

ISIC: Back-office Identity Management and Single Sign-On

The ISIC Platform is the core system behind ISIC services worldwide, federating operations of local issuers into a single global ecosystem through a rich set of APIs.

It comprises more than 10 modular services covering the full lifecycle of ISIC cards and Virtual IDs, a global database of benefits and their redemption, and more. At its center is the ISIC Hub, a unified back-office interface enabling consistent operations, data management, and oversight across all issuers.



The challenge

Each issuer organization operates as an independent entity serving its own territory, with its own user base and internal organizational hierarchy. While some data is generally accessible, most information is strictly isolated within each organization and cannot be accessed by other issuers, except by authorized super-administrators. In addition, feature availability is restricted based on organization type and user role, ensuring adherence to the principle of least privilege.

Reliably enforcing access control while keeping administration streamlined is a significant challenge in the development of a core application that handles sensitive personal data and underpins the trust of customers and partners.

Working with Orchitech allowed us to turn a highly complex security challenge into something that simply works.

— Radek Klein, IT Manager at ISIC Association

The solution

To address the challenges the platform includes a dedicated Organization Manager component with:

- hierarchical **organization management** supporting multi-level parent-child relationships;
- **Identity Management** for personal (user) and non-personal (application/service) accounts;
- **hierarchical role management** with user roles that can be grouped into organizational roles for easier management;
- **RBAC**-based access control driven by granular role-permission assignments;
- **ABAC**-based data ownership isolation respecting organizational hierarchy, with ownership violation permissions enabling global administrators to bypass data ownership restrictions when required;
- centralized **permission and authorization resolution** across the organizational hierarchy;
- **organization self-service** for delegated administration of personnel and access within their permitted feature set;

- **user self-service** including password changes and resets, and personal data updates;
- comprehensive **auditing and logging**, including request tracing enriched with user context.

Authentication is handled through a centralized Single Sign-On based on CAS, unifying all services under a single authentication and login flow.

- **800+** active organizations
- **1200+** active user accounts
- **600+** active technical application accounts
- **80+** roles
- **300+** permissions
- **35 000+** role assignments
- **100s** of integrated applications
- **~500** daily logins
- **2 500 000** daily authenticated API requests

The solution fits naturally into our daily operations and gives our teams confidence that access is handled consistently, securely, and without unnecessary friction. It has enabled us to grow and evolve our platform without having to constantly rethink our identity foundations.

What we value most is the long-term stability and the quality of collaboration. The platform has proven to be reliable over many years, while still allowing gradual improvements as our needs change. Orchitech understands our business context and delivers solutions that are practical, resilient, and designed for the long run.

— Radek Klein, IT Manager at ISIC Association

Outcomes

Orchitech helped ISIC build a customizable, independent Identity platform designed to meet the highly specific needs of its distributed global model. The solution delivered:

- **seamless access control** fully integrated into day-to-day operations;
- **a flexible, reliable, and configurable architecture** tailored to ISIC's requirements;
- **highly granular access control**, governing both feature-level access and data ownership in full regulatory compliance;
- complete control and independence over a critical security component.

The implementation has remained robust for more than 15 years, requiring only minor evolutionary changes over time.

About the client

The ISIC Association is the non-profit membership organization responsible for the management, growth, and global development of the International Student Identity Card (ISIC).

Today, the ISIC Association operates in 110 countries integrating a community of over 130 member organizations and serves more than 2.9 million students, providing access to over thousands of discounts at tens of thousands of locations world-wide.

About Orchitech

We help organizations manage access in complex IT environments. Our specialization are customized Identity & Access Management solutions. We cover the entire project lifecycle—from initial analysis and architectural design through implementation and tool development to long-term support.

With over 18 years in the market, we have completed more than 100 projects for 50 clients in both the public and private sectors. Long-term partnerships, some over 10 years, attest to our stability and reliability.