

# From Legacy Backup to Fully Tested Disaster Recovery

Rasmus Haslund

# Speaker

## Rasmus Haslund



System Engineer at Arrow ECS Denmark and **Veeam® lover** 😊

Veeam Certified Engineer v7 & v8

Veeam Certified Instructor v7 & v8

Veeam Vanguard

Veeam User Group Denmark founder

VeeamON 2014 Mayor

VMware VCP6-DCV, VCAP5-DCA/DCD

VMware Certified Instructor

VMware vExpert

**Blog:** [www.perfectcloud.org](http://www.perfectcloud.org) (Free VMCE practice exam!)

**E-mail:** [h@slund.org](mailto:h@slund.org)

**Twitter:** [@haslund](https://twitter.com/haslund)



# What's your plan?

- Raise your hand if you have a DR plan?



# Where to?

*AET Biomass is a leading independent engineering and contracting company supplying biomass fired boiler plants, power plants and CHP plants within Europe.*

IT services are highly virtualized in a Modern Data Center. However, backup of these services were still running legacy backup software.

This session will cover the journey ...



# Topics covered today

- Headaches
- Design choices
- Solutions

# Headaches

Legacy backup: Where did we come from?

# Headaches

- Heavy on day-to-day management
- Status of ran jobs not trustworthy
- Agents everywhere
- Restore difficulties
- Audit requirements

Time for a change!





# Design choices

The thought process

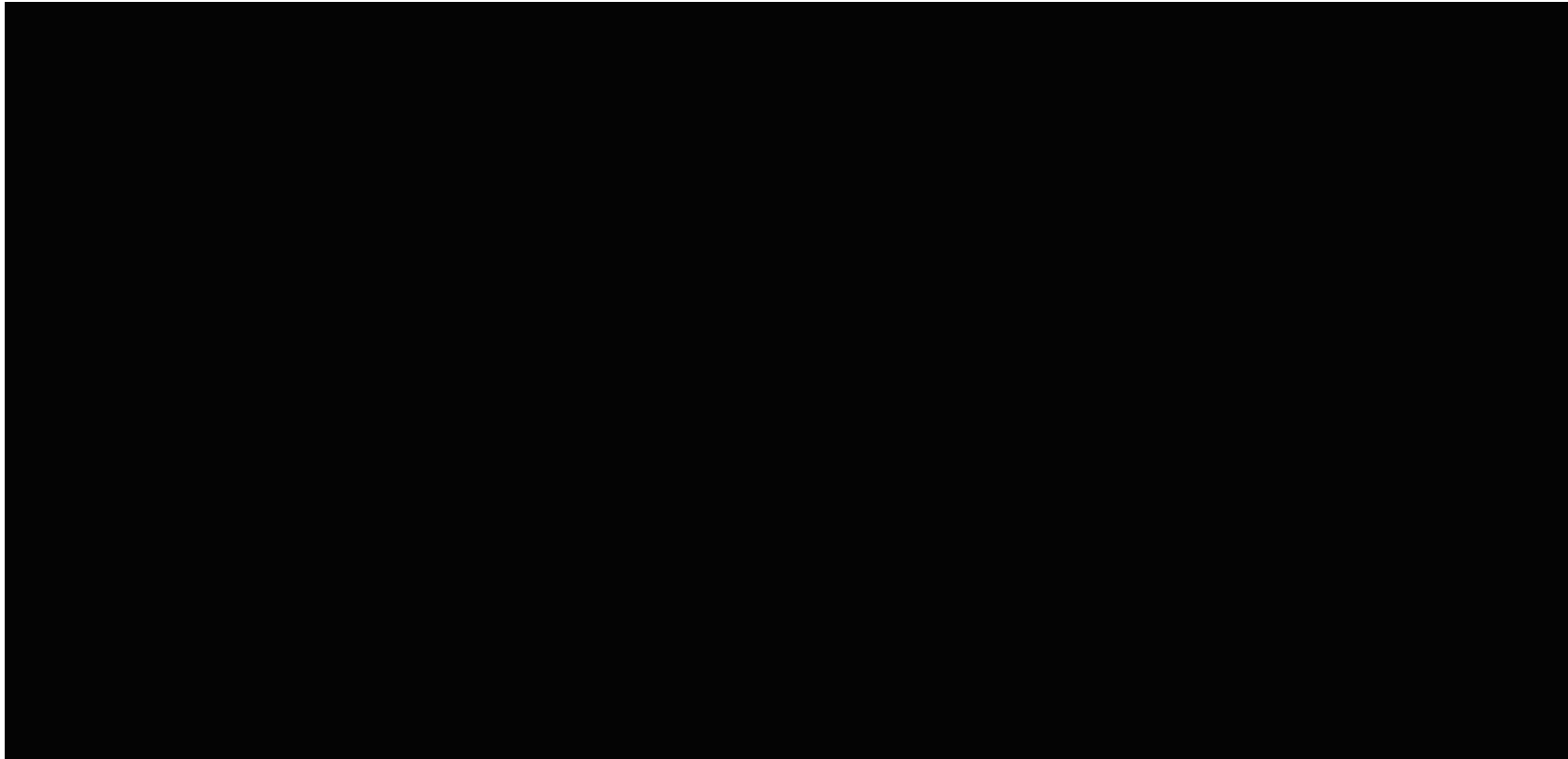
# Pre-design choices

# Expectations



# Design choices: The 3-2-1-0 Rule

*“There are two kinds of people in the world — those who have had a hard drive failure, and those who will.” — Peter Krogh*





# Design choices: The 3-2-1-0 Rule

- ✓ One primary copy (Production)
- ✓ Two backup copies

**DO** let Veeam handle copying  
Do **NOT** use storage sync mirror



# Design choices: The 3-2-1-0 Rule

✓ Two media types

Hard drive

Tape

Cloud

Zip disk?



# Design choices: The 3-2-1-0 Rule

✓ One off-site copy

Remote backup repository

Tape (in off-site vault)

Cloud provider





# Design choices: The 3-2-1-0 Rule

*“Tradition becomes our security, and when the mind is secure it is in decay.” — Jiddu Krishnamurti*

TEST

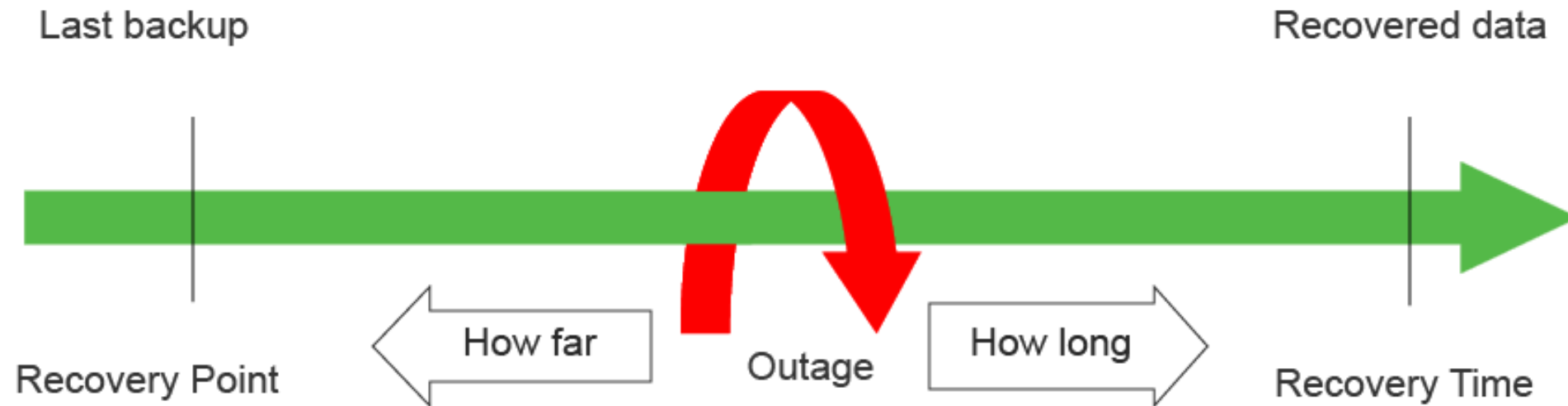


\*Microsoft KB 2550978

\*VMware KB 1020078

# Design choices: RPO, RTO and retention

Are all virtual machines born equal?

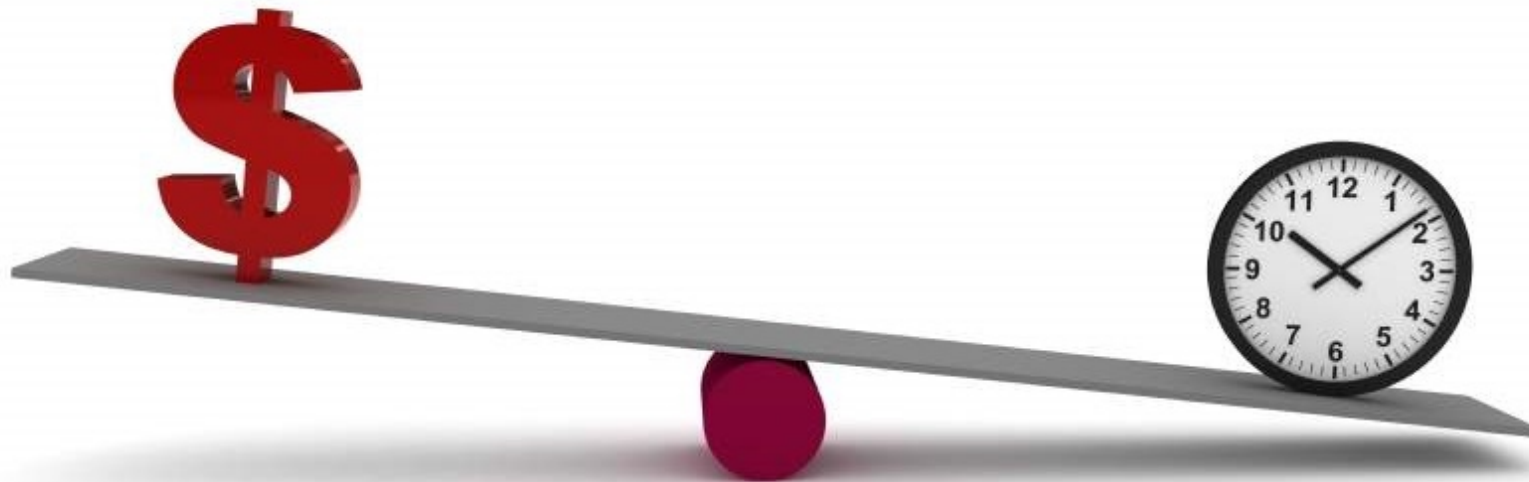


# Design choices: Protection

Physical or virtual backup server?

Backup and/or replica?

Redundancy?





# Design choices: Which license edition?

✓ Enterprise *Plus*

3-2-1: Tape (Enterprise)

3-2-1-0: SureBackup (Enterprise)

RPO: Backup from Storage Snapshots (Enterprise *Plus*)

RPO: SQL Server log backup (Enterprise)

RTO: Replication (Standard)

# Solution

What did we decide on?



# Solution: Overview

Virtual Veeam management server

Backup *AND* replication

Tape library

Leverage data as much as possible

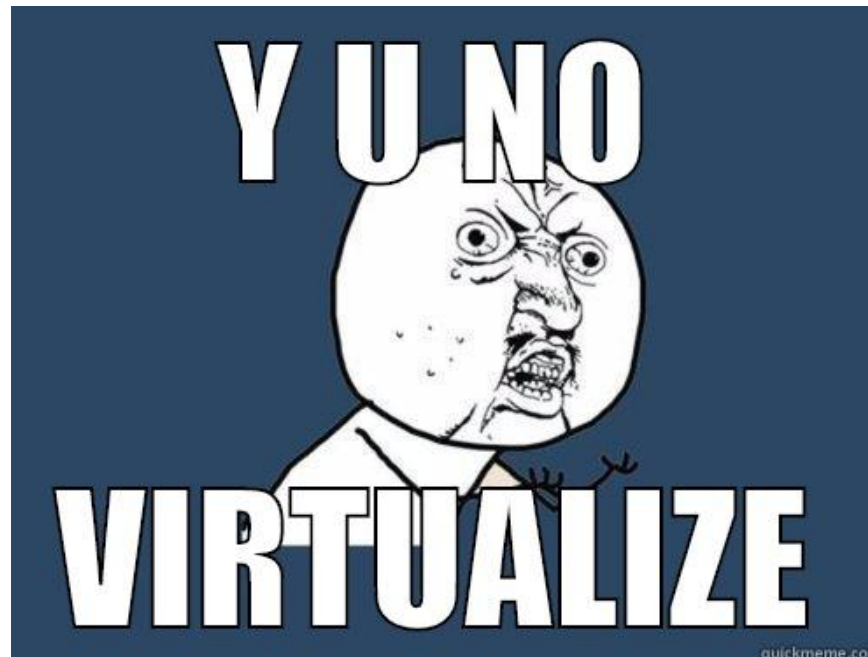


# Solution: Veeam management server

✓ Virtual server

Configuration backup to off-site backup repository

VM replicated to off-site VMware vSphere cluster





# Solution: Backup AND replication

Critical servers determined by management

- ✓ File server: 1 hour RPO / 15 minutes RTO
- ✓ SQL server database: 15 minutes RTPO™
- ✓ All other servers 24 hours RTPO

# Solution: Tape library

- ✓ On-site weekly full
- ✓ Off-site monthly full

Thank you Veeam for v9 tape GFS!

# Solution: Leverage data

- ✓ Replicate from backup repository
- ✓ On-Demand Sandbox™

Test service packs and upgrades!



# Questions?

Feel free to reach out!

You can find me on LinkedIn & Twitter.  
E-mail me on [h@slund.org](mailto:h@slund.org)

Thank you!