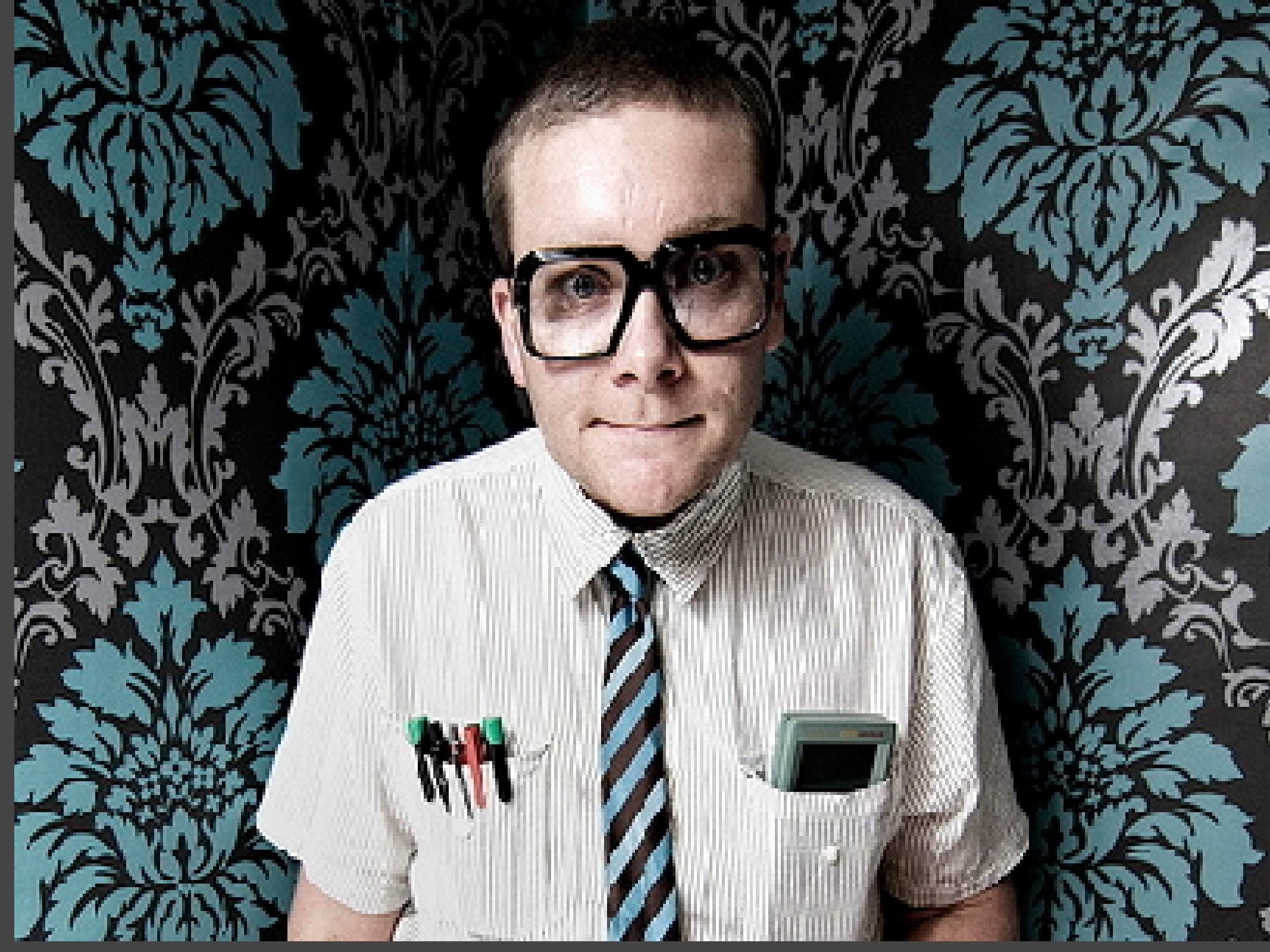


PyPI Testing Infrastructure

Yeswanth







PYTI

Pypi Testing Infrastructure



PYTI

Pypi
Testing
Infrastructure

What is PyTI

- Propose a set of metrics
- Testing the python distribution
- Architecture for testing

Purpose of pyti

- to check what is uploaded
- Quality Analysis of projects that is uploaded

Two Parts of PyTI

- Environment Part
- Execution Part

Environment

- virtual machine
- slave
- master
- result handler

Virtual Machine Management

"Securing a computer system has traditionally been a battle of wits: the penetrator tries to find holes, and the designer tries to bury them." - M. Gosser

Transfer of data between guest and host

- VDFuse
- Fuse mount

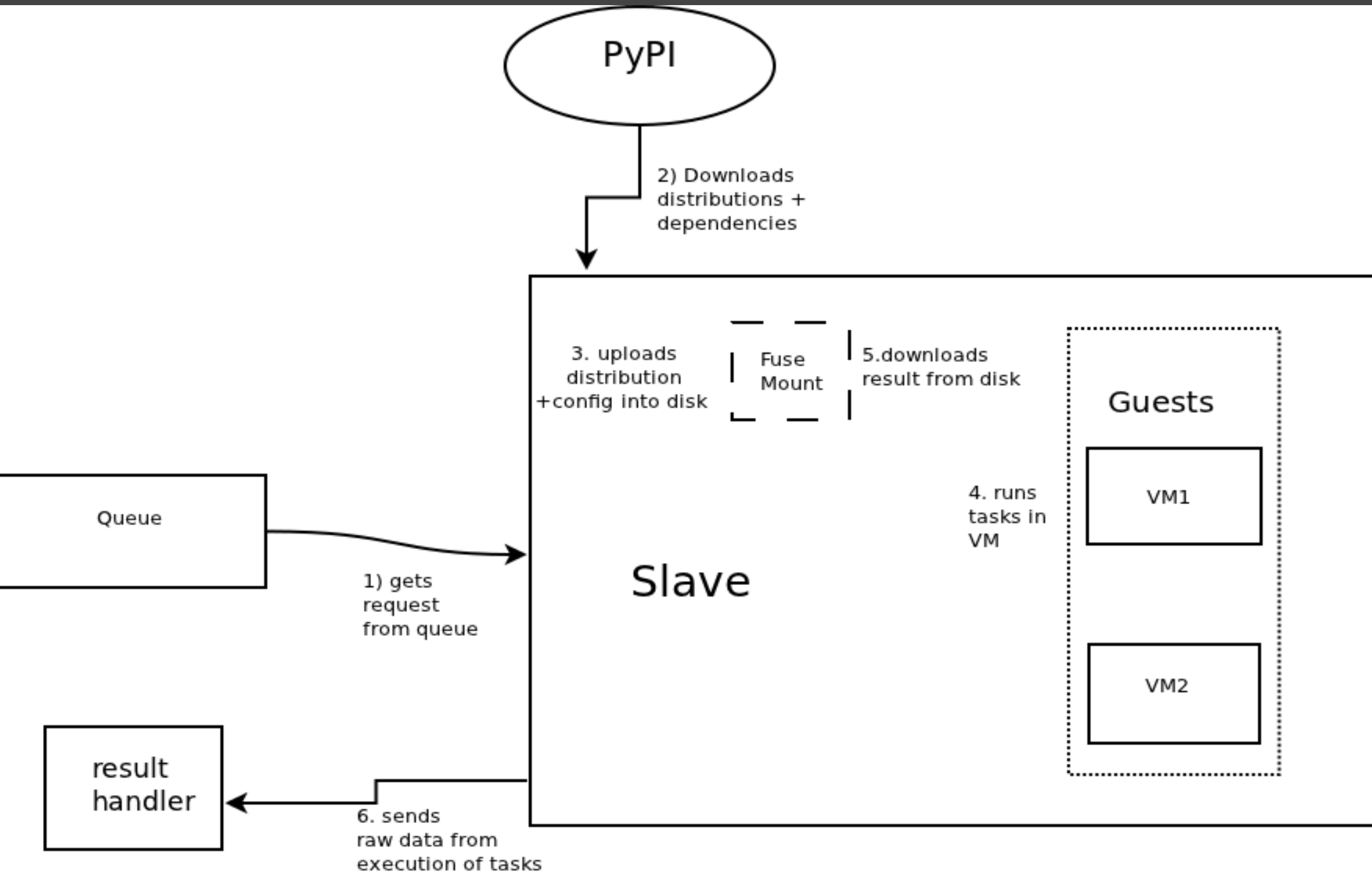
Master - Slave

- Slave looks for requests in the Queue
- Slave accepts a request if it satisfies certain conditions and executes them

What happens in a slave

- Downloads projects
- Computes and downloads dependencies
- Transfer of files to virtual Machine
- Virtual Machine execution
- Transfer of result back to host(slave)
- Result send to result handler

architecture



Execution part

- Extract the python distributions
- Installs the distributions
- Launches the tasks

Tasks & Recipes

- Tasks are place where logic code is declared for testing
- Bundled tasks are called recipes
- Recipes are used to determine PyTI tests.
- The sequence of tasks is determined by task Manager which evaluates the order of the tasks
- eg for a task : extract a "Zip" file

What's yet to be done

- Setting up the infrastructure to atleast have few slave working
- Evaluation of dependencies of tasks for more than one dependency
- Kernal probing to determine illegal execution

How to contribute

- Download the code and hack it
- Subscribe to mailing list pyti@librelist.com
- IRC channel `#python-testing`

Questions??????