IT Department
Documentation

Pre-Delegation Testing

EPP Test Cases

Version PA11

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2013-01-05	PA1	Jan Säll	Initial document
2013-01-17	PA2	Jan Säll	Update document after first review meeting
2013-01-17	PA3	Rickard Bellgrim	Fix document structure
2013-01-22	PA4	Jan Säll	Added use of Client Certificate for login
2013-01-24	PA5	Jan Säll	Fixed ref errors in test cases
2013-01-24	PA6	Rickard Bellgrim	Update text after review
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2013-02-06	PA8	Rickard Bellgrim	Add Document Hierarchy and final chapter
2013-02-07	PA9	Jan Säll	Added HostUpdate and ContactUpdate test Changed ContactName to ContactId
2013-02-18	PA10	Jan Säll	Fix miss in Extensions for Host Create in EppDomCreate02, and Miss if Keype input parameter in EppDomCreate03. And removed update in EppDomCreate03 (adding secdns records in create)
2013-03-04	PA11	Rickard Bellgrim	DNS must return NXDOMAIN

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1. Introduction

1.1 Scope

The Pre-Delegation Testing Provider will execute an *Extensible Provisioning Protocol* (EPP) test case suite using registrar credentials supplied by the applicant. The tests include:

- IPv6 transport support (if supported by the applicant)
- IPv6 DNS glue record handling
- DNSSEC support

All tests are to be performed over IPv4 and IPv6 from various points on the Internet.

1.2 References

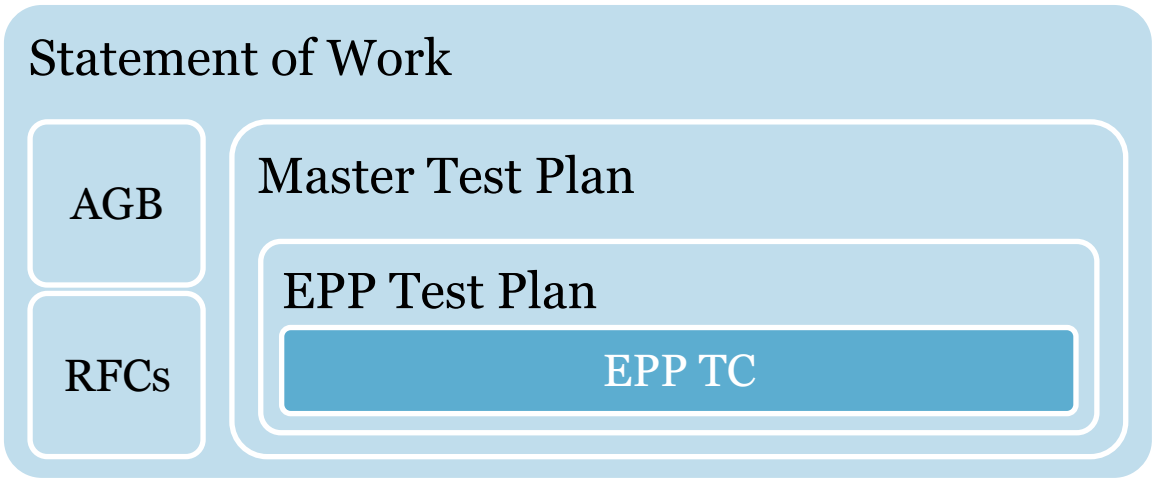
1.2.1 External

- IEEE 829-2008
- ICANN gTLD Applicant Guidebook, Version 2012-06-04

1.2.2 Internal

- Pre-Delegation Testing, Statement of Work
- Pre-Delegation Testing, Master Test Plan
- Pre-Delegation Testing, EPP Test Plan
- Pre-Delegation Testing, DNS Delegation Test Case
- Pre-Delegation Testing, Whois CLI Test Cases

1.2.3 Document Hierarchy



1.3 Context

The first test (EPP Conn Test) is to be performed over IPv4 and IPv6 (if supported by the applicant) from at least five points on the Internet. At least one probe node should be located in every ICANN region. The rest of the tests will only be performed from one location.

1.4 Notation for description

Each test case for the EPP service is described in their own chapter. The test procedures are described directly in the test case.

2. EPP Conn Test

2.1 Test case identifier

EPPConnTest

2.2 Objective

This automated test will verify the connectivity to the EPP provisioning system from 5 different points on the internet, by doing a login and then a logout.

The test will be performed over both IPv4 and IPv6 if applicant supports that.

2.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
EppLoginId	Login ID for EPP test user	String
EppLoginPwd	Login password for EPP test user	String
EppNsDomainUri	Object URI for Domain Object	String
EppNsDomainSl	Schema location for Domain Object	String
EppNsContactUri	Object URI for Contact Object	String
EppNsContactSl	Schema location for Contact Object	String
EppNsHostUri	Object URI for Host Object	String
EppNsHostSl	Schema location for Host object	String
EppExtSecDnsUri	Object URI for Sec Dns Object Extension	String
EppExtSecDnsSl	Schema location for Sec Dns Object Extension	String
EppExtUri-[1..n]	Object URI for extension 1..n	String
EppExtSl-[1..n]	Schema location for extensions 1..n	String
EppServerIPv4	IPv4 address to EPP server	String
EppServerIPv6	IPv6 address to EPP server if applicant supports IPv6	String
EppServerPort	Port number to EPP server	Number
EppClientCertificate	Yes if applicant requires client certificate	Boolean
EppClientKeyPairPem	PEM file with valid client certificate for test user (Public and private)	PEM file
EppClientKeyPairPwd	Password for client certificate for test user	String
EppServerCertificatePem	PEM file with server certificate (Public)	PEM file

2.4 Outcome(s)

Login step from each probe MUST complete with result code 1000
Logout step from each probe MUST complete with result code 1500.

2.5 Environmental needs

- EPP test script
- IPv4 connectivity
- IPv6 connectivity

2.6 Special procedural requirements

Abort the test if any operation takes longer than 30 seconds.

2.7 Intercase dependencies

This test has no intercase dependencies.

2.8 Ordered description of steps to be taken to execute the test case

This test will be performed from all of the nodes.

1. Login with *EppLoginId* and password *EppLoginPwd*.
   Use the EppNsDomainUri, EppNsDomainSl, EppNsContactUri, EppNsContactSl, EppNsHostUri and EppNsHostSl to build the login message.
   Add the secDNS extension with EppExtSecDnsUri and EppExtSecDnsSl.
   Add up to n extra extensions with EppExtUri and EppExtSl.
   If the server requires Client Certificate, connect with client certificate *EppClientKeyPairPem*
   Connect to EppServerIPv4.
   The reply from login **MUST** be result code 1000.
2. Create logout command.
   The reply from logout command **MUST** be result code 1500.

If applicant supports IPv6:

1. Login with *EppLoginId* and password *EppLoginPwd*.
   Use the EppNsDomainUri, EppNsDomainSl, EppNsContactUri, EppNsContactSl, EppNsHostUri and EppNsHostSl to build the login message.
   Add the secDNS extension with EppExtSecDnsUri and EppExtSecDnsSl.
   Add up to n extra extensions with EppExtUri and EppExtSl.
   If the server requires Client Certificate, connect with client certificate *EppClientKeyPairPem*
   Connect to EppServerIPv6.
   The reply from login **MUST** be result code 1000.
2. Create logout command.
   The reply from logout command **MUST** be result code 1500.

3. EPP Domain Create 01

3.1 Test case identifier

EPPDomCreate01

3.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, creating a domain object and logging out, and verify that the domain will be visible in the zone within 60 minutes. Also verify that information is visible in Whois within 60 minutes.

3.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is required.

As the test will verify DNS visibility within 60 minutes, one of the name server FQDN and glue records are also needed. This is the same information as provided by the applicant in 2.3 of the DNS Delegation Test Cases.

The Whois visibility within 60 minutes will also be tested. The IP address of the Whois server on port 43 is needed. This is the same information as provided by the applicant in 2.3 of the Whois Test Cases.

Id	Description	Type
DnsNameServer1	FQDN of 1st authoritative name server	String
DnsGlueRecord1	FQDN of 1st authoritative name server	String
WhoisIPv4Port43	The IPv4 address of the Whois service on port 43	String
EppDomCreate01Name	Domain name to create	String
EppDomCreate01Period	Domain period type	Y/M
EppDomCreate01PeriodValue	Domain period value	Number
EppDomCreate01RegistrantId	Domain registrant id	String
EppDomCreate01Ns01	Host object name for ns01	String
EppDomCreate01Ns02	Host object name for ns02	String
EppDomCreate01Ext01Uri	Object URI for extension 01	String
EppDomCreate01Ext01Sl	Schema location for extensions 01	String
EppDomCreate01Ext01ExtValue	Extension01 value for direct text node	String
EppDomCreate01Ext01Field01	Extra field 01 name for extension 01	String
EppDomCreate01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

3.4 Outcome(s)

Initial DNS lookup MUST return NXDOMAIN for *EppDomCreate01Name*.
Initial Whois lookup MUST NOT return any information about *EppDomCreate01Name*.
Login step MUST complete with result code 1000.
Create step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.
EppDomCreate01Name MUST be visible in zone after no more than 60 minutes.
EppDomCreate01Name MUST be visible in Whois after no more than 60 minutes.

3.5 Environmental needs

- DNS test script
- Whois client software
- EPP test script
- IPv4 connectivity
- *EppDomCreate01Name* MUST NOT exist in the DNS zone.
- *EppDomCreate01RegistrantId* has to exist in applicant contact database
- *EppDomCreate01Ns01* has to exist in applicant host database, and be configured to serve domain *EppDomCreate01Name*.
- *EppDomCreate01Ns02* has to exist in applicant host database, and be configured to serve domain *EppDomCreate01Name*.

3.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.
Abort the test if any EPP operation takes longer than 30 seconds.

3.7 Intercase dependencies

This test has no intercase dependencies.

3.8 Ordered description of steps to be taken to execute the test case

1. First check that the domain is not present in Whois:
    a. Start a terminal.
    b. Query the Whois service using the client software.
    whois -h *WhoisIPv4Port43 EppDomCreate01Name*
    c. The domain name MUST NOT be present in the response.
2. Do a DNS lookup for *EppDomCreate01Name* domain name. The result **MUST** be NXDOMAIN.
3. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
4. Create a domain create command with *EppDomCreate01Name*.
    a. Use Period name from *EppDomCreate01Period* and period value from *EppDomCreate01PeriodValue*.
    b. Use name server 1 from *EppDomCreate01Ns01* and name server 2 from *EppDomCreate01Ns02*.
    c. If domain create requires extra extensions and values, create an extension part from *EppDomCreate01Ext01Uri* and fill in field name from *EppDomCreateExt01Field01* and values from *EppDomCreateExt01Value01*.
    d. The reply from create domain command **MUST** be result code 1000.

5. Create logout command. The reply from logout command **MUST** be result code 1500.
6. Test that the *EPPDomCreate01Name* domain is visible in the zone within 60 minutes.
7. Test that the *EPPDomCreate01Name* is visible in Whois within 60 minutes.

4. EPP Domain Create 02

4.1 Test case identifier

EPPDomCreate02

4.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, creating a domain object, creating subordinate host objects and updating domain and logging out, and verify the correct handling of glue records.

4.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

As the test will verify DNS visibility within 60 minutes, with correct glue records, one of the name server FQDN and glue records are also needed. This is the same information as provided by the applicant in 2.3 of the DNS Delegation Test Cases.

Id	Description	Type
DnsNameServer1	FQDN of 1st authoritative name server	String
DnsGlueRecord1	FQDN of 1st authoritative name server	String
EppDomCreate02Name	Domain name to create	String
EppDomCreate02Period	Domain period type	Y/M
EppDomCreate02PeriodValue	Domain period value	Number
EppDomCreate02RegistrantId	Domain registrant id	String
EppDomCreate02Ns01	Subordinate host object name for ns01	String
EppDomCreate02Ns01Ipv4	Subordinate ns01 IPv4 address	String
EppDomCreate02Ns01Ipv6	Subordinate ns01 IPv6 address	String
EppDomCreate02Ns02	Subordinate host object name for ns02	String
EppDomCreate02Ns02Ipv4	Subordinate ns02 IPv4 address	String
EppDomCreate02Ns02Ipv6	Subordinate ns02 IPv6 address	String
EppDomCreate02Ext01Uri	Object URI for extension 01	String
EppDomCreate02Ext01Sl	Schema location for extensions 01	String
EppDomCreate02Ext01ExtValue	Extension01 value for direct text node	String
EppDomCreate02Ext01Field01	Extra Field 01 name for extension 01	String
EppDomCreate02Ext01Value01	Extra Field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	
EppDomCreate02UpdExt01Uri	Object URI for extension 01 for Update	String
EppDomCreate02UpdExt01Sl	Schema location for extensions 01 for Update	String
EppDomCreate02UpdExt01ExtValue	Extension01 value for direct text node for Update	String
EppDomCreate02UpdExt01Field01	Extra Field 01 name for extension 01 for Update	String
EppDomCreate02UpdExt01Value01	Extra Field 01 value for extension 01 for Update	String

Id	Description	Type
...	Repeat for max y fields for Update	
...	Repeat for max x extensions for Update	
EppDomCreate02Ns01Ext01Uri	Object URI for extension 01 for Ns01	String
EppDomCreate02Ns01Ext01Sl	Schema location for extensions 01 for Ns01	String
EppDomCreate02Ns01Ext01ExtValue	Extension01 value for direct text node for Ns01	String
EppDomCreate02Ns01Ext01Field01	Extra Field 01 name for extension 01 for Ns01	String
EppDomCreate02Ns01Ext01Value01	Extra Field 01 value for extension 01 for Ns01	String
...	Repeat for max y fields for Ns01	
...	Repeat for max x extensions for Ns01	
EppDomCreate02Ns02Ext01Uri	Object URI for extension 01 for Ns02	String
EppDomCreate02Ns02Ext01Sl	Schema location for extensions 01 for Ns02	String
EppDomCreate02Ns02Ext01ExtValue	Extension01 value for direct text node for Ns02	String
EppDomCreate02Ns02Ext01Field01	Extra Field 01 name for extension 01 for Ns02	String
EppDomCreate02Ns02Ext01Value01	Extra Field 01 value for extension 01 for Ns02	String
...	Repeat for max y fields for Ns02	
...	Repeat for max x extensions for Ns02	

4.4 Outcome(s)

Initial DNS lookup MUST return NXDOMAIN for *EppDomCreate02Name*.
Login step MUST complete with result code 1000.
Create domain step MUST complete with result code 1000.
Create host step MUST complete with result code 1000.
Update domain step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.
EppDomCreate02Name MUST be visible in zone with correct glue records after no more than 60 minutes.

4.5 Environmental needs

- DNS test script
- EPP test script
- IPv4 connectivity
- *EppDomCreate02Name* MUST NOT exist in the DNS Zone.
- *EppDomCreate02RegistrantId* has to exist in applicant contact database
- *EppDomCreate02Ns01* must be configured to serve domain *EppDomCreate02Name*.
- *EppDomCreate02Ns02* must be configured to serve domain *EppDomCreate02Name*.

4.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

4.7 Intercase dependencies

This test has no intercase dependencies.

4.8 Ordered description of steps to be taken to execute the test case

1. Do a DNS lookup for *EppDomCreate02Name* domain name. The result **MUST** be NXDOMAIN.

2. Do the same login as the login step in 2.8.
   The reply from login **MUST** be result code 1000.
3. Create a domain with the create command with *EppDomCreate02Name*.
   a. Use period name from *EppDomCreate02Period* and period value from *EppDomCreate02PeriodValue*.
   b. If domain create requires extra extension and values, create an extension part from *EppDomCreate02Ext01Uri* and fill in field name from *EppDomCreate02Ext01Field01* and values from *EppDomCreate02Ext01Value01*.
   c. The reply from create domain command **MUST** be result code 1000.
4. Create subordinate host *EppDomCreate02Ns01* with IPv4 address *EppDomCreate02Ns01Ipv4* and/or IPv6 address *EppDomCreate02Ns01Ipv6*
   The reply from create host command **MUST** be result code 1000.
5. Create subordinate host *EppDomCreate02Ns02* with IPv4 address *EppDomCreate02Ns02Ipv4* and/or IPv6 address *EppDomCreate02Ns02Ipv6*
   The reply from create host command **MUST** be result code 1000.
6. Create domain update *EppDomCreate02Name*.
   Add host *EppDomCreate02Ns01* and *EppDomCreate02Ns02*
   The reply from update domain command **MUST** be result code 1000.
7. Create logout command
   The reply from logout command **MUST** be result code 1500.
8. Test that the *EppDomCreate02Name* domain with the correct glue records are visible in the zone within 60 minutes.

5. EPP Domain Create 03

5.1 Test case identifier

EPPDomCreate03

5.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, creating a domain object, with DNSSEC records and logging out.

5.3 Inputs

The following information will be needed as input for this test case:

As the test will verify DNS visibility within 60 minutes, with correct DNSSEC records, one of the name server FQDN and glue records are also needed. This is the same information as provided by the applicant in 2.3 of the DNS Delegation Test Cases.

The login information from 2.3 is also required.

Id	Description	Type
DnsNameServer1	FQDN of 1st authoritative name server	String
DnsGlueRecord1	FQDN of 1st authoritative name server	String
EppDomCreate03Name	Domain name to create	String
EppDomCreate03Period	Domain period type	Y/M
EppDomCreate03PeriodValue	Domain period value	Number
EppDomCreate03RegistrantId	Domain registrant id	String
EppDomCreate03Ns01	Host object name for ns01	String
EppDomCreate03Ns02	Host object name for ns02	String
EppDomCreate03Ext01Uri	Object URI for extension 01	String
EppDomCreate03Ext01Sl	Schema location for extension 01	String
EppDomCreate03Ext01ExtValue	Extension01 value for direct text node	String
EppDomCreate03Ext01Field01	Extra field 01 name for extension 01	String
EppDomCreate03Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	
EppDomCreate03KeyType	D for dsData specification K for keyData specification DK for dsData and keyData specification	String
EppDomCreate03DsKeyTag01	Value for dsData 01 keytag	String
EppDomCreate03DsAlg01	Value for dsData 01 alg	Number
EppDomCreate03DsDigestType01	Value for dsData 01 digest type	Number
EppDomCreate03DsDigest01	Value for dsData 01 digest	String
EppDomCreate03KdFlags01	Value for keyDate 01 flags	Number
EppDomCreate03KdProtocol01	Value for keyData 01 protocol	Number
EppDomCreate03KdAlg01	Value for keyData 01 alg	Number
EppDomCreate03KdPubKey01	Value for keyData 01 pubKey	String
EppDomCreate03DsKeyTag02	Value for dsData 02 keytag	String
EppDomCreate03DsAlg02	Value for dsData 02 alg	Number

Id	Description	Type
EppDomCreate03DsDigestType02	Value for dsData 02 digest type	Number
EppDomCreate03DsDigest02	Value for dsData 02 digest	String
EppDomCreate03KdFlags02	Value for keyDate 02 flags	Number
EppDomCreate03KdProtocol02	Value for keyData 02 protocol	Number
EppDomCreate03KdAlg02	Value for keyData 02 alg	Number
EppDomCreate03KdPubKey02	Value for keyData 02 pubKey	String

5.4 Outcome(s)

Initial DNS lookup MUST return NXDOMAIN for *EppDomCreate03Name*.
Create domain step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.
EppDomCreate03Name MUST be visible in the zone with correct DNS records after no more than 60 minutes.

5.5 Environmental needs

- DNS test script
- EPP test script
- IPv4 connectivity
- *EppDomCreate03Name* MUST NOT exist in the DNS zone.
- *EppDomCreate03RegistrantId* has to exist in applicant contact database
- *EppDomCreate03Ns01* has to exist in applicant host database, and be configured to serve domain *EppDomCreate03Name* with correct DNSSEC records.
- *EppDomCreate03Ns02* has to exist in applicant host database, and be configured to serve domain *EppDomCreate03Name* with correct DNSSEC records.

5.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

5.7 Intercase dependencies

This test has no intercase dependencies.

5.8 Ordered description of steps to be taken to execute the test case

1. Do a DNS lookup for *EppDomCreate03Name* domain name. The result **MUST** be NXDOMAIN.
2. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
3. Create a domain create command with *EppDomCreate03Name*.
    a. Use period name from *EppDomCreate03Period* and period value from *EppDomCreate03PeriodValue*.
    b. Use name server 1 from *EppDomCreate03Ns01* and name server 2 from *EppDomCreate03Ns02*.
    c. Add 2 secDNS ds records with dsData or keyData or dsdata with keyData depending on *EppDomCreate03KeyType*.
    d. Use appropriate values from *EppDomCreate03DsKeyTag01*, *EppDomCreate03DsAlg01*, *EppDomCreate03DsDigestType01*, *EppDomCreate03DsDigest01*, *EppDomCreate03KdFlags01*,

EppDomCreate03KdProtocol01, *EppDomCreate03KdAlg01*, *EppDomCreate03kdPubKey01*, *EppDomCreate03DsKeyTag02*, *EppDomCreate03DsAlg02*, *EppDomCreate03DsDigestType02*, *EppDomCreate03DsDigest02*, *EppDomCreate03KdFlags02*, *EppDomCreate03KdProtocol02*, *EppDomCreate03KdAlg02*, *EppDomCreate03kdPubKey02*.

e. If domain create requires extra extension and values, create an extension part from *EppDomCreate03Ext01Uri* and fill in field name from *EppDomCreate03Ext01Field01* and values from *EppDomCreate03Ext01Value01*.
f. The reply from create domain command **MUST** be result code 1000.

4. Create logout command. The reply from logout command **MUST** be result code 1500.
5. Test that the *EppDomCreate03Name* domain is visible, with the correct DNSSEC records, in the zone within 60 minutes.

6. EPP Domain Renew 01

6.1 Test case identifier

EPPDomRenew01

6.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, renewing a domain object and logging out.

6.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppDomRenew01Name	Domain name to renew	String
EppDomRenew01Period	Domain period type	Y/M
EppDomRenew01PeriodValue	Domain period value	Number
EppDomRenew01ExpDate	Domain current expiry date	String
EppDomRenew01Ext01Uri	Object URI for extension 01	String
EppDomRenew01Ext01Sl	Schema location for extension 01	String
EppDomRenew01Ext01ExtValue	Extension01 value for direct text node	String
EppDomRenew01Ext01Field01	Extra field 01 name for extension 01	String
EppDomRenew01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

6.4 Outcome(s)

Login step MUST complete with result code 1000.
Renew domain step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.

6.5 Environmental needs

- EPP test script
- IPv4Connectivity
- *EppDomRenew01Name* domain must exist in the applicant domain database, and be ready for renewal

6.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

6.7 Intercase dependencies

This test has no intercase dependencies.

6.8 Ordered description of steps to be taken to execute the test case

1. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
2. Create a domain renewal command with *EppDomRenew01Name*.
    a. Use Period name from *EppDomRenew01Period* and period value from *EppDomRenew01PeriodValue*.
    b. If domain renew requires extra extension and values, create an extension part from *EppDomRenew01Ext01Uri* and fill in field name from *EppDomRenewe01Ext01Field01* and values from *EppDomRenew01Ext01Value01*.
    c. The reply from renew domain command **MUST** be result code 1000.
3. Create logout command.
   The reply from logout command **MUST** be result code 1500.

7. EPP Domain Transfer 01

7.1 Test case identifier

EPPDomTransfer01

7.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, requesting a transfer of a domain object and logging out.

7.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppDomTransfer01Name	Domain name to transfer	String
EppDomTransfer01PendingExt	Yes if the applicant requires an external action to perform a transfer	Boolean
EppDomTransfer01AddPeriod	Yes if the applicant support adding a period to transfer	Boolean
EppDomTransfer01Period	Domain period type	Y/M
EppDomTransfer01PeriodValue	Domain period value	Number
EppDomTransfer01AuthInfo	Authorization info for domain, registrant or associated contacts	String
EppDomTransfer01AuthRoid	Roid for registrant or contact if EppDomTransfer01AuthInfo is associated with registrant or contact object	String
EppDomTransfer01Ext01Uri	Object URI for extension 01	String
EppDomTransfer01Ext01Sl	Schema location for extension 01	String
EppDomTransfer01Ext01ExtValue	Extension01 value for direct text node	String
EppDomTransfer01Ext01Field01	Extra field 01 name for extension 01	String
EppDomTransfer01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

7.4 Outcome(s)

Login step MUST complete with result code 1000.
Transfer domain step MUST complete with result code 1000 if *EppDomTransfer01PendingExt* is no or 1001 if *EppDomTransfer01PendingExt* is yes.
Logout step MUST complete with result code 1500.

7.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppDomTransfer01Name* domain must exist in the applicant domain database, and be available for transfer.

7.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

7.7 Intercase dependencies

This test has no intercase dependencies.

7.8 Ordered description of steps to be taken to execute the test case

1. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
2. Create a domain transfer command with *EppDomTransfer01Name*.
    a. Add an Op attribute in transfer command with the value "request".
    b. If *EppDomTransfer01AddPeriod* is true. Add period part with Period name from *EppDomTransfer01Period* and period value from *EppDomTransfer01PeriodValue*.
    c. Add authinfo part.
    d. If *EppDomTransfer01AuthRoid* is defined add a roid attribute to pw part with the value *EppDomTransfer01AuthRoid*.
    e. If domain renew requires extra extension and values, create an extension part from *EppDomTransfer01Ext01Uri* and *EppDomTransfer01Ext01Sl* and fill in field name from *EppDomTransfer01Ext01Field01* and values from *EppDomTransfer01Ext01Value01*.
    f. The reply from transfer domain command **MUST** complete with result code 1000 if *EppDomTransfer01PendingExt* is no or 1001 if *EppDomTransfer01PendingExt* is yes.
3. Create logout command.
   The reply from logout command **MUST** be result code 1500.

8. EPP Domain Transfer 02

8.1 Test case identifier

EPPDomTransfer02

8.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, approving a transfer of a domain object if the applicant supports this operation via EPP, and logging out.

This test will only be run if the *EppDomTransfer02Approve* is set to yes.

8.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppDomTransfer02Approve	Yes if the applicant supports the approve operation	Boolean
EppDomTransfer02Name	Domain name to transfer	String
EppDomTransfer02PendingExt	Yes if the applicant requires an external action to perform a transfer approve	Boolean
EppDomTransfer02AddPeriod	Yes if the applicant support adding a period to transfer	Boolean
EppDomTransfer02Period	Domain period type	Y/M
EppDomTransfer02PeriodValue	Domain period value	Number
EppDomTransfer02AuthInfo	Authorization info for domain, registrant or associated contacts if required	String
EppDomTransfer02AuthRoid	Roid for registrant or contact if EppDomTransfer01AuthInfo is associated with registrant or contact object	String
EppDomTransfer02Ext01Uri	Object URI for extension 01	String
EppDomTransfer02Ext01Sl	Schema location for extensions 01	String
EppDomTransfer02Ext01ExtValue	Extension01 value for direct text node	String
EppDomTransfer02Ext01Field01	Extra field 01 name for extension 01	String
EppDomTransfer02Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

8.4 Outcome(s)

Login step MUST complete with result code 1000.
Transfer domain step MUST complete with result code 1000 if *EppDomTransfer02PendingExt* is no or 1001 if *EppDomTransfer02PendingExt* is yes.
Logout step MUST complete with result code 1500.

8.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppDomTransfer02Name* domain must exist in the applicant domain database, and be available for transfer approve.

8.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

8.7 Intercase dependencies

This test has no intercase dependencies.

8.8 Ordered description of steps to be taken to execute the test case

1. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
2. Create a domain transfer command with *EppDomTransfer02Name*.
    a. Add an Op attribute in transfer command with the value “approve”.
    b. If *EppDomTransfer02AddPeriod* is true. Add period part with Period name from *EppDomTransfer02Period* and period value from *EppDomTransfer02PeriodValue.*
    c. Add authinfo part.
    d. If *EppDomTransfer02AuthRoid* is defined add a roid attribute to pw part with the value *EppDomTransfer02AuthRoid*.
    e. If domain transfer requires extra extension and values, create an extension part from *EppDomTransfer02Ext01Uri* and *EppDomTransfer02Ext01Sl* and fill in field name from *EppDomTransfer02Ext01Field01* and values from *EppDomTransfer02Ext01Value01*.
    f. The transfer domain command **MUST** complete with result code 1000 if *EppDomTransfer02PendingExt* is no or 1001 if *EppDomTransfer02PendingExt* is yes.
3. Create logout command.
   The reply from logout command **MUST** be result code 1500.

9. EPP Domain Delete 01

9.1 Test case identifier

EPPDomDelete01

9.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, deleting a domain object and logging out.

9.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppDomDelete01Name	Domain name to delete	String
EppDomDelete01Ext01Uri	Object URI for extension 01	String
EppDomDelete01Ext01Sl	Schema location for extension 01	String
EppDomDelete01Ext01ExtValue	Extension01 value for direct text node	String
EppDomDelete01Ext01Field01	Extra field 01 name for extension 01	String
EppDomDelete01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

9.4 Outcome(s)

Login step MUST complete with result code 1000.
Delete domain step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.

9.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppDomDelete01Name* domain MUST exist in the applicant domain database, and be available for delete.

9.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

9.7 Intercase dependencies

This test has no intercase dependencies.

9.8 Ordered description of steps to be taken to execute the test case

1. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
2. Create a domain delete command with *EppDomDelete01Name*.
    a. If domain delete requires extra extension and values, create an extension part from *EppDomDelete01Ext01Uri* and *EppDomDelete01Ext01Sl* and fill in field name from *EppDomDelete01Ext01Field01* and values from *EppDomDelete01Ext01Value01*.
    b. The delete domain command **MUST** complete with result code 1000.
3. Create logout command
   The reply from logout command **MUST** be result code 1500.

10. EPP Contact Create 01

10.1 Test case identifier

EppConCreate01

10.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, creating a contact object and logging out.

10.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppConCreate01Id	Contact ID to create	String
EppConCreate01PIntMand	Yes if PostalInfo type INT is mandatory	Boolean
EppConCreate01PIntName	Contact PostalInfo Int Name	String
EppConCreate01PIntOrg	Contact PostalInfo Int Org	String
EppConCreate01PIntStreet1	Contact PostalInfo Int Street1	String
EppConCreate01PIntStreet2	Contact PostalInfo Int Street2, if mandatory	String
EppConCreate01PIntStreet3	Contact PostalInfo Int Street3, if mandatory	String
EppConCreate01PIntCity	Contact PostalInfo Int City	String
EppConCreate01PIntSp	Contact PostalInfo Int State or Province, if mandatory	String
EppConCreate01PIntPc	Contact PostalInfo Int Postcode, if mandatory	String
EppConCreate01PIntCc	Contact PostalInfo Int Country Code	String
EppConCreate01PLocMand	Yes if PostalInfo type LOC is mandatory	Boolean
EppConCreate01PLocName	Contact PostalInfo Loc Name	String
EppConCreate01PLocOrg	Contact PostalInfo Loc Org	String
EppConCreate01PLocStreet1	Contact PostalInfo Loc Street1	String
EppConCreate01PLocStreet2	Contact PostalInfo Loc Street2, if mandatory	String
EppConCreate01PLocStreet3	Contact PostalInfo Loc Street3, if mandatory	String
EppConCreate01PLocCity	Contact PostalInfo Loc City	String
EppConCreate01PLocSp	Contact PostalInfo Loc State or Province, if mandatory	String
EppConCreate01PLocPc	Contact PostalInfo Loc Postcode, if mandatory	String
EppConCreate01PLocCc	Contact PostalInfo Loc Country Code	String
EppConCreate01Voice	Contact Voice telephone number, if mandatory	String
EppConCreate01Fax	Contact Fax telephone number, if mandatory	String
EppConCreate01Email	Contact Email address	String
EppConCreate01Auth	Contact Auth Info, if mandatory	String
EppConCreate01Ext01Uri	Object URI for extension 01	String
EppConCreate01Ext01Sl	Schema location for extension 01	String
EppConCreate01Ext01ExtValue	Extension01 value for direct text node	String
EppConCreate01Ext01Field01	Extra field 01 name for extension 01	String
EppConCreate01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	

Id	Description	Type
...	Repeat for max x extensions	

10.4 Outcome(s)

Login step MUST complete with result code 1000.
Create contact step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.

10.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppConCreate01Id* domain must not exist in the applicant domain database.

10.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

10.7 Intercase dependencies

This test has no intercase dependencies.

10.8 Ordered description of steps to be taken to execute the test case

1. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
2. Create a contact create command with *EppConCreate01Id*.
    a. If *EppConCreate01PIntMand* is Yes, Create a Postal Info type Int with appropriate fields from *EppConCreate01PIntName*, *EppConCreate01PIntOrg*, *EppConCreate01PIntStreet1*, *EppConCreate01PIntStreet2*, *EppConCreate01PIntStreet3*, *EppConCreate01PIntCity*, *EppConCreate01PIntSp*, *EppConCreate01PIntPc*, *EppConCreate01PIntCc*.
    b. If *EppConCreate01PLocMand* is Yes, Create a Postal Info type Loc with appropriate fields from *EppConCreate01PLocName*, *EppConCreate01PLocOrg*, *EppConCreate01PLocStreet1*, *EppConCreate01PLocStreet2*, *EppConCreate01PLocStreet3*, *EppConCreate01PLocCity*, *EppConCreate01PLocSp*, *EppConCreate01PLOcPc*, *EppConCreate01PLocCc*.
    c. Add *EppConCreate01Voice*, *EppConCreate01Fax*, *EppConCreate01Email* and *EppConCreate01Auth* fields.
    d. If contact create requires extra extension and values, create an extension part from *EppConCreate01Ext01Uri* and *EppConCreate01Ext01Sl* and fill in field name from *EppConCreate01Ext01Field01* and values from *EppConCreate01Ext01Value01*.
    e. The create contact command **MUST** complete with result code 1000.
3. Create logout command.
   The reply from logout command **MUST** be result code 1500.

11. EPP Contact Delete 01

11.1 Test case identifier

EPPConDelete01

11.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, deleting a contact object and logging out.

11.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppConDelete01Id	ContactID to delete	String
EppConDelete01Ext01Uri	Object URI for extension 01	String
EppConDelete01Ext01Sl	Schema location for extension 01	String
EppConDelete01Ext01ExtValue	Extension01 value for direct text node	String
EppConDelete01Ext01Field01	Extra field 01 name for extension 01	String
EppConDelete01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

11.4 Outcome(s)

Login step MUST complete with result code 1000.
Delete contact step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.

11.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppConDelete01Id* domain must exist in the applicant domain database, and be available for delete.

11.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

11.7 Intercase dependencies

This test has no intercase dependencies.

11.8 Ordered description of steps to be taken to execute the test case

1. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
2. Create a contact delete command with *EppConDelete01Id*.
    a. If contact delete requires extra extension and values, create an extension part from *EppConDelete01Ext01Uri* and *EppConDelete01Ext01Sl* and fill in field name from *EppConDelete01Ext01Field01* and values from *EppConDelete01Ext01Value01*.
    b. The delete contact command **MUST** complete with result code 1000.
3. Create logout command.
   The reply from logout command **MUST** be result code 1500.

12. EPP Host Delete 01

12.1 Test case identifier

EPPHostDelete01

12.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, deleting a host object and logging out.

12.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppHostDelete01Name	Host name to delete	String
EppHostDelete01Ext01Uri	Object URI for extension 01	String
EppHostDelete01Ext01Sl	Schema location for extension 01	String
EppHostDelete01Ext01ExtValue	Extension01 value for direct text node	String
EppHostDelete01Ext01Field01	Extra field 01 name for extension 01	String
EppHostDelete01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

12.4 Outcome(s)

Login step MUST complete with result code 1000.
Delete host step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.

12.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppHostDelete01Name* host must exist in the applicant domain database, and be available for delete.

12.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

12.7 Intercase dependencies

This test has no intercase dependencies.

13. EPP Host Update 01

13.1 Test case identifier

EPPHostUpdate01

13.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, updating a host object and logging out.

13.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppHostUpdate01Name	Host name to update	String
EppHostUpdate01Ipv4	IPv4 address to add	String
EppHostUpdate01Ext01Uri	Object URI for extension 01	String
EppHostUpdate01Ext01Sl	Schema location for extension 01	String
EppHostUpdate01Ext01ExtValue	Extension01 value for direct text node	String
EppHostUpdate01Ext01Field01	Extra field 01 name for extension 01	String
EppHostUpdate01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

13.4 Outcome(s)

Login step MUST complete with result code 1000.
Update host step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.

13.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppHostUpdate01Name* host must exist in the applicant domain database, and be available for update.

13.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

13.7 Intercase dependencies

This test has no intercase dependencies.

13.8 Ordered description of steps to be taken to execute the test case

1. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
2. Create a host udpate command with *EppHostUpdate01Name* and add IPv4 address *EppHostUpdate01Ipv4*
    a. If host update requires extra extension and values, create an extension part from *EppHostUpdate01Ext01Uri* and *EppHostUpdate01Ext01Sl* and fill in field name from *EppHostUpdate01Ext01Field01* and values from *EppHostUpdate01Ext01Value01*.
    b. The update host command **MUST** complete with result code 1000.
3. Create logout command.
   The reply from logout command **MUST** be result code 1500.

14. EPP Contact Update 01

14.1 Test case identifier

EPPContactUpdate01

14.2 Objective

This test will verify compliance of the EPP server with RFC's for logging in, updating a contact object and logging out.

14.3 Inputs

The following information will be needed as input for this test case:

The login information from 2.3 is also required.

Id	Description	Type
EppContactUpdate01Id	Contact ID to update	String
EppContactUpdate01Email	Email address to set	String
EppContactUpdate01Ext01Uri	Object URI for extension 01	String
EppContactUpdate01Ext01Sl	Schema location for extension 01	String
EppContactUpdate01Ext01ExtValue	Extension01 value for direct text node	String
EppContactUpdate01Ext01Field01	Extra field 01 name for extension 01	String
EppContactUpdate01Ext01Value01	Extra field 01 value for extension 01	String
...	Repeat for max y fields	
...	Repeat for max x extensions	

14.4 Outcome(s)

Login step MUST complete with result code 1000.
Update host step MUST complete with result code 1000.
Logout step MUST complete with result code 1500.

14.5 Environmental needs

- EPP test script
- IPv4 connectivity
- *EppContactUpdate01Id* contact must exist in the applicant domain database, and be available for update.

14.6 Special procedural requirements

Abort the test if any EPP operation takes longer than 30 seconds.

14.7 Intercase dependencies

This test has no intercase dependencies.

14.8 Ordered description of steps to be taken to execute the test case

4. Do the same login as the login step in 2.8. The reply from login **MUST** be result code 1000.
5. Create a host update command with *EppContactUpdate01Id* and set *EppContactUpdate01Email*
    a. If contact update requires extra extension and values, create an extension part from *EppContactUpdate01Ext01Uri* and *EppContactUpdate01Ext01Sl* and fill in field name from *EppContactUpdate01Ext01Field01* and values from *EppContactUpdate01Ext01Value01*.
    b. The update host command **MUST** complete with result code 1000.
6. Create logout command.
   The reply from logout command **MUST** be result code 1500.

15. Global

15.1 Glossary

The glossary is available in the Master Test Plan.

15.2 Document change procedures

Document change procedures are documented in the Master Test Plan.