

OpenBlue Digital Twin

Data privacy sheet



1. Introduction to the Johnson Controls Global Privacy Office and Global Privacy Program

Johnson Controls has a Global Privacy Office and a Global Privacy Program, involved at the beginning and throughout the design and development of our processes, activities, products, services and solutions, in accordance with internationally accepted principles of Privacy by Design.

The Johnson Controls Global Privacy Office is led by the Chief Privacy Officer, and supported by Global Privacy Counsel, Global Privacy Professionals, Global Privacy Champions, analysts and support staff.

The Johnson Controls Privacy Program is designed with the most stringent global privacy and data protection laws in mind, including the General Data Protection Regulation (GDPR) of the European Union (EU), Brazil's Lei Geral de Proteção de Dados (LGPD), Singapore's Personal Data Protection Act (PDPA) and California's Consumer Privacy Act (CCPA).

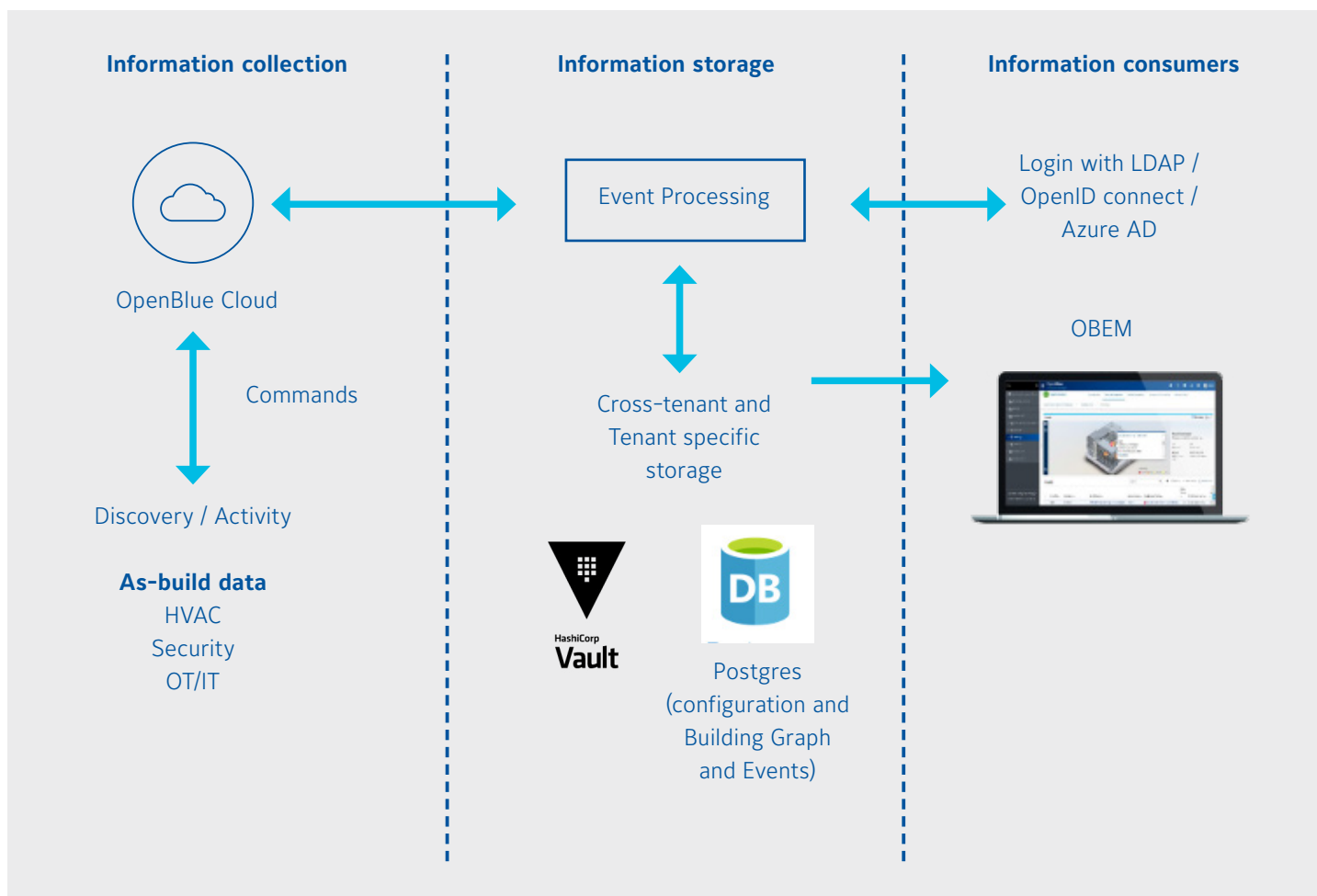
For more information on the Johnson Controls Global Privacy Office and Global Privacy Program, please visit www.johnsoncontrols.com/privacy.

2. Overview of OpenBlue Digital Twin

OpenBlue Digital Twin (OBT) is positioned as an enabling operational digital twin technology intended to be used within Johnson Controls' flagship solutions like OpenBlue Enterprise Manager (OBEM). It is not intended to be a standalone application. OpenBlue Digital Twin is comprised of both visualization and a knowledge graph. Visualization is driven by the Twin Viewer which ingests the building's 3D BIM and provides an immersive 3D experience of the as-built environment. The 3D BIM is cleansed and simplified for performance and user experience purposes through a separate service (outside product team) by Johnson Controls BIM Engineering. In parallel to the 3D visualization workstream, a twin knowledge graph is created using the BRICK schema which standardizes semantic descriptions of the physical, virtual assets in buildings and the relationships between. OpenBlue Digital Twin brings together the visualization and telemetry data to create a unified contextual representation of the as-built environment. OpenBlue Digital Twin integrates into parent applications through an SDK and APIs.

3. Information flow map for OpenBlue Digital Twin

Below is the OpenBlue Digital Twin data flow architecture and illustration of data flowing from OpenBlue Cloud to consuming applications like OBEM. Edge IoT commands and events from connected assets flow through OpenBlue Cloud and into OpenBlue Digital Twin. OpenBlue Digital Twin helps to serve solutions such as OBEM.



4. Personal data processing details of OpenBlue Digital Twin

See below details on each category of personal data processed by OpenBlue Digital Twin, types of personal data within each category, and the purpose of processing each type.

Note: OBC stores user account information not OBT since user account information is provisioned from OBC.

| No. | Personal data category | Types of personal data | Purpose of processing |
|-----|---------------------------|---|-----------------------|
| 1 | User and Acct Information | <ul style="list-style-type: none"> • Login • Password | Authentication |

5. Data retention and deletion

Johnson Controls has a global Records Management Program, which includes a Global Records Retention policy and procedures. The purpose of our Records Management Program is to detail the responsibilities and working instructions necessary for the use, maintenance, retention or destruction of data and to assign appropriate responsibilities to the right individuals.

When Johnson Controls processes personal data for our own purposes, the Johnson Controls Records Management Program applies to all records, on all media, and must be maintained in accordance with the Johnson Controls Records Retention Policy and Records Retention Schedule for the specific country and business in which the record has been stored. The Records Management Program applies to all worldwide locations and legal entities controlled by Johnson Controls.

Similarly, when Johnson Controls processes personal data on behalf of a customer, or when our products are operating on customer site, those offerings can be configured to meet customer data retention periods.

See below the default retention periods applied to OpenBlue Digital Twin:

| No. | Data category | Retention period | Reason for retention | Personal data included |
|-----|---------------------|---|---|------------------------|
| 1 | Event Subscriptions | Life of the subscription + 90 days | Required for subscription | No |
| 2 | Application logs | Default - 90 days (customizable by customer requirements) | Used for troubleshooting issues | No |
| 3 | Error Logs | Default - 90 days (customizable by customer requirements) | Error logs are saved as part of the SRE environment standardization for troubleshooting | No |
| 4 | Telemetry data | 90 days | To support consuming applications needs | No |
| 5 | Spatial Graph Data | Life of the subscription + 90 days | Operational data for twin to function as required | No |

6. Sub-processors for OpenBlue Digital Twin

Please see below the list of current sub-processors utilized to provide OpenBlue Digital Twin:

| Sub-processor | Service type | Location | Security information |
|--------------------------|------------------------------------|-------------------------------|---|
| Microsoft Azure (choice) | Cloud hosting service | US, China, UAE, and Singapore | https://learn.microsoft.com/en-us/compliance/regulatory/offering-home |
| Snowflake | Data hosting and computing service | Azure US | https://1amiydhcmj36tz3733v94f15-wpengine.netdna-ssl.com/wp-content/uploads/2019/12/Snowflake-Security-Overview-Q4-2019-2.pdf |
| Google Cloud | Cloud hosting service | US | https://cloud.google.com/security/compliance/offerings |

7. Cross border data transfers

Many countries and jurisdictions have laws governing the transfer of personal data. As a multinational organisation, Johnson Controls has substantive experience in dealing with cross border transfer issues and restrictions.

When Johnson Controls processes personal data for our own purposes or on behalf of a customer, we utilise the following transfer mechanisms which can assist our customers:

| | |
|--|---|
| Binding Corporate Rules (BCRs) | The Johnson Controls BCRs are designed to ensure an adequate level of protection for personal data no matter where in world it is processed by Johnson Controls. With respect to the European Union (EU), the Johnson Controls BCRs have been specifically approved by the European Union Data Protection Authorities (DPAs) for transfer of EU personal data globally within Johnson Controls. |
| Asia-Pacific Economic Cooperation Cross-Border Privacy Rules (APEC CBPR) | The CBPR is a government-backed privacy certification which demonstrates that Johnson Controls complies with internationally recognized data privacy protections and is the framework approved for the transfer of personal data by Johnson Controls between participating APEC member economies: United States of America, Mexico, Japan, Canada, Singapore, Republic of Korea, Australia, Chinese Taipei and Philippines. |
| EU Standard Contractual Clauses (SCCs) | Johnson Controls incorporates the EU's approved standard contractual clauses, also referred to as the "Model Contract," into the Johnson Controls Data Protection Agreement located at www.johnsoncontrols.com/dpa to afford the contractual protection under the SCCs to our customers. |
| EU-US Privacy Shield Framework and Swiss-US Privacy Shield Framework | Johnson Controls was and continues to be certified under the EU-US Privacy Shield Framework and the Swiss-US Privacy Shield Framework. Although the Privacy Shield Framework has been invalidated by the Court of Justice of the European Union (CJEU), Johnson Controls intends to continue to maintain its certification for the foreseeable future, until a replacement framework is created. |

8. Privacy certifications

Johnson Controls has substantive experience with global privacy issues, and has achieved the below global privacy certifications which demonstrate our commitment to creating solutions which respect global fair information practices and Privacy by Design.

| | |
|---|---|
| Asia-Pacific Economic Cooperation Privacy Recognition for Processors (APEC PRP) | The PRP is a government-backed privacy certification that enables Johnson Controls to demonstrate to customers our accredited enterprise-wide Privacy Program, and to transfer data processed on behalf of our customers (including our cloud solutions) between the USA, Mexico, Japan, Canada, Singapore, Republic of Korea, Australia, Chinese Taipei, and the Philippines. Please see the PRP Directory and the Johnson Controls PRP TRUSTe validation page for more information. |
| Asia-Pacific Economic Cooperation Cross-Border Privacy Rules (APEC CBPR) | The CBPR is a government-backed privacy certification which demonstrates that Johnson Controls complies with internationally recognized data privacy protections. Please see the CBPR Compliance Directory and the Johnson Controls CBPR TRUSTe validation page for more information. |
| TRUSTe Enterprise Seal | The Johnson Controls TRUSTe Privacy Certification Seal demonstrates our responsible data collection and processing practices consistent with regulatory expectations and external standards for privacy accountability. Please see the Johnson Controls TRUSTe validation page for more information. |

Please note that this document is for customer guidance purposes only and is not legal advice. Johnson Controls is not a law firm and does not provide legal advice. While Johnson Controls products and solutions are designed for use in compliance with applicable law, implementation and deployment of Johnson Controls products and solutions should be reviewed by appropriate customer advisors and stakeholders for such compliance.