Assignment 2. AAA

Authentication, Authorization and Accounting is a user access method to achieve the requirements of infrastructures and systems, both for legal and internal policy reasons.

This work aims to develop the ability to implement and test such a system.

Three different tasks are requested and should be deployed by each group.

Each group member must perform one single task.

In all cases, try to make your report as objective as possible. Bear in mind that the goal of this class in *security*. Put the information in an organized manner and clearly explain the evidence that led to your conclusions.

Option 1 – FreeRadius

Alter the FreeRadius configured on PL2 by performing the following changes:

1. Add users Isaac, Moses, Sara and Abraham;
2. Add groups PU (Privileged Users) and NPU (Non-Privileged Users). Group PU has all privileges, NPU can only perform non-administrative tasks;
3. Assign two of the created user to group PU and the remaining two to group NPU. The users created on PL2 must be kept without any change in their specifications.
4. Apart from the main parts of the configuration, the report must show evidence of the roles assigned to all users.

Option 2 – Federated Radius

Alter the FreeRadius configured on PL2 by adding an additional repository of authentication on the Windows Virtual machine configured on PL3.

1. Add users Isaac and Moses to Active Directory, and users Sara and Abraham to FreeRadius;
2. Allow all users to log on to Linux machine;
3. Apart from the main parts of the configuration, the report must show evidence of the user's access, that is, who can and cannot access Windows machine and Linux machine.

Option 3 – LDAP

Install OpenLDAP on you Linux VM. Set the base-dn to **g*XX*.segsi.mei.isep.ipp.pt** where ***XX*** is the number of your group.

1. Create groups PU (Privileged Users) and NPU (Non-Privileged Users) to LDAP as RDN (Relative Distinguished Name);
2. Add users Isaac and Moses to PU, and Sara and Abraham to NPU;
3. Apart from the main parts of the configuration, the report must show evidence of the user's successful access.

For the proof of concept, groups can use the VM assigned to each group/student or a VM on each one system. If deployed on the VM assigned to each group/student, prepare a way to start and stop each task to avoid possible concerns with the remaining colleagues.

A single student of each group must upload the report in PDF format to Moodle until the date specified in Moodle. The name of the report must comply with the format

Teacher_acronym_Student1#_ Student2#[…]_StudentN#.PDF

as for XXX_9999999_9999998.PDF for a group of a class with teacher XXX with the students 9999999 and 9999998.

Comentado [PR1]: no radius em si? ou seja administrar o servidor radius?

Comentado [JL2R1]: Por exemplo! Dependentemente de onde fazem a prova de conceito, até poderão (num sistema próprio) criar VMs adicionais para testar! A intenção aqui é ser aberto a alternativas de evidências

Comentado [PR3]: acesso a um recurso especifico?

Comentado [PR4R3]: como verificamos os acessos pelo radius? as maquinas ligam-se diretamente. ha algum grupo que seja ou nao permitido no radius? e simulemos no radtest?

Comentado [JL5R3]: Simular no radtest o acesso PU e o não acesso do NPU

Comentado [PR6R3]: Mas o acesso as maquinas nao usa o radius para fazer a validacao da autenticacao/authorizacao