



Crossed Wires

1 Overview

1.1 Description

1.1.0.1 This is an economic, network-building game. Players are investors in competing wireless infrastructure companies. To fund operations, players issue shares, enabling companies to expand their network, secure access to new areas by building towers, and generate payouts by expanding to cities. As networks grow in value, so do the value of the companies' shares. However, this comes with risk as issuing shares dilutes initial equity and creates openings for opportunistic cross-investors seeking to funnel that money into their own pockets via leasing rival companies' infrastructures.

The game end is triggered when either a) all shares of one company have been issued or b) all players pass consecutively.

1.2 Components

- 36 Shares
 - 6 per company: 1 for company charter, 5 for player shares
- 120 wooden cubes
 - 20 per company
- Money
 - Poker chips recommended
- Hex value markers
 - Rules describe stacked chips, but wooden cubes will do
- Map
 - Included file is scaled to mini-chips hex value markers. Adjust if needed.

1.3 Key Concepts

1.3.1 Map

1.3.1.1 The map is made up of abstracted HEXES, representing areas of coverage. There are four types of hexes: starting (black), mountain (gray), standard (white), and city (yellow).

1.3.2 Network

1.3.2.1 A company-controlled hex represents exclusive rights to infrastructure in that area. Control is indicated by a stack of 1-5 chips with the company's cube on top. A company's NETWORK is the collection of all hexes it controls.

1.3.2.2 A given hex's value is equal to the number of chips on the hex.

1.3.2.3 All companies are considered to control the starting (central, black) hex, which has a hex value of \$5.

1.3.2.4 Besides the starting hex, only one company may control any given hex. I.e., a standard or city hex may only be part of one company's network.

1.3.2.5 The term NETWORK VALUE is used to describe the combined value of a collection of hexes.

1.3.2.6 A company has access to a hex if the hex is adjacent to any hex in its network.

1.3.2.7 A company may lease network (3.3.1) from one or more other companies to gain access to a hex it otherwise does not have access to.

1.3.3 Shares

1.3.3.1 A company's SHARE VALUE is equal to the total network value (1.3.2.5) of all hexes it controls. E.g., at the start of the game, all companies have a share value of \$5.

1.3.3.2 Each share is dual sided. The side that is currently face up indicates what type of share it is:

- (a) One side has an empty circle on it, indicating initial investor equity. These represent unissued shares that have not been sold to raise company capital.
- (b) The opposite side has a red circle with a bar through it, indicating an issued share. Once a share has been issued, it may not be issued again.

1.3.3.3 A player CONTROLS all shares in their player area, but only issued shares count towards final scoring.

1.3.4 Payouts

1.3.4.1 Players make money when shares they control receive payouts. This happens in two scenarios:

- (a) When a company expands onto a city hex (3.3.0.5f)
- (b) When a company's network is leased during a rival company's expansion (3.3.1.4)

2 Setup

2.1 Map Setup

2.1.0.1 Place the map in the center of the table.

2.2 Company Setup

2.2.0.1 For each player in the game, prepare one company

- (a) Put one share above the map to act as the company charter.
- (b) Place \$5 on the company charter as the company's starting treasury.

2.2.0.2 Return remaining companies to the box. They will not be used this game.

2.3 Player Setup

2.3.0.1 Each player takes all 5 remaining shares of one company in the game and places them in their player area: 4 on their unissued side, and 1 on its issued side (1.3.3.2).

2.3.0.2 Each player takes \$25 in starting cash.

3 Gameplay

3.1 Turn Structure

3.1.0.1 On a turn, a player may take one of the following actions:

- (a) Auction (3.2)
- (b) Act for a Company (3.3)
- (c) Pass (3.4)

3.1.0.2 After a player has taken one of these, the player to their left takes a turn.

3.1.0.3 Play continues in this clockwise fashion until the game end is triggered (4.1).

3.2 Auction

3.2.0.1 When auctioning, the turn player selects either one unissued share they control (1.3.3.3) or any share in the bank pool and starts an auction.

3.2.0.2 The turn player is considered the current bidder and may optionally make an initial bid, and then in clockwise order, players may bid or pass

- (a) The initial bid must be at least the given company's current share value (1.3.3.1).
- (b) If a bid has already been placed, the new bid must be greater than the current bid.
- (c) A player may not bid more than their available cash.
- (d) If a player passes, they cannot join back in on subsequent rounds.

3.2.0.3 Play continues in this clockwise fashion, until either all players have passed or only one bidder remains.

- (a) If all players pass (no bids are placed), put the auctioned share in the bank pool, and place money from the bank into the company's treasury equal to its current share value.
- (b) If only one bidder remains, that player wins the auction.
 - i. The winning player takes the auctioned share, flips it to its issued side, and places it in their player area with their other controlled shares.
 - ii. If the share was auctioned from the bank pool, place the winning bid into the bank. Otherwise, place the winning bid into the auctioned share's company's treasury.

3.2.0.4 If this was the last unissued share for a given company, the game end is triggered (4.1).

3.3 Act for a Company

3.3.0.1 To act for a company, a player must control at least one share of that company, issued or otherwise (1.3.3.3).

3.3.0.2 When acting for a company, players expand the company's network by building towers to control hexes.

- (a) A player may only act for one company on a given turn.

3.3.0.3 All money spent for expanding company network comes from the company's treasury.

- (a) If the company cannot afford an action, it cannot take that action.

3.3.0.4 The total value of hexes expanded to on a given turn may not exceed the number of shares issued for the company.

3.3.0.5 When expanding network:

- (a) Choose a target hex the company has access to (1.3.2.6) that no company controls.
- (b) Choose a hex value (1.3.2.2).
- (c) Pay \$5 x that value from the company treasury to the bank.
- (d) Stack a number of chips equal to the chosen value on the target hex.
- (e) Place one cube for the company on top of the stack of chips, indicating the company now controls that hex.
- (f) If the company expands into a city hex, all players who control shares in the acting company receive from the bank an immediate payout per share equal to the target city hex's value.

3.3.0.6 Finally perform Upkeep

- (a) For each unissued share the turn player controls, they must pay \$1 to the share company's treasury. This represents the cost of retaining ownership that has not yet been sold to raise capital.
 - i. This comes from the player's personal treasury, not the company they're acting for.
 - ii. They must pay this cost regardless of which company they acted for this turn. E.g., if they acted for a company they only own issued shares in, they still must pay upkeep on their unissued shares.
- (b) If they cannot afford to pay this cost, they must:
 - i. Put one of their unissued shares into the bank pool
 - ii. Take the company's current share value (1.3.3.1) from the bank and put it in the company's treasury.

3.3.1 Leasing Network

- 3.3.1.1 A company may lease network from other companies in order to expand onto a hex it otherwise does not have access to (1.3.2.6) by tracing a route from any part of its own network through the leased network(s) to an empty hex.
- 3.3.1.2 The route through the leased network(s) must follow the shortest route from any combination of networks to the target hex. Therefore, if a company already has access to a given hex, it may not lease network to said hex.
- 3.3.1.3 The cost of leasing network is the combined network value of the hexes used. The company must pay this value to the bank.
 - (a) If they cannot afford this cost, they cannot take the action.
 - (b) If after leasing network, the company does not have enough money to expand onto the target hex, they cannot take the action.
- 3.3.1.4 After leasing network, all players who control a share for a company whose network was leased receive a payout per share of the total value of the company's leased network.

3.4 Pass

- 3.4.0.1 If a player chooses to pass, they do nothing, and play continues to the next player in turn order.
- 3.4.0.2 If all players pass consecutively, the game ends immediately (4.1).

4 Game End

4.1 Triggers

- 4.1.0.1 The game ends when one of the following conditions have been met:

- (a) All shares of a single company have been issued
 - i. In this event, all players besides the current turn players (the player who triggered the game's end) get one more turn, and then a final round is played, starting with the player who triggered the end game.
- (b) All players pass consecutively
 - i. In this event, the game ends immediately.

4.2 Scoring

- 4.2.0.1 The winner of the game is the player with the highest NET WORTH. A players net worth is the sum of the following:
 - (a) Their cash
 - (b) The Share Value of all issued shares they control (1.3.3.3).
 - i. Unissued shares are worth nothing.