CSI tools

CSI tools provide a suite of solutions for managing access entitlements and risk in SAP environments. The solution come with a modern, web‑based user interface and dashboarding. They deliver in‑depth insight and support for managing entitlements at all levels and across all applications within common SAP environments.

By **Martin Kuppinger**
mk@kuppingercole.com

Content

1 Introduction

SAP security and GRC (Governance, Risk & Compliance) are getting more and more important for many of today's organizations. While traditional systems like HR (Human Resources), ERP (Enterprise Resource Planning), CRM (Customer Relationship Management), SCM (Supply Chain Management) or BW (Business Warehouse) are at the core of fundamental business processes, the move towards SAP S/4HANA, Big Data and cloud solutions of both SAP and other vendors introduces another, either parallel or integrated, pillar of technology.

Ensuring an adequate level of security and compliance for the continuously changing landscape of business systems, SAP and beyond, is of utmost importance. Achieving compliance to legal and regulatory requirements is one essential business driver. Beyond that, more and more organizations understand that providing an adequate level of information security and access control is a key requirement for protecting the organization's intellectual property and for safeguarding essential business data, e.g. financial data or highly sensitive customer information.

Forward thinking organizations integrate strong security into all of their processes and systems which surely is a unique selling proposition for security-savvy partners and customers. An adequate corporate security strategy (typically defined in an appropriate policy framework) covers a wide range of aspects from Audit and Fraud Management to IAM and Risk and Process Management. At the core of such strategy is adequate protection of business applications and their data.

CSI tools focuses on Access Governance for SAP environments, i.e. the management and control of authorizations, users, roles and profiles. This includes role modelling capabilities and the design and implementation of life cycle and workflow processes, including request approval and recertification. A typical next step is the control of business-oriented processes such as applying SoD (Segregation of Duties) rules or maintaining compliance with the principle of least privilege access.

These aspects remain at the core of what solutions for managing access entitlements and risk in SAP environments must deliver. However, the way this is done is changing. The application landscape is growing beyond traditional SAP ERP systems. The delivery models for any type of solutions that customers expect are changing, driven by "cloud first" strategies and the overall shift away from complex deployments. Thus, simple and rapid deployment and flexible operating models such as as-a-service approaches become a core requirement of customers.

That does not mean that support can be limited to the most modern releases of SAP software. Many customers run mixed environments, where traditional SAP ERP still is used in some parts, while newer version become added to the environment.

Amongst the specific requirements for SAP business applications, there is an apparent shift from a technical focus towards easy-to-use solutions targeted at the business teams. Such solutions must efficiently support in managing the complexities of entitlements, roles, and SoD rules, as well as delivering rapid insight into the current state e.g. via modern dashboards.

The market for GRC solutions, including the ones supporting the management of access controls, for SAP environments is constantly evolving. One of the vendors in this market is CSI tools, a European vendor delivering a suite of solutions for managing access risks in SAP environments.

2 Product Description

CSI tools is a specialized provider of software solutions for access control and audit in SAP environments, based in Belgium. They offer a range of modules for providing access control and governance for SAP environments, targeting SAP Business Suite and S/4HANA. However, the solutions run as external applications on Windows servers.

CSI tools provides a set of solutions covering the core requirements for access control in SAP environments. CSI Authorization Auditor is the main product, being used for analyzing the current state of authorizations in SAP environments and identifying weaknesses in the authorization concept such as the accumulation of access rights and SoD conflicts. The solution covers challenges at all layers, from SoD rule sets down to authorization objects and transactions. The multi-layer analysis helps in understanding and managing the full complexity of access controls and SoD controls in the target applications.

With CSI Automated Request Engine, there is added support for access request & approval workflows, including SoD checks and fulfillment in the supported SAP systems. This adds to the security by moving from manual fulfillment to automated processes.
CSI Role Build & Manage supports the role creation and management process, as well as automated assignments of entitlements e.g. when onboarding large numbers of users. Further capabilities support emergency requests, automation, and data extraction from SAP platforms.

CSI tools focuses on providing a holistic perspective and analysis on access entitlements in SAP environments. They provide insight into who finally can access which data and perform which activities, by understanding, analyzing, and optimizing the complex relationship between transaction codes, authorization objects, and the various applications within the SAP environment. This reflects the reality of having various access paths to the same ABAP code, transactions, and data. At the center of the analysis are authorization objects, which map all elements and thus must be analyzed, beyond just restricting the use of transaction codes.

Based on their core modules and capabilities, CSI tools covers a range of common requirements in SAP administration and access management:

- SoD and Risk Analysis: Identifying SoD violations, managing SoD controls, and understanding and reporting the risk associated with current access entitlements. This includes features such as identifying the use of entitlements (including unused ones), inconsistencies (e.g. access to data but not to transactions), or high-risk accumulations of entitlements. Results are provided in a range of reports and via the UI, also supporting drill-down functionality.

- Risk Management: Based on the analysis, access risks in SAP environments can be efficiently managed and optimized. CSI tools e.g. provides a range of advanced capabilities such as analysis over time with historical comparisons.

- Access certifications: Supported by the ability of optimizing roles and mapping technical names to business terminology, CSI tools supports efficient access certification in SAP environments.

- Compliant User Provisioning: When adding users, CSI tools can ensure that the defined SoD controls are met and only the required entitlements are granted to the users. CSI tools provides workflow support for requesting and approving access. It also allows for integration with external ticketing and ITSM (IT Service Management) systems.

- Emergency Access Management: As many other solutions in this market segment, CSI tools also provides capabilities for managing emergency/firefighter access. This is primarily done by identifying emergency access and critical actions, and allowing further analysis via the reporting and dashboarding capabilities. Also, requesting emergency access is supported as part of the solution.

- Role Management: In this area, CSI tools comes with capabilities such as automated role maintenance and optimization. Based on requirements from an organizational and technical (system) perspective, the roles can be efficiently optimized and, more importantly, automatically built.

- SAP License Analysis: CSI tools further can analyze the use of SAP licenses and support businesses in optimizing the number of licenses they have in use.

- Mass User Management: Many of these activities can be applied to groups of users for efficient maintenance, instead of optimizing single user's access. Other features include automated password resets, mass import of roles, and more.

- Transaction Monitoring: Finally, the use of transactions can be monitored continuously, in the context of defined risks and policies. Thus, based on the reporting and alerting capabilities, critical access − e.g. in emergency access − can be identified and alerted, and risks can be mitigated.

In sum, CSI tools comes with comprehensive support for capabilities required in managing access and entitlements in SAP environments. Further systems, beyond the core SAP systems, can be added as customizations. However, the main focus of CSI tools remains on SAP environments.
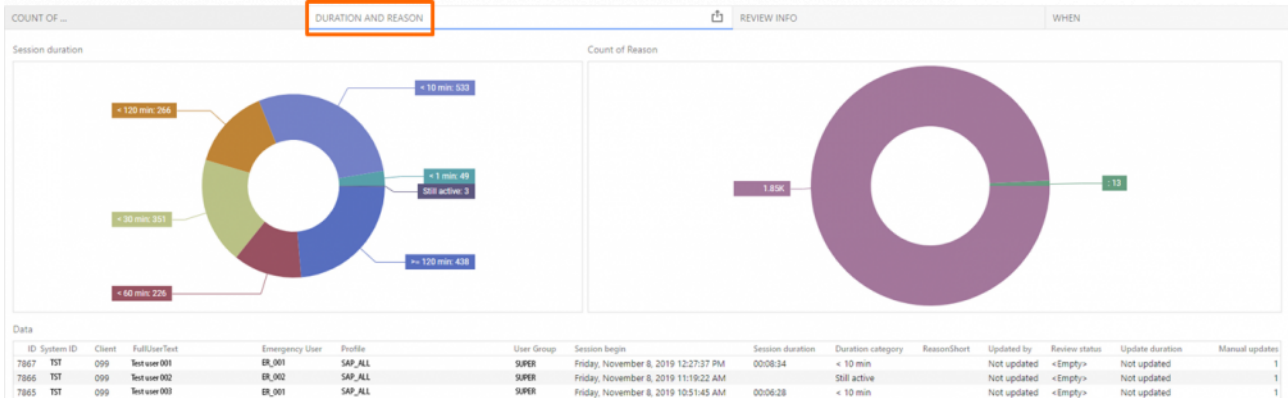
Figure 1: CSI Tools in its current release comes with a modern, web-based user interface and efficient dashboarding.

As mentioned above, CSI tools works with a solution not running within the SAP environment, but interfacing with the SAP environments via the defined APIs. It provides both a Windows client and web-based access. CSI tools has invested in rearchitecting the solution and modernizing their UI, resulting in efficient web-based reporting and dashboarding for rapid analysis of the status of SAP access controls and risks.

Deployment is supported in a range of delivery models, including traditional client/server models, but also supporting Software-as-a-Service approaches. Since CSI tools runs outside of the SAP environment, it can be deployed in a range of different ways. A specific strength is the ability to be run from a single PC, which is of specific interest for initial analysis as well as for audits, where no complex infrastructure needs to be set up ahead of use.

CSI tools comes with an efficient, modern architecture and rapid deployment of new releases. Beyond that, CSI tools has converged various of the former components into a smaller set of solutions, which again are tightly integrated. In sum, CSI tools delivers a modern, efficient solution approach on managing access controls and SoD rules for SAP environments, with a strong and modern user experience.

3 Strengths and Challenges

CSI tools provides a comprehensive and elaborated solution for managing access controls and user access in SAP environments. It is easy to install and can be quickly used for both audits and continuous management of authorizations in the traditional SAP environments, as well as for S/4HANA. Support for SAP cloud services or other vendor's solution can be added by customization, but isn't yet part of the standard.

The solution excels with its depth in managing access controls in SAP environments, delivering deep insight and analysis of entitlements and comprehensive, mature analytical capabilities, including transaction monitoring, emergency support, and additional features.

CSI tools has spent significant effort in rearchitecting the solution, now quickly adding further capabilities to the solution. The user experience has been modernized and includes now modern web user interfaces and dashboarding capabilities. Support for key requirements in access control and specifics of SAP environments is comprehensive.

CSI tools' solution is an interesting alternative to other solutions for managing access controls in SAP environments, being both feature-rich and lean in deployment and operations. We recommend evaluating CSI tools specifically for customers that run the majority of their business services based on SAP software.

Strengths

- Good support for key capabilities in SAP access control

- Easy-to-use, runs on external systems not within the SAP environment

- Modules allow for picking the required capabilities

- Support audit-only mode where required

- Also supports older versions of SAP systems

- Good capabilities for identifying SoD violations, building rule sets, and roles

- Very deep insight and analysis of entitlements in SAP environments

- Modernized UI and easy-to-use dashboards

- Lean delivery and support models, providing customers with direct contact to the vendor

- Fair price tag

Challenges

- Small vendor, but with a significant number of all small to very large customers across a range of industries

- Small but growing and well-selected partner network, expanding beyond the current target markets

- Support for cloud services by SAP or other vendor requires customization, but built-in flexibility for adding further targets

4 Related Research

[Leadership Brief: SAP Security Priorities – 72017](#)
[Leadership Compass: Access Control Tools for SAP environments - 80104](#)

Content of Figures

Figure 1: CSI Tools in its current release comes with a modern, web-based user interface and efficient dashboarding.

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