

Intel® vPro™ Technology

How To Purchase and Install Go Daddy* Certificates for Intel® AMT Remote Setup and Configuration

Revision History

Revision	Revision History	Date
1.0	First release.	August 17, 2012
1.1	Added steps to install intermediate certificate.	August 22, 2012
1.2	Added steps to verify thumbprint; clarified the multi-domain certificates; changed recommendation for key length to only 2048 bits.	September 17, 2012
1.3	Added section on how to verify the certificate.	September 19, 2012

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Contents

1	Preface	
	1.1 Document Scope	
	1.2 Supported Intel® AMT Versions	
	1.3 Intended Audience	
	1.4 Prerequisites	
2	Purchase a Go Daddy* Certificate	
	2.1 Create Certificate Signing Request (CSR)	3
3	Send the Certificate Request to Go Daddy*	9
4	Prepare the Certificate	21
5	Install the Certificate	23
	5.1 Install the Intermediate Certificate	23
	5.2 Install the pfx Certificate	25
	5.3 Verify the Certificate Chain	27
6	Verify that it Works	31

Purchasing Go Daddy* Certificates for Intel® AMT Remote Setup and Configuration

1 Preface

Intel® Active Management Technology (Intel® AMT) must be setup and configured before you can use the remote manageability and security features. One method is to install Intel Setup and Configuration Software (Intel SCS) and then use *remote configuration*. Remote configuration uses Transport Layer Security (TLS) between the Intel SCS Remote Configuration Server and the remote PCs with Intel AMT firmware. The Intel AMT firmware is pre-loaded with TLS certificate thumbprints from six different certificate vendors so all you need to do is install a third-party certificate on the Remote Configuration Server. This document includes step-by-step instructions on how to purchase and install a Go Daddy* certificate that will match the pre-installed Go Daddy* thumbprint and allow you to use remote configuration and maintenance using Intel SCS.

1.1 Document Scope

This document does not include specific steps to install the Go Daddy certificate on other management consoles. For consoles that do not use Intel SCS 8, please refer to the vendor's documentation for installing the certificate. The steps used to purchase the certificate are the same for all management consoles.

1.2 Supported Intel® AMT Versions

The Go Daddy* Class 2 CA certificates are supported in the following versions of Intel AMT:

- 2.2.20, 2.2.30
- 2.60 and later

Go Daddy* certificates are not supported on the following versions:

- 2.5.5
- 2.5.6
- 2.5.7

1.3 Intended Audience

This document is intended for Information Technology (IT) professionals who will be purchasing and installing the TLS certificates.

Readers should have a basic understanding of their IT infrastructure, especially Microsoft* Internet Information Service, the Microsoft Mangement Console, and a basic familiarity with TLS certificates.

1.4 Prerequisites

The Intel SCS User Guide provides information on the prerequisites for using the remote configuration service. Before starting this process, you should have the following:

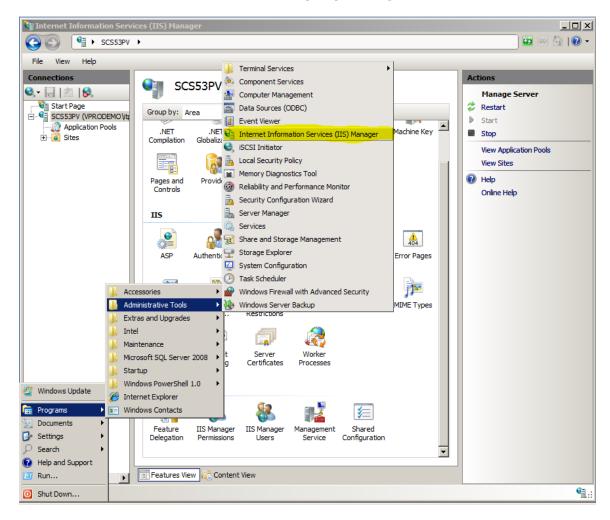
- Intel SCS Remote Configuration Service installed on a supported Microsoft* operating system
- One or more domain names for your network (Microsoft* Workgroups are not supported)
- Microsoft* Internet Information Service (IIS) running on the server that is hosting the remote configuration service
- Account permissions to install the certificate

2 Purchase a Go Daddy* Certificate

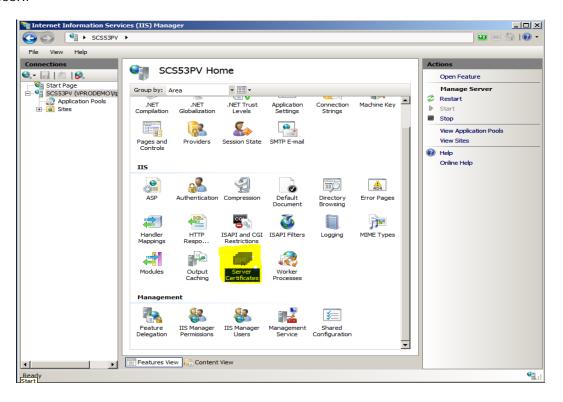
The following instructions were captured using Microsoft* Internet Information Services (IIS) for Windows* Server 2008 R2.

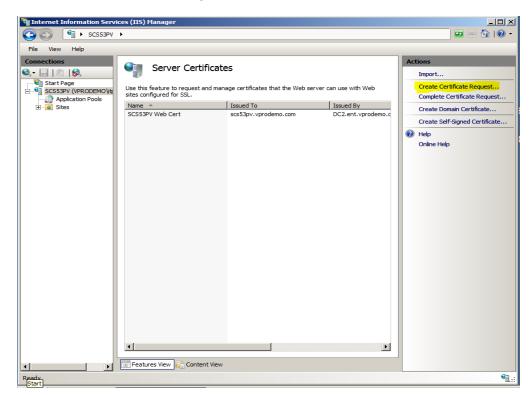
2.1 Create Certificate Signing Request (CSR)

 On your Intel SCS remote configuration server, open Programs→Administrative Tools→Internet Information Services (IIS) Manager.



2. In the Internet Information Services (IIS) Manager, open the **Server Certificate** icon.





3. Choose **Create Certificate Request...** from the Actions menu.

4. Fill-in the **Distinguished Name Properties** form:

• **Common Name**: The common name or CN, for standard certificates, is the RCS server hostname plus a domain suffix. To determine if the certificate is valid, the client compares the domain portion of the Common Name to the value returned by DHCP option 15, or, if set, to the Secure DNS Suffix or Provisioning Server FQDN value set in the client's MEBX. For help in understanding the rules for determining if the two values match, and support for 2nd and 3rd level domains in each version of Intel AMT, refer to the *Domain Suffix Guide for Intel® AMT Remote Configuration Process*. If you are purchasing a wildcard certificate then you can use one certificate to span different branches in the domain forest. For wildcard certificates, use an asterisk followed by a domain suffix in the CN.

Example 1 (CN=RCS Server FQDN):

In this example, assume that the DHCP Option 15 has been set to "vprodemo.com," and that you did not set the Secure DNS Suffix or the Provision Server FQDN values in the client's MEBX.

Then, if your Remote Configuration Service (RCS) is running on SCS53PV.vprodemo.com, set CN=SCS53PV.vprodemo.com.

Purchasing Go Daddy* Certificates for Intel® AMT Remote Setup and Configuration

You can verify the DHCP Option 15 setting by running the SCSDiscovery utility (provided with Intel SCS) on the client. The DHCP Option 15 setting is called the OSSpecificDNSSuffix.

Example 2 (CN=RCS server host with client DNS Suffix)

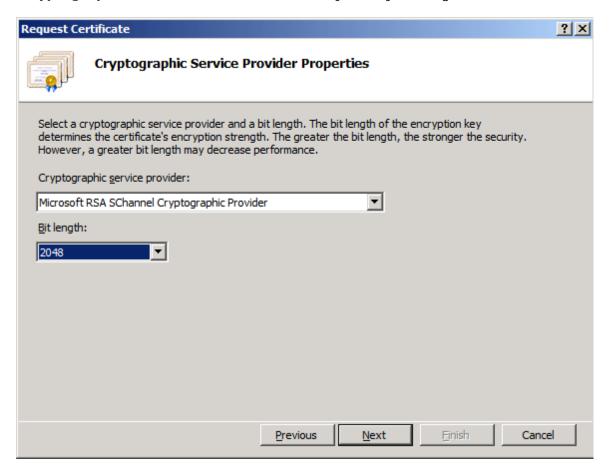
In this example, the DHCP option 15 value has been set to "vprodemo.edu" for the environment. If your Remote Configuration Service is running on myRCS.vprodemo.com, set the certificate CN=myRCS.vprodemo.edu.

- **Organization**: The name of the organization that is requesting the certificate and owns the domain
- Organizational Unit: (not used by Go Daddy)
- **City**: The requesting organization's city
- **State**: The requesting organization's state
- Country: The requesting organization's country code

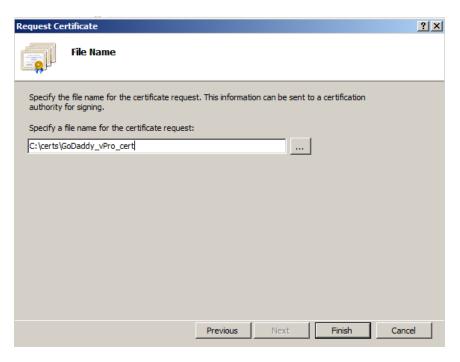
Choose Next.



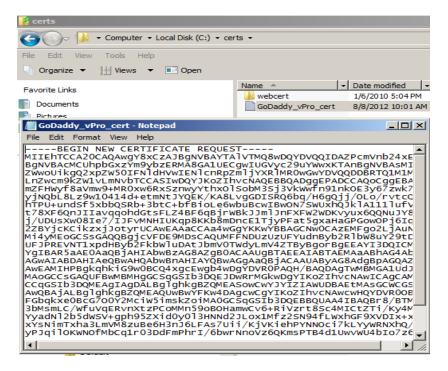
5. Leave the Cryptographic Service Provider set to **Microsoft RSA SChannel Cryptographic Provider** and select **2048** as your key Bit length. Choose **Next.**



6. Choose the "..." button to select a location. Enter a file name to store the certificate request and then choose **submit**. Click **Finish.**

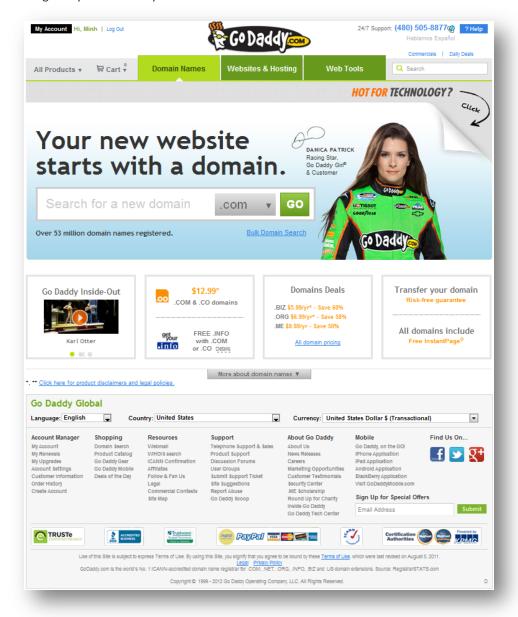


7. This file, GoDaddy_vPro_cert in our example, will be used to submit your request to Go Daddy for an Intel AMT Setup and Configuration certificate. You can open the file in Notepad to view encrypted certificate request.

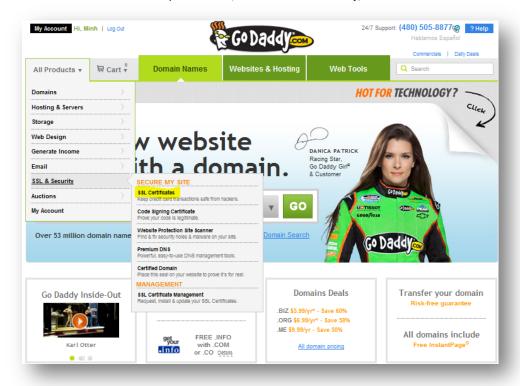


3 Send the Certificate Request to Go Daddy*

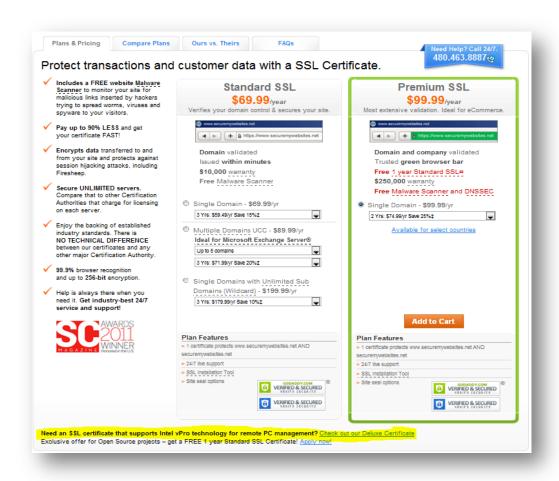
- 1. Setup a Go Daddy* account (link).
- 2. Go to the Go Daddy* web site: www.godaddy.com
- 3. Login to your Go Daddy* account.



4. From the All Products drop down box, choose SSL & Security, then choose SSL Certificates.

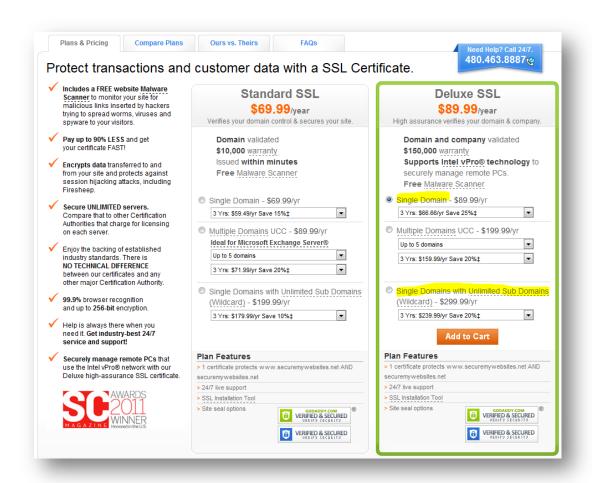


5. At the bottom of the page click "Need an SSL certificate that supports Intel vPro Technology for remote PC management".



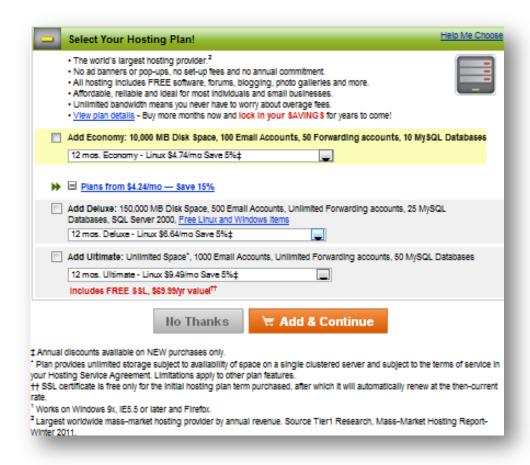
6. From the **Deluxe SSL** column, choose either **Single Domain** or **Single Domain** with **Unlimited Sub Domains (Wildcard)**. (*Note*: do not select the *Multiple Domains UCC* option.)

Note: the certificate it will *not* have the OU of "Intel(R) Client Setup Certificate". It will be issued with the supported OID 2.16.840.1.113741.1.2.3 (this is the unique Intel AMT OID).

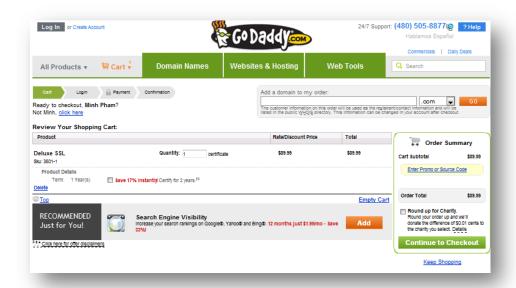


- 7. Select how long you would like this certificate to be valid before having to renew this certificate from the drop-down list below your selection of Single Domain or Single Domain with Unlimited Sub Domains..
 - In addition, the free Intel® Remote Configuration Certificate Utility can help you select the right certificate for your environment: http://communities.intel.com/docs/DOC-2734#cf
- 8. Choose Add to Cart.

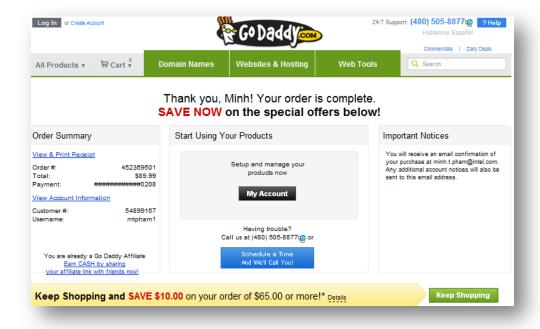
9. At the "customize your order" section I chose "No Thanks" for the added features.



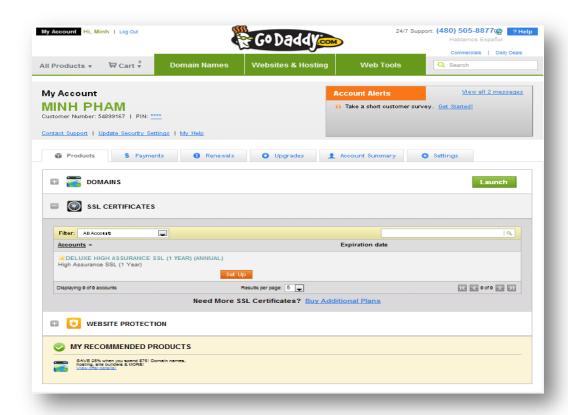
10. At the Checkout screen, you should see the **Deluxe SSL** certificate (other options may vary if you selected additional items to purchase). Review your order and choose **Continue to Checkout.**



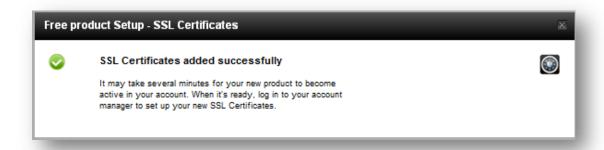
- 11. Fill in the appropriate payment information and click Place Order Now.
- 12. You will now see the Order Details. Choose My Account.



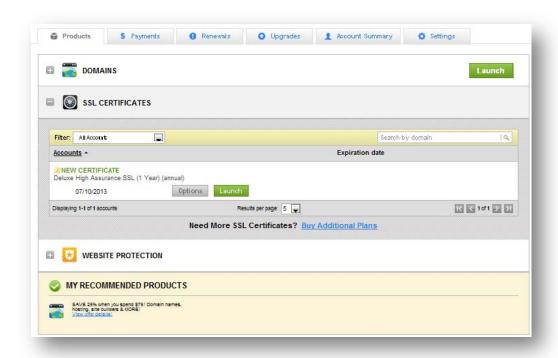
13. Under **SSL Certificates** section, choose **Set Up** for the certificate you just purchased.



14. You will get a "SSL Certificate added successfully" popup.



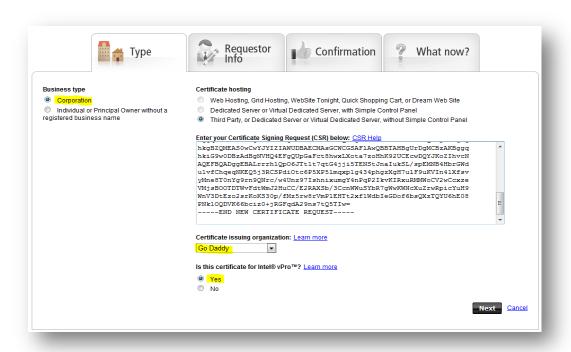
15. Choose **Launch** to setup your certificate.



16. Choose "Request Certificate" link on the right side of the table.

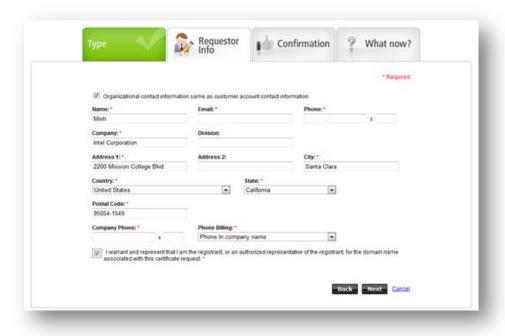


- 17. **Paste your CSR** into the available window., then enter the following:
 - Certificate issuing organization, select Go Daddy
 - Choose Yes for Is this certificate for Intel® vPro™?
 - Business type, select Corporation



Click **Next**

- 18. Fill out the **Type** page with company information and click **Next**.
- 19. Verify the items in the **Requester info** page and click **Next** (some information in the following illustration has been redacted).

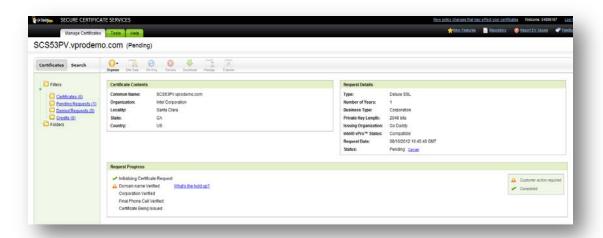


Purchasing Go Daddy* Certificates for Intel® AMT Remote Setup and Configuration

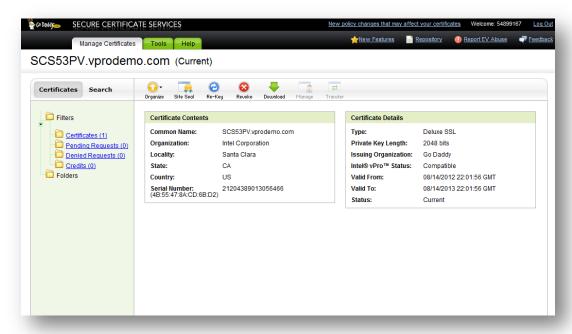
- 20. Confirm the information on the Confirmation page. Choose Submit.
- 21. On the What's Next? page, choose **Finish**.



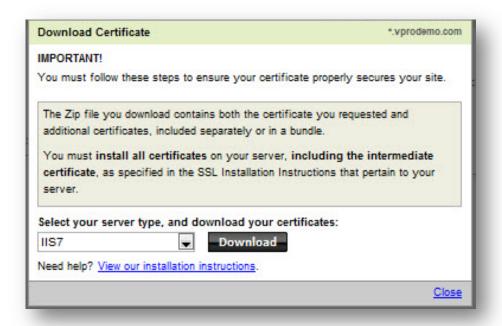
22. In the "Pending Requests" page and before the certificate is issued, there will be a sequence of verifications, Domain name, Corporation, and Final Phone Call.



23. Once the security verification process has been completed, in your Certificate Details window, you will now see the Deluxe SSL certificate listed. Select the certificate and choose **Download** from the toolbar.



24. From the drop down list, **select server type** (IIS7 in our example), and then choose **Download**.



Save the Zip file on your Remote Configuration Service (RCS) server so you can complete the re-keying of the certificate with the server that generated the CSR.

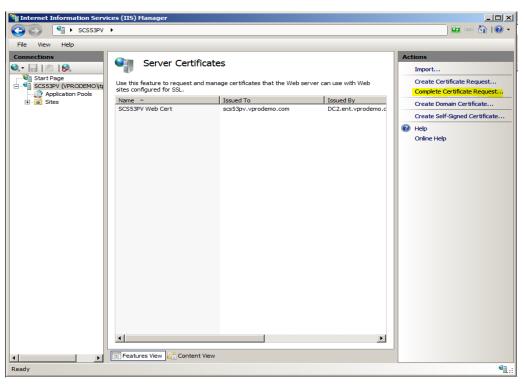
Purchasing Go Daddy* Certificates for Intel® AMT Remote Setup and Configuration

In this example, the zip file contains two files:

- SCS53.PV.vprodemo.com.crt
- Gd_iis_intermidiates.p7b

4 Prepare the Certificate

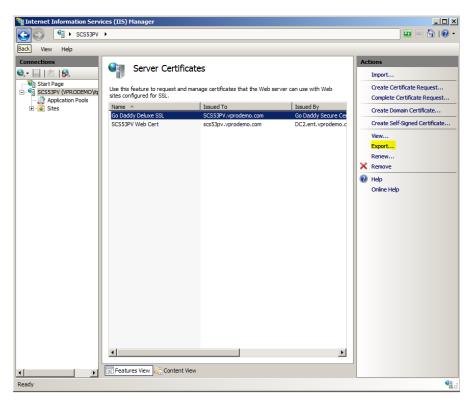
 Once you receive the certificate from Go Daddy*, select the Complete Certificate Request.



2. Locate the certificate file you received, enter a Friendly name, and choose OK.



3. You will now see the Intel AMT Setup and Configuration Certificate in your IIS Server. Highlight this certificate and choose **Export...** in the Actions menu.



4. Choose a location to export to, then enter a strong password. (This password will protect the private key.) Re-enter the password to confirm the password.

Export Certificate	? ×
Export to:	
C:\certs\GoDaddy_Deluxe_SSL_vPro.pfx	
Password:	
•••••	
Confirm password:	
••••••	
OK Car	ncel

Choose OK.

5 Install the Certificate

This section will show you how to do the following:

- Install the intermediate certificates (the intermediate certificate forms part of the chain from the certificate that you purchased to the root certificate).
- Instal the pfx certificate that you purchased
- Verify that the certificate is installed correctly

5.1 Install the Intermediate Certificate

The first step is to import the intermediate certificate into the Current User Intermediate Certificate Authorities Store of the service account for the RCS server.

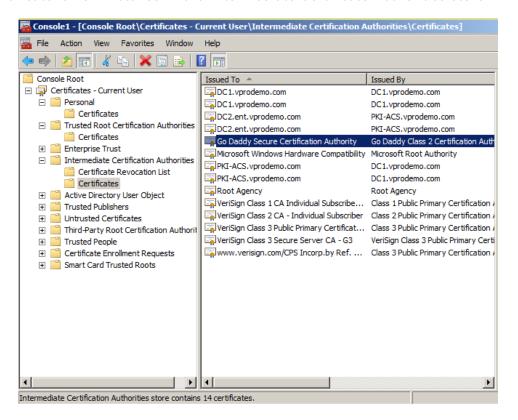
- 1. Logon as the service account for the RCS server.
- 2. Double-click the **gd_iis_intermediates.p7b** file where you saved it. Choose **Install Certificate.**



3. Use the default settings and then choose **Next**.



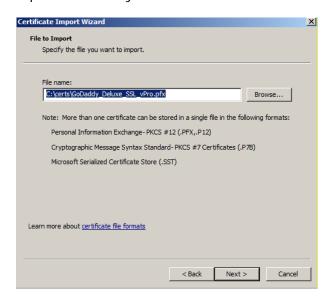
The certificate is now installed in the Intermediate Certificate Authorities store.



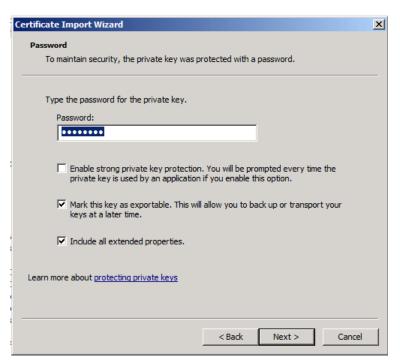
5.2 Install the pfx Certificate

Next, the pfx certificate created earlier will be installed and chained to the intermediate certificate that you installed in the previous step. The .pfx certificate will be imported into the **Current User Personal Certificate Store**.

1. Double-click on the .pfx file where you saved it. Choose Next.



2. Enter in the password and select the Mark Key as exportable, and Include all extended properties.



3. Leave the default to place automatically in certificate store. Choose **Next**.



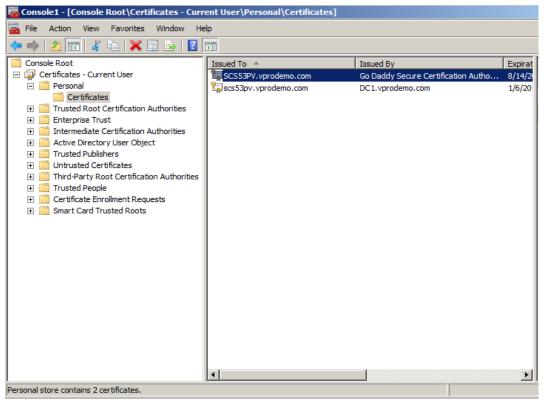
4. Choose Finish.



The certificate is now installed in the Current User Personal Certificates store.

5.3 Verify the Certificate Chain

1. To verify the chain, double click **SCS53PV.vprodemo.com**.



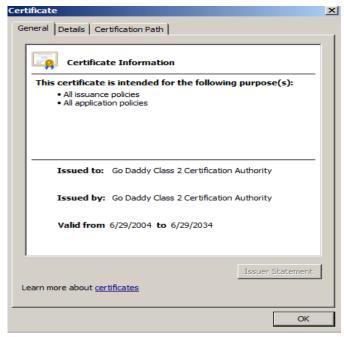
5. In the Certificate Information menu, confirm there are no errors. Check that the private key corresponds to the certificate and the OID **2.16.840.1.113741.1.2.3** is listed. Click the **Certificate Path** tab.



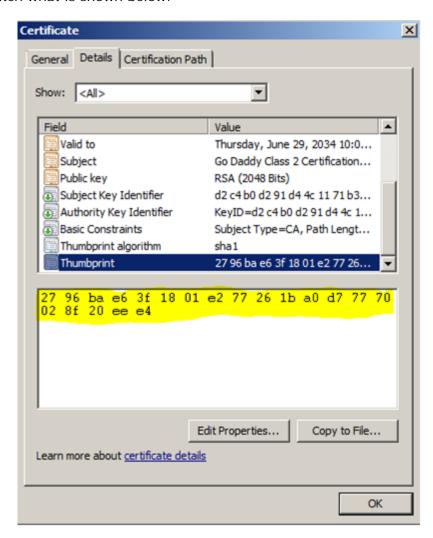
6. Check that the certificate is mapped to the intermediate Certificate Authorities as shown. Double click on the root cert **Go Daddy Class 2 Certificate Authority**.



7. Verify there are no errors with the root certificate and click **Details**.



8. In the **Details** tab, scroll down and highlight the **Thumbprint** field. The number must match what is shown below.



This Intel AMT setup and configuration certificate can now be used with the Intel SCS remote configuration service (RCS) for remote configuration and maintenance of PCs with Intel AMT.

6 Verify that it Works

To verify that the certificate works in your environment, create a test environment with one or more Intel AMT capable PCs that have not previously been setup and configured. Follow the instruction in the Intel SCS documentation to try Host Based Configuration in Admin Control mode. If successful, then your certificate is installed correctly.

If you purchased a wildcard certificate, then you should repeat the tests in the other subdomains.