

The Name Store ccTLD Use Cases

A sub-section of the Product Guidebook

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ccTLD Use Cases

The ccTLD use cases on the following pages provide an overview of the tasks most commonly performed by Registrars of ccTLDs. The use cases are designed to show how the VeriSign Name Store platform works with the Registrar system and the Registries to provide ccTLD management. Although they focus on the most common scenarios, they also document some alternate paths and flows.

The ccTLD use cases illustrate the following scenarios:

- Use Case 1: Search for a Domain Name
- Use Case 2: Register a Domain Name
- Use Case 3: Update Contact Information
- Use Case 4: Update Host Information
- Use Case 5: Update a Domain with a New Contact
- Use Case 6: Delete a Domain

Use Case 1: Search for a Domain Name

Goal in Context: A customer must be able to search for a ccTLD to determine whether it is available for purchase.

Level: Primary Task.

Preconditions: You allow the customer to request a search for a ccTLD. When an EPP command is sent to the VeriSign Name Store platform it includes all the required data fields.

Post-condition: You return the search results based on results returned from the VeriSign Name Store. After the customer has completed the search and verified that the ccTLD is available, you allow the customer to purchase the ccTLD.

Success End Conditions: The customer knows whether the ccTLD is available for purchase.

Failed End Conditions: The customer does not receive results or receives incorrect results.

Primary Actor: Customer.

Secondary Actor: Registrar systems (your systems), VeriSign Name Store platform, ccTLD Registry.

Trigger: The customer requests that you search for available domain names.

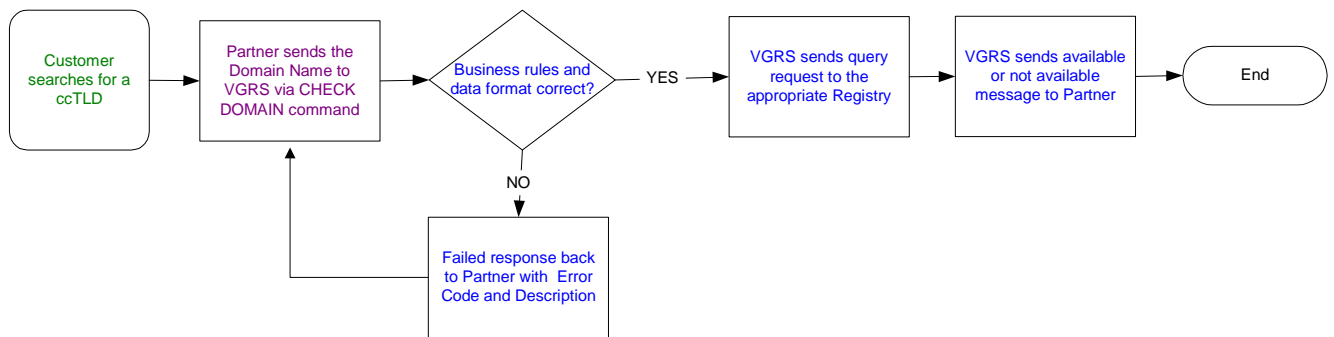
Main Success Scenario

1. The customer enters one or more domain names using a VeriSign supported country-code extension for each domain.
2. The customer requests that you search for available domain names.
3. Your system executes the Check Domain command, causing the Name Store to check availability of the domain with the appropriate Registry.
4. The Name Store returns a message to your system verifying that the ccTLD domain name is available.
5. Your system notifies the customer that the ccTLD domain name is available for registration.

Alternate Flow of Events

Step 4a: The Name Store returns a message to your system reporting that the ccTLD domain name is *not* available. Although the domain name is not available, the Success End Conditions are met and the task can be repeated.

Search for a Domain Name



Color Key: Green=Customer; Purple=Partner; Blue=VeriSign Name Store

Because this diagram illustrates general process flow, it does not map exactly to the use case described here. See *ccTLD Business Rules* section for applicable business rules.

Use Case 2: Register a Domain Name

Goal in Context: A customer must be able to register a ccTLD domain name through you and have the order fulfilled by the VeriSign Name Store platform.

Level: Primary Task.

Preconditions: The customer has found an available domain and wants to purchase it. The customer meets the requirements that the Registry of the chosen ccTLD has set forth. When an EPP command is sent to the Name Store it includes all the required data fields.

Post-condition: The domain is fulfilled and the customer is listed as the Registrant. The domain is not available to anyone else for purchase. All databases contain the relevant registration information for that domain.

Success End Conditions: The domain purchase has been provisioned and the VeriSign Registry has sent you a message indicating that the provisioning is complete. The customer's contact and all applicable hosts are linked to the correct domain in all applicable systems.

Failed End Conditions: The customer's domain name is not listed in the Registry database.

Primary Actor: Customer.

Secondary Actor: Registrar systems (your systems), VeriSign Name Store platform, ccTLD Registry.

Trigger: The customer requests that you register a ccTLD domain name on the customer's behalf.

Main Success Scenario

1. The customer requests that you register a ccTLD domain name on the customer's behalf.
2. You verify that the customer meets the criteria set forth by the applicable Registry.
3. You fill in the required data fields and send the Check Domain command to the VeriSign Name Store.
4. The Name Store checks availability with the appropriate Registry.
5. The Name Store sends an "available" message to your Registrar system, and then passes the customer's registration information to your Registrar system.
6. Your system sends the Create Contact command to the Name Store. (Either Create Contact or Create Host can be completed before Create Domain.)
7. The Name Store returns a Contact ID to you with a "success" response.
8. You send the Create Host command.
9. The Name Store returns a success response to you.
10. You send the Create Domain command.
11. The Name Store returns a Domain ID to you.
12. If all three Create commands are successful, the Name Store sends the registration to the Registry and adds the ccTLD domain name, in Pending status, to the Name Store database. The domain name is not yet registered but is in process.
13. Your system checks your message queue by sending a Poll command to see whether there is an update to the status of the registration.
14. The Registry notifies the Name Store that registration was successful.
15. The Name Store sends a success message to your queue.
16. Your system checks the message queue and receives a success message.

Alternate Flow of Events

Step 2a: You determine that the information provided by the customer is incomplete, inaccurate, invalid, or in some way does not meet your criteria or the Registry's criteria.

- **Step 2a 1:** You send an appropriate error message and direct the user to correct the mistake.
- **Step 2a 2:** The customer re-enters the required detail and resubmits the information, or the customer determines that it is not eligible to register the ccTLD.

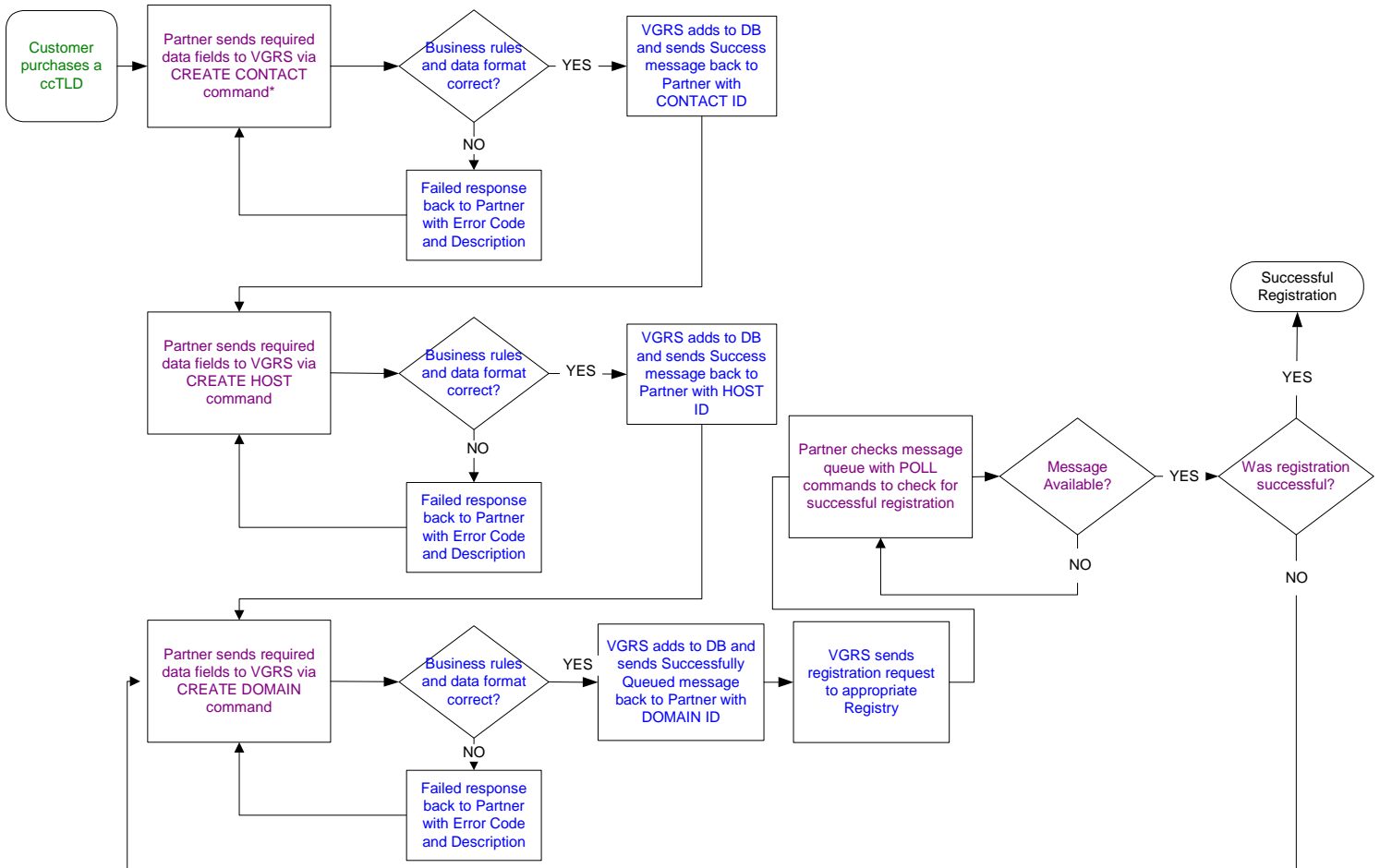
Step 7a: The Create Host, Create Contact, or Create Domain command fails.

- **Step 7a 1:** Your system corrects the mistake and resends the appropriate command.

Step 13a: Your system checks the message queue using a Poll command and does not find a message.

- **Step 13a 1:** The system continues to check the message queue until it receives a message.

Register a Domain Name



Color Key: Green=Customer; Purple=Partner; Blue=VeriSign Name Store

Because this diagram illustrates general process flow, it does not map exactly to the use case described here. See *ccTLD Business Rules* section for applicable business rules.

* Either Create Contact or Create Host can be sent first, but both must be in place before domain can be created.

Use Case 3: Update Contact Information

Goal in Context: A customer must be able to update contact information such as it's the organization's postal or email address.

Level: Primary Task.

Preconditions: The customer is attempting to change contact information where the contact is associated with at least one domain. When an EPP command is sent to the VeriSign Name Store platform, it includes all the required data fields.

Post-condition: All domains associated with the contact reflect the updated information in the applicable Registry's database.

Success End Conditions: The contact data is updated for all the domains associated with the contact, and the updates are reflected in the applicable Registry's database.

Failed End Conditions: The contact information is not updated.

Primary Actor: Customer.

Secondary Actor: Registrar systems, VeriSign Name Store platform, ccTLD Registry.

Trigger: The customer requests that you update its contact information.

Main Success Scenario

1. The customer requests that you update its contact information.
2. You send an Update Contact command, with all the modifiable data fields filled in, to the VeriSign Name Store.
3. The Name Store sends a response to you indicating that the contact data update was successful.
4. The Name Store determines that the contact is associated with a domain.
5. The Name Store finds and updates all domains related to the contact.
6. The Name Store requests that each Registry update the domain(s) with the new contact information.
7. The Name Store leaves a message in your queue indicating that the domain update was successful.
8. Your system gets the message from the queue using a Poll command.

Alternate Flow of Events

Step 4a: The Name Store determines that the contact is not associated with a domain.

Step 7a: The Name Store leaves a message in the queue indicating that the update was unsuccessful.

- **Step 7a 1:** You determine the reason for the failure of the update and resubmit the appropriate command.

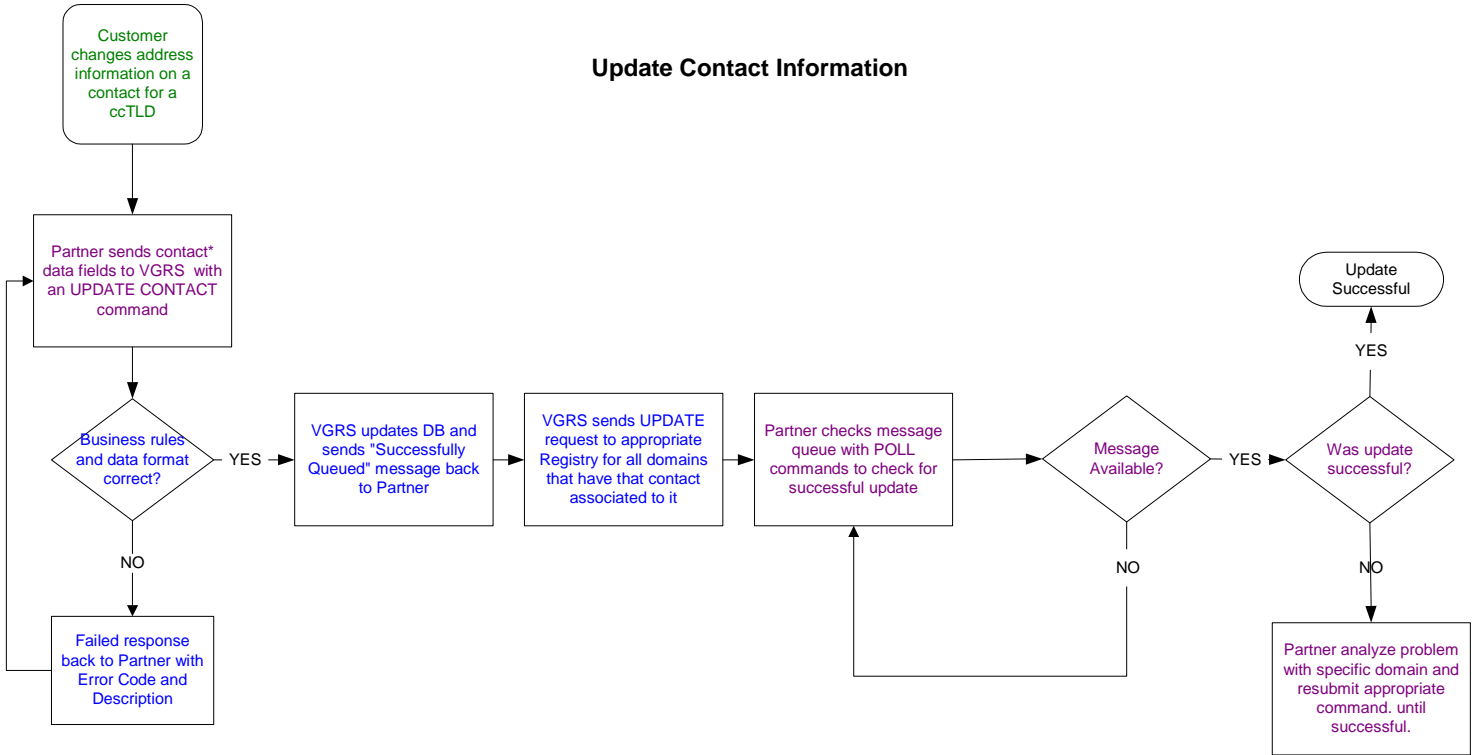
Step 8a: When your system checks the message queue using the Poll command, there is no message.

- **Step 8a 1:** You periodically check the message queue until a message arrives.

Notes

- If the contact is associated with multiple domains, then multiple domains must be updated. In this case, the message queue will hold a success or failure message for each domain. You must analyze the failures, if any, for each domain and take the appropriate action.
- Contacts do not have to be associated with a domain in order to be updated. If a contact is not associated with a domain, contact data updates are completed within the Name Store and do not need to be passed on to the Registry.

Update Contact Information



Color Key: Green=Customer; Purple=Partner; Blue=VeriSign Name Store

Because this diagram illustrates general process flow, it does not map exactly to the use case described here. See *ccTLD Business Rules* section for applicable business rules.

Note: Update Contact is very similar to the Update Host process.

*All modifiable fields must be submitted in order to update changes to any field.

Use Case 4: Update Host Information

Goal in Context: A current customer must be able to update name server information.

Level: Primary Task.

Preconditions: The customer has a host that is associated with one or more domains. When an EPP command is sent to the VeriSign Name Store platform it includes all the required data fields.

Post-condition: The host IP address is updated.

Success End Conditions: The host is updated for all the domains associated with it, and the updates are in the applicable Registry's database.

Failed End Conditions: Host information is not updated.

Primary Actor: Customer.

Secondary Actor: Registrar systems, VeriSign Name Store platform, ccTLD Registry.

Trigger: The customer requests that you update the organization's name servers.

Main Success Scenario

1. The customer requests that you update the organization's name servers.
2. Your system sends an Update Host command to the VeriSign Name Store platform.
3. The Name Store sends a response to you indicating that the update was successful in the Name Store database.
4. The Name Store determines whether the host name is associated with a domain.
5. The Name Store finds and updates all domains related to the host.
6. The Name Store requests that each Registry update the domain(s) with the updated host information.
7. The Name Store leaves a message in your queue indicating that the domain update was successful.
8. You check the message queue by performing a Poll command and receive a message indicating that the update was successful.

Alternate Flow of Events

Step 4a: The Name Store determines that the host is not associated with a domain.

Step 7a: The Name Store leaves a message in your queue indicating that the update was unsuccessful.

- **Step 7a 1:** You determine the reason for the failure of the update and resubmit the appropriate command.

Step 8a: Your system checks the message queue using a Poll command and does not find a message.

- **Step 8a 1:** You continue to check the message queue until you receive a message.

Notes

- If the host is associated with multiple domains, then multiple domains must be updated. In this case, your message queue will receive a success or failure message for each domain. You must analyze the failures, if any, for each domain and take the appropriate action.
- Hosts do not have to be associated with a domain in order to be updated. If a host is not associated with a domain, updates are completed within the Name Store and do not need to be passed on to the Registry.

Use Case 5: Update a Domain with a New Contact

Goal in Context: A customer registers a domain name with itself listed as the Registrant, administrative, and technical contact. Later the customer decides to have a third party manage the domain. The customer updates the technical contact information to reflect this change.

Level: Primary Task.

Preconditions: The customer has the authority to update this domain. When an EPP command is sent to the VeriSign Name Store, it includes all the required data fields.

Post-condition: A new contact is created and the domain is updated with new contact information.

Success End Conditions: A new contact is created and associated with the existing domain, and the third party is listed as the technical contact.

Failed End Conditions: The domain is not updated with the new contact.

Primary Actor: Customer.

Secondary Actor: Registrar system, VeriSign Name Store platform, ccTLD Registry.

Trigger: The customer requests that you update the organization's domain with new contact information.

Main Success Scenario

1. The customer requests that you update the customer's domain with new contact information.
2. Your system sends a Create Contact command.
3. The Name Store platform creates a new contact and sends a success message back to your system with a Contact ID.
4. Your system sends an Update Domain command to associate the new contact with the existing domain name.
5. The Name Store saves the updated information
6. The Name Store sends the updated information to the appropriate Registry.
7. The Name Store sends a "successfully queued" message to you.
8. Your system checks the message queue by performing a Poll command.
9. The Registry system notifies the Name Store that the update was successful.
10. The Name Store sends a message to your queue indicating that the update was successful.
11. Your system checks the message queue using a Poll command to determine whether the update was successful.

Alternate Flow of Events

Step 9a: The Registry system notifies the Name Store that the update was unsuccessful.

- **Step 9a 1:** The Name Store sends a message to your queue indicating that the update was unsuccessful.
- **Step 9a 2:** Your system executes a Poll command to determine the status of the update and receives a message indicating the update's failure.
- **Step 9a 3:** You determine the reason for the failure and resubmit the appropriate command.

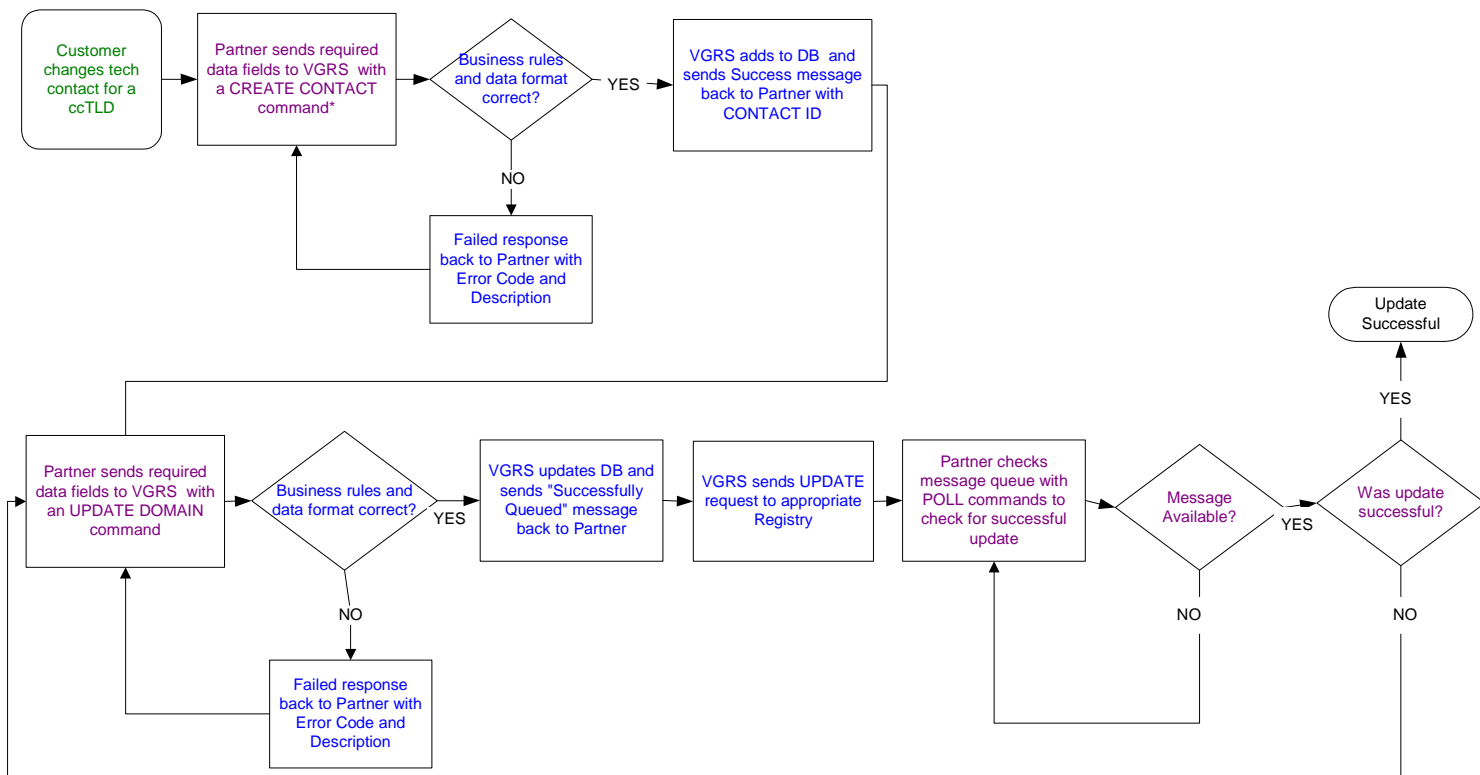
Step 11a: Your system checks the message queue using a Poll command and does not find a message.

- **Step 11a 1:** You continue to check the message queue until a message is available.

Exception

If the request were to update a domain with a new Registrant Contact, this operation would fail because it would be considered a transfer.

Update a Domain with a New Contact



Color Key: Green=Customer; Purple=Partner; Blue=VeriSign Name Store

Because this diagram illustrates general process flow, it does not map exactly to the use case described here. See *ccTLD Business Rules* section for applicable business rules.

Note: You can only update the domain with a new Admin or Tech contact, or Host.
*If Contact does not already exist.

Use Case 6: Delete a Domain

Goal in Context: The customer does not wish to continue registration.

Level: Primary Task.

Preconditions: The customer has registered a ccTLD domain name and does not wish to continue registration, the customer's term has expired, or you want to delete the registration because you have not received payment from the customer. When an EPP command is sent to the VeriSign Name Store, it includes all the required data fields.

Post-condition: The (former) Registrant can no longer manage the domain.

Success End Conditions: The ccTLD domain name is deleted from the Registry database and the Name Store database.

Failed End Conditions: The ccTLD domain name is renewed in the Registrant's name. The ccTLD domain name is not deleted from the Registry.

Primary Actor: Customer or Registrant system.

Secondary Actor: VeriSign Name Store platform, ccTLD Registry.

Trigger 1: Customer does not renew a ccTLD. OR

Trigger 2: You request that the registration be deleted because you have not received payment.

Main Success Scenario

1. The customer indicates that it does not want to renew registration for a domain.
2. Your system sends a Delete Domain command to the VeriSign Name Store platform.
3. The Name Store sends a response to you that the request was successfully queued.
4. The Name Store sends a request for deletion to the appropriate Registry.
5. The Registry sends a success message to the Name Store.
6. The Name Store sends a success message to your message queue.
7. Your system checks the message queue using a Poll command to determine whether the deletion was successful.

Alternate Flow of Events

Step 4a: The Registry system notifies the Name Store that the deletion was unsuccessful.

- **Step 4a 1:** The Name Store sends a message to your queue indicating that the deletion was unsuccessful.
- **Step 4a 2:** Your system executes a Poll command to determine the deletion's status and receives a message indicating that the deletion was unsuccessful.
- **Step 4a 3:** Your system corrects the error and resends the Delete Domain command.

Step 6a: Your system checks the message queue using a Poll command and does not find a message.

- **Step 6a 1:** You continue to check the message queue until the message arrives.

Exceptions

- You can submit Delete requests only for domains that you have created.
- The name must be in Active status in order to be deleted.
- Each Registry has a different schedule for deletions. Please refer to the *Business Rules for ccTLDs* section for each ccTLD deletion schedule.