

In-kernel dispatcher function

rex_dispatcher_func:

```
// save the callee-saved registers
pushq ...
// save the stack and frame pointer
movq %rsp, PER_CPU_VAR(rex_old_sp) ...
// switch stack
movq PER_CPU_VAR(rex_stack), %rsp ...
// invoke the REX program
call *%rdx
```

rex_exit:

```
// restore old stack and frame pointer
movq PER_CPU_VAR(rex_old_sp), %rsp
// restore the callee-saved registers
popq ...
ret
```

Rex program

rex_prog1:

```
...
ret
```

Panic

Rex panic handler

```
// clean allocated resources
...
call rex_landingpad
```

In-kernel landingpad

rex_landingpad:

```
// report error
// set default return value
...
jmp rex_exit
```