

once Bridge B ~~has also successfully authenticated Bridge A, at which point the controlled Ports of both Bridges would be Authorized.~~

~~In systems requiring bi-directional authentication, it is possible for both authentication exchanges to proceed simultaneously; i.e., for System A to authenticate System B while System B is also authenticating System A. In other words, both systems can adopt both Authenticator and Supplicant roles at the same time, without the need for role reversal or establishing which system needs to go first.~~

authenticates Bridge A, Bridge B's Supplicant controlled Port would be authorized.

Based on a single authentication exchange as well as a sin Bridge B would also have derived transient session keys necessary for the protection of unicast data traffic flowing between them. However, without the completion of a bi-directional key exchange, both Bridge A and Bridge B would not be able to derive keys suitable for the protection of multicast traffic flowing between them.

Systems supporting coupled unidirectional authentication may authenticate based on locally stored credentials, using a locally implemented authentication method, so that they may operate ~~without~~ with requiring assistance from backend authentication servers. However, this need not necessarily be the case. It is even possible, as in the two-bridge example, for each system to be assisted by its own backend authentication server. RFC 2284bis Section 2.3 discusses Authenticator pass-through in more detail; Section 2.4 discusses peer-to-peer behavior.

It should also be noted that from the point of view of security, two one-way authentications in each direction, no matter how tightly coupled, are not equivalent to a single bi-directional authentication, since the two one-way authentication ~~transports~~ transport are not cryptographically bound together. For example, two EAP AKA processes handled within the coupled, unidirectional transports would not provide the same functionality as a single EAP TLS process over a bi-directional authentication transport. Both EAP methods provide mutual authentication authentication, but only in the second case are both Authenticators and ~~Supplicants authenticated based on a common trust of each other.~~ Supplicants

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