

# Interactive Visualisation 1

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## Comprehensive Visualization of the Full Network

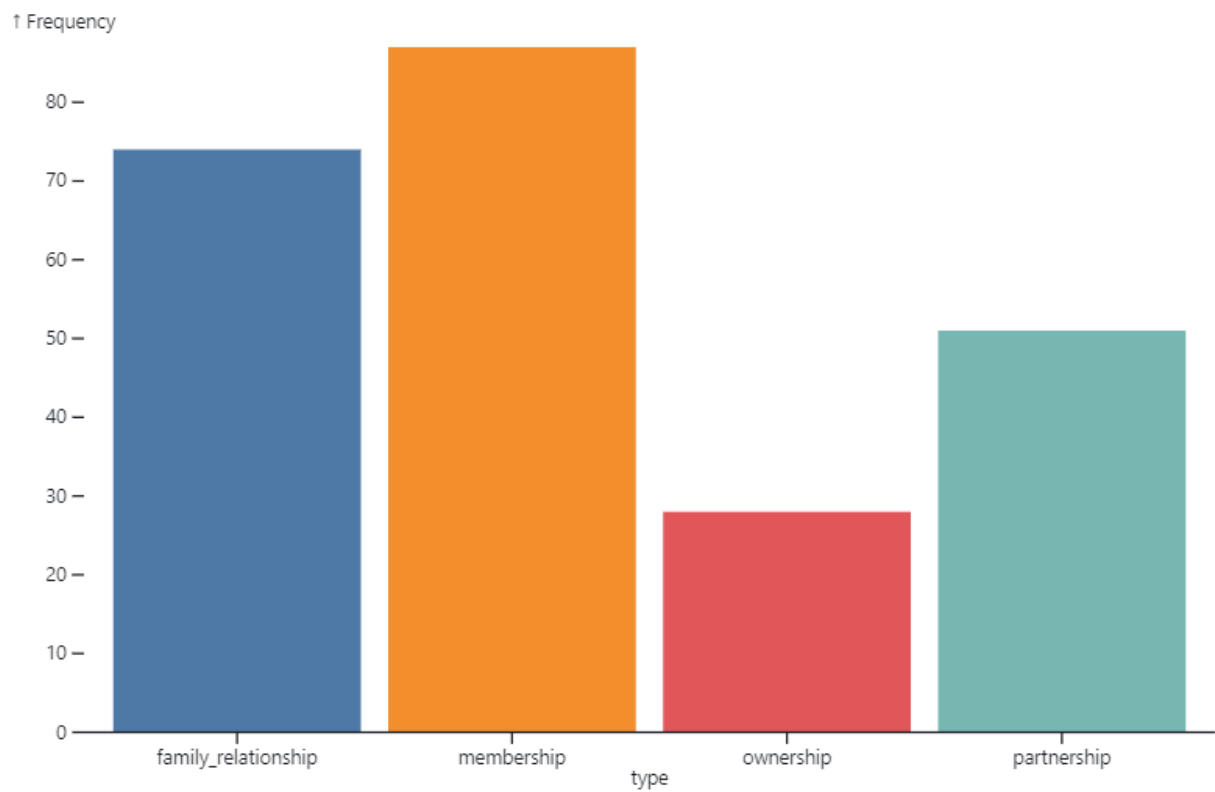


This visualization provides a comprehensive view of the entire network, with each node and link type represented by a different color. At first glance, the graph might seem overwhelming due to its high density and color variety. This is a natural result of the complex and diverse nature of our network, which contains multiple types of nodes and links.

However, this seemingly cluttered picture serves a crucial purpose: it illustrates the complexity of the system we are working with. The following visualizations will employ various techniques such as grouping, filtering, interactivity, and layering to simplify this complexity. These techniques allow us to dissect the network and focus on its individual components, making it easier to draw insights and conclusions.

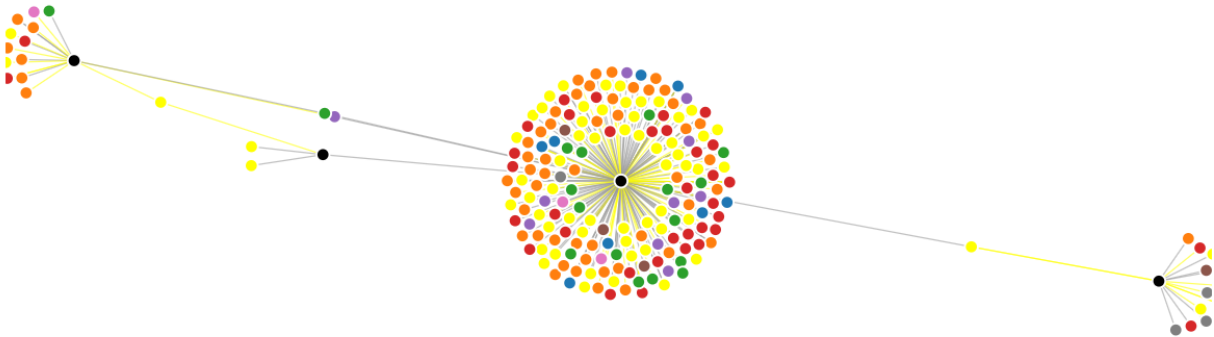
By starting with this complete view, we establish a point of reference that can be referred back to as we delve deeper into the network's structure in the following sections.

Links associated with entities of interest



entity	inDegree	outDegree
other ▼	integer ▼	integer ▼
all values: "other"		
Mar de la Vida OJSC	5	12
979,893,388	124	81
Oceanfront Oasis Inc Ca	4	0
8,327	6	9

## Force directed graph of the suspected entities



The visualizations presented here are an outcome of a comprehensive network analysis, specifically a force-directed graph, which has been employed to assess the connections between various entities. In particular, we are focusing on four entities under suspicion - "Mar de la Vida OJSC", 979893388, "Oceanfront Oasis Inc Carriers", and 8327.

Our force-directed graph offers an intuitive understanding of the relationships between these entities and their surroundings. Each node, represented by circles of different colors, corresponds to a unique entity. Among these, black nodes specifically designate our suspected entities. Other nodes, differentiated by their colors, represent a variety of entities.

A unique feature of this visualization is the inclusion of an interactive dropdown menu, which allows us to select and highlight a specific node type or link type. The highlighted nodes and links then turn yellow, allowing for quick and easy identification. For example, in one of our visuals, we have selected the 'organization' node type and 'membership' link type. The immediate result is that all organizations and membership links are highlighted in yellow, emphasizing their presence and relationship patterns in the graph.

In exploring the connections of our suspected entities, we discovered that one of them, specifically entity 8327, is connected to an entity named 'â œIllegal'. This connection raises immediate concern due to the clear implication of illicit activities. The black node representing

entity 8327 (right most corner) and its direct link to 'â œIllegal' (the one in red) provides substantial evidence that entity 8327 may be involved in unlawful fishing practices.

### **Degree analysis of suspected entities**

Source	Target	Type
435054320	8327	membership
8327	185106	partnership
8327	weeks	ownership
8327	40213337	ownership
8327	cutters	ownership
8327	435054320	membership
8327	7505050	membership
8327	âœIllegal	membership
8327	water	membership
8327	Calvin Salas	partnership
Coast	8327	ownership
7505050	8327	membership
Today	8327	membership
160	8327	membership
Seabreeze Foods Ltd. Corporation United	8327	ownership

I have additionally developed an insightful visualization that, upon selecting an entity from a dropdown menu, presents a table detailing the links associated with that entity. This interactive feature allows us to delve into the individual entities, scrutinizing their associated connections for clues about their operations and affiliations.

To demonstrate, consider the case of the suspected entity 8327. The table reveals unusual connections with entities identified as 'today', 'coast', 'water', 'cutters', 'weeks', '160' - names that defy typical identification. This stands in stark contrast when we examine the associations of another suspected entity, "Mar de la Vida OJSC," where the relationships appear conventional and align well with the type of connections we would expect.

Thus, these analytical tools allow us to conjecture with high certainty that entity 8327 has involvement in illegal fishing activities. The stark contrast between its unusual linkages and the more standard connections seen in other entities signifies its probable culpability. This

investigative approach, driven by data visualization, substantially enhances our ability to identify suspicious activity and take necessary action.

Source	Target	Type
9345	Mar de la Vida OJSC	membership
Kevin Burnett	Mar de la Vida OJSC	partnership
decfc924-5bdc-4fba-8bbd-bb57d8d478d9	Mar de la Vida OJSC	partnership
FishEye International	Mar de la Vida OJSC	membership
Ancla Azul Company Solutions	Mar de la Vida OJSC	membership
Mar de la Vida OJSC	Kevin Burnett	partnership
Mar de la Vida OJSC	Jon White	ownership
Mar de la Vida OJSC	Rebecca Walker	partnership
Mar de la Vida OJSC	Amanda Scott	membership
Mar de la Vida OJSC	22 Raptor	family_relationship
Mar de la Vida OJSC	Gerald Washington	membership
Mar de la Vida OJSC	Jessica Kelly	membership

Here is a summary of other insights which I could draw

- Mar de la Vida OJSC has memberships and partnerships with FishEye International and Ancla Azul Company Solutions. The breadth and variety of partnerships suggest that this entity might have an extensive reach in the fishing industry, which could potentially facilitate illegal activities.
- "Oceanfront Oasis Inc Carriers" also has a relationship with "FishEye International", which also shares a connection with "Mar de la Vida OJSC".
- The entity "8327" has ownership with "Seabreeze Foods Ltd. Corporation United"
- The entity "979893388" has numerous ties and seems to be a central figure in this network, showing multiple ownership and partnership relationships. This entity also shows ownership relationship with Oceanfront Oasis Inc Carriers (our suspected entity) which is connected to "FishEye International" as mentioned before. While there's no explicit evidence of illegal fishing, the extent and complexity of connections related to this entity could be worthy of further investigation in next works