Create your own protocol – Teacher notes

# Introduction

The main focus of this exercise is to get the learners thinking about how they would structure rules to successfully deliver a message. Some learner guidance is offered below. Learners are not expected to meet the exact implementation of the TCP/IP protocol. In the next lesson, you will discuss the TCP/IP protocol model in more detail.

Split learners into groups of three to five depending on class size and tell them to work together to develop their protocol.

# Learner guidance

If learners are struggling to get started, direct them to think about the following points:

1. How will the receiver know what order to reassemble the chunks in?
   1. What do they need to add to their chunks to make this possible?
   2. What does this mean will happen to the number of chunks sent?
2. How will both the sender and the receiver know that the message has been fully received?
   1. Could they send some information at the start of the protocol so that the receiver knows how much to expect?
   2. How do they ensure that any confirmation messages are also received at both ends?

# Testing protocols

If the groups have time, ask them to test their protocol. Does it work? Did they follow all the steps as they had described them? What problems did they encounter? What would they change to make it work better?

# Group feedback (part of the plenary)

Ask each group to discuss how they designed their protocol and how successful it was when they tested it. Explain that this is the problem that the TCP/IP protocol solves and that you will discuss this in more detail in the next lesson.