1. About Fortytwo Labs

Fortytwo Labs specializes in the field of post-quantum-cryptography. We have developed a quantum-safe digital trust platform, with a vision to embed trust & security in every digital operation. The platform is based on **patented quantum-safe cryptographic algorithms** & helping various customers including Indian Defence, Banks, & Enterprises to achieve provable & trusted operations.

We have proven our mettle by winning several awards -

"Cybersecurity Product Company of the Year 2022", By DSCI

"Best in cybersecurity Innovation 2023" MSME India Business

"Defense Champions Award 2023", by SIDM

"NASSCOM Emerge 50 Award – League of 10" being the latest feather in our cap in Nov' 23.

2. Problem we solve -

Securing access (whether internal or from remote) stands as a top priority in upholding enterprise security standards. Both existing and upcoming threats, such as the emergence of quantum computing, present significant cybersecurity hurdles for nearly all enterprises as they navigate their digital transformation path.

While there may be barrage of solutions which enterprises employ still access security remains a challenge. More than 70% of attack vector on enterprises are through remote access mechanism. Few of the challenges are network visibility to remote or even office users, restricting access only from "allowed" devices, identity security etc.

3. About I-AM® ACCESS42

I-AM® ACCESS42 is an innovative secure remote access technology which works at application layer (OSI Layer 7). Using this technology users can get secure access to web-applications, servers, VMs etc. Unlike other remote access technologies which forms the network level tunnel exposing entire network to end user, I-AM® ACCESS42 only makes the specific resource visible to the user thereby literally eliminating the attack surface.

Another important element of the I-AM® ACCESS42 is the identity based key exchange to setup end-to-end encrypted tunnel between the end point and making sure based on user's identity the only resources which are visible are what is configured in the ACL.

I-AM® ACCESS42 is crafted to deliver swift, scalable, user-friendly, and secure Zero Trust access to enterprise applications and resources. Its security is of military-grade

Caliber, as evidenced by its adoption in defence and last but not the least it also ensures protection from future threats like quantum-computers.

4. Advantages

ACCESS42 is designed to offer enterprise applications and other resources fast, scalable, simple, and secure Zero Trust access. It is literally military grade secure and is quantum safe. Few of the advantages are mentioned below.

a) **Follows Zero Trust Principles:** Technology works on principles of zero trust.
  I. No Implicit Trust
  II. Authenticate and authorize every time.
  III. Instead of Network Security, Secure the Assets

b) **Secure Access:** The solution can provide secure access to the resources (e.g., web-applications http/https, servers (Windows/ Linux), Virtual Machines.

c) **No Exposure to Internet:** Users can access applications, servers, and virtual machines (VMs) through the internet without exposing such resources to the public internet.

d) **End-to-end encryption:** Between the user's machine and the resources there is end-to-end encrypted channel to prevent any man-in-the-middle attack.

e) **No Network access:** Solution provides access to applications/ servers/ VMs only for which the user is authorised to access and not the entire network.

f) **Limited Access (ACL):** Solution provides access to only "allowed" applications/ servers/ VMs. Rest of the resources remains in dark.

g) **Device Binding:** Solution is able to whitelist the access device and binds it to user. So that specified user can access specified resources only from whitelisted device.

h) **Multifactor Authentication:** Optional multifactor authentication technology to bring strength to overall identity security.

i) **Simple to use - Point and click:** Solution has the facility of point and click to enable the users to access resources securely just by clicking on icons.

j) **Self-service mechanism:** If a user forgets the access credentials, he/she will be allowed to reset them on their own.

k) **Easy web-application access:** Users can access the web-application without having to remember the URLs.

l) **Custom browser:** Inbuilt customer browser to prevent attacks through browsers by installing malicious plug-ins. The browser doesn't allow any plugins.

m) **User Management:** Comprehensive user management functionality with option to define RPA to integrate with existing access control systems.

n) **Application Management:** Options to manage the applications and access policies associated.

o) **Audit Log:** The solution keeps comprehensive audit trail of all access events by the user.

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