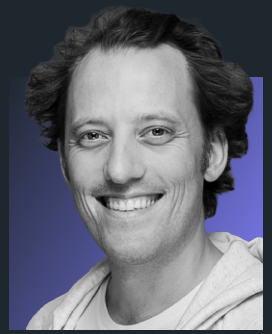
Checkmk Conference #11

# Piggyback unleashed

May 20, 2025 - Live from Paulaner am Nockherberg, Munich



**Moritz Kiemer**
Team Lead Development
Checkmk GmbH

checkmk Ideas Portal

## Ideas Portal

237
votes

### Support PiggyBack data from remote hosts

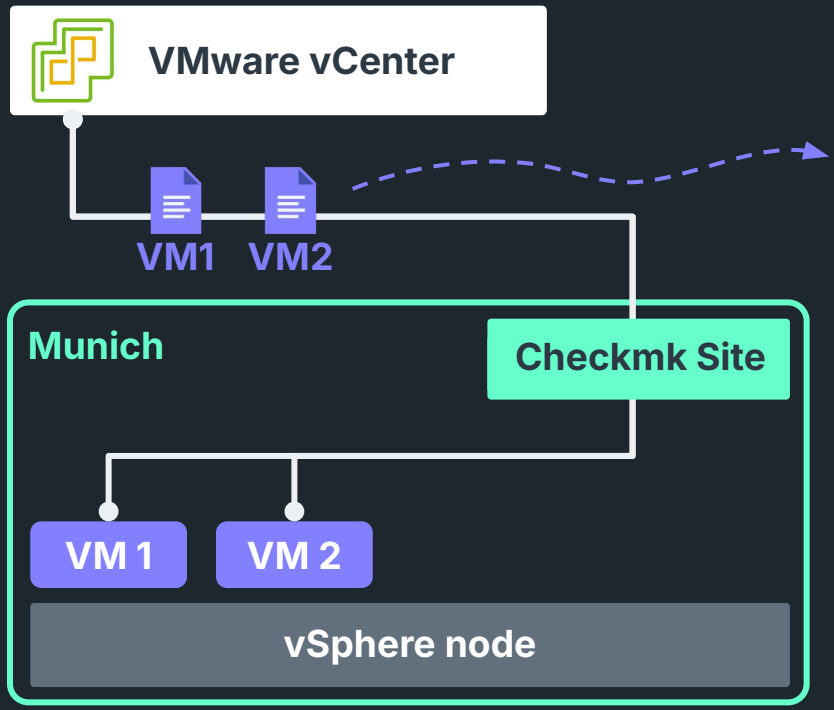
Implement a feature to leverage piggyback data, which are shared by a product integrated way from remote sites

Suggested by: **Thomas** (02 May, '22) • Upvoted: 06 Mar • Comments: 15

Implemented #Checks&Agents

# Distributed piggyback has arrived!

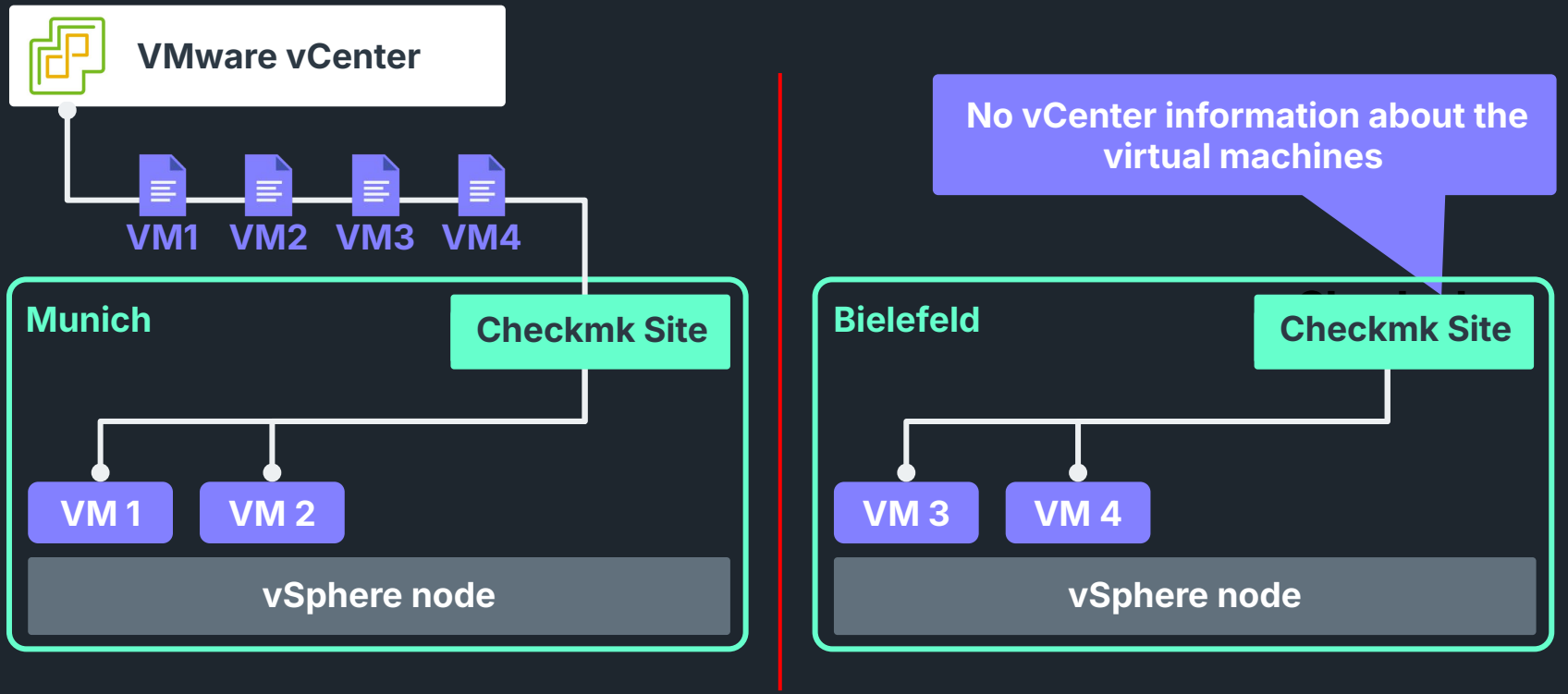
# Joining data sources together with piggyback



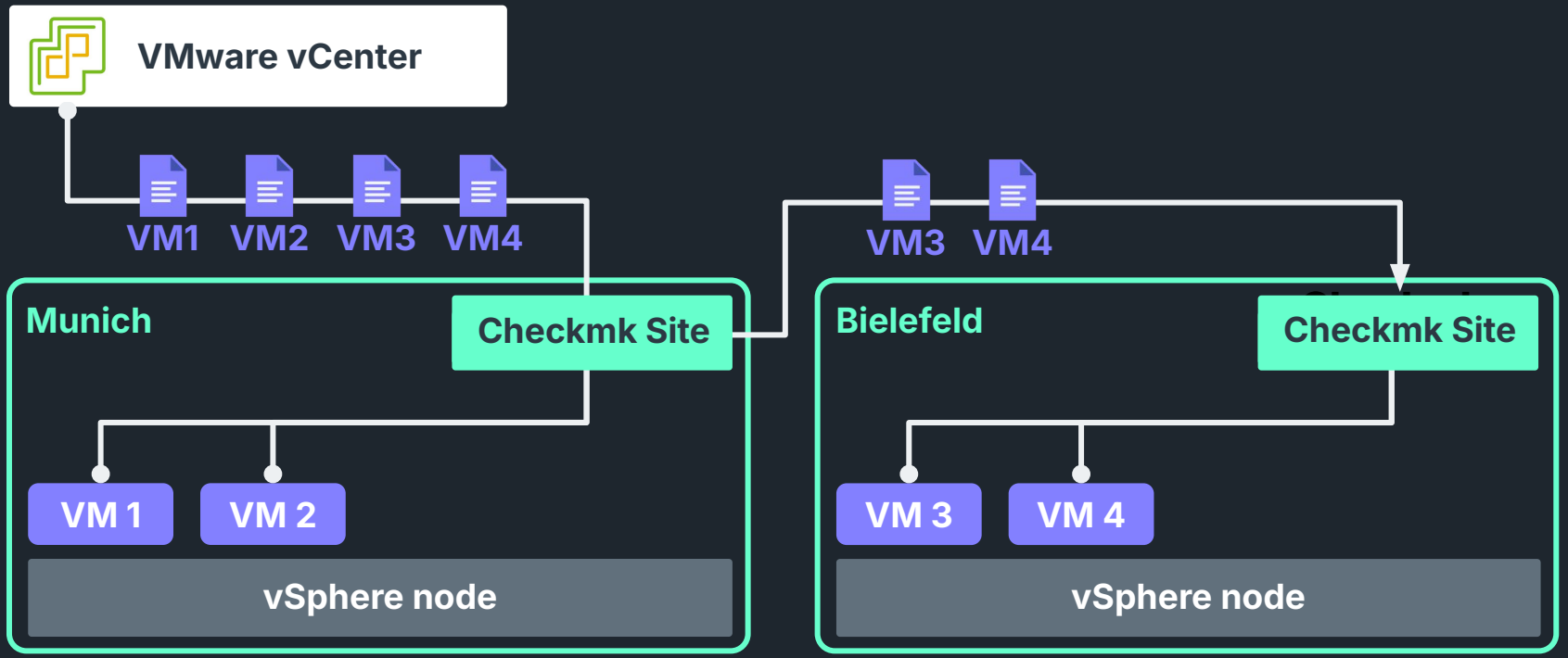

**VM 1**

| | | | |
|---|---|---|---|
| piggyback | OK | ESX CPU | demand is 0.234 Ghz, 4 virtual CPUs |
| | OK | ESX Datastores | Stored on datastore02 (3.00 TiB/80.2% free) |
| | OK | ESX Guest Tools | VMware Tools are installed, but are not managed by VMware |
| | OK | ESX Heartbeat | Heartbeat status is green |
| | OK | ESX Hostsystem | Running on esxi-02.demo.checkmk.com |
| | OK | ESX Memory | Host: 10.1 GiB, Guest: 1.90 GiB, Ballooned: 0 B, Private: 10.0 GiB, Shared: 0 B |
| agent | OK | Bonding Interface bond0 | Status: up, Mode: fault-tolerance (active-backup), Primary: eth0, eth0/9C:8E:99:28:A1:B0 up, eth1/9C:8E:99:28:A1:B4 up |
| | OK | CIFS mount /opt/fileshare/projects | Used: 82.42% - 371 GB of 450 GB (warn/crit at 89.12%/94.56% used), trend per 1 day 0 hours: -0 B, trend per 1 day 0 hours: -0.00% |
| | OK | CPU load | 15 min load: 1.50 (predicted reference: 6.61), 15 min load per core: 0.25 (6 cores) |
| | OK | CPU utilization | Total CPU: 24.48% |

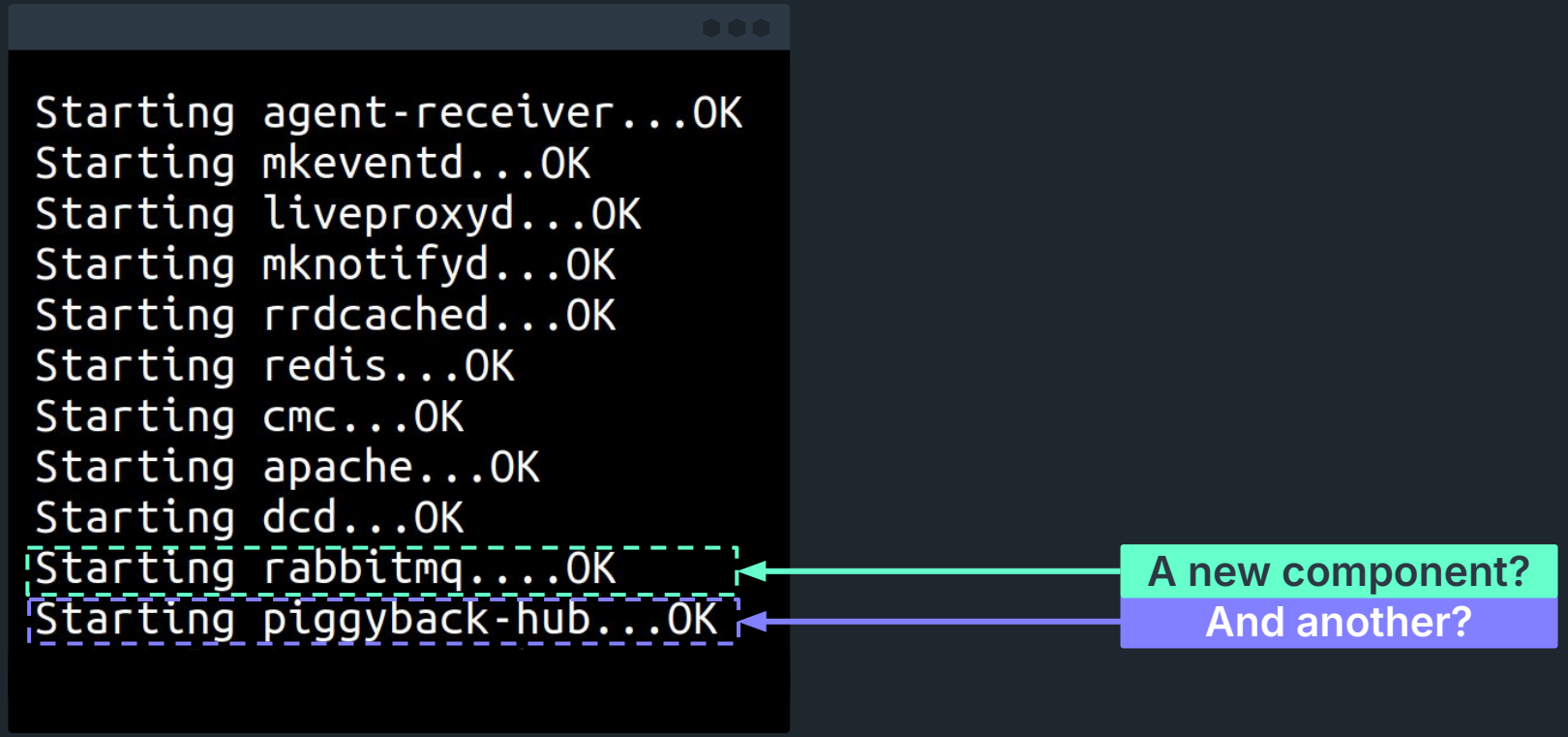
# Piggyback data is not shared between sites



# Let’s build a piggyback ‘sync’



# How do we solve this?



# New inter-site communication tunnel

(not only main-remote, but also remote-remote)

**Problems to solve**

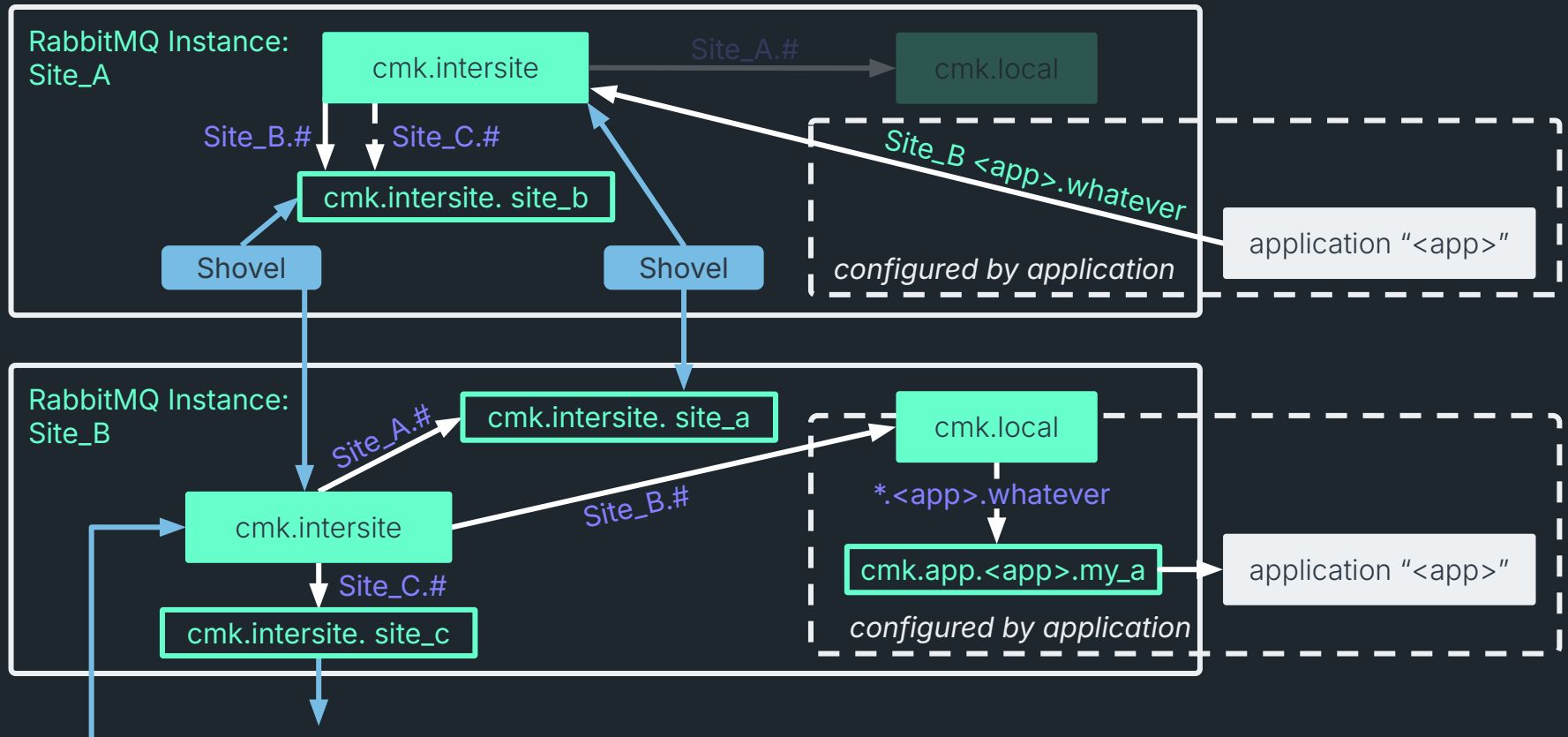
- Encryption / authorization
- Routing (not all sites can connect to one another)
- Direction of connection build up and sending is not the same
- Data separation (CME)

**Solution**

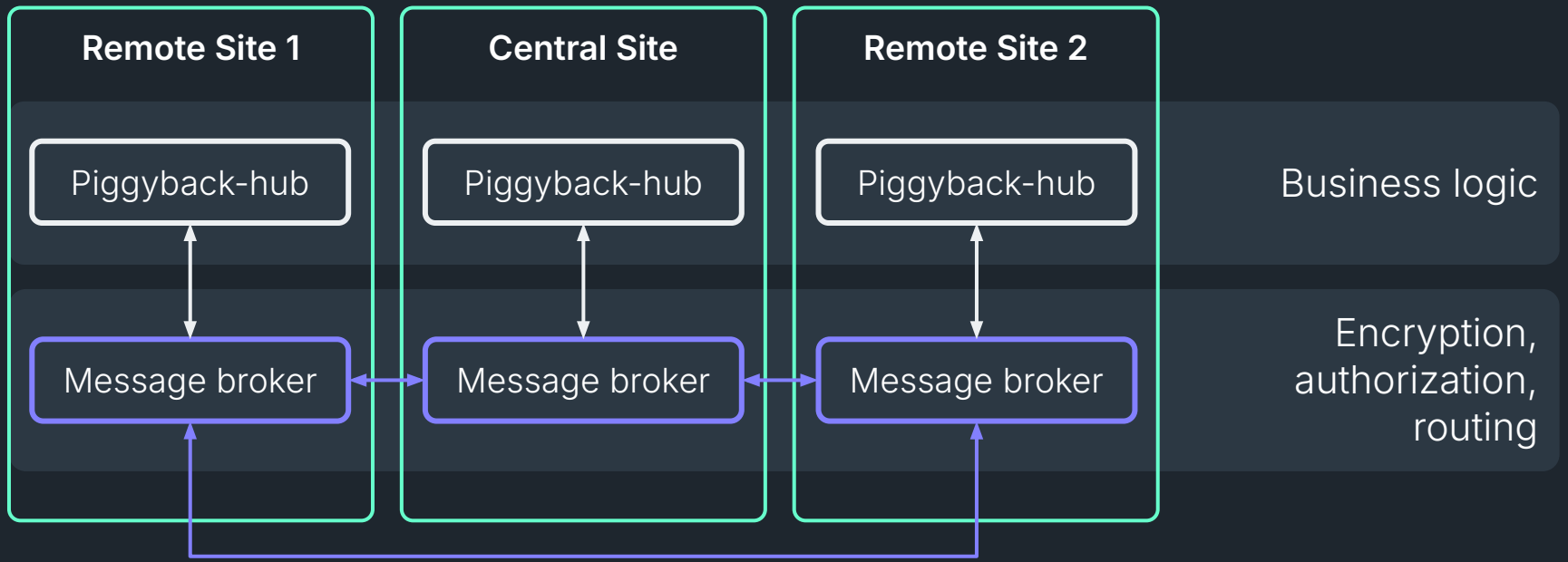
- RabbitMQ, a “reliable and mature massaging and streaming broker” (rabbitmq.com)

# The nasty details ...

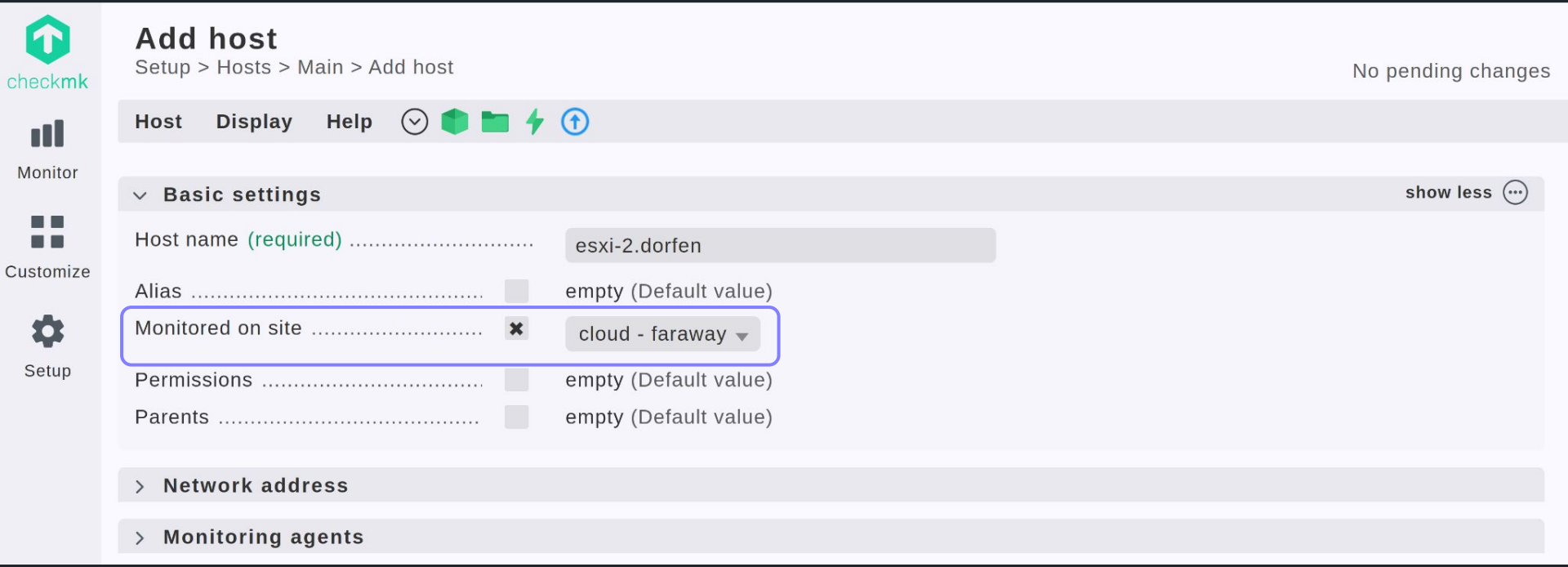
... that you don't want to know



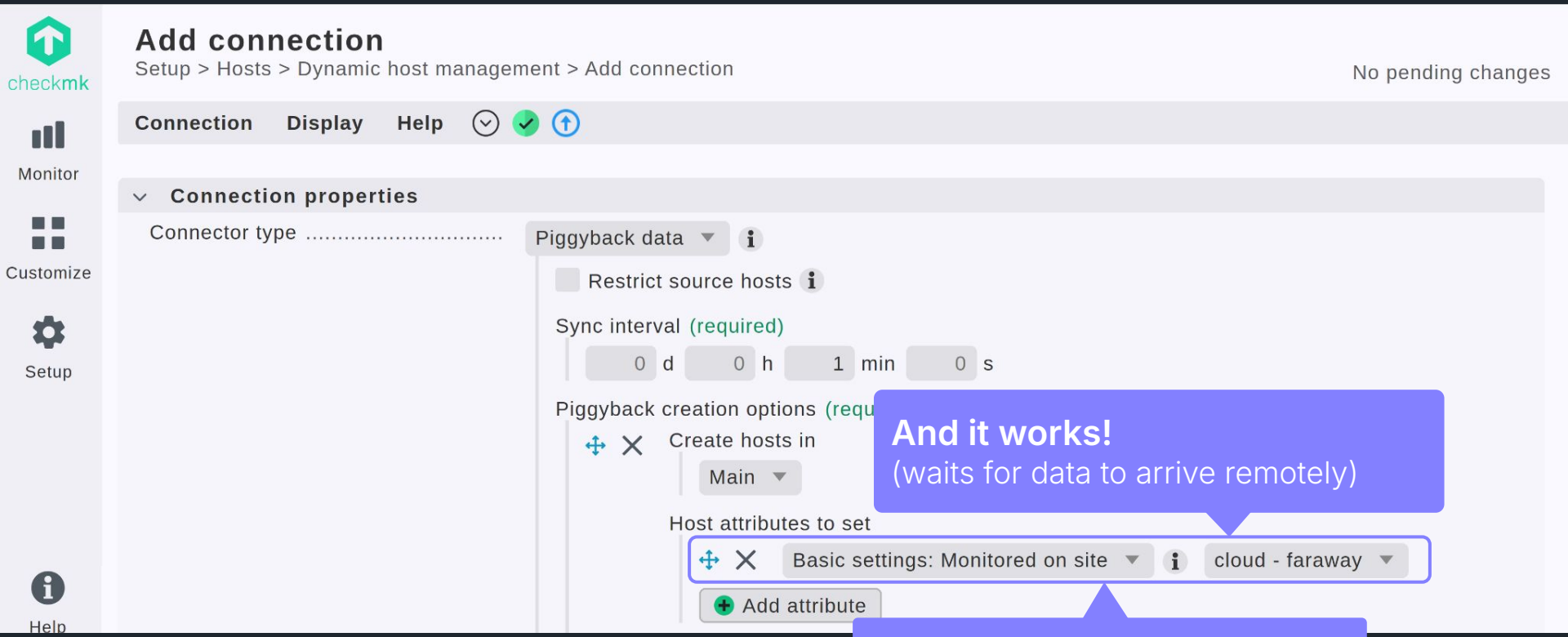
# Piggyback hub as first use case



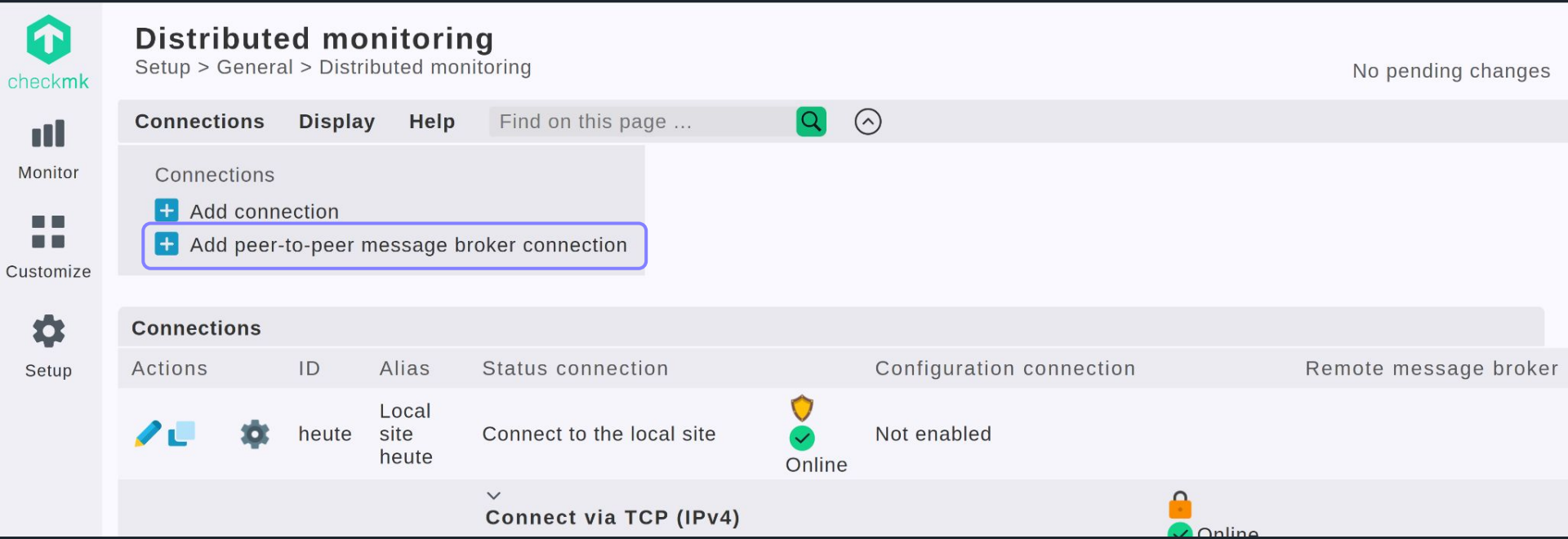
# Configured via ‘Monitored on site’



# Create & discover hosts directly on another site now!



# How to configure remote-remote connection?



checkmk

Monitor

Customize

Setup

# Add message broker connection

Setup > General > Distributed monitoring > Add message broker connection

Connection Display Help

Save | Distributed monitoring

## Connection

Unique ID (required) ..... cloud-dorfen

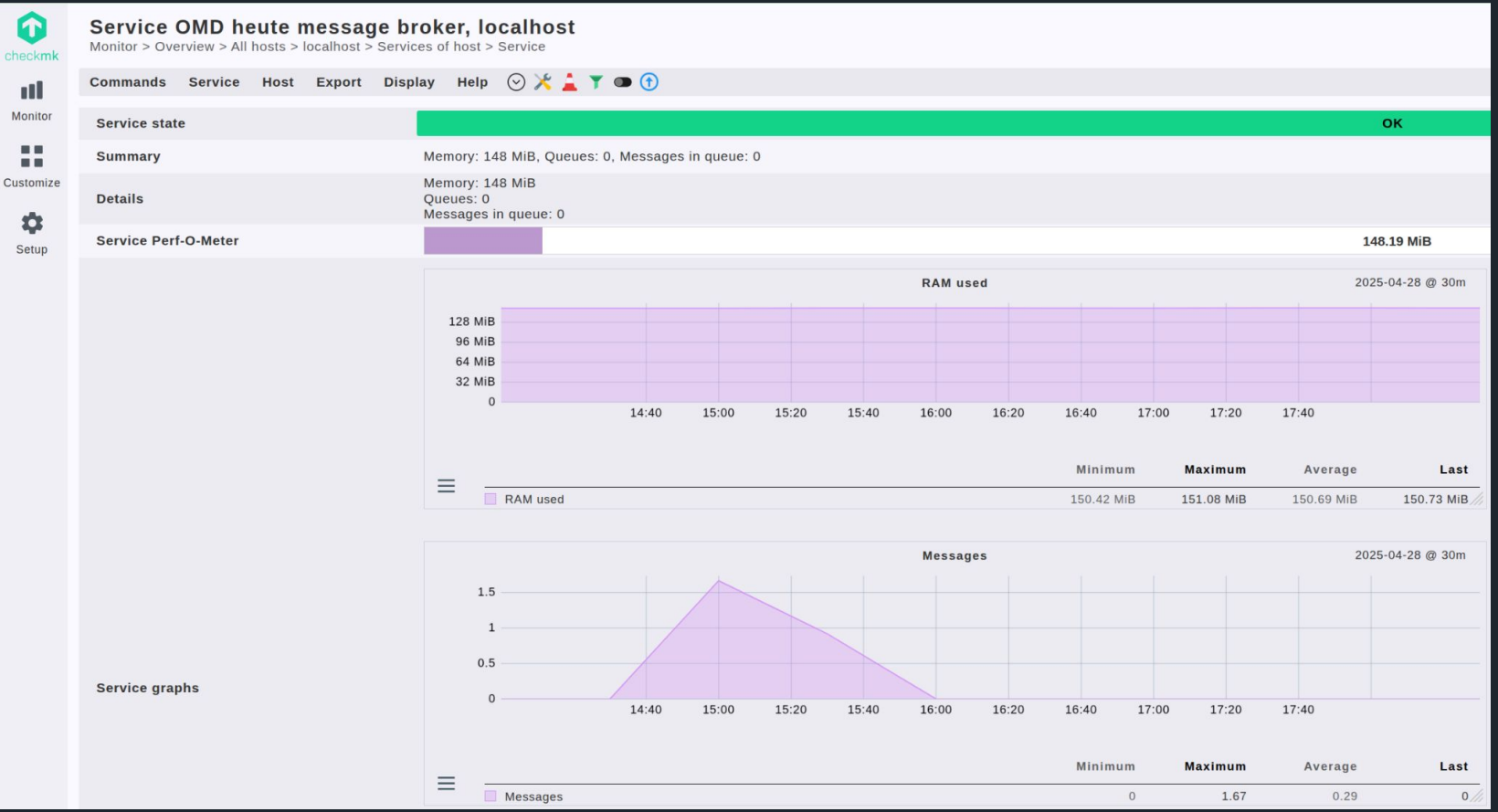
Initiating peer ..... weitweg

Accepting peer ..... faraway

## Peer-to-peer message broker connections

| Actions | ID | Initiating peer | Accepting peer |
|---|---|---|---|
| | weitweg-faraway | dorfen | cloud |

# Queues should be empty



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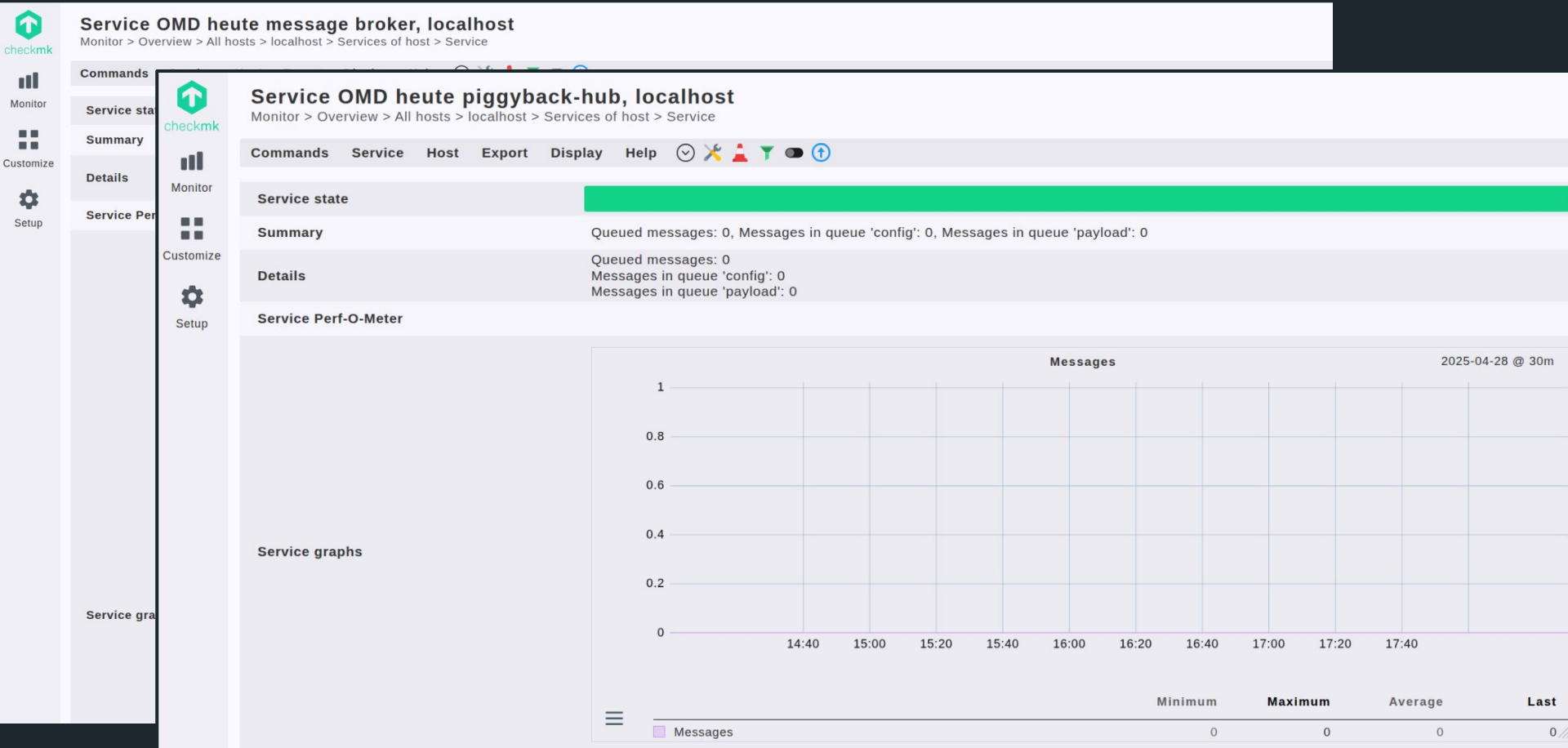

# Deactivated by default

- Message broker requires >150MB memory
- Only use case currently: Piggyback-hub
- Piggyback hub not relevant for all users

Rabbitmq

Piggyback-hub

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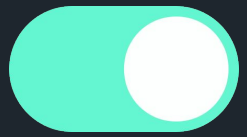

Piggyback-hub

# Deactivated by default (subject to change)

- Message broker requires >150MB memory
- Only use case currently: Piggyback-hub
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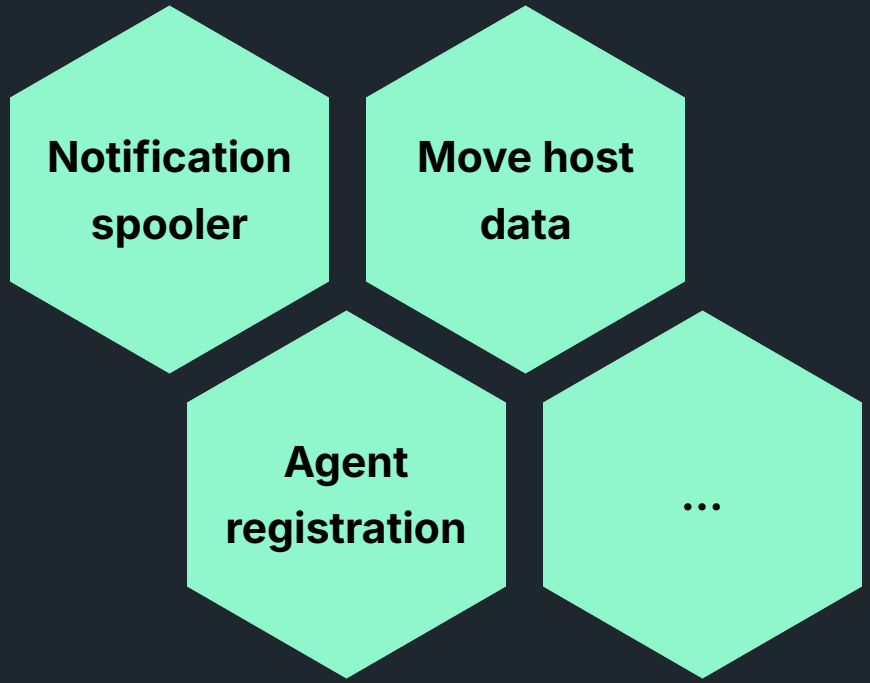
**Message broker will eventually be on by default**

Rabbitmq

Piggyback-hub

# A lot of potential ahead




11