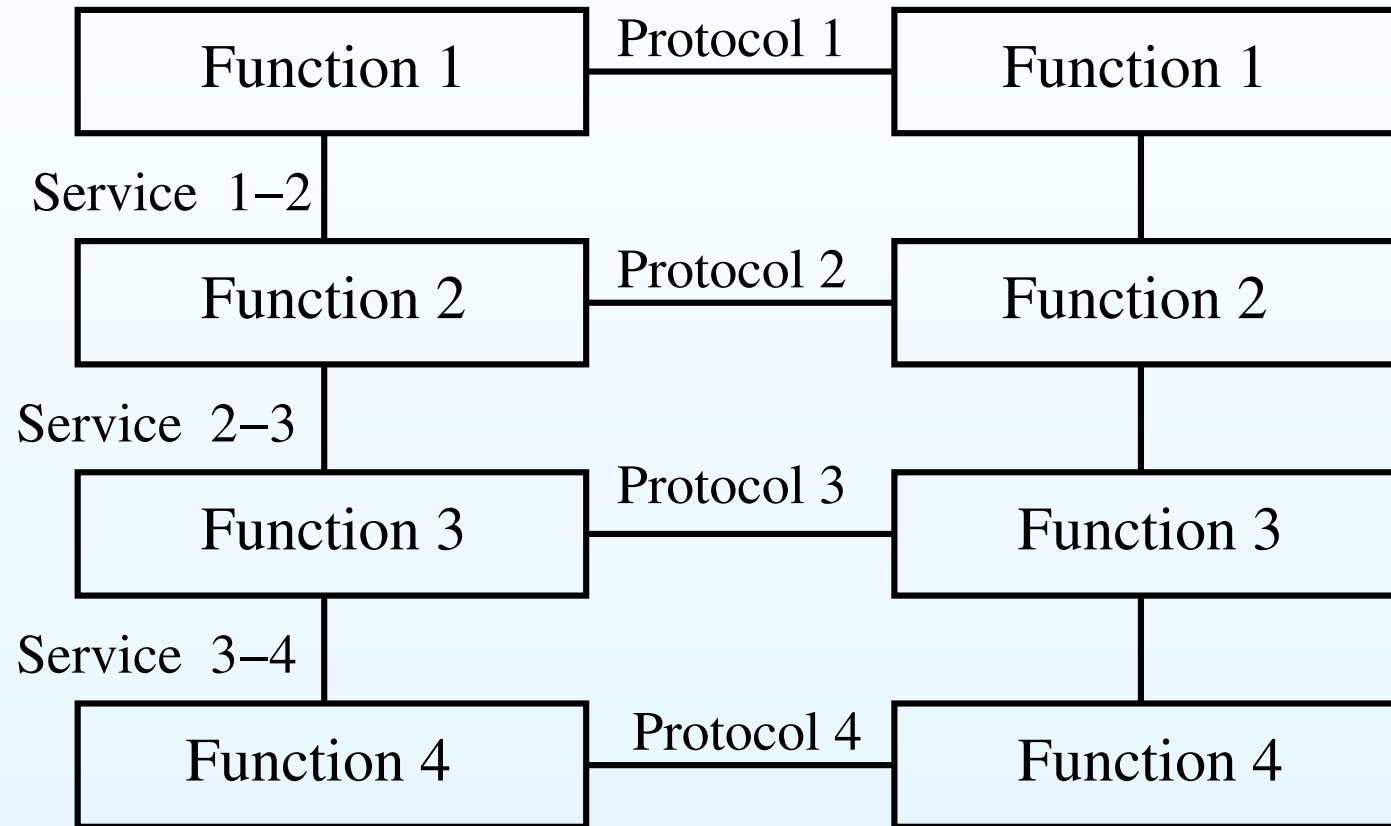


# Network Architectures

---

- Networks are complex organizations of hardware and software that must be carefully organized to promote reliability, flexibility and adaptability.
- The most common type of architecture is that of a layered protocol stack.

# The Layered Look



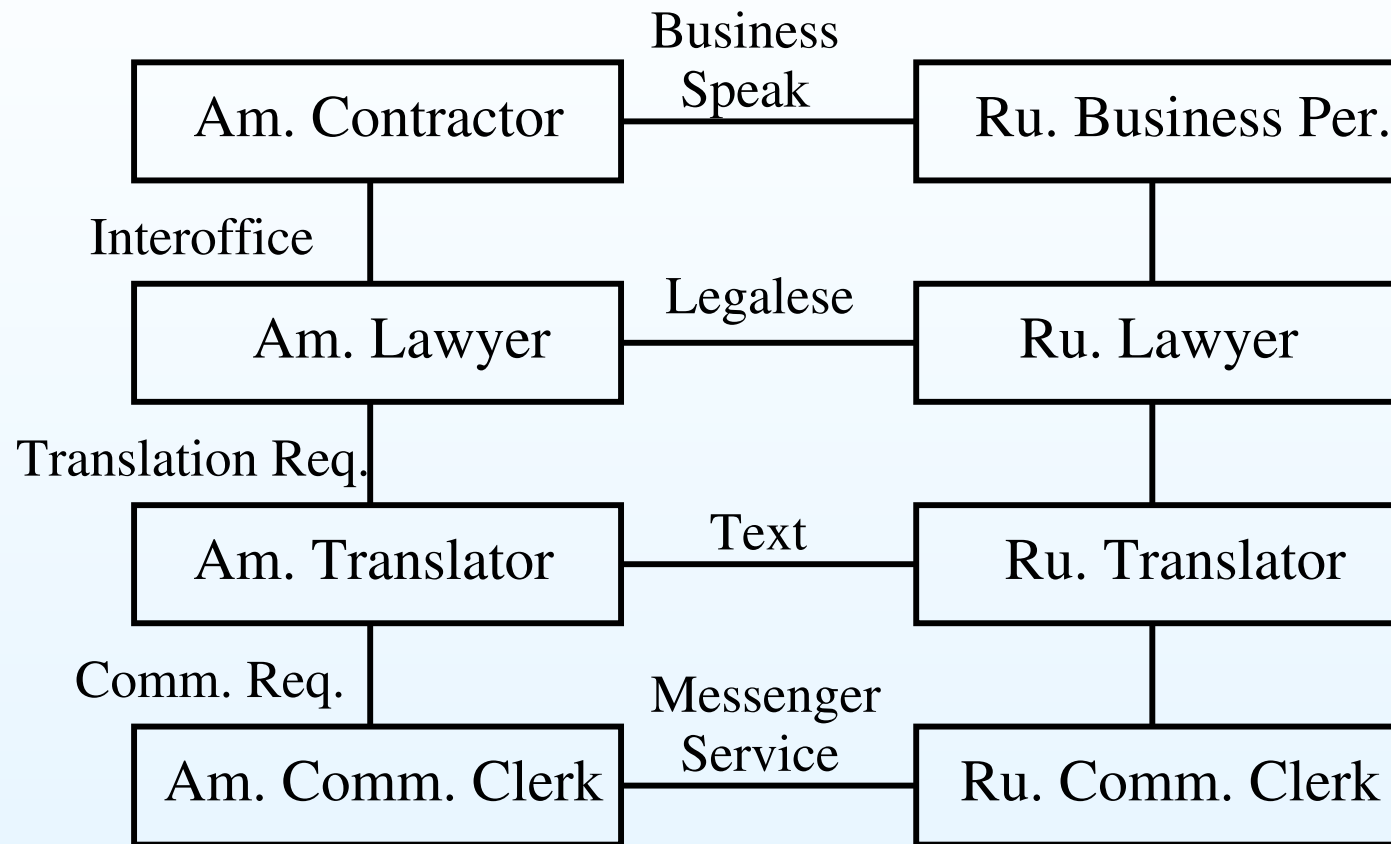
## Defintions

---

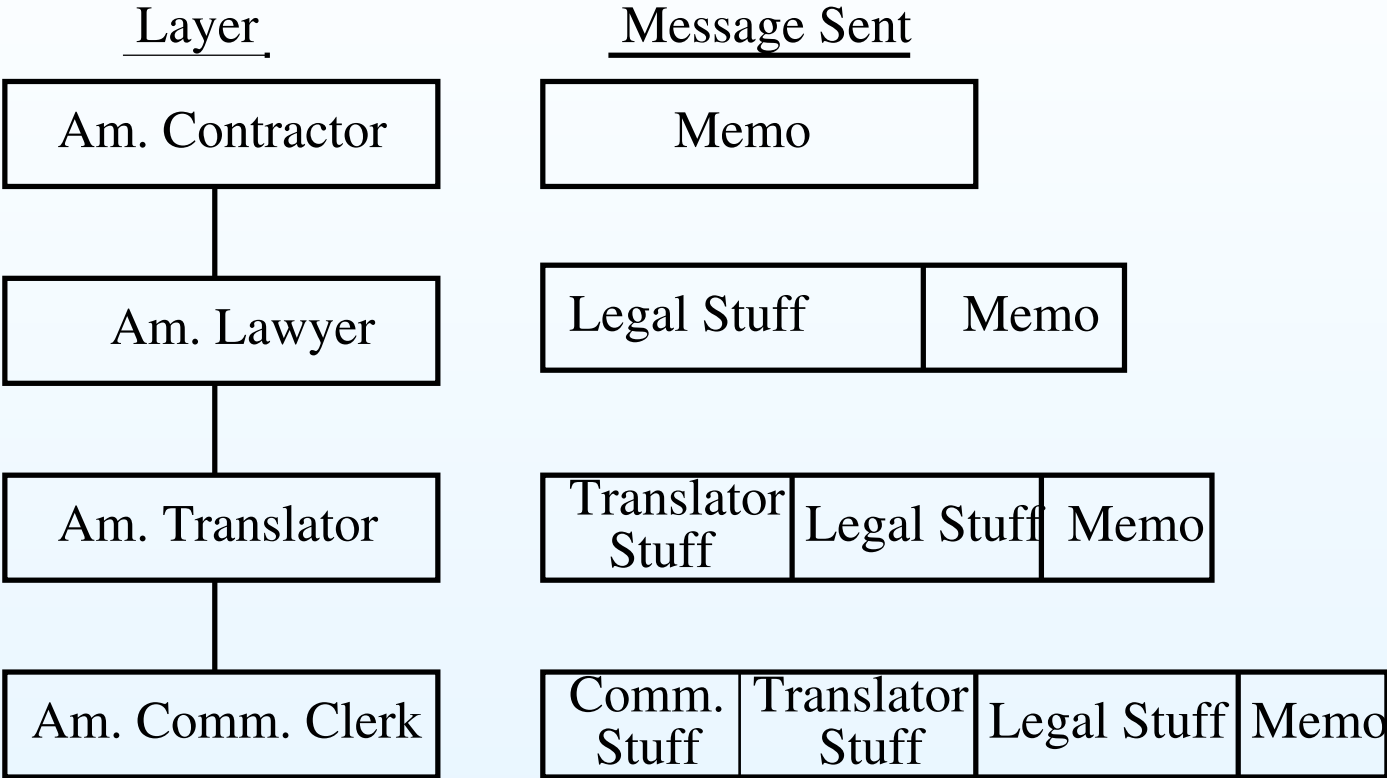
- **Protocol** - A standard method for performing some funtion. In this case, a standard way of communicating.
- **Service** - A set of capabilities implemented by one unit of software for other units. Similar to an Application Programming Interface (API).

For example, consider an American contractor and a Russian contractor trying to do business:

## An example

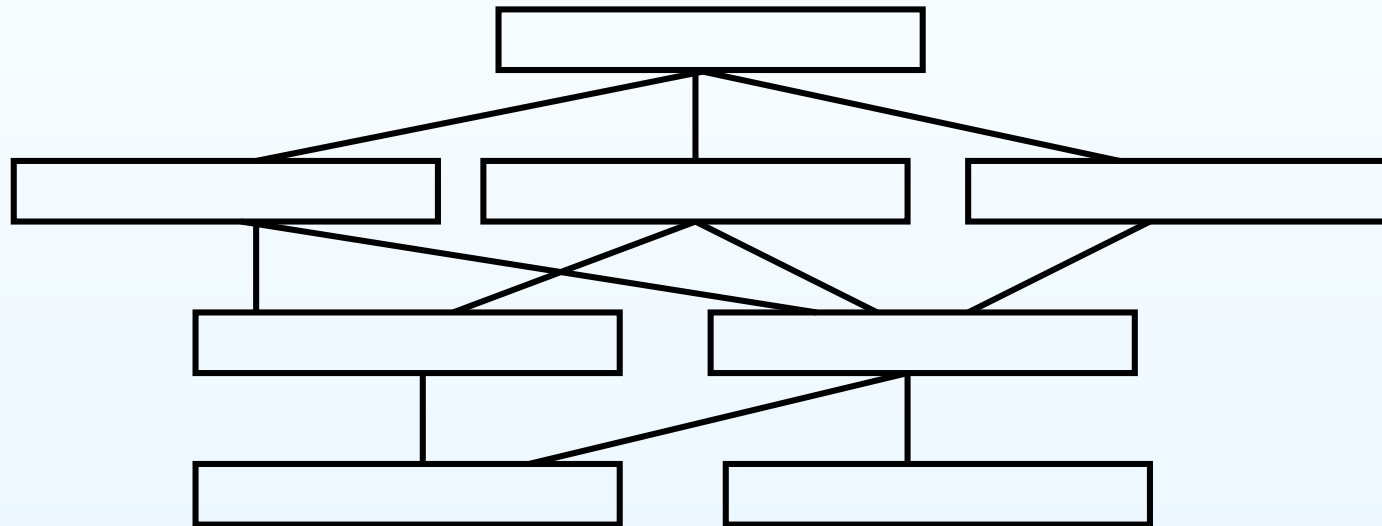


# Encapsulation



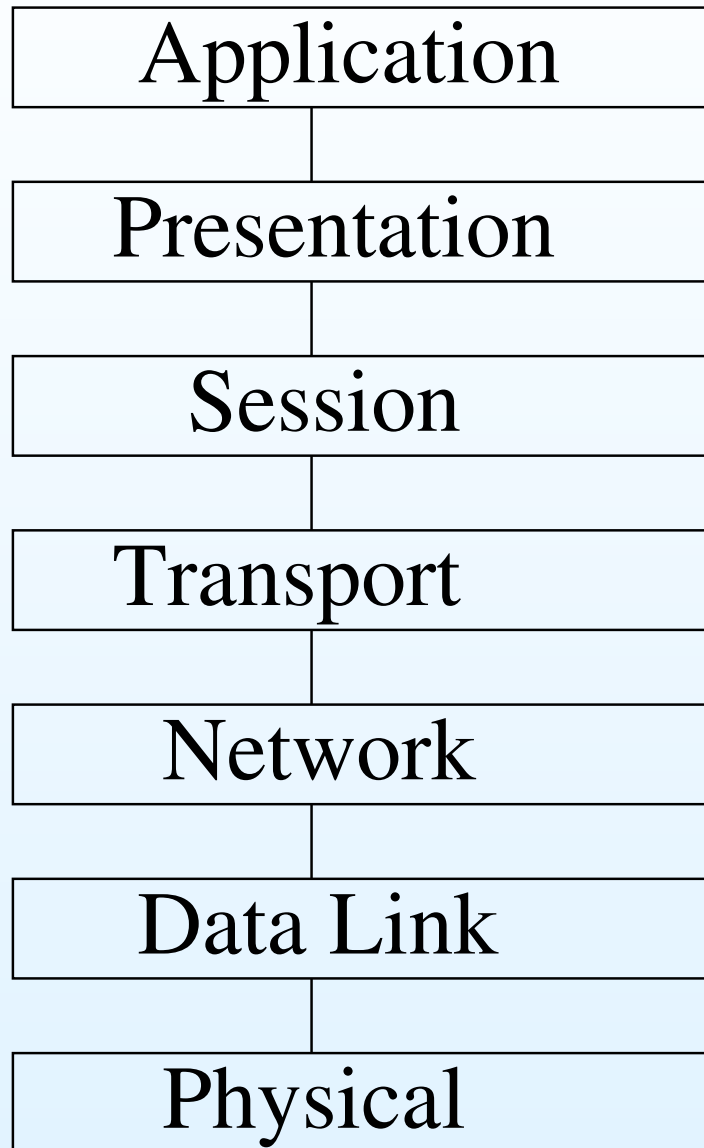
# Multiplexing

**Multiplexing** is the act of managing more than one type or thread of activity.



# The OSI (Open Systems Interface) Model

---



## The ARPA Model

---

ARPA = Advanced Research Projects Agency

