

# N-Tron<sup>®</sup> Series NT5000

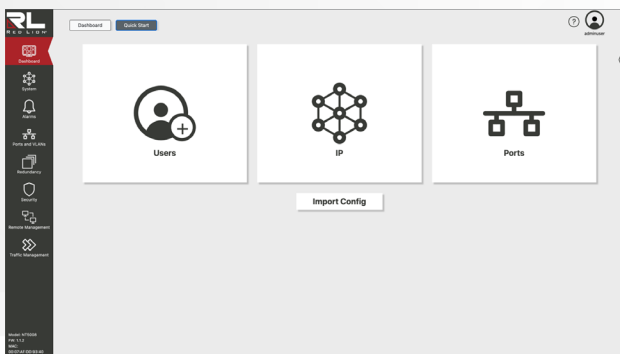
Gigabit Managed Layer 2 Industrial Ethernet Switches

**Designed for Ease of Use, Security and Reliability**





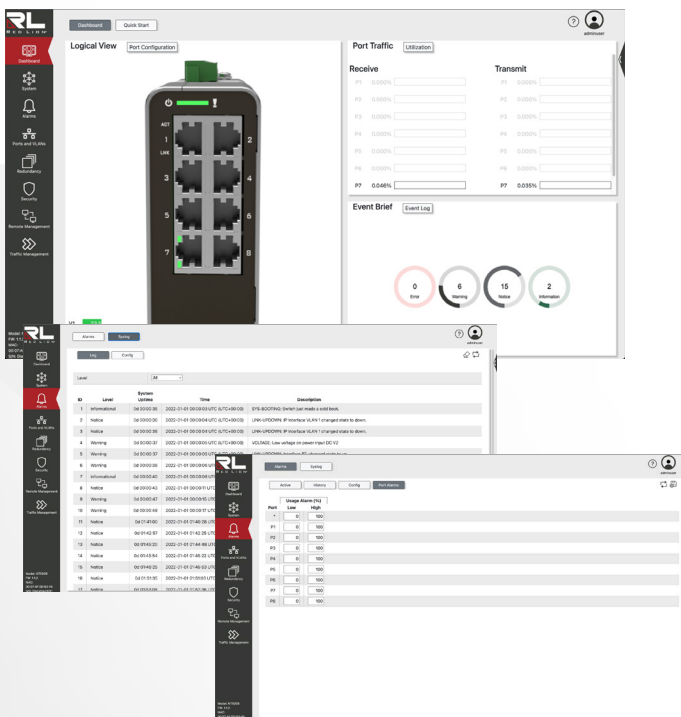
## Designed for Ease of Use



### Configuration Wizard

The modern graphical user interface features a quick start wizard that walks administrators through switch configuration for fast deployment.

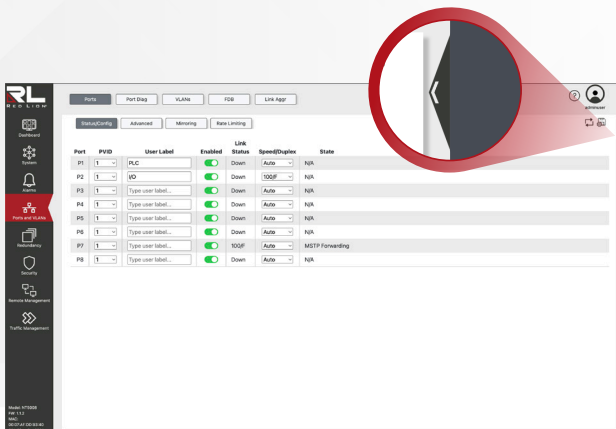
The NT5000 also supports text-based configuration files, making it easy to retrieve the configuration from one device for redistribution to other NT5000 devices on the network.




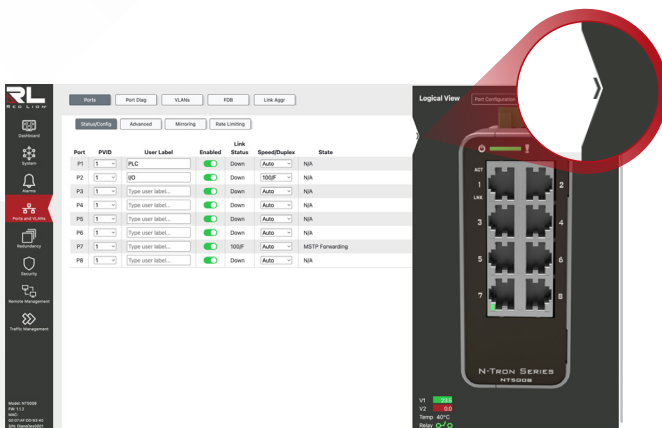
### Graphical Dashboard


The graphical dashboard includes a logical view of the switch, showing active ports and errors. Port traffic and event counters are presented in easy-to-read, color-coded gauges so administrators can quickly identify issues that may disrupt network stability.

The port configuration and event log buttons, prominently featured on the dashboard, make it easy to access valuable information.



The logical view of the switch can be displayed on any NT5000 web page by simply clicking the  symbol located in the upper right corner of the page.



Clicking the  symbol removes the logical view and returns the page to its original format.

Designed to keep your network connected and protected, Red Lion's N-Tron series NT5000 switches provide ease of use, reliability, and security features to maximize operating performance and system uptime.

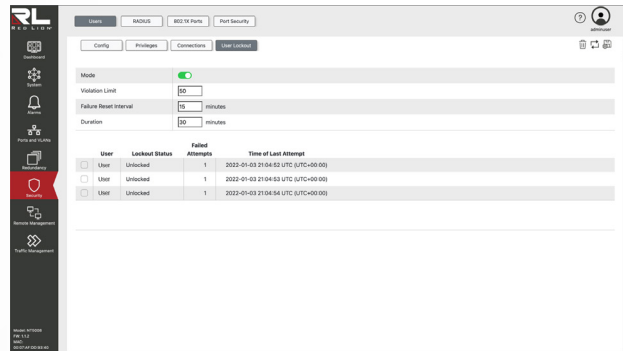




# Protect Your Network From Unauthorized Access

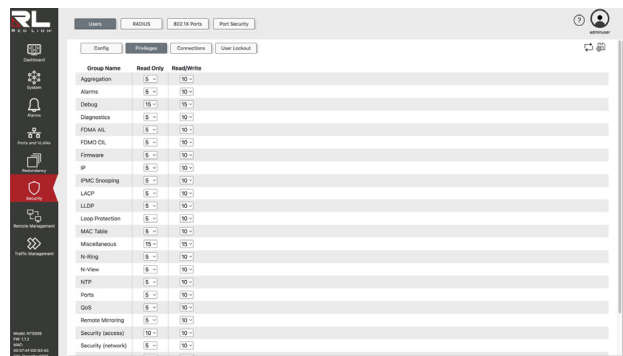
The NT5000 is loaded with security features to help administrators protect the network from unauthorized access.

- ▶ Password encryption
- ▶ MAC security
- ▶ Configurable password length and multi-level user access
- ▶ Ability to disable unused protocols
- ▶ Event log / syslog
- ▶ Ability to automatically disable user or port credentials after "x" failed attempts
- ▶ IEEE 802.1X
- ▶ RADIUS



Use the event log or syslog to receive notifications about access attempts or changes in the switch configuration — either by locally tracking them in the event log or by sending messages to a remote syslog server — so you are always up to date on the state of the network.

Administrators also have the ability to disable user or port credentials automatically after a defined number of failed access attempts.



The NT5000 supports both IEEE 802.1X with RADIUS remote server authentication, which allows port and user authentication from a centralized RADIUS server on the network. This makes it easier to quickly remove access without needing to log in to each device.

Multi-level user privileges can also be defined to restrict access to specific features.





# Advanced Management Features



The NT5000 includes VLAN ease-of-use enhancements for more complex configurations, too.

## VLAN

VLAN configuration is easier than ever with a graphical display of port and tag configuration.

## N-Ring™ Auto-Member

N-Ring auto-member configuration is as simple as connecting cables to the NT5000's pre-configured N-Ring ports.



## Troubleshooting / Firmware Management

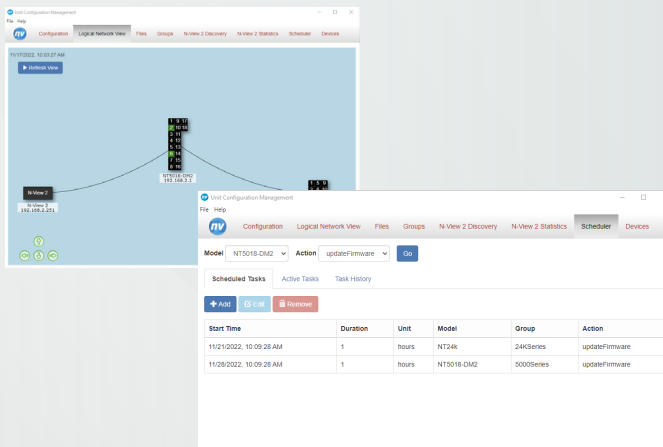
### Port Mirroring

Use port mirroring to duplicate the packets from one switch port to a network connection on another switch port. This gives both network engineers and administrators the ability to troubleshoot issues and keep a closer eye on network performance.

### N-View™ 2

Implementing the latest firmware is an important step in securing your network and maximizing its performance. The NT5000 includes N-View 2 software for multi-unit device monitoring and firmware management.

- ▶ N-View 2 discovery quickly identifies N-View-enabled devices
- ▶ Easy-to-read monitoring pages display switch status, port traffic, and other indicators that point to potential cabling or configuration issues
- ▶ Duplicate IP addresses are automatically detected and highlighted, and can be changed directly from the N-View 2 discovery window
- ▶ N-View 2 simplifies firmware updates by allowing individual switches or user-defined groups to be updated immediately or scheduled for a future date and time



Start Time	Duration	Unit	Model	Group	Action
11/21/2022, 10:09:28 AM	1	hours	NT24k	24kSeries	updateFirmware
11/28/2022, 10:09:28 AM	1	hours	NT5016-DM2	5000Series	updateFirmware



# A Durable Design For Every Application

The NT5000 gigabit switches are designed to provide years of reliable operation in harsh industrial applications.

**Features include:**

- ▶ Compact metal enclosure
- ▶ Wide operating temperature range from -40° C to 85° C (model dependent)
- ▶ Redundant power inputs (10-49 VDC)
- ▶ Vibration: 5 Hz to 200 Hz, 15 g, Triaxial; IEC 68-2-6: operational; bulkhead mounted
- ▶ Shock: 200 g, 10 ms, Triaxial; IEC 68-2-27: non-operational; bulkhead mounted
- ▶ Fast boot (traffic passes <20 seconds)
- ▶ Configurable alarm contact
- ▶ Configurable bi-color fault status LED
- ▶ LED port status indicators
- ▶ Reverse polarity protection
- ▶ ESD and surge protection



The NT5000 is available in 6, 8, 10, 16 and 18 port configurations in a variety of copper and fiber options to meet specific installation requirements.

Model	10/100/1000Base T RJ45 Ports	Dual Mode (100/1000Base) SFP Ports	100Base Fiber Ports	1000Base Fiber Ports
NT5006	6			
NT5006-DM2	4	2		
NT5008	8			
NT5008-DM2	6	2		
NT5008-FX2	6		2	
NT5008-GX2	6			2
NT5010-DM2	8	2		
NT5010-FX2	8		2	
NT5010-GX2	8			2
NT5016	16			
NT5018-DM2	16	2		
NT5018-FX2	16		2	
NT5018-GX2	16			2

### Industry Certifications

The NT5000 carries extensive compliance certifications, making it ideal for use in most industrial applications, including factory automation, robotics, food and beverage, oil and gas, alternative energy, water/wastewater, marine, rail, and many more.







# Feature Summary

## Ease of Use

- ▶ Modern graphical web interface
- ▶ Configuration wizard
- ▶ Switch logical view
- ▶ Graphical dashboards
- ▶ Cabling diagnostics
- ▶ Full command line interface

## Security

- ▶ HTTPS, SSH, SSL
- ▶ IEEE 802.1X port and user authentication (RADIUS)
- ▶ MAC port security
- ▶ SNMPv3
- ▶ Port/user lock after failed attempts
- ▶ Password encryption

## Switch Management

- ▶ IGMP v1, v2, v3 auto configuration
- ▶ SNMP v1, v2, v3
- ▶ Port mirroring
- ▶ Event log/syslog
- ▶ Network time protocol (NTP)
- ▶ 802.1Q tag VLAN and port VLAN
- ▶ IEEE 801.2p QoS and port QoS
- ▶ DHCP client
- ▶ Text-based config file
- ▶ N-View 2 monitoring and firmware management software

## Network Redundancy

- ▶ STP/RSTP/MSTP
- ▶ N-Ring auto-member
- ▶ Port trunking/LACP

## Transform your operation with Red Lion's N-Tron Series

Visit [redlion.net](http://redlion.net) for more information and model specifications.



For over 50 years, Red Lion has strived to be THE Industrial Data Company™. The company empowers industrial organizations around the world to unlock the value of data by developing and manufacturing innovative solutions to access, connect and visualize their information. Red Lion products make it easy for companies to gain real-time data visibility that drives productivity. Red Lion is part of Spectris plc, the experts in providing insight through precision measurement. For more information, please visit [www.redlion.net](http://www.redlion.net).

ADLD0520 ©2023 Red Lion Controls, Inc. All rights reserved. Red Lion, the Red Lion logo, N-Tron, N-Ring, THE Industrial Data Company are trademarks of Red Lion Controls, Inc. All other company and product names are trademarks of their respective owners.