

sayTEC Products

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Contents:

<u>sayTRUST VPSC solution</u>	
sayTRUST® Access VPSC (Zero Trust Client Access)	3
sayTRUST® Access VPSC properties	4
sayTRUST® Access VPSC operating system	5
sayTRUST® Access VPSC operating system prices	5
sayTRUST® Access VPSC client license prices	5
sayTRUST® Access VPSC appliance	6
sayTRUST® Access Server VPSC appliance prices	6
sayTRUST® Access Server HA and VPSC+ appliance prices	6
sayTRUST® Access VPSC client device prices	7
<u>sayFUSE Backup and VM Backup solution</u>	
sayFUSE® All-in-One Infrastructur appliance	8
sayFUSE® Backup	8
sayFUSE® VM Backup	8
sayFUSE backup benefits	8
sayFUSE Backup and sayFUSE VM Backup appliance prices	9
<u>Hyper- and Ultrakonverged solutions</u>	
Description sayFUSE Ultra-Convergente appliance	10
sayFUSE Ultra-Converged Infrastructure Bundle	10
sayFUSE symmetrical HCI Systems (sayFUSE sHCI Bundle)	10
sayFUSE asymmetrical HCI Systems (sayFUSE aHCI Bundle)	10
Scope of delivery of the sayFUSE UCI Bundle	11
Schematic representation of the range of functions	11
sayFUSE sHCI Bundle (complete bundle for symmetrical hyperconvergent infrastructure)	11
sayFUSE sHCI Bundle prices	12
sayFUSE aHCI Bundle prices	13
sayFUSE HCI Node and VM Node (for expansion of the existing environment)	14
<u>Services</u>	
Update, Service, Support and Warranty Extension	17
Services	18
Special Remarks	18
<u>Extensions and Accessories</u>	
sayFUSE Backup accessories and backup media	19
sayFUSE Sorage HDD und SSD	19
Network	19
Processors and Memory	19
Switches	20
Virtuozzo HCI prices	20
Hystax Acure prices	20

sayTRUST® Access VPSC (Zero Trust Client Access)

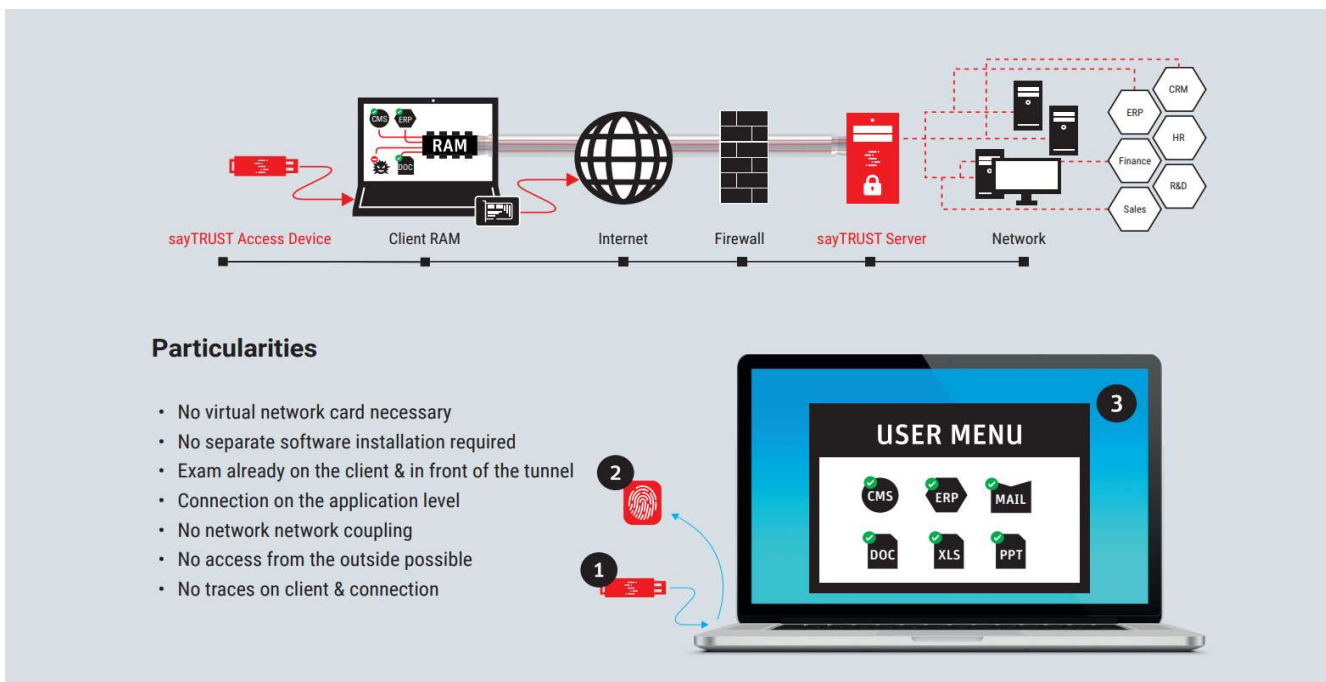
Highly secure communication requires the interaction of all security elements at the most critical interfaces over the entire communication route and eliminates their weak points. By detecting and eliminating the most critical vulnerabilities between the user and the provided resource in the communication, the VPSC technology achieves the highest level of communication security.

The sayTRUST Remote Access solution offers the highest level of protection through Virtual Protected Secured Communication Technology (VPSC). In contrast to classic VPN technologies, the sayTRUST Access solution does not connect the network card of the remote computer to the company network, but only the respective applications from the encrypted RAM area of the client computer are encrypted and tunneled using defense-in-depth technology. This eliminates unwanted access and the influence of malware or spyware.

With the VPSC technology, which was specially developed for highly secure but simple communication, the applications in the user space are tapped and tunnelled from the RAM of the client computer using a communication key newly created during the tunneling process. The sayTRUST administrator can determine exactly which remote and/or local applications are to be tunneled or blocked, or whether they are to be run locally and encapsulated.

The sayTRUST VPSC Appliance provides the user certificates via the integrated certificate authority and monitors and controls the respective remote access to the network, sub-segments of the network or to individual devices up to individual applications in accordance with the policies.

An extension to sayTRUST VPSC is the sayTRUST VPSC+ appliance for personalized machine-machine communication and expands the range of functions with the clear, dedicated and encrypted communication between the individual machines or servers at one or more locations.



The sayTRUST VPSC technology as a zero-trust client access solution starts security with the identity check in front of the client PC, encapsulates communication with the client PC and the client network. Builds the tunnel to the specific application, device, or network from the client machine's RAM. Access to the respective resource in the protected network is granted only after verification of the integrity of the user certificates. This makes man-in-the-middle attacks from the client computer, its network and the entire communication route impossible.



sayTRUST® Access VPSC properties

sayTRUST VPSC Access	Technical properties
Three-level connection security:	VPSC, PFS, Connection PIN.
Three-level identity security:	Three-level identity security:
Personal user certificate:	RSA with a key length of 2048 bits.
Personal user PIN:	PIN according to the complexity.
Transport security:	The X.509 communication certificates, which are negotiated from the encrypted RAM area using the Diffie-Hellman algorithm.
Communication:	Communication within the application level, no network-network coupling between the user PC and the remote network.
Communication key:	DHE-RSA-AES256-GCM-SHA384.
VPSC tunnel variants:	Local, remote and mobile applications.
VPSC features:	Tunnel, block and isolate communications.
Forward Protection:	Highest level of communication protection thanks to the PFS communication key created in RAM during the tunneling process:
Protection at the origin of the event:	Checking of access and application authorizations already on the client computer.
Certificate controlled access:	Certificate-controlled access to applications and resources.
Application level connection:	No network network coupling between the client PC and the remote network.
Anonymity:	The client PC does not receive an IP address from the network to be protected.
Encrypted user container:	AES 256 bit hardware encrypted user container.
Installation effort:	No installation of software and virtual network card on the client PC.
Client menu:	Simple and convenient adaptation to personal requirements.
Remote Share to local Host:	Provision of remote network drives without coupling the network to client computers.
Password manager for SSO:	Management of login passwords for systems and applications via AES encrypted password database.
Linked document	Automatic and tunnelled steering of documents to predefined recipients.
Encryption-Tool:	for the creation of further encrypted personal containers.
Data synchronization:	Safe data transport even in the event of connection and line disruptions within the VPSC tunnel.
Portable/mobile Apps:	Deployment of mobile applications on the client token.
Secure website applications:	Web browser function integrated into the sayTRUST user menu for secure browser applications such as OWA, ERP, PPS,...
Microsoft Application Farm:	Manage Microsoft remote or published application without a browser and port sharing for remote client access.
Citrix Application Farms:	Manage Citrix remote or published application without a browser and port sharing for remote client access.
Secure WoL:	Personalized switching on/off of remote computers within the sayTRUST VPSC tunnel across multiple gateways.

sayTRUST® Access VPSC operating system



The sayTRUST VPSC server operating systems are used to install the Zero Trust VPSC solution on your own hardware platforms or on virtualization platforms such as VMware or HyperV.

sayTRUST® Access VPSC operating system prices

Execution	sayTRUST VPSC Server	sayTRUST VPSC Server	sayTRUST VPSC Server
	Basic	Profesional	Enterprise
Maximum VPSC connections	25	250	unbegrenzt
Number of VPSC+ connections	0	0	0
Number of client device licenses	5	5	5
Expandable	–	✓	✓
Mobile Device Options	–	–	ja
High availability option	–	–	optional
VoIP Options	–	–	✓
Item number	STT-SERV-LICBAS	STT-SERV-LICPRO	STT-SERV-LICENT
GTIN-Nummer	4260648030357	4260648030364	4260648030371

sayTRUST Access HA Option	Description	Article no.	GTIN
	License package for sayTRUST Access HA Cluster	STT-ACC-HACL	4260648030388

sayTRUST® Access VPSC client license prices



The sayTRUST VPSC server operating system comes with 5 VPSC client access licenses for zero-trust client access and can be expanded according to the list below. Licensing is on a client-device basis.

The sayTRUST Client Access licenses contain:

1. sayTRUST Access Client menu
2. sayTRUST Access communication client for personalized client access
3. Tunnelling, isolating, blocking of applications on the client PC.
4. Tunnels of remote, local and portable applications.
5. All properties are listed on page 4.

sayTRUST VPSC client access licenses (device-based)	License Pack VPSC 5	License Pack VPSC 25	License Pack VPSC 250	License Pack VPSC 500
Number of VPSC connections	5	25	250	500
Number of client device licenses	5	25	250	500
Use for Windows clients	✓	✓	✓	✓
Use for IOS clients	✓	✓	✓	✓
Password manager for SSO	✓	✓	✓	✓
Remote share to local host data synchronization	✓	✓	✓	✓
Encryption-Tool	✓	✓	✓	✓
Portable Apps	✓	✓	✓	✓
Secure Citrix application farm	✓	✓	✓	✓
Secure MS application farm	✓	✓	✓	✓
Secure Web Application GUI	✓	✓	✓	✓
Secure WoL	✓	✓	✓	✓
Item number	STT-ACC-LN5	STT-ACC-LN25	STT-ACC-LN250	STT-ACC-LN500
GTIN-Number	4260648030395	4260648030401	4260648030418	4260648030425




sayTRUST® Access VPSC appliance

sayTRUST VPSC (Virtual Protected Secure Communication) is a new high-security technology for encrypted communication between the user and the resource to be protected. The sayTRUST VPSC Access solution can be used both for internal exchange communication between employees and network resources and for remote work. The communication takes place after the identity check, certificate-based via the Defense in Depth VPSC technology. No communication is possible apart from the authorized persons (man/machine). Authorized persons can only see the machines/services for which they have authorization. The communication is logged. Unauthorized access is not possible.




In this defence-in-depth technology, security begins at the source of the event with the verification of the user's identity. After clear identification of the user, it becomes known to his PC and can be used.

In contrast to conventional solutions, communication security begins before the tunnel in the main memory of the PC. Depending on the permissions, local or remote applications and resources are tunneled, blocked or isolated. At the end of the tunnel, before communication is established with the respective application, server or network segment, integrity is checked. Only non-manipulated communication is permitted.




sayTRUST® Access Server VPSC appliance prices

Execution	sayTRUST Access VPSC Appliance Basic	sayTRUST Access VPSC Appliance Professional	sayTRUST Access VPSC Appliance Enterprise
Illustration			
Operating system	sayTRUST Access VPSC Server Basic	sayTRUST Access VPSC Server Professional	sayTRUST Access VPSC Server Enterprise
Remote VPSC licenses included	5	250	unlimited
Max. number of VPSC connections	25	0	0
Number of licenses included	5	5	5
Expandable with VPSC+ module	–	✓	✓
Mobile Device Options	–	✓	✓
High Availability Option (HA)	–	✓	✓
Number of network connections	4 x 1 Gbit/s	2 x 1/10 Gbit/s	2 x 1/10 Gbit/s
Optional additional network connections	–	✓	✓
Management Port (BMC)	–	✓	✓
Upgradable	–	✓	✓
VoIP Options	–	✓	✓
Item number	STT-APP-VPSCBAS	STT-APP-VPSCPRO	STT-APP-VPSCENT
GTIN-Number	4260648030159	4260648030166	4260648030173

sayTRUST® Access Server HA and VPSC+ appliance prices

Execution	sayTRUST Access HA-Appliance	sayTRUST Access VPSC+ expansion module	sayTRUST Access VPSC+ Appliance Enterprise
Illustration			
Operating system	sayTRUST Access HA-Server	sayTRUST Access VPSC+ Modul	sayTRUST Access VPSC+ Server Enterprise
Remote VPSC licenses included	0	0	5
Max. number of VPSC connections	dependent on the master	0	unlimited
Number of machine-machine/network-network connections	0	12 x x 1 Gbit/s	12 x x 1 Gbit/s
Number of network connections	2 x 1 Gbit/s	2 x 1 Gbit/s	2 x 1 Gbit/s
Optional additional network connections	✓	✓	✓
Number of licenses included	0	5	5
Management Port (BMC)	✓	✓	✓
upgradeable	✓	–	✓
High Availability License (HA)	✓	–	optional
Item number	STT-APP-HA	STT-APP-VPSC	STT-VPSC+APP-ENT
GTIN-Number	4260648030678	4260648030142	4260648030135

sayTRUST® Access VPSC client device prices

	sayTRUST Access Software Client	sayTRUST Access Lexar biometrische USB Client	sayTRUST Access SecureStore SD Card Client	sayTRUST Access microprozessor basierte biometrischer USB Client
Darstellung				
Personifizierte Aktivierung	–	–	Biometrie/Passwort	Biometrie
Hardware Verschlüsselung	–	–	AES 256	AES 256 AT32UC3A3256S
Ausführung	–	–	USB Flash	32-bit AVR® Microcontroller
Persönliche Key Identifikation	✓	✓	✓	✓
PIN für Anwenderzertifikat	✓	✓	✓	✓
Defence in Depth Stufen	5	5	8	8
Anwendermenü	✓	✓	✓	✓
Passwortmanager für SSO	✓	✓	✓	✓
Remote Share to local Host	✓	✓	✓	✓
Encryption-Tool	✓	✓	✓	✓
Portable / mobile App	✓	✓	✓	✓
Secure Citrix Anwendungen	✓	✓	✓	✓
Secure MS Anwendungsfarm	✓	✓	✓	✓
Secure Web-Anwendung-GUI	✓	✓	✓	✓
Endgerät getunnelte WoL	✓	✓	✓	✓
Nutzung für Windows Clients	✓	✓	✓	✓
Nutzung für IOS Clients	✓	✓	✓	✓

Artikelnummer

GTIN-Nummer

Device-Ausführung mit 8 GB

– STT-CLI-3F8M

– 4260648030494

Artikelnummer

GTIN-Nummer

Im Client Zugriffslizenz
enthalten.
Wird am Client-PC installiert.

Device-Ausführung mit 16 GB

– STT-CLI-3F16M

– 4260648030623

Artikelnummer




GTIN-Nummer

Device-Ausführung mit 32 GB

STT-CLI-3FL32 STT-CLI-3F32M

4260648030661 4260648030630

sayTRUST® Access VPSC Client Device Preise

	sayTRUST Access USB Client	sayTRUST Access USB PIN-Code Client	sayTRUST Access SecureStore SD Card Client
Illustration			
Personalized activation	–	Code	Password
Hardware encryption	–	AES 256	AES 256 XTX
Execution	USB Flash	USB Flash	SecurStor microSD
Personal Key Identification	✓	✓	✓
PIN for user certificate	✓	✓	✓
Defence in Depth Stufen	5	8	8
User menu	✓	✓	✓
Password manager for SSO	✓	✓	✓
Remote Share to local Host	✓	✓	✓
Encryption-Tool	✓	✓	✓
Portable / mobile Apps	✓	✓	✓
Secure Citrix applications	✓	✓	✓
Secure MS Application Farm	✓	✓	✓
Secure web application GUI	✓	✓	✓
Terminal tunneled WoL	✓	✓	✓
Use for Windows clients	✓	✓	✓
Use for IOS clients	✓	✓	✓

Device-Ausführung mit 8 GB

Artikelnummer	STT-CLI-O8	STT-CLI-C16	STT-CLI-A16
GTIN-Nummer			4260648030647

Device-Ausführung mit 16 GB

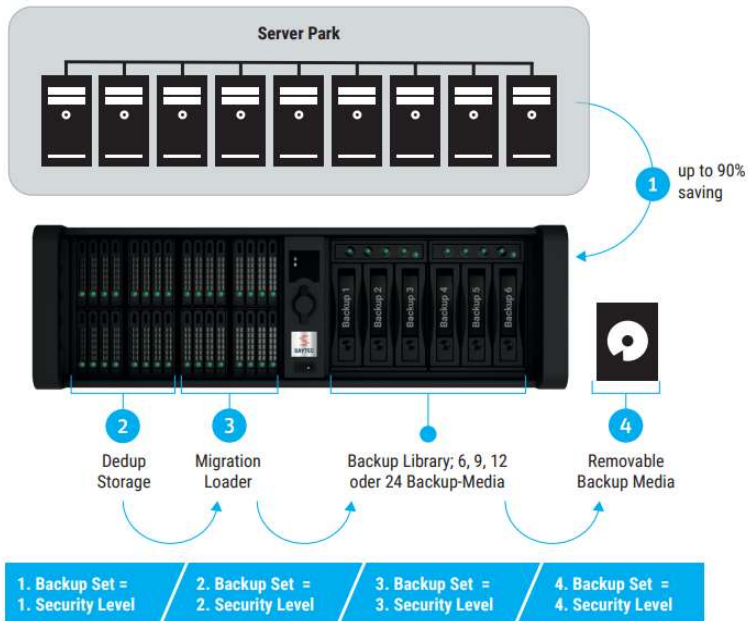
Artikelnummer	STT-CLI-O16	STT-CLI-C16	STT-CLI-A16
GTIN-Nummer		4260648030644	4260648030647

sayFUSE® All-in-One Infrastructure appliance

sayFUSE® Backup

sayFUSE Backup Appliance (Fast Universal Storage Engine) as an all-in-one complete solution for data backup, recovery and outsourcing.

Eliminates the typical backup weaknesses of tape and storage-based systems, increases performance, reduces infrastructure complexity and simplifies operation. Data security is significantly increased while operating costs are reduced and energy is saved.



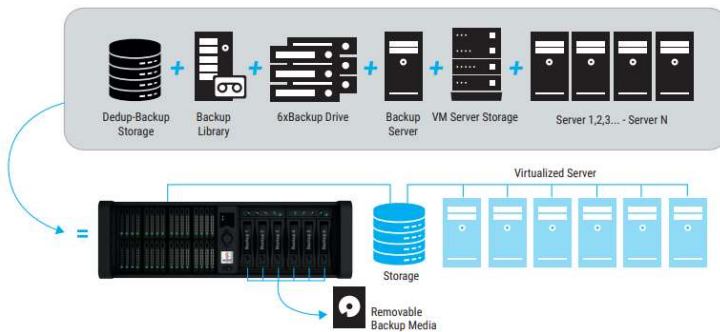
The sayFUSE backup appliance contains 6 or 12 backup drives that can be controlled individually, in parallel or as a pool, independently of one another. The sayFUSE backup appliance is available with or without backup/dedup storage.

In the appliance, the backup drives are activated job-controlled before the backup and then switched off. This means that no outside influence is possible and media breaks are guaranteed. The Faraday-cut backup media can be swapped out.

Commercially available hard drives are used as backup media for backup after initialization in sayFUSE. Backup media with a capacity of 1 TB up to 20 TB can be used.

sayFUSE® VM Backup

sayFUSE VM Backup as an all-in-one system combines the entire IT infrastructure in one appliance. Server and storage virtualization and backup including media breaks and outsourcing. A new standard for safety, performance, handling and economy.



The integrated computing and storage system can be scaled and clustered. Depending on the model, 6 to 32 storage drives.

HDD or/and SSD can be used as storage media in the storage drives.

The backup system includes 6 backup drives as standard, each of which can use backup media with a capacity of 1 TB up to 20 TB.

sayFUSE backup benefits

1. Reduction of IT complexity
2. increase in speed
3. Wide range of uses
4. flexible configuration
5. Compliance safe solution
6. Powerful and flexible backup, dedup,
7. Investment security
8. High energy saving
9. Lifetime increase
10. Reduction in costs
11. Needs-based adaptation
12. High utilisation rate




sayFUSE Backup and sayFUSE VM Backup appliance prices

sayFUSE Backup and sayFUSE VM Backup Appliance are all-in-one solutions for the entire IT infrastructure to reduce complexity, increase or maintain data security and availability.

The sayFUSE Backup as an all-in-one appliance with or without Backup/Dedup Storage includes the Backup Server, depending on the model 6 or 12 backup drives, the Backup Library and Backup/Dedup Storage. Commercially available hard drives with a capacity of 1 TB to 20 TB are used as exchange-backup media. These can be used after they have been initialized in sayFUSE as a backup medium. The backup drives can be controlled individually independently of each other, in parallel or as a pool of backup. With the sayFUSE capacity expansion module bCEM it can be expanded to an additional 12 backup drives and/or backup dedup storages.

SayFUSE technology combines the advantages of media handling of tape library systems and disk-based backup solutions and eliminates the disadvantages of both technologies.

The sayFUSE VM Backup is an all-in-one solution for server and storage virtualization, data backup, recovery and outsourcing. The storage supports SATA/SAS/HDD as well as SSD and RAID levels 1-50 in the 16 or 32 drives and can be expanded with the storage extension sayFUSE sCEM and the integrated sayFUSE backup system with backup extension sayFUSE bCEM.

Particularities	sayFUSE Backup	sayFUSE VM Backup S6B6	sayFUSE VM Backup B6S16
			
Model	sayFUSE B12	sayFUSE B6S6	sayFUSE B6S16
Characteristics	B Appliance 4 HE	BVMS Appliance 4HE	BVMS Appliance 4HE
Prozessor (scalable)	Intel Xeon Gold 5218R	Intel Xeon Gold 5218R	Intel Xeon Gold 5218R
CPU Core (Total)	20	20	40
Second Prozessor	optional	optional	includen
CPU Upgrade	✓	✓	✓
RAM	32 GB DDR4	32 GB DDR4	64 GB DDR4
RAM extension	max. 512 GB	max. 768 GB	max. 1,5 TB
Number of storage drives	—	6 (3,5")	16 (2,5")
Number of storage Tier	—	2	4
Max. Storage capacity 2,5" / 3,5"	—	0 TB / 120 TB	512 TB / 0 TB
Storage media types: SAS / SATA / SSD	✓ / ✓ / —	✓ / ✓ / —	✓ / ✓ / ✓
Expandable to 32 storage drives	—	—	✓
Number of backup drives	12 (3,5")	6 (3,5")	6 (3,5")
Backup media SATA	✓	✓	✓
Backup media capacity	1 - 20 TB	1 - 20 TB	1 - 20 TB
cleaning media	not needed	not needed	not needed
Embedded backup archiving / outsourcing	✓	✓	✓
Max backup offload	240 TB	120 TB	120 TB
Physical Backup Library (PBL)	✓	✓	✓
Virtual Backup Library (VTL)	—	✓	✓
Backup Storage	—	✓	✓
Remote Management	✓	✓	✓
Power supply redundant	800W	800W	800W
Anzahl Netzwerkkarten	2x10 Gbit/s	2x10 Gbit/s	2x10 Gbit/s
Expandable 1/10/25/50/100 Gbit/s	✓	✓	✓
Hypervisor NVMe	Vmware, HyperV, KVM, ...	Vmware, HyperV, KVM, ...	Vmware, HyperV, KVM, ...
Item number	STF-B-137653	STF-BVMS-137654	STF-BVMS-137655
GTIN-Number	4260648030500	4260648030517	4260648030524

Update, Service und Support and Warranty extension: Page 17
Upgrade options and component list: Page 19

Description sayFUSE Ultra-Convergente appliance

sayFUSE Ultra-Convergent appliances

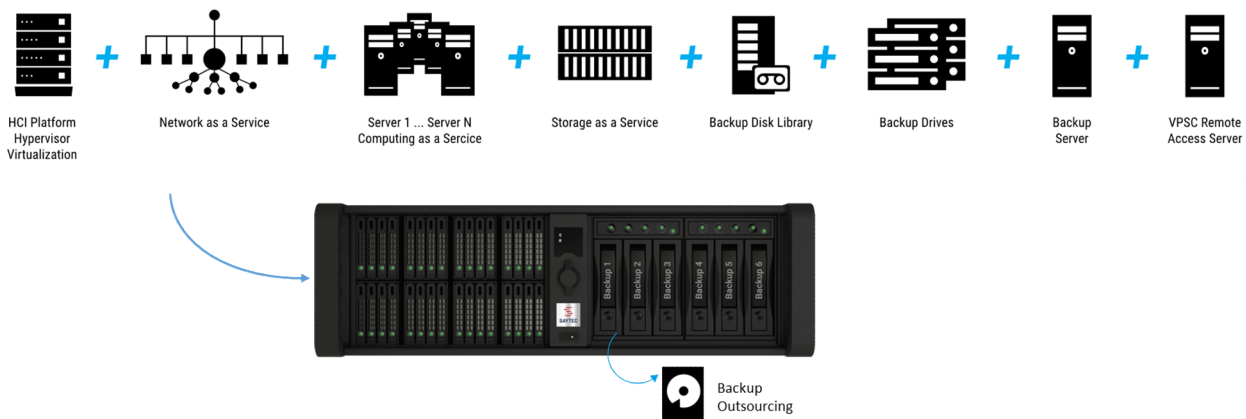
sayFUSE ultra-convergent infrastructure systems (UCI) are all-in-one appliances that combines all the important hardware and software elements in a network infrastructure, which reduces IT complexity and simplifies the operation.

The sayFUSE systems eliminate weaknesses and interface problems in heterogeneous environments, increase performance, scalability, data security and availability. At the same time, they significantly reduce energy and operating costs.

In addition to VTL, job-controlled backup drives ensure media discontinuity, archiving and outsourcing through PBL (physical backup library).

Communication with individual systems or client networks takes place via the sayTRUST VPSC technology with zero-trust client access without coupling the client.

Each sayFUSE UCI appliance contains all the necessary hardware and software components.



sayFUSEU Hyper Converged Infrastructure

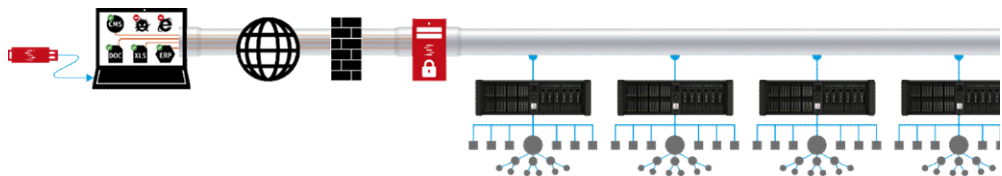
In the IT architecture approach in every sayFUSE All in One system, all components of an IT infrastructure such as CPU, RAM, server, storage and virtualization as well as network resources such as routers, load balancers, firewalls, VPN, Zerotrust are combined into a single software-defined system.

All licenses are integrated in each appliance and can be used as Pay as Use or unlimited.

sayFUSE symmetrical HCI Systems (sayFUSE HCI Bundle)



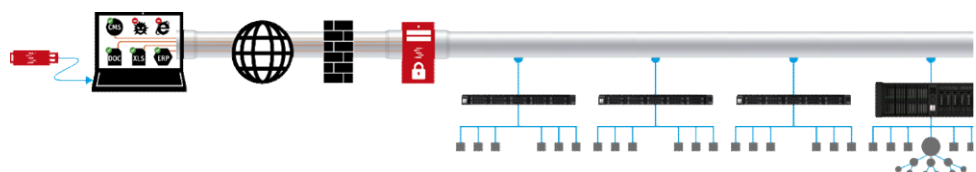
Three sayFUSE UCI nodes form a symmetrical ultraconvergent infrastructure. Each node is full-featured in itself and can be scaled as required. Each node can fully replace other nodes. Each node contains all necessary hardware and software components.



sayFUSE asymmetrical HCI Systems (sayFUSE HCI Bundle)



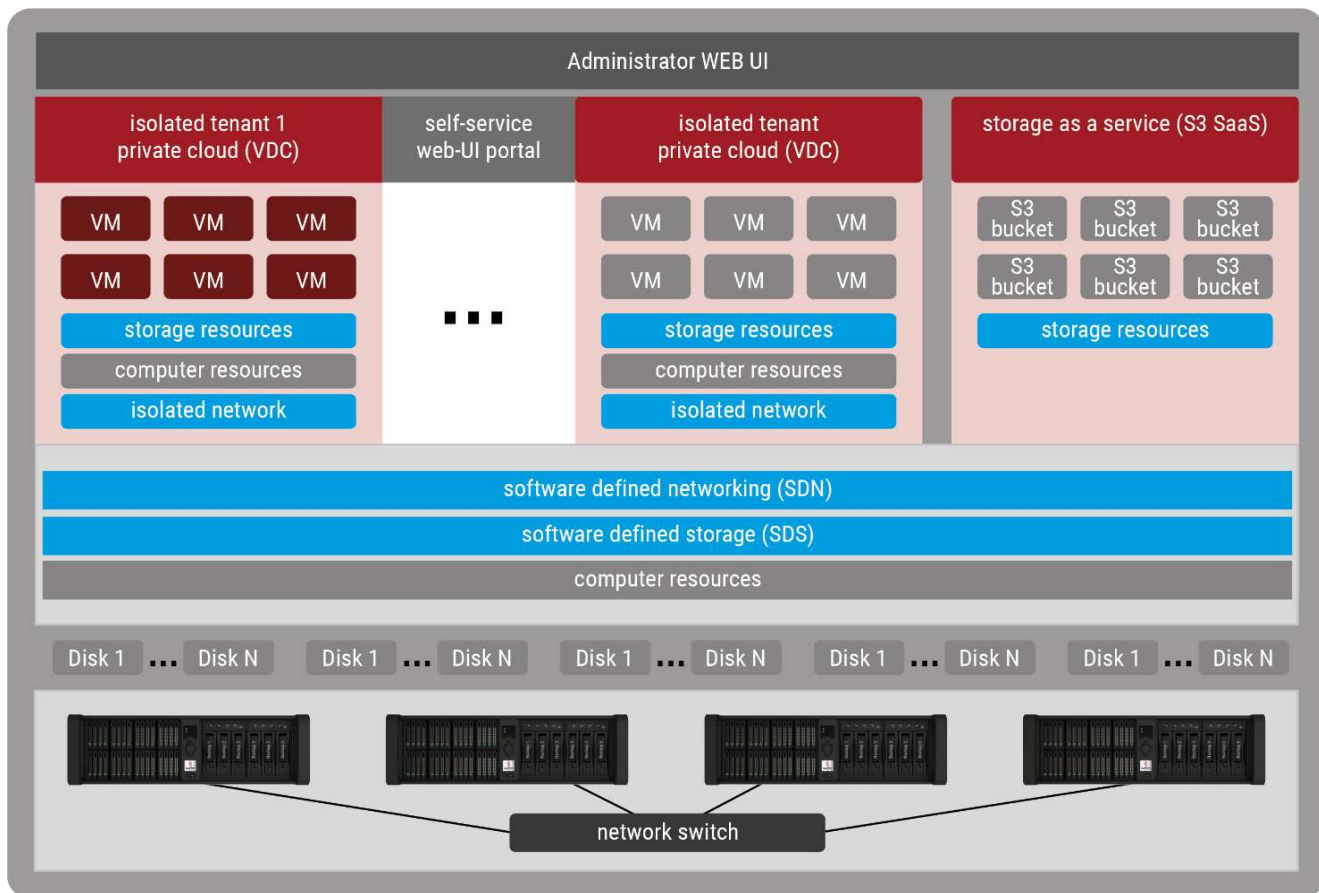
A sayFUSE and two computing nodes form an asymmetric ultraconvergent infrastructure. They are not equal.



Scope of delivery of the sayFUSE UCI Bundle

1. Virtualization Hypervisor (Virtuozzo,
2. Management across each node,
3. unlimited Computing as a Service,
4. unlimited Storage as a Service ,
5. unlimitet Network as a Service,
6. Load balancer included
7. High-density system container virtualizer.
8. Integrated system containers for VMs
9. OpenStack compatible API
10. Multi-client capability via self-service
11. Reliability for VMs and Data
12. Integrated monitoring for included services
13. Billing Integration (CloudBlue, WHMCS, Hostbill)
14. High Performance Computing
15. Software-Defined Storage (S3, Block, NFS)
16. Backup Library with 6 backup drives
17. Media handling for job-controlled backup
18. Job-controlled archiving and outsourcing
19. Secure private and public cloud services
20. sayTRUST VPSC server for each tenant
21. Zero-TRUST client access to own environment
22. VTL and BPL for backup, archiving and offloading

Schematic representation of the range of functions




sayFUSE sUCI Bundle (complete bundle for symmetrical hyperconvergent infrastructure)

"The symmetrical ultra-convergent systems consist of at least three nodes. They are identical in terms of hardware and software. This means that the nodes can completely absorb each other in the event of a failure and take over all computing and storage services of the failed node and ensure trouble-free business continuity.


Each node includes all hardware and software components for computing, storage, backup with integrated hypervisor Virtuozzo for hyperconverged platforms, Hystax for disaster recovery and live synchronization of virtual and physical systems in ultraconverged platforms, sayFUSE backup for backup, media disruption and archiving/outsourcing, sayTRUST VPSC Server for personalized zero trust client access, Grafana monitoring for all services, Zabbix monitoring for hardware, including Pay as Go licenses for virtualization, hypervisor, management, monitoring, CaaS, SaaS, NaaS, ..."

sayFUSE HCI Bundle prices

Particularities	sayFUSE HCI Bundle		
Symmetric sayFUSE ultraconverged infrastructure bundle contains all components for a hyperconverged IT infrastructure. For maximum availability and scalability, CPU, RAM, storage and network resources are combined into a single software-defined system			
Model	sayFUSE HCI-NVMe30	sayFUSE HCI-NVMe72	sayFUSE HCI-SSD96-B18
Characteristics	HCI CS Bundle 12HE, 1,66 pB	HCI Bundle 12HE, 1,66 pB	HCI Bundle 12HE, 1,66 pB
Expandable with additional nodes	✓	✓	✓
processor (scalable)	6x Intel Xeon Gold 5218R	6x Intel Xeon Gold 5218R	6x Intel Xeon Gold 5218R
CPU cores (total)	120	96 (max. 168)	120
vCPU (total)	960	960	960
CPU upgrade	✓	✓	✓
RAM	768 GB DDR4 (max.4,5 TB)	768 GB DDR4 (max.9 TB)	768 GB DDR4 (max. 4,5 TB)
vRAM	6.144 GB	6.144 GB	6.144 GB
RAM expansion	max. 4,5 TB	max. 4,5 TB	max. 4,5 TB
Number of storage drives	72 (2,5")	72 (2,5")	72 (2,5")
Number of storage storage tier	4	4	4
Max storage capacity 2.5" / 3.5"	960 TB / 0	2,3 pB / 0	1,66 pB / 0
Storage media types: SAS/NVMe	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
Remote Management	✓	✓	✓
Power Supply Redundant	3x 2100W	3x 2100W	3x 2100W
Number of network cards	2x10 Gbit/s + 2x 100 Gbit/s	2x10 Gbit/s + 2x 100 Gbit/s	2x10 Gbit/s + 2x 100 Gbit/s
Expandable 1.10.25/50/100 Gbit/s	✓	✓	✓
Hypervisor NVMe	2x 250 GB mirrored	2x 250 GB mirrored	2x 250 GB mirrored
Hypervisor for hyperconvergence	Virtuozzo	Virtuozzo	Virtuozzo
Embedded Pay as Go licenses (for active use)	✓	✓	✓
Multi-Tenant capability	✓	✓	✓
Self-service portal for Tenants	✓	✓	✓
UCI management via each node	✓	✓	✓
Monitoring	✓	✓	✓
Computing as a Service (CaaS)	✓	✓	✓
Storage as a Service (SaaS)	✓	✓	✓
Integrated storage service	S3 / Block / NFS	S3 / Block / NFS	S3 / Block / NFS
Network as a Service	✓	✓	✓
VPN as a Service	✓	✓	✓
sayTRUST as A Service	✓	✓	✓
Load Balancer as A Service	✓	✓	✓
Billing (optional)	✓	✓	✓
Item number	STF-HCI-137658	STF-HCI-137659	STF-HCI-137660
GTIN-Number	4260648030531	4260648030532	4260648030533

sayFUSE HCI Bundle prices




The asymmetric ultra-convergent infrastructure bundle consists of three nodes. Each node contains all hardware and software components. A node also includes sayFUSE Backup function for media breakup and archiving/outsourcing the backup.

Particularities	sayFUSE aUCI-B Bundle		
The asymmetric ultra-convergent systems consist of at least three nodes. They are not identical in terms of hardware and software. As a result, the nodes cannot fully absorb each other in the event of a failure.			
Model	sayFUSE HCI-S52B6	sayFUSE HCI-S96B6	sayFUSE HCI-S52S6
Characteristics	HCI CSB Bundle 8 HE	HCI CSB Bundle 12 HE	HCI CSB Bundle 8HE
Expandable with additional nodes	✓	✓	✓
processor (scalable)	6x Intel Xeon Gold 5218R	6x Intel Xeon Gold 5218R	6x Intel Xeon Gold 5218R
CPU cores (total)	120	120	120
vCPU (total)	960	960	960
CPU upgrade	✓	✓	✓
RAM	768 GB DDR4	768 GB DDR4	768 GB DDR4
vRAM	6.144 GB	6.144 GB	6.144 GB
RAM expansion	max. 4,5 TB	max. 4,5 TB	max. 4,5 TB
Number of storage drives	42 (2,5")	96 (2,5")	32 (2,5") + 20 (2,5") + 6 (3,5")
Number of storage storage tier	4	4	4
Max storage capacity 2.5" / 3.5"	1.484 TB / 0	3.072 TB / 0	1.224 TB / 120 TB
Storage media types: SAS / SATA / SSD	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
Number of backup drives	6 (3,5")	6 (3,5")	—
Backup Media SATA	✓	✓	—
Backup media capacity	1 - 20 TB	1 - 20 TB	—
Media cleaner	not required	not required	—
Embedded backup archiving / offloading	✓	✓	—
Max. Backup outsourcing	120 TB	120 TB	—
Physical Backup Library (PBL)	✓	✓	—
Virtual Backup Libraray (VTL)	✓	✓	✓
Backup Storage	✓	✓	✓
Remote Management	✓	✓	✓
Power Supply Redundant	3x 1200W	3x 1200W	3x 800W
Number of network cards	4x10 Gbit/s	4x10 Gbit/s	4x10 Gbit/s
Expandable 1.10.25/50/100 Gbit/s	✓	✓	✓
Hypervisor NVMe	2x 250 GB mirrored	2x 250 GB mirrored	2x 250 GB mirrored
Hypervisor for hyperconvergence	Virtuozzo	Virtuozzo	Virtuozzo
Embeded Pay as Go licenses (for active use)	✓	✓	✓
Multi-Tenant capability	✓	✓	✓
Self-service portal for Tenants	✓	✓	✓
UCI management via each node	✓	✓	✓
Monitoring	✓	✓	✓
Computing as a Service (CaaS)	✓	✓	✓
Storage as a Service (SaaS)	✓	✓	✓
Integrated storage service	S3 / Block / NFS	S3 / Block / NFS	S3 / Block / NFS
Network as a Service	✓	✓	✓
VPN as a Service	✓	✓	✓
sayTRUST as A Service	✓	✓	✓
Load Balancer as A Service	✓	✓	✓
Billing (optional)	✓	✓	✓
Item number	STF-HCI-137663	STF-HCI-137664	STF-HCI-137665
GTIN-Number	4260648030562	4260648030579	4260648030586

sayFUSE HCI Node and VM Node (for expansion of the existing environment)

The expansion nodes are for expansion of the existing symmetric or asymmetric ultra-converged infrastructure. This allows the existing sayFUSE HCI infrastructures to be expanded with additional computing and storage resources.

After the exchange of the security key, the sayFUSE node for expansion fully integrates its hardware and software resources into the existing sayFUSE HCI environment and takes over the tasks of the existing infrastructure. The loads for computing, storage, disaster recovery, sayTRUST VPSC, monitoring, CaaS, SaaS, NaaS, etc. is distributed between the nodes and ensures non-disruptive scaling and migration.

Particularities	sayFUSE SB Node	sayFUSE S Node	saySRV S Node
			
Model	sayFUSE HCI-S32B6	sayFUSE HCI-S32S6	SRV HCI-S10
Characteristics	CSB-Node 4 HE	CS Node 4 HE	CS Node 2 HE
Prozessor (scalable)	2x Intel Xeon Gold 5218R	2x Intel Xeon Gold 5218R	2x Intel Xeon Gold 5218R
CPU Core (Total)	40	40	40
vCPU (Total)	320	320	320
CPU Upgrade	✓	✓	✓
RAM	256 GB DDR4	256 GB DDR4	256 GB DDR4
RAM Expansion	max. 1,5 TB	max. 1,5 TB	max. 1,5 TB
Number of storage drives	32 (2,5")	32 (2,5") + 6 (3,5")	10 (2,5")
Number of storage storage tier	4	4	4
Max storage capacity 2.5" / 3.5"	1.024 TB	1.024 TB /120 TB	200 TB
Storage media types: SAS / SATA / SSD	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
Number of backup drives	6 (3,5")	—	—
Backup media SATA	✓	—	—
Backup media capacity	1 - 20 TB	—	—
Media Cleaner	nicht erforderlich	—	—
Embedded backup archiving / offloading	✓	—	—
Max backup offload	120 TB	—	—
Physical Backup Library (PBL)	✓	—	—
Virtual Backup Library (VTL)	✓	✓	✓
Backup Storage	✓	✓	✓
Remote Management	✓	✓	✓
Power supply redundant	1200W	1200W	800W
Power supply redundant	4x10 Gbit/s	4x10 Gbit/s	4x10 Gbit/s
Expandable 1/10/25/50/100Gb	✓	✓	✓
Hypervisor NVMe	2x 250 GB mirrored	2x 250 GB mirrored	2x 250 GB mirrored
Item number	STF-HCI-137667	STF-HCI-137668	SRV-HCI-137669
GTIN-Number	4260648030593	4260648030609	4260648030616

Update, Service, Support and Warranty Extension

Services Contracts	Description	Article No.	Monthly from Listprice in %
Software Update Contract	<p>The update service contract (USC) is concluded with the initial purchase of the product licenses.</p> <p><u>Magnitude:</u></p> <ul style="list-style-type: none"> - Delivery of version updates, - Service Packs and - Bugfixes. <p><u>Prerequisite:</u></p> <ul style="list-style-type: none"> - Existing software update agreement <p><u>Calculation:</u></p> <ul style="list-style-type: none"> - The calculation is based on the Listprice <p><u>Billing:</u></p> <ul style="list-style-type: none"> - Optionally monthly or annually <p><u>Term, Termination and Renewal:</u></p> <ul style="list-style-type: none"> - Minimum term: 12 months - Extension: for a further 12 months each - Notice period: is 3 months before expiration 	ST-USV	1,5%
Service and support standard	<p>Standard service and support for telephone and remote assistance as a surcharge on the existing software update contract.</p> <p><u>Magnitude:</u></p> <ul style="list-style-type: none"> - Telephone support - Remote support - Response time for remote support 5 hours <p><u>Prerequisite:</u></p> <ul style="list-style-type: none"> - Existing software update agreement <p><u>Calculation:</u></p> <ul style="list-style-type: none"> - The calculation is based on the Listprice <p><u>Billing:</u></p> <ul style="list-style-type: none"> - Optionally monthly or annually <p><u>Term, Termination and Renewal:</u></p> <ul style="list-style-type: none"> - Minimum term: 12 months - Extension: for a further 12 months each - Notice period: is 3 months before expiration 	ST-USV-INS	0,5%
Service and support professionals	<p>Professional service and support for telephone and remote assistance as a surcharge on the existing software update contract.</p> <p><u>Magnitude:</u></p> <ul style="list-style-type: none"> - Telephone support - Remote support - Installations: updates, service packs, bug fixes - Response time for remote support 4 hours - Monitoring - Device exchange on the next working day <p><u>Prerequisite:</u></p> <ul style="list-style-type: none"> - Existing software update agreement <p><u>Calculation:</u></p> <ul style="list-style-type: none"> - The calculation is based on the Listprice <p><u>Billing:</u></p> <ul style="list-style-type: none"> - Optionally monthly or annually <p><u>Term, Termination and Renewal:</u></p> <ul style="list-style-type: none"> - Minimum term: 12 months - Extension: for a further 12 months each - Notice period: is 3 months before expiration 	ST-DL-PRO	1,0%
Warranty Extention	<p>Während der Laufzeit des Service & Support Vertrages, max. 60 Monate</p> <p><u>Prerequisite:</u></p> <ul style="list-style-type: none"> - Existing software update agreement <p><u>Calculation:</u></p> <ul style="list-style-type: none"> - The calculation is based on the Listprice <p><u>Billing:</u></p> <ul style="list-style-type: none"> - Optionally monthly or annually <p><u>Term, Termination and Renewal:</u></p> <ul style="list-style-type: none"> - Minimum term: 12 months - Extension: for a further 12 months each - Notice period: is 3 months before expiration 	ST-GAR-60	0,3%

Services

Services Contracts	Description	Article No.
Konzepterstellung	Erstellung von Konzepten für sayFUSE oder sayTRUST durch einen Senior Consultant, pro Werktag.	ST-DL-CON
Installation	Installation und kundenspezifische Anpassungen von sayFUSE oder sayTRUST Systemen vor Ort, pro Werktag.	ST-USV-INS
Programmierung	Kundenspezifische Entwicklungsarbeiten, Programmierungen, Softwareanpassungen, pro Werktag.	ST-DL-ENT
Rollout	Erstellung von kundenspezifischen Profilen für sayTRUST Anwendermenü und Anpassung von sayTRUST Menü für Rollout vor Ort, pro Werktag.	ST-DL-ROL
Support	Unterstützung und Support pro Stunden - Junior Consultant - Senior Consultant	ST-DL-JC ST-DL-SC
Remote Support	Supportmitarbeiter pro 15 Minuten	ST-DL-REM
Produktschulung	Pauschale für kundenspezifische Schulung pro Schultag.	ST-DL-GS
Zertifizierungsschulung	Schulung für Zertifizierung pro Mitarbeiter je Schultag.	ST-DL-ZS
Wartung- / Bereitschaft	Regelmäßige Kontrolle, Wartung und Bereitschaft für kundeneigene Systeme.	ST-DL-WAR

Special Remarks

- All prices given in this list are recommended retail prices and are net, plus the applicable statutory value added tax and any transport costs.
- All services and support services as well as training courses are excluded from the discount and do not include travel costs and, in the case of installations lasting several days, plus expenses - in each case by prior arrangement.
- With the publication of this price list, all previous price lists lose their validity.
- All rights, changes and errors are reserved.
- All company, product and service names mentioned in this price list are registered trademarks or service marks owned by their respective owners.
- Our General Terms and Conditions (T&C) apply, which we will gladly send to you upon request. You can also download them on our website at <http://www.saytec.eu/agb>.
- Illustrations may differ according to the version.
- All prices are only valid within Europe from the Munich warehouse.
- There is a 24-month manufacturer's warranty on all sayTEC products.
- Warranty extensions are available at an additional cost.
- sayTEC offers comprehensive training programs for users, administrators.
- technisches Supportpersonal und Mitarbeiter von Systemintegratoren.
- We generally tailor our training courses and workshops to individual customer requirements.
- For installation services, the requirements on the customer side are in accordance with our terms of service. The terms of service are available on request.
- Daily flat rates shown in this price list are always valid for a maximum of eight working hours. If additional hours are worked per working day, these will be calculated with a corresponding surcharge (by prior arrangement).
- All rights, changes and errors are reserved.

Extensions and Accessories

sayFUSE Backup

Article No.	Description
ST-ALG-133174	HDD Backup Transport Bag
ST-ALG-137677	Backup Label
ST-ALG-137292	Backup HDD Aluminum Frame

sayFUSE Backup Media (HDD SATA 3,5")

Article No.	Description
1W10001	1 TB SATA 6Gb/s - 7200 U/min 3,5"
1W10002	2 TB SATA 6Gb/s - 7200 U/min 3,5"
OB35950	4 TB SATA 6Gb/s - 7200 U/min 3,5"
OB36039	6 TB SATA 6Gb/s - 7200 U/min 3,5"
OB36404	8 TB SATA 6Gb/s - 7200 U/min 3,5"
OF27606	10 TB HDD SATA 6Gb/s - 7200 U/min 3,5"
OF30146	12 TB HDD SATA 6Gb/s - 7200 U/min 3,5"
OF31284	14 TB HDD SATA 6Gb/s - 7200 U/min 3,5"
OF38462	16 TB HDD SATA 6Gb/s - 7200 U/min 3,5"
OF38459	18 TB HDD SATA 6Gb/s - 7200 U/min 3,5"
OF38755	20 TB HDD SATA 6Gb/s - 7200 U/min 3,5"

sayFUSE Storage HDD (SAS 3,5")

Article No.	Description
MG04SCA20EE	2 TB HDD SAS-12Gbit - 7200 U/min
MG04SCA40EE	4 TB HDD SAS-12Gbit - 7200 U/min
MG04SCA60EE	6 TB HDD SAS-12Gbit - 7200 U/min
MG06SCA800E	8 TB HDD SAS-12Gbit - 7200 U/min
MG06SCA10TE	10 TB HDD SAS-12Gbit - 7200 U/min
MG07SCA12TE	12 TB HDD SAS-12Gbit - 7200 U/min
MG07SCA14TE	14 TB HDD SAS-12Gbit - 7200 U/min
MG08SCA16TE	16 TB HDD SAS-12Gbit - 7200 U/min
MG09SCA18TE	18 TB HDD SAS-12Gbit - 7200 U/min

sayFUSE Storage SSD (SAS 2,5" 12 Gb/s)

Article No.	Description
XS960SE70084	960 GB Nytro 3332 - SAS 12Gb/s 2.5 SSD
XS1920SE70084	1,92 TB Nytro 3332 - SAS 12Gb/s 2.5 SSD
XS3840SE70084	3,84 TB Nytro 3332 - SAS 12Gb/s 2.5 SSD
XS7680SE70084	7,68 TB Nytro 3332 - SAS 12Gb/s 2.5 SSD
XS15360SE70084	15,36 TB Nytro 3332 SAS 12Gb/s 2.5 SSD

sayFUSE Storage SSD (SAS 2,5" 24 Gb/s)

Article No.	Description
KPM61RUG960G	960 GB SSD KIOXIA PM6-R - SAS 24Gbit/s 2.5 SSD 1DWPD
KPM61RUG1T92	1,92 TB KIOXIA PM6-R - SAS 24Gbit/s 2.5 SSD 1DWPD
KPM61RUG3T84	3,84 TB KIOXIA PM6-R - SAS 24Gbit/s 2.5 SSD 1DWPD
KPM61RUG7T68	7,68 TB KIOXIA PM6-R - SAS 24Gbit/s 2.5 SSD 1DWPD
KPM61RUG15T3	15,36 TB KIOXIA PM6-R - SAS 24Gb/s - 2.5 SSD 1DWPD

sayFUSE Storage SSD (SATA 2,5" 6 Gb/s)

Article No.	Description
MTFDDAK240TDS-1AW1ZABYY	240 GB Micron 5300 Pro - SATA 6Gb/s 2.5 SSD
MTFDDAK480TDS-1AW1ZABYY	480 GB Micron 5300 Pro - SATA 6Gb/s 2.5 SSD
MTFDDAK960TDS-1AW1ZABYY	960 GB Micron 5300 Pro - SATA 6Gb/s 2.5 SSD
MTFDDAK1T9TDS-1AW1ZABYY	1,92 TB Micron 5300 Pro - SATA 6Gb/s 2.5 SSD
MTFDDAK3T8TDS-1AW1ZABYY	3,84 TB Micron 5300 Pro - SATA 6Gb/s 2.5 SSD
MTFDDAK7T6TDS-1AW1ZABYY	7,68 TB Micron 5300 Pro - SATA 6Gb/s 2.5 SSD

Network adapter

Article No.	Description
X550-T2 ELX550AT2	Intel 10Gb Netzwerkkarte Dual-port X550-T2 ELX550AT2
P225P	Broadcom P225P, 25/10 Gb Eth, PCIe x8, 2x SFP28 empty SFP cage
P425G	Broadcom P425G, 25/10 Gb Eth, PCIe x16, 4x SFP28 empty SFP cage
P150P	Broadcom P150P, 50/40/25/10 Gb Eth, PCIe x8, 1x QSFP28 empty SFP cage
P2100G	Broadcom P2100G, 100/50/25/10 Gb Eth, PCIe x16, 2x QSFP56 empty SFP cage

Network adapter accessories

Article No.	Description
SFP28SW25/BC	Small Form Factor Pluggable SFP28, opt., 25 Gb/s Ethernet, 850nm, LC Connector
SFP28LW25/INT	Small Form Factor Pluggable SFP28, opt., 25 Gb/s Ethernet, 1310nm, 10km , LC
KAB-SFP28-02	Copper cable, SFP28/SFP28, ca. 2m, für bis zu 25 Gbit Ethernet
KAB-QSFP28-01	QSFP28 copper cable, QSFP28 auf QSFP28, ca. 1m, extern
KAB-QSFP+/QSFP+03	QSFP+ copper cable, QSFP+ (SFF-8436) auf QSFP+ (SFF-8436), ca. 3m, extern

Processors

Article No.	Description
CD8069503956302	Intel Xeon Silver - 4210 - 2,2 GHz - 10 Kerne - 20 Threads
CD8069504212601	Intel Xeon Silver 4214 - 2,2 GHz - 12 Kerne - 24 Threads - 17MB Cache
CD8069504213901	Intel Xeon Silver 4216 - 2.1 GHz - 16 Kerne - 32 Threads - 22 MB Cache
CD8069504295701	Intel Xeon Gold- 5218B - 2,3 GHz - 16 Kerne - 32 Threads
CD8069504446300	Intel Xeon Gold 5218R - 2.1 GHz - 20 Kerne - 40 Threads - 27.5 MB Cache
CD8069504448600	Intel Xeon Gold 6240R (2.4 GHz/24 Kerne/48 Threads/35.75 MB Cache)
CD8069504201101	Intel® Xeon Platinum 8260 - 2,4 GHz - 24 Kerne - 48 Threads - 35,75 MB Cache
CD8069504195201	Intel Xeon Platinum 8270 (2,7 GHz/26 Kerne/52 Threads/36MB Cache)

Memory

Article No.	Description
M471A1K43CB1-CTD	8 GB DDR4 ECC 2666 MHz registered
M393A2K40CB2-CTD	16 GB DDR4 ECC 2666 MHz registered
M393A4K40CB1-CRC	32 GB DDR4 ECC 2400 MHz registered
M393A4K40CB2-CTD	32 DDR4 ECC 2666 MHz registered
M393A4K40CB2-CVF	32 GB DDR4 ECC 2933 MHz registered
M393A8G40AB2-CWE	64 GBDDR4 ECC 3200 MHz registered
M393AAG40M32-CAE	128 GB DDR4 ECC 3200 MHz registered

Switches

Article No.	Description
GS108E-300PES	Netgear 8 Port Smart Managed Plus Gigabit Switch GS108E-300PES
GS116E-200PES	Netgear 16 Port Smart Managed Plus Gigabit Switch GS116E-200PES
JGS524E	Netgear JGS524E 24-Port Gigabit Ethernet LAN Switch Smart Managed Plus
XSM4316S	NETGEAR ProSAFE M4300-8X8F Switch (XSM4316S-100NES)
XSM4316PB-100NES	NETGEAR M4300-16X Managed PoE+ Switch (XSM4316PB-100NES)
XSM4324CS-100NES	NETGEAR ProSAFE M4300-24X Switch (XSM4324CS-100NES)
XSM4348CS-100NES	NETGEAR ProSAFE M4300-48X Switch (XSM4348CS-100NES)
JL805A#ABB	HPE Aruba Instant On 1960 12XGT Switch
JL355A	HPE Enterprise Aruba 2540 48G 4SFP+ Switch
MSN2010-CB2F	Mellanox Spectrum based 25GbE/100GbE 1U Open Ethernet switch with Onyx,
MTEF-KIT-D	Mellanox 19" racks fixed mounting-kit, for SN2100, SN2010 systems, Dual

Software Prices

Virtuozzo HCI prices

Article No.	Description
<u>Pay As You Go software license for Virtuozzo Infrastructure Platform (monatlich)</u>	
VIPC-RAM-1H	Pay As You Go software license for Virtuozzo Infrastructure Platform Compute, per GB RAM per hour
VIPS-1GB-1H	Pay As You Go software license for Virtuozzo Infrastructure Platform Storage, per GB Storage per hour
<u>Perpetual Software License (einmalig)</u>	
VIPC-1CPU-P	Perpetual Software License, per CPU socket
VIPC-1CPU-SUS-P	Maintenance and Support Certificate, per CPU socket
VIPS-UNL-P	Perpetual Software License – Storage, Unlimited Storage capacity per node
VIPS-UNL-SUS-P	Maintenance and Support for Virtuozzo Infrastructure Platform Storage – Unlimited Storage capacity per node
VIP-STRKIT-P	Starter Software license for 3 nodes with 2 CPU sockets and 30 TBs of Storage
VIP-STRKIT-SUS-P	Starter Maintenance and Support for 3 nodes with 2 CPU sockets and 30 TBs of Storage

Hystax Acure prices

Description	
<u>One-time projects (einmalig)</u>	
Cloud Migration License for migration of 1 VM (one-time)	
License for Cloud Migration of 1 Bare Metal Server (one-time)	
<u>Disaster Recovery Software Licenses (monatlich)</u>	
Disaster Recovery Software License One VM Protection	
Disaster Recovery Software License One Bare Metal Server Protection	