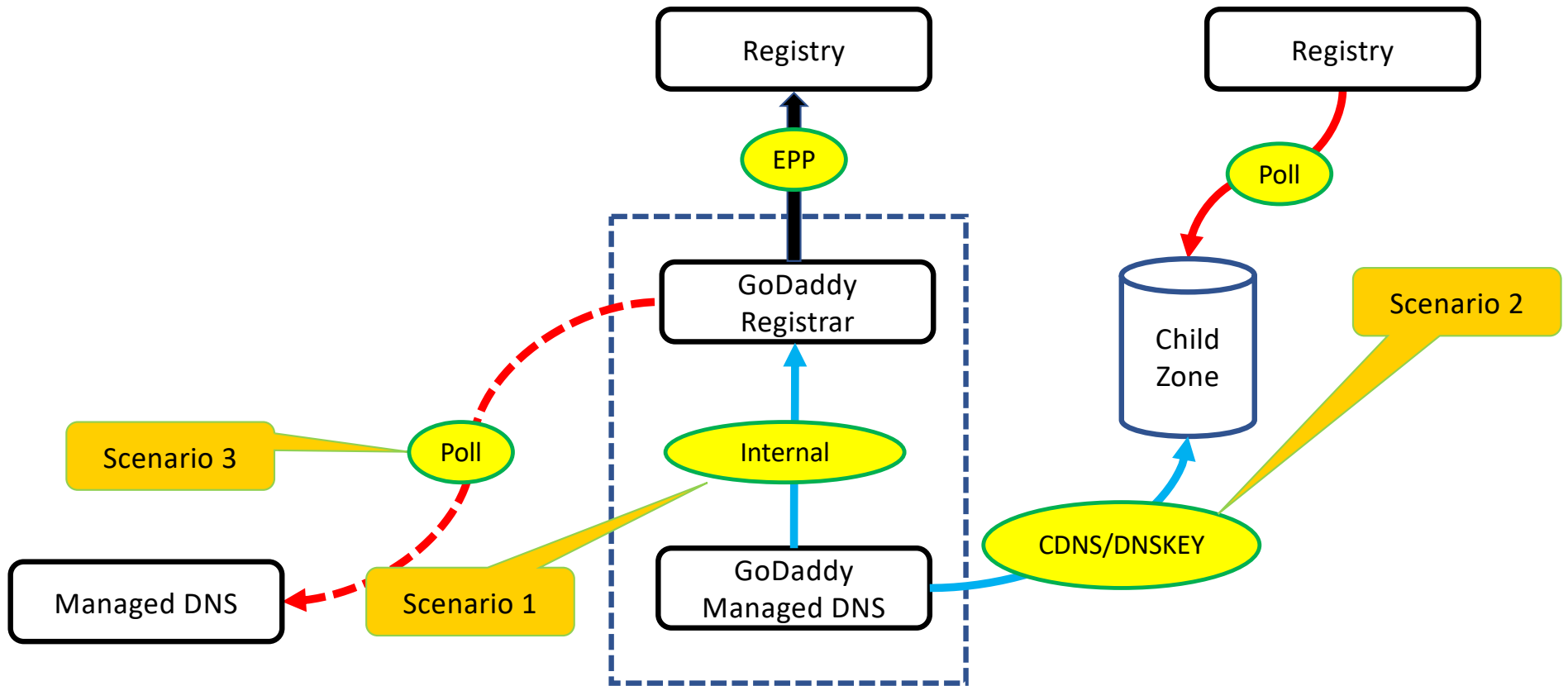


GoDaddy DNSSEC DS

Current and Proposed DS Update Methods for KSK Rollovers

Brian Dickson, GoDaddy

GoDaddy DNS – Three Scenarios



GoDaddy DNSSEC DS – KSK Rollover

- Managed DNS (Scenarios 1 & 2):
 - KSK rolls automated
 - EPP Update(s) Sent to Registry
 - Regardless of parent (TLD), CDS and CDNSKEY are always published
 - Managed DNS performs initial DS when DNSSEC is enabled
- Third Party DNS (Scenario 3)(Proposed Enhancement):
 - Require initial DS registration, to authorize and initiate polling
 - Poll CDS and/or CDNSKEY periodically
 - EPP Update(s) Sent to Registry
 - **POC in development**

DS Update Scenarios

Scenario	Registrar	DNS Provider	Update DS	Status
1	GD	GD	EPP, GD also publishes CDS/CDNSKEY record.	Fully Operational
2	Not GD	GD	GD publishes CDS/CDNSKEY record. Registry polls zone.	Fully Operational
3	GD	Not GD	DNS provider publishes CDS/CDNSKEY record. GD polls zone and submits DS and/or DNSKEY records	POC Development and Testing

GoDaddy CDS Poller Update

- Third Party DNS (Scenario 3)(Proposed Enhancement):
 - **POC in development, exiting closed beta**
- Development is ongoing
 - Focus on scalability, performance, correctness
 - Scalable design allows new features
 - E.g. Bootstrap of DS, Multi-signer DNSSEC
 - Polling rate meets/exceeds full requirements:
 - All zones signed, poll for CDS
 - 1000 queries per second (currently capped rate)
 - Exiting closed beta
 - Sending CDS as DS via EPP tested

GoDaddy CDS Poller Update

- POC: Development is ongoing
 - Multi-stage poller "funnel":
 - DNS Operator not GoDaddy, but Registrar is GoDaddy
 - Has CDS (easier to do since query is to child zone)
 - Zone existence/Zone signed/Signatures are valid (candidate for processing)
 - CDS is new or has changed, differs from DS (RFC 7344 logic)
 - Submit via EPP
 - Exiting closed beta
 - Survey domains, gather results, test validation
 - Start process of transition POC->production
 - Build "surround" for registrant notification, semi-auto EPP
 - Human in the loop initially