

Synology®

S Y N O L O G Y
2 0 2 0

Enterprise Solutions

Deployment. Performance. Products.

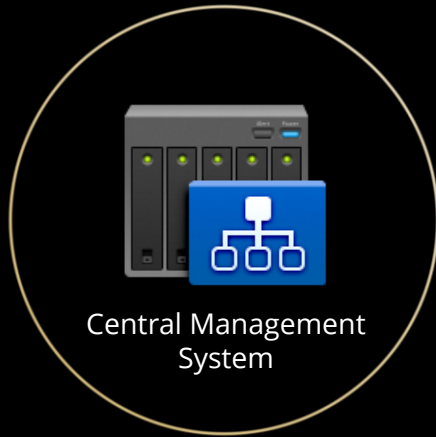


Onur Yavuz
Sales Consultant



Mass Deployment

Monitor. Manage. Perform.



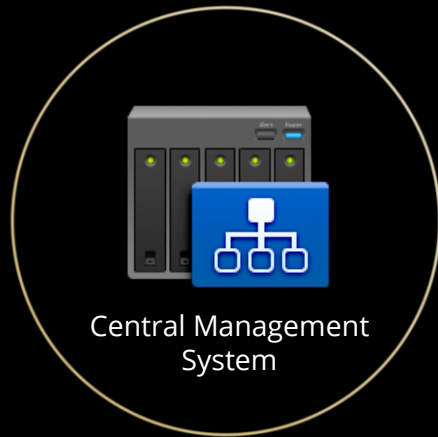
Central Management System



Synology Active Insight



Synology Directory Server



Eine Konsole für alle Systeme

Run. Manage. Control.

Central Management System

Einfaches Management Ihrer NAS-Infrastruktur

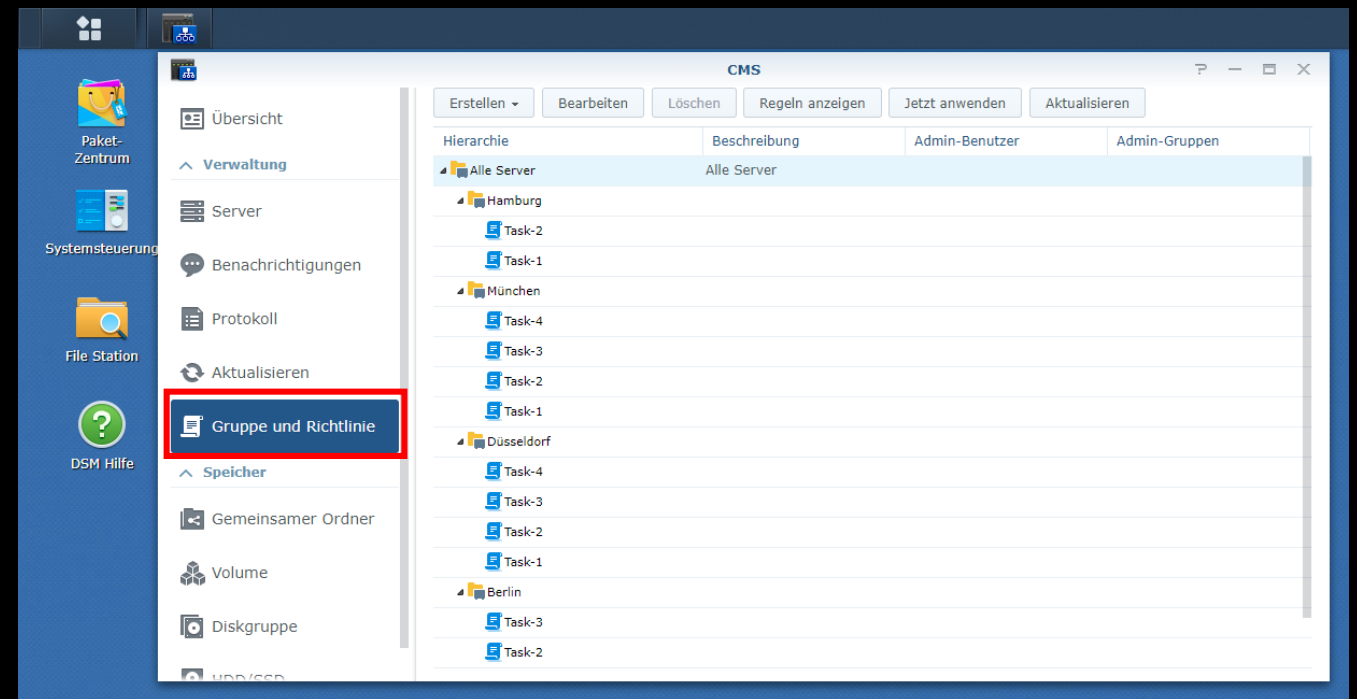
DSM 6.2

Gruppen & Richtlinien

Bessere Übersicht für die Verwaltung

One-Shot Task

Dynamische Verbindung



Central Management System

Einfaches Management Ihrer NAS-Infrastruktur

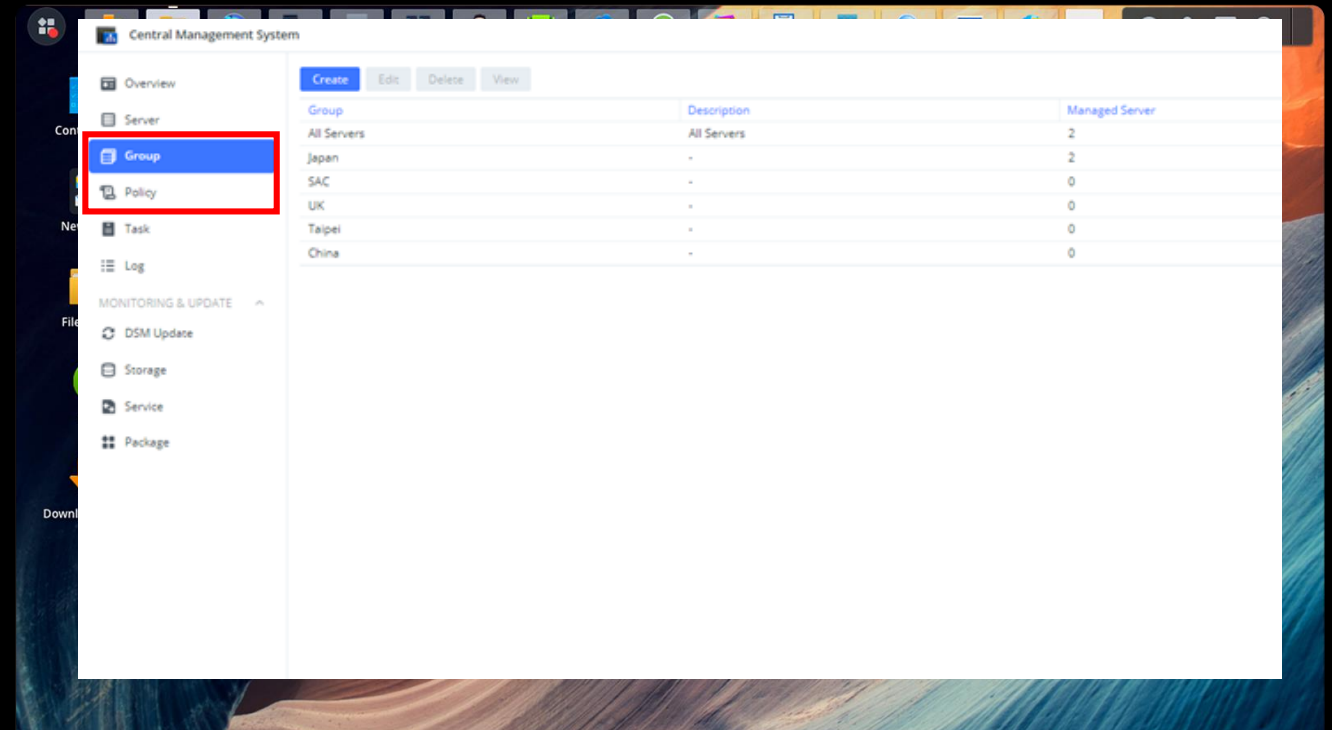
DSM7

Gruppen & Richtlinien

Bessere Übersicht für die Verwaltung

One-Shot Task

Dynamische Verbindung



Central Management System

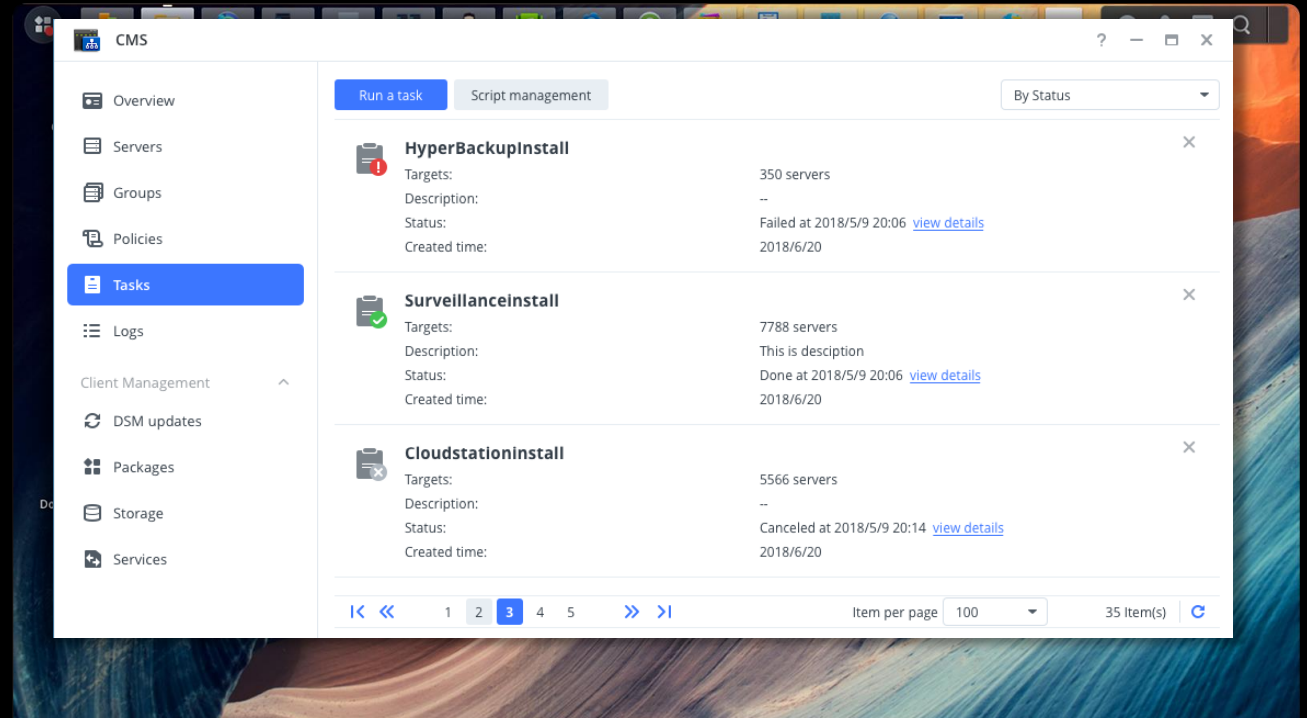
Einfaches Management Ihrer NAS-Infrastruktur

Gruppen & Richtlinien

One-Shot Task

Einfache Ausführung von Aufgaben für alle NAS

Dynamische Verbindung



The screenshot displays the CMS interface with a sidebar on the left containing navigation options: Overview, Servers, Groups, Policies, Tasks (highlighted), Logs, Client Management, DSM updates, Packages, Storage, and Services. The main content area shows a list of tasks under the 'Script management' tab. The tasks are:

Task Name	Status	Targets	Description	Status	Created time
HyperBackupinstall	Failed	350 servers	--	Failed at 2018/5/9 20:06	2018/6/20
Surveillanceinstall	Completed	7788 servers	This is description	Done at 2018/5/9 20:06	2018/6/20
Cloudstationinstall	Failed	5566 servers	--	Canceled at 2018/5/9 20:14	2018/6/20

The interface also includes a 'Run a task' button, a 'By Status' dropdown menu, and a pagination bar at the bottom showing 'Item per page 100' and '35 Item(s)'.

Central Management System

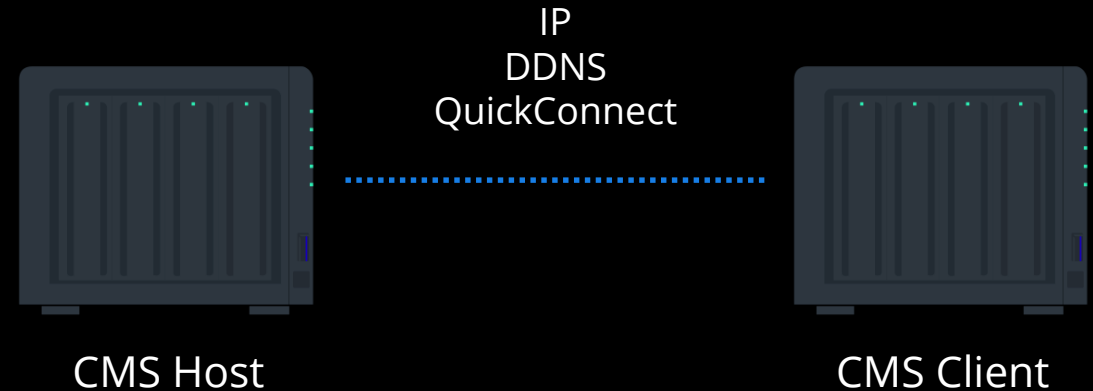
Einfaches Management Ihrer NAS-Infrastruktur

Gruppen & Richtlinien

One-Shot Task

Dynamische Verbindung

Zwischen CMS Host & Clients



Central Management System

Einfaches Management Ihrer NAS-Infrastruktur

Gruppen & Richtlinien

One-Shot Task

Dynamische Verbindung

Zwischen CMS Host & Clients

DSM 6.2

IP
DDNS
QuickConnect



CMS Host



CMS Client

Central Management System

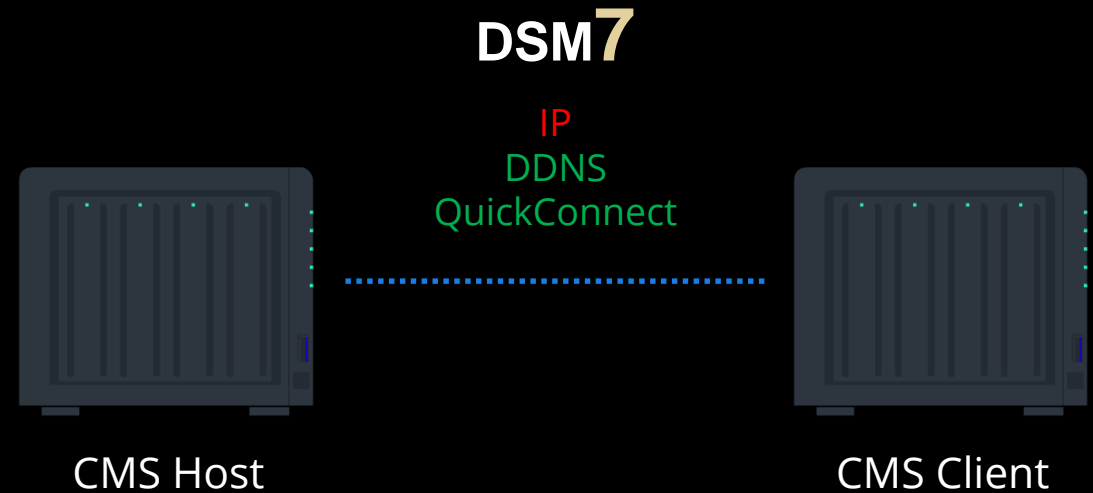
Einfaches Management Ihrer NAS-Infrastruktur

Gruppen & Richtlinien

One-Shot Task

Dynamische Verbindung

Zwischen CMS Host & Clients



automatisch über DDNS oder QuickConnect

Central Management System

Einfaches Management Ihrer NAS-Infrastruktur

Gruppen & Richtlinien

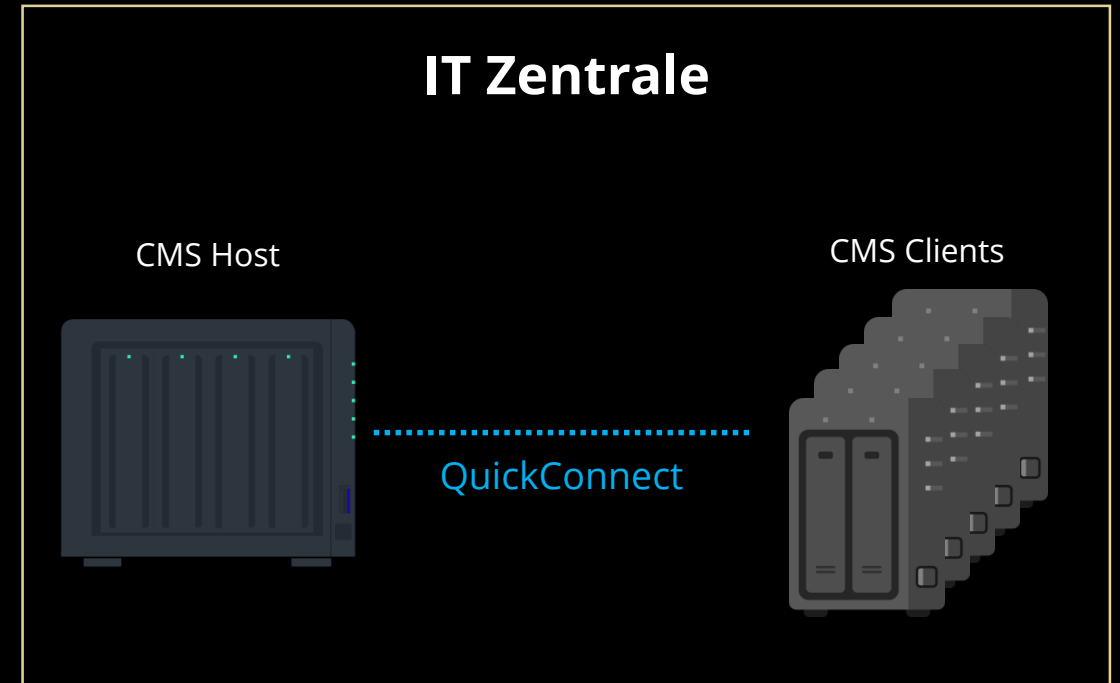
Systemkonfigurationen & Pakete installieren

One-Shot Task

Speicher- und Paketeinstellungen

Dynamische Verbindung

Verbindung erstellen



Außendienststellen

Central Management System

Einfaches Management Ihrer NAS-Infrastruktur

Gruppen & Richtlinien

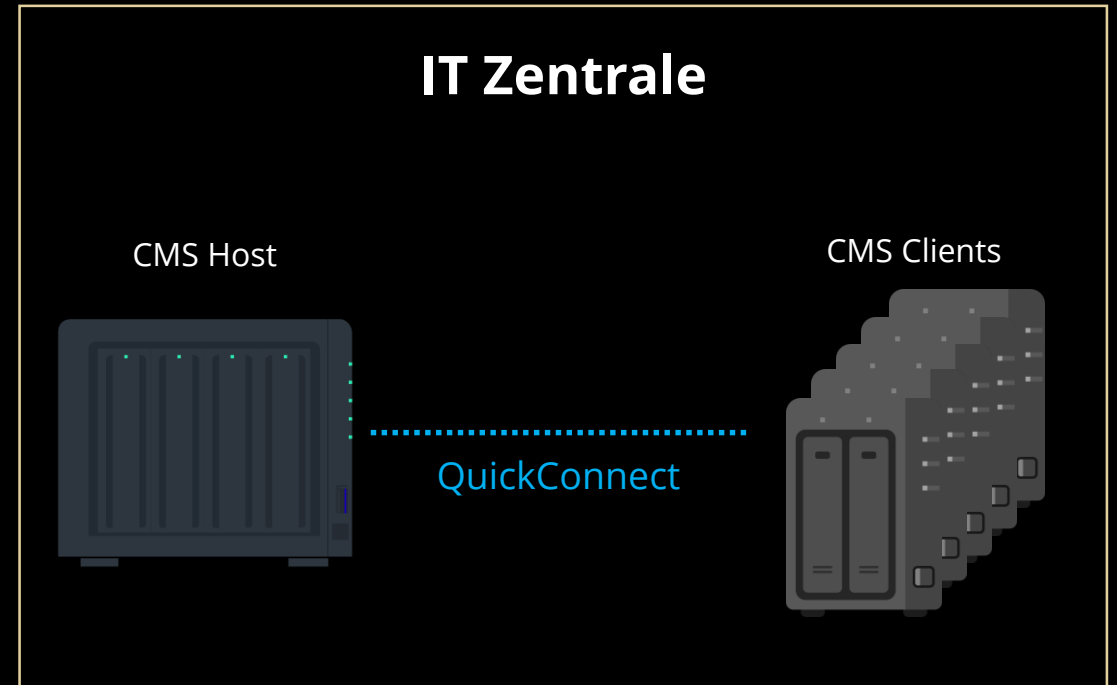
Systemkonfigurationen & Pakete installieren

One-Shot Task

Speicher- und Paketeinstellungen

Dynamische Verbindung

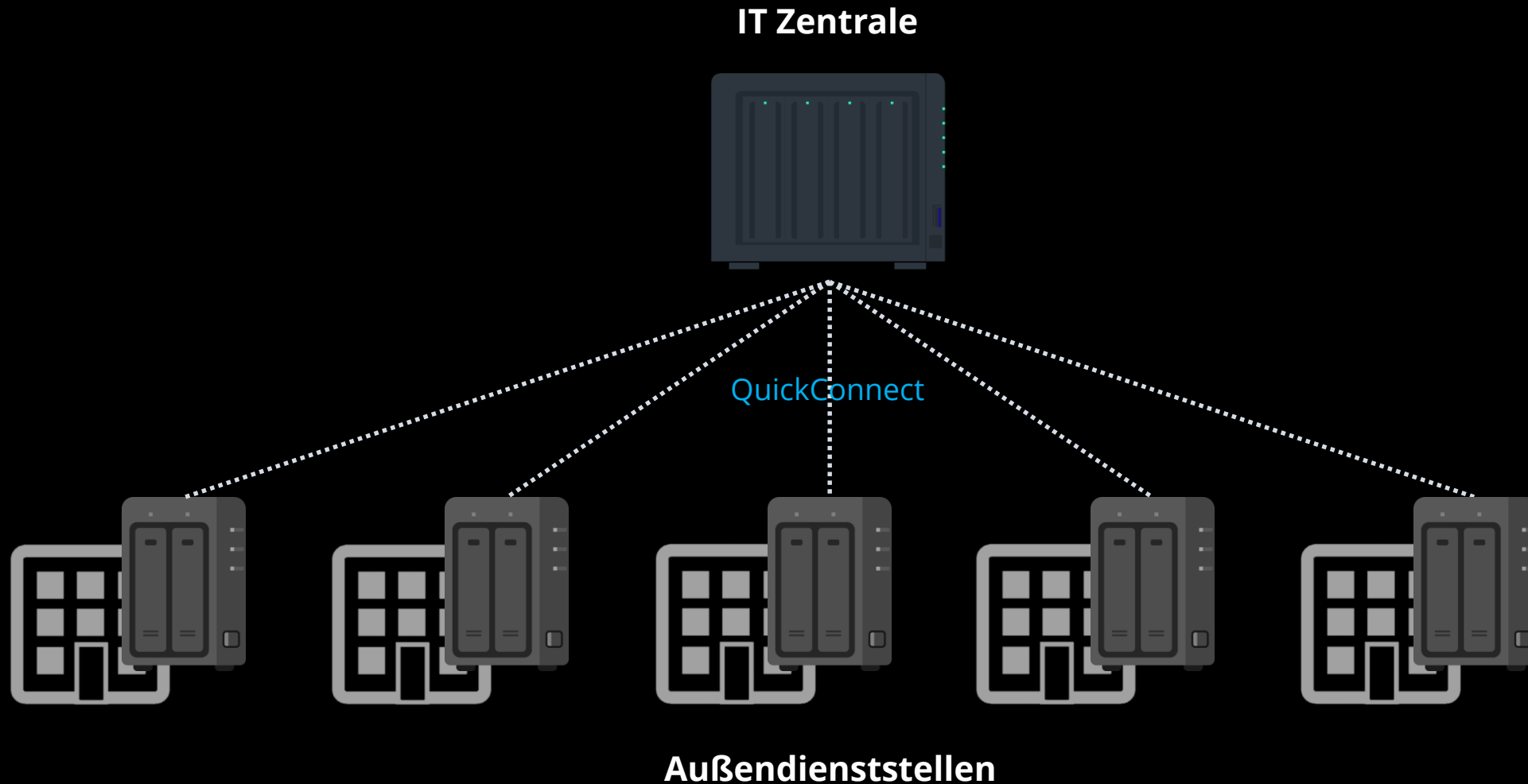
Verbindung erstellen



Außendienststellen

Central Management System

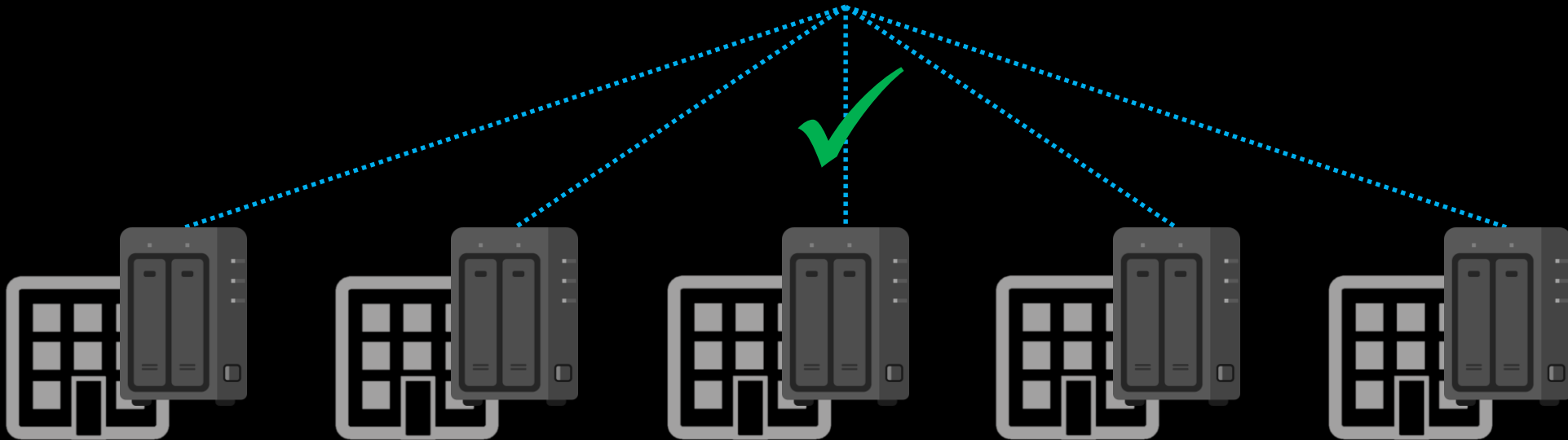
Einfaches Management Ihrer NAS-Infrastruktur



Central Management System

Einfaches Management Ihrer NAS-Infrastruktur

IT Zentrale



Außendienststellen



Real-Time Monitoring

Predict. Prevent. Notify. Resolve.

Synology® Active Insight

Real-Time Monitoring für alle Synology NAS

KI gestützte Prevention

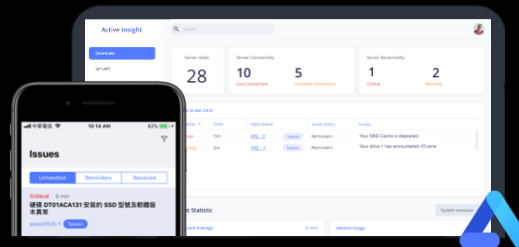
Problemerkennung & -lösung
Performanceanalyse
Troubleshoot

Management

Flexible Konfiguration
Schneller Support

Notification

Email
Mobile App



Demo



Zentrale Verwaltung

aller Konten und Geräte

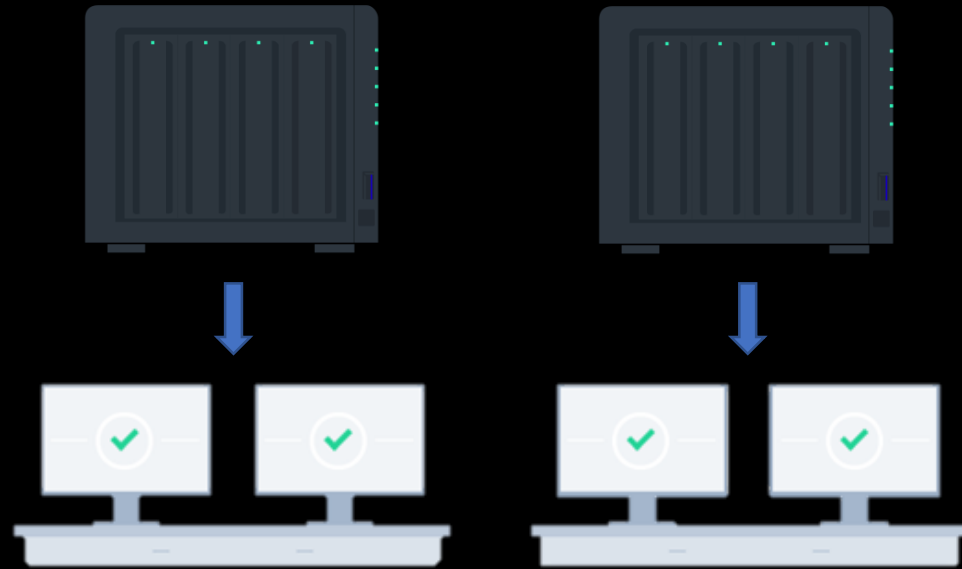
Synology® Directory Server

Zentrale Verwaltung aller Konten und Geräte im Unternehmen

Support 2nd DC

User Caching & automatischer Failover

Database Performance



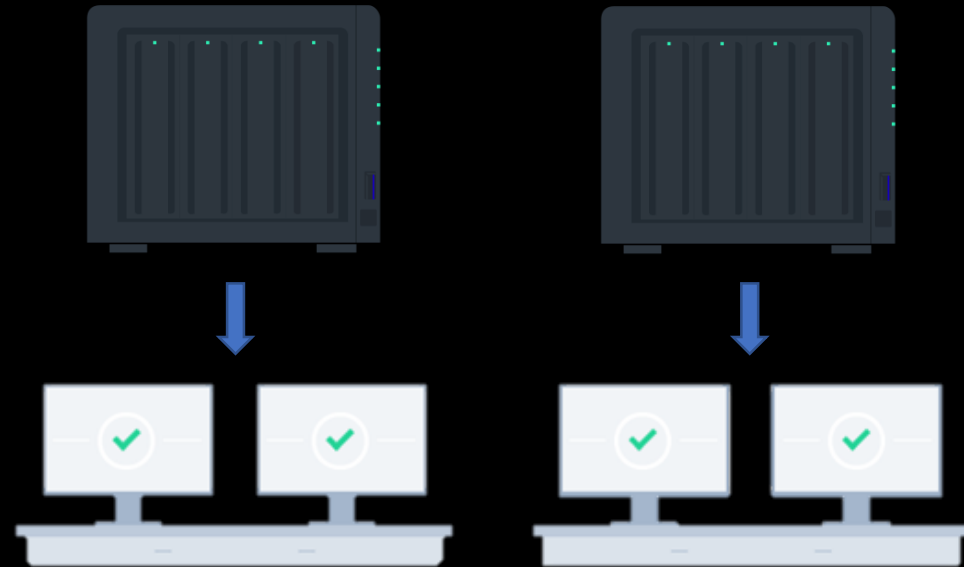
Synology® Directory Server

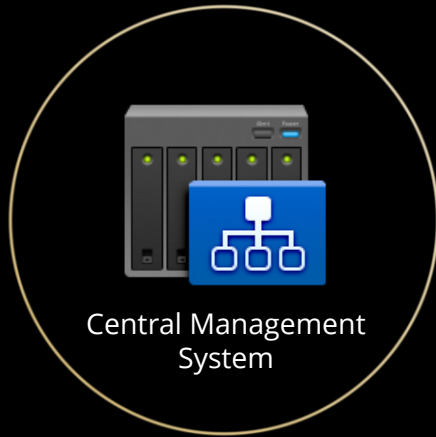
Zentrale Verwaltung aller Konten und Geräte im Unternehmen

Support 2nd DC

Database Performance

Verbesserte Performance





Central Management System



Synology Active Insight

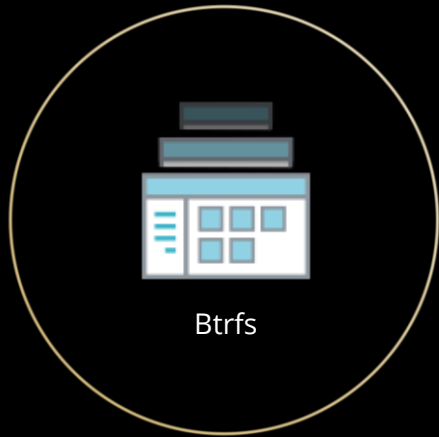


Synology Directory Server

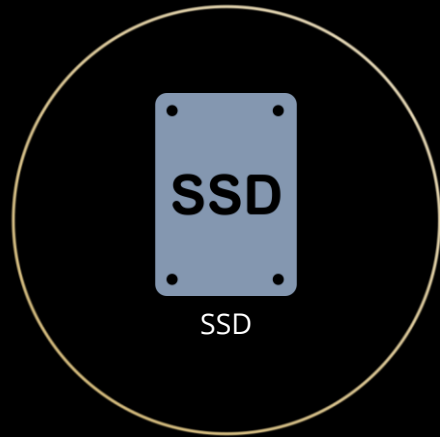


Performance Experience

Fast. Secure. Reliable.



Btrfs



SSD



LUN



Unified Experience Tuning

Volume. Snapshot Replication. Backup.

Unified Experience Tuning

Single Volume

Mehr Power durch Concurrent Write

Snapshot Replication

Backupgeschwindigkeit



Unified Experience Tuning

Single Volume

Snapshot Replication

Replikation inkl. Löschung von Directories

Backupgeschwindigkeit



Replikation von 1.000.000 Dateien

Unified Experience Tuning

Single Volume

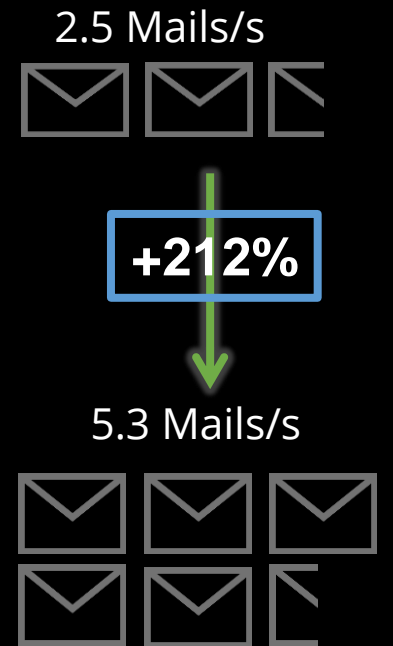
Snapshot Replication

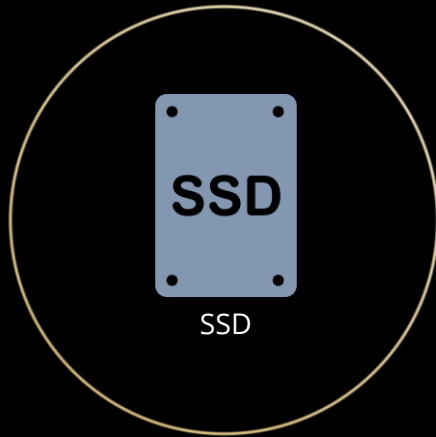
Backupgeschwindigkeit

Verbesserung durch Cluster Allocation



3,45 Mio.





SSD Performance Experience

Fast. Reliable. Secure.

SSD Performance Experience

Consumer SSD

Enterprise SSD

Price: **\$229.99**

Free Amazon tech support included ▼

Capacity: **2TB**

1TB	2TB	250GB	500GB
\$107.99	\$229.99	\$39.80	\$64.99



Product Packaging: **Frustration-Free Packaging**

- [Make sure this fits](#) by entering your model number.
- Sequential reads/writes up to 560/510 MB/s and random **reads/writes up to 95k/90k** on all file types
- Accelerated by Micron 3D NAND technology
- Integrated Power Loss Immunity preserves all your saved work if the power unexpectedly gets cut
- Crucial 5-year limited warranty
- Product ships in Amazon Certified Frustration Free Packaging (may differ from retail packaging depicted in product collateral)

[Compare with similar items](#)

[Used & new \(2\) from \\$229.99 Details](#)

Price: **\$450.00** + \$46.30 shipping

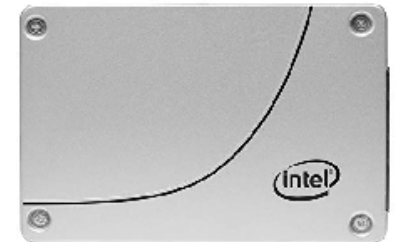
Capacity: **1,92TB**

Product Packaging: **Frustration-Free Packaging**

- Mfr Part Number: SSDSC2KG019T801
- Form Factor: 2.5 inch
- Latency: Read - 36 μ s; Write - 37 μ s
- Random **Read (100% Span): 97,000 IOPS**
- Random **Write (100% Span): 46,500 IOPS**

[Compare with similar items](#)

[New \(43\) from \\$450.00](#)



SSD Performance Experience

SSD Over Provisioning

Puffer. Konstanz. Performance.

SSD-Cache Ratgeber

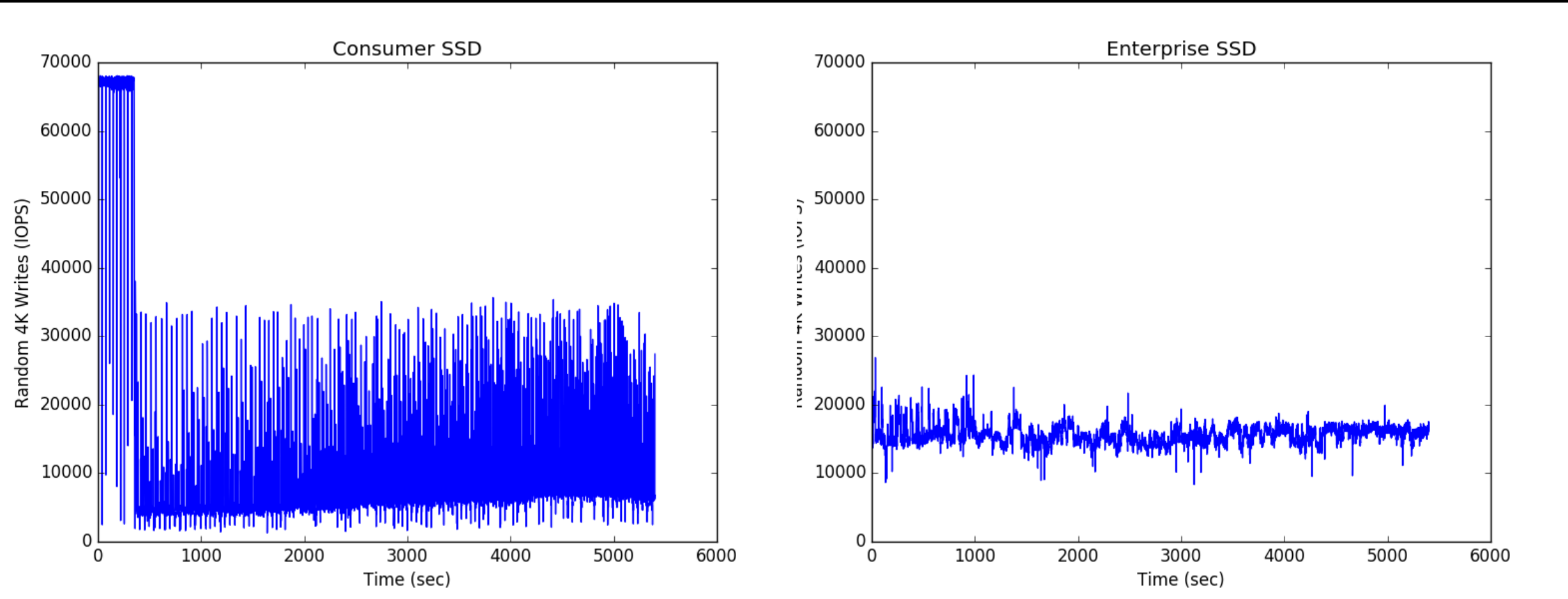
Pin Metadata

Enterprise SSD



Stromschutz
Konstante Performance

SSD Performance Experience



SSD Performance Experience

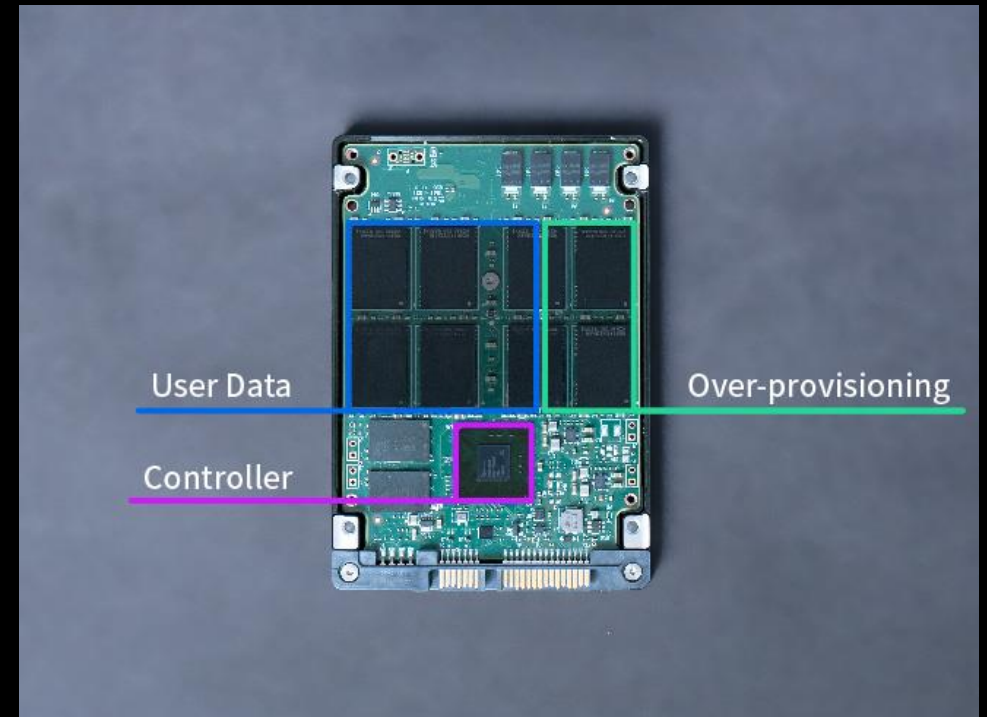
SSD Over Provisioning

Puffer. Kostanz. Performance.

SSD-Cache Ratgeber

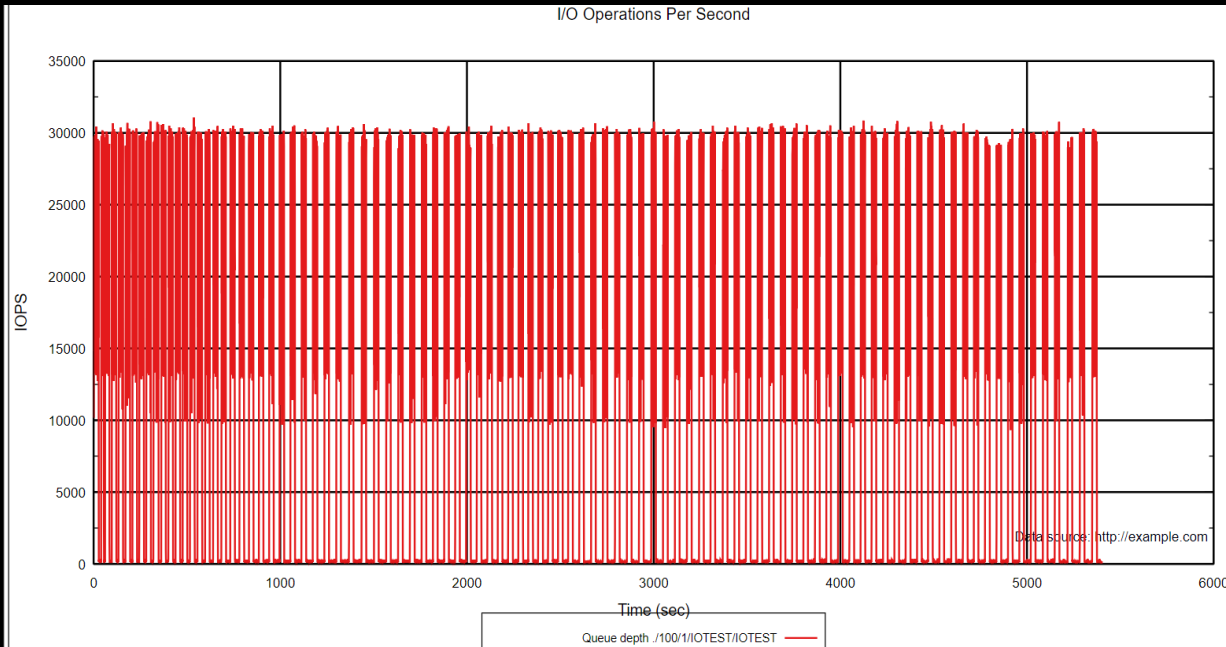
Pin Metadata

Over Provisioning

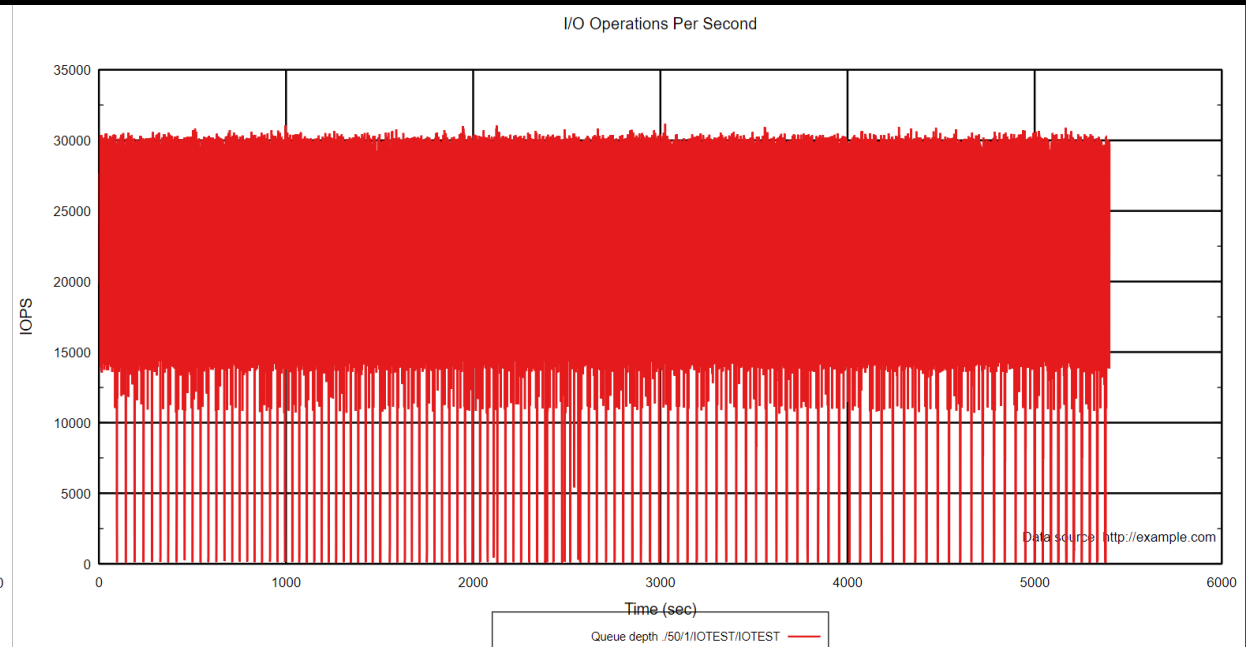


SSD Performance Experience

DSM 6.2



DSM7



SSD Performance Experience

DSM 6.2

SSD Over Provisioning

SSD-Cache Ratgeber

Intuitiver. Genauer. Zuverlässiger.

Pin Metadata

SSD Cache-Ratgeber
Weiter unten finden Sie die Berechnungsergebnisse von Volume 1.

Gesamtgröße der zuletzt aufgerufenen Dateien

Datum	Dateizahl	Gesamtdateigröße
2019-08-23	2665	7.67 GB
2019-08-22	739	5.56 GB
2019-08-21	0	0 Byte
2019-08-20	0	0 Byte
2019-08-19	442	22.14 MB
2019-08-18	0	0 Byte

Empfehlungen
Keine SSD Caches auf Volume 1 erstellt. Es wird empfohlen, einen SSD Cache zu erstellen, der größer ist als 13.3 GB, um die Reaktionsgeschwindigkeit des Datenzugriffs zu verbessern.

Empfohlene Größe
13.3 GB



Datei-basiert
Letztes Login
Immer empfohlen

SSD Performance Experience

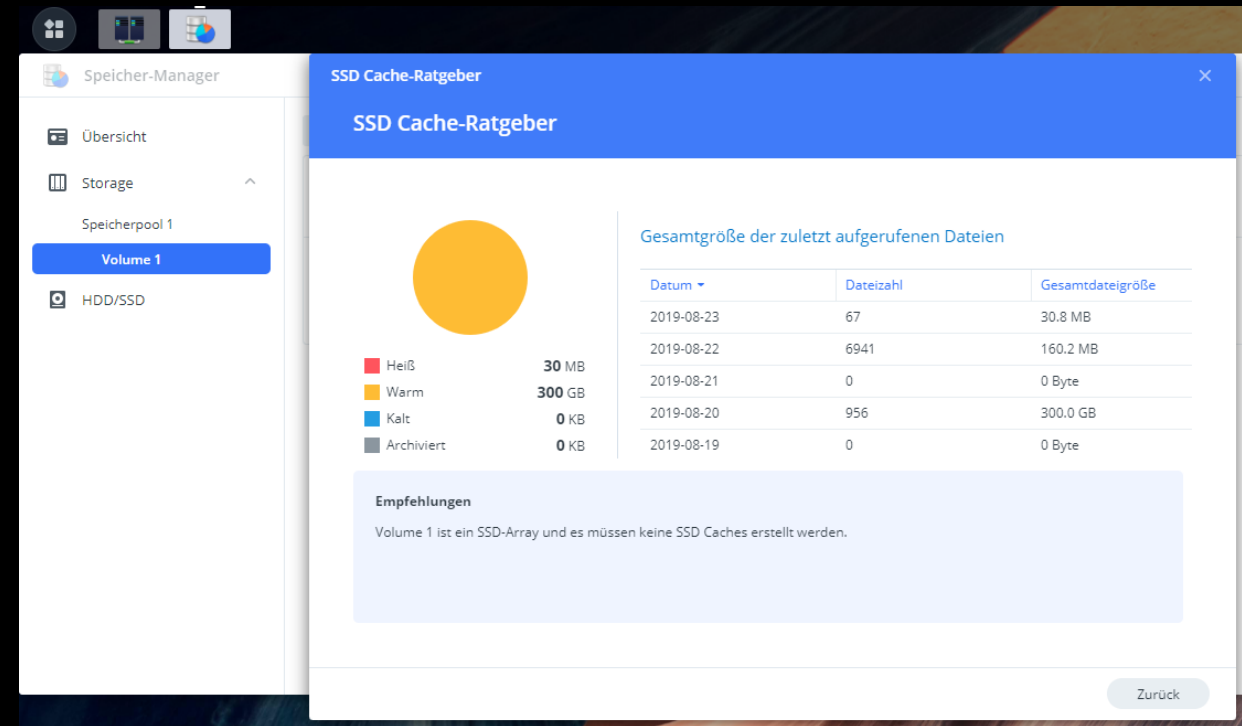
DSM7

SSD Over Provisioning

SSD-Cache Ratgeber

Intuitiver. Genauer. Zuverlässiger.

Pin Metadata



The screenshot shows the Synology DSM7 SSD Cache Advisor interface. On the left is a navigation sidebar for 'Speicher-Manager' with options for 'Übersicht', 'Storage', 'Speicherpool 1', 'Volume 1', and 'HDD/SSD'. The main panel is titled 'SSD Cache-Ratgeber' and features a large yellow circle representing the 'Warm' status. Below this, a legend indicates: 'Heiß' (30 MB), 'Warm' (300 GB), 'Kalt' (0 KB), and 'Archiviert' (0 KB). To the right, a table titled 'Gesamtgröße der zuletzt aufgerufenen Dateien' shows data for dates from 2019-08-19 to 2019-08-23. At the bottom, an 'Empfehlungen' section states: 'Volume 1 ist ein SSD-Array und es müssen keine SSD Caches erstellt werden.' A 'Zurück' button is located in the bottom right corner.

Datum	Dateizahl	Gesamtdateigröße
2019-08-23	67	30.8 MB
2019-08-22	6941	160.2 MB
2019-08-21	0	0 Byte
2019-08-20	956	300.0 GB
2019-08-19	0	0 Byte



Block-basiert
Emulation über 1- 4 Wochen

SSD Performance Experience

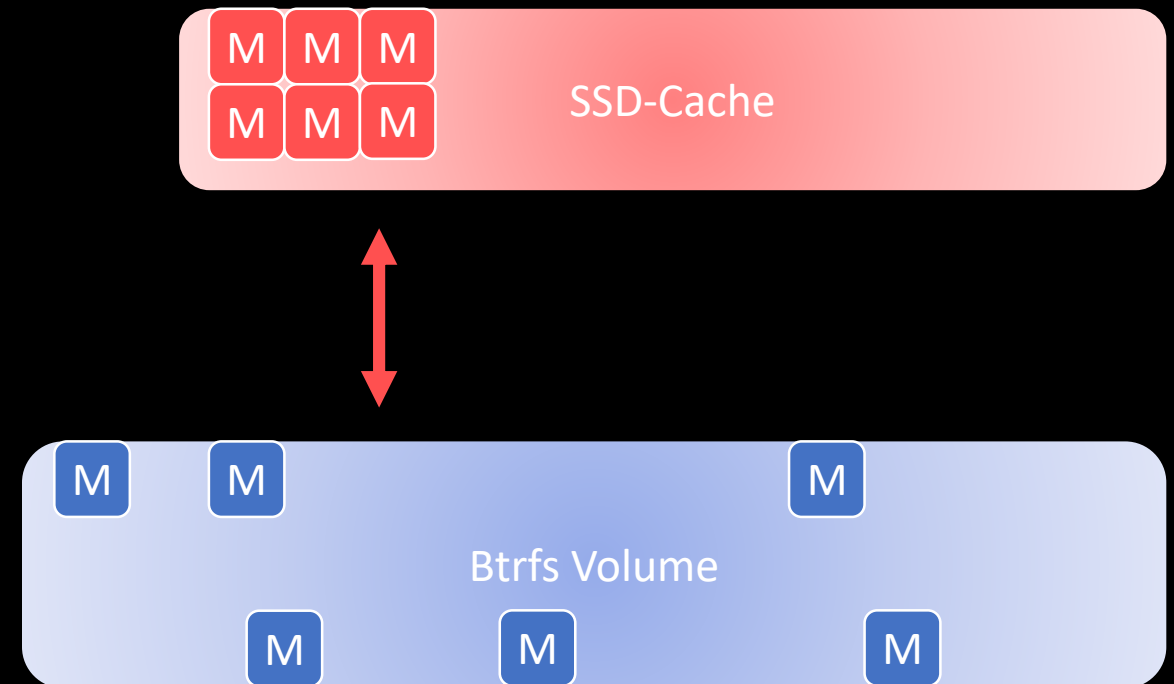
SSD Over Provisioning

SSD-Cache Ratgeber

Pin Metadata

Konstante Leistung & geringe Latenz

DSM 6.2



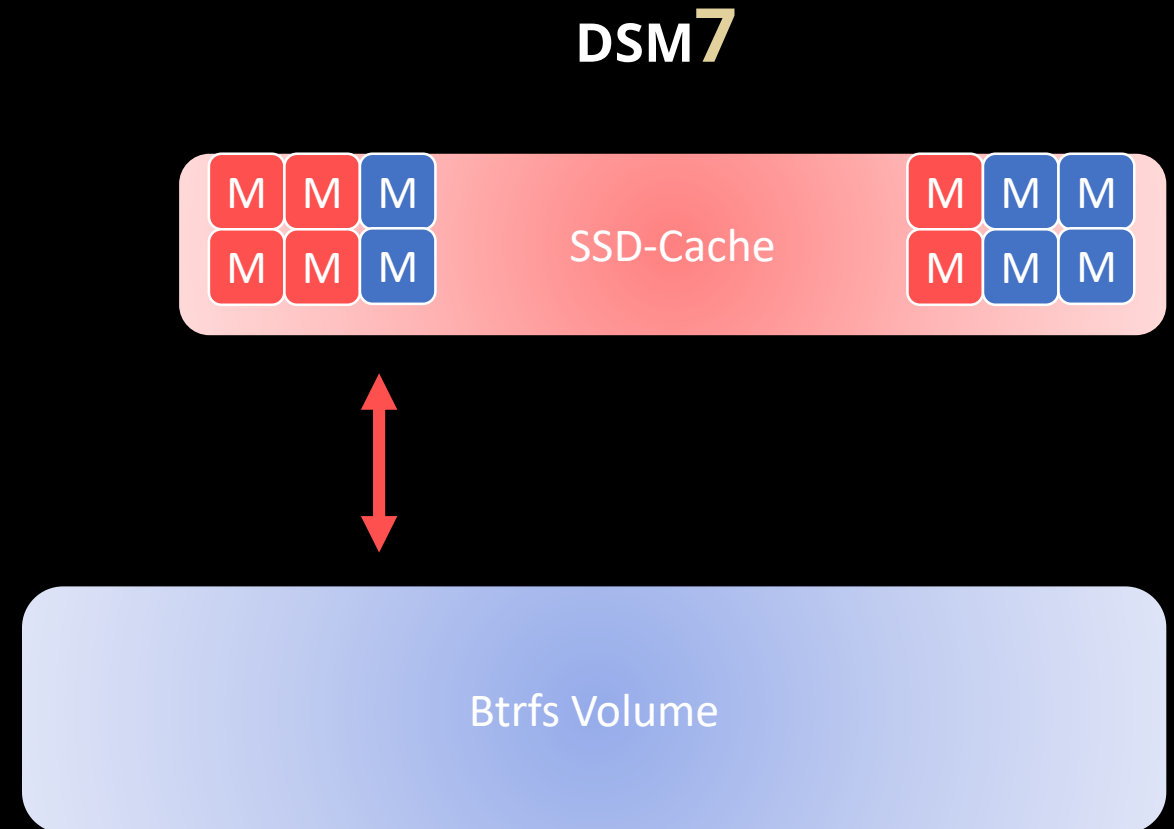
SSD Performance Experience

SSD Over Provisioning

SSD-Cache Ratgeber

Pin Metadata

Konstante Leistung & geringe Latenz





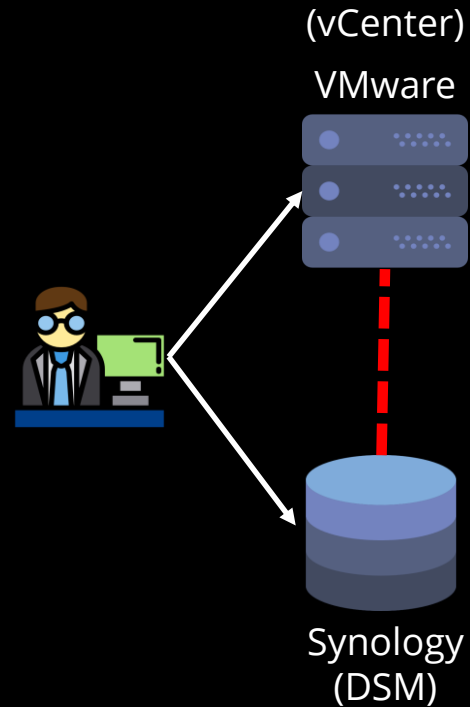
LUN Management

Simplified. Performant. Compatible.

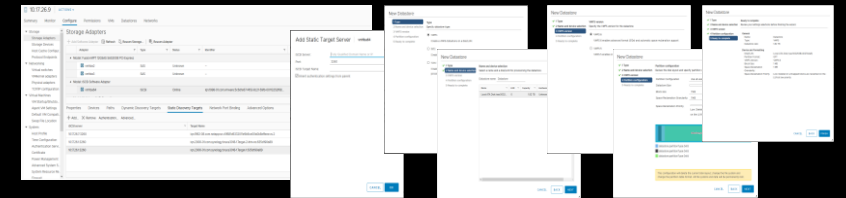
LUN Management

VMWare/Windows Plugin

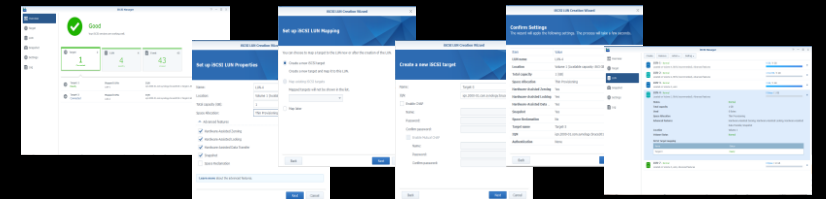
Erstellen eines LUNs in nur **4 Schritten**



Vorher



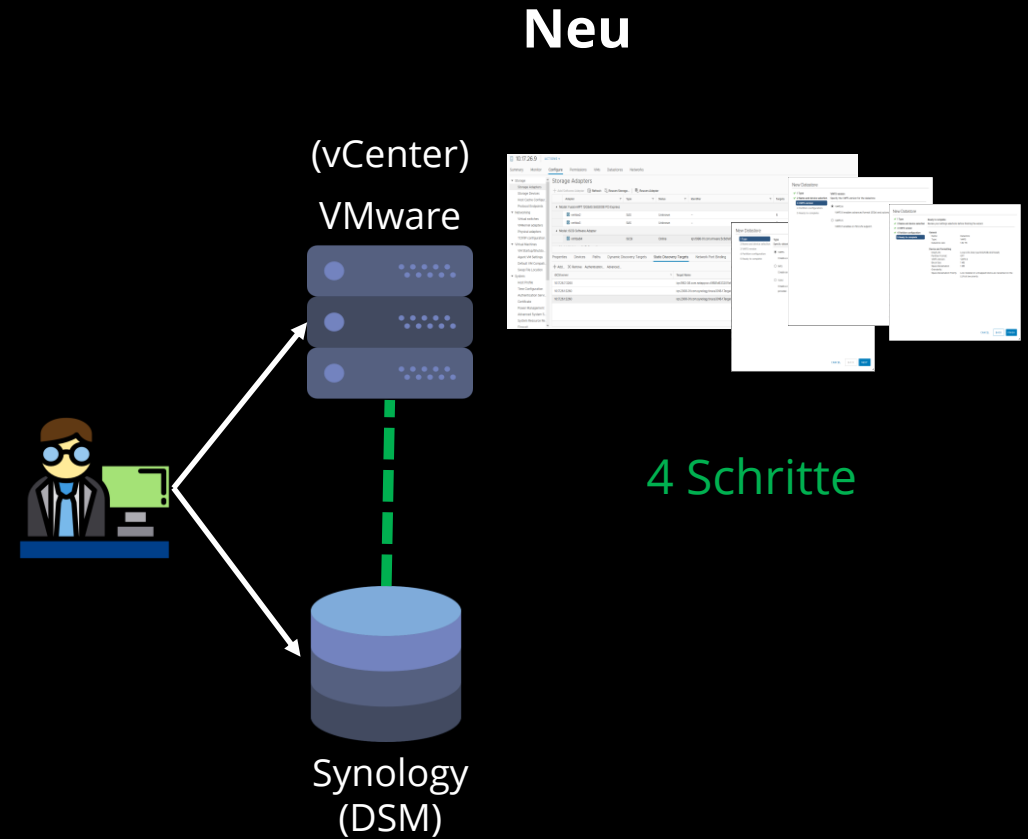
13 Schritte



LUN Management

VMWare/Windows Plugin

Erstellen eines LUNs in nur **4 Schritten**



LUN Management

VMWare/Windows Plugin

Erstellen eines LUNs in nur **4 Schritten**

Schritt 1

Create datastore for 10.17.195.175

1 Name and Type

2 Synology Storage

3 Details

4 Summary

Name and Type

Specify datastore name and type

Name *

Type * VMFS (iSCSI) NFS

VMFS Version *

CANCEL **NEXT**

LUN Management

VMWare/Windows Plugin

Erstellen eines LUNs in nur **4 Schritten**

Schritt 2

Create datastore for 10.17.195.175

1 Name and Type

2 Synology Storage

3 Details

4 Summary

Synology Storage

Choose Synology Storage and Volume

Synology Storage: DemoStorage3 (10.17.42.1) ▾

	Name ▾	Free Space ▾	Total Space ▾	File System ▾
<input checked="" type="radio"/>	Volume 1	3 TB	3 TB	btrfs

CANCEL BACK NEXT

LUN Management

VMWare/Windows Plugin

Erstellen eines LUNs in nur **4 Schritten**

Schritt 3

Create datastore for 10.17.195.175 ✕

- 1 Name and Type
- 2 Synology Storage
- 3 Details**
- 4 Summary

Details

Specify the LUN attributes

Volume Volume 1 (Free Space:2.6 TB)

Name

Size GB ▾

Space Allocation Thin Provisioning ▾ ⓘ

Space Reclamation

CANCEL BACK NEXT

LUN Management

VMWare/Windows Plugin

Erstellen eines LUNs in nur **4 Schritten**

Schritt 4

Create datastore for 10.17.195.175

1 Name and Type
2 Synology Storage
3 Details
4 Summary

Summary

Datastore Attribute

Name	datastore-1
Type	vmfs
Version	vmfs6

Synology Storage and LUN Attribute

Storage	DemoStorage3 (10.17.42.1)
Volume	Volume 1
LUN Name	LUN-1
LUN Size	10 GB
Space Allocation	Thin Provisioning (without Space Reclamation)

CANCEL BACK FINISH

Fibre Channel

The Well-Designed SAN Protocol

LUN Management

iSCSI Manager → SAN Manager

The screenshot displays the SAN Manager application window. The left sidebar contains navigation options: Overview, iSCSI Target, FC Target (highlighted in blue), LUN, Snapshot, Settings, and Log. The main content area shows a list of FC adapters under the heading 'Action'. Two adapters are visible, both in a 'Ready' state.

Adapter 1 Port 1 - Ready
21:00:f4:e9:d4:55:67:e0

Name: Adapter 1 Port 1
WWPN: 21:00:f4:e9:d4:55:67:e0
PCIE Slot Id: 1
Service Status: Ready
Multiple Sessions: Enable

Mapped LUNs

Number	Name	Total capacity
No mapped LUNs		

Adapter 1 Port 2 - Ready
21:00:f4:e9:d4:55:67:e1

Name: Adapter 1 Port 2
WWPN: 21:00:f4:e9:d4:55:67:e1
PCIE Slot Id: 1
Service Status: Ready
Multiple Sessions: Enable

Mapped LUNs

Number	Name	Total capacity
No mapped LUNs		

LUN Management

VMWare/Windows Plugin

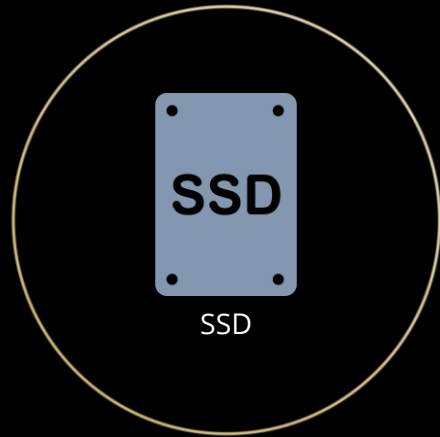
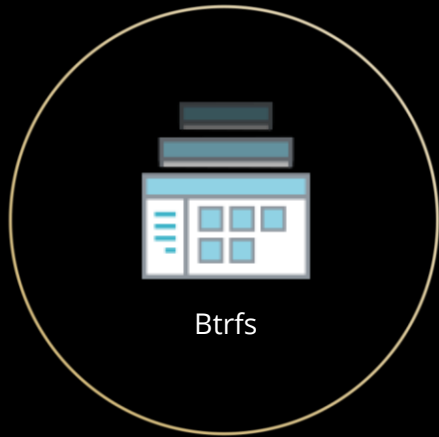
SAN Manager

High-Performance Connection

	Random	iSCSI (10G)	FC (16G)	
IOPS	Read	253000	359000	42 %
	Write	144000	161000	12 %
Avg. Latency	Read	1,430.85	1,059.58	26 %
	Write	2,652.22	2,378.28	11 %



Supported Models: Linux Kernel 4.4



The background features two glowing white lines that intersect in the center, creating a figure-eight or infinity-like shape. The lines have a soft, ethereal glow and are set against a solid black background.

Business Products

Brand new hardware

```
mirror_mod = modifier_ob.modifiers.new("Mirror")
mirror_mod.mirror_object = mirror_ob

operation == "MIRROR_X":
    mirror_mod.use_x = True
    mirror_mod.use_y = False
    mirror_mod.use_z = False
operation == "MIRROR_Y":
    mirror_mod.use_x = False
    mirror_mod.use_y = True
    mirror_mod.use_z = False
operation == "MIRROR_Z":
    mirror_mod.use_x = False
    mirror_mod.use_y = False
    mirror_mod.use_z = True

def select_exactly_two_objects():
    mirror_ob.select = 1
    mirror_ob.select = 1
    context.scene.objects.active = mirror_ob
    print "selected" + str(mirror_ob) # modifier
    mirror_ob.select = 0
    obj = bpy.context.selected_objects[0]
    mirror_ob.objects[one.name].select = 1

print("please select exactly two objects,")

OPERATOR CLASSES -----
```

Performance



Density



Availability

Leistungsfähiges 1U-Rackmount-NAS für SMB

Release Q4.2019

RS820(RP)+

- Quad-Core Intel Denverton 2.1GHz CPU
- 2GB DDR4, bis zu 18GB
- mehr als 1.621 MB/s Lesen & 599 MB/s Schreiben
- 1x PCIe Slot für M.2 SSD/10GbE

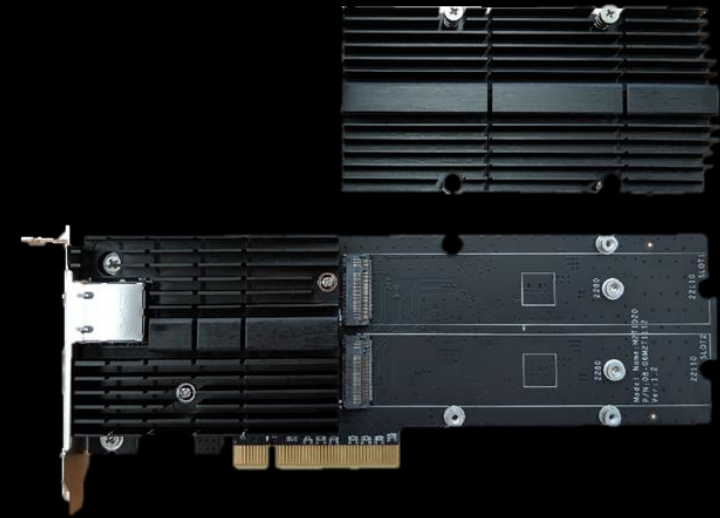


Cache-Leistung und Durchsatz in Einem

Release 2020

E10M20-T1

- Dual-Port M.2 unterstützt M.2 2280/22110 NVMe/SATA SSD
- 10GbE Verbindung, 10GBASE-T/NBASE-T
- Kompatibel zu 5G/2.5G/1G Link Speed



Enterprise Produkte

FS3400

Modell-Serie

SA: SAS

FS: FlashStation

Enterprise Produkte

CPU-Familie

3: Broadwell-DE

6: Purley

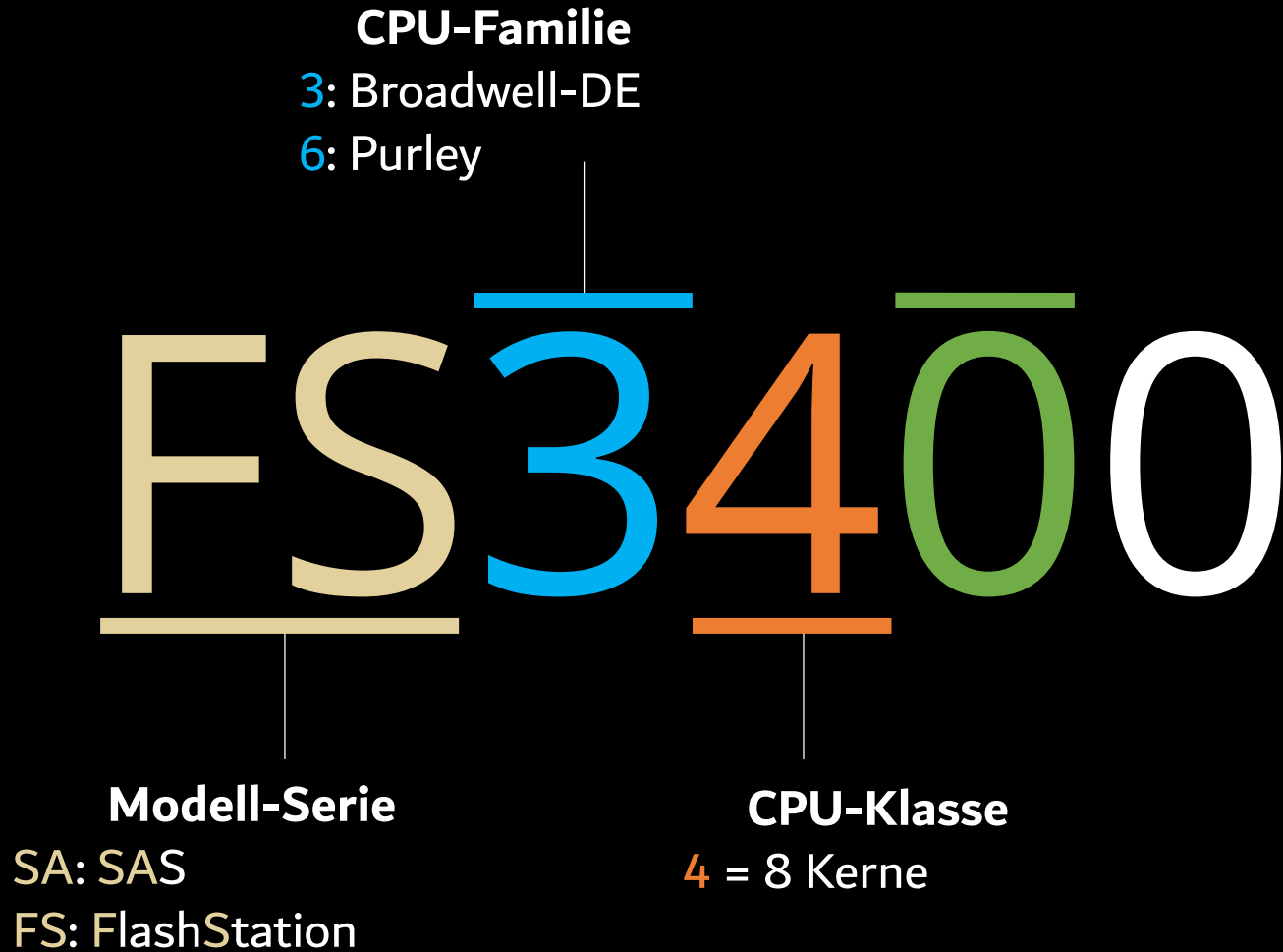
FS 3 4 00

Modell-Serie

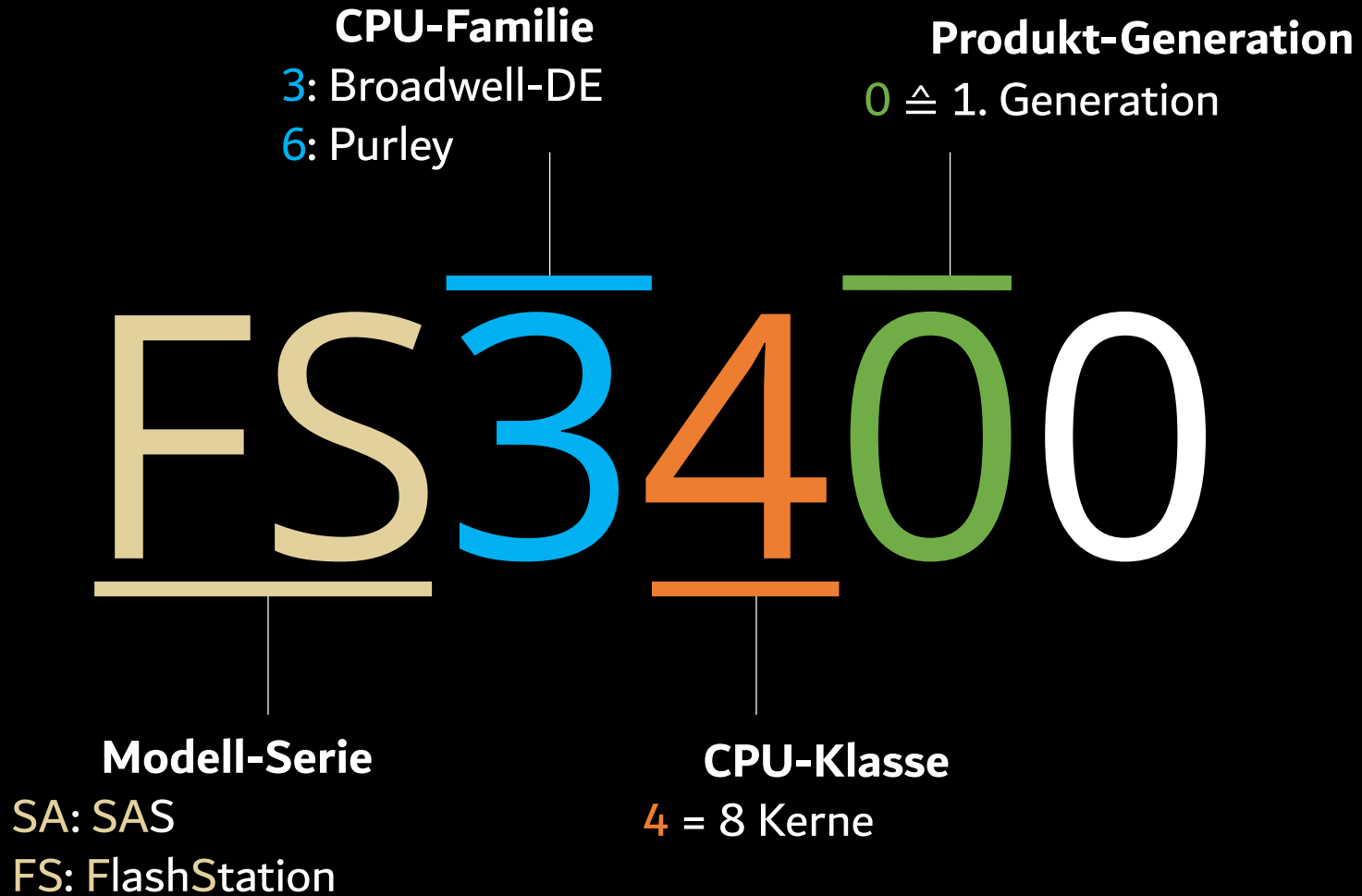
SA: SAS

FS: FlashStation

Enterprise Produkte



Enterprise Produkte



Hochskalierbares NAS für umfangreiche Datenspeicherungsanforderungen



SA3400

- Intel® Xeon® D 8-Core
- Bis zu 180 Festplatten
- Built-in 10GbE Dual 10GBASE-T



SA3600

Release 2020

- Intel® Xeon® D 12-Core
- Bis zu 180 Festplatten
- Built-in 10GbE Dual 10GBASE-T

Produktives All-Flash-Array für unternehmenskritische Workloads



FS3400

- Intel® Xeon® D 8-Core
- 137,000 iSCSI Random Write IOPS
- Bis zu 72 Festplatten



FS3600

Release 2020

- Intel® Xeon® D 12-Core
- 176,000 iSCSI Random Write IOPS
- Bis zu 72 Festplatten

Hochperformanter All-Flash-Server für I / O-intensive Anwendungen

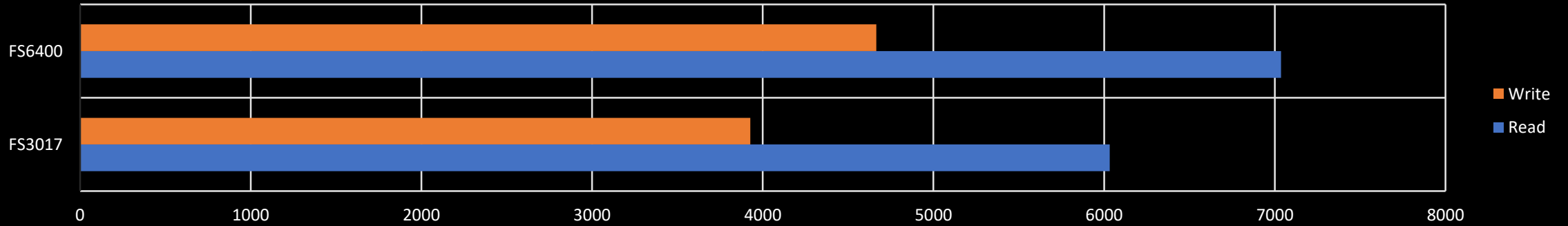
FS6400

- 2x Intel® Xeon® SP8-Core, bis zu 3.0GHz
- >240K iSCSI Random Write IOPS
- 32GB DDR4, bis zu 512GB RDIMM

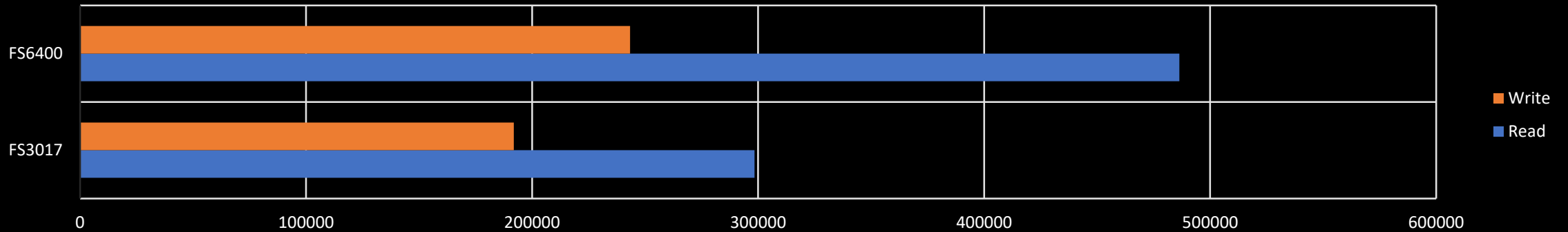


FS6400 Performance

10GbE SMB Sequential Throughput (64KB)



10GbE iSCSI Random IOPS (4KB)



```
mirror_mod = modifier_ob.modifiers.new("Mirror")
# Mirror object to mirror_ob
mirror_mod.mirror_object = mirror_ob

# Operation == "MIRROR_X":
mirror_mod.use_x = True
mirror_mod.use_y = False
mirror_mod.use_z = False
# Operation == "MIRROR_Y":
mirror_mod.use_x = False
mirror_mod.use_y = True
mirror_mod.use_z = False
# Operation == "MIRROR_Z":
mirror_mod.use_x = False
mirror_mod.use_y = False
mirror_mod.use_z = True

# Selection at the end -add back the deselected objects
mirror_ob.select = 1
mirror_ob.select = 1
# context.scene.objects.active = mirror_ob
# context.selected + str(modifier_ob) # modifier_ob
mirror_ob.select = 0
# context.selected_objects[0]
# context.objects[one.name].select = 1

print("please select exactly two objects.")

OPERATOR CLASSES -----
```

Performance



Steigerung der IT-Effizienz durch High Density Storage

Release 2020

HD6400

- Intel® Xeon® 8-Core, bis zu 2.7GHz
- Built-in 10GbE Dual 10GBASE-T
- 960TB Rohkapazität Single 4U Chassis



Steigerung der IT-Effizienz durch High Density Storage

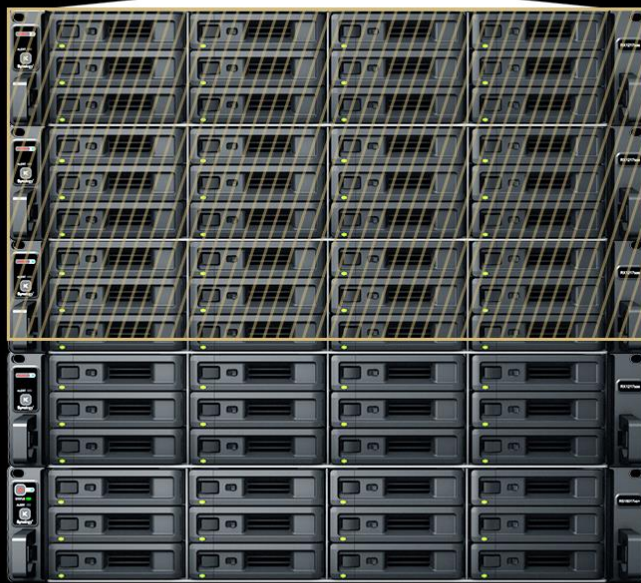
Release 2020

HD6400

- Intel® Xeon® 8-Core, bis zu 2.7GHz
- Built-in 10GbE Dual 10GBASE-T
- 960TB Rohkapazität Single 4U Chassis



Steigerung der IT-Effizienz durch High Density Storage



RS18017xs+ & RX1217sas x 4



HD6400



```
mirror_mod = modifier_ob.modifiers.new("MIRROR")
mirror_mod.mirror_object = mirror_ob

# MIRROR X
mirror_mod.use_x = True
mirror_mod.use_y = False
mirror_mod.use_z = False

# MIRROR Y
mirror_mod.use_x = False
mirror_mod.use_y = True
mirror_mod.use_z = False

# MIRROR Z
mirror_mod.use_x = False
mirror_mod.use_y = False
mirror_mod.use_z = True

# Selection at the end -add back the deselected
mirror_ob.select = 1
mirror_ob.select = 1
context.scene.objects.active = mirror_ob
obj = context.selected_objects[0] # mirror
mirror_ob.select = 0
obj = context.selected_objects[0]
obj.select = 1

print("please select exactly two objects.")

OPERATOR CLASSES -----
```

Performance

Density

Availability

Dedizierter Hochverfügbarkeits-iSCSI-Server

Release Q4.2019

UC3200

- Active-Active High Availability Infrastruktur
- mehr als 143,000 4K Random Write Performance
- Non-disruptive iSCSI Service
- DSM vorinstalliert



Dedizierter Hochverfügbarkeits-iSCSI-Server

Release Q4.2019

UC3200

- Active-Active High Availability Infrastruktur
- mehr als 143,000 4K Random Write Performance
- Non-disruptive iSCSI Service
- DSM vorinstalliert



Lokale Hochverfügbarkeit via Shared Storage

RedundantComputing

RC18015xs+

- Active-Passive High Availability Infrastruktur
- Intel® Xeon® E3-1230 4-Core CPU
- Erweiterbar auf bis zu 180 Festplatten
- **mind. drei Komponenten**



Kompakte All-in-One Hochverfügbarkeitslösung

Release 2020

SA3200D

- Active-Passive High Availability Infrastruktur
- Intel® Xeon® D-1521 4-Core CPU
- alle Pakete verfügbar
- Erweiterbar auf bis zu 180 Festplatten



Kompakte All-in-One Hochverfügbarkeitslösung

Release 2020

SA3200D

- Active-Passive High Availability Infrastruktur
- Intel® Xeon® D-1521 4-Core CPU
- alle Pakete verfügbar
- Erweiterbar auf bis zu 180 Festplatten



Synology® High Availability

UC3200

Active-Active
Dedizierter iSCSI Server



SA3200D

Syncless Active-Passive
Effiziente, lokale Hochverfügbarkeit
Voller DSM- & Paket-Support



Classic SHA

Active-Passive
ortsunabhängiger Cluster



Synology® High Availability

UC3200

Active-Active
Dedizierter iSCSI Server



SA3200D

Syncless Active-Passive
Effiziente, lokale Hochverfügbarkeit
Voller DSM- & Paket-Support



Classic SHA

Active-Passive
ortsunabhängiger Cluster



Verbesserte Initialsynchronisierung
Schnellerer Fail-/Switchover
Verbesserte Upgradeperformance



Demo



High Density
HD3400



High Performance
FS3400
FS3600
FS6400



High Scalability
SA3400
SA3600



High Availability
SA3200D
UC3200



Synology® NBD Replacement Service



keep IT running...

- Garantierte NBD-Lieferung
- 60 Monate
- Im Handel separat erhältlich



- Hauptgerät
- Expansionseinheiten
- Synology Zubehör (RAM-Module, Erweiterungskarten, Rackschienen)

The background features a black field with two glowing white, curved lines that intersect in the center. One line starts from the left, curves upwards and then downwards. The other line starts from the right, curves upwards and then downwards, crossing the first line. The lines have a soft, ethereal glow.

Surveillance

Intelligent Videoanalysis and -management

Deep Learning NVR

DVA3219

- 32 Channels, 4-Kanal-Echtzeit-Bildanalyse
- Intel Quad-Core CPU, 2.1 GHz
- 8 Default Lizenzen, bis zu 14 Festplatten
- NVIDIA GTX 1050 Ti



Deep Motion Detection

ON

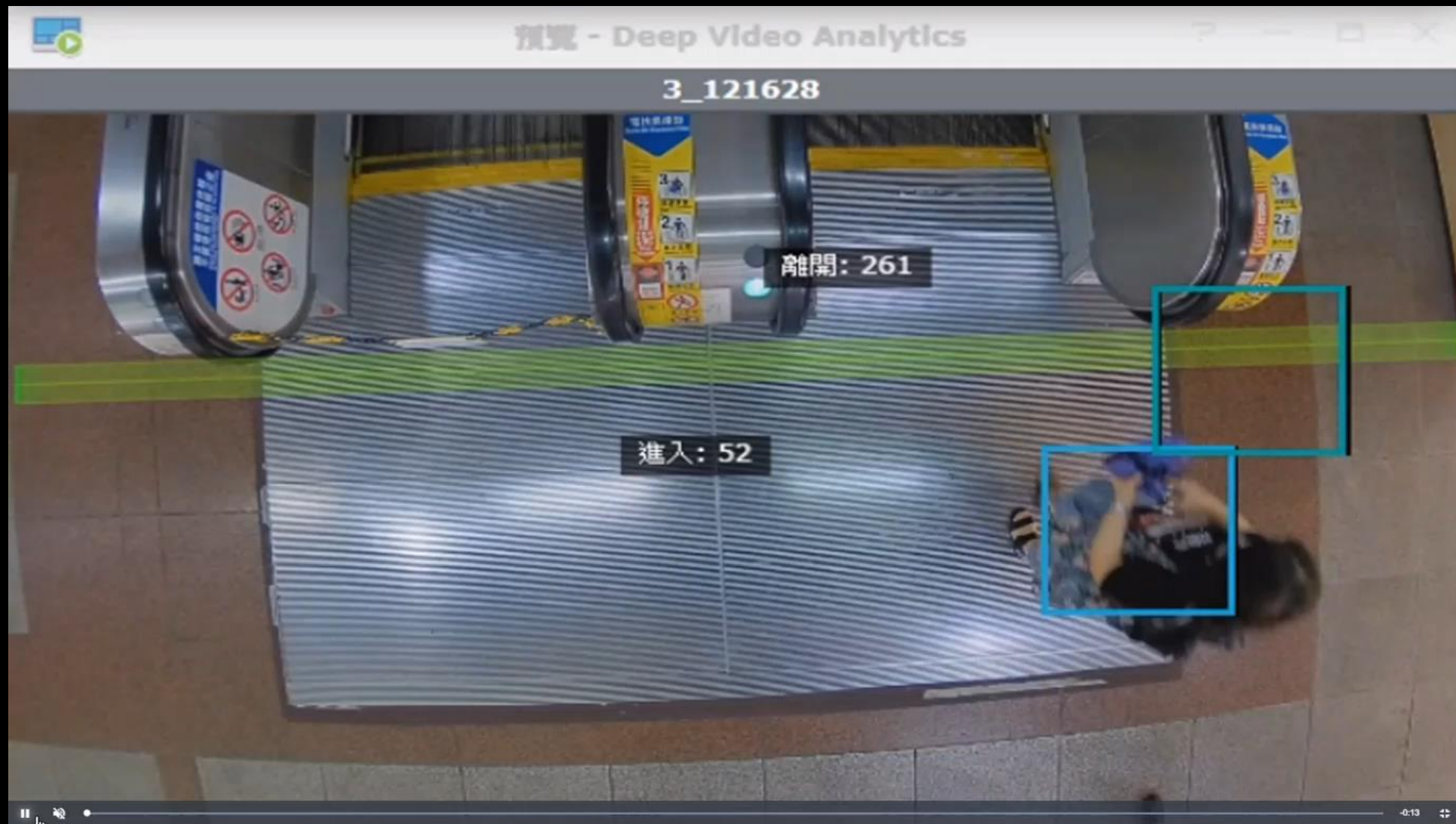


OFF



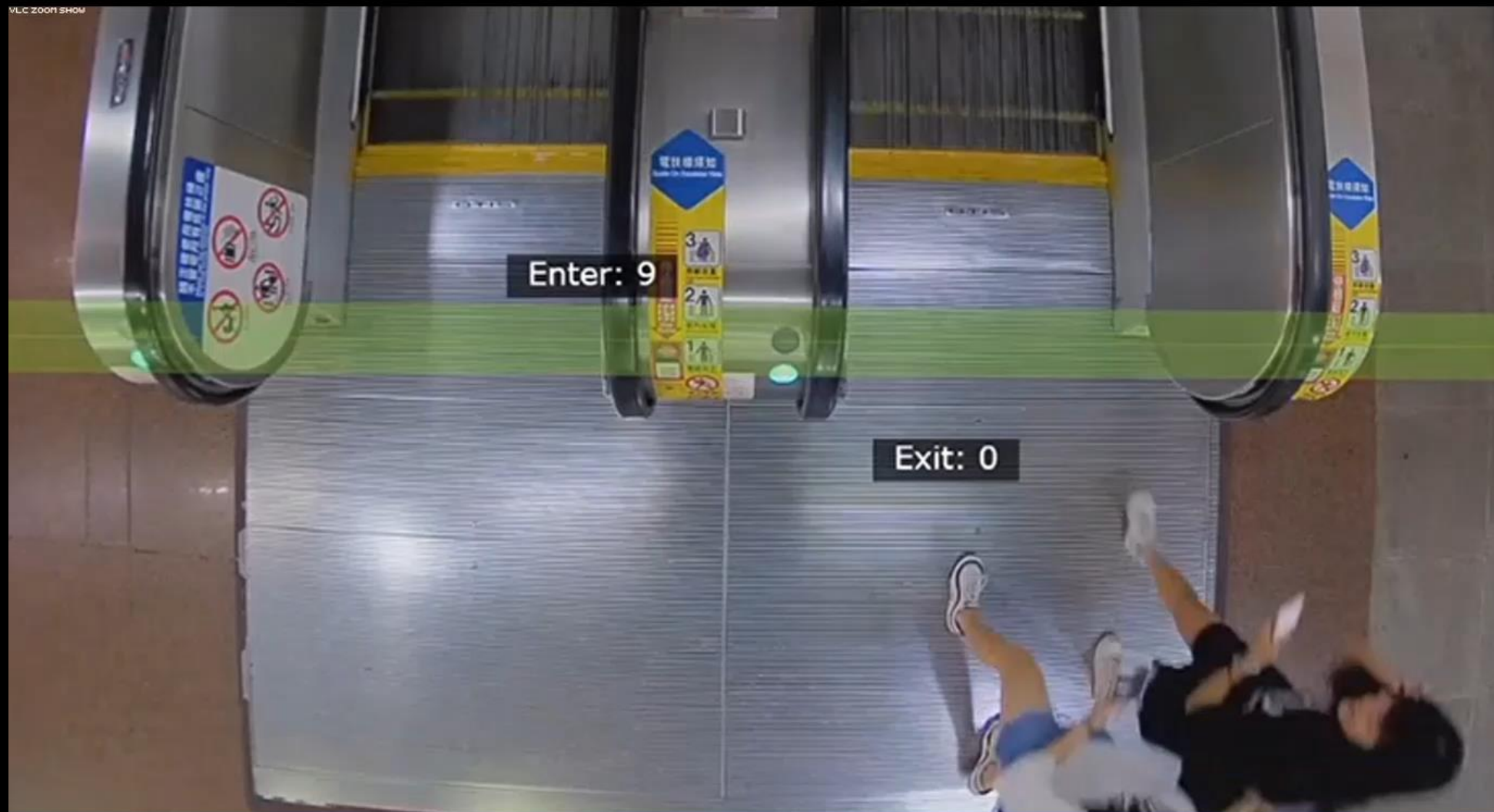
Durchflusszähler

Vorher



Durchflusszähler

Neu




Intrusion Detection inkl. Linienkreuzungserkennung



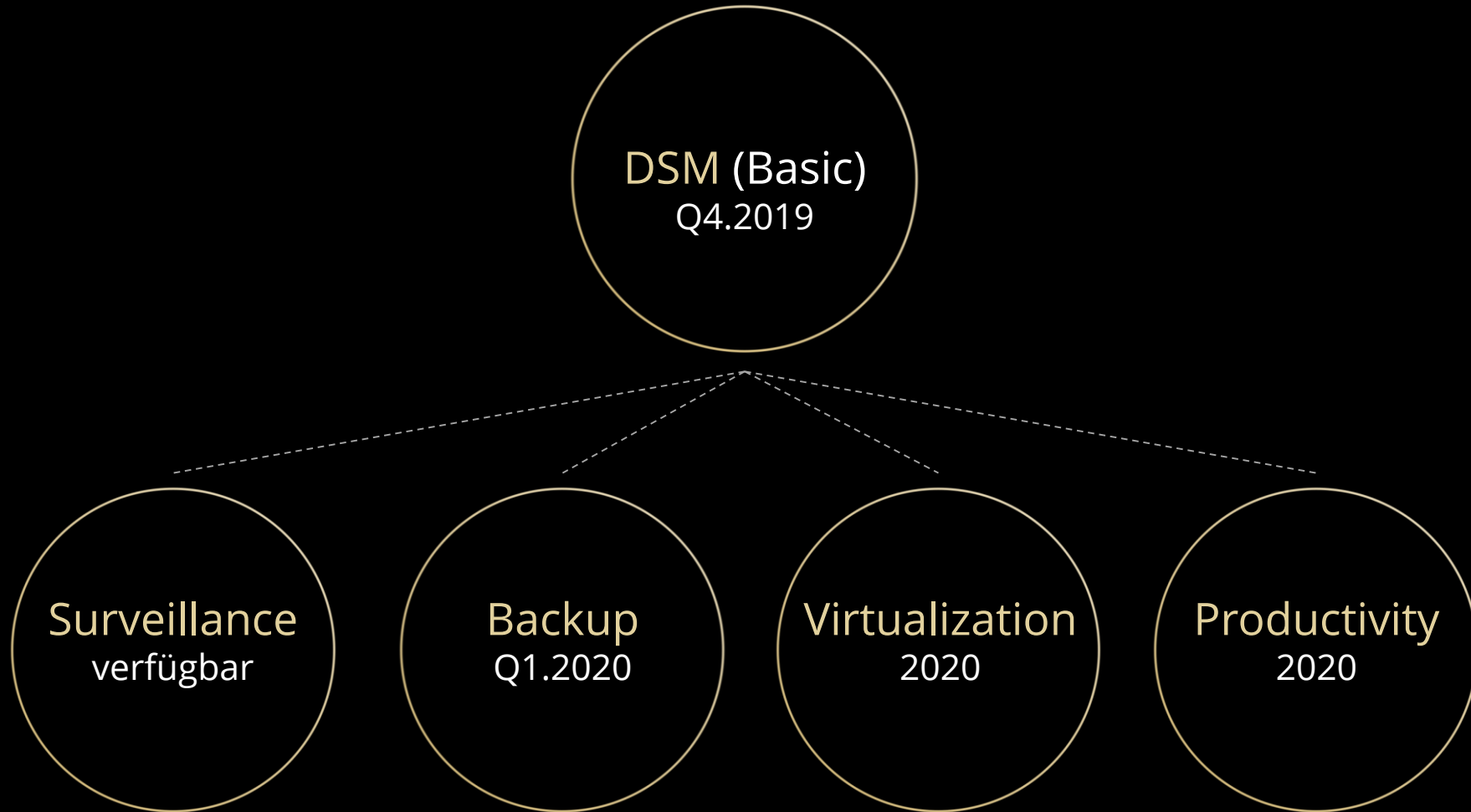
No Idle Zone inkl. Stay Time Konfiguration (3-60 Sekunden)



Synology® Intensive Trainings

- 
- ✓ regionale 1-2 Tageskurse
 - ✓ Technisch Intensiv
 - ✓ offizielle Synology Zertifizierung

Synology® Intensive Trainings



Build A Better World with Data



Onur Yavuz
Sales Consultant