

Torrent structure:

```
Dict{
    (String)name
    (Int)piece length
    (String)piece
    (Int)length(文件)
    (List)files{
        Dict{
            (int)length
            (list)path:{string}
        }
    }
}
```

Magnet link structure:

magnet:?xt=urn:btih:<info-hash>&dn=<name>&tr=<tracker-url> (这里的 tr 是指带领你加入 dht 的服务器)

kad rpc :

```
type PingReturn struct {
    Success bool
    Header   Contact
}

type StoreRequest struct {
    Pair      KVPair
    Header    Contact
    Expire    time.Duration
    Replicate bool
}

type StoreReturn struct {
    Success bool
    Header   Contact
}

type FindNodeRequest struct {
    Header Contact
    Id      *big.Int
}

type FindNodeReturn struct {
    Header   Contact
    Closest Contacts
}

type FindValueRequest struct {
    Header Contact
    HashId *big.Int
    Key    string
}
```

```
}  
type FindValueReturn struct {  
    Header    Contact  
    Closest []Contact  
    Val       Set  
}  
type Contact struct {  
    Id *big.Int //server's Id  
    Ip string   //server's Ip  
}  
RPCPing(Contact)->Pingreturn  
RPCStore(StoreRequest)->StoreReturn  
RPCFindNode(FindNodeRequest)->(FindNodeReturn)  
RPCFindValue(FindValueRequest)->(FindValueReturn)
```

类名： Node