



Who can you trust?

*Enabling Secure Collaboration in Today's
Dynamic Enterprise*



People & Identity: Trends and Challenges

- **Insider Threat** : security needs to monitor and report user and privileged access
- **Complexity**: growth of enterprise collaboration and mobile telecommuting
- **Silos of data**: increasing value of online identities and transactions
- **Reduce Costs**: improve productivity and reduce staffing with automation



"It's important to remember that the value of security is crucial in helping to build trust among users. You must be careful not to destroy that which you are trying to protect—in this case the interactivity and potential of the Internet." -- Ingo Noka, Head, Visa Payment Security in Asia Pacific, Visa. (IBM GIO 2008)

Why is this important to organizations today?



Address regulatory mandates

- Produce audit reports to help demonstrate compliance with security regulations
- Monitor, identify and correct security violations



Manage users and their access rights

- Enroll, manage & terminate user profiles and access rights throughout lifecycle
- Flag expired accounts and role conflicts



Streamline user access to protected resources

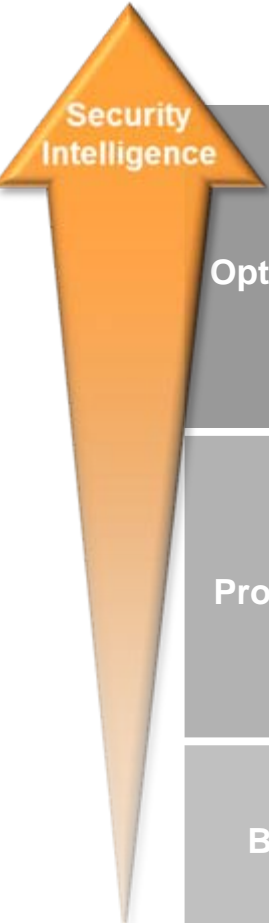
- Help reduce costs and improve user productivity with password management and single sign-on
- Support strong authentication devices for extra security



Safeguard access in Cloud / SaaS environments

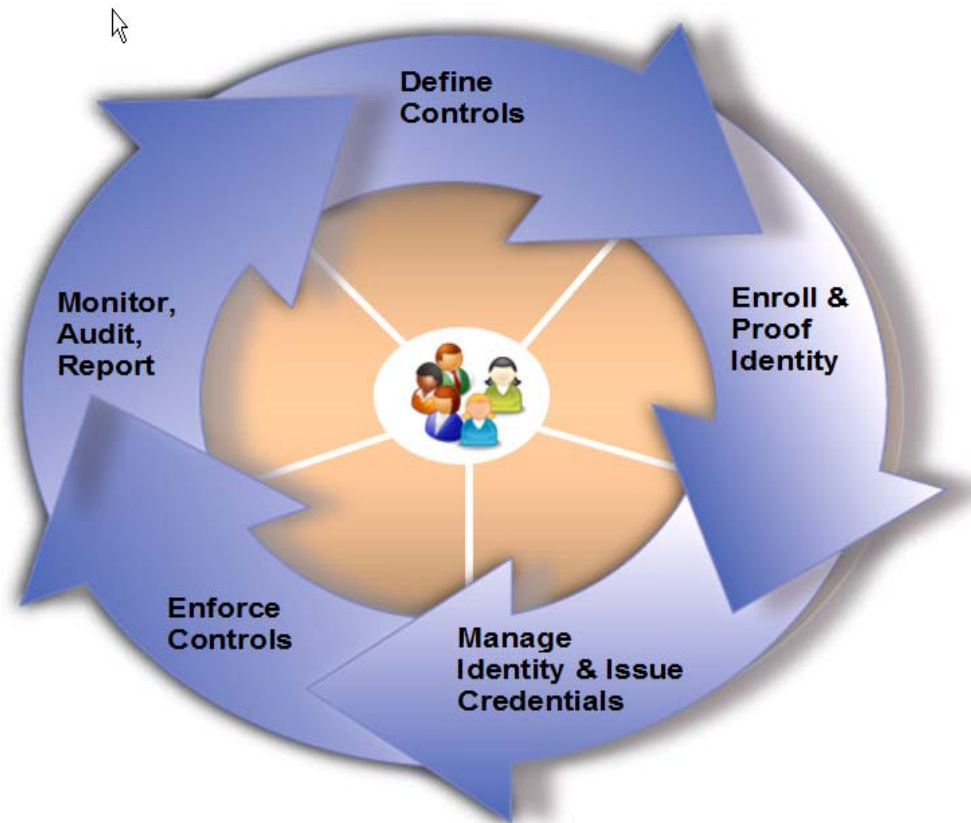
- Monitor shared and privileged accounts to manage risk
- Help secure user single sign-on in cloud environments

Key considerations to progress in the security maturity



	People	Data	Applications	Infrastructure	Security Intelligence
Optimized	<ul style="list-style-type: none"> Role based analytics Identity governance Privileged user controls 	<ul style="list-style-type: none"> Data flow analytics Data governance 	<ul style="list-style-type: none"> Secure app engineering processes Fraud detection 	<ul style="list-style-type: none"> Advanced network monitoring Forensics / data mining Secure systems 	<ul style="list-style-type: none"> Advanced threat detection Network anomaly detection Predictive risk management
Proficient	<ul style="list-style-type: none"> User provisioning Access mgmt Strong authentication 	<ul style="list-style-type: none"> Access monitoring Data loss prevention 	<ul style="list-style-type: none"> Application firewall Source code scanning 	<ul style="list-style-type: none"> Virtualization security Asset mgmt Endpoint / network security management 	<ul style="list-style-type: none"> Real-time event correlation Network forensics
Basic	<ul style="list-style-type: none"> Centralized directory 	<ul style="list-style-type: none"> Encryption Access control 	<ul style="list-style-type: none"> Application scanning 	<ul style="list-style-type: none"> Perimeter security Anti-virus 	<ul style="list-style-type: none"> Log management Compliance reporting

A closed-loop identity and access assurance approach can help build trust and secure collaboration using System z



Optimizing security methodology to improve visibility and control into 'who' and 'what' is connecting in the mainframe.

1. Enroll and Proof Identity

Public and Financial organizations seek to:

- Go beyond traditional approach to give person credentials with manual, tedious vetting
- Discover and detect suspicious relationships of interest
- Uniquely identify individuals with biographic and biometric proofing
- Continuous vetting for obvious and non-obvious relationships in real time

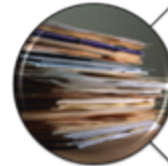
Understanding Identity



Role Alert: When entities are resolved or related

Examples

- Employee is a vendor
- Employee shares address with vendor
- POI shares last name and phone number with police officer
- Employee shares bank account with employee
- Person has more than one name



Attribute Alert: When an entity with specific set of attributes is found

Examples

- If a name is ever encountered
- When an address of a suspect is ever encountered
- When any collection of one of more attributes is found



Event Alert: When an transactions and identities match alert rules

Examples

- Five money transfers in 24 hours over \$10,000 by one person
- More than one account opened in 2 days by same person
- 10 or more code violations reported in 5 days by same inspector

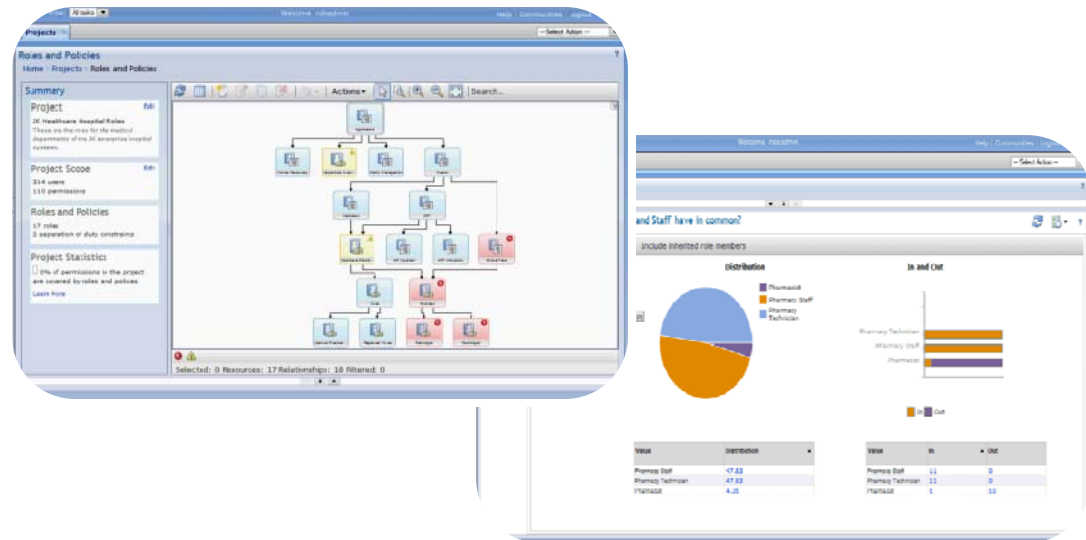
InfoSphere Identity Insight Solution
(Linux on System z)

In an highly interconnected environment, Intentional Identity Ambiguities compounds naturally occurring phenomena, and more sophisticated techniques are required

2. Manage Identities and Issue Credentials

Healthcare & Educational organizations seek to:

- Reduce time to provision new users with authoritative LDAP on z
- Minimize risk of insider threat
- Reduce help desk cost through self-service and password reset
- Reduce time and cost for regulatory compliance with automated work flow
- Reduce staff needed to manage identities, including admins and super user type accounts



Identity Manager
(Linux on System z)

User → Role → Entitlements

“The Identity management solution helped address issues in more than half of the HIPAA security standards...” — George Vasquez, Chief Technology Officer, Community Medical Centers

Traditional thinking in managing privileged users

Each administrator / user to have a userid on every system they administer

- Exponential increase in privileged userids
- Increased risk of mismanagement of privileged userids
- Increased userid administration costs

Administrators / user share privileged userids

- Risk of losing Individual Accountability
- Issues with password management and security
- Out of step with regulatory thinking

To improve trust, organizations need to combine the best features of both approaches, without the disadvantages

IBM Privileged Identity Management Services

- **Privileged Identity Management (PIM)** centralizes management of shared and privileged accounts to improve compliance, lower cost and reduce risk

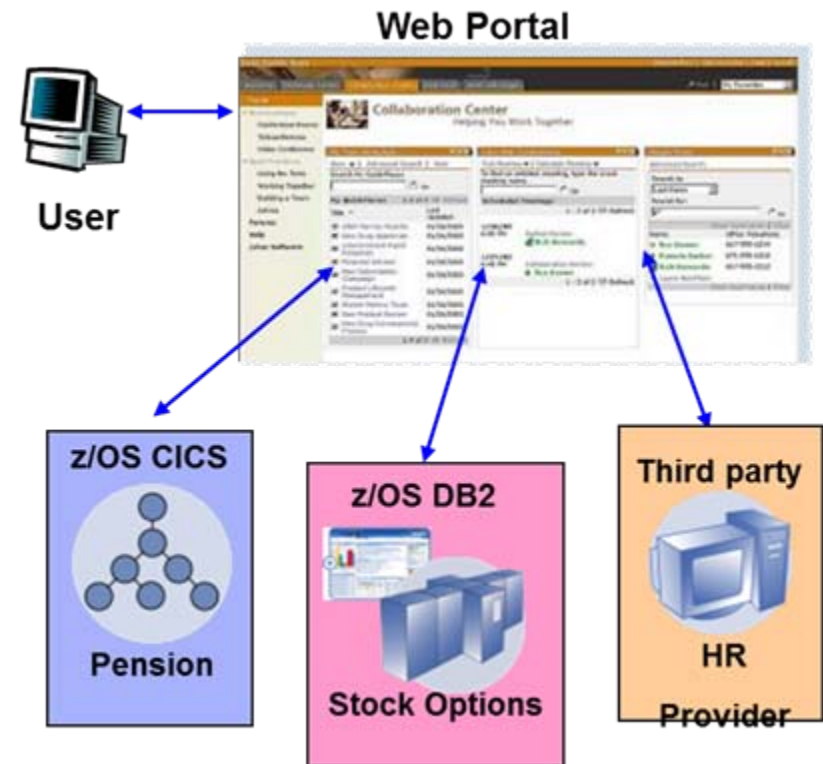
- **Key PIM functions include:**
 - Provision, de-provision and share privileged and shared identities
 - Secure access and storage of shared identities (secure Credential Vault)
 - Request, approve and re-validate privileged access
 - Single sign-on with automated check in and check out of shared and privileged IDs
 - End to end monitoring and reporting

- **Benefits**
 - Centralized Privileged ID management improves IT control and **reduces risk**
 - Automated sign on and check-in/out simplifies usage and **reduces cost**
 - Comprehensive tracking and reporting **enhances accountability and compliance**

3. Enforce Controls (Internal, External User Access)

Retail and Manufacturing organizations needs:

- Propagate identity from portal to RACF for improved visibility
- **Secure B2B and B2C access and collaboration with single sign-on**
- Enforce user access to mainframe on a need-to-know basis
- Secure workstations shared by multiple users and single source LDAP on z
- Improve user acceptance to new security policy and compliance regulations



Federated Identity Manager
(Linux on System z)

“All users need is a device and a browser to gain access on demand—anytime, anywhere, via any device and personalized for their roles. - Vijay Sonty, CIO, School Board of Broward County (SBBC)

Insider Threats Requires Fine-Grained Access

- **Two types of insider threats**
 - Malicious / unintentional use
 - Outsiders manipulating insider

- **Organizations need to enforce access on a need to know basis**
 - Fine-grained access
 - Context-based access

Traditional thinking in enforcing fine-grained access

Application is responsible for fine-grained access, react and remediate to incidents when they occur

- Hard to detect outsider manipulating insider
- Costly to fix and change
- More reactive in nature to address malicious insider

Security is responsible for access on a need-to-know basis, detect and change to incidents when they occur

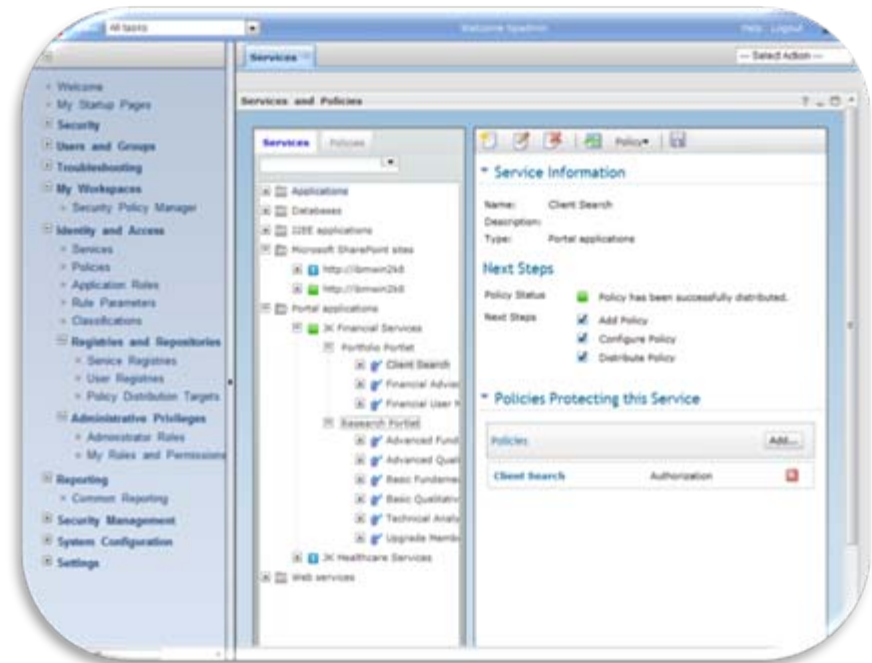
- More upfront work to externalize security from applications
- Less expensive to fix and change
- More proactive in nature to address malicious insider

To address insider threat, organizations need to combine the best features of both approaches, without the disadvantages

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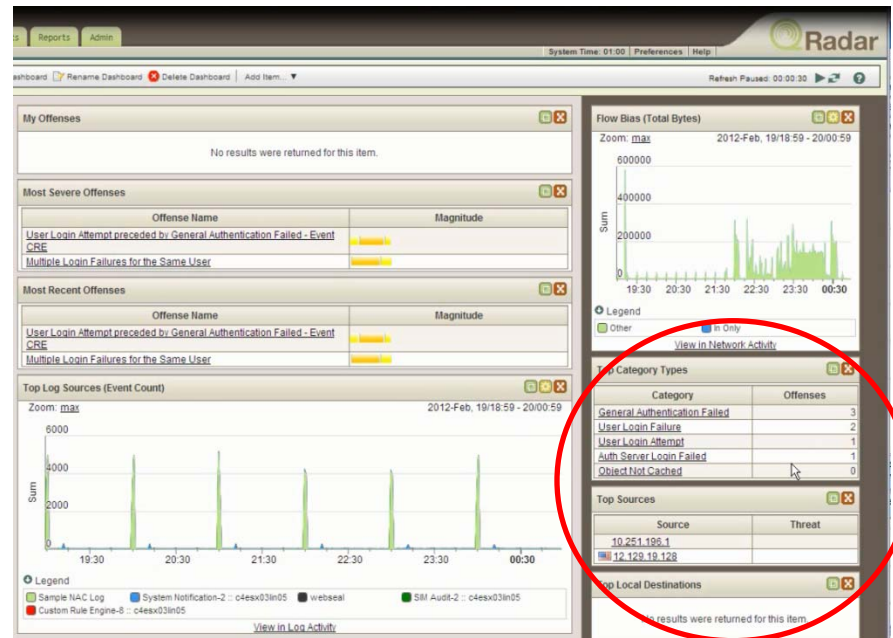
Security Policy Manager
(Linux on System z)

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4. Monitor & Report on User rights & activities

Energy Utility & Electronics organizations needs:

- Total control of user activity events and information across mainframe and distributed IT environments
- Monitor and report both internal and external privileged users activities
- Provide identity context across all security domains (System z, data, applications, infrastructure)
- Compliance with regulations such as NERC-CIP, SOX, PCI, and more



Integration of QRadar SIEM with IAM to stay ahead of internal threats including those driven by privileged users.

“..we have got full control over highly privileged users both internally at Philips or externally at our outsourcing partner... “Trusting people is good, controlling is better”- Mr. Gabriel van de Luitgaarden, Senior VP Operations

Integrated Identity and Access Management with Mainframe Security Administration is key to improving Trust end-to-end

Integrated zSecure and IAM propagates trusted identities from Portal to data on z

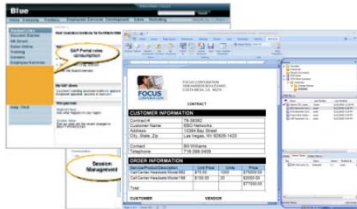
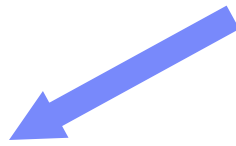


Identity & Access Management
(Linux on System z)



zSecure Suite

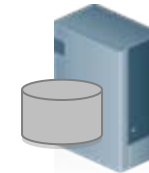
Supports mainframe and heterogeneous application and data environment



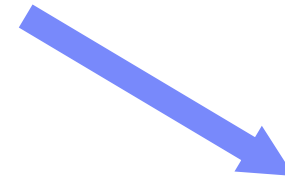
e.g. WebSphere Portal,
SharePoint, FileNet



e.g. DataPower,
ESBs



e.g. WebSphere
App Server, .NET



e.g. RACF, ACF2,
Top Secret

Enable organization wide, end-to-end compliance and governance

- Improved visibility, control and automation
- Less code to develop, test and maintain
- Quicker deployment of secure portal using mainframe applications and services



IBM Implementation Success Story

Simplifying identity management for 400,000 employees, 120,000 servers, 100,000+ contractors and business partners, in 170 countries






■ Business challenge:

- Improve compliance for privacy and regulations
- Manage user identity and access lifecycle consistently
- Audit inappropriate access, both inadvertent and intentional
- Consolidate legacy systems and reduce costs
- Minimize risk and improve security for telecommuting, mobile users



“Streamlining and automating access and administration processes is driving significant savings and productivity improvements while strengthening security controls.”

— Terry Escamilla, DE, Security and Privacy Programs, Office of the CIO, IBM

-  Major Employee Sites
-  Customer Fulfillment
-  Manufacturing
-  Employee Service Centers
-  IBM Research Centers

Retail Customer Case Study

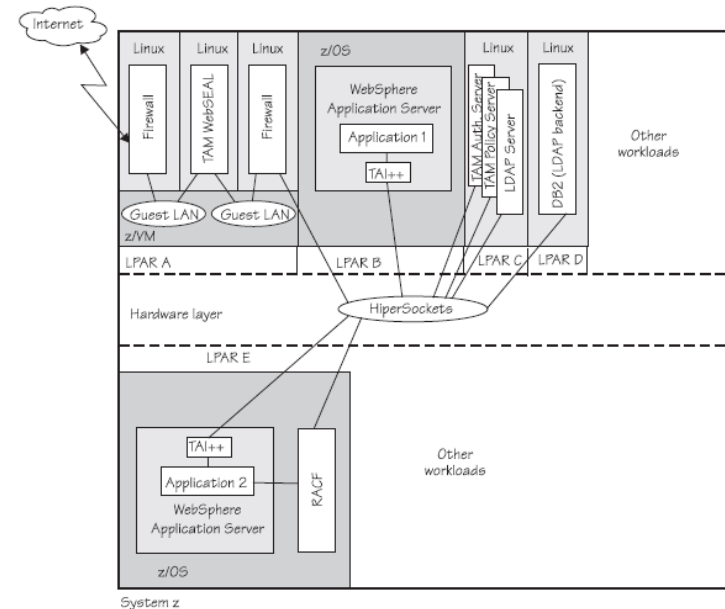
Simplifying identity and access management for 150,000 associates,
10,000 vendors in North America

■ Business challenge:

- Migrating key application workload on to zLinux
- Demonstrate compliance for privacy and regulations
- Manage and enforce user identity and access lifecycle consistently
- Establish trust and federated access for vendors and business partner

■ Solution implemented:

- Identity & Access Management on System z Linux
- zSecure suite



IBM continued leadership in industry standards

■ Open Standards:

- OpenID, OAuth
- OASIS: Identity MetaSystem Interoperability, standards development (SAML, XACML)



■ IBM Delivery of Standards Support:

- Federated Identity Manager
(SAML, WS-Trust, RACF PassTicket, OpenID, OAuth)
- Security Policy Manager
(WS-SecurityPolicies, XACML)

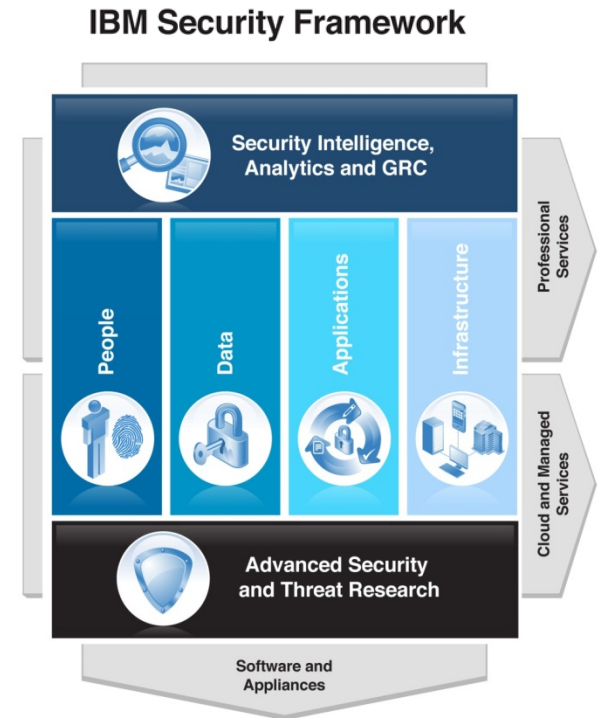
■ Industry Interoperability:

- Kantara Initiatives: SAML 2.0 conformance



Why IBM to address the Security & Trust needs?

- Breadth and depth of solution
- Best in class mainframe security
- Flexible delivery model
- Expertise in thousands of customer projects
- Open security standards and leadership





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Our focus is in two areas of cloud security

1 Security from the Cloud

**Cloud-based
Security
Services**

Use cloud to deliver security **as-a-Service** - focusing on services such as vulnerability scanning, web and email security, etc.

2 Security for the Cloud

**Public cloud
Off premise**

Secure usage of Public Cloud applications – focusing on Audit, Access and Secure Connectivity

**Private cloud
On premise**

Securing the Private Cloud stack
– focusing on building security into the cloud infrastructure and its workloads

Leverage the Mainframe as the Enterprise Security Hub

Resource Access Control Facility

Security zSecure Suite

Security Key Lifecycle Manager for z/OS

InfoSphere Guardium Family

InfoSphere Guardium Data Encryption for DB2 and IMS Databases

Security Information and Event Management

IBM Security Network Intrusion Prevention System

Communications Server & Netview for z/OS/



Security Identity Manager

Security Access Manager

Security Federated Identity Manager

Security Directory Integrator

Security Directory Server

WebSphere Application Server

WebSphere DataPower Server

Rational AppScan

Solution Edition for Security

Security Identity & Access Assurance