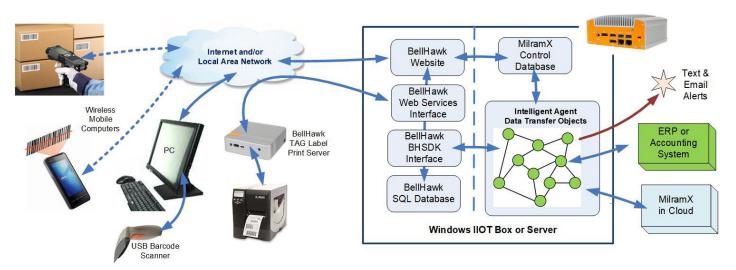
KnarrTek® Real-Time Materials Tracking & Decision Support Solutions

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MilramX Lite



MilramX Lite is an option to BellHawk which adds some of the capabilities of the MilramX[™] Enterprise decision support and automated data exchange platform to the BellHawk[®] data capture and materials tracking platform.

Specifically, MilramX enables the scheduling of Data Transfer Objects (DTOs) to:

- 1. Exchange data between the BellHawk database and ERP, accounting, CAD and other systems hosted at the same site, over the local area network.
- 2. Exchange data between the BellHawk database and Cloud-based third-party applications, as well as with a full MilramX decision support and automated data exchange platform running at a remote data center.
- 3. Periodically examine tables in the BellHawk database and generate Text Message or Email alerts to warn users about information they need to pay attention to.

The MilramX Lite DTOs are similar to those used in MilramX Enterprise, except that they only exchange data with the BellHawk database. The other big difference is that the scheduling of those DTOs is controlled through the Sys Admin screens of BellHawk rather than through a separate MilramX website. Also, MilramX lite does not have a separate KnarrOps operations management database, which is part of MilramX Enterprise.

MilramX Lite DTOs communicate with the BellHawk database through the same BHSDK DLL that the BellHawk website and web-services interface uses. This enables these DTOs to take advantage of the BellHawk HLDO adaptor mechanism to do most of the work in exchanging data with the BellHawk database.

The action part of these DTOs can be written as .Net Subroutines or Python Scripts which are then automatically integrated into executable transfer processes. These transfer processes are then run as separate operating system processes, so that multiple DTOs can be executed in parallel. On a multi-threaded processor this enables MilramX to manage multiple transfers taking place at the same time.

MilramX Lite is typically used as part of BellHawk when BellHawk is running in an IIOT box in the local plant. But it can be integrated with BellHawk, running in the Cloud, for testing and training purposes.

MilramX Enterprise is used where more extensive capabilities are required, such as:

- Being able to display an integrated view of operations across multiple sites, such as by having web portals through which managers can view the contents of the KnarrOps operations management database.
- Ability to provided advisory decision support for managers involving advanced AI methods, as well as the ability to automate routine tasks such as generating manufacturing and shipping orders based on incoming customer orders.
- Supply chain information exchange using complex data formats such as EPCIS and EDI ASN's and the like.
- Situations where a high volume of data exchanges with multiple external systems

In such situations, MilramX Lite instances at one or more local sites are used to exchange data between the local BellHawk instances and an Enterprise version of MilramX running in the Cloud.

For more information, please send an Email to <u>Client-Suport@KnarrTek.com</u> or see <u>www.KnarrTek.com</u>.