LBR – Application Infrastructure Modernization
Federally Funded: N
Recurring

Summary
Requests recurring budget authority to support the modernization of infrastructure to support business applications in the cloud. To support cloud-based applications, there is a need to deploy and configure an Enterprise Service Bus (ESB) to send and receive information between a cloud service provider and on premise data services. Using an ESB is a modern way of implementing a service-oriented architecture, and will allow us to monitor and control routing of message exchange between services.

An ESB facilitates the use of application functionality and data across platforms in a consistent manner without having to rewrite or replace all of them at once to run on a modern platform and FDOT has an extensive catalog of legacy applications running on premise infrastructure which will take years to fully modernize.

In addition to deploying an ESB, some of the existing on premise data and core application components need to move to a cloud architecture. These data and components would support common data lookups and services from the Staff Repository, Active Directory, RACF, Document Management, reference data and DOT/ORG code databases.

Breakdown of Cost Summary
Enterprise Service Bus (1 Year): $48750; reoccurring
FDOT Data Services in the cloud: $16338; reoccurring
Storage Requirements: $600; reoccurring
Bandwidth Requirements: $4654; reoccurring
Total: $70342

Impact Assessment / Savings Achieved by Issue
The Enterprise Service Bus solution is intended to support the migration away from Infrastructure as a Service (IaaS), and move to a Platform as a Service (PaaS) model for application hosting. In a PaaS model, maintenance, downtime, and cost are all lessened by hosting applications in a container maintained by a third party cloud provider. Support needs will drop considerably by moving these services to a cloud-ready provider.

Adverse Impact(s) if not funded:
The cost of supporting legacy applications on antiquated infrastructure will increase over time. Hardware and Operating System migrations will need to occur every 3-7 years for which FDOT is already several years behind in multiple cases; this cost would not occur in a PaaS infrastructure.