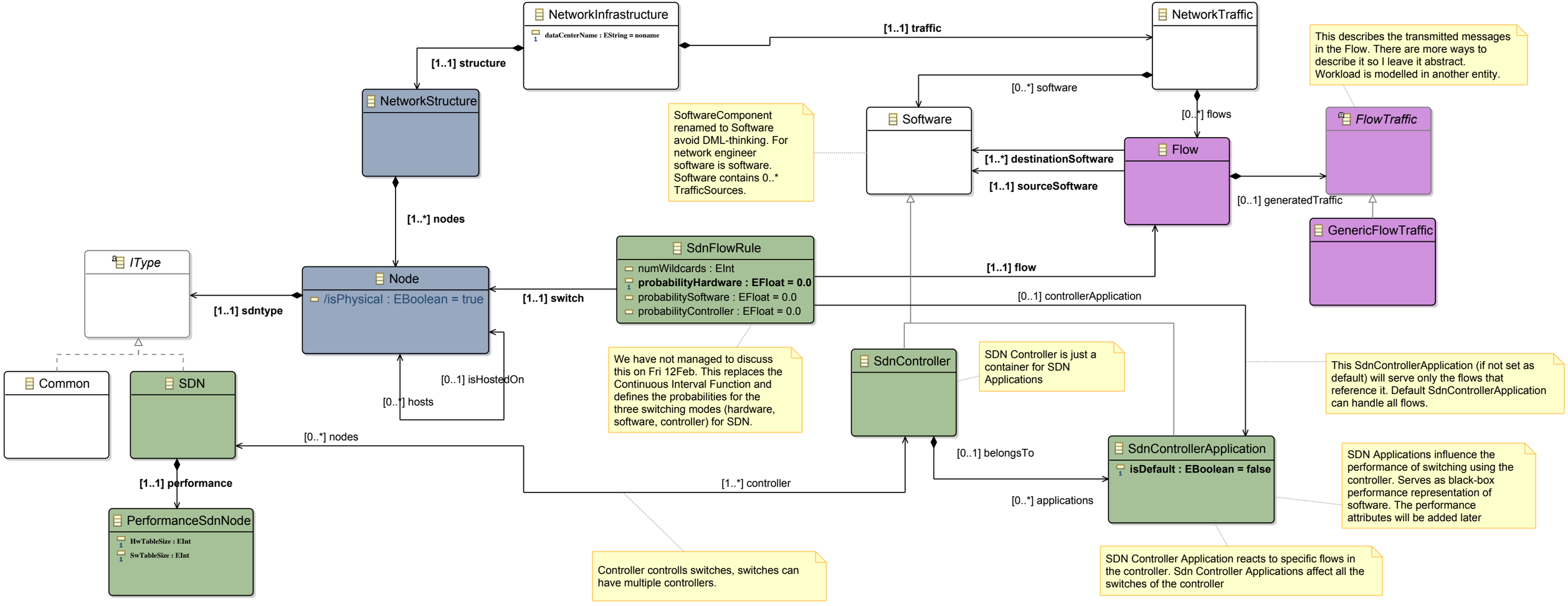
NetworkInfrastructure
dataCenterName : EString = noname
[1..1] traffic
NetworkTraffic
[1..1] structure
NetworkStructure
[0..*] software
Software
[0..*] flows
Flow
[1..*] destinationSoftware
[1..1] sourceSoftware
FlowTraffic
[0..1] generatedTraffic
GenericFlowTraffic
This describes the transmitted messages in the Flow. There are more ways to describe it so I leave it abstract. Workload is modelled in another entity.
SoftwareComponent renamed to Software avoid DML-thinking. For network engineer software is software. Software contains 0..* TrafficSources.
[1..*] nodes
IType
[1..1] sdntype
Node
/isPhysical : EBoolean = true
[1..1] switch
SdnFlowRule
numWildcards : EInt
probabilityHardware : EFloat = 0.0
probabilitySoftware : EFloat = 0.0
probabilityController : EFloat = 0.0
[1..1] flow
[0..1] controllerApplication
Common
SDN
[0..1] isHostedOn
[0..*] hosts
We have not managed to discuss this on Fri 12Feb. This replaces the Continuous Interval Function and defines the probabilities for the three switching modes (hardware, software, controller) for SDN.
SdnController
SDN Controller is just a container for SDN Applications
This SdnControllerApplication (if not set as default) will serve only the flows that reference it. Default SdnControllerApplication can handle all flows.
[0..*] nodes
[0..1] belongsTo
SdnControllerApplication
isDefault : EBoolean = false
[1..1] performance
[1..*] controller
[0..*] applications
SDN Applications influence the performance of switching using the controller. Serves as black-box performance representation of software. The performance attributes will be added later
PerformanceSdnNode
HwTableSize : EInt
SwTableSize : EInt
Controller controlls switches, switches can have multiple controllers.
SDN Controller Application reacts to specific flows in the controller. Sdn Controller Applications affect all the switches of the controller