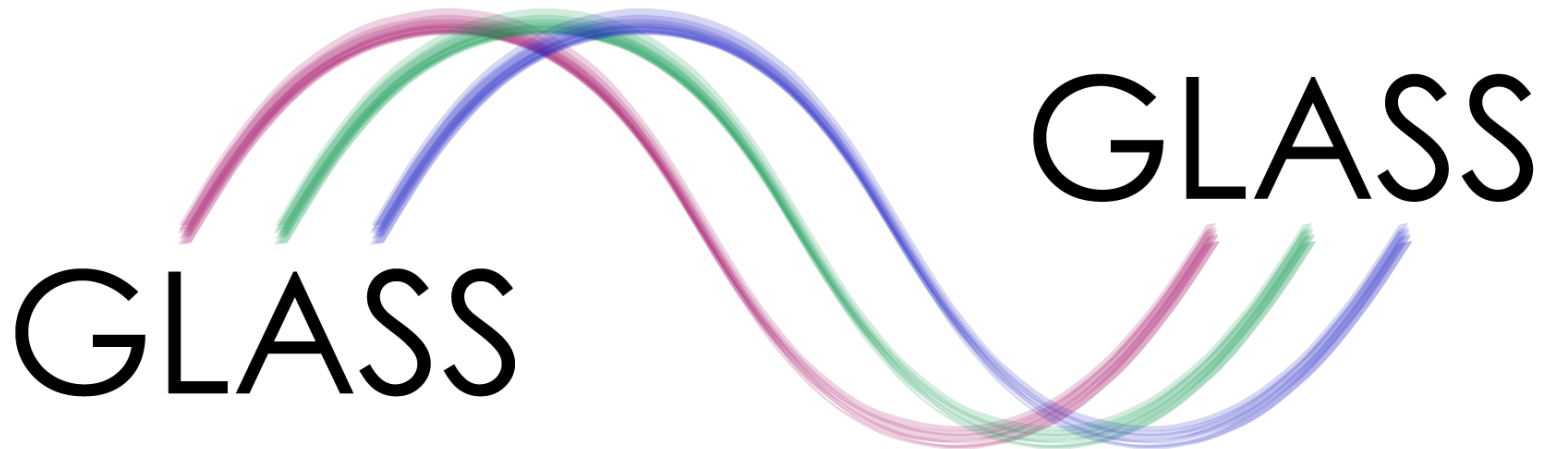


GGIE: the Glass to Glass Internet Ecosystem



Media & Entertainment IG
W3C TPAC 2017

GGIE Taskforce Charter

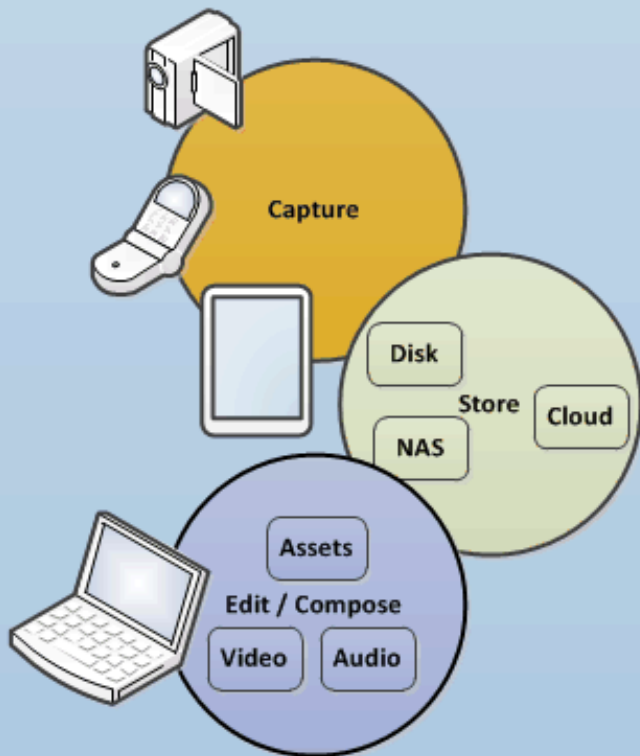
The GGIE TF is a subset of the Web and TV Interest Group, whose goal is to discuss the end to end Internet digital video ecosystem focusing on all phases of the video life cycle: Capture-Edit-Package-Distribute-Find-Watch for both professional and non-professional digital video.

Digital video is dependent on a large number of global internationally developed and interdependent standards from a variety of global organizations including W3C, IETF, IEEE, CEA, SMPTE, MPEG just to name a few. GGIE will examine the end to end ecosystem for digital video and identify recommended standards and features that could be developed.

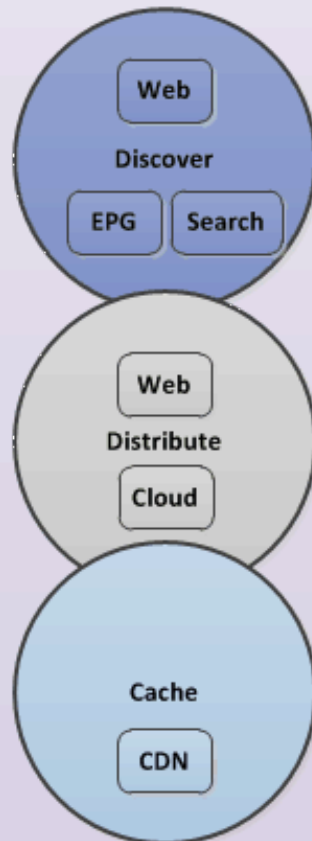
Through use cases GGIE will identify essential elements in digital video's life cycle and will identify features that would be appropriate for recommendation for standardization in the appropriate SDOs.

TF Wiki: https://www.w3.org/2011/webtv/wiki/GGIE_TF

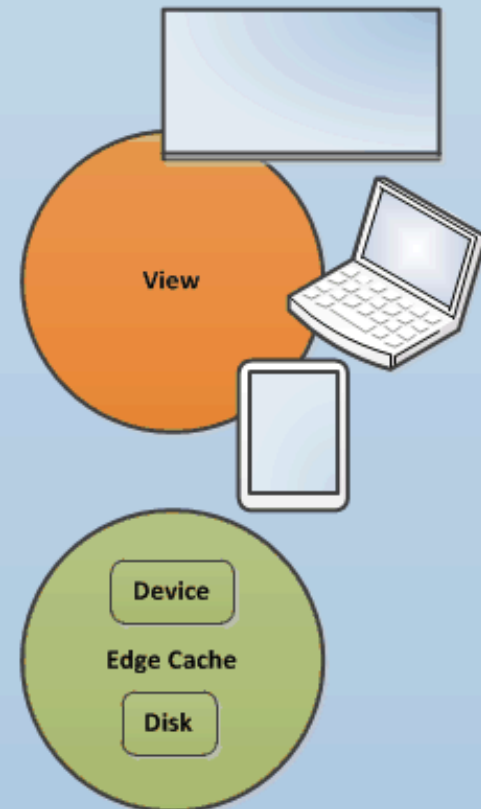
Smart Edge (Glass of Creation)



Core



Smart Edge (Glass of Viewing)



Content Identification -> Content Identifiers* -> Standardized Content URI
(*not advocating a single identifier authority)

Content Identity

Metadata

Scalability

User Identity

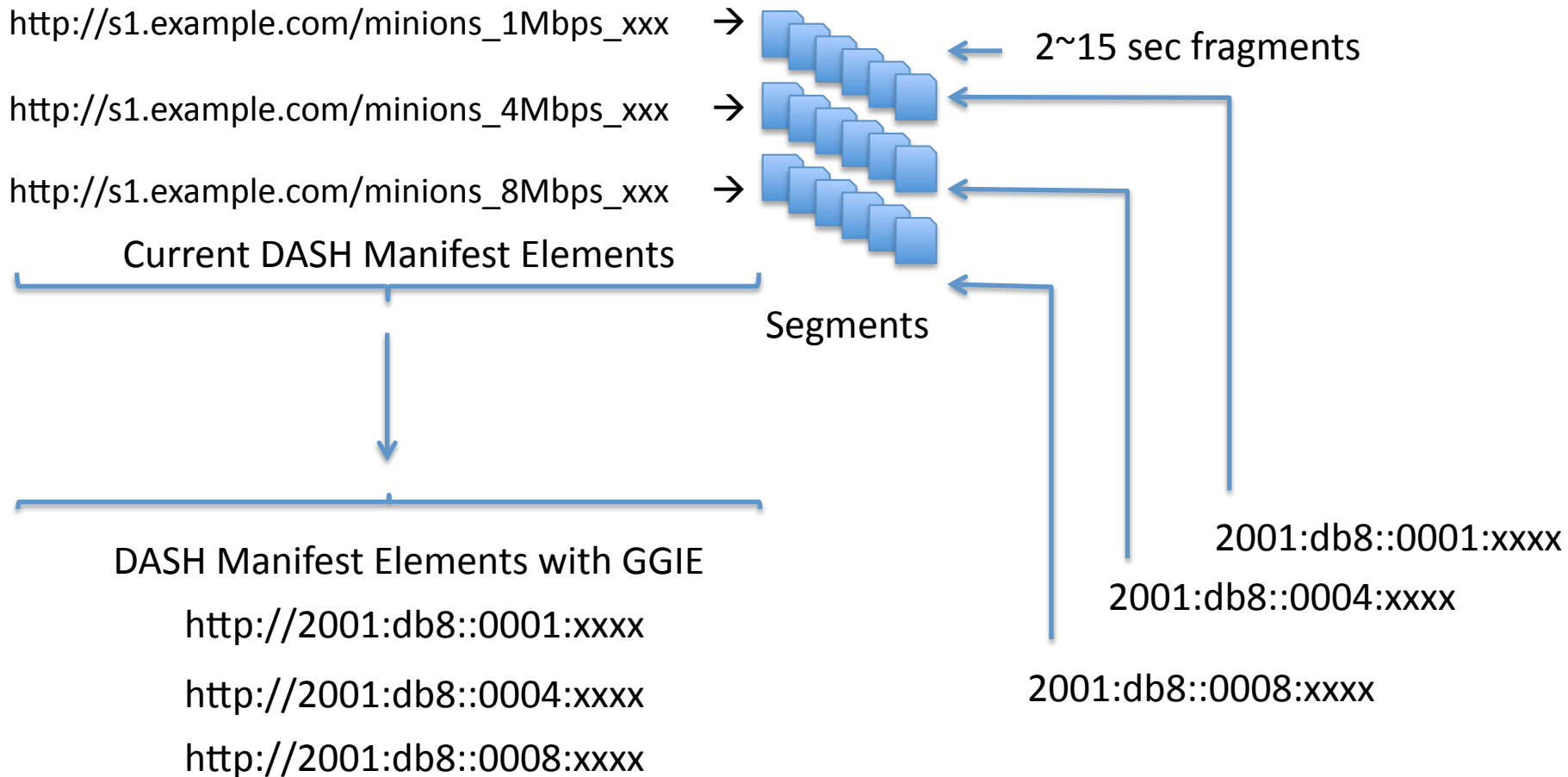
Privacy

GGIE TF Results

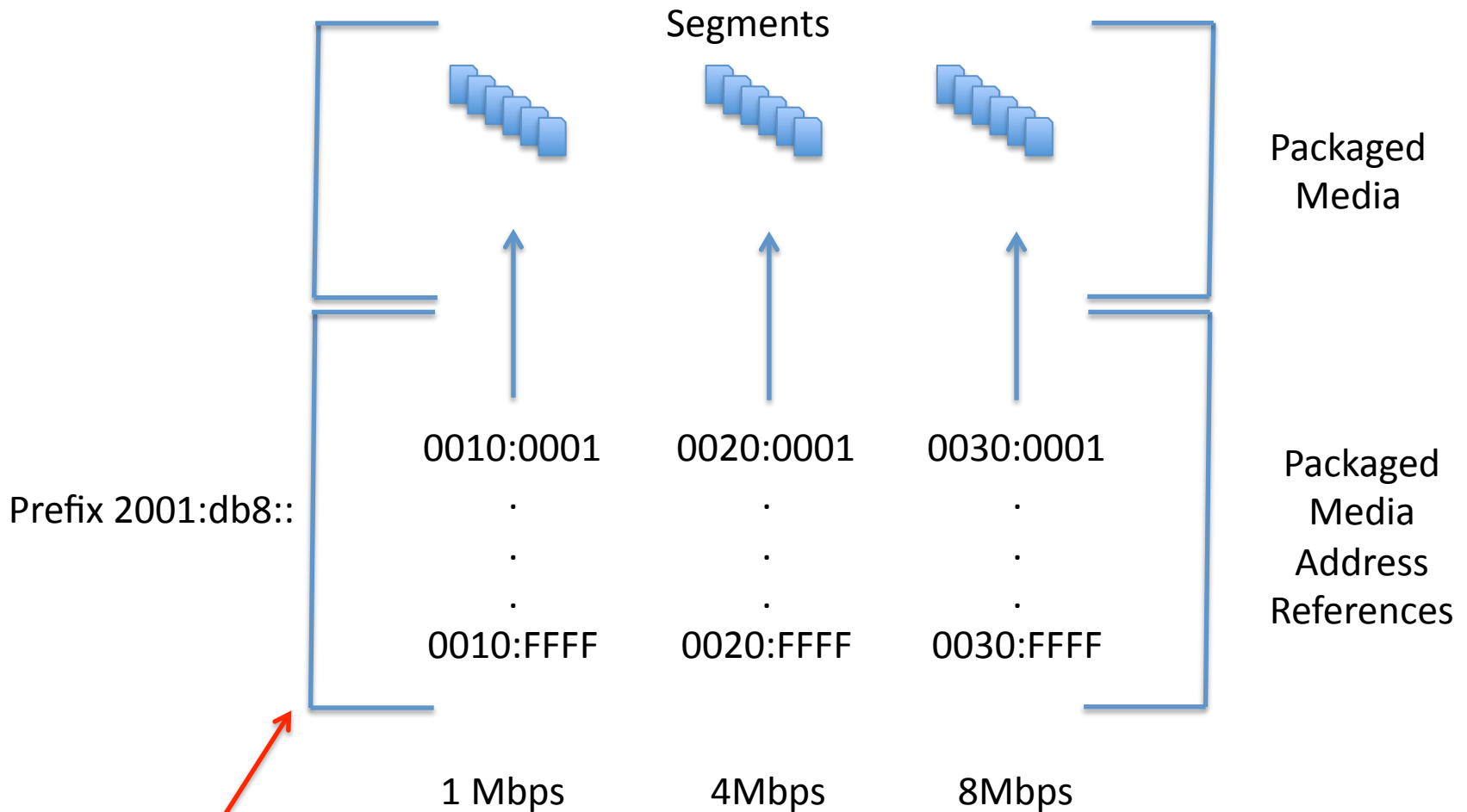
- 33 Use cases covering video creation, editing, packing, distribution & consumption
- Key use case elements:
 - Media Identification
 - Media & Network Collaboration
 - Media Addressing & Routing

Media & Network Collaboration

Referencing Media Segments by IPv6



Packaging IPv6 Segment References



This a Media Encoding Network or MEN – A structured arrangement of references to segments

GGIE::Core Elements

Media Identifier

Identifies the Work

Generically holds IDs from
content systems

EIDR, AD-ID, YouTube, Facebook etc.

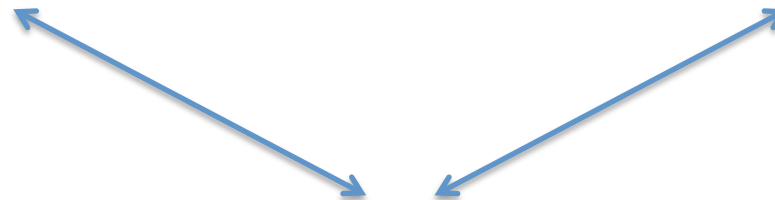
Media Encoding Network(MEN)

References each Encode of the Work

IPv6 Address to Packaged Media
assignment scheme

median:EIDR:10.5240%2F4381-3726-32B3-2E65-855B-X:example.com

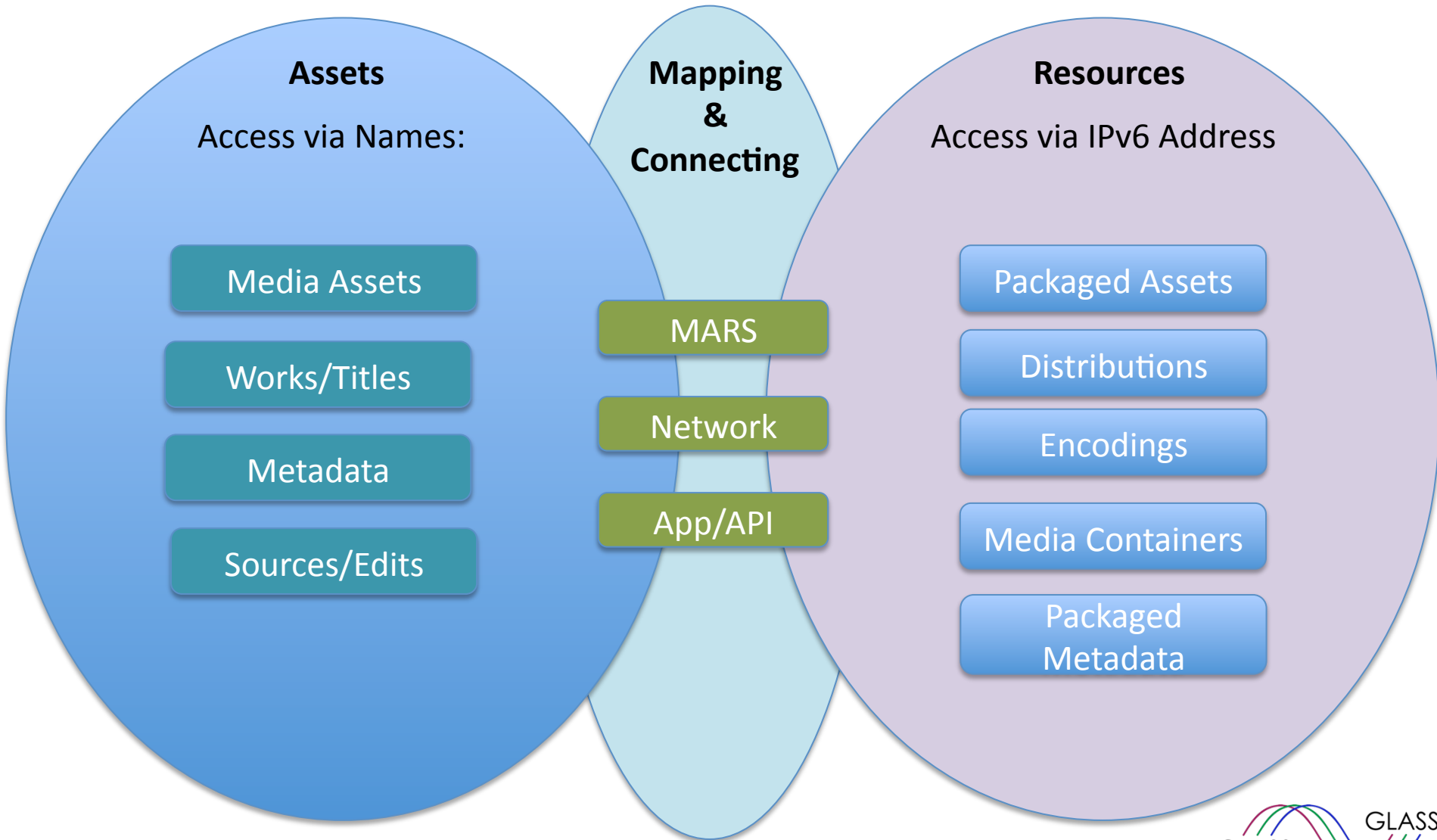
2001:db8::/64



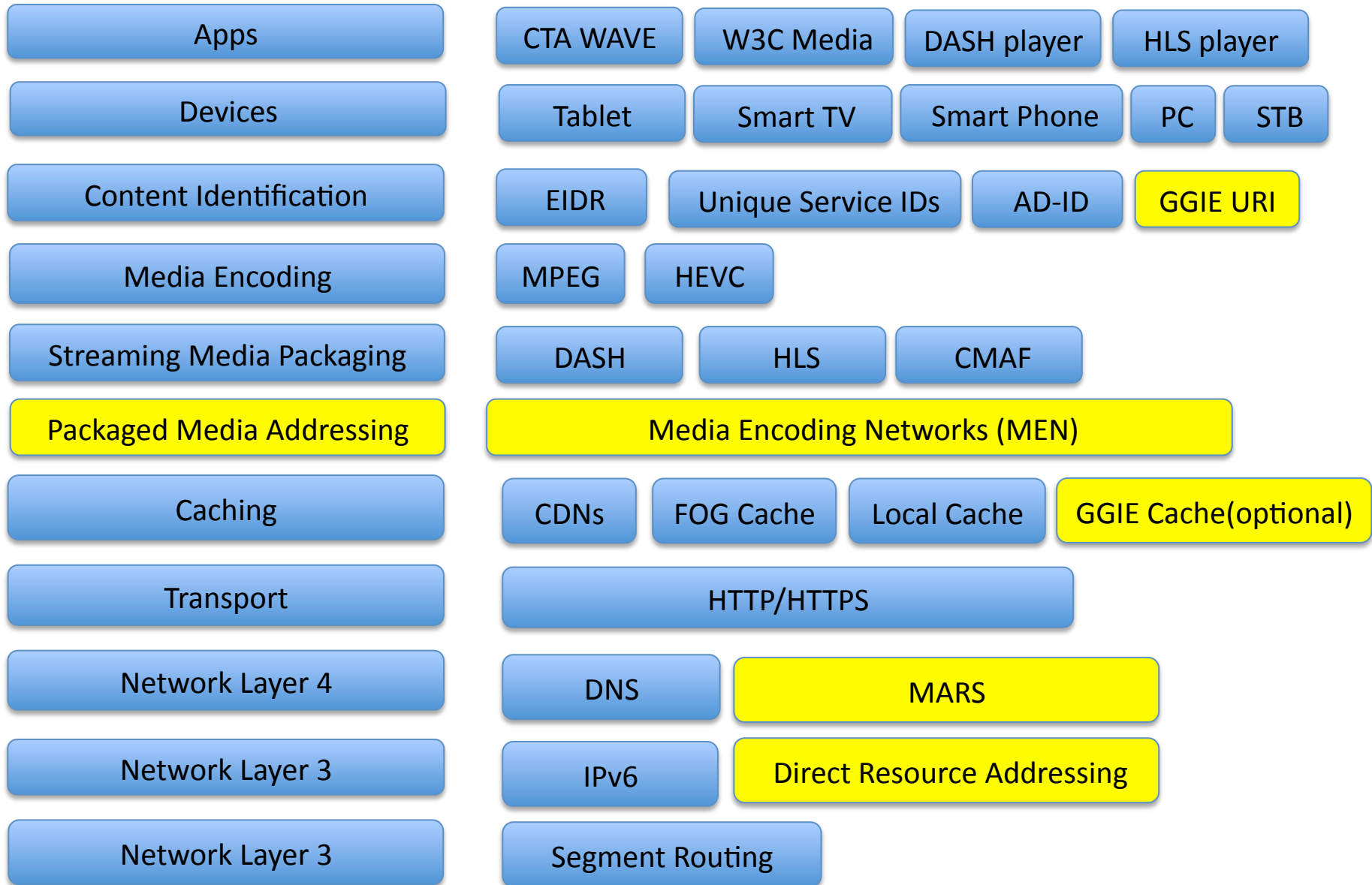
MARS

Maps Media Identifiers
to/from
Media Encoding Networks

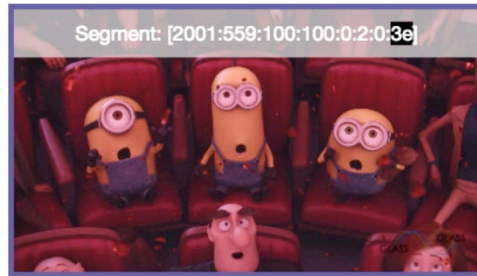
Connecting Assets & Resources



GGIE Video Media Model



How about some running code?



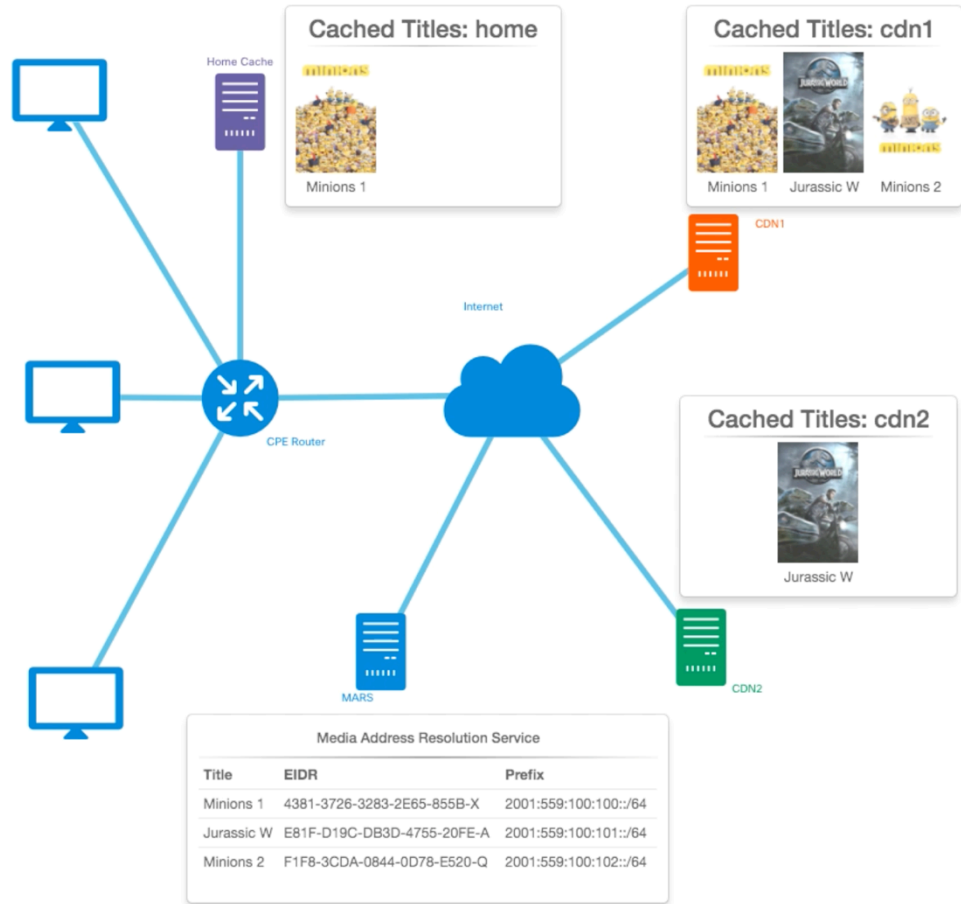
Title: Minions 1 (4381-3726-3283-2E65-855B-X)
Cache: home



Title: Minions 1 (4381-3726-3283-2E65-855B-X)
Cache: home

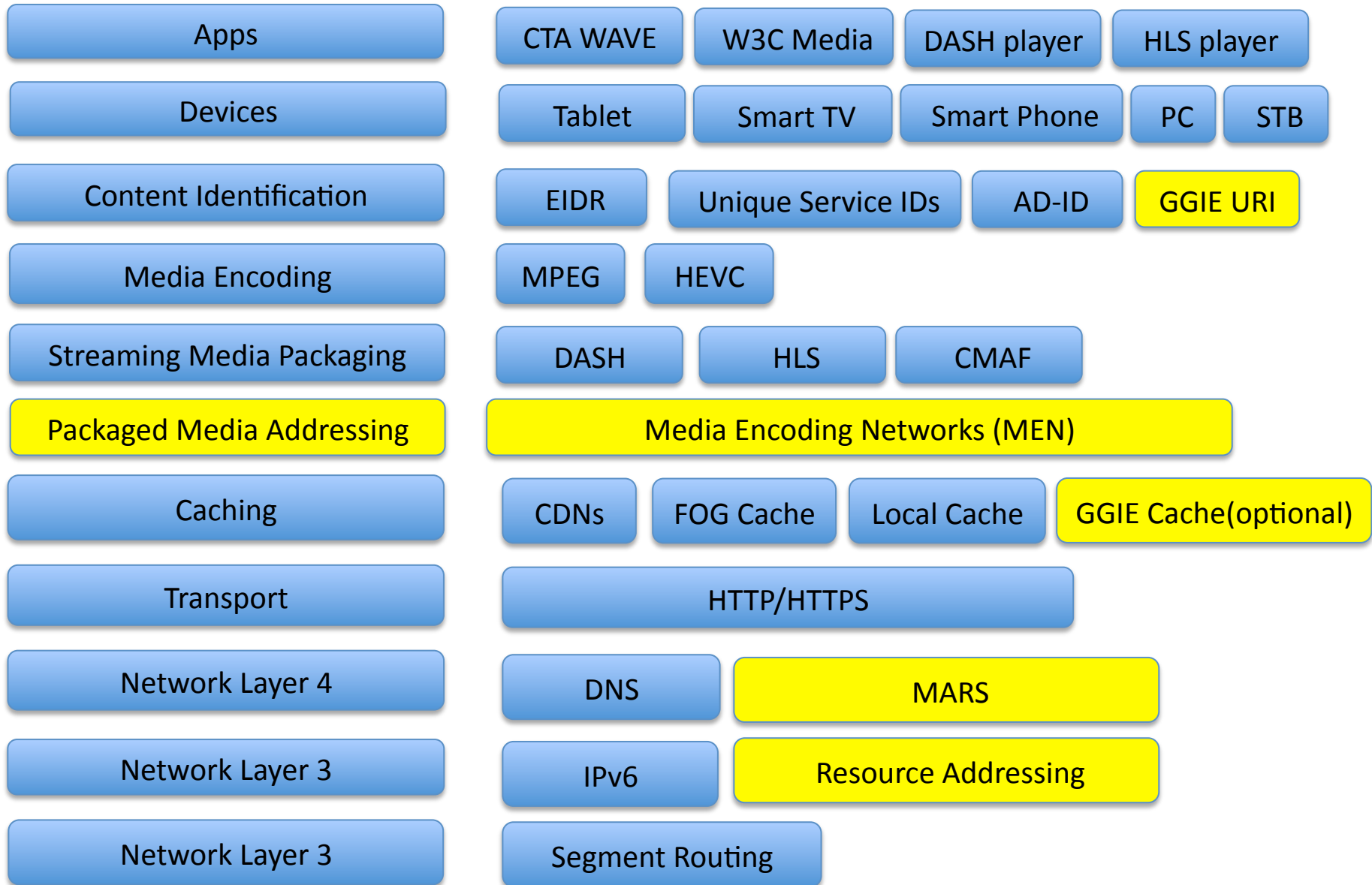


Title: Minions 2 (F1F8-3CDA-0844-0D78-E520-Q)
Cache: cdn1



*Developed under a Comcast Innovation Fund partnership with Prof. Gaurav Naik of Drexel University

GGIE Video Media Model



GGIE IDs

IETF <https://Datatracker.ietf.org>: Search for GGIE

Glass to Glass Internet Ecosystem Introduction

draft-deen-daigle-ggie

by: G.Deen, L.Daigle

Using Media Encoding Networks to address MPEG-DASH video

draft-deen-naik-ggie-men-mpeg-dash

by: G.Deen, G.Naik, J.Brzozowski, L.Daigle, W.Rose, M.Townsley

GGIE Internet Video Use Cases

draft-rose-deen-ggie-use-cases

by: G.Deen, W.Rose

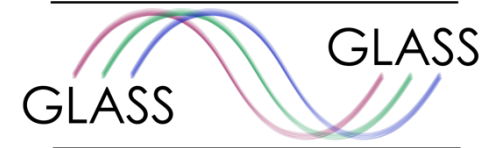
Glass to Glass Internet Ecosystem URI and S-NAPTR Use

draft-daigle-deen-ggie-uri-snaptr

by: L.Daigle, G.Deen,



GGIE: the Glass to Glass Internet Ecosystem



Contact: Glenn Deen – glenn.deen@nbcuni.com