

Data Orchestration using Xdefinitions

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What is Data Orchestration?

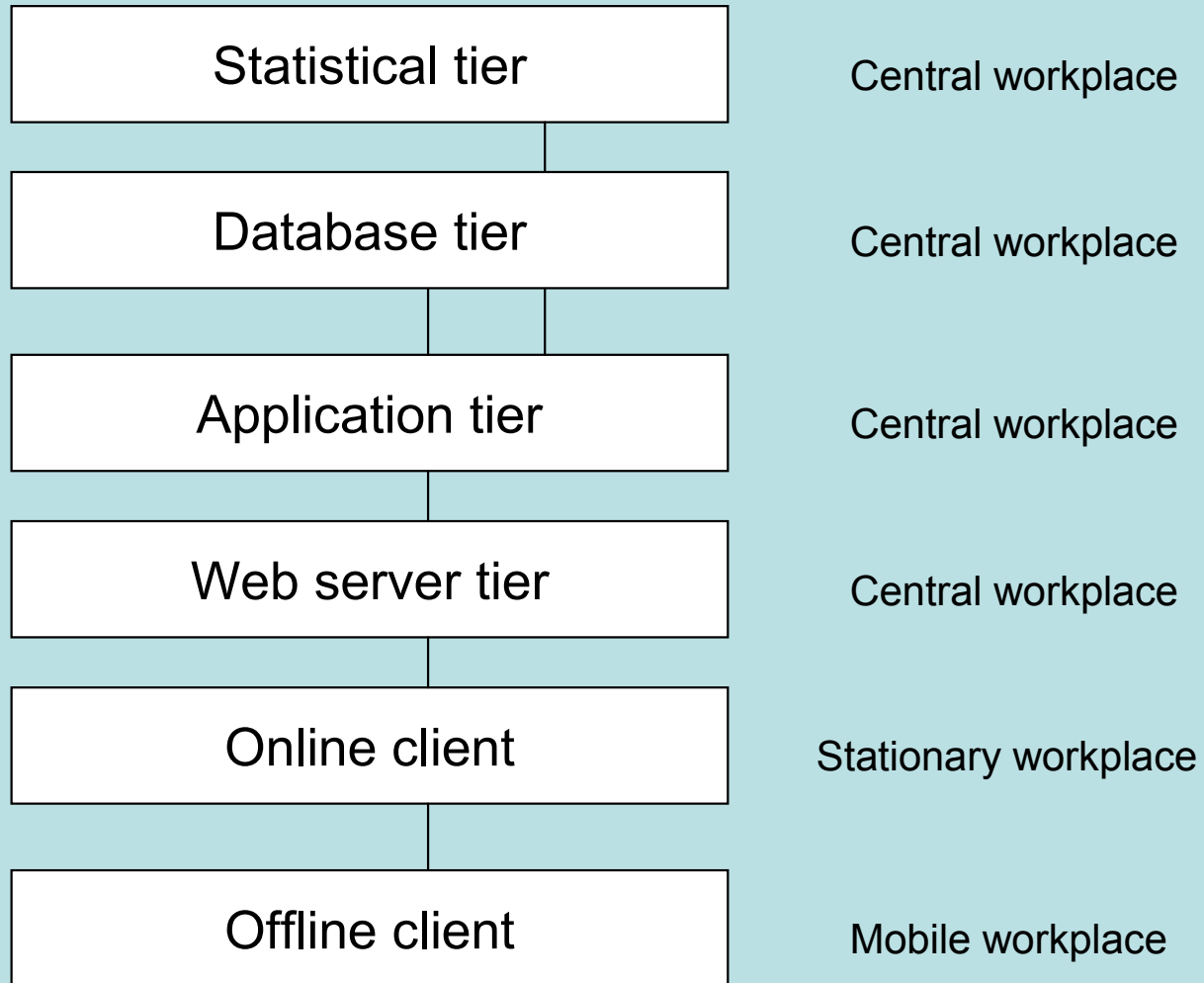
What is goal of Data Orchestration:

- to hold the analytical, processing and documentary consistency of data object descriptions.
- to control the state of IS through the data objects description
 - the machine is processing the xdefinitions.
- to share the understanding of data descriptions
 - **between client and supplier**
 - **between analyst and programmer**
 - **between programmer and machine**

The objective of this paper is to present this approach on building fictitious IS - **Traffic Accidents Register** .

Traffic Accident Register

Information system



What is Data Control Point?

Data Control Point with regard to the data model means a specific place in the IS, in which we can manage or control processing thorough the data descriptions (represented by Xdefinition).

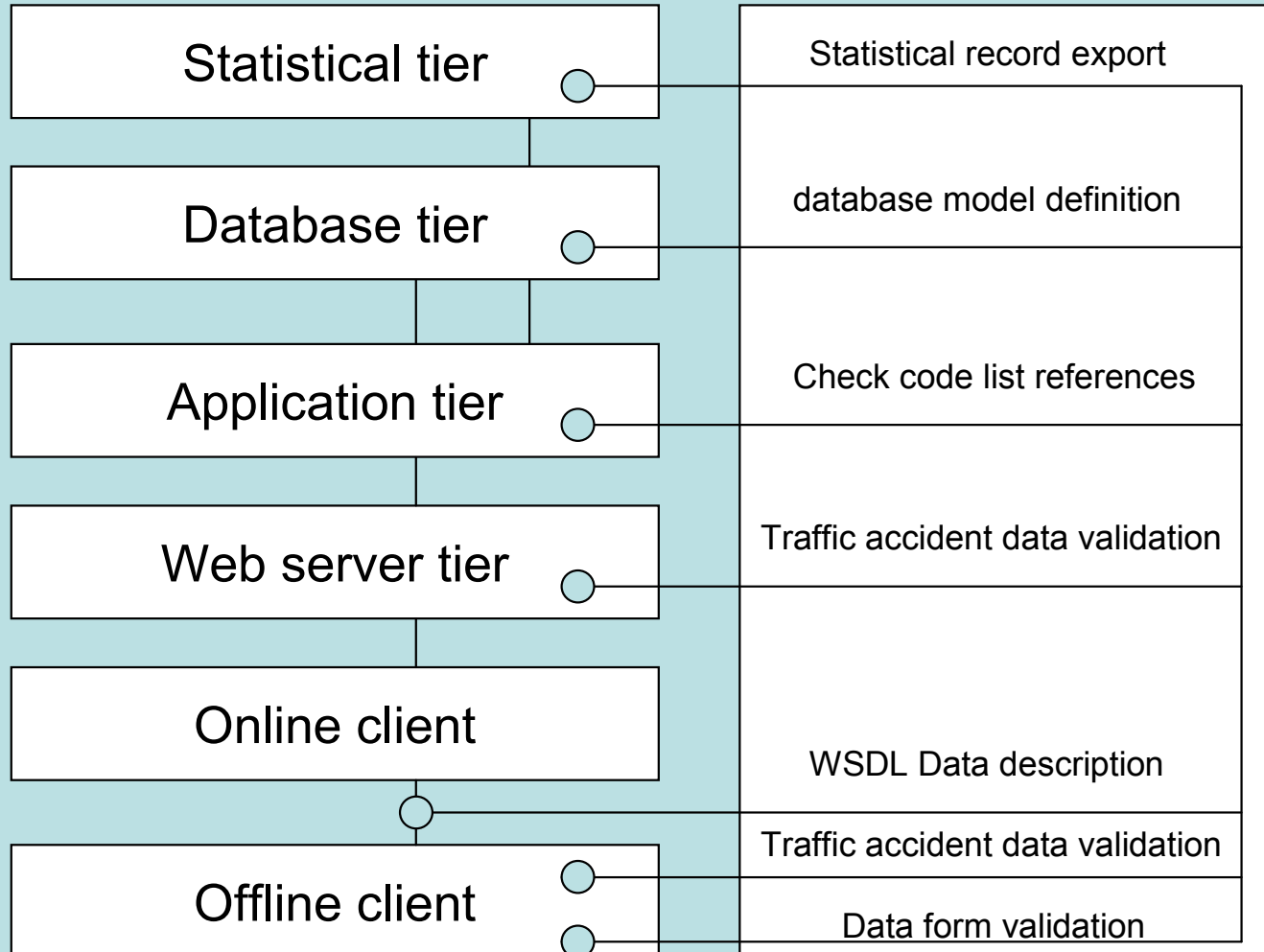
This activity includes:

- validation (without weaknesses described by Michael Kay)
- code list checking (Ken Holman presentation)
- interface description
- data creation (export)
- data input control etc.

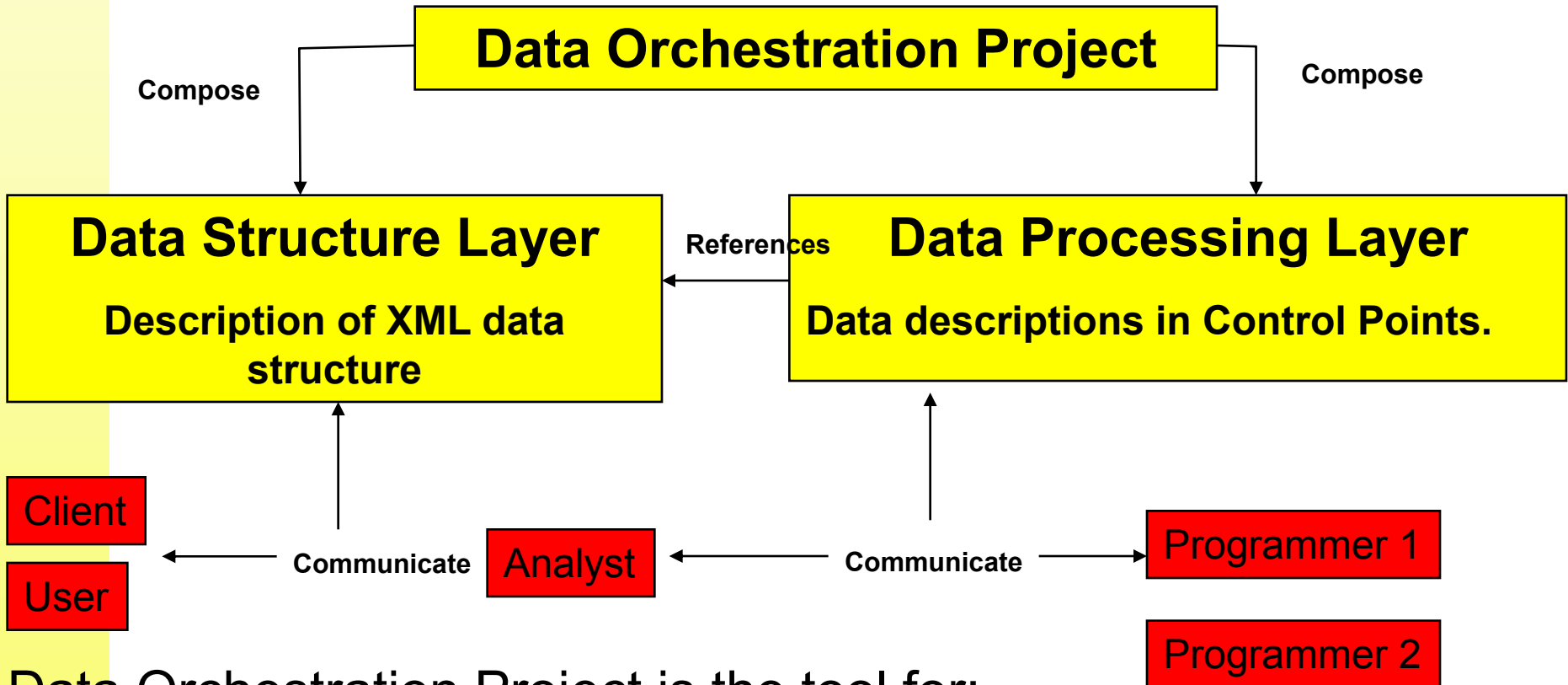
Traffic Accident Register

Information System

Data Orchestration Project



What is Data Orchestration Project?



Data Orchestration Project is the tool for:

- * communication between different roles
- * managing IS Control Points

Abstract model

Data Structure Layer describe syntax of XML document.

```
<xd:doc> Individual represents physical person taking part on
traffic accident </xd:doc>
<Individual
  RefVehicleSeqNumber = "optional int() "
  CodeSex              = "required string()"
  Alcohol              = "required boolean()">
  <Name xd:script = "required">string(1,24)</Name>
  <Surname xd:script = "required">string(1,24)
  </Surname>
</Individual>
```

More details on the poster

Description in Control Point

In this control point are code checked against code lists (DB).

```
<xd:def
  xd:controlpoint = "ApplicationTier/CheckCodeListReferences"
  xd:process      = "Validation">

<TrafficAccident
  xd:extends = "TrafficAccident"
  CodeDistrict = "required CheckCodeList(@CodeDistrict,
'CC_Districts')/>
<Individual
  xd:extends="Individual"
  CodeSex = "required CheckCodeList(@CodeSex, 'CC_ListSex')"/>
<DriverLicence
  xd:extends="DriverLicence"
  Code="required CheckCodeList(@Code, 'CC_DriverLicence')"/>
</xd:def>
```