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Configuration of managed system configuration, project, process & charm management on SAP solution manager to ensure compliance with business processes

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Abstract
SAP systems usually ensure adherence to regulatory and system compliance so that the autonomy and integrity of an organisational entity can be retained. The research paper has incorporated the utility of SAP Solution Manager or SolMan in terms of ensuring adequate compliance with the business process in digital media. Multiple facets of SolMan such as the ChaRM framework along with MSC and project and process management have been covered throughout this paper so that their implications for maintaining business compliance can be analysed accordingly.

Keywords: SAP, SolMan, MSC, Project and Process Management, ChaRM, Regulatory Compliance.

1. Introduction

SAP Solution Manager, often referred to as (SolMan) can be considered to be a practical tool that is accordingly utilised with the purpose of implementing maintenance and integrating different SAP systems alongside the process of troubleshooting any pre-existing issues. The maintenance of proper data configuration in terms of Managed System Configuration (MSC), project and process management along with ChaRM can result in ensuring proper data security, system integrity and readiness of the audits. It further assists different business entities regarding risk mitigation processes and streamlining the associated business operations. Owing to these reasons, the SAP Solution Manager holds paramount importance in any organisational entity for accordingly complying with the business processes.

Figure 1: Featuring SAP Solution Manager

2. Managed system configuration in SAP solution manager

Managed System Configuration (MSC) is a crucial component in regard to the integration of SAP and non-SAP systems that aims to centralise compliance management, diagnostics and monitoring. Performance optimisation, security enforcement and system health checks are some of the key takeaways of MSC to meet the regulatory compliances of any organisation[1]. There are various steps that can enable SolMan to configure Managed Systems.

In the initial stage, it is to be ensured that the entire system is eligible to be registered within LMDB or SAP Landscape Management Database. For the next stage, Remote Function Calls (RFC) are to be configured with the purpose of establishing significant communication between the managed system and SolMan. Following this step, SolMan users need to be assigned a specific role for policy compliance. Root cause analysis is to be performed in the next step for monitoring system application and end-user experience[2]. In the penultimate step, KPIs along with system alerts are also to be assigned. It can assist in resolving any proactive issue persisting within the database. Finally, Early Watch Alerts (EWA) can be incorporated to ensure system compliance.

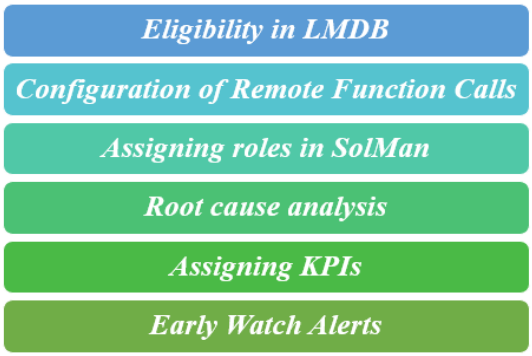

Figure 2: Stages of MSC implementation in SAP Solution Manager

System Uptime Compliance and Alert Resolution Efficiency are two of the major parameters for evaluating this specific implementation. It can also uplift the service continuity of the IT governance and reduce the required downtime.

3. Project and process management in SAP solution manager

In terms of process and project management, the SAP Solution Manager plays a significant role in establishing the objectives and deliverables of any project. Allocation of user rules and authorisation can also be achieved through the proper configuration of SolMan. If process and project management prospects are accordingly maintained within SAP, meeting the organisational goals can be feasible. Through the implementation of SAP, documentation and reporting processes can be automated through a prior configuration of the database.

As a result, standardised workflows can be ensured which abide by predetermined business objectives and regulations. Regulatory adherence can be automated through this process which can minimise the extent of any unauthorised changes[3]. Systematic risk management can also be achieved through a structured

workflow while managing business processes and projects through SolMan. Process Compliance Rate and Task Efficiency Ratio are required to be calculated for handling different projects simultaneously with precision.

Charm in SAP solution manager

ChaRM or Change Request Management is a contemporary framework that is often utilised for streamlining the change procedures in an SAP environment. This framework often integrates with the Transport Management System (TMS) within SAP. It ensures facilitated control transport across a multidimensional system landscape while assuring reduced extents of changes in illicit authorisation and system downtime. There are various steps in terms of embedding ChaRM in the SAP environment of any organisational entity. Integration of ChaRM can also ensure the documentation of necessary changes prior to the actual deployment[4]. Unauthorised modifications in the change process can also be prevented in this particular process. It works on a role-based access control so that the regulatory compliances are met properly and the working processes can be aligned with the business objectives. Configuration steps to incorporate ChaRM are illustrated as follows:

Activation of ChaRM in SolMan: In the foremost stage of ChaRM implementation, activating the change management functionalities requires to be enabled so that the initial authorisation can take place.

Defining change request types: The next stage is related to identifying and handling the change requests on three levels, which are normal, urgent and administrative.

Configuration of change workflow: Multiple approval stages are to be determined in the next stage along with the designated responsibilities. These levels include requester, approver and tester.

Integration with TMS: Following the previous step, ChaRM needs to be integrated with the TMS with the purpose of optimising the system landscape. It ensures proper control while changing the working dynamics of the SAP environment.

Risk and compliance checks: Enabling the automated risk detection process is a significant process, embedded within the implementation process of ChaRM. Conducting compliance checks can testify to the organisational regulations against the predetermined objectives[5].

Alerts to the stakeholders: In the final stage of this process, a notification alert to the associated stakeholders is required to be provided. These alerts are usually related to transport failures and pending approvals of the change processes in the SAP working pattern.

Figure 3: Steps for configuring ChaRM in SolMan

Change control process

First, a submit request is raised by the user, which is followed by reviewing the risk factors and security compliance. After that, desired changes are made to the system and further tested in the quality assurance

department[6]. In the last step, approved changes are to be escalated to production, where the live integration is done through TMS. Change Approval Rate and Compliance Adherence Scores are to be measured for the configuration of the ChaRM framework in practical scenarios.

4. Ensuring compliance with business processes

Optimal practices for maintaining compliance

Standardised change management practices along with automated monitoring can ensure business compliance through SolMan. Restricting the system access based on the designated role can lessen the risk of data breaches. Regular auditing of policy compliance and automated documentation can uplift the extent of complying with business regulations while pursuing business processes.

Role of IT governance

Implications of several IT governance frameworks can aid the business processes to align with the safety compliances[7]. In addition to that, SolMan can provide assistance to system compliance through access logs, audit trails and approval workflows.

5. Conclusion

As a conclusive remark, it can be noted that SAP Solution Manager is a key tool in the contemporary business world, for maintaining a sense of regulatory and system compliance. The ChaRM framework is a major component within SolMan, which ensures a complete dynamic environment for implementing any changes in database management through SAP.

Abbreviations and acronyms

- SAP: Systems, Applications & Products in Data Processing
- SolMan: SAP Solution Manager
- MSC: Managed System Configuration
- LMDB: Landscape Management Database
- RFC: Remote Function Calls
- EWA: Early Watch Alerts
- ChaRM: Change Request Management
- TMS: Transport Management System
- IT: Information Technology

Units

- Uptime Compliance: Percentage (%)
- Alert Resolution Efficiency: Percentage (%)
- Process Compliance Rate: Percentage (%)
- Task Efficiency Ratio: Unitless
- Change Approval Rate: Percentage (%)
- Compliance Adherence Score: Percentage (%)

Equations

- System Uptime Compliance=(Actual Uptime/Planned Uptime)×100
- Alert Resolution Efficiency=(Resolved Alerts/Total Alerts)×100
- Process Compliance Rate=(Compliant Processes/Total Processes)×100
- Task Efficiency Ratio=(Planned Task Duration/Actual Task Duration)
- Change Approval Rate=(Approved Changes/Total Change Requests)×100
- Compliance Adherence Scores=(Compliant Changes/Total Changes)×100.

References

1. C. Madden et al., "Safety in primary care (SAP-C): a randomised, controlled feasibility study in two different healthcare systems," BMC Family Practice, vol. 20, no. 1, Jan. 2019, doi: https://doi.org/10.1186/s12875-019-0909-8

2. G. J. Hahn and J. Packowski, "A perspective on applications of in-memory analytics in supply chain management," Decision Support Systems, vol. 76, pp. 45–52, Aug. 2015, doi: https://doi.org/10.1016/j.dss.2015.01.003

3. J. Hoffmann, I. Weber, and F. M. Kraft, "SAP Speaks PDDL: Exploiting a Software-Engineering Model for Planning in Business Process Management," Journal of Artificial Intelligence Research, vol. 44, pp. 587–632, Jul. 2012, Available: https://www.jair.org/index.php/jair/article/download/10773/25725

4. M. Gërvalla, N. Preniqi, and P. Kopacek , "IT Infrastructure Library (ITIL) framework approach to IT Governance," IFAC-PapersOnLine, vol. 51, no. 30, pp. 181–185, Sep. 2018, doi: https://doi.org/10 .1016/j.ifacol.2018.11.283

5. S. Ammar, "Enterprise systems, business process management and UK-management accounting practices: Cross-sectional case studies," Qualitative Research in Accounting & Management, vol. 14, no. 3, pp. 230–281, Aug. 2017, doi: https://doi.org/10.1108/QRAM-05-2016-0044

6. S. Shekhar, "Integrating Data from Geographically Diverse Non-SAP Systems into SAP HANA: Implementation of Master Data Management, Reporting, and Forecasting Model," Emerging Trends in Machine Intelligence and Big Data, vol. 10, no. 3, pp. 1–12, Apr. 2018, Available: https://www.researchgate.net/profile/Suman-Shekhar-9/publication/387794044_Emerging_Trends_in_Machine_Intelligence_and_Big_Data_Integrating_Data_from_Geographically_Diverse_NonSAP_Systems_into_SAP_HANA_Implementation_of_Master_Data_Management_Reporting_and_Forecasting_Model/links/677d7cf9fb021f2a47e02ad7/Emerging-Trends-in-Machine-Intelligence-and-Big-Data-Integrating-Data-from-Geographically-Diverse-Non-SAP-Systems-into-SAP-HANA-Implementation-of-Master-Data-Management-Reporting-and-Forecasting-Mod.pdf

7. SAP Community, "Basic Procedure for Change Management (ChaRM)," SAP Community, Sep. 22, 2014. https:/ /community .sap.com/t5/technology-blogs-by-members/basic-procedure-for-change-management-charm/ba-p/13248450