Fact Store and Data Store

The data store and fact store permit business, topology, and operating factors specific to a device or a set of circumstances in a managed network to be separated from the general correlation rules defined by the correlation circuit. The behavior of the correlation circuit can be changed by updating the data and fact stores as local conditions change without affecting the integrity of the correlation circuit. This makes it possible to develop correlation circuits that are data-driven, promoting circuit reusability and reliability and design generality.

The data store contains a set of name-value pairs. Any user-defined names can be used to identify the assigned values. In a circuit, the value can be referenced using the configured name. If the reference is by a static node parameter, the reference will be resolved at circuit load time. For dynamic parameters, references are resolved every time an event triggers activity at the node.

The fact store contains triples: thing1-relation-thing2. A relationship can be any user-defined concept, such as is_contained_in, is_the_parent_of, is_equal_to, is_gzumped_by, and so on. The related things can also be anything the user requires in the circuit, such as switch1, rack17, cabinet10, circuitABC, and so on. This means that a fact such as equipment10 is_contained_in rack27 can be defined. In a circuit node, a condition parameter can test whether this relationship is true and take appropriate action if it is.

The fact and data stores are loaded from files into memory. This model conforms with the notion that the run-time engine is designed for very high speed—faster than normal file I/O speeds. The stores can be updated while the correlation engine is running, resulting in dynamic changes to the correlation rules.