



# TLS/SSL Certificates

## Overview

SSL – or Secure Sockets Layer – is the commonly used term for the Transport Layer Security (TLS) standard. SSL certificates enable encrypted communication over the internet and allow a client system to trust it is connected to the intended server and not a Man-in-the-Middle (MITM) attacker. Popular browsers make it possible for users to ensure they are on SSL-enabled sites through a variety of interface mechanisms, including the padlock icon, HTTPS in the address, and the color green.

All SSL certificates must be issued by a Certificate Authority (CA) with roots that are trusted by client operating systems and browsers. By regulation, CAs must follow a codified, minimum vetting process before issuing any SSL certificate.



## Types of Certificates

### Extended Validation (EV) Certificates

Featuring the highest level of protection offered by an SSL certificate, Extended Validation (EV) is the industry standard for business websites. When an EV SSL certificate is loaded on a site, browsers will display an additional trust indicator, which is the authenticated name of the company adjacent to the web address, often in the color green. Commonly referred to as the “green address bar” or “branded address bar,” this interface element helps users distinguish between the online businesses they intend to deal with and potential imposters attempting to scam them in some way.

To obtain an EV certificate, a company must go through a rigorous, standardized authentication process that has not been defeated in more than ten years of common use.

Displaying the company name in the browser has been shown to build visitor confidence and therefore improve engagement with sites, increasing purchases, use of online services, and the sharing of personal information.

### Organization Validated (OV) Certificates

Organization Validated (OV) SSL certificates are a simpler, faster certificate option for registered organizations. To receive an OV certificate, the company must prove it owns the domain it is seeking to secure and prove it is a legally registered business. Through visual trust indicators – like the appearance of HTTPS, the padlock, and a dynamic site seal – visitors will know the site is secured.

#### PERCENTAGE MORE LIKELY TO TAKE ACTION ON WEBSITES WITH EV PRESENT

<b>50.2%</b>	Engage in financial transactions
<b>57.0%</b>	Share personally identifiable information
<b>36.5%</b>	Make a purchase
<b>28.4%</b>	Use a credit card
<b>42.5%</b>	Sign up for a new account
<b>37.5%</b>	Fill out and submit an online form
<b>40.6%</b>	Use a payment service like PayPal
<b>32.3%</b>	Add recommended items to a shopping cart

Source: DevOps, July 2018



## Domain Validated (DV) Certificates

Domain Validated (DV) SSL certificates provide the quickest, easiest, and most cost-effective way to receive industry-standard encryption. To attain a DV certificate, a company must prove ownership of the domain being secured. Issued in just minutes, DV certificates display trust indicators in browsers, like the padlock icon and HTTPS.

## Solutions

### Single-domain

The standard SSL certificate, single-domain certificates are the most cost-effective solution for securing a business's internal servers and consumer-facing pages.

### Wildcard

Wildcard SSL certificates allow companies to secure their main domains and unlimited subdomains under a single certificate. Cost effective and efficient, the wildcard SSL certificate makes it easy to maintain a website's security without the hassle of managing multiple SSL certificates. Wildcards also provide the most flexibility, as additional subdomains can be added without requiring a new certificate to be issued.

### Multi-domain

Multi-domain certificates use Subject Alternate Names (SANs) to secure up to 100 distinct domain names or IP addresses each. They are a great solution for managing complex environments with a single SSL certificate.

### About Sectigo

Trusted by enterprises globally for more than 20 years, Sectigo (formerly Comodo CA) provides web security products that help customers protect, monitor, recover, and manage their web presence and connected devices. As the largest commercial Certificate Authority, with more than 100 million SSL certificates issued across 150 countries, Sectigo has the proven performance and experience to meet the growing needs of securing today's digital landscape.