

# ETHEREUM 2.0



Por



# Sobre mí

Nacido en Santiago de Compostela, Administrador de Sistemas de profesión aunque me gusta definirme como Bombero informático. Apasionado de las tecnologías en general, de los videojuegos y la Blockchain en particular.

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- Ethereum, la cadena
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  - Smart Contracts
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  - Escalabilidad, Sostenibilidad, Seguridad.
- Ethereum 2.0, la solución
  - PoS
  - Sharding Y Rollups
  - Beacon Chain
  - Docking

# Introducción Repaso a la Cadena Ethereum

# Introducción Repaso a la Cadena Ethereum

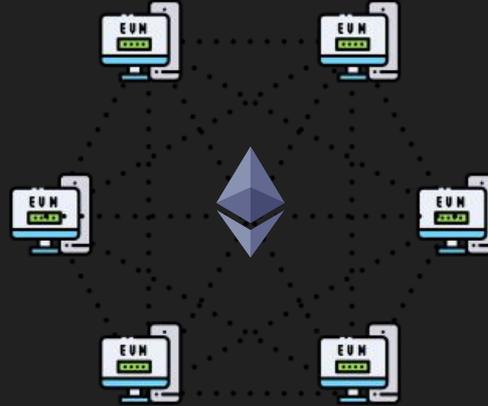


Blockchain distribuida

Pública

Funciona mediante  
Proof of Work

Los nodos sólo son  
capaces de procesar  
Transacciones



Blockchain distribuida

Pública

Funciona mediante  
Proof of Work (V1)

Los nodos son  
capaces de procesar  
Lógica programable  
(Smart Contracts)

# Smart Contracts

# Smart Contracts

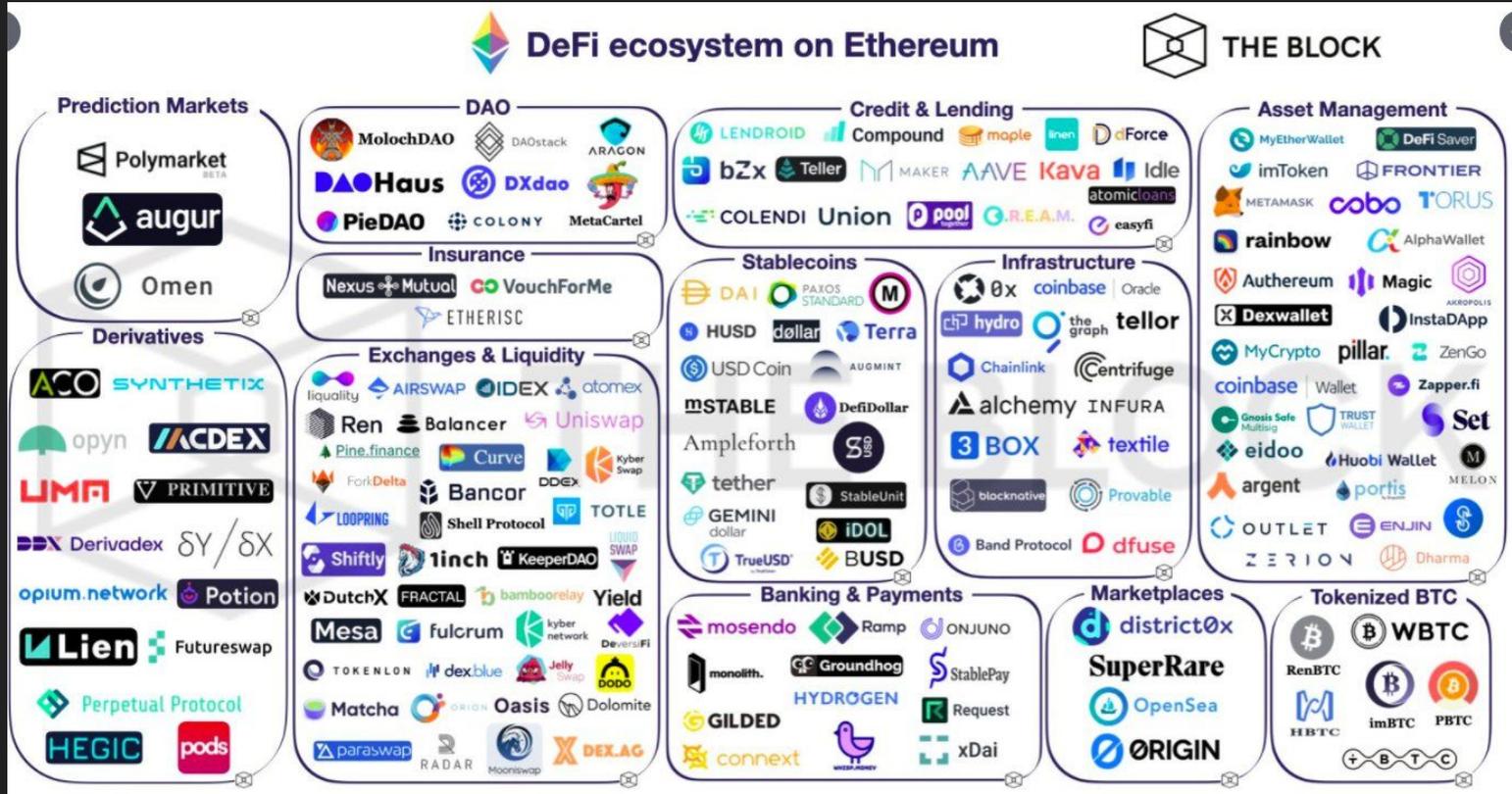
```
3  contract Hello {  
4  
5      string public message;  
6  
7  function Hello(string initialMessage) public {  
8      message = initialMessage;  
9  }  
10  
11 function setMessage(string newMessage) public {  
12     message = newMessage;  
13 }  
14 }
```

# Smart Contracts



```
3  contract Hello {  
4  
5      string public message;  
6  
7  function Hello(string initialMessage) public {  
8      message = initialMessage;  
9  }  
10  
11 function setMessage(string newMessage) public {  
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13 }  
14 }
```

# El Ecosistema Ethereum



# Ethereum, el Problema



# Ethereum, el Problema

Level Chart

[VIEW FULL CHART](#)

1D 5D 1M 3M 6M YTD 1Y **3Y** 5Y 10Y MAX

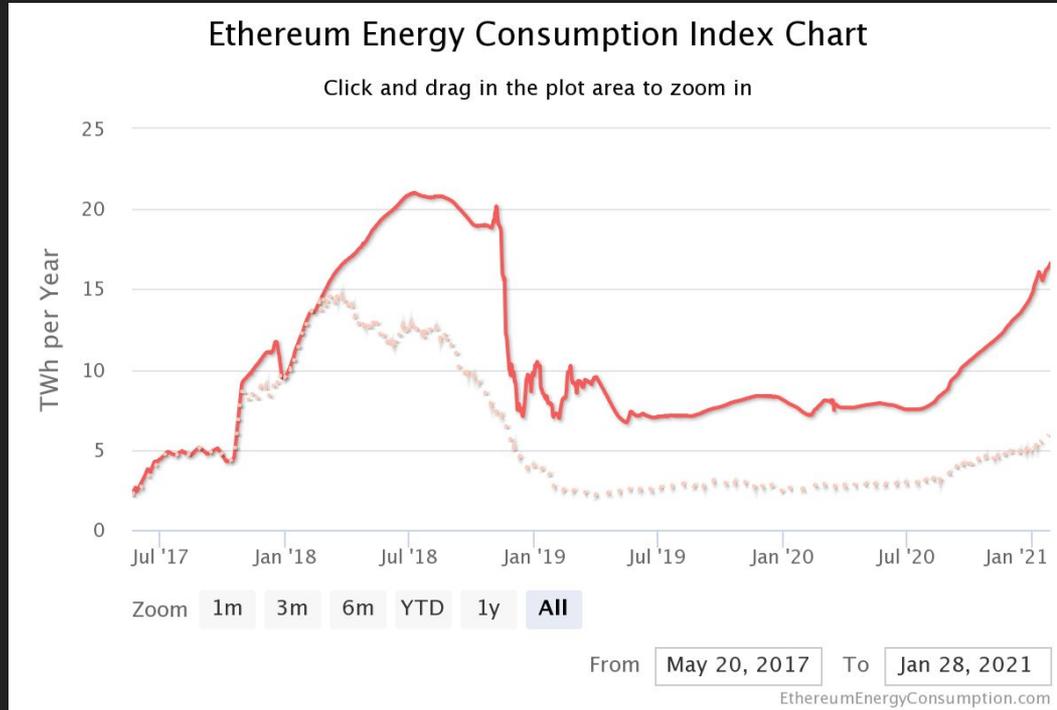


# Ethereum, el Problema

The screenshot displays a transaction summary for an Ethereum transaction. At the top, the transaction amount is shown as 0.002559 ETH, which is equivalent to \$3.66. Below this, there are two tabs: 'DETAILS' (selected) and 'DATA'. Under the 'DETAILS' tab, the 'GAS FEE' is listed as 0.02595 ETH, which is equivalent to \$37.10. An 'EDIT' link is visible next to the gas fee. Below the gas fee, a horizontal line separates it from the 'TOTAL' section. The 'TOTAL' is labeled 'AMOUNT + GAS FEE' and is shown as 0.028509 ETH, which is equivalent to \$40.76.

◆ 0.002559	
\$3.66	
DETAILS	DATA
EDIT	
GAS FEE	◆ 0.02595
	\$37.10
AMOUNT + GAS FEE	
TOTAL	◆ 0.028509
	\$40.76

# Ethereum, el Problema



# Ethereum, el Problema

Sostenibilidad



Seguridad



Escalabilidad



# Ethereum, el Problema

Sostenibilidad

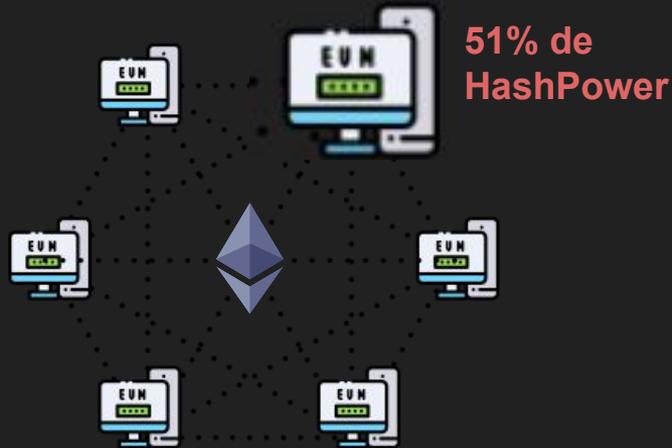


Seguridad



# Seguridad y Sostenibilidad

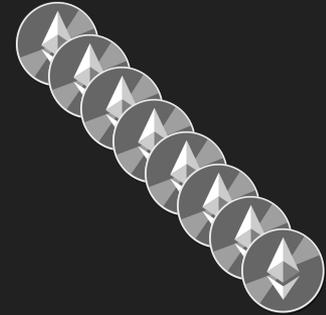
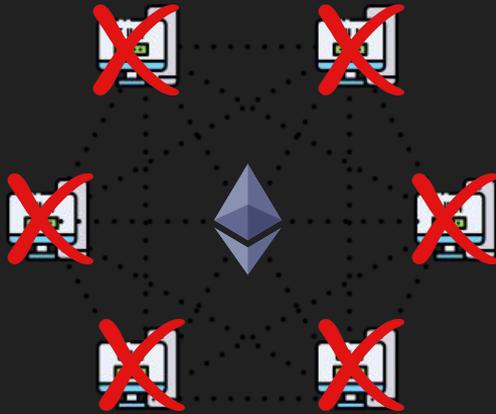
## Proof of Work



- Mecanismo de consenso muy probado
- Los mineros Invierten Recursos para securizar la red (Electricidad)
- El consumo de Energía es Intensivo
- No es libre de ser atacado

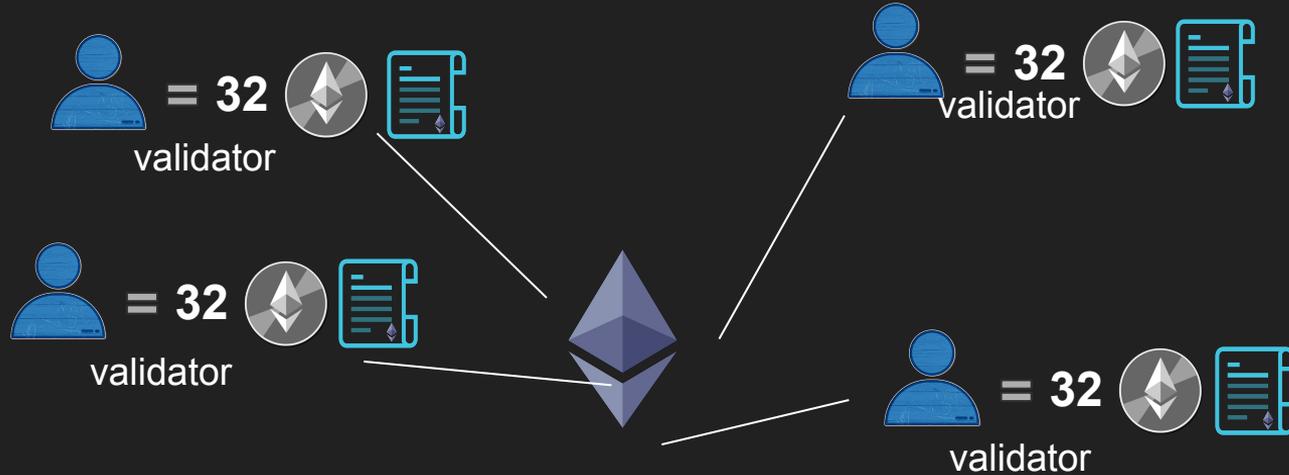
# Seguridad y Sostenibilidad

Proof of Stake

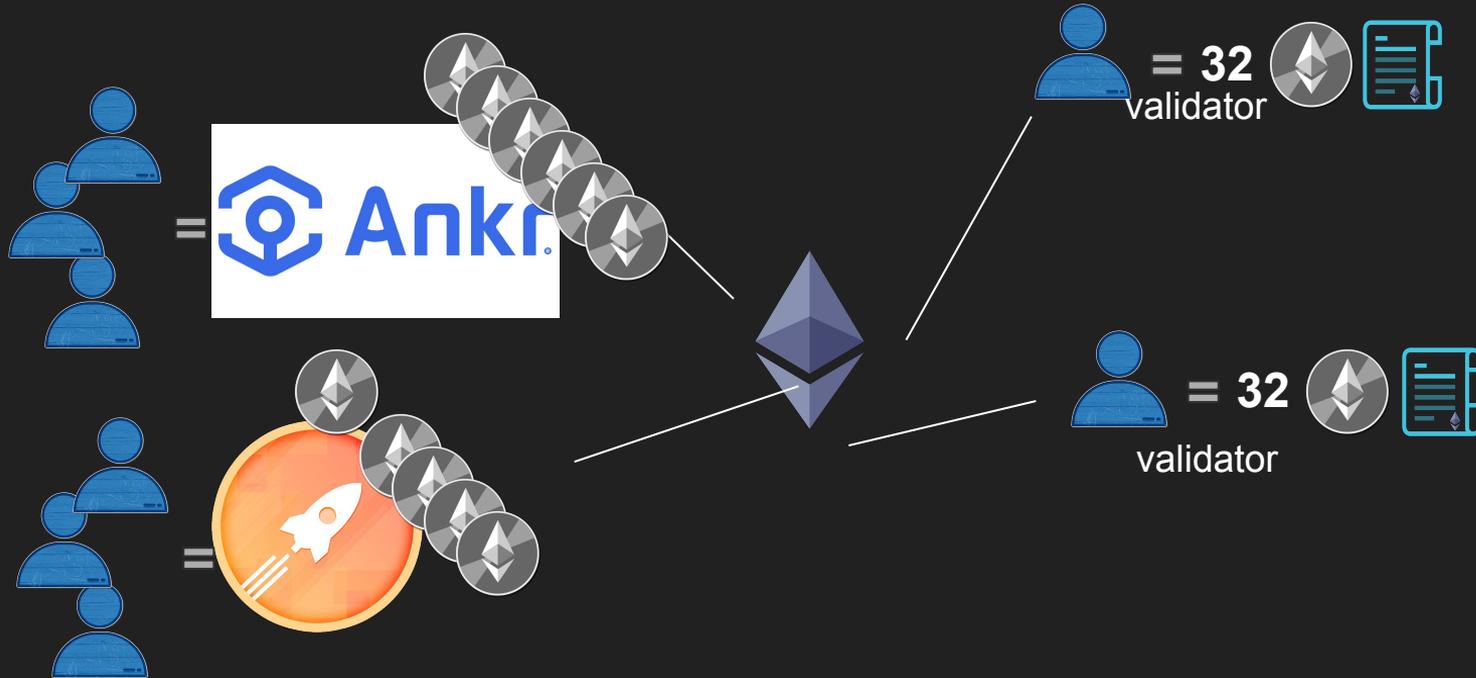


# Seguridad y Sostenibilidad

## Proof of Stake



# Seguridad y Sostenibilidad

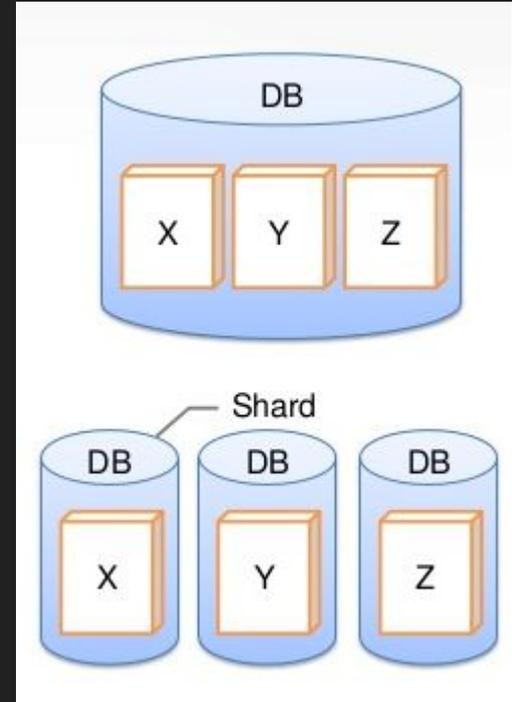


# Escalabilidad



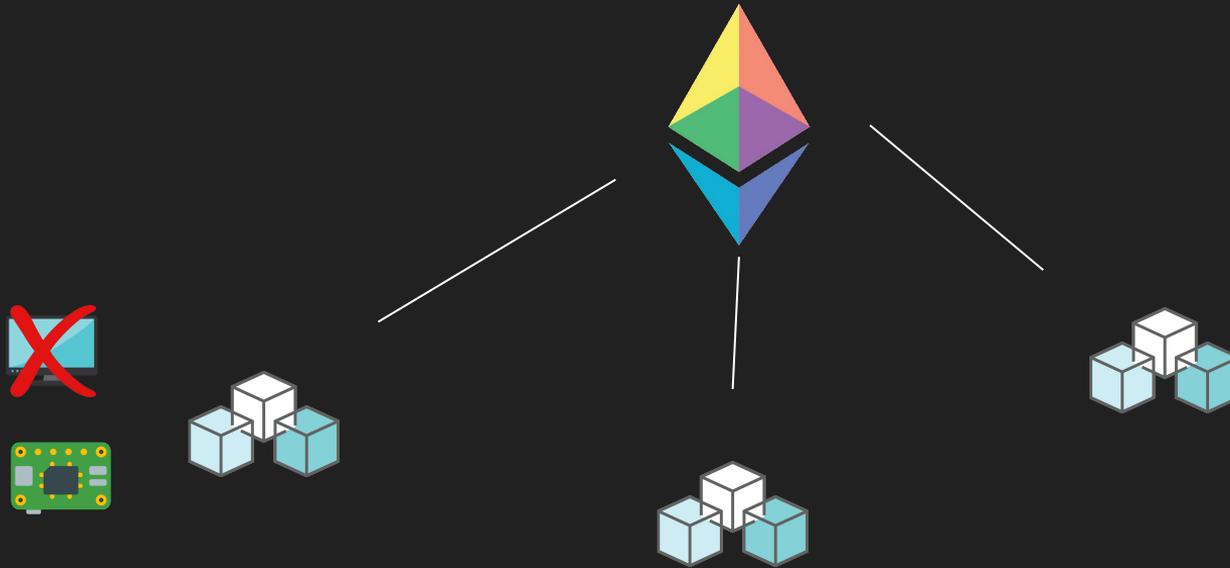
# Escalabilidad

# POS



# Sharding y Rollups

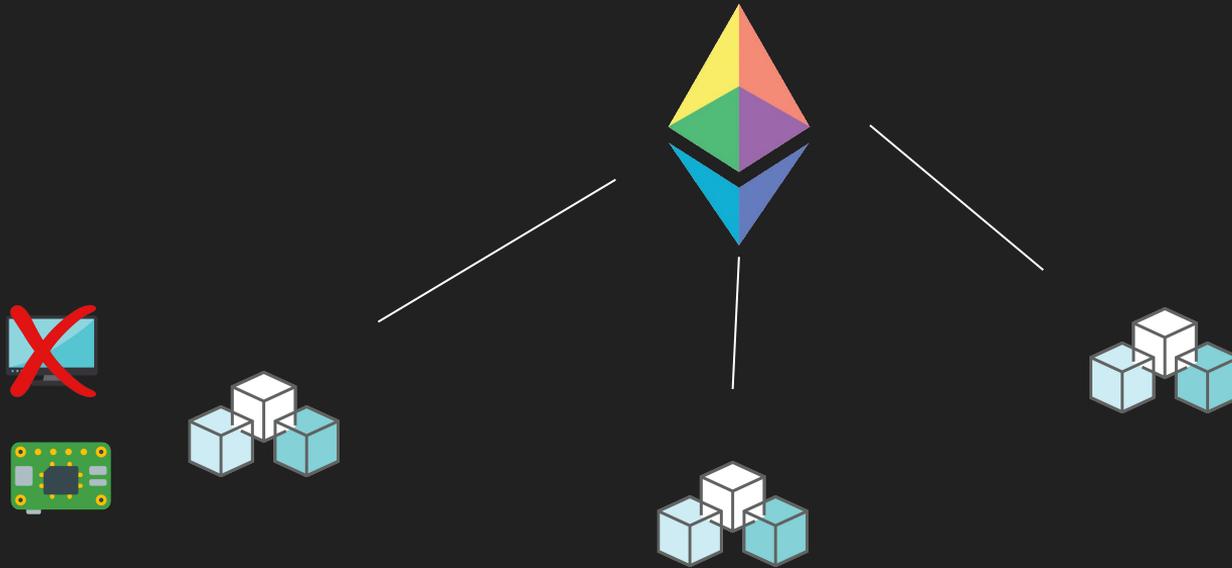
# Sharding y Rollups



X64

- Datos Adicionales
- Transacciones
- Smart Contracts

# Sharding y Rollups



X64

- Datos Adicionales
- Transacciones
- Smart Contracts



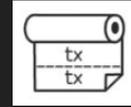
# Sharding y Rollups



X64



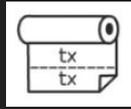
LAYER 2



- Datos Adicionales
- Transacciones
- Smart Contracts

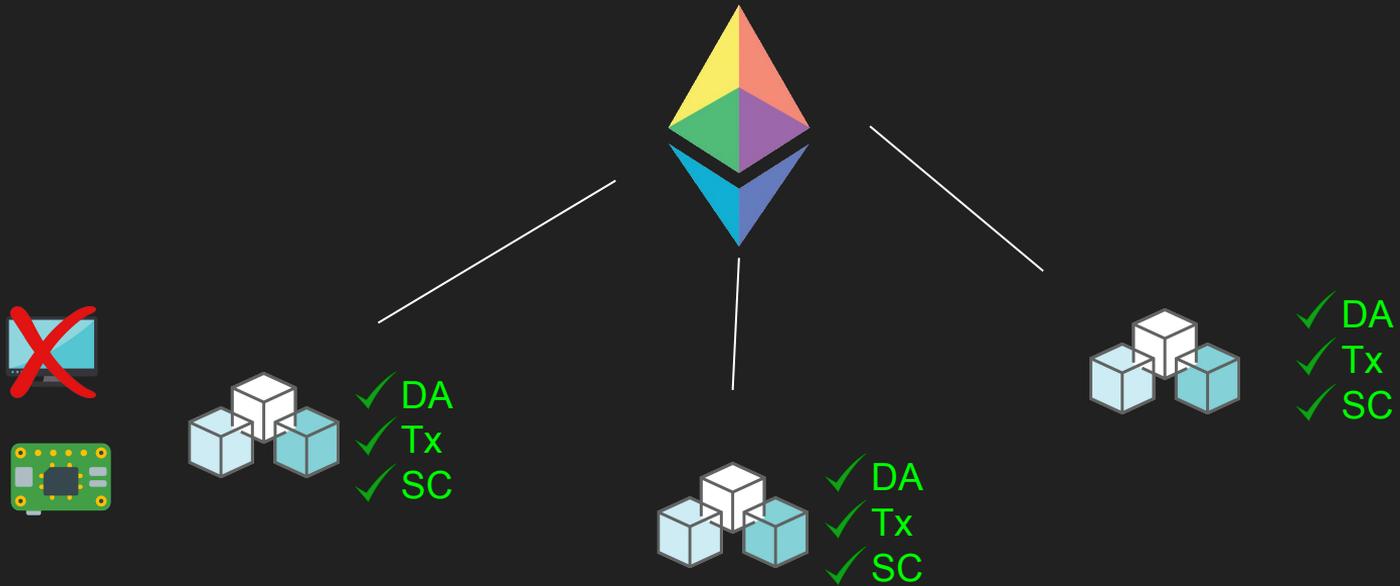


# Sharding y Rollups



**100k Tx/S!!!**

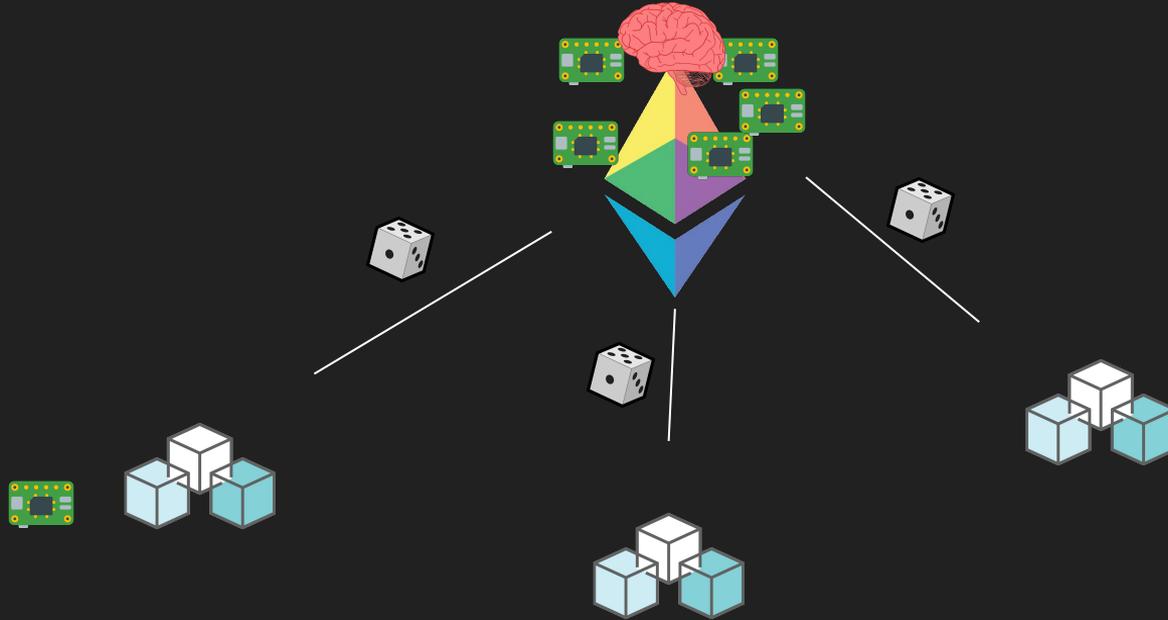
# Sharding y Rollups



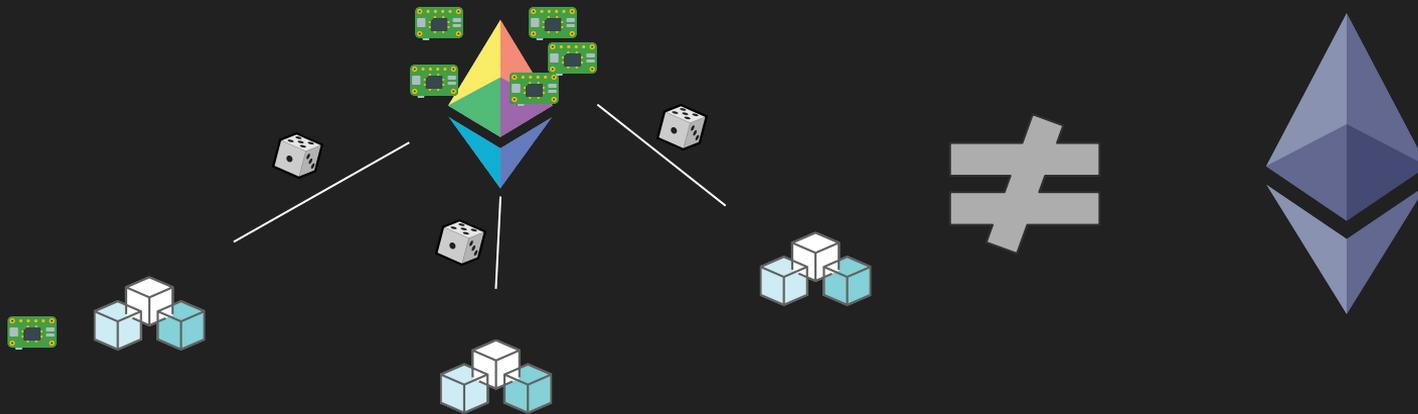
X64

# Beacon Chain

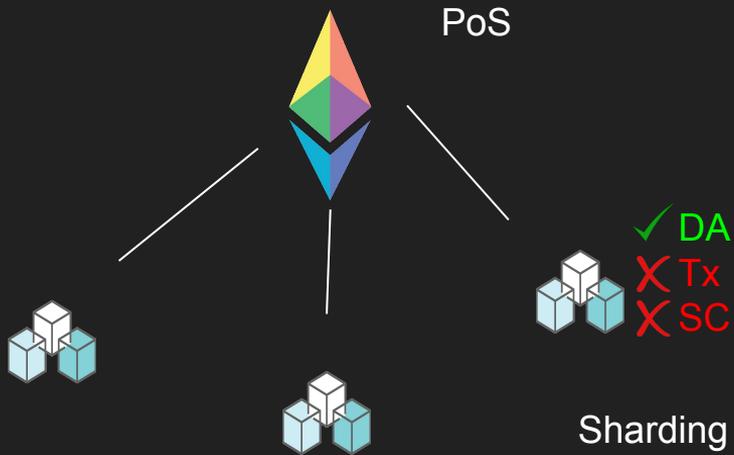
# Sharding y Rollups



# Sharding y Rollups

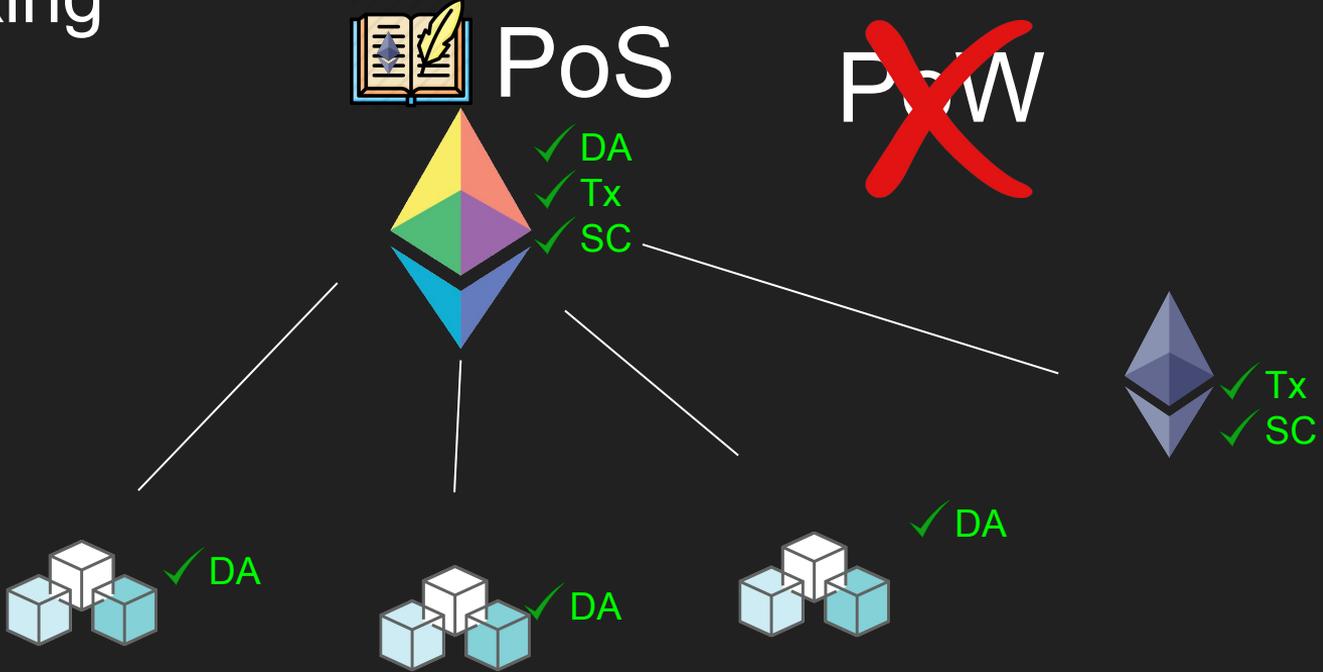


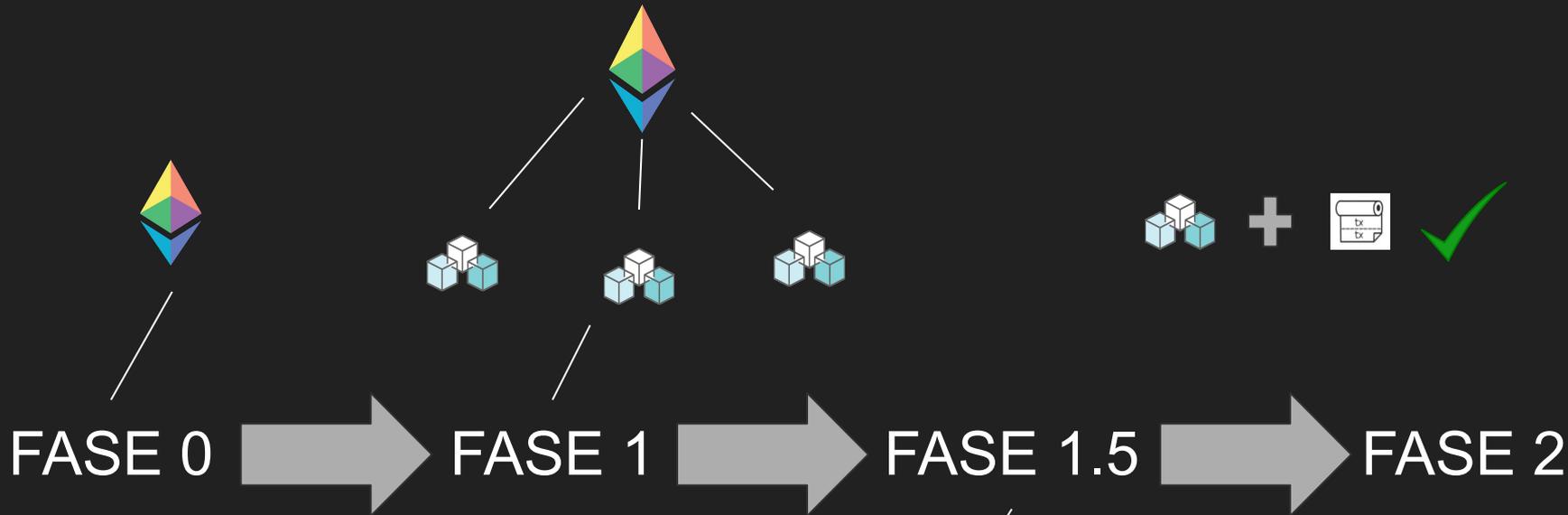
# Beacon Chain



# Docking

# Docking

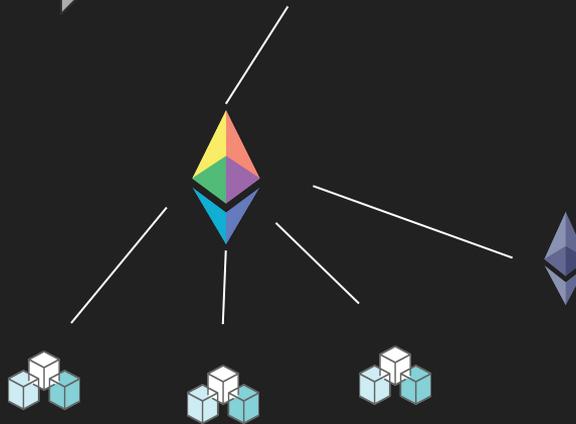


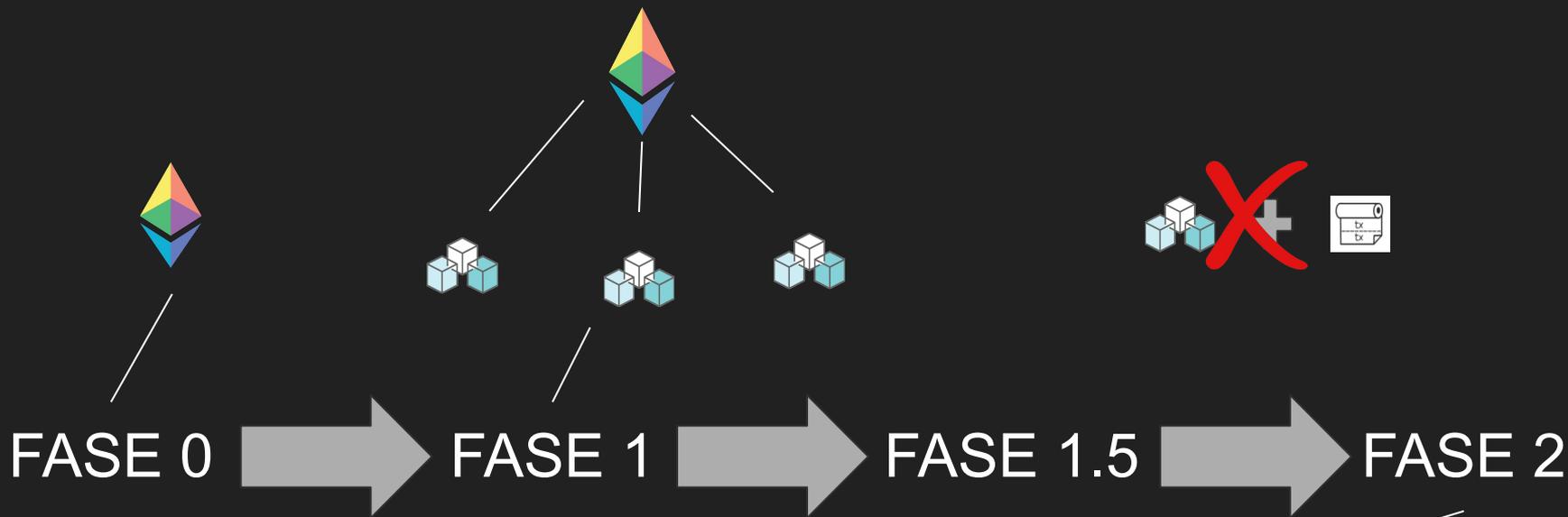


16384 Validadores

Meta alcanzada : 24 de noviembre de 2020

Se lanza el 1 de Diciembre de 2020

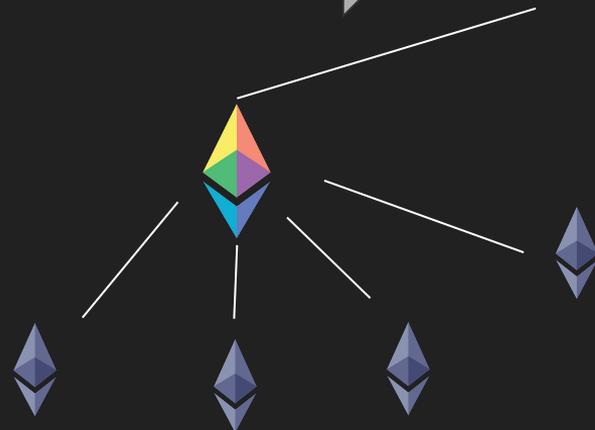




16384 Validadores

Meta alcanzada : 24 de noviembre de 2020

Se lanza el 1 de Diciembre de 2020



# Preguntas

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GRACIAS!!!