

10

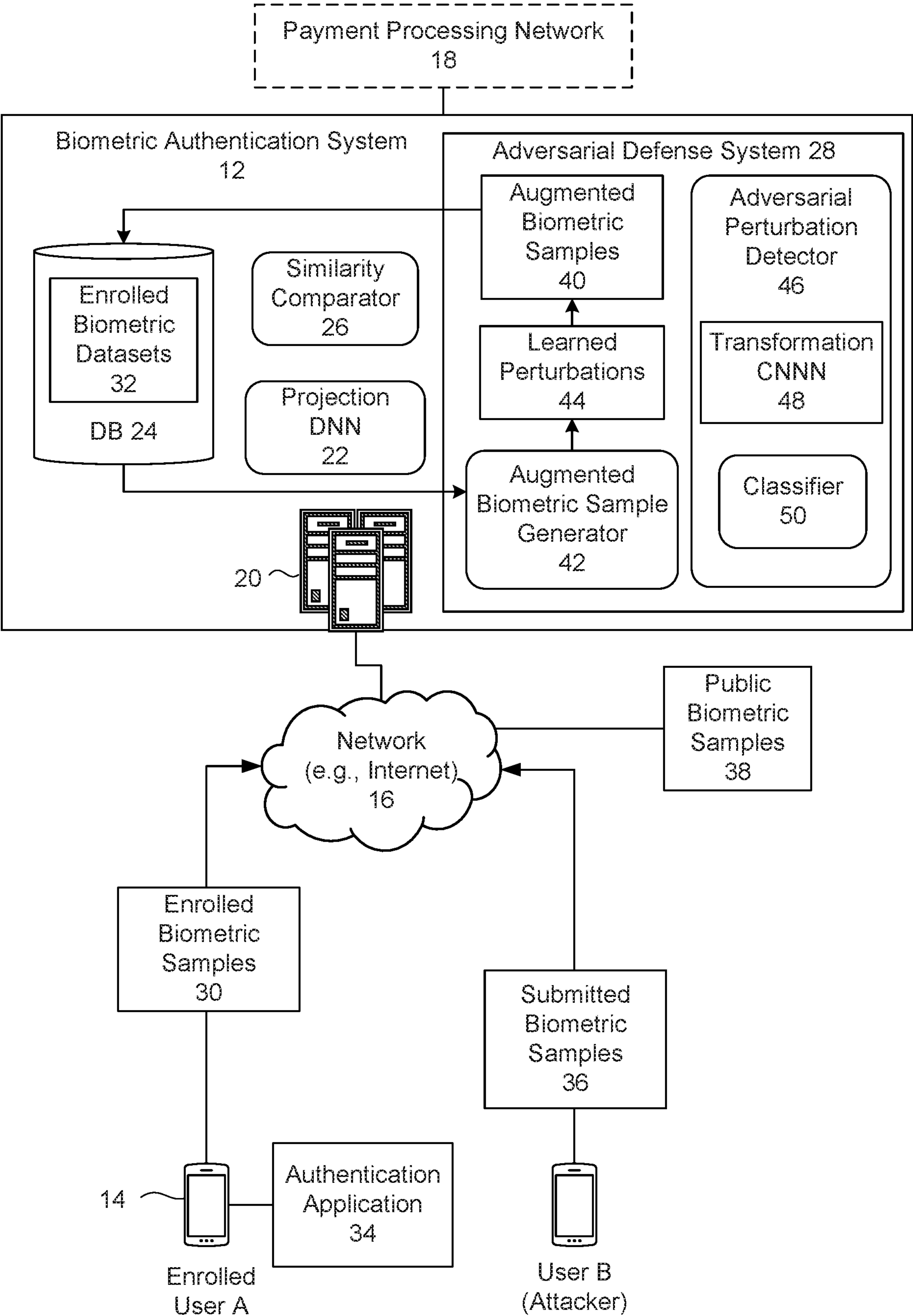


FIG. 1

Biometric Authentication System
12

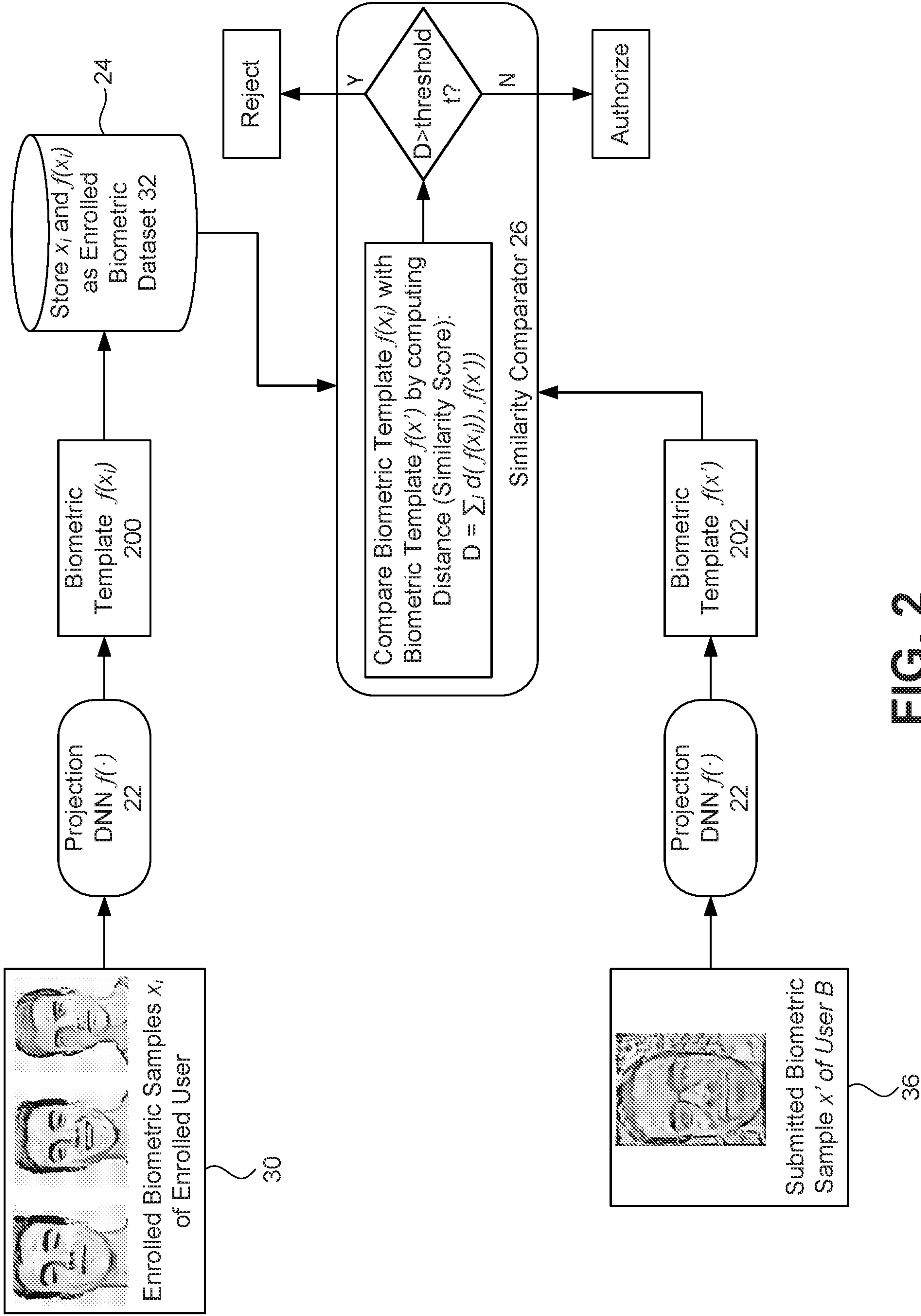


FIG. 2

Impersonation Attack on a Generic
Biometric Authentication System

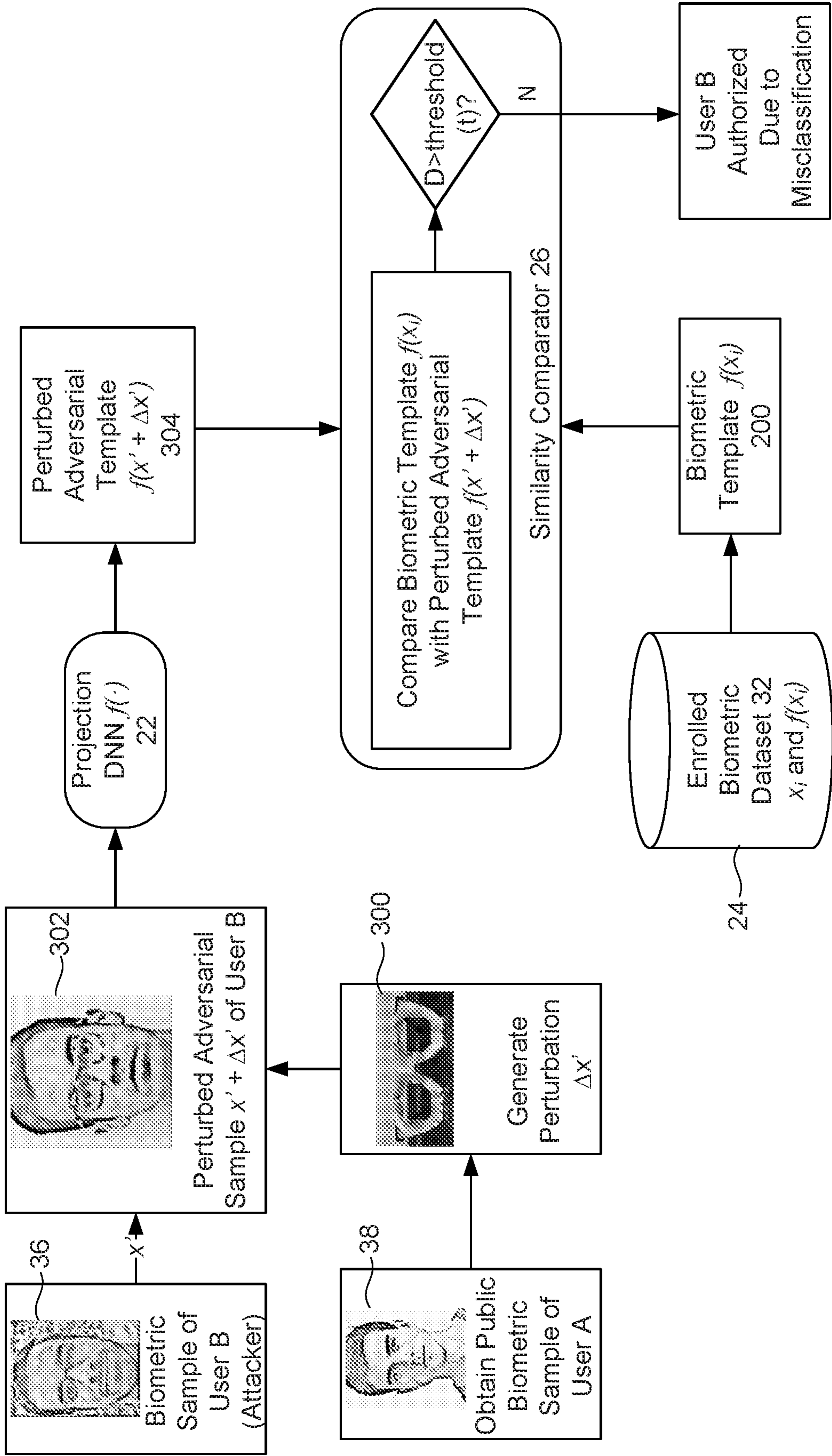
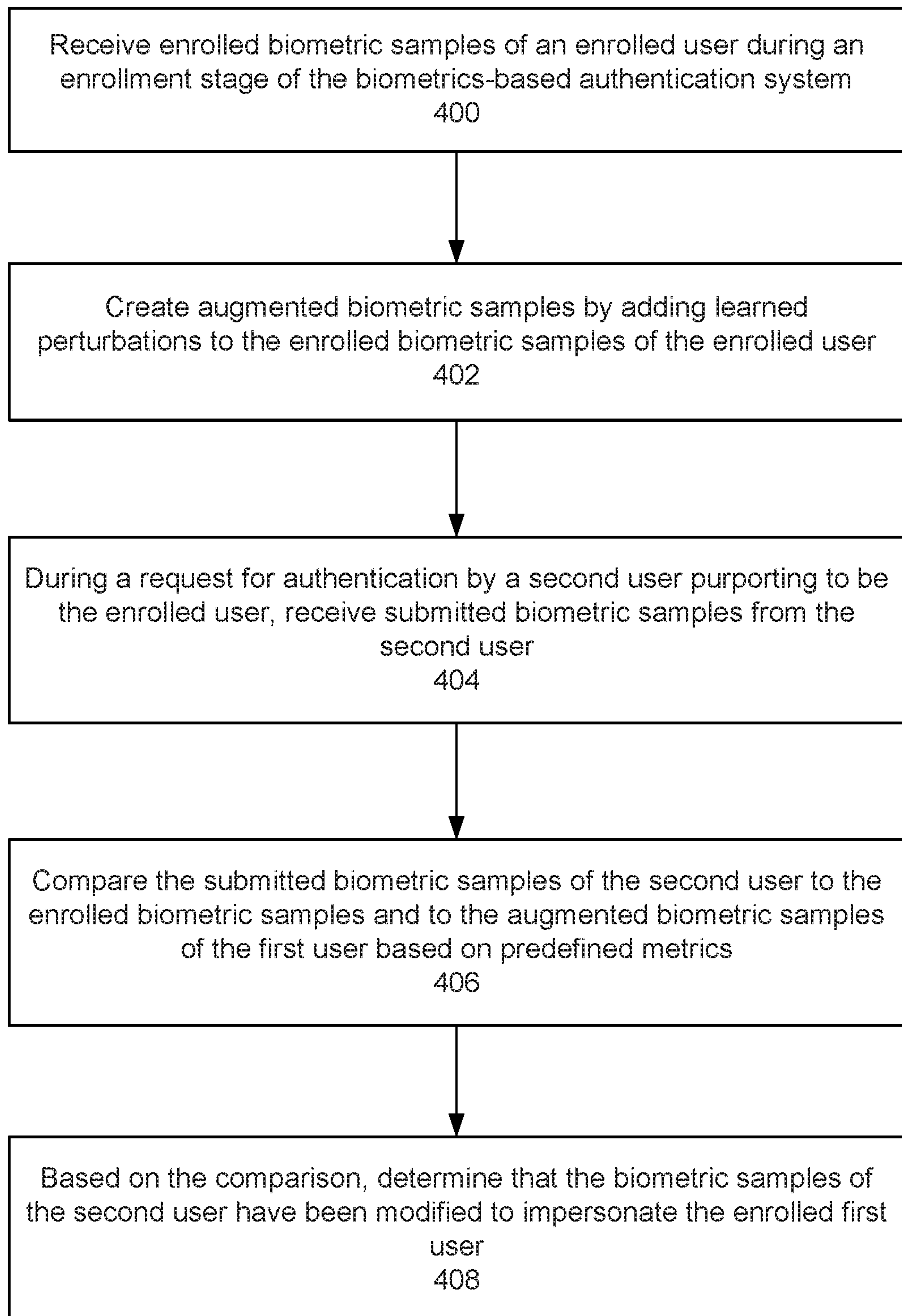


FIG. 3

**FIG. 4**

Detection of Impersonation Attack on the Biometric Authentication System 12

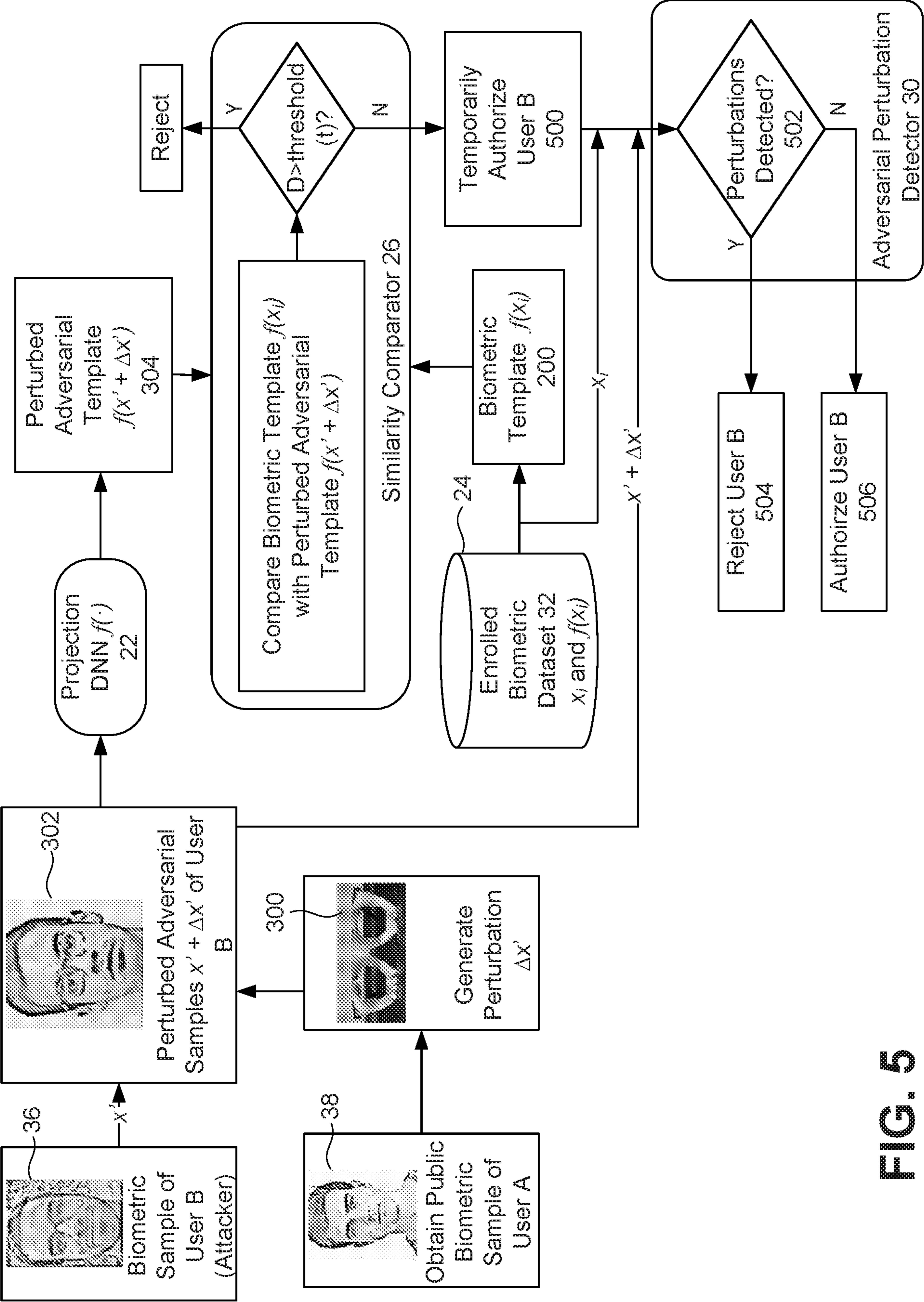


FIG. 5

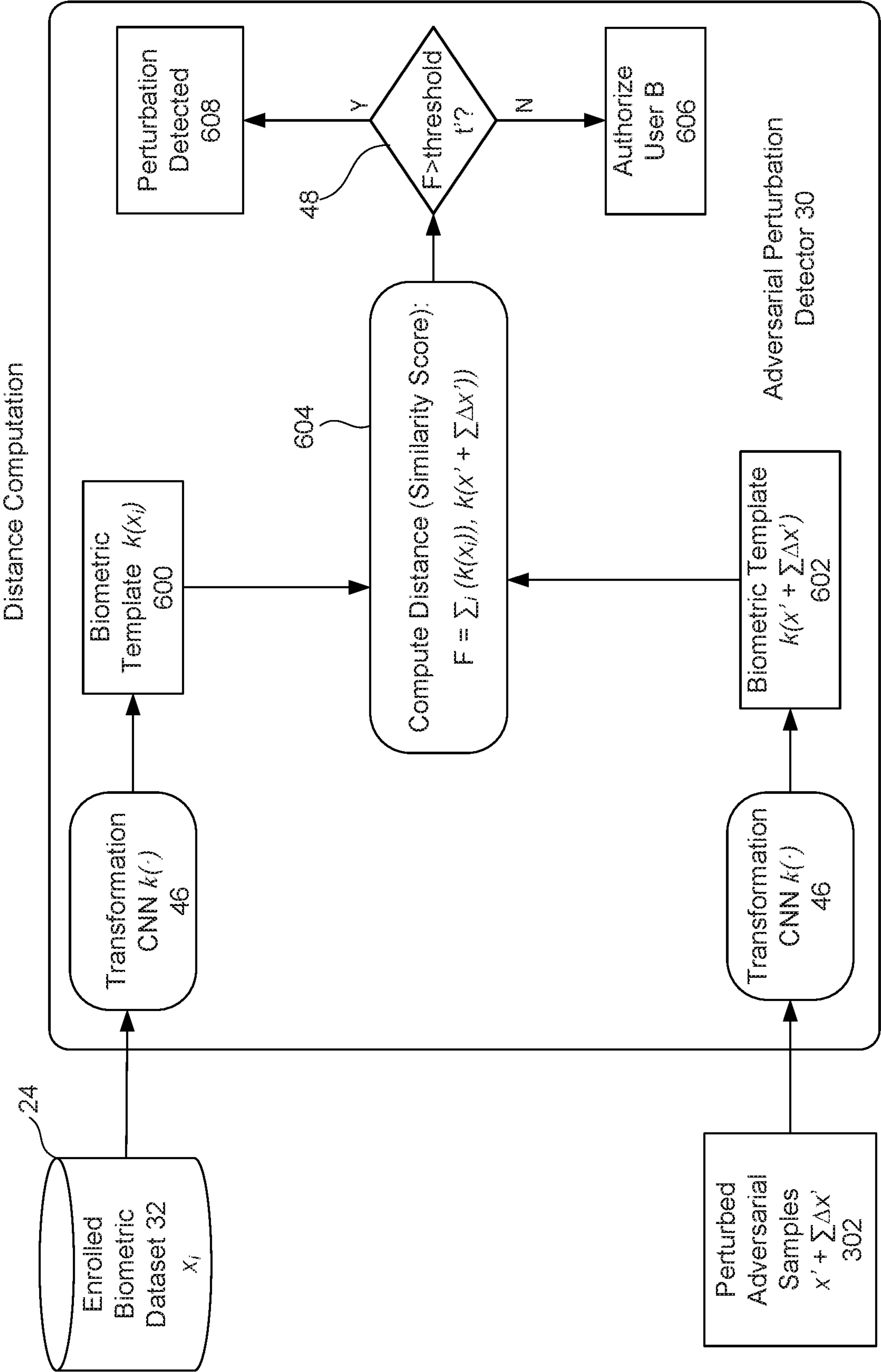


FIG. 6

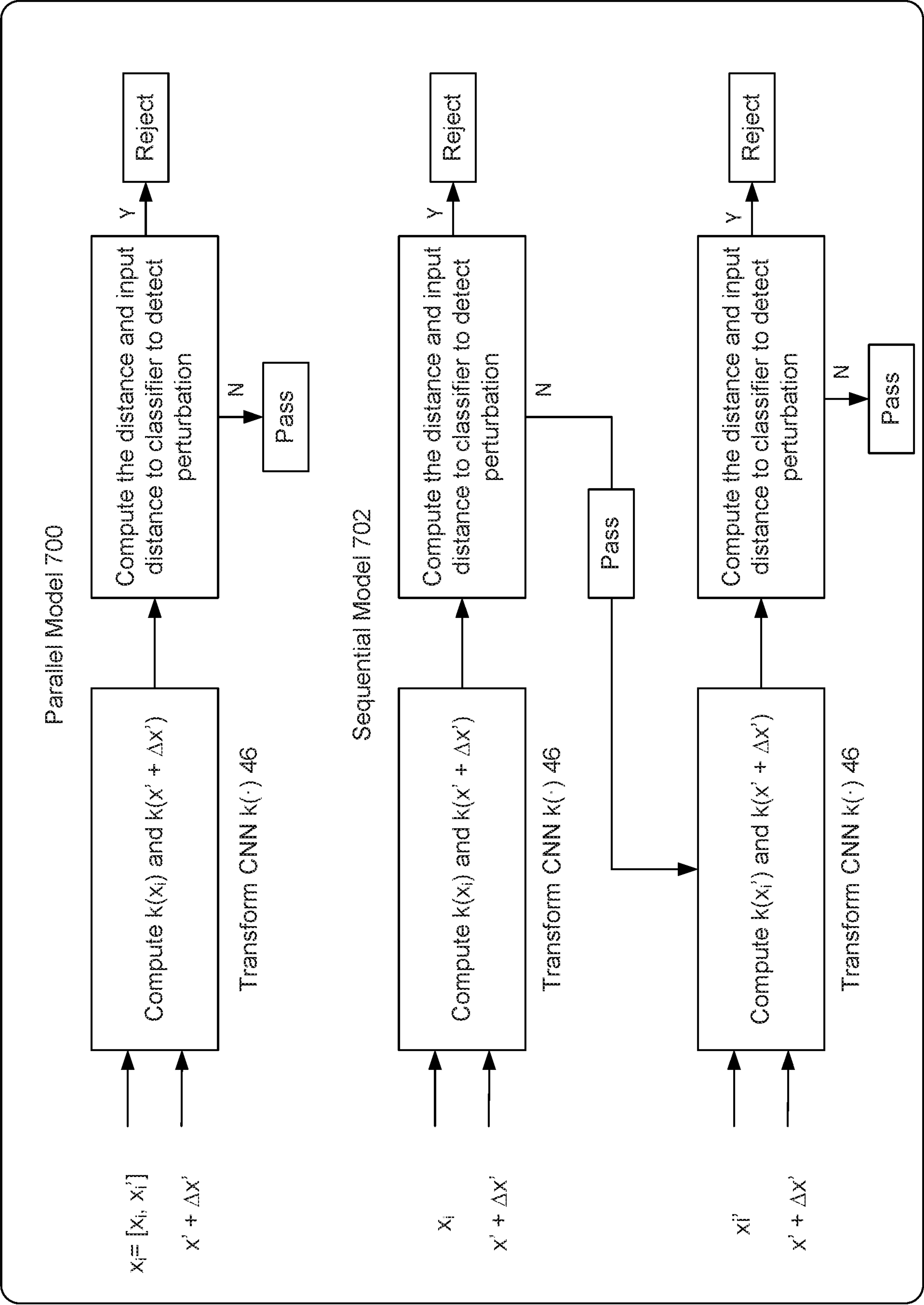


FIG. 7

Training (Pre-deployment)

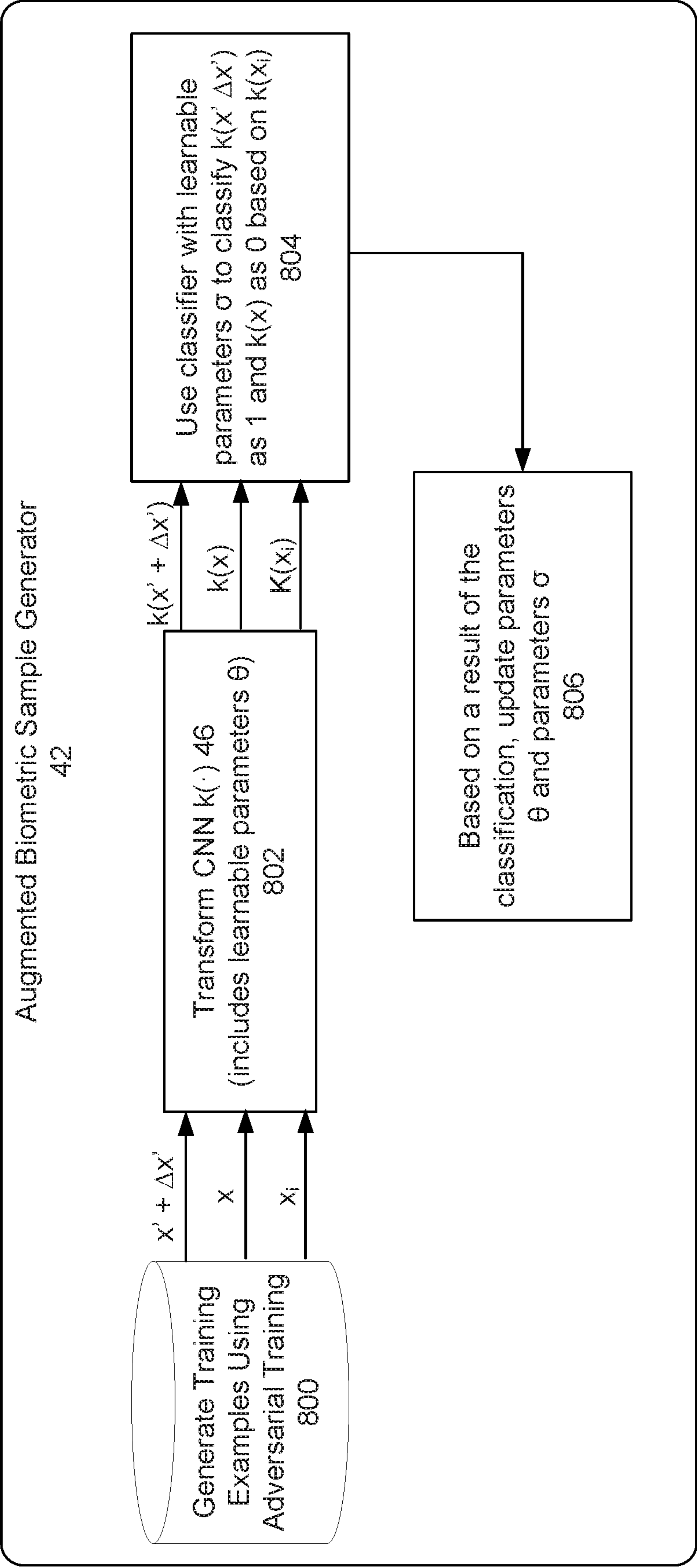


FIG. 8A

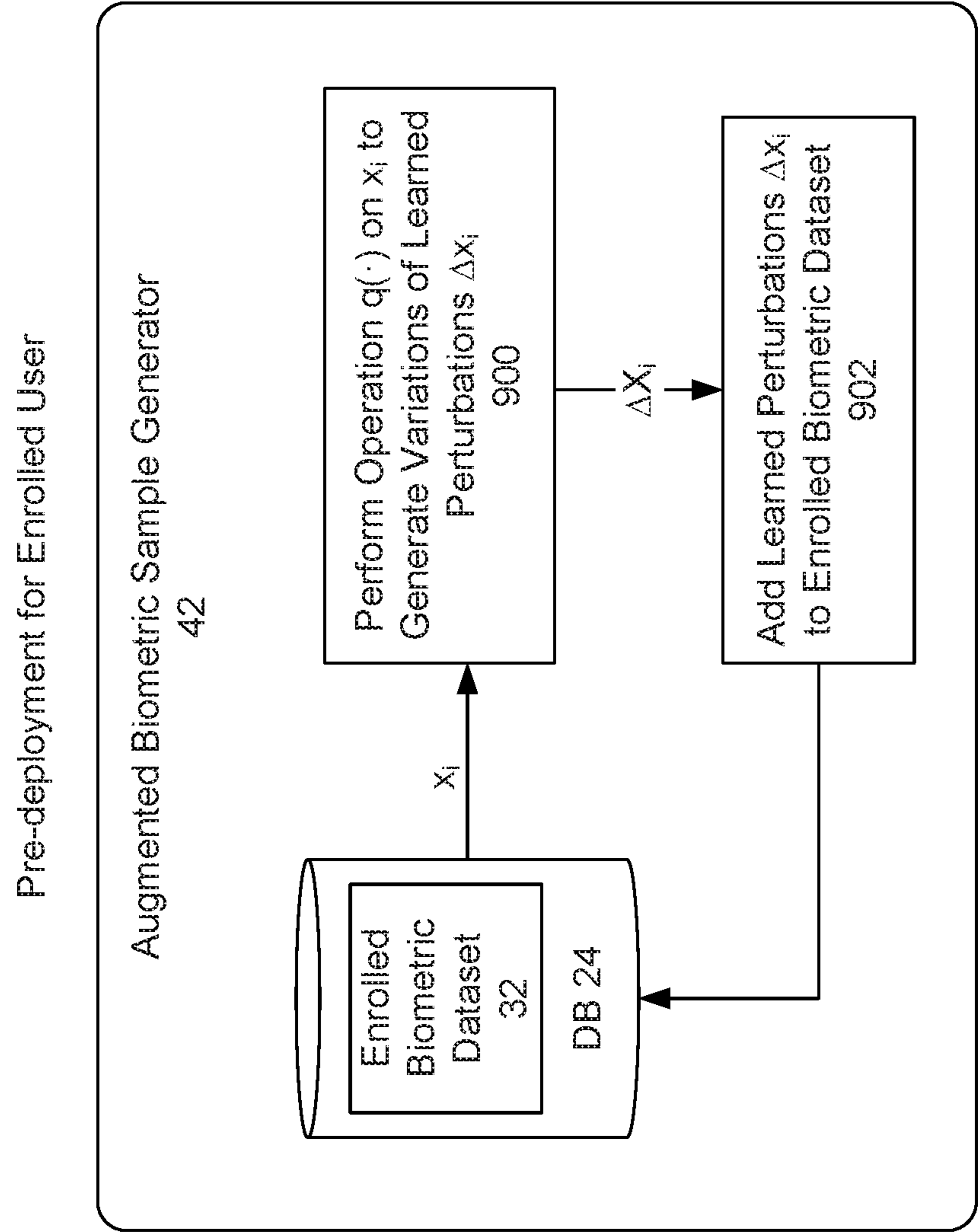


FIG. 8B