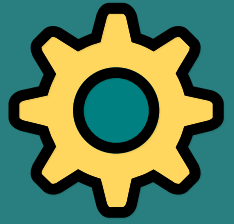




# MACHINEKIT

THE PYTHON  
MACHINETALK BINDINGS

Alexander Rössler



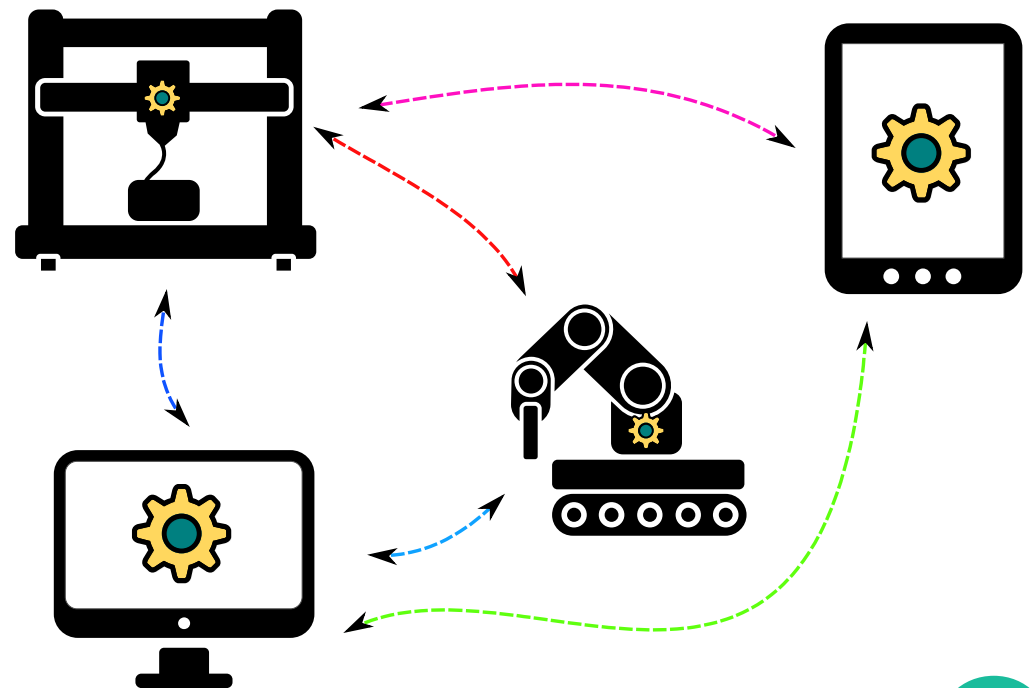
- **Machinetalk**
- **pymachinetalk**
- **Applications**
- **Outlook**

A teal-colored speech bubble with a tail pointing towards the bottom-left corner, centered on a dark gray background.

**MACHINETALK**

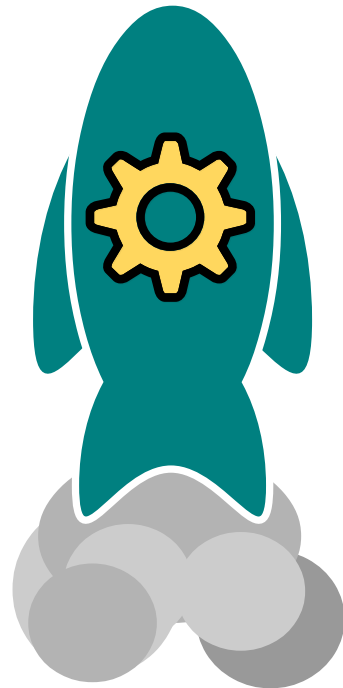


- **Middleware**
- **Interaction between RT and non-RT**
- **Distributed setups**
- **License abstraction**



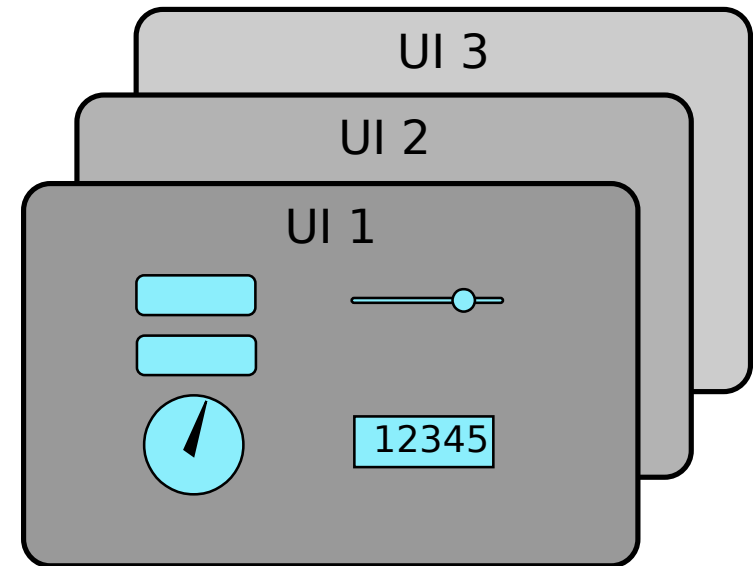


- **launcher & launchercmd**
- **mklauncher**
- **Contact point**
- **Lists configurations**
- **Launches new instances**





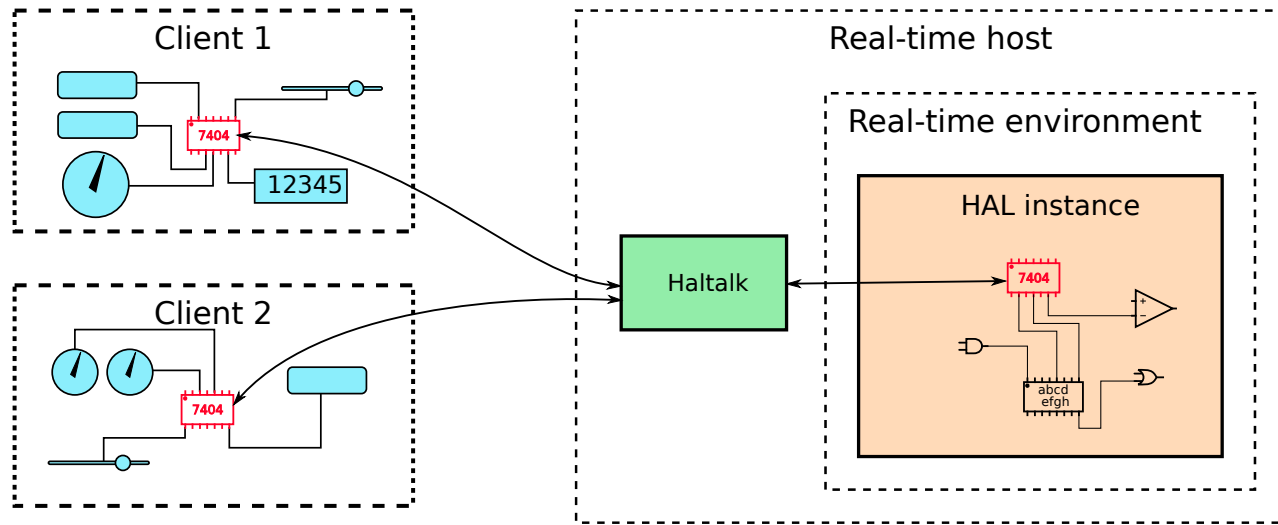
- **config**
- **configserver**
- **Distributes Uis**
- **Running configuration**



# HALREMOTE SERVICE



- halrcomp & halrcmd
- haltalk
- Remote API





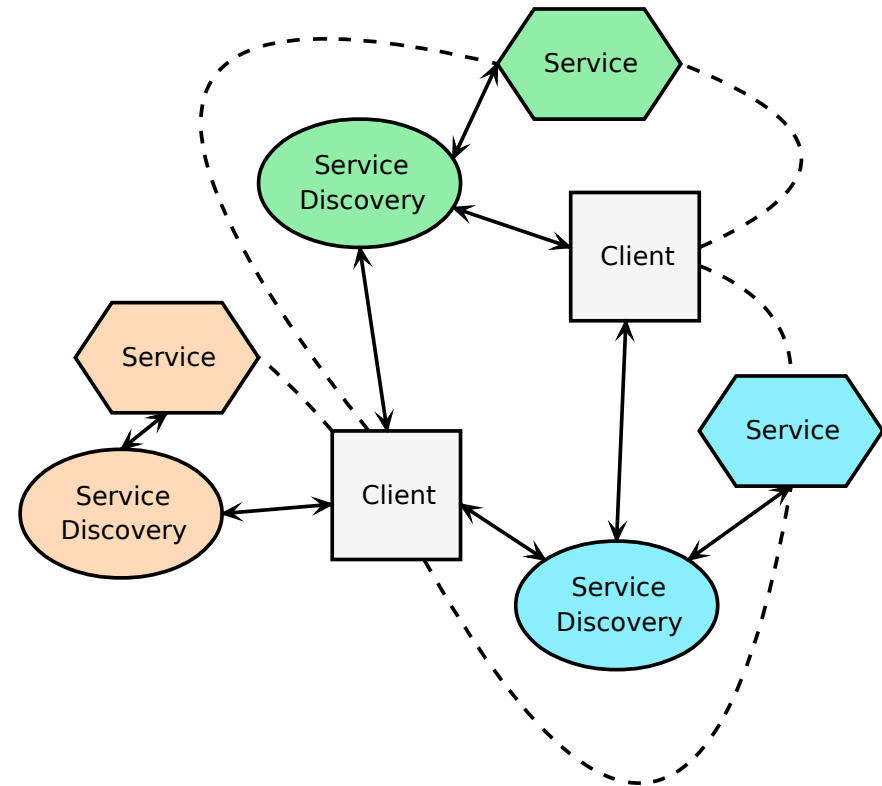
- **status, command, error, file, preview**
- **mkwrapper**
- **EMC interface**



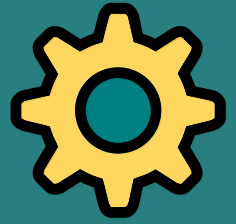
# SERVICE DISCOVERY



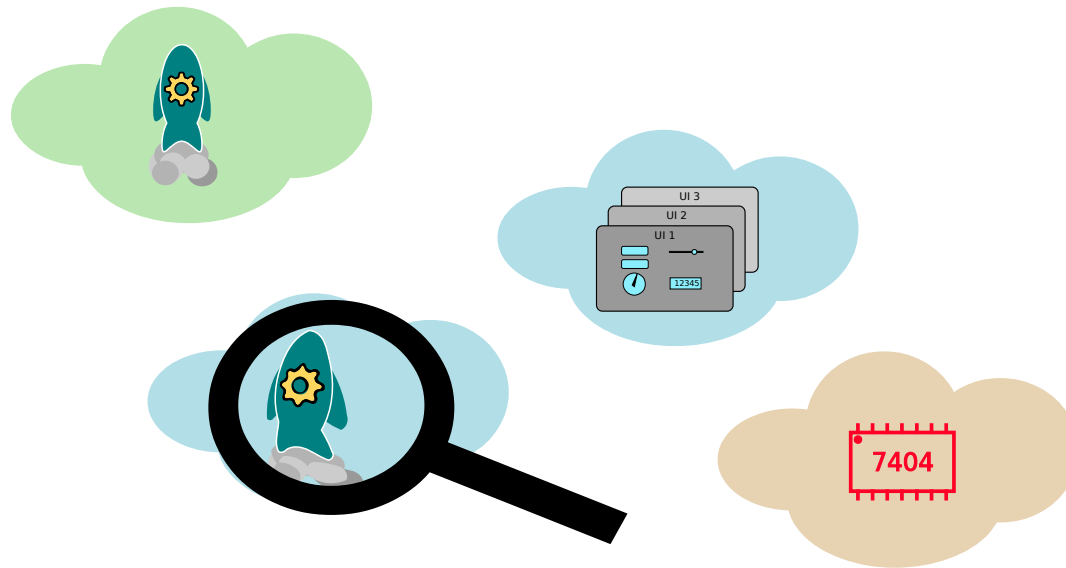
- MDNS/DNS-SD
- .local
- Auto configuration
- Decentralized
- Multicast
- Unicast



# CONNECTION FLOW

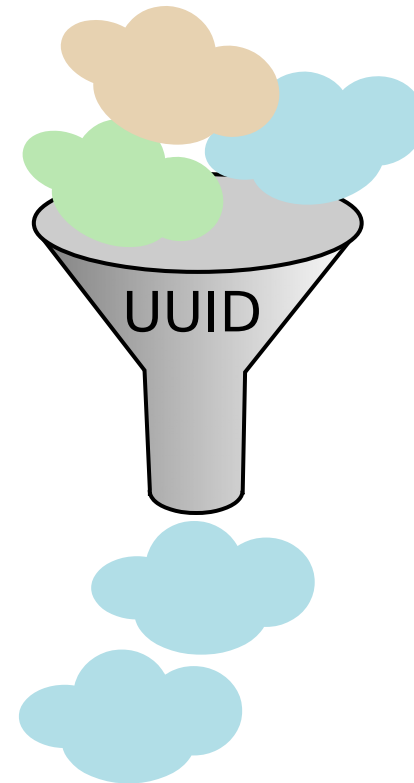


- Search for launcher services
- List instances





- **Filter services**
- **Look for config**
  - Start instance
- **Load UI**
- **Connect other services**



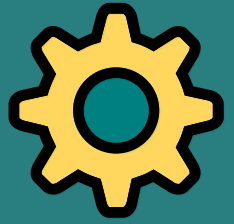
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**PYMACHINETALK**



- **Asynchronous**
- **Synchronous**
- **Locks and conditions**



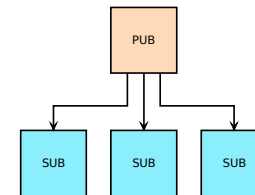


- **avahi & dbus**
- **gobject**
- **Service type**
  - `_launcher._sub._machinekit._tcp`
- **Callbacks**

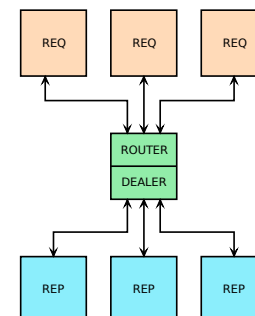


- Canonical to HAL userland component
- RemoteComponent
- Pin

Publish-Subscribe



Router-Dealer





- **ApplicationStatus**
- **ApplicationCommand**
- **ApplicationError**
- **ApplicationFile**

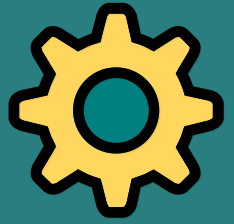


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# **APPLICATIONS**

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# OUTLOOK



- **Launcher & config**
- **Documentation**
- **More examples**
- **Unit tests for Machinetalk**
- **...**

## MORE INFORMATION AND CODE



- [\*\*https://github.com/strahlex/pymachinetalk\*\*](https://github.com/strahlex/pymachinetalk)

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**QUESTIONS?**