

# RPC implementation details

## **What if client/server machines are different architectures and/or languages?**

Need to convert everything to/from some canonical form and tag every item with an indication of how it is encoded (avoids unnecessary conversions)

➔ Abstract Syntax Notation One (ASN.1)

## **How does client know which server to send to?**

Need to translate name of remote service into network endpoint (IP, port)

➔ Binding - the process of converting a user-visible name into a network endpoint

- Static - fixed at compile time
- Dynamic - performed at runtime

# RPC transparency

One goal of RPC is to be as transparent as possible

- ➡ Make remote procedure calls look like local procedure call although binding can break transparency

What else?

- Failures – remote nodes/networks can fail in more ways than with local procedure calls
- Performance – remote communication is inherently slower than local communication