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SOLUTION OVERVIEW

Secure Device Management for the **Internet of Things**

Embracing and extending business applications begins with an identity-centric focus for people, systems and things





31 million digital identities managedproven scalability



Data has no compass, it goes where it's told give your IoT data

clear direction



Visibility and delegated device administration for fine-grained control The number of connected things in the world is expected to exceed 41.5 billion by 2025.1 This doubles the number of connected devices from the initial 2020 estimate.² OpenText believes the volume of identities will grow in parallel. For a manufacturer, a connected product means building a better, more valuable or sticky product and unlocking new servicebased revenue models. For an owner/operator, a connected asset means increasing operational efficiency and improving services by optimizing use of the asset.

The challenge is the need to deliver trusted information to many mission-critical stakeholders. It is essential for owners and operators of product ecosystems to create and manage a network of physical objects that securely connect, communicate, collect data and intelligently distribute this data to create value. Without secure device management, Internet of Things (IoT) data and the processes that rely on it are at risk.

Stats Source: 1.Worldwide Global DataSphere IoT Device and Data Forecast, 2019-2023, May 2019. 2.Gartner, Leading the IoT: Gartner Insights on How to Lead in a Connected World, 2017. https://www.gartner.com/imagesrv/books/iot/iotEbook_digital.pdf

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A digital twin is a digital representation of a physical object, instantiated as a software object that mirrors a unique physical object's characteristics and its state.



Secure Device
Management for IoT



Prevent cyber security threats to operating technology by securely provisioning IoT devices Business leaders understand that connecting the myriad of people, systems and things that touch the value chain can have a profoundly positive impact. They also know that piecing a solution together with multiple standalone components or building it themselves would take a considerable amount of time and resources, often more than they can spare, resulting in something that is error-prone, challenging to manage and not easily scalable.

The solution is to give IoT the same attention and focus as other enterprise applications that drive innovation and enable timely business decisions.

A connected ecosystem of people, systems and things requires intimate knowledge and expertise in each of these areas. It also requires the ability to purchase, code and maintain a string of components. Like organizations, people, applications and devices have a broad spectrum of attributes, and these entities and their relationships need to be carefully managed. Secure Device Management from OpenText standardizes how these device identities are represented, ensuring the highest level of integrity can be maintained at scale. Common entity definitions allow for consistent identity relationship behavior, versioning and extensibility.

OpenText Business Network Cloud: Connect once, reach anything

As the basis of a transformational digital strategy, Information Management (IM) helps consolidate information internally across silos and applications and digitize processes from end to end. Operations are more easily coordinated and streamlined throughout an ecosystem with digital consumers at its hub. At every stage in a product's lifecycle, operations can be automated and analyzed for deeper insights to improve efficiencies and output, as well as engagement with customers, partners and suppliers. Empowered with an information advantage from IoT, organizations can compete with agility, adapt to market changes and respond to opportunities for growth.

31+ million digital identities for proven scalability

OpenText, the market leader in IM, understands digital and with the OpenText Internet of Things Platform, is uniquely equipped to deliver solutions to enable and empower today's agile enterprise. Managing more than 31 million digital identities, the OpenText IoT Platform has the proven scalability to deliver the Secure Device Management necessary for today's complex ecosystems of people, systems and things. It is this identity-centric approach to IoT and Secure Device Management that allows for the extension and integration of enterprise applications.

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Figure 1

Data has no compass, it goes where it's told—give your IoT data clear direction

Managing, governing and auditing data, especially IoT data, is not easy—but getting started can be. Secure Device Management from OpenText makes it possible to create templates for devices, events, commands and even entire solutions. Leveraging mobile device provisioning, field deployments of IoT devices is made easy and secure (see figure 1). These digital twins of physical objects make it easy to visualize contextual data no matter where the device is located. Templates also make it easy to onboard new devices quickly, catalog attributes for future use and allow users to instantiate entire solutions based on prior models that have proven to be effective.

Gain visibility and delegated device administration for fine-grained control

As IoT deployments move from simple monitoring and failure alerts to more complex and sophisticated solutions, such as digital twins, organizations need to adopt an identity-first approach to ensure the data and devices they are extending are not at risk. Failure to adequately attest and verify the IoT device could lead to too much or too little access, hampering integration or possibly exposing data or the device to cyberattacks.

The OpenText IoT Platform enables fine-grained control of IoT devices and data as new capabilities are developed and deployed. An example of this can be seen through the design, operation and augmentation of a manufactured product using a digital twin. As a product is in the design phase, data can be gathered, managed and analyzed by the appropriate personnel as defined by the product owner. This delegated device administration allows for specified data flows to be routed to where it delivers the expected results without extending the data broadly. Clearly defining the product's IoT data paths ensures data access is not considered noise by the uninterested or a security risk that is accessible to the uninvited or unqualified.

An identity-centric platform, designed with security for scalability

OpenText's identity-centric approach to IoT makes its IoT Platform unique and ready for integration with enterprise applications. The OpenText IoT platform comes with advanced, out-of-the-box identity and access management functionality, which would otherwise have to be built from scratch, consuming development time and taxing strained IT budgets.

This is possible through relationship and lifecycle management, enabling organizations to register, authenticate and authorize all interactions across the entire lifecycle of people, systems and things. The ability to manage the identity of a device throughout its lifecycle is critical to the security across the entire ecosystem. Managing the relationship that a device has with anyone or anything is what makes the OpenText IoT Platform uniquely capable of handling IoT initiatives that require the highest level of security.

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The Identity of Things Explained

Identity of Things (IDoT) assigns unique identifiers and metadata to things, devices and objects.

Get the *Identity of Things Explained* guide to learn about the identity problem with IoT and how a strong IDoT foundation identifies and manages IoT connections to solve it.

The Identity of Things (IDoT) extends traditional identity and access management (IAM) for the internet era. It identifies all IoT infrastructure components to ensure secure connectivity and data trust from IoT devices.

The guide introduces IDoT and reveals how to add identity to IoT with chapters on:

- The core capabilities of an identity-driven IoT platform
- The Top 10 tips to consider when deploying identity management in IoT
- Selecting the right provider for IDoT

Get the guide today



opentext Internet of Things

Embracing and extending business applications through an identity-centric approach provisioning people, systems and things



In addition to Secusre Device Management for IoT, the OpenText IoT Platform can also deliver Ecosystem Integration, Unified Messaging and Actionable Insights.

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Secure Device Management components				
Mobile device provisioning	Delivers faster device on-boarding through mobile devices			
Profile management	A reusable catalog of templates and rules to create and manage devices			
Relationship and lifecycle management	Relationships between people, systems and things and the management of their lifecycles			

	C↑ Fog computing	RESTful APIs to Microservices		Enterprise integration	
	MQTT	Profile management	Relationship and lifecycle	MQTT	0000
	http://	A reusable catalog of templates and rules to	Relationships between things, people	http://	
0	JMS	create and manage devices	and systems and the management of their lifecycles	JMS	<u></u>
<u>ا</u>	AMQP			AMQP	\square
	TCP/UDP	Stream process	ging ocessing, encryption, brokering,	TCP/UDP	\square
Æ.	DDS	anaiysis, audit a	analysis, audit and traceability	DDS	1500
	Websockets	Unified data	model	Websockets	
<u>с</u>	Stomp	A single dynam modeling and d	c framework for ecosystem ata persistence	Stomp	
	XMPP		•	XMPP	
Devices	CoAP	🗞 kafka 🏼 🎒	STORM Spark	CoAP	Systems

OpenText IoT architecture

About OpenText

OpenText, The Information Company, enables organizations to gain insight through market leading information management solutions, on-premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit: opentext.com.

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