

The Definitive ArchiMate Relationship Matrix

Allowed relationships • Layer constraints • Misuse patterns • Anti-patterns

Structural

Composition (Co)
Aggregation (Ag)
Assignment (As)
Realization (Re)

Dependency

Serving (Se)
Access (Ac)
Influence (In)

Dynamic

Triggering (Tr)
Flow (Fl)

Other

Specialization (Sp)
Association (Ao)

Cross-Layer Rules (The Most Important Rules to Remember)

- Lower layers SERVE upper layers: Technology → Application → Business. Never the reverse.
- Realization crosses layers: App Component realizes Business Service. Tech Service realizes App Service.
- Composition and Aggregation are INTRA-LAYER ONLY. You cannot compose across layers.
- Assignment is INTRA-LAYER ONLY. Roles are assigned to actors within the same layer.

Relationship Validity Matrix — Business Layer Elements

Source (row) → Target (column). Cells show the primary allowed relationship type.

	Actor	Role	Collab	Interface	Process	Function	Event	Service	Object	Contract	Product
Bus. Actor	Sp	As	Ag						Ac		
Bus. Role		Sp	Ag	Co	As	As			Ac		
Bus. Collab			Sp	Co	As	As			Ac		
Bus. Interface				Sp				Se	Ac		
Bus. Process					Sp		Tr	Re	Ac		
Bus. Function						Sp	Tr	Re	Ac		
Bus. Event					Tr	Tr	Sp		Ac		
Bus. Service								Sp	Ac		Ag
Bus. Object									Sp	Re	Re
Product								Ag		Ag	Sp

Cross-Layer Allowed Relationships

	Bus. Process	Bus. Function	Bus. Service	App Component	App Service	App Interface	Tech Node	Tech Service
App Component			Re	Sp	Co	Co		
App Service	Se	Se	Se		Sp			
App Function			Re		Re			
Tech Node				As			Sp	
Tech Service				Se	Se			Sp
Artifact				Re				

8 Common ArchiMate Anti-Patterns

Mistakes that pass tool validation but produce incorrect or misleading architecture models

1. Composition Instead of Assignment

X Role composed OF Actor

✓ Role ASSIGNED TO Actor

2. Serving in the Wrong Direction

X Business serves Application

✓ Application SERVES Business

3. Flow Instead of Triggering

X Event flows to Process

✓ Event TRIGGERS Process (no payload)

4. Cross-Layer Composition

X App composed of Tech Node

✓ App REALIZED BY Tech Node

5. Untyped Access Relationships

X Process accesses Object

✓ Process ACCESSES (R/W) Object

6. Realization Between Same-Type

X Service realizes Service

✓ Function REALIZES Service

7. Skipping the Application Layer

X Business

✓ Technology directly

8. Association as Catch-All

X Everything "associated"

✓ Use the most specific relationship

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