

IKS-6728Aシリーズ

24+4Gポートギガビットモジュール式マネージド・PoE+イーサネット・スイッチ

機能と特長

- IEEE 802.3af/at準拠のPoE+ポートを8ポート内蔵 (IKS-6728A-8PoE)
- PoE+ポートあたり最大36W出力 (IKS-6728A-8PoE)
- Turbo Ring と Turbo Chain (回復時間< 20 ms、スイッチ250の場合)¹、およびネットワーク冗長性のための STP/RSTP/MSTP
- 過酷な屋外環境に対する1 kVのLANサージ保護
- 電源デバイスモード解析のためのPoE診断
- 4つの広帯域通信用ギガビットコンボポート
- -40~75°Cの動作温度範囲 (720 Wフルローディング)
- 簡単に視覚化された産業用ネットワーク管理を行うためのMXstudioに対応
- V-ON™により、ミリ秒レベルのマルチキャストデータとビデオネットワークの回復を確実に実現



認証



製品紹介

IKS-6728Aシリーズは、ビジネスおよび産業におけるミッションクリティカルなアプリケーションの厳しい要求を満たすように設計されています。IKS-6728AおよびIKS-6728A-8PoEには、最大24個の10/100base T(X)、またはPOE/POE+、安定した4コンボギガビットイーサネットポートが付属しています。IKS-6728A-8PoEイーサネットスイッチは、標準モードでPoE+ポートあたり最大30Wの電力を供給するほか、ワイパー/ヒーター付きの耐候性IP監視カメラ、高性能ワイヤレスアクセスポイント、堅牢なIP電話など、ヘビーデューティーな産業用PoEデバイス向けに最大36Wのハイパワー出力にも対応しています。

IKS-6728A-8PoEイーサネットスイッチは、2種類の電源入力に対応しています。システム電源用に110/220 VACの2種類の電源ソースに対応しています。また、これらのイーサネットスイッチは、STP/RSTP、Turbo Ring、Turbo Chain、PoE電力管理、PoEデバイス自動チェック、PoE電力スケジューリング、PoE診断、IGMP、VLAN、QoS、RMON、帯域幅管理、およびポートミラーリングを含む、さまざまな管理機能をサポートします。IKS-6728A-8PoEは、PoEシステムの中断のない信頼性を保証する3kVサージ保護機能を備え、特に過酷な屋外アプリケーション向けに設計されています。

その他の機能とメリット

- 先進的なPoE管理機能：PoE出力設定、PD障害チェック、PoEスケジューリング、およびPoE診断
- 主なマネージド機能をすばやく構成するためのコマンドラインインターフェース (CLI)
- 各ポリシーに応じてIPアドレスを割り当てるDHCP Option 82
- デバイスの管理および監視用のEtherNet/IP、PROFINET、およびModbus TCPプロトコルをサポート
- Turbo RingおよびTurbo Chain (リカバリ時間はスイッチ250台で20ミリ秒未満) をサポートし、STP/RSTP/MSTPでネットワーク冗長性を実現
- マルチキャストトラフィックをフィルタリングするIGMPスヌーピングおよびGMRP
- ポートベースのVLAN、IEEE 802.1Q VLAN、GVRPでネットワークプランニングを簡素化
- QoS (IEEE 802.1p/1QおよびTOS/DiffServ)
- 最適な帯域幅利用のIEEE 802.3ad、LACP
- TACACS+、IEEE 802.1x、SNMPv3、HTTPS、およびSSHで、ネットワークセキュリティを強化
- 異なるレベルのネットワーク管理を実現するSNMPv1/v2c/v3
- プロアクティブで効率の高いネットワーク監視のためのRMON
- 帯域幅管理により、許可されたMACアドレスへのアクセスを制限する「ポートロック」で、予期しないネットワークアクセスを防止
- オンラインデバッグ用のポートミラーリング
- メールとリレー出力を通じた例外検出による自動警告
- 接続されたデバイスのIPアドレスの自動復旧
- ラインスワップ高速リカバリ
- Webブラウザ、Telnet/シリアルコンソール、CLI、Windowsユーティリティ、ABC-02-USB自動バックアップコンフィギュレータによる設定が

1. ポートのリンク速度が1ギガビット以上の場合、すぐに回復時間は50未満になります。

仕様

Input/Output Interface

Alarm Contact Channels	1 relay output with current carrying capacity of 1 A @ 24 VDC
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Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	8
Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP)	4
Module	2 modular slots for any 8-port or 6-port Interface Modules with 10/100BaseT(X), 100BaseFX (SC/ST connector), 100Base PoE/PoE+, or 100Base SFP ²
Standards	IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1X for authentication IEEE 802.3 for 10BaseT IEEE 802.3ab for 1000BaseT(X) IEEE 802.3ad for Port Trunk with LACP IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control IEEE 802.3z for 1000BaseSX/LX/LHX/ZX

Ethernet Software Features

Management	Back Pressure Flow Control BOOTP DDM DHCP Option 66/67/82 DHCP Server/Client Flow control IPv4/IPv6 LLDP Port Mirror RARP RMON SCP SMTP SNMP Inform SNMPv1/v2c/v3 Syslog Telnet TFTP
Filter	802.1Q BPDU Filter BPDU Guard GMRP GVRP IGMP v1/v2/v3
Redundancy Protocols	Link Aggregation MRP MSTP RSTP STP Turbo Chain Turbo Ring v1/v2 V-ON
Security	Access control list Broadcast storm protection HTTPS/SSL MAB authentication NTP authentication Port Lock

2. ファストイーサネットモジュールの製品情報については、IM-6700Aデータシートを参照してください。

	RADIUS SSH TACACS+
Time Management	NTP Server/Client SNTP
Industrial Protocols	EtherNet/IP Modbus TCP PROFINET
MIB	Ethernet-like MIB MIB-II P-BRIDGE MIB Q-BRIDGE MIB RMON MIB Groups 1, 2, 3, 9 RSTP MIB

Switch Properties

IGMP Groups	2048
Jumbo Frame Size	9.6 KB
MAC Table Size	16 K
Max. No. of VLANs	64
Packet Buffer Size	12 Mbits
Priority Queues	4
VLAN ID Range	VID 1 to 4094

USB Interface

Storage Port	USB Type A
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Serial Interface

Console Port	USB-serial console (Type B connector)
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Power Parameters

Input Voltage	IKS-6728A-4GTXSFP-24-T: 24 VDC IKS-6728A-4GTXSFP-24-24-T: 24 VDC (redundant dual inputs) IKS-6728A-4GTXSFP-48-T: 48 VDC IKS-6728A-4GTXSFP-48-48-T: 48 VDC (redundant dual inputs) IKS-6728A-4GTXSFP-HV-T: 110/220 VAC IKS-6728A-4GTXSFP-HV-HV-T: 110/220 VAC (redundant dual inputs) IKS-6728A-8PoE-4GTXSFP-48-T: 48 VDC IKS-6728A-8PoE-4GTXSFP-48-48-T: 48 VDC (redundant dual inputs) IKS-6728A-8PoE-4GTXSFP-HV-T: 110/220 VAC IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 110/220 VAC (redundant dual inputs)
Operating Voltage	IKS-6728A-4GTXSFP-HV-T: 85 to 264 VAC IKS-6728A-4GTXSFP-HV-HV-T: 85 to 264 VAC IKS-6728A-4GTXSFP-24-T: 18 to 36 VDC IKS-6728A-4GTXSFP-24-24-T: 18 to 36 VDC IKS-6728A-4GTXSFP-48-T: 36 to 72 VDC IKS-6728A-4GTXSFP-48-48-T: 36 to 72 VDC IKS-6728A-8PoE-4GTXSFP-48-T: 36 to 72 VDC IKS-6728A-8PoE-4GTXSFP-48-48-T: 36 to 72 VDC IKS-6728A-8PoE-4GTXSFP-HV-T: 85 to 264 VAC IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 85 to 264 VAC
Input Current	1.1/0.6 A @ 24/48 VDC 0.46/0.31 A @ 110/220 VAC Note: These are the input current ratings for the device with the maximum number of modules installed.

Power Consumption (Max.)	26.4/28.8 W @ 24/48 VDC 29.28/31.92 W @ 110/220 VAC Note: These are the power consumption ratings for the device with the maximum number of modules installed.
Total PoE Power Budget	IKS-6728A-PoE series: Maximum 720 W @ 48 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

IP Rating	IP30
Dimensions	440 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)
Weight	4100 g (9.05 lb)
Installation	Rack mounting

Environmental Limits

Operating Temperature	-40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Safety	EN 60950-1 UL 60950-1
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Railway	EN 50121-4
Maritime	IKS-6728A Series non-PoE models: ABS, CCS, DNV, LR, NK
Freefall	IEC 60068-2-32
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

MTBF

Time	IKS-6728A-4GTXSFP-24-24-T: 836,446 hrs IKS-6728A-4GTXSFP-24-T: 836,446 hrs IKS-6728A-4GTXSFP-48-48-T: 837,778 hrs IKS-6728A-4GTXSFP-48-T: 837,778 hrs IKS-6728A-4GTXSFP-HV-HV-T: 914,783 hrs IKS-6728A-4GTXSFP-HV-T: 927,981 hrs IKS-6728A-8PoE-4GTXSFP-48-48-T: 650,626 hrs IKS-6728A-8PoE-4GTXSFP-48-T: 650,626 hrs IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 697,934 hrs IKS-6728A-8PoE-4GTXSFP-HV-T: 704,618 hrs
Standards	Telcordia (Bellcore), GB

Warranty

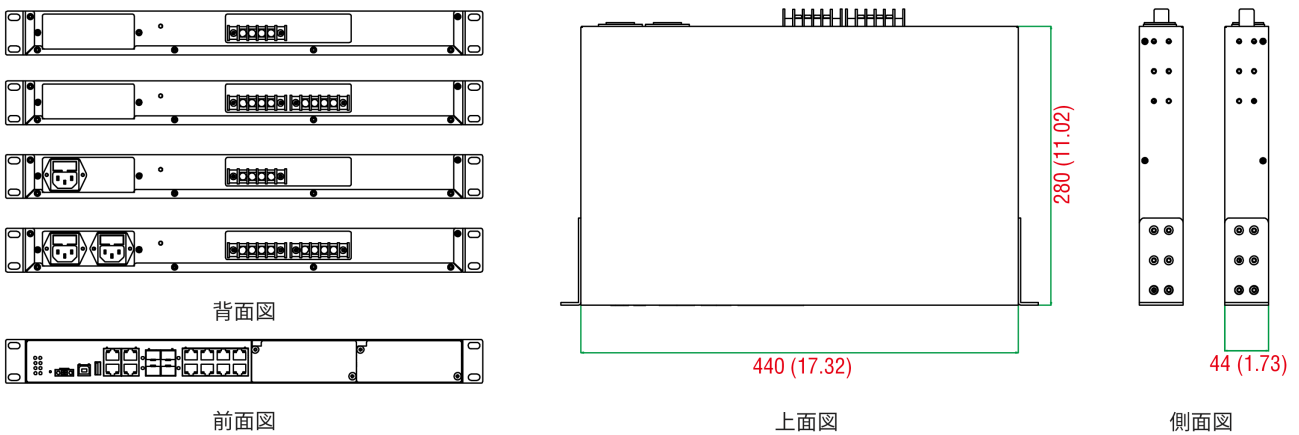
Warranty Period	5 years
Details	See www.moxa.com/jp/warranty

Package Contents

Device	1 x IKS-6728A Series switch
Cable	1 x USB type A male to USB type B male
Installation Kit	2 x rack-mounting ear 8 x cap, plastic, for SFP slot
Power Supply	IKS-6728A-4GTXSFP-HV-T: 1 x power cord, EU type IKS-6728A-4GTXSFP-HV-HV-T: 2 x power cord, EU type IKS-6728A-8PoE-4GTXSFP-HV-T: 1 x power cord, EU type IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 2 x power cord, EU type IKS-6728A-4GTXSFP-HV-T: 1 x power cord, US type IKS-6728A-4GTXSFP-HV-HV-T: 2 x power cord, US type IKS-6728A-8PoE-4GTXSFP-HV-T: 1 x power cord, US type IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 2 x power cord, US type
Documentation	1 x quick installation guide 1 x warranty card
Note	1. If you want to turn on PoE, please add a 48 V external power supply. 2. 48 V external power supply, SFP modules and/or modules from the IM-6700A Module Series need to be purchased separately for use with this product.

寸法

単位: mm (インチ)



注文情報

Model Name	Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSF P)	100BaseSFP Slots	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports	Operating Temp.	Input Voltage	Redundant Dual Input	PoE Support
IKS-6728A-4GTXSFP-HV-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	-	-
IKS-6728A-4GTXSFP-HV-HV-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	P	-
IKS-6728A-4GTXSFP-24-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	24 VDC power supply	-	-
IKS-6728A-4GTXSFP-24-24-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	24 VDC power supply	P	-

Model Name	Combo Ports (10/100/ 1000BaseT(X) or 100/ 1000BaseSF P)	100BaseSFP Slots	10/ 100BaseT(X) Ports RJ45 Connector	100BaseFX Ports	Operating Temp.	Input Voltage	Redundant Dual Input	PoE Support
IKS-6728A-4GTXSFP-48-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	-	-
IKS-6728A-4GTXSFP-48-48-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	P	-
IKS-6728A-8PoE-4GTXSFP-HV-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	-	Up to 24 PoE ports
IKS-6728A-8PoE-4GTXSFP-HV-HV-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	P	Up to 24 PoE ports
IKS-6728A-8PoE-4GTXSFP-48-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	-	Up to 24 PoE ports
IKS-6728A-8PoE-4GTXSFP-48-48-T	4	Up to 20	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	P	Up to 24 PoE ports

アクセサリ（別売）

IM-6700A Module Series

IM-6700A-2MSC4TX	Fast Ethernet module with 2 multi-mode 100BaseFX ports with SC connector, 4 10/100BaseT(X) ports
IM-6700A-2MST4TX	Fast Ethernet module with 2 multi-mode 100BaseFX ports with ST connectors, 4 10/100BaseT(X) ports
IM-6700A-2SSC4TX	Fast Ethernet module with 2 single-mode 100BaseFX ports with SC connector, 4 10/100BaseT(X) ports
IM-6700A-4MSC2TX	Fast Ethernet module with 4 multi-mode 100BaseFX ports with SC connector, 2 10/100BaseT(X) ports
IM-6700A-4MST2TX	Fast Ethernet module with 4 multi-mode 100BaseFX ports with ST connectors, 2 10/100BaseT(X) ports
IM-6700A-4SSC2TX	Fast Ethernet module with 4 single-mode 100BaseFX ports with SC connectors, 2 10/100BaseT(X) ports
IM-6700A-6MSC	Fast Ethernet module with 6 multi-mode 100BaseFX ports with SC connectors
IM-6700A-6MST	Fast Ethernet module with 6 multi-mode 100BaseFX ports with ST connectors
IM-6700A-6SSC	Fast Ethernet module with 6 single-mode 100BaseFX ports with SC connectors
IM-6700A-8PoE	Fast Ethernet PoE+ module with 8 100BaseT(X) PoE/PoE+ ports (for IKS-6728A-8PoE Series only)
IM-6700A-8SFP	Fast Ethernet module with 8 100BaseSFP slots
IM-6700A-8TX	Fast Ethernet module with 8 10/100T(X) ports

Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
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SFP Modules

SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode, LC connector for 2/4 km transmission, -40 to 85°C operating temperature
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature

SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G20ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G20ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G20BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G20BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G40ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G40ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G40BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G40BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1GEZXC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXC-120	SFP module with 1 1000BaseEZXC port with LC connector for 120 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC-T	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature
SFP-1GLHXC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLHXC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GLSXC	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature
SFP-1GLSXC-T	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, -40 to 85°C operating temperature
SFP-1GLXC	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GLXC-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXC	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature
SFP-1GSXC-T	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, -40 to 85°C operating temperature
SFP-1GZXC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature
SFP-1GZXC-T	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature

Power Cords

PWC-C13US-3B-183	Power cord with United States (US) plug, 1.83 m
PWC-C13EU-3B-183	Power cord with Continental Europe (EU) plug, 1.83 m
PWC-C13AU-3B-183	Power cord with Australian (AU) plug, 1.83 m

PWC-C13UK-3B-183	Power cord with United Kingdom (UK) plug, 1.83 m
PWC-C7US-2B-183	Power cord with United States (US) plug, 10A/125V, 1.83 m
PWC-C7AU-2B-183	Power cord with Australian (AU) plug, 2.5A/250V, 1.83 m
PWC-C7EU-2B-183	Power cord with Continental Europe (EU) plug, 2.5A/250V, 1.83 m
PWC-C7UK-2B-183	Power cord with United Kingdom (UK) plug, 2.5A/250V, 1.83 m
PWC-C13CN-3B-183	Power cord with three-prong China (CN) plug, 1.83 m

Software

MXview-50	Industrial network management software with a license for 50 nodes (by IP address)
MXview-100	Industrial network management software with a license for 100 nodes (by IP address)
MXview-250	Industrial network management software with a license for 250 nodes (by IP address)
MXview-500	Industrial network management software with a license for 500 nodes (by IP address)
MXview-1000	Industrial network management software with a license for 1000 nodes (by IP address)
MXview-2000	Industrial network management software with a license for 2000 nodes (by IP address)
MXview Upgrade-50	License expansion of MXview industrial network management software by 50 nodes (by IP address)

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