



Nor-Tech's NT-EZ Suite of Cluster Support Solutions

Nor-Tech has been a primary innovator in the HPC cluster space for more than 2 decades. Our elite staff of expert engineers, averaging more than a decade of hands-on experience, are consistently conquering industry challenges that our competitors long abandoned as insurmountable. The result is a suite of cost-effective NT-EZ branded services that remove the classic obstacles to high performance computing.

- **NT-EZ RepliSafe:** This is a new, easy-to-use bare metal recovery solution designed specifically for software-mirrored SAS/SATA/NVMe drive pairs. It enables full system restoration directly from mirrored SAS/SATA/NVMe drives without needing additional configuration.
- **NT-EZ Remote Visualization:** Storage access too slow? With NT-EZ Remote Visualization, big data files don't have to be transferred to the user's location to be viewed for post processing. Only keyboard, mouse and screen bits travel to the user location.
- **NT-EZ Storage Guard:** -StorageGuard continuously monitors filesystem capacity and storage health across critical HPC infrastructure. It is designed to detect and alert on storage conditions before they become outages or job-impacting failures.

Nor-Tech
NT-EZ Storage Guard

WARNING
NT-EZ Storage Guard - WARNING - Space available on the "/boot" partition has reached warning levels. The partition is currently 24% full. You will be notified again, once the partition has reached the critical threshold of 90%.

Hostname kvmsrv01.nor-tech.com
Generated 03/06/26 15:05:23
Status WARNING

Monitored Partitions

Partition	Used	Warning Threshold	Critical Threshold
/	8%	80%	90%
/boot	24%	20%	90%
/STORAGE1	5%	2%	4%

Generated by NT-EZ Storage Guard

- **NT-EZ SATM (System Ambient Temperature Monitor):** NT-SATM monitors environmental and ambient temperatures across HPC systems and infrastructure to help identify cooling problems before they impact system stability or hardware reliability.

The screenshot displays the Nor-Tech NT-EZ SATM monitoring interface. At the top, it identifies the system as 'Nor-Tech NT-EZ SATM'. A prominent yellow warning box contains the text: 'WARNING! System temperatures on kvmsrv01.nor-tech.com are reaching critical state. If temperatures continue to climb, shutdown will be initiated.' Below this, key system information is listed: Hostname (kvmsrv01.nor-tech.com), Generated (03/09/26 09:10:57), and Status (WARNING). A 'Temperature Summary' table provides further details on current and threshold temperatures.

Metric	Value
Current Temperature	33 C
Warning Threshold	32 C
Critical Threshold	36 C

Generated by NT-EZ SATM

- **NT-EZ RCR Rapid Cluster Recovery/Bare Metal Backup:** Run manual cluster backups or schedule backups seamlessly. This not only backs up the cluster data, but also backs up an image of both the data and the OS. In the event of a disaster the whole cluster software and applications environment can easily be recovered. This adds a level of reliability to our clusters that many competitors don't provide.
- **NT-EZ Remote Monitoring & Management:** This provides an easy way for our clients to use and manage complex equipment such as a High Performance Compute Cluster without HPC expertise in-house. This service is provided on either a scheduled basis or an as needed basis. The scheduled service allows us to find and fix small problems before they become disasters. This service is sold in blocks of hours ahead of when the service may be needed.
- **NT-EZ AI:** Expertly integrated to maximize AI capabilities and deliver the fastest results. The solution includes CUDA, CUDA Toolkit, PyTorch, TensorFlow, CUDNN, NVIDIA Drivers, Ubuntu and more.
- **NT-EZ Grafana:** An open-source analytics and interactive visualization web application for monitoring application performance. It allows users to ingest data from a wide range of sources, query and display it in customizable charts, set alerts for abnormal behavior, and visualize data on dashboards. [Watch the video.](#)
- **NT-EZ NodeStat (Cluster visibility at a glance):** NT-EZ NodeStat provides a real-time operational view of HPC cluster health, node availability, scheduler state, storage usage, and hardware status from a single interface. Designed for Linux-based HPC environments running Slurm or PBS, it gives administrators and users immediate insight into the state of the cluster without digging through multiple commands or dashboards. Key capabilities include:

- Real-time node health and availability monitoring
- Scheduler-aware status reporting (Slurm/PBS)
- CPU, memory, GPU, and storage visibility
- Cluster utilization summaries
- Power and reachability checks
- Clean, readable terminal dashboards for rapid triage
- Helps reduce troubleshooting time by surfacing critical infrastructure information in a fast, consistent, and easy-to-read format.

```

NT-NodeStat v4.0.0
Host: cluster

Node Status
Targets: 5 node(s)

Node Name  BMC Accessible  Chassis Power  OS Status  VNFS Image  Scheduler Status
-----
node001    Accessible      On              Up          Rocky9.7    free
node002    Accessible      On              Up          Rocky9.7    free
node003    Accessible      On              Up          Rocky9.7    free
node004    Accessible      On              Up          Rocky9.7    free
node005    Accessible      On              Up          Rocky9.7    free
    
```

```

NT-NodeStat v4.0.0
Host: cluster

Node Dashboard
Targets: 5 node(s)

Dashboard Overview

Nodes: scheduler unavailable
Jobs: scheduler unavailable

Node Scheduler Health
-----
Healthy [████████████████████] 5/5
Offline [████████████████████] 0/5
Down    [████████████████████] 0/5

Node Utilization
-----
Nodes   [████████████████████] 0/5
CPUs    [████████████████████] 0/0

Scheduler
-----
Running [████████████████████] 0
Pending [████████████████████] 0

Storage
-----
/       [████████████████████] 6%
/home   [████████████████████] 1%
    
```

- **NT-EZ ImageManager (Simplified Cluster Image Deployment and Management):**
 ImageManager streamlines the creation, organization, deployment, and maintenance of operating system images used in HPC and provisioning environments. Built for Warewulf/OpenHPC workflows, it simplifies the process of managing golden images across compute infrastructure. Key capabilities include:
 - Centralized management of cluster node images
 - Version tracking and image organization
 - Simplified deployment workflows
 - Rapid switching between validated cluster images
 - Consistent image naming and lifecycle management
 - Designed for HPC provisioning environments.

- Reduces operational complexity and helps administrators maintain consistent, reproducible cluster environments across nodes.

```

NT-ImageManager v4.0.0
Host: cluster

Warewulf VNFS Images (live from wwsh vnfs list):
VNFS Name      Size      Arch      Version      Last Snapshot      Status
-----
Rocky9.7       1430.0M   x86_64    v6            2026-04-06 10:42   managed

What would you like to do?

1) View details      -- chroot path, arch, unmount list, snapshot history
2) Snapshot          -- save current state as a numbered tar archive
3) Grab from node    -- wwmkchroot pull, auto-snapshot first, auto wwnfs
4) Clone image       -- duplicate chroot to a new name, auto wwnfs
5) Rebuild VNFS      -- wwnfs after direct chroot edits (dnf --installroot)
6) Rollback          -- restore tar archive, option to save current first
7) Register image    -- add a Warewulf VNFS to management, initial snapshot
8) Remove from mgmt  -- unregister, optionally delete archives, chroot, wwsh vnfs
9) Quit

Select action: █
    
```

- **NT-EZ PowerControl (Centralized node power management for HPC clusters):** NT-EZ PowerControl provides administrators with fast, centralized control of cluster node power operations through integrated BMC/IPMI management. It simplifies power orchestration for maintenance, recovery, provisioning, and cluster startup operations. Key capabilities include:
 - Remote node power on/off/reset control
 - Cluster-wide staged startup operations
 - BMC/IPMI integration
 - Reachability and health validation
 - Bulk node management
 - Safe recovery workflows for failed or unresponsive systems
 - NT-PowerControl enables administrators to manage cluster power operations efficiently at scale while reducing manual intervention and recovery time during outages or maintenance events.

```

NT-PowerControl v4.0.0
Host: caecluster4

Query Power Status
Targets: 5 node(s)

NODE      BMC      POWER    OS
-----
node001   Accessible  On       Down
node002   Accessible  Off      Down
node003   Accessible  On       Up
node004   Accessible  On       Up
node005   Accessible  On       Up
    
```

- NT-EZ FanControl (Intelligent fan management for HPC and enterprise systems):** NT-EZ FanControl provides centralized control and monitoring of system fan modes across cluster infrastructure using BMC/IPMI interfaces. It allows administrators to quickly query, adjust, and standardize cooling profiles across large numbers of systems from a single management point. Key capabilities include:
 - Cluster-wide fan mode management
 - Remote BMC/IPMI integration
 - Query and modify system cooling profiles
 - Support for common fan modes such as Standard, Full Speed, Optimal, and Heavy IO
 - Bulk node operations
 - Rapid thermal response during high-load workloads or maintenance events
 - FanControl helps balance cooling performance, acoustics, power consumption, and hardware protection by giving administrators direct control over thermal behavior across the cluster environment.

```

NT-FanControl v4.0.0
Host: cluster

Query Fan Modes
Targets: 6 node(s)

NODE          CURRENT          SUPPORTED FAN OPTIONS
-----
node001      Optimal          1:Full, 2:Optimal, 3:PUE2 Optimal, 4:Heavy IO
node002      Optimal          1:Full, 2:Optimal, 3:PUE2 Optimal, 4:Heavy IO
node003      Optimal          1:Full, 2:Optimal, 3:PUE2 Optimal, 4:Heavy IO
node004      Optimal          1:Full, 2:Optimal, 3:PUE2 Optimal, 4:Heavy IO
node005      Optimal          1:Full, 2:Optimal, 3:PUE2 Optimal, 4:Heavy IO
cluster      Standard         0:Standard, 1:Full, 2:Optimal, 4:Heavy IO
    
```

We are continually evaluating additional areas where we can innovate in order to bring more value to our clients.

CONTACT US NOW TO FIND OUT MORE

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