# **1.04. Which combination of mSupply products best suits your organisation?**

Since its creation in 1998, mSupply has grown and multiplied as it has been applied to different challenges. The original Free-user (Windows or Mac based) application continues to be downloaded and used regularly. In fact, it comes packed with (almost) all the bells and whistles of some of our most sophisticated installations, but is only suitable for a small, 'single concurrent user' facility.

## Comparison of the mSupply products

So which are the right mSupply products for your organisation?

#### **Free-user**

- PC or Mac application Download here. The database resides on the computer that the application has been installed on. It can be used by only one user at any one time.
- Free! You still need to register mSupply with Sustainable Solutions, but we don't charge you for it and we don't sell your contact details either!

### Single-user

- Same as Free-user, but for users who wish to make use of Support<sup>1)</sup> and Up-to-Date (UTD)<sup>2)</sup>
- A software license needs to be procured, generally for about 1/3 of the price of a multi-user client, and then Support and UTD on top of that.

### Multi-user (Server / client)

- For situations where more than one user needs to access the database at one time. The database is hosted on a file server and mSupply server software is installed on that hardware. Users have access to this data through mSupply client software installed on client PCs that communicate to the server through a Local Access Network (LAN). Remote users can access the server through Remote Desktop Protocol (RDP) or similar.
- A software license needs to be procured for each concurrent client. Support and UTD is optional, but highly recommended. Most of our customers are very happy to pay for these services.

#### Synchronised Multi-user

 If the internet connection to remote users in a Multi-user configuration is inadequate, then synchronisation allows a Primary - Satellite configuration to be deployed. 'Satellite' multi-user servers are installed at remote sites where users operate mSupply on their local store without worrying about the internet connection. In the background, these 'satellite' servers will synchronise their local store data with a 'Primary' server when the internet connection becomes adequate.

• A software license needs to be procured for each concurrent client for each server. The Synchronisation server Module and Web Server Module are required on the central server.

#### Synchronised Single-user (Single-user sync)

- There are situations where the remote sites (with poor internet access) are just single-operator stores needing to manage and report their stock using the fully featured mSupply client. Procuring the minimum multi-user satellite server configuration for each of these sites would be expensive. A solution has been developed that entails installing single-user clients machines (normally laptops) at these remote locations and then synchronising them to the primary server much like the Synchronised Multi-user configuration.
- Lower cost than conventional synchronised multi-user as the single-user client license is less costly than multi-user client licenses. The Synchronisation server Module and Web Server Module are required on the central server.

#### mSupply Mobile (Android)

- mSupply Mobile is similar to Synchronised Single-user (Single-user sync), but the users operate with mSupply Mobile (client) software on Android tablets. This app has a reduced feature set, but is more than adequate for most Last-Mile needs. Local stock details are synchronised back to the Central server, and can be monitored and reported on there.
- Being Open Source, mSupply Mobile has zero license fees. The Synchronisation server Module and Web Server Module are required on the central server.

### Open mSupply

- Open mSupply is the multi-platform mSupply software that has been under development by the mSupply Foundation since 2020. Open mSupply has all of the flexibility of all of the other versions of mSupply with the benefit of being Open source.
- Being Open Source, mSupply Mobile has zero license fees. The Synchronisation server Module and Web Server Module are required on the central server.

#### **Comparison table**

The key differences between the configurations basically comes down to how the user(s) interact with the database. We hope this table helps in making that decision.

| Product / configuration | Description                               | Software price implications<br>- refer Pricing   |
|-------------------------|---|--|
| Free-user               | database resides on the computer that the | Free! You still need to register<br>mSupply with Sustainable<br>Solutions, but we don't charge<br>you for it - and we don't sell your<br>contact details either! |

| Product / configuration                                | Description  | Software price implications<br>- refer Pricing  |
|--|--|---|
| Single-user  | Same as Free-user, but for users who wish to make use of Support <sup>3)</sup> and Up-to-Date (UTD) <sup>4)</sup>  | A software license needs to be<br>procured, generally for about 1/3<br>of the price of a multi-user client,<br>and then Support and UTD on top<br>of that.  |
| Multi-user\\<br>(Server / client)                      | For situations where more than one user needs<br>to access the database at one time. The<br>database is hosted on a file server and mSupply<br>server software is installed on that hardware.<br>Users have access to this data through mSupply<br>client software installed on client PCs that<br>communicate to the server through a Local<br>Access Network (LAN). Remote users can access<br>the server through Remote Desktop Protocol<br>(RDP) or similar.   | A software license needs to be<br>procured for each concurrent<br>client. Support and UTD is<br>optional, but highly<br>recommended. Most of our<br>customers are very happy to pay<br>for these services.  |
| Synchronised<br>Multi-user                             | If the internet connection to remote users in a<br>Multi-user configuration is inadequate, then<br>synchronisation allows a Primary - Satellite<br>configuration to be deployed. 'Satellite' multi-<br>user servers are installed at remote sites where<br>users operate mSupply on their local store<br>without worrying about the internet connection.<br>In the background, these 'satellite' servers will<br>synchronise their local store data with a<br>'Primary' server when the internet connection<br>becomes adequate.   | A software license needs to be<br>procured for each concurrent<br>client for each server. The<br>Synchronisation server Module<br>and Web Server Module are<br>required on the central server.  |
| Synchronised<br>Single-user\\<br>(Single-user<br>sync) | There are situations where the remote sites<br>(with poor internet access) are just single-<br>operator stores needing to manage and report<br>their stock using the fully featured mSupply<br>client. Procuring the minimum multi-user<br>satellite server configuration for each of these<br>sites would be expensive. A solution has been<br>developed that entails installing single-user<br>clients machines (normally laptops) at these<br>remote locations and then synchronising them<br>to the primary server much like the<br>Synchronised Multi-user configuration. | Lower cost than conventional<br>synchronised multi-user as the<br>single-user client license is less<br>costly than multi-user client<br>licenses. The Synchronisation<br>server Module and Web Server<br>Module are required on the<br>central server.   |
| mSupply Mobile   | This is a Synchronised Single-user configuration,<br>but the users operate with mSupply Mobile<br>(client) software on Android tablets. This app<br>has a reduced feature set, but is more than<br>adequate for most Last-Mile needs. Local stock<br>details are synchronised back to the Central<br>server, and can be monitored and reported on<br>there.  | Pricing is even lower than for<br>Synchronised Single-User. This<br>was the way forward for the<br>medical supply chain in small<br>and remote facilities - until Open<br>mSupply (see below) took that<br>honour! The Synchronisation<br>server Module and Web Server<br>Module are required on the<br>central server. |

| Product / configuration              | Description  | Software price implications<br>- refer Pricing  |
|--------------------------------------|--|---|
| Open mSupply                         | Open mSupply is the multi-platform mSupply<br>software that has been under development by<br>the mSupply Foundation since 2020. Open<br>mSupply has all of the flexibility of all of the<br>other versions of mSupply with the benefit of<br>being Open source. Local stock details are<br>synchronised back to the Central server, and<br>can be monitored and reported on there.   | Pricing for smaller facilities<br>(single-user stores) is the same<br>as mSupply Mobile. We see this<br>as the way forward for the<br>medical supply chain in both<br>small and remote facilities and in<br>large multi-user facilities. The<br>Synchronisation server Module<br>and Web Server Module are<br>required on the central server. |
| mSupply<br>Customer Web<br>Interface | Allows staff of Customers in your mSupply<br>system order stock on-line. It runs on a browser<br>on any device: tablet, smartphone, net-book,<br>desktop computer etc. It's a little hard to see<br>why this should be chosen over Open mSupply,<br>as the costs are very similar, without the benefit<br>of being able to operate a store   | Depends on your situation -<br>contact us. The Web Server<br>Module is required on the central<br>server.   |
| FrontlineSMS<br>integration          | mSupply has the ability to integrate with a<br>FrontlineSMS installation. This allows a customer<br>to send their current stock levels to mSupply<br>using an SMS (text) message from any mobile<br>phone. This is particularly useful if, for example,<br>you are a mobile or remote health post or<br>dispensary which doesn't have internet access<br>and only needs to send in information about a<br>few items at a time. | SMS module is required on the central server.   |

## Other modules

Other modules are available for addition to the basic mSupply application:

| Module                         | Comments  | Software price<br>implications - refer<br>Pricing  |
|--------------------------------|---|--|
| FrontlineSMS                   | Allows users to send their current stock levels to<br>mSupply using an SMS (text) message from any<br>mobile phone - even with only 2G reception!. This<br>can then be used by mSupply to determine how<br>much stock to send to the facility.                        | Equal to the price of <b>1</b><br>client license.  |
| Product (drug)<br>Registration | Allows integration of product registration (control of<br>what products can be supplied by authorising<br>particular suppliers and products) by recording and<br>tracking the status of supplier's registrations and<br>storing the documentation for easy retrieval. | Equal to the price of <b>2</b> client licenses.    |
| Web Server Module              | Allows you to access mSupply data on the server<br>from any networked computer that has internet<br>access.<br>This module is a prerequisite for several other<br>modules.  | Equal to the price of <b>2</b><br>client licenses. |

| Module                           | Comments  | Software price<br>implications - refer<br>Pricing |
|----------------------------------|---|---|
| Synchronisation<br>server Module | Maintains data integrity between a central mSupply<br>server and 'satellite' mSupply servers. It therefore<br>only applies to situations where there is a multi-<br>mSupply server setup.<br>Requires the Web Server. | Equal to the price of <b>2</b> client licenses.   |
| Tender Management                | Allows execution of a full tender process including<br>publishing of the tender through a web site, and so<br>allowing tenderers to submit tenders on-line.<br>Requires the Web Server.                               | Equal to the price of <b>1</b><br>client license. |

## A note about costs...

When procuring software, an obvious question is what does it cost. We try to be as up-front as possible about what mSupply software costs. Even so, it's complicated. As you can see above, the mSupply ecosystem is complex and each component has different costs. For a start, we've tried to document the software costs on our pricing page. The amounts that you might pay for mSupply software can be divided into three components:

• License costs Thanks to the generous support of many donor agencies over the decades of mSupply's existence, only the mSupply products built on the (very good!) 4D database engine incur a license fee, up-front, lasting forever - refer Pricing. Not all of the 4D based mSupply

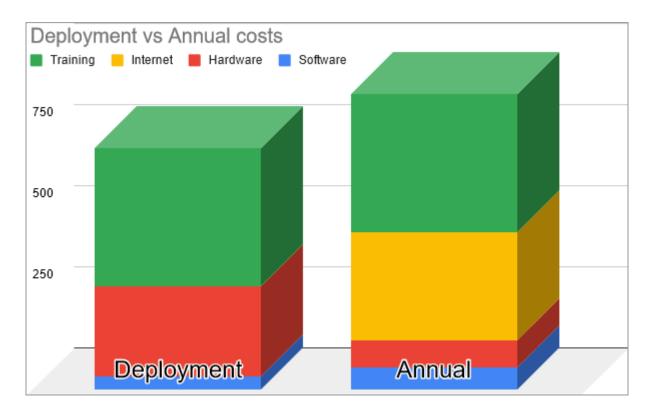
products have a license fee; Free-user is ... free

- Installation costs mSupply systems need to be configured to the needs of the supply chain system. In principle, software and hardware configuration can be done by system administrators in the host organisation. However, in most cases, the mSupply Foundation is engaged to assist with software and hardware configuration. This is often done initially by one or more consultants travelling to the country for a number of weeks. The costs of this will normally be in the tens of thousands of dollars. Once a country has an mSupply system up and running, additional stores and sites can normally be added at much lower costs, with indicative prices below. For large implementations, local configuration capacity needs to be developed, and the mSupply Foundation is very keen to train local system administrative configuration capacity.
  - $\,\circ\,$  Configure a store, not including storage locations and complex user profiles: USD 100
  - Configure hardware:
    - Tablet: USD 25
    - Single-user PC: 100
    - Server: 200
- Maintenance costs As with any technology systems, there are ongoing maintenance costs included keeping software up-to-date<sup>5)</sup> and providing support. This support could be provided by system administrators in the host organisation. However, in most cases, it has been found to be more effective to engage the mSupply Foundation to provide support, at least in part. For large implementations, local support capacity needs to be developed, and the mSupply Foundation is very keen to train local system administrative support capacity.
  - $\,\circ\,$  For mSupply products that have a license fee, Up-to-date and support is charged as

- detailed here.
- For Open source products, support is charged as detailed here.

Having said all this, software is *never* the largest component of cost. Local circumstances can vary dramatically, but in one a typical developing country with in excess of 500 mSuppy stores, the experience has been that *after* the expensive initial deployment, deployment and operational costs have been:

| Cost type               | Deployment       | Annual operation |
|-------------------------|------------------|------------------|
| License                 | 0% (Open source) | 0% (Open source) |
| Configuration / Support | 5.6%             | 7.6%             |
| Hardware                | 37.3%            | 9.1%             |
| Internet                | 0%               | 36.6%            |
| Training                | 57.1%            | 46.6%            |



Note that in this particular country, the annual costs of a the cheapest commercially available cellular internet connection *exceeded* the capital cost of the 10" Android tablets.

Key conclusions:

- Training is the highest cost (rightly so!)
- Provision should be made for hardware depreciation (devices do break, get stolen, etc.)
- Software costs are normally < 10% of the costs (capital and operational)

## Referring to the server machine vs. server software

We need two servers!!!???

The ICT industry is plagued by the practice of using the same term to refer to software, hardware or both combined! As it relates to mSupply in multi-user environments, there is often confusion over two of these:

- The term 'Server' can refer to:
  - The mSupply server computer **software** which runs the mSupply database,
  - The hardware which the mSupply server **software** is installed on, and;
  - Both the hardware and the software acting together. This is possibly the most common usage. When we say something like "send to the server" we mean send data to the server software operating on the server hardware.

The server hardware can actually be a cloud hosted 'service' rather than physical hardware that you own and try to manage. Sometimes the server hardware is referred to as a **'file server'**, and this can help to avoid confusion. In any case, for any multi-user mSupply installation, including mSupply mobile, *both* server software and server hardware are needed, and both of them cost money.

- Similarly, the term 'Client' can refer to:
  - The mSupply client computer **software** which accesses the mSupply server (software) database on the server (hardware),
  - The **hardware** which this client software operates on, *and*;
  - Both the hardware and the software acting together.

Sometimes the client hardware is referred to as a **'client PC'** (Mac or Windows) and this can help to avoid confusion. Again, for any multi-user mSupply installation, including mSupply mobile, both client software and client hardware are needed. For mSupply mobile, the client hardware is an Android Tablet - refer Mobile (Android) user guide v2.0 - featuring offline operation.

We are a software company, so when we use these terms, we will almost certainly be referring to our software, but sometimes not. The context normally helps, but please forgive us if we fail to distinguish between these meanings!

#### Previous: 1.03. Who uses mSupply? || Next: 1.05. Terms, definitions and conventions used in this user guide

1) 3)

Remote support - almost 24/7. We aim to provide a first response within 2 hrs  $^{2)}$  ,  $^{4)}$ 

Gives you access to the latest software updates, including assistance with upgrading if needed.

only applicable for mSupply products that have a license fee

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