

Application Code

```
int call() {  
    prepare call arguments  
    try {  
        EENTER  
        RCX: AEP | RBX: TCS  
        store call results  
    } catch (AEX e) {  
        Resumable exception?  
        Yes  
        return ERROR;  
        ERESUME  
        RCX: AEP | RBX: TCS  
        store call results  
    }  
    return SUCCESS;  
}
```

System Software

Hardware Exception Handler

```
void handler() {  
    save GPRs  
    handle exception  
    restore GPRs  
    IRET  
}
```

TCS

CSSA

OENTRY

AEX Path

Enclave Code

```
void entry() {  
    RCX set by  
    EENTER  
    read ESP from  
    FS:TLS  
    PUSH RCX  
    perform enclave  
    computation  
    POP RBX  
    EEXIT  
}
```

Synchronous
Execution Path

AEX

Ring 0
Stack

GPRs

Code

RIP

CS

RFLAGS

RSP

SS

SSA

XSAVE

GPRSGX

AEP

U_RBP

U_RSP

Registers
cleared
by AEX