

# Symantec™ Cable Modem Authentication Service

## Data Sheet: Authentication

The most efficient solution for DOCSIS® (Data Over Cable Service Interface Specification)-compliant cable modems, Symantec™ Cable Modem Authentication Service, makes it fast, efficient, and cost-effective for manufacturers to embed digital certificates in their devices for compliance with the latest DOCSIS specification. Symantec provides you with a turnkey solution for generating batches of digital certificates and private keys, along with an easy-to-use interface with which to burn these certificates onto cable modems as a seamlessly integrated part of your manufacturing process—all without requiring you to master security technology or invest in expensive infrastructure. By offering service providers with the latest DOCSIS-compliant solutions, you'll increase your sales, as well as lay the technological foundation for future value-added broadband services.

### Digital certificates: the key to authenticating cable modems

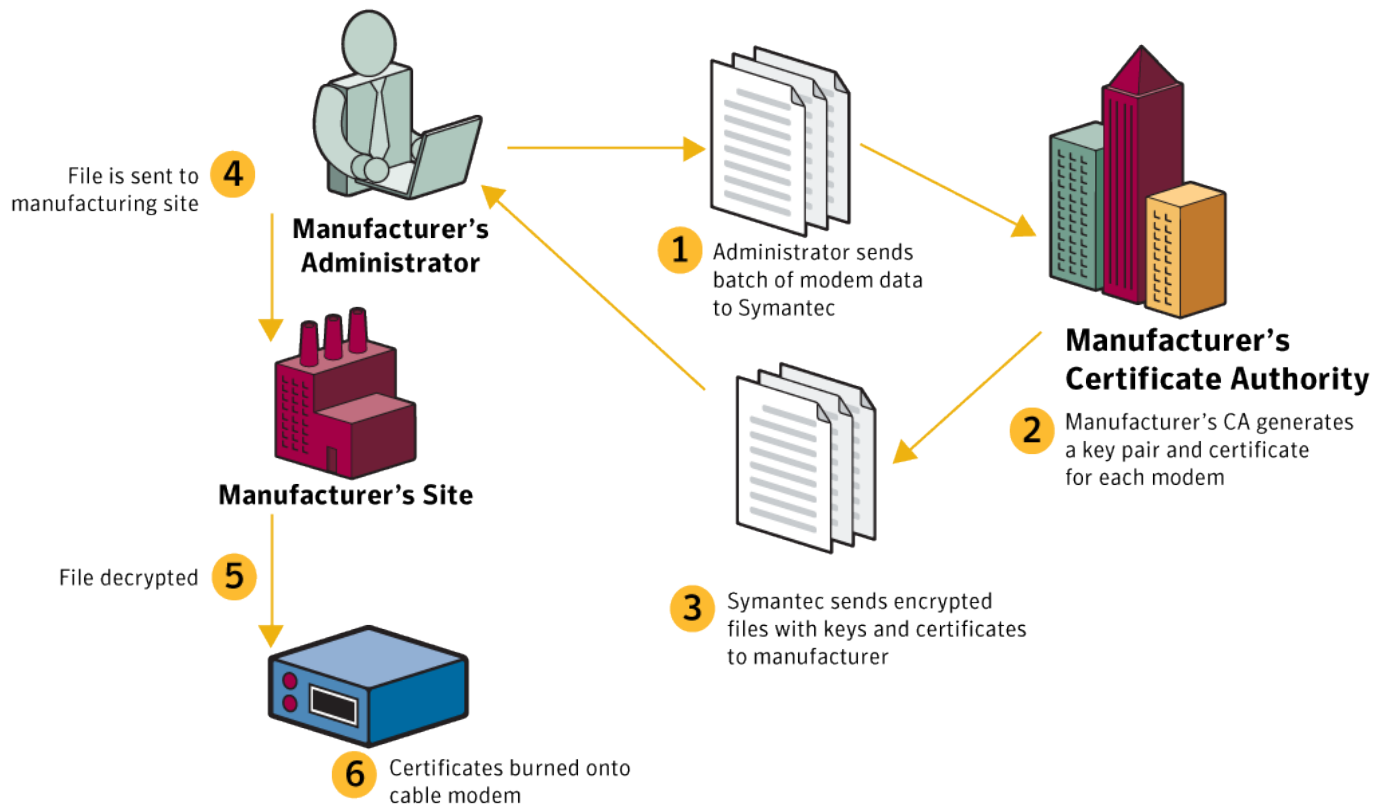
As the number of cable modems being installed continues to soar, cable-service piracy, through cable modem cloning, is a growing concern. The CableLabs® consortium of cable system operators has created the DOCSIS specification, which requires that all cable modems be authenticated with digital certificates in order to address this problem. Cable modem manufacturers must comply with this spec in order to continue to sell their cable modems. Creating digital certificates, however, requires a major investment in security infrastructure. Instead of tackling that challenge yourself, turn to the digital certificate experts at Symantec.

### Symantec's complete turnkey solution

Take advantage of Symantec's turnkey Cable Modem Authentication Service to burn certificates and keys onto your cable modems' ROM. Symantec's digital certificates fully comply with DOCSIS requirements—certificates chain to the DOCSIS root key, to ensure compatibility with all cable systems, and the 20-year certificate lifespan frees you from the obligation to process certificate renewals. The Cable Modem Authentication Service is based on Symantec's proven and scalable digital certificate architecture and is backed by 24 hours a day, seven days a week carrier-class managed services and guaranteed support levels. Keys and certificates are centrally generated and delivered securely in batches to mirror your manufacturing production runs. And Symantec's Professional Services consultants can help you create a customized interface to your existing manufacturing systems.

### Key Benefits

- **Cost-effective:** Symantec's competitively priced service, with one-time setup and installation fees plus an annual fee based on the number of certificates you need, is much more cost-effective than attempting to build your own certificate infrastructure.
- **Scalable:** The Cable Modem Authentication Service grows with your businesses, easily accommodating your requests for increasing numbers of digital certificates as your production expands.
- **Flexible:** You can adapt the service to fulfill your certificate requests daily, weekly, or monthly, to match your manufacturing schedule.
- **Minimizes impact to your manufacturing operations:** With Symantec's help, you can quickly and seamlessly integrate the Cable Modem Authentication Service into your existing operation system.



### How the Cable Modem Authentication Service works

1. Begin by creating a Media Access Controller (MAC) address file, containing the serial numbers and other identifying information of the cable modems requiring certificates, using the Symantec-supplied Modem Manufacturing Agent (MMA) application.
2. Send the MAC file to Symantec via the MMA, which can be networked to communicate directly with Symantec. Or your designated administrator can use the convenient, Web-based Symantec™ Managed Public Key Infrastructure Control Center to send the files to Symantec after obtaining them from the MMA. A special Registration Authority (RA) certificate is used to digitally sign and encrypt all communications to and from Symantec.
3. Symantec verifies the authenticity of the MAC file by validating the RA signature, and ensures that MAC addresses or serial numbers have not been used before. Symantec then generates unique public and private key pairs, using dedicated bulk-generation hardware in our secure data center, and incorporates them, along with Symantec's digital signature, into certificates for every modem serial number in your MAC file.
4. Symantec inserts the certificates and their private keys into a certificate batch file and encrypts it with the MMA public key, keeping a copy of the encrypted file. (Only the MMA can decrypt the batch file, using its private key.)
5. Your administrator is notified by an email linking to a secure Web page to download the batch file of certificates. You can access the certificates as often as you need them—daily or weekly.

- Using software provided and customized by Symantec, the MMA decrypts the batch file and inserts the certificates and private keys into your manufacturing system as the cable modems are manufactured. Your manufacturing system can then burn the certificates and keys into the modems along with the rest of the program and setup information.

### **Rely on Symantec: the digital certificate experts**

Symantec provides the easiest way for cable modem manufacturers to build devices equipped to prevent pirating through device cloning. By providing DOCSIS-compliant authenticated cable modems, you can not only offer customers the best secure service available, but also lay the foundation for accelerating the delivery of value-added broadband services, including software delivery and pay-per-view application services.

- Expertise:** Symantec is the recognized leader in digital-certificate-based trust services. It has issued more certificates than any other provider, and operates a Global Trust backbone of interoperable certificates that includes 25 affiliates around the world.
- Reliable:** The Cable Modem Authentication Service from Symantec is backed by guaranteed service levels to make sure your manufacturing process stays up and running.

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### **More Information**

#### *Visit our website*

<http://enterprise.symantec.com>

#### *To speak with a Product Specialist in the U.S.*

Call toll-free 1 (800) 745 6054

#### *To speak with a Product Specialist outside the U.S.*

For specific country offices and contact numbers, please visit our website.

#### *About Symantec*

Symantec is a global leader in providing security, storage, and systems management solutions to help consumers and organizations secure and manage their information-driven world. Our software and services protect against more risks at more points, more completely and efficiently, enabling confidence wherever information is used or stored.

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