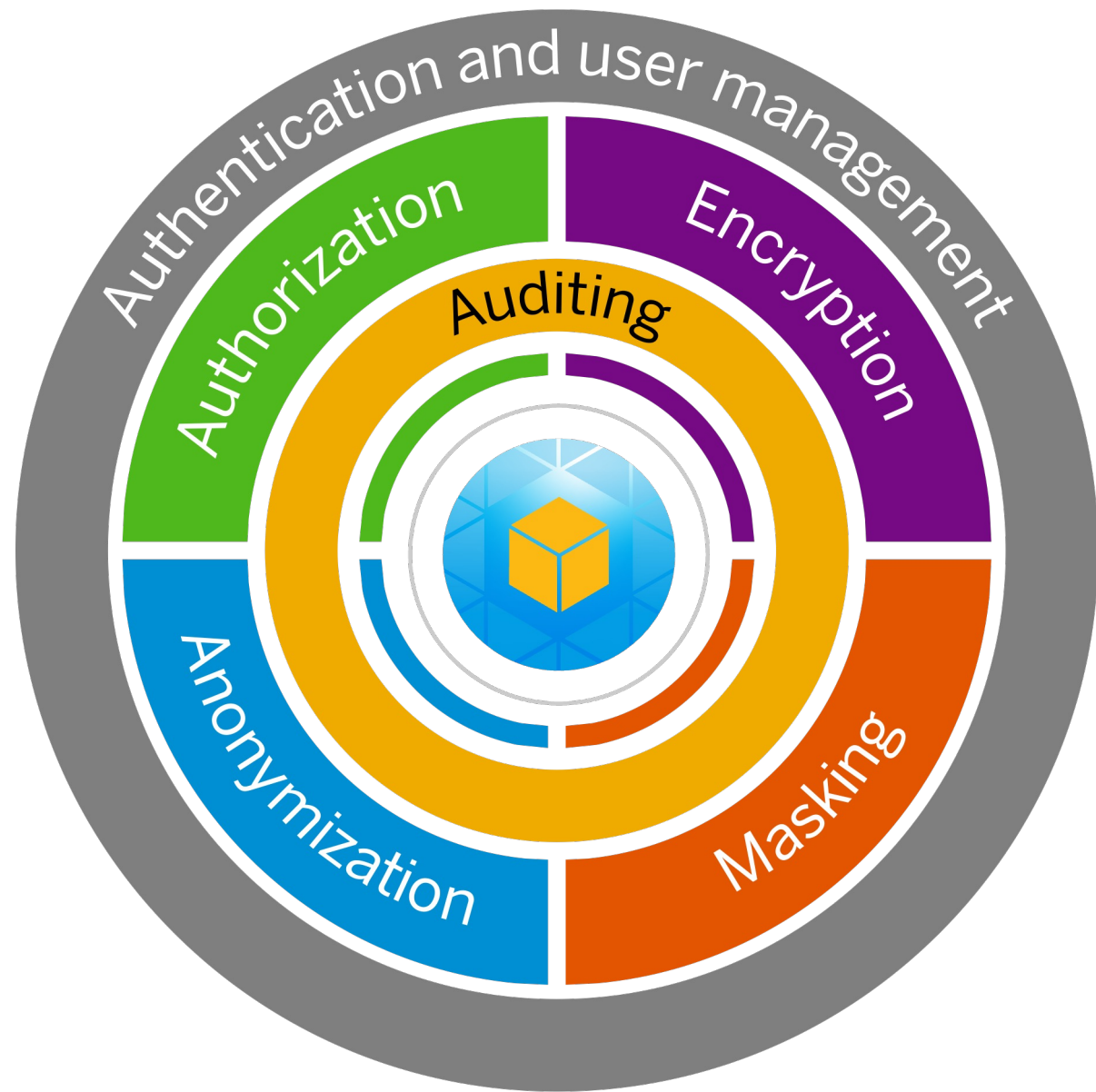
*The Power of HANA  
Data Cubes:  
Revolutionizing  
Profitability and Cash  
Flow*

---

*A Service Contract Success Story*







# HANA PERFORMANCE

## Metrics that Matter

Just how fast is SAP HANA?

**3600 xs**

faster than traditional databases

**< 1 second**

answers queries in less than 1 second

**3.5 billion**

scans per second per core

**15 million**

aggregations per second per core

It is true that speed kills. In distance running, it kills anyone who does not have it.

Brooks Johnson

# THE CHALLENGE



## Company Overview

### Industry:

Electrical, Plumbing, HVAC

### Scale:

- 2,500 Master Agreements
- 25,000 Individual Contracts
- 150,000 Service Calls/year

### Technology:

AS/400 w/ Proprietary Software



## Problem Statement

### Legacy ERP Limitations:

- Historical ERP failures

### Reporting Issues:

- Materially inaccurate profitability.
- Inflation impact not reflective

### Financial Challenges:

- Cash Flow Problems



## The Challenge

### Slow Reporting:

- **4-5 minutes** per report
- Lack reconciliation.

### No Visibility:

- Only Summary Reporting

# THE CRITICAL BUSINESS FUNCTIONS



CONTRACT  
RENEWALS



SERVICE  
CALLS



ACTUARY  
REPORT



DEFERRED  
REVENUE

# GETTING TO DATA CUBES

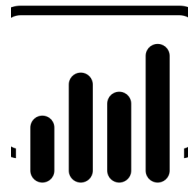


## Traditional

Contract Renewals

Service Calls

Deferred Revenue



## Power BI Cubes

Actuary Report



## Breakthrough

Inventory Reconciliation

Deferred Revenue



## Hana Data Cubes

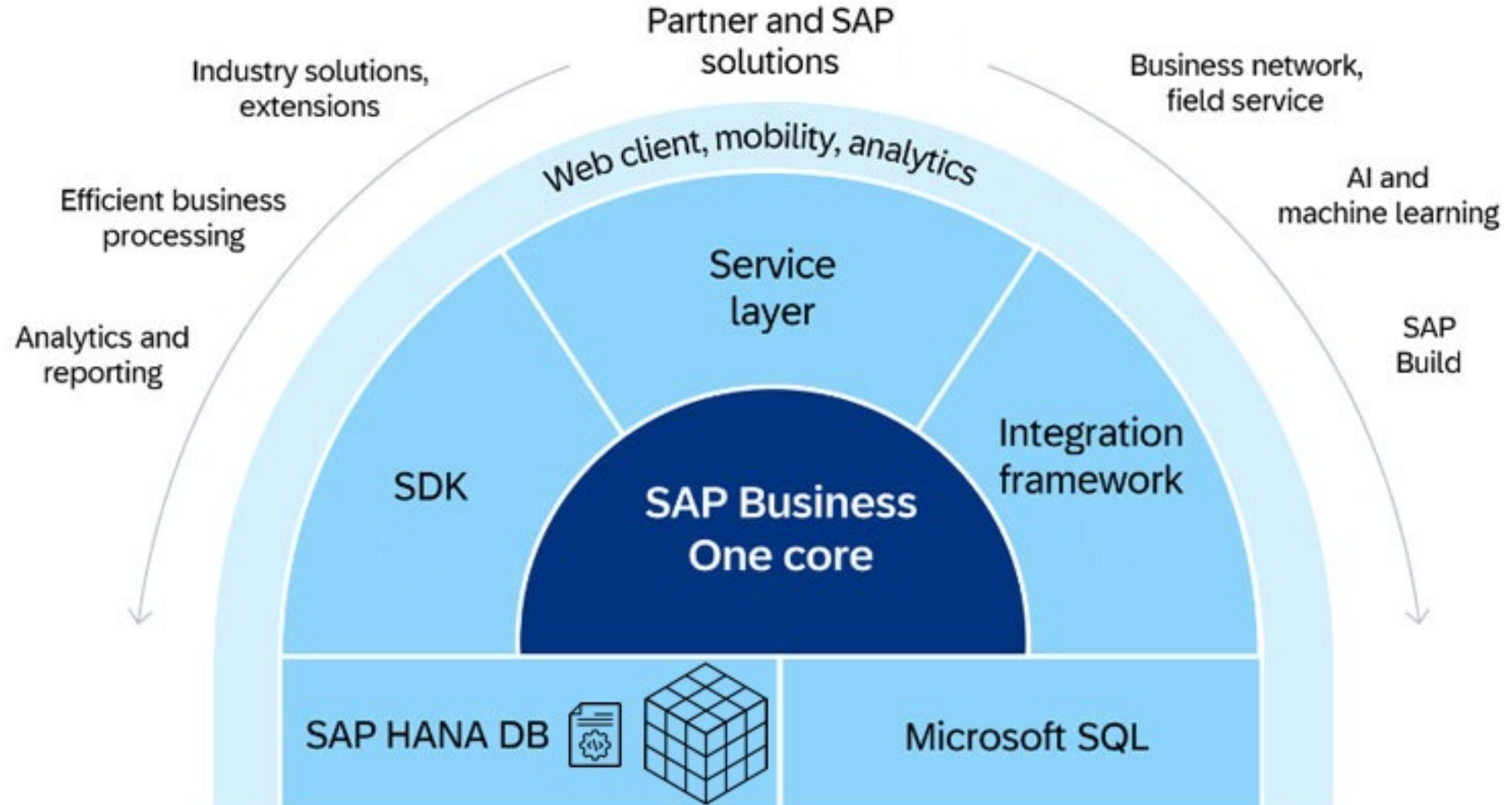
Deferred Revenue

Contract Renewals

Actuary Report

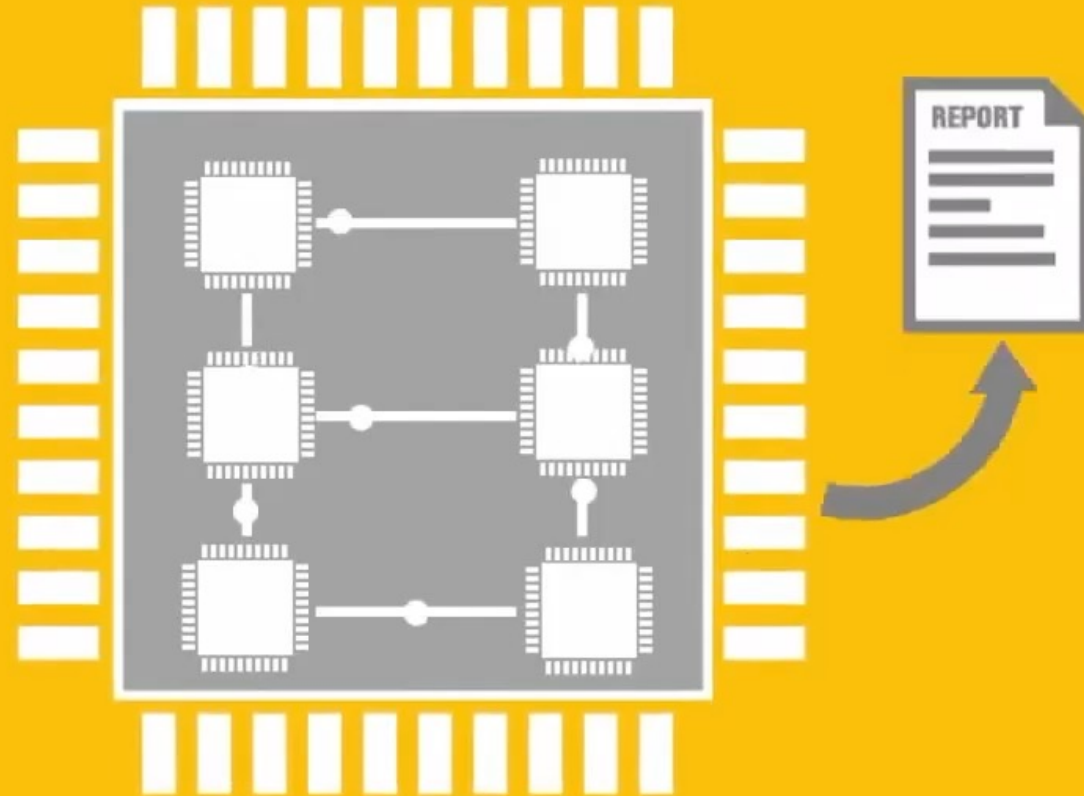
# THE APPROACH

## A Game-Changing Data Cube Approach Using SAP HANA



# THE TRANSFORMATION

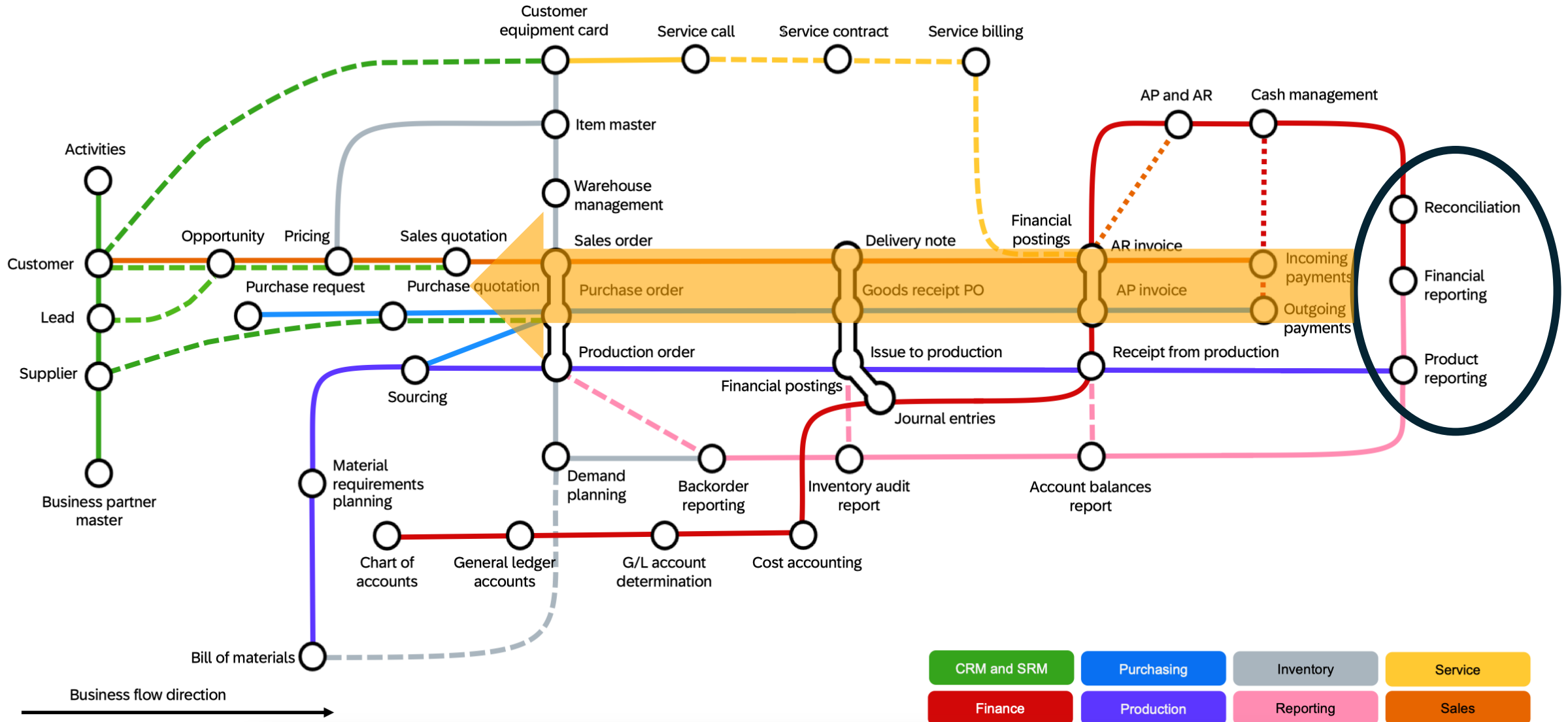
Real-Time Analysis Becomes Immediate Action



**ANALYZE**

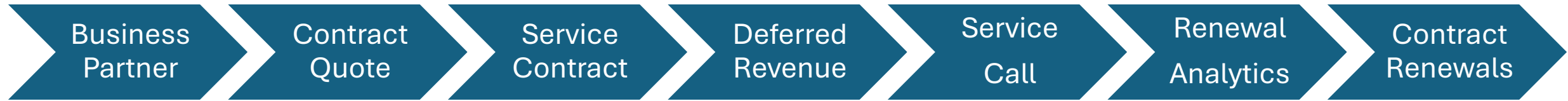
# Analytics First: The Report is the Action

## Speed and Precision Are Imperative



# THE WORKFLOW

## From Service Contract to Renewal



Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW

## Business Partner Master Data

Code Primary 300105 Customer  
Name John Smith  
E-Mail  
Group Customers  
Currency US Dollar

Local Currency  
Account Balance 0.00  
Deliveries 0.00  
Orders 0.00  
Opportunities

Checks

General	Contact Persons	Addresses	Payment Terms	Properties	Contract Notes	Attachments
Cell Phone				Contact Person		
Home Phone				ID No. 2		
Mobile Phone						
Fax				Remarks		
Medical A/C No				Sales Employee	-No Sales Employee-	
Web Site						
Shipping Type						
Password						
Factoring Indicator						
Business Partner Project						
Industry		Technician				
Type of Business Company		Territory				

Alias Name

Active  Inactive  Advanced  
From To Remarks

OK

Cancel

Create Contract Quote

Invoice Quote

You Can Also

Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW

## Sales Quotation

Customer

Name

Contact Person

Customer Ref. No.

Payment Terms

No.

Status

Posting Date

Valid Until

Document Date

Contract Start

Contract End

#	Type	Item No.	Item Description	Contract Price	Discount %	Summary Type	
1				342.00	0.000000	<input type="checkbox"/>	
2				5.00	0.000000	<input type="checkbox"/>	
8				20.00	0.000000	<input type="checkbox"/>	
9				20.00	0.000000	<input type="checkbox"/>	
10				7.00	0.000000	<input type="checkbox"/>	
14	A			15.00	0.000000	<input type="checkbox"/>	
15	A			32.50	0.000000	<input type="checkbox"/>	
16	A			35.00	0.000000	<input type="checkbox"/>	
17	A			50.00	0.000000	<input type="checkbox"/>	
18	A			70.00	0.000000	<input type="checkbox"/>	
19	A			150.00	0.000000	<input type="checkbox"/>	
20	A			45.00	0.000000	<input type="checkbox"/>	
21	A			100.00	0.000000	<input type="checkbox"/>	

Total Before Discount

Discount  %

Rounding

Tax

Total

Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW

## Service Contract

### Service Contract Type

Sales

Business Partner Code	300105	Contract No.	26188
Business Partner Name	John Smith	Start Date	09/01/23
Contact Person		End Date	09/01/24
Telephone No.		Termination Date	
Description			

General

Items

Coverage

Attachments

Service Calls

Recurring Transactions

#	Item No.	Item Description	Mfr Serial No.	Serial Number	Start Date	End Date
1	A/C	CENTRAL A/C UP TO 3.5 TONS		A/C-300105	09/01/23	09/01/24
2	A/C	AUTO COVENANT (PART/LABOR)		A/C-300105	09/01/23	09/01/24
3	COM	COMPRESSOR REPLACEMENT		COM-300105	09/01/23	09/01/24
4	CRB	CIRCUIT BOARDS LIMIT \$100		CRB-300105	09/01/23	09/01/24
5	D/W	DISHWASHER		D/W-300105	09/01/23	09/01/24
6	J/W	JUBILEE REPAIR ONLY		J/W-300105	09/01/23	09/01/24
7	M/W	MICROWAVE BUILT IN		M/W-300105	09/01/23	09/01/24
8	O/W	OVEN/RANGE		O/W-300105	09/01/23	09/01/24
9	REF	REFRIGERATOR		REF-300105	09/01/23	09/01/24
10	STP	OVEN SELF-CLEANING FEATURE		STP-300105	09/01/23	09/01/24
11	S/P	STAINLESS STEEL POT		S/P-300105	09/01/23	09/01/24
12	S/P	STAINLESS STEEL BURNING ONLY		S/P-300105	09/01/23	09/01/24
13	W/H	WATER HEATER PARTS		W/H-300105	09/01/23	09/01/24

OK

Cancel



Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW

Work Order

**Contract #**  **Address**

**Customer Name**  **Dispatch Flash**

**Contact Person**  **Building Name**

**Telephone No.**  **Created By**

**E-Mail**  **Dispatcher No.**

**Service Code**  **Coverage**

**Service Description**  **C.O.D. Parts**

**Serial No.**  **C.O.D. Labor**

**Eq. Card**  **C.O.D. Total**

**Problem**

**Link ID**

**WO No.**

**Call Status**

**Call ID**

**Service Status**

**Ref No.**

**Created On**

**Closed On**

**Service Contract No.**

**Dev-Bld**

**Contract Special Inst.**

**General** | **Scheduling** | **Remarks** | **Resolution** | **Service History (0)** | **List of Customers Equipment (0)** | **Linked Service Calls (0)** | **Linked Documents (0)** | **Attachments**

**Origin**

**Problem Type**

**Problem Subtype**

**Call Type**

**Override**

**Rescheduled**

**Customer Since**

**Contract Notes**

**Special Instructions**

**Building Notes**

**Add** | **Cancel** | **Add Another Service Issue** | **Add Equipment** | **Parts** | **Billing** | **Add Return Visit** | **Schedule History**

Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW

Master Agreements Actuary

Master Agreement #	100434
Renewal Month	
Renewal Status	

Keep Visible

The cockpit template you are editing now is empty.

You can add widgets to gain insight into company performance

Click [+](#) to get started.





Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW



	Invoice #	ContractID	Date Entered	Start Date	End Date	Total Contract Rev	Pro-Rated Contract Rev	COD Rev/Exp	# Of Calls	Service Expense	Profitability
1	5021209	24967	09/02/23	09/01/23	09/01/24	551.00	260.45	0.00	3	-292.95	-32.50
2	5021210	24968	09/02/23	09/01/23	09/01/24	551.00	260.45	0.00	2	-195.30	65.15
3	5020986	24744	09/02/23	09/01/23	09/01/24	610.00	288.33	0.00	0	0.00	288.33
4	5024046	27659	10/18/23	09/01/23	09/01/24	375.75	177.61	0.00	4	-390.60	-212.99
5	5021223	24981	09/02/23	09/01/23	09/01/24	641.00	302.99	0.00	4	-390.60	-87.61
6	5021225	24983	09/02/23	09/01/23	09/01/24	610.00	288.33	42.78	5	-488.25	-157.14
7	5021227	24985	09/02/23	09/01/23	09/01/24	687.00	324.73	0.00	0	0.00	324.73
8	5021228	24986	09/02/23	09/01/23	09/01/24	667.00	315.28	-183.35	7	-683.55	-551.62
9	5021229	24987	09/02/23	09/01/23	09/01/24	641.00	302.99	0.00	2	-195.30	107.69
10	5021230	24988	09/02/23	09/01/23	09/01/24	610.00	288.33	-1.62	4	-390.60	-103.89
11	5021231	24989	09/02/23	09/01/23	09/01/24	520.00	245.79	0.00	2	-195.30	50.49
12	5021232	24990	09/02/23	09/01/23	09/01/24	676.00	319.53	0.00	0	0.00	319.53
13	5021239	24997	09/02/23	09/01/23	09/01/24	641.00	302.99	0.00	2	-195.30	107.69
14	5021246	25004	09/02/23	09/01/23	09/01/24	551.00	260.45	146.01	3	-292.95	113.51
15	5021247	25005	09/02/23	09/01/23	09/01/24	667.00	315.28	0.00	5	-488.25	-172.97
16	5021248	25006	09/02/23	09/01/23	09/01/24	520.00	245.79	-7.28	3	-292.95	-54.44
17	5021249	25007	09/02/23	09/01/23	09/01/24	571.00	269.90	0.00	3	-292.95	-23.05
18	5021260	25018	09/02/23	09/01/23	09/01/24	520.00	245.79	0.00	1	-97.65	148.14
19	5021268	25026	09/02/23	09/01/23	09/01/24	345.00	163.07	-35.17	2	-195.30	-67.40
20	5021270	25028	09/02/23	09/01/23	09/01/24	551.00	260.45	0.00	0	0.00	260.45
21	5021271	25029	09/02/23	09/01/23	09/01/24	610.00	288.33	0.00	0	0.00	288.33
22	5021272	25030	09/02/23	09/01/23	09/01/24	641.00	302.99	0.00	0	0.00	302.99
									0	0.00	248.63
									2	-195.30	107.69
									6	-595.90	-304.18
									0	0.00	324.26
									701	-68,452.65	12,965.78

Master Agreements Actuary

Master Agreement#

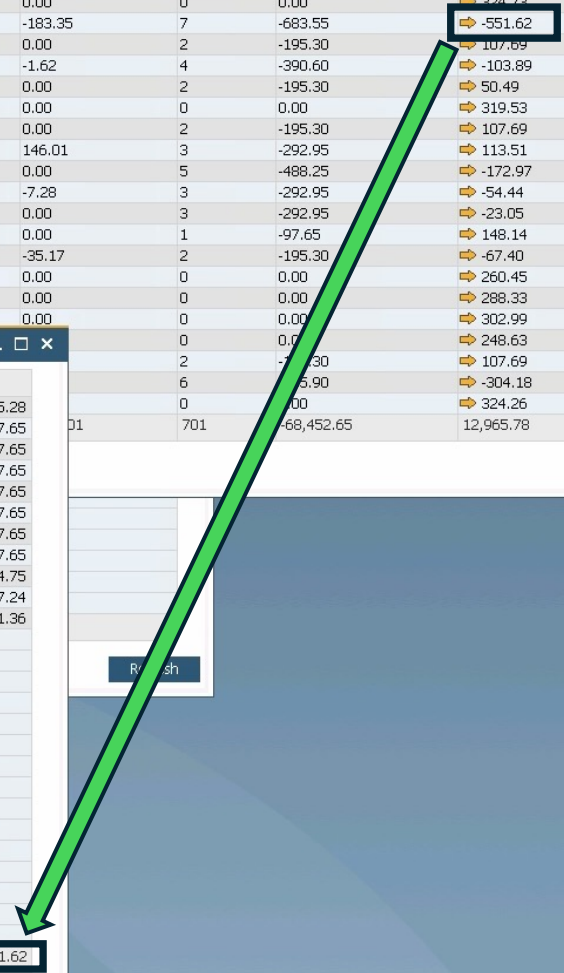
Renewal Month

Renewal Status

Keep Visible

Contract 24986 Actuary Details

Type	#	Work Order #	Created Date	Closed Date	Service Code	Subject	Profit
1	Pro-Rated Revenue	5021228	0	09/01/23	09/01/24		315.28
2	Service Call	4030319	4030319	12/21/23	12/22/23	D/W	-97.65
3	Service Call	4004548	4004548	09/20/23	09/28/23	D/W	-97.65
4	Service Call	4000903	4000903	09/06/23	09/17/23	D/W	-97.65
5	Service Call	4019787	4019787	11/14/23	11/16/23	D/W	-97.65
6	Service Call	4019782	4019782	11/14/23	11/16/23	D/W	-97.65
7	Service Call	4000907	4000907	09/06/23	09/15/23	D/W	-97.65
8	Service Call	4039435	4039435	01/24/24	01/26/24	D/W	-97.65
9	COD	465435	4000907	09/06/23	09/15/23		-124.75
10	COD	469983	4019782	11/14/23	11/16/23		-17.24
11	COD	475157	4039435	01/24/24	01/26/24		-41.36



Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW

100434 Active Contracts Actuary

Invoice #	ContractID	Date Entered	Start Date	End Date	Total Contract Rev	Pro-Rated Contract Rev	COD Rev/Exp	# Of Calls	Service Expense	Profitability	
1	5021209	24967	09/02/23	09/01/23	09/01/24	551.00	260.45	0.00	3	-292.95	-32.50
2	5021210	24968	09/02/23	09/01/23	09/01/24	551.00	260.45	0.00	2	-195.30	65.15
3	5020986	24744	09/02/23	09/01/23	09/01/24	610.00	288.33	0.00	0	0.00	288.33
4	5024046	27659	10/18/23	09/01/23	09/01/24	375.75	177.61	0.00	4	-390.60	-212.99
5	5021223	24981	09/02/23	09/01/23	09/01/24	641.00	302.99	0.00	4	-390.60	-87.61
6	5021225	24983	09/02/23	09/01/23	09/01/24	610.00	288.33	42.78	5	-488.25	-157.14
7	5021227	24985	09/02/23	09/01/23	09/01/24	687.00	324.73	0.00	0	0.00	324.73
8	5021228	24986	09/02/23	09/01/23	09/01/24	667.00	315.28	-183.35	7	-683.55	-551.62

Master Agreements Actuary

Master Agreement #

Renewal Month

Renewal Status

Keep Visible

A/R Invoice

No.

Customer Ref. No.

Payment Terms

Installments

Building Quote

Contract Status

Contract Start Date

Due Date

Document Date

Contract Invoice

Contract Start

Contract End

SAP Contract

Service Call

Contract 24986 Actuary Details

Type	#	Work Order #	Created Date	Closed Date	
1	Pro-Rated Revenue	5021228	0	09/01/23	09/01/24
2	Service Call	4030319	4030319	12/21/23	12/22/23
3	Service Call	4004548	4004548	09/20/23	09/28/23
4	Service Call	4000903	4000903	09/06/23	09/17/23
5	Service Call	4019787	4019787	11/14/23	11/16/23
6	Service Call	4019782	4019782	11/14/23	11/16/23
7	Service Call	4000907	4000907	09/06/23	09/15/23
8	Service Call	4039435	4039435	01/24/24	01/26/24
9	COD	465435	4000907	09/06/23	09/15/23
10	COD	469983	4019782	11/14/23	11/16/23
11	COD	475157	4039435	01/24/24	01/26/24

Item/Service Type	Item	Unit Price	Contract Price	Coverage	Includes	Whse	Tax Code	Tax Liab	Tax Amount (LC)	Total (LC)	Summary Type	No Summary
1	W105970-CONTROL BOARD D/W	1				02	FL	Yes			Contract Start Date	Contract ...
2	661566 TUB HI LIMIT	1				02	FL	Yes				

Sales Employee

Owner

Payment Order Run

Remarks

Total Before Discount

Total Down Payment

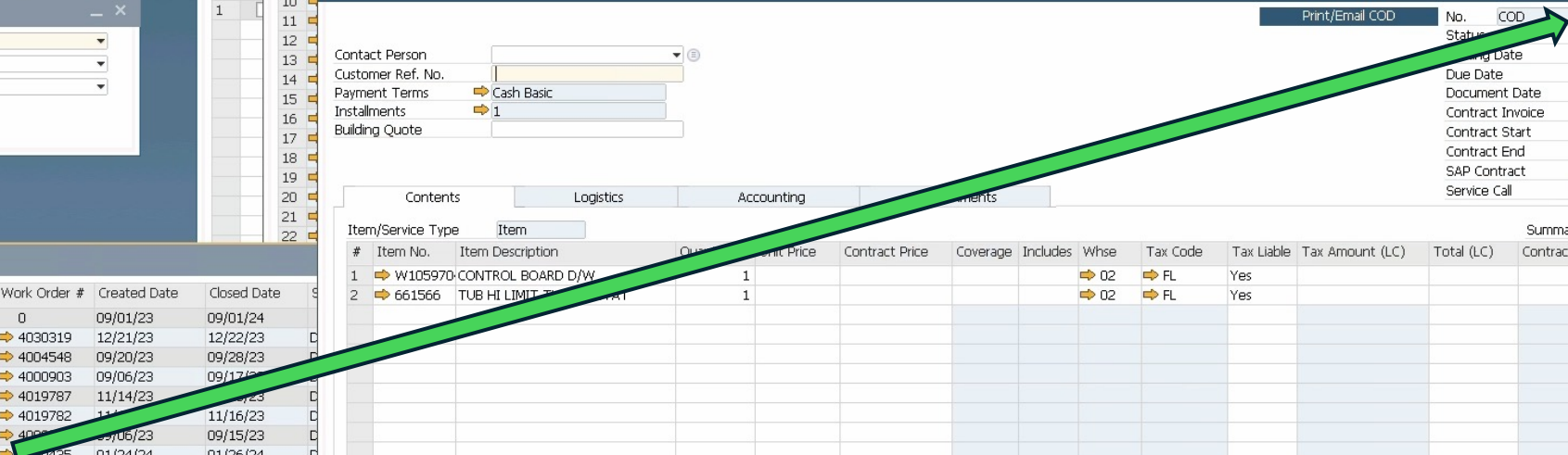
Rounding

Tax

Total

Applied Amount

Balance Due



Close



Business Partner

Contract Quote

Service Contract

Deferred Revenue

Service Call

Renewal Analytics

Contract Renewals

# THE WORKFLOW

Master Agreements Actuary

Master Agreement #	100434
Renewal Month	
Renewal Status	

OK Cancel  Keep Visible

The cockpit template you are editing now is empty.

You can add widgets to gain insight into company performance

Click [+](#) to get started.

## 10 Seconds

Business  
Partner

Contract  
Quote

Service  
Contract

Deferred  
Revenue

Service  
Call

Renewal  
Analytics

Contract  
Renewals

# THE WORKFLOW

Contract Renewal - Buildings

Building

Renewal Month  2024-10

Renewal Status

Return

A/R Credit  
Memo

Sales Reports

In 2 Seconds.....

- 200 Master Agreements
- 8,300 Service Agreements
- 26,000 Service Calls

# Hana with One Click Solution!

ProcES OneClick Master Agreement Activity

Master Agreement# 100434

Renewal Month

Renewal Status

OK Cancel  Keep Visible

Contract	Agreement	Start Date	End Date	Base Price	Profit	Service Calls
1	100434	09/01/23	09/01/24	345.03	12,955.78	701
2	100434	09/01/23	09/01/24	345.03	12,955.78	701
3	100434	09/01/23	09/01/24	345.03	12,955.78	701
4	100434	09/01/23	09/01/24	345.03	12,955.78	701
5	100434	09/01/23	09/01/24	345.03	12,955.78	701
6	100434	09/01/23	09/01/24	345.03	12,955.78	701
7	100434	09/01/23	09/01/24	345.03	12,955.78	701
8	100434	09/01/23	09/01/24	345.03	12,955.78	701
9	100434	09/01/23	09/01/24	345.03	12,955.78	701
10	100434	09/01/23	09/01/24	345.03	12,955.78	701
11	100434	09/01/23	09/01/24	345.03	12,955.78	701

Select	Status	Master Agreement	Start Date	End Date	Base Price	Profit	Service Calls
1	<input type="checkbox"/>	100434	09/01/23	09/01/24	345.03	12,955.78	701
						12,955.78	701

Close Refresh

## ALL IN REAL TIME

- Master Agreement Level
- Contract Level
- Call Level
- New Contacts
- Master & Contract Level Renewals
- Deferred Revenue

Contract	Agreement	Start Date	End Date	Base Price	Profit	Service Calls
1	100434	09/01/23	09/01/24	345.03	12,955.78	701
2	100434	09/01/23	09/01/24	345.03	12,955.78	701
3	100434	09/01/23	09/01/24	345.03	12,955.78	701
4	100434	09/01/23	09/01/24	345.03	12,955.78	701
5	100434	09/01/23	09/01/24	345.03	12,955.78	701
6	100434	09/01/23	09/01/24	345.03	12,955.78	701
7	100434	09/01/23	09/01/24	345.03	12,955.78	701
8	100434	09/01/23	09/01/24	345.03	12,955.78	701
9	100434	09/01/23	09/01/24	345.03	12,955.78	701
10	100434	09/01/23	09/01/24	345.03	12,955.78	701
11	100434	09/01/23	09/01/24	345.03	12,955.78	701

Track	#	Work Order #	Contract Date	Order Code	Service Code	Subst	Rate
1	Pro AutoRevenue	400220	0	000103	000104		325.20
2	Service Call	400010	400010	001013	001013	2 OPERATOR CENTER NOT OPERATIONAL 2-4 PM	97.95
3	Service Call	400040	400040	001013	001013	air not working in zone, air has not out of v.c.	97.95
4	Service Call	400060	400060	001013	001013	PROBLEME DEET HYDRO ADAPTEE (CITRILLIN) FAVI021023041 PASSEUSE	97.95
5	OOD	400407	400007	000103	00110103		124.75
10	OOD	400695	401192	01110103	01110103		17.24
11	OOD	471557	403495	010404	010204		41.36

Close

# TRANSFORMING WITH HANA DATA CUBES

# HANA PERFORMANCE

## I See Why These Metrics Matter

Just how fast is SAP HANA?

**3600 xs**

faster than traditional databases

**< 1 second**

answers queries in less than 1 second

**3.5 billion**

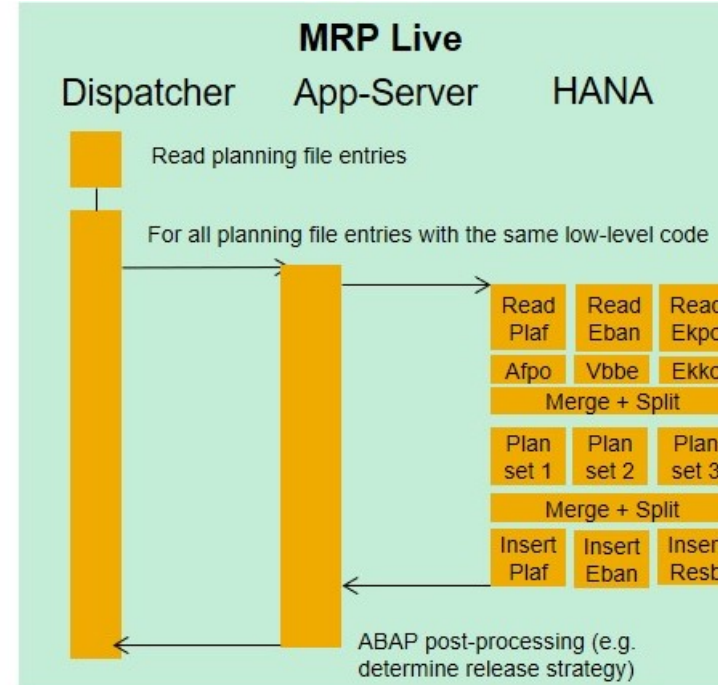
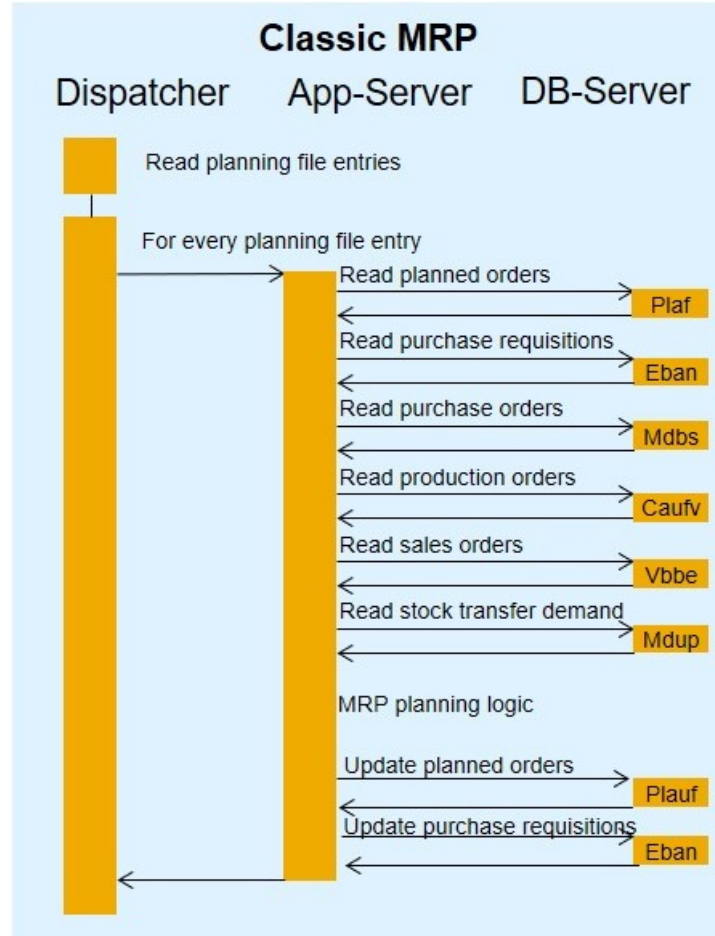
scans per second per core

**15 million**

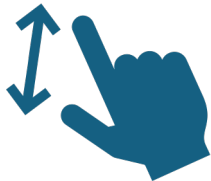
aggregations per second per core

# MRP LIVE IN S/4 HANA

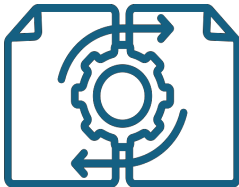
## The Move to In Memory



# HANA DATA CUBES



**Drill-Down to  
Granular Visibility**



**Full System Data  
Reconciliation**



**Real-Time Speed**



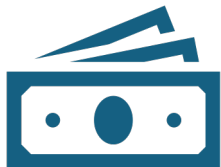
 **Presentation**



**Holistic Data**



**Operational  
Efficiency**



**Profitability &  
Cash Flow**



 **Contact Info**