Part 1

Supplier

Invoice for received orders

Payment

Order Invoice

4.0 Make Payments

Invoice data for delivered stock items

1.0 Update Inventory with newly received stock

stock items added to inventory

DSI Inventory Database

Up-to-date count of stock items in inventory

2.0 Update Inventory decrementing for items used

stock items withdrawn from inventory

3.0 Determines if inventory count of stock items has fallen below predetermined threshold & by how much

Type of stock items with count below threshold

Quantity of stock items needed to bring inventory count above threshold

4.0 Generate Orders

Current count of stock items

Stock on Hand
The purpose of this memo is to provide you with an overview of open-source computing and the potential benefits of adopting open-source platforms here at the Indiana Department of Environmental Management (IDEM). It is my recommendation that IDEM begin making preparations to adopt and standardize on an Open Source platform such as LAMP within the next year.

Open-source software refers to a range of complete computer programs, software, and software components that are released under open-source licenses. Open-source licenses are unique because they allow for the legal modification of source code. This means that businesses and organizations such as IDEM can have programs that are uniquely customized to our needs. While many open source platforms can be obtained free of charge, this is not universally true. Open-source programs are still protected by intellectual property rights, and some can only be obtained through paid licenses. Even if a platform could be obtained freely IDEM would still incur certain cost with system implementation and maintenance. However, this should not discourage our organization from considering open-source. Innovating an organization’s processes always comes with a cost, and open source software has the potential to greatly improve the flexibility, reliability, performance, and availability of our information architecture.

Customizability is just one of the benefits of open-source. Standardizing on an open-source platform could potentially bring huge cost savings for IDEM. After any initial fees IDEM would not have to pay to distribute the software to more users. This lack of fixed cost makes open-source software very appealing for public sector organizations that must operate under strict budget constraints. For IDEM in particular, it would represent a significant step forward in reducing the technology gap the public sector is often criticized for. Open-source software is also highly scalable. Open-source platforms can be more easily modified to handle changes in demand.

Another benefit of open-source software is that they usually come with fewer bugs. Open access to the source code means that there are a host of other users scanning, troubleshooting, and improving the code. Unlike with proprietary software, IDEM would have access to those coding improvements. While some may argue that open-source is less secure and more vulnerable to malware because it is so widespread, the same argument can be made in reverse. Open access to the code means that we are not reliant solely on the original developer to address security gaps.
I believe that open-source software presents a significant step forward. By standardizing on an open source platform we have an opportunity to significantly advance our information architecture and improve how IDEM accomplishes it goal.

Sincerely,

Jasmine Moss