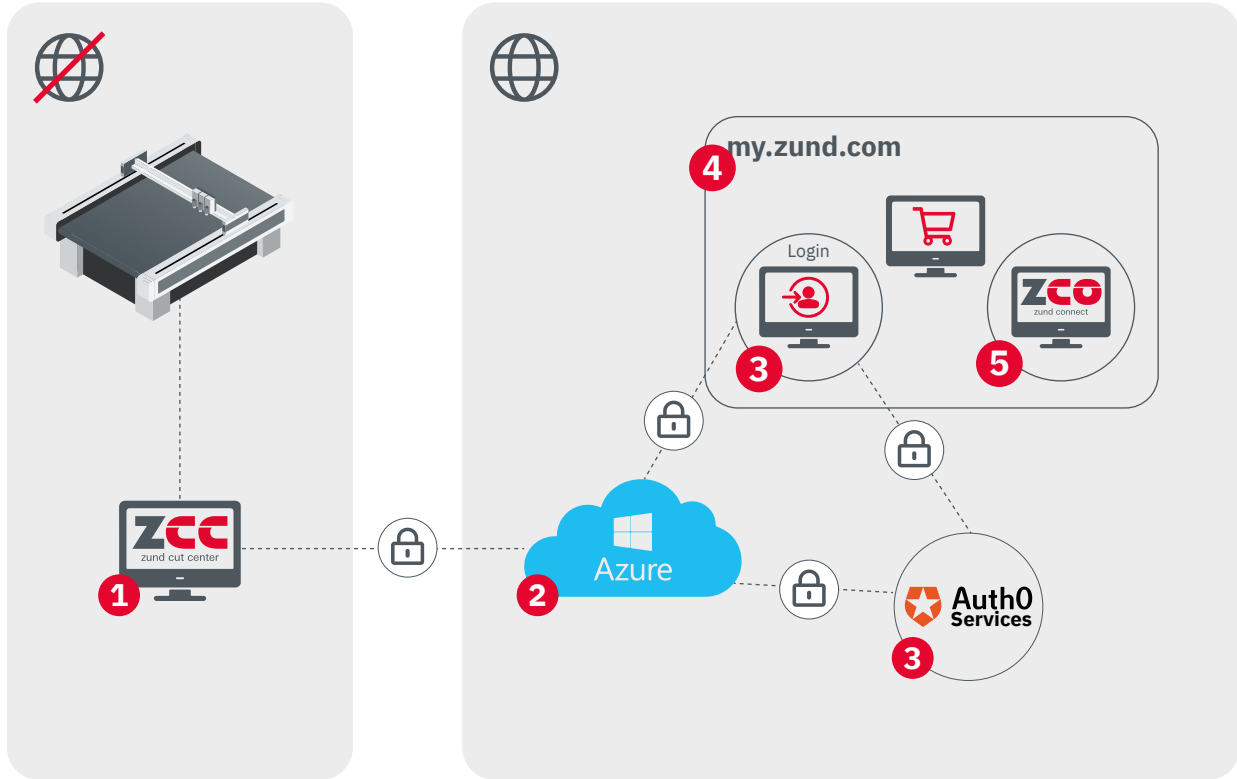# Data security - Zünd Connect

Using proven security standards and components ensures a high degree of access control and data security. This protects the data from malicious use beyond what is covered in the privacy policy. The data is also safeguarded in the best way possible against deliberate tampering or destruction by third parties. The data can be transferred to the cloud only via the cutter. No access to the cutter is possible from the cloud.

Every connection is secured with TLS 1.2 (Transport Layer Security) according to RFC 5246.

Sub-system 1: cutter operation

With the installation of Zünd Cut Center (ZCC), an IoT proxy is installed for Zünd Connect. The user must explicitly agree to have the proxy installed. The proxy runs as a Windows service in the background and contains a local data buffer. The buffer securely stores data that is not immediately transmissible. This may occur, for instance, if the connection to the IoT hub is temporarily interrupted.

The proxy communicates with the IoT hub via AMQP: 5671 and https: 443, via a TLS1.2 encrypted connection. Authentication occurs with a unique software key generated during the installation.

Sub-system 2: Azure Cloud

The data is stored and processed in the Microsoft Azure cloud. This ensures a high degree of system stability and security, with Microsoft security updates being performed as they occur.

All back-end database access is password protected. The passwords used for access are kept in a secure, dedicated key vault in the Azure cloud. Data access from the dashboard to the back-end is possible only with the temporary access tokens generated during login.

Sub-system 3: User authentication

To access Zünd Connect, users must log in to my.zund.com with a username and a password. For user registration, login, and password recovery, Zünd relies on a proven, secure third-party solution from Auth0 which guarantees compliance with the highest standards of security.

Sub-system 4: my.zund.com

Zünd Connect is embedded in the my.zund.com customer portal. The user login is therefore valid throughout the portal.

Sub-system 5: Zünd Connect

The production efficiency, production losses and their origin as well as the cutter overview can be viewed from any desktop computer with an up-to-date web browser.

Hostnames ZundConnectProxy

Log data, via HTTPS (port 443)
dc.services.visualstudio.com

File upload (e.g. support report, .zcc-Files), via HTTPS (port 443)
zuend-iot-prod-hub.azure-devices.net
fileprodstore.blob.core.windows.net

Device provisioning (during the installation), via HTTPS (port 443)
zuend-iot-prod-cert-fn.azurewebsites.net

Events, via AMQP (port 5671)
zuend-iot-prod-hub.azure.devices.net

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