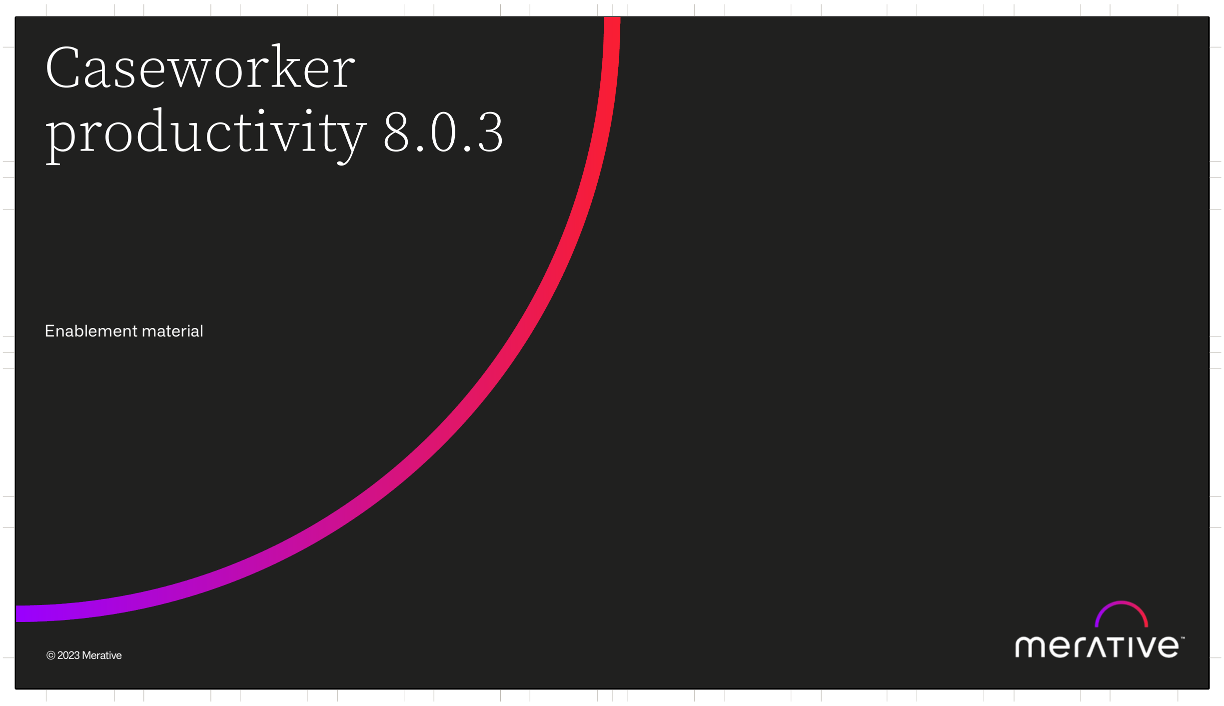


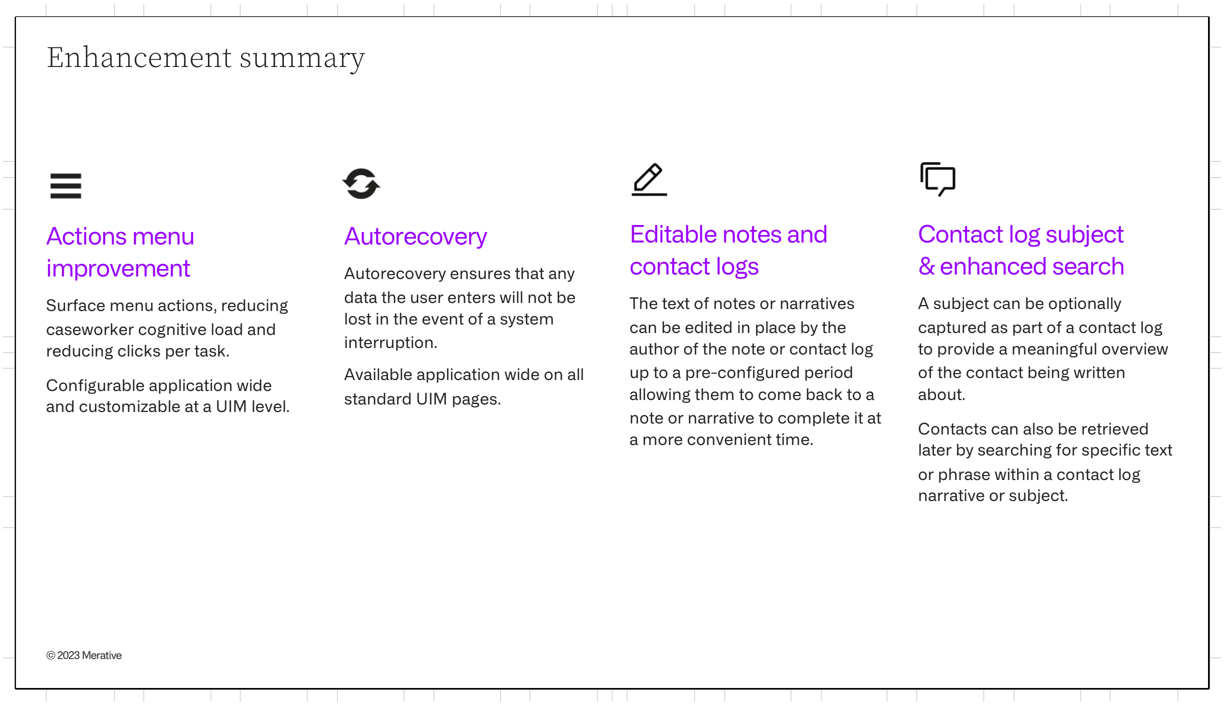
Hello and welcome to this deep dive presentation that introduces the caseworker productivity enhancements that are available in Merative Social Program Management (SPM) V8.0.3

Who do we serve

Tiana Green
Child Welfare Caseworker

Emma Harris
Delivery of Benefits Caseworker

To understand the enhancements in SPM V8.0.3, we need to refocus on the people that we serve - caseworkers like Tiana and Emma. Tiana is a child welfare caseworker who spends a lot of time using the application to write up notes and contacts about her vulnerable clients. Emma is a benefit caseworker who works with clients to deliver essential benefits and spends a lot of time working with cases and evidence.



For SPM 8.0.3 there are 4 major enhancements being added which improve a caseworker's productivity.

The Actions Menu improvement, allows an agency to surface the menu action items they consider important reducing the cognitive load on the caseworkers and improving the click count per task.
This flexible feature can be configured application wide and if required can also be customized at a per menu level.

Autorecovery ensures that any data a user enters won't be lost in the event of a system interruption.

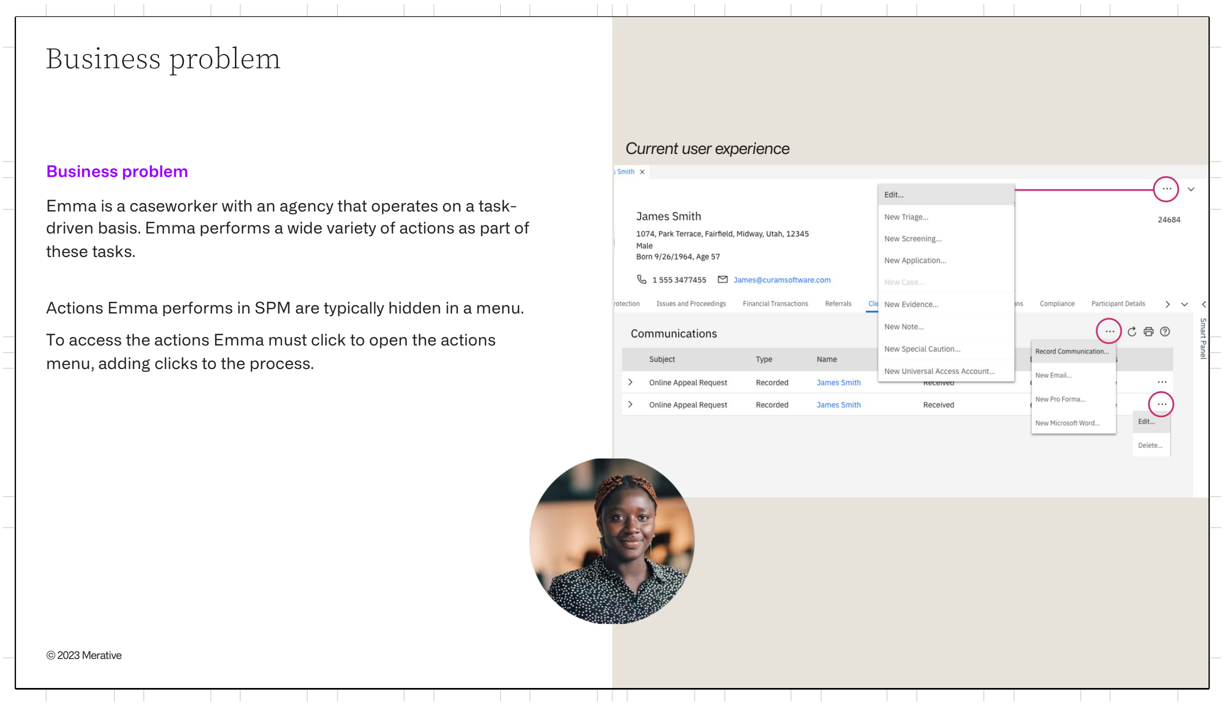
Editable notes and contact logs, allows the text of notes or contact log narratives to be edited in place by the author meaning they can come back them to complete, correct or update at a later time.

The addition of the subject field for contact logs meaning caseworkers can provide a meaningful overview for the contact. Contacts can also be retrieved later by searching for specific text within the subject and also the narrative.

MERATIVE

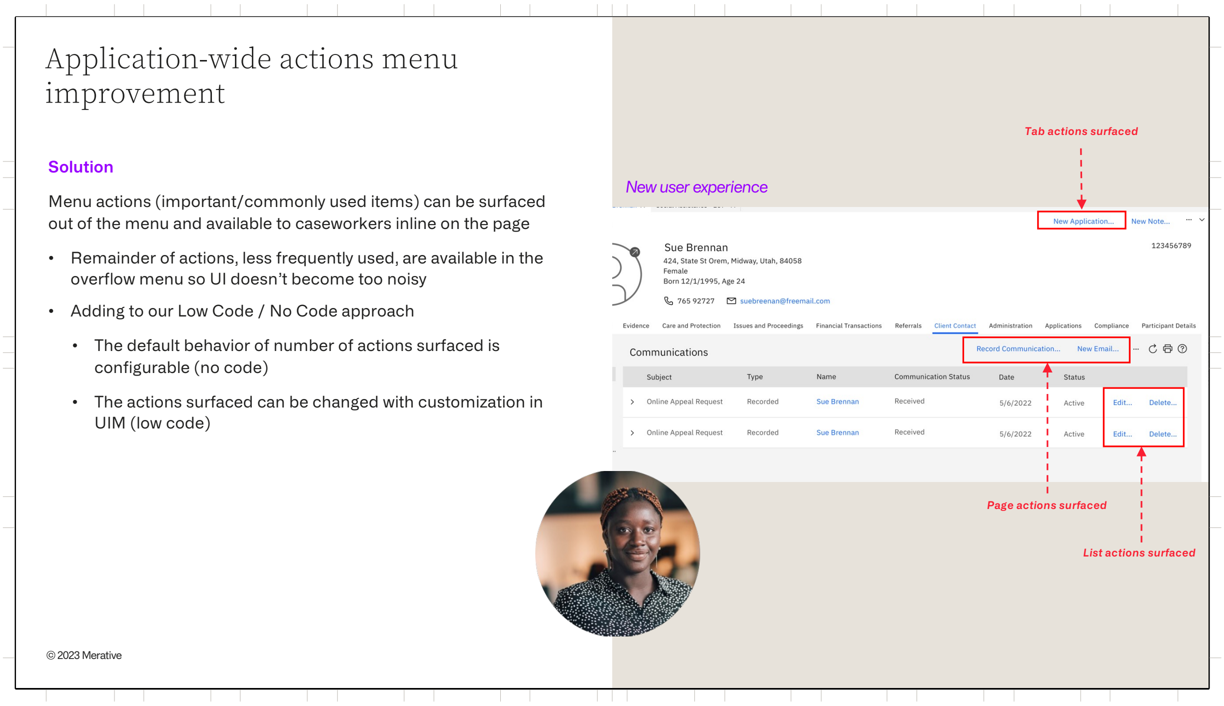
Actions menu improvements

Actions menu improvements



Emma is a caseworker with an agency that operates on a task-driven basis. Emma performs a wide variety of actions as part of these tasks.

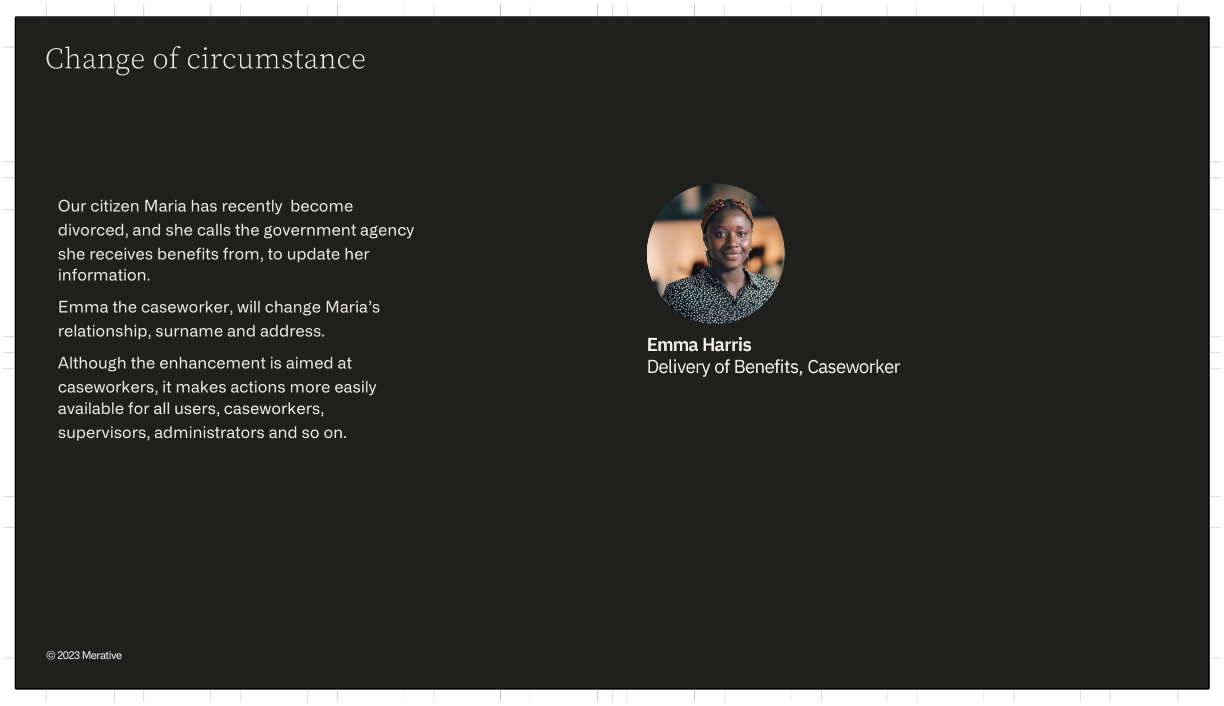
Prior to 8.0.3 the actions Emma performs in SPM were typically hidden in a menu. Emma must click to open the menu before she can access the action, adding clicks to the process.



In 8.0.3 Improvements have been made to the way action menu items are displayed and selected for all tab, page, and row level actions menus throughout the application.
Users can now be provided with access to important or commonly used actions inline on the tab, page, or row level, rather than being required to navigate to and select an action from within an action menu item list.

Based on analysis of key business workflows, an agency can then further configure the action menu items to be displayed.

This includes the ability to configure the number of actions to display at a tab, page, and row level on an application-wide basis using a no code process or on an individual action menu basis using a low code method so that the most important actions are displayed.



Let's now look at a real-world example. For Emma every **click counts** in tasks that are frequently repeated.

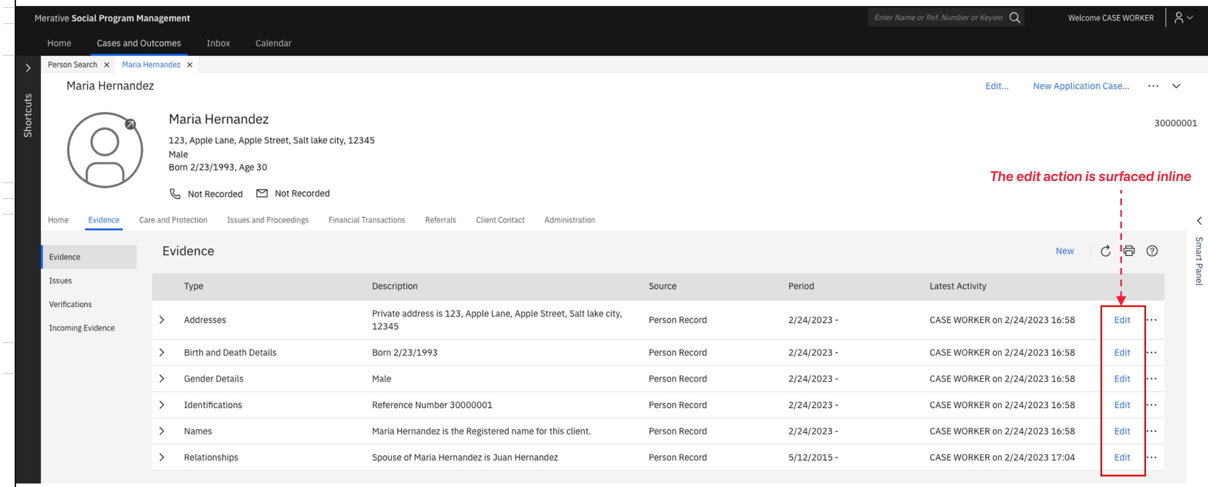
Today Emma is supporting our citizen Maria by processing a change of circumstance. Maria has recently divorced, and she calls the government agency she receives
benefits from, to update her information.

To complete this task Emma will need to make multiple evidence changes – changing the relationship status, as well as Maria's surname and address

As well as benefiting caseworkers such as Emma, it also makes actions more easily available for other users as well, such as supervisors and administrators.

Change of circumstance

Menu action items are surfaced



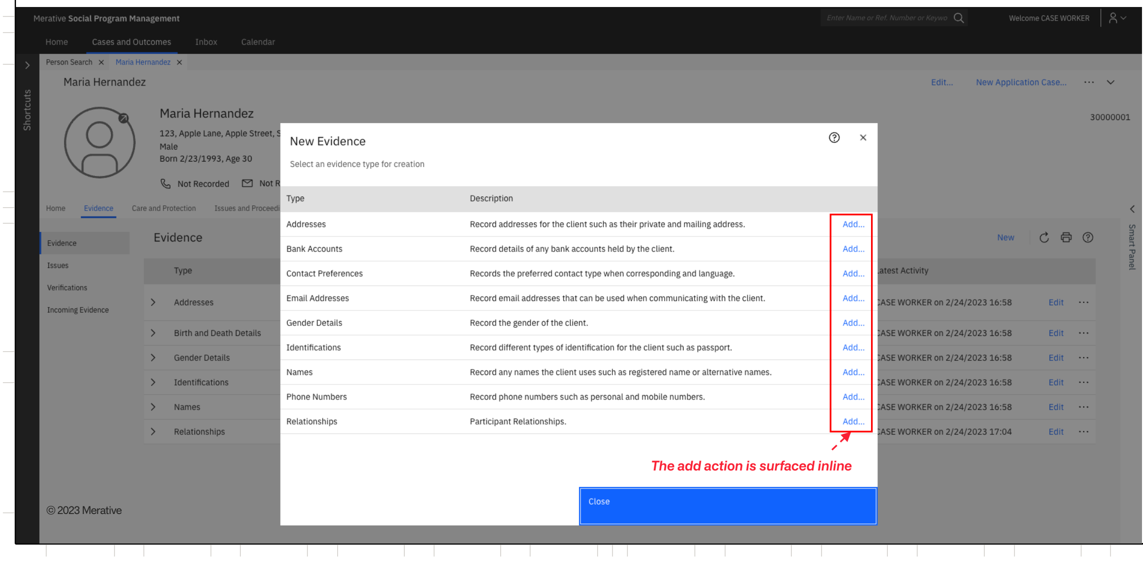
When Emma navigates to Maria's case and opens the Evidence page the "Edit" menu actions are now surfaced.

Emma then selects the Edit action to update Maria's Relationship evidence and does the same to update Maria's name, and end date her Address evidence.

The new menu behavior saves Emma 3 clicks during this task.

Change of circumstance

Menu action items are surfaced



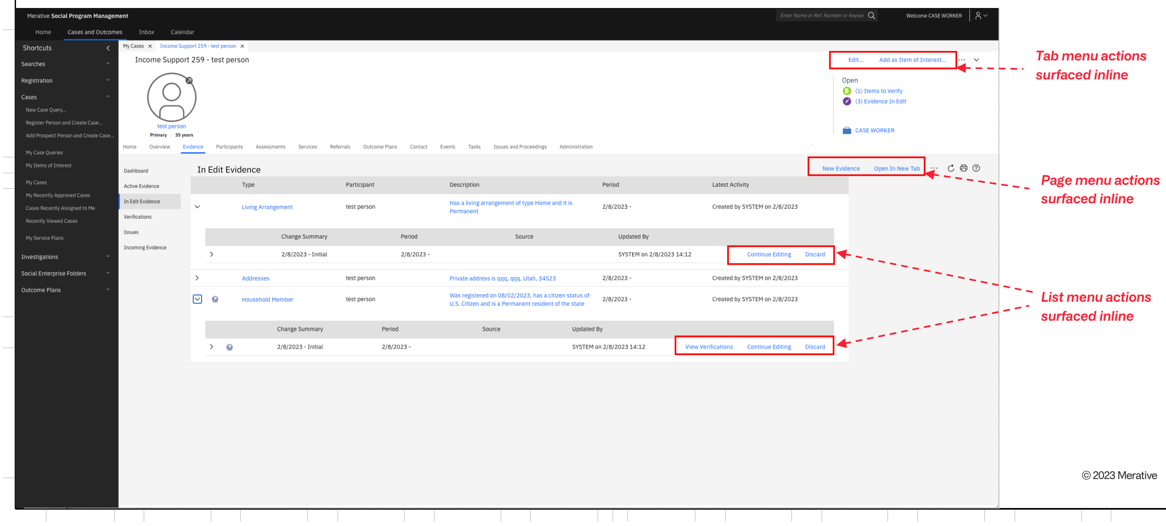
After end dating the Address evidence Emma then opens the New Evidence modal and here she can see the “Add” actions are available directly on the list (rather than behind an overflow menu icon where previously located).

Every time Emma needs to add or edit a piece of evidence, these tasks will take fewer clicks than before.

Benefits of the menu enhancement feature

Surfacing actions menu items across the application;

- Reducing click count
- Improving the user experience



For Emma the benefit is not limited to evidence updates. Surfacing important menu actions across the application can deliver benefit to all business process flows,
reducing the number of clicks that Emma has to perform and so improving her user experience.

Actions menu improvements Technical considerations

Before enabling the feature	
Recommendations	**Steps**
Analyse JavaScript customisations that are configured for page or list action menu items, to assess if there are any potential impacts.	This can be done by analysing the SCRIPT element that is a child element of the associated ACTION_CONTROL element on custom UIMS/VIMS and then inspecting the JavaScript referenced by this element in order to determine if there are any potential impacts.
Analyse CSS customisations that are configured for page or list action menu items, to assess if there are any potential impacts.	This can be done by analysing the STYLE attribute on the associated ACTION_CONTROL element and then inspecting the CSS referenced by this attribute in order to determine if there are any potential impacts.
Analyse tests scripts that execute end to end tests on action menus within the application to determine if there could potentially be impacts on the tests.	If it is determined that there will be impacts to end to end tests, there is a data-testid attribute available on inline action menu items which can be referenced in the tests to fix them.

Before enabling the menu improvement feature in the application, it is recommended to:

- Analyse JavaScript customisations that are configured for page or list action menu items.
- Analyse CSS customisations that are configured for page or list action menu items, to assess if there are any potential impacts.
- Analyse tests scripts that execute end to end tests on action menus within the application to determine if there could potentially be impacts on the tests.

The information included in the Steps column alongside each recommendation explains how to perform these activities.

Actions menu improvements Configuration

Application properties to enable this feature	
Name	**Description**
Display **list** action menu items inline	Enables list actions to be displayed inline on the list row and immediately available to users. (Set to false by default) When set to true, the first list action is displayed inline by default. Actions that are not displayed inline overflow into the list action menu.
Display **page** action menu items inline	Enables page actions to be displayed inline on the page and immediately available to users. (Set to false by default) When set to true, the first two page actions are displayed inline by default. Actions that are not displayed inline overflow into the page action menu.
Display **tab** action menu items inline	Enables tab actions to be displayed inline on the tab action menu and immediately available to users. (Set to false by default) When set to true, the first two tab actions are displayed inline by default. Actions that are not displayed inline overflow into the tab action menu.

For SPM V8.0.3 the action menu improvement is disabled by default.
To avail of the menu improvements, an agency can enable the feature using the following 3 global application properties.
These 3 properties allow an Agency to turn on the improvement at List, Page and Tab level as required.

“Display list action menu items inline”: Enables list actions to be displayed inline on the list row and immediately available to users.
By default, the value is false.

- When set to true, the first list action is displayed inline by default. Actions that are not displayed inline overflow into the list action menu.

"Display page action menu items inline:" Enables page actions to be displayed inline on the page and immediately available to users.

- By default, the value is false.
- When set to true, the first two page actions are displayed inline by default. Actions that are not displayed inline overflow into the page action menu.

Finally, "Display tab action menu items inline:" Enables tab actions to be displayed inline on the tab action menu and immediately available to users.

- By default, the value is false.
- When set to true, the first two tab actions are displayed inline by default. Actions that are not displayed inline overflow into the tab action menu.

Actions menu improvements Configuration

Application properties to change the number of actions that are displayed

Name	Description
Number of **list** actions to display inline	Specifies the maximum number of action menu items to display inline on the list row. Actions that are not displayed inline overflow into the list action menu. • Recommended, 1-2 actions are displayed inline, with a maximum of 4.
Number of **page** actions to display inline	Specifies the maximum number of action menu items to display inline on the page. Actions that are not displayed inline overflow into the page action menu. • Recommended, 2-3 actions are displayed inline, with a maximum of 4.
Number of **tab** actions to display inline	Specifies the maximum number of action menu items to display inline on a tab. Actions that are not displayed inline overflow into the tab action menu. • Recommended, 2-3 actions are displayed inline, with a maximum of 4.

** If a value of 0 is set no menu action item will be surfaced*

If an agency wants to change the number of actions that are displayed at the tab, page, and row level on an application-wide basis the default behavior can be changed using the following 3 global application properties.

- For each of these application parameters the recommended maximum is 4.
- And if a value of 0 is set no action menu item will be surfaced.

1. Number of list actions to display inline:
    - This parameter specifies the maximum number of action menu items to display inline on the list row. Actions that are not displayed inline overflow into the list action menu.
    - Recommended, 1-2 actions are displayed inline, with a maximum of 4.
2. Number of page actions to display inline:
    - Specifies the maximum number of action menu items to display inline on the page. Actions that are not displayed inline overflow into the page action menu.
    - Recommended, 2-3 actions are displayed inline, with a maximum of 4.

3. Number of tab actions to display inline:
    - Specifies the maximum number of action menu items to display inline on a tab. Actions that are not displayed inline overflow into the tab action menu.
    - Recommended, 2-3 actions are displayed inline, with a maximum of 4.

Actions menu improvements Customization

New attributes are available to customize individual menus	
Name	**Description**
<ACTION_SET TYPE="LIST_ROW_MENU" MAX_INLINE_ITEMS="2">	List level customization
<ACTION_SET MAX_INLINE_ITEMS="4">	Page level customization
<mc:menu-bar xmlns:mc="<name space>" id="<menu name>" max-inline-items="3">	Tab level customization

If the Agency identifies a particular page where the global values are not appropriate they can customize individual pages or tabs using the new attributes that are provided to support customization.

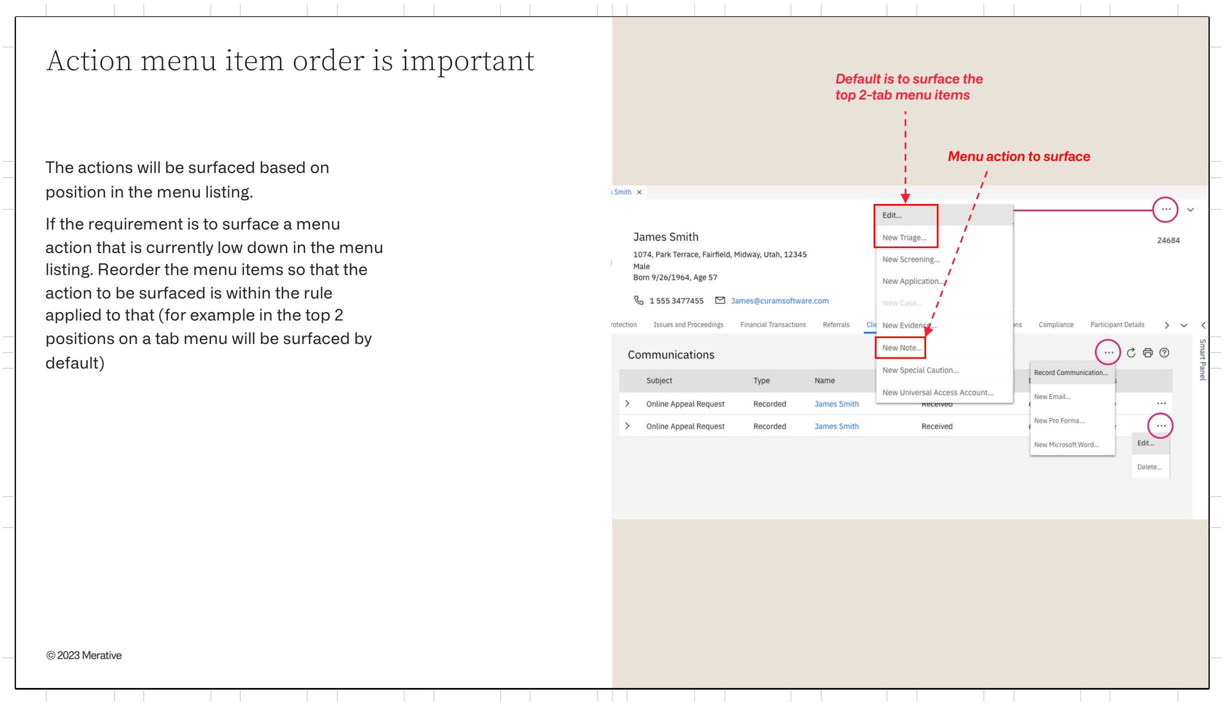
For list and page level menu actions the new attribute "MAX_INLINE_ITEMS" on an action set element in the UIM for the page will allow the user to specify the number of action menu items to surface on a particular page.

The new Tab level attribute for the menu bar element supports tab action menu configuration.

The code snippets shown here will customize a specific page to surface 2 list level menu items, 4 page level menu items and 3 tab level items.

If after analyzing a particular page the Agency decides not to surface any menu items, a value of 0 can be used and no action menu item will be surfaced.

For more details on how to do this customization please see the: Product documentation : https://curam-spm-devops.github.io/wh-support-docs/spm/pdf-documentation



It should be noted that the menu actions will be surfaced based on their location in the menu listing.
For example, in this screenshot the tab level menu actions "Edit" and "New Triage" will be surfaced by default

If the Agency requirement is to surface a menu action that is currently low down in the menu listing, for example "New Note", this can be done by re-positioning "New Note" to be in the top 2 positions on the tab menu and it will be surfaced by default.

This same mechanism can be applied to both List and Page menus actions.

The process to reorder the menu items is detailed in the Product documentation.

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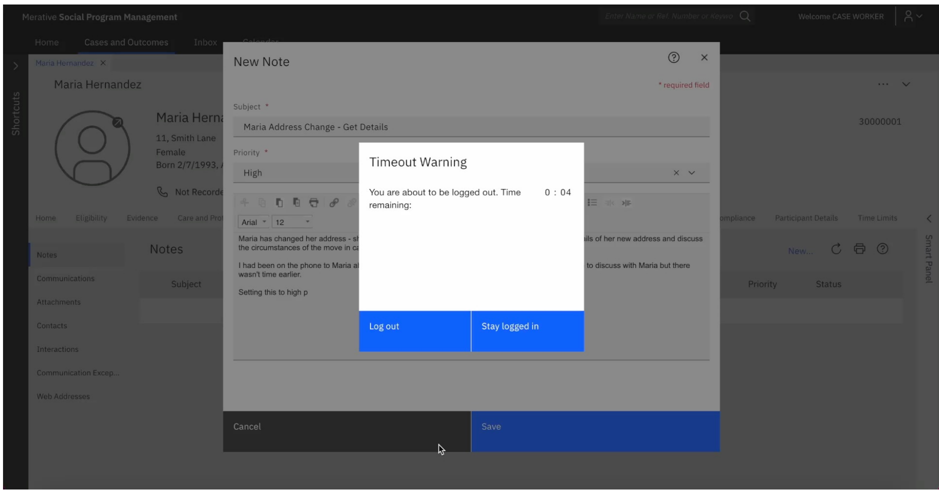
Autorecovery

Autorecovery

SPM v8.0.3 provides support for the autorecovery of data in the event of a system interruption such as a session timeout. When caseworkers log back into the application after an interruption, they are immediately returned to the screen they were on previously and any data they had entered is restored.

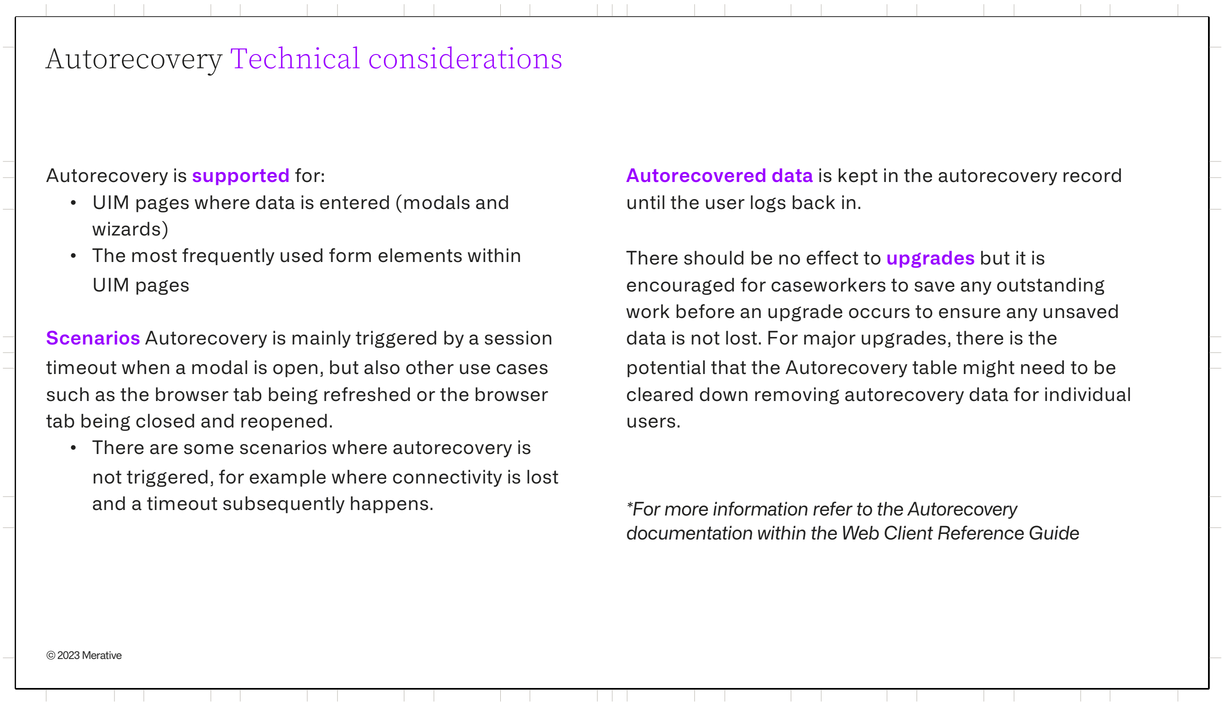
Once you log back in after a timeout you are returned to the screen you were on prior to the interruption and all data is restored so you can continue where you left off.



Before 8.0.3, if a system interruption such as a timeout occurred while entering data within a modal, the user was logged out after a warning, and once they logged back in, they were either returned to the dashboard or background page they had been working on (depending on the agency's tab session configuration) so any data entered was lost. Caseworkers are often called away when they are working on something, so this is a frequent scenario for them. It is especially frustrating if they had been entering a lot of text or data at the time of the interruption – for e.g. a note or contact log narrative.

Autorecovery is a new feature introduced in 8.0.3.0 which is triggered when there is a system interruption such as a session timeout, browser crash, or if the user is kicked out without any warning. Now when caseworkers log back into the application after an interruption, they are returned to the screen they were previously on and any data entered is restored.

Play Video – In the video, you see Emma has been creating a note when she was called away from her computer, she times out of the application and has to log in again. Once she logs in she is returned to the New note modal which she had open prior to the timout. As you can see all the data she had entered previously is restored so nothing is lost and she can continue exactly where she left off.



Currently, in SPM v8.0.3.0 Autorecovery is supported for UIM pages where data is entered. This is all standard, dynamic, and generated user interface metadata (UIM) modals including wizards across the application.

The most frequently used form elements such as text input fields, address widgets, checkboxes, rich text editors, text areas, date pickers, numbers and dropdowns populated from codetables are all supported by Autorecovery. There are some less frequently used elements which are not supported currently.

For more detail on what's supported and what's not, please refer to the documentation.

Autorecovery is mainly triggered by a session timeout when a modal is open, but there are also other use cases such as the browser tab being refreshed or browser tab or browser window being closed and reopened. While a session is still active the recovery is managed within the session state, this means the user can close the browser tab and re-open it and get back to where they were. However If the user times-out, the recovery is managed by storing the data to the database when the timeout occurs, and restoring the data on login.

If a session is terminated in an "unorderly way" the ability to manage the recovery is lost. This includes situations where connectivity is lost or where the server crashes and a timeout subsequently happens.

Autorecovered data is kept in the autorecovery record until the user logs back in. Customer organizations, based on their view of the governance of the data, must consider whether they want to customize locally to remove the data at some point, for example by creating a custom batch process if needed.

It is encouraged for caseworkers to save any outstanding work before an **upgrade** occurs to ensure any unsaved data is not lost. For major upgrades, there is the potential that the Autorecovery table might need to cleared down removing autorecovery data for individual users.

Autorecovery Property configurations

Sysadmin properties	Description
Enable Autorecovery (curam.sessionmanagement.tabsession.autorecovery.enabled)	Property to enable autorecovery in all application areas where autorecovery is supported (set to false by default)
Enable CuramFormsAPI (curam.sessionmanagement.tabsession.curamformsapi.enabled)	The CuramFormsAPI exposes a programmable interface for forms in modals. The API is used to listen for changes in the form fields, get the field value and set the field value. This feature is currently only supported for use with the Autorecovery feature.
Autorecovery throttle interval (curam.sessionmanagement.tabsession.autorecovery.throttleinterval)	The length of time in milliseconds to be applied between autorecovery post requests to the server (set to 500 by default)

Application Configuration properties	Description
Existing Tab Session Management configurations (tabSessionUpdateCountThreshold and tabSessionUpdatePeriodThreshold)	Setting the tab session properties enhances the autorecovery experience by ensuring the data is persisted to the database at a frequent interval and that the background page matches the modal that is recovered.

There are a number of **settings** which are required for autorecovery to work, and others which while not specifically needed for autorecovery will enhance the experience.

Firstly, we have the sys admin properties. For SPMV8.0.3 Autorecovery is not enabled by default. So to avail of Autorecovery, it must be enabled within the System Administration application.

A new API is also provided which is used to listen for changes in form fields (within any standard modals), and if there is a change, it gets and sets the value within the autorecovery record. By default this API is not enabled. To use autorecovery this API should also be enabled with the System Administration application.

The introduction of the Autorecovery throttle interval property which limits the number of requests that can be sent by the user is limited by time, referred to as throttling. Therefore, it is advisable to leave the property set to the default value of 500 milliseconds. Each autorecovery save request sends all fields in the form, so only the last generated request is sent when the throttle time has elapsed. Throttling is most relevant when using the Rich Text Field where a user's progress is saved as the user is typing instead of waiting for the user to exit the field.

Secondly, we have the Application Configuration properties which are set as part of your deployment configuration and not through system administration
It is advisable to set the tabSessionUpdateCountThreshold and tabSessionUpdatePeriodThreshold.
The tabSessionUpdateCountThreshold setting specifies the number of tab session data updates that must be received before the data is persisted from the web tier to the database. Once the threshold is reached, the recent updates are written to the database.
The tabSessionUpdatePeriodThreshold setting specifies the number of seconds that must have elapsed since the last time session data was persisted from the web tier to the database before a new update will trigger another write.
While autorecovery is not dependant on these values to work, setting them to low values for your system will enhance the user's experience. See the session management section within the *Web Client Reference guide* for

further information on setting this property.

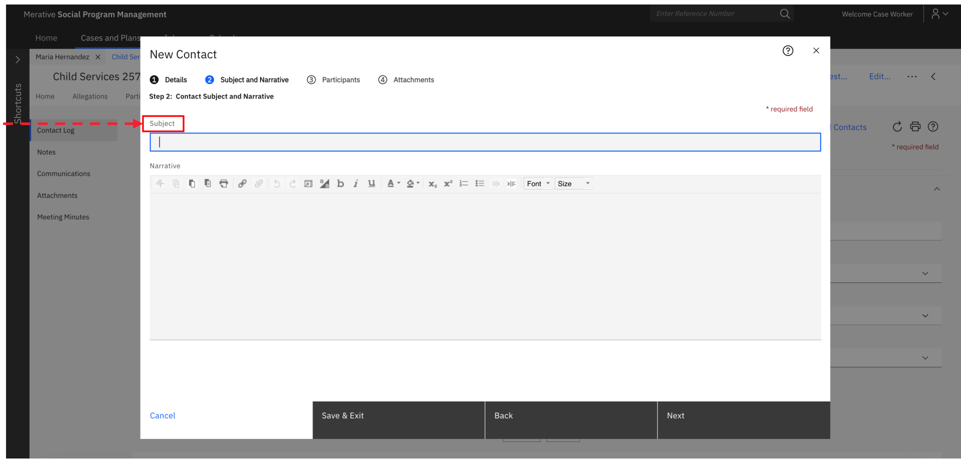
MERATIVE

Contact log subject & Enhanced search

Contact log subject

Caseworkers can now enter a subject for a contact log narrative allowing them to give a little more insight to what the contact is about.

Subject field added to a contact log so you can provide an overview about the contact

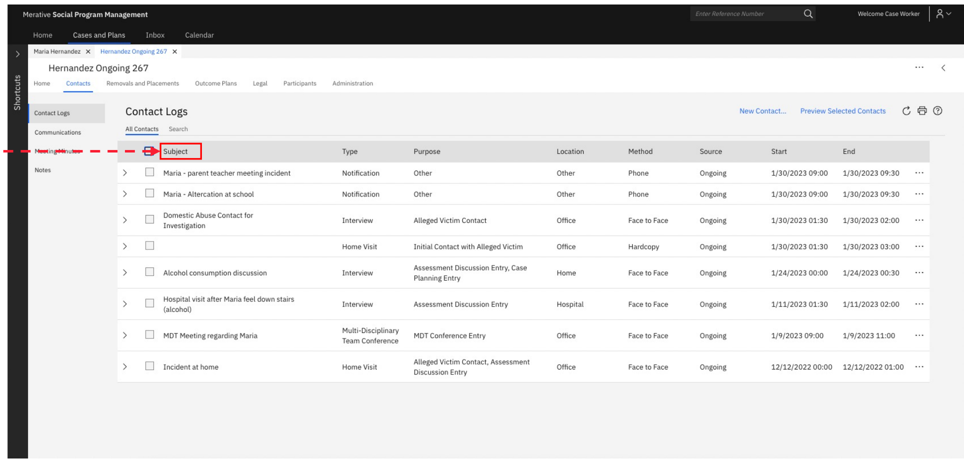


In SPM V8.0.3 caseworkers can now enter a subject for a contact log narrative in addition to the other fields. This will provide overview information for the contact giving a little more insight into what the contact is about.

Contact log subject

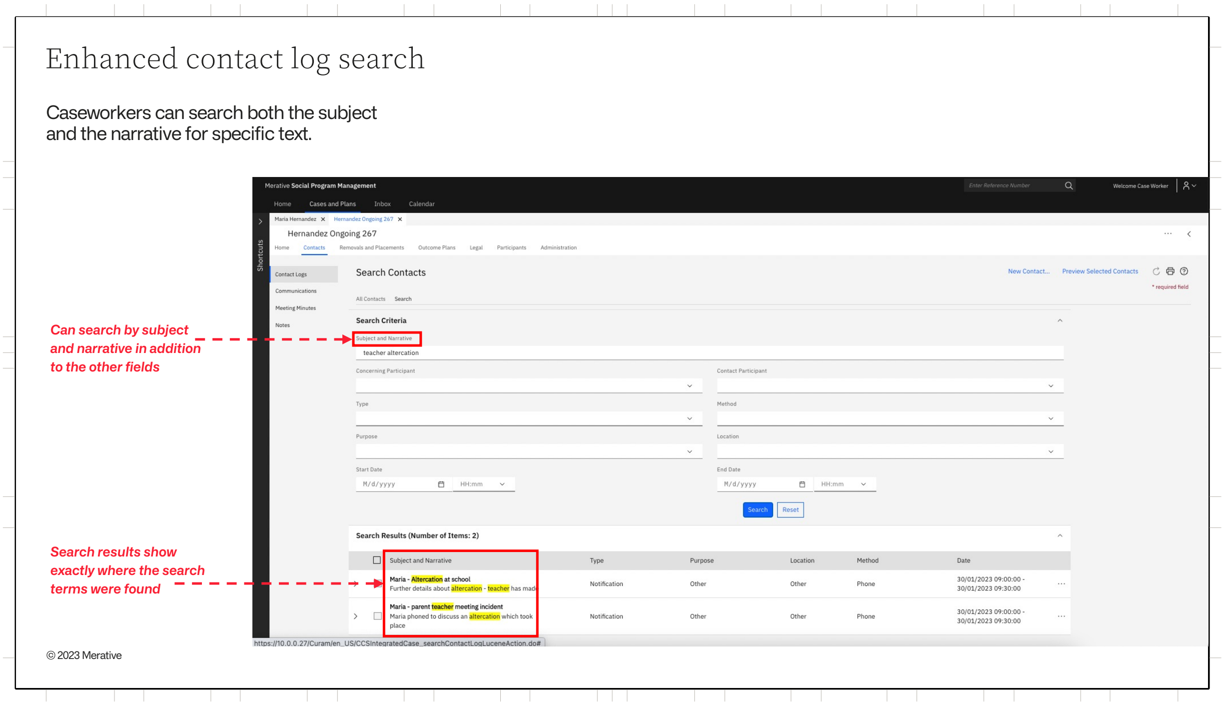
Subject is displayed on all contact log pages.

Subject field visible in the list so its easier to find a specific contact by scanning the subjects



The subject is displayed on all the contact log pages including the contact log list meaning caseworkers can scan the list of contacts to find a particular one more easily than before

As the subject is optional, there may be contacts which don't have a subject but it can be easily added through modifying the record if needed.



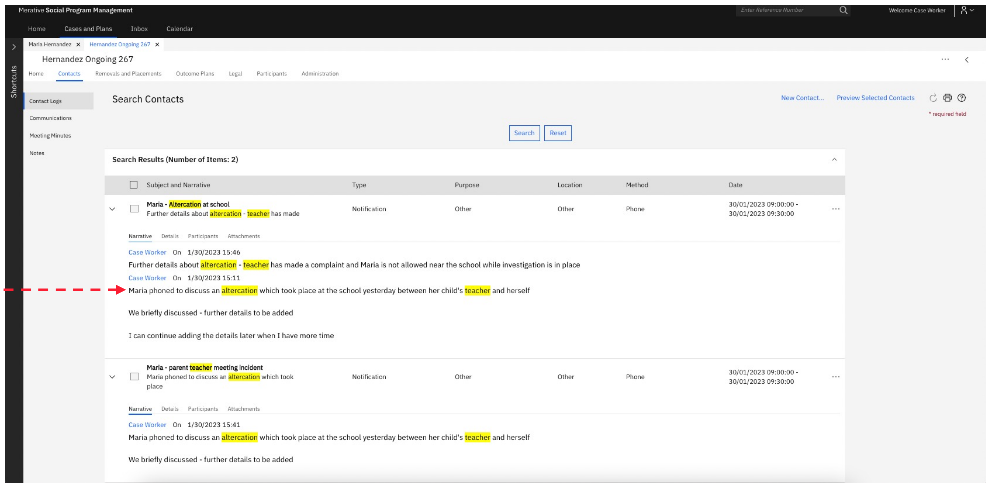
If subject is configured, Caseworkers can now search both the subject and the narrative for specific text. The search returns a list of contacts that contain any of the words entered. The search will also find matches that contains similar words. For e.g if counsellor is entered, records which contain the word ‘counsellor’ or ‘counselling’ are returned. For best matches, it is advised to enter more characters.

Within the search results, the caseworker can easily see where the words were found – whether it was in the subject or the narrative or if it was in both. Each search displays the results in ranked order based on best match.

Enhanced contact log search

Caseworkers can search both the subject and the narrative for specific text.

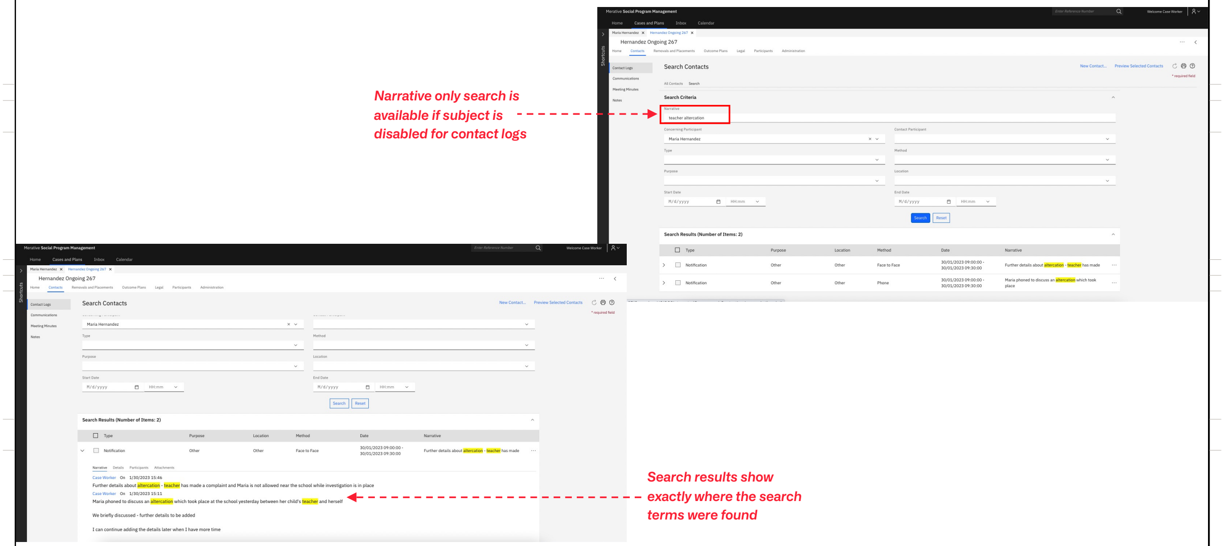
Expanding the row shows the search terms within the narrative text



When caseworkers expand a row within the search results, they can also see exactly where in the narrative the search word was found.

This enhanced searching capability means it is much easier to locate a contact quickly especially when there could be 100s of contacts recorded against a case. Caseworkers no longer need to scroll down long lists and open each contact individually to find what they are looking for.

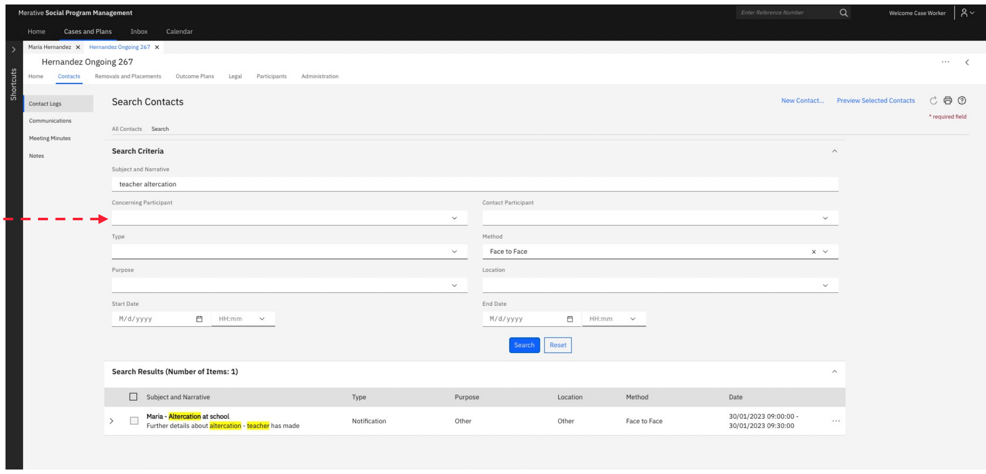
Enhanced contact log search



If the subject is not configured by the agency, caseworkers can still avail of the enhanced search to find contacts much more easily. Caseworkers can search the narrative for the specific text entered and the search will return a list of contacts that contain any of the words entered within the narrative.

Enhanced contact log search

Can filter by other search criteria to narrow the search results



Caseworkers can still filter by the other search criteria such as the start and end date or the concerning participant, to further narrow the search

Contact log subject/enhanced search Technical considerations

Contact log subject

- A new ‘subject’ field has been added to the Contact Log entity

Contact log subject settings

Sysadmin properties	Description
Enable Contact Log Subject (curam.contactlog.subject.enabled)	Indicates if the subject field is enabled for contact logs.

Enhanced search for contact logs

- The enhanced search allows caseworkers to search for contacts by narrative in addition to the other fields.
- Searching by Narrative is automatically available in SPM 8.0.3 but can be turned off if required.
- If subject is enabled for contact logs then the enhanced search also searches for contacts by subject.
- The enhanced contact log search has been developed using Lucene (v 8.11) specifically the Lucene Memory Index feature which leverages natural language processing (NLP), returns best-matched fragments for the text provided and provides language analysers for several languages. For more information see here

A new ‘subject’ field has been added to the contact log entity.

By default for SPMV8.0.3 the subject field is not enabled on any screens. In order to avail of the subject field for a contact, it must be enabled within System Administration. Once enabled, the subject field is displayed on all contact pages.

The enhanced search for contact logs allows caseworkers to search the narrative for specific text or keywords. This capability to search by narrative is automatically enabled for 8.0.3, it does not have to be configured. However it can be turned off if required by an agency through a hidden property.

If the subject has been enabled for contact logs then the enhanced search also allows caseworkers to search the subject in addition to the narrative for specific text.

The enhanced contact log search has been developed using Lucene (v 8.11). Lucene is an open source third party library for searches. We have specifically leveraged the Lucene Memory Index feature which uses natural language processing (NLP). The Lucene API we call returns the best-matched fragment(s) for the keywords or text provided, with the keywords highlighted in yellow. Lucene supports porter-stemming, so similar words will be searched for too. Lucene also provides language analysers for a great number of languages. We've taken advantage of that and the appropriate analyser is used for each of our nine group-one languages. The analyser invoked is based on the user's locale.

There is a link to more information about this feature if needed.

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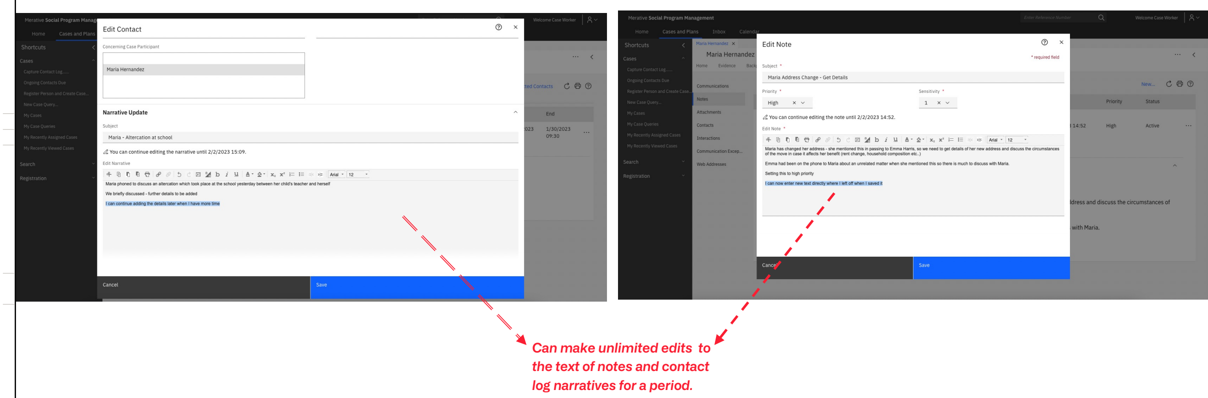
Editable notes & Contact logs

Editable notes and contact logs

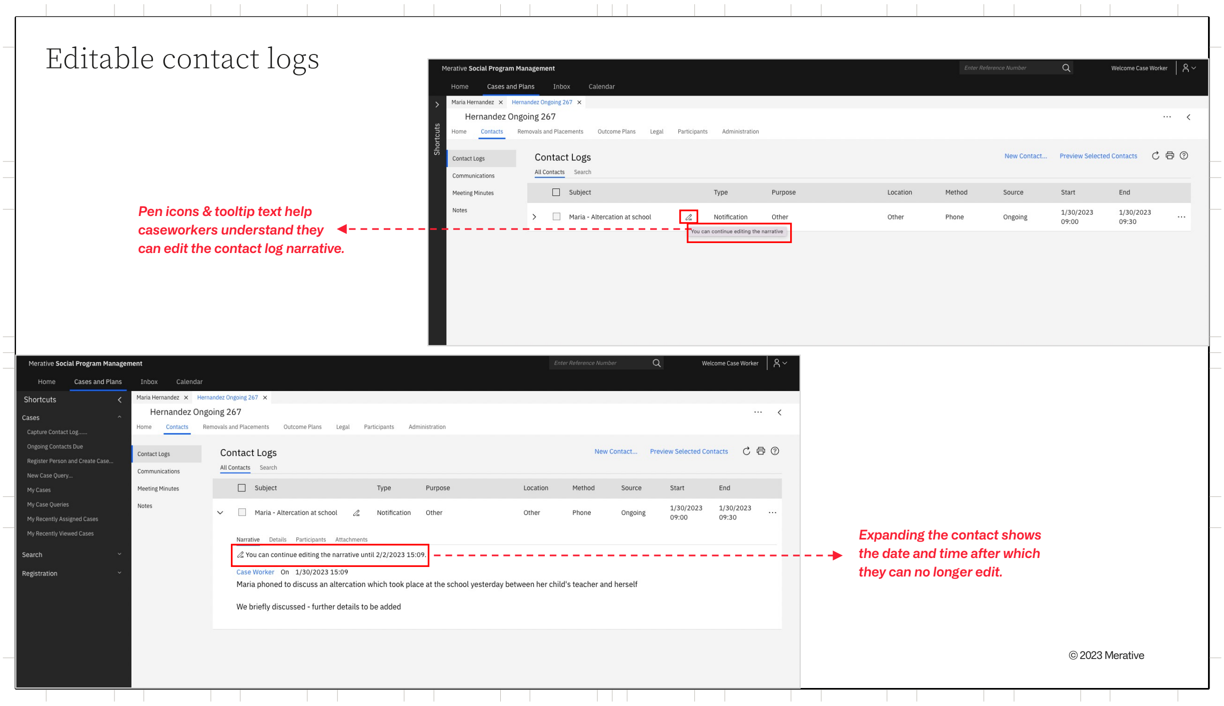
In SPM V8.0.3, caseworkers will be able to update the text of any notes or contact log narratives they have created or appended to, for a specific editable period that is set by an administrator.



Before 8.0.3, caseworkers were unable to edit their contact log narrative or note text in place. Once they started to enter a contact log for e.g., they had to complete it in one go and make sure it had all the necessary details and contained no mistakes. Caseworkers typically don't have the time to do this in one sitting, they like to be able to come back later and complete their work, when they have more time but they still need to capture some initial details so they don't forget about the interaction they're describing.

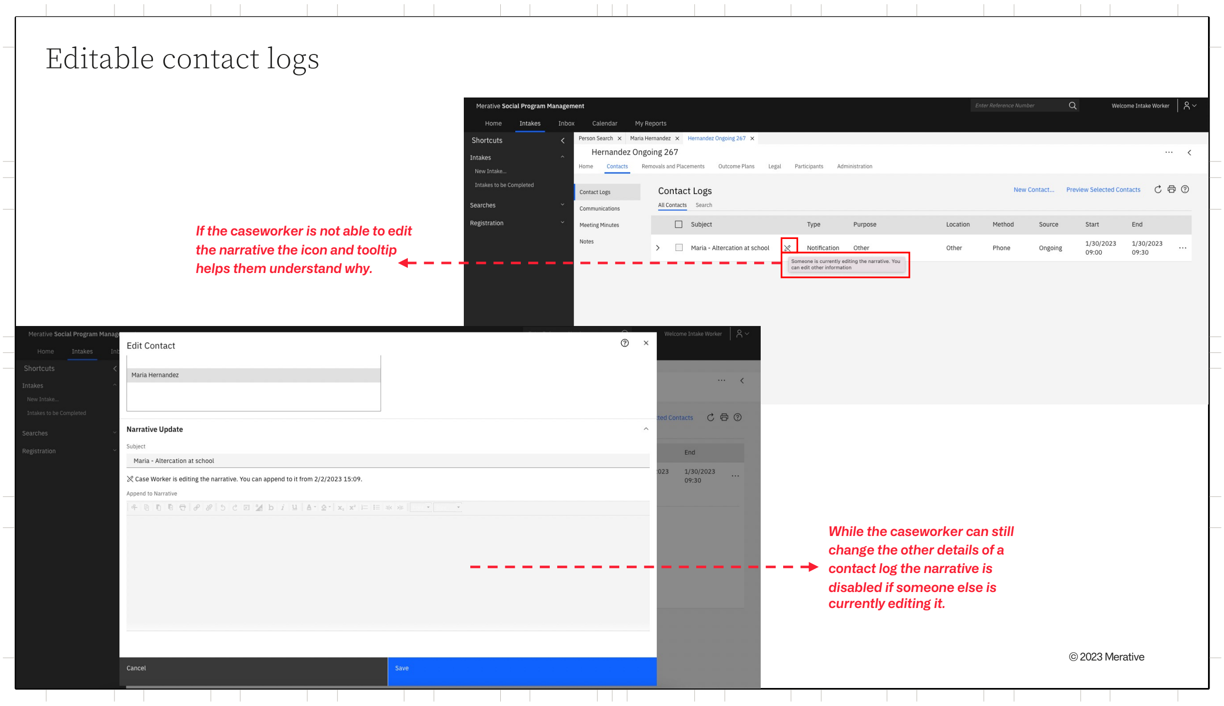
In SPM V8.0.3, caseworkers will now be able to update the text of any notes or contact log narratives they have created or appended to, for a specific editable period that is set by an administrator. By default this period is 72 hours.

Taking contact logs as an example, this means for 72 hours after a contact log is created, the caseworker who created the contact log can make unlimited edits to the text and can come back to the contact log when they have more time to spend writing up and correcting the detail.



During the editable period, pen icons are displayed to help the author and other caseworkers to understand whether they can edit or append to a contact log narrative. The pen icon displayed to authors indicates that they can continue to edit their narrative. Only those who created or appended to the narrative can edit it. By expanding the contact, the author can also see the end date and time after which they can no longer edit the narrative.

It works the same way for notes. For 72 hours after a note is created, the caseworker who created the note can make unlimited edits to the text and can come back to the note when they have more time to spend writing up the detail.

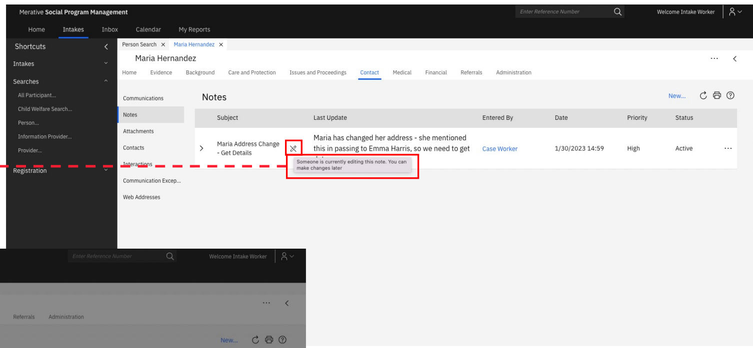


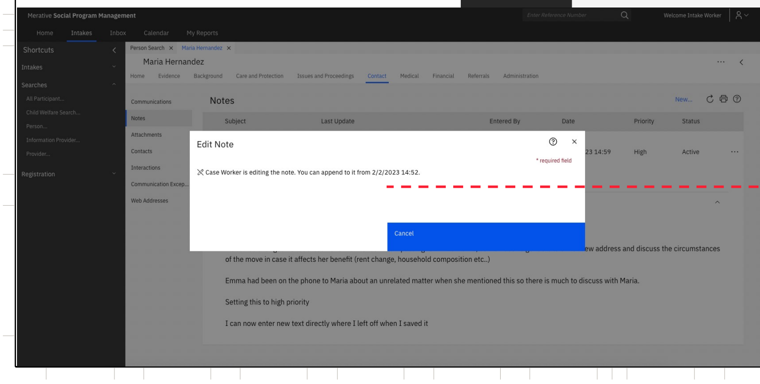
For other caseworkers, who can't make any changes during the editable period, the pen icon displayed indicates that someone else is editing the narrative and they cannot append to it at this time. By expanding the contact, the non-author can see the date and time from when they can append to the narrative.

Non-authors of contact logs can still change any of the other details within a contact log during the editable period, such as the purpose or the date, they just can't change the current narrative – this field is disabled.

Editable notes

If the caseworker is not able to edit the note, the icon and tooltip helps them understand why.



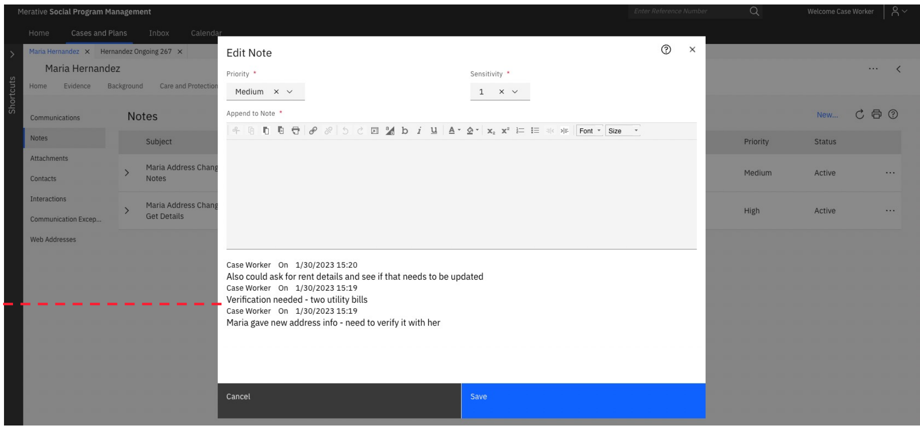


If another person is editing a note, then the caseworker is unable to make any changes to the note until the end of the editable period.

It is a similar experience for notes, with the exception that the non-author can’t edit any other details of a note during the editable period.

Editable notes

Also in SPM v8.0.3, when editing a note or contact log, caseworkers can view the history of previous addendums to the note or narrative within the edit modal itself.



The history of previous addendums for the note or contact log are displayed within the edit modal itself.

Along with making notes and contact log narratives editable, in SPM v8.0.3, when editing a note or contact log, caseworkers can also view the history of previous addendums to the note or narrative within the edit modal itself. This allows them to recap on what was previously entered which will help them complete their update by reminding them of what was previously there.

Editable notes and contact logs Technical considerations

Editable notes and contact logs

- A new field 'latestNoteCreationDateTime' has been added to the Note entity.

Editable notes and contact logs settings

Sysadmin properties	Description
Enable Editable Contact Narrative in Contact Logs (curam.contactlog.narrative.edit.enabled)	Indicates if the contact log narrative can be updated for a pre-configured period.
Enable Editable Note Text (curam.miscapp.editnoteenabled)	Indicates if the text of a note can be updated for a pre-configured period.
Contact Narrative Editable Period Length (curam.contactlog.narrative.edit.period.length)	The number of hours during which users can edit contact log narratives they created or appended to.
Notes Editable Period Length (curam.miscapp.editnoteperiodlength)	The number of hours during which users can edit the text of notes they created or appended to.

The changes made for editable notes and contact logs are modifications of existing screens and facades, no new screens or facades have been added. A new 'latestNoteCreationDateTime' field has been added to the Note entity. This field is populated when a note or contact log narrative is created or appended to and is used to determine when the editable period ends.

By default for SPMV8.0.3 editable notes and contact logs are not enabled. To avail of these features, they both must be enabled separately within System Administration. Once enabled, caseworkers can edit notes or contact log narratives that they created or appended to for a pre-configured time period.

There are also settings which define the length of time in hours for this pre-configured time period. There is a separate setting for each of notes and contact logs. By default both are set to 72 hours.

Thank you

Forward Looking Statement

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