



Actian DataConnect Security Overview

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Action DataConnect Security Overview

Introduction

Core to the success of any digital business transformation is the ability to rapidly and securely bridge intra- and inter-enterprise hybrid IT environments; including cloud, on-premise, and embedded applications and their associated data. Digital Supply Chain integration and management is a strategic imperative for the modern enterprise and Industrial Internet of Things (IIOT) alike.

Encryption, intrusion detection and prevention at the perimeter, elimination of security vulnerabilities at the OS level, even implementation of silicon roots of trust is forcing counter moves by bad actors who are increasingly leveraging new attack vectors. While external threats from the Cyber Underworld are continually evolving, it is also becoming harder for businesses to manage information security and risks inside the Enterprise, particularly regarding compliance with regulations relating to Personally Identifiable Information (PII), Protected Health Information (PHI), European General Data Protection Regulation (GDPR), and The California Consumer Privacy Act of 2018.

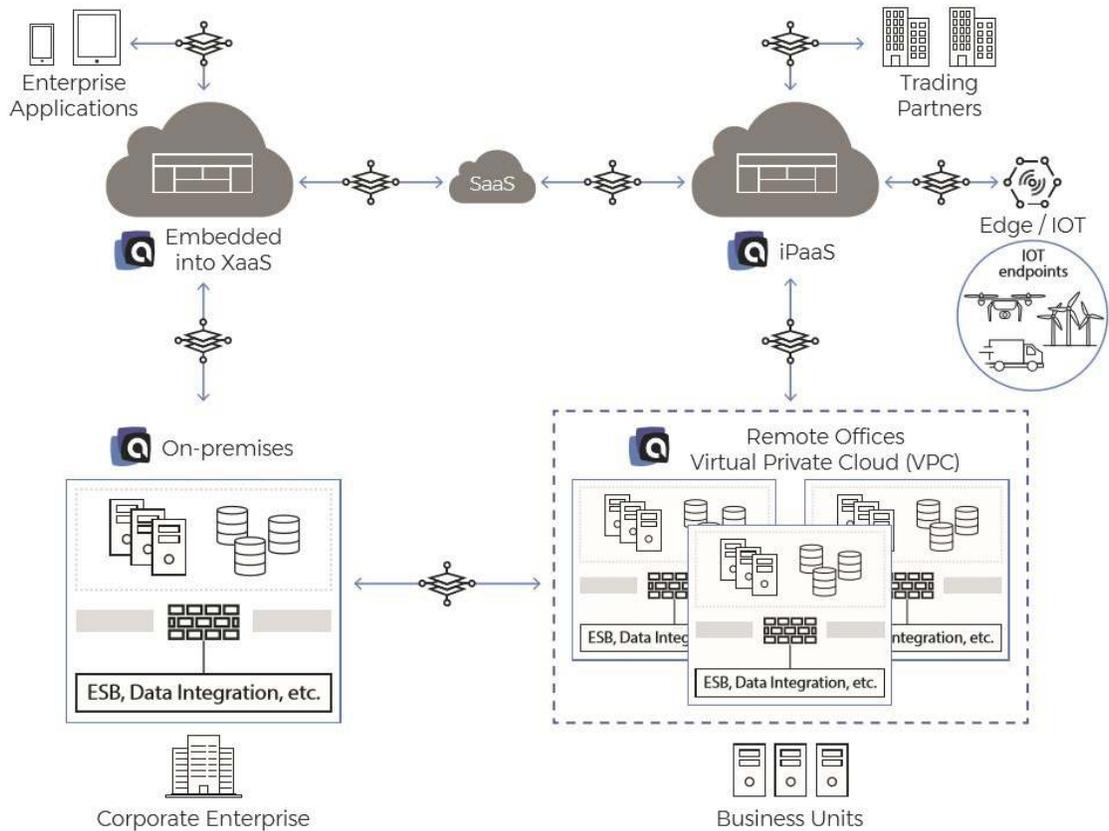
The most notable change in security measures undertaken over the last few years has been encryption of data in transit and at rest, leaving the points of access to data when it's not encrypted as the prime attack surface - mostly found at the application layer. Application vulnerabilities fall into two major categories, points of access by end users to the application and associated data, and points of access between the application and other applications and external data repositories. It is thus imperative that the Data Integration portion of your digital business have security built-in at the user and application layers.

Furthermore, it is important for businesses of all sizes to develop Integration Competency and to implement industry best practices for data integration, transformation, and management. Mapping of inbound data flows, including end-to-end data preparation and data quality transformations, will provide central IT and Line of Business data custodians and compliance officers with the transparency and tools needed to understand, safeguard and control access to customer information consistently across the business.

Action DataConnect Overview

Action DataConnect is the digital business platform for hybrid data integration, transformation, and management; providing comprehensive support for data formats, data sources, deployment and management of cloud/on-premise/embedded integrations. Action DataConnect provides this support out-of-the-box for the vast majority of SaaS and traditional applications and data repositories (databases, records management systems, Hadoop, etc.).

Additionally, through DataConnect's Application Programming Interfaces (APIs), Software Development Kits (SDKs) and Command Line Interface (CLI), you can securely embed integration components into virtually any application and deploy it to traditional data center, cloud, or edge (branch office, field deployments, IoT, etc.) locations.



The Actian DataConnect hybrid integration platform family includes:

- **DataConnect Enterprise** – offers a comprehensive on-premise integration platform for all on-premises and cloud data sources.
- **DataConnect Enterprise DataCloud** – is an elastic, cloud-based platform for deploying and managing hybrid, on-premise, or cloud-to-cloud integrations in a secure and reliable on-demand services platform, powered by Amazon Web Services.

In this paper, we will discuss Actian DataConnect security with a focus on Actian DataConnect Platform-as-a-Service (simply referred to as **Actian DataConnect** in the rest of this paper).

Actian DataConnect Built-In Security

Actian DataConnect has built-in security measures to address modern, risk-based security in hybrid cloud environments where traditional perimeter security falls short. DataConnect's architecture has been designed to focus on security at the user and application levels; leveraging existing customer security systems and policies, isolating running processes, in-depth user and role-based permission schemas, token-based authentication and encrypted macro files to keep passwords and metadata secure.

In addition to user- and application-layer security capabilities, Actian DataConnect Enterprise DataCloud runs in the AWS public cloud, leveraging the AWS physical and network security services. Actian DataConnect complies with industry-leading standards and protocols, including: SSAE 18 SOC2 Type 2 attestation, PCI-level security, and AES 128- and 256-bit encryption protocols for the TLS 1.2 connection.

As a reminder to customers, the PCI Security Standards Council deadline for businesses to disable SSL/early TLS protocols and upgrade to a more secure alternative was June 30th, 2018. You can learn more about this mandate [here](#). Customers that integrate with NetSuite should note that since May 21st, 2018 NetSuite requires that all integration connections be TLS 1.2 compliant (NetSuite no longer supports TLS 1.0 or 1.1). This change will affect Actian DataConnect V9, V10, V11 and DataConnect DataCloud connecting to a NetSuite integration and to the Actian NetSuite 2012 Connector.

Actian DataConnect enterprise integration tools are used to manage all aspects of the platform.

- **DataConnect Integration Manager**, provides a browser-based end-user interface to manage the Actian DataConnect Runtime Engine that securely connects agents to local end points;

- **DataConnect Studio IDE**, a full-feature IDE built on the widely adopted and extensible Eclipse open source framework, providing a low-code visual user interface to design, test, and debug integration workflows; and
- **UniversalConnect™ Technology**, the Actian connector technology that powers low-code template-driven integrations across legacy mainframe and modern SaaS applications alike.

Actian DataConnect Enterprise DataCloud on AWS

Actian DataConnect Enterprise DataCloud is a multi-tenant platform hosted on AWS and takes full advantage of AWS cloud infrastructure and platform security services, including its highly secure and flexible storage environment for customers of all shapes and sizes. AWS maintains numerous facilities around the globe for close access by geographic region, offers round-the-clock support services, and maintains extensive physical security measures.

Actian DataConnect Enterprise DataCloud also undergoes regular PCI-level Approved Scanning Vendor (ASV) vulnerability scans through Qualys, a leading provider of information security and compliance cloud solutions. A complete list of certifications and standards for AWS can be found [here](#)².

Secure Data Transfers

Actian DataConnect only stores the encrypted metadata and job configurations required to perform tasks, and all data is transmitted securely using HTTPS. Communication between the client and the cloud are all encrypted with Advanced Encryption Standard (AES) 128- or 256-bit encryption (depending on the browser). All relevant connectors and components adhere to TLS 1.2 protocol as an industry standard to keep transmitted information private and secure.

Actian DataConnect supports both SOAP and RESTful services for asynchronous and synchronous transactions.

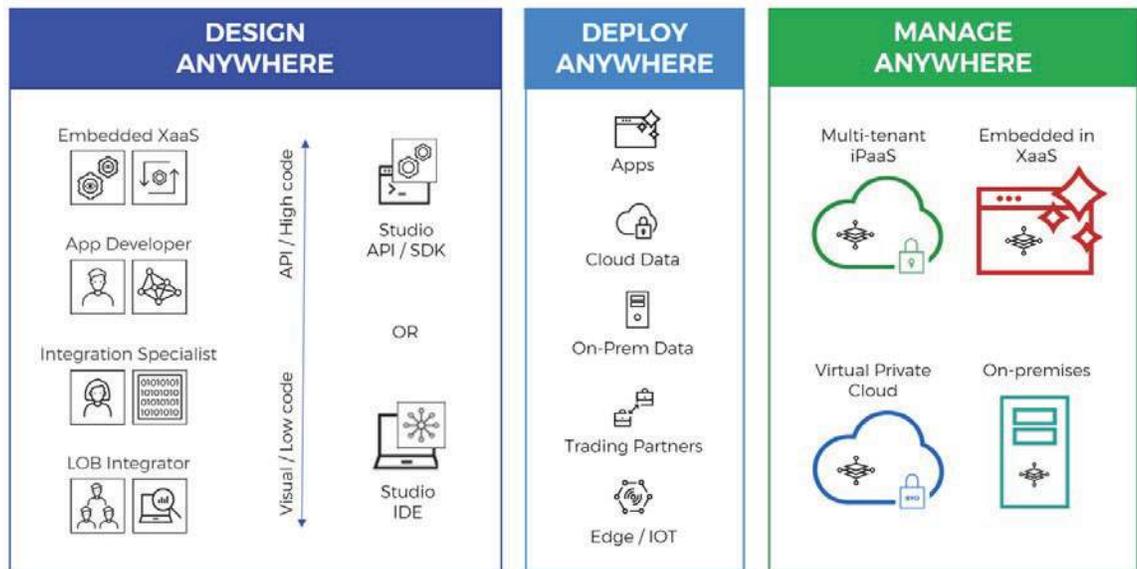
Customer transactional data is never “at rest” in Actian DataConnect servers and Actian is not able to access any “payload” data, with the sole exception of customer configuration data used to log into various systems DataConnect connects with (which is secured with AES 256-bit encryption). Integration processes can never run on the same instance concurrently with other integration processes, so there is never a possibility of processes even being able to see each other. Data transfer is orchestrated using the Actian DataConnect Runtime Engine, which can run in the cloud or on premises. Actian DataConnect works seamlessly with Enterprise IT infrastructure, including security systems, file management, user and intra-application access and authentication services like Active Directory, and so on.

Access Control

Administrators using Actian DataConnect have complete and total control over who gets access to data. Customer roles are split into Admin and User groups, where permissions to access integrations can be set narrowly with a definable read/write/execute command set for fine-grained control. Actian DataConnect features extensive logging for user activity as well as various security events so Admins can always know what's going on and who's doing what at any time of day. As with any enterprise service we recommend imposing a password change policy on a regular basis to keep systems and processes secure.

How It Works

Actian DataConnect deploy anywhere tech. provides a unified approach to converged data & app integration



Build Once, Deploy Anywhere

Actian DataConnect Studio IDE is Actian's comprehensive Integrated Development Environment (IDE), allows users to design and modify integrations easily and securely. Run from personal computers, the Studio IDE combines powerful data mapping with an appealing, easy-to-use visual interface that leverages existing Enterprise security protocols that customers have in place.

Once designed, integrations can be deployed via Actian DataConnect over encrypted connections (AES 128- or 256-bit protocols mentioned above). Alternatively, developers can access the same functionality to build, test and run integrations using the Studio API/SDK.

Connect anything

An extensive range of pre-built connectors are available, and clients can rapidly develop more on the fly with the Actian DataConnect Studio API. The full list of Actian DataConnect Connectors can be downloaded [here](#)³.

Actian DataConnect Runtime Engine provides the functionality to seamlessly connect to virtually any data source regardless of format, location, or protocol. When managed by Actian's DataCloud, the engine uses an agent that runs in the client's environment as a service. The agent uses a HTTPS connection and OAuth authentication to communicate with Actian DataConnect to securely obtain job configuration updates and share job status.

Deploy Anywhere

Actian DataConnect Integration Manager allows operations and support teams to configure, manage and monitor data integrations that are deployed on-premise in the cloud (or both). Templates provide the ability to create configurations extremely quickly using pre-populated settings. Relevant input parameters called Macros are also used to configure aspects of the integration without requiring any edits or modifications.

Macros should be encrypted so that sensitive data cannot be viewed directly. As with DataConnect Studio, information passed to and from Actian DataConnect utilizes AES while the Integration Manager itself piggybacks on the client's security setup.

Certifications and Standards

Actian DataConnect meets or exceeds the following certifications, standards and attestations; audits or more information is available on request:

- **SSAE 18 SOC2 Type 2** – This comprehensive industry-standard report (System and Organization Controls) focuses on organizational controls related to security, availability, privacy, processing integrity, and confidentiality, showing that DataConnect keeps sensitive organizational and client data secure.
- **PCI ASV** – The Payment Card Industry (PCI) Data Security Standard is a worldwide information security standard created to help organizations that process card payments prevent fraud through increased controls around data and its exposure to compromise. Actian utilizes a third-party PCI approved scanning vendor (ASV), Qualys, which uses a Dynamic Application Security Testing (DAST) methodology to scan our applications and application connections every quarter or after every major update. These comprehensive scans include all components that would be in scope for the PCI Data Security Standard (DSS). The latest summary is available [here](#)⁴.

- **TRUSTe Certified Privacy** – Actian complies with TRUSTe privacy standards in relation to the EU-U.S. Privacy Shield Framework, and Actian complies with the Privacy Shield Principles for all onward transfer of personal data from the EU, including the onward transfer liability provisions. You can view the certification [here](#).
- **DataConnect Certified Solutions:**
 - ServiceNow PointConnect
 - SAP BOR-API Interface
- **DataConnect Engineering Certified Professionals on Actian Staff:**
 - Microsoft Certified Professionals
 - Amazon Web Services (AWS) Certified Architects
 - Amazon Web Services (AWS) Certified Developers
 - Java Certified Developers
 - ISC² Certified Cloud Security Professionals (CCSP)
 - ISACA Certified Information Security Managers (CISM)
- **Federal Privacy and Security Standards** – We recommend utilizing Actian’s DataConnect Platform on-premise solution for making the best use of various federal privacy and security standards such as DoD SRG, FedRAMP, HIPAA, and ITAR.

Actian also has a **Microsoft Gold Application Development Competency** and **Oracle Gold Partner** status.

Actian Solution Engineering & Lifecycle Management

Actian Solution Engineering & Lifecycle Management includes consulting, architecture, design, implementation, and deployment professional services that scale and adapt to your business as it evolves. Solution Architects and Engineers are experienced data integration specialists and can provide training and development to help organizations improve their Integration Competency and create an Integration Center of Excellence based on industry best-practices. We also recommend you contact our team to perform security reviews on any integration design that can be deployed to an internet-facing installation of DataConnect.

Actian Support Services for DataConnect

While standard support includes access to our extensive documentation, forums, and Knowledge Base, our comprehensive Professional Services offerings

includes multi-day product training, solution design and implementation with our experienced architects, health check reviews and fast-tracked upgrade support. In addition, Actian also provides several enterprise support offerings to meet [your business needs](#).

For more information about Actian Security, please visit the [Actian Support Services Security Center](#)⁶.

To check the current status of Actian DataConnect Platform-as-a-Service cloud operations, just click [here](#)⁷.



Current Status
Actian DataCloud



Current Performance and Availability Status

May 22, 2018 00:05 UTC-5

Service / Website	Performance and Availability Status	Current Performance	Today's Uptime
Console	Service is operating normally	1193 ms	100.00%
Dashboard	Service is operating normally	1339 ms	100.00%
Execution Service	Service is operating normally	1068 ms	100.00%
REST API	Service is operating normally	268 ms	100.00%
SOAP API	Service is operating normally	315 ms	100.00%

Actian Portfolio of Hybrid Data Solutions for On-premises & cloud

For more information on Actian's data integration solutions and our entire portfolio of industry leading hybrid data management, analytics and integration offerings just click [here](#).

References:

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7. <http://trust.pervasive.com/>



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