ioeX

Internet of Everything

- ✓ **The Method to Compose P2P Network**
- ✓ **Apply Functionality of Elastos Carrier**
- ✓ **The Functionality Which is going to be created by ioeX**

Relationship between ioeX and Elastos

ioeX

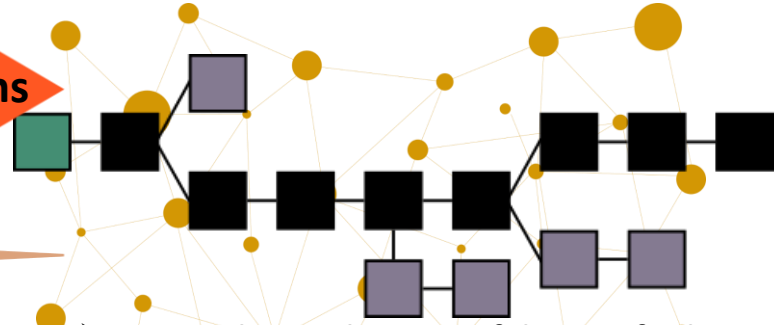
Decentralized P2P Network

- Devices with ioeX SW as the peer nodes
- Direct connection/Delivery with each other

Contributions

Rewards

Blockchain and its token mechanism



- Record contributions of devices fairly
- Traceable and Non-changeable

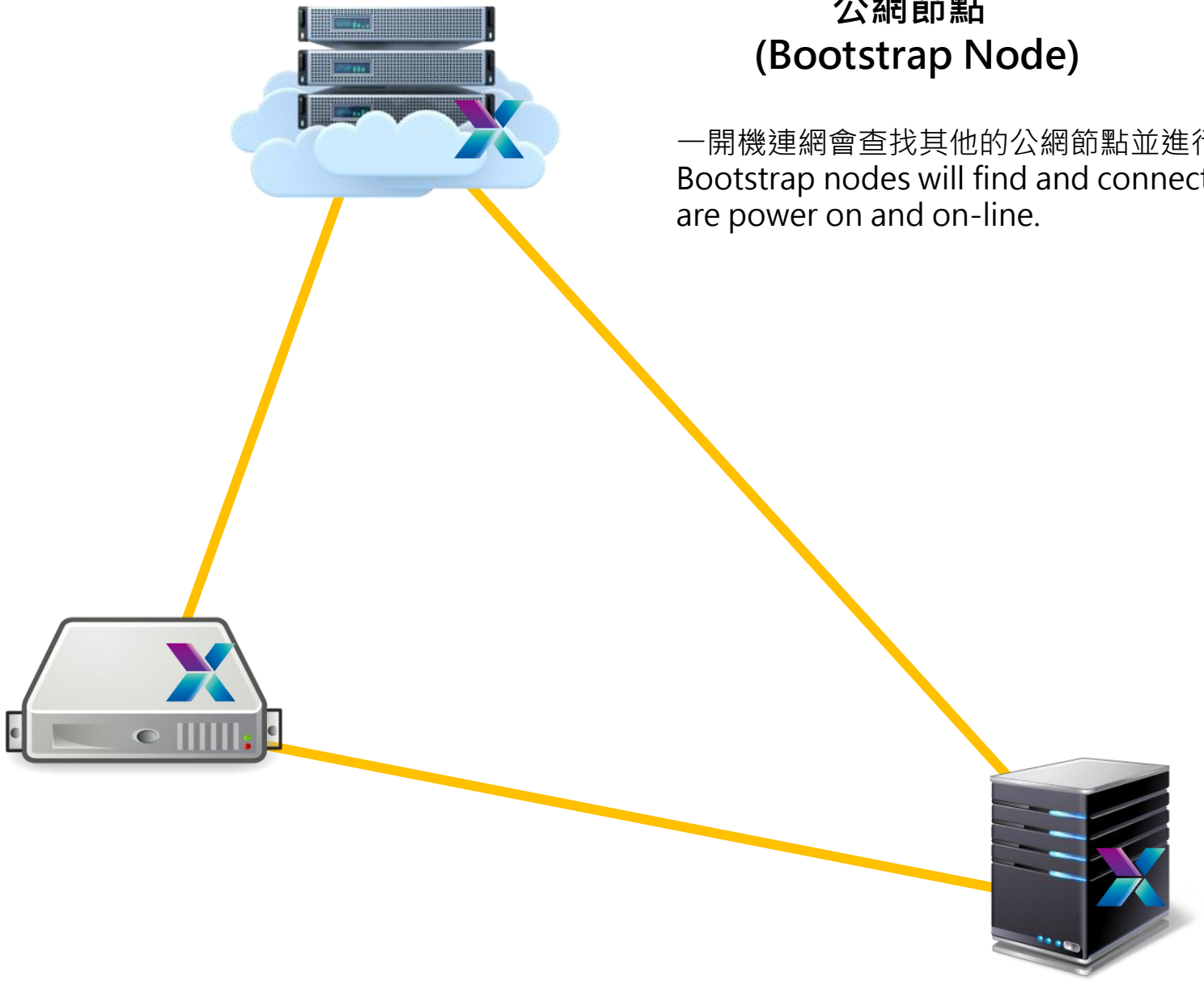
Supported by Carrier

Leveraged ELA BlockChain

PoW(Merged Mining)+DPoS

The Method to Compose P2P Network

❶



公網節點
(Bootstrap Node)

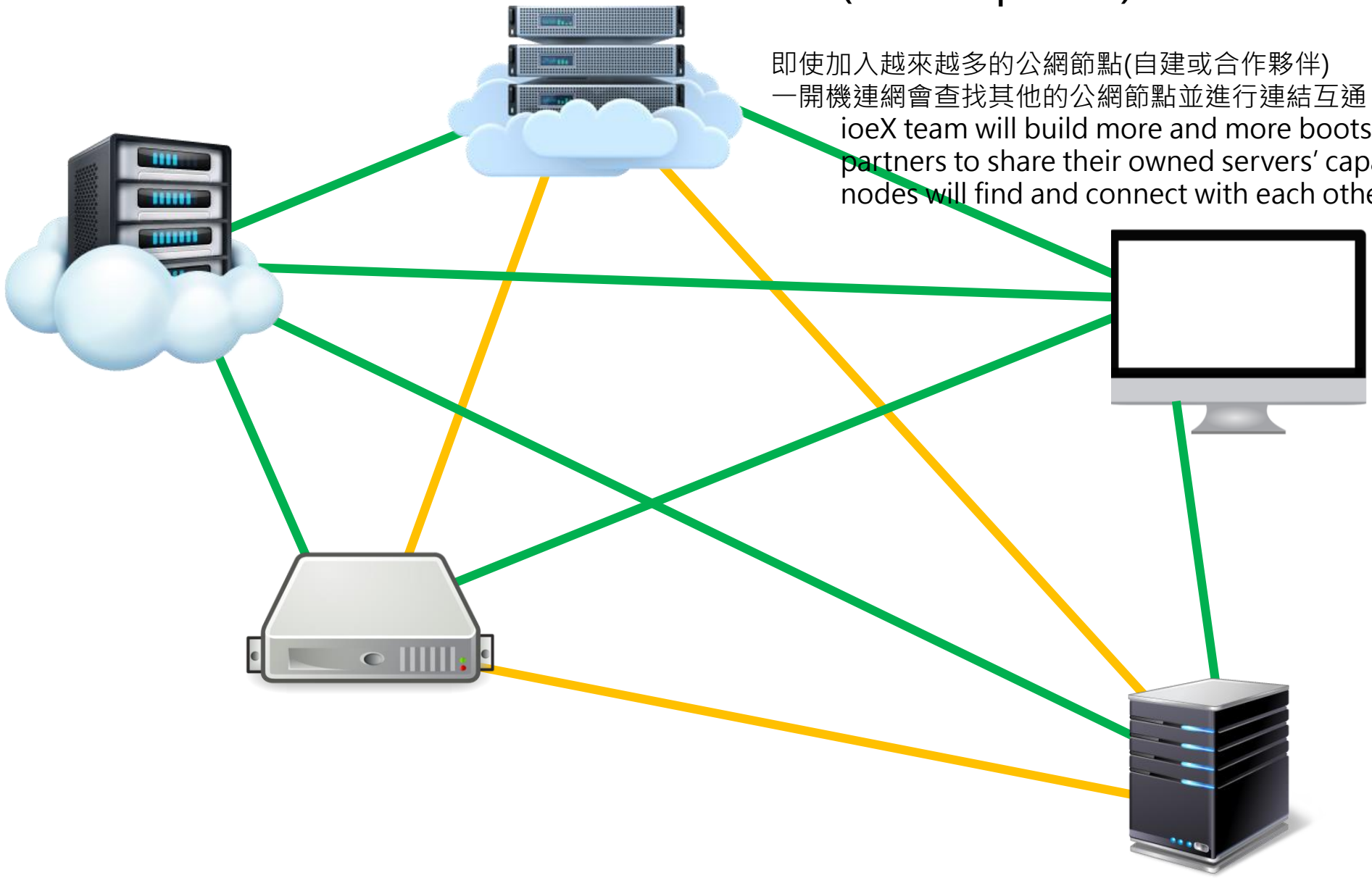
一開機連網會查找其他的公網節點並進行連結互通
Bootstrap nodes will find and connect with each other once they are power on and on-line.

❷

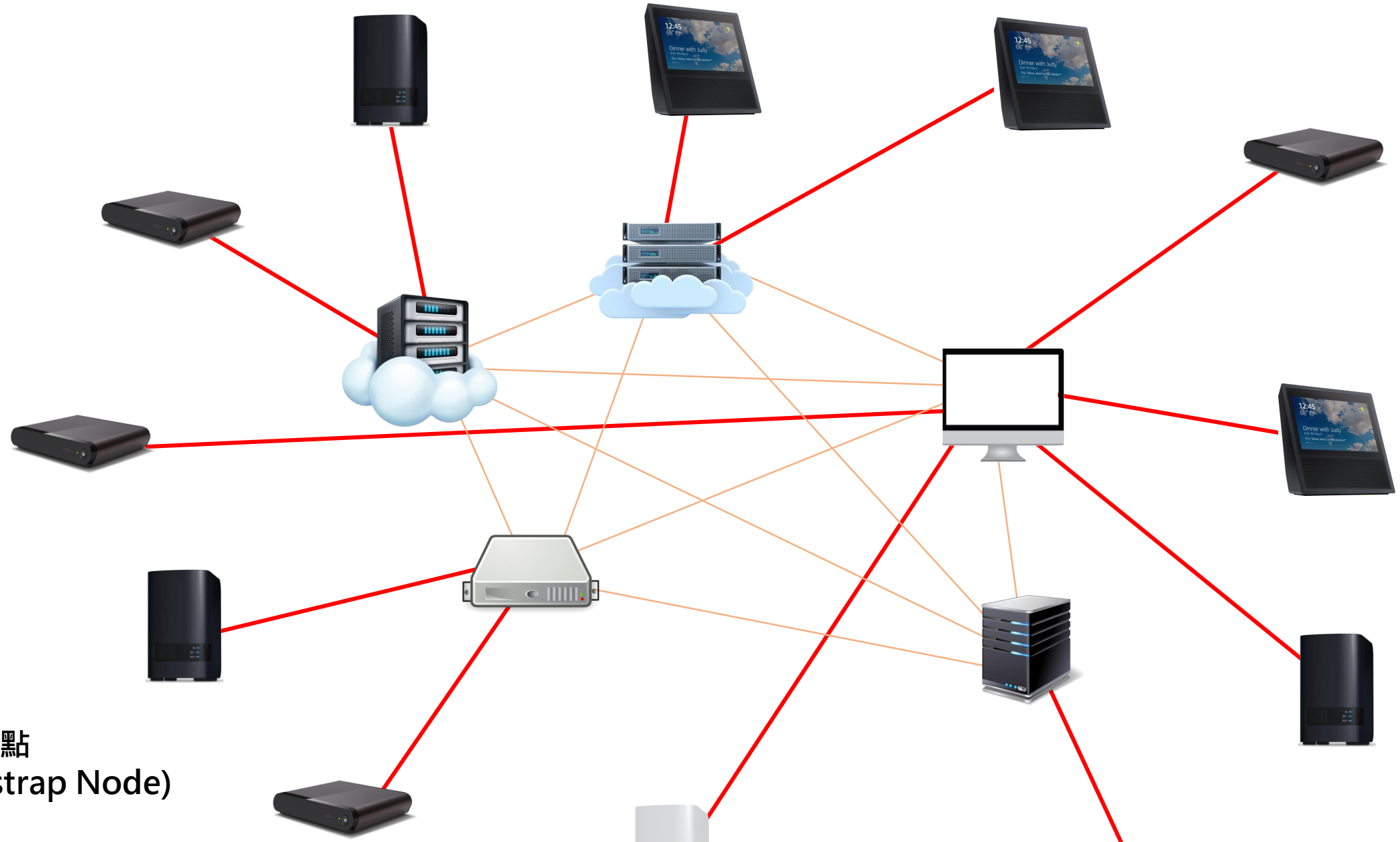
公網節點
(Bootstrap Node)

即使加入越來越多的公網節點(自建或合作夥伴)
一開機連網會查找其他的公網節點並進行連結互通

ioeX team will build more and more bootstrap nodes and also invite partners to share their owned servers' capacity. All new Bootstrap nodes will find and connect with each other including existed ones.



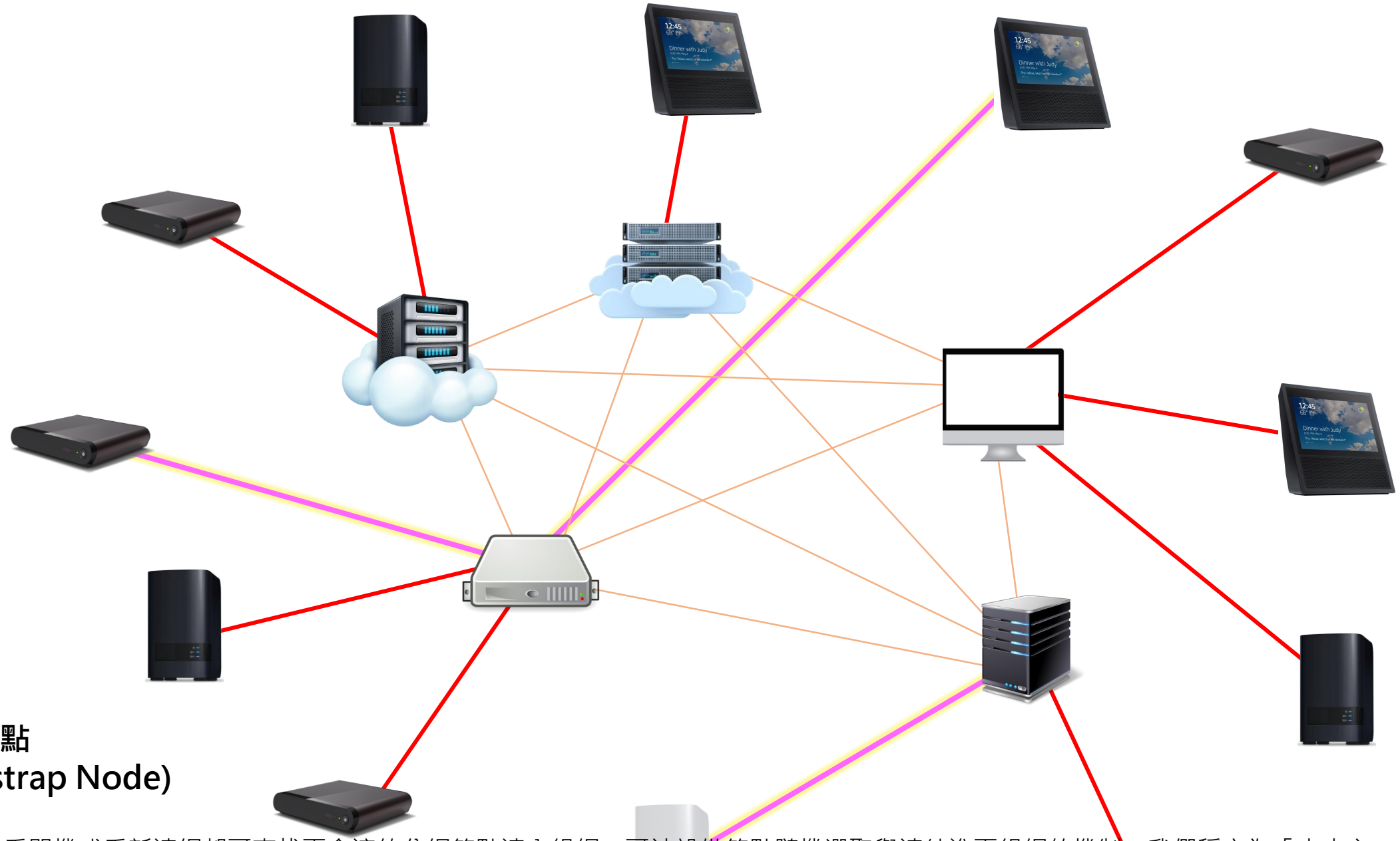
❸



設備節點
(Bootstrap Node)

一開機連網後，會查找可連結的公網節點，並進行連結。連結上公網節點後，可加入組網。設備節點之間能夠進行直連通訊傳輸。
After boot-up and on-line, Peer nodes will search all findable Bootstrap nodes, and link to one of them to attend and join in the P2P network.
Peer nodes will try to deliver things to each other directly.

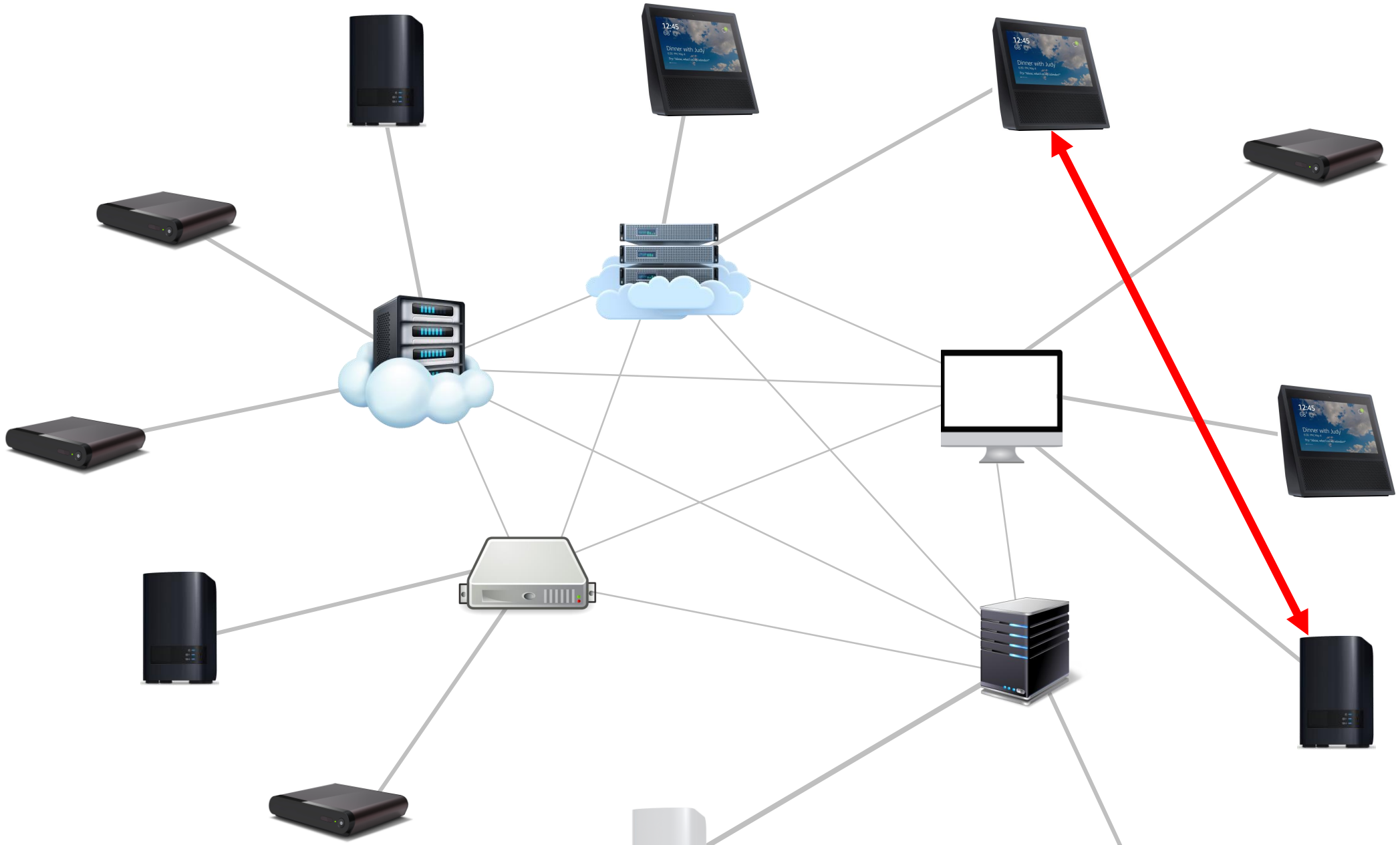
4



設備節點
(Bootstrap Node)

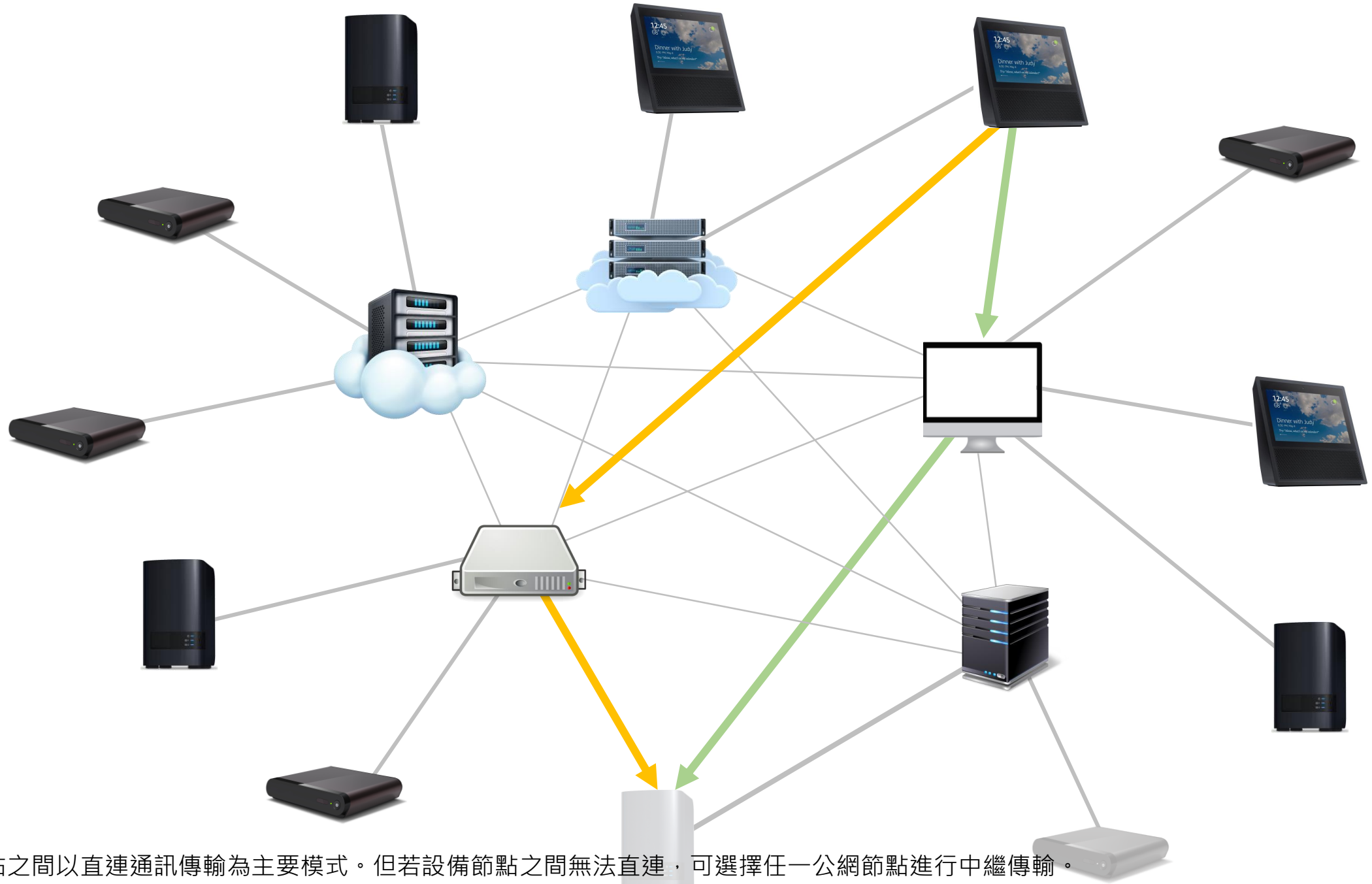
設備節點重開機或重新連網都可查找更合適的公網節點連入組網。可被設備節點隨機選取與連結進而組網的機制，我們稱之為「去中心」。
Peer nodes will re-search findable Bootstrap nodes to link once they re-start or re-access internet. Peer nodes can randomly choose one of searchable Bootstrap nodes to link to form the P2P network or attend the P2P network. We call this process “Decentralized”

5



設備節點之間以直連通訊傳輸為主要模式。目前直連比率：80%。但若設備節點之間無法直連，可選擇任一公網節點進行中繼傳輸。
The major way to deliver things between Peer nodes is direct connection, which is more than 80%.

6

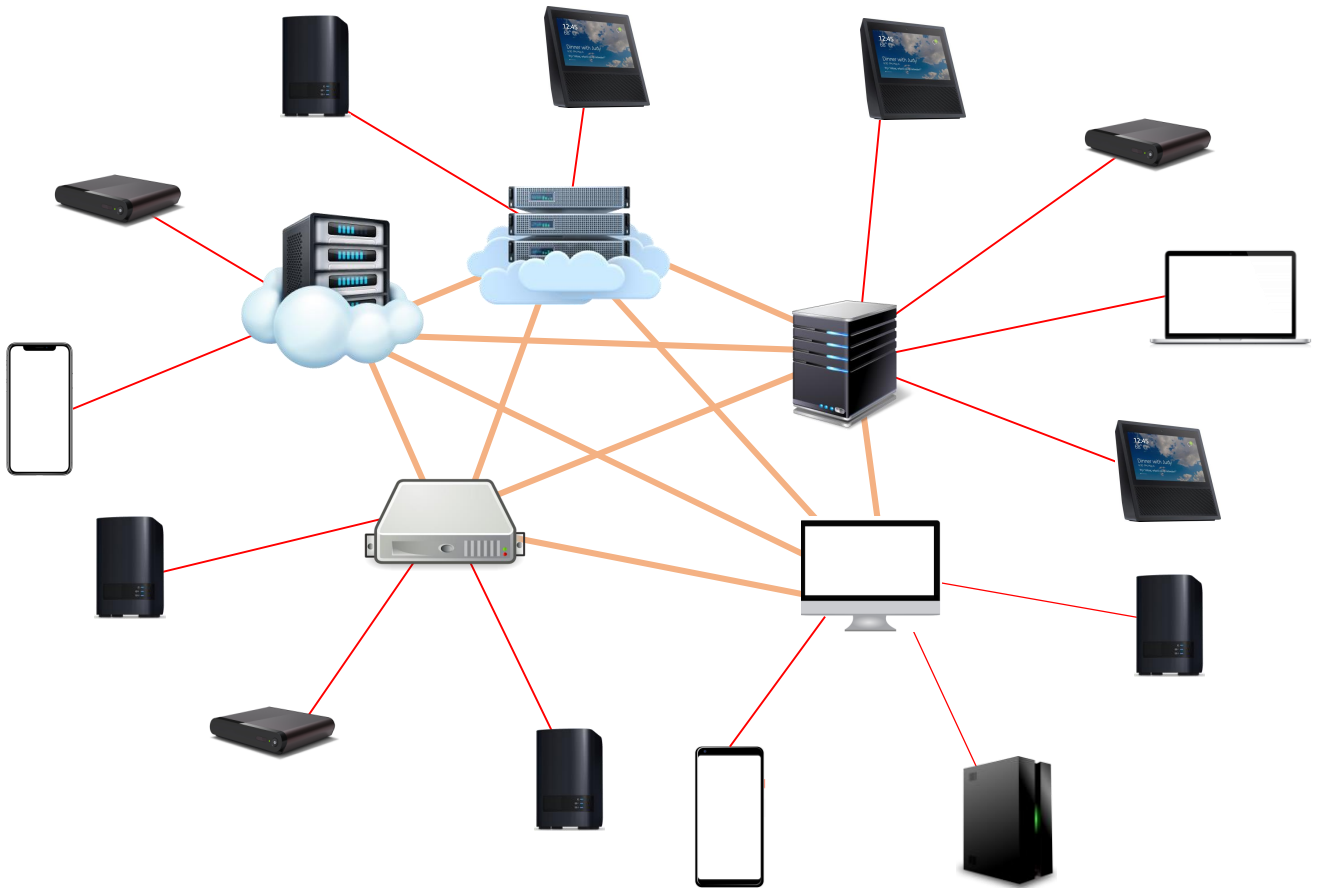


設備節點之間以直連通訊傳輸為主要模式。但若設備節點之間無法直連，可選擇任一公網節點進行中繼傳輸。
If Peer nodes can't deliver files directly at that time, they can choose one of reachable Bootstrap nodes to relay those files.

Apply Functionality of Elastos Carrier

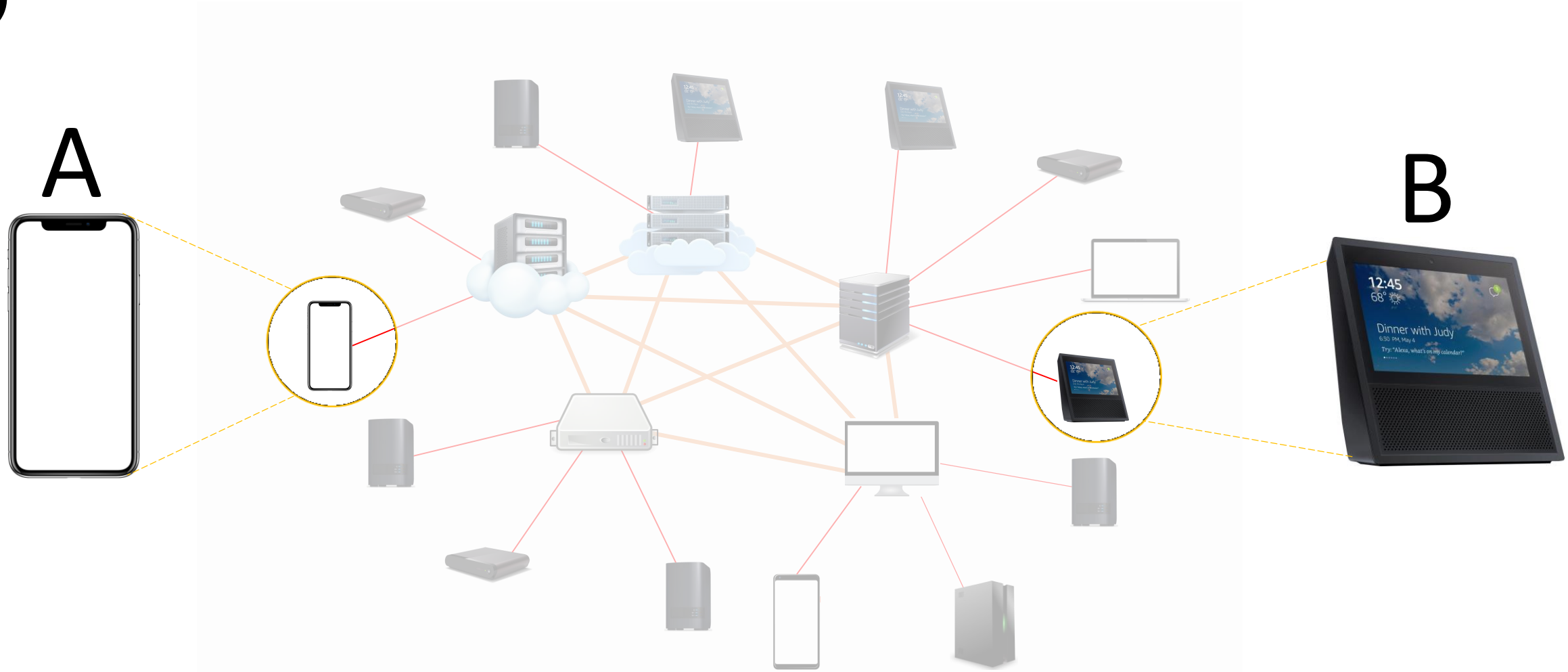
Apply previous and current Elastos Carrier to form the network and also create the business deals to build the eco-system accordingly.

❶



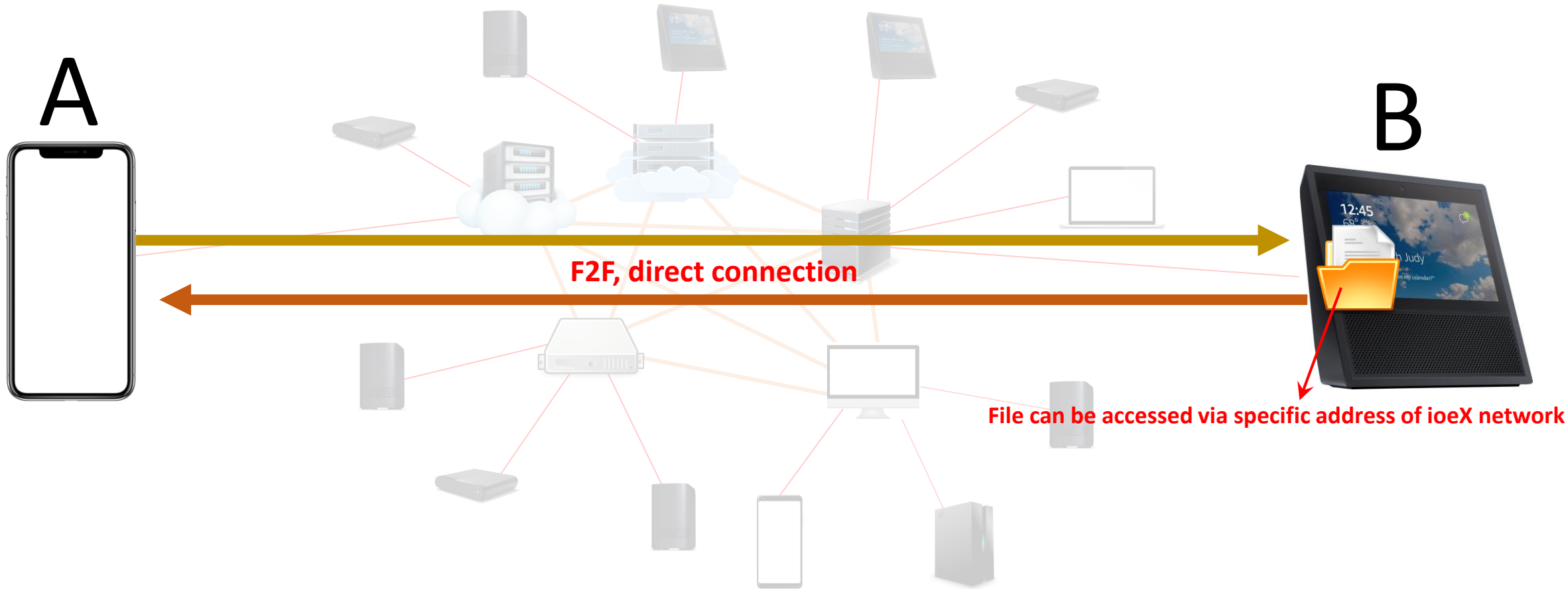
To compose the decentralized P2P network with Bootstrap nodes and Peer nodes.
Automatically search, access and connect with each other between Bootstrap nodes.
Peer nodes can access Bootstrap nodes to join in the network to compose the network together.

❷



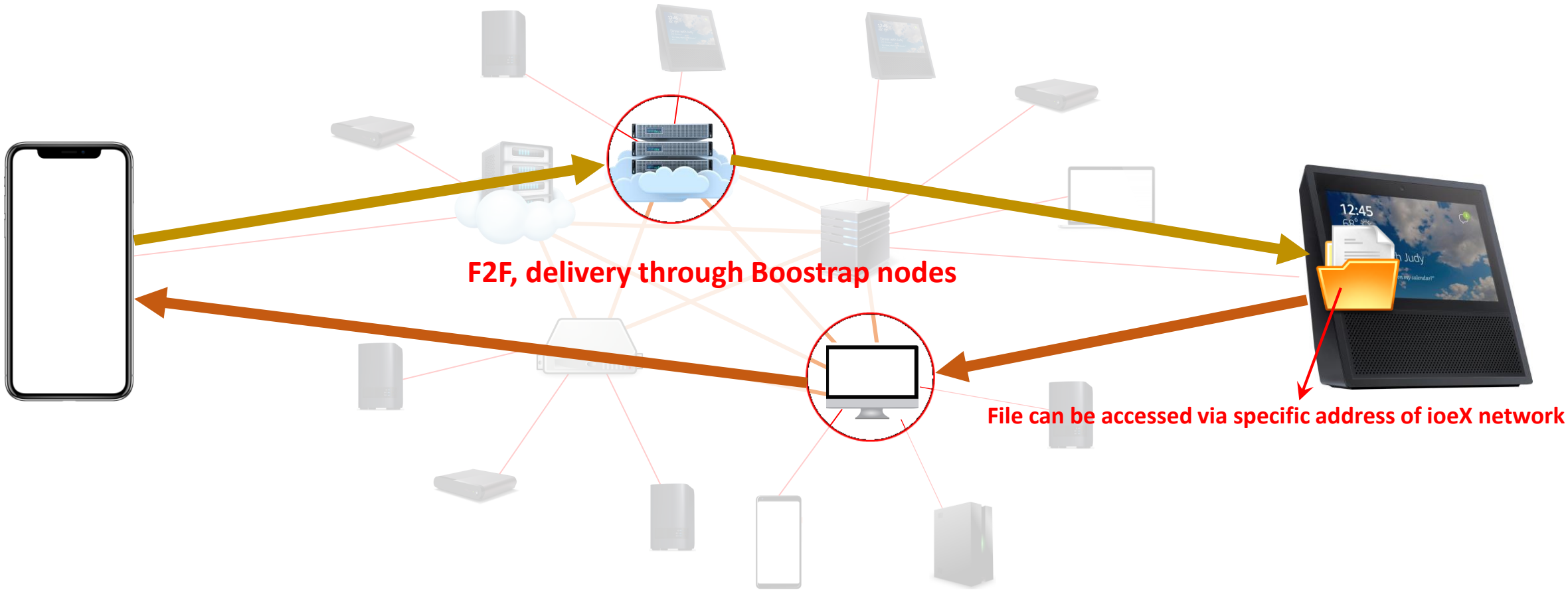
Any one Peer node(A) wants to connect and deliver files to the other one(B), they must “make friends with each other” in advance.

❸



After connecting with each other, Peer node A can deliver files to Peer node B directly.
Meanwhile, that Peer node A can access Peer node B to get a file via its specific location address released by B.
ioeX builds Personal Cloud Storage function upon the capability mentioned above, the user interface can be also used to manage the content saved in the personal storage.

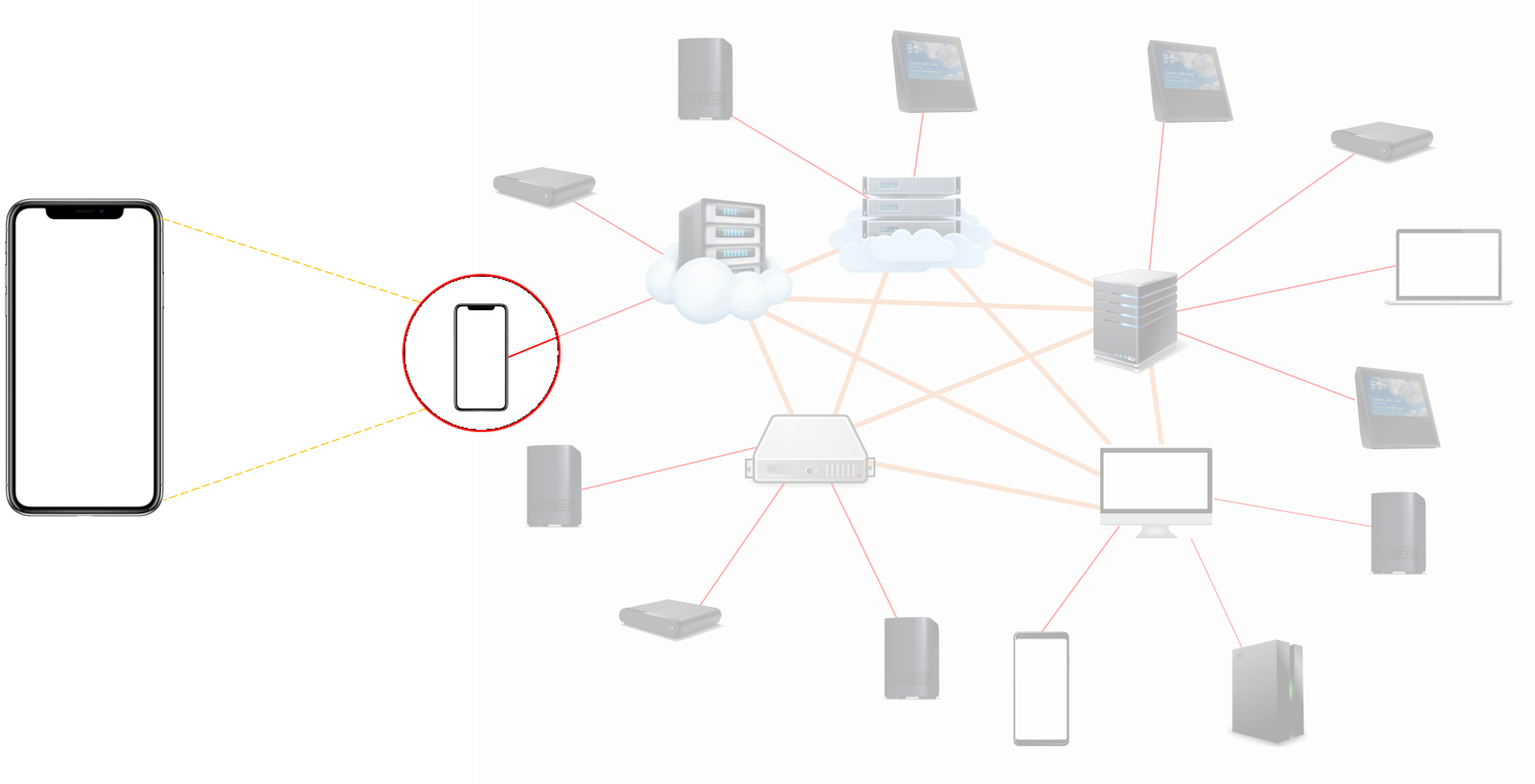
4



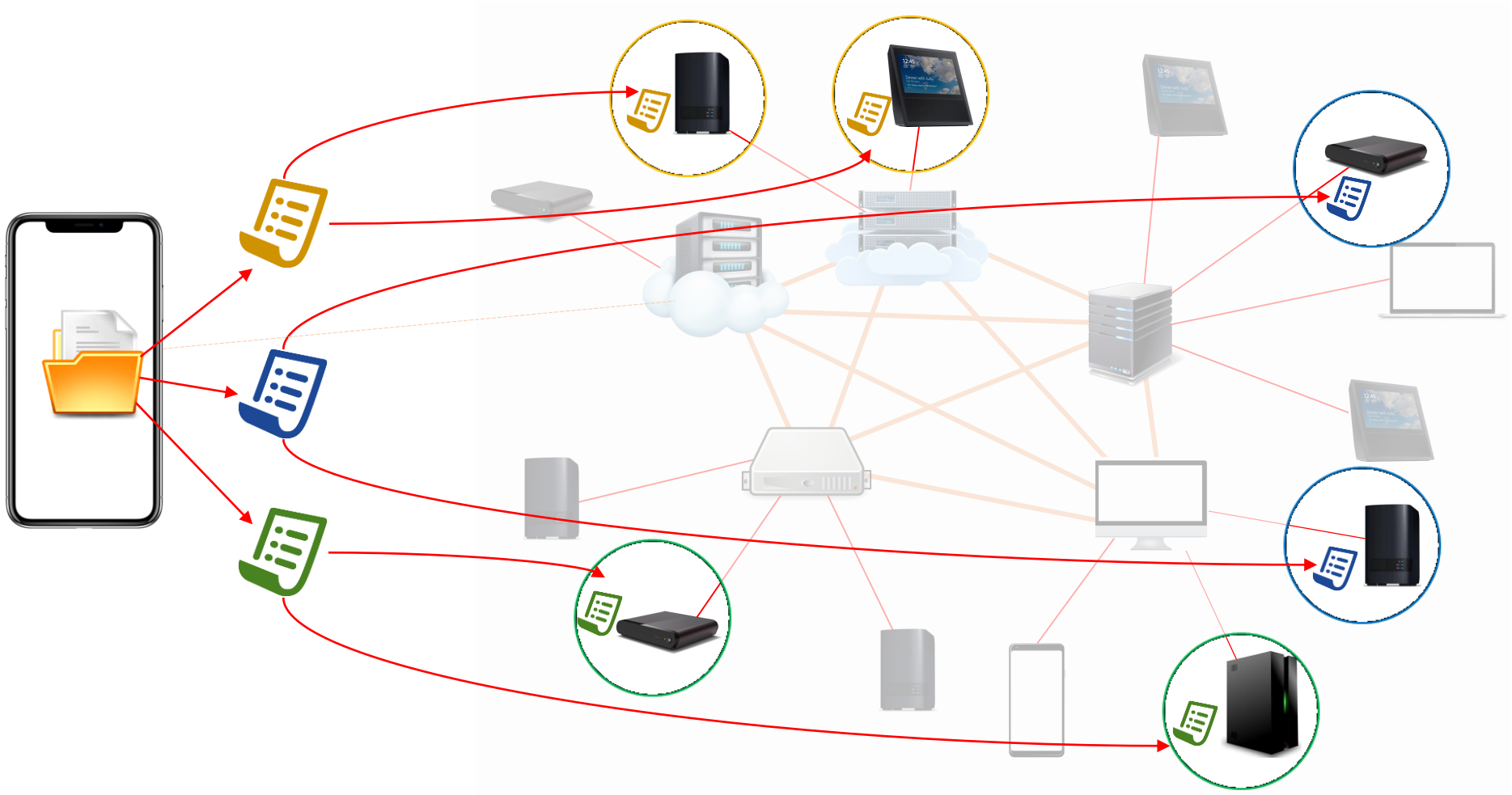
Any reason may cause Peer nodes can’t connect with each other directly, they can leverage any Bootstrap node to support them relay the messages or files.

The Functionality Which Is Going to Be Created by ioeX

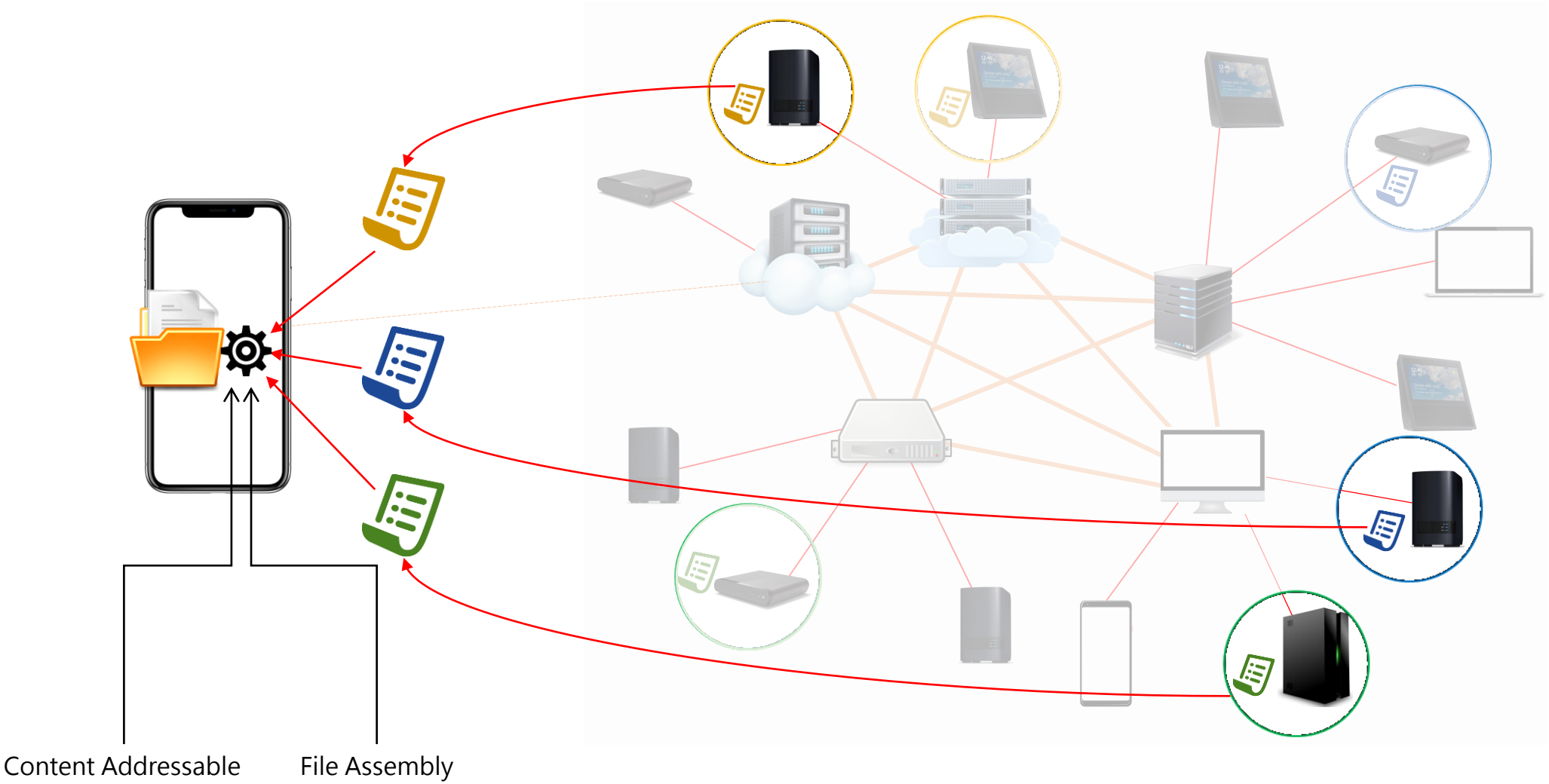
Not only to apply Elastos Carrier, ioeX will build new features and will bring new functions to integrate and create new business deals.



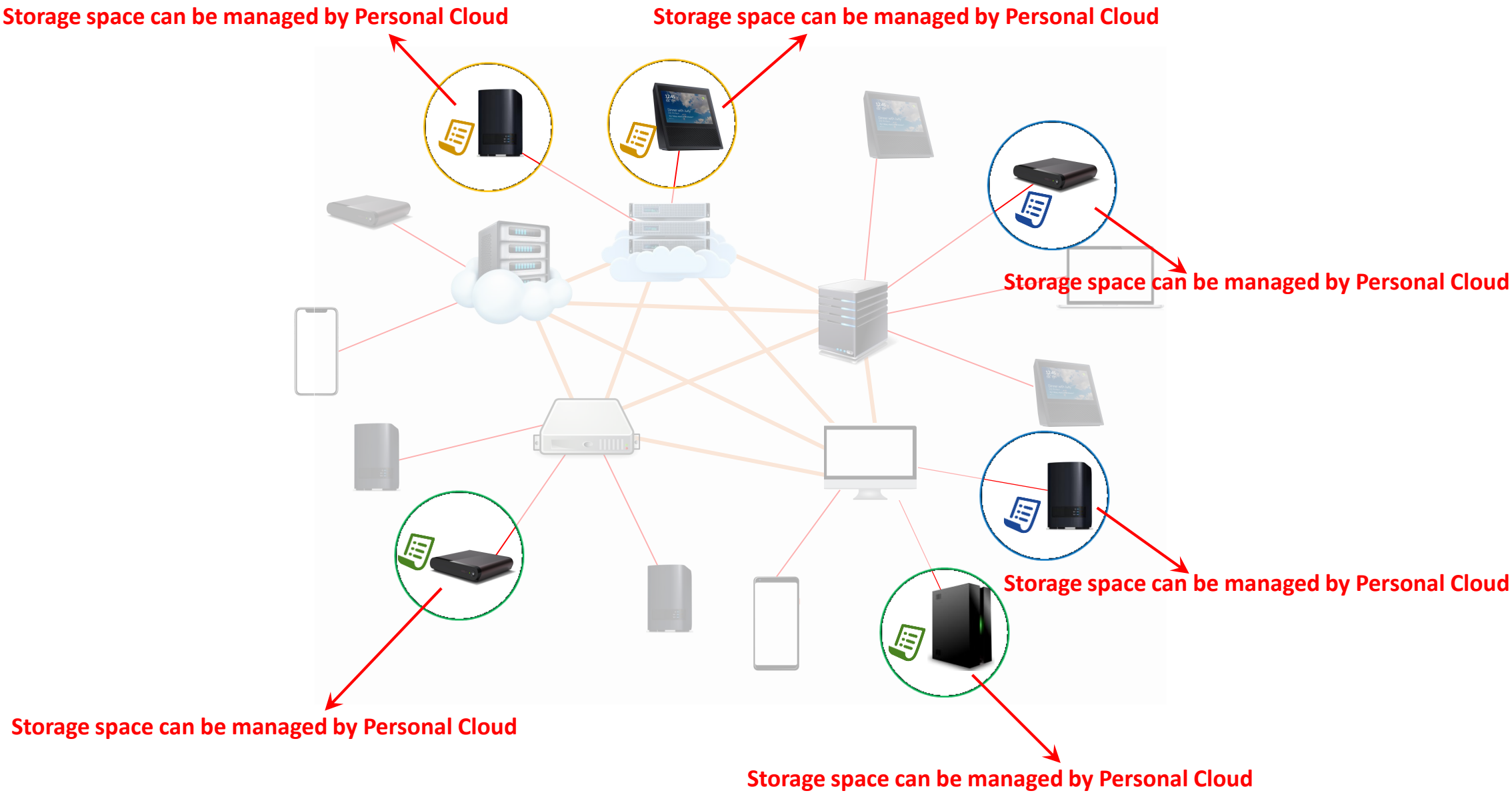
Let’s produce an instance. A consumer wants to back up a big file to Distributed Cloud Storage from his mobile phone which is with ioeX SW inside.The file must be reachable and getable when the consumer wants to take it back to his phone from Distributed Cloud Storage again.



That file will be separated into many parts according to the mechanism of Distributed Cloud Storage, and each part will be duplicated to many backup and saved to different devices(Peer nodes).

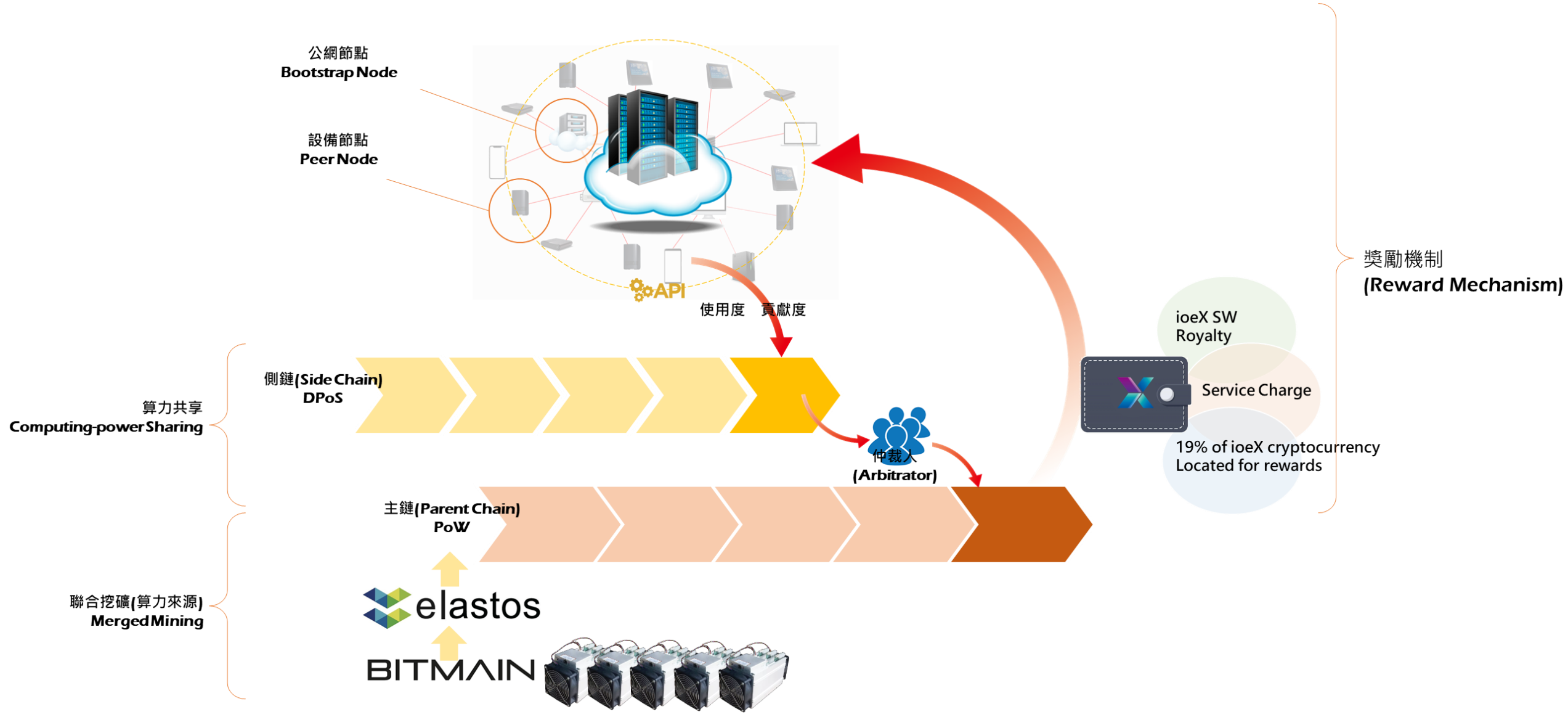


Content Addressable function of ioeX SW can support the consumer to find those parts which were saved to Peer nodes and take one backup of each separated part back to his mobile phone to assemble in one again.



Files saved into Peer nodes of Distributed Cloud Storage will be located in the same area as Personal Cloud Storage.
If a file stays in a Peer node for a specific duration, it will be shown in a designated file folder of Personal Cloud Storage UI to be managed.

To form a big cloud computing and storage platform, and to provide API for accessing and using to build the eco system.
To pay ioeX cryptocurrency to leverage the capability of this platform.



Clone and leverage Elastos blockchain and the merged mining with Bitmain through the support from ELA team.
To modify and add new features on side chain to record and calculate the contribution of each Bootstrap nodes and Peer nodes, to reward them.

Thank You