Priority: **T3**

Issue: **Implementation: Communication Protocols**

Description: Protocol-level changes may be required to support specific clearinghouse models and functionality. For example:
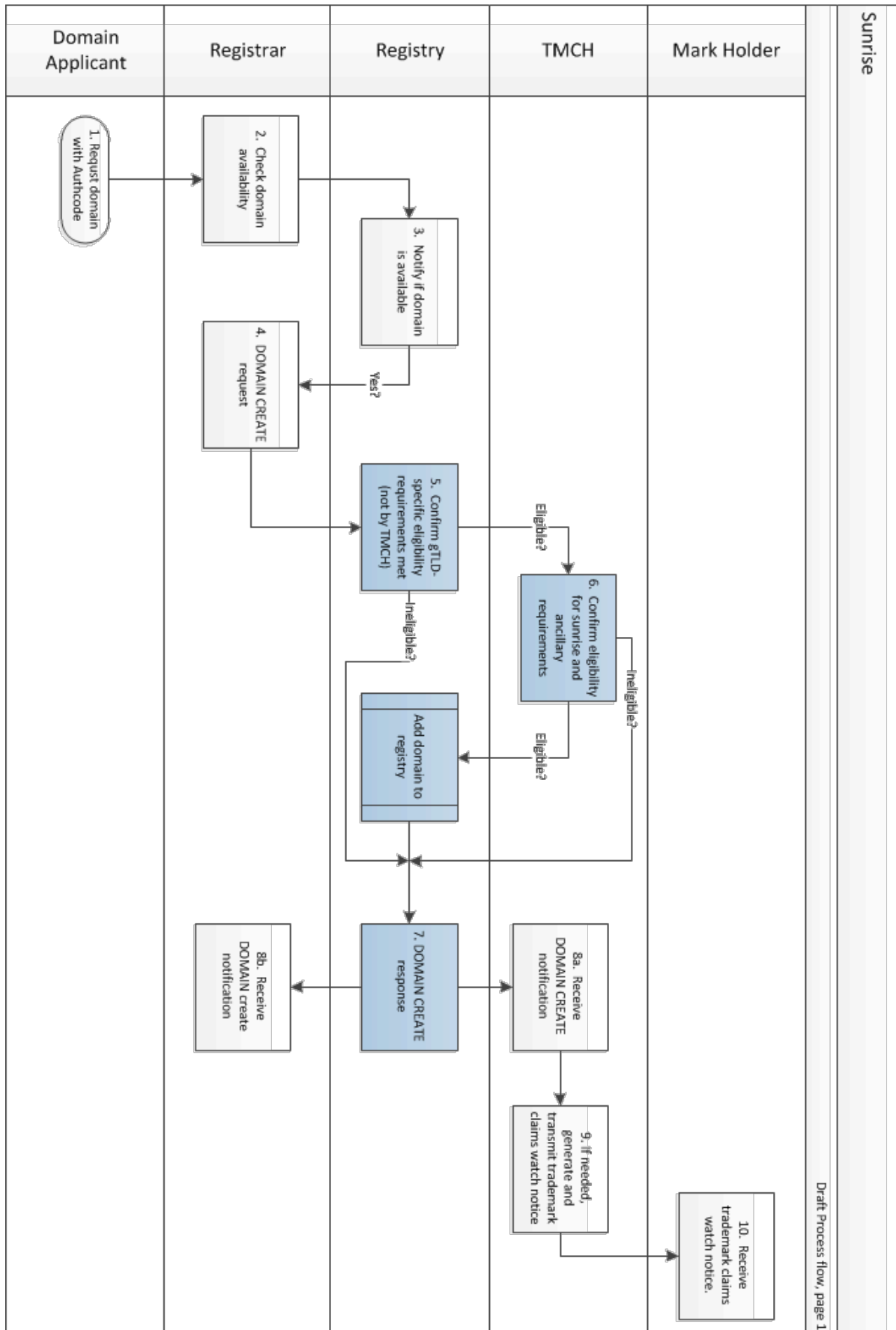
- Querying TM Claimant Contact Information
- Receiving Domain Name Registrant Contact Information
- Receiving Notice Event Information
- Receiving Trademark Validation Status
- Receiving Registration Status Information

While it is expected that registrar-registry communications will continue to use EPP, this may require extensions to convey the additional information needed for Sunrise and Trademark Claims processes. The protocol(s) used to implement these data exchanges between the clearinghouse and registries or registrars are also a necessary decision point in designing the architecture.

Requirements: (1) Be cost- and time- effective to implement by registrars, registries, and the TMCH operator.
(2) Provide for adequate performance and availability under anticipated loads.

The following straw man model is proposed to facilitate discussion of the necessary and appropriate protocols for use in the Clearinghouse processes. Please refer to the revised Sunrise and Claims process flow diagrams below to see the steps for analysis.

Transaction	Proposed Protocol	Send	Receive	Notes and questions
Sunrise 2-3: checking domain name availability	EPP <check>	Registrar	Registry	
Sunrise 4: adding a domain name to a gTLD.	EPP <create>	Registrar	Registry	
Sunrise 6: Performing a TMCH lookup of a domain name and auth code.	??	Registry	TMCH	How should a registry do the lookup to determine authorization to permit sunrise registration of a given domain name and its auth code?
Sunrise 7-8a: Notification to the TMCH from the Registry of a new domain registration.	??	Registry	TMCH	How should a registry notify the TMCH of a successful sunrise registration?
Sunrise 7-8b: notification to the registrar of domain registration.	EPP <response>	Registry	Registrar	
Sunrise 9-10: Transmission of a trademark claims watch notice to a mark holder.	SMTP	TMCH	Mark Holder	
Claims 2-3: checking domain name availability.	EPP <check>	Registrar	Registry	
Claims 4-5: determination of whether or not trademark claims apply to a given domain name.	DNS lookup	Registrar	TMCH	TXT record gives URI data for web-based lookup. DNS could be performed in public (exposing the list of protected domain name strings to anyone who can figure out how to mine it) or in some form of private DNS.
Claims 6-7: obtaining the trademark claims notice for display to a domain applicant.	HTTP or WHOIS	Registrar	TMCH	Should trademark claims notices be transmitted via HTTP or web-aware WHOIS (necessary for non-ASCII character sets).
Claims 8: presenting the trademark claims notice to the domain applicant.	HTTP	Registrar	Domain Applicant	Occurs within existing browser session between applicant and registrar.
Claims 9-10: capturing the domain applicant's acknowledgement of the claims notice.	HTTP	Domain Applicant	Registrar	Occurs within existing browser session between applicant and registrar.
Claims 10-11a: communicating the acknowledgement to the TMCH and/or registrar.	??	Registrar	TMCH	How should a registrar notify the TMCH (or the registry for that matter) of a trademark claims acknowledgement?
Claims 10-11b: registrar's registration process (assumption is web-based).	HTTP	Registrar	Domain Applicant	Occurs within existing browser session between applicant and registrar.
Claims 12-13: adding a domain name to a gTLD.	EPP <create>	Registrar	Registry	
Claims 13-14a: Notification to the TMCH from the Registry of a new domain registration.	??	Registry	TMCH	How should the registry notify the TMCH of a successful domain registration during the claims period?
Claims 13-14b: notification to the registrar of domain registration.	EPP <response>	Registry	Registrar	
Claims 15-16: Transmission of a trademark claims watch notice to a mark holder.	SMTP	TMCH	Mark Holder	

Domain Applicant	Registrar	Registry	TMCH	Mark Holder	Sunrise

1. Requst domain with Authcode

2. Check domain availability

3. Notify if domain is available

Yes?

4. DOMAIN CREATE request

5. Confirm gTLD-specific eligibility requirements met (not by TMCH)

Eligible?

Ineligible?

6. Confirm eligibility for sunrise and ancillary requirements

Ineligible?

Eligible?

Add domain to registry

7. DOMAIN CREATE response

8b. Receive DOMAIN create notification

8a. Receive DOMAIN CREATE notification

9. If needed, generate and transmit trademark claims watch notice

10. Receive trademark claims watch notice.

Draft Process flow, page 1

Trademark Claims

Draft Process flow, page 1

Mark Holder

Trademark Claims are not required → To 13 (page 2)

TMCH

5. Respond whether or not trademark claims are required

7. Generate and transmit domain applicant trademark claims notice

Trademark Claims are required

Registry

3. Notify if domain is available

Registrar

2. Check domain availability

4. Check requested domain for Trademark Claims

6. Request trademark claims notification text

8. Present trademark claims notice, requiring acknowledgement

Domain Applicant

1. Requst domain

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Trademark Claims

Draft Process flow, page 2

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16. Receive trademark claims watch notice.

From 5 (page 1)

TMCH

11a. Record trademark claims acknowledgement (may be time-shifted)

14a. Receive DOMAIN CREATE notification

15. If needed, generate and transmit trademark claims watch notice

Registry

13. DOMAIN CREATE response

Registrar

10. Capture trademark claims acknowledgement

12. DOMAIN CREATE request

14b. Receive DOMAIN create notification

Domain Applicant

9. Acknowledge trademark claims notice (continued from previous page)

Proceed?

11b. Continue to perform registrar's registration process.