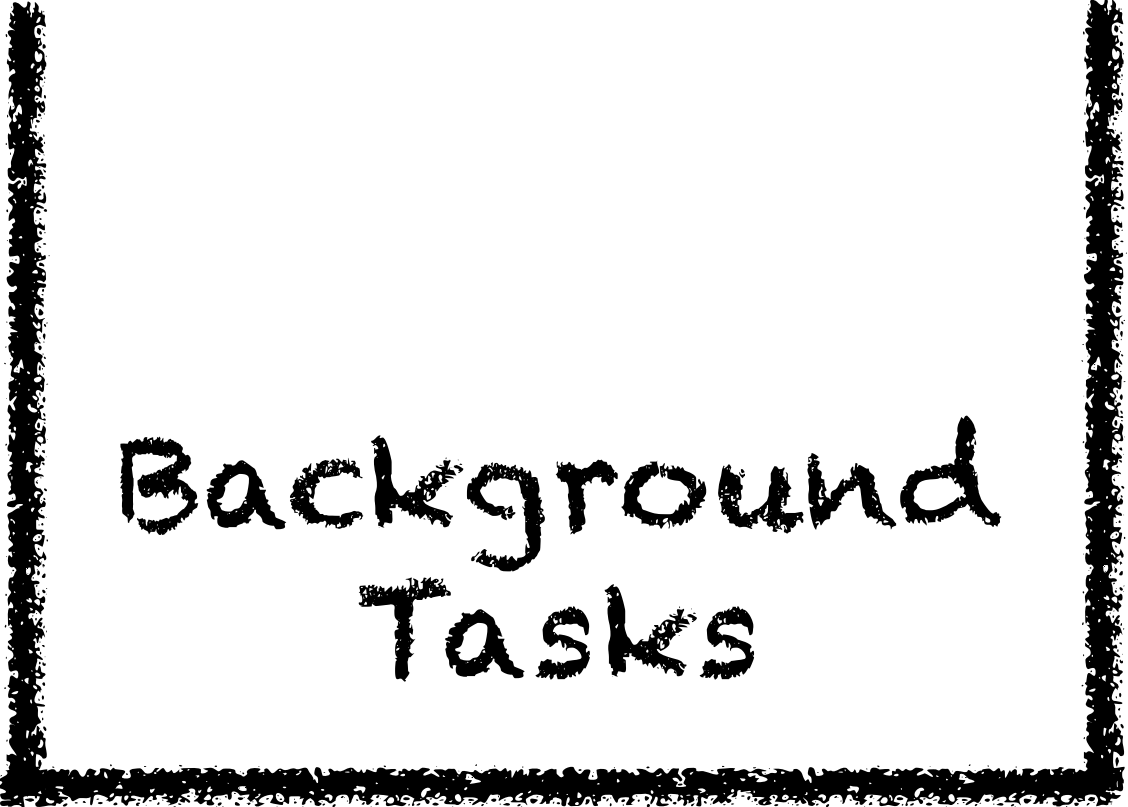


Service Binding Mapping for Service Levels

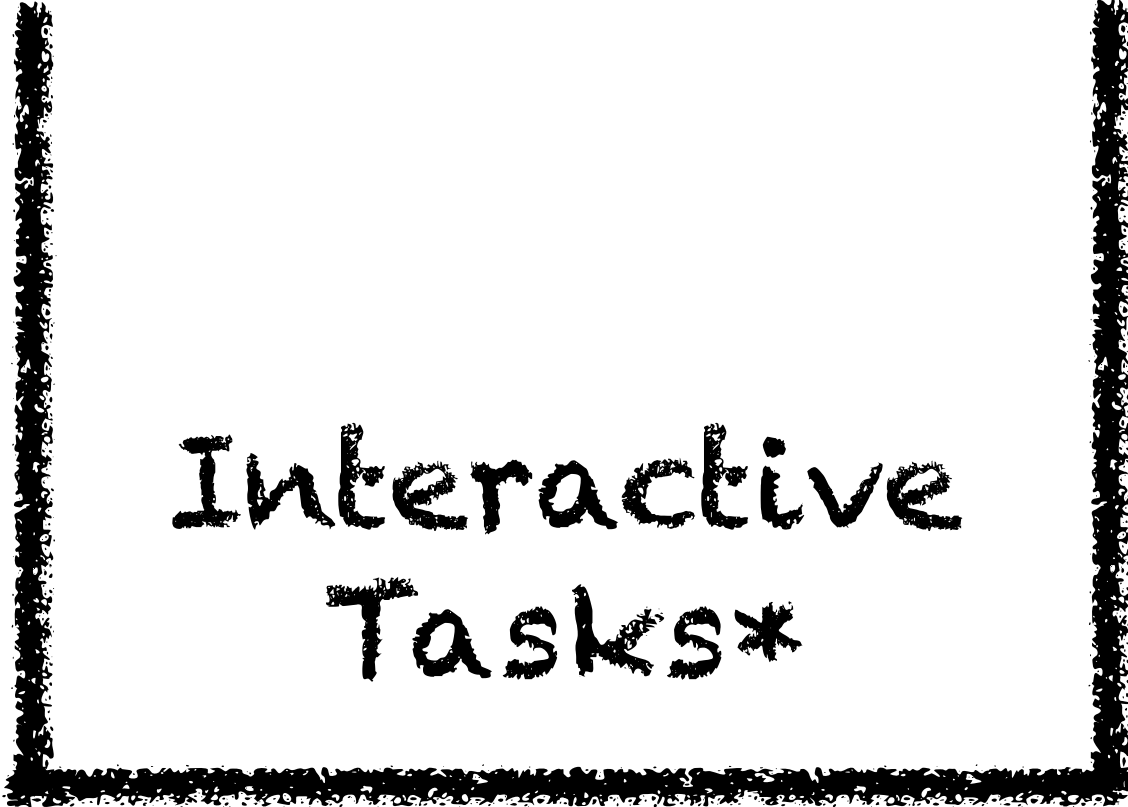
draft-gakiwate-dnsop-svcb-sla-parameter

**Gautam Akiwate
Tommy Pauly
IETF 122**

Motivation



Background
Tasks

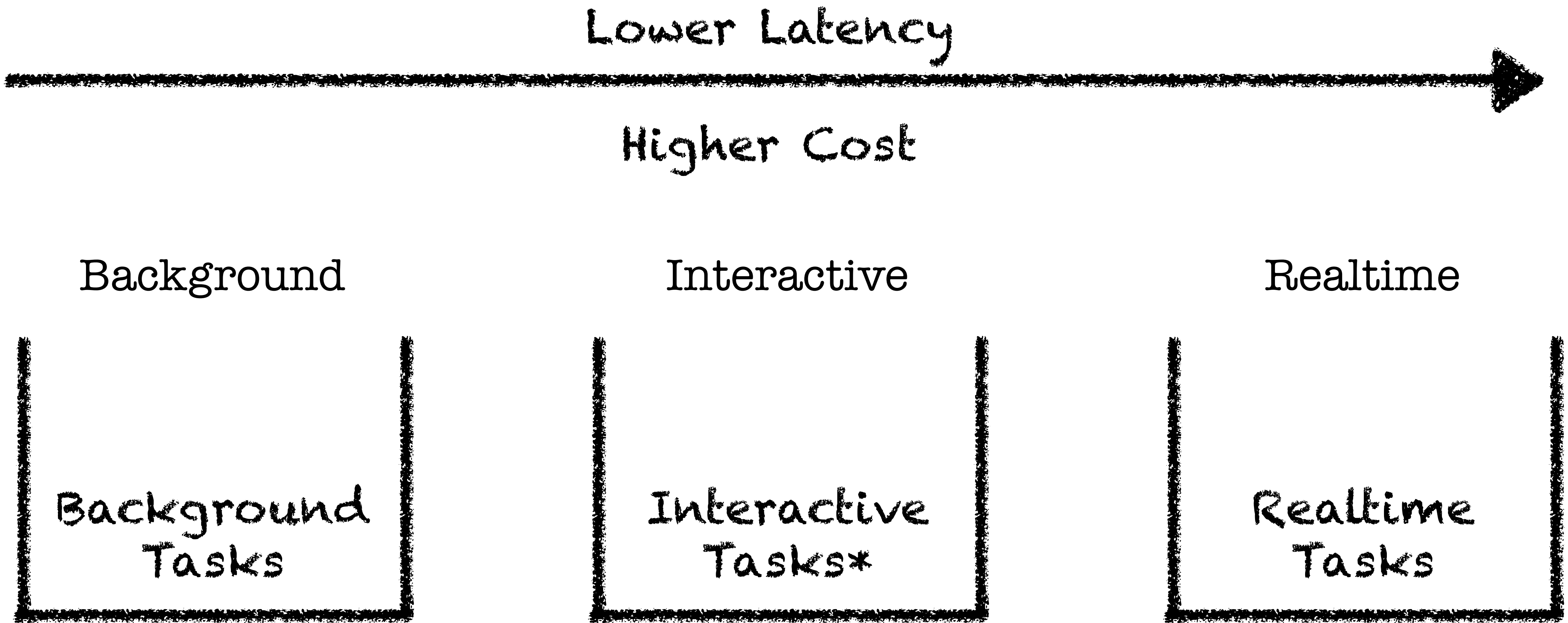


Interactive
Tasks*



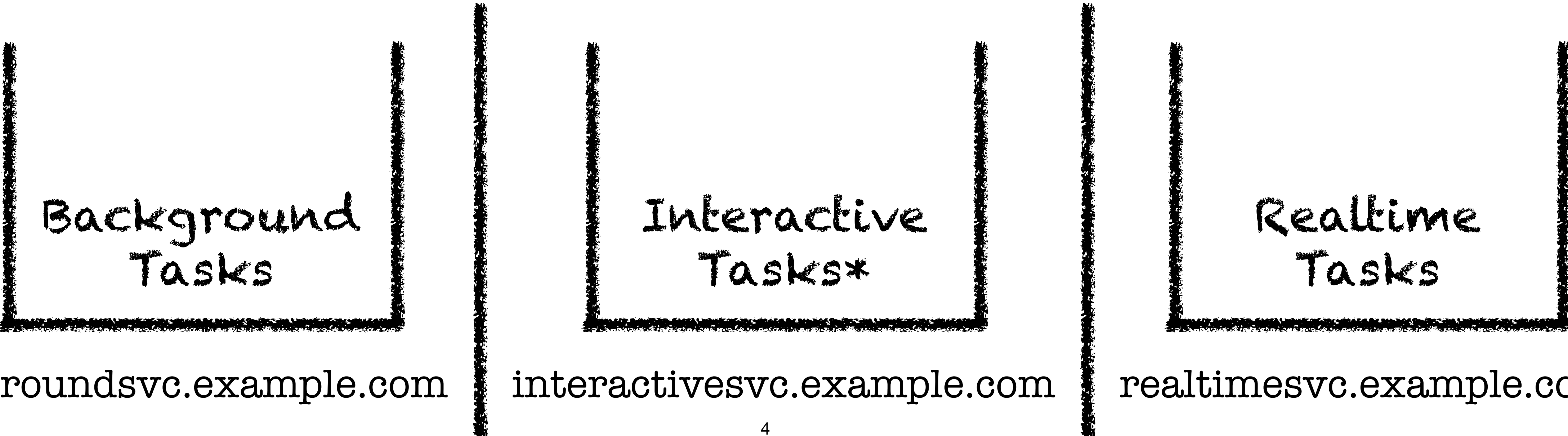
Realtime
Tasks

Service Levels



Current Approach

- Delineate tasks into background, interactive, and realtime tasks **a priori**.
- **Separate service endpoints** for different service level tasks are **inflexible and difficult to update on clients**.



The diagram illustrates the 'Current Approach' to task scheduling. It consists of three hand-drawn rectangular boxes, each representing a different service level. The first box on the left is labeled 'Background Tasks' and is associated with the endpoint 'backgroundsvc.example.com'. The middle box is labeled 'Interactive Tasks*' and is associated with 'interactivesvc.example.com'. The third box on the right is labeled 'Realtime Tasks' and is associated with 'realtimesvc.example.com'. The boxes are separated by vertical lines, emphasizing the separation of service endpoints.

Background
Tasks

backgroundsvc.example.com

Interactive
Tasks*

interactivesvc.example.com

Realtime
Tasks

realtimesvc.example.com

Allow clients to
dynamically discover service endpoints
for different service levels and then
utilize local context
to connect to the optimal service endpoint

New SvcParamKey “sla”

Service Level Attribute (sla)

- Defines three service levels
 - sla=0 (Background)
 - sla=1 (Interactive)
 - sla=2 (Realtime)

The “sla” parameter allows authoritative DNS servers to indicate that a service supports specific service levels, such as, "interactive", "background" or "real-time" at a service endpoint

New SvcParamKey “sla”

Service Level Attribute (sla)

- Three Service Levels
 - sla=0 (Background)
 - sla=1 (Interactive)
 - sla=2 (Realtime)

svc.example.com HTTPS IN. 4502 1 **realtime.svc.example.com** alpn="h2,h3" ipv4hint="192.0.2.10" **sla="realtime"**

svc.example.com HTTPS IN. 4502 1 . alpn="h2" ipv4hint="198.51.10.25" **sla="interactive"**

svc.example.com HTTPS IN. 4502 1 **background.svc.example.com** alpn="h2" ipv4hint="203.0.113.4" **sla="background"**

Client Behavior

- Client identifies it's own “service level”
- Uses “sla” parameter to filter HTTPS / SVCB records
 - If “service level” is “interactive”, then filter any endpoints without “interactive”
- If multiple endpoints are available, sort using SvcPriority

~~svc.example.com HTTPS IN. 4502 1 **realtime.svc.example.com** alpn="h2,h3" ipv4hint="192.0.2.10" sla="realtime"~~

svc.example.com HTTPS IN. 4502 1 . alpn="h2" ipv4hint="198.51.10.25" **sla="interactive"**

~~svc.example.com HTTPS IN. 4502 1 **background.svc.example.com** alpn="h2" ipv4hint="203.0.113.4" sla="background"~~