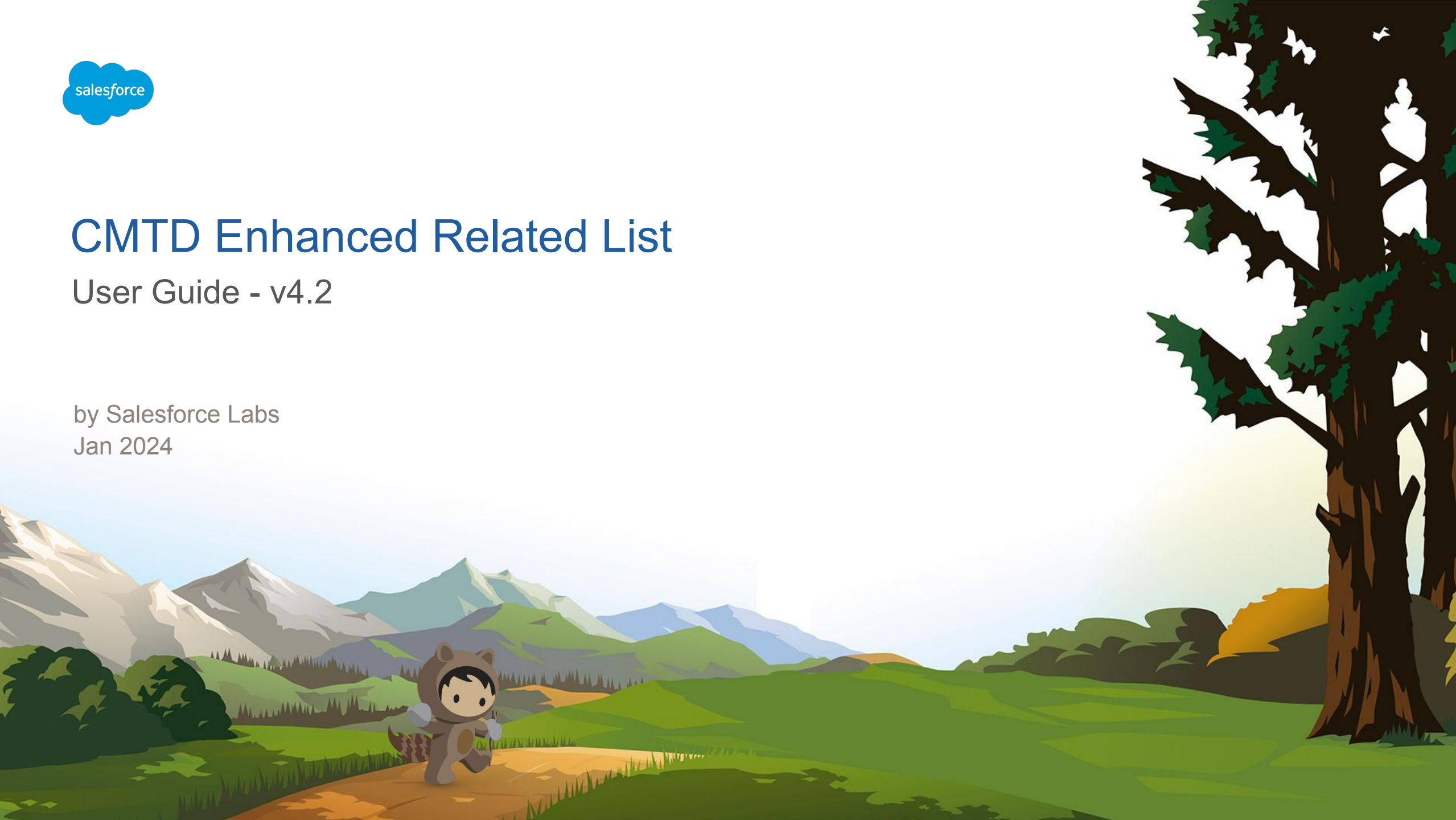




CMTD Enhanced Related List

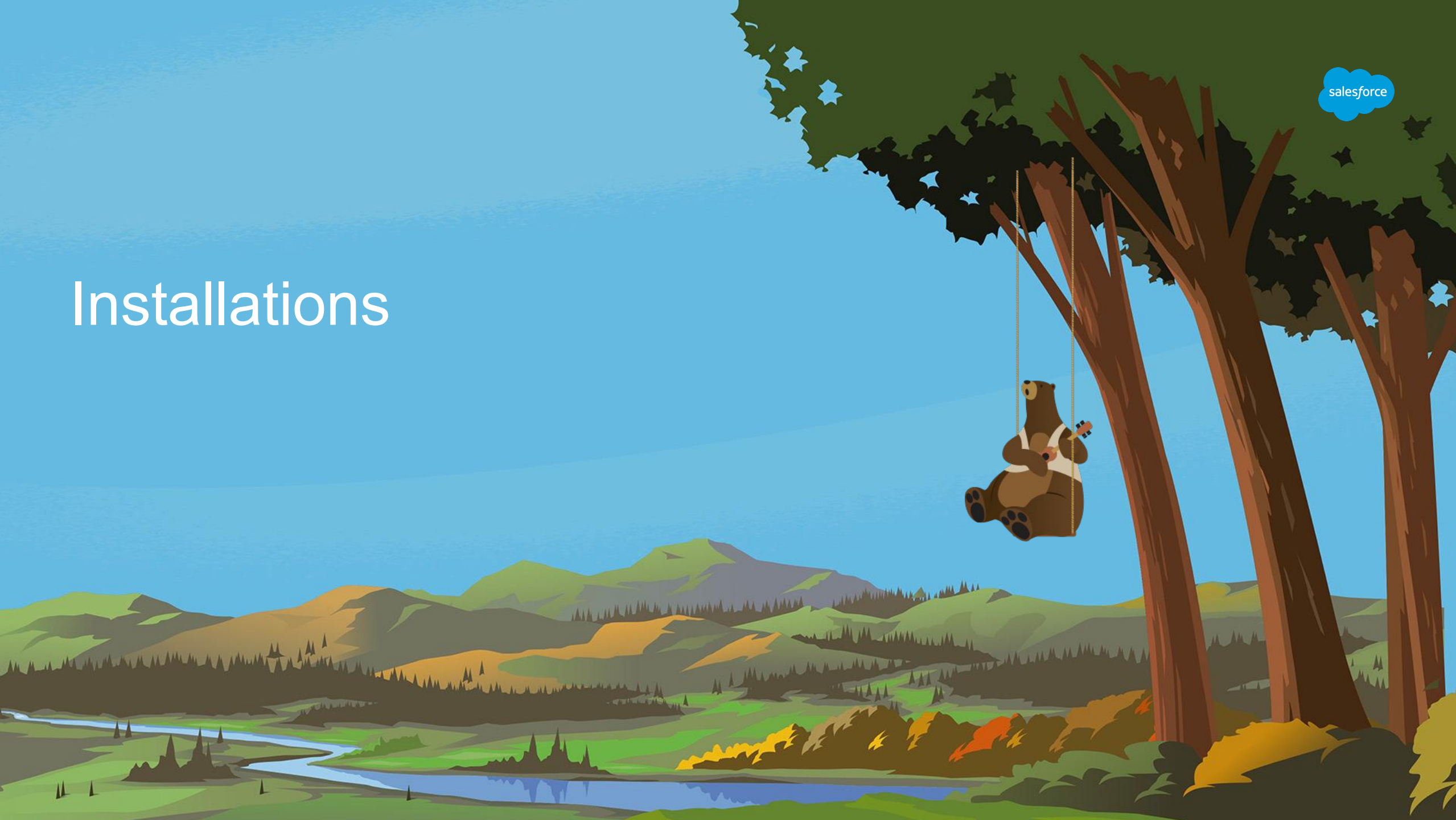
User Guide - v4.2

by Salesforce Labs
Jan 2024



Installations

salesforce





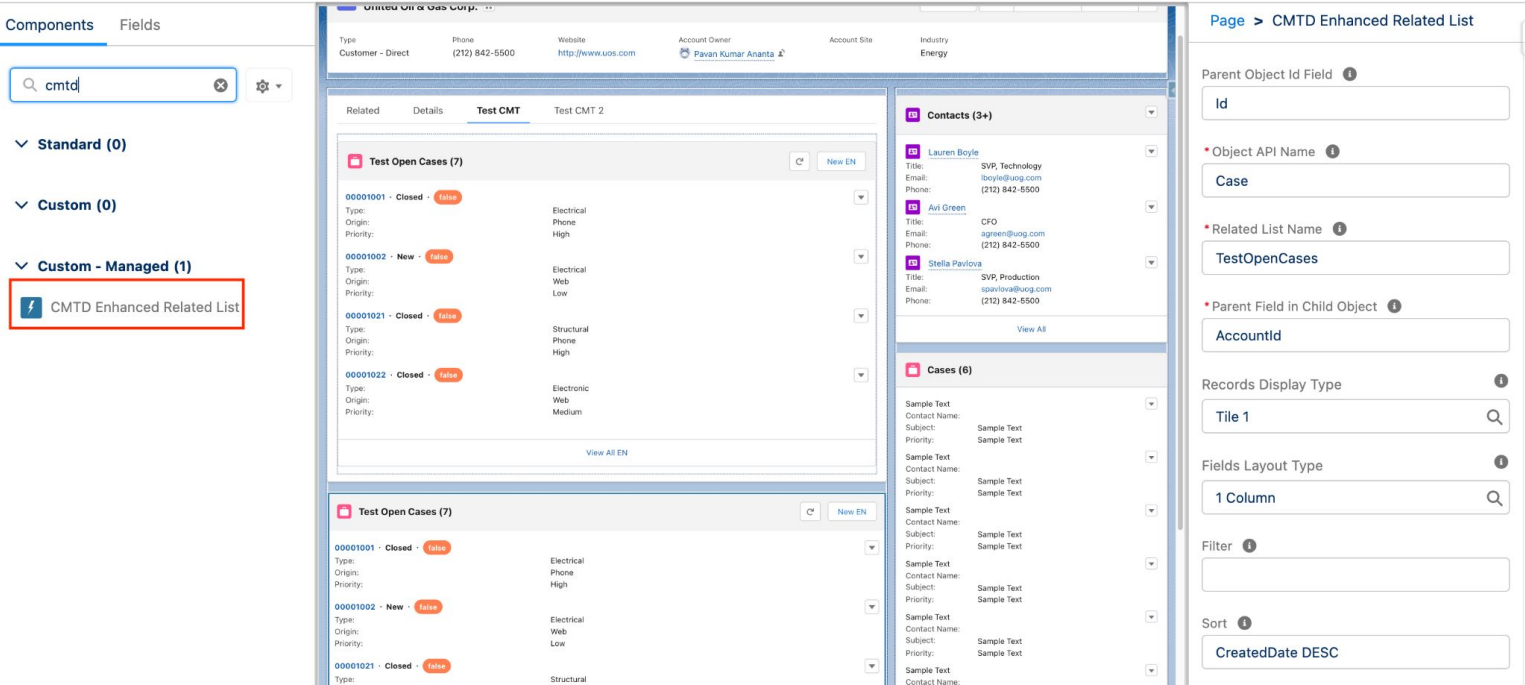
Installations

Version 4.2 - Package Components

Component Name	Parent Object	Type
All Fields	Enhanced Related List	List View
CMTD_ERL_Permission_Set		Permission Set
Colour	Enhanced Related List	Custom Field
Colour_Populated_For_Badge	Enhanced Related List	Validation Rule
Enhanced_Related_List		Custom Metadata Type
Enhanced_Related_List_Layout	Enhanced Related List	Page Layout
EnhancedRelatedList		Aura Component Bundle
EnhancedRelatedList_CC		Apex Class
EnhancedRelatedList_Test		Apex Class
ERL_Badge		Aura Component Bundle
ERL_DeleteRecord		Aura Component Bundle
ERL_List		Aura Component Bundle
ERL_RecordNavigation		Aura Component Bundle
ERL_RefreshEvent		Aura Component Bundle
ERL_RTSelector		Aura Component Bundle
ERL_RTSelector_CC		Apex Class
ERL_RTSelector_Test		Apex Class
ERL_Tile		Aura Component Bundle
Field_API_Name	Enhanced Related List	Custom Field
Header	Enhanced Related List	Custom Field
Inactive	Enhanced Related List	Custom Field
multilineToastCSS		Static Resource
Order	Enhanced Related List	Custom Field
Related_List_Name	Enhanced Related List	Custom Field
Target_API_Name	Enhanced Related List	Custom Field
TestClassData_CreatedBy		Enhanced Related List
TestClassData_CreatedByProfile		Enhanced Related List
TestClassData_ProfileName		Enhanced Related List
TestClassData_Username		Enhanced Related List
TestOpenCases_CaseNumber		Enhanced Related List
TestOpenCases_IsEscalated		Enhanced Related List
TestOpenCases_Origin		Enhanced Related List
TestOpenCases_Priority		Enhanced Related List
TestOpenCases_Status		Enhanced Related List
TestOpenCases_Subject		Enhanced Related List
TestOpenCases_Type		Enhanced Related List
UI_Type_Override	Enhanced Related List	Custom Field
Use_Field_Definition_Label	Enhanced Related List	Custom Field

Installations

Version 4.2



Enhanced Related List

View: All Fields Edit Create New View

Action	Enhanced Related List Name	Label	Use Field Definition Label	Related List Name	Field API Name	Header	Order	UI Type Override	Colour	Target API Name
Edit Del	OpptyContactRole_Role	<u>Role</u>	☐	OpptyContactRole	Role	☐	1			
Edit Del	TestAccount_Name	<u>Account Name</u>	☐	TestAccount	Name	☐				Id
Edit Del	TestAccount_ParentName	<u>Parent Account</u>	☐	TestAccount	ParentId.Name	☐				ParentId
Edit Del	TestAccount_SLAEExpirationDate	<u>SLA ExpirationDate</u>	☐	TestAccount	SLAExpirationDate__c	☐	3			
Edit Del	TestCaseComment_CommentBody	<u>Comment Body</u>	☐	TestCaseComment	CommentBody	☐	1	Unescaped HTML		
Edit Del	TestClassData_Active	<u>Active</u>	☐	TestClassData	IsActive	☐	3	Checkbox		
Edit Del	TestClassData_CreatedBy	<u>Created By</u>	☐	TestClassData	CreatedById	☐	6			CreatedById
Edit Del	TestClassData_CreatedByProfile	<u>Created By Profile</u>	☐	TestClassData	CreatedById.ProfileId.Name	☐	2			
Edit Del	TestClassData_CreatedDate	<u>Created Date</u>	☐	TestClassData	CreatedDate	☐	4			

- Once installed, “CMTD Enhanced Related List” component is available in App Builder
- Use “Enhanced Related List” Custom Metadata Type to configure the fields

Sample configuration:

- Simply drag the component into Account page (ensure Account has some Case records)
- Leave all the attributes as default

Installations

Version 4.2



If you have previously added the CMTD Apex classes* to user profile/ permission set, please remove the class below:

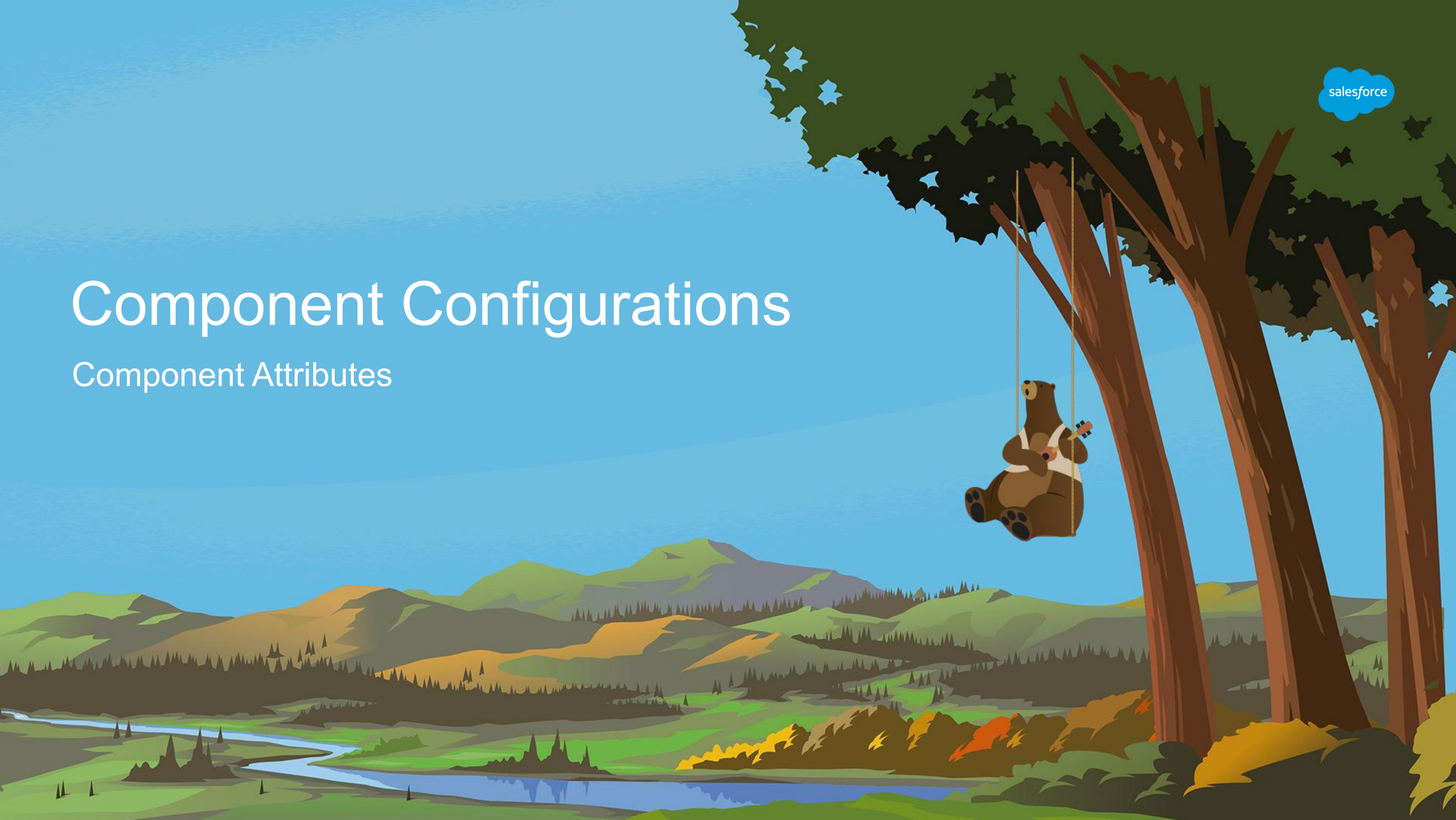
- a. CMTD.ERL_RecordNavigation_CC
- b. CMTD.ERL_RTSelector_CC

*This step was introduced in version 2.6 and required for the Critical Update below:

- Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile
- Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile

Component Configurations

Component Attributes



Component Configurations



Component Attributes

Attribute Name	Attribute API Name	Description
Parent Object Id Field	parentObjectIdField	The API name of the Id field in the Parent object. By default(or when it is empty) it uses the record Id of the Parent Object
Object API Name*	objectAPIName	API name of the Object whose records will be displayed. When showing related Cases on an Account record page, this value is Case.
Related List Name*	relatedListName	This is a unique identifier for the component. It must match the "Related List Name" in the "Enhanced Related List" Custom Metadata Type records.
Parent Field in Child Object*	parentField	The API name of the field on the Child Object (Object API Name) that holds the record Id of the parent. When showing related Cases on an Account, the value is AccountId (Case object's AccountId field)

*required

Component Configurations



Attribute Name	Attribute API Name	Description
Records Display Type	displayType	Display mode to display the records. List = Display records in List. Tile 1 = Display records in 1 column Tile. Tile 2 = Display records in 2 columns Tile.
Fields Layout Type	layoutType	The layout of fields in the body when Records Display Type = "Tile 1" or "Tile 2" 1 Column = Fields are displayed in 1 column layout 2 Columns = Fields are displayed in 2 columns layout
Filter	filter	Filter criteria for the object. Eg: Status = 'Open'
Sort	sort	Sort mode for the object. Syntax = Field API Name and ASC/DESC. eg: Created DESC. For multiple sorting, use ',' (eg: Created DESC, Amount DESC) Note: Please use sorting in consideration as it will impact performance.
Default Number of Records to Display	defaultNumberOfRecordsTo Display	Number of records displayed when the component is loaded
Max Number of Records to Display	maxNumberOfRecordsToDi splay	Maximum number of records that can displayed. Recommended:50 Limit:500
Title	title	Title of the component
Icon Name	iconName	Icon for the title. This is using SLDS icon. Syntax = category:icon name. Eg: standard:case

Component Configurations



Attribute Name	Attribute API Name	Description
New Record	newRecord	Valid value = Standard, StandardWithRecordType, Custom LC Name or leave it blank. Note: The value is case sensitive. • Leave blank would hide the New button. • Standard: New record creation without record type. If the object has a record type it will use profile's default record type (or "Default Record Type" when provided) • StandardWithRecordType: New record creation with record type selection. When "Default Record Type" is provided, it will be pre populated. • Provide custom LC name (case sensitive) when additional functionality is required eg: setting default value on creation (please refer to Advanced Mode)
Default Record Type	defaultRecordType	Default record type to be selected or populated when 'New Record' attribute is used. The value should be the Record Type Label available for the object.
Show Header?	showHeader	Display/hide the component header. If this attribute is set to false, 'New' record functionality will not be available
Show Refresh Button?	showRefreshButton	Display/hide the refresh button
Show Menu Action?	showMenuAction	Display/hide the Menu Action (eg: Edit/ Delete items)
Hide on No Record?	hideOnNoRecord	Hide the component when there is no record

Component Configurations

Component Attributes



Page > CMTD Enhanced Related List

Parent Object Id Field
Id

* Object API Name
Case

* Related List Name
OpenCases

* Parent Field in Child Object
AccountId

Records Display Type
Tile 2

Fields Layout Type
1 Column

Filter
Status != 'Closed'

Sort
CreatedDate DESC

The API name of the Id field in the Parent object.

API name of the Object whose records will be displayed

Must match with the 'Enhanced Related List' CMT

The API name of the field on the Child Object (Object API Name) that holds the record Id of the parent.

Default Number of Records to Display

4

Max Number of Records to Display

50

Title

Open Cases

Icon Name

standard:case

New Record

Standard

Default Record Type

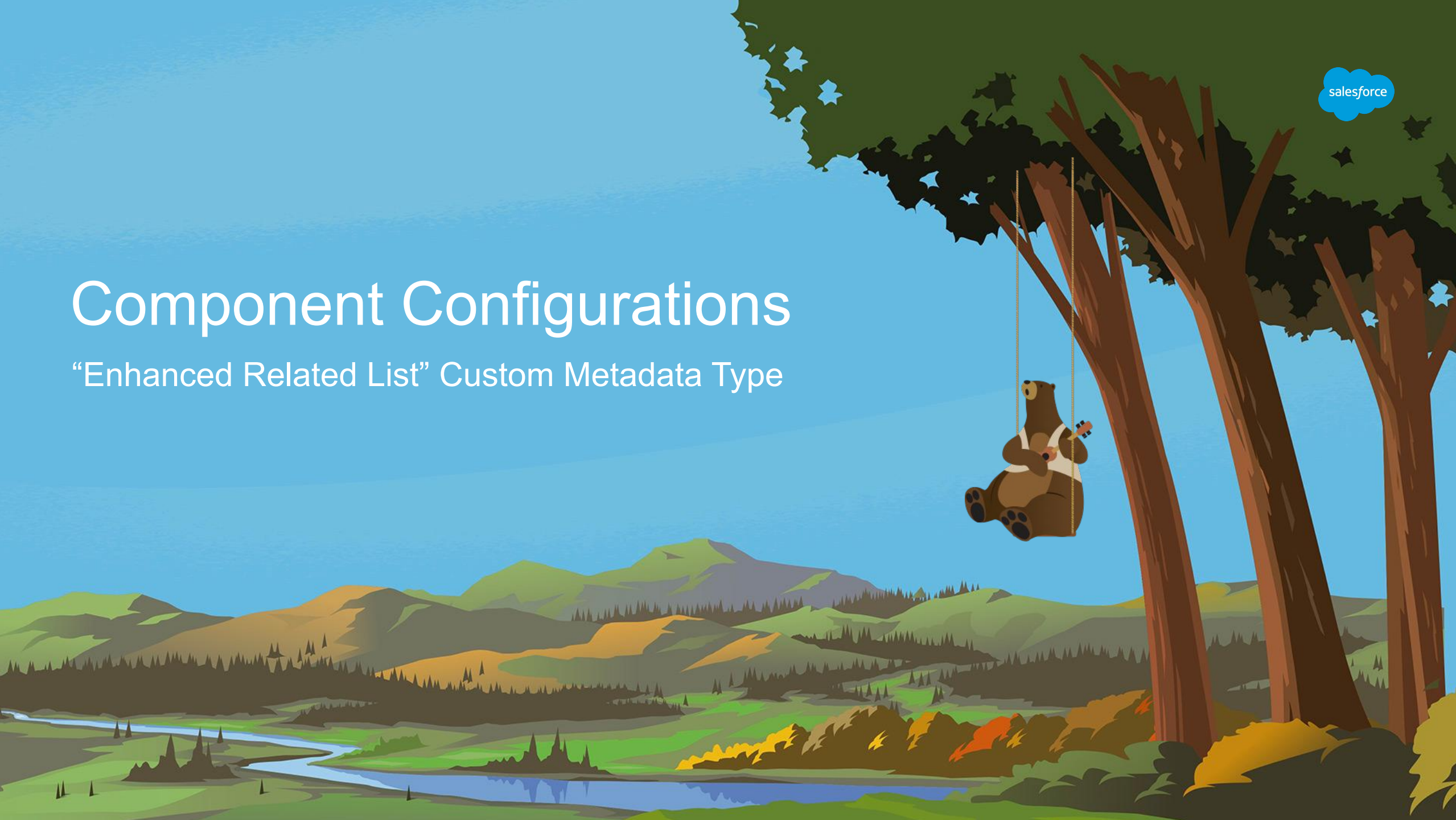
☒ Show Header?

☒ Show Refresh Button?

☒ Show Menu Action?

Component Configurations

“Enhanced Related List” Custom Metadata Type



Component Configurations



“Enhanced Related List” Custom Metadata Type

Attribute Name	Data Type	Description
(Enhanced Related List) Name*	Text	Unique record identifier. Recommended naming convention: Related List Name + “_” + Label. This is a standard field.
Label*	Text	Label to display for the field in CMTD Enhanced Related List component. This is a standard field.
Use Field Definition Label	Checkbox	If checked displays the field label as configured on the Object (with language translations as configured) else uses label field to display the field in CMTD Enhanced Related List component
Related List Name*	Text	Related List Name as specified in "Related List Name" attribute of the individual CMTD Enhanced Related List component in App Builder.
Field API Name*	Text	Field API Name of the object as specified in "Object API Name" attribute of the CMTD Enhanced Related List component • Reference Field syntax: referenceField__c.FieldName__c • Examples (on Case object): ○ Display Account Name: AccountId.Name ○ Display Case Creator's Username: CreatedById.Username ○ Display Account's Creator's Username: AccountId.CreatedById.Username
Header	Checkbox	Used to display fields in the header section when using Tile display mode
Order	Number	Sequence to display the fields in the component

*required

Component Configurations



“Enhanced Related List” Custom Metadata Type

Attribute Name	Data Type	Description
UI Type Override	Picklist	To override the UI display of the field. • Checkbox: to display a checkbox field (Boolean) using a checkbox icon • Badge: To highlight important text ○ Badge will only display when the field value is not empty. ○ Hint: Use formula field (text) to display a value that meet certain criteria eg: If(IsEscalated, "Escalated", "") • Unescaped HTML: To display any rich text or any formula fields that uses HTML
Colour	Text	Colour for Badge UI Type Override - only accept HEX
Target API Name	Text	When populated, the field value will have a hyperlink (only support Salesforce record Id). Provide field API Name of the Id of the target record.
Inactive	Checkbox	Flag to indicate if the CMT record is used. When this field is checked, the CMT record will be ignored and the field will not be displayed in the component.

*required

Component Configurations



“Enhanced Related List” CMT

- Each Custom Metadata Type (CMT) record represents a single column and its configuration that will be displayed in the component.

Enhanced Related List

View: All Fields Edit Create New View

Hint: Create your own list view for each “Related List Name” to manage your data

Please ensure to provide the correct field API name

Must be unique across all records

Must match the value configured in App Builder for the component

For hyperlink. Specify field API name that holds Salesforce record Id

Action	Enhanced Related List Name ↑	Label	Related List Name	Field API Name	Header	Order	UI Type Override	Colour	Target API Name
Edit Del	TestOpenCases_CaseNumber	Case Number	TestOpenCases	CaseNumber	✓	1			Id
Edit Del	TestOpenCases_IsEscalated	Is Escalated	TestOpenCases	IsEscalated	✓	3	Badge	FF7F50	
Edit Del	TestOpenCases-Origin	Origin	TestOpenCases	Origin		11			
Edit Del	TestOpenCases_Priority	Priority	TestOpenCases	Priority		12			
Edit Del	TestOpenCases_Status	Status	TestOpenCases	Status	✓	2			
Edit Del	TestOpenCases_Subject	Subject	TestOpenCases	Subject		13			
Edit Del	TestOpenCases_Type	Type	TestOpenCases	Type		10			

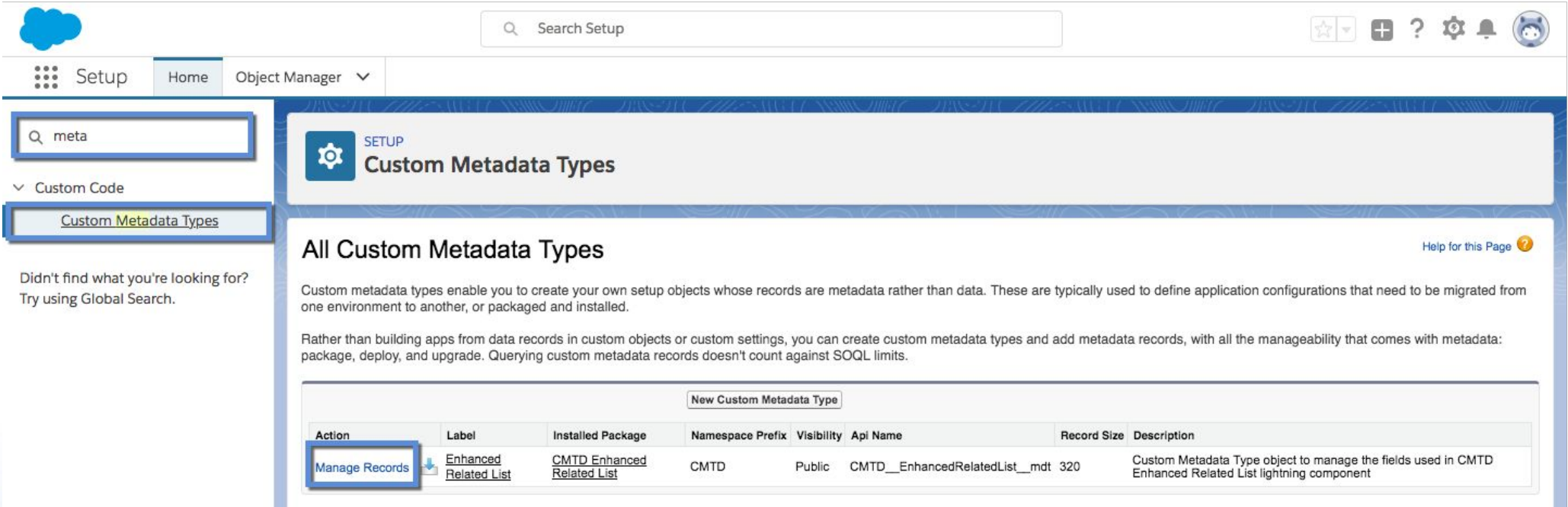
- When the component is added in the AppBuilder, the default values of the attributes uses these sample data below (Note: the records below are used but will not be visible).
- Please create your own records to start using the component

Component Configurations

“Enhanced Related List” CMT Record Creations

To start creating the "Enhanced Related List" Custom Metadata Type records:

1. In Setup, type "meta" and select "Custom Metadata Types"
2. Click on "Manage Records" on the "Enhanced Related List"



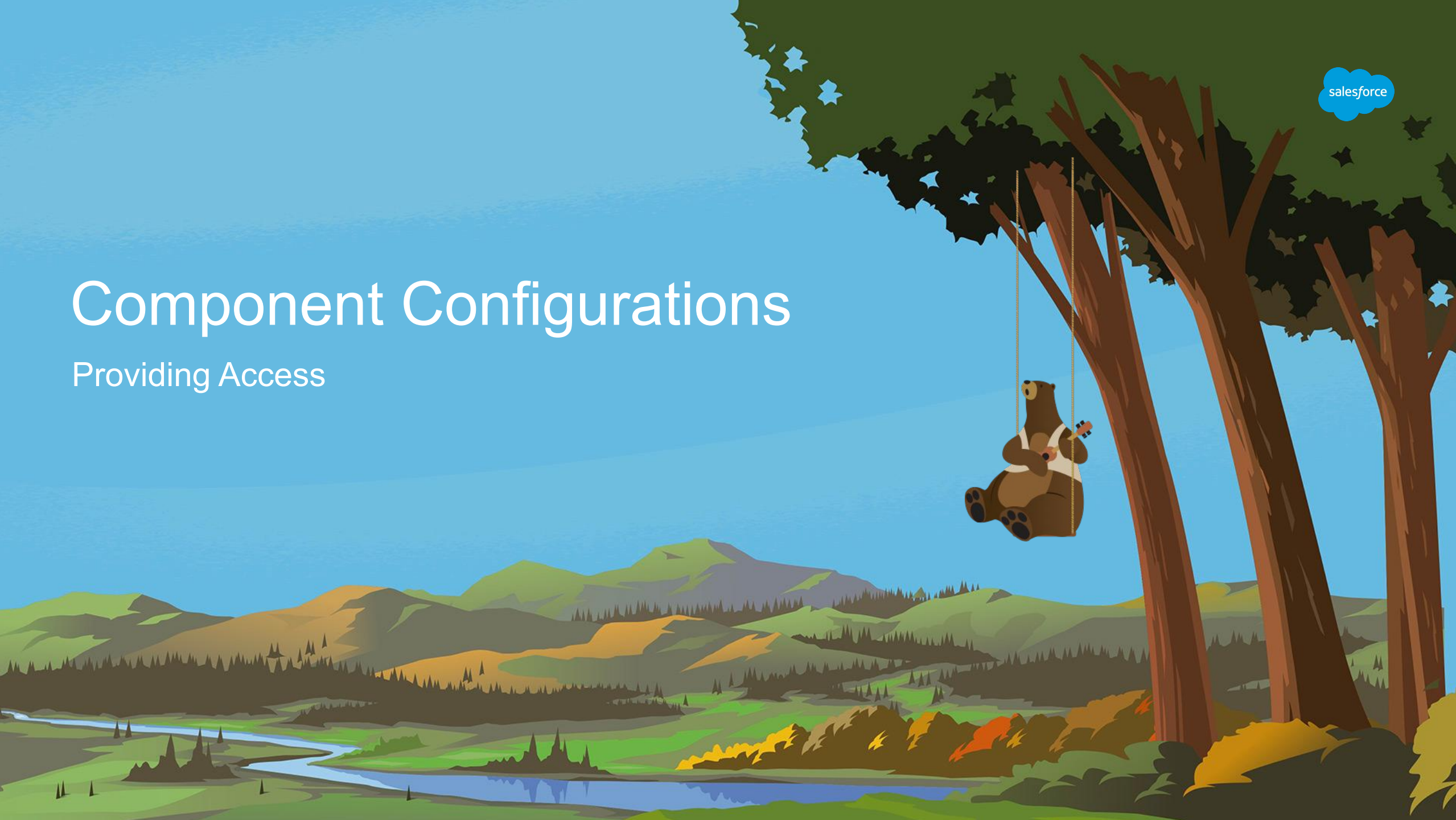
The screenshot shows the Salesforce Setup interface. In the left sidebar, the 'Setup' menu is open, and 'Custom Metadata Types' is selected under the 'meta' search results. The main content area displays 'All Custom Metadata Types' with a table listing existing types. The 'Manage Records' link for the 'Enhanced Related List' type is highlighted with a red box.

Action	Label	Installed Package	Namespace Prefix	Visibility	Api Name	Record Size	Description
Manage Records	Enhanced Related List	CMTD Enhanced Related List	CMTD	Public	CMTD__EnhancedRelatedList__mdt	320	Custom Metadata Type object to manage the fields used in CMTD Enhanced Related List lightning component

Note: Follow the Examples provided in the AppExchange listing for some sample use cases

Component Configurations

Providing Access



Component Configurations

Providing Access



Options:

1. Add 'CMTD ERL Permission Set' to the users who need access to the App, or
2. Add the following classes in the user profile/ permission set. You may need to enable 'Enhance Profile User Interface' to add the classes.
 - a. CMTD.EnhancedRelatedList_CC
 - b. CMTD.ERL_RTSelector_CC

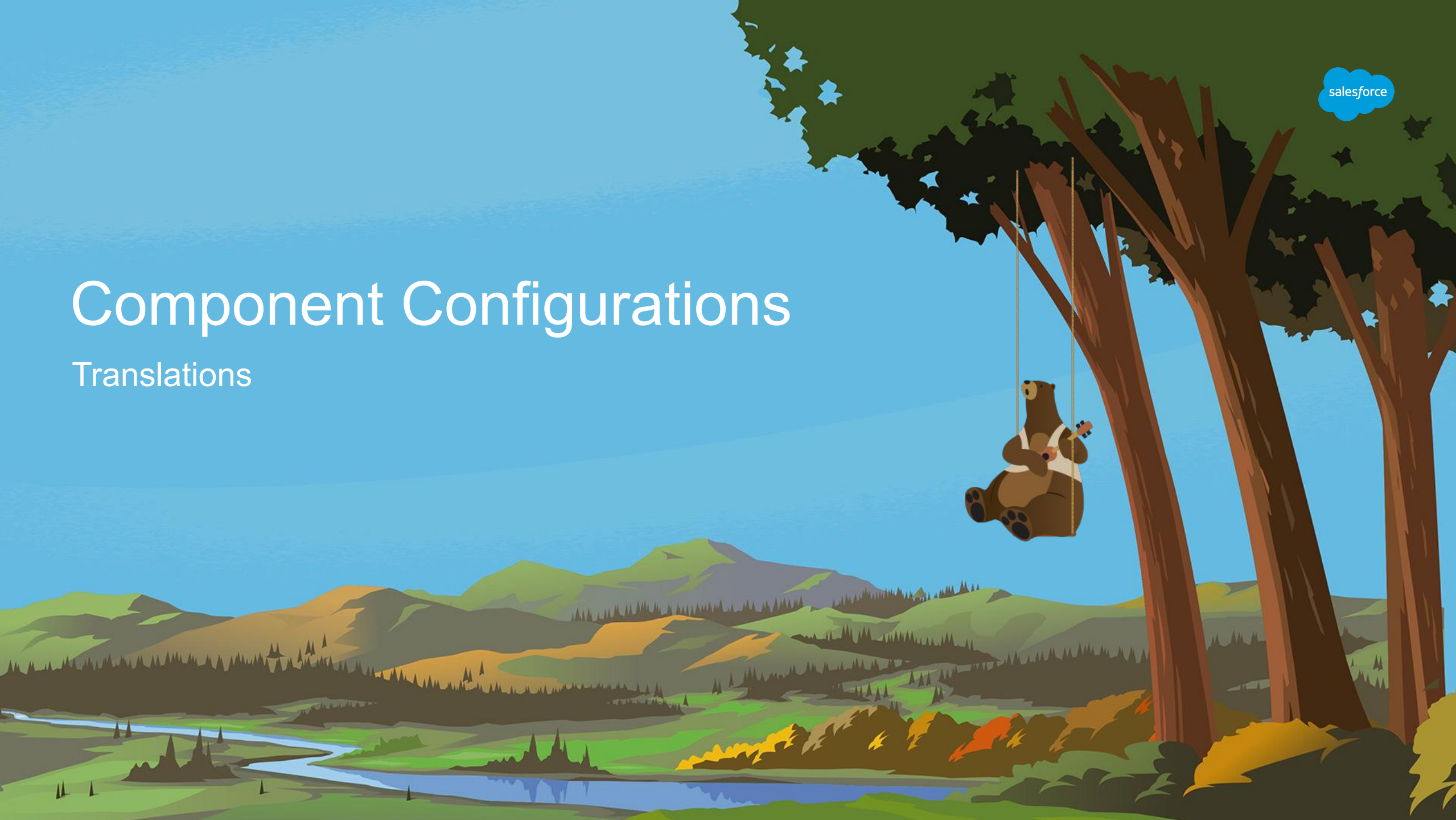
Note:

This step is needed after activating Critical Update below:

- Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile
- Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile

Component Configurations

Translations



Component Configurations



Translations

Type:

1. **Title** - We can use OOTB syntax leveraging a custom label in the component attribute for translations.
2. **Buttons label** - We can translate button labels **New, Edit, Delete, View All, View Less** in the related list by using custom labels from CMTD package
3. **Field label** - This is for translating field names using translation workbench by leveraging Field Definition.

1. Title Translations



Custom Label
testopencases

Help for this Page

Translations [1]

Custom Label Detail

Edit Delete

Short Description	testopencases	Name	testopencases
Language	English	Protected Component	☒
Categories			
Value	Test Open Cases		
Created By	Pavan Kumar Ananta, 2024-05-29 16:12	Modified By	Pavan Kumar Ananta, 2024-05-29 16:12

Edit Delete

Translations

New

Custom Label Translations

Translations Help

Action	Language	Translation Text	Is Out Of Date
Edit Delete	French	Tester les dossiers ouverts	☐

Grand Children Accounts (0)

Associé Détails T1C1 T1C2 T2C2 List Nav- PoC

Tester les dossiers ouverts (1)

00001019 · Closed · false · High

Nom: Origine de la requête: Web

Priorité: High

Description: Id: 5006F00001rrVNNQA2

Time Field: Account Name: 0016F00002Wni8zQAB

Test Rich Description: Created Date: 2018-09-20 14:45

Montant: Test Decimal: 2018-09-20 14:45

User Created On: 2018-09-20 14:45

Owner: Test Queue

Voir tout

Activité Chatter Contacts

Filtres : Toutes les dates · Toutes les activités · Tous les types

Actualiser · Agrandir tout · Afficher tout

À venir et passés

Aucune activité à afficher. Commencez par envoyer un e-mail, planifier une tâche, ou une autre activité.

Aucune activité passée. Les réunions et les tâches passées marquées comme terminées sont affichées ici.

FILTER

Sort CreatedDate DESC

Default Number of Records to Display 4

Max Number of Records to Display 50

Title {!\$Label.testopencases}

Icon Name

Title Translations using custom Labels

2. Buttons Label Translations



New Custom Label

Action	Name	Categories ▾	Short Description	Value	Language
Edit Del	New	CMTD	New	New	English
Edit Del	Edit	CMTD	Edit	Edit	English
Edit Del	Delete	CMTD	Delete	Delete	English
Edit Del	View All	CMTD	View All	View All	English
Edit Del	View Less	CMTD	View Less	View Less	English

Custom Labels

 This Custom Label is managed, meaning that you may only edit certain attributes. [Display More Information](#)

[Local Translations / Overrides](#) (2) | [Packaged Translations](#) (0)

Custom Label Detail

[Edit](#)

Short Description	New	Name	New
Language	English		
Namespace Prefix	CMTD		
Installed Package	CMTD Enhanced Related List		
Categories	CMTD		
Value	New		
Created By	Pavan Kumar Ananta, 09/08/2023 19:43		
	Modified By	Pavan Kumar Ananta, 09/08/2023 19:43	

[Edit](#)

Pick the labels which are from CMTD Namespace to provide New Translations/Override button names

Click on New Local Translations/ Overrides and choose Language and Translation text

Local Translations / Overrides

[New Local Translations / Overrides](#)

 These translations were created by administrators in your company. Local translations override packaged translations.

An example for overriding New button name for English

An example for a new Translation of French language for New button

Action	Language	Translation Text	Is Out Of Date
Edit Del	English	New EN	☐
Edit Del	French	Nouveau	☐

2. Buttons Label Translations Cont.



 **Test Open Cases (7)**

 Nouveau

00001001 · Closed · High · false Escaladé: Type: Origine de la requête: Created By: Owner: montant:	false Electrical Phone Pavan Kumar Ananta Pavan Kumar Ananta	 Modifier supprimer 	Lai For Adr Tél Ste For Adr Tél
00001002 · New · Low · false Escaladé: Type: Origine de la requête:	false Electrical Web		

3. Field label Translations



To enable translations for field labels in custom metadata type of the Enhanced Related List check the “Use Field Definition Label” which uses the field label as configured on the Object including any translations provided using translation workbench and the fields are translated automatically by salesforce as shown below

 **SETUP**
Custom Metadata Types

Enhanced Related List

[Help](#)

View: All Fields ▾ [Edit](#) | [Create New View](#)

				New						
Action	Enhanced Related List Name	Label	Use Field Definition Label ▾	Related List Name	Field API Name	Header	Order	UI Type Override	Colour	Target API
Edit Del	OpenCases_Amount	<u>Amount</u>	✓	OpenCases	Amount__c	☐	25			
Edit Del	OpenCases_Origin	<u>Origin</u>	✓	OpenCases	Origin	☐	11			
Edit Del	OpenCases_Escalated	<u>Escalated</u>	✓	OpenCases	Escalated_Flag_F__c	☐	6	Badge	FF7F50	

3. Field label Translations Cont.



To get started in the Translation Workbench:

1. Select a language (if you're a translator for more than one language).
2. Select a setup component.
3. If necessary, select an object and aspect. For example, a workflow task has an object (Account, Contact, etc.) and aspect (Subject or Comment) to filter for translatable terms.
4. Double click in the translation column to enter new values. You can tab to jump to the next row.

Select the filter criteria:

Language	French
Setup Component	Custom Field
Object	Case
Aspect	Field Label

✓ Your changes have been saved

Master Field Label ▲	Field Label Translation	Field Type	Out of Date
Amount	montant	Number(18, 0)	☐
Engineering Req Number		Text(12)	☐
Escalated_Flag_F	Escaladé	Checkbox	☐
Potential Liability		Picklist	☐
Product		Picklist	☐

3. Field label Translations Cont



Compte

United Oil & Gas Corp.



Owner:

Pavan Kumar Ananta

montant:

00001022 · Closed · Medium · **false**

Escaladé:

false

Type:

Electronic

Origine de la requête:

Web

Created By:

Pavan Kumar Ananta

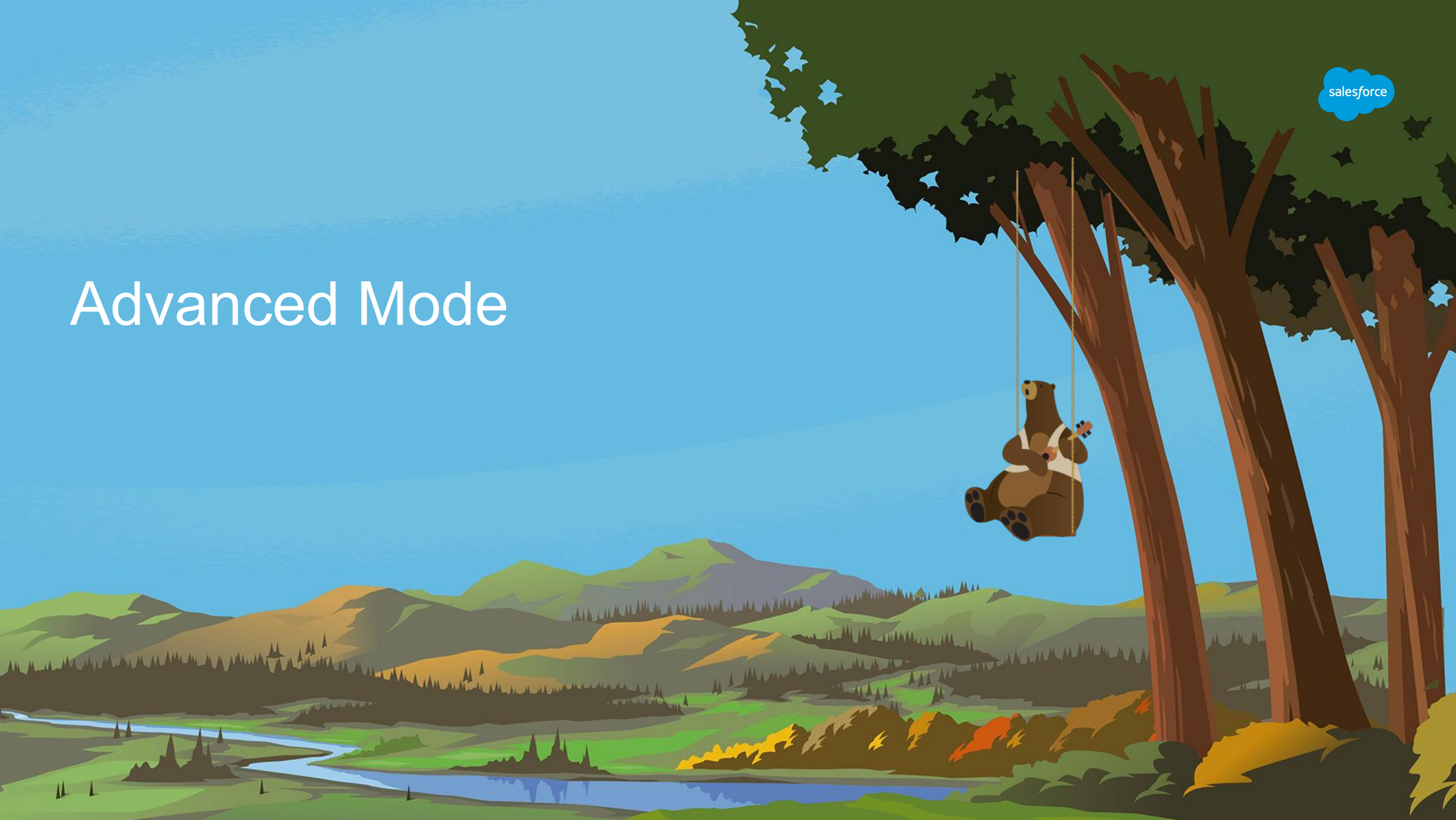
Owner:

Pavan Kumar Ananta

montant:

[Voir tout](#)

Advanced Mode



Advanced Mode



1. Parent Object Id Field

When to use:

- Display the related list on the Lightning Record page using Id field other than Record Id

Sample [use case](#):

1. [Case](#) record page, display a list of Open Opportunities for the same Account.

- Parent Object Id Field: AccountId  This would be AccountId on the Case object
- Object API Name: Opportunity
- Parent Field in Child Object: AccountId  This would be AccountId on the Opportunity object

2. [Case](#) record page, display Related Cases for the same Contact

- Parent Object Id Field: ContactId  This would be ContactId on the Case object (*Parent* Object)
- Object API Name: Case
- Parent Field in Child Object: ContactId  This would be ContactId on the Case object (*Child* Object)



Advanced Mode

2. Custom LC Wrapper

When to use:

- Display the related list in Lightning Home page
- Display the related list from Custom Lightning Component

Use `parentId` attribute (Hidden - not available in App Builder):

- pass the `value` of the Id to match with the 'Parent Field in Child Object'



Advanced Mode

2. Custom LC Wrapper - Cont'd

Sample [use case](#):

1. Display My Open Cases on the Home Page

- `homeMyOpenCases.cmp` (sample only)

```
<aura:component implements="force:appHostable,flexipage:availableForAllPageTypes,flexipage:availableForRecordHome" access="global" >
    <aura:attribute name="userId" type="String" />
    <aura:attribute name="showComponent" type="Boolean" default="false" />

    <aura:handler name="init" value="{!this}" action="{!c.doInit}" />
    <aura:if isTrue="{!v.showComponent}">
        <CMTD:EnhancedRelatedList objectAPIName="Case" relatedListName="Test Open Cases"
            parentField="OwnerId" parentId="{!v.userId}"
            displayType="Tile 1" layoutType="1 Column"
            sort="CreatedDate DESC" filter="Status!=Closed"
            defaultNumberOfRecordsToDisplay="2" title="My Open Cases"
            iconName="standard:case"
            showHeader="true" showRefreshButton="true" />
    </aura:if>
</aura:component>
```

- `homeMyOpenCases.js` (sample only)

```
{
    doInit : function(component, event, helper) {
        var userId = $A.get("$ObjectType.CurrentUser.Id"); // hint: call server controller for other fields
        component.set("v.userId", userId);
        component.set("v.showComponent", true);
    }
}
```



Advanced Mode



2. Custom LC Wrapper - Cont'd

2. Custom Lightning Component

- Customer 360 - display dynamic related list based on certain selections
- Check out sample usage by my colleague on his blog
<https://cloudmatters.blog/2018/11/04/lighting-out-visualforce-lightning-printing/>



Advanced Mode



3. Override New Record using custom LC

- 'New Record' component attribute support custom LC
- Sample use cases:
 - Set default fields on New record. Eg: New case creation, pre populate Contact field with Primary Contact of the Account.
 - Prompt users with some selections before navigating to standard Case creation page layout
- The custom LC must implement the following attributes.
 - `<aura:attribute name="parentFieldName" access="global" type="String" />`
It will be populated with the value of parentField attribute from "CMTD Enhanced Related List"
 - `<aura:attribute name="parentFieldId" access="global" type="String" />`
It will be populated with the value of the parent record used in the "CMTD Enhanced Related List"
- Custom LC to utilise the attributes above to retrieve necessary information on init method.
- Custom LC is responsible to display the UI and create new record



Advanced Mode



Override New Record using custom LC - Sample

Case New Record

caseRecordTypeSelector custom component

Record Type	Billing & Accounts
Account	DC Test Account
Contact	Denny Test
Billing Account	Please select...
Service	Please select...

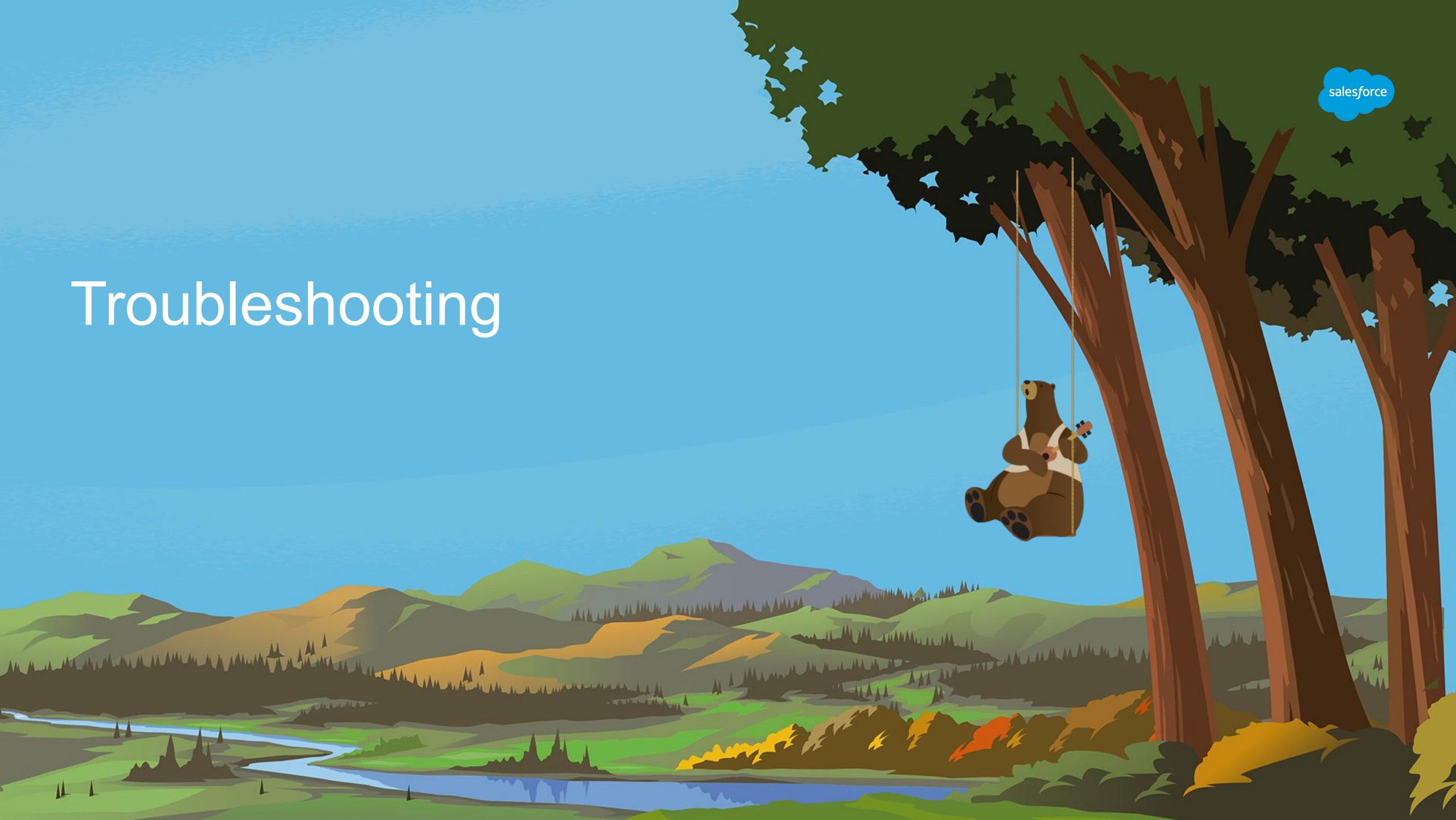
Account Id is set in parentId attribute and the Account record Id is available for this component

On init, it perform SOQL to retrieve the Primary Contact of the Account and set the value

Cancel Next

Troubleshooting

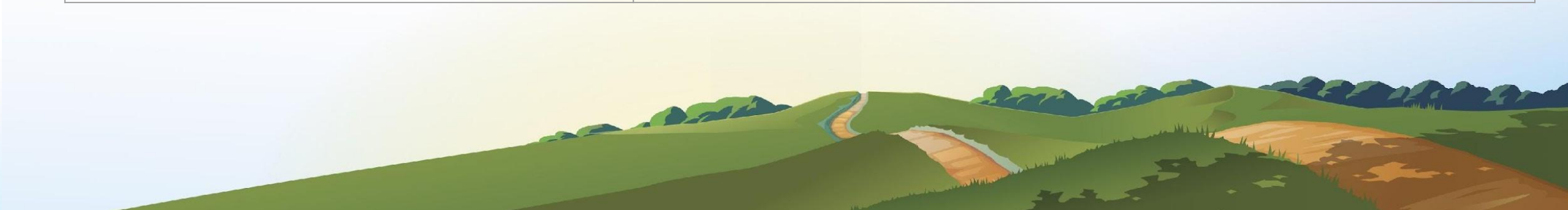
salesforce



Troubleshooting



Error/ Issue	Resolution
CMTD_ERL Related List Name: abc - No configuration found	Unable to find records in CMT where Related List Name = 'xyz'. Please check the 'Related List Name' attribute in the component and 'Related List Name' in CMT. Make sure they match.
Invalid Object API Name abc	The field API name for the Object is incorrect. Please check the Component Attributes
No such Field abc on xyz Object	The field API name for the Field is incorrect. Please check the Component Attributes and Custom Metadata Type configuration
No COMPONENT named markup://c:standard found	Please check "New Record" Component Attributes. The value is case sensitive.
Slow in loading the records	This component uses SOQL to retrieve the data based on the fields provided in the CMT. Please review the query by generating the SOQL listing all the fields (including filter and sort). Reduce number of fields or apply index as required.
Access Check Failed! AttributeSet.set():...	Disable Lightning Debug mode



Version History



Version History



4.2

- Added translation support
- Introducing new custom metadata type field “**Use Field Definition Label**” checkbox.

3.1

- Fix non default 'Parent Object Id Field' issue

3.0

- Major upgrade to the code for overall performance improvement
- New Component Attributes 'Hide on No Record?'
- Updated styling to 'match' more with Standard Related List



Version History



2.6

- Added 'CMTD ERL Permission Set' that can be added for the users who need access to the app

2.5

- Updated Apex version to 47 to support new objects that requires newer API version (eg: Financial Service Cloud object)
- Support default NamePointing reference that uses common field name (eg: on Case object OwnerId.Name)



THANK Y☁U

