Echo/Metrics Refactor
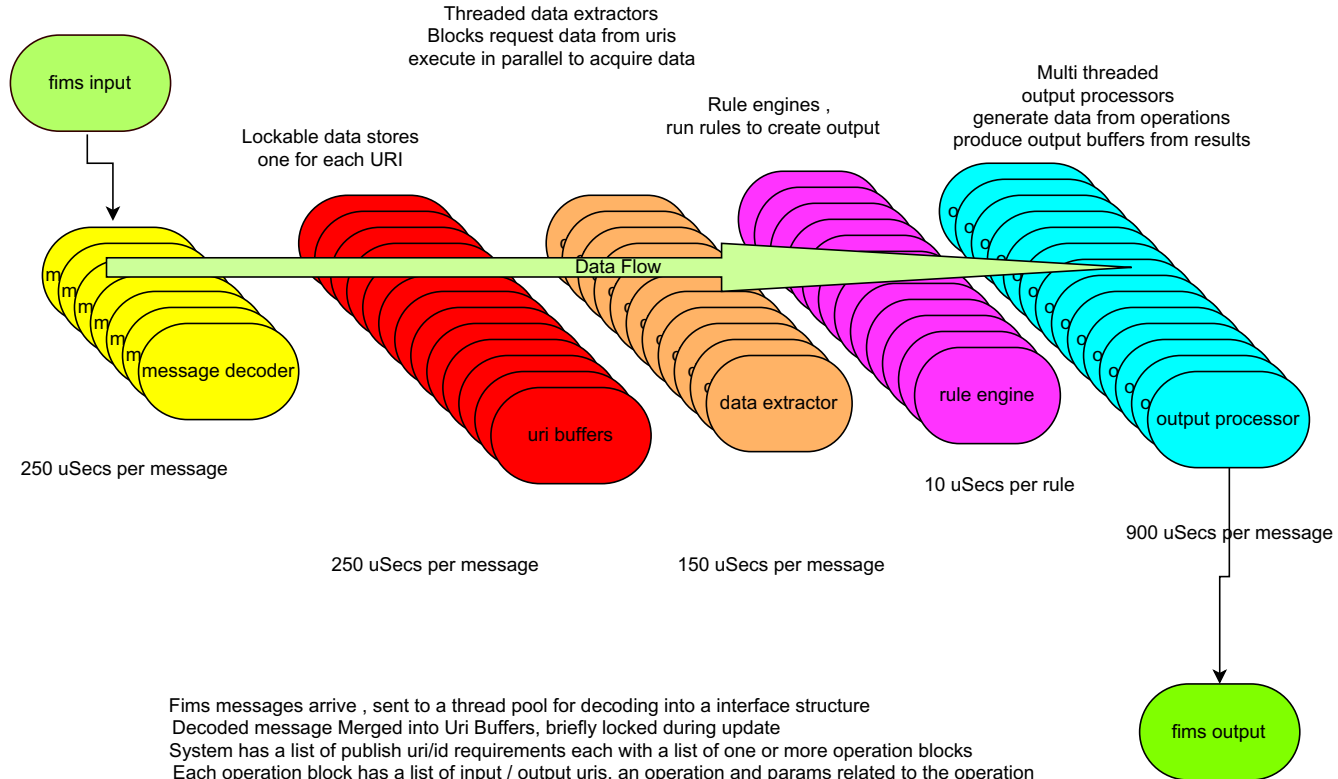
Muli threaded
fims message decoders
data passed into lock managed buffers

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Threaded data extractors
Blocks request data from uris
execute in parallel to acquire data

fims input

Rule engines ,
run rules to create output

Multi threaded
output processors
generate data from operations
produce output buffers from results

Lockable data stores
one for each URI

Data Flow

m
m
m
m
m
message decoder

uri buffers

data extractor

rule engine

output processor

250 uSecs per message

10 uSecs per rule

900 uSecs per message

250 uSecs per message

150 uSecs per message

fims output

Fims messages arrive , sent to a thread pool for decoding into a interface structure
Decoded message Merged into Uri Buffers, briefly locked during update
System has a list of publish uri/id requirements each with a list of one or more operation blocks
Each operation block has a list of input / output uris, an operation and params related to the operation
Blocks can be cascaded such that one block can use the results of another block to produce its output.