

INVENTION DISCLOSURE

1. **Invention Title.**

EPoC Key Management Delegation with Bridge FCU

2. **Invention Summary.**

Some key management functions can be delegated to the Bridge FCU to improve overall key management efficiency/performance at the DPoE System

3. **Invention Description.**

In an EPoC network with a Bridge FCU key management functions are needed for establishing secure sessions between the DPoE System and the Bridge FCU, as well as between the Bridge FCU and the CNU. After EAP-TLS authentication the DPoE System can pass the TLS Master Session Key (MSK) to the Bridge FCU. The Bridge FCU then derives/exchanges keys between itself and the CNU to setup a secure session on that segment. It also supports key renewal. After DPoE System passes the MSK to the Bridge FCU it does not need to perform key management functions for the Bridge FCU - CNU segment allowing it to use those resources for other purposes. The MSK can be sent to the Bridge FCU using an OAM message or the EAP-Success message. If the EAP-Success message is used the MSK will need to be removed by the Bridge FCU before it is forwarded on to the CNU.

Briefly outline the potential commercial value and customers of the invention.

Could have high value for EPoC networks with Bridge FCUs. Key management will be more efficient allowing increased performance of system.

4. **How is this invention different from existing products, processes, systems?**

In existing systems all the key management is performed by the DPoE System, even with Bridge FCUs.