

Mainframe Security

ACF2™ for z/OS

Key Benefits

- Continued investment leading to innovations by Broadcom engineers that meet the needs of today's regulatory requirements.
- Integrated with enterprise solutions to address the full security lifecycle.
- Same-day support for new operating system releases and sub-system releases.
- Improved efficiency through streamlined administrative and reporting functions.

Key Features

- Protection by default for datasets and resources. There is no concept of global access for undefined resources.
- Multi-factor authentication through Advanced Authentication Mainframe integrated within ACF2.
- Integrated security for z/OS, USS, and zLinux on the mainframe for user authentication leveraging the ACF2 logon-id database.
- True external security for IBM DB2 without the need for exit processing.
- Built in administration with robust security administration capabilities provided through panels in TSO as well as CICS.
- Flexibility to interface to ACF2 through ZOWE.
- Out-of-the-box reporting and auditing are robust; there is no additional software to purchase.
- Simulated security testing of changes to ensure that a change will deploy without incurring an outage.

Mainframe Security solutions enable enterprises to use mainframe IT to solve business problems and take advantage of the opportunities that mainframe offers for digital transformation while ensuring a trusted environment for customers.

At a Glance

Broadcom® Mainframe Security solutions provide a foundation that enables the mainframe to connect securely within your enterprise and deliver vital support for digital transformation.

ACF2™ manages the digital identities of users, devices and applications accessing resources, and the underlying policies and processes that govern how those entities interact with the organization. Our Mainframe Security solutions enable businesses to comply with relevant regulations and corporate policies, and facilitate the reporting of critical information to demonstrate such compliance.

ACF2 for z/OS provides innovative, comprehensive security for your business transaction environments (including Linux, UNIX, and z/OS on IBM Z). ACF2 for z/OS helps you realize the reliability, scalability and cost-effectiveness of the mainframe in a secure, trusted environment. ACF2 provides the Advanced Authentication Mainframe feature, system entry validation, resource control, auditability, accountability, and administrative control. There is no need for additional add-on vendor tools for robust reporting and administration of ACF2. In conjunction with distributed security solutions from Broadcom, ACF2 provides mobile-to-mainframe enterprise class security and compliance management.

Business Challenges

In today's hybrid cloud and hybrid IT environments, mainframes are more connected to enterprise processes than ever before in history. This connectedness changes the security context, opens new threat vectors, and raises the risk level. Access to the mainframe is more open to employees, partners, contractors, and customers. Controlling access to content and resources goes hand in hand with identity management of all individuals. Access control must be granular, role based, and continually updated to ensure that only the correct people have sufficient access. Effective security requires consistent content controls across systems and the organization. Organizations need to keep pace with available security solutions that address modern threats. Inconsistent policies increase risk and invite disaster. Companies cannot afford a lapse in security or compliance standards. The average cost of a data breach in 2020 was \$8.64M in the U.S. (\$3.86M global), and predictions of more than \$150M for a major business ([Ponemon Institute](#)). Unanticipated fines, fees and brand damage can be detrimental, if not fatal, to business operations.

Key Features (cont.)

- PDS Member Level Protection for further restriction of access within partitioned datasets.
- ACF2 supports segregation of data with multi-level security and data classification options.
- Record Level Locking in CICS.
- Role-based access controls available to implement within ACF2.
- Day 1 support for all new operating system releases and sub-system releases—for example, CICS, DB2, and IMS.
- Apply maintenance without the need to IPL for most PTFs.
- Command-enabled security request tracing through SecTrace facility.
- Easily determine who has access to data and resources through ACCESS sub-command.

Related Products

- **ACF2™ for DB2** provides the ability to externalize security for IBM DB2 without the need for an exit.
- **Cleanup** finds and removes obsolete, unused, redundant, and excessive access rights in ACF2, IBM RACF and Top Secret™.
- **Trusted Access Manager for Z** monitors and controls privileged users by granting time-bounded just-in-time access to system, to critical resources, and regulated data or resources—all with 1:1 accountability and auditing (included with the ACF2 license).
- **Advanced Authentication for Mainframe** provides true multi-factor authentication for mainframe users. Supports RSA hard and soft tokens, and radius protocol support (included with the ACF2 license).
- **Compliance Event Manager** provides a single source for the collection and monitoring of real-time, compliance-related information and events occurring within the mainframe environment with the ability to send to Splunk or an enterprise SIEM solution.

Solution Overview

Security is one of the most crucial components of an IT environment today. Although security efforts have been around for four decades, Broadcom continues to evolve ACF2 security to address modern threats and compliance requirements. ACF2 is developed under the continuous delivery model so that as the security landscape changes, from both a threat vector and a platform support perspective, the solution is ready to solve today's business challenges.

Critical Differentiators

- Broadcom listens to our customer's needs, working together to deliver new solutions within ACF2 to meet the new cybersecurity requirements of customers.
- ACF2 implements ongoing innovations with Broadcom engineering staff and doesn't rely on third-party engineering.
- Protection by default. ACF2 can protect both defined and undefined datasets and resources.
- Multi-factor authentication is included for enhanced authentication controls.
- Compliance reporting is included for flexible audit and compliance reports.
- No need for expensive third party mainframe administrative or reporting front ends to perform tasks. Easy to use interfaces for your staff are part of our solution.
- ACF2 is integrated with cross-platform solutions such as Identity Suite, Privileged Access Manager, and SiteMinder for full security lifecycle.
- Integrated security for z/OS, USS, and zLinux for user authentication against ACF2 source of record.
- Granular control over Unix Systems Services (USS) Superusers.
- Full security control over USS files and directories with true external security. Security staff no longer need to learn and manage native USS security.
- Simulate authorization to ensure that changes work before deploying to avoid incurring an outage.
- PDS Member Level Protection for further restriction of access with partitioned datasets, particularly those that may contain application configuration.
- Robust native password complexity validation without any need for a security exit.
- Transmit security information to LDAP compliant directory managed servers through LDAP Directory Services.

Related Products (cont.)

- **Auditor for z/OS** (formerly CA-Examine Auditing) delivers in-depth auditing, integrity checks, and verification for z/OS.
- **Data Content Discovery** finds and classifies regulated and sensitive data to ensure that proper security and privacy controls are in place for the data.
- **Compliance Information Analysis (CIA)** replicates compliance security information from the mainframe security database into a CIA relational data repository for compliance and ad-hoc SQL reporting.
- **LDAP Server for z/OS** provides a full-function LDAP-compliant directory server.
- **PAM Client for Linux for System z** is a flexible, open-source architecture for user authentication on Linux systems. Pluggable Authentication Module client support enables ACF2 to act as an authentication server for one or more Linux systems, eliminating the need for redundant security administration on a system-by-system basis.
- **Distributed Security Integration (DSI)** is a standalone daemon that runs in the z/OS UNIX environment, independent of the LDAP Server. In addition, DSI allows applications on a Windows platform to issue calls to ACF2.

Additional Items for Consideration

Broadcom not only continues to innovate mainframe security capabilities, but also in other areas to support the growing mainframe security ecosystem:

- **Education** – Online education enables your staff to train in new features and functionality on demand. Modularized training allows for flexible learning.
- **Mainframe Vitality Residency Program** – Broadcom will train your staff or, if you are having trouble finding talent, we will partner with you to find candidates and train new skills through our Vitality Residency Program to become ACF2 experts. Once fully trained with experience in your environment, they are available to transition and become one of your employees fully certified in our solutions—all at little to no cost to you.
- **Security Health Checks** – Both no-cost reviews of key security settings and paid engagements for a more in-depth review of your mainframe security configurations are available.
- **MRI Security Essentials** – Compare key access control configurations and settings against industry best practices with executive overviews and dashboards.
- **Communities** – Learn, connect, and share with other ACF2 users as well as Broadcom product experts that promote peer-to-peer engagement.
- **Roadmap sessions** – Periodic sessions with the product team that highlight future features and functionality so that your organization can prepare to take advantage of upcoming innovations.

For more information, please visit: <https://www.broadcom.com/products/mainframe/identity-access>