

SAP Business One, Version for SAP HANA

Solution Brief

Easy to implement hardware, software and services for SAP Business One

Speed up your SAP applications with Lenovo enterprise servers optimized for SAP HANA®. The faster you get to insights, the faster your business can respond. With the combination of SAP Business One®, version for SAP HANA on Lenovo servers you can take advantage of extremely high application performance and real-time analysis to help you make fast, informed decisions.

Lenovo servers are validated by SAP to be an ideal platform to deploy SAP Business One®, version for SAP HANA and to help accelerate time to value for your SAP implementations. Lenovo provides the robust base for highly reliable configurations and provides the ultimate balance of uptime, performance, density and cost efficiency to help your business.

Lenovo Servers

A range of Lenovo ThinkSystem servers are available for SAP Business One®, version for SAP HANA:

- **ThinkSystem SR630 V3** 1U & **SR650 V3** 2U 2-socket servers with 4th Gen and 5th Gen Intel Xeon Scalable processors
ThinkSystem SR630 V2 1U & **SR650 V2** 2U 2-socket servers with 3rd Gen Intel Xeon Scalable processors
ThinkSystem SR630 1U & **SR650** 2U 2-socket servers with 2nd Gen Intel Xeon Scalable processors

These mainstream servers provide high performance processing power, flash storage options and energy efficient features. They have been designed to handle a wide range of workloads such as databases, virtualization and cloud computing, VDI, enterprise applications, collaboration & email, business analytics and big data.

- **ThinkEdge SE450** 3rd Gen Edge servers

The ThinkEdge SE450 is a single-socket server with a 2U height and short depth case, making it suitable for shallow cabinets. It can also be mounted on a wall, stacked on a shelf or placed on the floor like a tower server and can handle continuous operating temperatures from 5°C and 45°C.

- **ThinkSystem ST650 V3** 4th Gen and 5th Gen servers
ThinkSystem ST650 V2 3rd Gen & **ST550** 2nd Gen servers

These provide the same impressive capabilities as the mainstream rack servers but in tower form-factor. They can also be rack-mounted.

- **ThinkSystem SR950** 4U and **SR850** 2U 4-socket servers with 2nd Gen Intel Xeon Scalable processors.

These servers provide mission-critical reliability and best-in-class flexibility and expandability.

Using Intel Xeon Scalable processors and all-flash based SSD technology with the ThinkSystem RAID 9350, RAID 940 and RAID 930 storage adapters or VROC for NVMe, these configurations provide the best performance at optimal cost for your business.

ThinkSystem V3 configurations

The following table lists the configurations using ThinkSystem V3 servers with 4th Gen and 5th Gen Intel Xeon processors.

Table 1. Lenovo ThinkSystem Mainstream servers (SR650 V3/SR630 V3/ST650 V3) with 1 or 2 Sockets

B1 Users	50	100	200	250	300	400	600
Model	128GB	256GB	512GB	768GB	1024GB	2048GB	4096GB
Intel Xeon SP Gen 4	1x4410Y (12C)	1x or 2x 4410Y(12C)	2x 4410Y (12C) or 1x or 2x 5418Y(24C)	1x or 2x 5418Y(24C)	1x or 2x 5418Y (24C)	2x5418Y (24C) or 1x8470(52C)	2x8470 (52C)
Intel Xeon SP Gen 5	1x 4510 (12C)	1x 4510(12C) or 2x 4510(12C)	2x 4510(12C) or 1x or 2x 5520+(28C)	1x or 2x 2x 5520+ (28C)	1x or 2x 5520+ (28C)	2x 5520+ (28C) or 1x8592+ (64C)	2x 8592+ (64c)
Memory (1S)	8x 16GB	8x 32GB or 16x 16GB	8x 64GB or 16x 32GB	8x 32GB and 8x 64GB	8x 128GB or 16x 64GB	16x 128GB	NA
Memory (2S)	NA	16x 16GB	16x 32GB or 32x 16GB	16x 16GB and 16x 32GB	16x 64GB or 32x 32GB	16x 128GB or 32x 64GB	32x 128GB
SSD Disk Options³							
SSD RAID5	4x 480GB 4x 960GB	4x 480GB 4x 960GB	5x 480GB 4x 960GB	6x 480GB 4x 960GB	8x 480GB 5x 960GB	6x 960GB 4x 1.92TB	5x 1.92TB 4x 3.84TB
SSD RAID10	4x 480GB 4x 960GB	4x 480GB 4x 960GB	8x 480GB 4x 960GB	10x 480GB 6x 960TB	8x 960TB 6x 1.92TB	10x 960GB 6x 1.92TB	8x 1.92TB 4x 3.84TB
NVMe Disk Options³							
VROC RAID5	4x 960GB 4x 1.92TB	4x 960GB 4x 1.92TB	4x 960GB 4x 1.92TB	4x 960GB 4x 1.92TB	5x 960GB 4x 1.92TB	6x 960GB 4x 1.92TB	5x 1.92TB 4x 3.84TB
VROC RAID10	4x 960GB 4x 1.92TB	4x 960GB 4x 1.92TB	4x 960GB 4x 1.92TB	6x 960GB 4x 1.92TB	8x 960GB 6x 1.92TB	10x 960GB 6x 1.92TB	8x 1.92TB 4x 3.84TB

Processor Options:

These ThinkSystem servers when configured with one processor are certified by SAP for 50 - 300 users. When configured with two processors they are certified for 100 - 600 users.

Operating System:

SLES 15 SP4 and later releases are supported for Gen 4 systems.
SLES 15 SP5 and later are supported for Gen 5 systems.

Disk Options:

SSD Disk Options are available on SR630 V3, SR650 V3 and ST650 V3 servers. Mixed Use and Read Intensive SATA SSDs, NVMe SSDs and SAS SSDs are supported.
A ThinkSystem RAID 9350 or RAID 940 controller is required:

1. SSD RAID5 – the traditional SAP Business One RAID configuration for high performance at lowest cost.
2. SSD RAID10 – an alternative RAID configuration for highest performance.

NVMe Disk Options are available on SR650 V3 and SR630 V3 servers:

1. VROC RAID5 – leveraging the latest onboard VROC (Virtual RAID on CPU) functionality to provide RAID capability, NVMe SSD drives maximize I/O throughput and latency drive performance. RAID functionality is provided by onboard VROC. No additional hardware RAID controller is required.
2. VROC RAID10 – an alternative RAID configuration for even higher NVMe performance.

Note 3: The Disk Options shown here are sufficient to meet [SAP HANA TDI guidelines](#). For higher performance requirements, larger disk sizes and or quantities may be necessary.

Ordering information

Configuration templates for these servers are available from [DCSC Deployment Ready Solutions](#) and from the [Lenovo LETS](#) website.

ThinkEdge SE450 configurations

The following table lists the ThinkEdge servers that are compatible.

Table 2. Lenovo ThinkEdge server (SE450) with 1 Socket

B1 Users	50	100	200
Model	128GB	256GB	512GB
Intel Xeon SP Gen 3	1x 4314 (16C)	1x 4314 (16C)	1x 4314 (16C)
Memory	8x 16GB	8x 32GB	8x 64GB
SAS SSD Options			
SSD RAID5 (5350 or VROC)	3x 480GB 3x 960GB	4x 480GB 3x 960GB	3x 960GB 3x 1.92TB
SSD RAID10 (5350 or VROC)	4x 480GB 4x 960GB	4x 960GB 4x 1.92TB	4x 960GB 4x 1.92TB
NVMe Disk Options:			
VROC RAID5	3x 960GB 3x 1.92TB	3x 960GB 3x 1.92TB	3x 960GB 3x 1.92TB
VROC RAID10	4x 960GB 4x1.92TB	4x 960GB 4x1.92TB	4x 960GB 4x1.92TB

ThinkEdge SE450:

A single-socket only server, with 2U height and short depth chassis of either 300mm or 360mm. It can be mounted in a rack, placed on the floor like a tower server, or mounted on a wall. For more details see the [Product Guide](#).

Processor Options:

These ThinkEdge servers are certified by SAP for 50 - 200 users when configured with one processor.

Operating System:

SLES 15 SP4 and later releases are supported.

Disk Options:

SSD Disk Options are available on SE450 Edge servers. Mixed Use and Read Intensive SATA SSDs, NVMe SSDs and SAS SSDs are supported.

A ThinkSystem RAID 5350 controller is required:

1. SSD RAID5 – the traditional SAP Business One RAID configuration for high performance at lowest cost.
2. SSD RAID10 – an alternative RAID configuration for highest performance.
3. VROC RAID5 – leveraging the latest onboard VROC (Virtual RAID on CPU) functionality to provide RAID capability with SATA SSD drives maximize I/O throughput and latency drive performance. RAID functionality is provided by onboard VROC. No additional hardware RAID controller is required.
4. VROC RAID10 – an alternative RAID configuration for even higher NVMe performance.

7mm 2.5-inch trayless PCIe 4.0 NVMe SSD Disk Options are available on SE450 servers:

1. VROC RAID5 – leveraging the latest onboard VROC (Virtual RAID on CPU) functionality to provide RAID capability, NVMe SSD drives maximize I/O throughput and latency drive performance. RAID functionality is provided by onboard VROC. No additional hardware RAID controller is required.

2. VROC RAID10 – an alternative RAID configuration for even higher NVMe performance.

ThinkSystem V2 configurations

The following table lists the configurations using ThinkSystem V2 servers with 3rd Gen Intel Xeon processors.

Table 3. Lenovo ThinkSystem Mainstream servers (SR650 V2/SR630 V2/ST650 V2) with 1 or 2 Sockets

B1 Users	50	100	200	250	300	400
Model	128GB	256GB	512GB	768GB	1024GB	2048GB
Intel Xeon SP Gen 3	1x 4310 (12C)	1x or 2x 4310 (12C)	2x 4310 (12C) or 1x or 2x 4314 (16C)	2x 4314 (16C) or 1x 5318Y (22C)	2x 4314 (16C) or 1x 5318Y (22C)	2x 5318Y (22C) or 1x 8368 (38C)
Memory (1S)	8x 16GB	8x 32GB (1S) or 16x 16GB	8x 64GB (1S) or 16x 32GB or 32x 16GB	8x 32GB and 8x 64GB	8x 128GB or 16x 64GB	16x 128GB
Memory (2S)	NA	16x 16GB	16x 32GB or 32x 16GB	16x 16GB and 16x 32GB	16x 64GB or 32x 32GB	16x 128GB or 32x 64GB
SSD Disk Options:						
SSD RAID5	4x 240GB 3x 480GB 3x 960GB	7x 240GB 4x 480GB 3x 960GB	14x 240GB 7x 480GB 4x 960GB	18x 240GB 10x 480GB 6x 960GB	22x 240GB 12x 480GB 7x 960GB	21x 480GB 11x 960GB 7x 1920GB
SSD RAID10	6x 240GB 4x 480GB 4x 960GB	12x 240GB 6x 480GB 4x 960GB	24x 240GB 12x 480GB 6x 960GB	18x 480GB 10x 960GB 6x 1920GB	22x 480GB 12x 960GB 6x 1920GB	20x 960GB 10x 1920GB 6x 3840GB
NVMe Disk Options:						
VROC RAID5	3x 800GB 3x 960GB	3x 800GB 3x 960GB	5x 800GB 4x 960GB 3x 1600GB	6x 800GB 6x 960GB 4x 1600GB 4x 1920GB	8x 800GB 7x 960GB 5x 1600GB 5x 1920GB	14x 800GB 11x 960GB 7x 1600GB 6x 1920GB
VROC RAID10	4x 800GB 4x 960GB	4x 800GB 4x 960GB	8x 800GB 6x 960GB 4x 1600GB	10x 800GB 10x 960GB 6x 1600GB 6x 1920GB	14x 800GB 12x 960GB 8x 1600GB 5x 1920GB	24x 800GB 20x 960GB 12x 1600GB 10x 1920GB

Processor Options:

These ThinkSystem servers when configured with one processor are certified by SAP for 50 - 200 users. When configured with two processors they are certified for 100 - 400 users.

Operating System:

SLES 15 SP2 and later releases are supported for Gen 3 systems.

Disk Options:

SSD Disk Options are available on SR630 V2, SR650 V2 and ST650 V2 servers. Mixed Use and Read Intensive SATA SSDs, NVMe SSDs and SAS SSDs are supported.

A ThinkSystem RAID 9350, RAID 940 or RAID 930 controller is required:

1. SSD RAID5 – the traditional SAP Business One RAID configuration for high performance at lowest cost.
2. SSD RAID10 – an alternative RAID configuration for highest performance.

NVMe Disk Options are available on SR650 V2 and SR630 V2 servers:

1. VROC RAID5 – leveraging the latest onboard VROC (Virtual RAID on CPU) functionality to provide RAID capability, NVMe SSD drives maximize I/O throughput and latency drive performance. RAID functionality is provided by onboard VROC. No additional hardware RAID controller is required.
2. VROC RAID10 – an alternative RAID configuration for even higher NVMe performance.

Ordering information

Configuration templates for these servers are available from [DCSC Deployment Ready Solutions](#) and from the [Lenovo LETS](#) website.

There are also SAP Business One pre-configured models of the SR630 V2 that are available for customers in the following for markets. See the models tables of the SR630 V2 product guide for details:

- [Preconfigured SR630 V2 models for EMEA](#)
- [Preconfigured SR630 V2 models for Latin America](#)
- [Preconfigured SR630 V2 models for Brazil](#)

ThinkSystem V1 configurations

The following tables list the configurations using ThinkSystem servers with 2nd Gen Intel Xeon processors.

Operating System:

SLES 12 SP4 and later releases (including SLES 15) are supported for Gen 2 systems.

Table 4. Lenovo ThinkSystem Mainstream servers (SR650/SR630/ST550) with two processors - Withdrawn

B1 Users	35	75	110	150	200	250	350	500
Model	96GB	192GB	288GB	384GB	576GB	768GB	1536GB	3072GB
Intel Xeon SP	4210 (10C)	4210 (10C)	4210 (10C)	4210 (10C)	4214 (12C)	4214 (12C)	5218 (18C) or 5218R (20C)	8276L (28C)
	or 4210R	or 4210R	or 4210R	or 4210R	or 4214R	or 4214R		
Memory	12x 8GB	12x 16GB or 24x 8GB	12x 16GB and 12x 8GB	12x 32GB or 24x 16GB	12x 32GB and 12x 16GB	12x 64GB or 24x 32GB	12x 128GB or 24x 64GB	24x 128GB
SAS/SATA SSD Disk Options:								
SSD RAID5	4x 240GB 3x 480GB 3x 960GB	6x 240GB 4x 480GB 3x 960GB	9x 240GB 5x 480GB 3x 960GB	10x 240GB 6x 480GB 4x 960GB	14x 240GB 8x 480GB 5x 960GB	18x 240GB 10x 480GB 6x 960GB	16x 480GB 9x 960GB 5:1920GB	16x 960GB 9x 1920GB 5x 3840GB

The SR650/SR630/ST550 servers are certified by SAP for 35 - 500 users when configured with two processors.

Table 5. Lenovo ThinkSystem Value servers (SR550/SR530) with two processors - Withdrawn

B1 Users	35	75	150	250
Model	96GB	192GB	384GB	768GB
Intel Xeon SP Gen 2	4210 (10C) or 4210R (10C)	4210 (10C) or 4210R (10C)	4210 (10C) or 4210R (10C)	4214 (12C) or 4214R (12C)
Memory	12x 8GB	12x 16GB	12x 32GB	12x 64GB
SAS/SATA SSD Disk Options:				
SSD RAID5	4x 240GB 3x 480GB 3x 960GB	6x 240GB 4x 480GB 3x 960GB	10x 240GB 6x 480GB 4x 960GB	9x 480GB 5x 960GB 3:1920GB

The SR550/SR530 servers are certified by SAP for 35 - 250 users when configured with two processors.

Table 6. Lenovo ThinkSystem Mission Critical server (SR950/SR850) with four processors. SR850 - Withdrawn

B1 Users	75	150	200	250	350	500
Model	192GB	384GB	576GB	768GB	1536GB	3072GB
Intel Xeon SP	5218 (18C)	5218 (18C)	5218 (18C)	5218 (18C)	5218 (18C)	8276 (28C)
Memory	24x 8GB (SR850 only)	24x 16GB or 48x 8GB (SR850 only)	24x 16GB and 24x 8GB (SR850 only)	24x 32GB or 48x 16GB	24x 64GB or 48x 32GB	24x 128GB or 48x 64GB
SAS/SATA SSD Disk Options:						
SSD RAID5	6x 240GB 4x 480GB 3x 960GB 3x 3840GB	10:240GB 6x 480GB 4x 960GB 3x 3840GB	14:240GB 8x 480GB 5x 960GB 3x 3840GB	20:240GB 9x 480GB 5x 960GB 3x 3840GB	16:480GB 9x 960GB 3x 3840GB	16x 960GB 5x 3840GB

The SR950/SR850 servers are certified by SAP for 75 - 500 users when configured with four processors.

SAP Certification and Options

Lenovo certifications for SAP Business One can be found on the [SAP HANA Hardware Directory](#).

The Hardware Directory lists the minimum Linux operating system used at the time of Business One certification (e.g. SLES 15 SP4/SP5 on V3 systems and SLES 15 SP2/SP3 on V2 systems).

Note that this certification also includes support for all subsequent SLES versions throughout the lifecycle of a certification.

ThinkSystem V1 systems are supported for both SLES 12 and SLES 15 - for more information see [SAP Note 2592452](#) (SAP ID required).

SAP Business One version for SAP HANA is supported on all ThinkSystem servers in a virtualized environment using a supported SAP HANA hypervisor, i.e. ESXi.

The ThinkAgile VX series provides VMware vSphere and VMware vSAN support for the platform for SAP Business One version for SAP HANA. All editions including vSphere Essential Kits, vSphere Standard and vSphere Enterprise Plus are supported. For more information see [SAP Note 2020657](#). Any SAP HANA HCI certified server can be used for running SAP Business One version for SAP HANA.

The ThinkAgile HX series provides Nutanix Foundation support for SAP Business One version for SAP HANA with the AHV Acropolis and ESXi hypervisors. For more information see [SAP Note 2836729](#). Any SAP HANA HCI certified server can be used for running SAP Business One version for SAP HANA.

Configurations

Lenovo provides a range of DCSC CTO server template configurations for Business One via [Lenovo LETS](#) and Deployment Ready Solutions within the [DCSC configurator](#).

For presales support on how to configure an SAP Business One solution for SAP HANA please contact [Lenovo LETS](#) or Lenovo's SAP Centre of Competence SAPSolutions@lenovo.com

For More Information

For more information, see the following links:

- [SAP Business One with Microsoft SQL Server on AMD-based Lenovo ThinkSystem Servers](#)
- [SAP Business One with Microsoft SQL Server on Intel-based Lenovo ThinkSystem Servers](#)
- [ITIC Reliability Study for Lenovo servers](#)
- [SAP product overview for SAP Business One](#)

Seller Training Courses

The following sales training courses are offered for employees and partners (login required). Courses are listed in date order.

1. **SAP Webinar: Best of Both Worlds - Lenovo Hybrid Cloud Solutions for SAP July 2024**
2024-09-26 | 60 minutes | Employees and Partners

Over the last two decades SAP customers have invested millions of dollars optimizing their SAP on-premise systems. These customers are now faced with the challenge of cloud adoption for their business-critical SAP applications. The Lenovo hybrid cloud solution with Microsoft Azure for SAP workloads is ideal for safeguarding mission critical SAP Systems while embracing the cloud. This solution brings together the best of both worlds by providing flexibility to leverage SAP cloud services while maintaining on-prem environments.

Published: 2024-09-26
Length: 60 minutes

Start the training:

Employee link: Grow@Lenovo
Partner link: [Lenovo Partner Learning](#)

Course code: DSAPF102

2. **SAP Webinar: Lenovo Portfolio Update for SAP Landscapes**
2024-09-06 | 60 minutes | Partners Only

Join Mark Kelly, Advisory IT Architect with the Lenovo Global SAP Center of Competence as he discusses:

- Challenges in the SAP environment
- Lenovo On-premise for SAP Solutions and
- Lenovo support resources for SAP solutions

Published: 2024-09-06
Length: 60 minutes

Start the training:

Partner link: [Lenovo Partner Learning](#)

Course code: DSAPF101P

3. **SAP Webinar for Lenovo Sellers: Lenovo Portfolio Update for SAP Landscapes**
2024-06-04 | 60 minutes | Employees Only

Join Mark Kelly, Advisory IT Architect with the Lenovo Global SAP Center of Competence as he discusses:

- Challenges in the SAP environment
- Lenovo On-premise Solutions for SAP
- Lenovo support resources for SAP solutions

Published: 2024-06-04
Length: 60 minutes

Start the training:

Employee link: Grow@Lenovo

Course code: DSAPF101

4. **Business Problems Addressed with Lenovo Data & Analytics Solutions**

2024-01-31 | 20 minutes | Employees and Partners

Data is the quantities, characters, or symbols on which operations are performed by a computer, which is then stored and transmitted in the form of electrical signals and recorded on magnetic, optical, solid state, or mechanical recording media. All different types of organizations rely more and more on their data to gain valuable insights and improve their business. As expected, they will have challenges with gaining this insight. In this course we will discuss those challenges and problems our customers face and describe how Lenovo Data and Analytics Solutions can help customers solve each problem.

After completing this training, you will be able to define the following common problems for databases and big data and describe how Lenovo can help customers solve each problem: scalability, management, performance, protection, security, knowledge/skill, and technology evolution.

After completing this training, you will be able to define the following common problems for databases and big data and describe how Lenovo can help customers solve each problem: scalability, management, performance, protection, security, knowledge/skill, and technology evolution.

Published: 2024-01-31

Length: 20 minutes

Start the training:

Employee link: Grow@Lenovo

Partner link: [Lenovo Partner Learning](#)

Course code: DSOLP200

5. **VTT: SAP HANA Transition and Refresh Opportunity - July 2023**

2023-07-14 | 60 minutes | Employees Only

In this session, we cover:

- What Next for SAP Clients?
- Lenovo Opportunity
- Lenovo Portfolio for SAP Solutions
- RISE with SAP

Published: 2023-07-14

Length: 60 minutes

Start the training:

Employee link: Grow@Lenovo

Course code: DVDAT202

6. **Selling RISE with SAP S/4HANA Cloud, private edition with Lenovo TruScale as a Service**

2022-06-24 | 25 minutes | Employees Only

Lenovo and SAP are joining forces to bring our customers a fully managed, private, on-prem edition of the SAP HANA enterprise cloud, leveraging TruScale as a Service.

This course provides Lenovo ISG sellers an overview of the offering, guidance in identifying target customers and their industries and outlines Lenovo's strategic approach to selling RISE with SAP S/4HANA Cloud, private edition option with Lenovo TruScale as a Service.

Completing this 25 minute course enables sellers to:

- identify opportunities for RISE with SAP S/4HANA Cloud, private edition, customer data center option with TruScale
- open the customer conversation to introduce RISE with SAP S/4HANA Cloud, private edition with Lenovo TruScale to the customer
- guide the customer conversation to gather general information around business processes and data center landscape

Published: 2022-06-24

Length: 25 minutes

Start the training:

Employee link: Grow@Lenovo

Course code: DSAPS106

7. **Discovering Your Customer's SAP Landscape**

2022-03-16 | 25 minutes | Employees and Partners

Selling SAP solutions is lucrative, but it does take time. Consider your customer and the challenges they face. Understand their SAP landscape and their mindset for the future. This is not just about asking questions; this is about how you use the answers. Be a sleuth and investigate the connection between the customer's business and the functions of their IT infrastructure. This course is the third in a three-part series that provides Lenovo sellers practical information to facilitate an SAP Solution sale. The other courses in this series are Five Things to Know Before Your Talk About Lenovo Solutions for SAP Applications and Three Reasons You Want to Sell Lenovo Solutions for SAP Applications.

Completing this course will help you:

- recognize discovery questions and strategies to research and analyze your customer to help secure an initial meeting.
- identify discovery questions to uncover the basics of your customer's SAP landscape and how their IT operations relate to their business.

Published: 2022-03-16

Length: 25 minutes

Start the training:

Employee link: Grow@Lenovo

Partner link: [Lenovo Partner Learning](#)

Course code: DSAPS105

8. The Language of SAP Solutions for Lenovo Sellers

2022-02-15 | 10 minutes | Employees and Partners

This reference eDocument defines typical SAP terms Lenovo sellers need to know. This is a reference tool and does not include a quiz.

Published: 2022-02-15

Length: 10 minutes

Start the training:

Employee link: [Grow@Lenovo](#)

Partner link: [Lenovo Partner Learning](#)

Course code: DSAPF100r2

Related product families

Product families related to this document are the following:

- [SAP Alliance](#)
- [SAP Business Suite](#)
- [SAP HANA](#)

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