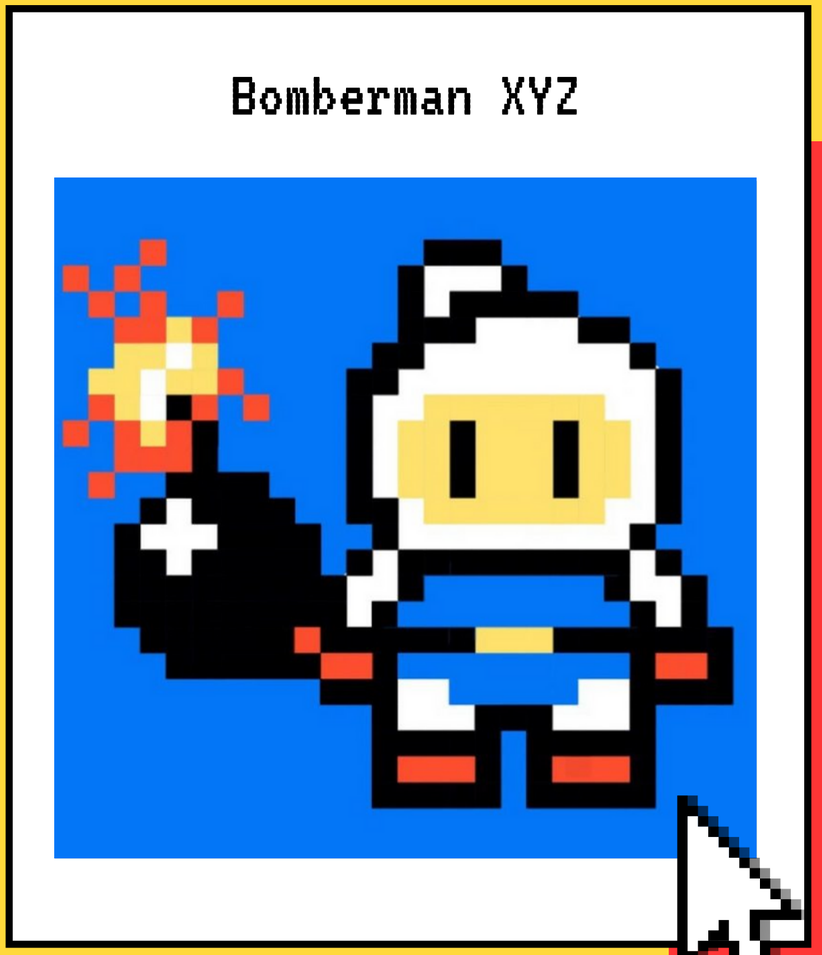


WITH RSOCKET

Learn the basics of RSocket Java & JS with an online game example

Sergey Tselovanikov

Oleh Dokuka

Step 1: The Plan

Intro

Learn the RSocket basics and the target application architecture and design

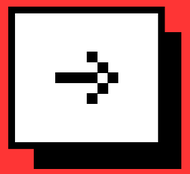
Game Server

Connect Browser UI to Game Server via RSocket.
Integrate Spring with Micrometer

Mesh

Connect multiple game servers together via RSocket

Step 2: Before You Start

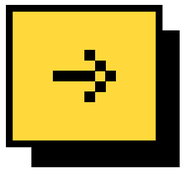


Who this workshop is for

- You know a bit of Spring
- You know a bit of Reactive Programming
- You want to learn more!

Step 3: What's next

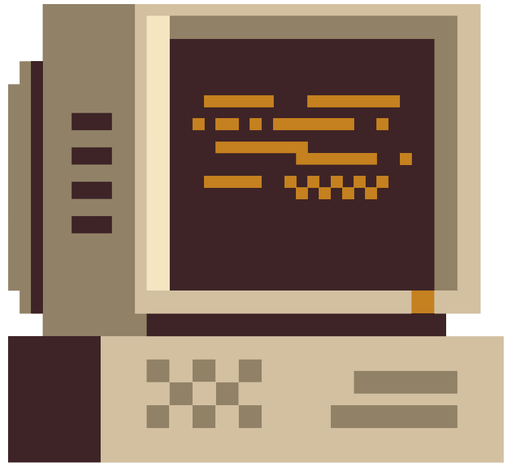
- Open *workshop.bomberman.xyz* and clone the repo. Start from the *initial* branch, peak (don't) at *master*.
- You can follow the steps
- We are going to code
- You need to ask questions. We will be answering them.



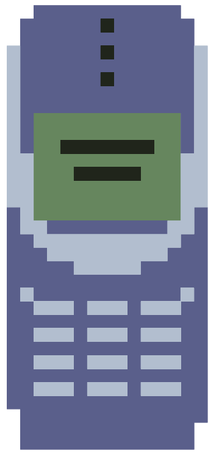
- Open Source Layer 5/6 communication protocol
- Implements Reactive Streams semantics
- Supports both RPC and event-based messaging
- Up to 10x faster than HTTP/1.1, using 90% less resources

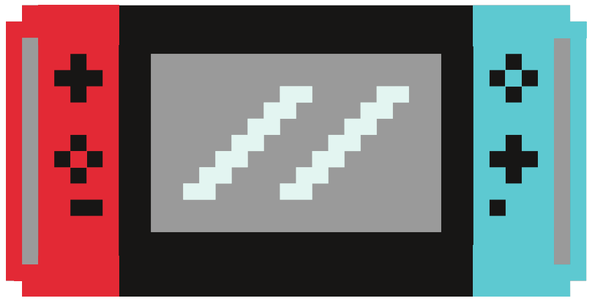
Architecture 1.0

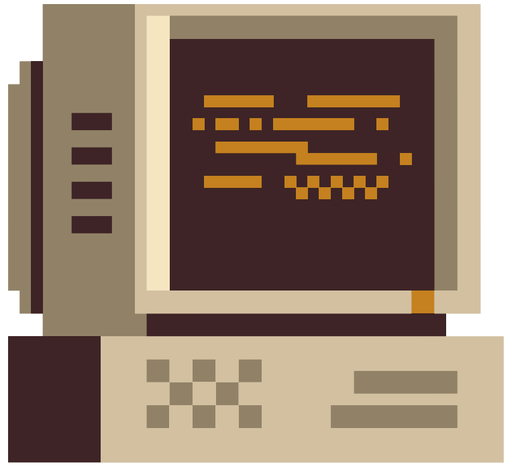
Architecture 1.0



Architecture 1.0







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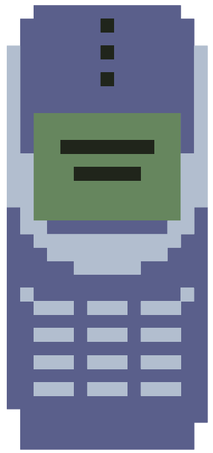
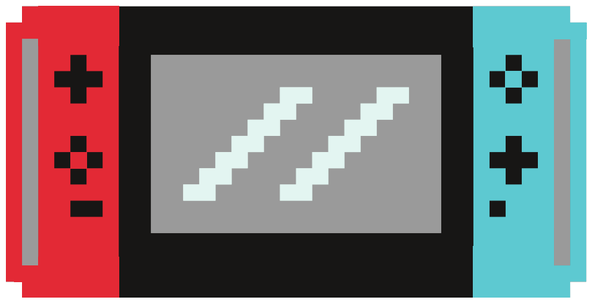
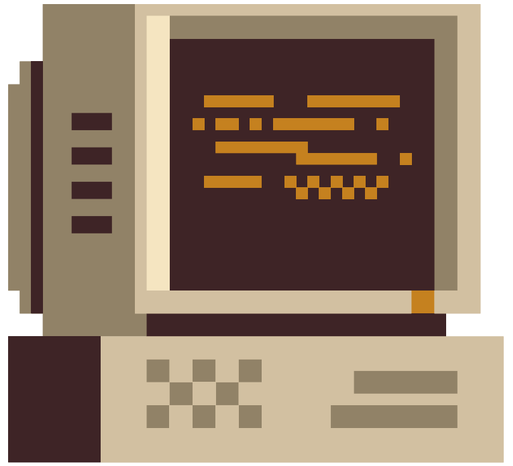






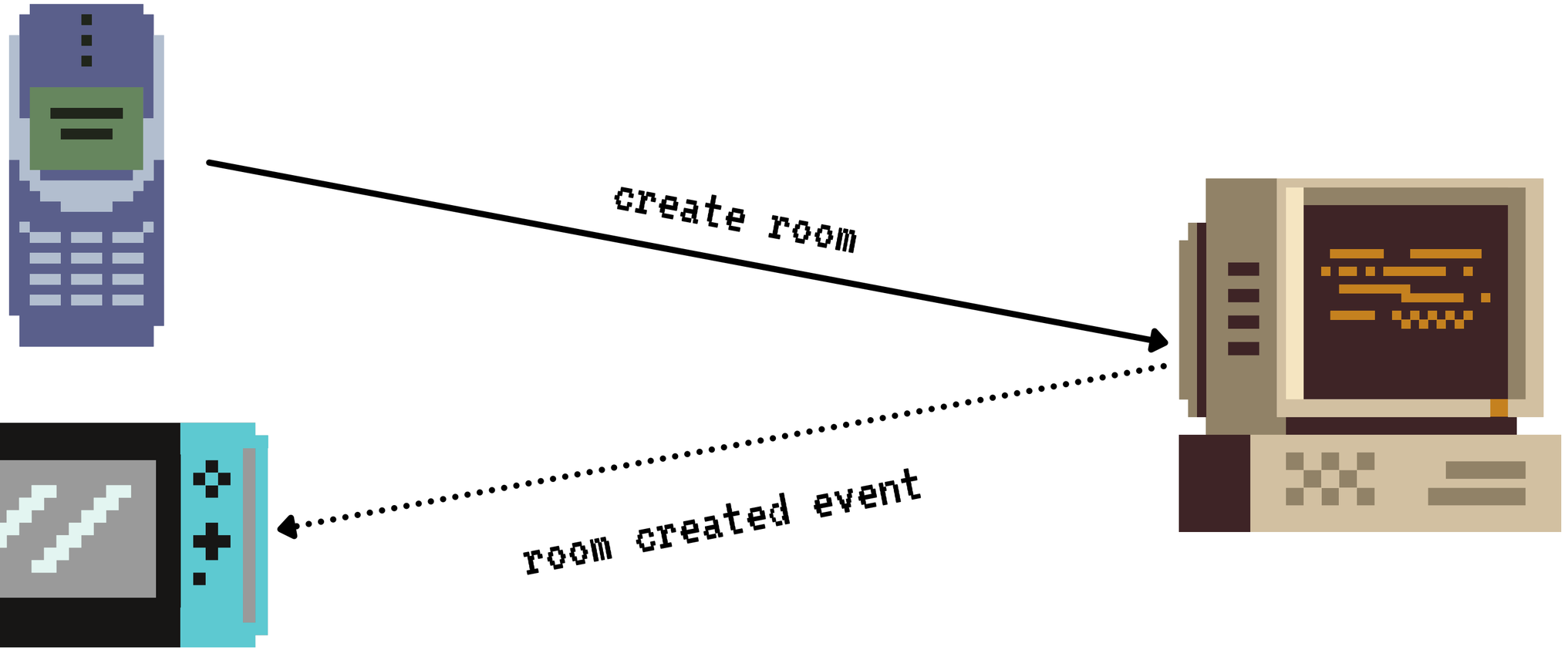
Rooms :

room1, room2

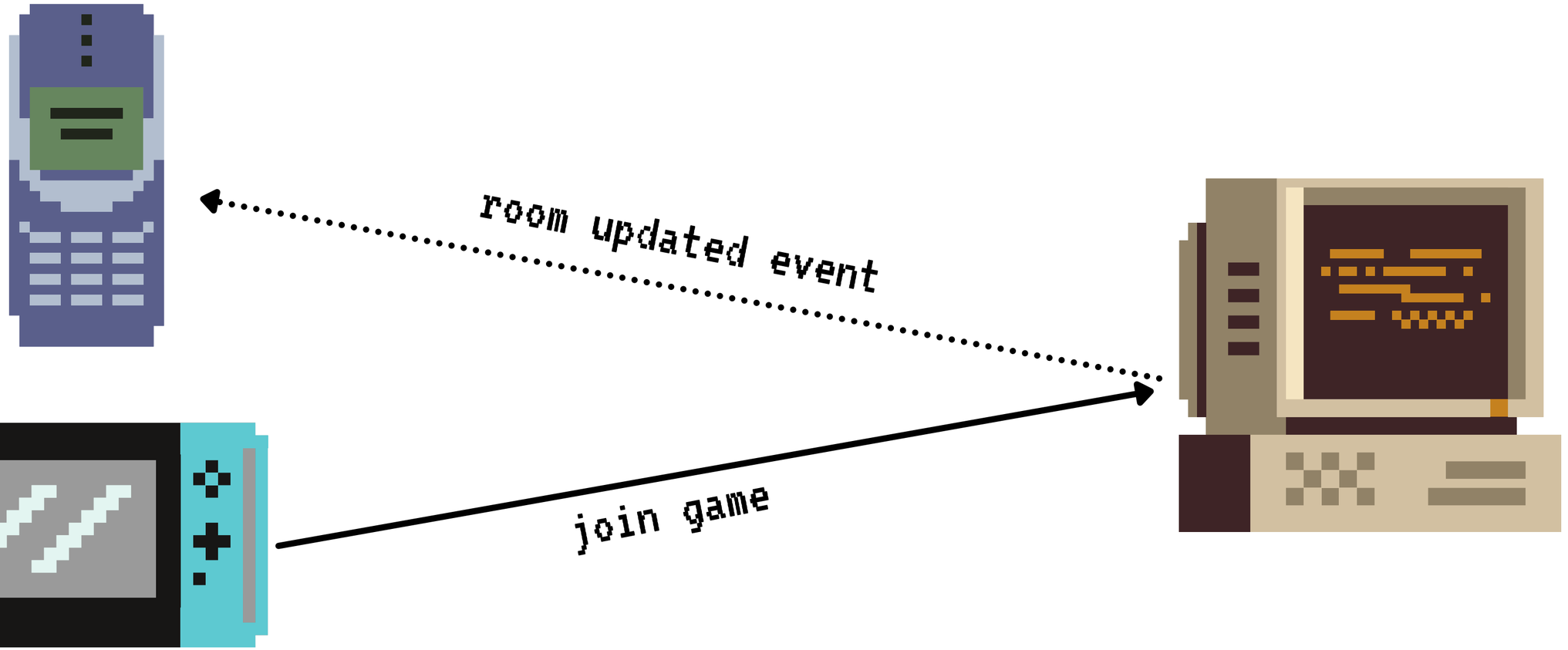
Players :

player1, player2

Architecture 1.0



Architecture 1.0



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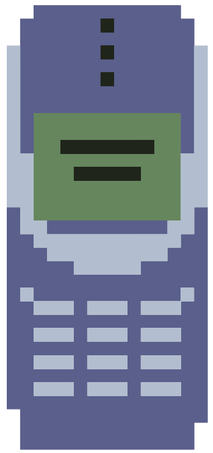
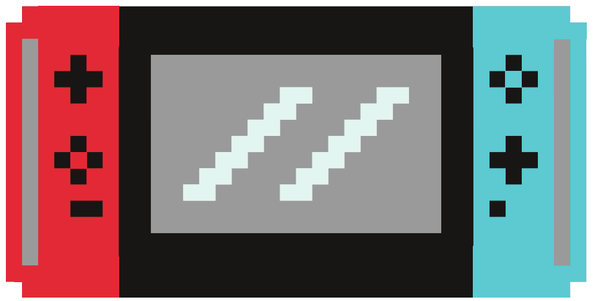
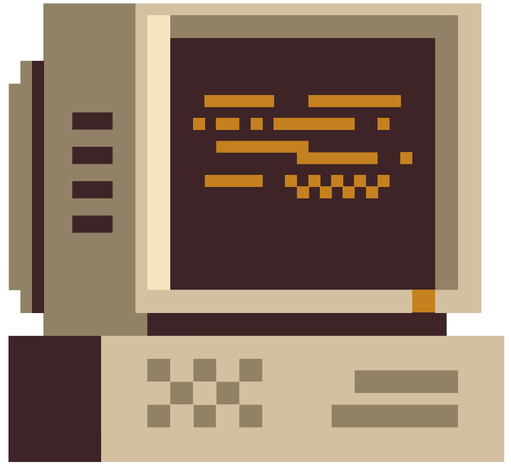




launch game



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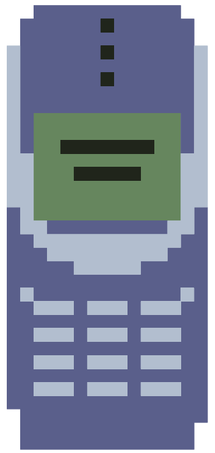
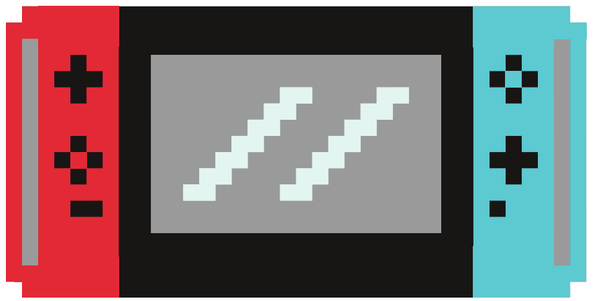
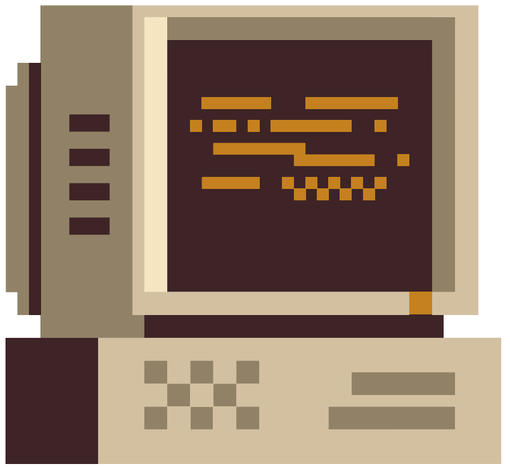


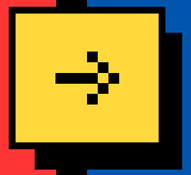


start game

start game



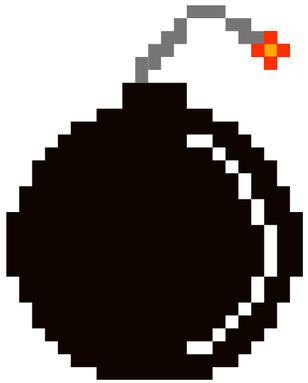
LET'S CODE



We hope you'll learn something new!

Performance

Performance is important...



Observability

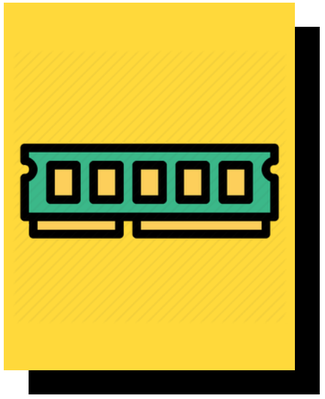
Observability is more important...

What to monitor

CPU monitoring is important ...

What to monitor

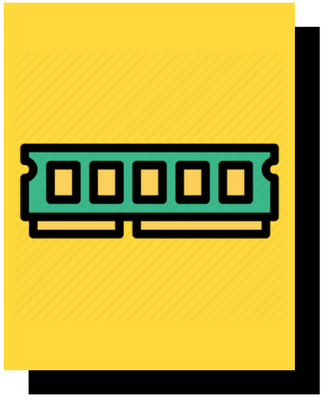
CPU monitoring is important ...



Memory can be surprisingly important

What to monitor

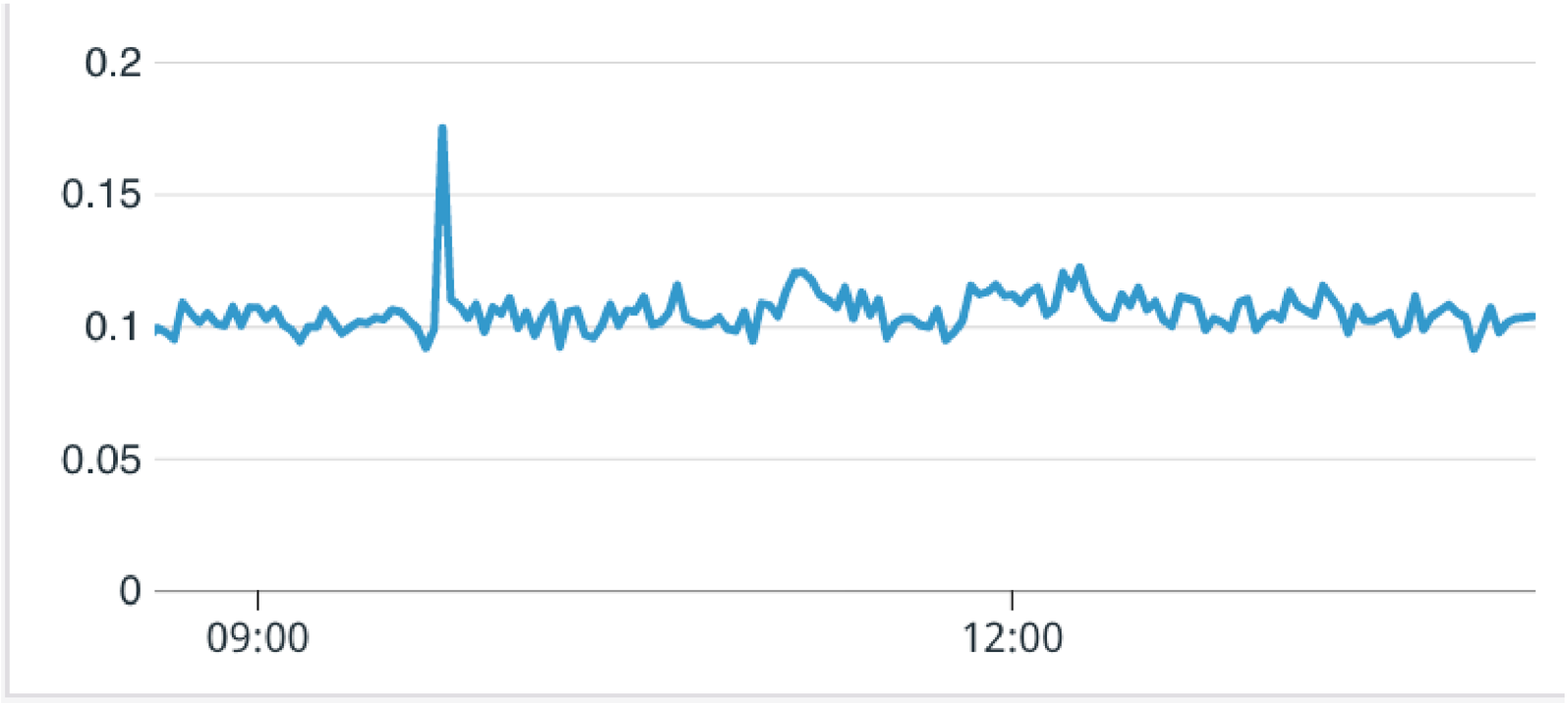
CPU monitoring is important ...



Memory can be surprisingly important

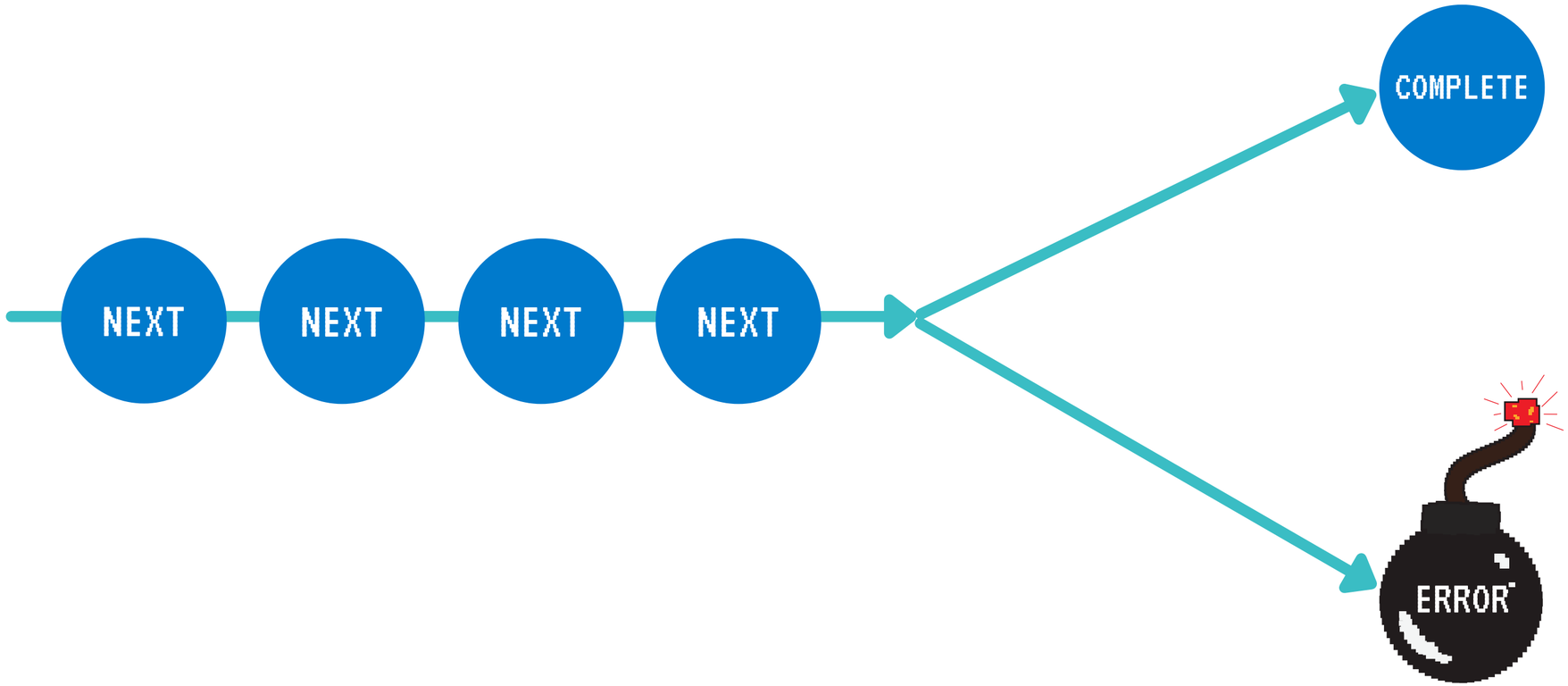
There are things specific to highly collaborative applications

Streams

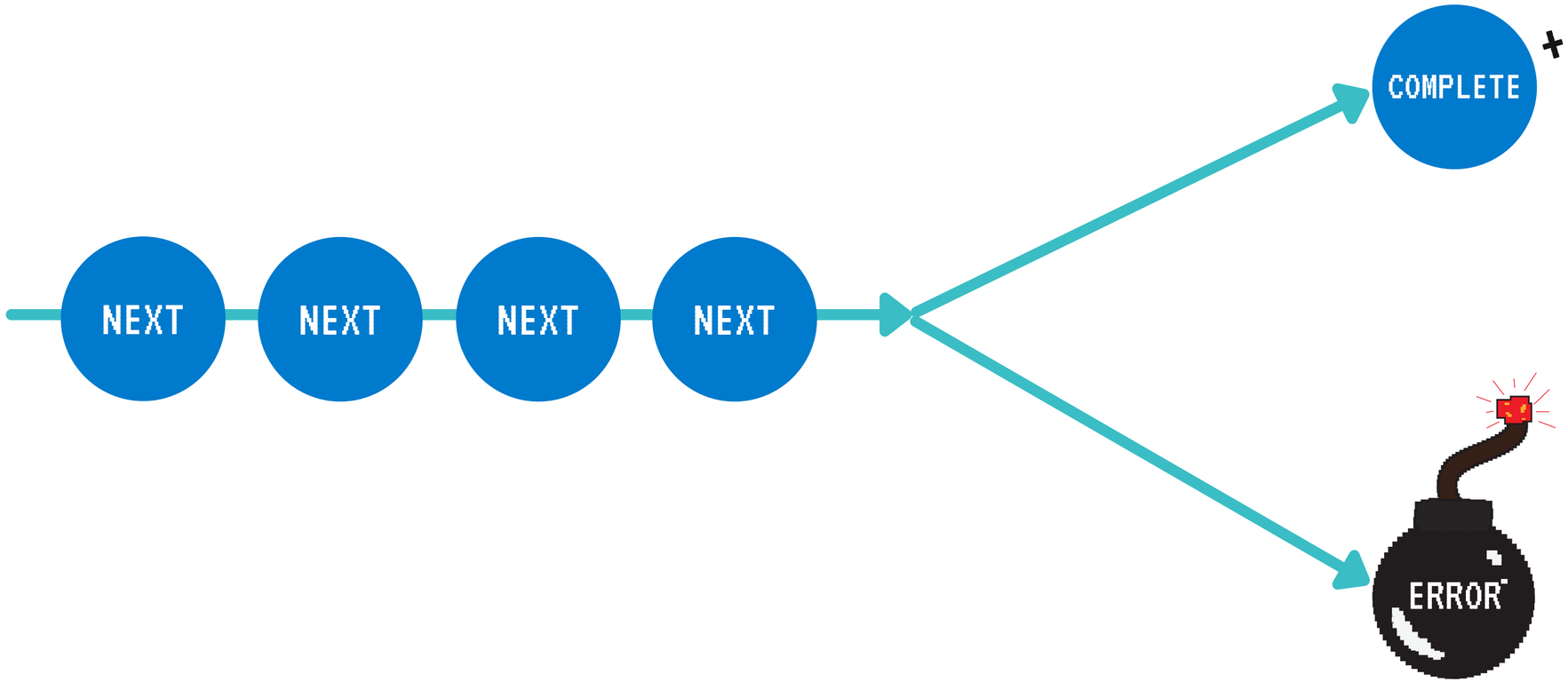


Error Rate

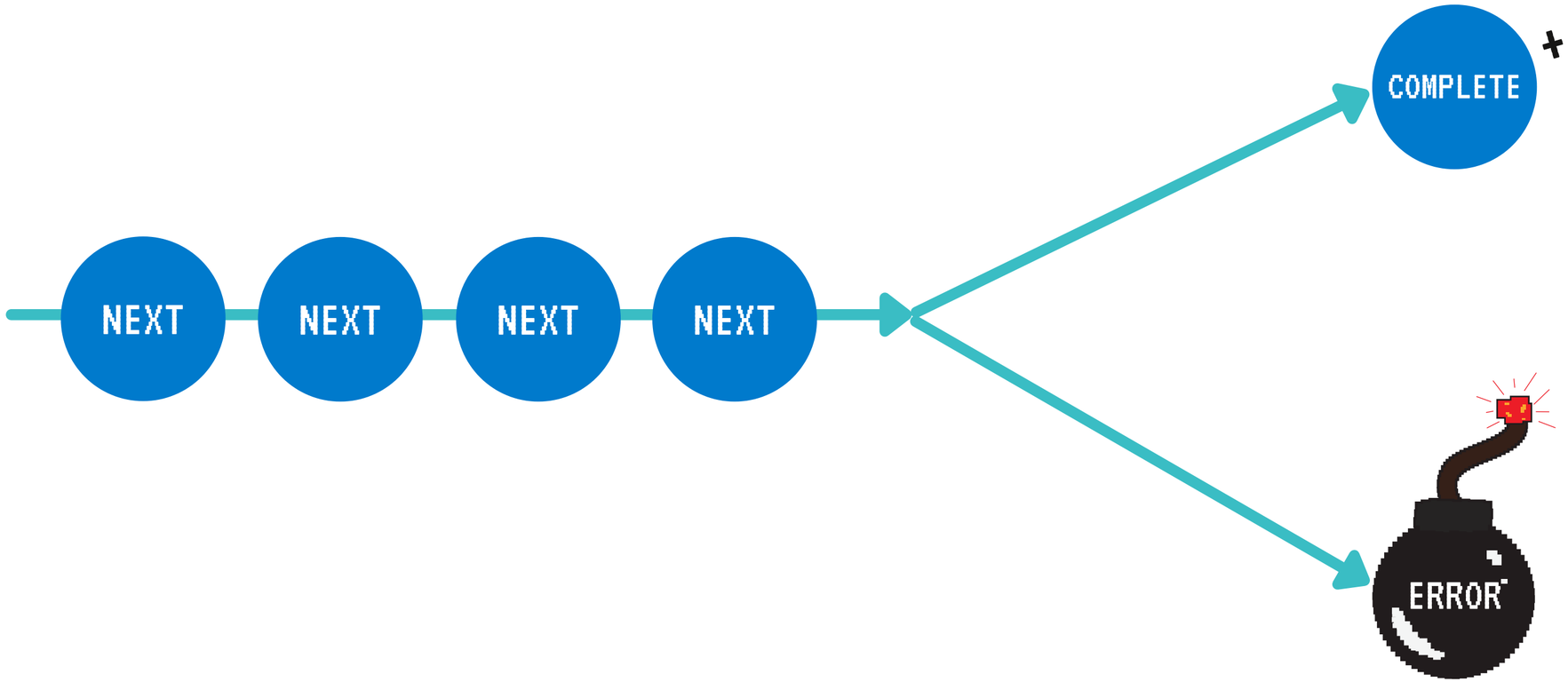
Streams



Streams



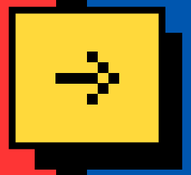
Streams



+ CANCEL frame

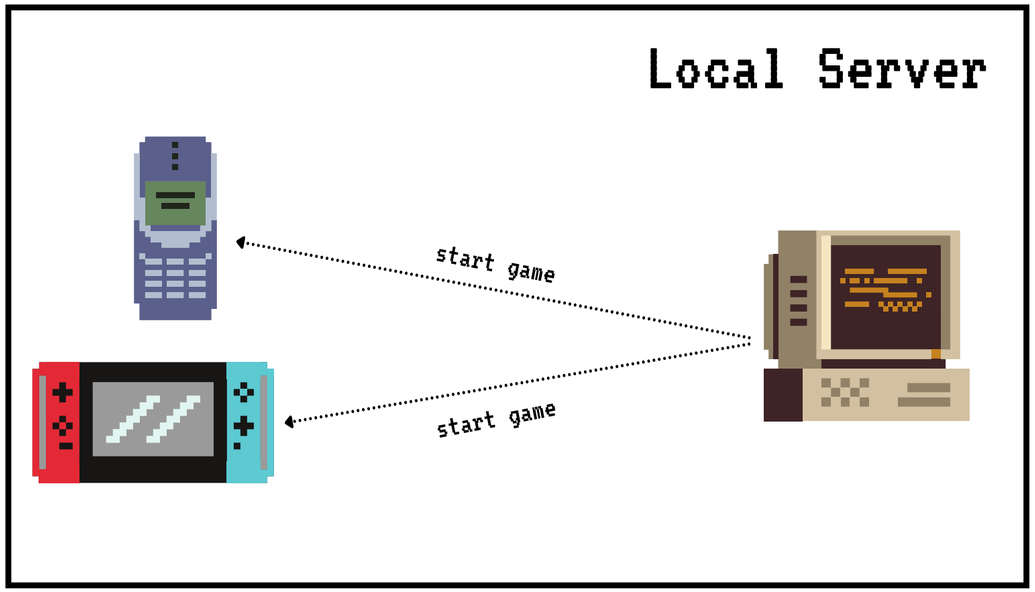
+ in/out

LET'S CODE



We hope you'll learn more things about RSocket observability!

Architecture 1.0



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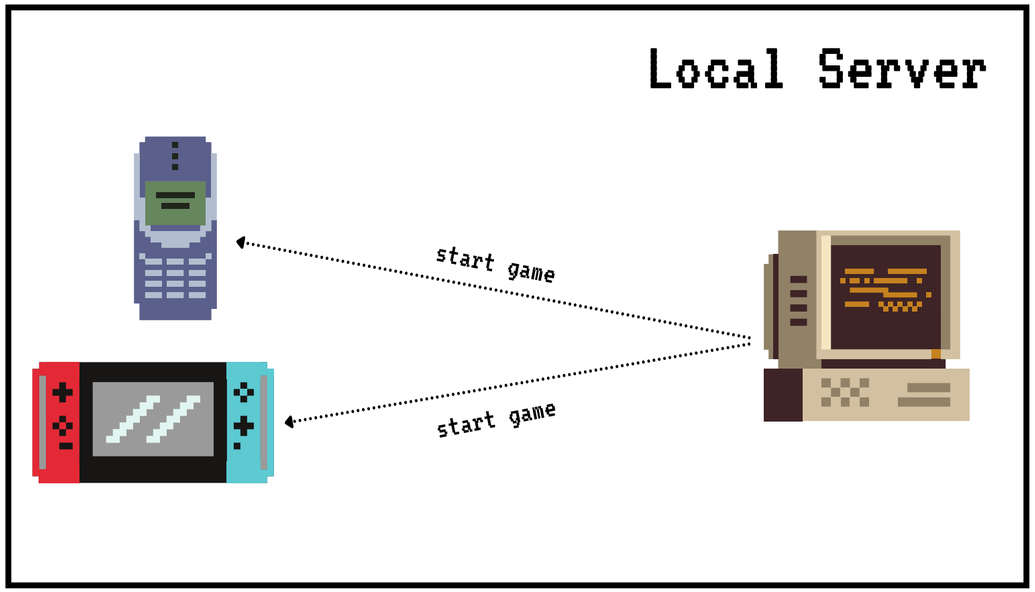
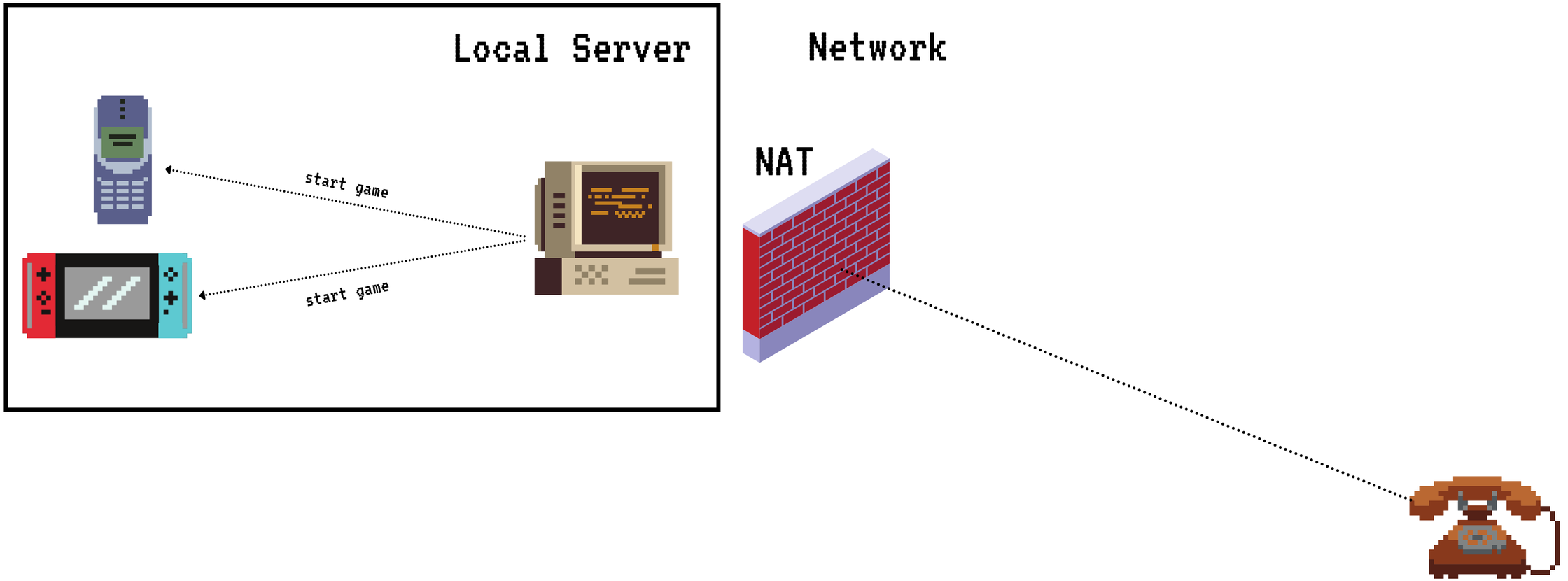


Network

Architecture 1.0



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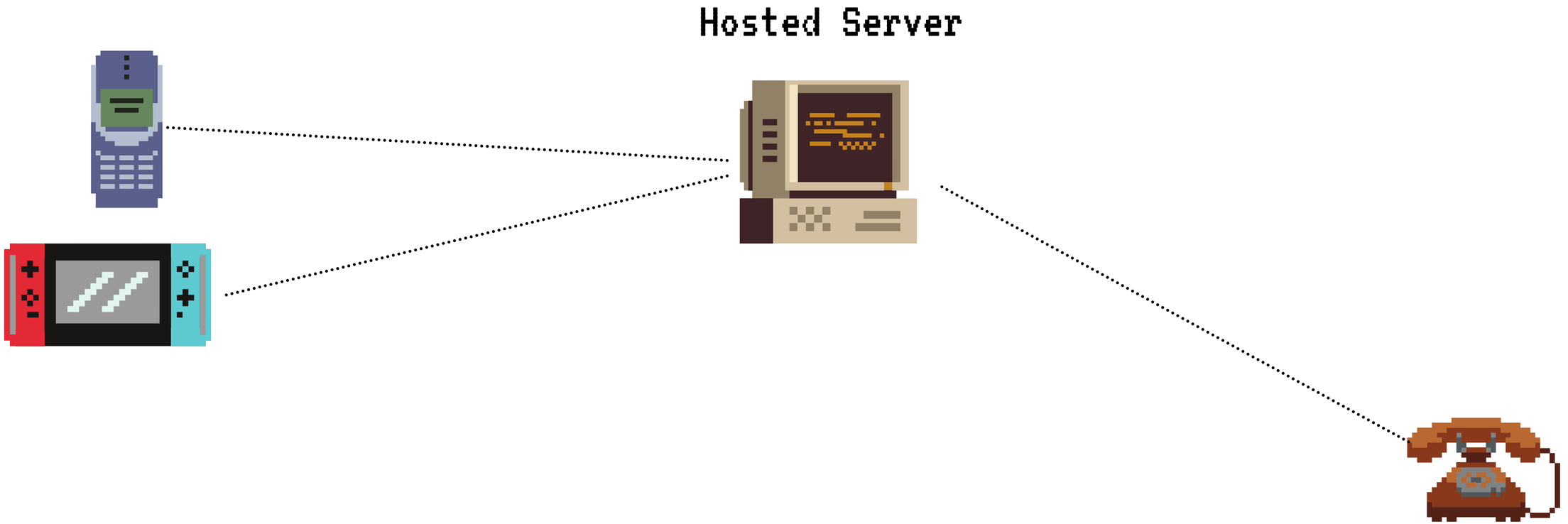
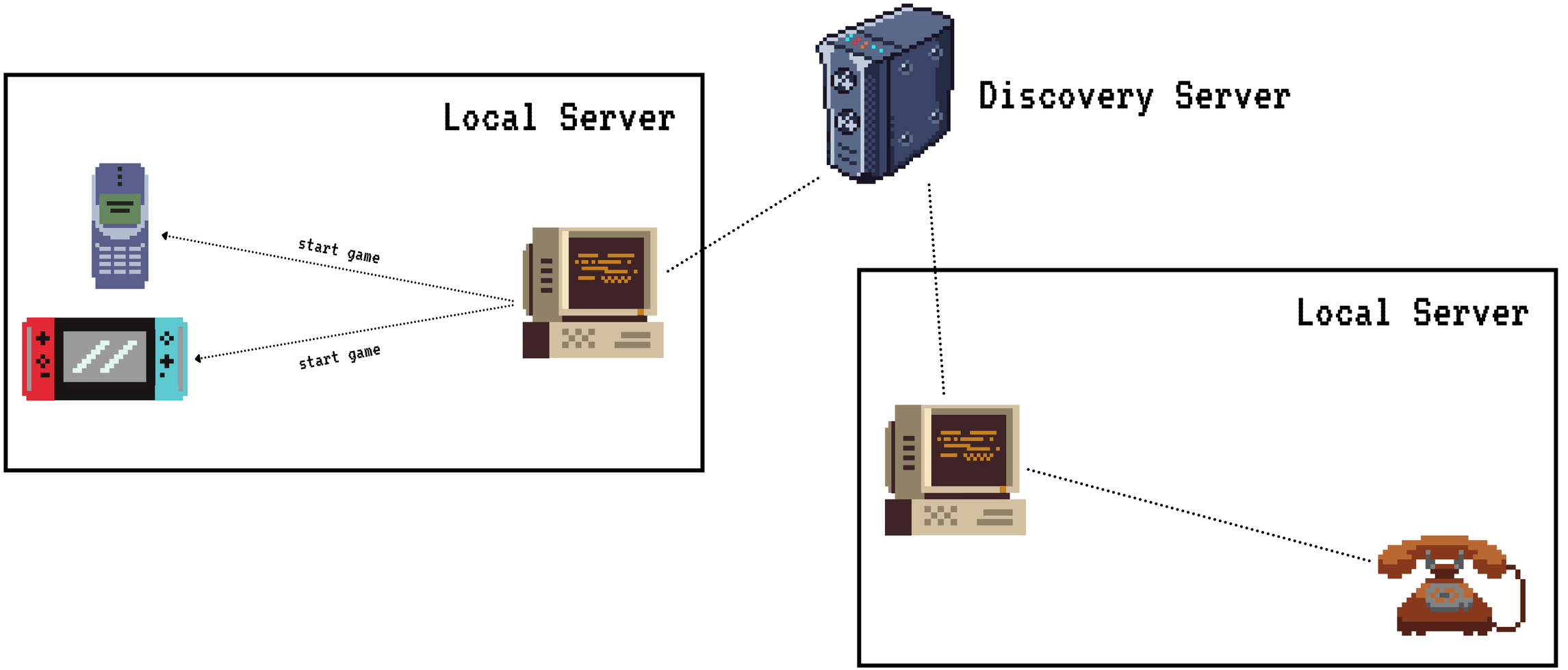


Architecture 2.0



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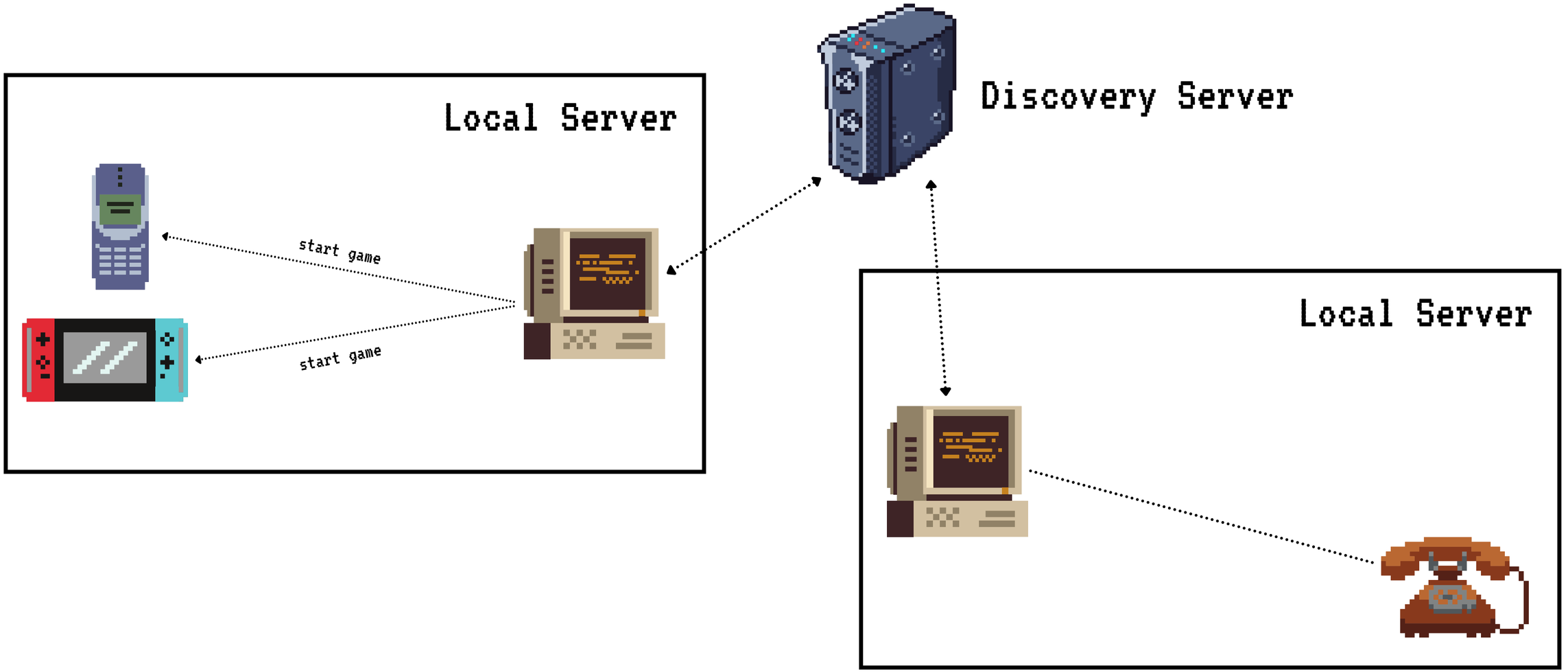

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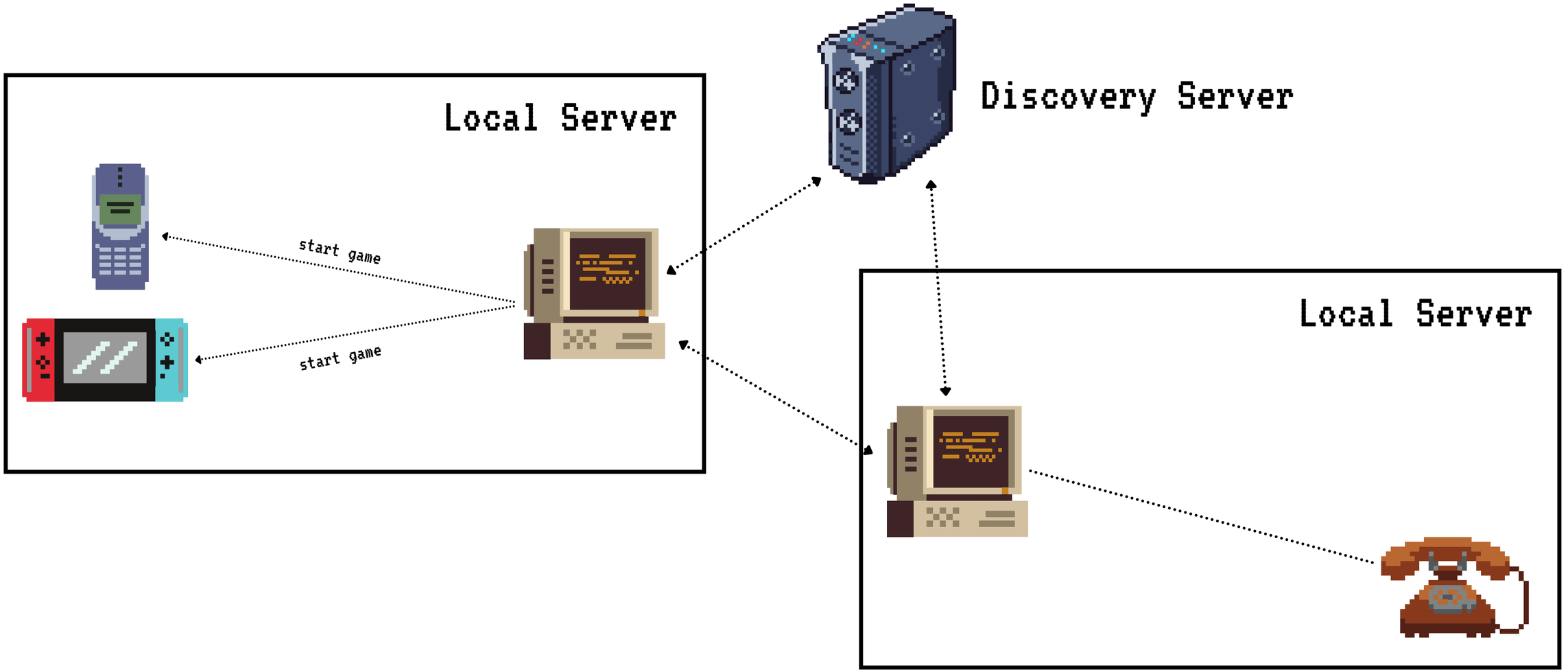

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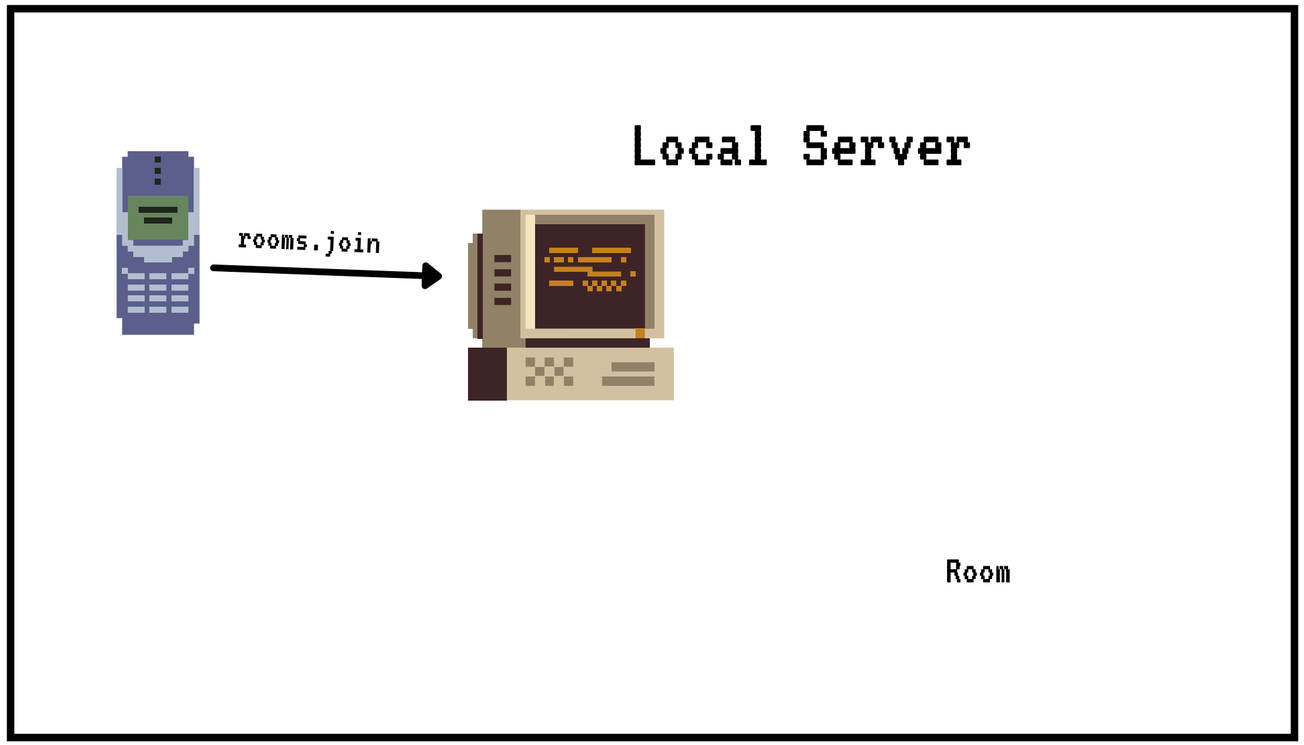

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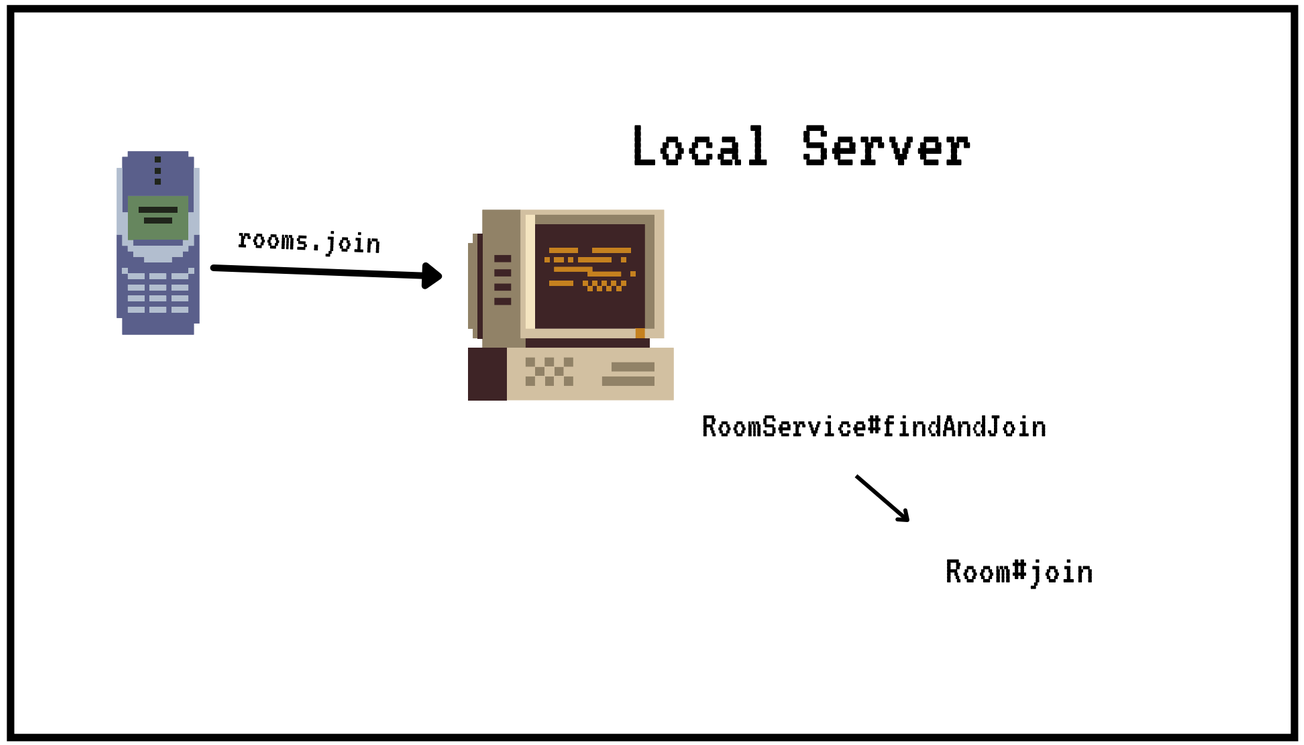

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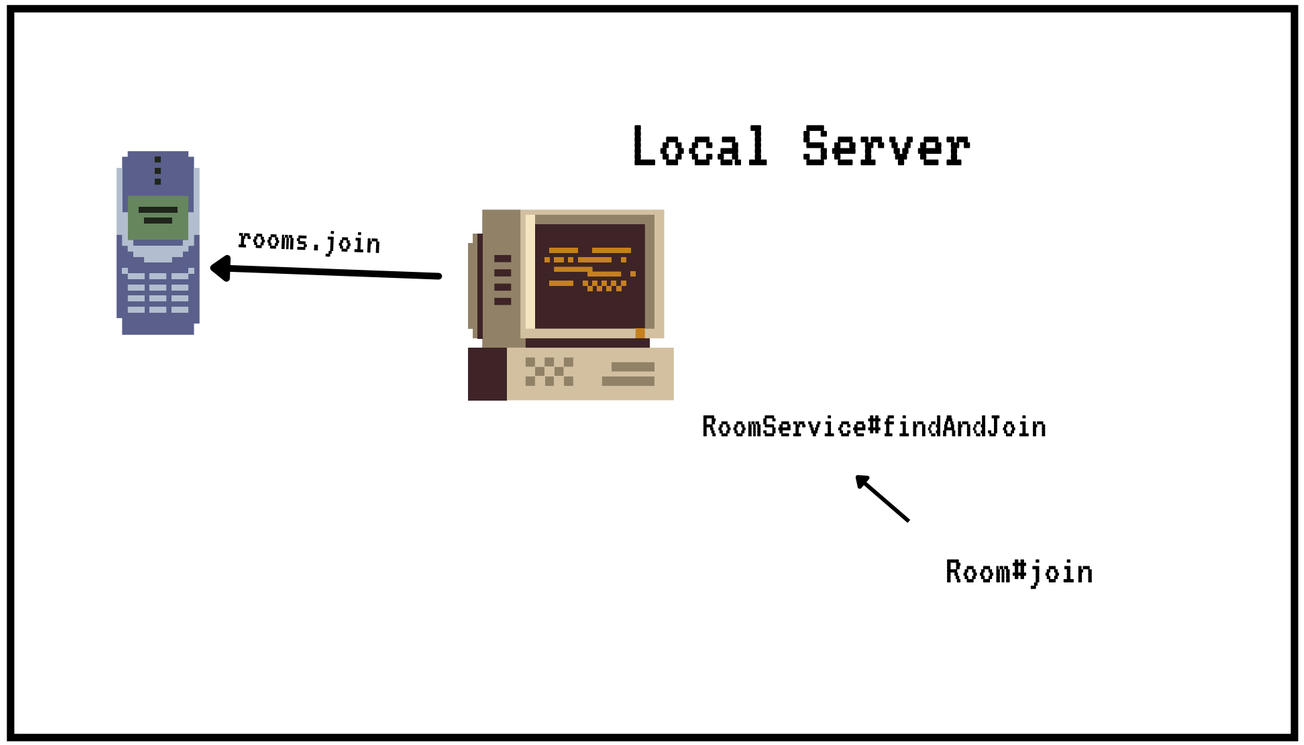

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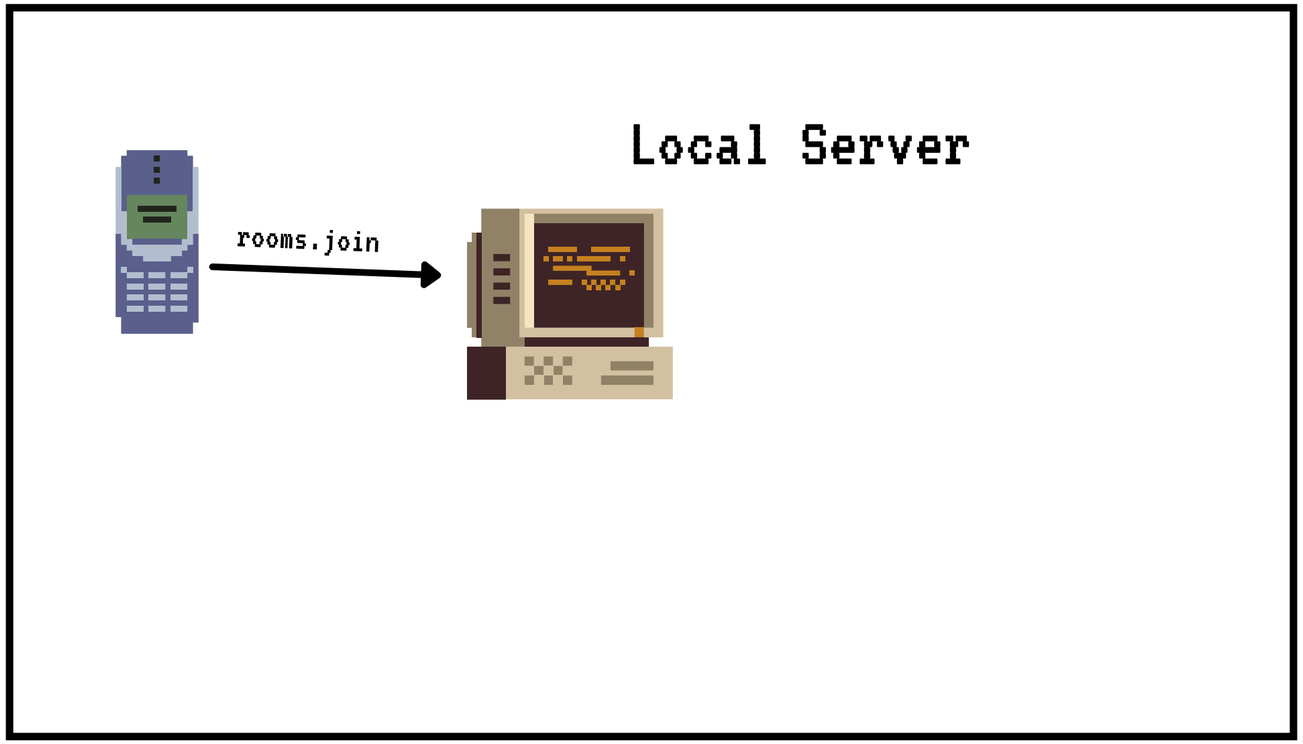

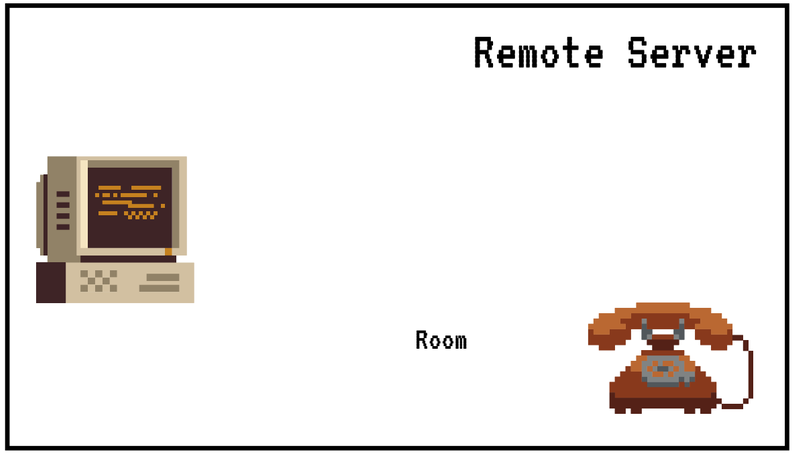

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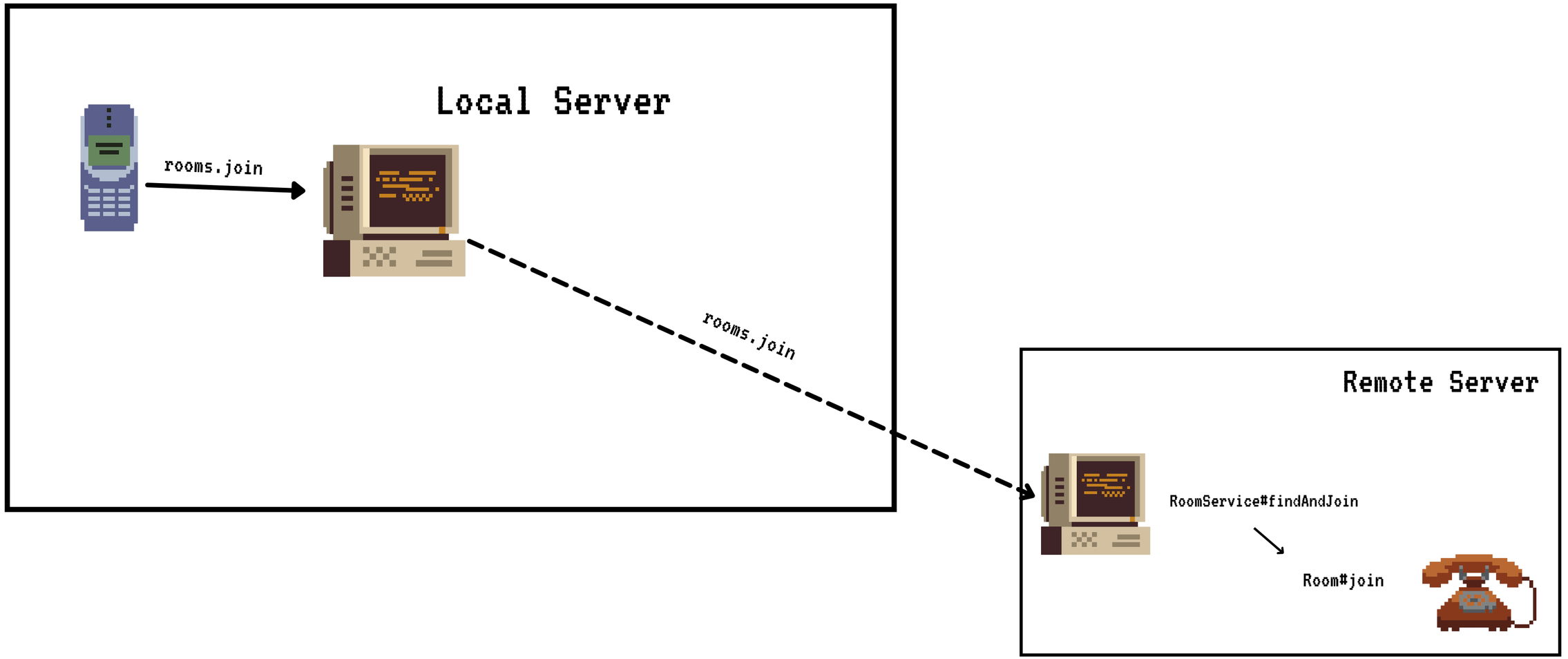

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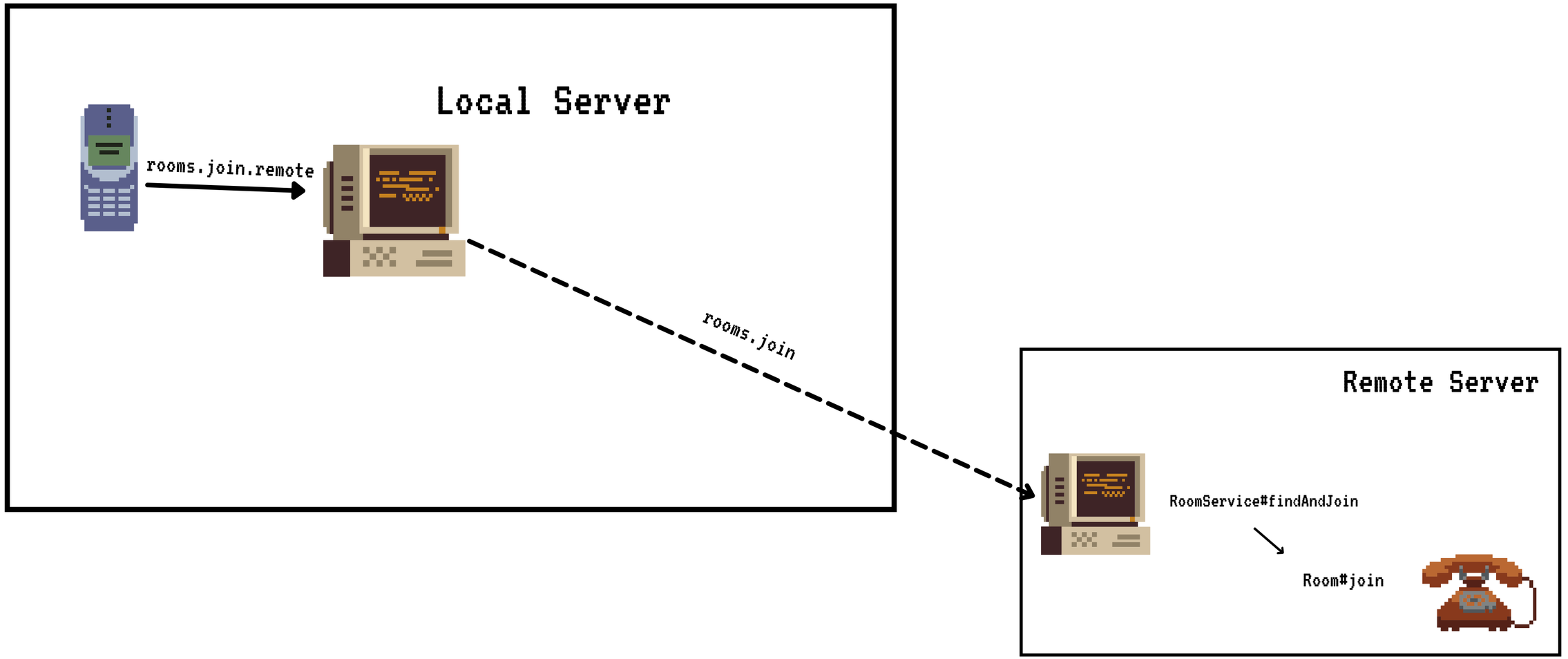

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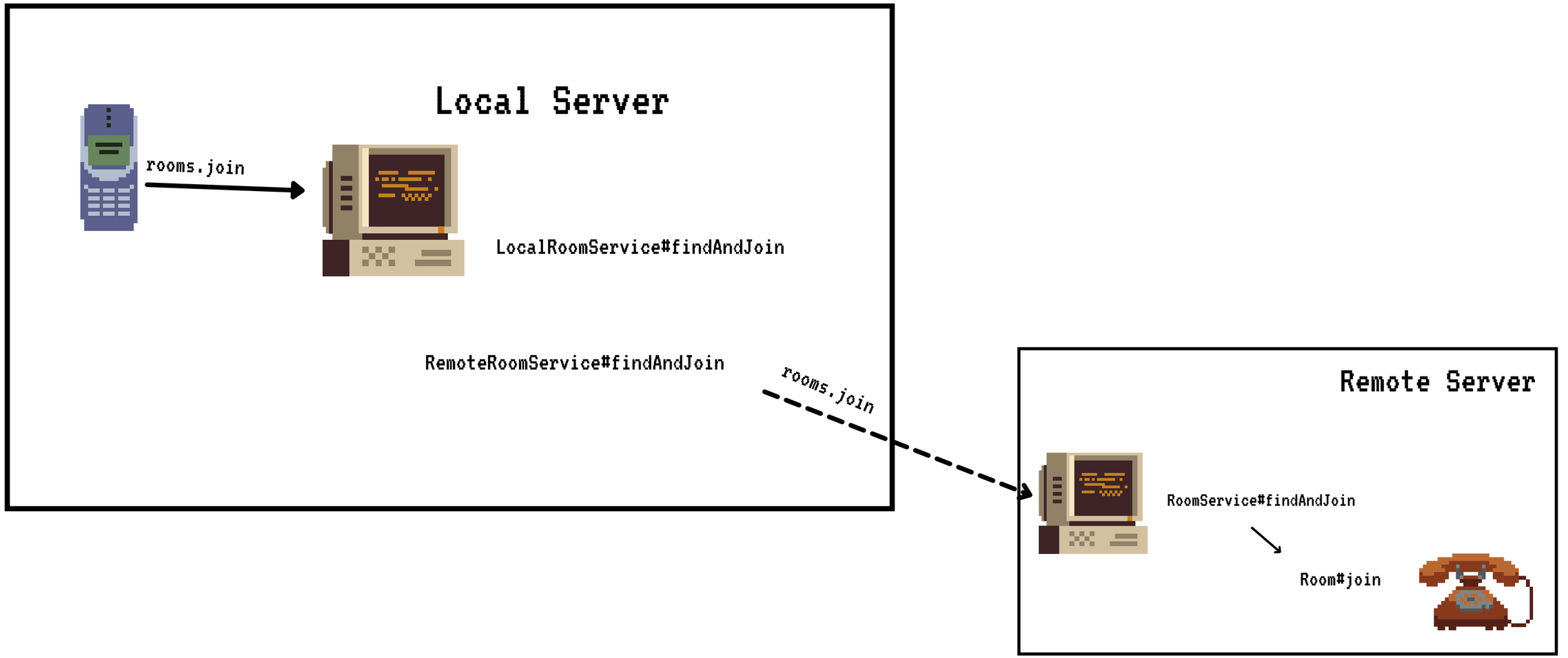

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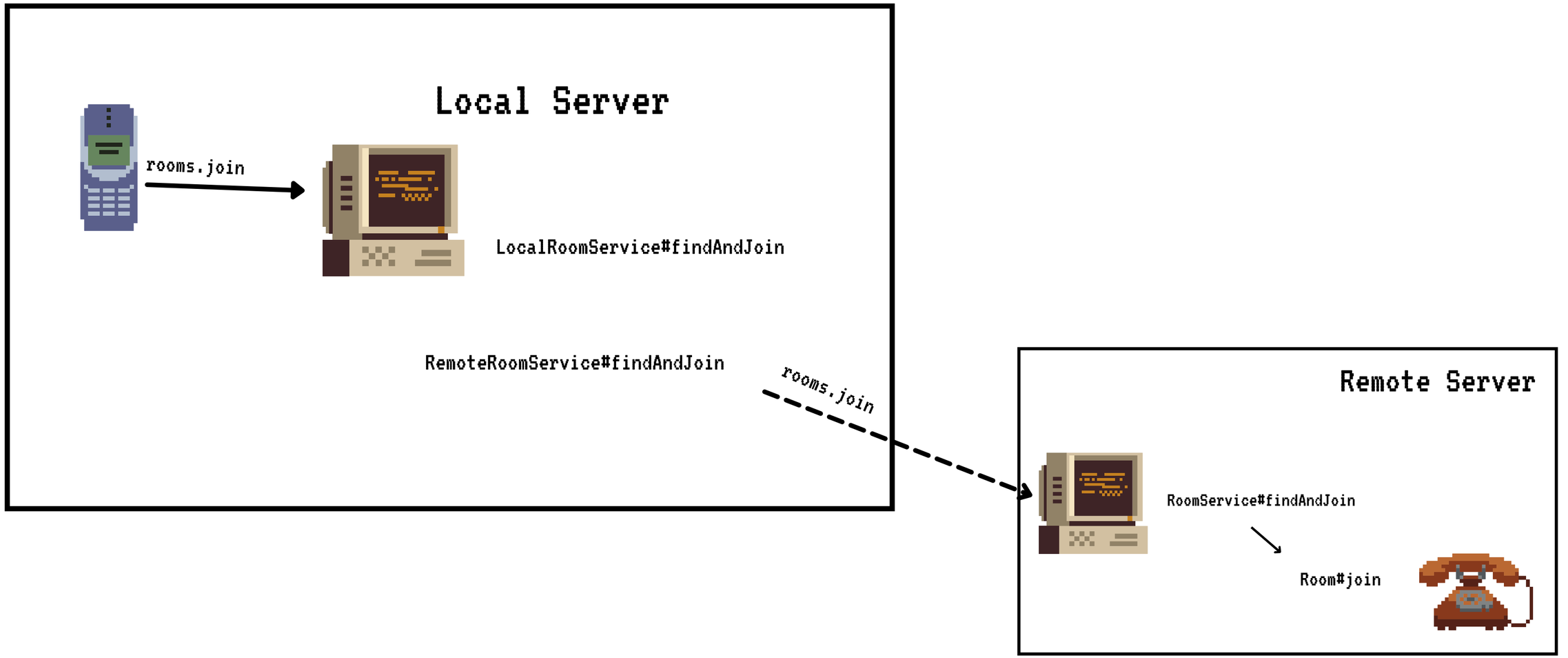

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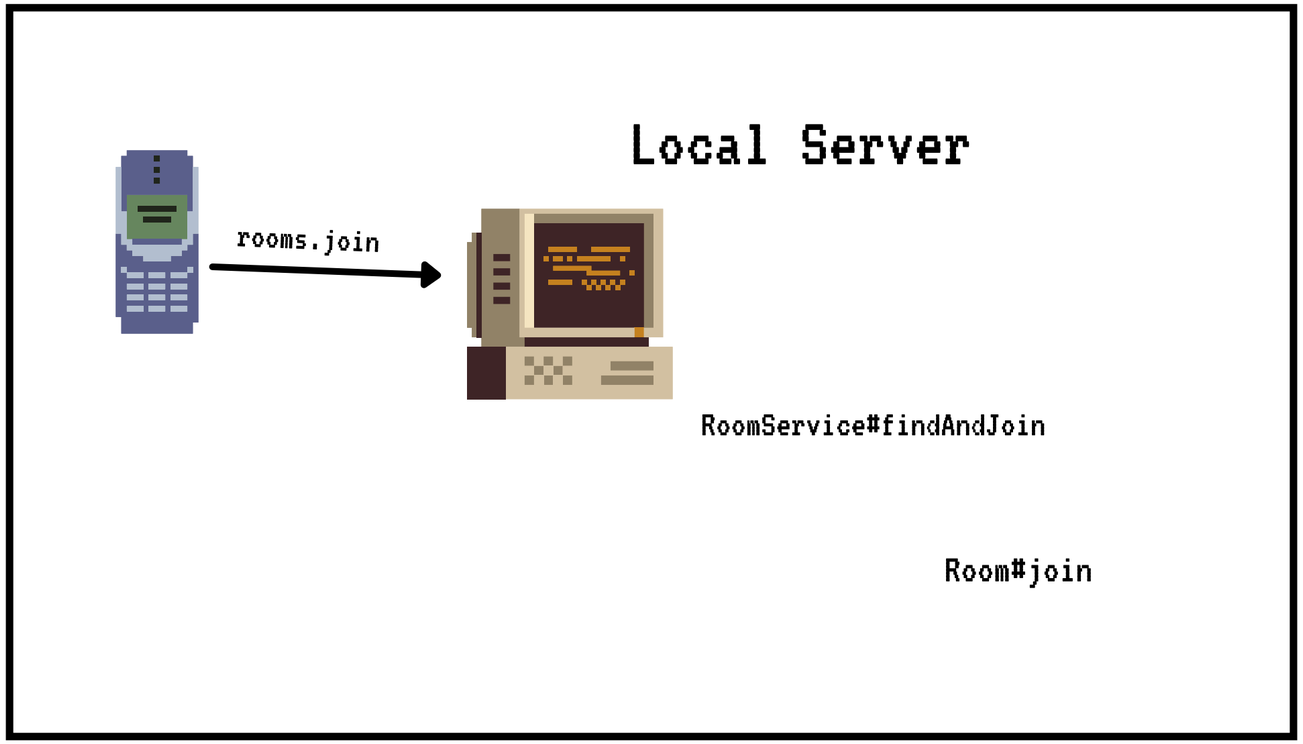

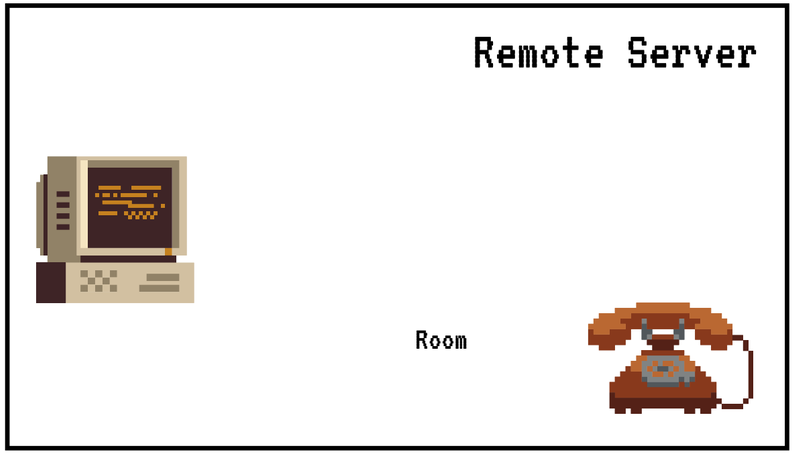

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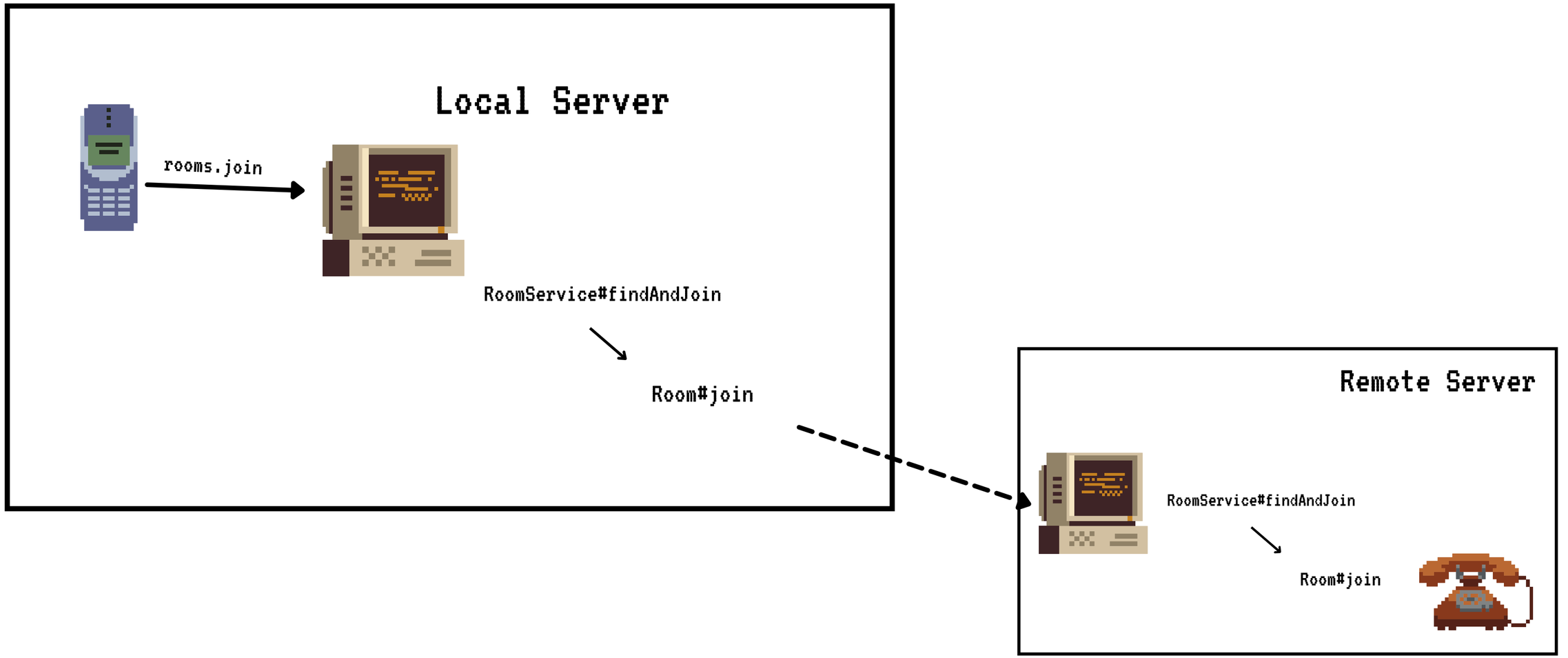

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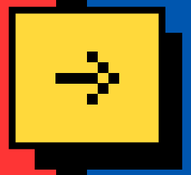

We hope you'll learn more things about RSocket observability!

THANK YOU!

We hope you learned a lot of new things!