Rittal – The System.

Faster – better – everywhere.



RiZone OTM Suite

System Requirements

Table of content

Introduction **2**

About this document **3**

Target groups and further documentation 3

Abbreviations and technical terms **4**

Requirements for installation **5**

Single node bare metal system installations 5

Examples 6

Connector requirements **7**

Minimum requirements for connector hardware 7

Variants for the RiZone OTM Suite connector 7

Introduction

No part of this publication may be reproduced or transmitted in any form or by any means without the express written permission of Rittal GmbH & Co. KG (Rittal). Photos, graphics, and text are subject to copyright and may only be used for other purposes with the consent of Rittal.

The software products offered by Rittal may also contain software components from other manufacturers. Product availability may vary by country.

We assume no liability for links to third-party providers, the Internet, or other sources in any form whatsoever. The information and text contained in this publication are for informational purposes only.

All information is subject to change without prior notice.

© Copyright - Rittal GmbH & Co. KG

About this document

The RiZone OTM Suite is used as an Operational Technology Management platform for the control and maintenance of monitored devices in data centers. It offers easy monitoring of the devices and systems as well as the recording of measured values and device states, including alarm management. Top priority is ensuring the availability as well as the security of all data in the system. The monitoring of the physical systems ensures maximum transparency and supports you particularly with respect to optimized energy management.

Target groups and further documentation

This document is ideal for anyone who is interested in the digitization solutions of the Friedhelm Loh Group and for those who already work with their solutions.

The focus of this documentation is on the system requirements that need to be met in order to ensure a smooth start with the RiZone OTM Suite application. You, as a decision maker, as a system administrator or as a software user, will thereby obtain a quick overview of what your IT infrastructure has to provide for your specific use.

You can obtain further information on request.

Abbreviations and technical terms

In order to meet the requirements for installing a multifaceted software, some "technical terminology" cannot be avoided. For a better understanding, you will find explanations of the used abbreviations and technical terms in the list below.

Abbreviation	Description
bare metal systems	Bare metal systems are physical servers that are operated directly without an underlying virtualization level to offer maximum performance and control of the hardware.
DEV	number of OT devices monitored (not CANBUS sensors but IP connected devices) - for example 250 IP devices (PDUs, LCPs, CMCs etc) can suffice for 70 racks (assumption: 2 PDUs per rack, 1 CMC per rack, 1 LCP per two racks)
DR	disaster recovery verification interval (in hours) - for example 24 hours; every 24 hours full backup needs to be verified. PITR (point in time recovery) logging to sustain up to 24 hours of logs (for PITR)
HIST	historical data size (in MB); each and every value and its change is being registered with 10 sec. precision. Size assumes very high frequency of data changes (80 %). In case 60 sec. precision is needed for all values retention RET can be extended accordingly or disk size can be recalculated.
nodes	Kubernetes processes the data and request by placing containers into pods to run on nodes. A node is a virtual or physical machine (computer), depending on the cluster.
OVERHEAD	a general count of users, project structure, grafana, workflows, system bus etc. which is estimated with 100GB
PITR	the point in time recovery is a data-recovery capability that allows you to restore a database or system to an exact moment in the past, typically just before a failure, corruption, or accidental change occurred.
RET	historical data retention (in days). By default 100 days. Events and historical data older than 100 days will be deleted and not retained for diagrams or historical data review.
RTT	the round trip time (RTT) is the time frame in which a response is given by a device. A low RTT equals a better user experience. A higher RTT can lead to noticeable delays, which could affect interaction with the racks and connected OT devices and reduce the efficiency of workflows.

Requirements for installation

Single node bare metal system installations

Currently, RAIDs can only be mapped via hardware RAIDs; minimum recommended RAID is RAID1.

The following applies for productive single-node systems up to 10 managed devices with 100 days of data retention, 1 connector (included in the starter kit):

CPU	Memory	Network	Storage*
8 vCPU x86-64-v3	32 GB	min. 1x NIC 1 GB/s (1x IPv4 address)	2 x 512 GB enterprise (NVMe) 2x + 500 GB SSD (min. 4000 IOPS)

The following applies for productive single-node systems up to 50 managed devices with 100 days of data retention, 1 connector (included in the starter kit):

CPU	Memory	Network	Storage*
8 vCPU x86-64-v3	64 GB	min. 1x NIC 1 GB/s (1x IPv4 address)	2 x 512 GB enterprise (NVMe) 2x + 500 GB SSD (min. 4000 IOPS)

The following applies for productive single-node systems up to 250 managed devices with 365 days of data retention (2-3 connectors, one connector included in the starter kit):

CPU	Memory	Network	Storage*
8 vCPU x86-64-v3 (min. 2.4 GHz)	64 GB	min. 1x NIC 10 GB/s (1x IPv4 address)	2 x 512 GB enterprise (NVMe) 2x +4 TB SSD (min. 4000 IOPS)

* From the perspective of the operating system, there must be one hard drive for the operating system and one hard drive for the data. An increase of the number of hard drives is not recommended for single-node systems.

** For development & test systems, enterprise SSDs can be used instead. In production, SSDs are not supported as root disks.

*** Deviating from the standard means additional manual steps in the installation procedure.

Examples

Diskspace formula: 2 x DR x DEV x PITR + RET x HIST x DEV + OVERHEAD

[Note: PITR: 50 MB per PDU device per 1h for PITR logging per copy

HIST: 30 MB per PDU device per 24h for historical data

2 copies in database cluster (database + repository)]

Example A: 100 days retention, 50 devices, 24h disaster recovery

Diskspace: 2 x 24h x 50 x 50 MB + 100d x 30MB x 50 + 100 GB

= 120GB + 150 GB + 100 GB = 370 GB (minimum)

Example B: 365 days retention, 250 devices, 24h disaster recovery

Diskspace: 2 x 24h x 250 x 50 MB + 365d x 30MB x 250 + 100 GB

= 600 GB + 2750 GB + 100 GB = 3450 GB (minimum)

Connector requirements

Minimum requirements for connector hardware

The minimum requirements for the RiZone OTM Suite connector hardware are:

- 4 vCPU, 16 GB RAM (Proxmox or bare metal) or 32GB RAM (virtualized OKD or bare metal OKD), Intel x86_64-v3 architecture
- 100 GB HDD
- 1x or 2x 1GB network interfaces:
  - a connection to the network of the racks / OT devices
  - a connection to the RiZone OTM Suite server network
- hardware virtualization support

Variants for the RiZone OTM Suite connector

Internal: comes with helm installation package, can be installed on RiZone OTM Suite (include required vCPU and RAM in h/w specification)

External: requires separate hardware or additional virtual machine

Contact & support

You can get in touch with us by telephone, e-mail or via the contact form on our website.

We look forward to hearing from you and will take care of your request as quickly as possible.

Rittal GmbH & Co. KG | Auf dem Stützelberg 1 | 35745 Herborn | Germany

+49 (0) 2772 505-1855 | service@rittal.de | https://www.rittal.com/



Rittal – The System.

Faster – better – everywhere.

- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

You can find the contact details of all
Rittal companies throughout the world here.

www.rittal.com/contact

2026-10

RITTAL GmbH & Co. KG
Auf dem Stuetzelberg · 35745 Herborn · Germany
Phone +49 2772 505-0
E-mail: info@rittal.de · www.rittal.com