



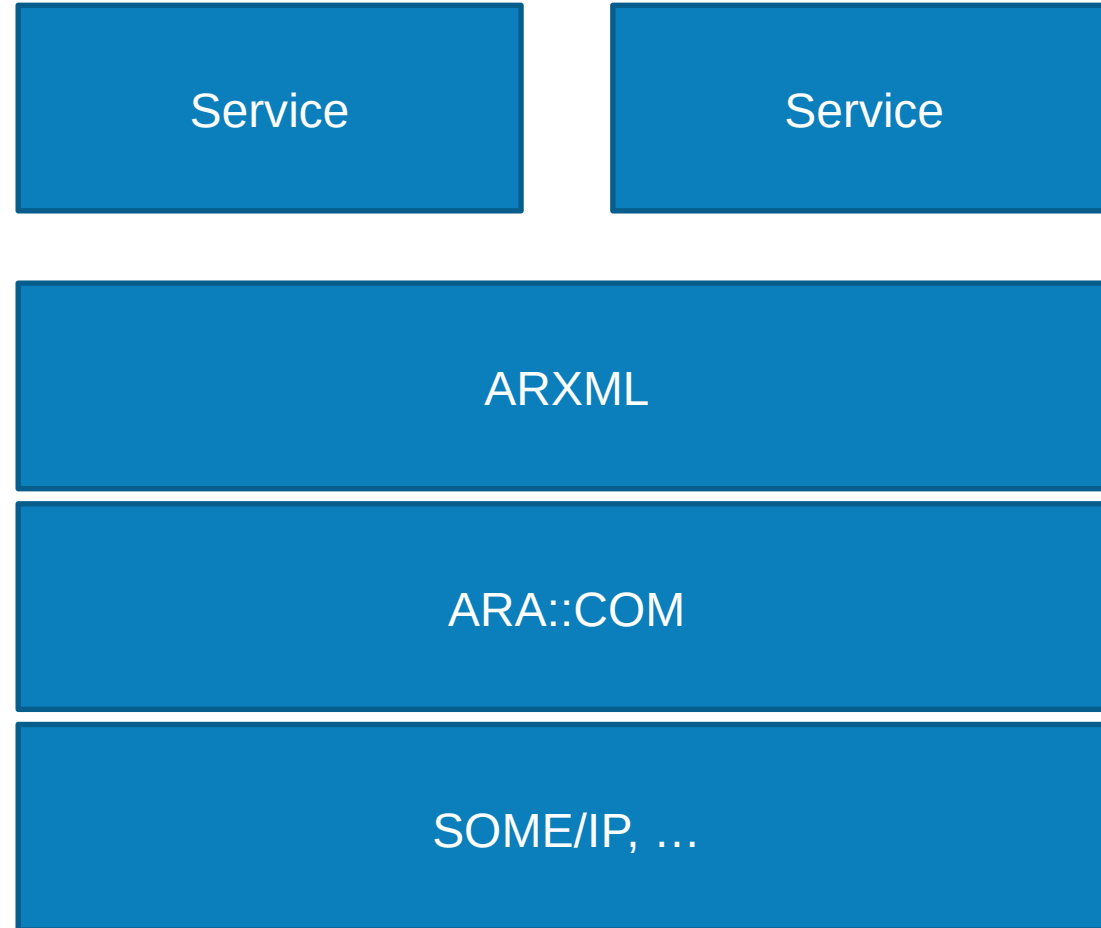
CVII Mapping to AUTOSAR

CVII - Mapping to AUTOSAR

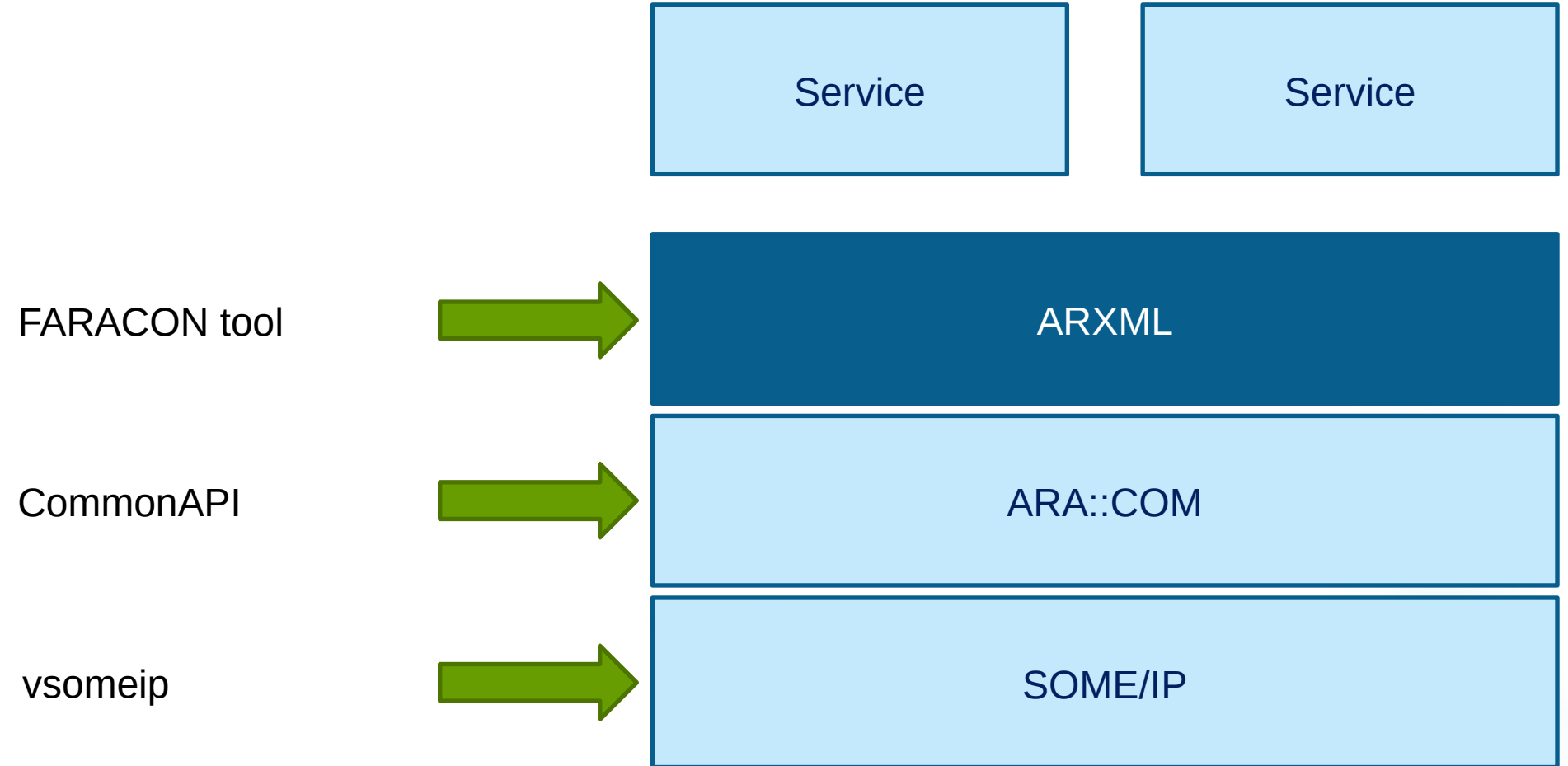


Adaptive AUTOSAR:

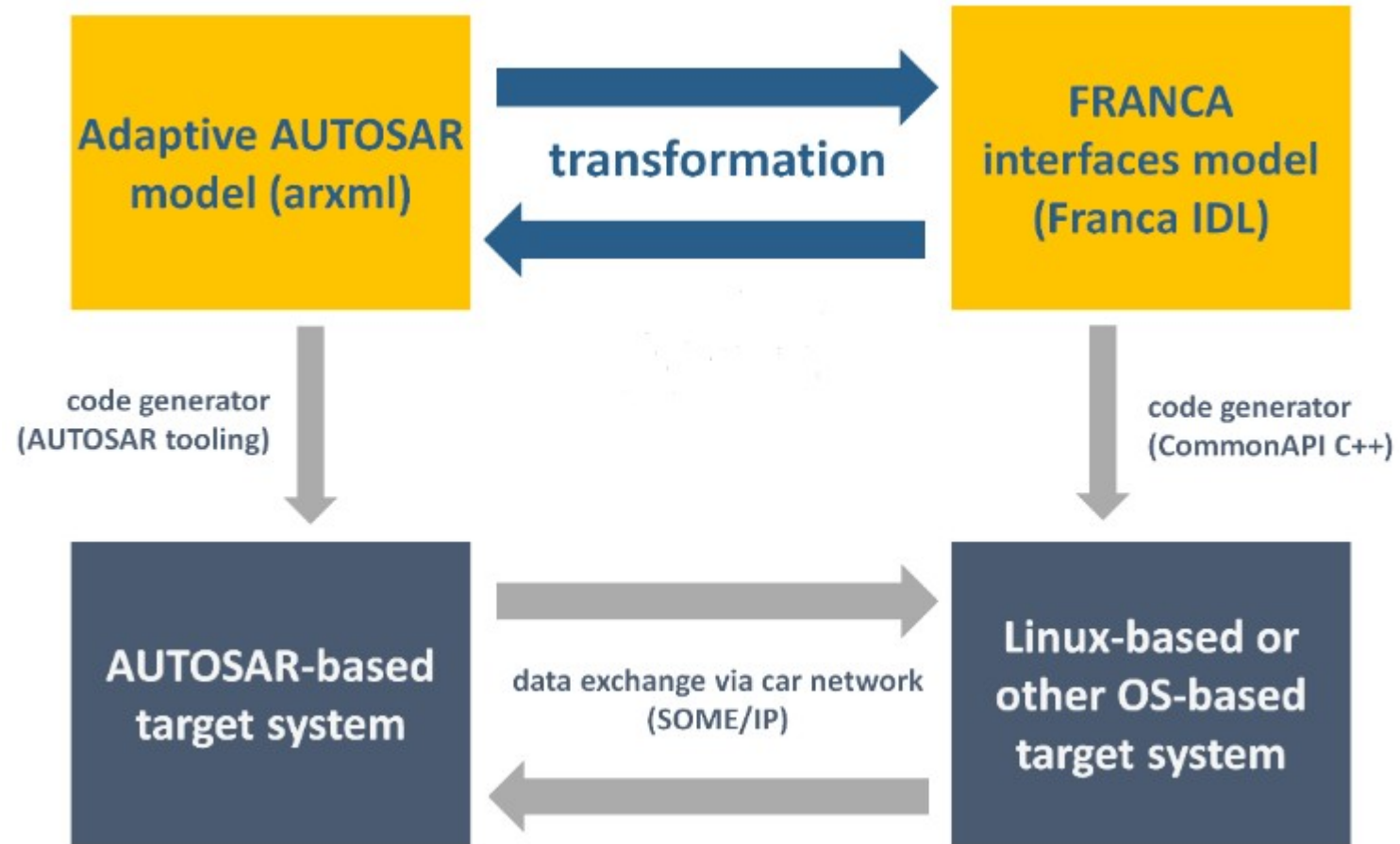
- proven history in automotive
- commercial stack implementations and support available,
- has lots of ready solutions,
- closed ecosystem,
- no easy way to interact with,
- huge documentation



CVII - Mapping to AUTOSAR



CVII - Mapping to AUTOSAR



https://github.com/GENIVI/franca_ara_tools/wiki/Goal-of-FARACON-tool

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FARACON mapping

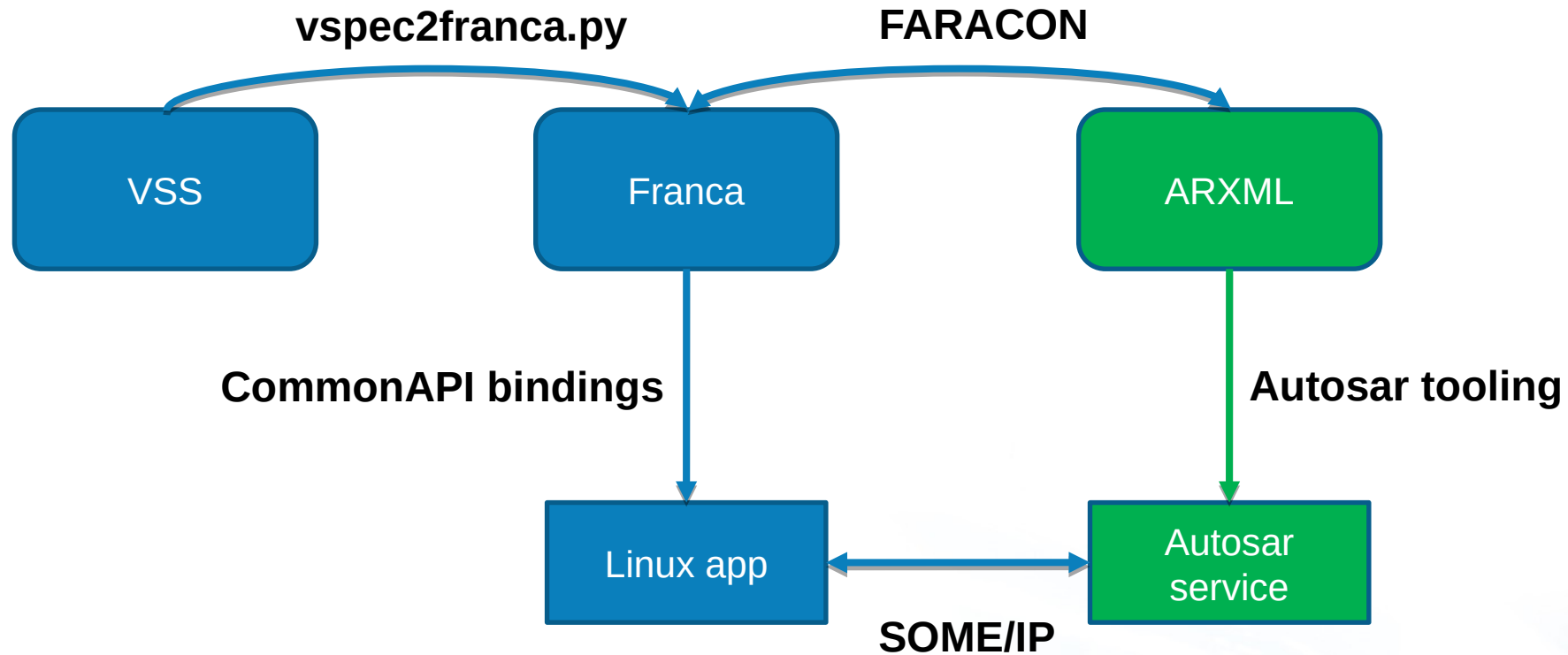
Definition of Mapping Franca/AUTOSAR

This is the specification for the transformation AUTOSAR Adaptive <=> Franca.
We disregard all concepts of AUTOSAR which purely belong to AUTOSAR Classic

Mapping specification completed: 95,5%

Group	Franca concept or one of (IGNORE ERROR EMULATE) (see A10)	Franca metamodel export ID	Franca metamodel classifier	Franca metamodel attribute	AUTOSAR concept or one of (IGNORE ERROR EMULATE) (see A10)	Artop metamodel classifier	Artop metamodel attribute	Detail level (IDL, Serialization, CommonAPI, SOMEIP)
structure	IDL file	IDL1100	Class FModel	n/a	arxml file	AUTOSAR	n/a	IDL
structure	package string (FQN format)	IDL1110	Class FModel	EString name	nested packages	ARPackage	shortName	IDL
structure	ERROR	IDL1120	n/a	n/a	namespace	PortInterface	SymbolProps PortInterface.namespaces	IDL
structure	list of imports	IDL1125	Class FModel	List<Import> imports	IGNORE	n/a	n/a	IDL

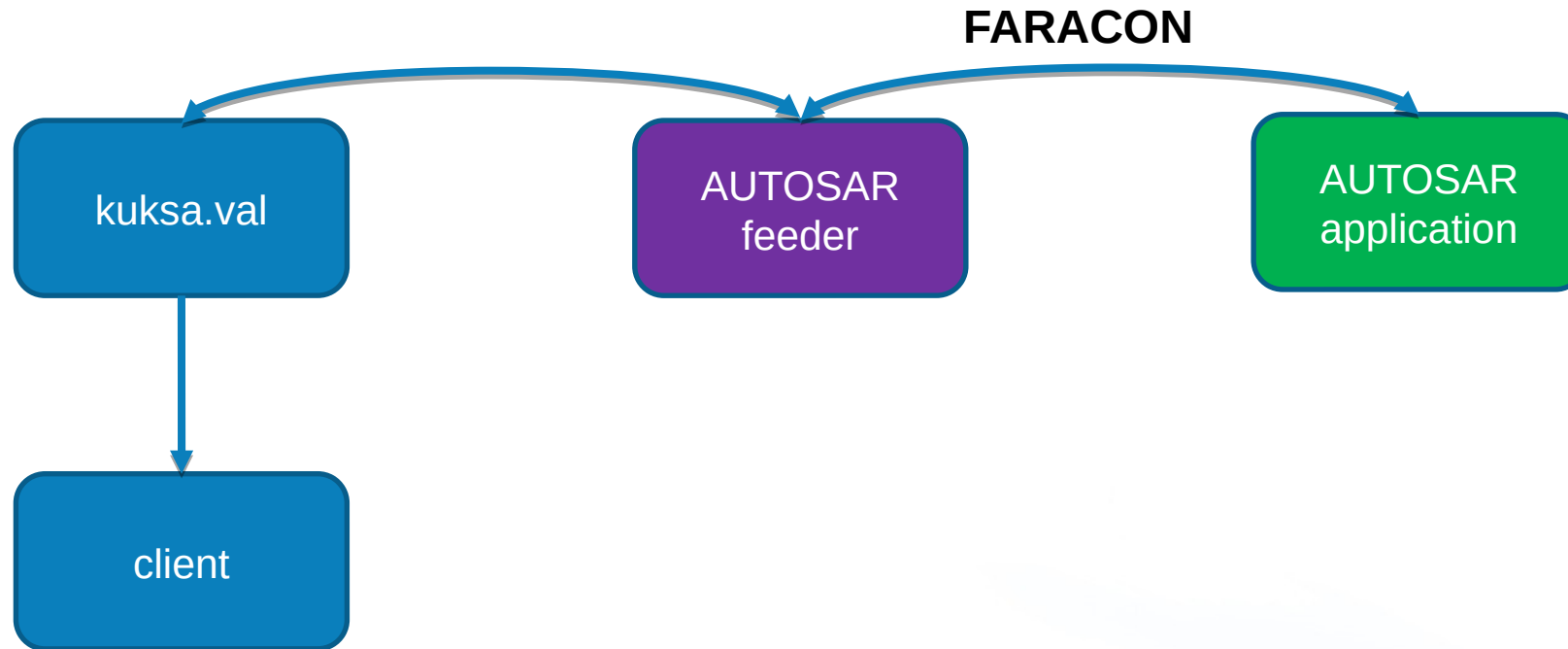
<https://docs.google.com/spreadsheets/d/1O7gMTK1oaDHi43G2B6-Es5H4okzcvmeRyW7sUPnAaQ/edit?usp=sharing>



<https://github.com/GENIVI/vss-tools/blob/f7d8cfe3e8c24c060cfd55849e4a09adbc5a22b2/vspec2franca.py>

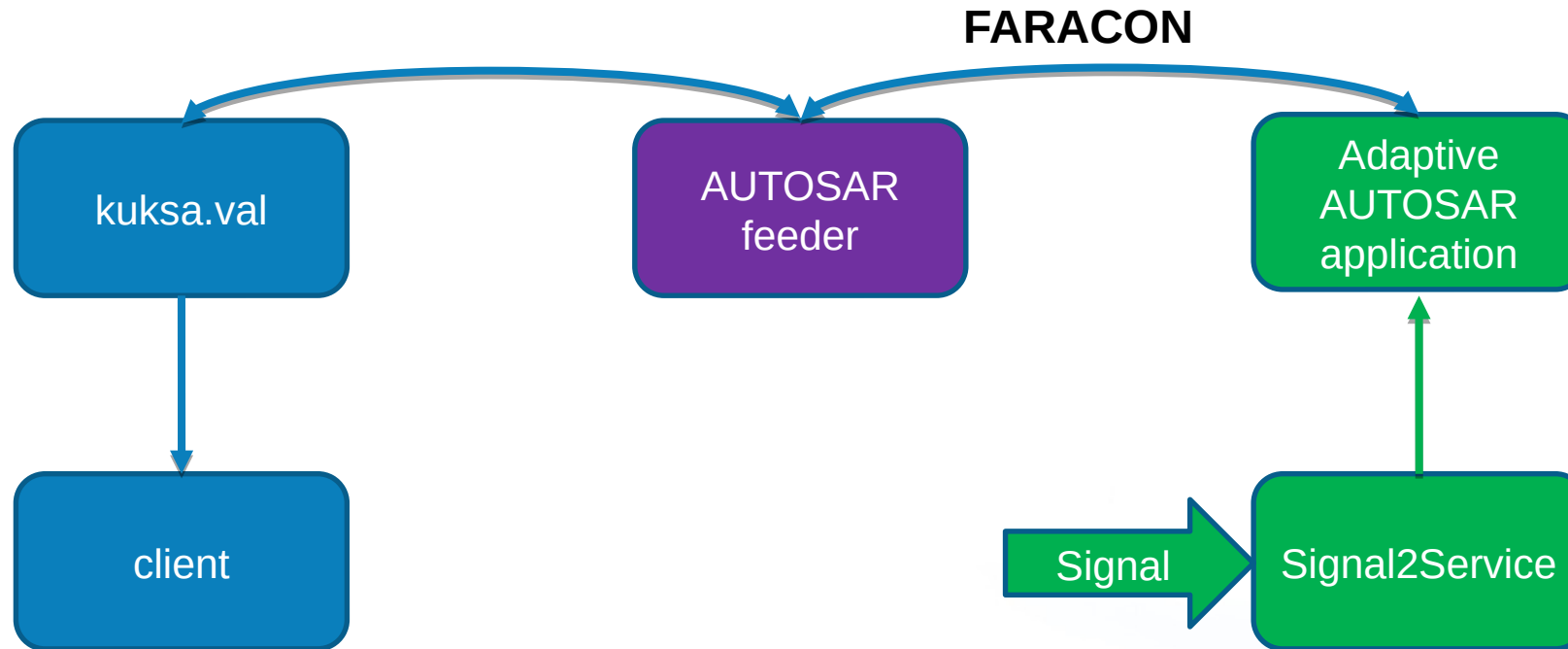
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PoC:



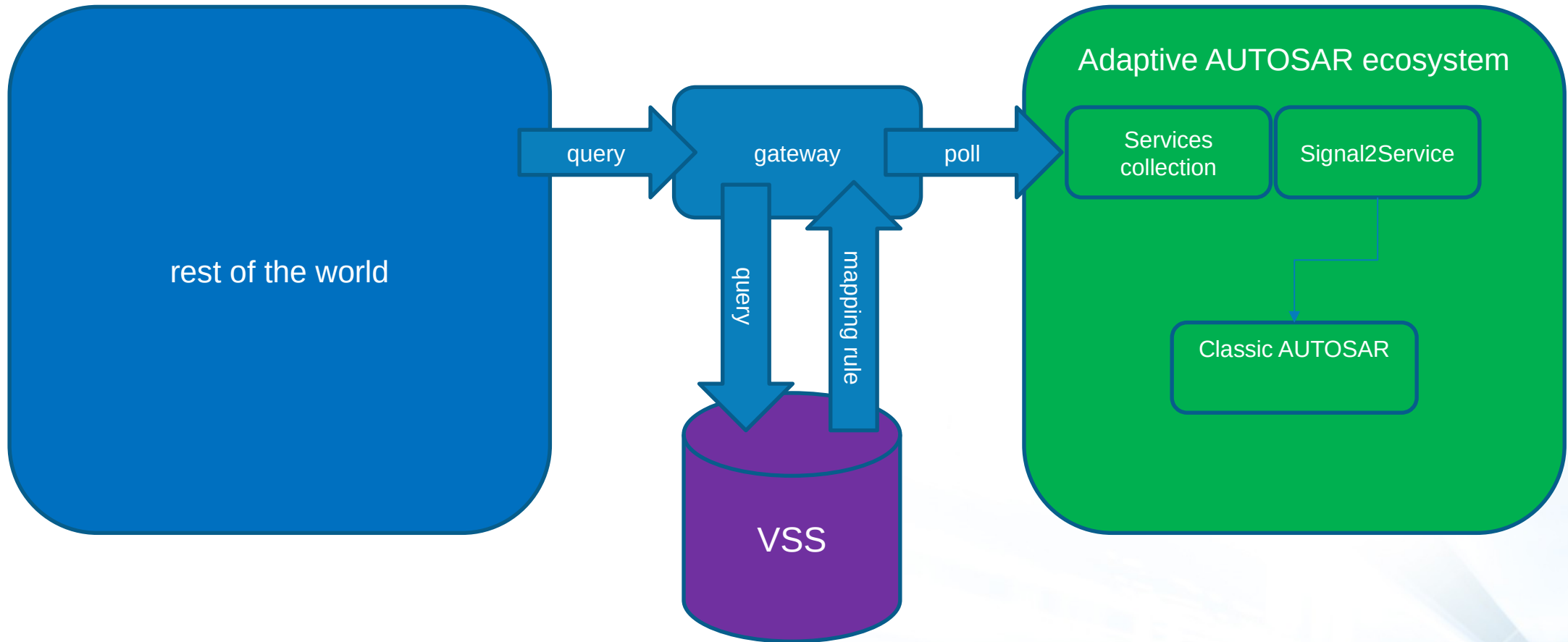
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Classic AUTOSAR



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Gateway



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Challenges:

- AUTOSAR doesn't specify data model
 - arxml defines data types and methods
 - role of services are defined by platform specification
- mapping needs to be adopted from platform to platform
 - each platform deployment requires new mappings of services to VSS

Thank you!

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