

Whitepaper yaNMS

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Amsterdam, The Netherlands

github.com/yanms

Have you ever considered implementing a Network Management System just to get rid of all the hassle that comes with managing networks? Great, but have you also taken security and ACL into consideration? Some Network Management Systems, free or paid, deliver a sleek system which let you manage your network devices in just a few clicks, but lack security, ACL or just don't support that one old device that you use in your network.

This is where yaNMS kicks in and it's also open source (so it's free and open for everyone). Are you still thinking about that one old device that you can't manage with other NMS systems? If it supports telnet or SSH2 your network device can be managed using yaNMS, and if it's using another networking protocol you can always create this functionality and publish your work (so all other users can benefit of your hard work).

Do you have a colleague who is joking and blocks your Internet connection using yaNMS, and you want to revoke his access rights? You can kick him out of the system, change the ACL configuration and you are done. ACL (Access Control List) is done per device and per user. It's possible to create user groups and device groups where users, or devices, can be added and removed. In this way you can easily add a device to a device group, where also users are added to, and all users that are added to this group can manage your device. Access rights are managed per group, so you can easily add a group where only devices can be listed, but not managed. Now ask your colleague to get some coffee and give him his access rights back.



Damn it, who has changed the configuration of device1? From the moment you install yaNMS everything will be logged. So you can always look up who changed the configuration and eventually undo the changes that the person made.

All your devices' passwords will be encrypted using AES and a user specified password along with a salt used as the symmetric key. Since the NSA has the tendency to keep a backup of all our data, we don't want to make use of their free services. That's why we want to keep your passwords as safe as possible and the user specified password is never stored on disk. All data that is saved (e.g., history, device configuration, password etc.) is stored locally and sensitive data is encrypted.



So you are all interested and you want to manage your devices using yaNMS. Great, but maybe you ask yourself how yaNMS must know all the commands to configure your network device. The answer is relatively simple, you must have a XML-file where all the commands are defined. If there is no XML-file available for your device you can create one.

Documentation is made available that explains how you can create your XML-file. But don't worry, some XML-files are already created, which you can use for your network devices.



Project NMS

Site: github.com/yanms

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yaNMS, makes network management easier