# Wireless Communication Standard

## Overview

The purpose of this standard is to secure and protect the information assets owned by <Company Name>. <Company Name> provides computer devices, networks, and other electronic information systems to meet missions, goals, and initiatives. <Company Name> grants access to these resources as a privilege and must manage them responsibly to maintain the confidentiality, integrity, and availability of all information assets.

This standard specifies the technical requirements that wireless infrastructure devices must satisfy to connect to a <Company Name> network. Only those wireless infrastructure devices that meet the requirements specified in this standard or are granted an exception by the Information Security Team are approved for connectivity to a <Company Name> network.

## Scope

All employees, contractors, consultants, temporary and other workers at <Company Name>, including all personnel affiliated with third parties that maintain a wireless infrastructure device on behalf of <Company Name> must adhere to this standard. This standard applies to all wireless infrastructure devices that connect to a <Company Name> network or reside on a <Company Name> site that provide wireless connectivity to endpoint devices including, but not limited to, laptops, desktops, cellular phones, and personal digital assistants (PDAs). This includes any form of wireless communication device capable of transmitting packet data.

The <Company Name> Information Security Team must approve exceptions to this policy in advance.

## Statement of Requirements

### General Requirements

All wireless infrastructure devices that connect to a <Company Name> network or provide access to <Company Name> Confidential, <Company Name> Highly Confidential, or <Company Name> Restricted information must:

#### Use Extensible Authentication Protocol-Fast Authentication via Secure Tunneling (EAP-FAST), Protected Extensible Authentication Protocol (PEAP), or Extensible Authentication Protocol-Translation Layer Security (EAP-TLS) as the authentication protocol.

#### Use Temporal Key Integrity Protocol (TKIP) or Advanced Encryption System (AES) protocols with a minimum key length of 128 bits.

### Lab and Isolated Wireless Device Requirements

#### Lab device Service Set Identifier (SSID) must be different from <Company Name> production device SSID.

#### Broadcast of lab device SSID must be disabled.

### Home Wireless Device Requirements

All home wireless infrastructure devices that provide direct access to a <Company Name> network, such as those behind Enterprise Teleworker (ECT) or hardware VPN, must adhere to the following:

#### Enable WiFi Protected Access Pre-shared Key (WPA-PSK), EAP-FAST, PEAP, or EAP-TLS

#### When enabling WPA-PSK, configure a complex shared secret key (at least 20 characters) on the wireless client and the wireless access point

#### Disable broadcast of SSID

#### Change the default SSID name

#### Change the default login and password

## References

In support of this standard, the following policies, guidelines, and resources are included:

* [Information Sensitivity Policy](http://www.sans.org/resources/policies/Information_Sensitivity_Policy.pdf)
* [Wireless Communication Policy](http://www.sans.org/resources/policies/Wireless_Communication_Policy.pdf)

## Enforcement

This standard is part of the [Wireless Communication Policy](http://www.sans.org/resources/policies/Wireless_Communication_Policy.pdf) and failure to conform to the standard is a violation of the policy. Any employee found to have violated the policy may be subject to disciplinary action, up to and including termination of employment. Any violation of the policy by a temporary worker, contractor or vendor may result in the termination of their contract or assignment with <Company Name>.

## Definitions

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| **Term** | **Definition** |
| **AES** | Advanced Encryption System |
| **<Company Name> network** | A wired or wireless network including indoor, outdoor, and alpha networks that provide connectivity to corporate services. |
| **Corporate connectivity** | A connection that provides access to a <Company Name> network. |
| **EAP-FAST** | Extensible Authentication Protocol-Fast Authentication via Secure Tunneling: authentication protocol for wireless networks. |
| **EAP-TLS** | Extensible Authentication Protocol-Translation Layer Security, used to create a secured connection for 802.1X by pre-installing a digital certificate on the client computer. |
| **Enterprise Class Teleworker (ECT)** | An end-to-end hardware VPN solution for teleworker access to the <Company Name> network. |
| **Information assets** | Information that is collected or produced and the underlying hardware, software, services, systems, and technology that is necessary for obtaining, storing, using, and securing that information which is recognized as important and valuable to an organization. |
| **PEAP** | Protected Extensible Authentication Protocol, a protocol used for transmitting authentication data, including passwords, over 802.11 wireless networks |
| **Service Set Identifier (SSID)** | A set of characters that give a unique name to a wireless local area network. |
| **TKIP** | Temporal Key Integrity Protocol, an encryption key that's part of WPA. |
| **WPA-PSK** | WiFi Protected Access pre-shared key |

## Revision History

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| **Date of Change** | **Responsible** | **Summary of Change** |
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