H3-LISP Draft-Nexagon

Content

1. EID addressable-routable geo-state
2. Updates to the draft since ietf105
3. Value of the network / EID routing
4. Ask for workgroup adoption
Pervasive Modern Sensors Enumerate The Public Space in Near Realtime
Localized
Indexed
By
Hierarchical
Geo-Grid
EID Addressable LISP Routable
Ucast Publish - Mcast Subscribe

Standard Open-Source Snap-Pub-Sub Grid

Routing - Privacy - Subscription

H3-LISP

Annotations

Situations

...Blockage, Defect, Breach, Sign...

AI Rendering

Network Hexagons
H3-LISP Based
Mobility Network

Routing - Privacy - Subscription

H3-LISP

Annotations

Situations

...Blockage, Defect, Breach, Sign...
AAA Procedure for getting MobilityClient EID EdgeRTR RLOC Ucast/Mcast Frames for Interoperability Without Additional Docs/Libs
Also Since 105

nexagons-go

nexagons-go contains a basic server and client implementation of the in progress IETF RFC draft for a H3-LISP based Mobility Network (https://datatracker.ietf.org/doc/draft-barkai-lisp-nexagon/)

whats inside

<table>
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<tr>
<th>package</th>
<th>description</th>
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<tr>
<td>bundle</td>
<td>an all-in-one server binary (including AAA server, EdgeRTR and H3Server)</td>
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<tr>
<td>client</td>
<td>nexagon MobilityClient SDK code</td>
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<td>edgertr</td>
<td>nexagon EdgeRTR library code</td>
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<td>internal</td>
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<td>libraries for reading and writing nexagon packets</td>
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<td>stress</td>
<td>a binary for stress-testing a nexagon setup</td>
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</table>
Value to Customers

• Muni-Dot: cheaper-fresher surveys of signs, lights, marks, rails, holes, stopped vehicles, construction, …

• OEM-Drivers: park-assist, blockages, slow-downs, hard-breaks, sharp-turns.. beyond line-of-site

• Enterprise: curb-side conditions, track-routes, ped-vehicle traffic, store-fronts, cams-complied..
Value To The Edge

Digital Twin Ground-Truth
v2v v2i Interoperable L3 Broker

Nexagon Client-Edge Interface:
1. Ground-Truth for Roads Digital Twin
2. L3 Interoperable Broker for v2v v2i

Sources: Ericsson, Huawei

Value To The Edge
Value of The Network

As part of ongoing innovation work around Edge cloud we are looking into this Draft and supporting it.

- in the effort of CSP network to support smart-sensor data-sharing:
  - safety, predictive-maintenance, logistics, business-intelligence
  - on behalf of gov-muni, enterprises, and connected-car customers
- CSPs faced two extreme options:
  - specialized narrow-focused, purpose-built DSRC/C-V2X mobility infrastructure
  - commodity hosting-connectivity of proprietary-fragmented per brand backends
- new edge geo-state-network standard allows us to offer stable 5G/LTE edge interface:
  - compile interoperable fresh-data from multiple sources per geo-state
  - streamline as-as-service to gov/ent/omn subscribers per application

1. We are working with both tech-companies / customers to position use-cases
2. We have been show-casing low-latency brokered solutions offering safety
3. Proving network-brokered edge relays alerts of breaches in sub 20 msec
4. We support adoption of the new edge draft as part of iSP virtual-ip standard
5. Leverage edge routers for geo-state privacy, latency, security, subscription

Thanks,

Nir Hen
Lead Innovation Coach
Motion to Adopt as WG Draft