



Service Report

EarlyWatch®Alert

Confidential

This document contains a macro. To optimize the formatting of this report, allow the macro to run. For details, see [SAP Note 1816943](#).

SAP System ID	SPR
Product	SAP ERP ENHANCE PACKAGE 6.04/NW7.01
Status	Productive
DB System	ORACLE 12.2.0.1

Processed on	SAP Solution Manager	SMA
Release	SOLUTION MANAGER 7.2	
Service Tool	720 SP27	
Service Content Update on	25.04.2024	

Analysis from	20.01.2025	Session No.	0050000000434
Until	26.01.2025	Installation No.	0620019597

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1 Service Summary



**This EarlyWatch Alert session detected issues that could potentially affect your system.
Please evaluate the recommendations.**

ALERT OVERVIEW

	Financial data quality: inconsistent data in FI-GL has been detected.
	Your database version is not supported / Vendor support has already ended or will end in the near future.
	You need to implement SAP Hotnews 3028815 to ensure the payment block is updated properly when processing parked invoices.
	Backlog found in Business Key Figures Chapter
	Expensive SQL statements cause significant load on the database server.
	Gateway Access Control List sec. info is not effective. Well-known attacks may endanger your system.
	SAP Software on this system is outdated. Support with SAP Security Notes is no longer ensured.
	Message Server Access Control List not effective. System not protected against access by rogue application servers.
	Users with critical authorizations, which allow to do anything in client 000
	Users with critical authorizations, which allow to do anything in other client(s) than 000
	Based on response times in your ABAP system performance problems may occur.
	Mainstream maintenance for your SAP product version has ended or will end in the near future.
	We found more than 30 ABAP dumps in your system.
	Readiness of your system for SAP Remote Service has not been verified by running report RTCCTOOL.
	The Earlywatch Alert data are yet not sent through a channel ready for SAP Support Backbone update on January 1st 2020.
	Secure password policy is not sufficiently enforced.
	Protection of Passwords in Database Connections
	RFC Gateway default security behaviour is not activated. System may be at risk, when ACLs secinfo or reginfo are missing.
	Standard users have default passwords in client 000

To provide feedback on the alerts, please use the 'Hide and Snooze Alert' functionality in the [Solution Finder](#). You can hide alerts if you consider them as irrelevant or snooze them incase the recommendations are already in implementation. The blog [Hide and Snooze SAP EarlyWatch Alerts](#) explains how to use it and the required authorization "Manage Alert(s)" in SAP EarlyWatch Alert.

Note: If you send SAP EarlyWatch Alert data to SAP, this report can be viewed in ["SAP for Me"](#). One of the benefits using [SAP EarlyWatch Alert Workspace](#) is proactive alerts calculated in the workspace only and not available in a Solution Manager. Do not miss any important findings: subscribe to notifications with just a few clicks on [Notification Activation](#). For detailed configuration options, read this [Best Practices](#) blog.

How to get access to the SAP EarlyWatch Alert apps is explained in [SAP Note 2520319](#). The following link to the [SAP EarlyWatch Alert Reports](#) app always opens up the latest report for this system. Similarly, this link to the [SAP EarlyWatch Alert Dashboard](#) shows you the analytical dashboard for this system. Specific links to analytical detail pages in [SAP EarlyWatch Alert Workspace](#) are included in the respective sections in this report.











































The [EWA Status App](#) is your entry point for analysis if you are missing the current data in EarlyWatch Alert apps.

Based on these findings, it is recommended that you perform the following Guided Self-Services.

Guided Self Service	FAQ SAP Note
SQL Statement Tuning	1601951
Security Optimization Service	1484124

For more information about Guided Self-Services, see [SAP Enterprise Support Academy](#).
Academy -

CHECK OVERVIEW

Topic Rating	Topic	Subtopic Rating	Subtopic
	Software Configuration for SPR		
			SAP Application Release - Maintenance Phases
			Security Risk Due to Outdated Support Packages
			Database - Maintenance Phases
			Operating System(s) - Maintenance Phases
			SAP Kernel Release
	Performance Overview SPR		
	Workload Distribution SPR		
			Workload by Application Module
			DB Load Profile
	SAP System Operating SPR		
			Availability based on Collector Protocols
			Program Errors (ABAP Dumps)
			Update Errors
			Table Reorganization
			Critical Number Ranges
	Hardware Capacity		
	Database Performance		
			Missing Indexes
			Database Key Performance Indicators
			Setup of the Temporary Tablespace
			Database Parameters for SPR
			Optimizer Statistics
	Database Administration		
			Data Object ID Limit
			Space Statistics
			Backup Frequency
			Archive Frequency
			Free Space in Tablespaces
			Space Critical Objects
			Schedule brconnect -f next weekly
			Check brconnect -f check schedule
			Desupport of multibyte character sets as of Oracle 10g
	Database server load from expensive SQL statements - SPR		
			TRANSACTION-SQLORA(02)-SPR: Historical Analysis Between 20.01.2025 26.01.2025
			Database server load from expensive SQL statements - SPR
	Security		
			System Recommendations (ABAP)
			Age of Support Packages
			Default Passwords of Standard Users
			Control of the Automatic Login User SAP*
			Protection of Passwords in Database Connections

Topic Rating	Topic	Subtopic Rating	Subtopic
		⚠	ABAP Password Policy
		⚠	RFC Gateway Security
		⚠	Message Server Security
		⚠	Critical authorizations, which allow to do anything
		✓	Critical authorizations, which should not be used in production
		✓	Critical authorizations, which should only see very limited use in production
⚠	Software Change and Transport Management of SPR		
		⚠	Number of Changes
		✓	Emergency Changes
		✓	Failed Changes
✓	Data Volume Management (DVM)		

* **Remark:** The check overview includes checks executed with a green result, which do not appear in the report.

Note: All recommendations in this report are based on our general experience. Test them before using them in your production system. Note that EarlyWatch Alert is an automatic service.

Note: If you have any questions about the accuracy of the checks in this report or the correct configuration of the SAP Solution Manager EarlyWatch Alert service, create a customer case under component SV-SMG-SER-EWA.

Note: If you require assistance to resolve concerns about the performance of the system, or if you require a technical analysis of other aspects of your system as highlighted in this report, please contact your customer or Customer Interaction Center. To contact the Customer Interaction Center, please refer to the contact methods provided in [SAP Note 560499](#). For details of how to set the appropriate priority level, see [SAP Note 67739](#).

Performance Indicators for SPR

The following table shows the relevant performance indicators in various system areas.

Area	Indicators	Value	Trend
System Performance	Active Users (>400 steps)	904	➡
	Avg. Availability per Week	100 %	➡
	Avg. Response Time in Dialog Task	1614 ms	⬇
	Max. Dialog Steps per Hour	27211	➡
	Avg. Response Time at Peak Dialog Hour	1323 ms	⬇
	Avg. Response Time in RFC Task	664 ms	⬆
	Max. Number of RFCs per Hour	162570	➡
	Avg. RFC Response Time at Peak Hour	163 ms	⬆
Hardware Capacity	Max. CPU Utilization on DB Server	39 %	➡
	Max. CPU Utilization on Appl. Server	39 %	⬇
Database Performance	Avg. DB Request Time in Dialog Task	939 ms	⬇
	Avg. DB Request Time for RFC	166 ms	⬆
	Avg. DB Request Time in Update Task	19 ms	➡
Database Space Management	DB Size	5044.10 GB	➡
	DB Growth Last Month	84.02 GB	➡

2 Landscape

2.1 Products and Components in current Landscape

PRODUCT

System	SAP Product	Product Version
SPR~ABAP	SAP ERP ENHANCE PACKAGE	6.04/NW7.01

Note: System does not use Unicode technology.

MAIN INSTANCES

Related System	Main Instance
SPR~ABAP	SAP ECC Server

DATABASES

Related System	Database System	Database Version	DB ID
SPR~ABAP	ORACLE	12.2.0.1	SPR

2.2 Servers in current Landscape

SAP APPLICATION SERVERS

System	Host	Instance Name	Logical Host	ABAP	JAVA
SPR~ABAP	produbd	produbd_SPR_00	produbd	✓	
SPR~ABAP	produap1	produap1_SPR_00	produap1	✓	
SPR~ABAP	produap2	produap2_SPR_00	produap2	✓	
SPR~ABAP	produap3	produap3_SPR_00	produap3	✓	
SPR~ABAP	produap4	produap4_SPR_00	produap4	✓	

DB SERVERS




Related System	Host	Logical Host (SAPDBHOST)
SPR~ABAP	produbd	produbd

2.3 Hardware Configuration

HOST OVERVIEW

Host	Hardware Manufacturer	Model	CPU Type	CPU MHz	Virtualization	Operating System	CPUs	Cores	Memory in MB
produap1	Oracle	Solaris on SPARC V9 CPU	SPARC-M6	3600	SOLARIS ZONE	Solaris 11 on SPARC	24	3	61440
produap2	Oracle	Solaris on SPARC V9 CPU	SPARC-T5	3600	SOLARIS ZONE	Solaris 11 on SPARC	24	3	61440
produap3	Oracle	Solaris on SPARC V9 CPU	SPARC-M6	3600	SOLARIS ZONE	Solaris 11 on SPARC	24	3	61440
produap4	Oracle	Solaris on SPARC V9 CPU	SPARC-T5	3600	SOLARIS ZONE	Solaris 11 on SPARC	24	3	61440
produbd	Oracle	Solaris on SPARC V9 CPU	SPARC-M6	3600	SOLARIS ZONE	Solaris 11 on SPARC	32	4	65536





3 Service Data Quality and Service Readiness


System SPR has not yet been prepared for the SAP Support Backbone update on January 1, 2020.

Configuration hints for optional service data are provided.

The SAP ERP ENHANCE PACKAGE system SPR is not fully prepared for delivery of future [remote services](#).

Rating	Check Performed
	Sending EarlyWatch Alert of SPR to SAP Backbone
	Configuring SPR for SAP Note Assistant
	Service Data Quality
	Service Preparation of SPR











3.1 Sending EarlyWatch Alert of SPR to SAP Backbone

	System SPR is neither connected directly nor through Solution Manager 7.2 SMA to SAP. If yet not done, enable SMA or another managing system to connect to SAP with HTTPS.
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All connections to SAP Support Backbone use https protocol only. For a how to, refer to [Connectivity to SAP](#). You must act to be able to connect to SAP for EarlyWatch Alert reports and Remote Support Services.

The following table shows the latest data transmissions for system SPR:

LATEST SERVICE DATA FOR SYSTEM SPR SENT TO SAP

Date (collected)	System	Sends EWA?	Kernel	Kernel	ST-PI	ST-PI	Destination	User	Ready for 2020	Dest. Functional?
27.01.2025	Solution Manager 7.2 SMA	no	753_REL 1200		740 25		HTTPS -> SAP	S-user		
27.01.2025	EHP4 FOR SAP ERP 6.0 / NW7.01 SPR	yes	722_EXT_REL 1025		2008_1_700 35		SDCC_OSS RFC -> SAP	Generic		
27.01.2025	Solution Manager SMP	n/a	n/a		n/a		n/a	n/a		

You can connect system SPR directly to SAP Support Backbone following [SAP Note 2837310](#) for the EarlyWatch Alert and [SAP Note 2928592](#) for the download of digitally signed SAP Notes.

More easily, you can realize the connection system SPR to SAP Support Backbone through SAP Solution Manager 7.2. If not yet done, perform the managed system setup for system SPR on this Solution Manager. For SNOTE, you additionally need to configure system SPR.


STEPS TO CONNECT SPR TO SAP

Priority	Action Item	Details	SAP Note
Very high	Technical communication user	To connect to SAP Support Backbone, you must enter in system SPR a technical communication user in the RFC destination to SAP Support Backbone. A generic user is no more allowed. Please follow SAP Note 2869969 and see SAP Note 2740667 for details.	2869969
High	Create HTTPS Connections	Create SM59 connection SAP-SUPPORT_PARCELBOX.	2716729
Information	Execute Tasklist	Tasklist 'SAP_BASIS_CONFIG_OSS_COMM', which assists in enabling https connectivity, is yet not created.	2793641
completed	Create HTTPS	Connection SAP-SUPPORT_PORTAL is functional.	2289984

Priority	Action Item	Details	SAP Note
	Connections		

3.1.1 Configuring SPR for SAP Note Assistant

CONFIGURATION AND USAGE OF DIGITALLY SIGNED SAP NOTES


Type	Finding	Further Information
	SNOTE is configured to connect with HTTPS to SAP using destination SAP-SUPPORT_PORTAL to SAP's Service market place and destination SAP-SUPPORT_NOTE_DOWNLOAD to SAP's File content management system	Guided Answer 'Options for Downloading Digitally Signed SAP Notes'

3.2 Service Data Quality

The service data is collected by the Service Data Control Center (SDCCN) or read from the Solution Manager's BW or Configuration and Change Database (CCDB) .

Recommendation: To resolve issues with the service data quality, follow the hints and SAP Notes provided below.




3.2.1 Quality of Service Data in Solution Manager Diagnostics - BW

Prio.	Report Area affected	Details and Related Infocube	SAP Note
	Workload of ABAP System SPR	No performance data is returned from BW InfoCube. Infocube: OCCMSMTPH used in section ' Workload Overview SPR '	1840395

LEGEND FOR 'PRIORITY' COLUMN ABOVE

Prio.	Explanation: Impact of Missing or Erroneous Data
	An optional check was skipped.























3.3 Service Preparation of SPR

Rating	Check Performed
	Service Preparation Check (RTCCTOOL)
	Service Data Control Center of SPR
	Hardware Utilization Data

In preparation for SAP services, ensure that connections, collectors, and service tools are up to date. These functionalities are explained in SAP Notes [91488](#) and [2253047](#).

3.3.1 Service Preparation Check (RTCCTOOL)

Report RTCCTOOL was last run on 27.01.2025. During the check, the tool detected issues for which a YELLOW rating was set.

Overall Status	SAP Note	Topic	Tool Status	Manual Status
	69455	Addon ST-A/PI 01W_700		◇
	69455	ST-A/PI 01W_700 Support Package 1		◇
	539977	ST-PI 2008_1_700 Support Package 38		◇
	69455	Proc. after addon impl.		◇
	69455	Switch on digital content verification		◇
	69455	Allow Online data collectors		◇
	539977	Addon ST-PI 2008_1_700		◇
	12103	Collectors and TCOLL		◇
	207223	EWAlert setup		◇
	1482296	SAP Note 1482296 for DVM [Serv. Exec]		◇
		Final RFC shutdown 30th Nov 2020		◇

Recommendation:

Addon ST-A/PI 01W_700

"Servicetools for Applications Plug-In" for NetWeaver 04s/ Basis 7.0x [your current version is one or two levels lower than the latest available]

From <http://support.sap.com/supporttools> ->ST-A/PI->Installations&Upgrades download the installation ST-A/PI 01W_700. Upload to tx SAINT and install as per note 69455. Then restart report RTCCTOOL and choose 'List->Refresh from SAPNet'.

ST-A/PI 01W_700 Support Package 1

Addon supportpackage level 1 for ST-A/PI 01W_700 for NetWeaver 04s/ Basis 7.0x [your current version is one or two levels lower than the latest available]

From <http://support.sap.com/supporttools> ->ST-A/PI->Support packages-> ST-A/PI 01W_700 download patches up to SAPKITABA8. Use the Maintenance optimizer to release the download. Upload from frontend to transaction SPAM, define a queue and import.





ST-PI 2008_1_700 Support Package 38

Addon supportpackage level 38 for ST-PI 2008_1_700 for 7.00-7.31 [your current patch is one to four levels lower than the latest available]

Open <http://support.sap.com/supporttools> ->ST-PI Supportpck.-> ST-PI 2008_1_700. Add patch SAPK-70038INSTPI (and predecessors if not yet impleme download basket. Release basket via Maintenance optimizer. Upload from frontend into transaction SPAM, define a queue and import the queue.

3.3.2 SDCC Destination Table

The table below summarizes the destinations configured in Service Data Control Center.

Finding	Details	Rating
There exists RFC destination SDCC_OSS to SAP Support Backbone.	Calls on RFC protocol to SAP Support Backbone are no more supported. You may delete destination SDCC_OSS	
There is a destination to SAP Support Backbone.		
On this SAP ERP ENHANCE PACKAGE system a Source System for Service Definitions is defined.	The Solution Manager is defined as Source System for Service Definitions. Find information about the Source System for Service Definitions flag in SAP Note SAP Note 1075827 .	
A Solution Manager ('BACK') destination exists.	This destination can establish a connection to SAP Support Backbone.	

Recommendation: Resolve the issue reported in the table.

4 Software Configuration for SPR



We have listed important recommendations concerning the current software configuration on your system. These recommendations should be implemented at the earliest opportunity.

Your system's software versions are checked. If known issues with the software versions installed are identified, they are highlighted.

4.1 SAP Application Release - Maintenance Phases

SAP Product Version	End of Mainstream Maintenance	Status
EHP4 FOR SAP ERP 6.0 / NW7.01	31.12.2025	

SAP NetWeaver Version	End of Mainstream Maintenance	Status
SAP EHP1 FOR SAP NETWEAVER 7.0	31.12.2025	

RATING LEGEND

Rating	Description
	Mainstream / Extended maintenance offered by SAP is available for the next 18 months or longer.
	Mainstream / Extended maintenance offered by SAP will end in 6 to 18 months.
	Mainstream / Extended maintenance offered by SAP has expired or will expire in the next 6 months.

SAP mainstream maintenance for your main product version will expire on 31.12.2025.

Recommendation: We recommend to prepare an upgrade of your main product version. For more details see [SAP Support Portal - Maintenance](#).

Your SAP NetWeaver version will expire on 31.12.2025.

Recommendation: We recommend to prepare an upgrade of your SAP NetWeaver version. For more details see [SAP Support Portal - Maintenance](#).

Please note that this check, if created on your on-premise SAP Solution Manager, does not take account of extended maintenance options. In this case, **your main product version is checked for SAP mainstream maintenance only**, which might lead to invalid ratings, especially for SAP S/4HANA 1709, SAP S/4HANA 1809, and SAP S/4HANA 1909.

A complete verification, including also your individual extended maintenance contracts, is available only on your EWA Workspace account at [SAP ONE Support Launchpad](#) or [SAP for Me](#) respectively.

For general information about EarlyWatch Alert Workspace see [How to access the SAP EarlyWatch Alert apps in the SAP ONE Support Launchpad](#).

4.2 Security Risk Due to Outdated Support Packages

The chapter [Security](#) provides the following ratings regarding the maintenance status of implemented Support Packages:

Rating	Check	System ID
	Age of Support Packages	SPR

The Support Package level of your system has run out of security maintenance. For more information, see chapter [Security](#).

4.3 Support Package Maintenance - ABAP


The following table shows an overview of currently installed software components.

SUPPORT PACKAGES

Software Component	Version	Patch Level	Latest Avail. Patch Level	Support Package	Component Description
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Software Component	Version	Patch Level	Latest Avail. Patch Level	Support Package	Component Description
AIF	702	9	9	SAPK-70209INAIF	Application Interface Framework
COCKPIT	310	0			
EA-APPL	604	23	26	SAPK-60423INEAAPPL	SAP R/3 Enterprise Application Extension
EA-DFPS	600	16	36	SAPKGPDD16	EA-Defense Forces & Public Security
EA-FINSERV	604	5	27	SAPK-60405INEAFINSRV	SAP R/3 Enterprise Financial Services
EA-GLTRADE	600	16	36	SAPKGP GD16	SAP R/3 Enterprise Global Trade
EA-HR	604	190	213	SAPK-604J0INEAHR	SAP R/3 Enterprise Human Resource & Travel Extension
EA-IPPE	400	33	36	SAPKGPID33	SAP Integrated Product and Process Engineering
EA-PS	604	23	26	SAPK-60423INEAPS	SAP R/3 Enterprise Public Services
EA-RETAIL	600	16	36	SAPKGP RD16	SAP R/3 Enterprise Retail
ECC-DIMP	600	16	36	SAPK-60016INECCDIMP	ECC Discrete Industries Mill Products
ERECRUIT	600	16	35	SAPK-60016INERECRUIT	HCM E-Recruiting
FI-CA	604	5	26	SAPK-60405INFICA	FI-CA, Contract Accounts Receivable and Payable (virtuell)
FI-CAX	604	5	26	SAPK-60405INFICAX	FI-CAX: Extended FI-CA
FINBASIS	604	5	26	SAPK-60405INFINBASIS	FINBASIS
GRCPINW	V1100_700	27	27	SAPK-11327INGRCPINW	SAP GRC Plug-in for NW
INSURANCE	600	16	36	SAPK-60016ININSURANC	INSURANCE SAP Insurance
IS-CWM	600	16	36	SAPK-60016INISCWM	IS-CWM Catch Weight Management
IS-H	600	19	81	SAPK-60019INISH	IS-Hospital
IS-M	600	16	36	SAPK-60016INISM	Media
IS-OIL	600	16	36	SAPK-60016INISOIL	SAP for Oil & Gas
IS-PS-CA	604	5	26	SAPK-60405INISPSCA	IS-Public Sector Contract Accounting
IS-UT	600	16	36	SAPK-60016INISUT	IS-UT
LSOFE	600	16	33	SAPK-60016INLSOFE	Learning Solution - Front End
PI_BASIS	701	23	27	SAPK-70123INPIBASIS	Basis Plug-In
SAP_ABA	701	23	27	SAPKA70123	SAP Anwendungsbasis
SAP_AP	700	39	42	SAPKNA7039	SAP Application Platform
SAP_APPL	604	23	26	SAPKH60423	SAP APPL
SAP_BASIS	701	23	27	SAPKB70123	SAP Basis component
SAP_BS_FND	701	23	26	SAPK-70123INSAPBSFND	SAP Business Suite Foundation
SAP_BW	701	23	27	SAPKW70123	SAP Business Warehouse
SAP_HR	604	190	213	SAPKE604J0	SAP HR
SEM-BW	604	5	26	SAPK-60405INSEMBW	SAP SEM
ST-A/PI	01V_700	3	3	SAPKITABA6	ST-A/PI Service Tools for Applications Plug-In
ST-PI	2008_1_700	35	39	SAPK-70035INSTPI	Solution Tools Plugin
VIRSAHR	530_700	21	22	SAPK-53321INVIRSAHR	VIRSAHR
WEBCUIF	700	23	26	SAPK-70023INWEBCUIF	SAP Web UIF

4.4 Database - Maintenance Phases

Database Version	End of Standard Vendor Support*	End of Extended Vendor Support*	Comment	Status	SAP Note
Oracle Database 12c Release 2	30.11.2020	31.03.2022	Limited error Correction		1174136

* Maintenance phases and duration for the DB version are defined by the vendor. Naming of the phases and required additional support contracts differ depending on the vendor. Support can be restricted to specific patch levels by the vendor or by SAP. Check in the referenced SAP Note(s) whether your SAP system requires a specific patch release to guarantee support for your database version.

The support status you receive in this report regarding your Oracle database version takes only the major release support dates into account and not whether the individual patch set level is outdated in terms of Oracle patch support. For this reason, verify in the corresponding patch set SAP Note whether the patch set you are currently using is still in the Oracle patch provisioning mode.

For more information, see the "Oracle Release" section of the "Database" section.

Recommendation: Standard vendor support for your database version has already ended / will end in the near future. Consider upgrading to a higher database version.

4.5 Operating System(s) - Maintenance Phases

Host	Operating System	End of Standard Vendor Support*	End of Extended Vendor Support*	Status	SAP Note
5 Hosts	Solaris 11 on SPARC	30.11.2031	30.11.2034		1174174

* Maintenance phases and duration for the operating system version are defined by the vendor. Naming of the phases and required additional support contracts differ depending on the vendor. Support can be restricted to specific patch levels by the vendor or by SAP. Check in the referenced SAP Note(s) whether your SAP system requires a specific patch release to guarantee support for your operating system version.

4.6 SAP Kernel Release

The following table lists all information about your SAP kernel(s) currently in use.

Instance(s)	SAP Kernel Release	Patch Level	Age in Months	OS Family
5 instances	722_EXT_REL	1025	45	Solaris on SPARC

4.6.1 Newer SP Stack Kernel Available

Your current SAP kernel patch level is not up to date.

Recommendation: Consider updating to the latest SP Stack Kernel. For details see SAP Note [2083594](#), [3116151](#), and [19466](#).

4.6.2 Additional Remarks

SAP releases Support Package stacks (including SAP kernel patches) on a regular basis for most products (generally 2–4 times a year). We recommend that you base your software maintenance strategy on these stacks.

You should only consider using a more recent SAP kernel patch than that shipped with the latest Support Package Stack for your product if specific errors occur.



For more information, see SAP Service Marketplace at <https://support.sap.com/software/patches/stacks.html> (SAP Support Package Stack information) and <https://me.sap.com/softwarecenter/support/index> (Support Packages & patch information).

For each patch there is an SAP Note in which all known regressions for this level are listed. Find it using the keyword [KRN1722PL1025](#) in the SAP Note search. For detailed information, see SAP Note [1802333](#) – Finding information about regressions in the SAP kernel.


4.7 ERP Applications

It is checked whether critical SAP Notes can be recommended. The implementation status of the SAP Note is checked. Where possible, a plausibility check is performed whether the business process affected by the SAP Note is used in system SPR.

Rating	Scenario	Used	Details
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Rating	Scenario	Used	Details
	Processing of Parked Invoices	✓	Transactions MIR4, MIR5, MIR6 or MIRO were used in your system
	Module Materials Management (MM)	✓	According to the workload monitor module MM is in use.

4.7.1 SAP HotNews On Transaction MIR4: Payment Block Change not Updated

SAP Note	Implementation Status	Error came into SPR by	Rating	Hotnews?
3028815	not downloaded	SAP_APPL 604 SP23		✓

Recommendation: You have processed parked invoices in your system. A coding error is present in your system: therefore, changes you make to a payment block are not updated. Please refer to [3028815](#). The table above shows if the error entered your system with [2945258](#) or a support package. You must implement [3028815](#) to avoid the issue.

5 Hardware Capacity



We have checked your system for potential CPU or memory bottlenecks and found that the hardware of your servers is sufficient for the current workload.

Note: Hardware capacity evaluation is based on hosts for which data is at least partially available.

5.1 Overview System SPR

General

This analysis focuses on the workload during the peak working hours (**9-11, 13**) and is based on the hourly averages collected by SAPOSCOL. For information about the definition of peak working hours, see SAP Note [1251291](#).

CPU

If the average CPU load exceeds **75%**, temporary CPU bottlenecks are likely to occur. An average CPU load of more than **90%** is a strong indicator of a CPU bottleneck.

Memory

If your hardware cannot handle the maximum memory consumption, this causes a memory bottleneck in your SAP system that can impair performance. The paging rating depends on the ratio of paging activity to physical memory. A ratio exceeding **25%** indicates high memory usage (if Java has been detected **0%**) and values above **50%** (Java **10%**) demonstrate a main memory bottleneck.

Server	Max. CPU load [%]	Date	Rating	RAM [MB]	Max. Paging [% of RAM]	Date	Rating	Analysis Start	Analysis End
produbd	39	23.01.2025	✓	65.536	4	23.01.2025	✓	20.01.2025	26.01.2025
produap1	32	24.01.2025	✓	61.440	0		✓	20.01.2025	26.01.2025
produap2	39	22.01.2025	✓	61.440	0		✓	20.01.2025	26.01.2025
produap3	33	24.01.2025	✓	61.440	0		✓	20.01.2025	26.01.2025
produap4	39	22.01.2025	✓	61.440	0		✓	20.01.2025	26.01.2025

Note: For virtualization or IaaS scenarios (for example, IBM PowerVM, VMware, Amazon AWS, ...) it is possible that the CPU rating for some hosts is YELLOW or RED, even though the utilization value is quite low. In this case, the relevant host could not use maximum usable capacity due to a resource shortage within the virtualized infrastructure (for example, IBM PowerVM: Shared Pool CPU utilization).

6 BKF Info & Admin for SAP EWA

System errors or business exceptions can be a reason for open, overdue, or unprocessed business documents or long-lasting processes. SAP Business Process Analysis, Stabilization and Improvement offerings focus on helping you to find these documents (as it may directly or indirectly negatively impact business).

This section provides an example of indicators, and its findings are a basis of further SAP offerings. In the example below, the backlog of business documents is compared to daily or weekly throughput or set in relation to absolute threshold numbers.

It provides business information to discuss possible technical or core business improvement process potential.

SAP tools and methods can help to monitor and analyze business processes in more detail.

Find more information, see [here](#).

NOTE: Overdue or exceptional business documents are often caused by system errors, *such as user handling issues, configuration or master data issues, or open documents on inactive organizational units or document types* that can be included in the measurements. These documents are rarely processed further by the business departments and often do not have a direct impact on customer satisfaction, revenue stream, or working capital. Nevertheless, these documents can have negative impacts on other areas such as supply chain planning accuracy, performance (of other transactions, reports, or processes), and reporting quality.

For more information about this section, see [here](#). See "Which optional content can be activated in SAP EarlyWatch Alert?".

6.1 Reference Key Figures Measured Value Summary

The below values originate from reference key figures executed in your back-end system. A rating is given as the first criticality indicator for each value that may represent open, overdue, or exception documents. The rating can be based on the absolute number of references or relate to a certain business throughput. Note that a rating can be assigned only if a reference value is available (in the case of relative evaluation) or if the evaluation is based on an absolute number.

The following general rule of thumb applies to most ratings of application-related backlog key figures:

GREEN – the backlog is smaller than one day of typical daily throughput

YELLOW – the backlog is between one and five days of typical daily throughput







RED – the backlog is above five days of typical daily throughput

GRAY – standard evaluation is not possible due to missing reference value

Bear in mind that all assumptions and ratings in this presentation are based on our general experience with other customers and that the findings are not necessarily business-critical in your particular case. The key figures are further described in the [KPI Cloud Catalog](#).

Data collection status:

Data collection frequency (in months): 3

Rating	Business Area: Key Figure Short Name	Finding	#
	Finance: Overdue vendor payments (actual fiscal year) [K20]	220 open vendor items in Accounts Payable in the current were identified, whereby the due date for payment is .. (9 less than three months & 4 older than twelve months). Based on absolute numbers (GREEN[<100]; RED[>1000]).	
	Finance: Overdue customer payments (actual fiscal year) [K15]	192 open customer items in Accounts Receivable in the current were identified, whereby the due date for payment is .. (24 less than three months & 6 older than twelve months). Based on absolute numbers (GREEN[<100]; RED[>1000]).	
	Finance: Bank Statement Items not completed [K16]	666 bank statement items were identified that have not been fully posted (7 less than three months & 652 older than twelve months). Based on absolute numbers (GREEN[<10]; RED[>100]).	
	Finance: Early Payments FI-AP (before cash discount 1) [K22]	3 early payments before cash discount 1 were identified. Based on absolute numbers (GREEN[<10]; RED[>100]).	
	Procure To Pay: Overdue PO items [K28]	1.511 purchase order items were identified that are overdue by more than 10 days and that are not yet completely deli.. (98 less than three months & 1.011 older than twelve months). Based on 0 PO items created (max per week).	
	Procure To Pay: Purchase Order Items without Final	173.039 purchase order items were identified that are more than 30 days and without a final invoice indicator (250 less than three months & 171.808 older	

Rating	Business Area: Key Figure Short Name	Finding	#
	Invoice Indicator [K33]	than twelve months). Based on absolute numbers (GREEN[<100]; RED[>1000]).	
⚠	Procure To Pay: Overdue Purchase Requisition Items [K27]	157 purchase requisition items were identified that are open and overdue by more than 10 days (24 less than three months & 71 older than twelve months). Based on 131 created (max per week) (GREEN[<131]; RED[>655]).	
⚠	Procure To Pay: Blocked invoices for payment [K30]	17.487 vendor invoices items were identified which were created more than 30 days ago and still have not been released.. (181 less than three months & 16.869 older than twelve months). Based on absolute numbers (GREEN[<100]; RED[>1000]).	
✅	Plant Maintenance: Overdue Notifications [K67]	108 notifications were identified that are overdue by more than 30 days (2 less than three months & 67 older than twelve months). Based on 891 created (max per week) (GREEN[<891]; RED[>4455]).	
⚠	Plant Maintenance: Work Orders in phase created [K68]	43.822 work orders in the "created" phase that are older than 30 days were identified (2.444 less than three months & 28.147 older than twelve months). Based on 3686 created (max per week) (GREEN[<3686]; RED[>18430]).	
⚠	Plant Maintenance: Work Orders in phase released [K69]	27.430 work orders were identified that are in the "released" phase, created more than 60 days ago, and that have not .. (1.080 less than three months & 20.702 older than twelve months). Based on 3686 created (max per week) (GREEN[<3686]; RED[>18430]).	
✅	Warehouse Management: Outbound Transfer Order Items open [K39]	18 open picking transfer order (TO) items were found that were created more than three days ago but that still hav... Based on 441 created (max per week) (GREEN[<441]; RED[>2205]).	
✅	Warehouse Management: Transfer Requirement Items open [K41]	74 open transfer requirement items (TR items) were identified that were created over three days ago and that still.. (6 less than three months & 36 older than twelve months). Based on 579 created (max per week) (GREEN[<579]; RED[>2895]).	

SAP Active Global Support provides several self-assessments or guided services to encourage customers to benefit from an SAP Business Process Analysis, Stabilization, or Improvement project.

6.2 SAP Business Process Analytics

With SAP Business Process Analytics in SAP Solution Manager, you can continuously analyze the above key figures and more than **750 additional out-of-the-box key figures** for continuous improvement potential in your SAP business processes.

With SAP Business Process Analytics, you can perform the following functions:

- (1) Internal business process benchmarking (across organizational units, document types, customers, materials, and so on) for a number of exceptional business documents and/or for the cumulated monetary value of these documents.
- (2) Age analysis to measure how many open documents you have from the previous years or months.
- (3) Trend analysis for these business documents over a certain time period.
- (4) Create a detailed list for all of these exceptional business documents in the managed system, enabling a root cause analysis to find reasons why these documents are open, overdue, or erroneous.

SAP Business Process Analytics can help you to achieve the following main goals:

- Gain global transparency of business-relevant exceptions to control template adherence
- Improve process efficiency and reduce process costs by reducing system issues and eliminating waste (for example, user handling, configuration issues, and master data issues)
- Improve working capital (increase revenue, reduce liabilities and inventory levels)
- Ensure process compliance (support internal auditing)
- Improve supply chain planning (better planning results and fewer planning exceptions)
- Improve closing (fewer exceptions and less postprocessing during period-end closing)

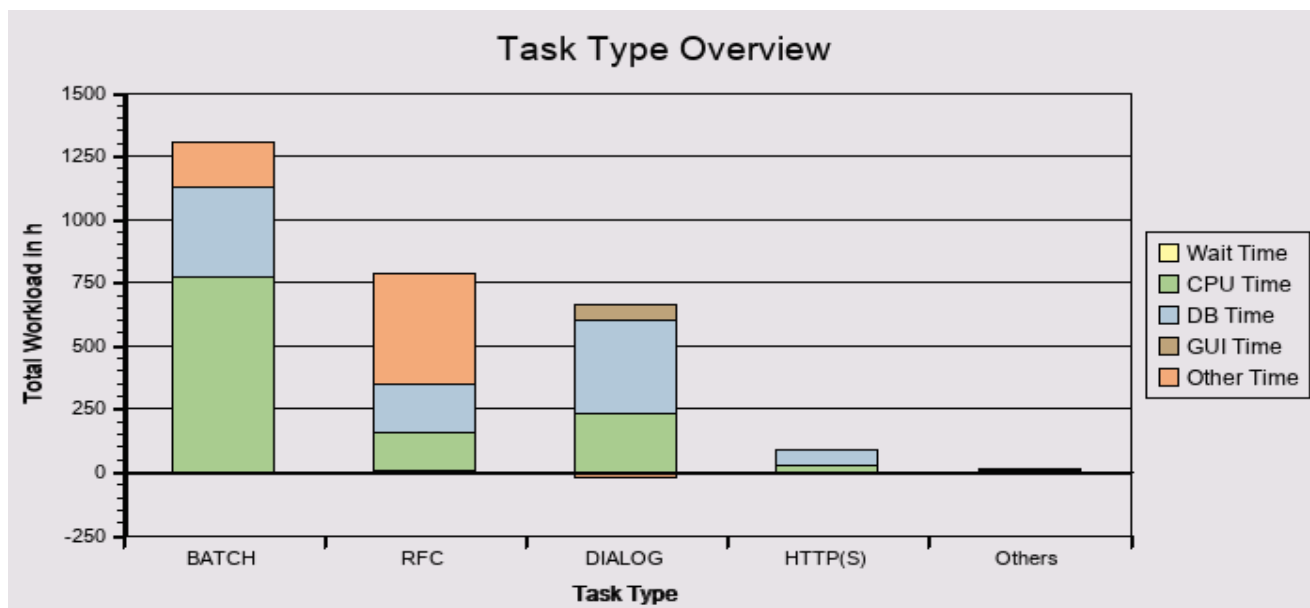
SAP also provides business process improvement methodology to help you identify and analyze improvement potential within your business processes using Business Process Analytics in SAP Solution Manager and visualize it for your senior management.

For more information, navigate to the following link: [here](#).

In general, SAP Active Global Support provides several self-assessments or guided services to encourage customers to benefit from an SAP Business Process Stabilization and/or Business Process Improvement project.

7 Workload of System SPR

This chart displays the main task types and indicates how their workload is distributed in the system. The table below lists the detailed KPIs.



RESPONSE TIME COMPONENTS IN HOURS

Task Type	Response Time	Wait Time	CPU Time	DB Time	GUI Time
BATCH	1.302,7	0,0	774,5	355,0	0,0
RFC	783,0	4,6	150,2	196,2	0,0
DIALOG	640,2	1,0	227,7	372,2	58,4
HTTP(S)	85,0	0,1	27,7	59,8	0,0
Others	14,3	0,1	9,0	3,8	0,0

7.1 Workload By Users

User activity is measured in the workload monitor. Only users of at least medium activity are counted as 'active users'.

Users	Low Activity	Medium Activity	High Activity	Total Users
dialog steps per week	1 to 399	400 to 4799	4800 or more	
measured in system	814	837	67	1718

7.2 Workload Distribution SPR

The performance of your system was analyzed with respect to the workload distribution. We did not detect any major problems that could affect the performance of your SAP system.

7.2.1 Workload Distribution across ABAP Application Servers

To prevent a workload imbalance on one or more servers, we have analyzed the workload statistics for each SAP instance in your SAP production system.

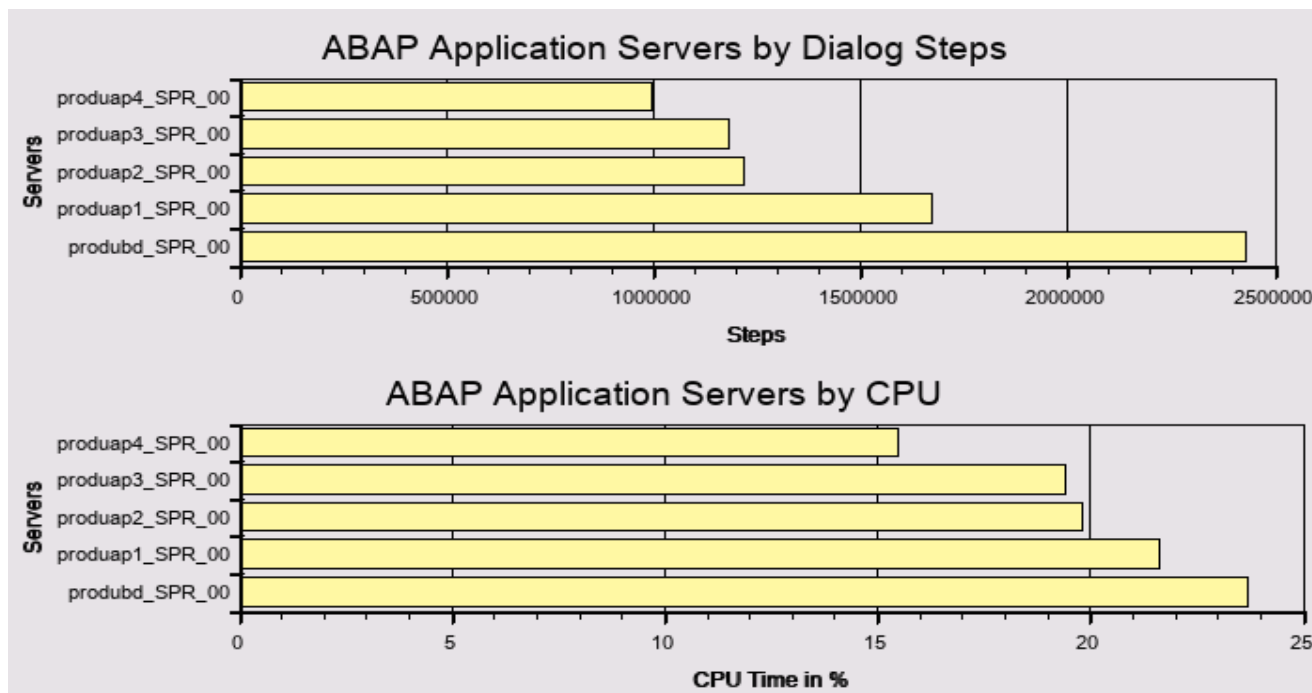
If your total hardware capacity is sufficient to handle your peak workload, an overload on one or more servers can increase response times for all users logged on to those servers. If the affected servers are running updates or a database instance, all users can be affected.

The following diagrams show the system workload distribution across all instances. We strongly recommend that you distribute the workload equally across all application servers.

The following aspects of the workload are evaluated below:

- The total number of transaction steps performed on the different servers
- The percentage of CPU time consumed by SAP applications running on the different servers

If the workload is distributed equally, the distribution of CPU time should be proportional to the number of CPUs on the different servers.



Note that your database capacity is limited by the database server hardware available. This is important, since your database is a central resource for all system activities. In contrast, application servers are not a central resource and affect only the users on that particular server. CPU shortages can be solved by improving the workload distribution or by adding a new application server. For information about automatic load balancing, refer to SAP Note [26317](#).

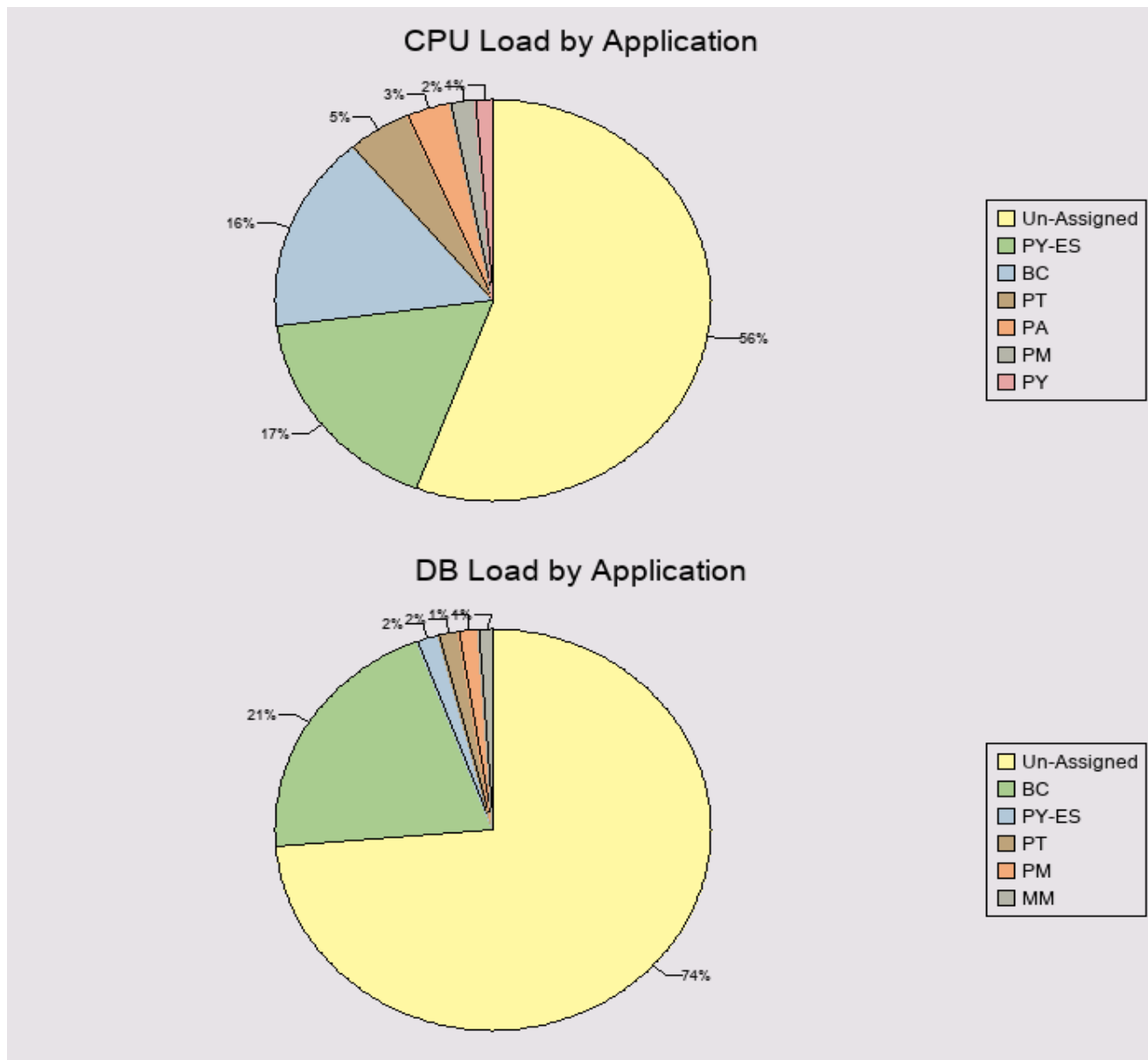
7.2.2 Workload by Application Module

The following diagrams show how each application module contributes to the total system workload. Two workload aspects are shown:

- CPU time: total CPU load on all servers in the system
- Database time: total database load generated by the application

All programs that are not classified in the Application Hierarchy are summarized in the "Unassigned" category. Customer programs, industry solutions, and third-party add-on developments may fall into this category.

The Application Hierarchy can be found in the Repository Browser (transaction SE80): in the "Object Category" selection field choose "Application Hierarchy".



7.2.3 DB Load Profile

The number of work processes creating database load in parallel is not significantly high.

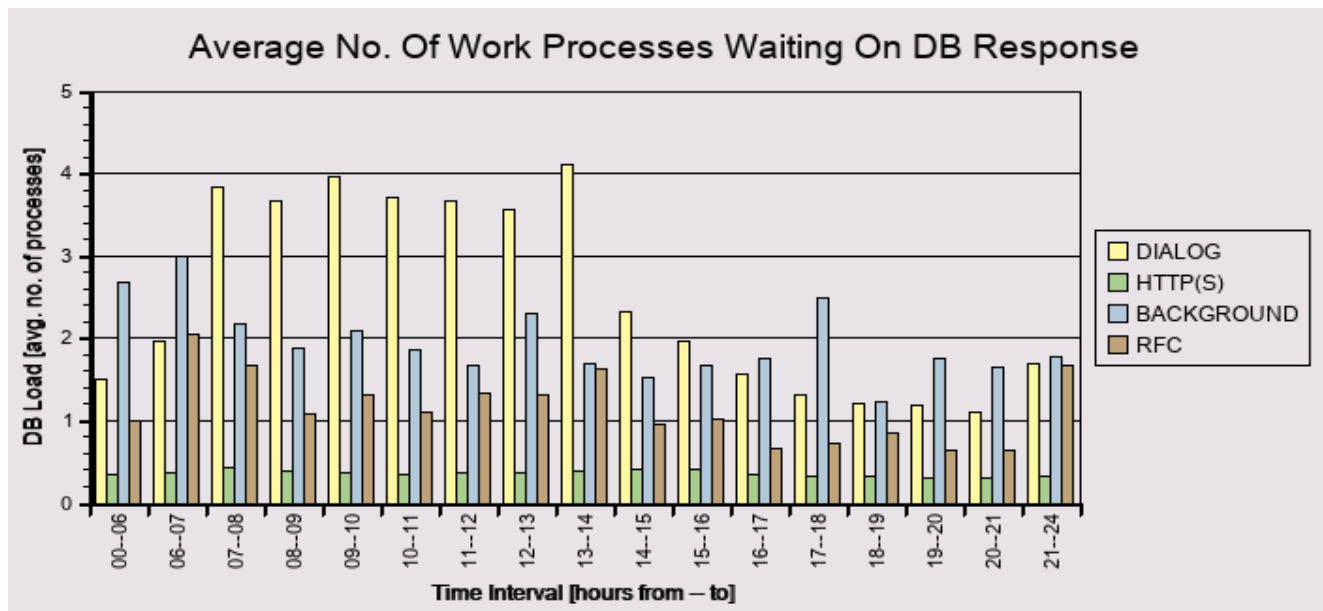
The following diagram shows the DB load caused by dialog, RFC, HTTP(S), and background tasks, over different time frames.

The data provided in the diagram represents the average number of database processes occupied by each task type in the database during the specified time frames.

These statistics are calculated as a weekly average, the average values over six working days with a unit of one hour. Periods between 00:00-06:00 and 21:00-24:00 contain an average value per hour, as these are not core business hours.

You can enable 24-hour monitoring by implementing SAP Note 910897. With 24-hour monitoring, the time profile returns the workload of the system or application server on an hourly basis rather than returning an average value per hour for the periods 00:00–06:00 and 21:00–24:00.

By comparing the load profiles for dialog and background activity, you can get an overview of the volume of background activity during online working hours.



8 Performance Overview SPR



The performance of your system was analyzed with respect to average response times and total workload. We have detected some problems that may impair system performance.

To ensure adequate performance in your core business transactions, you should take corrective action as soon as possible. For more information, please contact SAP Support.

Note: To access the response time statistics in SAP EarlyWatch Alert Workspace, click [system response time](#)

The following table shows the average response times for various task types:

AVERAGES OF RESPONSE TIME COMPONENTS IN MS

Task type	Dialog Steps	Response Time	CPU Time	Wait Time	Load Time	DB Time	GUI Time
DIALOG	1.427.306	1.614,4	574,3	2,4	4,0	938,8	147,2
RFC	4.246.383	663,7	127,3	3,9	2,6	166,3	0,0
UPDATE	572.070	55,7	35,7	0,2	2,7	19,1	0,0
UPDATE2	178.940	87,4	55,4	1,8	1,7	15,2	0,0
BATCH	338.200	13.867,4	8.243,9	0,2	64,6	3.779,3	0,0
SPOOL	53.210	79,1	33,4	1,3	0,2	3,2	0,0
HTTP	523.700	583,4	190,1	0,4	4,9	410,9	0,0

58% of the total response time is database time. If the dialog response time lies outside the acceptable boundaries and you are unhappy with overall system performance, investigate the reason for the high database times.

8.1 Performance Evaluation

The measured times are compared against reference times to provide a rating.

- If the number of dialog steps in an hour is less than 1000, this hour is not considered.
- If the total number of transaction steps is less than 20000, the rating for the task is not performed (indicated by a gray icon in the table).
- RED if at least three time ranges are rated RED.
- YELLOW if two time ranges are rated RED or at least three time ranges are rated YELLOW.

The table below shows that a performance problem is expected for the task that is rated YELLOW.

Task	Steps	Application Server Performance	Database Server Performance
Dia	1.426.266	!	!
Upd	572.070	✓	✓
HTTP	523.700	✓	✓
HTTPS	0	◇	◇

Rating	Task Type	Time	Dialog Steps	Response Time	CPU Time	DB Time
!	Dia	13-14	135.401,0	1.484,0	581,0	765,0
!	Dia	10-11	120.817,0	1.599,0	528,0	773,0
!	Dia	09-10	120.465,0	1.544,0	553,0	831,0
!	Dia	11-12	133.222,0	1.374,0	536,0	695,0
!	Dia	08-09	136.053,0	1.323,0	541,0	677,0
!	Dia	12-13	128.506,0	1.399,0	534,0	698,0
!	Dia	07-08	107.806,0	1.608,0	633,0	895,0
!	Dia	14-15	79.084,0	1.508,0	654,0	741,0
!	Dia	06-07	53.833,0	1.507,0	587,0	917,0

The ratings in the table above are determined by comparisons against the reference table below.

If the dialog response times are very poor, it will cause a RED rating for the entire check.

Task	Reference for Avg. Response Time (ms) Yellow Rating	Reference for Avg. Response Time (ms) Red Rating	Reference for Avg. DB time (ms) Yellow Rating	Reference for Avg. DB time (ms) Red Rating
Dia	1.200	3.600	600	1.800
Upd	2.400	3.600	1.200	1.800
HTTP	1.200	3.600	600	1.800
HTTPS	1.200	3.600	600	1.800

8.2 Transaction Profile Check

The following tables show the response times and the number of dialog steps for the transactions that cause the heaviest workload in your system.

8.2.1 Transactions by Total Workload

To access the transaction response time in SAP EarlyWatch Alert Workspace, click [here](#).

The following tables list the activities with the highest contribution to the total workload.

WORKLOAD BY TRANSACTION (DIALOG/HTTP(S)/WS-HTTP)

Transaction	Type	Dialog Steps	Total Resp. Time in %	Avg. Resp. Time in ms	Avg. CPU Time in ms	Avg. DB Time in ms	Avg. GUI Time in ms
ZPM719	DIA	69.462	10,0	10.571,8	2.197,4	8.503,4	258,9
ZIF012A	DIA	146.005	3,3	1.636,8	760,6	820,8	90,1
ZIF012C	DIA	20.638	1,8	6.520,7	3.015,4	5.184,7	106,8
ZPM675	DIA	29.761	1,5	3.576,3	759,5	2.871,0	99,9
SESSION_MANAGER	DIA	94.349	1,0	804,5	335,6	239,1	165,0
ZWFPCN_03	DIA	26.909	0,6	1.583,1	341,0	389,2	479,4
ZPM675_B	DIA	1.732	0,6	24.474,7	6.733,4	20.604,6	83,0
SQ01	DIA	10.949	0,6	3.827,8	2.278,1	997,5	307,7
ZPM757	DIA	52.888	0,5	712,2	330,3	340,4	70,9
ZIF403A	DIA	8.823	0,5	4.020,5	2.420,3	2.070,5	149,9

18.8% of the total response time in the above table is caused by customer transactions.

WORKLOAD BY TRANSACTION (BATCH)

Transaction	Dialog Steps	Total Resp. Time in %	Total Resp. Time in s	Total CPU Time in s	Total DB Time in s
RPCALCE0	55	10,0	732.274,0	692.321,0	46.203,3
ZHROL217	166	8,2	597.231,0	11.722,0	477.240,2
ZFIRE210	10.073	8,0	589.535,0	125.921,0	12.720,4
ZPMOL651	617	5,6	410.786,0	343.775,0	73.850,0
ZHROL214	166	2,9	213.608,0	170.562,0	39.107,0
ZIFOL618	851	2,4	175.819,0	115.368,0	55.957,0
RPIGA0E0	18	2,1	151.031,0	139.074,0	13.713,6
RPTIME00	7	1,7	125.568,0	113.204,0	19.866,6
ZPMOL597_QLIK	7	1,7	121.516,0	115.931,0	6.675,9
ZHRRE029	675	1,5	111.228,0	71.600,0	54.970,0

30.3% of the total response time in the above table is caused by customer transactions.

If response times are outside acceptable boundaries and you are unhappy with the performance of a transaction, contact your in-house developers about possible optimization potential and open a message under component SV-PERF if required.

WORKLOAD BY WEB SERVICES

Service	Calls	Total Resp. Time in %	Avg. Resp. Time in ms	Avg. CPU Time in ms	Avg. DB Time in ms	Type
Total	59.046	100,0	2.862,8	145,5	2.731,3	
Z_MM_WS_FLUX_GET_TOITEMS	28.882	92,6	5.418,2	138,1	5.293,6	synchronous

Service	Calls	Total Resp. Time in %	Avg. Resp. Time in ms	Avg. CPU Time in ms	Avg. DB Time in ms	Type
Z_MM_WS_FLUX_SYNC_BULTOS	28.934	5,5	323,2	136,7	200,4	synchronous
Z_MM_WS_FLUX_GET_MATERIALS	43	1,3	52.465,5	153,7	52.326,1	synchronous
ZHR_WS_INTERFAZ_MOODLE_EMP	7	0,2	54.909,4	37.925,7	22.938,1	synchronous
Z_MM_WS_CREAR_RESERVAS_SUMATE	247	0,2	1.300,0	746,2	447,0	synchronous
Z_MM_WS_FLUX_CONF_TOITEMS	649	0,1	275,9	216,0	82,2	synchronous
Z_MM_WS_BUSCAR_RESERVAS	246	0,0	189,3	169,1	39,5	synchronous
ZHR_WS_CONSULTAR_SALDO	37	0,0	196,0	164,1	47,8	synchronous
Z_MM_WS_FLUX_CREATE_REPLENISH	1	0,0	493,0	260,0	255,0	synchronous

8.2.2 Transactions by DB Load

The following transaction profiles list the transactions that have the greatest share in the database load, sorted by percentage of total database access times.

DATABASE LOAD BY TRANSACTIONS (DIALOG/HTTP(S))

Transaction	Type	Dialog Steps	Total DB Time in %	Avg. DB Time in ms
ZPM719	DIA	69.462	20,8	8.503,4
ZIF012A	DIA	146.005	4,2	820,8
ZIF012C	DIA	20.638	3,8	5.184,7
ZPM675	DIA	29.761	3,0	2.871,0
ZPM675_B	DIA	1.732	1,3	20.604,6
SESSION_MANAGER	DIA	94.349	0,8	239,1
ZIF403A	DIA	8.823	0,6	2.070,5
ZPM757	DIA	52.888	0,6	340,4
ZPM771B	DIA	27.868	0,5	526,2
ZLDF	DIA	15.488	0,4	819,5

35.2% of the total database time in the above table is caused by customer transactions.

If average database times are outside acceptable boundaries and you are unhappy with the performance of a transaction, contact your in-house developers about possible optimization potential and open a message under component SV-PERF if required.

DATABASE LOAD BY TRANSACTIONS (BATCH)

Transaction	Dialog Steps	Total DB Time in %	Total DB Time in s
ZHROL217	166	16,8	477.240,0
ZPMOL651	617	2,6	73.850,0
ZIFOL618	851	2,0	55.957,0
ZHRRE029	675	1,9	54.970,0
RPCALCE0	55	1,6	46.203,0
ZHR_COPIA_T5EL5	8	1,5	43.930,0
ZHROL214	166	1,4	39.107,0
RM07DOCS	21	1,0	28.472,0
ZINBT600	7	0,9	24.604,0
ZBCRE105	7	0,7	20.233,0

27.8% of the total database time in the above table is caused by customer transactions.

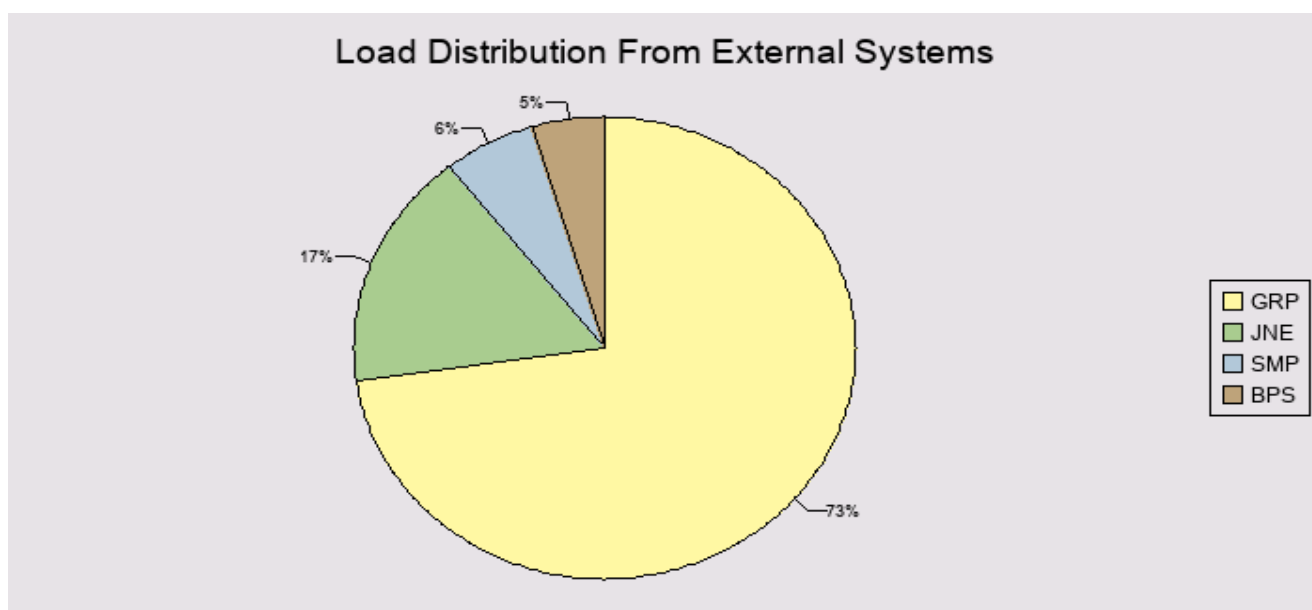
9 RFC Load by Initiating Action

The load in task type RFC is shown. In the workload monitor, this information is shown as 'Load from External Systems'. The calling system can be an application server of the system itself or any external system using the RFC interface. The 'Initial Action' is the calling program initiating the RFC. The total response time for each initial action is shown as an absolute value and as a percentage compared to the total RFC load considered in this table. The average times (per dialog step) are shown in milliseconds [ms].

Calls from external systems are shown if they account for at least 8h or 5% of the total RFC load. Local calls are shown if they account for at least 24h or 20% of the total RFC load.

LOAD OVERVIEW

Initial System	Load [s]	Load %
Local system SPR	7.739.013	92,38
Sum of external systems	638.125	7,62
n/a (not available)	22	0,00
RFC load (sum of above)	8.377.161	100,00
RFC load in Performance Overview	2.818.497	33,65
Load of all task types in Performance Overview	10.247.421	122,33



TOP 20 RFC CALLS FROM EXTERNAL SYSTEMS - AVERAGE TIMES [MS]

Initial System	Initial Action	Total Resp. Time in s	% of RFC Load	Avg. Response Time	Avg. CPU Time	Avg. DB Time	Avg. Roll Wait Time
GRP	GRAC_SPM_LOG_SYNC_UPDATE	291.518	3,48	21.253,8	6.414,2	9.500,1	0,8
GRP	GRAC_ACTION_USAGE_SYNC	169.403	2,02	2.462,7	532,7	225,4	1,4
casilda3_JNE_9220050		54.995	0,66	869,0	99,0	343,2	0,3
casilda3_JNE_9220051		50.619	0,60	829,4	93,7	304,0	0,4
SMP	EFWK RESOURCE MANAGER	37.628	0,45	4.785,5	2.806,3	661,9	0,5
BPS	BIDTPR_2025012225935000067_1	2.676	0,03	16.620,9	2.485,0	9,5	14,4
BPS	BIDTPR_20250121225935000064_1	2.535	0,03	16.043,3	2.455,2	9,8	12,0
BPS	BIDTPR_20250120225934000064_1	2.459	0,03	16.396,0	2.923,9	9,7	13,5
BPS	BIDTPR_20250119225932000089_1	2.433	0,03	17.012,5	2.818,3	9,8	14,3
BPS	BIDTPR_20250123225936000101_1	2.235	0,03	79.829,1	16.321,4	51,1	59,7
BPS	BIDTPR_20250124225937000062_1	2.185	0,03	15.282,2	2.414,3	8,9	9,6

Initial System	Initial Action	Total Resp. Time in s	% of RFC Load	Avg. Response Time	Avg. CPU Time	Avg. DB Time	Avg. Roll Wait Time
BPS	BIDTPR_20250125225937000014_1	2.145	0,03	14.688,4	2.347,1	8,1	8,7
BPS	BIDTPR_20250121150754000020_1	1.229	0,01	307.317,8	11.537,5	114,3	21,0
BPS	DTPA_NAVIGATE	950	0,01	474.889,5	20.435,0	340,0	24,0
BPS	BIDTPR_20250122013012000291_1	515	0,01	14.305,1	742,2	15,8	0,9
BPS	BIDTPR_20250121013033000054_1	515	0,01	14.294,3	747,2	14,8	0,9
BPS	BIDTPR_20250120013032000015_1	485	0,01	13.845,4	743,4	17,9	1,1
BPS	BIDTPR_20250123013035000054_1	453	0,01	13.335,0	739,4	18,4	1,1
BPS	BIDTPR_20250125013036000054_1	424	0,01	12.841,8	743,3	16,0	0,8
BPS	BIDTPR_20250126013036000136_1	367	0,00	11.839,8	695,5	15,8	0,7

TOP 20 RFC CALLS FROM LOCAL SYSTEM - AVERAGE TIMES [MS]

Initial System	Initial Action	Total Resp. Time in s	% of RFC Load	Avg. Response Time	Avg. CPU Time	Avg. DB Time	Avg. Roll Wait Time
SPR	ZPM719	734.628	8,77	10.273,2	2.135,6	8.262,9	0,7
SPR	HR_FICHAJES_SAGIR	597.246	7,13	1.231.435,4	24.184,0	984.009,4	0,1
SPR	WFSP-TR-PORTAFIRMAS_DEL00D	590.146	7,04	29.278,9	6.262,5	635,8	0,5
SPR	TC_CARGA_VIVA_OPTIMA	329.339	3,93	327.374,6	272.018,7	60.710,6	0,3
SPR	SAPMSSY1	272.389	3,25	2.194,6	555,5	929,4	1,2
SPR	ZIF012A	216.008	2,58	1.225,4	533,1	527,2	0,7
SPR	HR_FICHAJES_REMOTOS	213.619	2,55	639.576,7	510.682,2	117.093,2	0,1
SPR	ZIF012C	141.287	1,69	4.208,6	1.882,1	3.205,4	0,6
SPR	JOB_QTQVC_REPORT	121.617	1,45	2.895.638,8	2.761.431,0	160.460,7	0,1
SPR	ZHRRE029	110.755	1,32	82.407,3	53.028,3	40.740,4	0,2
SPR	HR_CADENA_DIARIA_1_RPTIME	104.886	1,25	5.826.977,9	5.246.964,4	928.126,5	0,1
SPR	FI_ZCMMM001	98.571	1,18	46,5	29,6	8,4	1,1
SPR	/QTQVC/READ_DATA	98.074	1,17	80.785,5	78.099,1	4.236,8	0,1
SPR	ZPM675	97.097	1,16	3.160,1	681,7	2.527,7	0,4
SPR	IF_ENVIO_MAESTROS_BIGDATA	90.253	1,08	6.446.673,2	5.978.235,0	530.875,1	0,0
SPR	SESSION_MANAGER	82.468	0,98	570,5	148,3	111,6	1,0
SPR	IW34	76.630	0,91	905,2	82,3	210,0	0,2
SPR	WF_ENVIO_WORKITEM_MAIL_DEL00D	70.371	0,84	4.988,0	4.624,4	115,1	0,1
SPR	/1PYXXFO/ZHR_PR3JPAYSLIP_PRNT	61.475	0,73	2.071,3	891,3	74,9	1,3
SPR	ZIF065A	59.261	0,71	719,1	188,1	184,1	0,7

10 Transactions with High Read Time

This table shows the applications with a high database read time. This analysis is based on the workload data from the last complete month.

Application	Type	Steps	Total Resp. Time [s]	Read Time [s]	Avg. Resp. Time [ms]	Avg. DB read time [ms]	% Read Time	Changed Records
ZPM719	DIALOG	163.574	2.123.794	1.805.321	12.984	11.037	85	33.676
SIW=====Z_MM_WS_FLUX_GET_TOITEMS	HTTP	119.669	628.302	613.553	5.250	5.127	98	260.305
ZPM675	DIALOG	105.174	384.531	301.395	3.656	2.866	78	4.794.461
ZIF012C	DIALOG	52.471	307.279	240.003	5.856	4.574	78	212.970
ZREV	RFC	67.359	98.693	86.969	1.465	1.291	88	120.964
ZIFOL511	BACKGROUND	4.462	89.993	78.079	20.169	17.499	87	18.840
ODQ_TASK	BACKGROUND	810	92.704	69.062	114.449	85.262	74	11.464
ZIFOL610	BACKGROUND	54	81.561	65.541	1.510.385	1.213.722	80	158.869
ZPMOL808	BACKGROUND	1.395	85.016	64.642	60.943	46.338	76	5.587
ZPMOL141	BACKGROUND	227	57.623	55.589	253.846	244.887	96	778
ZPM675_B	DIALOG	5.372	60.201	50.229	11.206	9.350	83	583
ZMMM08	DIALOG	19.786	46.027	44.811	2.326	2.265	97	16.000
ZCARGA_EQUIPOS	BACKGROUND	31	41.648	41.642	1.343.497	1.343.286	100	481

If these applications need to be tuned, you can use the Guided Self Service Performance Optimization or contact SAP for further support.

11 Trend Analysis for SPR



The performance of your system was analyzed with respect to the trend of response times per system and per application. We found no major problems that could affect system performance.

RATING TABLE

Rating	Check	Description
✓	History of response time of SPR	The long-term or short-term analysis of the response time does not show a critical trend
✓	Application profile of SPR	The long-term analysis of applications does not show a critical trend

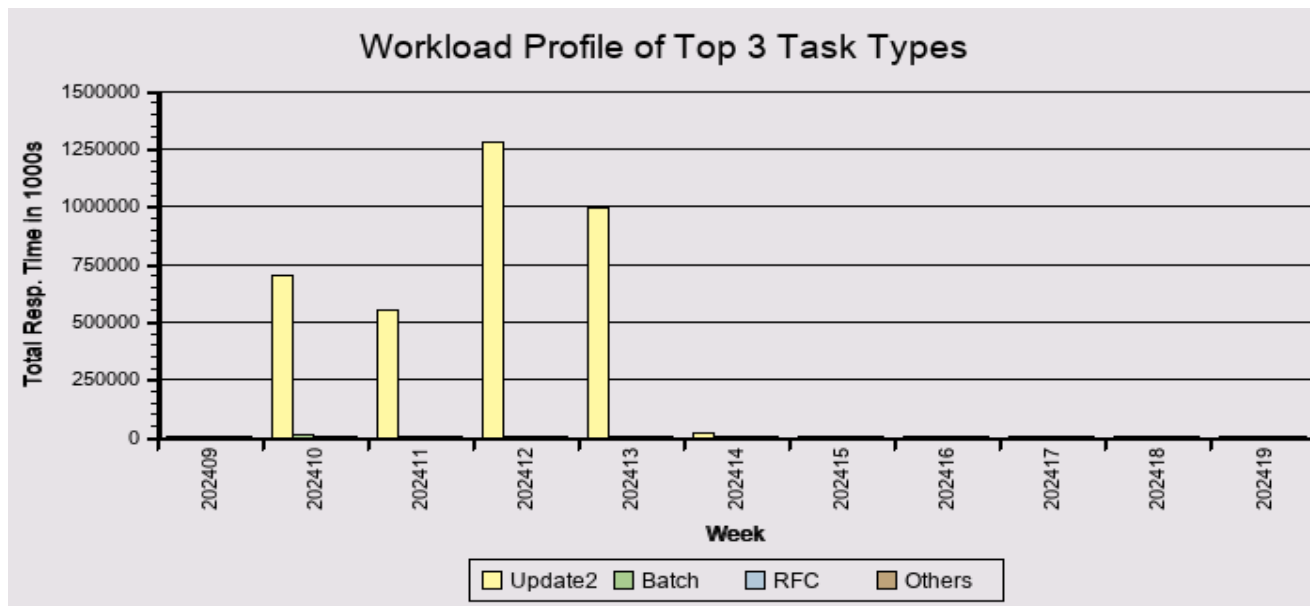
In the following, we analyzed the trend within the following time frames:

Short term: From calendar week 16/2024 to 19/2024

Long term: From calendar week 09/2024 to 19/2024

11.1 History of Response Time of SPR

We analyzed the growth of the average response time within this system. The long-term is %/year and short-term is %/year. This is not critical and no action is required.



In the following, we analyzed the trend within the following time frames:

Short term: From calendar week 16/2024 to 19/2024

Long term: From calendar week 09/2024 to 19/2024

The table below shows the long-term and short-term growth in average response time extrapolated to a year.

GROWTH EXTRAPOLATED TO A YEAR

Task Type	Long Term Growth (%/year)	Trend	Rating	Short Term Growth (%/year)	Trend	Rating
ALL	-395,4	↓	H	179,3	↑	H

The table below shows the long-term and short-term weekly average growth in the average response time.

AVERAGE GROWTH

Task Type	Long Term Growth (%/week)	Trend	Rating	Short Term Growth (%/week)	Trend	Rating
ALL	-7,6			3,4		

RATING LEGEND

	The trend is only for information
	The trend is not critical
	The trend is critical
	The trend is very critical

11.2 Application profile

In the following, we analyzed the trend within the following time frames:

Short term: From calendar week 16/2024 to 19/2024

Long term: From calendar week 09/2024 to 19/2024

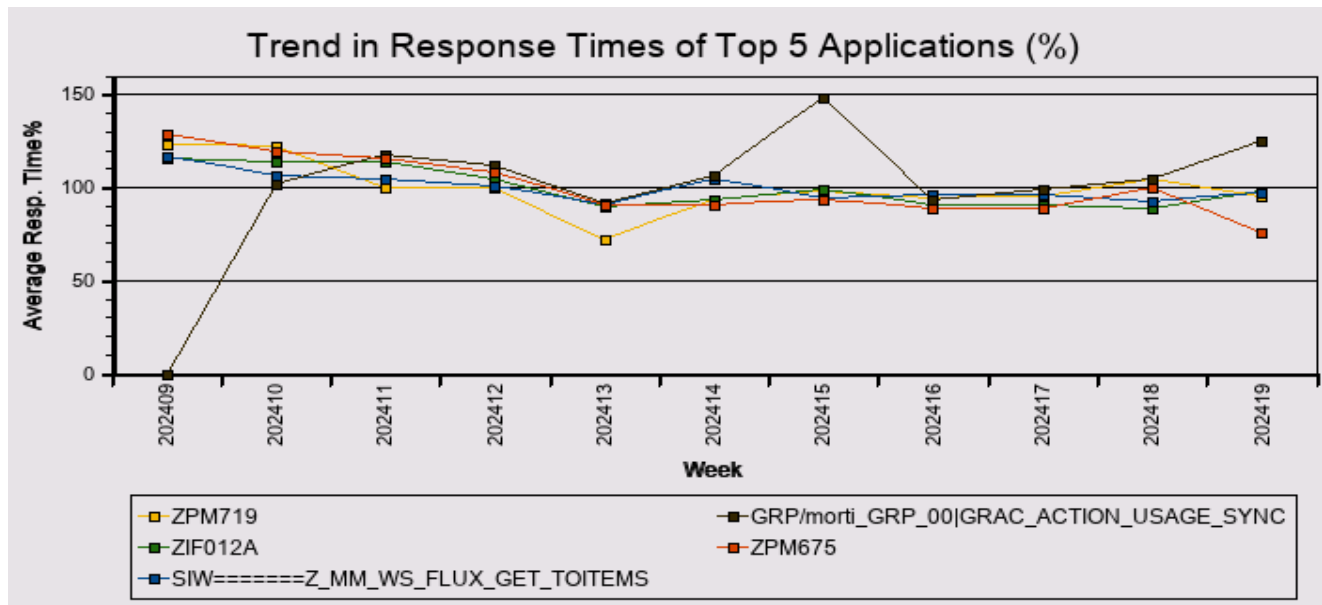
The table below shows the time profile of the top applications by total workload during the analyzed period.

TOP APPLICATIONS BY RESPONSE TIME

Task Type	Application	Total Resp. Time in s	% of Total Load	Avg. Resp. Time in ms	Long Term Growth (%/year)	Short Term Growth (%/year)	Avg. DB Time in ms	Avg. CPU Time in ms
Dialog	ZPM719	3372554	12	6137	-37,7	52,6	3967	2152
Dialog	ZIF012A	2194155	7	2054	-50,3	92,9	1178	806
HTTP(S)	SIW=====Z_MM_WS_FLUX_GET_TOITEMS	1408303	5	5187	-33,1	-0,2	5051	142
RFC	GRP/morti_GRP_00 GRAC_ACTION_USAGE_SYNC	1401244	5	1002	12,3	449,4	92	212
Dialog	ZPM675	977203	3	3379	-82,1	-135,7	2667	762
Dialog	ZIF012C	930301	3	5863	-50,6	291,7	4636	2540
RFC	SPR/produap2_SPR_00 SAPMSSY1	919858	3	4760	-77,5	2.633,4	1721	898
RFC	SPR/produap1_SPR_00 SAPMSSY1	846198	3	3178	-39,5	272,9	1562	636
RFC	SPR/produbd_SPR_00 IW34	785290	3	1125	-10,5	348,7	318	115
RFC	SPR/produap4_SPR_00 SAPMSSY1	637879	2	3443	-15,5	1.126,9	1670	879
Dialog	SESSION_MANAGER	503397	2	709	-27,8	-453,2	252	245
RFC	casilda3_JNE_9220051	453060	2	860	-8,0	230,6	293	88
RFC	casilda3_JNE_9220050	445481	2	863	-22,1	99,3	294	93
RFC	SPR/produap2_SPR_00 FI_ZCMMM001	442189	2	60	-146,5	-165,8	15	41
RFC	SMP/napa_SMP_02 EFWK RESOURCE MANAGER	423388	1	5945	-68,6	550,2	688	3074
RFC	WD_SISE_MAIN_APP EFWK RESOURCE MANAGER	353119	1	5009	-84,2	-301,7	581	2451
Dialog	ZIF403A	339958	1	3708	-12,5	803,3	1925	2204
Dialog	ZPM757	333753	1	749	-67,3	-254,6	352	352

Task Type	Application	Total Resp. Time in s	% of Total Load	Avg. Resp. Time in ms	Long Term Growth (%/year)	Short Term Growth (%/year)	Avg. DB Time in ms	Avg. CPU Time in ms
Dialog	ZWFPCN_03	317253	1	1388	-81,6	-180,4	489	308
RFC	SPR/produap4_SPR_00 FI_ZCMMM001	286282	1	61	-157,7	185,3	16	39

The graph below shows how the average response time of the top five applications varies over time. Data is normalized to 100% equaling the average value.



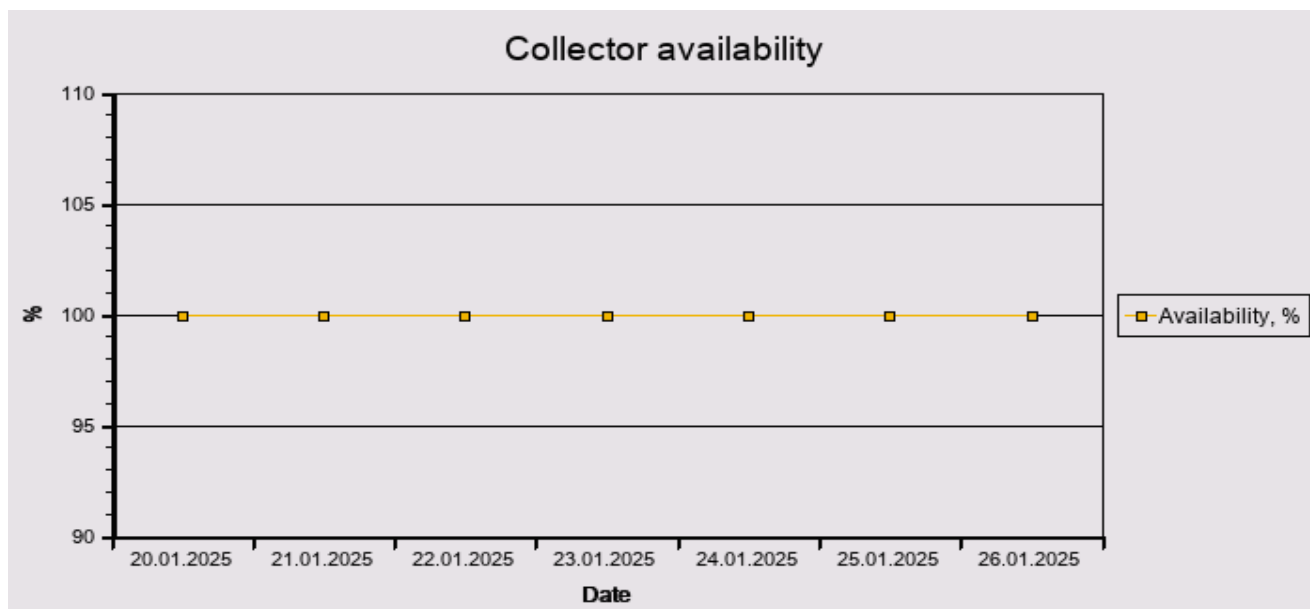
12 SAP System Operating SPR



The daily operation of your system was analyzed. We detected some problems that may impair system operation and stability.

Rating	Check
✓	Availability based on Collector Protocols
!	Program Errors (ABAP Dumps)
✓	Update Errors
✓	Table Reorganization
✓	Critical Number Ranges

12.1 Availability based on Collector Protocols



A value of 100% means that the collector was available all day. "Available" in the context of this report means that at least one SAP instance was running. If the SAP collector was not running correctly, the values in the table and graphics may be incorrect.

To check these logs, call transaction ST03N (expert mode) and choose "Collector and Performance DB -> Performance Monitor Collector -> Log".

This check is based on the logs for job COLLECTOR_FOR_PERFORMANCEMONITOR that runs every hour.

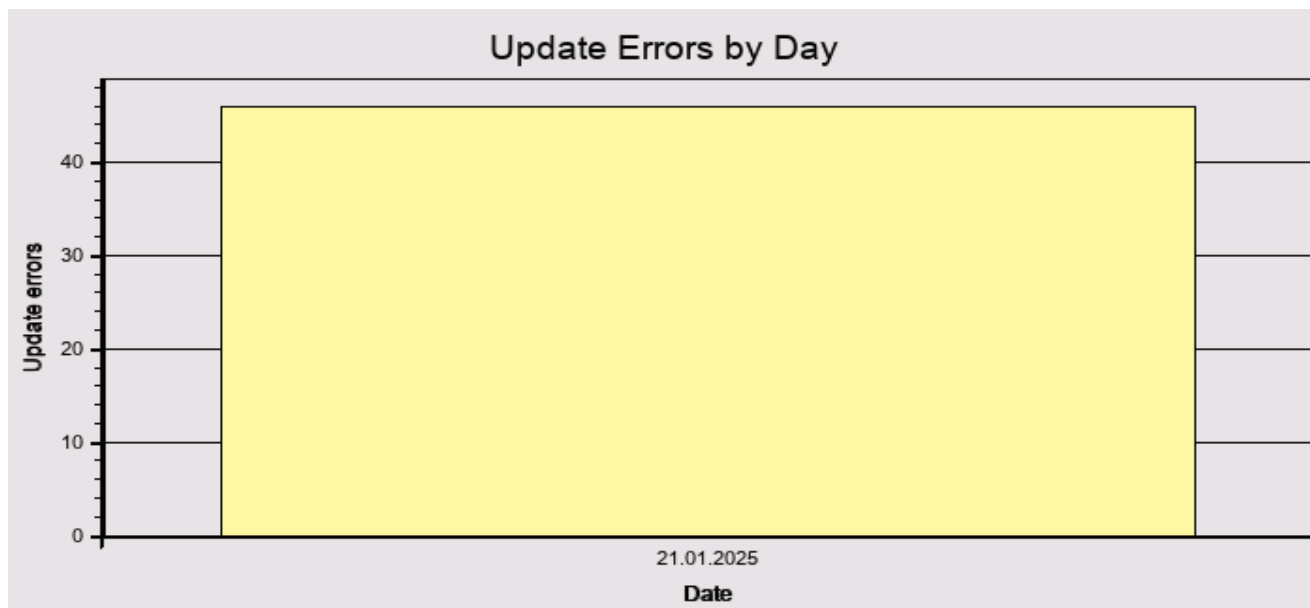
The job does NOT check availability; it carries out only general system tasks such as collecting and aggregating SAP performance data for all servers/instances. The log does not contain any direct information about availability; it contains only information about the status of the hourly statistical data collection.

As of SAP Basis 6.40, system availability information is available in the CCMS (Computing Center Management System) of an SAP System, in Service Level Reporting of SAP Solution Manager.

This function is provided by the relevant Solution Manager Support Packages as an advanced development. For more information, refer to SAP Note 944496, which also lists the prerequisites that must be fulfilled before implementation can take place."

12.2 Update Errors

In a system running under normal conditions, only a small number of update errors should occur. To set the rating for this check, the number of active users is also taken into consideration. The following table contains the number of update errors detected.



We did not detect any problems.

12.3 Table Reorganization

The largest tables and/or rapidly growing tables of system SPR were checked. No standard SAP recommendations for the applicable data volume management were found.

12.4 Program Errors (ABAP Dumps)

379 ABAP dumps have been recorded in your system in the period 20.01.2025 to 27.01.2025. ABAP dumps are generally deleted after 7 days by default. To view the ABAP dumps in your system, call transaction ST22 and choose Selection. Then select a timeframe.

Date	Number of Dumps
20.01.2025	62
21.01.2025	63
22.01.2025	71
23.01.2025	44
24.01.2025	48
25.01.2025	30
26.01.2025	31
27.01.2025	30

Name of Runtime Error	Dumps	Server (e.g.)	Date (e.g.)	Time (e.g.)
OPEN_DATASET_NO_AUTHORITY	1	produap1_SPR_00	20.01.2025	08:15:22
ITAB_DUPLICATE_KEY_IDX_OP	1	produap1_SPR_00	20.01.2025	10:49:02
SYSTEM_POINTER_PENDING	3	produap4_SPR_00	20.01.2025	11:32:36
DYNP_WRONG_SCREEN_TYPE	1	produap4_SPR_00	21.01.2025	08:15:11
UNCAUGHT_EXCEPTION	13	produap4_SPR_00	21.01.2025	08:43:42
PERFORM_NOT_FOUND	1	produap4_SPR_00	21.01.2025	11:48:46
ASSERTION_FAILED	1	produap1_SPR_00	21.01.2025	15:15:27
CALL_FUNCTION_SIGNON_REJECTED	2	produbd_SPR_00	21.01.2025	16:30:58
DBIF_DSQ2_SQL_ERROR	1	produap3_SPR_00	22.01.2025	02:46:37

Name of Runtime Error	Dumps	Server (e.g.)	Date (e.g.)	Time (e.g.)
CALL_FUNCTION_PARM_UNKNOWN	3	produap1_SPR_00	22.01.2025	07:46:59
ASSIGN_BASE_WRONG_ALIGNMENT	3	produap2_SPR_00	22.01.2025	11:48:06
RFCGUI_UNEXPECTED_DATA	1	produap2_SPR_00	22.01.2025	12:24:23
DBIF_REPO_SQL_ERROR	1	produap1_SPR_00	22.01.2025	12:25:28
MESSAGE_TYPE_X	12	produap4_SPR_00	22.01.2025	13:59:14
TSV_TABH_POOL_NO_ROLL_MEMORY	1	produbd_SPR_00	23.01.2025	00:25:04
SYSTEM_CANCELED	1	produap3_SPR_00	23.01.2025	11:07:30
BCD_ZERODIVIDE	3	produap2_SPR_00	23.01.2025	12:57:06
ITAB_ILLEGAL_SORT_ORDER	7	produap2_SPR_00	24.01.2025	07:53:39
EXSORT_FWRITE_FAILED	1	produbd_SPR_00	24.01.2025	08:25:05
SYNTAX_ERROR	5	produap1_SPR_00	24.01.2025	09:18:07
CONVT_NO_NUMBER	6	produap1_SPR_00	24.01.2025	11:22:55
SAPSQL_ARRAY_INSERT_DUPREC	1	produap2_SPR_00	24.01.2025	13:07:58
CALL_FUNCTION_REMOTE_ERROR	10	produap2_SPR_00	24.01.2025	14:00:31
TSV_TNEW_OCCURS_NO_ROLL_MEMORY	3	produap3_SPR_00	25.01.2025	00:23:37
SYSTEM_NO_ROLL	1	produap3_SPR_00	26.01.2025	00:23:25
CALL_FUNCTION_SYSCALL_ONLY	2	produbd_SPR_00	26.01.2025	01:06:03
RAISE_EXCEPTION	19	produap2_SPR_00	26.01.2025	09:01:22
TSV_TNEW_PAGE_ALLOC_FAILED	5	produap1_SPR_00	27.01.2025	00:23:34
RFC_ATTACH_GUI_FAILED	4	produap3_SPR_00	27.01.2025	07:06:52
CONVT_OVERFLOW	1	produap4_SPR_00	27.01.2025	07:08:37
CALL_FUNCTION_SIGNON_INCOMPL	12	produap1_SPR_00	27.01.2025	07:20:52
LIST_TOO_MANY_LPROS	6	produap2_SPR_00	27.01.2025	08:04:01
TABLE_INVALID_INDEX	12	produap4_SPR_00	27.01.2025	09:12:52
CALL_FUNCTION_SEND_ERROR	4	produap3_SPR_00	27.01.2025	09:35:25
DBIF_RSQL_INVALID_RSQL	7	produap1_SPR_00	27.01.2025	09:42:56
OBJECTS_OBJREF_NOT_ASSIGNED	9	produap1_SPR_00	27.01.2025	09:48:46
TIME_OUT	215	produap1_SPR_00	27.01.2025	09:59:46

It is important that you monitor ABAP dumps using transaction ST22 on a regular basis. If ABAP dumps occur, you should determine the cause as soon as possible.

Based on our analysis, we found several ABAP dumps that need your attention. Evaluate and resolve the above dumps. If you cannot find a solution, send a customer message to SAP to request support.

12.5 Critical Number Ranges

We have checked the usage of ABAP number ranges and found no issues.

13 Security



**Critical security issues were found in your system.
See the information in the following sections.**

Rating	Check
	System Recommendations (ABAP)
	Age of Support Packages
	Default Passwords of Standard Users
	Control of the Automatic Login User SAP*
	Protection of Passwords in Database Connections
	ABAP Password Policy
	RFC Gateway Security
	Message Server Security
	Critical authorizations, which allow to do anything
	Critical authorizations, which should not be used in production
	Critical authorizations, which should only see very limited use in production

13.1 ABAP Stack of SPR

13.1.1 System Recommendations (ABAP)

System Recommendations is used but the results are older than 31 days.

Recommendation: SAP strongly recommends applying important security fixes as soon as possible. The 'System Recommendations' application provides a detailed recommendation regarding which SAP security notes (ABAP and non-ABAP) should be implemented based on the actual status of the system and the notes already implemented. This is a mandatory prerequisite for setting up a strong security patch process. For more information, refer to <https://support.sap.com/sysrec>.

13.1.2 Age of Support Packages

The following table shows the current status, the final assembly date at SAP, and the implementation date of selected key software components that are installed in the system.

Software Component	Release	Support Package	Final assembly date	Age of final assembly date in months	Support Package import date	Age of SP import date in months	Rating
SAP_ABA	701	23	07.10.2020	52	06.06.2021	44	
SAP_APPL	604	23	23.12.2020	50	06.06.2021	44	
SAP_BASIS	701	23	07.10.2020	52	06.06.2021	44	

SAP provides SAP Security Notes with high or very high priority for Support Packages shipped within the last 24 months. We identified key software components on your system that are outside of this timeframe.

In the case of SAP Solution Manager, the software component BBPCRM is not separately checked because the update is covered via software component ST.

For more information as well as exceptions, see <https://support.sap.com/securitynotes> --> "SAP Security Patch Day".

Recommendation: Run support package updates at least once a year. In addition, evaluate SAP Security Notes once a month at the time of the monthly SAP Security Patch Day. SAP strongly recommends always performing support package updates for the complete support package stack and not just for the software components listed above. See <https://support.sap.com/en/my-support/software-downloads/support-package-stacks.html> for further information.

13.1.3 Default Passwords of Standard Users

Standard users have default passwords.

Recommendation: Run report **RSUSR003** to check for standard users having default passwords in some clients. Ensure that user **SAPCPIC** has a non-default password in all clients. User **EARLYWATCH** was used in client 066 only. This client should no longer exist, and therefore, this user should not exist either in any client. SAP Note [1749142](#) describes how to remove an obsolete client 066. Make sure that user **TMSADM** exists only in client 000 and that the standard password has been changed. SAP Note [1414256](#) describes a support tool for changing the password of user TMSADM in all systems of the transport domain. For more information, see "[Protecting Special Users](#)" either on SAP Help Portal or in the SAP NetWeaver AS ABAP Security Guide.

13.1.4 Protection of Passwords in Database Connections

Database user passwords of connected systems can be found in table DBCON.

Recommendation: Execute the valid manual postprocessing step described in SAP Security Note [1823566](#). Note: This Note is valid for all ABAP installations that use database connections, including when the text focuses on SAP Solution Manager. The Note refers to SAP Solution Manager because typically, many DB connections are maintained. If this recommendation is displayed, there are DB connections with passwords on the analyzed system. Although transaction DBCO (which you use to maintain such DB connections) does not show the passwords, you can find the obfuscated passwords using transaction SE16 for table DBCON with the field value PASSWORD <> space.

13.1.5 ABAP Password Policy

If password login is allowed for specific instances only, the password policy is checked only for these instances.

13.1.5.1 Validity of Initial Passwords

Rating	Parameter	Instance	Current Value(s)
	login/password_max_idle_initial	All instances	0

Initial passwords are valid for more than 14 days.

Recommendation: Proceed as follows:
 -- Handle users of type C (Communication) with initial passwords because they will be locked if the above profile parameter is set.
 Use transaction SUIM/report RSUSR200 in each client to find users of type C (Communication).
 If these users are active and in use, switch the user type to B (System). This has no negative effect.
 – Restrict the password validity to 14 days or less. Note that the value 0 grants unlimited validity.
 - For more information, see SAP Note [862989](#) and the [Profile Parameters for Logon and Password \(Login Parameters\)](#) section, either on SAP Help Portal or in the SAP NetWeaver AS ABAP Security Guide.

13.1.6 RFC Gateway Security

Enabling an Initial Security Environment

PARAMETER: GW/ACL_MODE


Rating	Instance	Current Value	Recommended Value
	All instances	0	1

Profile parameter gw/acl_mode is not set to 1.

Recommendation: Profile parameter gw/acl_mode should be set to 1 to activate a more secure default behavior if either of the access control lists defined by profile parameters gw/sec_info and gw/reg_info does not exist. SAP recommends setting profile parameter gw/acl_mode to 1 to establish an additional line of defense should any of the access control lists be missing. For more information, see SAP Note [1480644](#).

RFC Gateway Access Control Lists


PARAMETERS: GW/SEC_INFO GW/REG_INFO

Rating	Instance	Error Condition
	All instances	gw/reg_info and gw/sec_info are defined


REG_INFO

Rating	Instance	Error Condition	File does not exist (default)
	All instances	P TP=*	

SEC_INFO

Rating	Instance	Error Condition	File does not exist (default)
	All instances	P TP=* USER=* USER-HOST=* HOST=*	

PARAMETER: GW/SIM_MODE

Rating	Instance	Current Value	Recommended Value
	All instances	0	0

At least one of the following critical conditions is true:

- Profile parameters gw/sec_info is not set
 - File secinfo does not exist
 - File secinfo contains at least one trivial entry
 - Profile parameter gw/sim_mode is set to 1
- Additionally, gw/reg_info may be missing or also contain a trivial entry.

Recommendation: The profile parameters gw/sec_info and gw/reg_info provide the file names of the corresponding access control lists. These access control lists are critical to controlling RFC access to your system, including connections to RFC servers. You should create and maintain both access control lists, which you can do using transaction SMGW.

The files secinfo and reginfo, which are referenced by these profile parameters, should exist and should not contain trivial entries.

The profile parameter gw/acl_mode should be set to 1 to enable secure default rules if any of these files do not exist. The profile parameter gw/sim_mode should be set to 0 to disable the simulation mode which would accept any connections.

SAP recommends defining and properly maintaining these access control lists to prevent rogue servers from accessing the system. For more information, see the following SAP Notes:

SAP Note [1305851](#) - Overview note: "reg_info" and "sec_info"

SAP Note [1408081](#) - Basic settings for reg_info and sec_info


For more information, see "[Configuring Connections between SAP Gateway and External Programs Securely](#)" on SAP Help Portal and the [SAP Gateway wiki](#) on the SAP Community Network.

See also the white paper on SAP Security Recommendations: Securing Remote Function Calls (RFC) available at https://support.sap.com/content/dam/support/en_us/library/ssp/security-whitepapers/securing_remote-function-calls.pdf.

13.1.7 Message Server Security

Message Server Access Control List

PARAMETER: MS/ACL_INFO

Rating	Instance	Error Condition
	All instances	ms/acl_info is defined

MESSAGE SERVER ACCESS CONTROL LIST

Rating	Error Condition
	HOST=*

Recommendation: System-internal communication should be protected by setting profile parameter system/secure_communication to ON. (see corresponding alert)

If this is not the case, at least the profile parameter ms/acl_info should be set to point to an ms_acl_info file with the message server's access control list. This list controls which application servers are allowed to log on to the message server. The file referenced by profile parameter ms/acl_info should exist and should not contain trivial entries.

For more information, see SAP Note [821875](#).

13.1.8 Users with Critical Authorizations

For more information about the following check results, see SAP Note [863362](#).




Note that 7 firefighter accounts have been identified in your system. These firefighter accounts are not considered in the subsequent checks for critical authorizations.

Recommendation: Depending on your environment, review your authorization concept and use the Profile Generator (transaction PFCG) to correct roles and authorizations. You can use the User Information System (transaction SUIM) to check the results. For each check, you can review the roles or profiles that include the authorization objects listed in the corresponding section.

13.1.8.1 Critical authorizations, which allow to do anything

13.1.8.1.1 Super User Accounts

Users with authorization profile SAP_ALL have full access to the system. There should be a minimum of such users. The number of users with this authorization profile is stated for each client.

Client	No. of Users Having This Authorization	No. of Valid Users	Rating
000	7	9	
001	2	3	
005	22	6.147	

Authorization profile:

SAP_ALL

13.1.8.1.2 Users Authorized to Debug / Replace

This authorization provides access to data and functions, since any authorization check that is built in ABAP can be bypassed. In addition, you can change data during processing, which may lead to inconsistent results. The specified number of users for each client have the checked authorization.

Client	No. of Users Having This Authorization	No. of Valid Users	Rating
005	2	6.147	

Authorization objects:

Object 1: S_DEVELOP with ACTVT=02 (change) and OBJTYPE=DEBUG

Note: If you do not want to disable development in your system, you have to exclude the authorization for OBJTYPE=DEBUG with ACTVT=02 from roles and only allow any other object type for S_DEVELOP. This means that development and debugging with visualization is still possible.

You can achieve this by adding two authorizations to the object S_DEVELOP: one with all object types except for DEBUG and all activities, and another for the object type DEBUG only and all activities except for 02.

14 Software Change and Transport Management of SPR



**Software change management issues were found in your system.
See the information in the following sections.**

14.1 SAP Netweaver Application Server ABAP of SPR

Rating	Check Performed
	Number of Changes
	Emergency Changes
	Failed Changes

14.1.1 Number of Changes

Performing changes is an important cost driver for the IT department. It is only acceptable to make a large number of software and configuration changes in exceptional situations, such as during go-live for an implementation project.

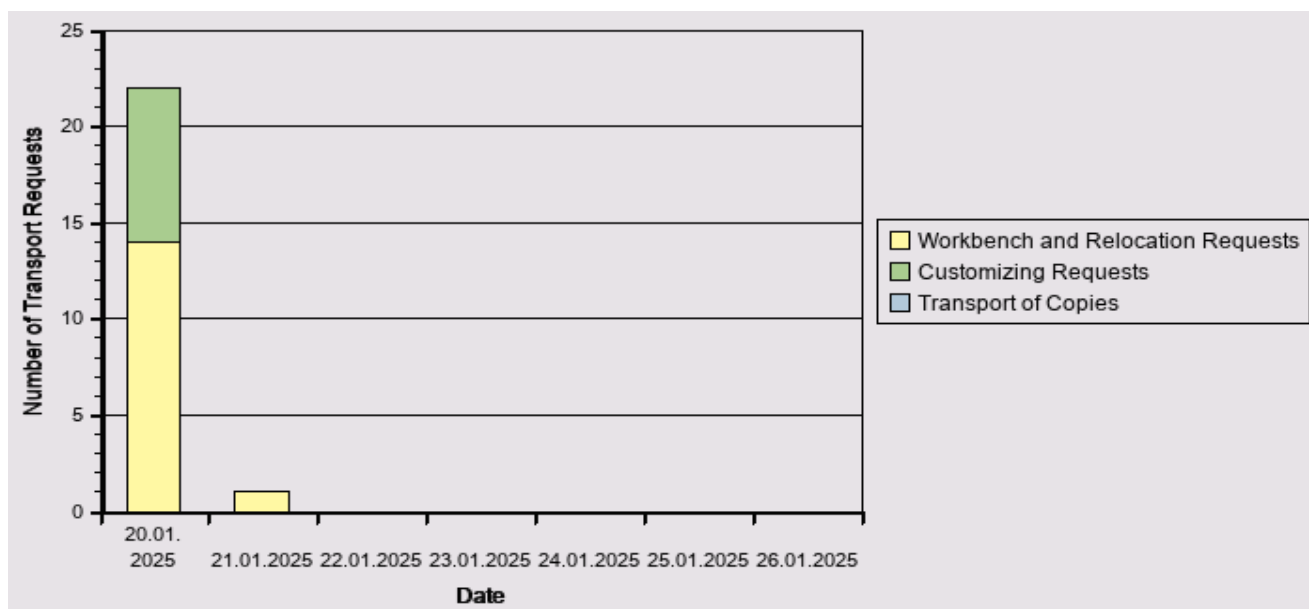
Problems have been detected regarding the daily collection of data into the configuration and change database (CCDB). This may lead to inaccurate or incomplete results of the service sessions.

Check the CCDB extractors using the extractor framework administration: 'Root Cause Analysis' work center -> Common Tasks -> 'Extractor FWK Administration'. On the 'Managed System' tab page, select the managed system and filter by the extractor name "CONFIGURATION*" to check the status of the CCDB extractors.

Check the status of the single stores using the application log of the Solution Manager: Transaction SLG1, object = 'CCDB', subobject = '<SID>*', and date from = '<yesterday>'. Here you will find detailed error information about the config stores.

14.1.2 Number of Transport Requests

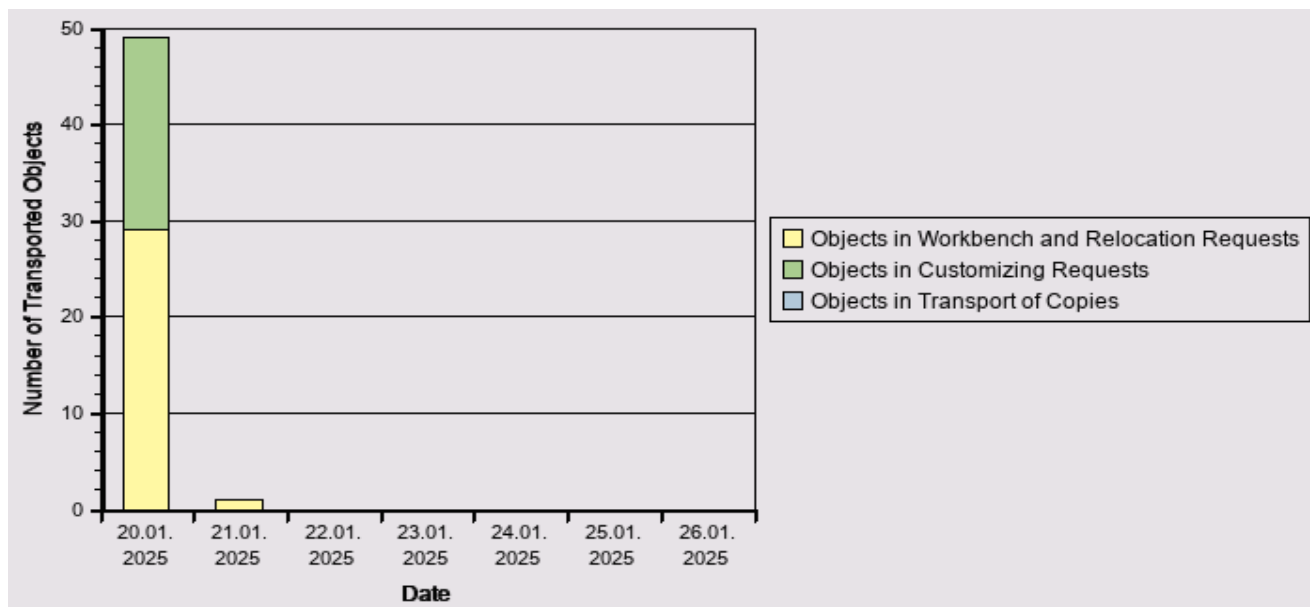
The following diagram contains information about the number of transport requests per day that were imported into the SAP system in the last week.



Date	Workbench and Relocation Requests	Customizing Requests	Transport of Copies
20.01.2025	14	8	0
21.01.2025	1	0	0

14.1.3 Number of Transported Objects

The following diagram contains information about the number of objects per day that was imported into the SAP system in the last week.



Date	Objects in Workbench and Relocation Requests	Objects in Customizing Requests	Objects in Transport of Copies
20.01.2025	29	20	0
21.01.2025	1	0	0

14.1.4 Emergency Changes

We analyzed the number of emergency changes in system SPR in the last week.


Rating	Item	Value	Explanation
✓	Transport requests created in production	0	Number of transport requests; created or released in production.
✓	Transport requests with short transition time	4	The duration between the export from the development system and the import into the production system was shorter than one day.
◇	Total number of transport requests	23	Total number of transport requests in production.

14.1.5 Failed Changes

In this check, we analyzed the number of failed changes in system SPR during the last week.

Rating	Item	Value	Explanation
✓	Transport requests with import errors	0	Number of transport requests with import errors that were not resolved within one hour.
✓	Overtakers and bypassed transport requests	0	If an old object version overwrites a newer one we count this as a transport sequence error. We count both the overtaker transport and the bypassed transport. Each transport is only counted once.
◇	Total number of transport requests	23	Total number of transport requests that were imported or released in production within the last week.

15 Database Performance



We have detected some problems with the settings of the database. These settings may affect performance.

Rating	Check
✓	Missing Indexes
✓	Database Key Performance Indicators
✓	Setup of the Temporary Tablespace
⚠	Database Parameters for SPR
✓	Optimizer Statistics

15.1 Load per User

The following table provides an overview of the load caused by different database users. The data in the table is based on samples of session activity in the system over the past seven days.

LOAD PER USER

User Name	Load (%)
%GDPR%	0
SAPR3	100
SYSTEM	0

15.2 I/O performance reported by Oracle statistics

IMPORTANT I/O PERFORMANCE COUNTERS

Performance-Indicators	Description	Observed-Value	Reference-Value
db file sequential read	Indicates the average time in ms a session is waiting for a read request from disk to complete.	0	<=15
log file sync	Indicates the average time in ms a session is waiting for a Commit (or a Rollback).	1	<=15

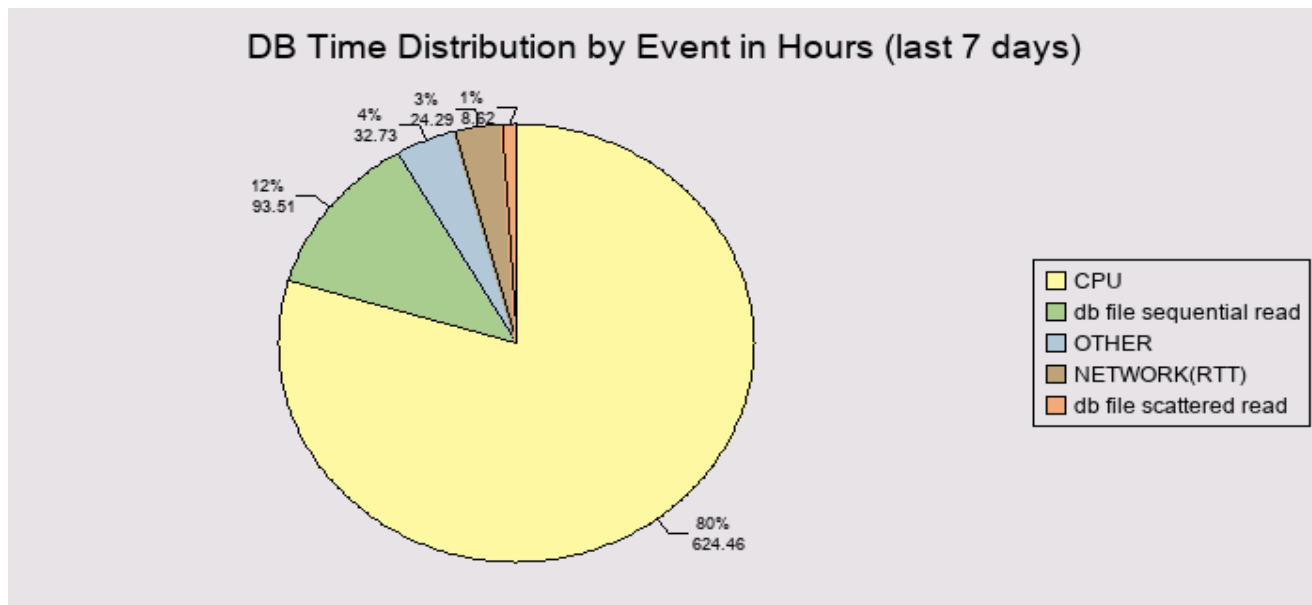
Oracle stores wait situations that have occurred since the last database startup in the Dynamic Performance View V\$SYSTEM_EVENT. The I/O related events that have the most influence on the performance of your system are listed in the table above, together with threshold values derived from our experience.

15.3 Performance History

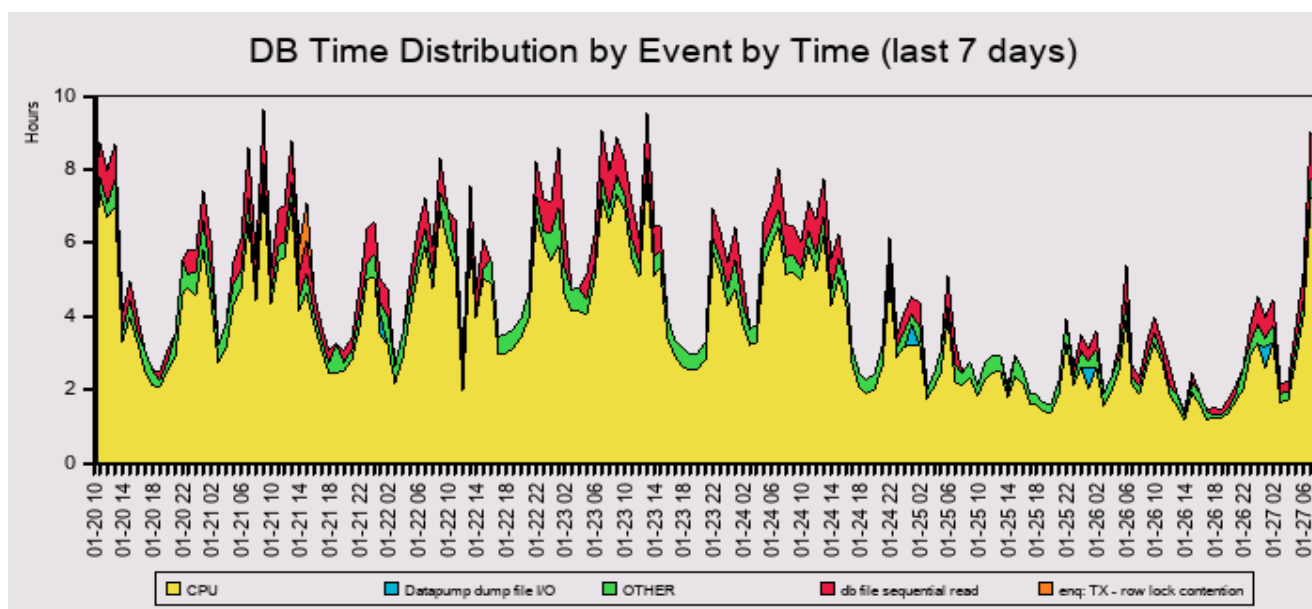
This section shows where DB time has been spent in the past. This helps to compare DB load at different times and is a basis for target-oriented tuning. By having information on the most time-consuming areas in the database, these areas can be tuned carefully to maximize DB time savings. Depending on where DB time is mainly spent, different tuning activities will need to be performed. Further information on wait events and possible follow-up actions for specific wait events can be found in [SAP Note 619188](#).

DB Time

The following diagram shows where DB time was spent during the past 7 days.

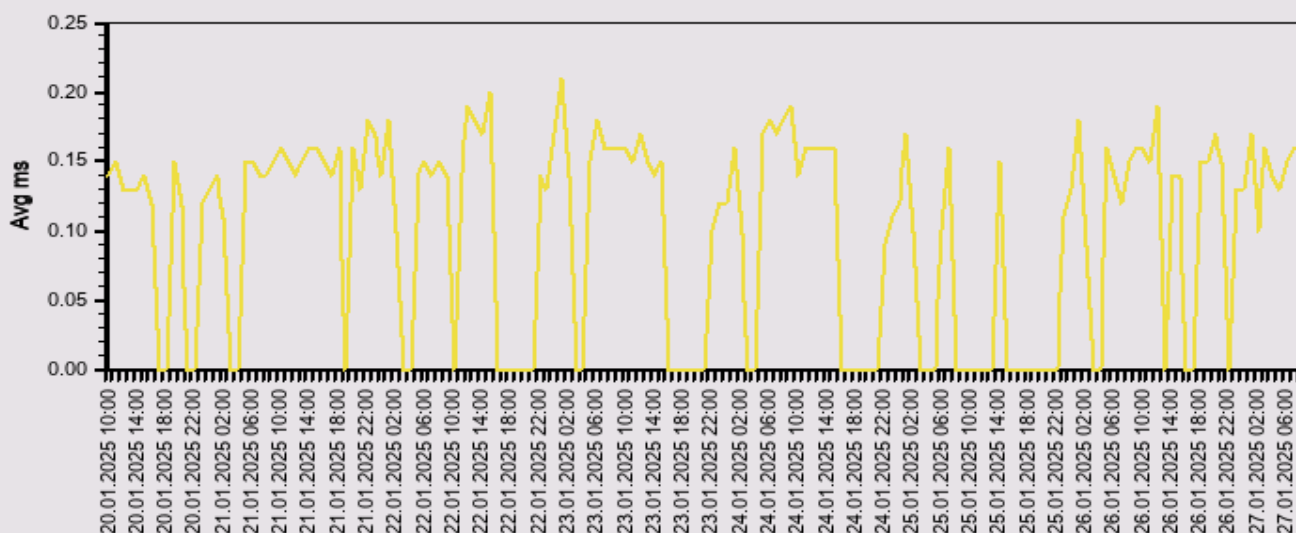


The following diagram shows the distribution of the DB time per hour for the past 7 days.

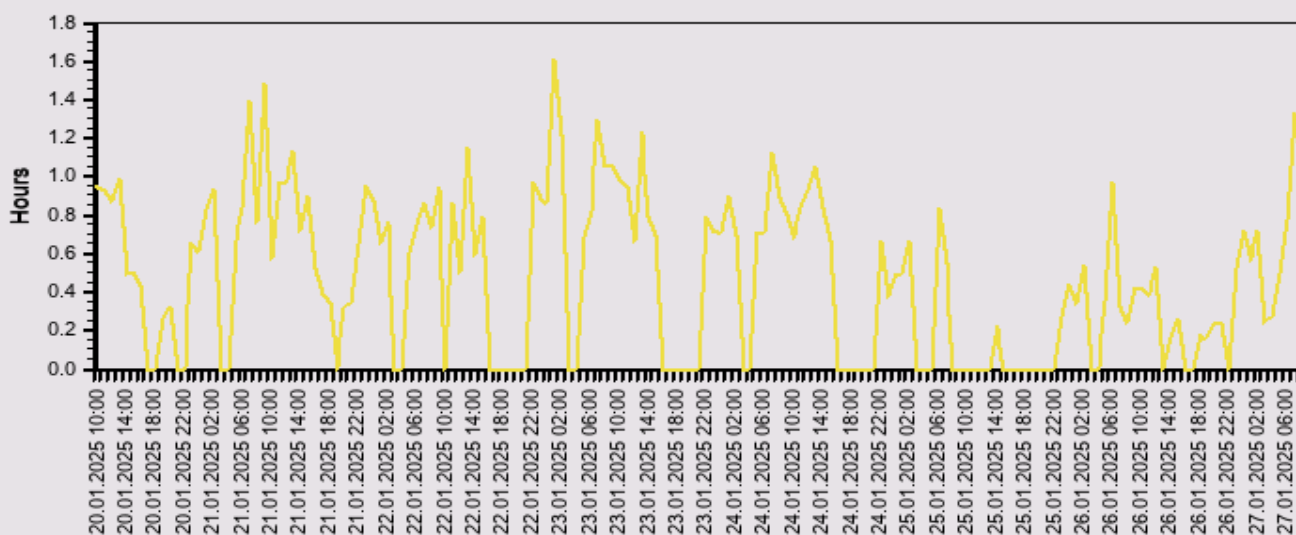


IO-related wait events usually take up the most DB time. Details for those wait events are shown in the following diagrams. A higher than usual total time for a wait event can be due to more waits, an increase in the average wait time, or both. To reduce the absolute time spent on a wait event, either the number of waits or the average time per wait needs to be reduced. The direction to go can be found by correlating the total time spent for the event per hour with the averages and waits.

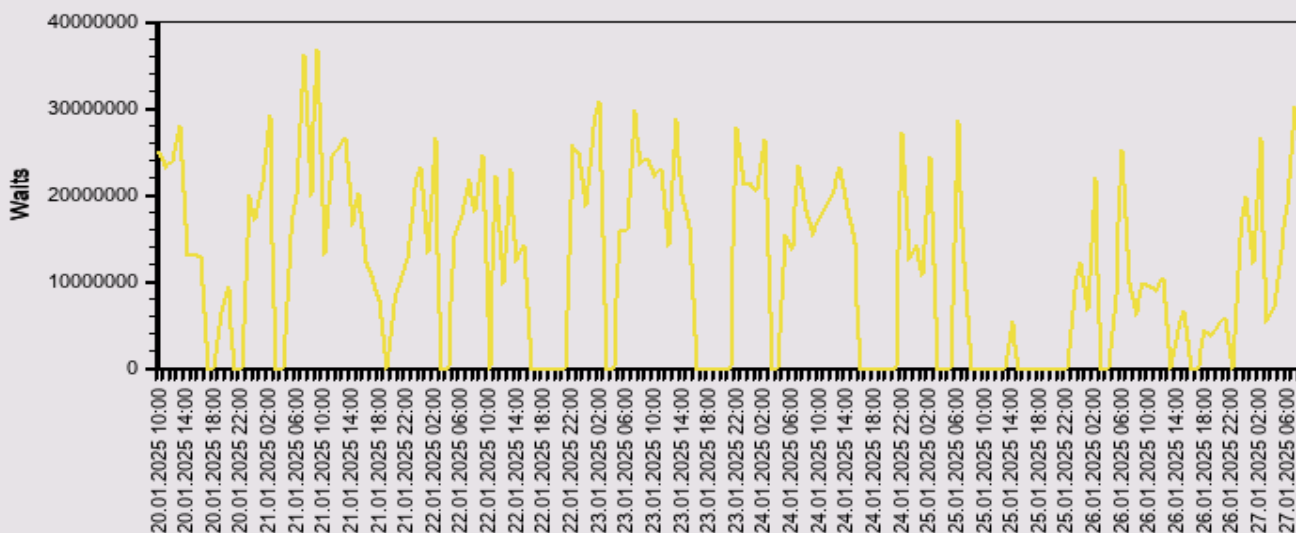
Average Wait Time - db file sequential read (last 7 days)



Total Wait Time - db file sequential read (last 7 days)

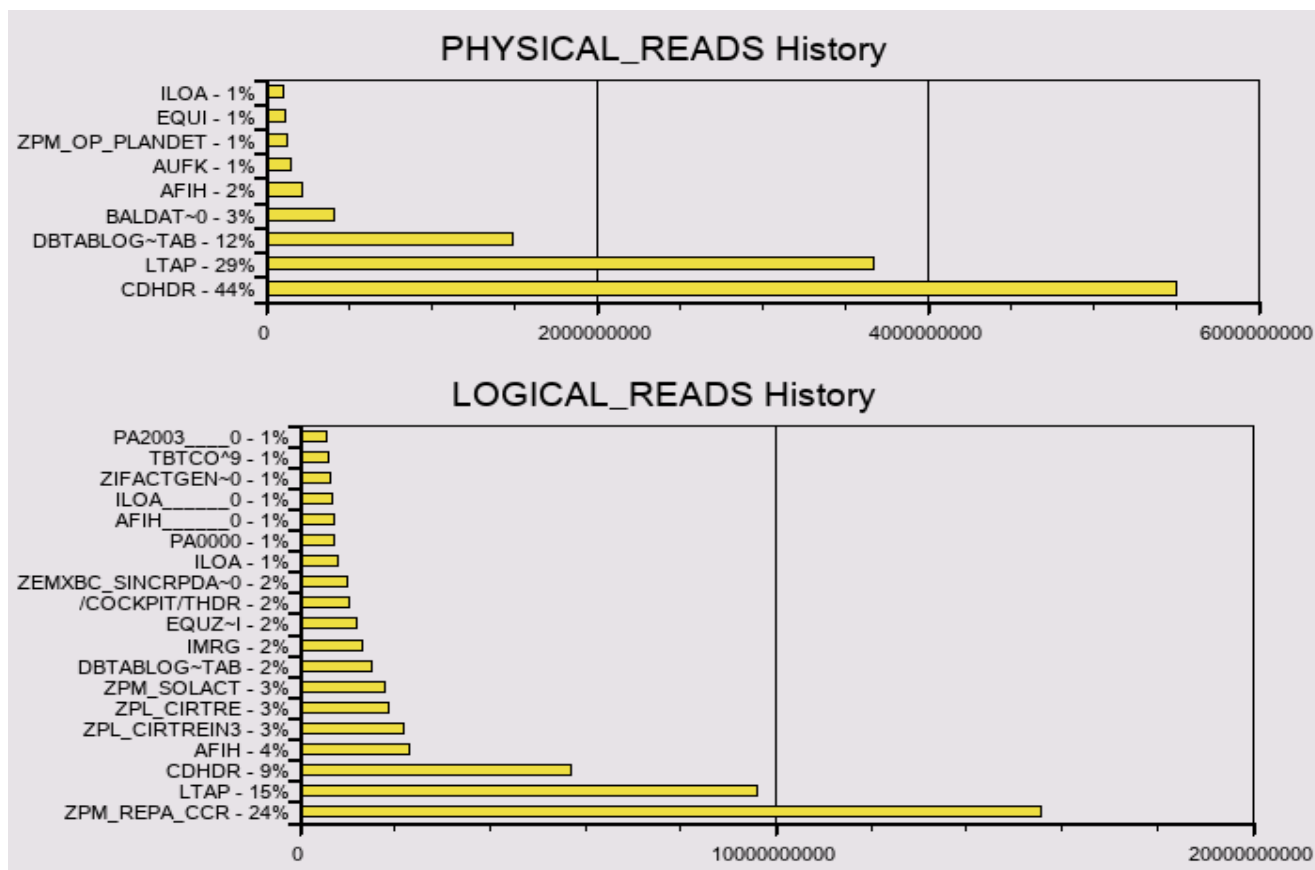


Waits - db file sequential read (last 7 days)



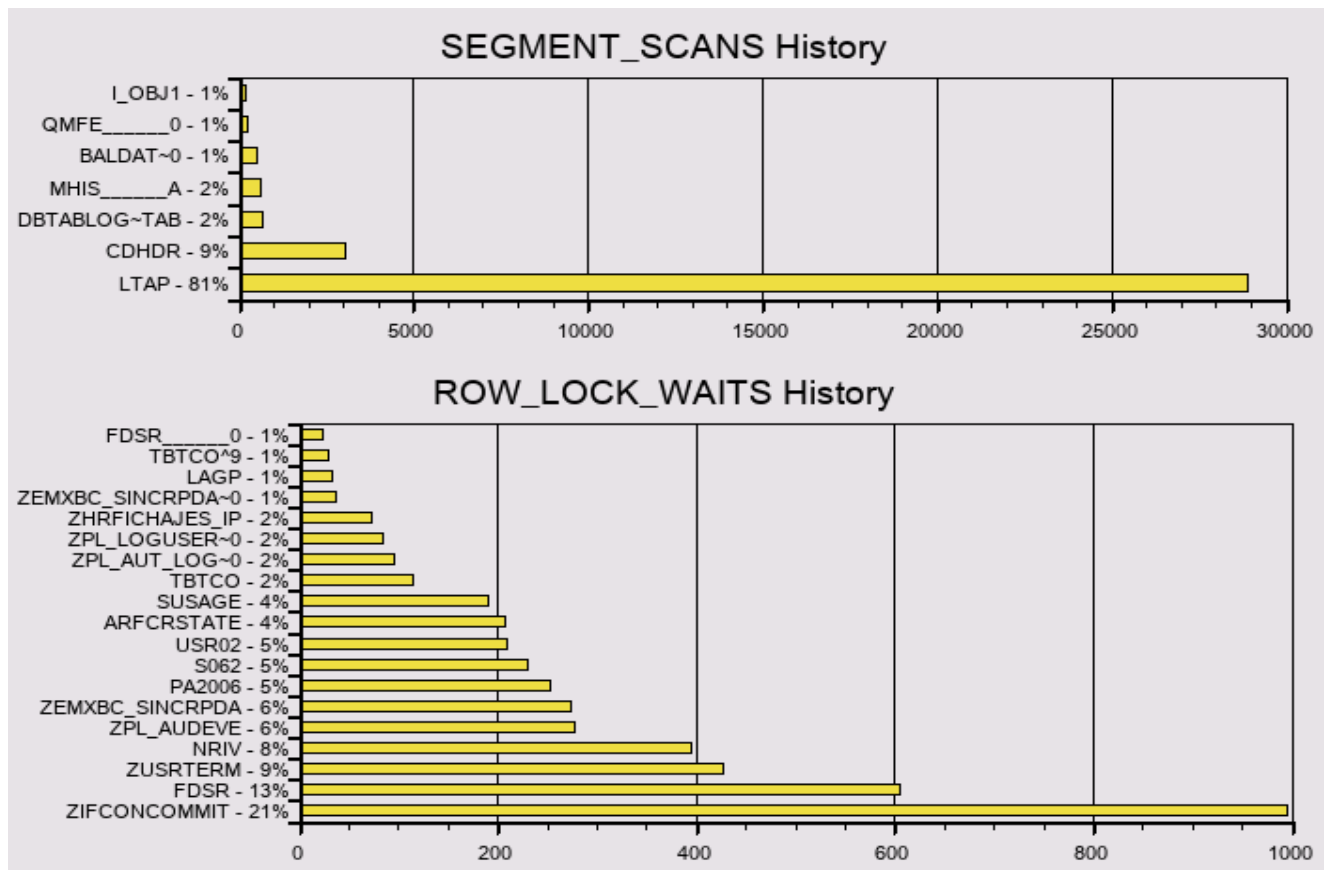
Top Segments by Different Criteria

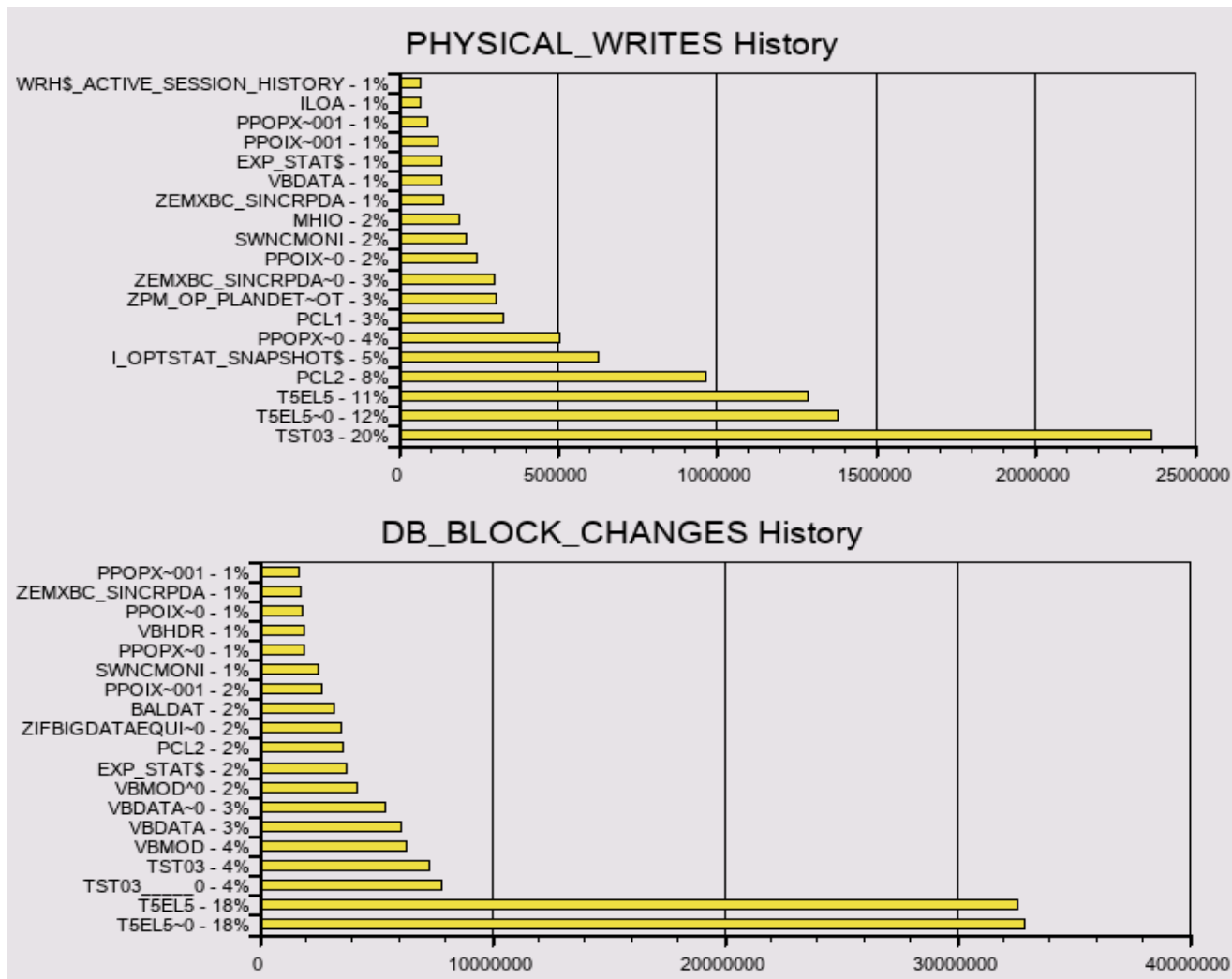
A significant part of the DB time is usually spent reading data from the data files (db file sequential read, db file scattered read) and processing data that already exists in the memory (CPU). The top objects with respect to physical and logical reads are therefore listed in the following diagrams. Statements on these objects usually offer the greatest potential for reducing IO or CPU time. CPU time is also spent on activities other than data access in the main memory ([SAP Note 712624](#)), but data access is usually the dominant part.



Further segment statistics are listed in the following diagrams for information purposes. They do not need to be directly related to a wait event, but can indicate why specific wait events are having a significant impact.

Example: If considerable DB time is spent on "enq: TX – row lock contention", this can have two reasons: a large number of waits or long-running waits. Statements on segments with a large number of waits are a potential root cause. The segments with a large number of waits are therefore listed here. Segments with few, but long-running waits can also be a root cause but there are no segment statistics for the duration of the waits. Segments with the most waits can potentially, but do not have to be the root cause.

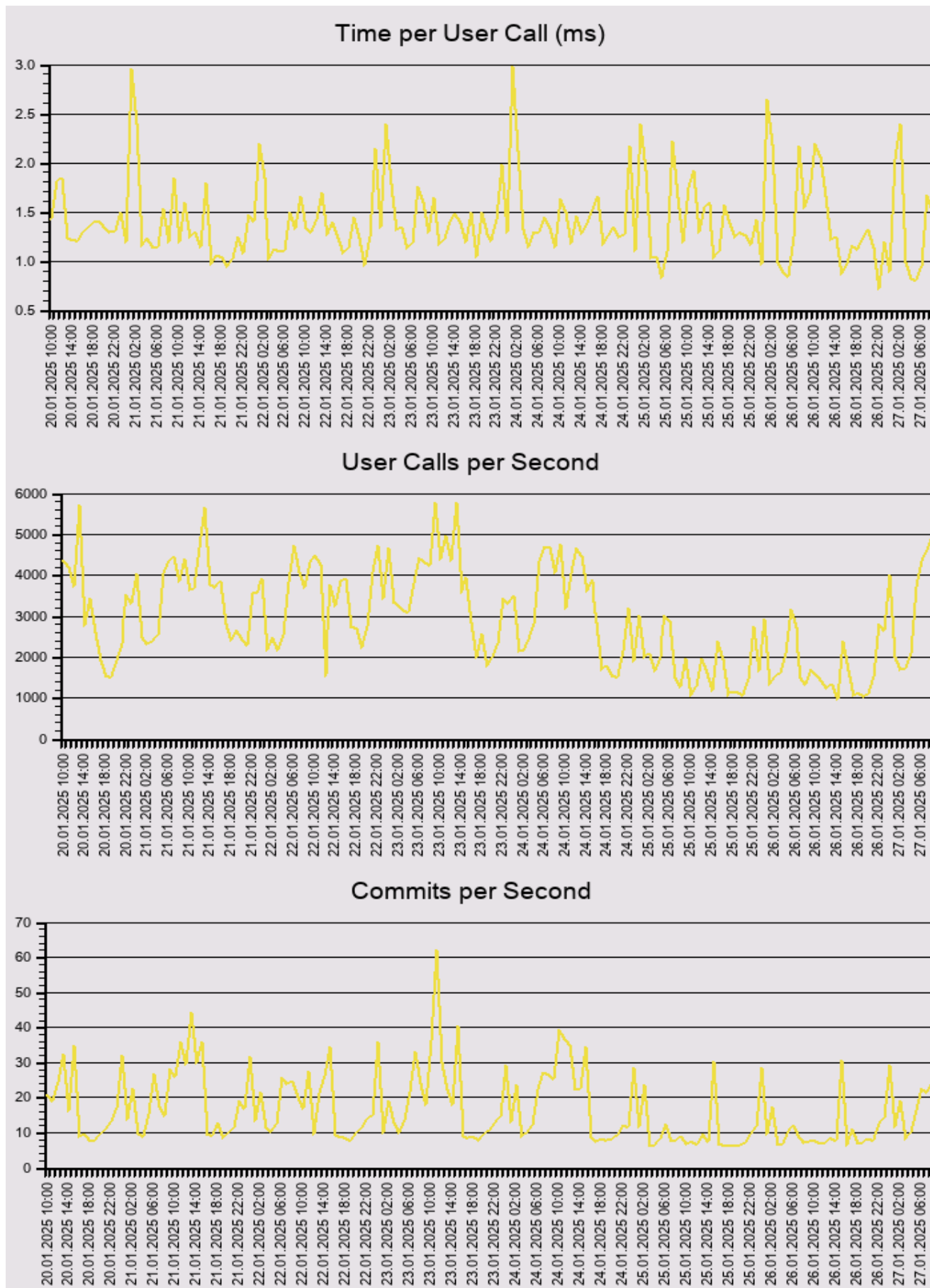


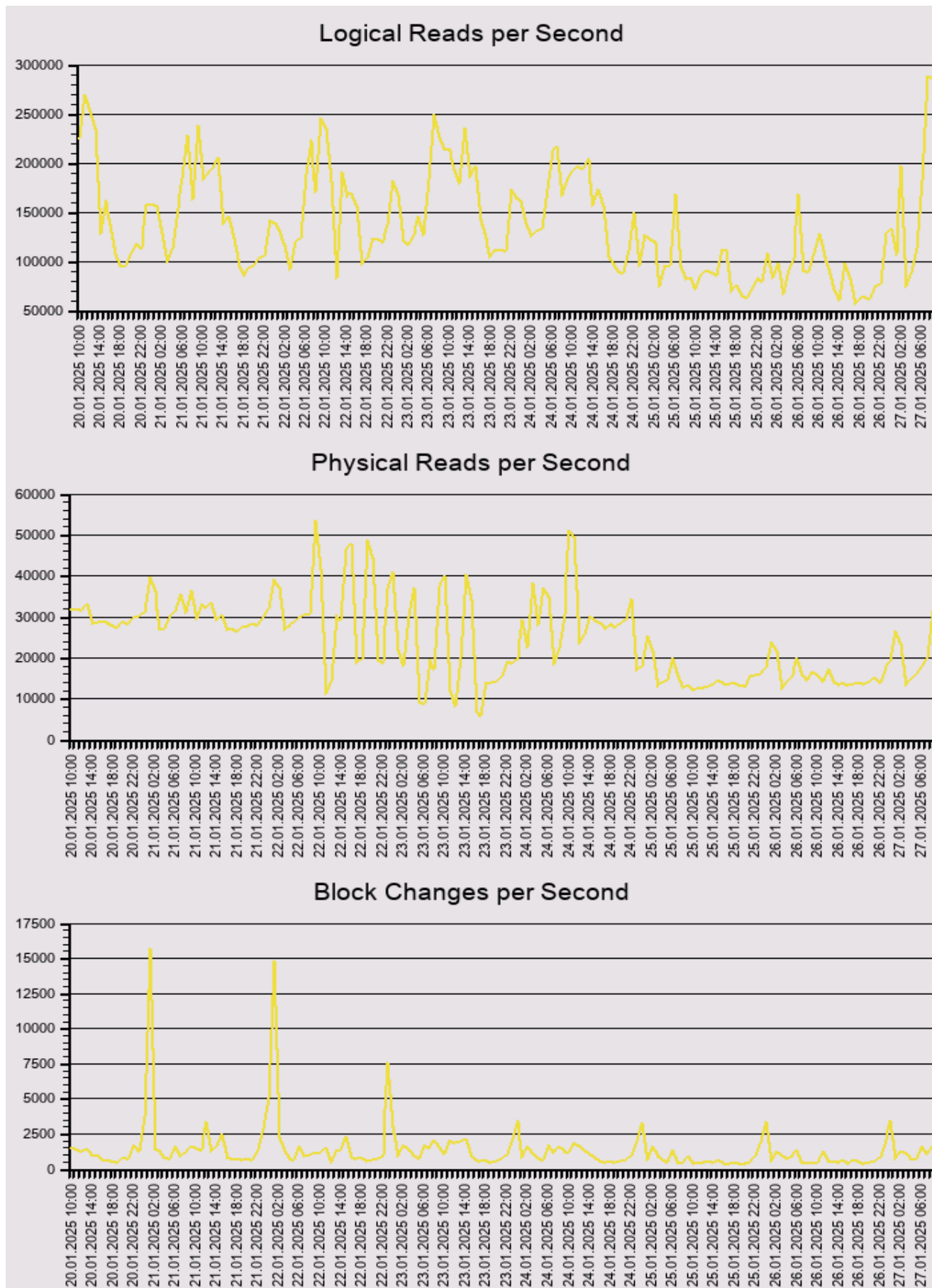


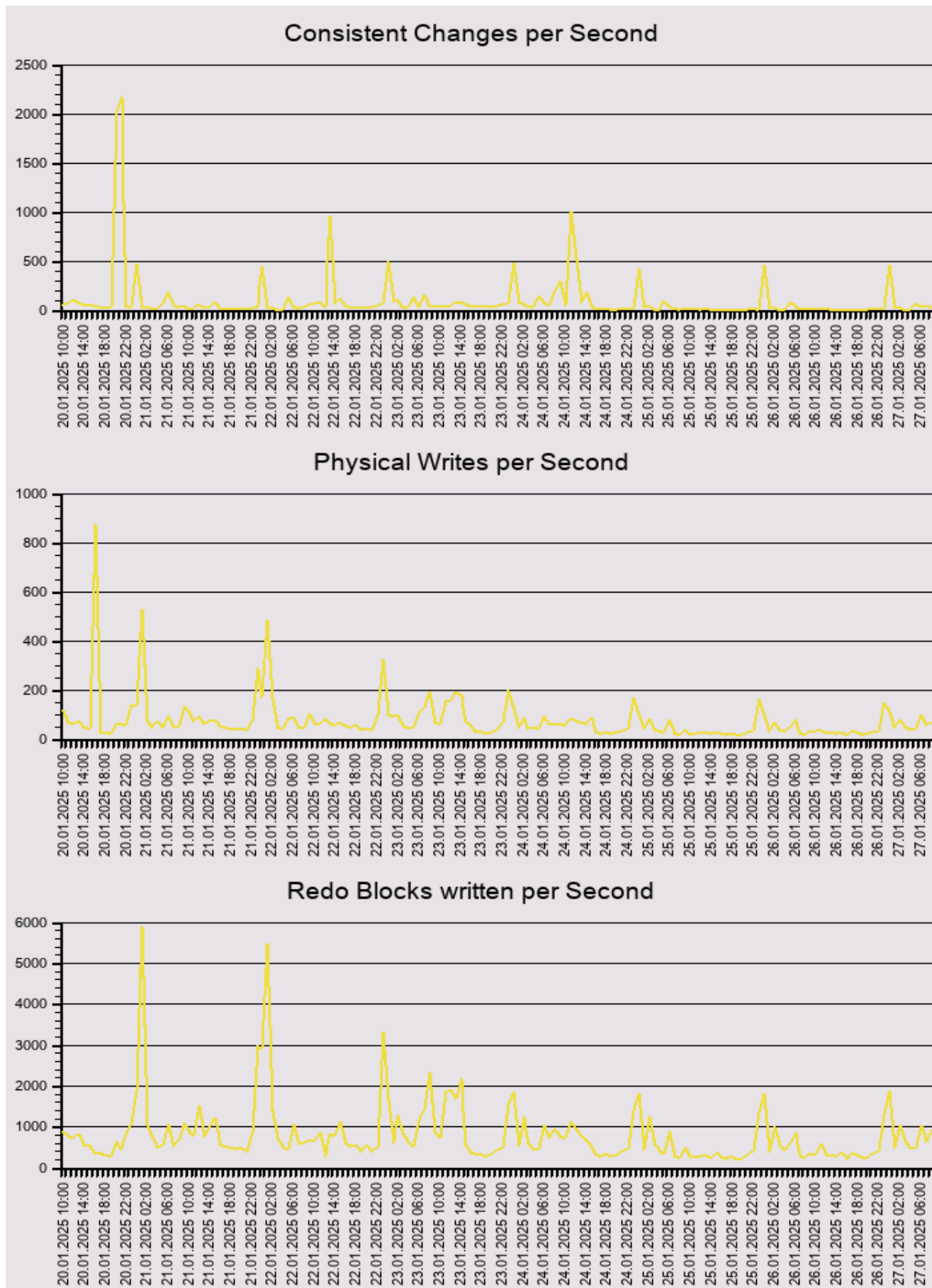
Database KPIs

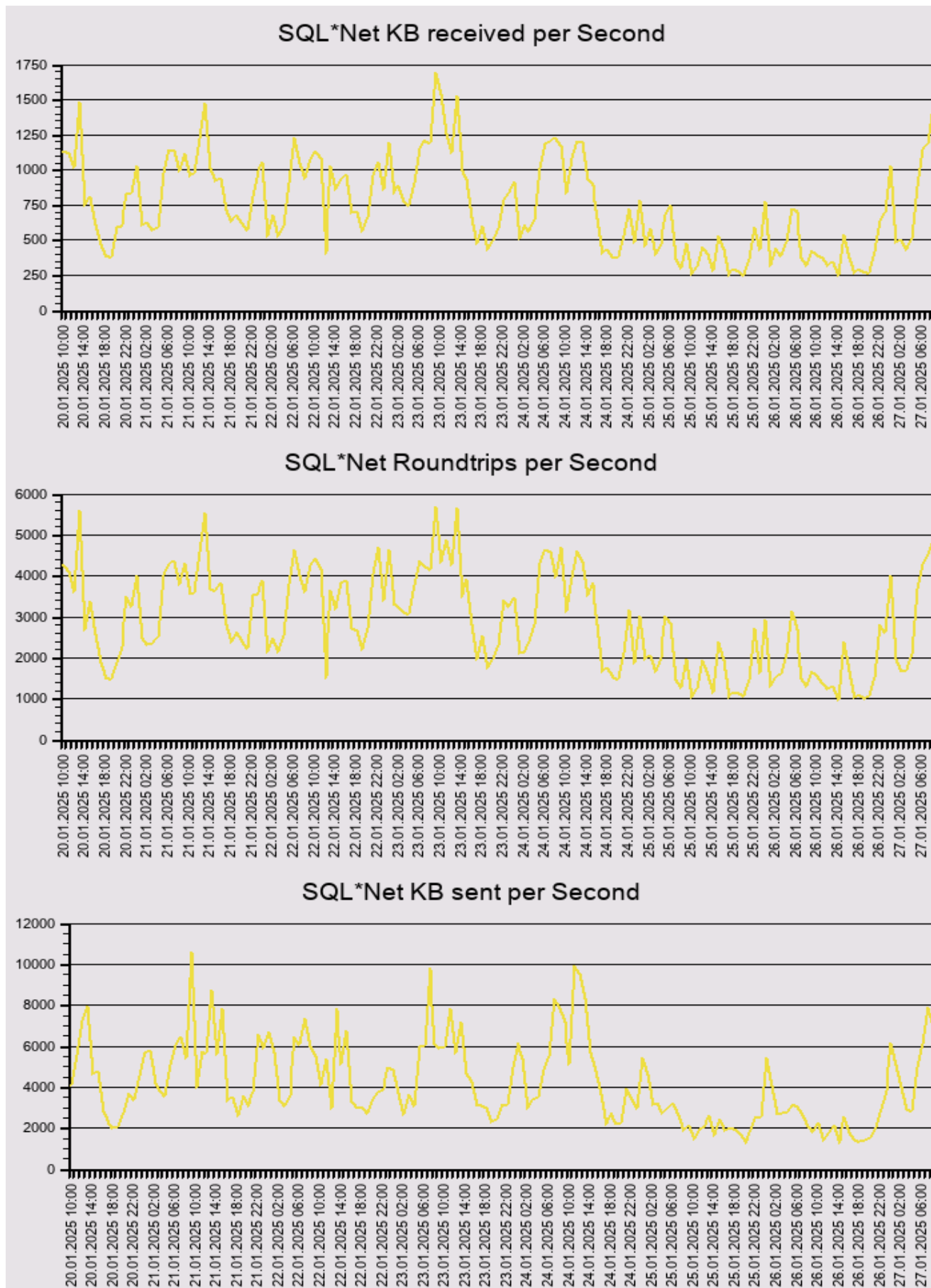
The following section lists performance indicators, for information purposes. When the database time history is being analyzed, these performance indicators can help to pinpoint potential reasons for an increase in the database time. In other words, they support the time-driven analysis.











15.4 Database Parameters for SPR

This section lists parameter alterations to be made on the Oracle database. The recommendations are based mainly on [SAP Note 2470718](#)

Parameters that can have multiple values such as "_fix_control" or "event" can appear several times in the tables below. Set these parameters in one step, as described in [SAP Note 1289199](#); [SAP Note 2470718](#) also contains links to information on different parameters.

15.4.1 Database Parameters

The following parameters are currently not set. They need to be added with the recommended value.

PARAMETERS TO BE ADDED

Parameter	Recommended Value
_enable_ptime_update_for_sys	TRUE
_oltp_compress_dbg	1
_partial_comp_enabled	FALSE

The following parameters are currently not set. Although the hard-coded default value of the parameter matches the value recommended, this is not guaranteed in the future. Therefore, the parameters need to be added explicitly with the recommended value.

Parameter	Recommended Value
log_archive_format	%t_%s_%r.dbf

The following parameters currently have different values than recommended. They need to be changed to the recommended value.

PARAMETERS TO BE CHANGED

Parameter	Current Value	Recommended Value
log_archive_dest_1	location=/oracle/SPR/saparch/SPRarch	LOCATION=/oracle/SPR/oraarch/SPRarch

The following parameters need to be deleted from the parameter file. This is mentioned explicitly in <http://service.sap.com/sap/support/notes/2470718> [SAP Note 2470718].

PARAMETERS TO BE DELETED

Parameter	Current Value
optimizer_dynamic_sampling	0
remote_os_authent	FALSE
user_dump_dest	/oracle/SPR/saptrace/diag/rdbm

The following parameters are set although there is no SAP recommendation given for them. Therefore, they should be deleted if there is no special reason to keep them set explicitly.

PARAMETERS LIKELY TO BE DELETED AFTER CHECKING

Parameter	Current Value
_forced_endian_type	BIG
_in_memory_undo	FALSE
_optimizer_batch_table_access_by_rowid	FALSE
_optimizer_cbqt_or_expansion	OFF
db_domain	world
db_recovery_file_dest	/oracle/SPR/flashback
db_recovery_file_dest_size	30064771072
db_unique_name	SPR
db_writer_processes	4
dg_broker_config_file1	Null
dg_broker_config_file2	Null
dml_locks	2500
fal_client	Null
fal_server	Null
java_pool_size	201326592

Parameter	Current Value
job_queue_processes	1
large_pool_size	67108864
listener_networks	Null
log_archive_config	Null
log_archive_dest_2	Null
log_archive_dest_state_2	ENABLE
log_archive_dest_state_3	ENABLE
log_archive_max_processes	30
log_checkpoint_interval	0
remote_listener	Null
rollback_segments	PRS_9, ...
sec_case_sensitive_logon	FALSE
sec_max_failed_login_attempts	10
session_max_open_files	20
sga_max_size	19327352832
sga_target	19327352832
standby_file_management	AUTO
streams_pool_size	67108864
transactions_per_rollback_segment	20

The following parameters need to be checked manually. The prerequisites for if and how they need to be set cannot be checked automatically, or the parameters are not recommended in the Note but set in the system. They are listed here for documentation purposes and further manual checking. The "Set" column shows if the parameter is currently set in the parameter file.

PARAMETERS TO BE CHECKED MANUALLY

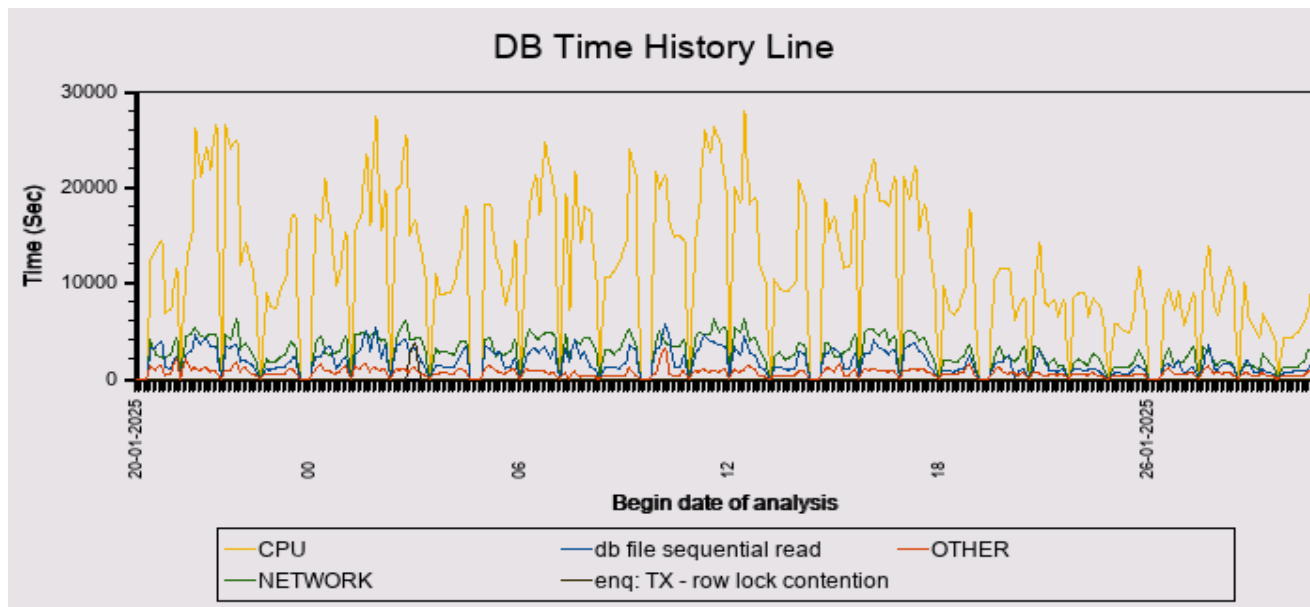
Parameter	Current Value	Set
_advanced_index_compression_options	16	Yes
_enable_numa_support	Null	No
_fix_control (23738304)	Null	No
_px_numa_support_enabled	Null	No
audit_sys_operations	FALSE	Yes
control_files	/oracle/SPR/sapdata2/cntrl/cntrlSPR.dbf, ...	Yes
control_management_pack_access	DIAGNOSTIC+TUNING	No
db_cache_size	4227858432	Yes
enable_pluggable_database	FALSE	No
heat_map	OFF	No
inmemory_clause_default	Null	No
inmemory_max_populate_servers	0	No
inmemory_size	0	No
local_listener	LISTENER_SPR	Yes
log_buffer	46317568	No
os_authent_prefix	ops\$	No
os_roles	FALSE	No
parallel_max_servers	120	Yes
pga_aggregate_target	11723079680	Yes
processes	500	Yes
remote_login_passwordfile	EXCLUSIVE	No
sessions	1008	Yes
shared_pool_size	4294967296	Yes
undo_retention	58200	Yes

15.5 System Performance

15.5.1 DB Time History

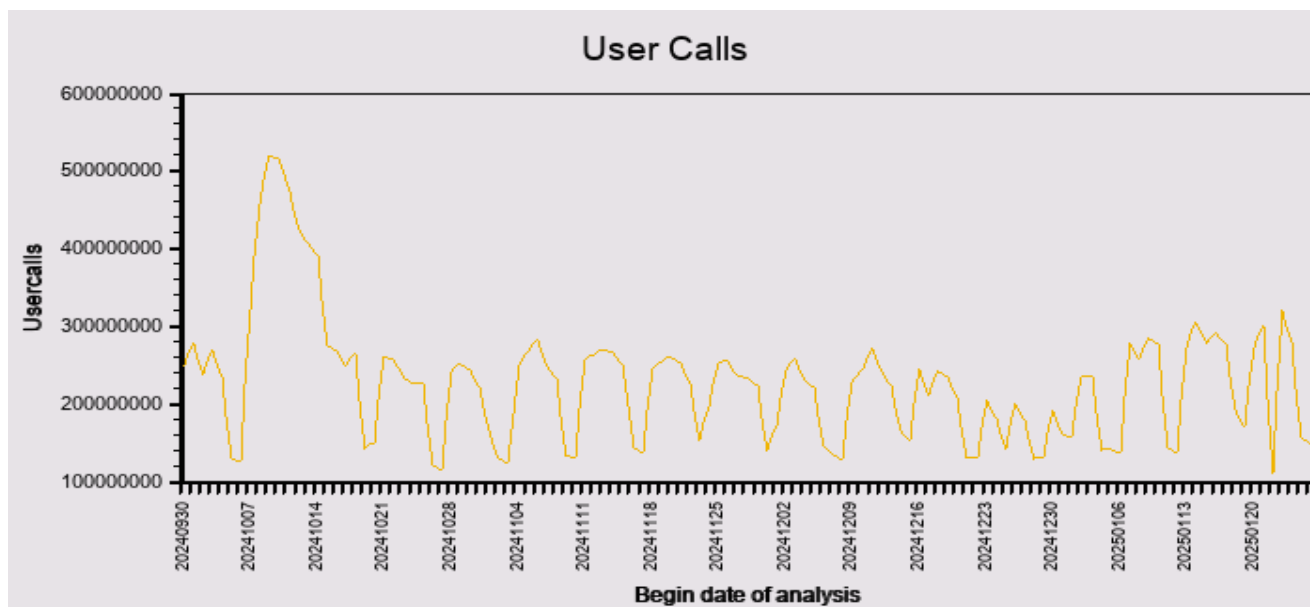
15.5.1.1 Instance: Total

The graph below shows the components of the database time history.

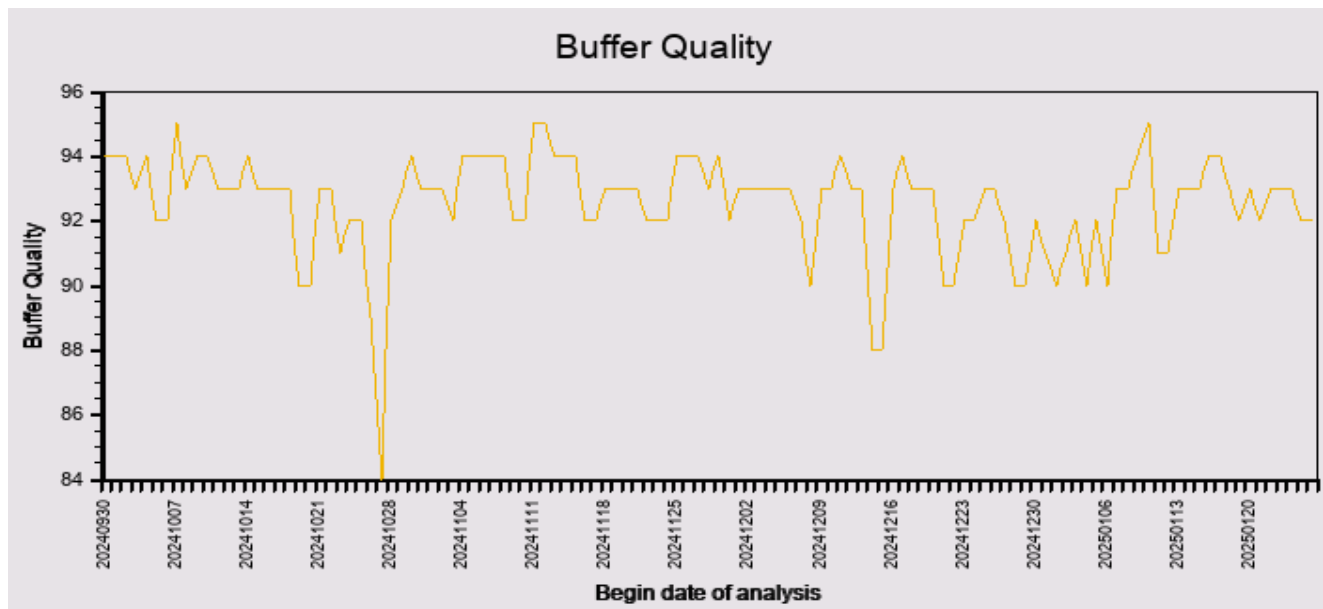


15.5.2 Database Load analysis ST04 Data

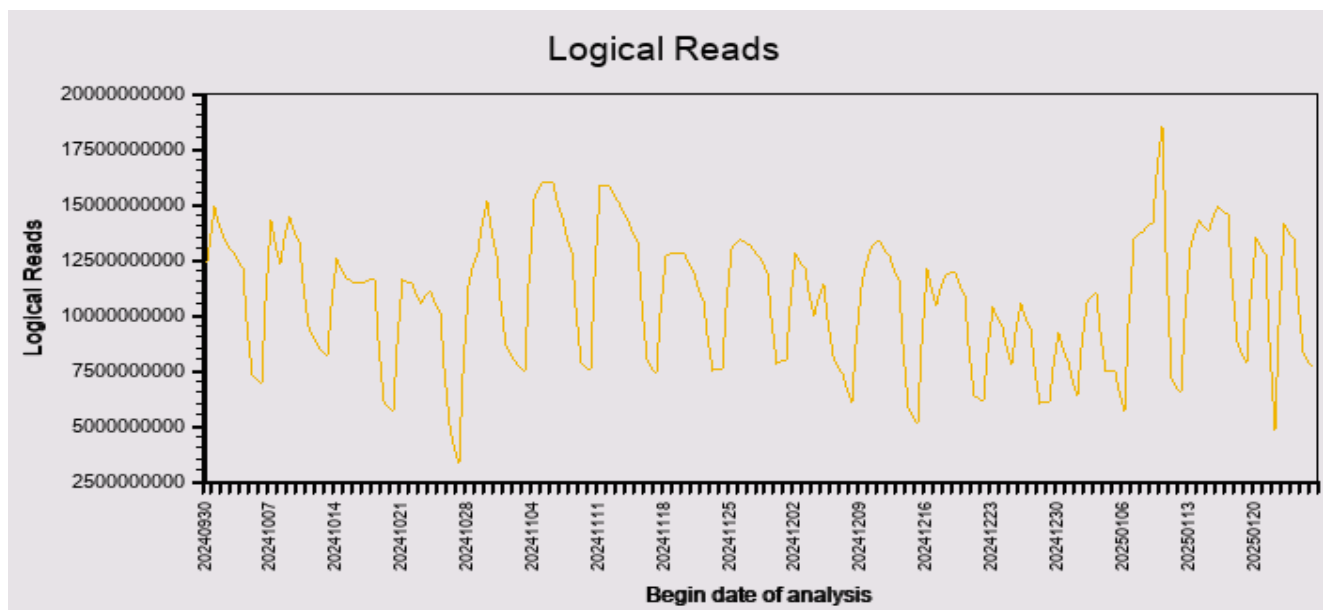
15.5.2.1 ST04 Daily Data Total



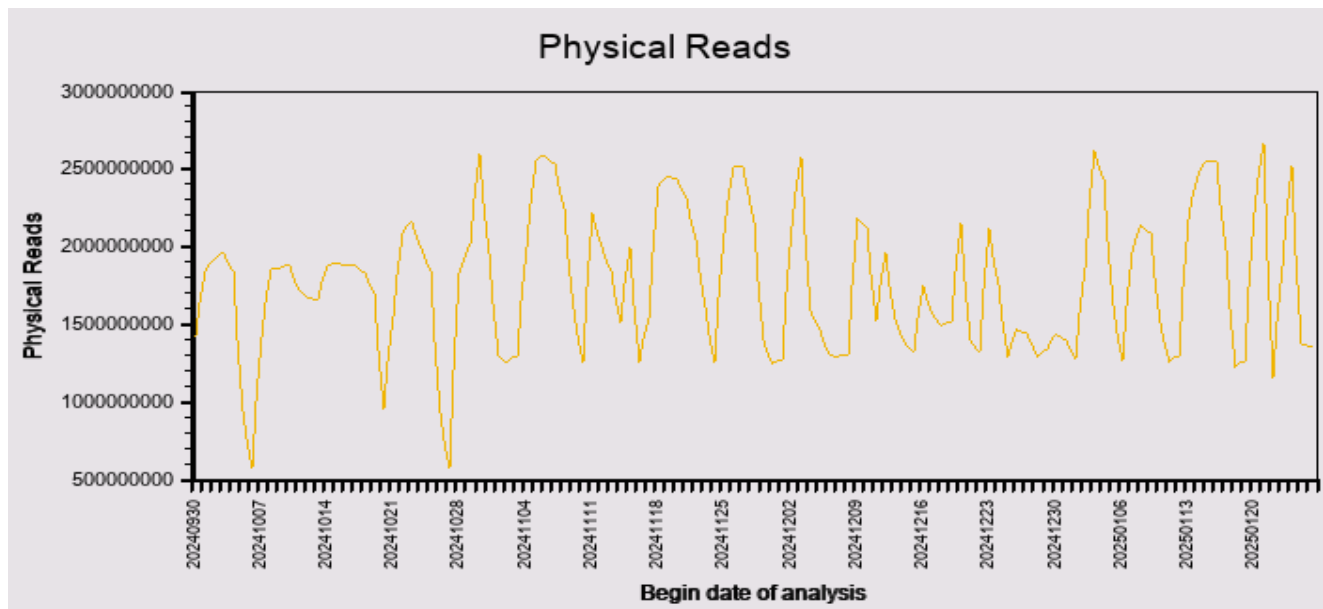
Number of user calls per day.



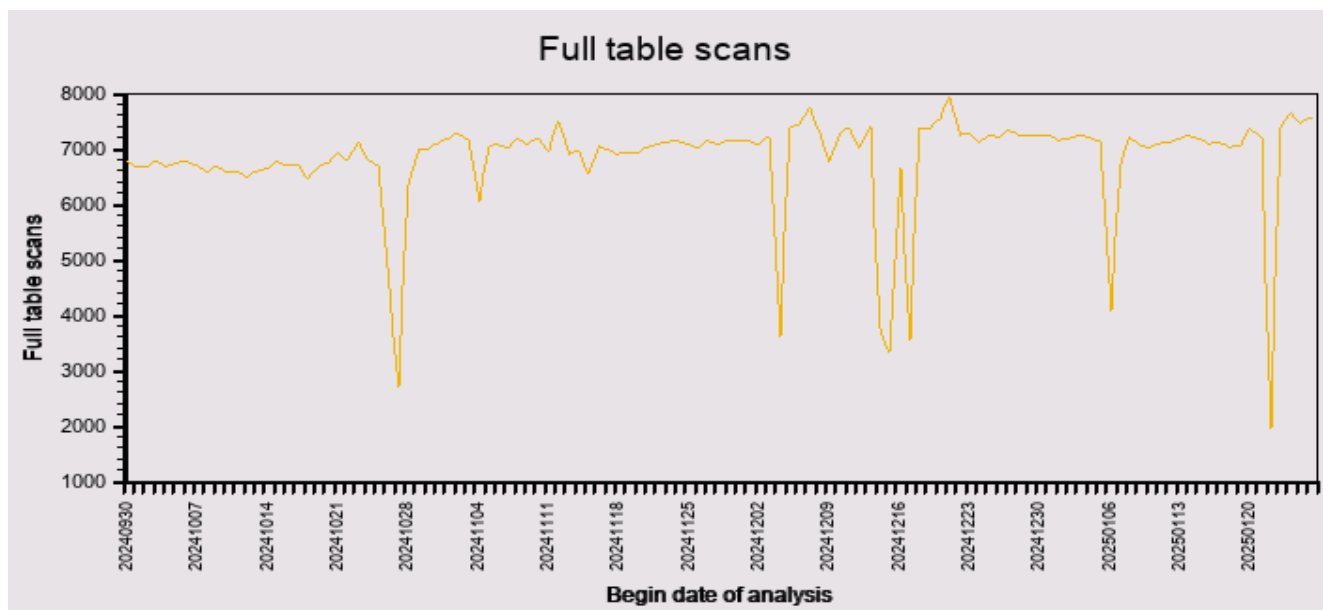
Daily average of buffer quality.



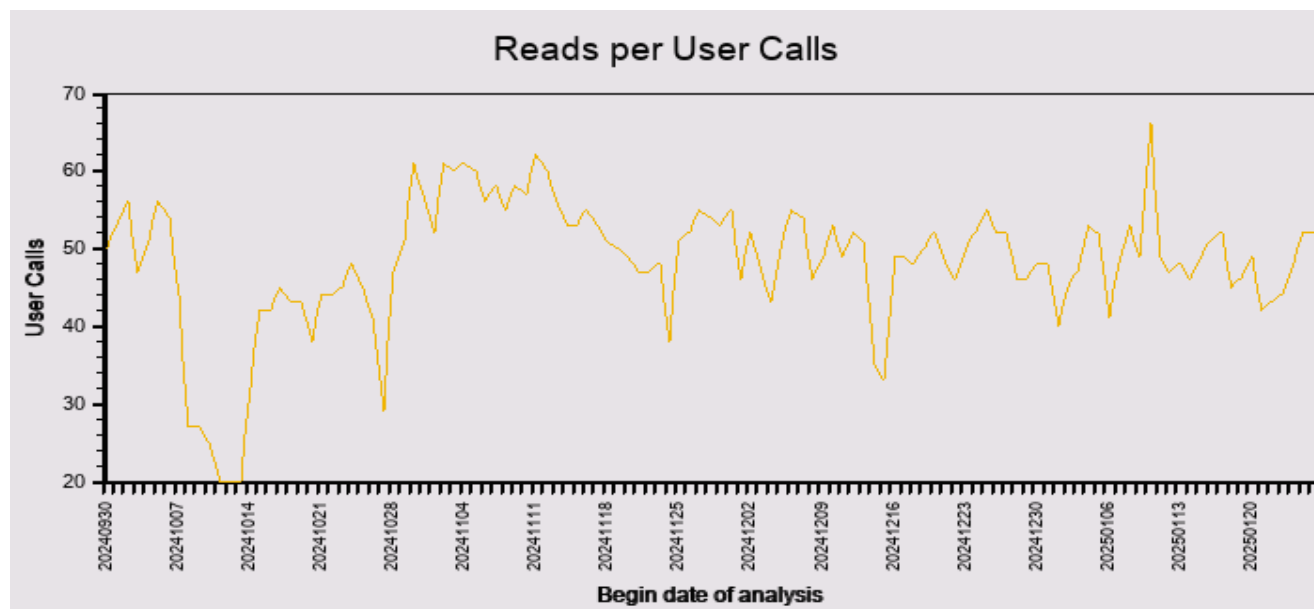
Number of logical reads per day.



Number of physical reads per day.



Number of full table scans per day.



Daily average of reads per user call.

16 Database Administration



In the checks performed, no problems regarding the administration of your database were found.

Rating	Check
✓	Data Object ID Limit
✓	Space Statistics
✓	Backup Frequency
✓	Archive Frequency
✓	Free Space in Tablespaces
✓	Schedule brconnect -f next weekly
✓	Check brconnect -f check schedule
✓	Desupport of multibyte character sets as of Oracle 10g

16.1 Data Object ID Limit

Rating	Risk	Title	Remaining Months	Month Category
✓	Moderate	Data Object ID Limit	4193	More than 24

The maximum number for data object id is limited to 4254950911. Data object id is a unique number. A create or truncate operation increases the data object id by one.

If the maximum number for data object id is hit, the Oracle error ORA-00600 [KKDLRON-MAX-OBJID] [4254950911] will be reported.

In case the error is reported, no new objects can be created, and no truncate operations are possible. If the rating is yellow or red that means the amount of object IDs are reaching closer to exhaustion and it is imperative that you take action to lower the risk of reaching the limit.

The Oracle database will reach the DATA_OBJECT_ID limit soon. If you don't take actions NOW you need to completely unload, recreate, and load the database. This may result in an unplanned downtime for several days.

This is not a risk, this will happen FOR SURE.

Details about the problem can be found in [Hot News Note 2137109](#)

The solution is described in [Note 3068177](#)

Even if you have relatively few DATA_OBJECT_ID's left, they will be sufficient after implementing the note. In addition, you will have further significant advantages by implementation (see the note).

Take actions now otherwise you will need to plan the unload/recreate/load of your DB soon!

16.2 Mini Checks

This section contains a list of checks executed on the system that do not return the expected value. Due to a number of factors, we cannot rate this check automatically.

Recommendation: For more information about each mini-check, their expected values, potential reasons why the system value is different, and solutions, see [SAP Note 1615380](#).

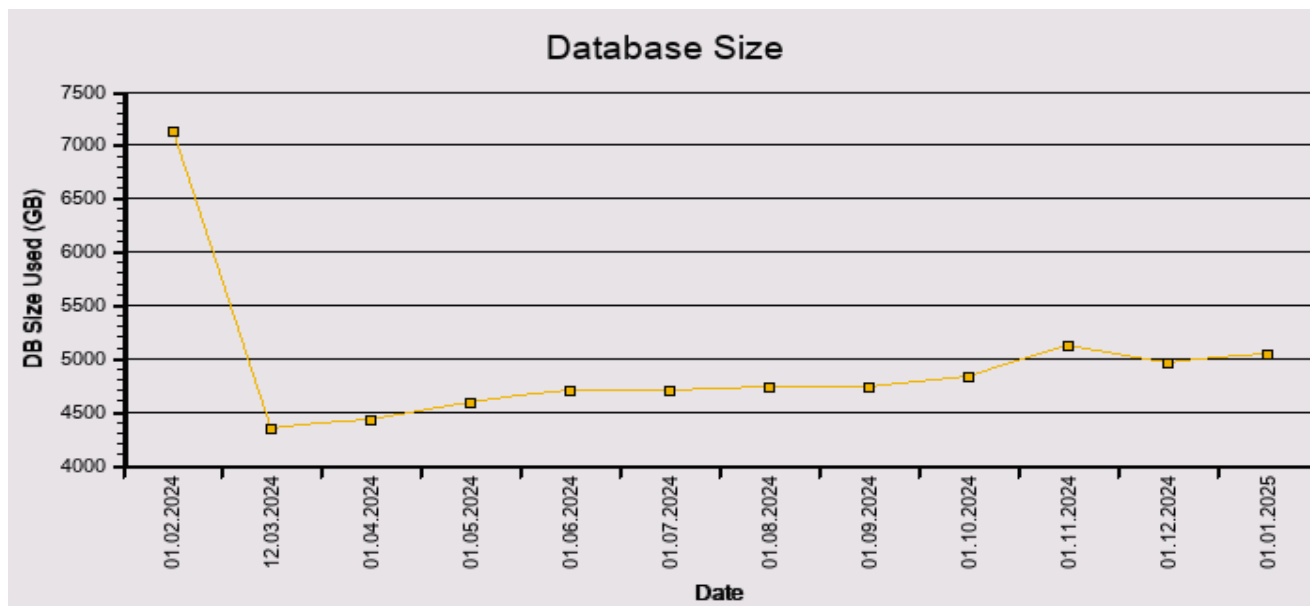
Name	Value
DDIC statistics creation	2019-10-14 08:45:56
Fixed objects statistics creation	2019-10-14 09:00:38
Indexes without statistics	9
Log switches within less than 1 minute	14
Snapshot Retention (days)	90

Name	Value
Tables with parallel degree > 1	1
Tables without statistics	8
Temporary tablespace smaller than largest index	Yes (PSAPTEMP2: 161624 MB; largest index: 178684 MB)

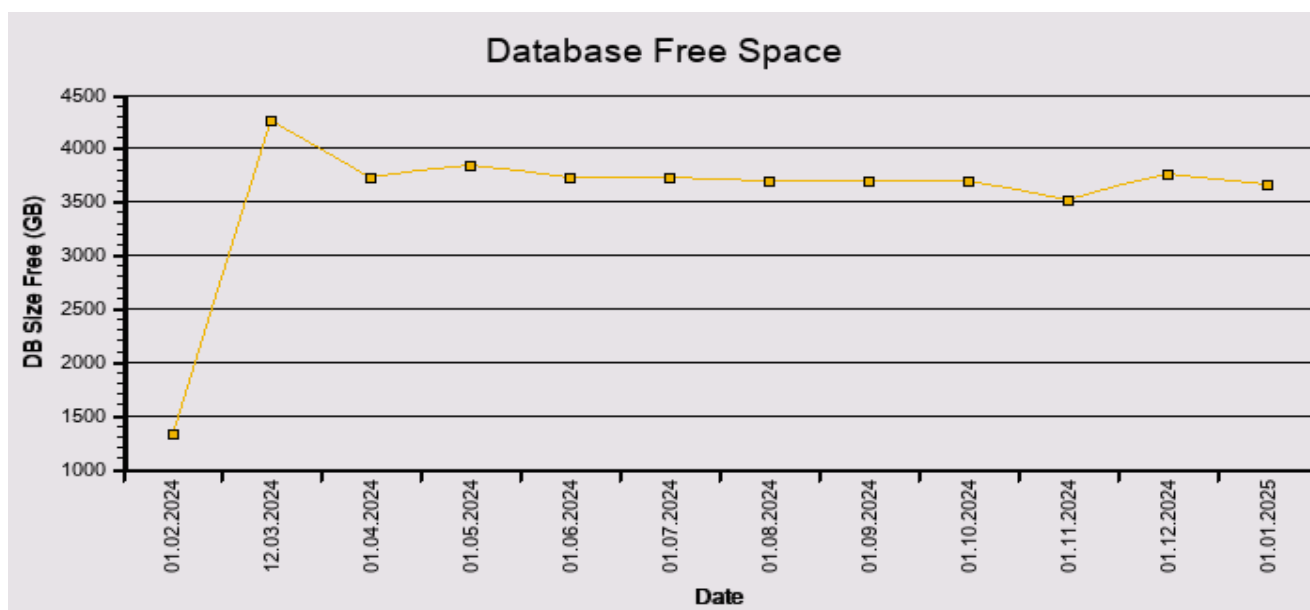
16.3 Space Statistics

16.3.1 Database Growth

The following figure shows the development of the size of your database in GB.



An overview of the freespace development of your database in GB is shown here.



The following table shows you the current size and the monthly growth of your database in GB.

Date	Current Size in GB	Monthly Growth in GB
12.03.2024	4.355,12	-2.786,77
01.04.2024	4.433,24	78,12

Date	Current Size in GB	Monthly Growth in GB
01.05.2024	4.594,21	160,97
01.06.2024	4.702,14	107,93
01.07.2024	4.702,86	0,72
01.08.2024	4.739,26	36,40
01.09.2024	4.740,76	1,50
01.10.2024	4.827,95	87,19
01.11.2024	5.134,24	306,29
01.12.2024	4.960,08	-174,16
01.01.2025	5.044,10	84,02

16.3.2 Tablespace Freespace overview

The following table shows the overview of free space for table space.

TABLESPACE FREESPACE OVERVIEW

Tablespace	Max Free Space in MB	Total Free Space in MB	Number of Fragments	Space critical objects	Extent critical objects
PSAPARCO	299.94	299.94	1	0	0
PSAPBTABD	9698.57	2219618.23	2773	0	0
PSAPBTABI	4957.34	694631.50	2896	0	0
PSAPCLUD	7735.94	16988.10	27	0	0
PSAPCLUI	3419.37	5864.36	13	0	1
PSAPDDICD	1781.47	2605.87	159	0	0
PSAPDDICI	578.06	1178.92	244	0	0
PSAPDIMD	101.94	101.94	1	0	0
PSAPDIMI	101.94	101.94	1	0	0
PSAPDOCUD	67.17	196.81	48	0	0
PSAPDOCUI	177.03	200.83	43	0	0
PSAPEL701D	3968.00	30579.33	92	0	0
PSAPEL701I	879.94	880.13	2	0	0
PSAPES701D	3968.00	33099.32	13	0	0
PSAPES701I	3968.00	37551.01	15	0	0
PSAPFACTD	101.94	101.94	1	0	0
PSAPFACTI	101.94	101.94	1	0	0
PSAPLOADD	764.02	939.78	14	0	0
PSAPLOADI	595.13	791.09	10	0	0
PSAPODS	111.94	111.94	1	0	0
PSAPODSI	111.94	111.94	1	0	0
PSAPPOOLD	2486.39	6066.72	466	0	0
PSAPPOOLI	5792.37	6029.54	718	0	0
PSAPPROTD	21282.44	61797.63	103	0	0
PSAPPROTI	4999.99	6099.96	3	0	0
PSAPSOURCED	1094.41	1214.98	101	0	0
PSAPSOURCEI	23413.69	34414.48	91	0	0
PSAPSTABD	15011.49	39802.93	557	0	0
PSAPSTABI	22020.83	44443.55	490	0	0
PSAPTEMP	4999.99	27100.90	9	0	0
PSAPUNDO	3584.00	313756.65	2791	0	0
PSAPUSER1D	16553.52	51829.46	19	0	0
PSAPUSER1I	19716.58	30552.25	61	0	0
PSAPYBMCD	474.64	598.47	5	0	0
PSAPYBMCI	333.74	347.07	35	0	0
SYSAUX	3968.00	20468.81	1293	0	0
SYSTEM	8581.58	13470.87	111	0	0

Tablespace	Max Free Space in MB	Total Free Space in MB	Number of Fragments	Space critical objects	Extent critical objects
TSPATROL	32.99	39.27	5	0	0
PSAPTEMP2	0.00	0.00	0	0	0

16.3.3 Top 10 Tables

The following table shows you the top 10 tables based on total size.

Table_name	Total size in GB	Table size in GB	Index size in GB	Lob size in GB	Percent of total Size	Cumulated percentage
SOFFCONT1	735.12	731.64	3.48	0.00	14.87	14.87
PPOIX	618.12	253.34	364.78	0.00	12.50	27.37
PPOPX	396.14	89.54	306.60	0.00	8.01	35.38
DBTABLOG	301.12	248.16	52.95	0.00	6.09	41.47
ZPM_OP_PLANDET	205.50	139.00	66.50	0.00	4.16	45.63
OBJK	116.37	21.27	95.10	0.00	2.35	47.98
COEP	103.42	37.55	65.87	0.00	2.09	50.07
PCL2	88.65	87.40	1.26	0.00	1.79	51.86
JCDS	66.17	35.16	31.02	0.00	1.34	53.20
TST03	65.06	64.61	0.45	0.00	1.32	54.52

N.B. If a graph line drops to zero, there is no data available for that date.

16.3.4 Top 10 Segments

The following table shows you the top 10 segments based on size.

TOP 10 SEGMENTS BASED ON SIZE

Segment name	Segment type	Tablespace	Size inGB	Extents	Table	Column
SOFFCONT1	TABLE	PSAPBTABD	731.64	942		
PPOIX	TABLE	PSAPBTABD	253.34	289		
DBTABLOG	TABLE	PSAPPROTD	248.16	234		
PPOIX~0	INDEX	PSAPBTABI	174.50	428		
PPOPX~0	INDEX	PSAPBTABI	147.41	457		
ZPM_OP_PLANDET	TABLE	PSAPUSER1D	139.00	98		
PPOIX~001	INDEX	PSAPBTABI	118.97	326		
PPOPX~001	INDEX	PSAPBTABI	99.09	358		
PPOPX	TABLE	PSAPBTABD	89.54	188		
PCL2	TABLE	PSAPBTABD	87.40	134		

The following table shows you the top 10 segments based on extents.

TOP 10 SEGMENTS BASED ON EXTENTS

Segment name	Segment type	Tablespace	Size inGB	Extents	Table	Column
SYS_LOB0000511702C00006\$\$	LOBSEGMENT	PSAPPOOLD	1.95	6204	FPLAYOUTT	LAYOUT
ZPL_CCKM_CONSVIA	TABLE	PSAPSTABD	2.89	3942		
ZMM_MRP_CONSUMOS	TABLE	PSAPBTABD	0.13	3339		
WRH\$_SQL_BIND_METADATA_PK	INDEX	SYS_AUX	21.58	3009		
TXMILOGRAW	TABLE	PSAPBTABD	3.77	2806		
SYS_LOB0000510546C00012\$\$	LOBSEGMENT	PSAPPOOLD	0.63	2759	FPCONTEXT	CONTEXT
SYS_LOB0000439885C00004\$\$	LOBSEGMENT	PSAPDDICD	0.48	2689	DDNTF	FIELDS
TATAF~0	INDEX	PSAPBTABI	0.13	1683		
WRH\$_SQL_BIND_METADATA	TABLE	SYS_AUX	25.23	1602		
OPTSTAT_SNAPSHOT\$	TABLE	SYSTEM	0.17	1583		

The following table shows you the top 10 segments based on monthly growth rate.

TOP 10 SEGMENTS BASED ON MONTHLY GROWTH RATE

Segment name	Segment type	Tablespace	Size inGB	Extents	Table	Column
SOFFCONT1	TABLE	PSAPBTABD	721.64	937		
PPOIX	TABLE	PSAPBTABD	251.34	288		
DBTABLOG	TABLE	PSAPPROTD	248.16	234		
_SYSSMU19_1530893856\$	TYPE2 UNDO	PSAPUNDO	30.56	682		
_SYSSMU18_3044340501\$	TYPE2 UNDO	PSAPUNDO	26.18	573		
_SYSSMU15_3454701533\$	TYPE2 UNDO	PSAPUNDO	24.69	506		
_SYSSMU14_4257690053\$	TYPE2 UNDO	PSAPUNDO	23.43	487		
_SYSSMU12_1793799270\$	TYPE2 UNDO	PSAPUNDO	22.77	459		
ZPM_OP_PLANDET	TABLE	PSAPUSER1D	139.00	98		
_SYSSMU16_3094986924\$	TYPE2 UNDO	PSAPUNDO	24.40	596		

16.4 Oracle Release

Release	Recommendation
12.2.0.1	It is recommended that you install the latest Oracle patch set as soon as possible. Check SAP Note 1915313 regularly for the latest patch set for Oracle 12.1.0.

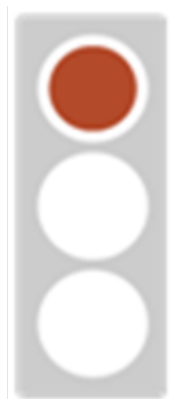
Note that in addition to the patch set, further bug fixes may be available and recommended. Refer to the following SAP Notes:

16.5 Important SAP Notes for Oracle

To optimize system performance and prevent data loss or system downtime, read and, if necessary, implement the following SAP Notes if applicable.

SAP Note Number	Description
766349	FAQ: Oracle SQL optimization
619188	FAQ: Oracle Wait Events
618868	FAQ: Oracle performance
2799900	Central Technical Note for Oracle Database 19c
2817074	Oracle Database 19c: Integration in SAP environment
2632000	J2EE: Introducing Support for Oracle 19 JDBC, and higher
2172935	Installation - SAP Systems based on SAP NetWeaver : Oracle Database
2470718	Oracle Database Parameter 12.2 / 18c / 19c
2799920	Patches for 19c: Database

17 Financial Data Quality



After execution of the “quick” consistency checks and execution of the main reconciliation report, issues were identified that require your attention.

The current Financial Data Quality chapter contains essential information about the quality and consistency of your financial data.

This chapter is structured with three subchapters: “Financial Data Integrity”, “Financial Data Management”, “Reconciliation of ECC Systems (prior to S/4HANA)”. The first two chapters are based on “quick” checks of different financial modules. The latter chapter displays the status and results of the main reconciliation checks.

It is important to understand that, due to the technical limitation of the automated data collection, we can cover only a limited result list in your system using the “quick” consistency checks. The reconciliation checks are the main sources of data for our financial data quality analysis and should be executed. These checks ensure full transparency at the consistency level of your financial data.

The Financial Data Quality topic is crucial for various daily business operations (for example, before month-end-closing), as well as in terms of SAP S/4HANA. Resolving inconsistency issues early on will help you to accelerate the System Conversion, Greenfield Implementation or Selective Data Transition to SAP S/4HANA and avoid unexpected showstoppers. We strongly advise you to study the information displayed in this chapter and take appropriate action.

Additional Benefits (FDQ)

The relevant data for Financial Data Quality was collected in the system and stored in the SDCCN download. If you gave your consent, this data has been sent to SAP for further analysis. The analysis contains several checks regarding financial data inconsistencies. After the analysis has finished, the results will be provided in SAP Support Launchpad via the link displayed in the “Link to SAP Support Launchpad” column in the table below. Analyses may not be included in the FDQ Dashboard since some analyses are filtered out. (For example, No data for BKPF or the analysis is deprecated).

Note:

For more information about how to activate content for FDQ, see [Knowledge Base Article 2980796](https://me.sap.com/launchpad/knowledgebase/article/2980796).

Link to SAP for Me

<https://me.sap.com/app/financialdataquality>

17.1 Financial Data Integrity

Our “quick” checks identified no inconsistencies in the area of Financial Data Integrity that require your attention.

17.2 Financial Data Management

This chapter contains issues that might have a negative impact on data volume and total cost of ownership.

17.2.1 Vendors with Open Items older than 10 Years old

Issue Description:

There is a high number of open items within vendor accounts that are more than 10 years old.

Impact on Business:

Documents that contain open items that are never cleared can never be archived. Documents that cannot be archived increase the data volume and the Total Costs of Ownership.

Examples of identified vendor accounts in the old fiscal years:

Company Code	Vendors	Year	Number of Entries
10	0005004009	1997	1
10	0005008006	2011	2
10	0006013363	2011	2
10	0005010019	2011	1
10	0006013356	2012	1
10	0006011396	2012	1
10	0005013460	2012	1
10	0006013356	2013	3
10	0006013974	2014	1
10	0006012649	2015	6

Recommendation: Clear as many open items as possible.

17.3 Reconciliation of ECC Systems (prior to S/4HANA)

This section displays data from the reconciliation checks in the area of Finance. For ECC customers we provide checks in the area of General Ledger and Asset Accounting.

17.3.1 Reconciliation for Asset Accounting

The data displayed in this chapter is a result of execution of the FIN_AA_CORR_RECON transaction. It contains various consistency checks of the Asset Accounting application. Identified inconsistencies might have a negative impact on your daily business and digital transformation projects. It is especially crucial to analyze and resolve listed issues in detail prior to SAP S/4HANA conversion. Please note that, when estimating the resolution effort of the identified inconsistencies, you should refer to the number of different error types, but not the total number of errors.

Please see the coverage and the error counter of the executed checks in the tables below. Refer to SAP Note <https://launchpad.support.sap.com/#/notes/3038014> [3038014] for more information about the identified error types.

PREREQUISITES

Note	Description
2896400	Reconciliation of Asset Accounting Inconsistencies in ECC prior to S/4HANA Conversion
3026403	FIN_AA_CORR_DISPLAY: false positive error message FIN_AA_RECON 764
3075335	DDIC objects for note 2896400 - Reconciliation of Asset Accounting Inconsistencies in ECC prior to S/4HANA Conversion
3002026	Recon. of AA in ECC prior to S/4HANA conv.: asset numbers in multiple company code

OVERVIEW

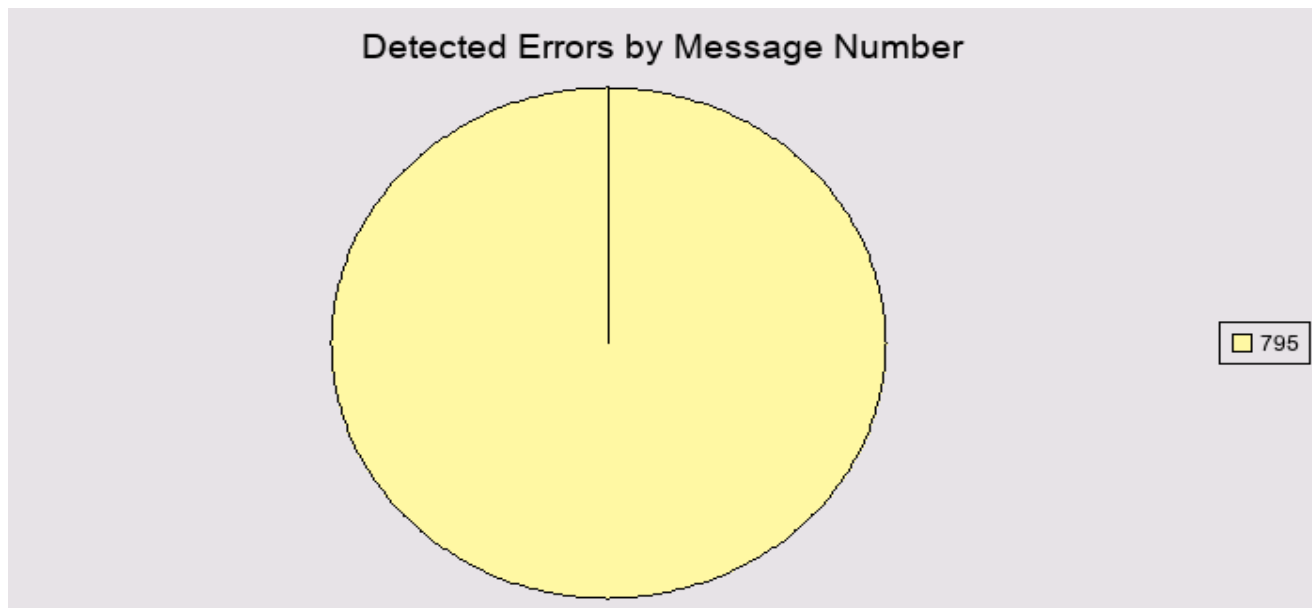
Report	Last Execution	Run ID	Number of Errors	Coverage(%)
FIN_AA_CORR_RECONCILE	04.04.2024	50002	696	96.55

Company Code ID	Company Code Text	Number of Errors
10	Metro de Madrid, S.A..	696

DETECTED ERRORS BY FISCAL YEAR

Fiscal Year	Number of Errors
2005	1

Fiscal Year	Number of Errors
2000	378
1999	172
1998	145

**MESSAGE NUMBER DETAILS**

Message Number	Message Short Text	Number of Errors
795	&1: Line Items ANEP/ANEA differs from Totals ANLC	696

17.3.2 Reconciliation for General Ledger

The data displayed in this chapter is a result of execution of the FIN_CORR_RECONCILE transaction. This reconciliation check is the main source of the financial data quality analysis. It contains various consistency checks of the General Ledger application. Identified inconsistencies might have a negative impact on your daily business and digital transformation projects. It is especially crucial to analyze and resolve listed issues in detail prior to SAP S/4HANA conversion. Please note that, when estimating the resolution effort of the identified inconsistencies, you should refer to the number of different error types, but not the total number of errors.

In your case, this transaction had been executed, but the system was not scanned completely. Please make sure to fully scan your system for possible further inconsistencies in your financial data. For more information, refer to SAP Note [2755360](#).

Please see the coverage and the error counter of the executed checks in the tables below. Refer to SAP Note [2714344](#) for more information about the identified error types.

Note	Description
2755360	Reconciliation prior to S/4HANA Conversion
2906603	Financial Data Quality: Central Preparation Note

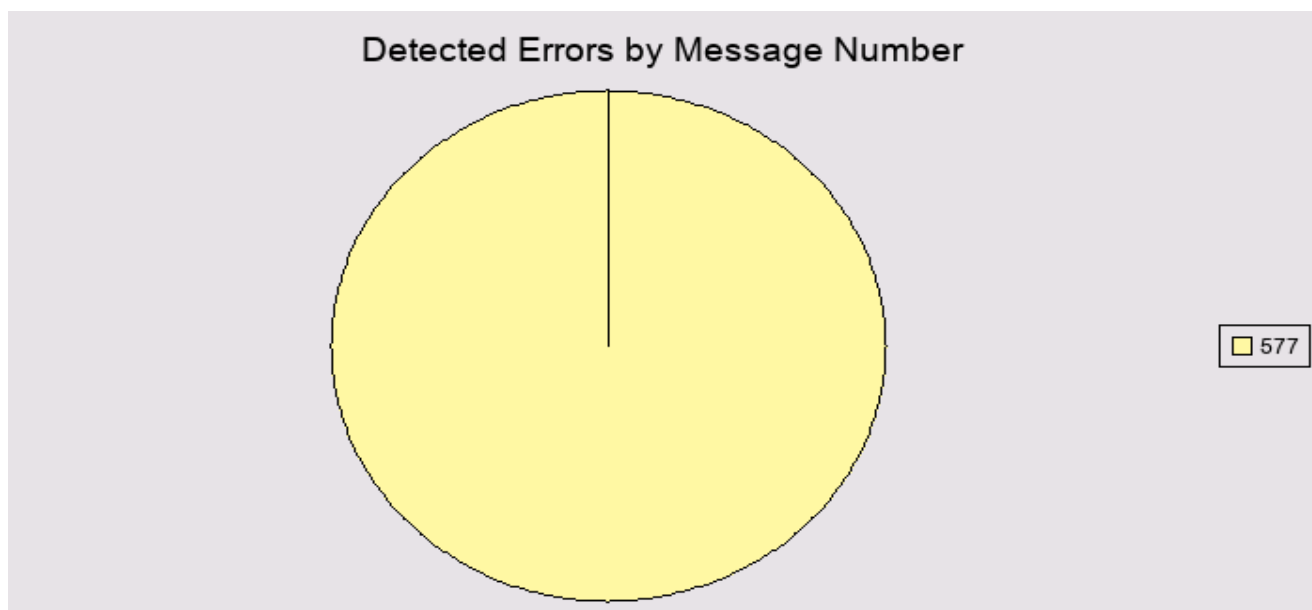
Report	Last Execution	Run ID	Number of Errors	Coverage(%)
FIN_CORR_RECONCILE	04.04.2024	50015	0	7
FIN_CORR_RECONCILE	04.04.2024	50016	0	7
FIN_CORR_RECONCILE	04.04.2024	50017	7	7
FIN_CORR_RECONCILE	04.04.2024	50018	0	9
FIN_CORR_RECONCILE	04.04.2024	50019	0	7
FIN_CORR_RECONCILE	04.04.2024	50020	6	7
FIN_CORR_RECONCILE	04.04.2024	50021	0	9
FIN_CORR_RECONCILE	04.04.2024	50022	0	5

Report	Last Execution	Run ID	Number of Errors	Coverage(%)
FIN_CORR_RECONCILE	04.04.2024	50023	0	2
FIN_CORR_RECONCILE	04.04.2024	50024	0	2

Please note that the displayed results in the following tables concern the Run IDs mentioned above.

DETECTED ERRORS BY FISCAL YEAR

Fiscal Year	Number of Errors
2019	7
2013	6
2002	873
2001	614
2000	499
1999	430
1998	491
1997	15

**MESSAGE NUMBER DETAILS**

Message Number	Message Short Text	Number of Errors
577	Open item flag in SKB1 differs from open item flag in BSEG &2 &3	2.935

18 Data Volume Management (DVM)



The database size and database growth of your system SPR indicate that no immediate action is required in the area of Data Volume Management.

This report does not have a Data Volume Management (DVM) section focusing on **Deletion and Data Archiving** because the collection of DVM-relevant data has not been activated for your system SPR. See SAP Note [2036442](#) for more information about how to activate the DVM content for service reports. Once the DVM content has been activated, information about the current state of your system SPR regarding Data Volume Management is provided, along with proposals about how to reduce the database size of this system.

As a workaround, the database size and growth per year for your system SPR were checked. Here, we found a database size of 5.044,10 GB and a database growth of 45,32-% per year.

These figures indicate that, from a **Deletion and Data Archiving** perspective, no immediate activities are required for your system SPR.

19 Database server load from expensive SQL statements - SPR



The SQL statements that we have identified in your system cause a heavy load that might overload the database server. Since the database server is a single resource, severe performance problems may affect all users.

LOAD FROM EXPENSIVE STATEMENTS

Impact	CPU Load [%]	I/O Load [%]	Elapsed Time [%]
HIGH	43,14	82,54	58,00

The table above shows the cumulative load of the top statements from cache based on elapsed database time. If the database was active for less than one day before the analysis was performed, the information provided may not be entirely accurate.

Note: The overall section rating is linked to the above table rating; the ratings are described in [SAP Note 551646](#).

If the table impact is HIGH, there are SQL statements that cause a significant percentage of the overall load on your SAP system.

If the table impact is MEDIUM, there are SQL statements that cause a significant percentage of the overall load on your SAP system.

If the table impact is LOW, your system SQL statement cache contains no significant problems.

If the table impact is N/A, the cache utilization, system load (dialog steps or total reads) was too low, or some analysis data was unavailable.

The following table lists the load of each SQL statement individually. The load of the statement is evaluated against the total load since database startup. If an object name in this table contains the character "/", it may indicate a join. If such an object is not in the ABAP Dictionary (transaction SE12) with the object name listed, check for each part of the join (items separated by "/").

20 Cache Analysis On 27.01.2025

EXPENSIVE STATEMENTS OVERVIEW

Object Name	CPU Load [%]	I/O Load [%]	Elapsed Time [%]	Total Executions	Records Processed
ZPM_REPA_CCR	4,26	0,00	26,00	3.487.526	2.215.257
CDHDR	14,96	53,87	9,00	2.244	434
DECLARESTART_TIMENUM	3,80	13,67	5,00	468	468
SAPR3.DBTABLOG	3,80	13,67	5,00	468	468
ZEMXBC_SINCRPDA	1,93	0,21	3,00	8.918	169.679
MHIS	0,46	0,27	3,00	1.626	2.476.491.582
ZPL_CIRTRE	5,26	0,02	3,00	134.918	4.651.644
LTAP/LTAK	3,96	0,00	2,00	20.110	0
LTAP/LTAK	4,71	0,83	2,00	4.594	0

20.1 Access on ZPM_REPA_CCR

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	3.487.526	4.979	275.375.390	1.165.764.484	2.215.257

```

SELECT
/*+ FIRST_ROWS (1) */
"AUFNR", "SALIDA_REALIZADA"
FROM
"ZPM_REPA_CCR"
WHERE
"MANDT"=:A0 AND "MBLNR"=:A1 AND "MJAHR"=:A2 AND "BORRADO"=:A3 AND ROWNUM <=:A4
Execution Plan From: V$SQL_PLAN sql_id: 7xfc2wpsnysau
SELECT STATEMENT Estimated Costs= 404 Estimated Rows= 0
Optimizer: ALL_ROWS
2 COUNT STOPKEY
  Filter predicates: ROWNUM<=:A4
1 TABLE ACCESS FULL ZPM_REPA_CCR
  Estimated Costs= 404 Estimated Rows= 1
  Filter predicates:
    ("MANDT"=:A0 AND NVL("MBLNR",' ')=:A1 AND NVL("MJAHR",'0000')=:A2 AND "BORR
ADO"=:A3)
  Estim. Bytes: 29
  Estim. CPU-Costs = 0 Estim. IO-Costs = 404

```

Program Name	Line	Created By	Last Changed By	Last Changed On
ZPMOL719_FORMS	3202	PE2949	PE6126	18.09.2024

```

003190      ls_ccr-cantidad = ls_mseg-menge.
003191      ls_ccr-mblnr = ls_mseg-mblnr.
003192      ls_ccr-mjahr = ls_mseg-mjahr.
003193      SELECT SUM( cantidad ) FROM zpm_salidas_ccr INTO ls_ccr-cant_des
003194      WHERE matnr = ls_necesidad-matricula
003195      AND aufnr = ls_ccr-aufnr
003196      AND revnr = ls_necesidad-revnr
003197      AND mblnr = ls_ccr-mblnr

```

```

003198      AND      mjahr = ls_ccr-mjahr.
003199
003200      IF ls_ccr-cantidad GT ls_ccr-cant_des.
003201          CLEAR ls_ccr-salida_realizada.
003202          SELECT SINGLE aufnr salida_realizada INTO (ls_ccr-aufnr, ls_ccr-
salida_realizada ) FROM zpm_repa_ccr
003203              WHERE mblnr = ls_ccr-mblnr AND mjahr = ls_ccr-mjahr AND borrado = space.
003204          IF sy-subrc NE 0.
003205              APPEND ls_ccr TO gt_ccr.
003206          ELSE .
003207              CHECK ls_ccr-salida_realizada = space.
003208              ls_ccr-recepcionado = 'X'.
003209              APPEND ls_ccr TO gt_ccr.
003210          ENDIF.
003211      ENDIF.
003212  ENDLOOP.
003213
003214      CLEAR ls_ccr.
003215  ENDLOOP.

```

20.2 Access on CDHDR

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	2.244	4.091.040.666	95.707.696	4.092.390.613	434

```

SELECT
"OBJECTCLAS","OBJECTID","CHANGENR","USERNAME","UDATE","UTIME","TCODE"
FROM
"CDHDR"
WHERE
"MANDANT"=:A0 AND "UDATE"=:A1 AND "UTIME" BETWEEN :A2 AND :A3 AND "USERNAME" IN
(:A4,:A5,:A6,:A7,:A8)
Execution Plan From: V$SQL_PLAN sql_id: ccfg74flzcu9n
SELECT STATEMENT Estimated Costs= 1.162.640 Estimated Rows= 0
Optimizer: ALL_ROWS
  2 FILTER
    Filter predicates: :A3>=:A2
  1 TABLE ACCESS FULL CDHDR
    Estimated Costs= 1.162.639 Estimated Rows= 1
    Filter predicates:
      ("UDATE"=:A1 AND "UTIME">=:A2 AND "UTIME"<=:A3 AND "MANDANT"=:A0 AND INTERN
AL_FUNCTION("USERNAME"))
    Estim. Bytes: 69
    Estim. CPU-Costs = 55.876.082.418 Estim. IO-Costs = 1.148.367

```

Program Name	Line	Created By	Last Changed By	Last Changed On
/GRCPI/CL_GRIA_LOG=====CM001	151	SAP	SAP	06.06.2021

```

000139      INTO TABLE lt_cdhdr
000140      FROM cdhdr
000141      WHERE objectclas IN lt_sl_objectclas
000142      AND      objectid IN lt_sl_objectid
000143      AND      udate = lv_from_date
000144      AND      utime BETWEEN lv_from_time AND lv_to_time
000145      AND      username IN it_usr_range.
000146
000147  ELSE.

```

```

000148
000149     lv_imed_time = '235959'.
000150     DO.
000151         SELECT    objectclas                "#EC CI_NOFIELD
000152                 objectid
000153                 changenr
000154                 username
000155                 udate
000156                 utime
000157                 tcode
000158         APPENDING TABLE lt_cdhdr FROM cdhdr
000159         WHERE objectclas IN lt_sl_objectclas
000160         AND objectid   IN lt_sl_objectid
000161         AND udate = lv_from_date
000162         AND utime BETWEEN lv_from_time AND lv_imed_time
000163         AND username IN it_usr_range.
000164
000165         lv_imed_date = lv_from_date + 1.
000166         IF lv_imed_date = lv_to_date.
000167             EXIT.
000168         ENDIF.
000169         lv_from_date = lv_imed_date.
000170         lv_from_time = '000000'.
000171     ENDDO.
000172
000173     lv_imed_date = lv_from_date.
000174     lv_imed_time = '000000'.
000175

```

20.3 Access on DECLARESTART_TIMENUM

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	468	1.038.317.817	55.727.356	1.039.019.132	468

```

declare    start_time NUMBER;    end_time NUMBER;    elapsed_time NUMBER;    resultado
number;    hora date;    begin    SELECT SYSDATE into hora
FROMdual;    start_time := DBMS_UTILITY.GET_TIME;-- select count(1) into resultado
FROMdba_users;    select count(1) into resultado
FROM
SAPR3.DBTABLOG;    end_time := DBMS_UTILITY.GET_TIME;    elapsed_time := ((end_time -
start_time)/100); DBMS_OUTPUT.put_line(hora||';'||elapsed_time||';'||resultado); end;

```

SQL Scripts

This statement is an expensive SQL script. Because the contents of such a script are not visible in the SQL cache, we cannot analyze this statement in detail.

Recommendation: Check if:

- The script has to be run at all.
- The script can be run less frequently.
- The script can be tuned so that it consumes less database resources.

20.4 Access on SAPR3.DBTABLOG

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	468	1.038.317.814	55.726.841	1.039.019.103	468

```

SELECT
COUNT(1)
FROM
SAPR3.DBTABLOG

```

20.5 Access on ZEMXBC_SINCRPDA

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	8.918	15.904.079	30.652.027	527.037.563	169.679

```

SELECT
"SITE", "IWERK_COMUN", "INGRP_COMUN", "USRTIPO_COMUN", "PERNR_COMUN", "IDPDA", "TABLA", "FECHAHORA"
FROM
"ZEMXBC_SINCRPDA"
WHERE
"MANDT"=:A0 AND "RELID"=:A1 AND "SITE"=:A2 AND (NOT ("TABLA" IN
(:A3,:A4,:A5,:A6,:A7,:A8,:A9,:A10,:A11,:A12,:A13,:A14,:A15,:A16,:A17,:A18,:A19,:A20,:A21,:A22)) OR NOT ("FECHAHORA">=:A23))
Execution Plan From: V$SQL_PLAN sql_id: d92qtlqkxmva
SELECT STATEMENT Estimated Costs= 1.570 Estimated Rows= 0
Optimizer: ALL_ROWS
1 INDEX RANGE SCAN ZEMXBC_SINCRPDA~0
Estimated Costs= 1.570 Estimated Rows= 236.643
Filter predicates:
("FECHAHORA"<:A23 OR ("TABLA"<:A3 AND "TABLA"<:A4 AND "TABLA"<:A5 AND "TABLA"<:A6 AND "TABLA"<:A7 AND "TABLA"<:A8 AND "TABLA"<:A9 AND "TABLA"<:A10 AND "TABLA"<:A11 AND "TABLA"<:A12 AND "TABLA"<:A13 AND "TABLA"<:A14 AND "TABLA"<:A15 AND "TABLA"<:A16 AND "TABLA"<:A17 AND "TABLA"<:A18 AND "TABLA"<:A19 AND "TABLA"<:A20 AND "TABLA"<:A21 AND "TABLA"<:A22))
Access predicates: "MANDT"=:A0 AND "RELID"=:A1 AND "SITE"=:A2
Search Columns: 3
Estim. Bytes: 20.114.655
Estim. CPU-Costs = 23.017.069 Estim. IO-Costs = 1.564

```

Program Name	Line	Created By	Last Changed By	Last Changed On
LZEMXBCU24	206	PE2066	PE2066	24.10.2011

```

000194      MOVE-CORRESPONDING ls_contexto_sincronizacion
000195                      TO ls_datos_sincronizacion.
000196      EXPORT tabla_datos FROM <lfs_tabla_parametro>
000197                      TO DATABASE zemxbc_sincrpda(dc)
000198                      FROM ls_datos_sincronizacion
000199                      ID ls_clave_sincronizacion.
000200      ENDLOOP.
000201
000202 * Borramos si cabe todos los registros en la BBDD de sincronización
000203 * sobre tablas parámetro que ya no existen o con fechas de registro
000204 * ya obsoletas...
000205      CLEAR lt_claves_bbdd_sincronizacion[].
000206      SELECT * FROM zemxbc_sincrpda
000207                      INTO CORRESPONDING FIELDS
000208                      OF TABLE lt_claves_bbdd_sincronizacion
000209                      WHERE relid = gc_areasincr_datos_carga
000210                      AND site = gs_datos_site-site
000211                      AND ( NOT ( tabla IN lt_rango_tablas_parametro ) OR
000212                      NOT ( fechahora
000213                      >= lf_fecha_hora_limite ) ).      "#EC PORTABLE
000214      IF NOT lt_claves_bbdd_sincronizacion[] IS INITIAL.
000215          CLEAR ls_clave_sincronizacion.
000216      LOOP AT lt_claves_bbdd_sincronizacion

```

```

000217          INTO ls_clave_sincronizacion.
000218      DELETE FROM DATABASE zemxhc_sincrpda(dc)
000219          ID ls_clave_sincronizacion.
000220      ENDLOOP.
000221      ENDIF.
000222 ENDFUNCTION.

```

20.6 Access on MHIS

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	1.626	20.401.479	30.179.404	125.075.954	2.476.491.582

```

SELECT
"WARPL", "ABNUM", "ZAEHL", "NPLDA"
FROM
"MHIS"
WHERE
"MANDT"=:A0
Execution Plan From: V$SQL_PLAN sql_id: 9xdz651x2b6dr
SELECT STATEMENT Estimated Costs= 68.498 Estimated Rows= 0
Optimizer: ALL_ROWS
  4 VIEW  index$_join$_001
    Estimated Costs= 68.498 Estimated Rows= 4.160.867
    Filter predicates: "MANDT"=:A0
    Estim. Bytes: 137.308.611
    Estim. CPU-Costs = 2.049.649.556 Estim. IO-Costs = 67.974
  3 HASH JOIN
    Access predicates: ROWID=ROWID
    Last WorkArea Mem kB: 381.785.088
  1 INDEX RANGE SCAN MHIS_____0
    Estimated Costs= 5.899 Estimated Rows= 4.160.867
    Access predicates: "MANDT"=:A0
    Search Columns: 1
    Estim. Bytes: 137.308.611
    Estim. CPU-Costs = 763.368.930 Estim. IO-Costs = 5.704
  2 INDEX FAST FULL SCAN MHIS_____A
    Estimated Costs= 11.674 Estimated Rows= 4.160.867
    Estim. Bytes: 137.308.611
    Estim. CPU-Costs = 288.304.045 Estim. IO-Costs = 11.601

```

Program Name	Line	Created By	Last Changed By	Last Changed On
ZIFFF012	813	DE0298	PE6126	04.12.2024

```

000801      SELECT WARPL WPTXT STRAT
000802 * inicio OC61844 PECAPGEM06 09/06/2008 (1)
000803 * Se añaden a la selección los campos nuevos
000804      PLAN_SORT
000805 * fin      OC61844 PECAPGEM06 09/06/2008 (1)
000806      FROM MPLA
000807      INTO CORRESPONDING FIELDS OF TABLE I_PLAN
000808      FOR ALL ENTRIES IN R_WARPL
000809      WHERE WARPL = R_WARPL-LOW
000810      %_HINTS ORACLE '&max_in_blocking_factor 100&'.
000811

```

```

000812 *Se genera una tabla interna con las tomas de planes de las órdenes
000813     SELECT WARPL ABNUM ZAEHL
000814 * inicio OC61844 PECAPGEM06 09/06/2008 (1)
000815 * Se añade a la selección el campo nuevo
000816     NPLDA
000817 * fin      OC61844 PECAPGEM06 09/06/2008 (1)
000818     FROM MHIS
000819     INTO CORRESPONDING FIELDS OF TABLE I_TOMAS
000820     FOR ALL ENTRIES IN R_WARPL
000821     WHERE WARPL = R_WARPL-LOW
000822     %_HINTS ORACLE '&max_in_blocking_factor 100&'.
000823
000824 *Se genera una tabla interna con los textos de los paquetes de mto
000825     SELECT STRAT PAKET KTEX1 FROM T351X
000826     INTO CORRESPONDING FIELDS OF TABLE I_PAQUETE
000827     WHERE SPRAS = 'S'.
000828
000829 *Se genera una tabla interna con las posiciones de mto
000830     SORT R_WAPOS BY LOW.
000831     DELETE ADJACENT DUPLICATES FROM R_WAPOS COMPARING LOW.
000832     SELECT WAPOS ZZTURNO FROM MPOS
000833     INTO CORRESPONDING FIELDS OF TABLE I_POSICION
000834     FOR ALL ENTRIES IN R_WAPOS

```

20.7 Access on ZPL_CIRTRE

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	134.918	1.443.789	26.895.518	1.439.865.055	4.651.644

```

SELECT
*
FROM
"ZPL_CIRTRE"
WHERE
"MANDT"=:A0 AND "CIRCTREN"=:A1AND "FECHA_INIC"<=:A2 AND ("FECHA_FIN">=:A3 OR
"FECHA_FIN"=:A4)AND "LINEA"=:A5 AND "TRAMO"=:A6 AND "IND_BORRA"=:A7
Execution Plan From: V$SQL_PLAN sql_id: 73w8y4g8cv43y
SELECT STATEMENT Estimated Costs= 2 Estimated Rows= 0
Optimizer: ALL_ROWS
5 CONCATENATION
2 TABLE ACCESS BY INDEX ROWID ZPL_CIRTRE
Estimated Costs= 1 Estimated Rows= 9
Estim. Bytes: 1.809
Estim. CPU-Costs = 0 Estim. IO-Costs = 1
1 INDEX RANGE SCAN ZPL_CIRTRE~IN0
Estimated Costs= 1 Estimated Rows= 1
Access predicates:
"MANDT"=:A0 AND "FECHA_FIN"=:A4 AND "LINEA"=:A5 AND "TRAMO"=:A6 AND "CIRCTR
EN"=:A1 AND "IND_BORRA"=:A7 AND "FECHA_INIC"<=:A2
Search Columns: 7
Estim. CPU-Costs = 0 Estim. IO-Costs = 1
4 TABLE ACCESS BY INDEX ROWID ZPL_CIRTRE
Estimated Costs= 1 Estimated Rows= 1
Estim. Bytes: 201
Estim. CPU-Costs = 0 Estim. IO-Costs = 1
3 INDEX SKIP SCAN ZPL_CIRTREIN3

```


Estimated Costs= 1 Estimated Rows= 1
 Filter predicates:
 ("FECHA_FIN">=:A3 AND "LINEA"=:A5 AND "TRAMO"=:A6 AND "IND_BORRA"=:A7 AND L
 NNVL("FECHA_FIN"=:A4))
 Access predicates:
 "MANDT"=:A0 AND "CIRCTREN"=:A1 AND "FECHA_FIN">=:A3 AND "LINEA"=:A5 AND "TR
 AMO"=:A6 AND "IND_BORRA"=:A7 AND "FECHA_INIC"<=:A2
 Search Columns: 6
 Estim. CPU-Costs = 0 Estim. IO-Costs = 1

Program Name	Line	Created By	Last Changed By	Last Changed On
ZGDL_PREVISTO_EFECTIVO	5390	DE002705NO	PE3827	02.03.2021

```

005378 ** Ini. mod. OC-66892 PE1228 27/06/2008
005379 * SELECT * INTO TABLE i_cirtre
005380 * FROM zpl_cirtre
005381 * WHERE ( fecha_fin => pe_fecha
005382 * OR fecha_fin = '00000000' )
005383 * AND fecha_inic <= pe_fecha
005384 * AND ind_borra = space
005385 * AND linea = pe_linea
005386 * AND tramo = pe_tramo
005387 * AND cirtren = 'S'.
005388 **** Fin optimización 18/9/2002
005389 ** Se modifica para que la búsqueda se haga por el índice 1
005390 SELECT *
005391 FROM zpl_cirtre INTO TABLE i_cirtre
005392 WHERE cirtren = 'S'
005393 AND fecha_inic <= pe_fecha
005394 AND ( fecha_fin => pe_fecha
005395 OR fecha_fin = '00000000' )
005396 AND num_tren LIKE d_c_num_tren_%
005397 AND linea = pe_linea
005398 AND tramo = pe_tramo
005399 AND ind_borra = space.
005400 ** Fin mod. OC-66892
005401 ***** Inicio modificación MANTSAPGDL-91
005402 ***** Se borran de la tabla interna i_cirtre los trenes
005403 ***** con inicio y fin de vigencia iguales
005404 ***** También se borran los trenes con inicio de
005405 ***** vigencia posterior al inicio de vigencia.
005406
005407 * Ini. 4604341 PE3827 26/02/2021
005408 * En casos puntuales, algún tren de apertura, no llega a la
005409 * hora de apertura correcta y no se estaba contabilizando.
005410 * Así que, chequearemos los trenes con evento 'AP' y les adjudicaremos
005411 * la misma hora de apertura

```

20.8 Access on LTAP/LTAK

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	20.110	115.753	20.603.981	1.083.016.179	0

```

SELECT DISTINCT
T_00."TANUM"
FROM
"LTAK" T_00 INNER JOIN "LTAP" T_01 ON T_01."MANDT"=:A0 AND T_01."LGNUM"=T_00."LGNUM" AND
T_01."TANUM"=T_00."TANUM"

```

WHERE

T_00."MANDT"=:A1 AND T_00."LGNUM"=:A2 AND T_01."LGNUM"=:A3 AND (T_01."QDATU"=:A4 AND T_01."QZEIT">=:A5 OR T_01."QDATU">:A6) AND (T_01."QDATU"=:A7 AND T_01."QZEIT"<:A8 OR T_01."QDATU"<:A9) AND T_01."VLTP"=:A10 AND T_01."VLPLA"=:A11 AND T_01."PQUIT"=:A12 AND (T_01."VORGA"=:A13 OR T_01."VORGA"=:A14)

Execution Plan From: V\$SQL_PLAN sql_id: 213m3zkk5agzn

SELECT STATEMENT Estimated Costs= 7 Estimated Rows= 0

Optimizer: ALL_ROWS

6 HASH UNIQUE

Estimated Costs= 6 Estimated Rows= 1

Estim. Bytes: 72

Estim. CPU-Costs = 3.960.180 Estim. IO-Costs = 5

5 FILTER

Filter predicates: :A2=:A3

4 NESTED LOOPS SEMI

Estimated Costs= 5 Estimated Rows= 1

Estim. Bytes: 72

Estim. CPU-Costs = 45.180 Estim. IO-Costs = 5

2 TABLE ACCESS BY INDEX ROWID LTAP

Estimated Costs= 5 Estimated Rows= 1

Filter predicates:

((("T_01"."QDATU">:A6 OR ("T_01"."QDATU"=:A4 AND "T_01"."QZEIT">=:A5)) AND ("T_01"."QDATU"<:A9 OR ("T_01"."QDATU"=:A7 AND "T_01"."QZEIT"<:A8)) AND INTERNAL_FUNCTION("T_01"."VORGA"))

Estim. Bytes: 53

Estim. CPU-Costs = 43.364 Estim. IO-Costs = 5

1 INDEX RANGE SCAN LTAP_____V

Estimated Costs= 1 Estimated Rows= 28

Filter predicates: "T_01"."LGNUM"=:A3

Access predicates:

"T_01"."MANDT"=:A0 AND "T_01"."LGNUM"=:A2 AND "T_01"."PQUIT"=:A12 AND "T_01"."VLTP"=:A10 AND "T_01"."VLPLA"=:A11

Search Columns: 5

Estim. CPU-Costs = 5.713 Estim. IO-Costs = 1

3 INDEX UNIQUE SCAN LTAK_____0

Estimated Costs= 0 Estimated Rows= 313.181

Filter predicates: "T_00"."LGNUM"=:A2

Access predicates:

"T_00"."MANDT"=:A1 AND "T_00"."LGNUM"=:A3 AND "T_01"."TANUM"="T_00"."TANUM"

Search Columns: 3

Estim. Bytes: 5.950.439

Estim. CPU-Costs = 1.816 Estim. IO-Costs = 0

Program Name	Line	Created By	Last Changed By	Last Changed On
ZCL_MM_FLUX=====CM004	101	PE3424	PE3424	16.05.2018

```

000089      where ltak~lgnum = ws_configuration-flux_wm
000090      and ltap~lgnum = ws_configuration-flux_wm
000091 *          and (      ltap~qdatu > ws_configuration-lastsync_date_to
000092 *              or ( ltap~qdatu = ws_configuration-lastsync_date_to and
ltap~qzeit >= ws_configuration-lastsync_time_to ) )
000093      and ( ( ltap~qdatu = ws_configuration-lastsync_date_to and ltap~qzeit >=
ws_configuration-lastsync_time_to ) or lta

```

```

000094          and ( ( ltap~qdatu = l_max_date and ltap~qzeit < l_max_time ) or
ltap~qdatu < l_max_date )
000095          and ltap~nltyp = ws_configuration-flux_area
000096          and ltap~nlpla = ws_configuration-flux_bin
000097          and ltap~pquit = 'X'
000098          and ( ltap~vorga = 'ST' or ltap~vorga = 'SL' ).
000099
000100 * Obtener TOs salida canceladas para el FLUX (almacén, tipo de almacenamiento
procedencia y ubicacion)
000101 select distinct ltak~tanum
000102          appending corresponding fields of table lt_items_canc
000103          from ltak join ltap on ltap~lgnum = ltak~lgnum
000104                      and ltap~tanum = ltak~tanum
000105          where ltak~lgnum = ws_configuration-flux_wm
000106          and ltap~lgnum = ws_configuration-flux_wm
000107 *          and (          ltap~qdatu > ws_configuration-lastsync_date_to
000108 *          or ( ltap~qdatu = ws_configuration-lastsync_date_to and ltap~qzeit
>= ws_configuration-lastsync_time_to ) )
000109          and ( ( ltap~qdatu = ws_configuration-lastsync_date_to and ltap~qzeit >=
ws_configuration-lastsync_time_to ) or lta
000110          and ( ( ltap~qdatu = l_max_date and ltap~qzeit < l_max_time ) or
ltap~qdatu < l_max_date )
000111          and ltap~vltyp = ws_configuration-flux_area
000112          and ltap~vlpla = ws_configuration-flux_bin
000113          and ltap~pquit = 'X'
000114          and ( ltap~vorga = 'ST' or ltap~vorga = 'SL' ).
000115
000116 * Formatar todas las TO encontrados con datos en falta
000117 data: lt_items_in_canc like lt_items.
000118 data: lt_items_out_canc like lt_items.
000119 loop at lt_items_canc assigning <ls_item>.
000120 select ltak~tanum ltap~matnr ltap~brgew ltap~gewei ltap~stoan ltap~vsolm
ltap~nsolm ltap~wempf ltap~vorga
000121          appending corresponding fields of table lt_items_in
000122          from ltak join ltap on ltap~lgnum = ltak~lgnum
000123                      and ltap~tanum = ltak~tanum
000124          where ltak~lgnum = ws_configuration-flux_wm
000125          and ltap~lgnum = ws_configuration-flux_wm
000126          and ltak~tanum = <ls_item>-tanum

```

20.9 Access on LTAP/LTAK

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	4.594	63.288.276	18.655.154	1.288.979.206	0

```

SELECT DISTINCT
T_00."TANUM"
FROM
"LTAK" T_00 INNER JOIN "LTAP" T_01 ON T_01."MANDT"=:A0 AND T_01."LGNUM"=T_00."LGNUM" AND
T_01."TANUM"=T_00."TANUM"
WHERE
T_00."MANDT"=:A1 AND T_00."LGNUM"=:A2 AND T_01."LGNUM"=:A3 AND (T_01."QDATU"=:A4 AND
T_01."QZEIT">=:A5 OR T_01."QDATU">:A6) AND (T_01."QDATU"=:A7 AND T_01."QZEIT"<:A8 OR
T_01."QDATU"<:A9) AND T_01."NLTP"=:A10 AND T_01."NLPLA"=:A11 AND T_01."PQUIT"=:A12 AND
(T_01."VORGA"=:A13 OR T_01."VORGA"=:A14)
Execution Plan From: V$SQL_PLAN sql_id: 5wspz2rtz80mj
SELECT STATEMENT Estimated Costs= 139.353 Estimated Rows= 0
Optimizer: HINT: ALL_ROWS
5 HASH UNIQUE
Estimated Costs= 139.352 Estimated Rows= 1
Estim. Bytes: 73

```

Estim. CPU-Costs = 4.548.892.458 Estim. IO-Costs = 138.190

4 FILTER

Filter predicates: :A2=:A3

3 NESTED LOOPS SEMI

Estimated Costs= 139.351 Estimated Rows= 1

Estim. Bytes: 73

Estim. CPU-Costs = 4.544.977.458 Estim. IO-Costs = 138.190

1 TABLE ACCESS FULL LTAP

Estimated Costs= 139.351 Estimated Rows= 1

Filter predicates:

("T_01"."NLPLA"=:A11 AND "T_01"."NLTYT"=:A10 AND ("T_01"."QDATU">:A6 OR ("T_01"."QDATU"=:A4 AND "T_01"."QZEIT">=:A5)) AND INTERNAL_FUNCTION("T_01"."VO
RGA") AND "T_01"."LGNUM"=:A3 AND "T_01"."LGNUM"=:A2 AND "T_01"."PQUIT"=:A12
AND "T_01"."MANDT"=:A0 AND ("T_01"."QDATU"<:A9 OR ("T_01"."QDATU"=:A7 AND
"T_01"."QZEIT"<:A8)))

Estim. Bytes: 54

Estim. CPU-Costs = 4.544.975.642 Estim. IO-Costs = 138.190

2 INDEX UNIQUE SCAN LTAK_____0

Estimated Costs= 0 Estimated Rows= 313.181

Filter predicates: "T_00"."LGNUM"=:A2

Access predicates:

"T_00"."MANDT"=:A1 AND "T_00"."LGNUM"=:A3 AND "T_01"."TANUM"="T_00"."TANUM"

Search Columns: 3

Estim. Bytes: 5.950.439

Estim. CPU-Costs = 1.816 Estim. IO-Costs = 0

Program Name	Line	Created By	Last Changed By	Last Changed On
ZCL_MM_FLUX=====CM004	85	PE3424	PE3424	16.05.2018

```

000073      and ltap~vltyp = ws_configuration-flux_area
000074      and ltap~vlpla = ws_configuration-flux_bin
000075      and ltap~pquit = ' '.
000076
000077
000078
000079
*****
****
000080 * Obtener datos TO de entrada / salida cancelados
000081
*****
****
000082
000083 * Obtener TOs entrada canceladas para el FLUX (almacén, tipo de almacenamiento
procedencia y ubicacion)
000084      data: lt_items_canc like lt_items.
000085      select distinct ltak~tanum
000086              into corresponding fields of table lt_items_canc
000087              from ltak join ltap on ltap~lgnum = ltak~lgnum
000088                      and ltap~tanum = ltak~tanum
000089              where ltak~lgnum = ws_configuration-flux_wm
000090                      and ltap~lgnum = ws_configuration-flux_wm
000091 *                      and (      ltap~qdatu > ws_configuration-lastsync_date_to
000092 *                      or ( ltap~qdatu = ws_configuration-lastsync_date_to and
ltap~qzeit >= ws_configuration-lastsync_time_to ) )
000093                      and ( ( ltap~qdatu = ws_configuration-lastsync_date_to and ltap~qzeit >=
ws_configuration-lastsync_time_to ) or lta

```

```
000094          and ( ( ltap~qdatu = l_max_date and ltap~qzeit < l_max_time ) or
ltap~qdatu < l_max_date )
000095          and ltap~nltyp = ws_configuration-flux_area
000096          and ltap~nlpla = ws_configuration-flux_bin
000097          and ltap~pquit = 'X'
000098          and ( ltap~vorga = 'ST' or ltap~vorga = 'SL' ).
000099
000100 * Obtener TOs salida canceladas para el FLUX (almacén, tipo de almacenamiento
procedencia y ubicacion)
000101 select distinct ltak~tanum
000102          appending corresponding fields of table lt_items_canc
000103          from ltak join ltap on ltap~lgnum = ltak~lgnum
000104          and ltap~tanum = ltak~tanum
000105          where ltak~lgnum = ws_configuration-flux_wm
000106          and ltap~lgnum = ws_configuration-flux_wm
000107 *          and (          ltap~qdatu > ws_configuration-lastsync_date_to
000108 *          or ( ltap~qdatu = ws_configuration-lastsync_date_to and ltap~qzeit
>= ws_configuration-lastsync_time_to ) )
000109          and ( ( ltap~qdatu = ws_configuration-lastsync_date_to and ltap~qzeit >=
ws_configuration-lastsync_time_to ) or lta
000110          and ( ( ltap~qdatu = l_max_date and ltap~qzeit < l_max_time ) or
ltap~qdatu < l_max_date )
```

21 Historical Analysis Between 20.01.2025 26.01.2025

EXPENSIVE STATEMENTS OVERVIEW

Object Name	CPU Load [%]	I/O Load [%]	Elapsed Time [%]	Total Executions	Records Processed
BEGINSYS.KUPW\$WORKER	0,85	1,99	3,00	7	7

21.1 Access on BEGINSYS.KUPW\$WORKER

LOAD STATISTICS TOTAL

Analysis Date	Total Executions	Total Physical Reads	Elapsed Time (ms)	Total Buffer Gets	Records Processed
27.01.2025	7	294.619.896	56.929.907	470.704.724	7

```
BEGIN      SYS.KUPW$WORKER.MAIN('SYS_EXPORT_TABLE_05', 'SYS', 0);  END;
```

SQL Scripts

This statement is an expensive SQL script. Because the contents of such a script are not visible in the SQL cache, we cannot analyze this statement in detail.

Recommendation: Check if:

- a) The script has to be run at all.
- b) The script can be run less frequently.
- c) The script can be tuned so that it consumes less database resources.

22 Cross Application Business Process Analysis

This section provides insights into cross-application data in the areas of jobs, interfaces, and data consistency.

The data is collected in the cross-application business process analysis (BPA) and the data collection findings are displayed in the EWA if it is configured to include BPA data. Further details can be found in the cross-application BPA.

With Business Process Monitoring in SAP Solution Manager, you can continuously analyze the key figures displayed below in addition to approximately 800 out-of-the-box key figures.

Disclaimer

Bear in mind that all assumptions and ratings in this presentation are based on our general experience with other customers and that the findings are not necessarily business-critical in your particular case.

Rating	Area	Key Figure	Finding
✓	Jobs	Canceled background jobs	3 of jobs have been canceled on the peak day of the analyzed week.
◇	Interfaces	IDoc throughput (Inbound)	3159 of all inbound IDocs have been successfully processed in the analyzed week.
✗	Interfaces	Erroneous IDocs (Inbound)	6 erroneous inbound IDocs were identified for the analyzed week.
✓	Interfaces	IDoc backlog (Inbound)	0 backlog inbound IDocs have been identified in the analyzed week.
◇	Interfaces	IDoc throughput (Outbound)	6228 of all outbound IDocs have been successfully processed in the analyzed week.
✓	Interfaces	Erroneous IDocs (Outbound)	0 erroneous outbound IDocs were identified for the analyzed week.
✓	Interfaces	IDoc backlog (Outbound)	0 backlog outbound IDocs have been identified in the analyzed week.
✓	Interfaces	Erroneous qRFC (Inbound)	0 qRFC inbound errors occurred during the analyzed week.
✓	Interfaces	Backlog qRFC (Inbound)	0 inbound qRFC were in backlog in the analyzed week.
✓	Interfaces	Erroneous qRFC (Outbound)	0 qRFC outbound errors occurred during the analyzed week.
⚠	Interfaces	Backlog qRFC (Outbound)	3 outbound qRFC were in backlog in the analyzed week.
⚠	Interfaces	Erroneous tRFC (Outbound)	9 tRFC errors occurred during the analyzed week.
⚠	Interfaces	Backlog tRFC (Outbound)	9 tRFC were in backlog in the analyzed week.
✓	Interfaces	Erroneous bgRFC (Inbound)	0 bgRFC inbound errors occurred during the analyzed week.
✓	Interfaces	Backlog bgRFC (Inbound)	0 inbound bgRFC were in backlog in the analyzed week.
✓	Interfaces	Erroneous bgRFC (Outbound)	0 bgRFC outbound errors occurred during the analyzed week.
✓	Interfaces	Backlog bgRFC (Outbound)	0 outbound bgRFC were in backlog in the analyzed week.
✓	Interfaces	Workflows in error	0 errors in workflows have been identified in the analyzed week.
◇	Interfaces	Throughput batch input sessions	52 throughput batch input sessions have been identified in the analyzed week.
✗	Interfaces	Batch input sessions with errors	452 erroneous batch input sessions have been identified in the analyzed week.
✗	Interfaces	Batch input sessions in backlog	3385 batch input sessions in backlog have been identified in the analyzed week.
✓	Interfaces	Erroneous PI messages	0 erroneous PI messages have been identified in the analyzed week.
✓	Interfaces	PI messages in backlog	0 PI messages in backlog have been identified in the analyzed week.
✓	Interfaces	Canceled PI messages messages	0 canceled PI messages have been identified in the analyzed week.

Rating	Area	Key Figure	Finding
✓	Data Consistency	Errors in update task	0 errors in update tasks occurred during the analyzed week.
!	Data Consistency	Consistency check scheduling verification	Not all variants for all recommended Data Consistency reports have been executed
✓	Data Consistency	Posting of error records from auto. goods movements	8 failed goods movements were identified that are more than seven day old.

The displayed measurements relate to the findings in the cross-application business process analysis (BPA). For more information, see the results of the BPA. For more information about the BPA, check the following link:

[SAP CQC BPI.pdf](#)

If you have an **SAP Enterprise Support** contract, SAP Active Global Support will provide you with the following offerings to provide job monitoring, interface monitoring, and data consistency monitoring:

- Expert Guided Implementation Data Consistency Management
- CQC Interface Management
- CQC Data Consistency Management

If you have an **SAP Max Attention Contract**, contact your Technical Quality Manager (TQM) for information about how SAP Active Global Support can help you to implement job, interface, and consistency monitoring.

23 Trend Analysis

This section contains the trend analysis for key performance indicators (KPIs).

Diagrams are built weekly once the EarlyWatch Alert service is activated.

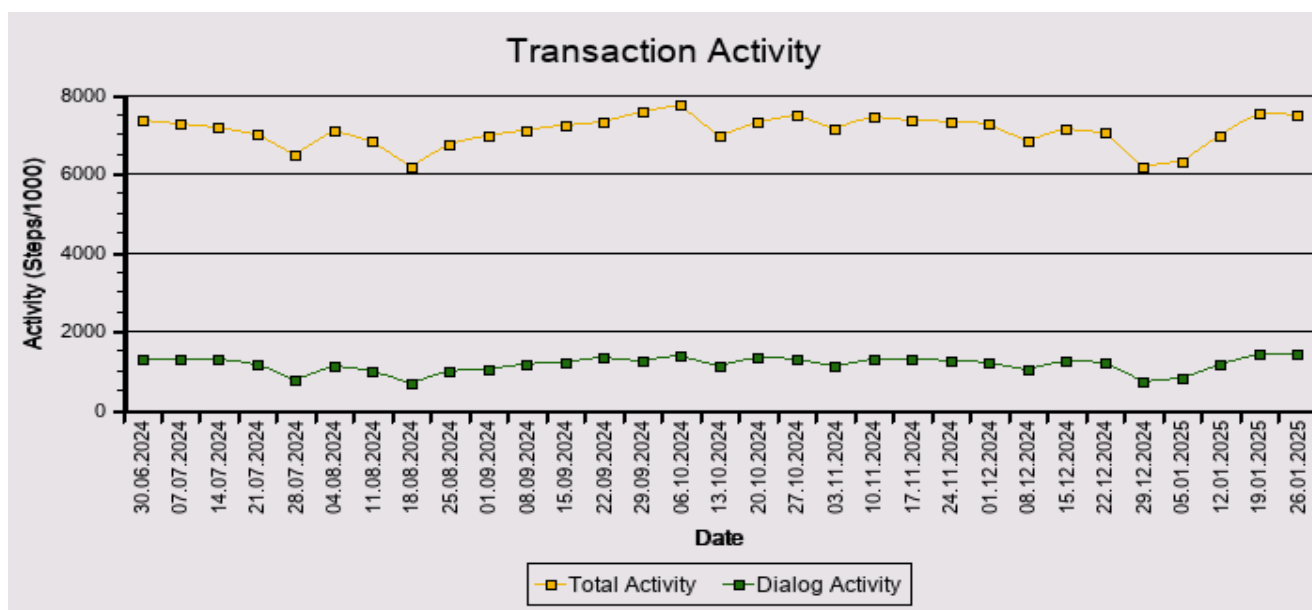
In this section, a "week" is from Monday to Sunday. The date displayed is the Sunday of the week.

23.1 System Activity

The following diagrams show the system activity over time.

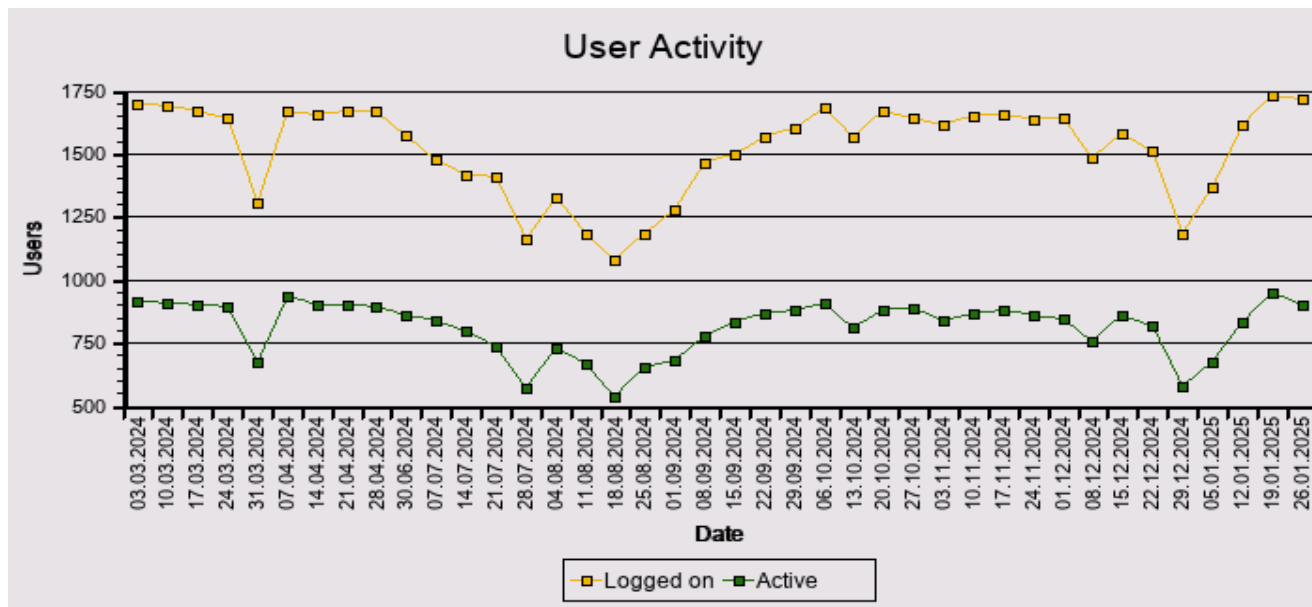
The "Transaction Activity" diagram below depicts transaction activity in the system over time.

- **Total Activity:** Transaction steps performed each week (in thousands)
 - **Dialog Activity:** Transaction steps performed in dialog task each week (in thousands)
 - **Peak Activity:** Transaction steps (in thousands) during the peak hour; this peak hour is calculated as the hour with the maximum dialog activity in the ST03 time profile divided by 5 working days per week.
- (Peak Activity is absent if "Activity Data" is taken from ST03 data directly).



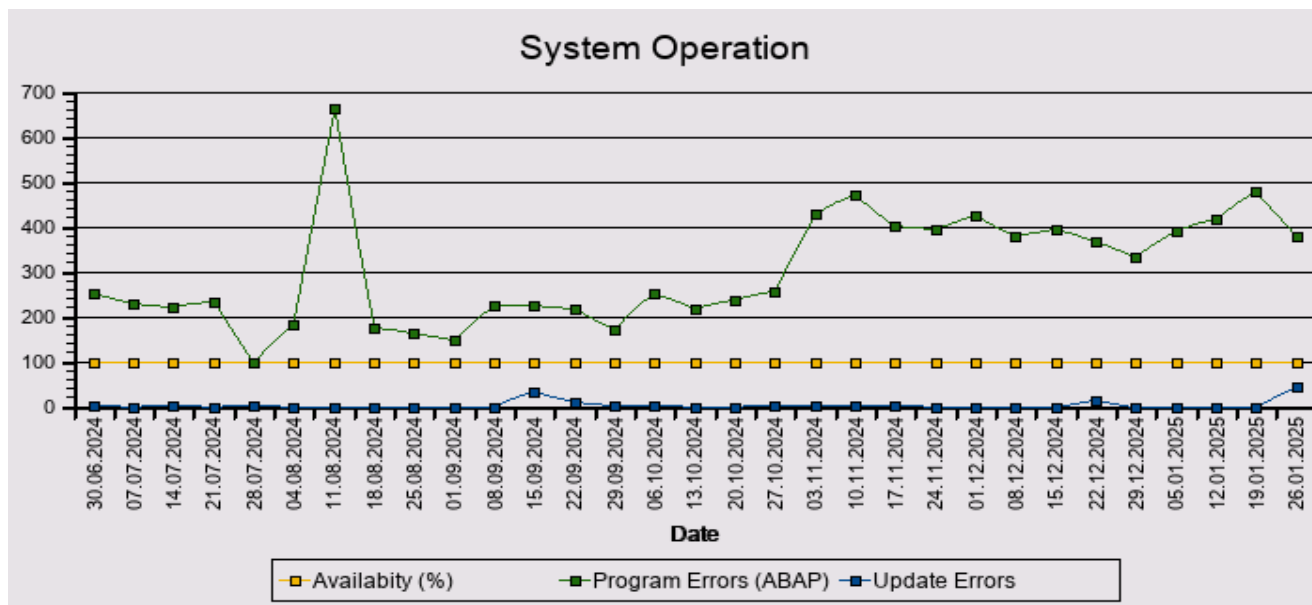
The "User Activity" diagram below shows the user activity on the system over time.

- **Total Users:** Total users that logged on in one week.
- **Active Users:** Users who performed more than 400 transaction steps in one week.



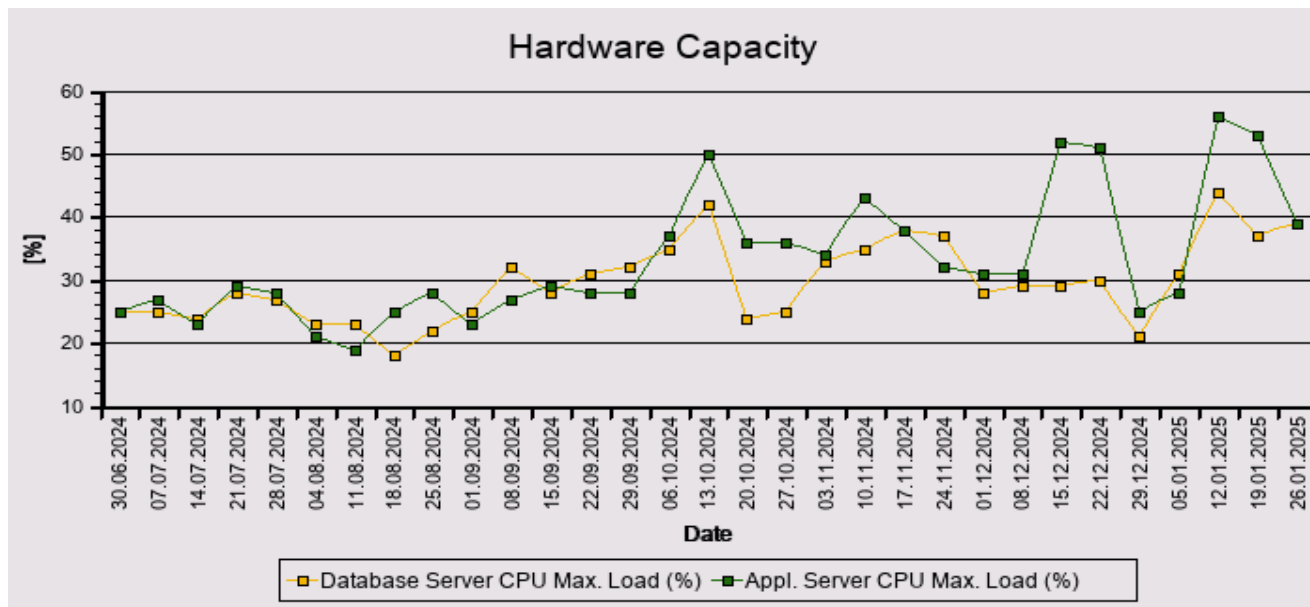
23.2 System Operation

The following diagram or table shows important KPIs for system operation.



23.3 Hardware Capacity

The following diagram or table shows the maximum CPU load from the database server and the highest CPU load among all application servers.



Report time frame: Service data was collected starting at 27.01.2025 09:08:49. This took 66 minutes.

You can see sample SAP EarlyWatch Alert reports on SAP Support Portal at [SAP EarlyWatch Alert](#) -> Sample Reports.

For general information about SAP EarlyWatch Alert, see [SAP Note 1257308](#).

ABOUT SYSTEM AND SOLUTION MANAGER

System No. Of Target System	310041923
Solution Manager System	SMA
Solution Manager Version	SOLUTION MANAGER 7.2
Service Tool	720 SP27
Service Content Update On	25.04.2024