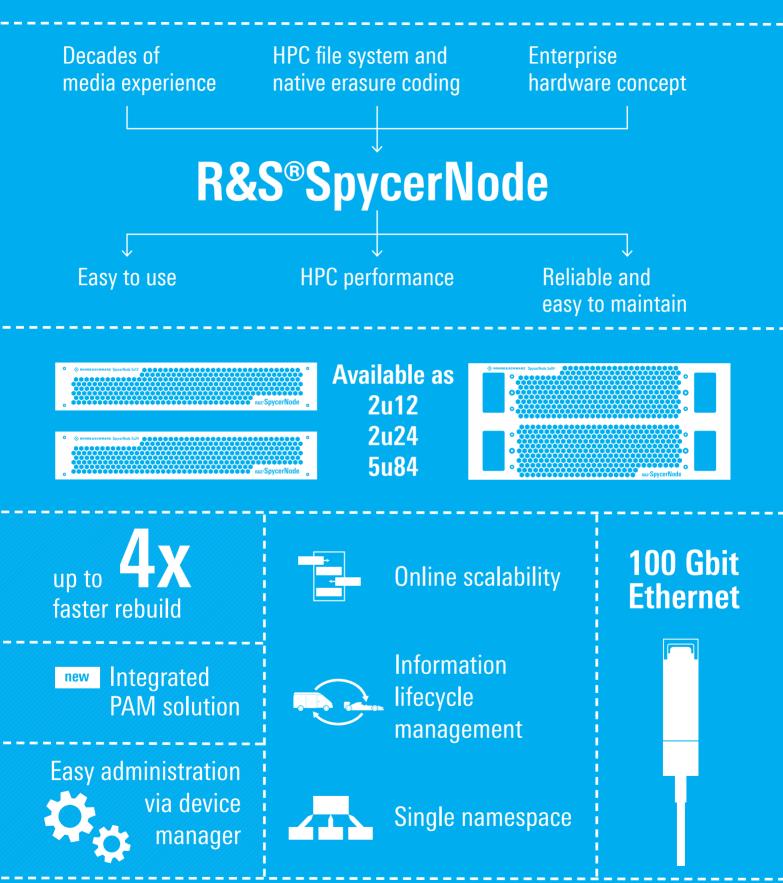


## R&S®SpycerNode brings HPC to media storage



Millions of IOPS and up to 8 Gbyte/s in a single unit

# R&S®SpycerNode overview

The expected exponential growth of storage capacity requirements for media data in combination with the increasing demand for data protection and availability calls for enhanced storage solutions. Media companies not only have to handle huge amounts of data, they also need to be able to flexibly manage content throughout their organization, including user and access management.

It often happens that each department or division in a larger organization attempts to satisfy its own storage and performance needs. As a consequence, your organization can find itself with many disparate, isolated systems. This can result in expensive resource duplication, complicated management and isolated pools of data. R&S°SpycerNode solves these issues, offering an easy-to-use interface, an HPC file system, market-leading erasure coding mechanisms and many more functions that let you focus on your creative work.

The R&S®SpycerNode - how storage should be

#### Features and benefits

#### 100 Gbit/s interface

Equipped with four high-speed 100 Gbit/s Ethernet ports, R&S°SpycerNode is ready for the future.

#### Leading in IOPS and bandwidth

A single R&S°SpycerNode is capable of delivering millions of IOPS with a data throughput of up to more than 8 Gbyte/s.

#### Up to four times faster rebuild times

IBM Spectrum Scale™ RAID significantly reduces rebuild times by a factor of up to four compared to common hardware RAID configurations.

#### Available in different configurations

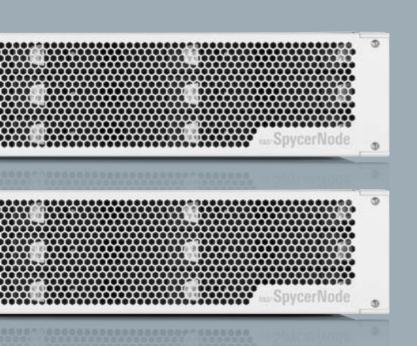
R&S°SpycerNode is available in three different chassis: 2U12, 2U24 and 5U84. R&S°SpycerNode chassis can easily be combined or configured to meet your requirements, with storage capacities ranging from 92 Tbytes to several Pbytes.

#### Single namespace

All R&S°SpycerNode storage tiers can be under a single namespace. No matter in which pool your data is stored, it is always accessible with the same URL.

#### Central configuration and administration tool

The Rohde&Schwarz device manager allows you to install, maintain and service your storage setup via a web-based, easy-to-use interface.





100 Gbit/s

100 Gbit/s interface



**High performance** 



Up to 4 times faster rebuild times

2 RU 5 RU

**Different chassis** 



Single namespace



Device manager



## Highlights



#### Massive scalability

Flexibility is essential in a media environment, and it can only be achieved with easily scalable solutions. In contrast to other storage solutions, R&S°SpycerNode can be scaled as needed, starting with the smallest unit. The solution can be adapted to your capacity and bandwidth requirements at any time – even during operation. It is also possible to combine different R&S°SpycerNode units of different sizes with different storage performance or drive types.



#### No single point of failure

Protecting your data from loss is our highest priority, which is why we have implemented full redundancy in even the smallest unit. R&S°SpycerNode combines full hardware redundancy with data protection mechanisms such as erasure coding. The use of proven enterprise-class hardware results in high availability and cost-efficient maintenance.



#### **HPC RAID technology**

Data loss is the worst-case scenario in a media environment. To protect your content, we have equipped R&S°SpycerNode with HPC redundancy mechanisms. The software solution comes from IBM (IBM Spectrum Scale™ RAID) and is based on state-of-the-art erasure coding technologies. In the event of a system failure, rebuild times can be reduced by a factor of four compared to conventional RAID solutions. The impact on system performance is minimal since all disks contribute to system recovery. The integrated disk hospital detects a faulty disk before a failure occurs. In addition to these features, R&S°SpycerNode also offers other redundancy highlights.

- Enhanced fault tolerance with an end-to-end checksum that makes it possible to detect silent data corruption
- Very high mean time to data loss from 200 years to 200 million years
- The RAID technology used offers protection even if a third disk fails, in contrast to RAID 6



#### **HPC** file system

To meet the demands of today's media environments, storage solutions must satisfy high requirements in terms of scalability and workflow integration. Seamless workflow integration is a key requirement for storage solutions.

R&S°SpycerNode uses Spectrum Scale™, the HPC file system from IBM, which gives you a number of advantages over competing products.



#### Unified file and block storage

R&S°SpycerNode provides file level as well as block level storage access. Unlike competing products, hybrid operation is also possible, giving you enormous workflow flexibility. R&S°SpycerNode takes advantage of the IBM Spectrum Scale™ file system and gives you easy access to the drives irrespective of the used access protocol. This enables all clients that cannot be connected natively to access the system through SMB and NFS protocols.



#### Device manager

Our customers' most frequent requirements are that storage must function reliably, meet the required performance parameters and be easy to use. When developing the new storage architecture, we focused on finding optimized solutions for these requirements. User-friendliness in particular is crucial in the creative market environment. This has led us to take a completely new approach. We developed the Rohde & Schwarz device manager, a web application that significantly simplifies the use and setup of our solution. The device manager allows Rohde & Schwarz systems such as R&S®Venice in a network with R&S®SpycerNode to be managed via a single interface. Complex configurations via the console and tedious maintenance work are a thing of the past. Now you can fully concentrate on your business.



#### **Outstanding performance**

R&S°SpycerNode offers excellent performance data in all configurations. It can be used in any media workflow no matter what the requirements are. Based on latest field-proven enterprise-class hardware and equipped with an HPC file system and erasure coding mechanisms, R&S°SpycerNode delivers millions of IOPS and extremely high bandwidth. The system can be used in high-speed Ethernet networks up to 100 Gbit/s.



### Production Asset Management – R&S®SpycerPAM

R&S°SpycerPAM expands the R&S°SpycerNode storage experience by delivering a full-fledged production asset management (PAM) solution. The software addresses the inherent complexity of content production by decreasing project complexity. Creative talents benefit from its powerful search and viewing capabilities as well as its easy rights management, automatic proxy generation/preview, bin locking and much more. R&S°SpycerPAM integrates seamlessly into leading editing platforms such as Adobe Premiere, Avid Media Composer and Apple Final Cut Pro.

#### Service that adds value

- Worldwide
- I local and porconalizor
- Customized and flexible
- Uncompromising quality
- Long-term dependability

#### Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, monitoring and network testing. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries

#### Sustainable product design

- Environmental compatibility and eco-footprint
- Energy efficiency and low emissions
- Longevity and optimized total cost of ownership

#### **Regional contact**

- Europe, Africa, Middle East | +49 89 4129 12345 customersupport@rohde-schwarz.com
- North America | 1 888 TEST RSA (1 888 837 87 72) customer.support@rsa.rohde-schwarz.com
- Latin America | +1 410 910 79 88 customersupport.la@rohde-schwarz.com
- Asia Pacific | +65 65 13 04 88 customersupport.asia@rohde-schwarz.com
- China | +86 800 810 82 28 | +86 400 650 58 96 customersupport.china@rohde-schwarz.com

Rohde & Schwarz GmbH & Co. KG

www.rohde-schwarz.com

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