AAA

Foreword

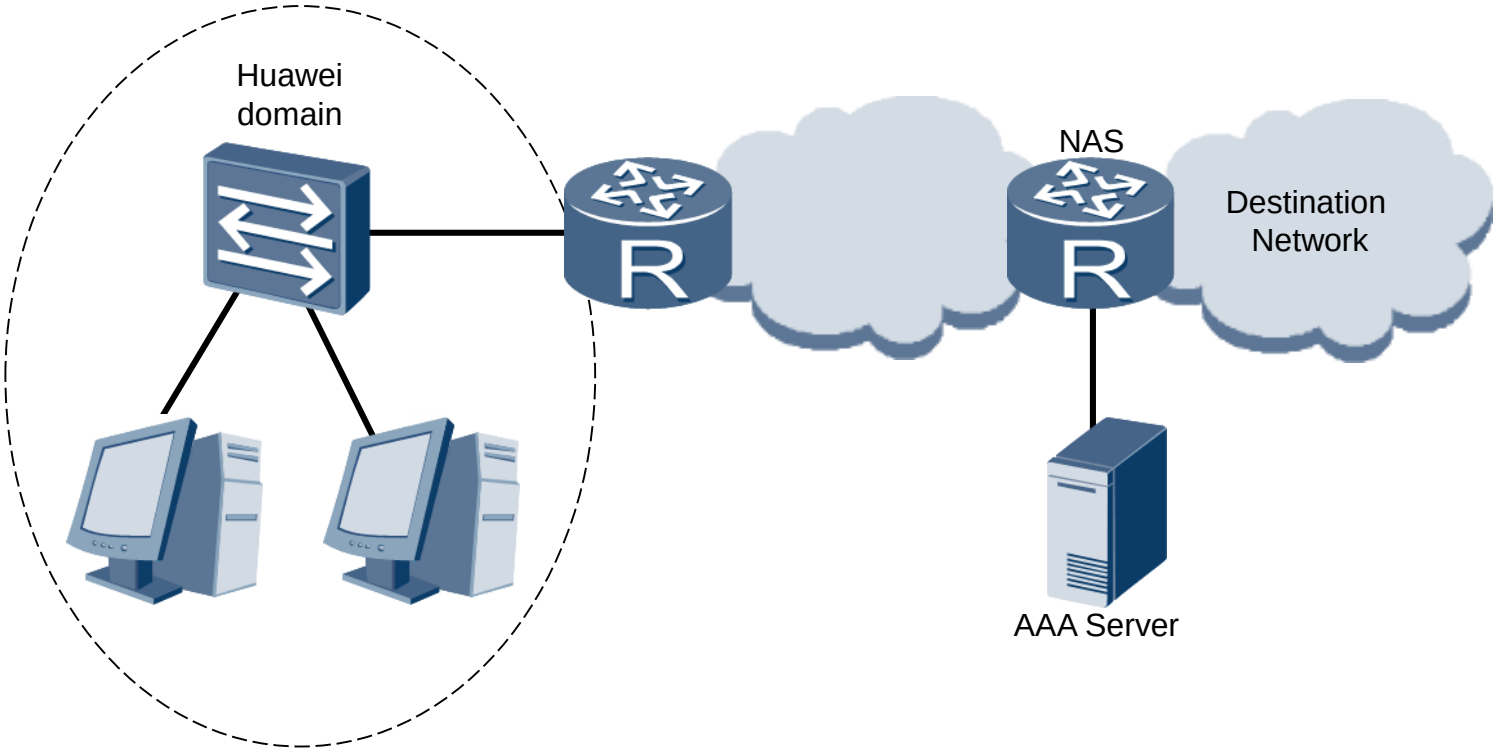
AAA defines a security architecture that is comprised of three functions referred to as Authentication, Authorization and Accounting. Each of these functions represents a modular component which can be applied as components of the security framework implemented by an enterprise, and often managed through the use of client/server based protocols such as RADIUS and HWTACACS. Implementation of the AAA architecture as a solution for enhanced functionality is introduced to reinforce the overall security framework of the enterprise network.

Objectives

Upon completion of this section, trainees will be able to:

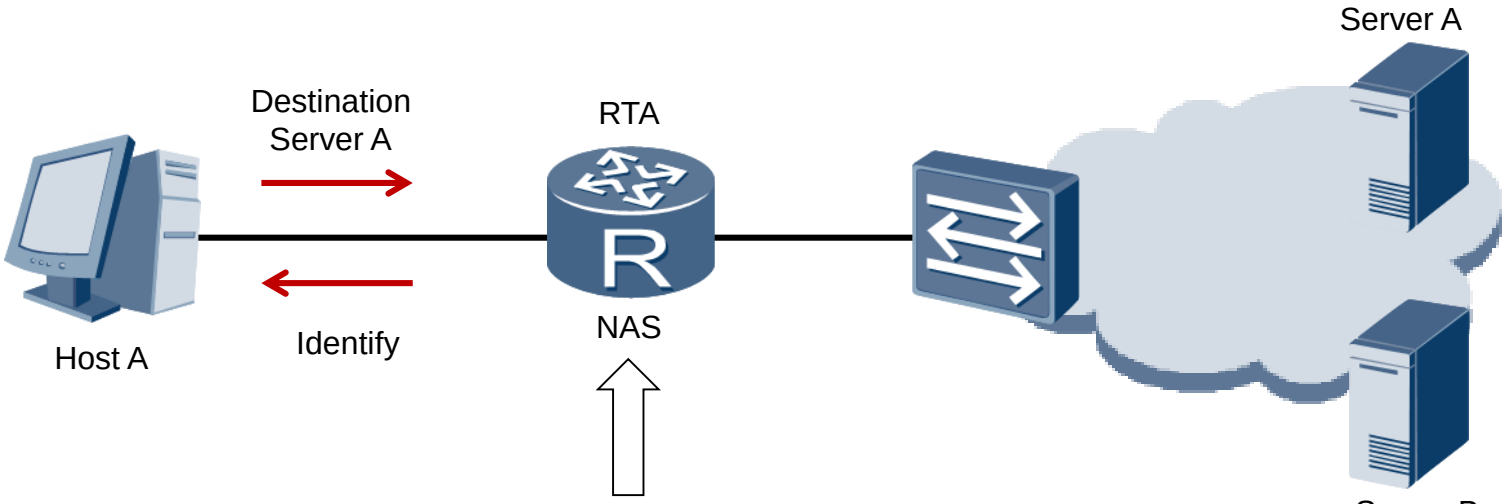
- Describe the schemes of the AAA security architecture.
- Successfully configure Authentication and Authorization schemes.

AAA Application



- AAA enables the authentication, authorization and accounting of users attempting to access destination network resources.

Authentication



Username	Password
Host A	Huawei123
Host X	Pass123
…	…

- User access is managed based on an authentication scheme.

Authentication

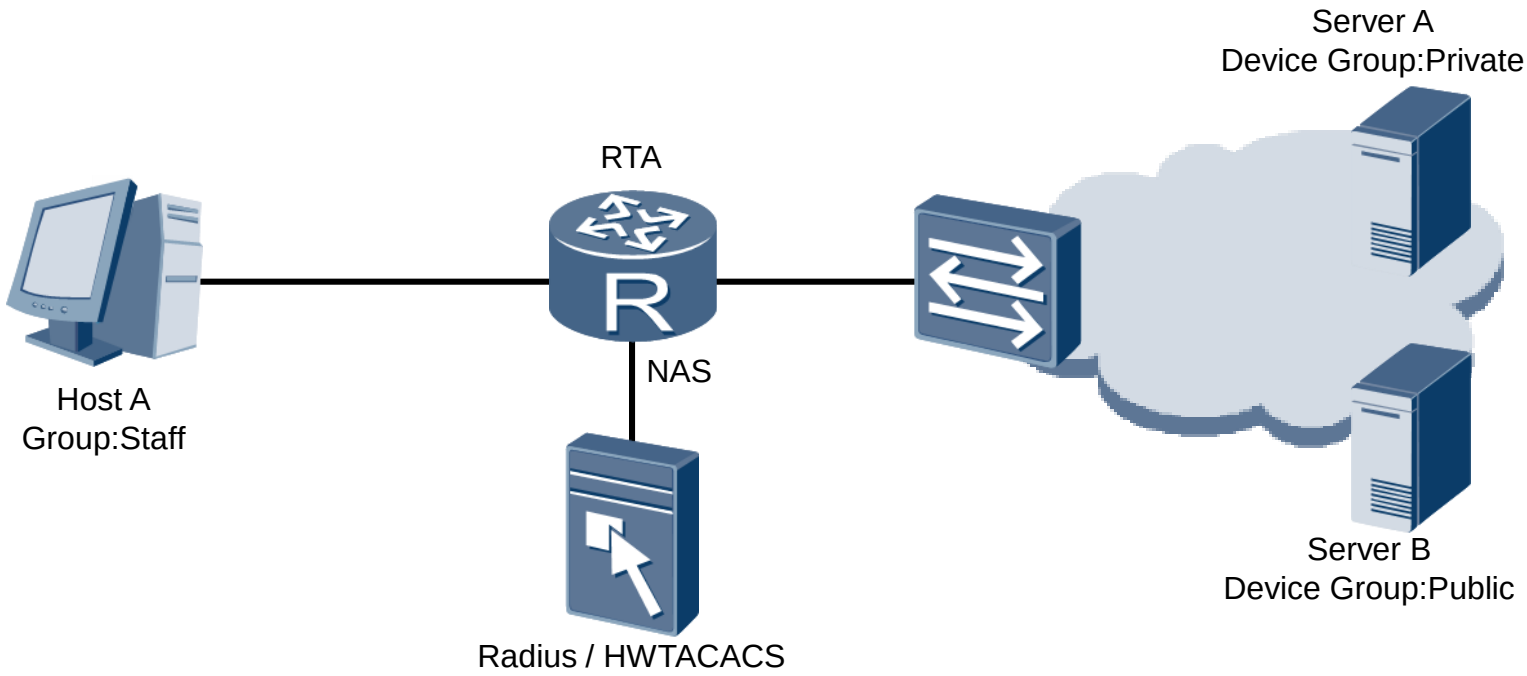
Se ci sono più metodi di autenticazione definiti, attenzione al loro ordine:

- è stata configurata prima la autenticazione remota e poi quella locale;
- l'account esiste localmente ma non sul server remoto;
- AR2200 considera l'autenticazione fallita e non prova l'autenticazione locale.

Autenticazione locale è usata solo se il server remoto NON RISPONDE.

La clausola di "non-authentication" deve essere l'ultima opzione disponibile.

Authorization



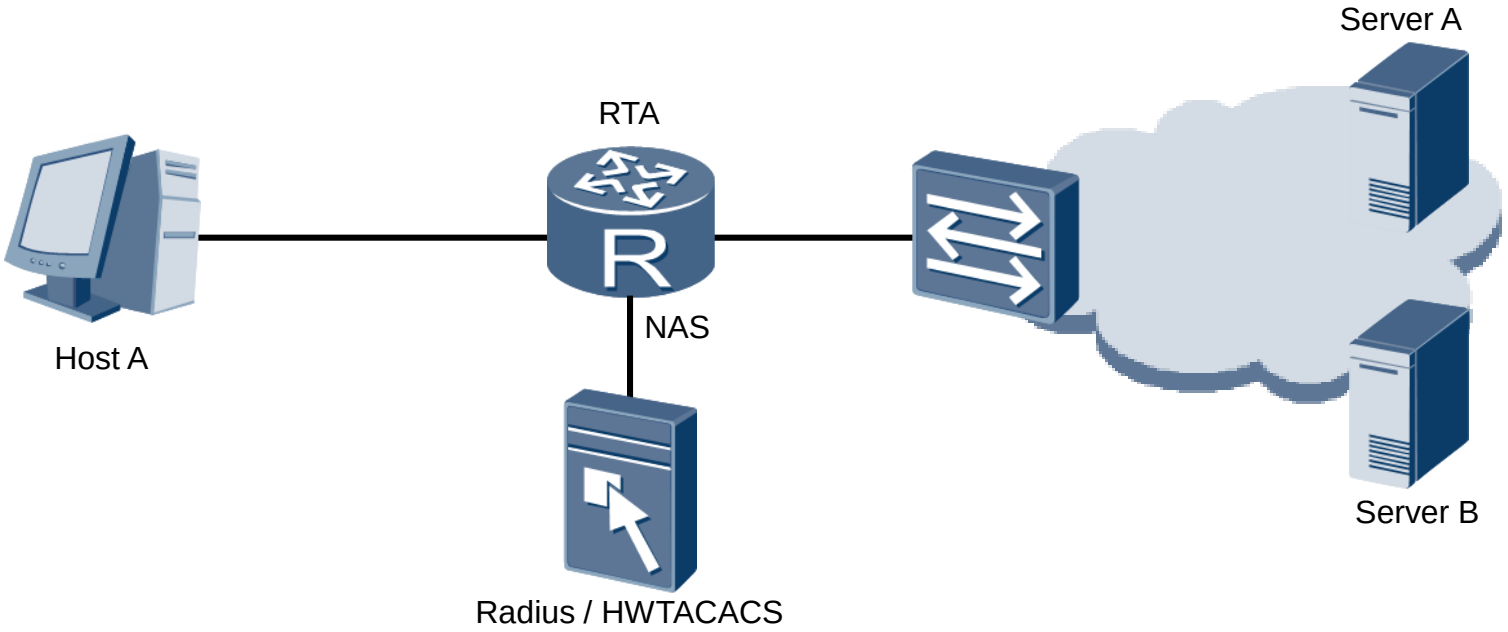
Device Group	User Group	Time	Privilege
Private	Admin	09:00-12:00	15
Public	Admin	09:00-18:00	15
Public	Staff	09:00-18:00	2

Authorization

Radius non può essere configurato per effettuare solo autorizzazione.

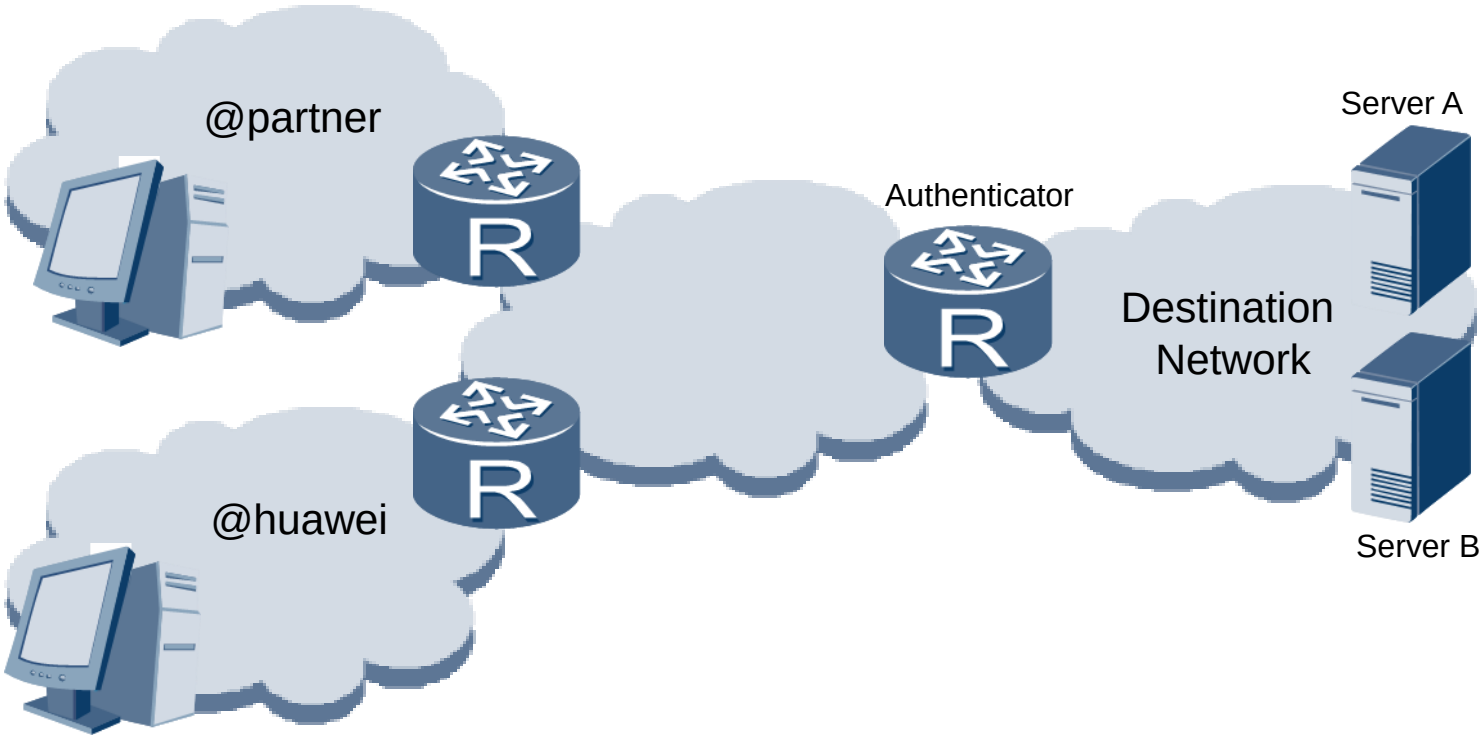
Se sono configurati più metodi di autorizzazione, questi sono eseguiti nell’ordine in cui sono stati impostati.

Accounting



Login Time	Username	Uptime	Bandwidth Up/Down
May/01/2013 03:20:55	Host A	01:22:15	496.2KB / 21MB
Apr/16/2013 12:40:51	Host X	00:30:12	123KB / 1MB

AAA Domains



- Different schemes can be applied to users in different domains.

Dominio

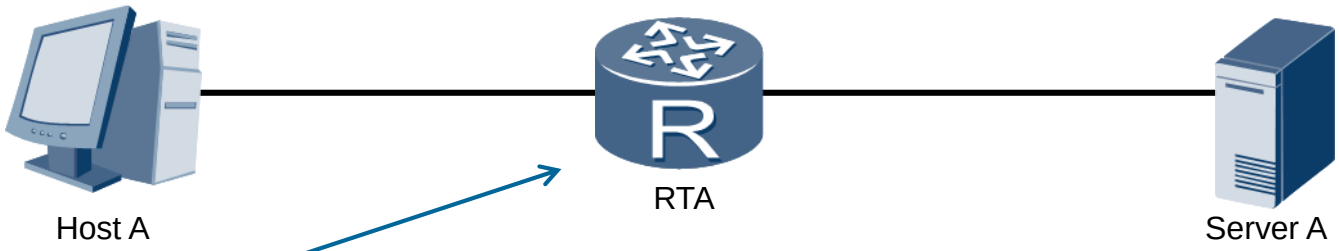
Se il nome utente non contiene un delimitatore (@ | %) allora si considera facente parte del dominio locale di default: “default”.
Viene effettuata local authentication.

Sono disponibili due domini di default:
default – global default domain for common access users;

default_admin – global default domain for administrators.
utilizzato per gli amministratori che accedono con HTTP,SSH,TELNET,TERMINAL.
Autenticazione predefinita: locale.

Massimo 32 domini, inclusi i due locali.

AAA Local Configuration




```
[RTA]aaa
[RTA-aaa]local-user huawei password cipher hello123
[RTA-aaa]authentication-scheme auth1
[RTA-aaa-authen-auth1]authentication-mode local
[RTA-aaa-authen-auth1]quit
[RTA-aaa] authorization-scheme auth2
[RTA-aaa-author-auth2]authorization-mode local
[RTA-aaa-author-auth2]quit
[RTA-aaa]domain huawei
[RTA-aaa-domain-huawei]authentication-scheme auth1
[RTA-aaa-domain-huawei]authorization-scheme auth2
```

- Authentication and authorization can be applied on the AR2200E.

AAA Local Configuration Verification

```
[Huawei]display domain name huawei
  Domain-name                          : huawei
  Domain-state                         : Active
  Authentication-scheme-name           : auth1
  Accounting-scheme-name               : default
  Authorization-scheme-name            : auth2
  Service-scheme-name                  : -
  RADIUS-server-template               : -
  HWTACACS-server-template             : -
  User-group                           : -
```

- Local AAA schemes are associated with individual domains.

Summary

- Which two AAA schemes are supported when configuring VRP to support the local mode?
- If no domain is defined for users, what action is taken?

Thank you

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