HONEYWELL ELECTRONIC LOGBOOK

Go Paperless, Enforce Compliance and Accelerate Digital Transformation

Convert data to information and convert information to actionable intelligence. This is what the Industry 4.0 digital revolution accomplishes — when the data is available.

One of the biggest stumbling blocks in leveraging the technologies available in Industry 4.0 digitization is paper records. Honeywell Electronic Logbook solutions help in eliminating paper logbooks and making information available for analysis the instant it is created.

All data elements needed for a logbook are available in the elements library. Drag and drop elements on the canvas to define your logbook structure and it is ready for use.

INTUITIVE INTERFACE

An intuitive interface makes Honeywell Electronic Logbook quick and easy for any logbook author to set up. Drag and drop data elements from the elements library into the logbook canvas to define a structure, and the logbook is ready to use.

The lifecycle of a logbook– edit, review, release – is managed with electronic signatures and full audit trail of changes.

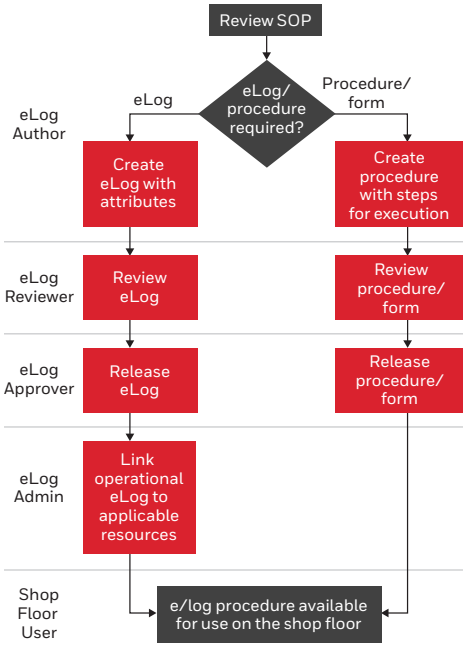
MANUAL AND AUTO MODE LOGGING

Honeywell Electronic Logbook can create log entries automatically based on events or manually based on human intervention.

In the automatic mode, Electronic Logbooklogs the start and end times of all operations for each resource. The logged events can be viewed using the Resource Log Card.

In the manual mode, Electronic Logbook allows the creation, configuration, linking and population of any number of logbooks.

Define a logbook template with a unique format and specific business logic for easy repetition. Quickly apply a defined template to hundreds of resources, effectively creating thousands of logbooks ready for use.



Honeywell

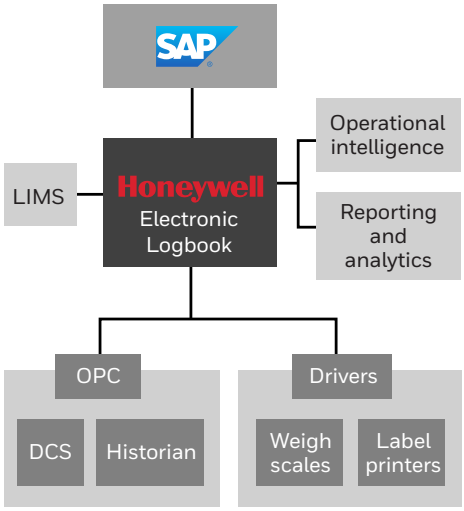
LOGICAL ARCHITECTURE

The Electronic Logbook product runs on an on-premise server or on the cloud. In either case, it runs as a virtual machine.

Electronic Logbook consists of Electronic Logbook engine which runs on the server and several operator user interfaces which run as thin clients in a browser.

Thus, from an installation perspective, Electronic Logbook requires only one installation which is on the server. The operator stations only need a browser.

Electronic Logbook integrates with external IT systems using web services provided by the IT system, with SAP using web services or SAP PI web services which consume standard SAP BAPI calls and with the automation system using OPC and the APIs provided by the automation system. Please see below for more details on integration with each of these systems.



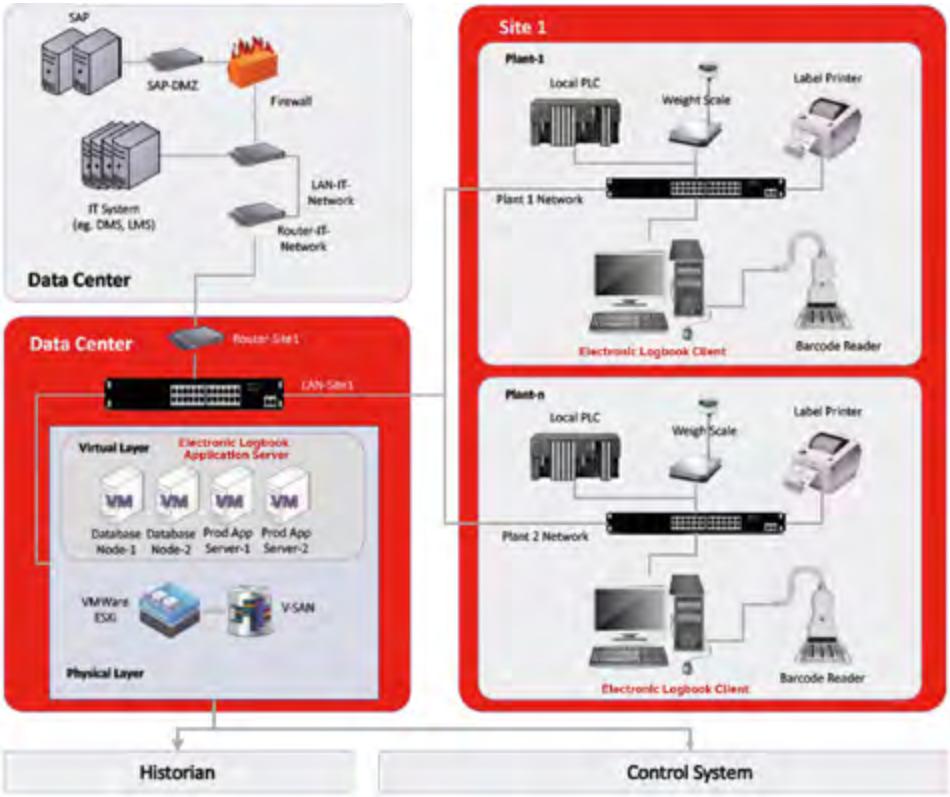
PHYSICAL ARCHITECTURE

The Electronic Logbook application server runs on a virtual environment with several nodes. The number of nodes required depends on the selected architecture.
The Electronic Logbook application server is configured to sit directly on the plant network and has direct access to all the plant floor devices like control systems, Historian and weigh scales.

The Electronic Logbook UI is a browser based HTML5 thin client which can be located anywhere in the plant as long as it is on the plant network. The Electronic Logbook machine itself runs Electronic Logbook and the DB Cluster.

Electronic Logbook communicates with IT systems like SAP, LIMS, and CAPA (QMS) through the firewall using specific ports that are opened in the network infrastructure to enable communicating with these systems.

All components of Electronic Logbook (server and database) run on a VMWare based virtualized environment.



SYSTEM REDUNDANCY AND HIGH AVAILABILITY

Electronic Logbook is available in three configurations:

1. Single Application Server and Single Database Server
2. Single Application Server and Clustered Database Server
3. Clustered Application Server and Clustered Database Server

OPTION 1

Single Application Server

Single Database Server

OPTION 2

Single Application Server

Clustered Database Server

OPTION 3

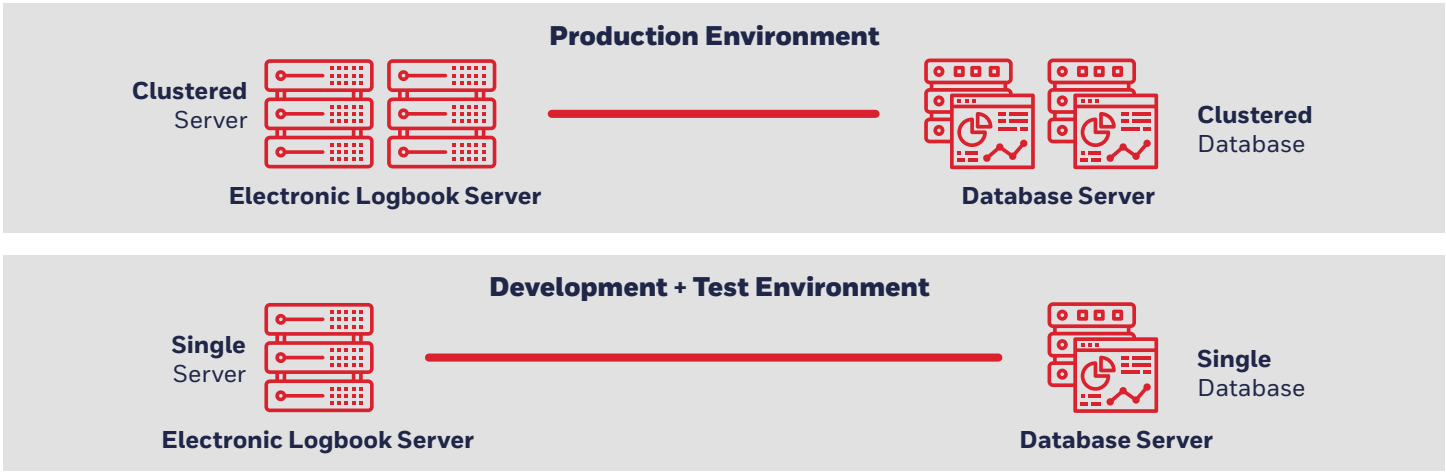
Clustered Application Server

Clustered Database Server

The availability requirements for development and test environments are typically low, and these environments do not need to have a high availability configuration from a cost perspective. The production environment needs to have a high availability.

We recommend the following system configuration for the Electronic Logbook system.

RECOMMENDED CONFIGURATION



Note: In case high availability is not required, the production environment can be implemented as Option 2 shown above which is Single Application Server with Clustered Database. The database should always be clustered to avoid of loss of production data.

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THE FUTURE IS WHAT WE MAKE IT

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