

**Title:** Wall5 Whitepaper

**Version:** 1.2

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## 1. Overview

Wall5 was put together by Europe5 Security Team in order to provide to its clients and staff the most secure and easy way to access resources inside Europe5 network.

Wall5 registers as a straight forward and easy access software. The application is a firewall module ready to be integrated with Cisco devices, Linux and Windows servers. Its straight command line configurations and graphical user interface makes Wall5 a modern access tool.



## 2. Key features

- > **instant access to a company intranet:** provides instant access from outside the company network to its internal resources: file servers, ERPs, applications, computers etc.;
- > **easy and quick implementation:** this application installs as a module to any server running Linux or Windows;
- > **multi-vendor integration:** Wall5 integrates quickly with Linux, Windows and Cisco devices due to its simple API interface and integration procedures, but it can also integrate with other devices;
- > **super-secure management of credentials:** the key and the password transmitted to the final user using separate communication channels (e-mail and SMS); also the keys, sessions and passwords are not stored on the server;
- > **complete access logging:** Wall5 keeps tracking of all of its users activities and access sessions;
- > **customizable session length and key expiration date:** when the key is generated the admin can set up this variables in order to better manage user permissions.

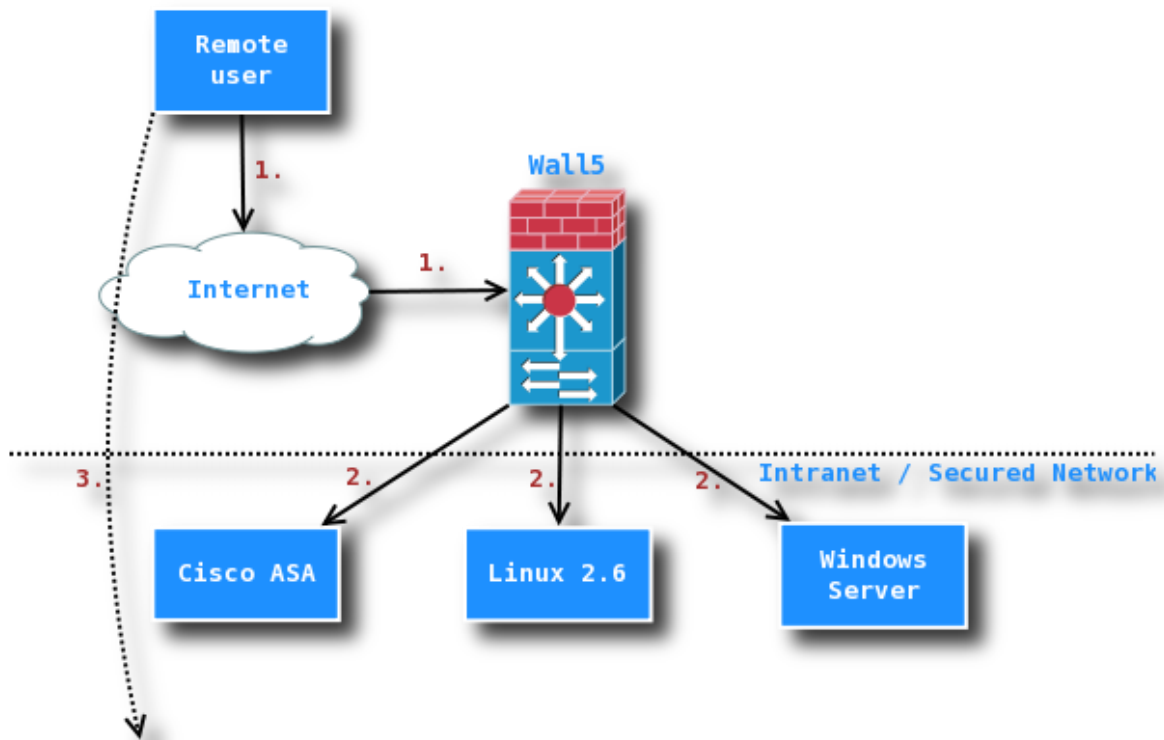
## 3. Technology

Wall5 is distributed as a stand alone binary file, with no external dependencies required, all for easy deployment. The application has a built-in proprietary webserver written separately as a necessary security measure.

Below the flow elements described as:

1. Remote user authenticates in Wall5
2. Wall5 is provisioning the access rules into the firewall devices
3. User is now able to access its resources accordingly to his access key

Below the graphical representation of the flow:

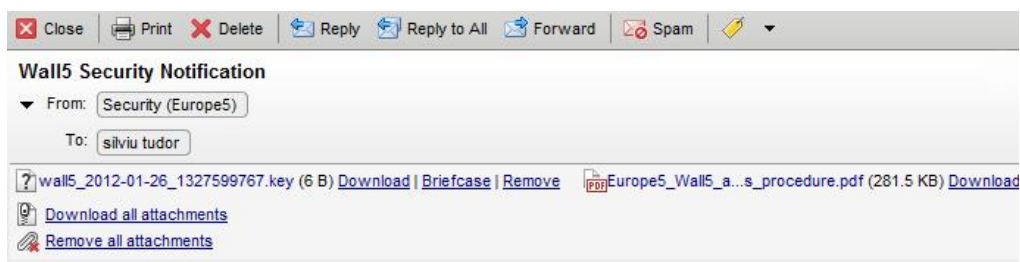


#### 4. Case studies

In order to understand Wall5 we must see how its value adds to an existing system or network. Below 3 good examples of Wall5 integration: A, B and C scenarios:

##### A. An user located at home wants to access an ERP or file server at his office

- > the user requests remote resource access from the security/IT department;
- > the security/IT department receives the request;
- > the security/IT department processes the requests and obtains the needed approvals for go ahead;
- > the security/IT department issues new Wall5 rules like: resource allocation (ex. ERP or file server with specific addresses), key expiration date, and session timeout period;
- > the user receives via e-mail the security grant access message, altogether with the attached procedure and security key file:



Europe5 successfully granted you access to its network. The following rules have been applied:

- ACCESS: 188.211.234.0/24: [21, 22, 3306]
- ACCESS: 188.211.234.4: [3350]
- EXPIRATION DATE: 12-12-2012

Please find attached the security key for Wall5 and the access procedure. You will receive by SMS the corresponding password. Use all of this to login at <http://wall.e5.ro/>.

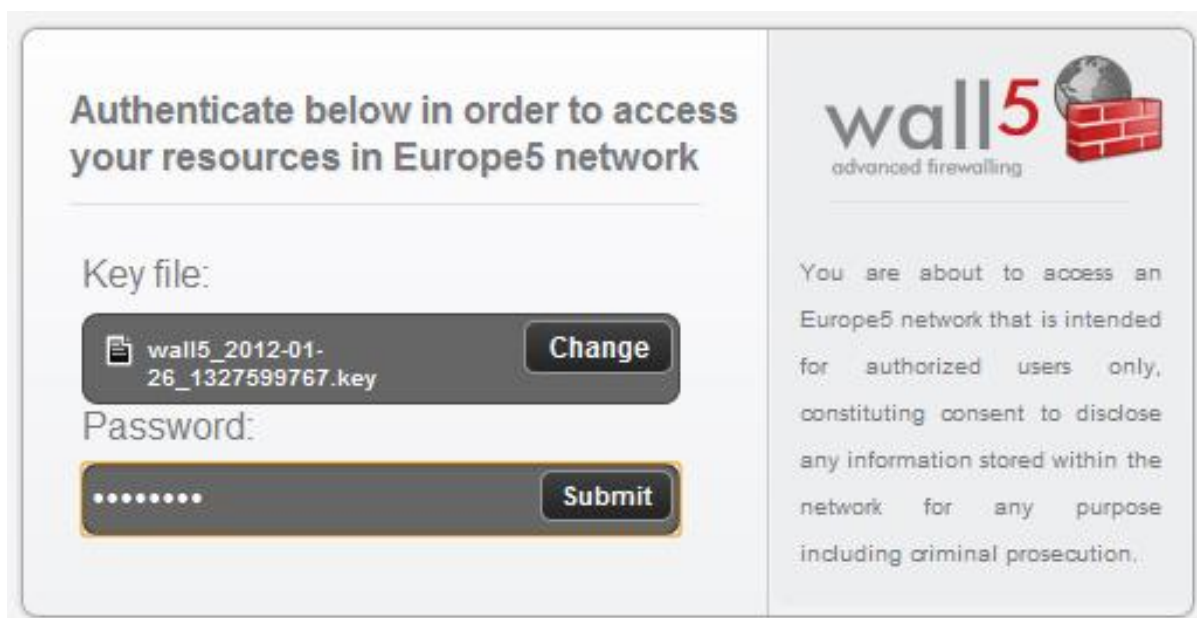
For further details and support please contact E5 Security Team at:  
 E: [security@europe5.com](mailto:security@europe5.com)  
 P: +4 021 5393585  
 W: <http://www.europe5.com/>

Thank you!

- > the user receives via SMS the password;
- > the user logs in the system following the attached procedure and receives the access granted info;
- > the user can now access from home or other location the requested resources: the ERP or file server will be available.

**B. A new employee or visitor wants to access the Internet/local network at his new office**

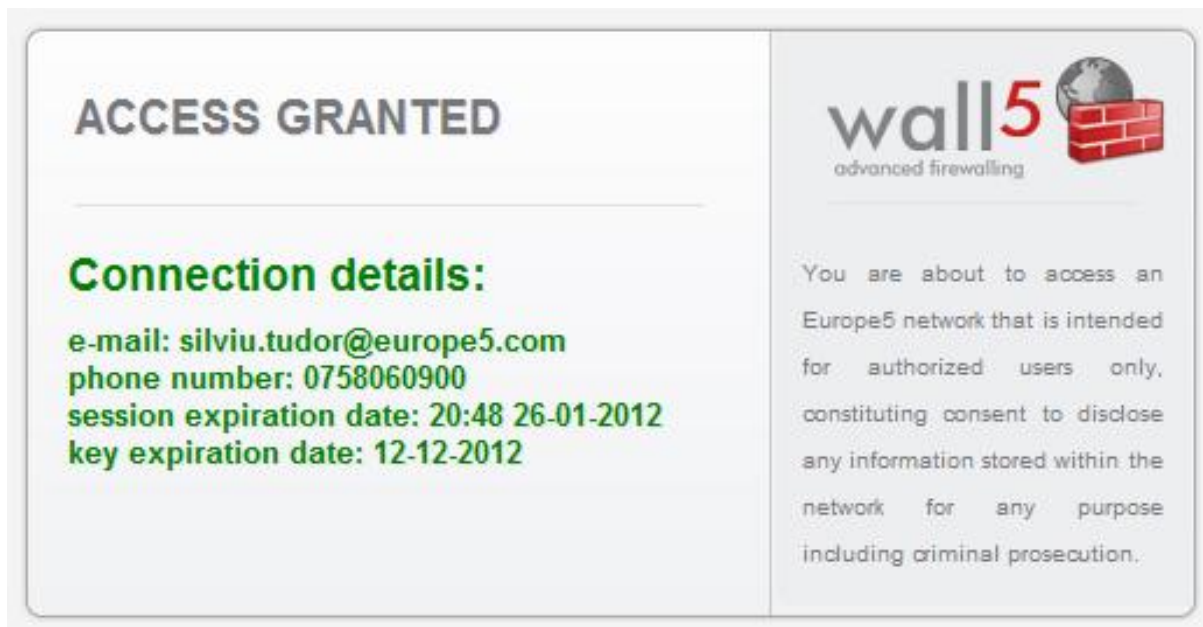
- > the user situated in the company's headquarter request access from the security/IT department;
- > the security/IT department receives the request;
- > the security/IT department processes the requests and obtains the needed approvals for go ahead;
- > the security/IT department issues new Wall5 rules like: resource allocation (ex. internet and local network access), key expiration date, and session timeout period;
- > the user receives via e-mail the security grant access message, altogether with the attached procedure and security key file;
- > the user receives via SMS the password;
- > the user logs in the system following the attached procedure and receives the access granted info:



- > the user can access from intranet the requested resources: internet browsing and other local resources.

**C. A hosting or collocation company wants to provide access to a client, giving him the means of accessing his collocated server or VPS machine**

- > the client issues an access request to the service provider;
- > the service provider receives the request;
- > the service provider processes internally the requests and obtains the needed approvals for go ahead;
- > the service provider issues new Wall5 rules like: resource allocation (ex. access to the server or VPS), key expiration date, and session timeout period;
- > the client receives via e-mail the security grant access message, altogether with the attached procedure and security key file;
- > the client receives via SMS the password;
- > the client logs in the system following the attached procedure and receives the access granted info:



> the client can access the requested resources.

## 5. FAQ

**Q: I have a company which uses Linux server as a router/firewall. The firewall is built on iptables (netfilter). Can I use Wall5 to dynamically provide access to the company users?**

*A: Yes, Wall5 can be easily installed on your server and provide access to your employees.*

**Q: What types of resources can Wall5 protect?**

*A: Wall5 can allow access to any resource that has firewalled traffic.*

**Q: My company uses Cisco security devices. Can Wall5 integrate with Cisco?**

*A: Yes, Wall5 can be easily be integrated with any of Linux, Cisco and Windows devices.*

**Q: What about Microsoft firewalling? Can Wall5 handle that?**

*A: Yes, Wall5 can be integrated with Microsoft Forefront.*

**Q: I want to install Wall5 on my Linux server. Do I need Apache or PHP?**

*A: No, Wall5 is a complete standalone software with no external dependencies.*

**Q: How do I manage users and their access settings?**

*A: Wall5 provides powerful yet very easy command line interface.*