

EOSIO

28 HOURS LATER

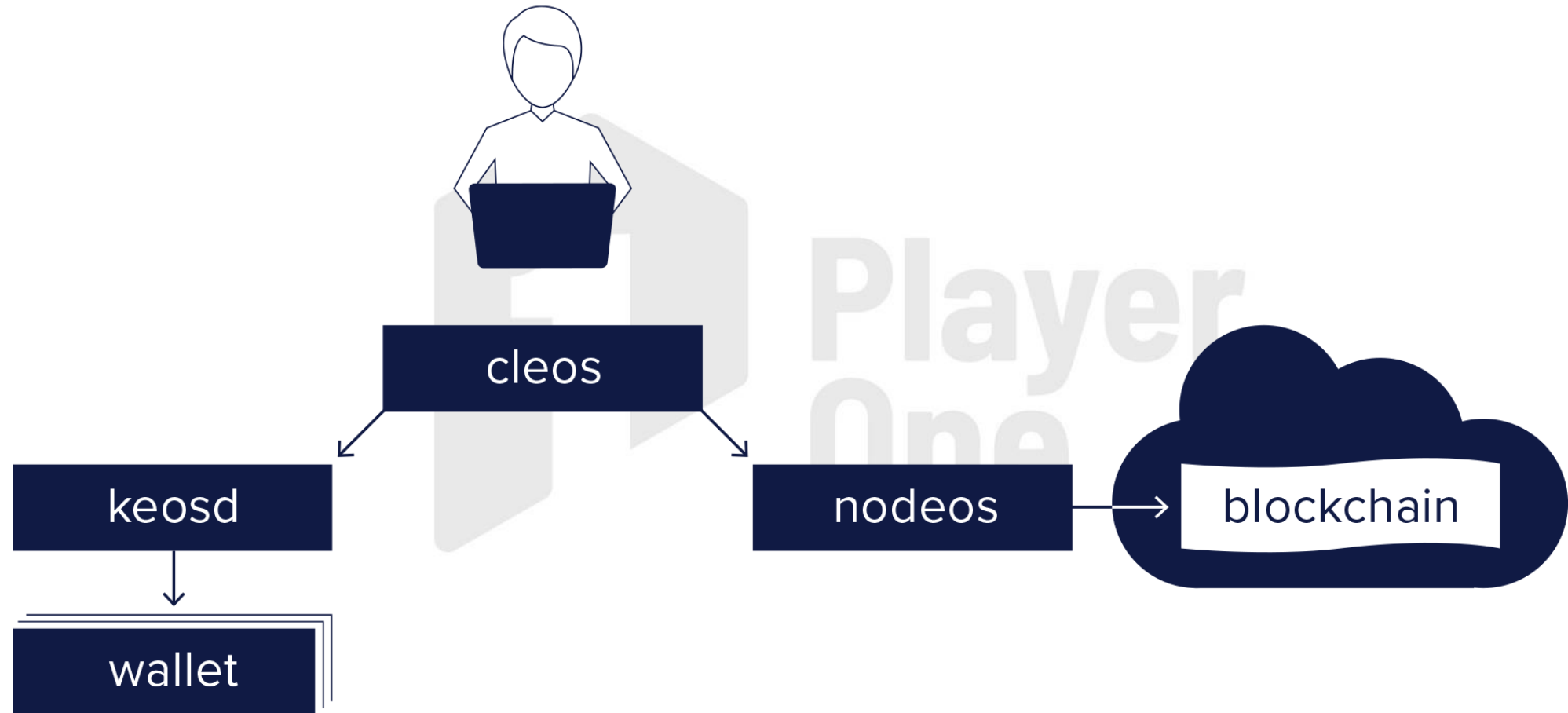
2018 3rd EOSIO Developer Meetup, Seoul
playerone.id



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CTO at PlayerOne

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- **nodeos**

- EOSIO node daemon

- **cleos**

- EOSIO client (command line interface to EOSIO api)

- **keosd**

- Wallet function

- **BIOS boot 절차 숙지**

- <https://developers.eos.io/eosio-nodeos/docs/bios-boot-sequence>



- **<https://en.bitcoin.it/wiki/Wallet>**
 - collection of private keys or client software used to make transactions on (blockchain) network
 - keosd, wallet plugin(nodeos plugin)
- **EOS 에서는 오직 본연의 sign 에만 사용됨**
 - 공개키는 주소가 아님. 권한 표시(authority), sign 검증용.
- **private key (ECDSA)**
 - 단지 32-byte random number, 뒤쪽 4-byte 는 checksum
 - base 58 encoding
 - public key 는 private key 로 부터 추출됨.
 - elliptic curve(EC), secp256k1, secp256r1

- **uint64 value encoded Base32**
 - 64-bit machine 에 최적화.
 - indexing 가능. 사용자 친화적(readable)
- **contract 이나 eosio contract 에서 키로 사용됨**
- **authorization**
 - owner, active / custom permission
 - permission 은 key, account, wait (time) 가능
 - 개별 weight 지정 가능



- **account 에 permission 별로 authorization 설정 가능**
- **permission**
 - parent – child 관계 있음 (owner – active)
 - public key 지정
 - account 지정(예. 2개 이상의 contract 이 상호 작용할 때)
 - ico contract <--> refund vault contract
 - eosio.code
 - contract 내부에서 추가로 transaction을 일으킬때 자동 변환됨
 - active perm. 으로 call 했지만, 추가 trx 는 eosio.code permission 으로 실행됨(주의)
 - wait 지정(time, 초 단위)

- **CPU**

- stake 로 확보. computing 자원.
- contract 의 실행 경로의 코드량 따라 소요량 결정

- **RAM**

- buy 해야함. eosio 의 db table 에 저장되는 공간
- MMF 를 memory(ram)에 통채로 올림. 그래서 RAM

- **Net**

- stake 로 확보.
- EOSIO 에 보내는 메시지 byte 량에 따라 소요량 결정

- **EOS resource planner by EOSNY**

- <https://www.eosrp.io/>

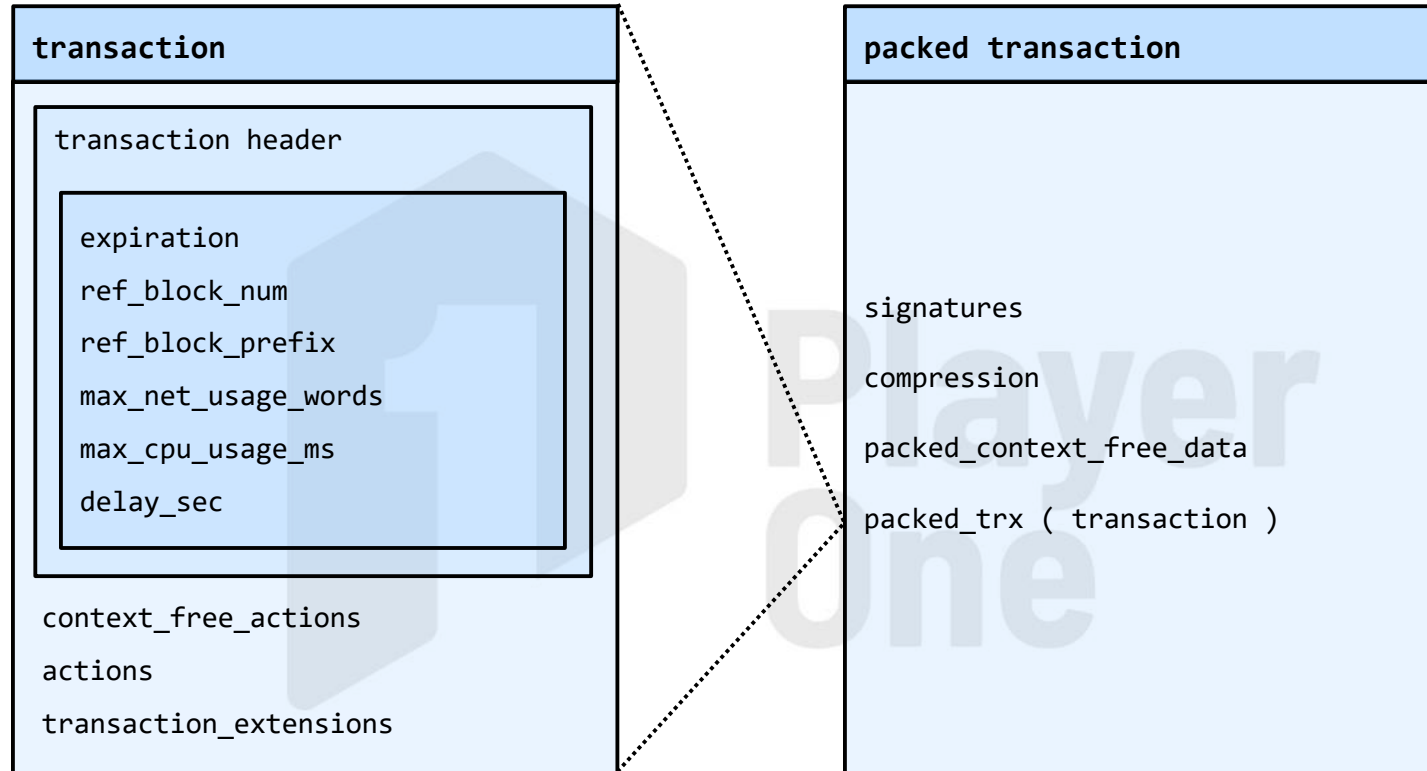


- block 에 포함되어도, reversible 될 수 있음!
 - decentralized 특성
- 21개 bp 의 $\frac{2}{3} + 1$ 가 서명하면 확정블럭(irreversible block)
- DPos + BFT 적용되면 1초 내외 irreversible 가능
- 중요 부분은 LIB (last irrevisble block) # 안으로 들어가야 처리되도록 설계

- 연결한 EOSIO network 의 정보를 가져옴

```
{
  "server_version": "f0a25723",
  "chain_id": "aca376f206b8fc25a6ed44dbdc66547c36c6c33e3a119ffbeaef943642f0e906",
  "head_block_num": 18741765,
  "last_irreversible_block_num": 18741432,
  "last_irreversible_block_id": "011df8b80172ff95f5260dc195f692a28089e466233b7e15577718fc37eb5db7",
  "head_block_id": "011dfa05f59694f69ad85fb8061527630b19a3ca4a2fac7ab8f1eea1cca42202",
  "head_block_time": "2018-09-28T05:59:46.000",
  "head_block_producer": "eosiosg11111",
  "virtual_block_cpu_limit": 200000000, //실제 사용자 resource 사용에 영향을 미치는 값.
                                         // 현재 transaction 처리량에 따라 값이 변함
                                         // base 값은 block_cpu_limit

  "virtual_block_net_limit": 1048576000,
  "block_cpu_limit": 198592,
  "block_net_limit": 1048232,
  "server_version_string": "mainnet-1.2.5-38-gf0a257233"
}
```



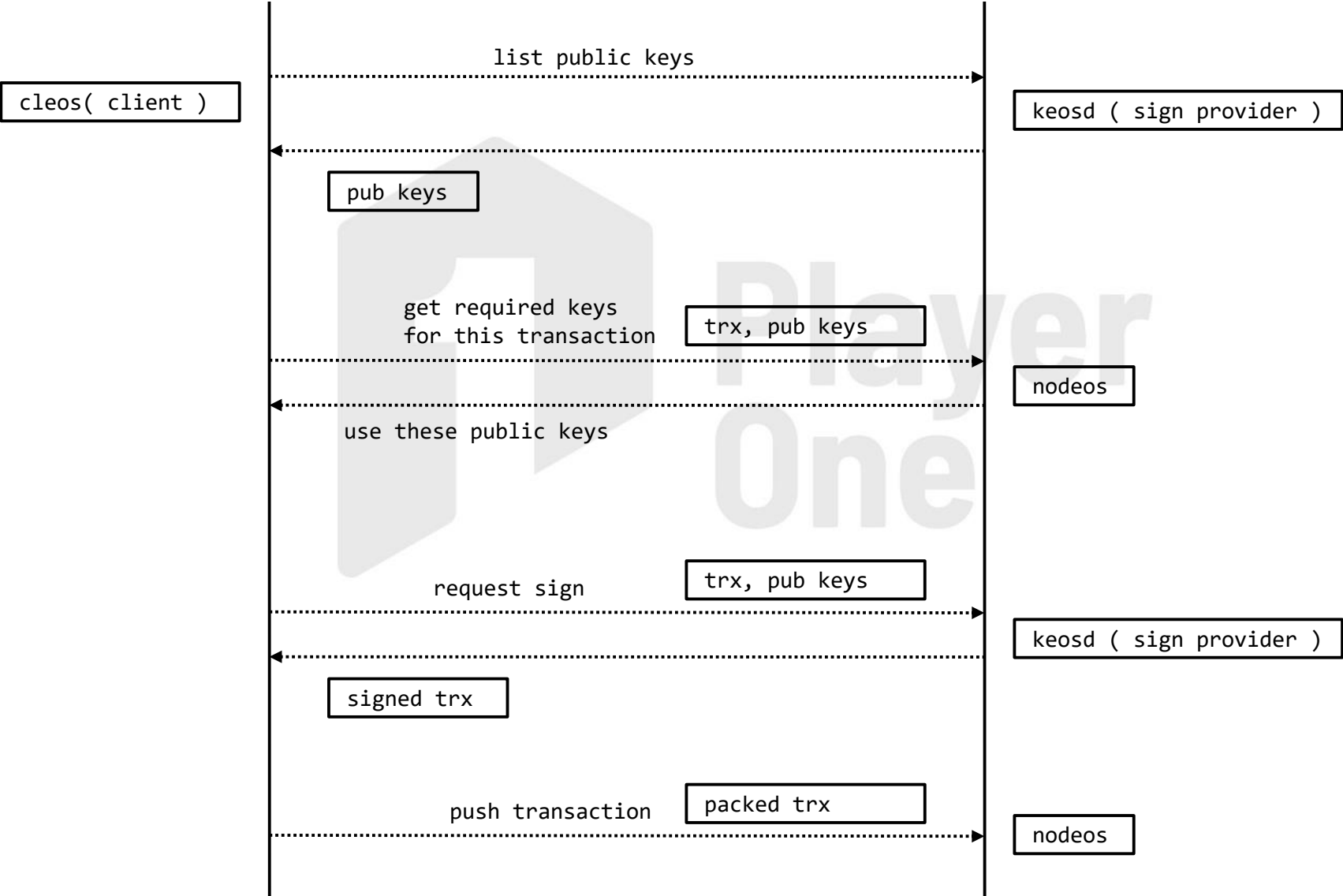
`ref_block_num, ref_block_prefix` : TaPos(Transactions as POS)

→ Prevent transaction replay on different chains.

→ Signalling the network that a user and their stake is on a particular fork

context free action : blockchain state 가 필요없는 action. ex) signature verification

push transaction process



- **JS client library**

- <https://github.com/EOSIO/eosjs2>
- <https://github.com/EOSIO/eosjs>

- **Java/Android**

- <https://github.com/EOSEssentials/eos-java-rpc-wrapper>
- <https://github.com/playerone-id/EosCommander>

- **Python**

- <https://github.com/eosnewyork/eospy>

- **GO lang**

- <https://github.com/eoscanada/eos-go>

- **Home** <https://playerone.id/>
- **Github** <https://github.com/playerone-id>
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