



## **Data Integration Process**

Congratulations! The next phase of this process is to pull your ticket data into the HaulHub system. To do this we use the HaulHub Connector (HHC) to orchestrate the data synchronization. The HHC Atom is a small, lightweight, read-only run-time engine that sends your new and updated tickets to the HaulHub API over a secure SSL connection.

### Security

The HHC process is highly secure and has received numerous certifications. HHC is FedRAMP certified (approved to move U.S. government data), PCI certified (approved to move credit card data) and HIPPA certified (approved to move patient health data).

- There is no inbound traffic and as such, there are no inbound ports that need to be open for the HHC process.
- The HHC process only makes secure outbound calls over port 443. If you restrict egress from the server that the HHC is installed on please contact HaulHub for the six URLs you will need to add to your whitelist.
- If using an enterprise db, such as MS SQL Server, we recommend creating a read-only user with permissions that limit access to the ticket db. Note, the user must be a db user, not a domain user.
- The HHC process runs as a Windows service, as such the user who installs the application needs to have administrator access.

### Process

The HaulHub ingest process is highly fault tolerant. Once we install the HHC atom, the process watches the ticket table for new and updated tickets. If any are found, it pulls the ticket, transposes the data into the HaulHub json format and posts the tickets to the HaulHub API over a secure SSL connection. The process stores the date of the last successful upload and always looks for new or updated tickets since the last successful upload. In the case where the process is not able to reach our API, (e.g. the plant is offline, the database is down, the internet is down) the process will simply pick up from where it last successfully ran once the issue is resolved.

## Resources

- The eTicket process requires a persistent internet connection. Ticket data is inherently small, and many customers are able to connect remote plants with cellular hotspots, however the installation will take a bit longer.
- HHC server compute requirements are very nominal – the requirements are more defined by running Windows than the HHC. The server should ideally have a multi-core processor, 4GB of memory and 10GB of free disk for logging.
- We very strongly recommend all servers run NTP for time synchronization.

## Integration Experience

There are three key milestones in the HaulHub integration process

- 1) HHC Atom Install and DB connection (Initial setup call. 15-60 minutes)
  - Download the installer on the target server  
[https://knowledge.haulhub.com/hubfs/connect/atom\\_install64.exe](https://knowledge.haulhub.com/hubfs/connect/atom_install64.exe)
  - Input your account token that will be provided during the install to associate the atom with your account.
  - Confirm we can connect to the active ticket table and pull sample data
- 2) Ticket Mapping (immediately after setup call)
  - Initially HaulHub will match eTickets to provided sample paper tickets
  - Review tickets with customer to confirm
- 3) Onboarding / Training
  - With tickets in HaulHub our Onboarding and Training team will begin the process of user creation and application training.

## **Questions?**

Please feel free to reach out to the HaulHub Integration team with any questions or concerns.  
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