



The Covisint Cloud Platform Enables the Internet of Things

The forces driving IT today require more information and more data exchange with even more business partners — and things.

In our hyper-connected world, everyday objects are no longer passive, inert members of the Internet. In fact, in the so-called “Internet of Things” (or IoT), refrigerators, thermostats, wristwatches and even toothbrushes will all, eventually, be connected to the Internet. Agents and the servers that manage them will control the exchange of data with these connected “things”.

And that’s not hyperbole. While many industry observers believe the IoT requires an elegant mesh of cloud, Big Data and virtualization to make it both practical as well easy to use, it will be built on billions of new connections. According to a report from BI Intelligence, the IoT will account for 1.9 billion devices today, and 9 billion by 2018. That’s equal to the number of smartphones, smart TVs, tablets, wearable computers, and PCs combined.

These technologies and protocols have to be secure. Covisint’s core business has always been helping exchange data securely across our customers’ extended enterprises, including connected things. Complex data — from any source to any kind of recipient, in any format. Securely and reliably. In the cloud.

While data-center-oriented competitors are extending integration into the cloud, we’re already there, with an extensible, reliable and cloud-based platform that’s real-world tested and proven over the past decade.

Our typical customer is a large enterprise with a complex ecosystem of external business relationships and tight requirements for security and reliability. In industries like automotive, healthcare, travel, financial services, food and beverage and life sciences, data exchange requires workflows and orchestration.

It requires end-to-end identity and access management in the cloud. We’re already managing close to 20 million identities.

A personalized experience integrated across devices is what all users want today. With the Covisint Cloud platform, this is easy to build and manage. Our analytics will also provide you with actionable insights into all the data exchanged.

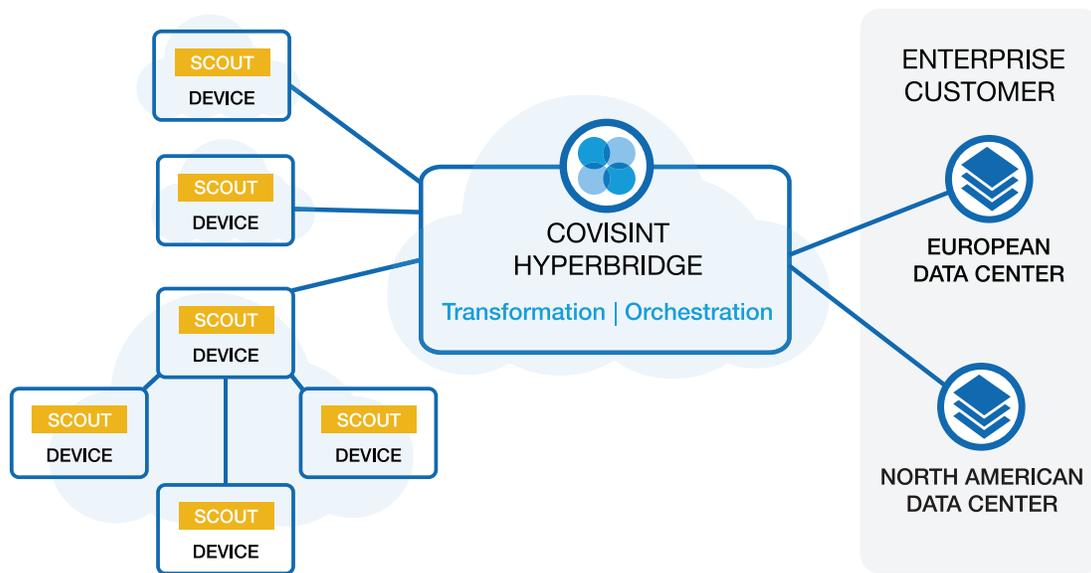
Your end-users expect data exchange to be simple, relevant, immediate, and format agnostic. You’ll be amazed how fast we can set you up to meet those expectations and to satisfy your requirements for connecting to the Internet of Things.

The Covisint Platform

Covisint’s Cloud Platform is comprised of a set of technologies including field-proven technology that enables our customers to step into the future. This includes the following components:

Connect ESB

Connect is a cloud-based Enterprise Service Bus (ESB) that can interface with a customer’s on-premise ESB or any web-service enabled application, from Mainframe to cloud-based application either in an asynchronous or synchronous mode. Connect ESB contains a catalog of standard connectors for enterprise applications across multiple verticals for standard EDI transactions and is capable of connecting to a device to extract, transform, load, orchestrate or communicate with applications, data sources/repositories as well as other machines. Covisint’s API Gateway features any-to-any web service translation as well as metering and monitoring capabilities.



HyperBridge

HyperBridge™ is a central management interface for capturing, aggregating and exchanging information from applications, data sources and things through a connected network of Scout Agents in near real-time. A flexible, software-only technology designed for easy, economical deployment, HyperBridge supports the complete range of bi-directional interface options from simple file drop, through direct database interfaces, IP Sockets (MLLP), FTP variants, and web services. Data is transferred immediately and securely through outbound HTTPS connections to the HyperBridge server hosted in Covisint's Tier One datacenter and delivered to you using whatever method you prefer and in your preferred file format. HyperBridge performs all required data integrity checks. You receive only the data you can use. The entire process is tracked and administered from one dashboard. HyperBridge extracts the metadata you identify from each message and associates that data with that transaction. Searching with that metadata, your support team can immediately locate transactions with common data elements. Full ACK tracking helps close the loop on every delivery to your system.

Scout Agents

From an IoT perspective, you can't always predict what the endpoint environment is going to look like. We resolve those issues at the endpoint. This allows us to normalize what currently is a distinctly abnormal world. Scout is a java-based application that can pull and/or push data from endpoints to Covisint cloud, or other endpoints like applications, data stores or things. Scout can also handle all of the unique endpoint configurations, endpoint connections, data mapping and data transformations on the agent with all returning data normalized and standardized.

An extensible solution, Scout is essentially an application container. It is customized and enhanced by downloading components. Those components themselves can also be customized to accommodate unique end-point requirements. The result is a network of local applications that can accommodate a virtually unlimited range of end point diversity within the context of a standardized management and reporting structure.

Reliable, secure and resilient Scouts communicate with the HyperBridge server over outbound HTTPS connections. All messaging between the HyperBridge server and Scout are secured using private key/public key pairs generated by unique digital certificates.

Secure and Reliable Exchange of Information Between Applications and Things

When Scout is installed, a private key/public key pair is generated. The private key is stored locally in the Scout, and the Scout's public key is stored in the HyperBridge server. Additionally, the server has its own private key/public key pair. Our server's public key is also stored locally in the Scout. All communication between the Scout and the server take place over HTTPS. Each message is signed by the sending party (Scout or server) and that signature is verified by the receiving party. Delivery of the output file involves Scout signing the message using its private key, and transmitting the data over HTTPS to Covisint's secure servers.

Once the file is retrieved, the signature is checked against the public key for the sending Scout. If the signature matches the file it is moved on for subsequent processing on the server. If the signature does not match the file is rejected. The data is then purged from the server and a log entry is placed into a queue for later analysis.

Scout can extract from or deliver data to a local application or thing. HyperBridge manages both the configuration and operation of Scouts as well as the message traffic between them. HyperBridge also includes dashboards with all of the relevant status information about Scouts and the messages that have been exchanged. Metadata extracted from the messages (files) allows users to search for status of individual messages. Full access logging and audit trails are included.

Key Features & Benefits

Easy-to-Use. Because it's centrally controlled, security and access management are more easily administered, so they effectively meet the most stringent regulatory compliance requirements.

And that means less risk.

Extensible. The ability to accommodate a virtually unlimited range of end point diversity within the context of a standardized management and reporting structure that is also capable of accommodating unique endpoint requirements.

Proven. The Covisint platform has been successfully deployed for more than a decade, providing a secure, modular framework that improves the efficiency and effectiveness of our customers' unique business services. Covisint has years of experience in transforming customer business initiatives securely and with far less risk than our customers could do on their own.

Scalable. The Covisint platform can be deployed to as many users as is required, at any time, providing the kind of flexibility that keeps implementation, management and maintenance costs down while ensuring the reliable flow of critical information through the enterprise and beyond.

Secure. Through identity and access management control who has access to what data on what machine including authentication and audit control for access to machines/machine data. In the healthcare space, for example, our security controls are designed to transmit secure, encrypted data (ex. Patient Health Information (PHI)) for regulatory compliance. Additionally, our unique security approach ensures Connected Devices only talk to one location on the Internet.

Time-to-value. Most organizations would require at least 18 months to design and implement a cloud implementation on their own, but by leveraging the Covisint platform a solution can be up and running in as little as 30 days. Ours is the fastest, most reliable and most secure route to meeting your business goals.

Featured Value-Add Platform Capabilities

Advanced Telematics. Covisint portlets graphically aggregate and display telehealth and telematics data from multiple connected medical devices.

Analytics. Dashboarding and data visualization for connected device data as well as exception reporting.

Assemble composite applications on the platform. Using HTML 5 dashboards and applications you can build applications that leverage machine to machine (M2M) communications that inform performance and data optimization.

Performance enhancement. Software distribution network with Content Delivery Network partner Akamai to include connectivity detection and management and integrated retry/resume functionality. This includes data optimization to reduce file transfer times and bandwidth costs for high volume and large data transfer with an enhanced solution offering for low bandwidth or limited connectivity solutions.

By the Numbers

- Over 18 million users
- Over 3,000 global customers
- Over 80,000 connected organizations
- Over 1 billion yearly transactions
- 8+ million connected vehicles supported on platform
- 5+ million users (active subscribers) currently
- 1.2 million new users (new subscribers) growth per year
- ~3,500 new users (new subscribers) added every day
- ~1,000 web logins by users per hour to access services (view Vehicle Diagnostics, purchase minutes, upgrade plans)
- ~9,000 mobile logins by users per hour to access services start vehicle, lock/unlock doors, etc.
- Hundreds of thousands of mobile devices connected

Our “Connected” Experience

Customers use our comprehensive and robust cloud platform to create, integrate and enable new mission-critical external business processes. Our secure set of technologies for cloud-based identity and access management, portals and collaboration, data exchange and integration, and application access and development – creates and enables the extended enterprise. This enables organizations to connect, engage, and collaborate with all their relevant constituents – customers, business partners, and suppliers – whatever the location, protocol, platform or device. Representative customers include:

GM OnStar: OnStar Corporation, a subsidiary of General Motors, provides subscription-based communications, in-vehicle security, hands free calling, turn-by-turn navigation, and remote diagnostics systems throughout the United States, Canada and China. OnStar, which has five million IDs, has its customers use Covisint to authenticate themselves to access the web and OnStar services. Covisint also secures mobile phones so customers can unlock their doors, start their cars, and more.

Hyundai: Covisint enables Hyundai and its customers to offer the latest in vital vehicle information and applications through the auto maker’s Blue Link system. Covisint’s cloud-based platform will enable the Genesis owners to access vital vehicle information through Google Glass. The wearable device will enable the Genesis car owners to access owner services, vehicle safety services and their infotainment and applications. In addition, Covisint’s flexible platform will also enable the car owners to get fuel alerts, vehicle health reports, diagnostic and maintenance alerts, temperature and HVAC controls and access to Blue Link call center, among others.

Minnesota Health Information Exchange: The Minnesota Health Information Exchange, which includes state and private-sector health care organizations, uses Covisint’s on-demand collaboration service for exchanging health information within the state. Physicians have access to medication information on 4.5 million Minnesota residents, or about 90 percent of the population. The Covisint platform connects applications and systems across the state and enables the HIE to verify physician credentials and confirm patient consent before transmitting data as well as offering services related to eligibility, prescription formularies and e-prescribing. The Covisint platform supports more than 73,000 health care professionals in the Minnesota Health Information Exchange who needed access to health information around the state while adhering to industry regulations.

The Covisint Platform: Delivering on the Value and Promise of the IoT

The Covisint Cloud Platform offers all of the tools to manage a large network of devices with the fewest number of resources. Its cloud-based management dashboard not only normalizes and standardizes data but also includes rights and roles to monitor and manage individual agents and devices. And, of course, its extensible, adaptable and agile platform also provides a trusted and proven foundation for the evolutionary frontiers of the Internet of Things and everything it promises to deliver in the years to come.



Covisint provides the leading cloud engagement platform for creating and enabling new mission critical external business processes. Our solutions enable organizations to connect, engage, and collaborate with the critical external audiences that define their success -- including customers, business partners, and suppliers. Learn more at covisint.com.

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