CityDefend is a pioneering enterprise solution that provides Searchable Encryption-as-a-Service (SEaaS) and gives you full control over your sensitive data stored in the Cloud. Cloud provides clients and their remote devices the utility of on-demand resource sharing and data access. The data storage on the Cloud may lead to data misuse and discourages clients from outsourcing their data on the Cloud. To deal with the possibility of data theft, clients rely on storing their encrypted data on the Cloud that further gives rise to the problem of searching and sifting through the large amounts of data on the Cloud.

CityDefend provides Searchable Encryption as a Service that allows clients to search over the encrypted data stored in the Cloud resulting in data security and privacy, and confidence in the services the Cloud offers.
**Competitive Advantages**

- **Enhanced Security and Privacy** - The pioneering Searchable Encryption Scheme enhances the security and gives users full control over their data.
- **Intra-cloud Scalability** - CityDefend is scalable across cross-cloud infrastructures allowing dynamic databases.
- **Reduced Storage Overhead** - Eliminates the need of maintaining a centralized data structure, hence, reduces the storage overhead.
- **Reduced Network Latency** - CityDefend functions with minimum network traffic and hence reduces the network overhead.
- **Lightweight** - The state-of-the-art Searchable Encryption scheme is based on lightweight constructions and can be used in resource constrained environments.

**Target Markets**

- Cloud Service Providers
- Enterprises/ technology integrators

CityDefend is a global solution as the Cloud has no known geographic boundaries and allows location independence. CityDefend will have a profound impact across different verticals where data confidentiality is the first priority. These verticals include healthcare, financial, telecommunication, law enforcement and protection sectors.

**Road Map**

2020
- Customer traction, piloting and capability demonstration

2021 and beyond
- Product Launch and strategic R&D activities, new use-cases

**Leveraged Technologies**

Searchable Encryption technology that has evolved as a result of the InnovateUK CyberASAP Program. The MVP was developed to demonstrate the underlying technology that will be used in CityDefend. The value proposition and validation highlight that CityDefend could have a wider impact as compared to the existing solutions as the technology is lightweight and scalable, reduces the network latency while enhancing the privacy.

**Status/ Traction**

- Status: Minimal Viable Product for demonstration purposes is available
- Use-case Integration: Email servers and file hosting services
- With partners: City, University of London and Engineering Ingegneria Informatica S.p.A.

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