

MS Dynamics CRM 365

Relationships



Lesson Objectives

- Overview of Relationships in Dynamics 365
- 1:N and N:N Relationships
- Working with Hierarchical Data
- Using Entity Mapping to Pre-Populated Data
- Connection and Connection Roles



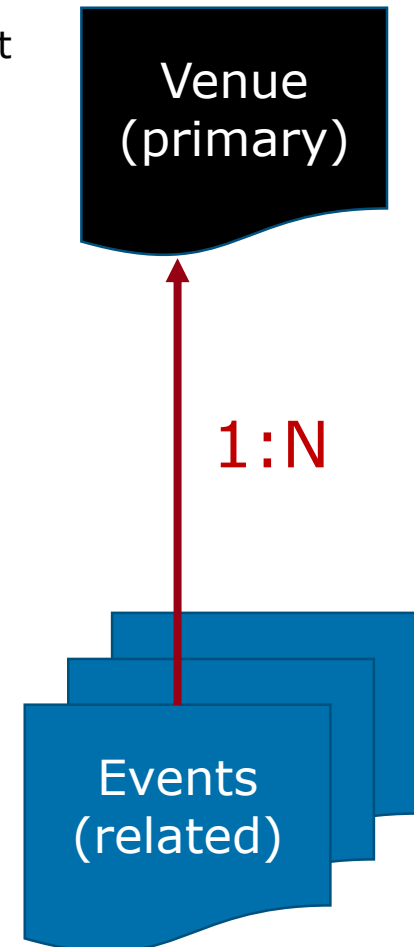
1:N and N:N relationship

- One-to-many (1:N) relationships
 - One record of a primary entity
 - Zero, one or many records of a related entity
 - Related entity has a lookup field to store the GUID of the parent record
 - N:1 is a 1:N relationship viewed from the other side
- Many to many (N:N) is symmetrical
 - A hidden intersect entity is automatically created, that has a 1:N relationship from each of the N:N entities




1:N (One to Many) Relationship

- A 1:N (One to Many) relationship is also displayed as N:1 relationship in the solution explorer, under the related entity
- Only 1:N relationship exists in the metadata. N:1 is just a shortcut
- Each event can be linked to one Venue through a lookup field
- One Venue can have many events!





New 1:N Relationship Form

 Relationship

New

Common

Information

Mappings

Working on solution: Product Development

General

Relationship Definition

Primary Entity *

Account

Related Entity *

[select entity]

Name *

awcnpd_

Searchable

Yes

Lookup Field

Display Name *

Name *

awcnpd_

Field Requirement *

Optional

Description

Navigation Pane Item for Primary Entity

Display Option *

Use Plural Name

Custom Label *

Display Area *

Details

Display Order *

10,000



1:N Relationships: Cascading Rules

- Control actions on the primary record that are also performed on the related entity records
- Define which related records actions apply to
- Delete action helps eliminate orphan records
- Represent grants additional access to related records, to the owner of the parent record

Relationship Behavior

Type of Behavior *	Referential ▼		
Assign *	Cascade None ▼	Reparent *	Cascade None ▼
Share *	Cascade None ▼	Delete *	Remove Link ▼
Unshare *	Cascade None ▼	Merge *	Cascade All ▼
Rollup View *	Cascade None ▼		



Actions that Trigger 1:N Cascading Behavior

Action	Description
Assign	A primary entity record is re-assigned
Share	A primary entity record is shared
Unshare	A primary entity record's sharing is removed
Re-parent	A related entity record is associated to a primary entity record (its parent), or re-associated to a different one
Merge	A primary entity record is merged with another
Delete	A primary entity record is deleted
Rollup View	



Cascading Rules: Assign, Share, Reparent

Rule	Result for related entities in this relationship
Cascade All	Perform the action on all related entity records
Cascade Active	Perform the action on all related entity records that are Active (or Open, or the equivalent Status).
Cascade User-Owned	Perform the action on all related entity records that are owned by the same user as the owner of the primary entity record. (Note: for the assign action, this means the original owner)
Cascade None	Related entity records are not affected

Any rule set to anything but “None” makes this a “Parental” relationship



Cascading Rules: Delete

Rule	Result for related entities in this relationship
Cascade All	Delete all related entity records
Remove Link	Clear the lookup field for this relationship so the related record remains in the system but is no longer associated with a record through this relationship
Restrict Delete	Related entities are not affected, because this rule prevents the primary entity record from being deleted if any related entity records exist.



Type of Cascading Behavior

Behavior	Cascade Rules Applied
Parental	All rules; Cascade All
Referential	Main rules; Cascade None, delete; remove Link
Referential, Restrict Delete	Main rules; Cascade None, Delete; Restrict Delete
Configurable Cascading	All rules: Cascade all by default, but you can configure them however you want to

Use the type of Behavior list as templates to apply standard sets of rules. Use Configurable Cascading to configure rules individually. Any rule set to anything but 'None makes this a 'Parental' relationship.



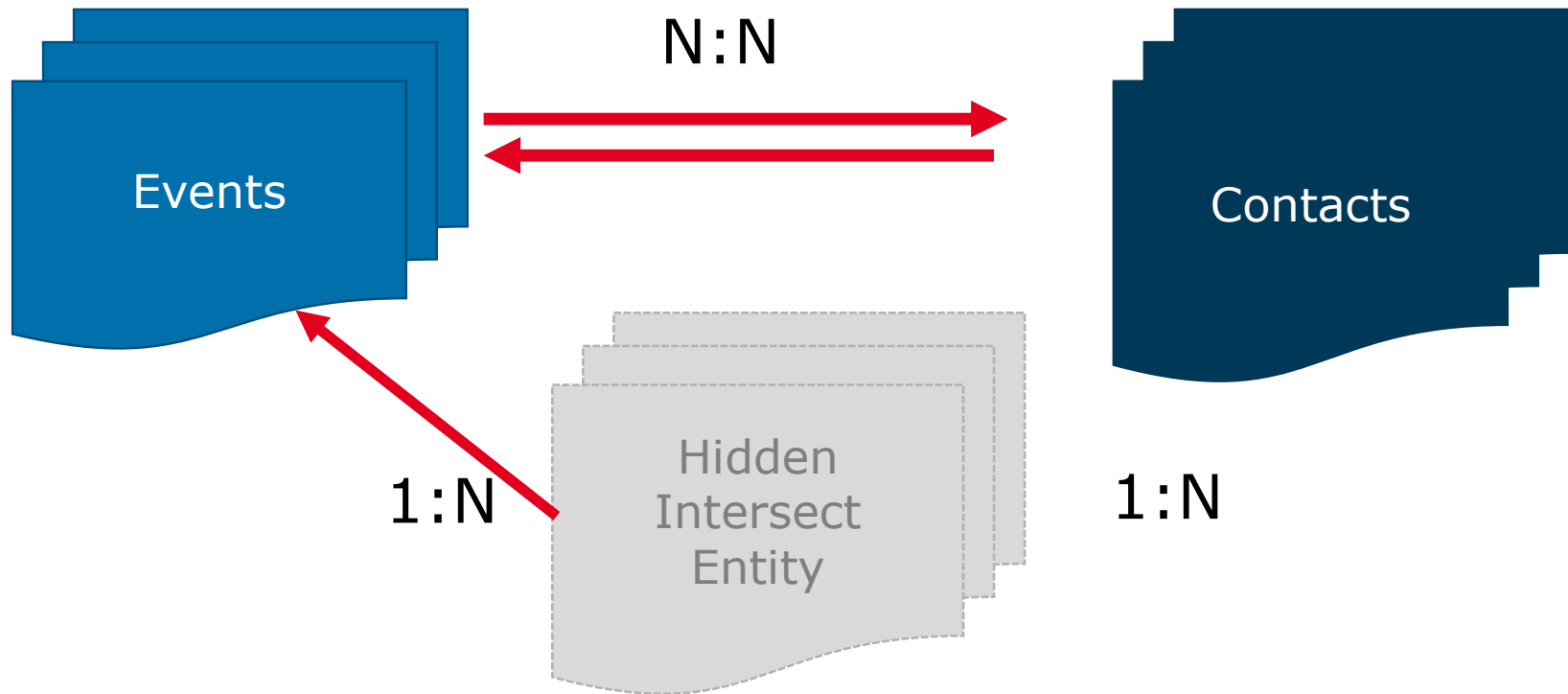
Deleting / Removing Relationships

- Relationships between entities can be deleted if needed
- Removal is prevented if a published form is using the Lookup field defined in the Relationship
 - Can use Show Dependencies to view which entity's are currently using the relationship
 - The lookup field on the child entity must be removed from the Entity Form
 - The Form must be published again without the field





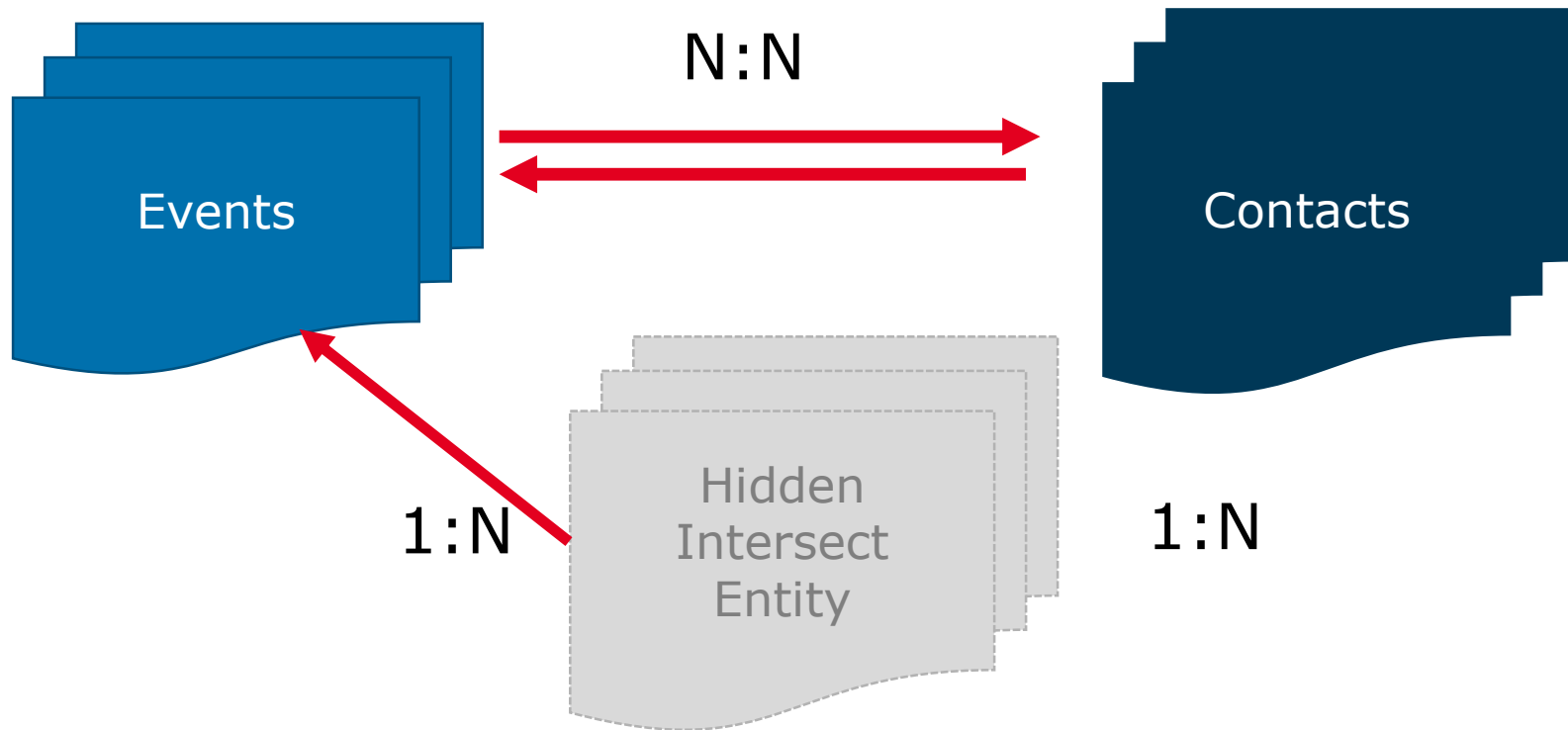
N:N Relationship



- Hidden intersect entity created and managed by the platform, two 1:N relationships created
- Intersect entity cannot be viewed or customized



Custom Entity “Manual N:N Relationship”



- Custom entity called Booking that has two 1:N relationships to Events and Contacts
- Can be customized, for example adding fields



New N:N Relationship Form

Relationship

New

Common

Information

Working on solution: Product Development

General

Current Entity

Entity Name *Account

Display Option *Do not Display

Display Area *Details

Other Entity

Entity Name *[select entity]

Display Option *Do not Display

Display Area *Details

Relationship Definition

Name *awcnpd_

Relationship Entity Name *awcnpd_

SearchableYes

Custom Label *

Display Order *10,000

Custom Label *

Display Order *10,000



Hierarchical Data

- Hierarchical data structures are supported by self-referential one-to many (1:N) relationships of the related records

Schema

Name *

Account Hierarchy

Default Quick View Form *

Account Hierarchy Tile Form

Hierarchical Relationship

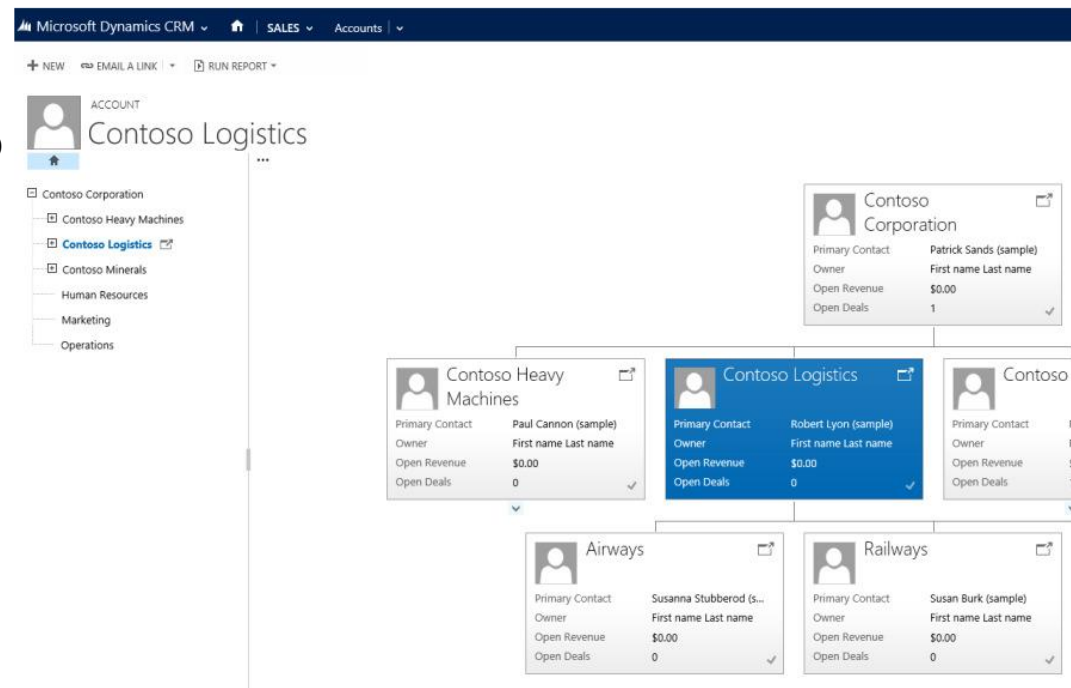
Parent Account (account_parent_account)

[Mark a relationship as enabled for hierarchies.](#)

Description

This is the account hierarchy definition.

- Defined by setting Hierarchical to yes in the relationship definition





Notes on Hierarchical Relationship

- Hierarchical relationships can be specified for system self-referential relationships
 - Some of the out-of-box (1:N) relationships cannot be customized.
Therefore cannot be set as hierarchical
- Only one (1:N) self-referential relationship per entity can be set as hierarchical
- At the present moment, hierarchy or visualization is limited to one entity only
 - Ex. Cannot show accounts and contacts in the same visualization



Entity Mapping

- Attribute mapping facilitates data entry when creating new records that are related to a parent record
- The mapping pre-populates defined fields in a new record with information from the parent object
- Users can overwrite any of the mapped values before saving the record
- Microsoft Dynamics 365 allows mapping one source attribute to many attributes in the target entity
 - *For example, this allows address fields in an Account to be mapped to both the Billing Address and the Shipping Address fields in an Order*



Entity Mapping

- Attribute mapping has the following limitations:
 - Mapping only works when a new record is created in the context of a parent record
 - Mapping does not apply if a user creates a new record outside of the context of a parent record
 - Mapping does not apply when an existing record is updated; it only pre-populates the form of a new record before it is saved
 - Mapping does not maintain any relationships after the record is created, and does not keep data synchronized



Entity Mapping

- The following restrictions apply to attributes that can be mapped:
 - Both attributes must be of the same datatype
 - The length of the target attribute should be equal or greater than the length of the source attribute
 - The target attribute should not be involved in another mapping
 - You cannot map to or from a disabled field



Connections and Connection Roles

■ Connections

- Do not need a custom relationship to be created
- Let users connect records of various entities
- Can be used for querying and reporting

■ Connection Roles

- Provide descriptions for the records involved in a Connection, such as Former Employee / Employer
- Can be configured to be used only with other specific Connection Roles, such as Doctor and Patient



Module Review

- 1:N relationships in Dynamics 365 allow you to define different behavior options, based on different actions being done to the parent record
- Consider creating N:N relationships manually when you need to capture common data between the two related entities, or if you have specific reporting needs
- Entity mapping helps facilitate data entry when creating a new record from a parent record
- Creating a Self- Referential relationship and defining hierarchal settings, provide a great way to better visualize the hierarchal for specific entities



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