Suggestions for terminology

In orange, important concepts.
In grey, definitions that are not necessarily required.

SCHC Node == SCHC Endpoint: SCHC-capable thingy

Context: Contains or points to a Set of Rules (consistent with RFC 8724) and possible other elements used for packet processing (associated Parser, Context Id, ..). SCHC operation between two (or more) SCHC Endpoints requires the Context to be identical on all Endpoints.

Profile: Stores config data required to properly process the targeted traffic. A Profile is defined locally.

SCHC Instance: The SCHC Instance is defined by a Profile and Context pair, selected and parameterized for a given communication between two or more peer SCHC Endpoints. It also may contain state variables.

SCHC Domain: Group of SCHC Instances sharing the same Context.

Dispatch Engine: The Dispatch Engine is a logical component that routes packets to the appropriate SCHC Instance based on defined admission rules. It can be integrated into the network stack or implemented as a separate component.

SCHC Header: The SCHC Header contains the information needed for SCHC to reconstruct the original packet in the destination node (packet reassembly and/or decompression), namely a Rule ID and a Residue.

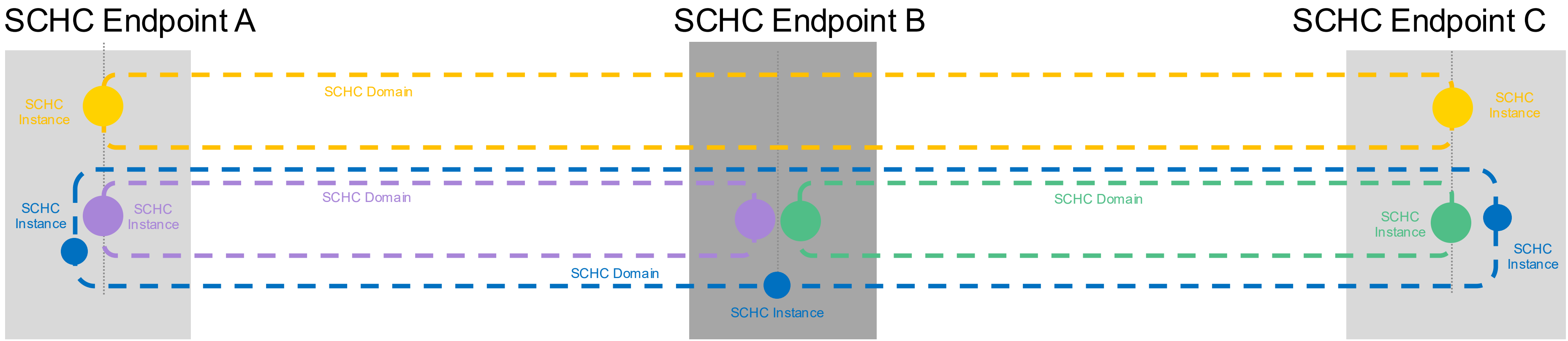
SCHC Packet: SCHC Header + Payload

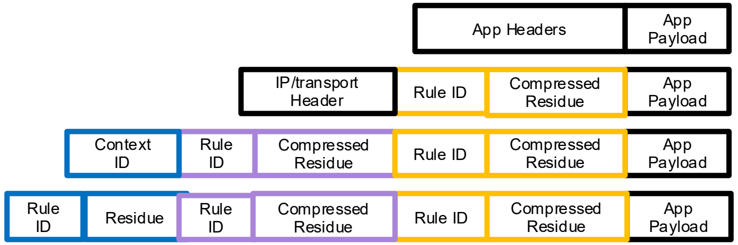
SCHC Control Header : Contains extra info (Context ID, CRC) compressed using a control Instance. Same format as SCHC Header.

Domain Manager, Context Manager, Profile Manager: config, keep sync

Session (may be relevant to describe the Context lifecycle) : The SCHC Session is an active relationship between hosts sharing the same Context. The session between two end-points whose Instances are static is implicit. Otherwise, a Session is a dynamic space with a beginning and an end.

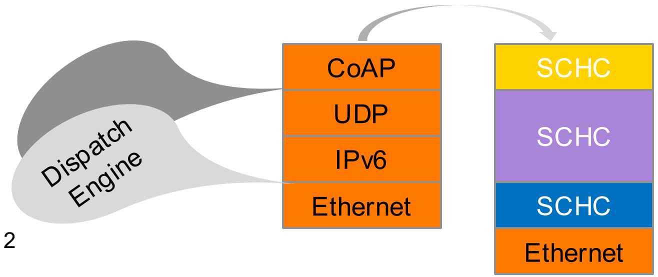
SCHC Stratum : designates the layer(s) of the network stack affected by the SCHC operation within a given SCHC domain.





Domain can be seen as an alternative for Stratum.
A **Dispatch Engine** is responsible for intercepting and routing packets to the appropriate SCHC Instance based on defined admission rules.

Pretty much everything else remains the same and complies with RFC 8724.



The Blue Instance may be needed to identify the correct instance at node B (Purple and Green). A discriminator (Context ID) is added to the SCHC packet, then compressed. The SCHC Header format (Rule ID + Residue) remains unchanged. Upon reception, the Dispatch Engine uses admission rules determine to which Instance the frame should be passed. Should we call it **Control Instance** and **Control Domain** ?