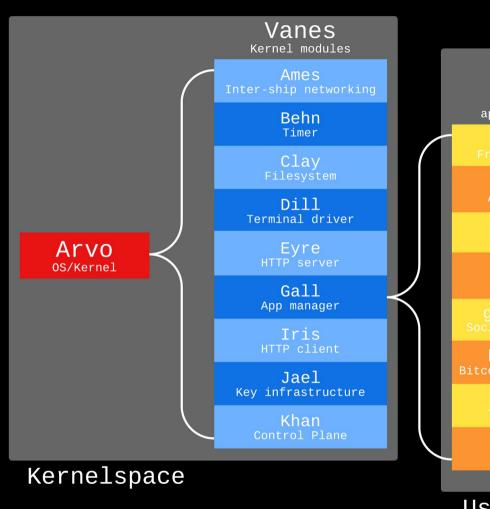
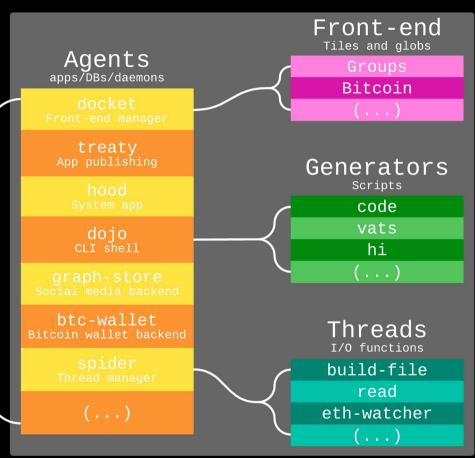
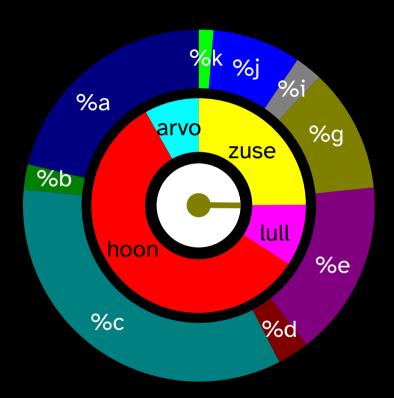


APP SCHOOL LIVE \* LESSON 1
ARVO SERVICES





Userspace

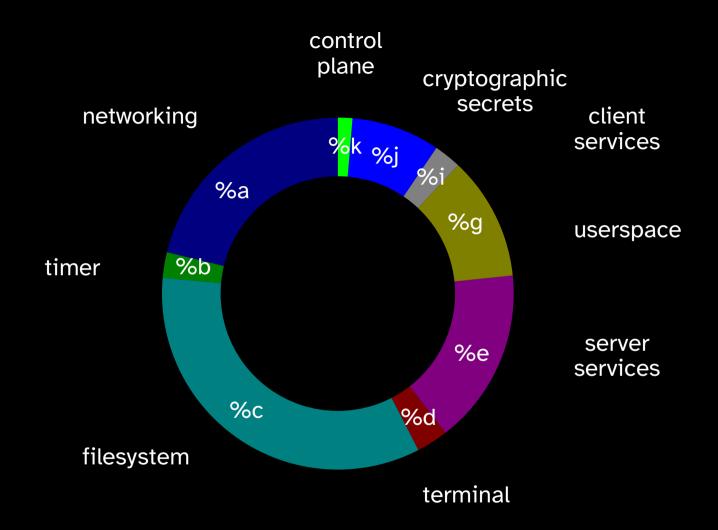


### runtime

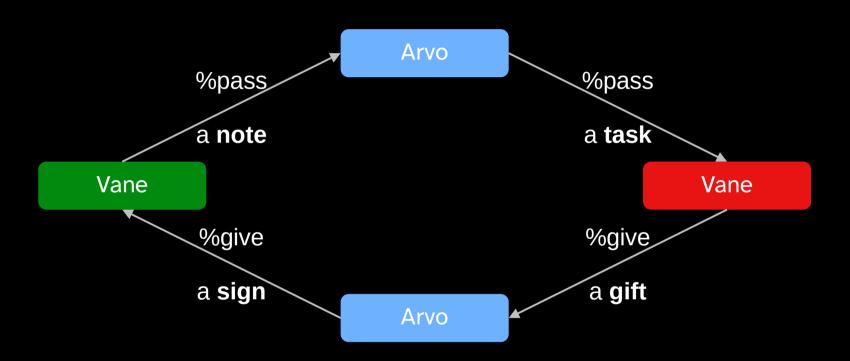


event handler





# **Arvo**Event Handler



## Scrying

.^(type %gx /ship/desk/case/path/mark)

### The return type.

The data returned by the scry will be cast to this type. The scry will fail if the data does not nest in this type.

### Ship

Always our ship because remote scries are not yet supported.

#### Vane

- **a** Ames
- **b** Behn
- C Clay
- d Dill
- **e** Eyre
- g Gall
- i Iris
- j Jael

#### Care

The kind of request.

One of:

a b c d e f p s r t u v w x y z

- Usually x, meaning "read".
- Sometimes **y**, meaning "directory listing" or the equivalent.
- Occassionally u, meaning "existence check".
- The rest are mostly particular to Clay.
- Jael never takes a care.
- Evre sometimes doesn't take a care
- The rest of the vanes take a care.

#### Case

- For Clay scries this allows you to specify a desk revision to target. The case may be an absolute time, a revision number or a label. The leading %da, %ud or %tas is omitted.
- For all other vanes and agents, this is always the current time.

### Desk, agent or tag.

- For Clay this is the target desk, e.g. %home.
- For Gall this is the target agent, e.g. %graph-store.
- For Jael, this is a tag which specifies the scry endpoint, e.g %code.
- Sometimes this is a tag for Eyre too, other times it is empty.
- This is always empty for Ames, Behn, and Dill.

#### Path

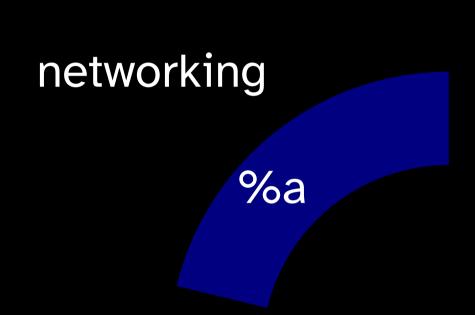
This is the actual scry path. It will be different for each endpoint.

/foo/bar/baz

#### Mark

- This is only used for Gall agent scries with a care of x. It is omitted entirely in all other cases.
- For a Gall agent x scry, Gall will attempt to convert the mark returned by the endpoint to the mark you specify here. The scry will fail if the mark conversion fails.
- Most often just %noun.

### **Ames**



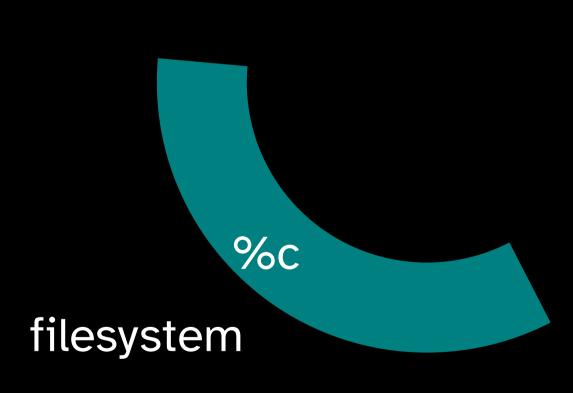
- UDP packets
- end-to-end encryption
- routing, congestion control

### Behn

timer %b

- timer priority queue
- guaranteed notification after wakeup time

# Clay



- typed filesystem
- all files have marks
- referentially transparent
- version-controlled
- global namespace
- 2 GB limit currently

### Dill

- session and keyboard handler
- see Drum and Hood



terminal

## **Eyre**



- HTTP API endpoints
- data subscription model preferred (JSON-based channels)
- cookie-based authentication
- MIME types are Arvo-level primitives

### Gall



userspace

- persistent daemons
- standard form
- Gall brokers access to Arvo services
- communicates via Eyre

# **Iris**

client vane for HTTP requests

client services



### Jael

%j

cryptographic secrets

- verify identity
- track public keys(Azimuth state)
- communicate with sponsor

# Khan

control plane



- external thread control plane
- brand new, likely to evolve