

CDNI Work Scope Recap

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A Day in the “Life” of a CDN Interconnection

or how do all these CDNI “protocols” fit together?

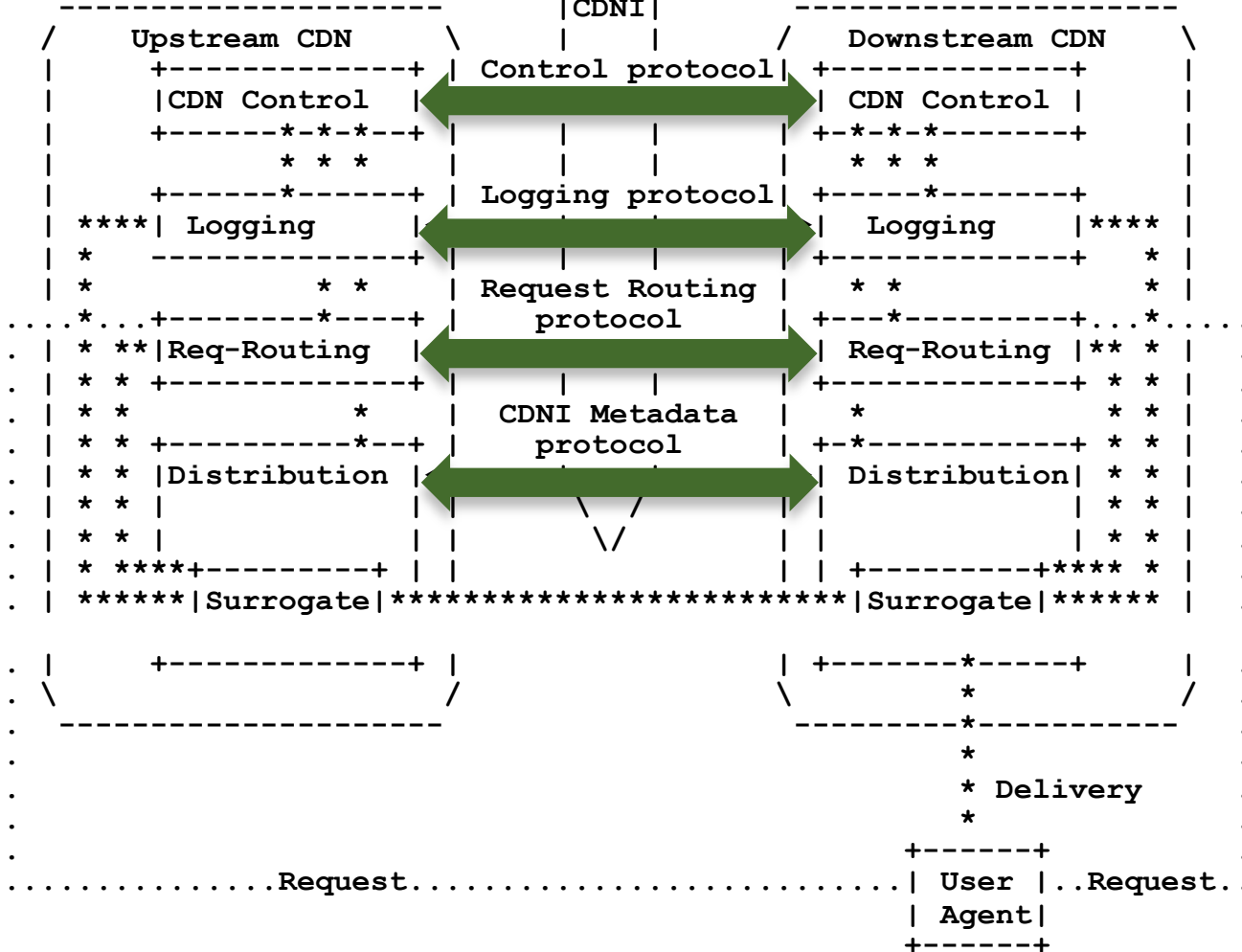




interfaces inside the scope of CDNI

**** interfaces outside the scope of CDNI
 interfaces outside the scope of CDNI

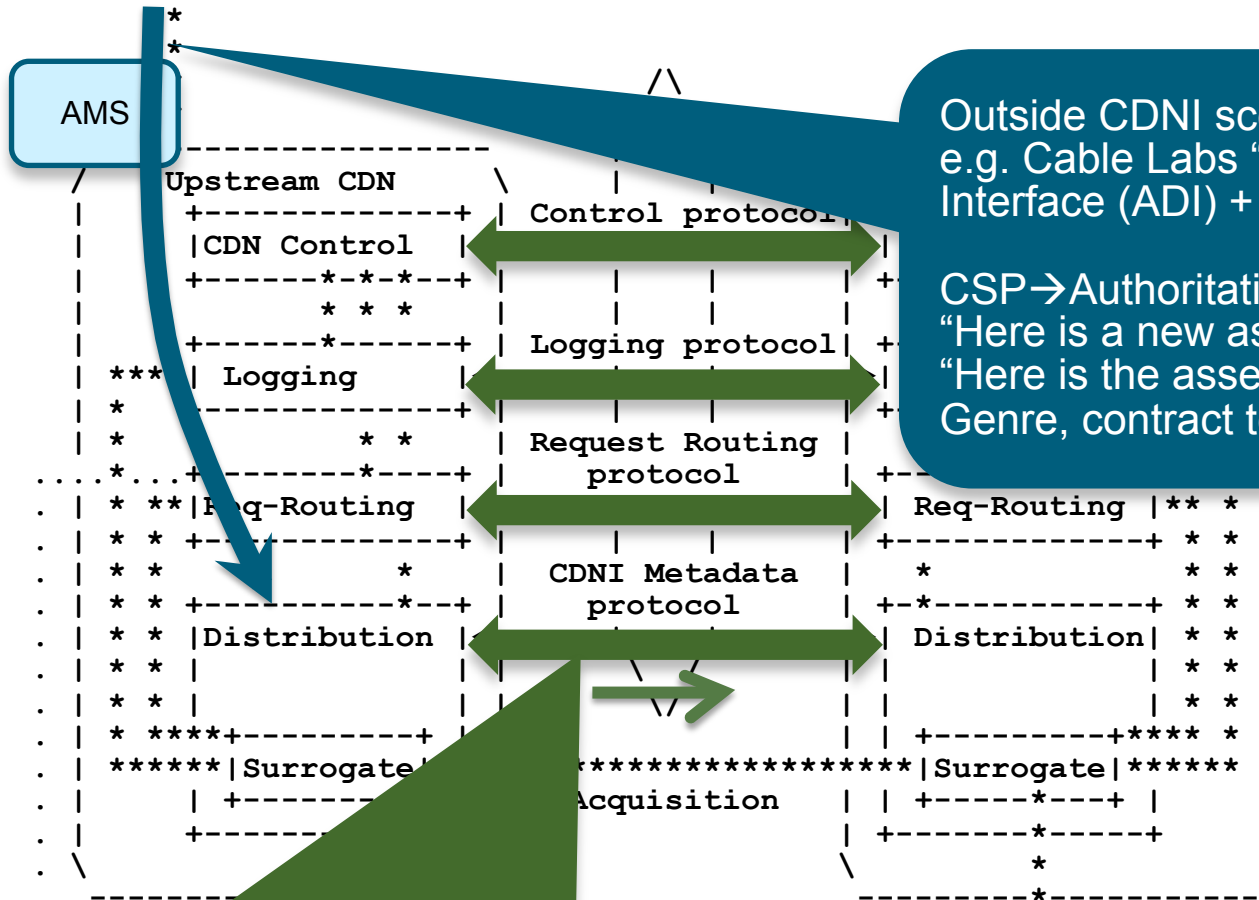
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Day in Life of CDNI: CDNI Metadata



**** interfaces outside the scope of CDNI
 interfaces outside the scope of CDNI



Outside CDNI scope
 e.g. Cable Labs "Asset Distribution Interface (ADI) + VoD Metadata"

CSP → Authoritative CDN:
 "Here is a new asset"
 "Here is the asset metadata" (e.g. Title, Genre, contract terms,..)

Within CDNI scope
 CDNI Metadata Exchange Protocol (Push mode in this example)

uCDN → dCDN:
 "Here is the distribution metadata for this new content"
 (e.g. where/how to acquire content, time-window)

Day in Life of CDNI: CDNI Request Routing

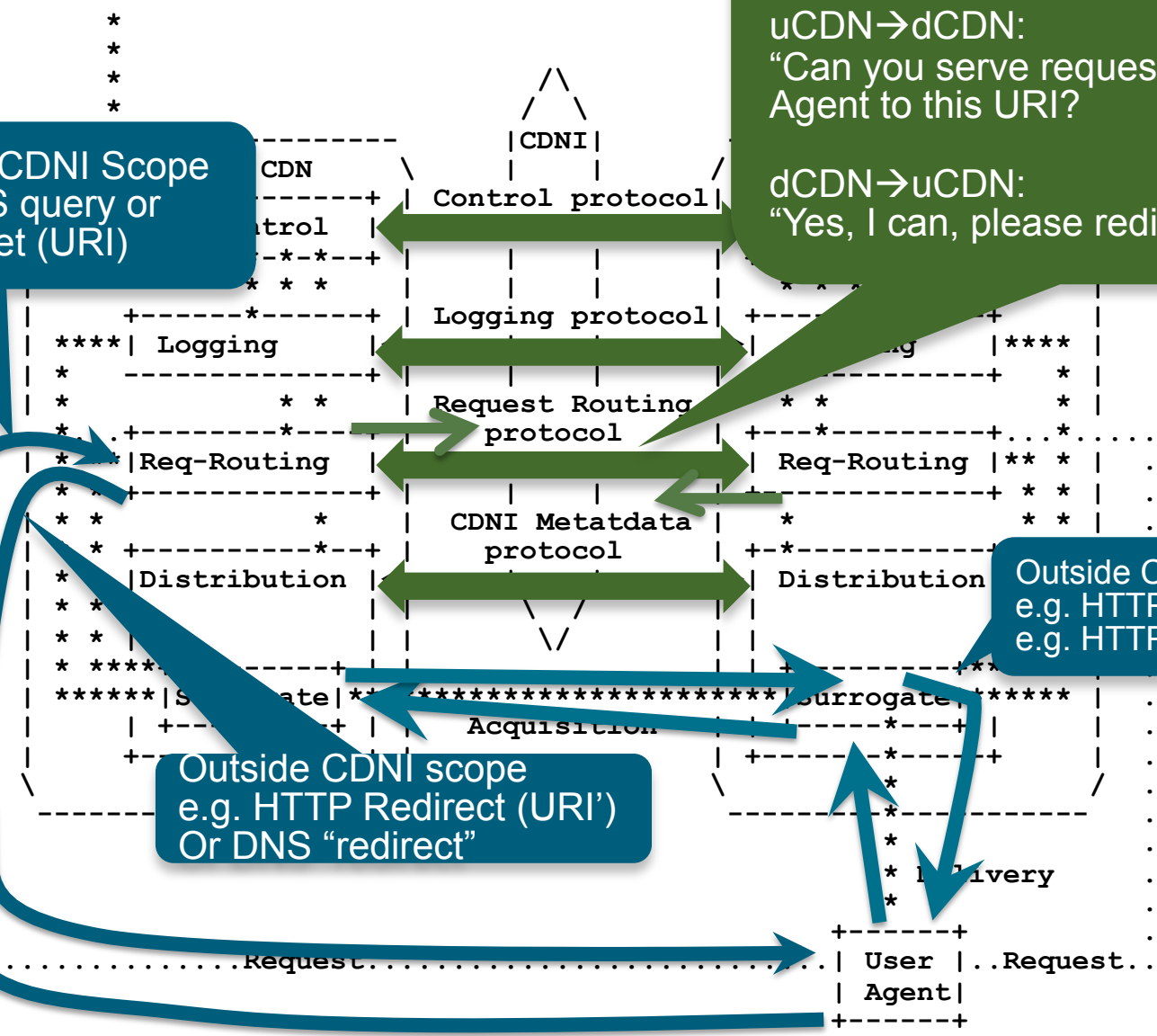
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interface
**** interf
.... interf
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Within CDNI scope
CDNI Request Routing

uCDN → dCDN:
"Can you serve request from this User Agent to this URI?"

dCDN → uCDN:
"Yes, I can, please redirect to URI"

Outside CDNI Scope
e.g. DNS query or HTTP Get (URI)



Outside CDNI scope:
e.g. HTTP Progressive Download
e.g. HTTP Adaptive Streaming

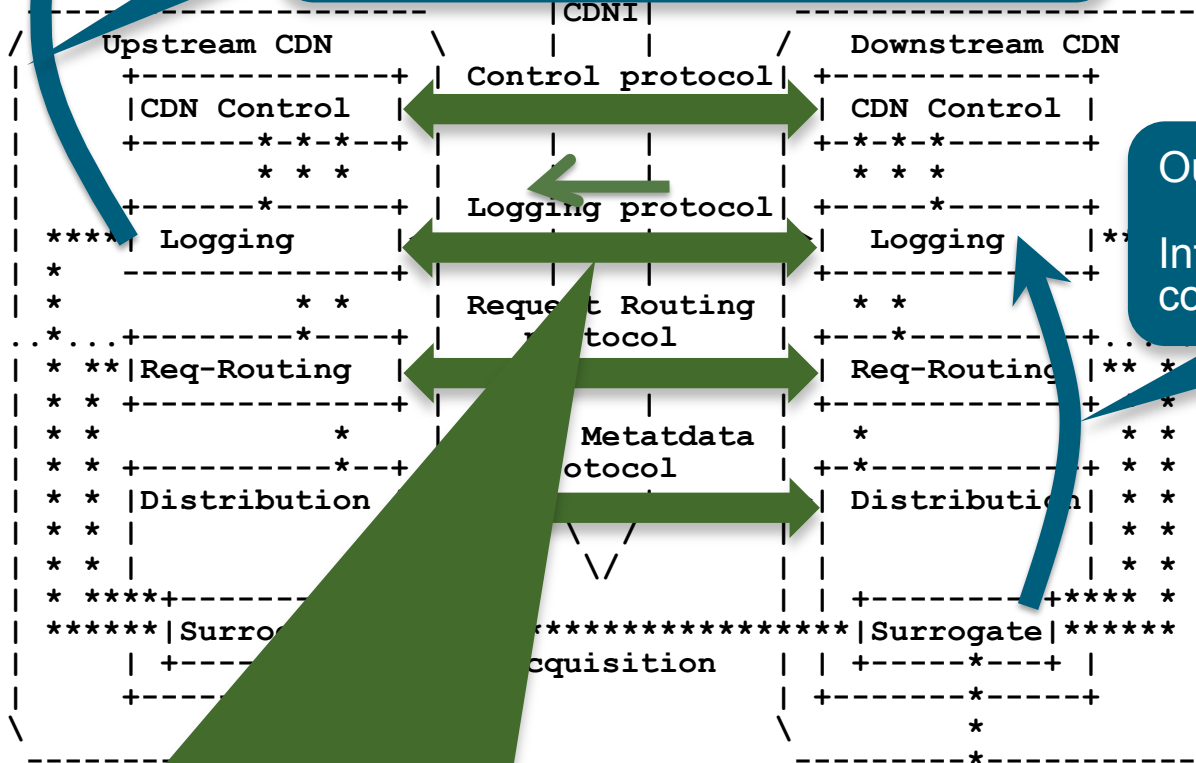
Outside CDNI scope
e.g. HTTP Redirect (URI)
Or DNS "redirect"





interfaces inside

Outside CDNI scope
Here is your delivery bill for all deliveries (whether performed by uCDN or dCDN)



Outside CDNI scope
Intra-CDN logs collection

Within CDNI scope
CDNI Logging Protocol

dCDN → uCDN:
“Here is all the work I did for you:
I delivered x Mbytes of this content to this user at this time”

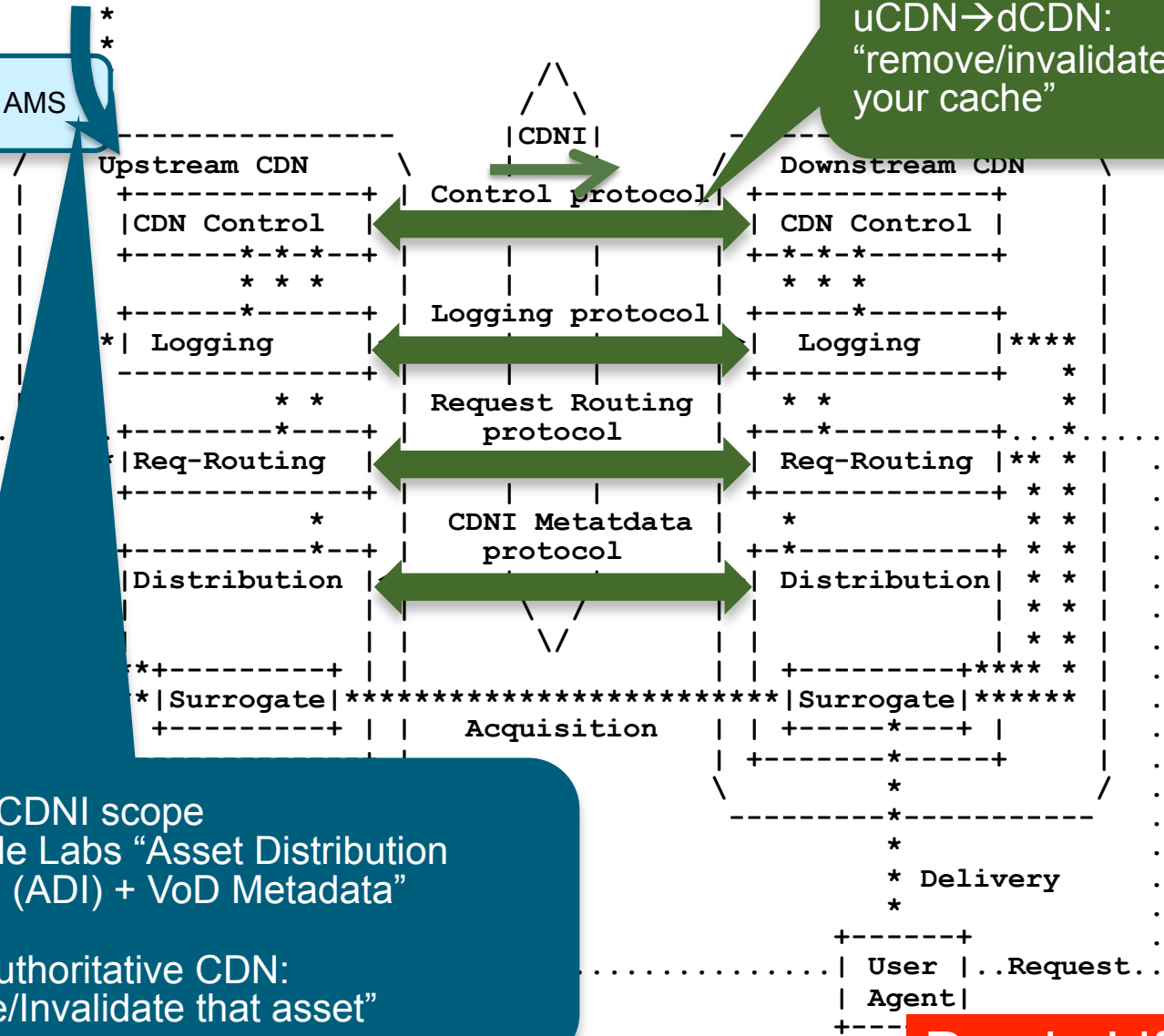


interfaces in

**** interfaces
 interfaces

Within CDNI scope
 CDNI Control Protocol

uCDN→dCDN:
 “remove/invalidate that content from
 your cache”



Outside CDNI scope
 e.g. Cable Labs “Asset Distribution
 Interface (ADI) + VoD Metadata”

CSP→Authoritative CDN:
 “Remove/Invalidate that asset”

Day in Life of CDNI:
 CDNI Control

Example Candidate Protocol Stacks

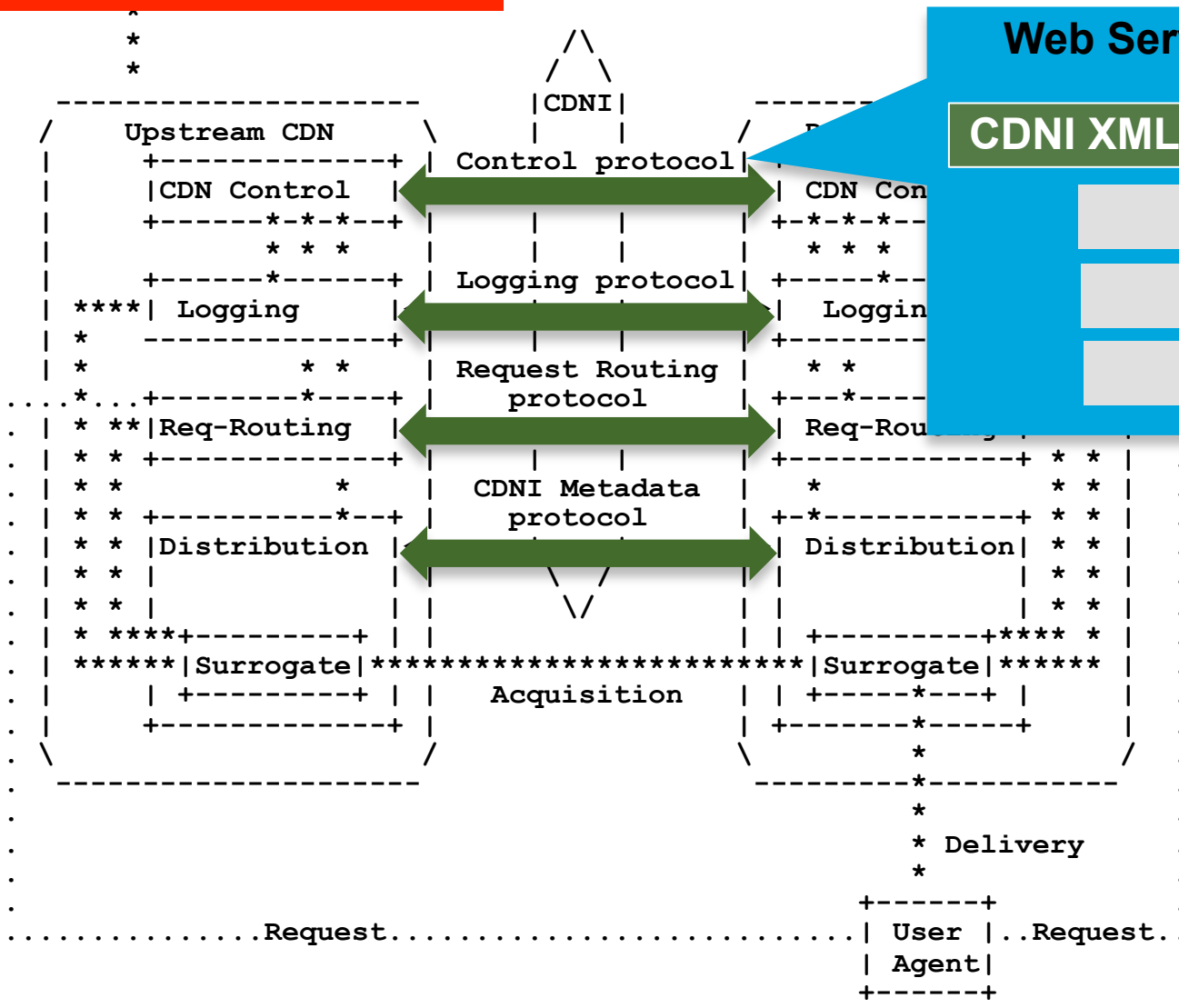
Notes:

- * those are examples (there are others)
- * those are candidates (they have not been “selected”)



CDNI Control Protocol: example candidate protocol stack

→ interfaces inside the scope of CDNI
**** interfaces outside the scope of CDNI
..... interfaces outside the scope of CDNI



Web Services based:

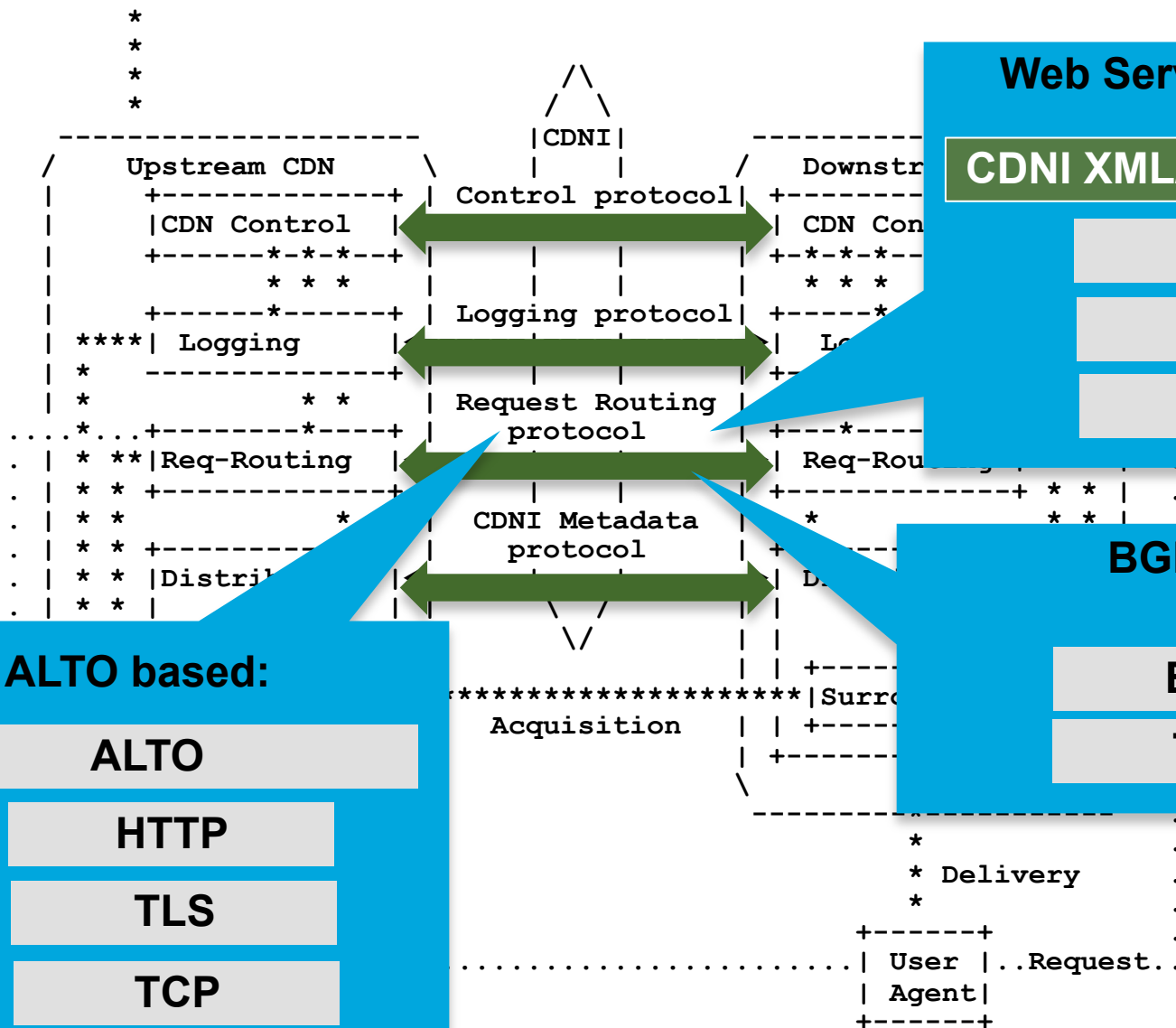
CDNI XML/JSON Schema

- HTTP
- TLS
- TCP



CDNI Request Routing Protocol: example candidate protocol stack

ces inside the scope of CDNI
 ces outside the scope of CDNI
 ces outside the scope of CDNI



CDNI Logging Protocol: example candidate protocol stack

→ interfaces inside the scope of CDNI
 **** interfaces outside the scope of CDNI
 interfaces outside the scope of CDNI

