

Lab as a Service (LaaS)

Remote Access to Physical Laboratory Experiments for Digital Education

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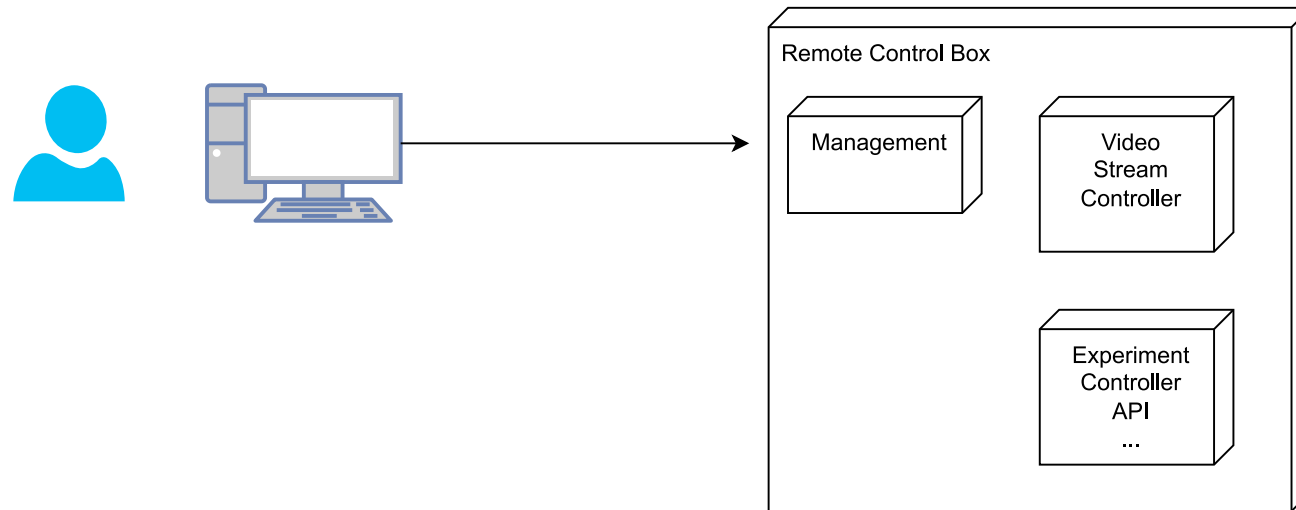


Digitalisierung in der Labordidaktik

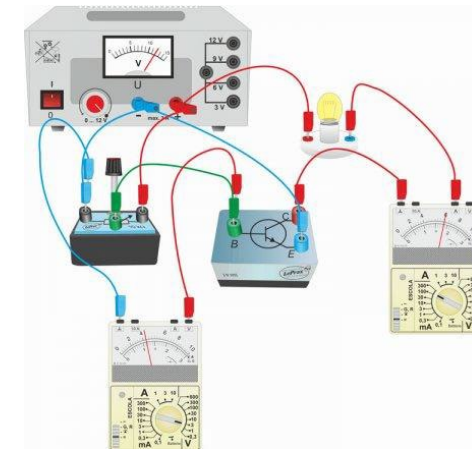
Requirements

- ↪ Connect to Experiments from Anywhere
- ↪ Support any Type of Experiments
- ↪ Operating System Support: Windows, Mac, Linux
- ↪ Low Level Network Access (Layer 2 and Layer 3)
- ↪ Watch Experiment by Video
- ↪ Manage Fleet of Remote-Control-Boxes
- ↪ Observe and Monitor

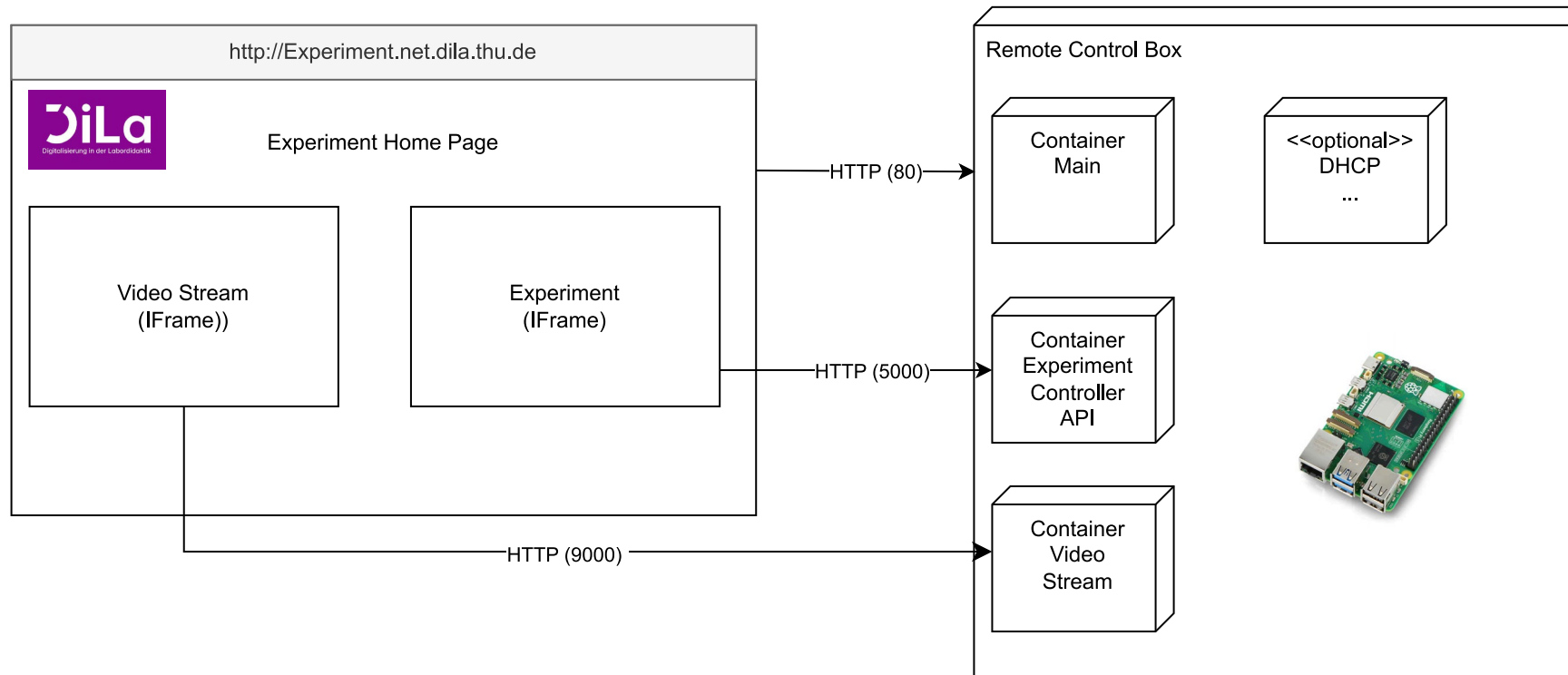
High Level Overview



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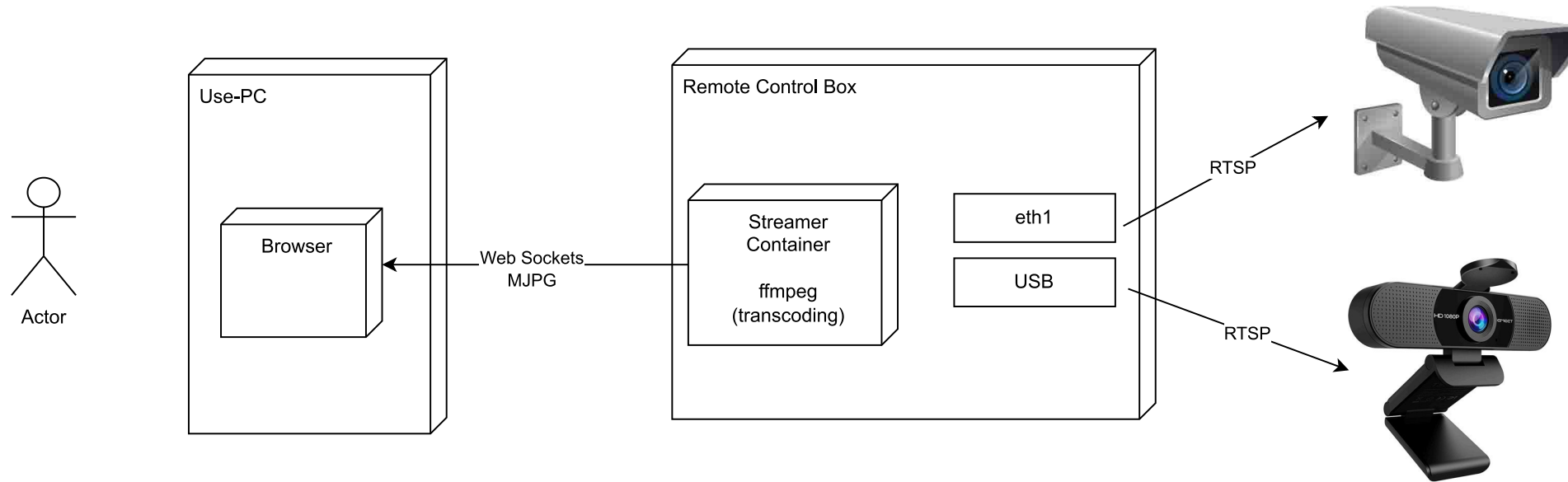


IFrames and Containers

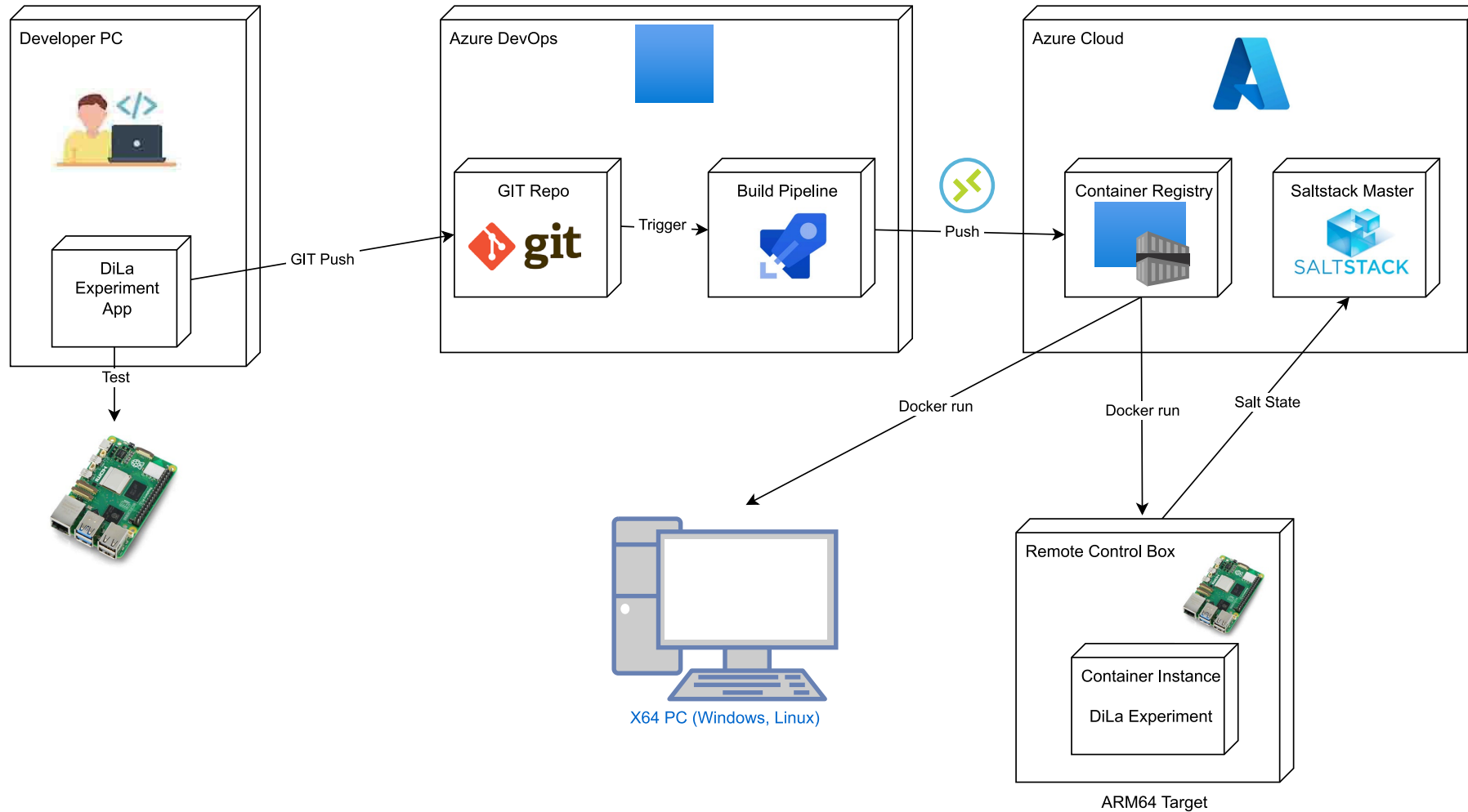




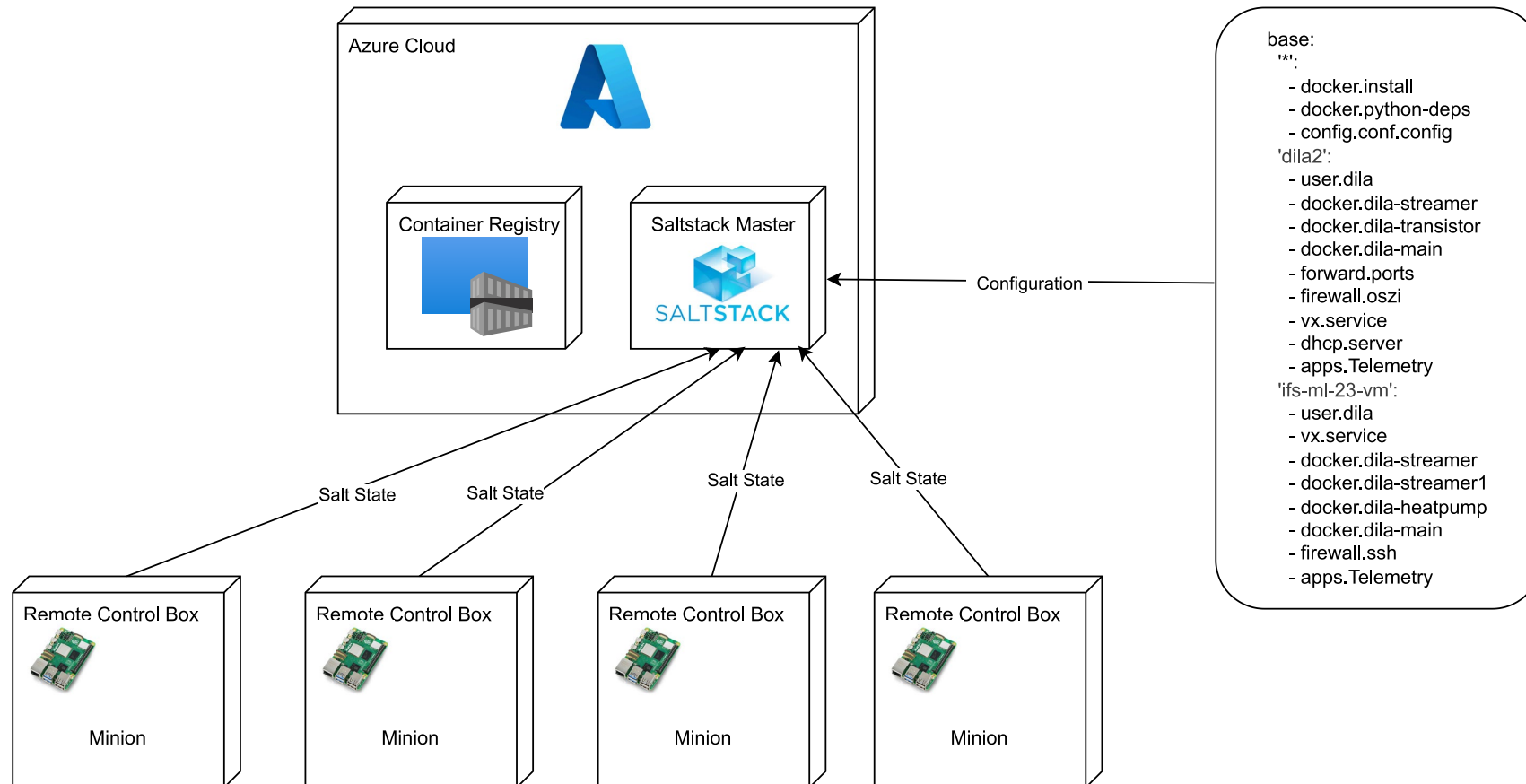
Video Streams



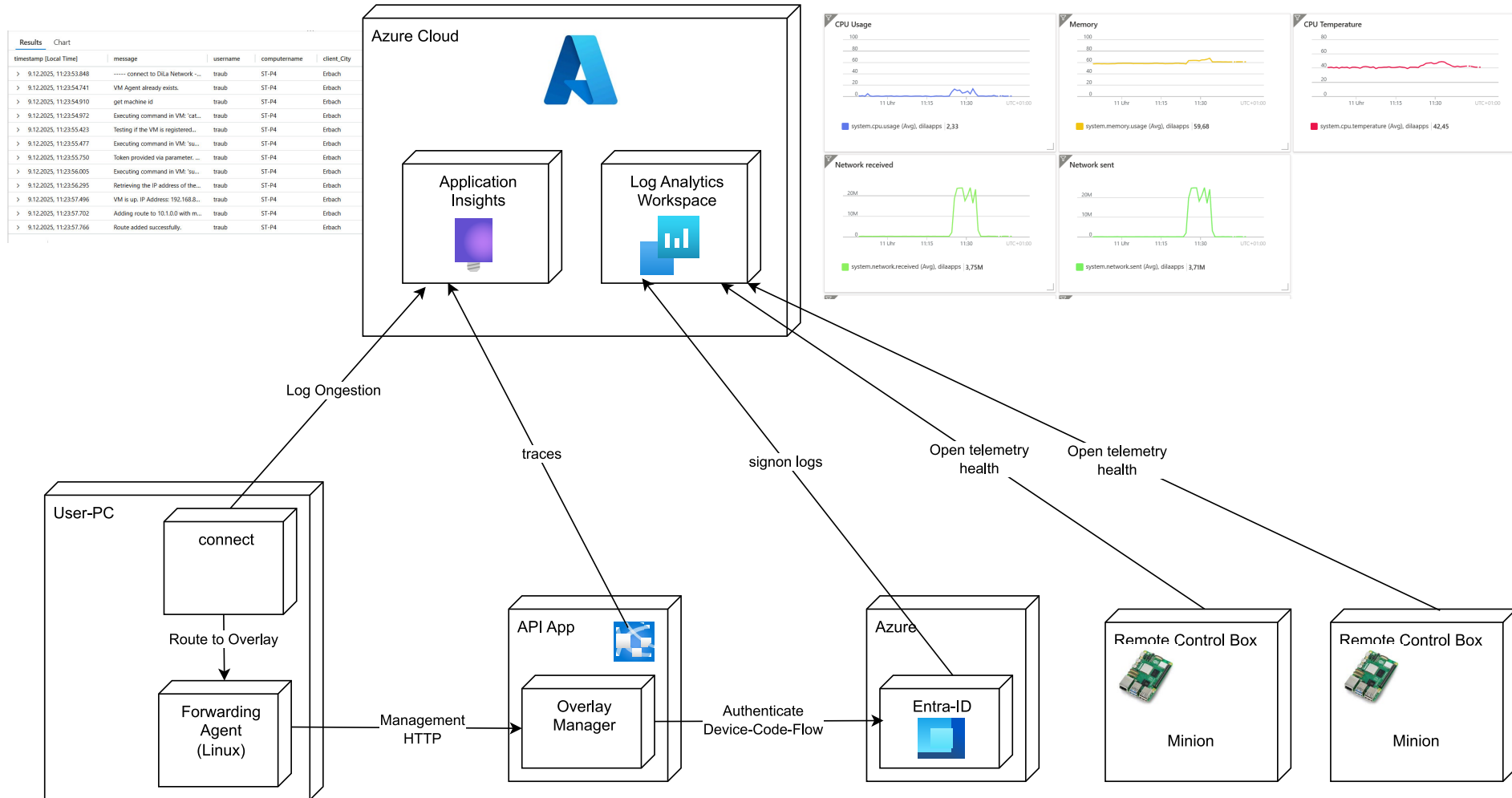
Experiment Development



Remote Control - Box Management



Observability (Monitoring)



Observability (Monitoring)

Links:

[Dashboard DiLa Box](#)

[OVL-Switch Network Interfaces](#)

[HTTP Access Logs](#)

[Connect Scripts](#)

[Application Insights](#)

Outlook

- ↪ Improve Usability
- ↪ Replace MJPEG Stream with WebRTC
- ↪ Add Experiment Management (User Assignments)
- ↪ Simpler Saltstack Configuration
- ↪ Add native Labview Runtime
- ↪ Add Security Baseline