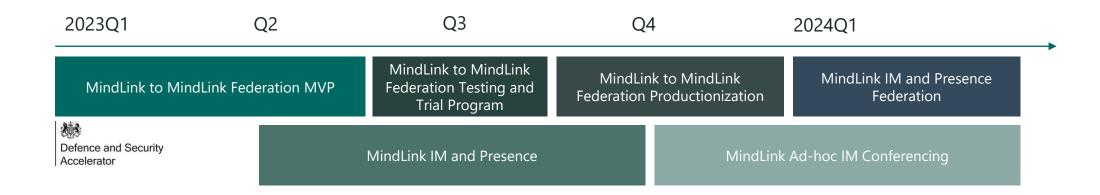
Key deliverables CY23:

- 1) Secure federated persistent chat for classified information
 - Testing and trialling begins June '23
- 2) Standalone MCE instant messaging and presence





MCE Federation – Key Design Objectives

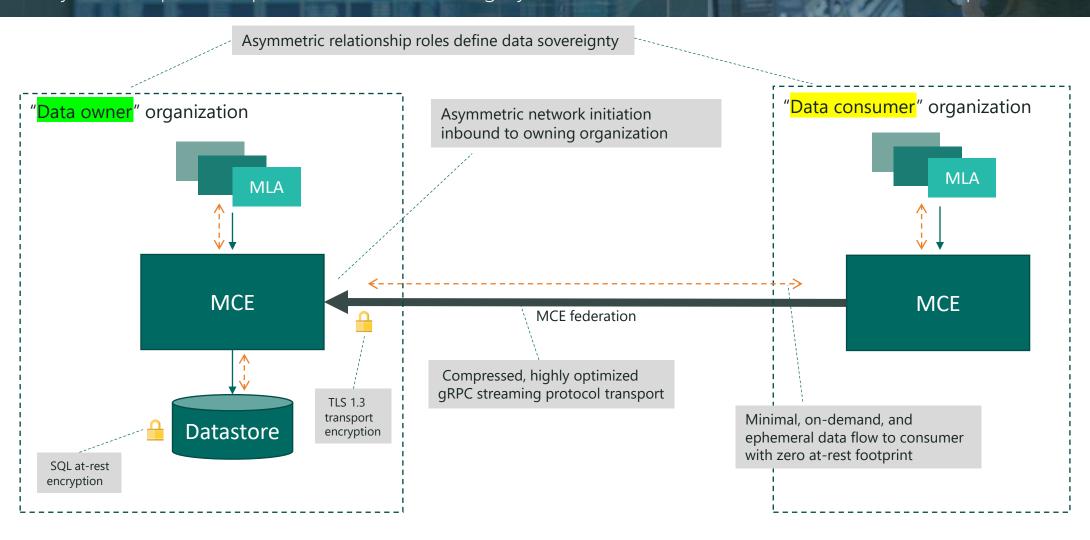
Engineered for secure sharing of classified information between international coalition partners

Area	Objective	Design response
Data sovereignty	Ensure sovereignty and governance of all data is clearly defined.	Asymmetric protocol defines roles of data "owner" and "consumer".
	Maintain control of sovereign data, including revocation.	Data physically resides at rest in owner infrastructure only.
Performance	Minimize network exposure	Single-port communication initiated asymmetrically one-way from consumer to owner minimizes exposed network ingress.
	Support reliable, en masse real-time collaboration	Multiplexed protocol enables efficient fanout, caching and retry.
	Operate over poor network links	Efficient gRPC streaming transport minimizes network data and connection overheads
Data security	Corporate authentication and identity	Server trust established using mutual PKI and user authentication driven by corporate directories.
	Enforce strong access control to rooms	ABAC clearances and identity properties resolved for each user from federated ABAC ecosystem
	Protect classified data	MCE classification system models data sensitivity and releasability to remote partners, including ACL and labelling to government standards
	Sandbox federated access	Multi-layered MCE security engine segregates federated rooms into walled contexts
	Data encryption	Network links secured with TLS 1.3 and compatible with MCE atrest SQL encryption.
	End-to-end encryption	Integrate with MCE COI-based end-to-end encryption (phase 2 goal)



MCE Federation – Network protocol design

Asymmetric protocol preservers data sovereignty and minimizes data flows and network footprint



Partner organizations may achieve a mutual federation by defining "owner" and "consumer" relationship in reverse.



MCE Federation – Access control and data management

Federated ABAC and classification labelling defines real-time access control and protects released data.

