

Secure Shell(SSH)

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Outline

What is it?

What it is not

Why use SSH?

SSH in MAS

References

What is it? I

- ▶ A powerful software based approach to network security.
- ▶ Based on a client/server architecture.
- ▶ The SSH server program accepts/rejects connections to its host computer
- ▶ The SSH client program, running on other computers are used to make requests to the server.
- ▶ All communication between server and client are encrypted and hence are protected from any modifications.
- ▶ Better than non secure traditional architectures such as FTP and TELNET

What is it? II

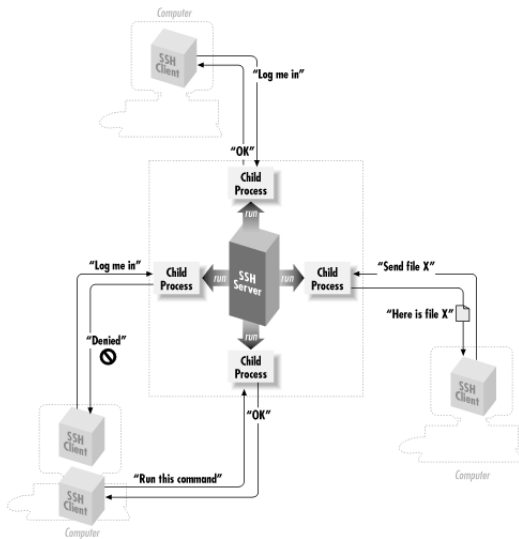


Figure: SSH Architecture[1]

What it is not

- ▶ It is not a true shell and hence does not provide a command history or command interpreter. A channel is created using SSH to run a shell on a remote computer.
- ▶ It is not a complete security solution. It still can be hacked.

Why use SSH?

- ▶ Prevents interception of data between two systems.
- ▶ Tackles the problem where a nefarious computer impersonates a particular host.

SSH in MAS

- ▶ Use SSH to run processes on robots. Example: ROSMASTER
- ▶ Can also use SSH to access and clone repositories from GitHub

References



SSH Architecture