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| [Company name] |
| **IVY RESTful API Specification** |
| [Document subtitle] |

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| Kumaran Subramaniam  3-15-2018 |

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| Date | Version | Author | Notes |
| 03/15/2018 | 1.0 | Kumaran.subramaniam@hitachivantara.com | Initial draft |

* **RESOURCES (NOUNS)/URI**
  + **ACTIONS (VERBS)**
  + **Schema definition**
* ***/ivy/api/v1/IVYServer (Resource representing the IVY master)***
  + POST/CREATE
  + DELETE
  + PUT/EDIT <OutputFolderRoot>
  + GET sorting/filtering/pagination
    - Different Attributes
* ***/ivy/api/v1/IOSequencerTemplates*** 
  + POST/CREATE
  + DELETE
  + PUT/EDIT
  + GET sorting/filtering/pagination
* ***/ivy/api/v1/Workloads (Resource is a Collection of workload instances)***
  + POST/CREATE {Host, Select, IOsequencer, Parameters
    - Input: Define JSON schema -> workload\_json\_schema
    - Output: RESPONSE -> Result json schema

*{name="owl"}*

*{Type="port", Name="1A"}*

*{iosequencer="random\_steady"}*

*{List of parameters:*

*"IOPS=max, fraction\_read=\"50%\", blocksize = \"4KiB\" pattern = random ";}*

* + DELETE
  + GET/LIST sorting/filtering/pagination
  + **PUT/GO -> WorkLoadInstance**
* ***/ivy/api/v1/Rollups*** 
  + POST/CREATE
  + DELETE
  + PUT/EDIT
  + GET sorting/filtering/pagination

**IVY Persistent Store Layer**

* + - * Schema’s
      * Create templates
      * Output CSV
      * SQLite/Berkeley DB/Mongo DB

USE CASES:

* Use same script to send tests to different workloads
* Multiple users can concurrently run tests 🡪 RISKY 🡪
* Multiple scripts running…

[OutputFolderRoot] "/ivy\_output";

[Hosts] "sun159, cb24-31" [Select] "serial\_number : 123456, LDEV : 00:00-01:FF";

[SetIosequencerTemplate] "random\_steady" [parameters] "IOPS = 20, blocksize = 4KiB";

[CreateWorkload] "cat" [iosequencer] "sequential" [parameters] "IOPS=max, maxTags=1";

[DeleteWorkload] "cat" [select] "LDEV : 00:04";

[CreateRollup] "host" [nocsv] [quantity] 8 [MaxDroop] 25%;

[EditRollup] "serial\_number+Port = { 410123+1A, 410123+2A }" [parameters] "maxTags=128";

[DeleteRollup] "serial\_number+Port";

[Go] "stepname=whole\_LUN\_staggered\_start, measure\_seconds = 60";

Invocation with ‘curl’ –

JSON schema viewer