

Parent Zone Updating Requirements

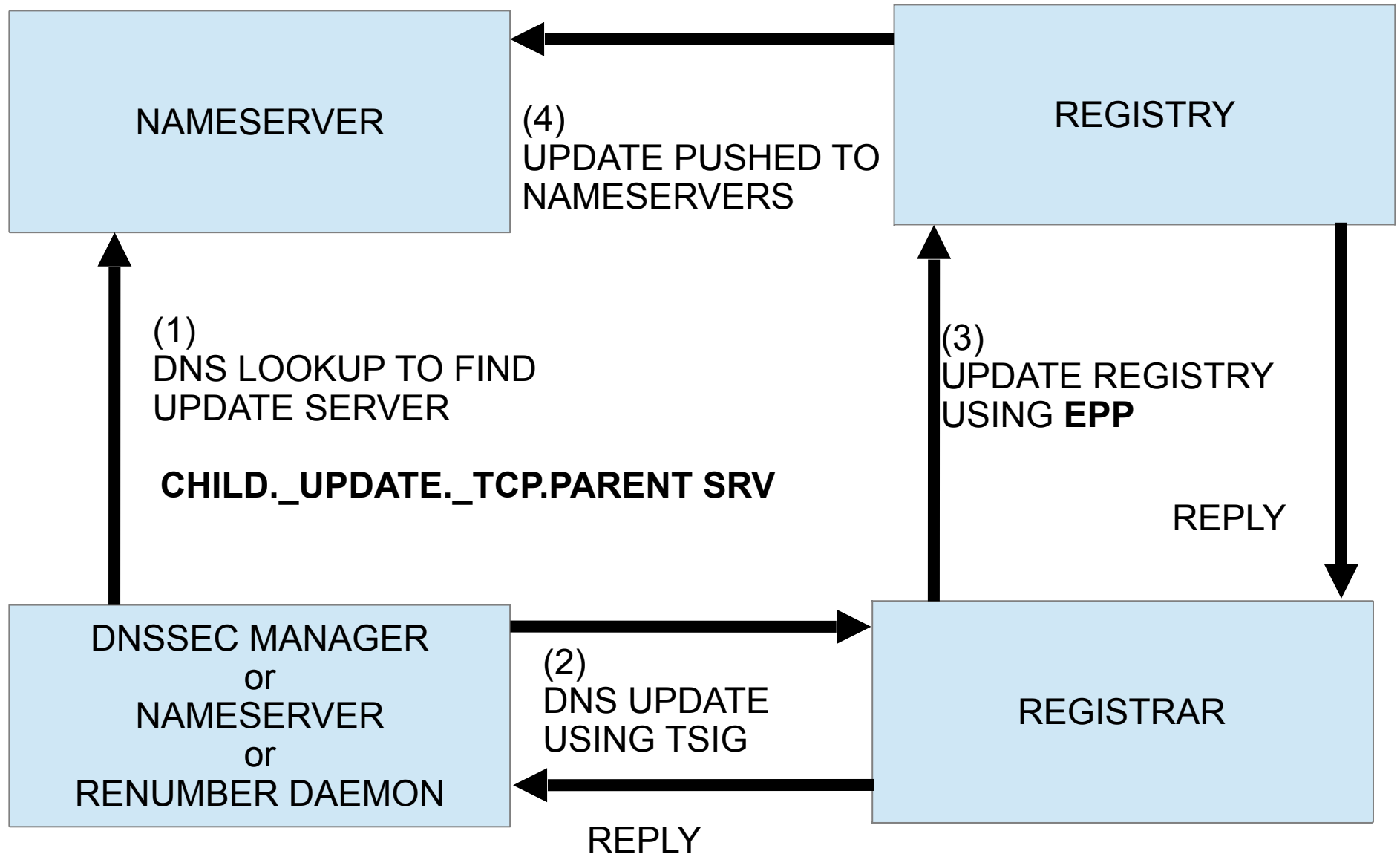
- MUST be able to authenticate the transaction.
- MUST be able to update address records to support automated renumbering.
- MUST be able to update DS records to support DNSKEY rollover by key management tools.
- **MUST work for unsigned zones (parent and/or child).**
- **MUST work for signed zones (parent and/or child).**
- **MUST work for RRR managed zones.**
- **MUST work for non RRR managed zones.**
- DESIRABLE support updating of NS RRsets so that name servers can ensure delegations delegation data remains consistent.

draft-andrews-dnsop-updating- parent-zones

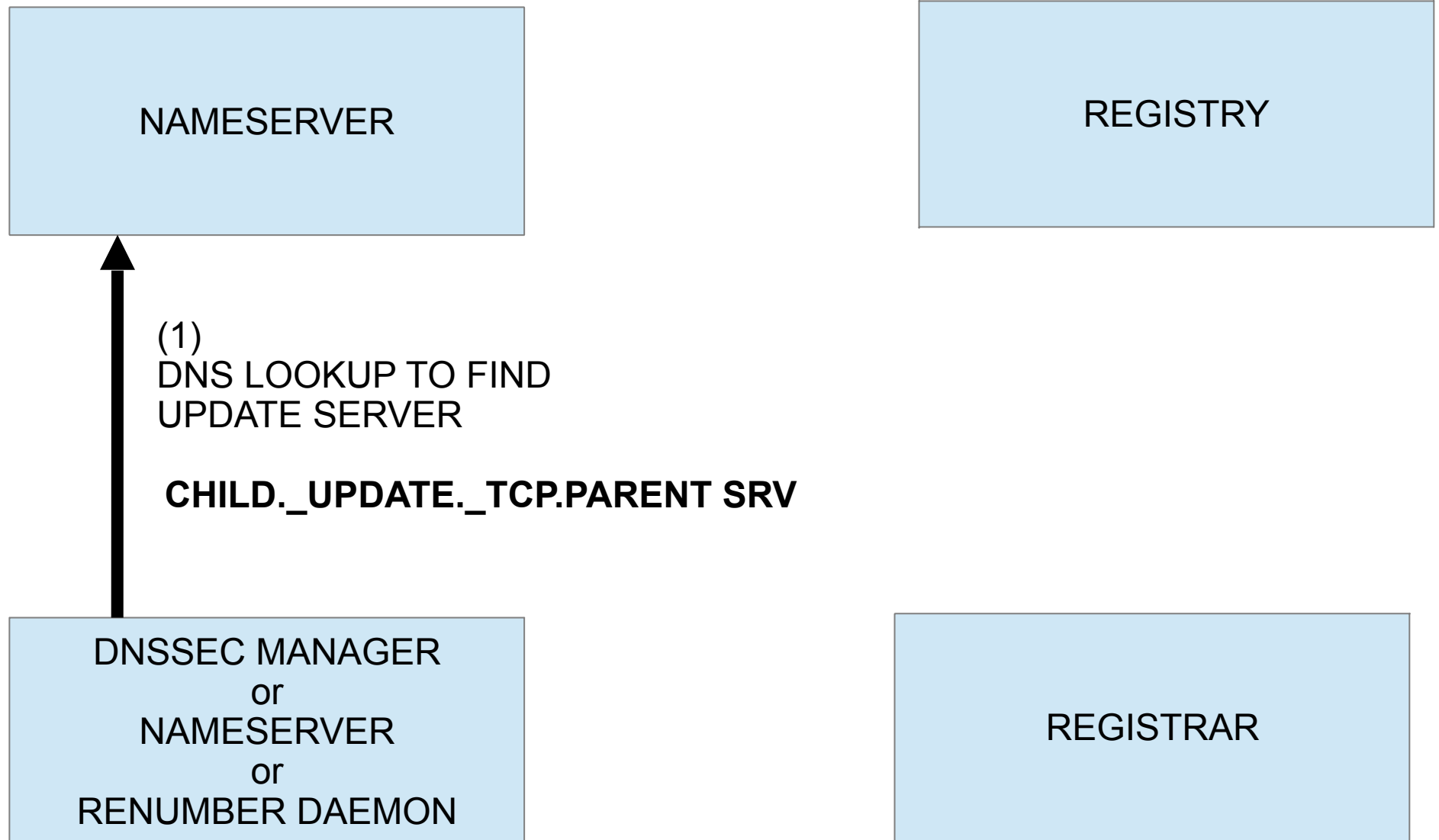
Use TSIG signed UPDATE messages to
communicate to Registrar

Works with signed and unsigned zones

Overview



SRV Lookup



Look Up SRV Record

Single level zone.

example.net
example._update._tcp.net

Multi-level zone.

example.co.jp
example.co._update._tcp.jp

Lookup SRV Record

This would be built into nsupdate similar to how nsupdate looks up SOA records today to discover where to send updates.

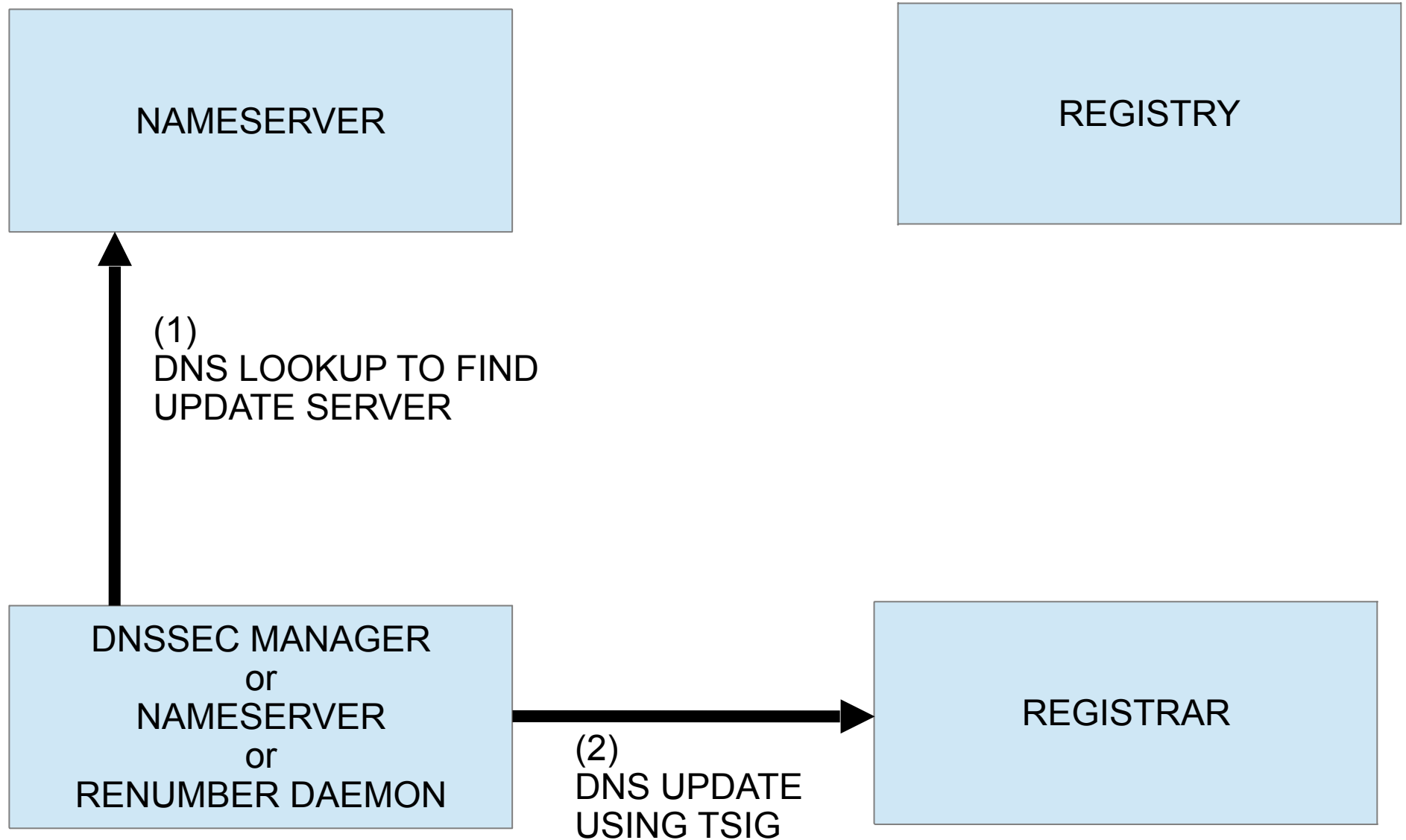
e.g. `nsupdate -s` (for srv lookup)

But you don't have to wait as nsupdate supports sending to arbitrary addresses and ports today.

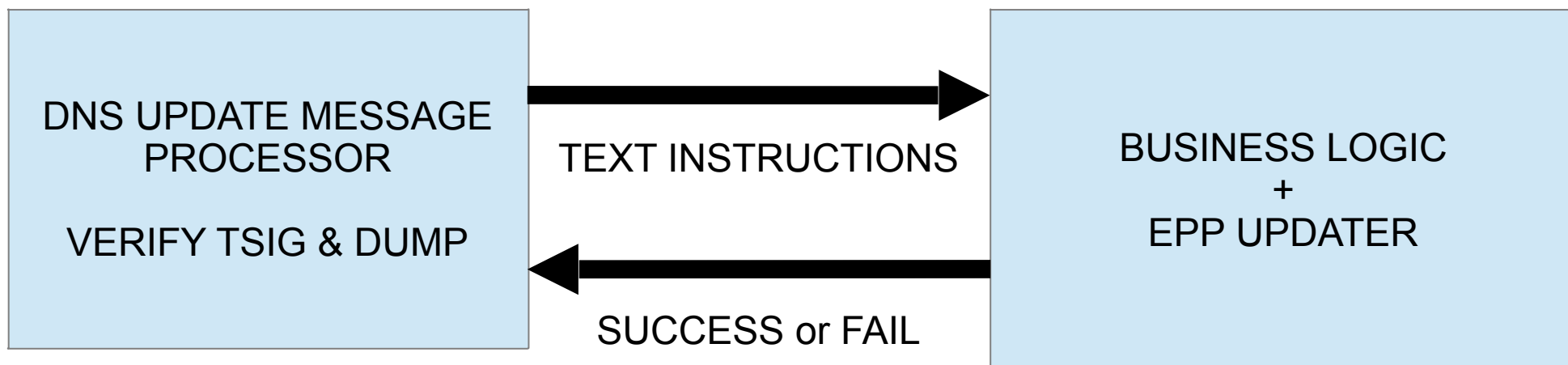
EPP Changes.

For the Registry to be able to generate the SRV records EPP would possibly need to be extended so that registrars could state what the SRV record content should be either on a per Registrar basis or on a per delegation basis.

Update To Registrar



Server Side - Registrar



```
key <keyname>
zone net
delete-type example.net NS
add example.net NS name1
add example.net NS name2
add example.net NS name3
add example.net DS ....
add name1 A ...
add name1 AAAA ...
end
```

Authentication and Identification

key **example.net** <secret>

Or

key **user@example.net** <secret>

Or

key <**account-id**> <secret>

Update DS Records

Add a DS Record

add example.net DS <value>

Delete Specific DS

delete-record example.net DS <value>

Delete All DS Record.

delete-type example.net DS

Update DNSKEY records

Add a DNSKEY record.

```
add example.net DNSKEY <value>
```

Delete a specific DNSKEY record.

```
delete-record example.net DNSKEY <value>
```

Delete all DNSKEY records.

```
delete-type example.net DNSKEY
```

Add Glue A Record

If you know the old address.

```
add ns1.example.net A 1.2.3.4  
delete-record ns1.example.net A 1.2.3.5
```

If you don't know the old address

```
delete-type ns1.example.net A  
add ns1.example.net 1.2.3.4
```

Add Glue AAAA Record

If you know the old address.

```
add ns1.example.net AAAA 2002::1  
delete-record ns1.example.net AAAA 2002::2
```

If you don't know the old address.

```
delete-type ns1.example.net AAAA  
add ns1.example.net AAAA 2002::1
```

Delete Glue A Records

delete-type ns1.example.net A

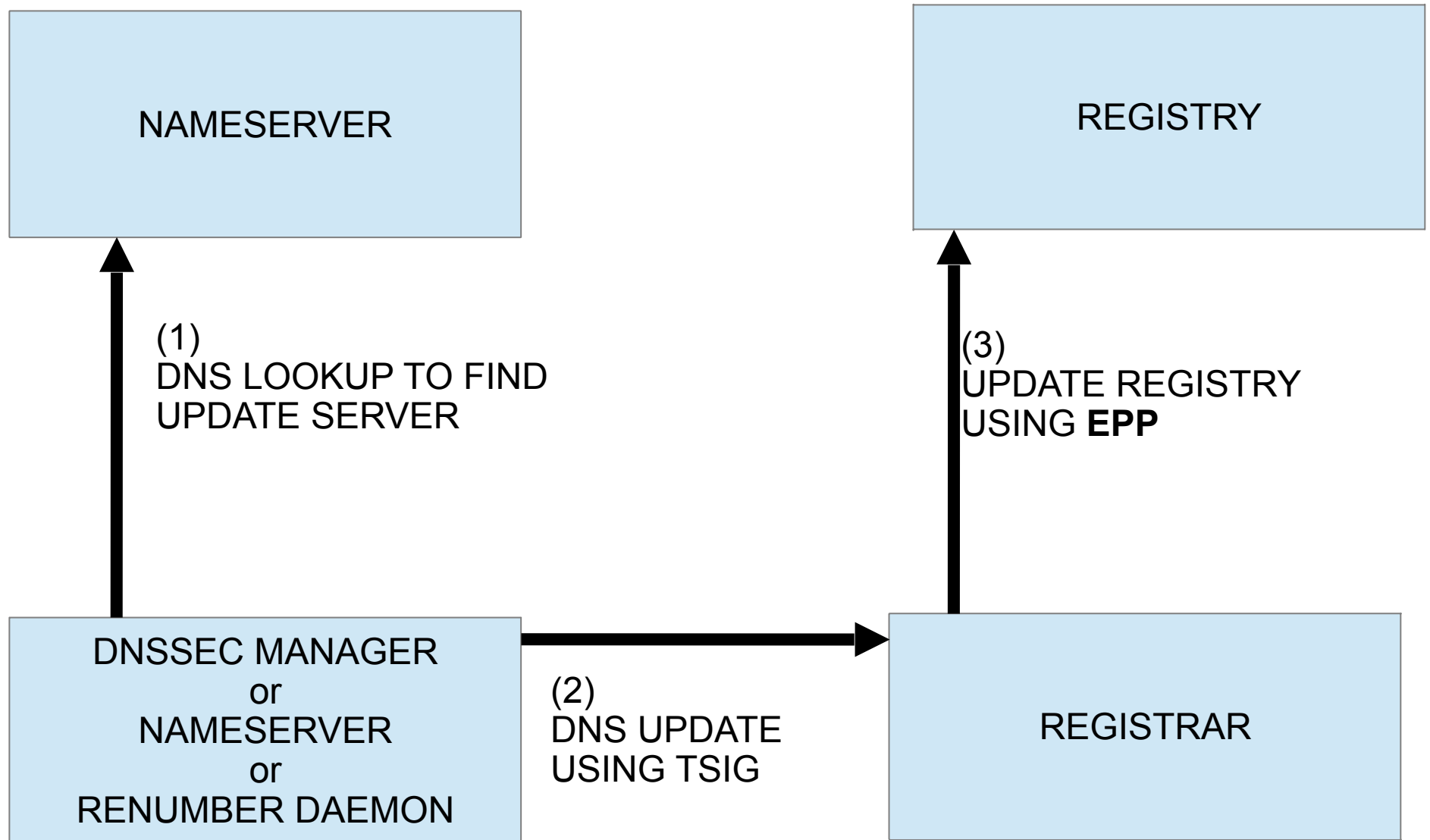
Delete Glue AAAA Records

```
delete-type ns1.example.net AAAA
```

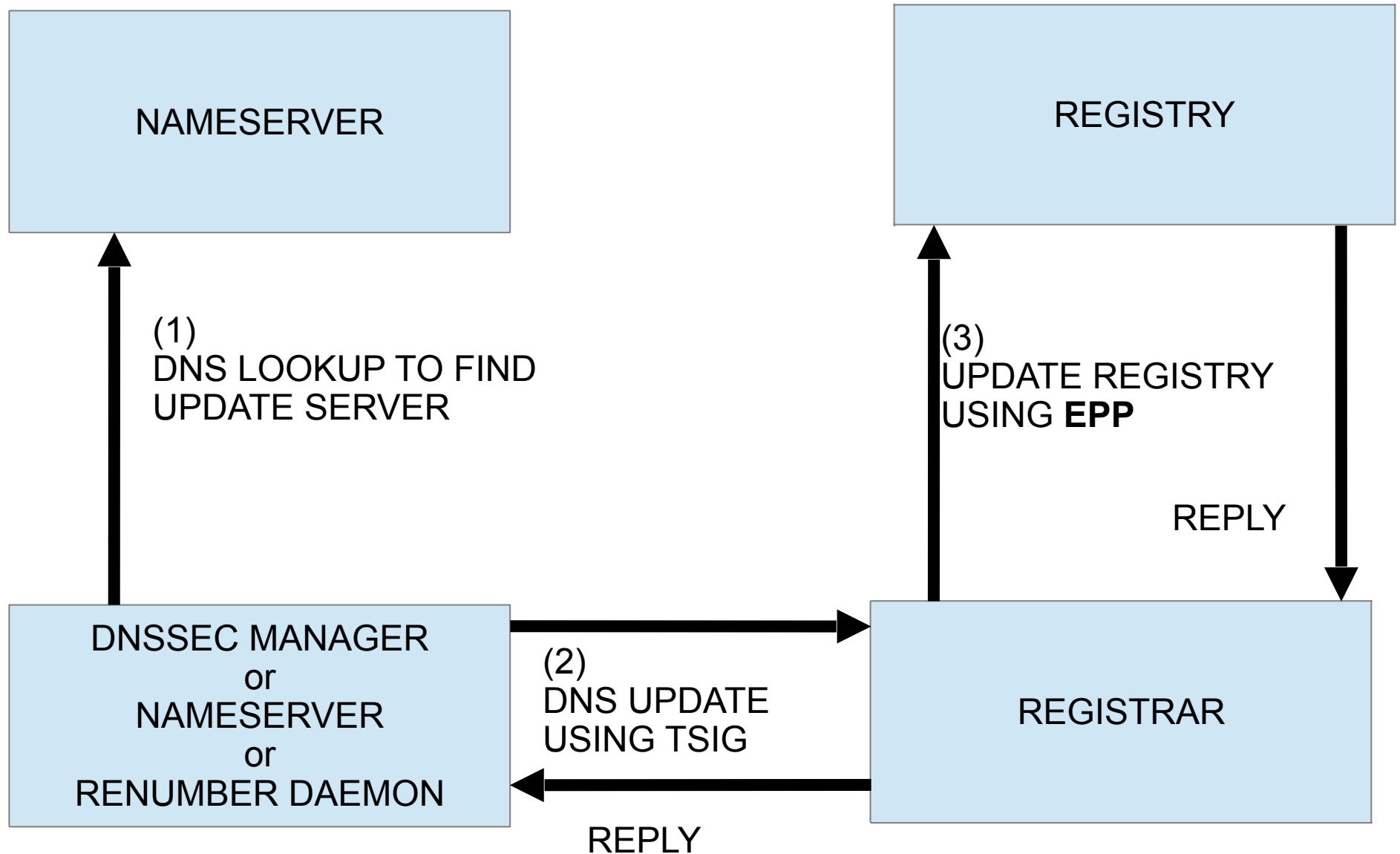

Update NS records

```
delete-type example.net NS  
add example.net NS ns1.example.net  
add example.net NS ns2.example.net  
add example.net NS ns3.example.net
```

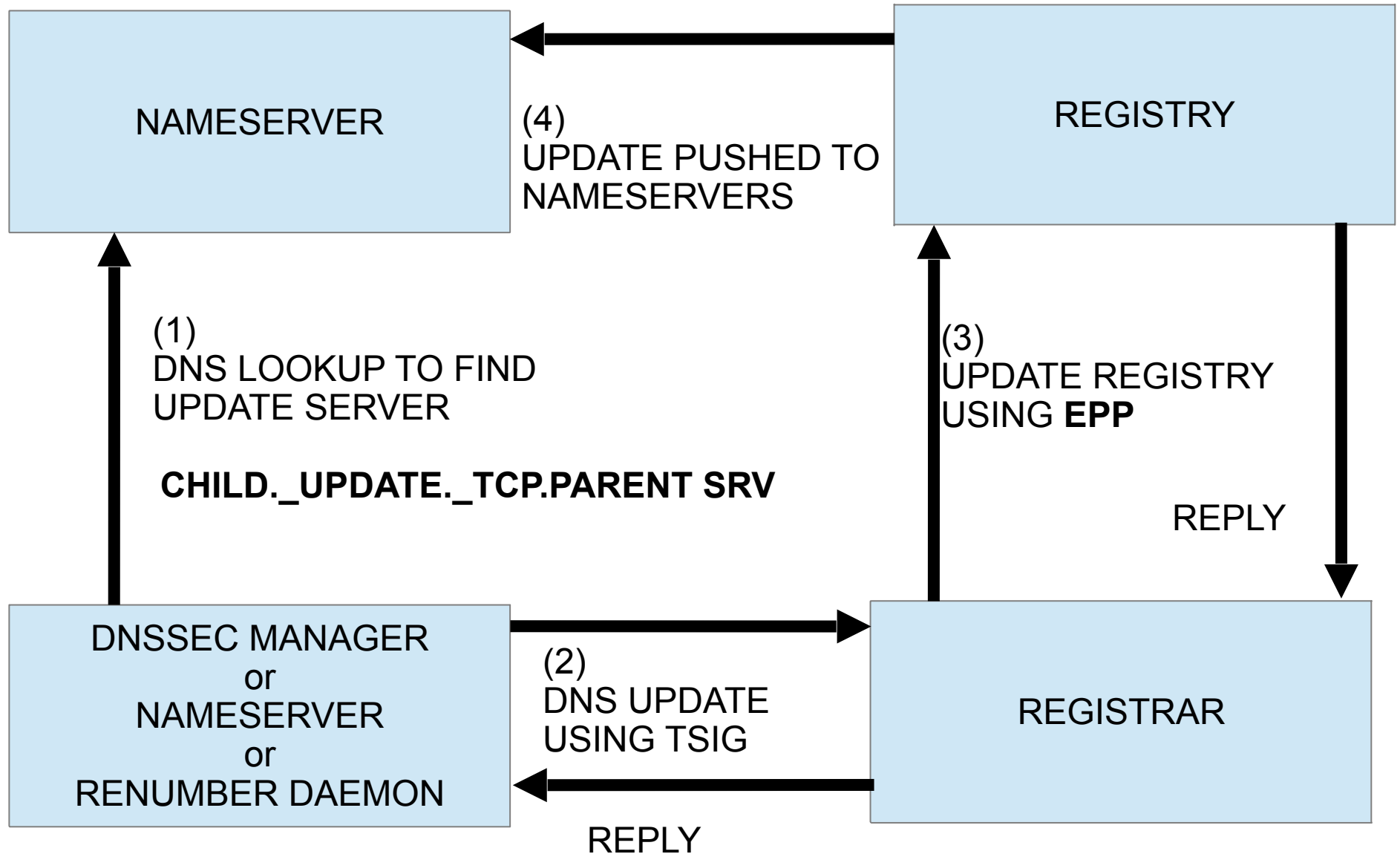
Registrar Updates Registry



Response Path



Overview



Server Side – Name server

```
key keyname {
```

```
....
```

```
};
```

```
zone example {  
    type master;
```

```
.....
```

```
    update-policy {
```

```
        grant keyname subdomain child.example A NS AAAA DS;
```

```
    };
```

```
};
```

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Questions?

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