CLAIMS

1. A network communication device, comprising:

one or more processors; and

memory coupled to the one or more processors, the memory storing instructions executable by the one or more processors to perform operations including:

based at least in part on a stored indication of a first transmission characteristic, transmitting a first data item to another network communication device over a link using the first transmission characteristic, wherein the first transmission characteristic is based at least on observed behavior of the link;

based at least in part on a determined availability of a second transmission characteristic for the link that is different from the first transmission characteristic, transmitting a second data item over the link using the second transmission characteristic, wherein transmitting the second data item over the link using the second transmission characteristic is further based at least in part on application of an algorithm;

determining that the transmission of the second data item is successful; and

based at least in part on the transmission of the second data item being successful, transmitting a third data item over the link using the second transmission characteristic.

2. The network communication device of claim 1, wherein the operations further comprise:

determining the first transmission characteristic for the link based at least in part on transmitting of the first data item, transmitting of the second data item, and transmitting of the third data item; and

storing the indication of the first transmission characteristic in the memory.

3. The communication device of claim 1, wherein:

transmitting the second data item over the link using the second transmission characteristic is further based at least in part on at least one characteristic of the link using the second transmission characteristic.

4. The communication device of claim 1, wherein:

the first transmission characteristic is a first modulation scheme; and

the second transmission characteristic is a second modulation scheme, different from the first modulation scheme.

5. The communication device of claim 4, wherein:

the first modulation scheme is characterized by a first modulation type at a first data rate and the second modulation scheme is characterized by the first modulation type at a second data rate that is higher than the first data rate.

6. The communication device of claim 4, wherein:

the first modulation scheme is characterized by a first modulation type and the second modulation scheme different from the first modulation scheme is characterized by a second modulation type.

7. The communication device of claim 1, wherein:

the algorithm is a statistical algorithm.

8. The communication device of claim 7, wherein:

application of the statistical algorithm includes determining whether a chance of transmitting the second data item is within a specified probability.

9. The communication device of claim 8, wherein the specified probability is determined at least in part based on a link margin associated with the link.

10. The communication device of claim 9, wherein the specified probability is bounded to be within a specified maximum threshold and a specified minimum threshold.

11. The communication device of claim 8, wherein:

the statistical algorithm is a pseudorandom number sequence generator and determining whether a result of generating a random number by the pseudorandom number sequence generator is within a range representing the specified probability.

12. The communication device of claim 8, wherein the operations further comprise:

determining the specified probability is based at least in part on at least one characteristic of the link using the second transmission characteristic.

13. A method, comprising:

based at least in part on a stored indication of a first transmission characteristic, transmitting, by a first network communication device, a first data item to a second network communication device over a link using the first transmission characteristic, wherein the first transmission characteristic is based at least on observed behavior of the link;

based at least in part on a determined availability of a second transmission characteristic for the link that is different from the first transmission characteristic, transmitting, by the second network communication device, a second data item over the link using the second transmission characteristic, wherein transmitting the second data item over the link using the second transmission characteristic is further based at least in part on application of an algorithm; and

based at least in part on the transmission of the second data item being successful, transmitting, by the first network communication device, a third data item over the link using the second transmission characteristic.

14. The method of claim 13, further comprising:

determining the first transmission characteristic for the link based at least in part on transmitting of the first data item, transmitting of the second data item and transmitting of the third data item; and

storing the indication of the first transmission characteristic in a memory of the first network communication device.

15. The method of claim 13, wherein:

the first transmission characteristic is a first modulation scheme; and

the second transmission characteristic is a second modulation scheme, different from the first modulation scheme.

16. The method of claim 13, wherein:

the first transmission characteristic is characterized by a first modulation type at a first data rate and the second transmission characteristic is characterized by the first modulation type at a second data rate that is higher than the first data rate.

17. The method of claim 13, wherein:

the algorithm is a statistical algorithm, application of the statistical algorithm including determining whether a chance of transmitting the second data item is within a desired probability.

18. One or more non-transitory computer-readable media storing instructions that, when executed by one or more processors of a node, configure the node to perform operations comprising:

based at least in part on a stored indication of a first transmission characteristic, transmitting, by a first network communication device, a first data item to a second network communication device over a link using the first transmission characteristic, wherein the first transmission characteristic is based at least on observed behavior of the link;

based at least in part on a determined availability of a second transmission characteristic for the link that is different from the first transmission characteristic, transmitting, by the second network communication device, a second data item over the link using the second transmission characteristic, wherein transmitting the second data item over the link using the second transmission characteristic is further based at least in part on application of an algorithm; and

based at least in part on the transmission of the second data item being successful, transmitting, by the first network communication device, a third data item over the link using the second transmission characteristic.

19. The one or more non-transitory computer-readable media of claim 18, wherein:

the algorithm is a statistical algorithm, application of the statistical algorithm including determining whether a chance of transmitting the second data item is within a specified probability.

20. The one or more non-transitory computer-readable media of claim 19, wherein the operations further comprise:

determining the specified probability based at least in part on at least one characteristic of the link using the second transmission characteristic.