

Сервисы EOSC, доступные из каталога NI4OS-Europe

NI4OS-Europe National End-Users Training Event in the
Domain of Open Science for Moldova, November 18, 2021

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1. List of On-boarded resources

- Repositories
- Thematic services
- Generic services
 - ✓ HPC/HTC services
 - ✓ Cloud services
 - ✓ Storage services
 - ✓ Other generic services

2. RENAM services for NI4OS (with demo)

- ✓ Cloud services (RSC, RENAM Scientific Cloud)
- ✓ Storage services (RSS, RENAM Storage Service)
- ✓ Other generic services (Virtualization cluster on Proxmox, Monitoring in Zabbix)

3. Questions and answers



Repository	On-boarding dashboard page
Repository of Faculty of Science, University of Zagreb	https://catalogue.ni4os.eu/?_=/resource/id/0eed0440-917e-44a9-a324-ae1d0873744
Meteorological and Hydrological Service of Croatia Repository	https://catalogue.ni4os.eu/?_=/resource/id/33c74095-a1e1-4326-9511-77a794a39489
Repository of the Institute of Public Finance, Zagreb	https://catalogue.ni4os.eu/?_=/resource/id/3d3a3b00-0936-44f6-b01a-bfcda9b0145d
HELIX Data	https://catalogue.ni4os.eu/?_=/resource/id/4c7896d0-0945-42d0-bdf7-c31a090f00ae
UKIM Repository	https://catalogue.ni4os.eu/?_=/resource/id/ee7096b3-6aa7-468e-accd-e6dcad722678

Repository	On-boarding dashboard page
Live Access Server	https://catalogue.ni4os.eu/?_=/resource/id/3d243e51-9224-4ae3-810b-9d3c5a311193
Clowder4DCH	https://catalogue.ni4os.eu/?_=/resource/id/d0c2baae-45dc-496f-922c-dcb051ce5fc0
DREAM	https://catalogue.ni4os.eu/?_=/resource/id/4799d746-e9cd-4a61-be59-2e0a2aa88600
Schrodinger	https://catalogue.ni4os.eu/?_=/resource/id/c28834c3-0402-421a-8cd3-be8f862f7b10
Airpolution prediction	https://catalogue.ni4os.eu/?_=/resource/id/ce2f1db4-c0d2-436c-bb45-ba9ca04fb625
OMApp	https://catalogue.ni4os.eu/?_=/resource/id/7919d83d-a02d-4b39-87cb-a1db40419f06
IoT Cloud Platform	https://catalogue.ni4os.eu/?_=/resource/id/923fb0a9-253f-4ddc-a71c-3fb1dbf017c7
High Energy Solar Particle Events foRecasting and Analysis	https://catalogue.ni4os.eu/?_=/resource/id/c41e1ab7-bf1e-488b-bb00-c0edc0b844e2

Repository	On-boarding dashboard page
Simple storage service	https://catalogue.ni4os.eu/?_=/resource/id/986f7994-e45a-4f07-b05f-df40f78a8508
Data discovery service	https://catalogue.ni4os.eu/?_=/resource/id/117c2e24-c2af-47b4-8dcc-7a2892d88e84
Avitohol cloud	https://catalogue.ni4os.eu/?_=/resource/id/45ba1dd6-6bc5-4974-b20c-c27dbbb6aa6f
ARIS	https://catalogue.ni4os.eu/?_=/resource/id/fe5d5668-e435-4bae-ac93-b44c7e04f155
Archival service	https://catalogue.ni4os.eu/?_=/resource/id/a40c074d-f507-48b8-9970-8276bc5b0c87
Cyl Cloud Facility	https://catalogue.ni4os.eu/?_=/resource/id/43b7bd0a-39e1-47d8-807a-5cf5554ece2e
Cy-Tera	https://catalogue.ni4os.eu/?_=/resource/id/7ef76b56-0fbc-4bb6-883a-127539b535d6
ONYX	https://catalogue.ni4os.eu/?_=/resource/id/9695ac3f-8169-4646-be7e-372778dec0e5

RSC, RENAM Scientific Cloud (cloud.renam.md)

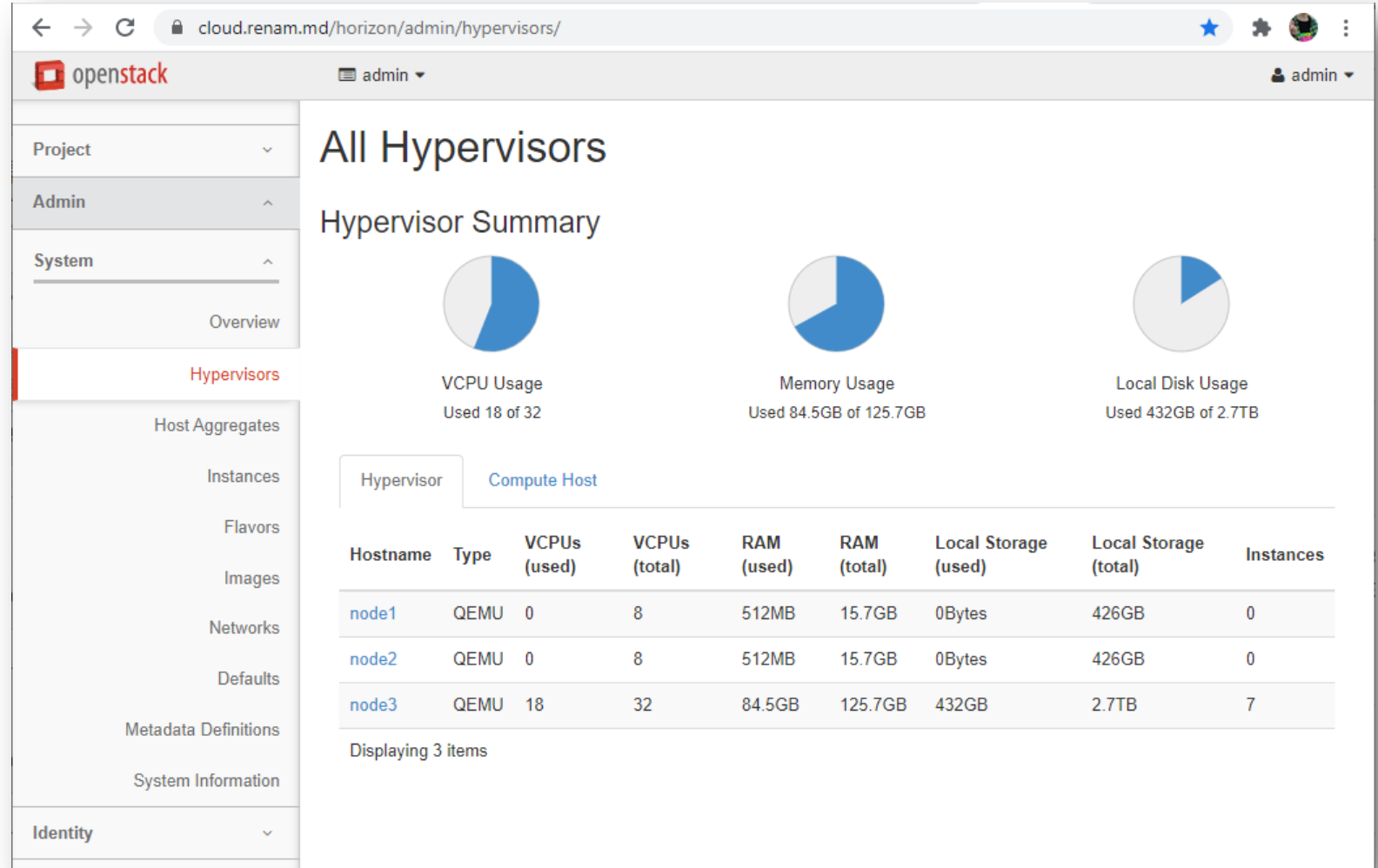
OpenStack Mitaka

Currently one node with:

- 32 CPU Threads;
- 128 GB RAM
- 2.7TB non-SSD HDD;
- 1 Gbit/s internal network;
- 1 Gbit/s public network;
- 15 public IP addresses;

New cloud under construction:

- Computing Nodes High-Performance DELL servers;
- 10G fiber optics internal and external connections;
- OpenStack Block Storage (Cinder) for store user data;
- Self-service networking model with a larger set of public IP addresses;
- Latest stable OpenStack release;



The screenshot shows the OpenStack Horizon admin interface for the 'cloud.renam.md' project. The main content area is titled 'All Hypervisors' and displays a 'Hypervisor Summary' with three pie charts:

- VCPU Usage:** Used 18 of 32
- Memory Usage:** Used 84.5GB of 125.7GB
- Local Disk Usage:** Used 432GB of 2.7TB

Below the charts, there is a table with tabs for 'Hypervisor' and 'Compute Host'. The table lists three nodes:

Hostname	Type	VCPUs (used)	VCPUs (total)	RAM (used)	RAM (total)	Local Storage (used)	Local Storage (total)	Instances
node1	QEMU	0	8	512MB	15.7GB	0Bytes	426GB	0
node2	QEMU	0	8	512MB	15.7GB	0Bytes	426GB	0
node3	QEMU	18	32	84.5GB	125.7GB	432GB	2.7TB	7

Displaying 3 items

The main users of the RSC are:
system administrators, programmers, teachers, students,
researchers and participants in joint projects from Institutes,
Universities and Academic Organizations.
RSC is also actively used by RENAM employees.

Use-scenarios:

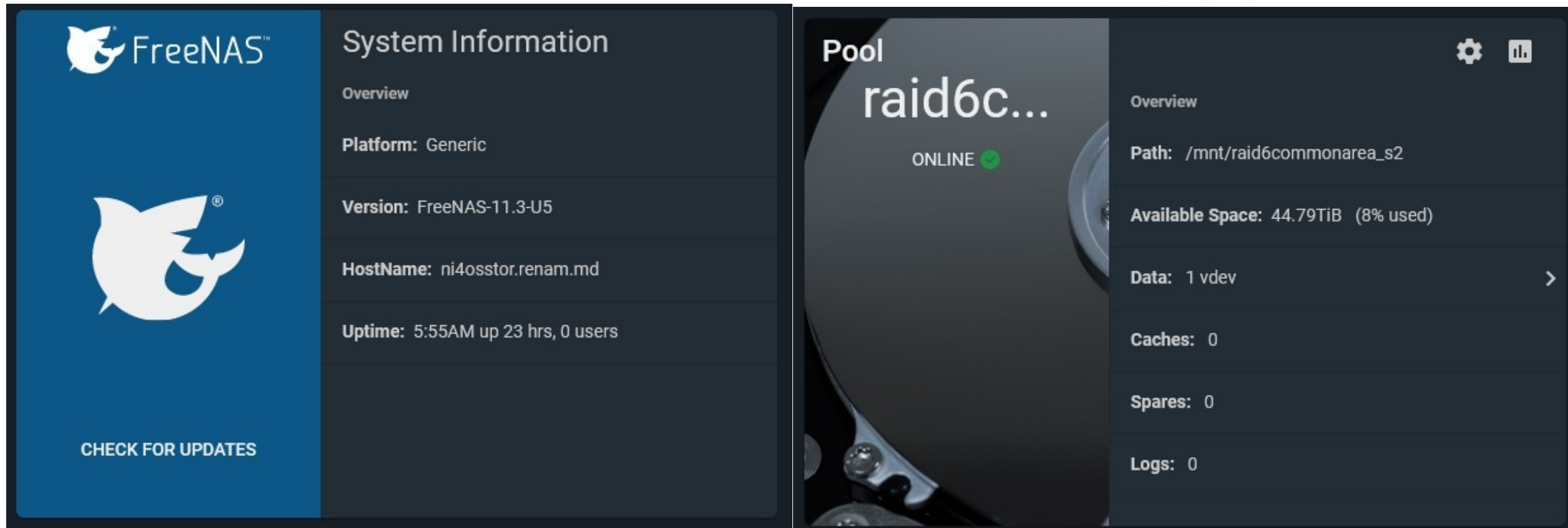
- Agree on a resource quota;
- Create project;
- Provide access;
- User support.

DEMO:

- Projects and quotas;
- VM Images;
- VM Flavors;
- Security groups (firewall);
- Launch an instance;
- SSH keys and VM access;



Services on storage: FTP, NFS, SMB, WebDAV



The screenshot displays the FreeNAS web interface. On the left, the 'System Information' panel shows the following details:

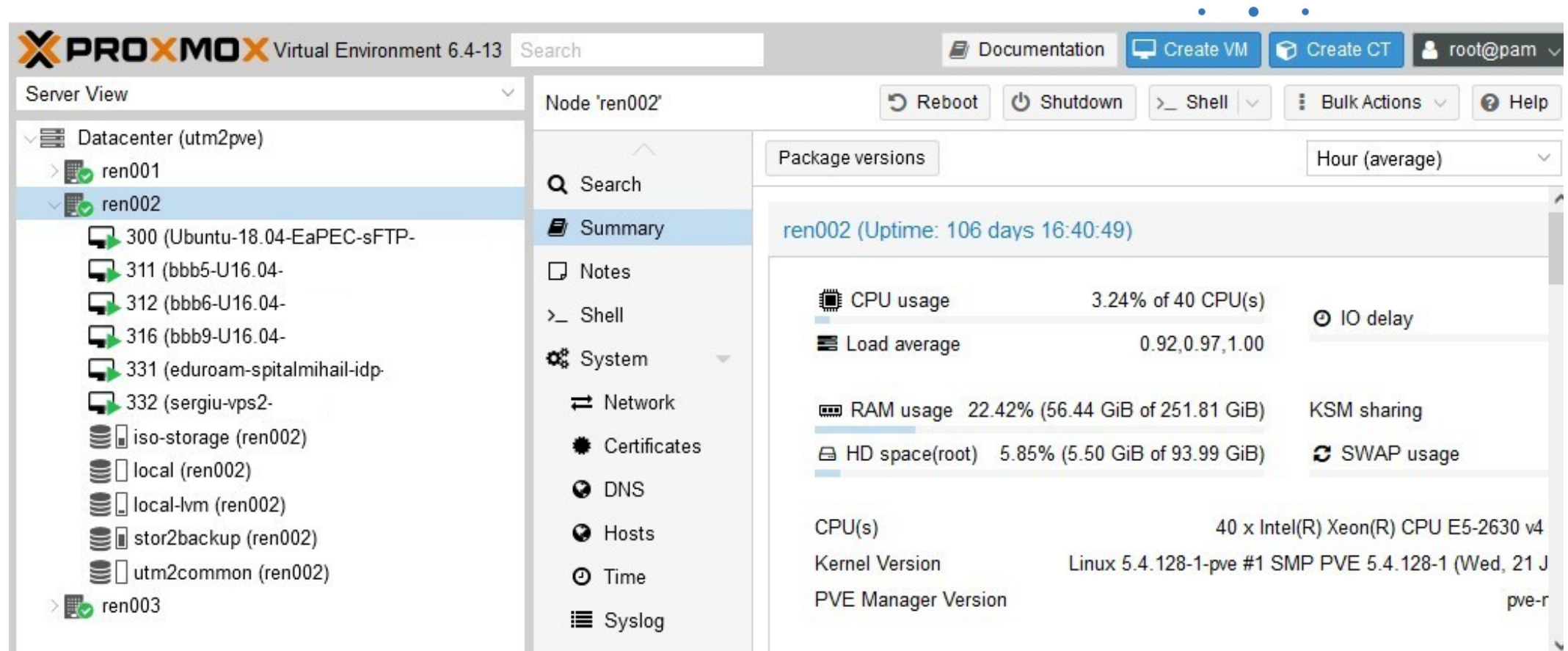
- Platform:** Generic
- Version:** FreeNAS-11.3-U5
- HostName:** ni4osstor.renam.md
- Uptime:** 5:55AM up 23 hrs, 0 users

At the bottom of this panel is a 'CHECK FOR UPDATES' button. On the right, the 'Pool raid6c...' overview panel shows:

- Path:** /mnt/raid6commonarea_s2
- Available Space:** 44.79TiB (8% used)
- Data:** 1 vdev
- Caches:** 0
- Spares:** 0
- Logs:** 0

The pool status is 'ONLINE' with a green checkmark. The background of the pool panel features a close-up image of a hard drive.

3 servers in cluster. 120 CPU, 768 Gb RAM, 12 Tb HDD



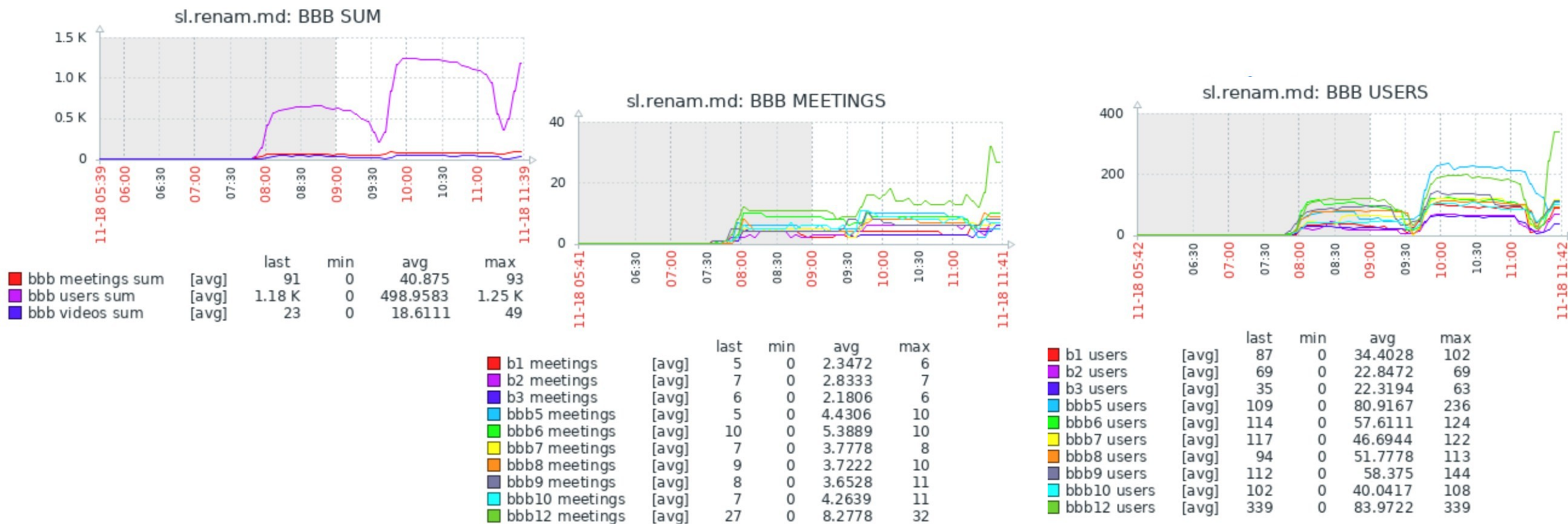
The screenshot displays the Proxmox Virtual Environment (PVE) interface. The left sidebar shows a tree view of the datacenter 'utm2pve' with three nodes: 'ren001', 'ren002', and 'ren003'. Node 'ren002' is selected and highlighted. The main content area shows the 'Node 'ren002'' summary page. At the top, there are buttons for 'Reboot', 'Shutdown', 'Shell', 'Bulk Actions', and 'Help'. Below these, there are tabs for 'Package versions' and a dropdown for 'Hour (average)'. The main summary section for 'ren002 (Uptime: 106 days 16:40:49)' includes:

- CPU usage:** 3.24% of 40 CPU(s)
- Load average:** 0.92, 0.97, 1.00
- RAM usage:** 22.42% (56.44 GiB of 251.81 GiB)
- HD space(root):** 5.85% (5.50 GiB of 93.99 GiB)
- IO delay:** (graph icon)
- KSM sharing:** (graph icon)
- SWAP usage:** (graph icon)

System information at the bottom includes:

- CPU(s):** 40 x Intel(R) Xeon(R) CPU E5-2630 v4
- Kernel Version:** Linux 5.4.128-1-pve #1 SMP PVE 5.4.128-1 (Wed, 21 J
- PVE Manager Version:** pve-r

Monitoring of BigBlueButton cluster (14 VMs)





Thank you!

Any questions?

RENAM, Chisinau, Moldova

Website: www.renam.md

Social media:  @RENAM.MD  @RENAM_AO