**Conclusion**

Blockchain was first outlined in [the white paper by “Satoshi Nakamoto”](https://bitcoin.org/bitcoin.pdf) as a distributed ledger technology to enable trustless transactions in the form of the Bitcoin cryptocurrency, but it’s now evolved into a platform with much broader uses cases supported by multiple organizations. When it comes to selecting a blockchain solution for your agency there are several factors to consider:

***Business Requirements***

Look beyond the jargon to find the best fit for your agency. Consider who manages and controls the platform, whether you need a permissioned blockchain for security reasons, and the type of consensus mechanism used for adding transactions to the blockchain. Ask whether and how you will use smart contracts, what languages you could code them in, and how much involvement will be needed from your legal or acquisitions team. Pay close attention to operational requirements such as response times and transaction costs, and determine where you plan to host the system and what it would cost. Uniquely to government, consider how to obtain the Authority to Operate and whether options exist within FedRAMP-certified environments.

***Technical Requirements***

Blockchain solutions are rapidly evolving resulting in quite a range of technical implementations which makes it critical to understand your technical requirements. To begin with you must consider the degree of scalability and volume you need and whether this is best served by public or private infrastructure. This choice will also impact speed and latency as well as security and immutability. Generally, public blockchains are slower and more difficult to scale wither fewer security options but greater immutability. If you will be supporting digital assets then you must look at blockchain specifications, notaries, network security modes, user authentication/authorization, and asset issuance and deployment. Finally, as an operator of a blockchain you will want to establish and monitor appropriate benchmarks and keep a close eye on factors such as consensus delay which heavily impact overall performance.

***Procurement Options***

Once you’ve identified your requirements and selected a suitable solution there are several procurement options to consider. Stand-alone acquisitions may be conducted per FAR regulations via full and open competition or more restricted forms of competition. The SBA’s 8(a) program allows acquisitions up to $4 million with guidance available from U.S. Digital Services. Orders may be placed against existing contracts with a number of options targeted at emerging technologies. And Congress has also authorized other transactional authority which enable work with non-traditional partners such as startups.