Manitou 1.5.1 / Sedona Office 5.2 Integration Overview
January, 2009
Confidentiality Statement

All information contained in this document is provided in confidence and shall not be published or disclosed wholly or in part to any other party without the express prior written permission of Bold Technologies Limited. It shall be held in safe custody at all times. These obligations shall not apply to information that is published or becomes known legitimately from sources other than Bold Technologies Limited.

Table of Contents
Confidentiality Statement .......................................................................................................................... 2
Overview .................................................................................................................................................. 3
Areas of Integration ............................................................................................................................... 4
Account Structure .................................................................................................................................. 5
Connecting the Systems .......................................................................................................................... 5
  Sedona Office ........................................................................................................................................ 5
  Manitou .................................................................................................................................................. 6
Sedona Linker .......................................................................................................................................... 8
Sedona Linker Options ............................................................................................................................ 9
Linking Process ....................................................................................................................................... 9
  Forward Scan Exception Messages ....................................................................................................... 9
  Reverse Scan Exception Messages ....................................................................................................... 10
Manual Linking/Creating New Accounts ............................................................................................... 10
  Manitou to Accounting ......................................................................................................................... 10
  Accounting to Manitou ....................................................................................................................... 11
Billing Reconciliation Report .................................................................................................................. 12
Overview

Manitou 1.5.1 and Sedona Office give Central Stations the ability to integrate financial accounting with Manitou services, such as alarm monitoring, dealer billing, and other services while synchronizing data between the Manitou and Sedona clients. When integrated with Manitou, Sedona can produce recurring or one-time billing charges while keeping track of financial records for customers. When a change is made to a customer record in Manitou or Sedona, the linking process gives the data entry user the ability to only have to change one record.

The integration is, fundamentally, a way for Manitou and Sedona to share information common to both systems. To share information, a linking process is utilized which searches for a link between accounts in Manitou and Sedona. Once a link is found, certain fields in an account are “linked” and data entry changes are made concurrently. This will ease customer use with accounting, service tickets, out of service functions, and general customer maintenance since the user will only have to make the update once. The Manitou and Sedona integration utilizes a Manitou-to-Accounting function as well as an Accounting-to-Manitou function. For example, if John Smith’s account is updated in Sedona, his account in Manitou will also be updated simultaneously. Likewise, if John Smith’s address is updated in Manitou, his address will be updated in Sedona as well.
Areas of Integration

Status Window
- Recurring Status
- Service Ticket Status

Customer Maintenance Information
- Name
- Street Address
- City
- State
- Zip Code (Postal Code)
- Site Phone Number

Accounting Menu
- Open Customer in Accounting
- View Service Tickets
- Open Service Ticket
- Create Service Ticket

On Test (formerly Out Of Service)
- View Service Tickets
- Open Service Ticket
- Create Service Ticket

Alarm Screen
- Status
- Service

Supervisor’s Workstation -> Monitoring Types
- Billing Codes / Invoice Items
Account Structure

Manitou and Sedona Office use the following account structures for integration:

<table>
<thead>
<tr>
<th>Manitou</th>
<th>Sedona Office</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Match</strong></td>
<td>Customer (billing entity)</td>
</tr>
<tr>
<td>Customer</td>
<td>Site</td>
</tr>
<tr>
<td>• Address</td>
<td>• Address</td>
</tr>
<tr>
<td>• City</td>
<td>• City</td>
</tr>
<tr>
<td>• State</td>
<td>• State</td>
</tr>
<tr>
<td>• Zip Code</td>
<td>• Zip Code</td>
</tr>
<tr>
<td>• Phone Number</td>
<td>• Phone Number</td>
</tr>
<tr>
<td>System</td>
<td>System</td>
</tr>
<tr>
<td>• Multiple Systems</td>
<td>• Multiple Systems</td>
</tr>
<tr>
<td>• Services (from Monitoring Types)</td>
<td>• Recurring Items (Invoice Items)</td>
</tr>
</tbody>
</table>

Connecting the Systems

Because Manitou and Sedona Office are independent system, the databases must be connected to communicate. This is a “one time” setup process for which we recommend that you contact the Manitou support department for assistance. Since many of these steps are behind the scenes, the process may change without proper documentation.

In the event that you would like to attempt this connection on your own, here are the steps for each system:

**Sedona Office**

1) Create a user within the Sedona Office application that can be used by Manitou to log into Sedona Office. The recommended username is “Integration” with a password of “Manitou.”

2) Open the MSSQL Management Studio (SQL2005) and create a database login using the same username/password combination from step 1. Make sure that the user has access rights to the Sedona Master and our company databases.

3) Open the company database in Management Studio and search for the ss_integration table. Open that table and enter the required fields including the primary Manitou server name and Manitou login (recommend that you use the same information from step 1 – you will be creating this in Manitou later). Once data is entered into the table, you will need to click off the row to commit the changes to the database. This will clear the red ! from the changed fields.

4) Close SQL Management Studio.
Manitou

1) Open MSSQL Management Studio (SQL2005) and create a login using the username “Integration” and the password “Manitou.” Make sure that the user has access rights to the Manitou database.

2) Navigate to the Manitou directory (typically C:\Program Files\Bold Technologies\Manitou) and open the RouterConfig.exe.

3) Within the RouterConfig application, the top field should default to the Manitou directory path. If it does NOT, then you can click on the Browse button and set the correct path in which the Sedona.dll resides.

4) Check the Sedona Office box and click on the Configure Sedona button. Enter the Sedona server IP address and default service company and click OK.

5) Click Add in the lower section of the window and add the IP addresses for Manitou1, Manitou2, and the Sedona server.

6) Click on OK to save and close the window.

7) Restart the Router service through the MSM application.

8) Open Supervisor’s Workstation and go to Maintenance -> Accounting Companies.

9) Click on Add. Enter a unique Company ID, select your interface type, select the accounting application (Sedona), and the name of the accounting company. If after selecting the Interface Type the Application and Name fields do not have data in the drop down menu, you will need to go back and check the previous steps. The two databases are not communicating properly.
10) Enter the database username and passwords for the Sedona database as well as the server IP address.

11) Choose the checkboxes according to your preferences. The recommended configuration is shown in the figure above.

12) Click on Save to commit the changes.

13) Create a user for accounting (the one specified in the ss_integration table from Sedona Office). This user is used by Sedona Office to interface with the Manitou application server. I recommend that it have administrative rights in Manitou.

14) Open the User Group form and assign an Accounts User ID to each of the user groups that should be able to access Sedona Office. Click on the ... button and add the username/password for the Sedona user created earlier.

15) Open the Maintenance -> Setup -> Monitoring Types. Link the Billing Code for each of the services to an Invoice Item in Sedona Office by clicking on the magnifying glass and selecting the appropriate recurring item.
Sedona Linker

The Sedona Linker will pull from a default database and search for exact matches of specific fields in Manitou and Sedona. If exact matches are not found, it will display an exception report.

*Note: It is highly recommended that no data is entered in either Manitou or Sedona during the linking process. Though alarm handling is allowed, the process may be sluggish. Linker program can be run multiple times.

Once the inconsistencies are discovered, manual data entry must be performed to correct the inconsistencies. When all inconsistencies are corrected, no exception reports will be generated. In the Manitou1 directory, open sedonalinker.exe by double-clicking on the file. This will bring up the Database Connection Parameters:

Under Manitou Setup, enter the server name. This is the server where Manitou is running. Enter the database name, the User Name and the password. This has been set up in conjunction with Bold Technologies Support. Under Sedona Setup, enter the server name where Sedona is running and the database name. This is the name of the database within Enterprise Manager. Select OK. *Note: If multiple accounting companies exist, it must be run multiple times. Enter the login name and password.

At the Sedona Linker form, check whether to run a forward scan or a reverse scan. Remember that linking Sedona and Manitou in a forward scan will scan every account in Manitou and attempt to locate a match in Sedona. This will let the user know which accounts exist in Manitou, but not in Sedona. Reverse scan will scan every account in Sedona and attempt to locate a match in Manitou. This will let the user know which accounts exist in Sedona, but not in Manitou. Keep in mind that every time the Sedona linker is run, it will only link unlinked accounts, meaning anything that's not already linked will be linked when the Linker is run.
Sedona Linker Options

- **Report Only** - This option prevents the actual link from occurring, and the reporting is sent to multiple text files which are specified in the second portion of the Linker form as detailed below. The reports are generated whether the link has occurred or not, but the Reports Only option prevents the link from occurring.

- **Multiple Match Error File** - This report contains exceptions where more than one eligible account in Sedona to match the account in Manitou was found. This must be resolved before the accounts can be linked.

- **Missing Match Error File** - This report contains exceptions where a matching account in Sedona could not be found.

- **Address Mismatch File** - This report contains exceptions where a unique match was found in Sedona, but the address is Sedona didn't match the address in Manitou.

- **System link error file** - This new report is generated once the top-level link between accounts is established and attempted to match up all of the systems of the accounts. When several unsuccessful attempts are made to match everything up, the exceptions are listed in this report.

The “Don’t Link Systems” option is a new layer added to the Linker. The linker will always link at the top level, but with this option unchecked, it will additionally link all of the systems of each customer. This is normally a good option because any reconciliation in Manitou will not occur without the systems linked. However, system linking can slow things down considerably, and for the first few linker passes, users may want to only generate reports on address lines that don't match. Checking this option will allow the users to bypass linking all of the systems and only link at the top level. Once all inconsistencies are resolved, users may wish to add the option to link systems in order to generate more detailed reports. Once the file correct file directories are in place and the company ID that was created in the accounting form is entered, click Run.

Linking Process

Linking Sedona and Manitou in a **forward scan** will scan every account in Manitou and attempt to locate a match in Sedona. This will let the user know which accounts exist in Manitou, but not in Sedona. **Reverse scan** will scan every account in Sedona and attempt to locate a match in Manitou. This will let the user know which accounts exist in Sedona, but not in Manitou.

**Forward Scan Exception Messages**
When a forward scan is used, one of several exception messages may occur:

- **Exception: More than one match for Alarm ID** - More than one match in Sedona was found for the specified Manitou account.

- **Exception: Couldn’t link Alarm ID to Sedona Customer because the systems of the site point to more than one Alarm Account** - At the top level, there is a customer record that has potentially many site records beneath it, which each have potentially many system records beneath the site records. Manitou accounts are tied to site records in Sedona, and then match the system records for each account. The field in Sedona that contains the monitoring contract ID is at the system level and this is what is used to locate matches. For example, Manitou contains an account with a contract ID of 123. Normally, this would be a successful match, however that same site has a another system that points to a monitoring contract ID of 456. The Manitou
account to be tied to can't be determined because of this data. This error message is generated and the central station must audit their data to make sure all systems of every site all point to the same contract ID or no contract ID.

- **Exception: Couldn't find details for Alarm ID** - A match in Sedona could not be found for the specified Manitou account.

- **Exception: Customer ID in Manitou has an address field that is longer than 30 characters, which will not fit into Sedona** - Address fields in Manitou are 50 characters and 30 characters in Sedona. Since the addresses must match for linked accounts, this error message is generated for long addresses in Manitou.

- **Exception: System [X] of Customer ID [X] in Sedona has a mapping, but there are not systems defined for Manitou account [X]** - A system record exists in Sedona, and a way has been found to map it from the rules specified in the rules dialog, but there are no systems defined in Manitou.

- **Exception: System [X] of Customer ID [X] in Sedona has mapping, but all systems in Manitou account [X] are already linked** - A system record exists in Sedona and a way has been found to map it from the rules specified in the rules dialog, but all the systems in Manitou have been linked to something else.

- **Exception: System [X] of Customer ID [X] in Sedona has mapping, but it doesn't match to any unlinked systems in Manitou account [X]** - A system record exists in Sedona and a way has been found to map it from the rules specified in the rules dialog, but there are no unlinked systems in Manitou that meet the criteria to match it to.

- **Exception: System [X] of Customer ID [X] in Sedona does not have a mapping, and it cannot be reasonably matched to an unlinked system in Manitou** - A system record exists in Sedona that has no mapping rules, and it cannot be inferred which system in Manitou it should link to without additional rules specified.

- **Exception: Failed to link Contract ID [X] (Error [X], Link State [X])** - An unexpected error was experienced (typically a database error) while attempting to link a Sedona account.

**Reverse Scan Exception Messages**

When a reverse scan is used, one of several exception messages may occur:

- **Exception: No account ID specified for [X], Customer # [X], Site [X], System [X]** – No contract ID was specified in the specified Sedona account, so it cannot look for a match in Manitou.

- **Exception: Couldn’t find monitoring details for [X], Customer # [X], Site [X], System [X] (Alarm ID: [X])** - A contact ID was specified in the Sedona account, but the contact ID (Alarm ID) in Manitou could not be found.

- **Exception: More than one match for [X], Customer # [X], Site [X], System [X], ([X] Matches)** - More than one potential match was found in Manitou for the specified Sedona account.

**Manual Linking/Creating New Accounts**

**Manitou to Accounting**

In Manitou to Accounting, the account is entered into Manitou first. Manitou automatically pushes the appropriate linkable information into Sedona. Any updates to the linkable information will automatically be pushed into Sedona as well.

**Note:** any of the linkable information must only be changed, added, or deleted in Manitou. This is because Manitou will not be notified if the information is changed/added/deleted in Sedona, and will become out of sync.
Please ensure that "Manitou to Accounting" is selected in the Supervisor Workstation in order for this direction to work properly. A customer can be linked to Sedona by selecting the A/R company from the A/R company drop-down menu on the main customer form.

Once the A/R Company and Number are selected, ensure that all monitoring services are being properly billed. Additionally, ensure that services being billed in Sedona are entered as monitoring services in Manitou. Once this has been checked, save the customer form. If errors occur, a list of items that are out of sync with the Sedona account will appear.

The Accounting Mismatch dialog will list all errors that need to be resolved. Once these issues have been resolved, continue on with saving the customer record.

**Accounting to Manitou**

In an Accounting to Manitou direction, the account is entered into Sedona first, where it can be optionally pulled from Sedona into Manitou. At this point, a link is established, and any further updates to basic name and address information made in Manitou will be pushed back into Sedona. In other words, once the Sedona customer is created, a user may go into Manitou and pull all the appropriate information from Sedona while creating the new customer.

Please ensure that the "Accounting to Manitou" direction is indicated in the Supervisor Workstation Accounting Companies form in order for this direction to work properly.

Open Sedona and expand the Customer Maintenance menu. Select "New Customer." The new customer form will appear. Enter customer details, such as the customer number (the Customer ID that will be in Manitou), name, and address, keeping in mind the previously discussed fields which are linked to Manitou. When finished, click Save.

With the Manitou Operator Workstation open, select "Add new customer" from the Maintenance drop-down menu. Enter the Customer ID and select the A/R Company from the drop-down menu. This is what ties the new customer created in Sedona to the Manitou system. When finished, click Next to continue on to the main customer form. Here, all of the linked information first entered in Sedona will automatically appear in Manitou.
Billing Reconciliation Report

Within Manitou, there is a new report available in the System Reports -> Maintenance entitled Billing Reconciliation Report. Under default configuration, this will generate a report listing all of the systems in Manitou that are not linked to accounting. While there may be accounts within Manitou that you do not want to link to an account in Sedona Office, it will provide you with a tool so that you can go back and manually link these accounts to the appropriate Sedona customer.

This report can also be set to include a reverse reconciliation noting any accounts in Sedona Office with “monitorable” recurring items that are not linked to an account in Manitou.

Billing Reconciliation

Include Accounting

**Manitou**

2000 - Mega Mart #200  7415 Union Blvd  Colorado Springs, CO

Customer is not linked to accounting

**BOLDDEMO - Bold West Alarm Company**

All accounts with monitorable recurring items are linked to Manitou
Notes: