

## **Problems With Syncing Solutions**

There are several major problems and issues inherent with offerings requiring syncing:

### *Software Distribution Issues:*

A solution based on offline data collection with syncing to an office server imposes immediate IT requirements on customers. For example, there is an initial software distribution issue. The vendor's software that provides the offline data collection/syncing must reside on each device (desktop computer, laptop, tablet, PDA, etc.) that will be used by any office or field staff personnel. How does each device acquire the application? The software must be downloaded/installed on each computer/device on which it will be used. This means that either the agency provides an IT person to do the downloads and installations on all the users' computers, or each user does this themselves.

When unsophisticated users are required to do their own software downloads and installations, problems can arise. Even simple questions users might have regarding the downloading and installation will require IT support. In addition to the installation, some configuration might be required as well. Most users will not be comfortable with changing configurations on their computers whether it be browser, permissions, or any other type of setting.

### *Follow-On Software Distribution*

After this initial software distribution is completed, there are additional distribution issues when either of the following occur:

- a user gets a new computer
- the software vendor releases a bug fix
- the software vendor releases a product enhancement

Again, each of these requires either the agency's IT personnel to handle these or each user must re-download, re-install, and potentially re-configure the software or computer.

**With SOS Online, there is no requirement to EVER download or install the application. This is because the application resides on a highly secure server at a central hosting facility– the application does not reside on the individual computers. These computers merely access the application using a standard web browser. Therefore, there are no ongoing agency IT requirements.**

### *Software Maintenance Issues:*

Because each computer has its own copy of the application, it is possible for the software versions to be out of sync. There is no easy way to know or ensure that each user has the same version of the

software. This could cause support problems without close monitoring and control of who and when the application is being updated.

When bugs are fixed or new versions of the application are released, it is necessary for each user's computer to be updated. Because each update of one user's computer is a separate task from the update of all other users' computers, the updates themselves can be out of sync. Bugs that might have been fixed and distributed to some users might still be causing problems for other users. The time it takes to distribute bug fixes, new versions and releases, and updates to the software can also be a problem. There is no way to guarantee that all users are updated in a timely manner. The burden is either on the customer to provide such IT support or the vendor must provide it.

**With SOS Online, each user always accesses the same version of the application as all other users, so everyone is always in sync. There is never a requirement to re-download, re-install, or update the application. The application is automatically updated by the SOS Online team. This is transparent to all users and requires no agency IT support.**

#### *Computer/device requirements and limitations*

Because the application must be installed on each computer for which it will be used, it limits when and where the application can be used. As an example, if a user is traveling and does not bring their computer on which the application resides, they will be unable to use the application from any other computer - there application won't be there. Thus, each users must always have the computer with the software installed with them in order to use the application.

Also, because the application requires a particular operating system to run, the computers or devices on which it can be used are limited. The application has some minimal software and hardware requirements required for the application to run. If the computers on which the application will run do not meet these requirements, then the users must either acquire new computers or upgrade their existing ones in order to run the application. While this might occur for only a few users, it still imposes unnecessary requirements on either the IT staff or the users themselves.

The application will only run on computers that have operating systems that support the application. For a Windows application, this might mean that the application is not usable on Apple Macs or iPhones or Linux-based computers. It might also not be usable on certain PDAs, phones, or other mobile devices.

**SOS Online does not require any software to be loaded on any user's computer. Thus, it can potentially be used on any computer or device. This provides great flexibility in terms of when, where, and from what device the application can be used.**

**Because SOS Online is browser based, there are not operating system or device limitations. The application can be accessed with any computer or device that has an industry-standard browser. Such browsers are ubiquitous in today's world. The result is that SOS Online can be accessed from any computer regardless of operating system – it can be accessed from computers with any versions of the Microsoft Windows platforms, Mac computers, Linux machines, and others. It is accessible from any desktop, laptop, PDA, mobile device, or phone that includes a Web browser.**

### *Security Issues*

Losing and/or compromising patient data is one of the most significant problems faced by the healthcare industry today. Because a syncing-type application resides on each user's computer and operates in offline mode, the application saves data on each of the computers on which it runs. This results in a significant security issue – patient data is stored on a non-secure device. It is very easy for laptops, tablets, or PDAs to be stolen. A stolen device would have patient data stored on it. Although the data might be encrypted, the agency still has a responsibility to notify all patients that their personal data is at risk.

Mobile devices are an easy target. They are stolen regardless of the applications or data on them. Thieves might not be targeting patient data, but the fact that this data exists on the computer results in a security breach that an agency must deal with. This is a major issue that will grow in importance as protecting patient data is a prime concern of the government.

**With SOS Online, no patient data is stored on any computer or device from which it is being accessed. All patient data is stored on a server at a highly secure, world-class hosting facility.**

### *Syncing Issues*

Because patient data is stored on the laptop on which it is used, rather than in the database in the agency's central office, the data is literally always out of sync! At no single point in time can it be ensured that either the office or the user in the field has up-to-date data.

This approach also causes significant process issues and puts an undue burden on users. A user must sync with the office at least twice in order to document patient visits. Initially, the users must go online and sync with the office in order to obtain the current patient information at that point in time. Once the user has this information, they can make the patient visit and document the visit using the application. This results in updated patient data stored on the laptop.

At this point, the data on the user's laptop and the office server are out of sync. And, the office is not aware that the patient data has changed. If another user synced to the office at this point, they would

receive the out-of-date information that is still in the office, with no awareness that the data has changed in the field. This could result in quality-of-care issues with patients.

Not until the user syncs with the office a second time (this time sending their updated information to the office), will the office or any user have up-to-date patient information.

This syncing requires the user to get connected to the office in order to transfer information. Problems can arise if the syncing process fails for some reason or does not successfully go to completion. This might result in some of the updated data still on the user's laptop while some is at the office. Now what needs to be done? This type of situation could require IT involvement in order to resolve the problem. In some cases, patient data might have to be re-entered. These syncing processes must be done by every user, multiple times, every day. The larger the number of "syncs", the more likely errors will occur.

**With SOS Online, no syncing is ever required because all data is always in sync. There are not multiple copies of the data floating around. Whether data is entered by users in the field or by office staff, only one copy of the data exists in the centralized database. As soon as data is entered, it is immediately viewable and up-to-date in real time to all users that are provided access to the data.**

**This eliminates burdening users with the need to continually sync and to resolve problems that might occur.**