

# Image Load Flow

- vcl daemon is running
  - polls database every 12 seconds to check if the management node has any reservations which need to be processed
- vcl finds a reservation that needs to be processed
- vcl gathers all of the information for the reservation from the database by calling `utils.pm::get_request_info()` and then a `DataSet` object is created
- vcl creates a new state object
  - a new state object is created based on the `request.stateid` column for the reservation
  - the main state modules are `new.pm`, `image.pm`, `reserved.pm`, `reclaim.pm`
- the constructor for all of the state modules is `Module.pm::new()`
- this constructor automatically calls an `initialize()` subroutine if `initialize()` has been implemented for the class being constructed
- `State.pm` contains an `initialize()` subroutine, and all of the state modules (`new.pm`, `image.pm`...) inherit from `State.pm` so the `initialize()` subroutine in `State.pm` is automatically called when vcl creates the state object
- `State.pm::initialize()` creates an OS object based on the OS of the image assigned to the reservation
- `State.pm::initialize()` creates a provisioning engine object based on the provisioning engine of the computer assigned to the reservation
- vcl forks a new process for the newly created state object
- the new process calls the state module's `process()` subroutine
- `process()` performs all of the tasks needed to process the reservation, returns true if successful, false if failed