

The Review of iTwin Technology

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Abstract— iTwin is an endless secure USB device that enables users to access, edit and share all their files and media between any two online computers anywhere in the world. The only limit is the size of computer's hard drive. iTwin is an excellent solution that allows bi-directional file access without the security and privacy risks of the cloud and USB flash drives. iTwin uses well evaluated crypto protocols and algorithms. It has features like no temp files, remote disable and password support and twin trust authentication.

A technology to share the data between two devices without the restriction of space and resources with the help of new technology that is introduced in this paper and also is explained upto a little extent, which is known as ITwin. ITwin technology is a similar technology to USB (Universal Serial Bus) pen/streak drives, which can be utilized to store/save and offer or exchange information that involves streak memory with an acclimatized Universal Serial Bus interface. Cloud stockpiles are additionally used to spare and store the information/record on the center server. Be that as it may, the burden of USB drivers is its little size in light of that it can be effortlessly lost or the use (sharing) of information is constrained. To conquer every one of these issues ITwin is the best arrangement. ITwin is an 'unfathomable' is a secured USB gadget that licenses clients to alter, access and offer every one of their records and media among any two online PCs generally on the planet. It permits remote document access with no security and protection dangers.

Introduction— Itwin is like two ends of a rod, without rod. It is simple to use as a flash drive. It is exactly like plug and play. iTwin enables us to have access to our desktop's files while we are travelling. Similarly, we can also use iTwin to access our office desktop's files while on the go. The only drawback is the speed of your internet connection. The faster it is better is your experience. You can

edit files on your desktop remotely when you have access to the desktop. You can also backup files to your desktop or office desktop.

Itwins are pioneer new records conveyance and far-flung get to gadgets presented by the company called Itwins. Itwins are as same as to two finishes of a link, without having any link joined. Itwins are as basic as to utilize streak drive. Itwin can get to a wide range of documents among any two online PCs generally on the planet. Itwin enables us to approach any or all locally established PC's documents and envelopes while we are voyaging. There are no inbuilt breaking points to the volume of capacity.

NEED OF ITWIN--Transferring data from one PC to another can be difficult, especially if it's a large amount of data. For example, if we want to send some data to somebody in another place, we have to go through the hassle of either sending it via e-mail or upload it to some file hosting service. Chances are, if our file is too large, we will probably need to buy more storage.

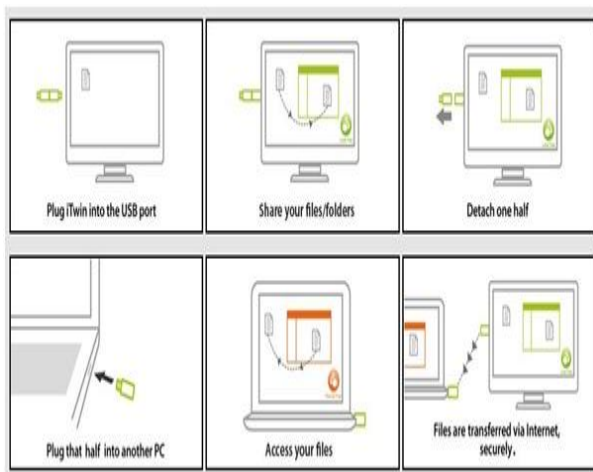
This new USB dongle/USB drive allows users to remotely access data from anywhere in the world. It's a onetime investment.

PRESENT DRAWBACKS--Drawbacks of USB flash is it's small size cause of which it can easily be misplaced or lost.

- In cloud storages the data can be stolen or misused if the username and password of an account to access the storage is hacked by someone.
- There are many more limitations like limited storage, no security, backup temp files, no remote disable etc.

ITWIN USAGE--The iTwin Connect is a device similar to a USB flash drive but, is designed with two USB connections. The iTwin device is very dense and it establishes a secure connection between two computers or a secure connection between one computer and the iTwin server. When we connect the iTwin Connect device to the main computer in our home or at office, the software is automatically installed configure the computer for remote connection. When the device is disconnected from the main computer, we have to separate the two parts of the USB ports which are separated in two separate USB devices. The two separate devices are very dense at less than two inches. Small size makes it convenient and easy to carry with us all the time. When we connect the second half to our laptop while travelling on the road, it will routinely install itself without any user interference. In addition, we can set up a special password that disables the device if we are going to lose it. This ensures we can lock down our files to avoid access by an illegal user.

WORKING PROCESS OF ITWIN--



the event that we connected to a standard USB drive. We have to link ITwin to our computer system; we will see a systematic window pop-up, as

similar as we would, if we plug in a regular USB drive. Remove the other portion of ITwin and bring it with us. Wherever you go, you can remotely get to the documents, basically by stopping the half we are conveying into any online Windows PC, anyplace. ITwin enables us to exchange documents to - or from - our home PC or our office PC. Or, on the other hand your friend's, or your colleague's! ITwin likewise gives us the consent to roll out improvements in the common documents on a remote PC, while keeping them on that remote PC, (no compelling reason to exchange those records previously we alter them). We need to interface ITwin to our PC framework; we will see a methodical window pop-up, as comparable as we would, in the event that we connect to a consistent USB drive. Intuitive records/documents and catalog/envelopes into this space to share them – as various as we need to leave the PC with one of the piece of ITwin joined to it. Expel the other piece of ITwin and bring it alongside us. At whatever point we go, regardless of how far, we can remotely get to the documents or envelopes just by joining the part we are having into any associated PC, all around everywhere throughout the world. ITwin how about we exchange records or documents to – or from our locally situated framework, or our workshop PC, or our companion's or colleague's.

AES ENCRYPTION --AES(Advanced Encryption Standard) is a identification for the encryption of electronic data established by the U.S National Institute Of Standards And Technology(NIST) in 2001.

AES has been adopted by U.S government and it replaces the Data Encryption Standard(DES), which was published in 1977.The algorithm reported by AES is a symmetric-key algorithm, meaning the same key is used for encrypting and decrypting the data.

A. Description of the Cryptograph:

1. AES is based on a design principle known as a substitution-permutation network, combination

of both substitution and permutation, and is quick in both software and hardware.

2. AES is a variant of encryption family which has fixed block size of 128,192, or 256-bits.
3. AES operates on a 4*4 matrix of bytes, termed as 'state'.
4. Key size used for an AES cryptograph specifies the number of repetitions of transformation rounds that are required to convert input in plain text into output in cryptograph text.
5. 10 cycles of repetitions for 128-bit keys, 12 cycles of repetitions for 192-bit keys, 14 cycles of repetition for 256-bit keys.

CONCLUSION—Intuitive records/documents and catalog/envelopes into this space to share them – as various as we need to leave the PC with one of the piece of ITwin joined to it. Expel the other piece of ITwin and bring it alongside us. At whatever point we go, regardless of how far, we can remotely get to the documents or envelopes just by joining the part we are having into any associated PC, all around everywhere throughout the world. ITwin how about we exchange records or documents to – or from our locally situated framework, or our workshop PC, or our companion's or colleague's

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