# Version 6.0.10 Release May 31, 2024

## 1. Supported Products

- Nodegrid Manager
- Nodegrid Serial Console
- Nodegrid Bold SR
- Nodegrid Gate SR

- Nodegrid Link SR
- Nodegrid Net SR
- Nodegrid Hive SR
- Nodegrid Mini SR

#### 2. Upgrading Instructions

Upgrade methods from Web Interface, CLI, USB, and Network Boot are supported. UEFI mode and Secure Boot must be disabled prior to downgrading to v5.0 or older. Upgrade from v4.x versions is only supported starting at v4.2.4.

Upgrade from v3 versions is only supported for NSC devices at v3.2.54 and will erase existing data in /var directory.

#### 3. Software Components Information

Component	Filename	MD5 Checksum
Software ISO	Nodegrid_Platform_v6.0.10_20240528.iso	00d962ecaaf8069fcdbdaef6697d2a05
Network Boot	Nodegrid_NetBoot_v6.0.10_20240528.tar.gz	5f7713bdf8ebb6cbce3ce06168dda4f9
SNMP MIB	Nodegrid_MIB_v6.0.10_20240528.zip	fa552d515e2977ccba78cbb3cf5eb563

#### 4. Security Fixes

- Upgraded several base open source packages, reducing outstanding CVEs by 105 (6 Low, 81 Medium, 18 High)
- Main open source package versions:
  - Linux kernel 6.1.82
  - OpenSSL 3.0.12
  - OpenSSH 9.6p1
  - Python 3.10.13
  - Apache 2.4.58
  - Docker 24.0.9-ce

- Firefox 124.0.1
- OpenSearch 1.2.4
- NetworkManager 1.32.12
- NodeJS 16.18.1
- Ansible 2.9.27
- Libreswan 4.12

#### 5. New Features and Enhancements

- Full refactor of Network Failover. It now supports up to 10 levels, has a new configuration UI, tracking page, and a new backend. The configuration page has moved to Network :: Failover, but import\_settings from other versions still works
- New UI for configuring Border Gateway Protocol (BGP) on Network :: Routing
- Browser buttons "back" and "forward" now work on the WebUI. Actions that log out, such as "refresh" button, now show a confirmation prompt
- In a multi-cluster setup, the search functionality now allows searching across peers even without direct connectivity between peer and Super Coordinator
- Central Management feature is now not limited to cluster peers, and can be used to run Ansible playbooks against any hosts in the Ansible inventory
- Support for MAC filtering in the Firewall configuration
- The system now scans for expired certificates and generates Event ID 171 and an alert header on the UI when it detects certificates close to expiring

- Gateway profile factory settings changes: 1. Enable cellular connection GPS, health and data monitoring. 2. Block ICMP packets in WAN connections. 3. Disable many OOB-related services from Security :: Services.
- Devices in OOB profile now automatically create cellular connections when cellular cards are available

## 6. Bug Fixes

- Fixed network connections page occasionally showing all connections as "Down"
- Fixed admin user unable to login via console when "Fall back if Denied" is not selected for Kerberos Authentication
- Fixed known issue from v6.0.5: "ZPE Cloud: On devices with TPM 1.2, if the "Remote Access" function is disabled, some ZPE Cloud functions such as "Upload Backup" will not work"
- Fixed Managed devices permissions screen not showing disabled devices
- Fixed auto APN selection for UK Vodafone APN
- Fixed discovery rules failures on ACS6000 and ACS8000 managed devices
- Fixed case where switch related processes show high CPU usage when network card is present in NSR back slot

#### 7. Known Issues

• ZPE Cloud: DASHBOARD :: CELLULAR DATA screen does not report any cellular data usage

# Version 6.0.5 Release April 26, 2024

## 1. Supported Products

- Nodegrid Manager
- Nodegrid Serial Console
- Nodegrid Bold SR
- Nodegrid Gate SR

- Nodegrid Link SR
- Nodegrid Net SR
- Nodegrid Hive SR
- Nodegrid Mini SR

#### 2. Upgrading Instructions

Upgrade methods from Web Interface, CLI, USB, and Network Boot are supported. UEFI mode and Secure Boot must be disabled prior to downgrading to v5.0 or older. Upgrade from v4.x versions is only supported starting at v4.2.4.

Upgrade from v3 versions is only supported for NSC devices at v3.2.54 and will erase existing data in /var directory.

#### 3. Software Components Information

Component	Filename	MD5 Checksum
Software ISO	Nodegrid_Platform_v6.0.5_20240423.iso	05ffb77c5a5a6750b3a68b0b13aff71d
Network Boot	Nodegrid_NetBoot_v6.0.5_20240423.tar.gz	6cc5ba8c015705246d871c6d98c4f722
SNMP MIB	Nodegrid_MIB_v6.0.5_20240423.zip	bf74b9e5e0f22e1f78b48d40951b6073

#### 4. New Features and Enhancements

• Add MTU configuration to Ethernet network connection UI

#### 5. Bug Fixes

- Fixed failover between multiple IPSec tunnels
- Fixed default FRR configuration overwriting "Enable IPv4 IP Forward" setting
- Fixed manually restarting NetworkManager process
- Disabled some ZPE Cloud processes that ran in the background when ZPE Cloud is disabled
- Fixed missing SFP statistics
- Fixed issues with export/import settings on managed device types
- Fixed issues with Verizon APN registration
- Fixed diagnostic data failing when LDAP authentication server is configured
- Fixed usb\_serial (FTDI) devices being wrongly detected as usb\_sensor. Air Flow/Temperature and Dust devices will not be automatically detected and need to be manually configured

#### 6. Known Issues

• ZPE Cloud: On devices with TPM 1.2, if the "Remote Access" function is disabled, some ZPE Cloud functions such as "Upload Backup" will not work

# Version 6.0.4 Release April 3, 2024

## 1. Supported Products

- Nodegrid Manager
- Nodegrid Serial Console
- Nodegrid Bold SR
- Nodegrid Gate SR

- Nodegrid Link SR
- Nodegrid Net SR
- Nodegrid Hive SR
- Nodegrid Mini SR

#### 2. Upgrading Instructions

Upgrade methods from Web Interface, CLI, USB, and Network Boot are supported. UEFI mode and Secure Boot must be disabled prior to downgrading to v5.0 or older. Upgrade from v4.x versions is only supported starting at v4.2.4. Upgrade from v3 versions is only supported for NSC devices at v3.2.54 and will

erase existing data in /var directory.

#### 3. Software Components Information

Component	Filename	MD5 Checksum
Software ISO	Nodegrid_Platform_v6.0.4_20240331.iso	157f1bb3765fad50e4bd16720c8dd0ab
Network Boot	Nodegrid_NetBoot_v6.0.4_20240331.tar.gz	59c8f8458816407fd790c37bfbc3e05b
SNMP MIB	Nodegrid_MIB_v6.0.4_20240331.zip	6f22683695d47511510d26553f406983

#### 4. Security Fixes

- Upgraded lighttpd to v1.4.74 (CVE-2023-44487)
- Upgraded nghttp2 to v1.60.0 (CVE-2023-44487)
- Upgraded Firefox to v124.0.1 (CVE-2024-29943)
- Upgraded bind to v9.18.24 (CVE-2023-50387)

#### 5. New Features and Enhancements

- Support for IP Passthrough for WiFi interfaces
- Support for "COM Port Control" protocol (RFC-2217)
- Enable USB Attached SCSI (UAS) support in kernel

#### 6. Bug Fixes

- Fixed PPPoE connections not working
- Erase BIOS/bootloader password when upgrading with "format partitions" option
- Fixed issues with IP Passthrough
- Fixed LLDP sometimes not starting in switch interfaces after boot
- Fixed segmentation fault error on manual restart of Network Manager process
- Added 13388.mcs ATT APN to APNs DB
- Fixed failure to read wireless modem information in some cases
- Fixed misleading events 160 and 161 generated on boot ("Search is unavailable" and "Search has been restored")
- Do not restart network connections upon reconfiguration of another connection
- Fixed non-admin users unable to access MKS session of VM
- Fixed WAN/LAN interfaces information in Access :: Overview page

# Version 6.0.3 Release February 23, 2024

## 1. Supported Products

- Nodegrid Manager
- Nodegrid Serial Console
- Nodegrid Bold SR
- Nodegrid Gate SR

- Nodegrid Link SR
- Nodegrid Net SR
- Nodegrid Hive SR
- Nodegrid Mini SR

#### 2. Upgrading Instructions

Upgrade methods from Web Interface, CLI, USB, and Network Boot are supported. UEFI mode and Secure Boot must be disabled prior to downgrading to v5.0 or older. Upgrade from v4.x versions is only supported starting at v4.2.4.

Upgrade from v3 versions is only supported for NSC devices at v3.2.54 and will erase existing data in /var directory.

#### 3. Software Components Information

Component	Filename	MD5 Checksum
Software ISO	Nodegrid_Platform_v6.0.3_20240222.iso	93f68e5c99b7eae1eb3b35dcabf3cbeb
Network Boot	Nodegrid_NetBoot_v6.0.3_20240222.tar.gz	d964e662aa2d485209a55e36ad26a18c
SNMP MIB	Nodegrid_MIB_v6.0.3_20240222.zip	a6c16addcfed8435779327b41d914e63

#### 4. Security Fixes

- Upgraded linux-kernel to v6.1.75 (CVE-2024-0646, CVE-2024-0565, CVE-2023-5717)
- Upgraded xserver-xorg to v21.1.11 and xorgproto to v2023.2 (CVE-2023-6816)
- Upgraded libuv to v1.48.0 (CVE-2024-24806)
- Patched FreeRDP v2.11.0 (CVE-2024-22211)

#### 5. New Features and Enhancements

- The VRRP keepalive file is now covered by Save Settings
- Added support to Static LAG for NSR Compute module's backplane ports

#### 6. Bug Fixes

- Upgraded InnoDisk SSD microcode from version S17411i to version S21804i, fixing issues in the handling of block information
- Fixed the *less* and *more* commands being unable to exit or navigate from a shell session started by CLI
- Fixed editing IPsec Tunnel validation for pre-shared-key
- Added Dashboard logs size control when Search Engine is irresponsive
- Fixed OCP Menu opening on non-USB serial ports
- Fixed API toolkit/files/execute issue when invalid executable is requested
- PDU Austin Hughes: Fixed managing multiple outlets using SNMP protocol
- ZPE Cloud:
  - Resolved *supervisor* errors causing false positive logs

# Version 6.0.2 Release January 26, 2024

## 1. Supported Products

- Nodegrid Manager
- Nodegrid Serial Console
- Nodegrid Bold SR
- Nodegrid Gate SR

- Nodegrid Link SR
- Nodegrid Net SR
- Nodegrid Hive SR
- Nodegrid Mini SR

#### 2. Upgrading Instructions

Upgrade methods from Web Interface, CLI, USB, and Network Boot are supported. UEFI mode and Secure Boot must be disabled prior to downgrading to v5.0 or older. Upgrade from v4.x versions is only supported starting at v4.2.4.

Upgrade from v3 versions is only supported for NSC devices at v3.2.54 and will erase existing data in /var directory.

#### 3. Software Components Information

Component	Filename	MD5 Checksum
Software ISO	Nodegrid_Platform_v6.0.2_20240125.iso	ef9067f92f42b9669b50aed66464f0c3
Network Boot	Nodegrid_NetBoot_v6.0.2_20240125.tar.gz	aa9ae0f6ff9cbf7daaabd22f32582c89
SNMP MIB	Nodegrid_MIB_v6.0.2_20240125.zip	23e3c102b847e9a5e0453e0e4ee81dde

#### 4. Security Fixes

- Upgraded OpenSSH to v9.6p1 (CVE-2023-51385, CVE-2023-48795, CVE-2023-51384)
- Upgraded Apache2 to v2.4.58 (CVE-2023-31122, CVE-2023-43622)
- Upgraded qatzip to v1.1.2 (CVE-2022-36369)
- Upgraded dnsmasq to v2.89 (CVE-2022-0934, CVE-2023-28450)
- Upgraded libmodbus to v3.1.10 (CVE-2022-0367)
- Upgraded xserver-xorg to v21.1.9 (CVE-2023-5367, CVE-2023-5574)
- Upgraded sqlite to v3.44.2 (CVE-2023-7104)
- Upgraded nghttp2 to v1.57.0 (CVE-2023-44487)
- Upgraded libx11 to v1.8.7 (CVE-2023-43787)
- Upgraded ffmpeg v6.1 (CVE-2023-47470)
- Upgraded libsndfile1 to v1.2.2 (CVE-2022-33065)
- Patched linux-kernel v6.1.57 (CVE-2023-5178)
- Patched grub v2.06 (CVE-2023-4692)
- Patched qtbase v5.15 (CVE-2023-51714)

#### 5. New Features and Enhancements

- Additional support for locking user accounts after failed login attempts
- Allow disabling console access to the Nodegrid device
- Support for IPSec with X.509 certificates
- New table to manage system certificates on Security :: Certificates
- LLDP support for bridge connections

# Nodegrid Platform - Release Notes

## 6. Bug Fixes

- Fixed LTE Modem not connecting when using Verizon SIM card
- Fixed creation of bridge between one ethernet interface and one VLAN over bonding connection
- Fixed some API queries for DHCP returning error 500
- Fixed API endpoint system/toolkit/files/execute failing to execute CLI commands
- Generate event device up/down after reconfiguration of mode from on-demand to enabled

#### 7. Known Issues

• ZPE Cloud: After a system boot, the first application of a profile fails if "File Encryption" or "File Protection" is used

# Version 6.0.1 Release December 20, 2023

## 1. Supported Products

- Nodegrid Manager
- Nodegrid Serial Console
- Nodegrid Bold SR
- Nodegrid Gate SR

- Nodegrid Link SR
- Nodegrid Net SR
- Nodegrid Hive SR
- Nodegrid Mini SR

#### 2. Upgrading Instructions

Upgrade methods from Web Interface, CLI, USB, and Network Boot are supported. UEFI mode and Secure Boot must be disabled prior to downgrading to v5.0 or older. Upgrade from v4.x versions is only supported starting at v4.2.4.

Upgrade from v3 versions is only supported for NSC devices at v3.2.54 and will erase existing data in /var directory.

#### 3. Software Components Information

Component	Filename	MD5 Checksum
Software ISO	Nodegrid_Platform_v6.0.1_20231214.iso	5a88310e942dbbff771b6c4fc77026c2
Network Boot	Nodegrid_NetBoot_v6.0.1_20231214.tar.gz	ceeb4c1c6d969ee74ac171bfebd81218
SNMP MIB	Nodegrid_MIB_v6.0.1_20231214.zip	4fcbcf31e15db1efcc25031ad8ec3f28

#### 4. Security Fixes

- Upgraded FRR to v9.1 (CVE-2023-38406, CVE-2023-41361, CVE-2023-41360, CVE-2022-37032, CVE-2023-41359, CVE-2023-3748, CVE-2023-38407, CVE-2023-47235, CVE-2023-47234, CVE-2023-41909, CVE-2023-38802, CVE-2023-41358)
- Upgraded OpenVPN to v2.6.8 (CVE-2023-46850)
- Upgraded perl to v5.38.2 and perl-cross to v1.5.2 (CVE-2023-47100)
- Upgraded vim to v9.0.2130 (CVE-2023-5535)
- Upgraded Firefox to v121.0b5 (CVE-2023-49060)
- Upgraded binutils to v2.41 (CVE-2023-25584, CVE-2022-44840, CVE-2022-45703, CVE-2022-47673, CVE-2022-47695, CVE-2022-47696)

#### 5. Bug Fixes

- Fixed problems resulting from incomplete installation in some Nodegrid Managers (VMs) due to network card not recognized in early installation process
- Fixed USB sensor devices not being updated correctly when unplugging from a USB hub
- Fixed running a playbook via API in Central management
- Fixed "Interface" in VLAN connection being read-only
- Fixed LLDP settings being ignored when creating a bond interface
- Improved device reconnection to ZPE Cloud in case of network changes
- ZPE Cloud: Fixed IP address and Interface information not displayed on Device Details

# Version 6.0.0 Beta Release November 30, 2023

## 8. Supported Products

- Nodegrid Manager
- Nodegrid Serial Console
- Nodegrid Bold SR
- Nodegrid Gate SR

- Nodegrid Link SR
- Nodegrid Net SR
- Nodegrid Hive SR
- Nodegrid Mini SR

#### 9. Upgrading Instructions

Upgrade methods from Web Interface, CLI, USB, and Network Boot are supported. UEFI mode and Secure Boot must be disabled prior to downgrading to v5.0 or older. Upgrade from v4.x versions is only supported starting at v4.2.4.

Upgrade from v3 versions is only supported for NSC devices at v3.2.54 and will erase existing data in /var directory.

#### **10. Software Components Information**

Component	Filename	MD5 Checksum
Software ISO	Nodegrid_Platform_v6.0.0_20231128.iso	0843dac84c25c15b921b91c1302cc346
Network Boot	Nodegrid_NetBoot_v6.0.0_20231128.tar.gz	db90dd2e6d2beab56e8a44a56f785097
SNMP MIB	Nodegrid_MIB_v6.0.0_20231128.zip	83847dee6331d0aac042b7954d858d6d

#### 11. Breaking Changes

- Remote access to cluster devices will only work between cluster nodes with Nodegrid OS version v6.0.0 or later
- Removed packages: python2, polkit, cups

#### **12. Security Fixes**

- Upgraded hundreds of base open source packages, reducing outstanding CVEs by 304 (4 Low, 136 Medium, 164 High)
- Main open source package versions:
  - Linux kernel 6.1.57
  - OpenSSL 3.0.12
  - OpenSSH 9.3p2
  - Python 3.10.13
  - Apache 2.4.56
  - Docker 24.0.6-ce

- Firefox 119.0b4
- OpenSearch 1.2.4
- NetworkManager 1.32.8
- NodeJS 16.18.1
- Ansible 2.9.18
- Libreswan 4.12

#### **13. New Features and Enhancements**

- Remote cluster device access now proxies through cluster peers (including multicluster), being able to reach isolated subnetworks
- Integrated UI support for FRR configuration
- Improved UI for wireless modem diagnostics, adding capability to run advanced troubleshooting commands from the UI
- System will drop old sessions and generate events in case the session table becomes full, preventing lock-out
- Masking of possibly sensitive data on Diagnostic Data is now optional

# Nodegrid Platform - Release Notes

- User is automatically logged-out of WebUI when session expires
- Added progress bar and improved disk space check for file downloads greater than 1MB from "Local Computer", such as in software upgrade
- Any interface is now selectable on Firewall Rule UI
- Support for changing Docker data-root location to a different disk or partition in Security :: Services
- Improved "Save Settings" UI to show a list of available backups. Backups are now also accessible via File Manager