# Mining From CPUs to Pools



# **Objectives**



**Objective** 

Identify the role of mining pools in the network



**Objective** 

Differentiate between commercial and P2Pools

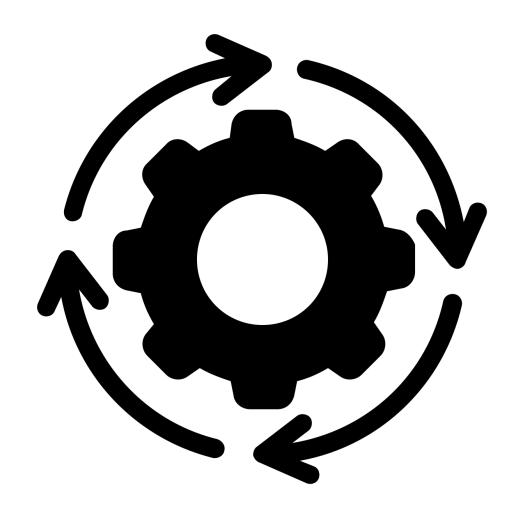
# Developments in Mining

## Hardware

- CPUs
- GPUs
- FPGAs
- ASICs

Algorithms

Pools



# Mining Pools

### Central commercial server

Owned by individual or company

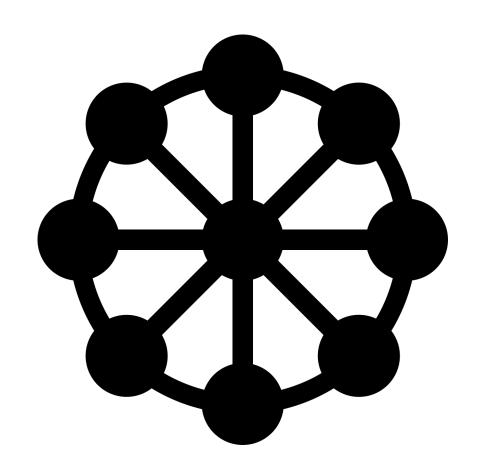
#### Several miners

- Prove contribution

## Pool operator

- Pays for contributed hash power

Continuous revenue stream for miners



# Views on Mining Pools

## Advantages

- Sustainable business model for miners
- Miners in pools can benefit from superior performance

### Disadvantages

- Pool operator controls how hash power is used
- Increases risk of 51% Attack

# **Discouraging Centralization**

#### P2Pools

- Node software (currency/application-specific)
- All contributors paid in a block
- Not as competitive as commercial pools
  - Likely inferior resources
  - Less reliable revenue stream