

FLIP – Introduction & Request for Feedback

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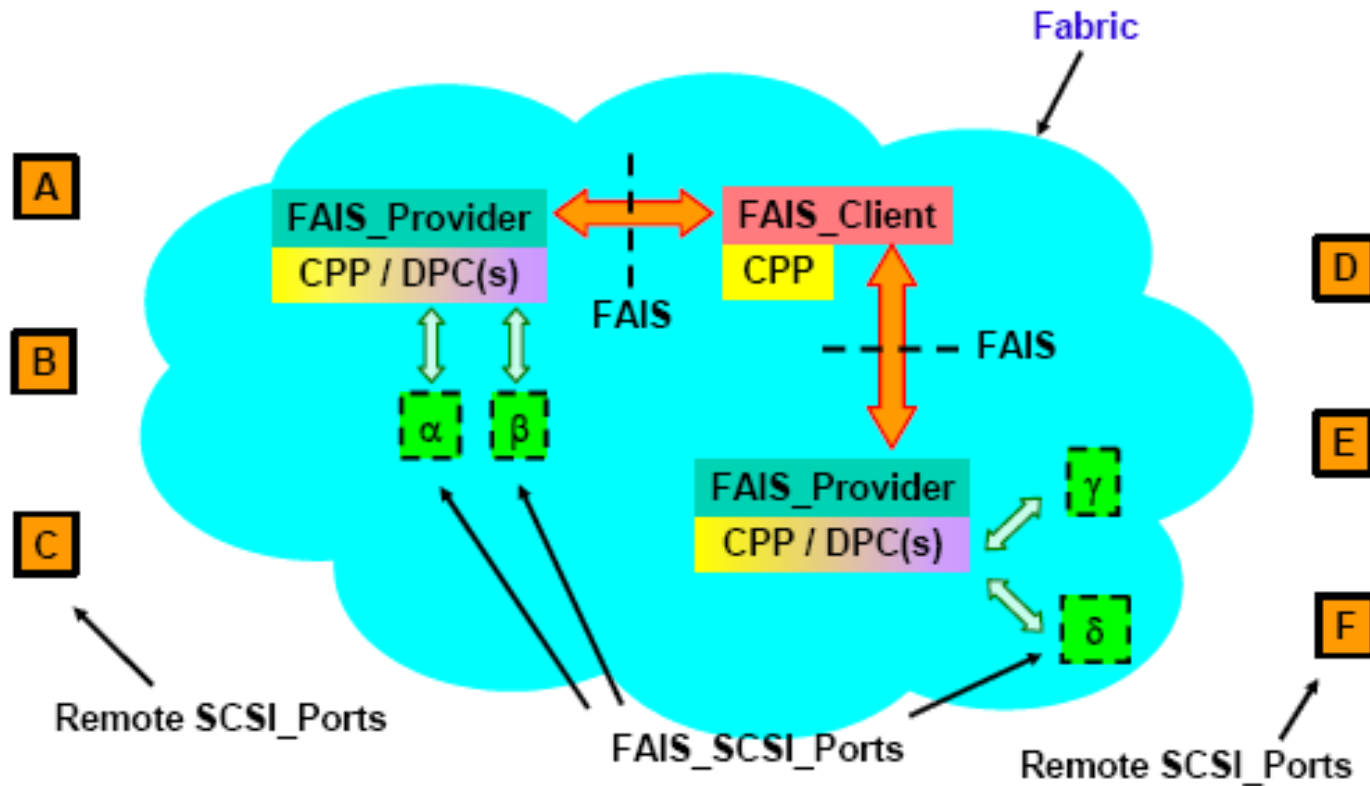
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Introduction to FAIS

- Fabric Application Interface Standard
 - C-level API library definition
- T11.5 project to define an API for switch-resident virtualization applications
 - Successor to existing vendor-unique schemes from Brocade/Rhapsody (Xpath) & Cisco (ISAPI)
 - Architects from both companies participating in FAIS

FAIS Architecture



FAIS characteristics

- Two groups of calls in API
 - SCSI Initiator/Target functions
 - Control and configuration function for a frame transformation engine (DPC – Data Path Controller) capable of operating @ line speeds
 - Includes XMap and Volume Mappings
 - Intent is that DPC can handle most read/write commands without reference to FAIS_Client

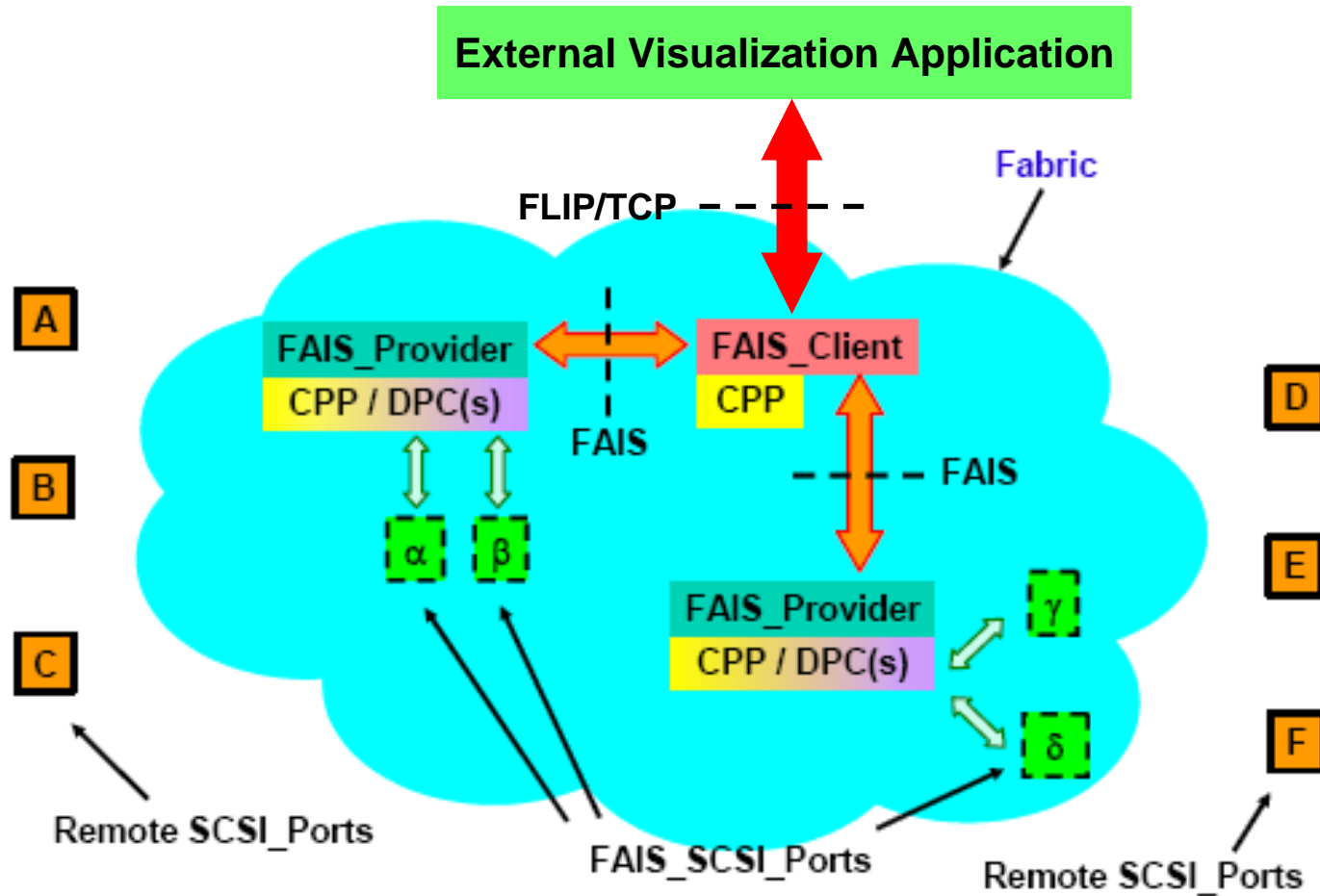
Limitations

- Use of FAIS API requires:
 - Method of discovering FAIS-capable switch
 - Method of installing and configuring a FAIS_Client on such a switch
- Neither is straightforward given current product approach
 - Need something more flexible than just ability to install @ system creation time

Proposal

- Define a FAIS Line Interface Protocol (FLIP) to control a generic FAIS_Client over a TCP/IP network
 - RPC-type protocol
 - Allows virtualization applications to leverage FAIS without having to be installed on each switch
 - Allows switch manufacturers to ship simplest FAIS client with all their products

FLIP Architecture



Approach

- Support a VERY thin FAIS_Client
 - Add as few semantics to existing FAIS calls as possible
 - Modify no existing semantics
 - Optimize for the case when read/write data is NOT transferred over FLIP
 - Use TCP as a transport and leverage IPSec where required

Request for Feedback

- Not at all sure that the T11.5 charter covers this type of protocol
- Does imss think this would be an appropriate subject for its Program of Work?
 - Would of course do this work in close consultation with T11.5
- Note that this subject has NOT yet been raised with T11.5
 - Will be done next week