Federal PKI TWG

Federal PKI Directory Profile
v2.3 (draft)

05 September, 2002

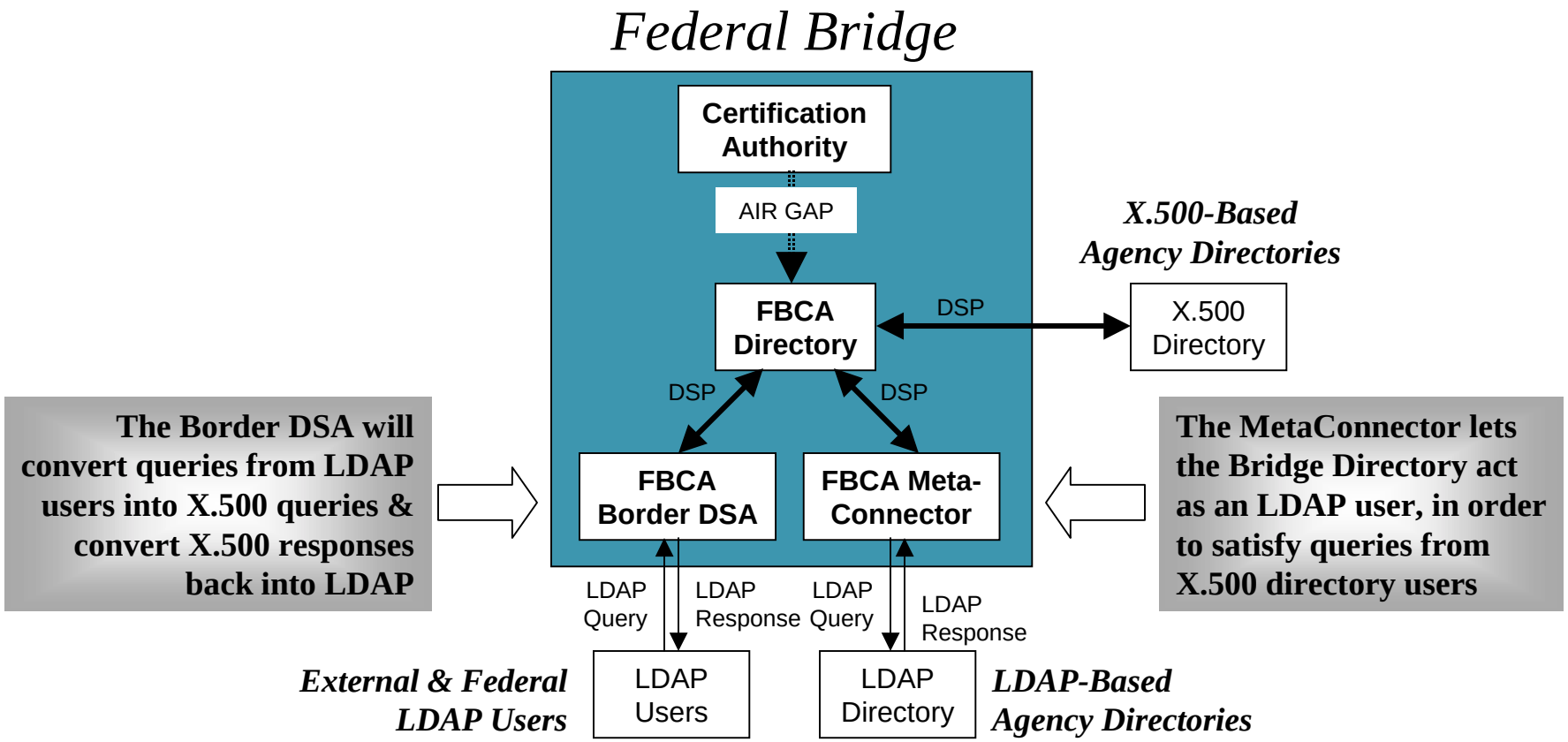
Agenda

- Status of Federal PKI Directory Profile
- New Components to be Added to the Bridge
- Connecting LDAP-based Agency Directories to the Bridge
- Connecting Microsoft Active Directory to the Bridge

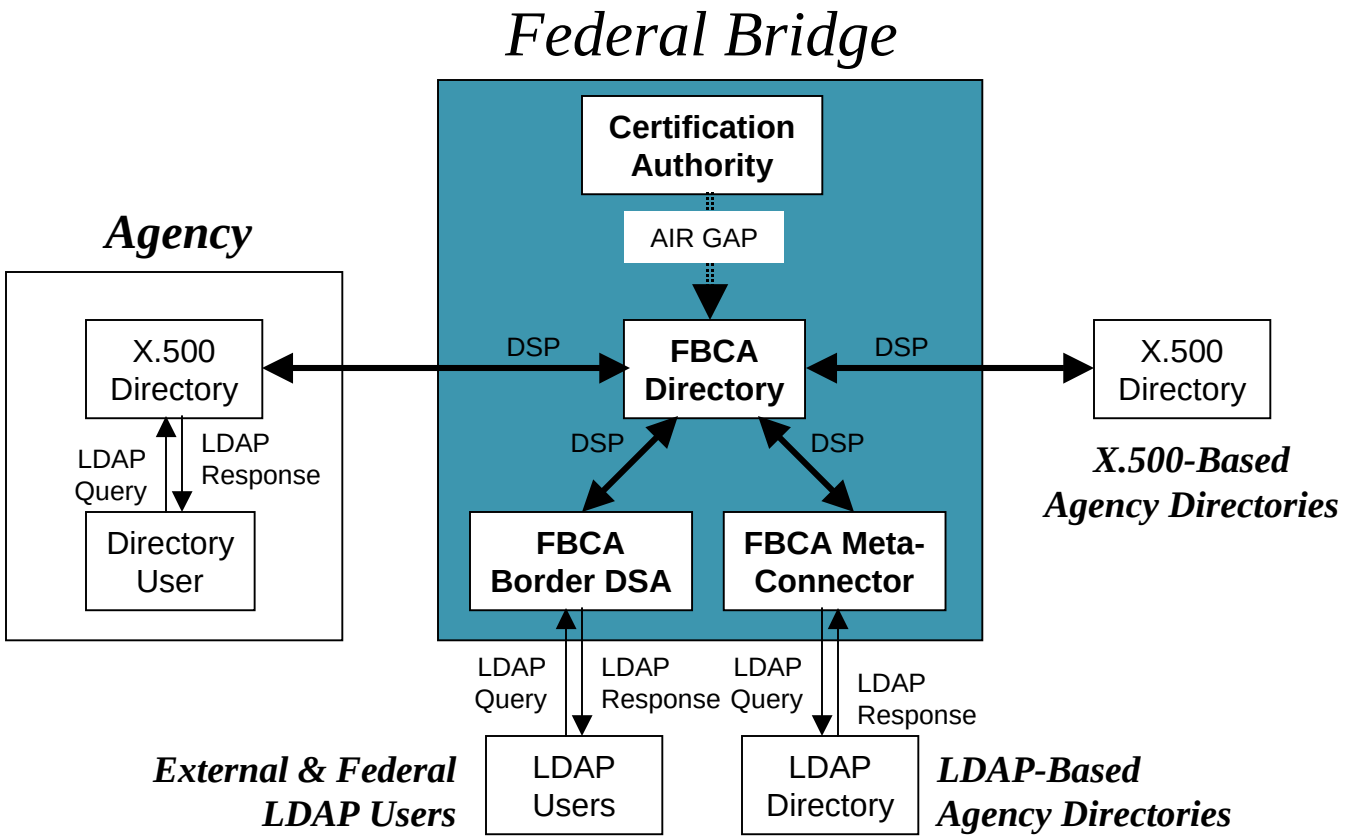
Status of Federal PKI Directory Profile

- Version 2-3 (draft) was completed 18 July, 2002
- It was subsequently sent out to the entire FPKI TWG mailing list for comment
- Slight rewriting and rewording to improve clarity throughout
- New section (Appendix C) discusses integration of various agency-owned directory technologies with the bridge
- Subsection (Appendix C.8) added specifically to identify DOD service / agency connectivity with the bridge
- No comments have been received to date with regard to revisions

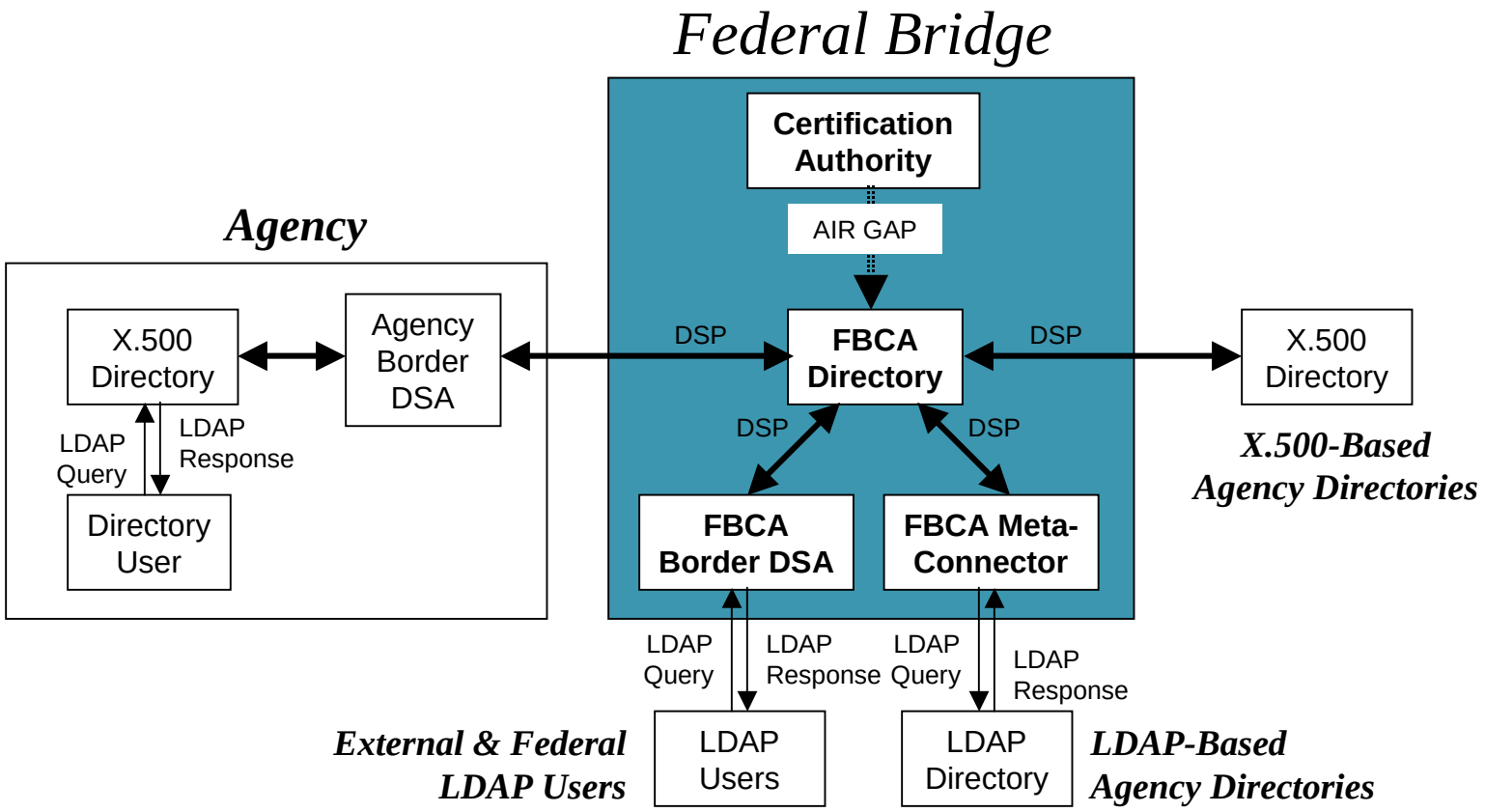
New Components To Be Added To The Bridge



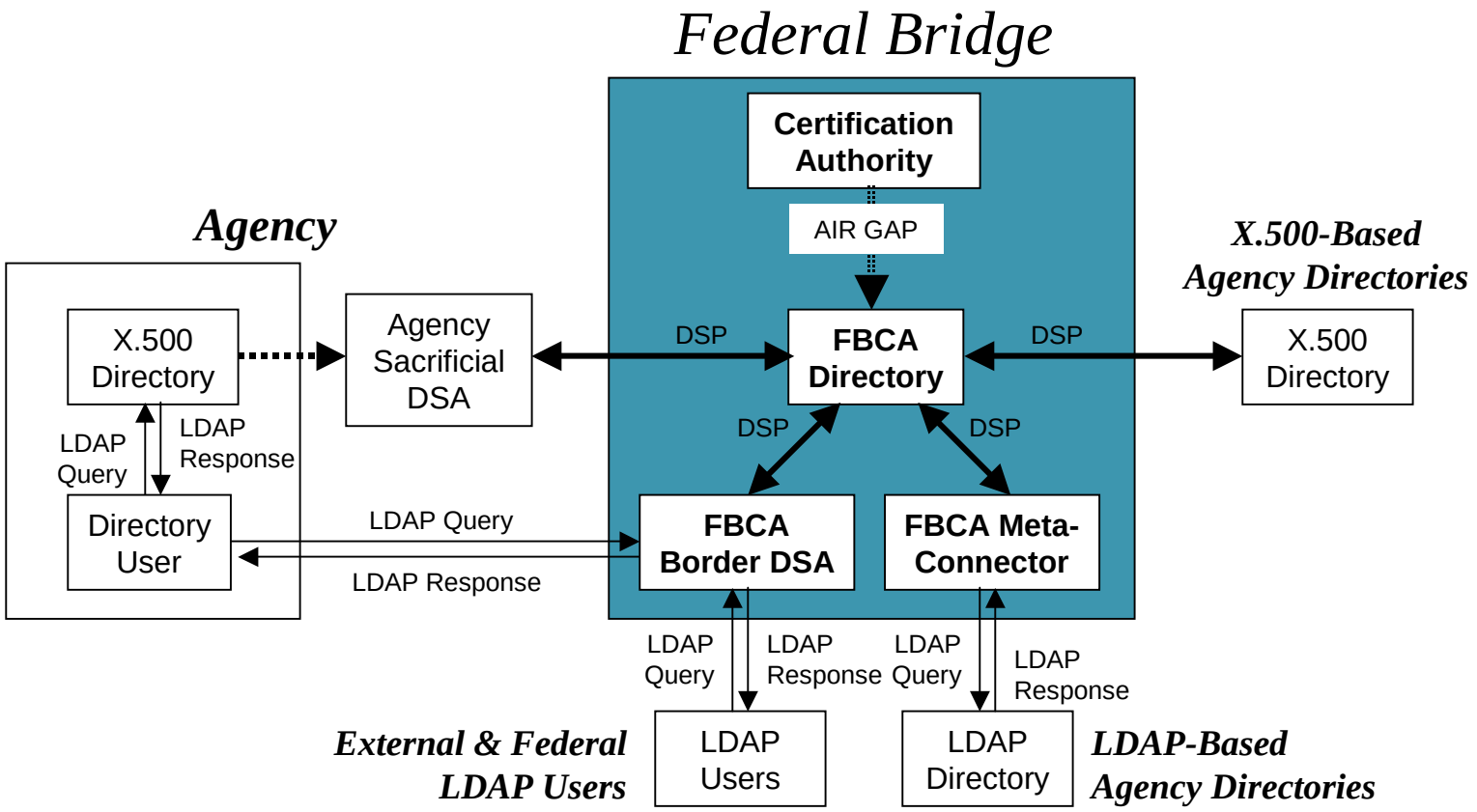
Appendix C.1 - X.500 Directories



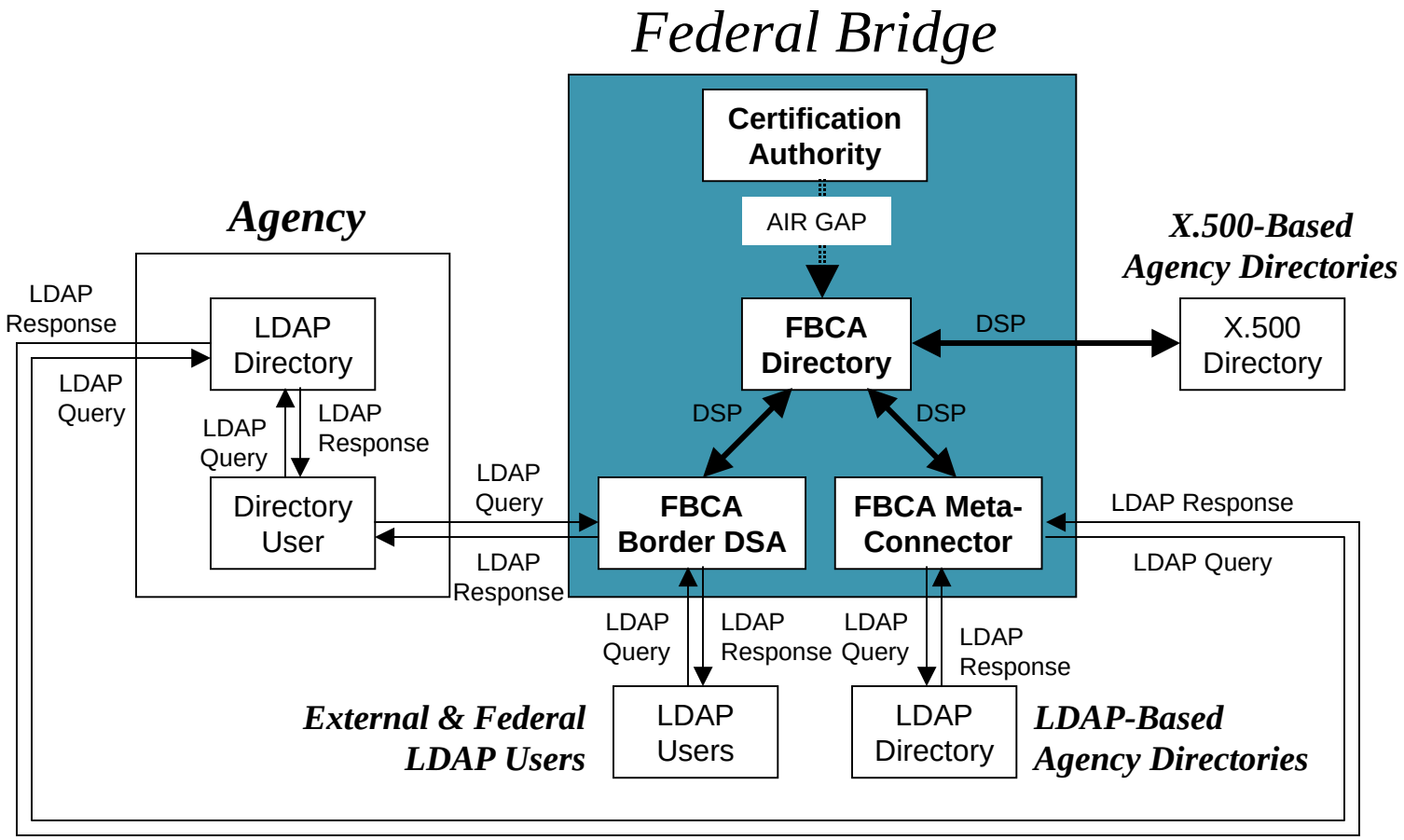
Appendix C.2 - X.500 Directories & Border DSA



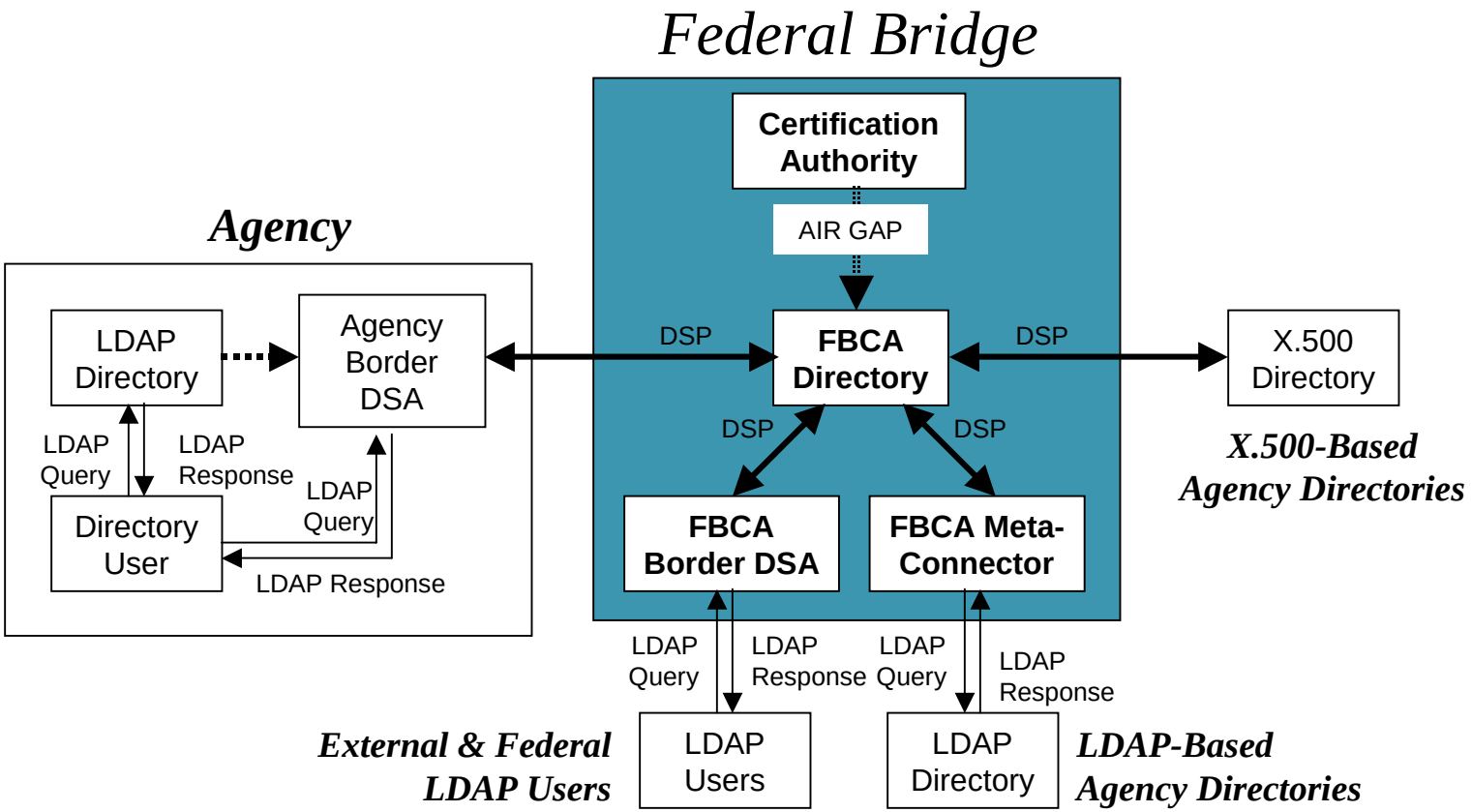
Appendix C.3 - X.500 Directories & Sacrificial DSA



Appendix C.4 - LDAP Directories



Appendix C.5 - LDAP Directories & X.500 Border DSA



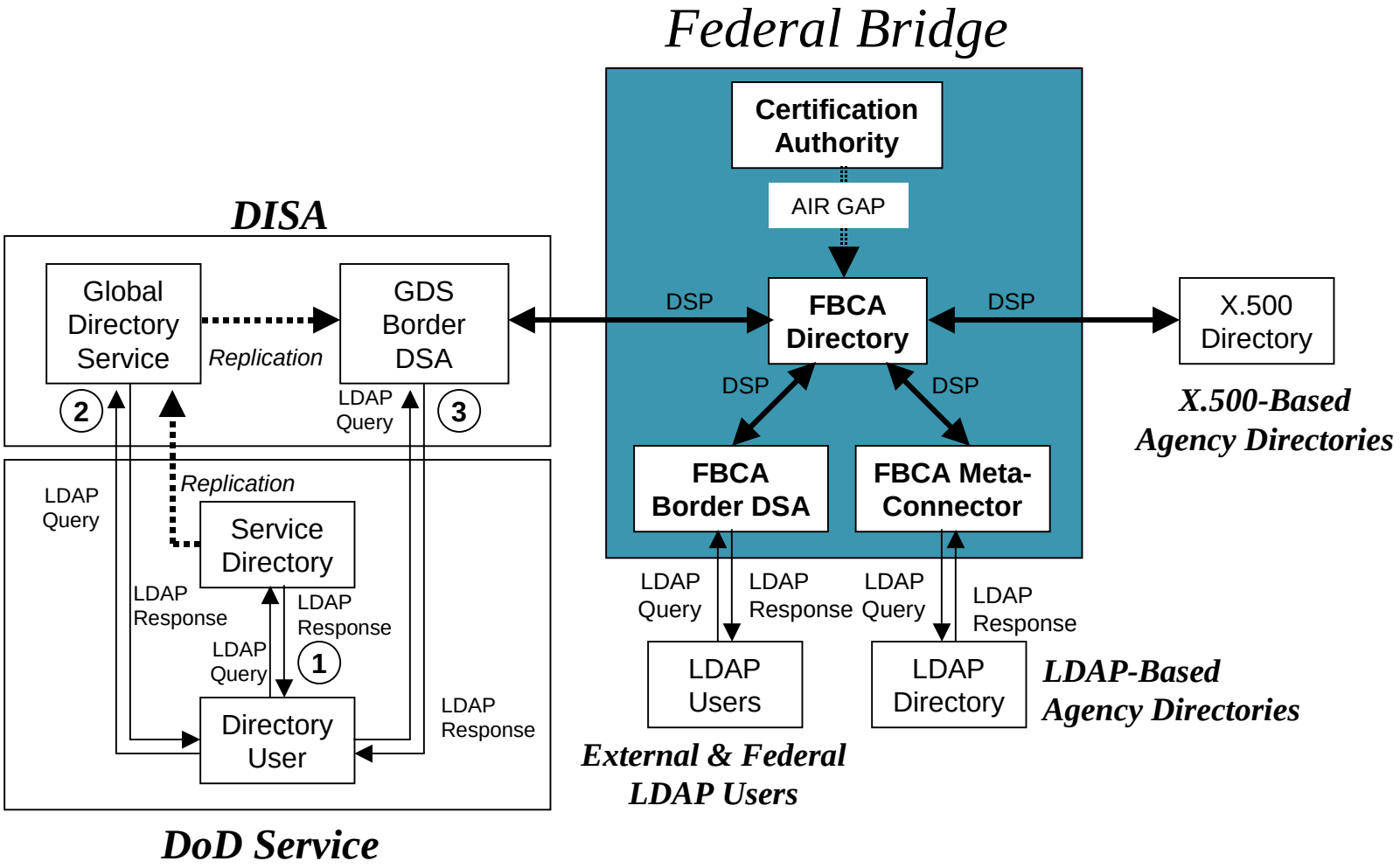
Appendix C.6 - Security Implications

- …all queries from outside the agency should be considered to be anonymous…
- The Federal PKI directory service does not require “strong authentication” of directory requests…
- …the user’s identity is validated when they [or their application] first bind to the LDAP directory…[or the Bridge’s Border DSA]
- … X.500-style access controls use the identity of the requestor in order to determine whether the requested operation should be allowed…
- … It is possible that the application forming the request could have been subverted, or that the identity of the requestor have been changed (or perhaps not even initially created correctly). Therefore, all directory requests from outside of your agency should be treated as anonymous…You may need to implement a Border DSA or sacrificial DSA in order to protect sensitive agency-based information from unauthorized disclosure.

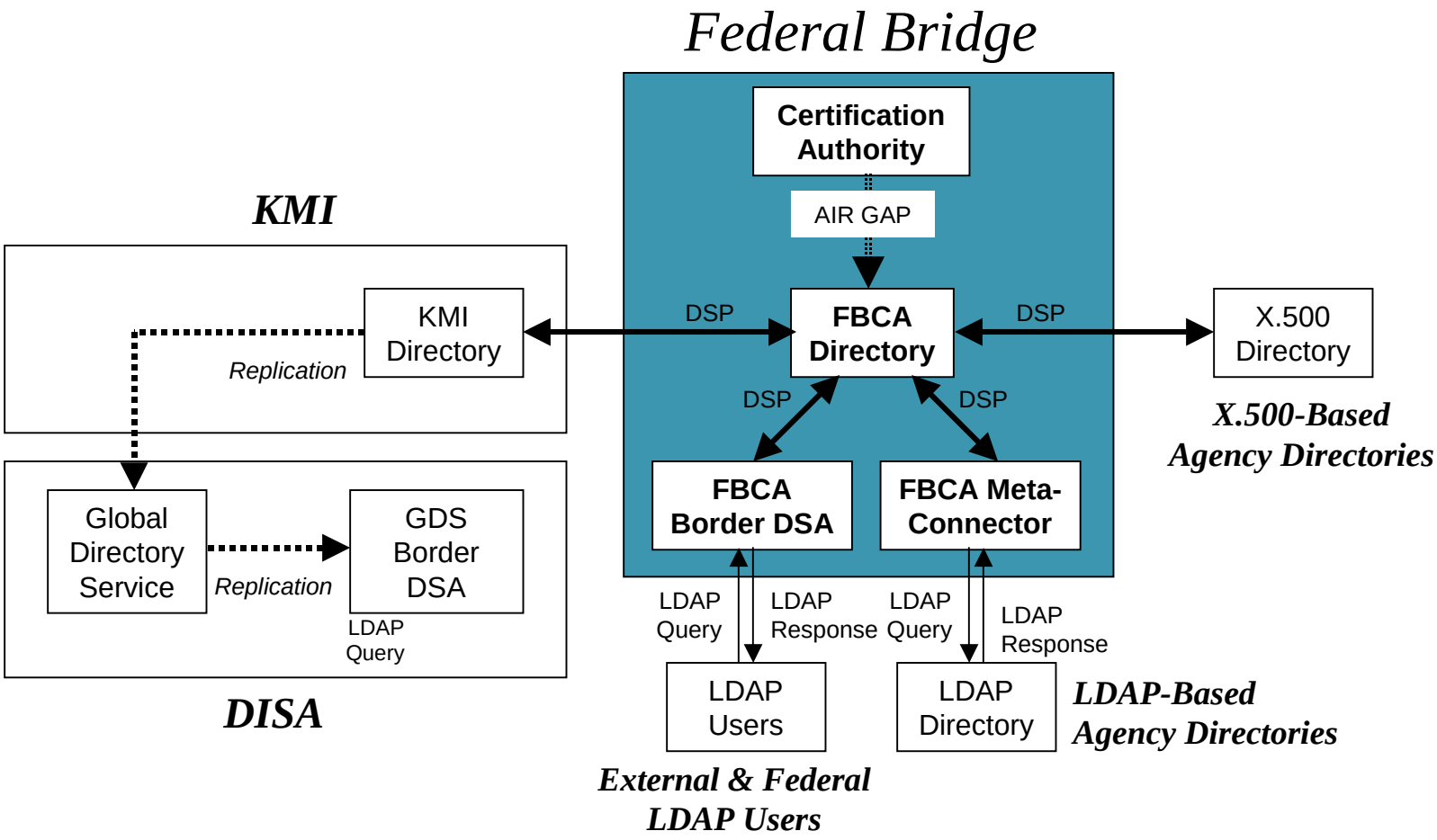
Appendix C.7 - Appropriate Directory Usage

- The Federal Directory service…presumes two things about “normal” usage of the Federal Directory:
  - Applications will perform directory queries on behalf of users. The FBCA Directory is not designed to handle interactive browsing of other agency directories. In the future, the FBCA Directory may be able to provide LDAP referrals to other LDAP directory servers, but it is unlikely that users will ever connect directly to the FBCA Directory in order to chain interactive queries to other agency directory services.
  - The FBCA facilitates validation of digital signatures created by PKI certificates issued by other agencies. In allows PKI-enabled applications to find the certificates and CRLs needed to construct trust paths between agencies and ascertain that the signing certificate is still valid. It is not designed to provide encryption certificates or support any other sort of interactive use. The CA Certificate and CRL information for each agency should consist of only a few directory entries, whereas an agency might issue tens of thousands of encryption certificates. If relying users wish to obtain encryption certificates or other personal information, they must contact the issuing agency’s directory service directly or obtain the certificates by some other means.

Appendix C.8.1 - Connecting the DOD GDS to the Bridge



Appendix C.8.2 - Connecting the DoD KMI to the Bridge



Discussion:

- What Next?
- Active Directory