Visual Paradigm

Representing end-to-end enterprise architecture with ArchiMate

Written Date : August 16, 2010

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This is a tutorial for the introduction in to ArchiMate.

ArchiMate is a modeling technique for describing and visualizing enterprise architectures within and across business domains. Agilian enables you to model enterprise architectures with ArchiMate notations through ArchiMate diagram.

Agilian is a predecessor of Visual Paradigm. Some of the details of the Tutorials do not directly correspond to Visual Paradigm. Nevertheless, it shows a first introduction into ArchiMate modeling.

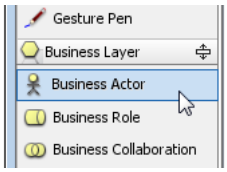
An ArchiMate model for ArchiSurance

The sample enterprise for this tutorial is ArchiSurance, a fictuous insurance company.

Defining business layer

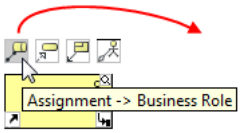
The business layer offers products and services to external customers. It is usually drawn at the top part of diagram.

1. Let's start drawing the diagram from the business layer. Create a business actor first. Select **Business Actor** from the diagram toolbar.

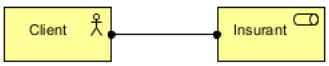


2. Click on the diagram to create an actor. Name it as *Client* and press **Enter** to confirm editing.

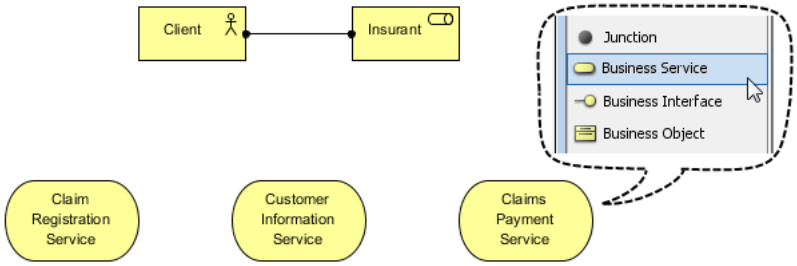
3. Create a business role from actor. Move the mouse over the *Client* actor, press its resource icon **Assignment -> Business Role** and drag it out. Conversely, you can create a role first, and then create the actor through the resource centric interface.



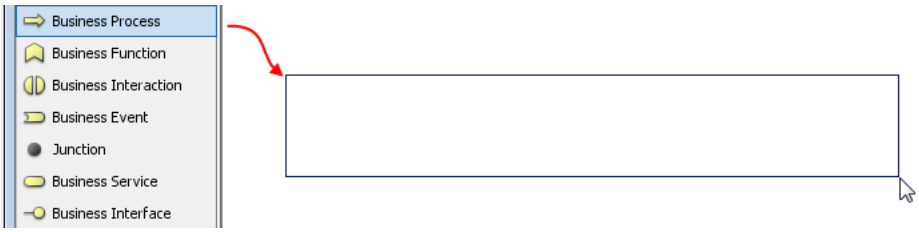
4. Release the mouse button. Name the role as *Insurant* and press **Enter** to confirm.



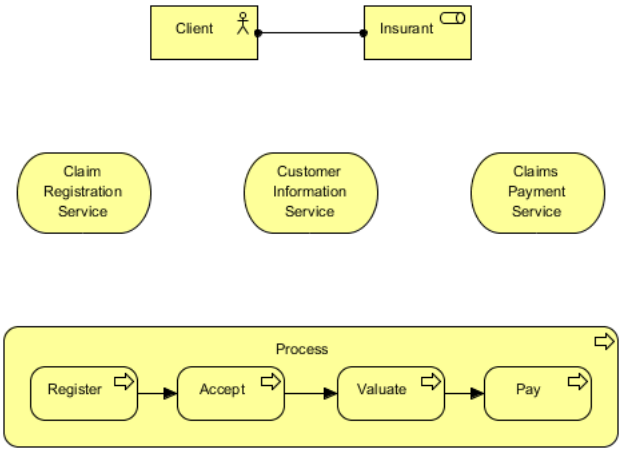
5. Create three business services - *Claim Registration Service*, *Customer Information Service* and *Claims Payment Service*. Similar to how you create business actor, create **Business Service** through the diagram toolbar and name it. Repeat thrice to create the three services.



6. Create business process. Select **Business Process** from the diagram toolbar. Press and drag the mouse to form a rectangle in order to create it in a specific size. Release the mouse button to confirm the creation. Name the process *Process*.



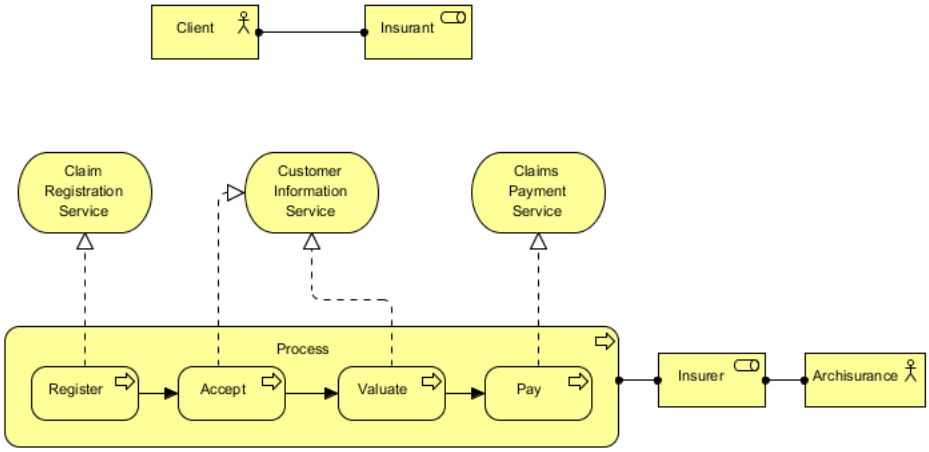
7. A business process can contain other processes. Create four presses inside the process: *Register*, *Accept*, *Valuate* and *Pay* respectively with pressing the resource icon **Triggering -> Business Process** to connect them one by one. Up till now, the diagram should look like this:



8. Create a role *Insurer* through the resource icon **Assignment -> Business Role** of *Process* process.

9. Press the resource icon **Assignment -> Business Actor** of *Insurer* role to create an actor *Archisurance*. This completes the business layer.

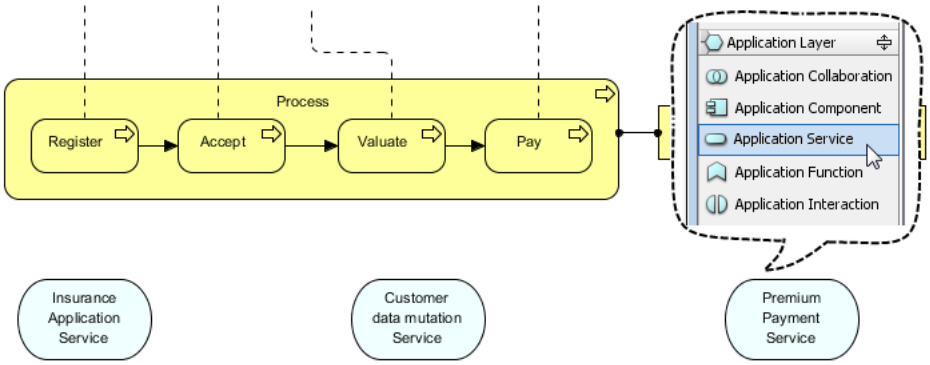
10. Connect the *Register* process and *Claim Registration Service* service with *Register* process's resource icon **Realization -> Business Process**. Similarly, connect *Accept* and *Valuate* with *Customer Information Service*, *Pay* with *Claims Payment Service*. The business layer is done. Below is the completed diagram:



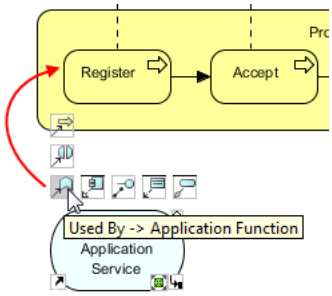
Defining application layer

The application layer supports business layer. It's usually drawn under the business layer.

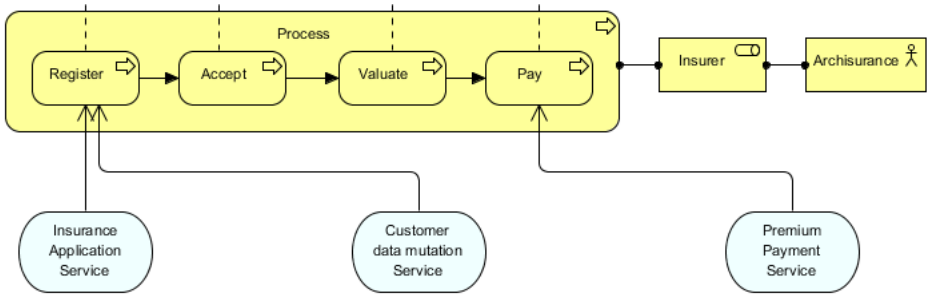
1. Select **Application Service** from the diagram toolbar and click on the diagram to create 3 services: *Insurance Application Service*, *Customer data mutation Service* and *Premium Payment Service respectively*.



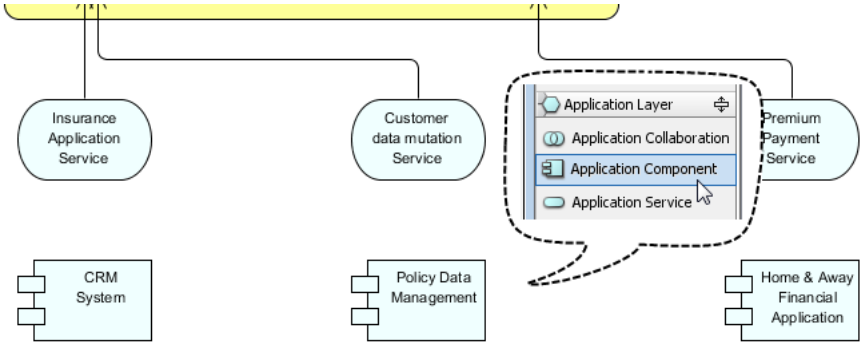
2. Application layer supports business layer. The service *Insurance Application Service* is used by the *Register* process in business layer. Therefore, press on the resource icon **Used By -> Application Function** and drag to the *Register* process to connect with it.



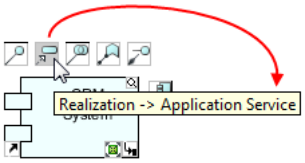
3. Continue to connect *Customer data mutation* with *Register*, *Premium Payment Service* with *Pay*.



4. Create three application components *CRM System*, *Policy Data Management* and *Home & Away Financial Application* respectively.

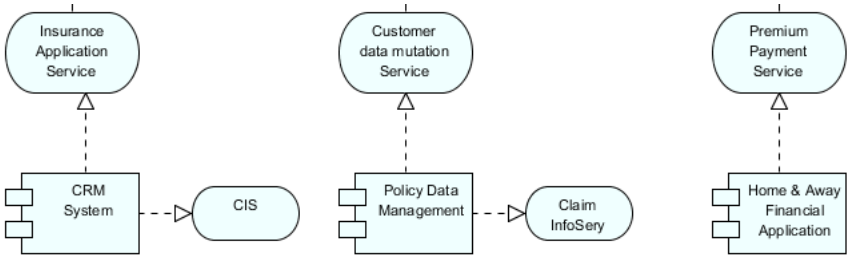


5. Create an application service *CIS* from *CRM System* by pressing and dragging out the resource icon **Realization -> Application Service**.



6. Similarly, create application service *Claim InfoSery* from *Policy Data Management*.

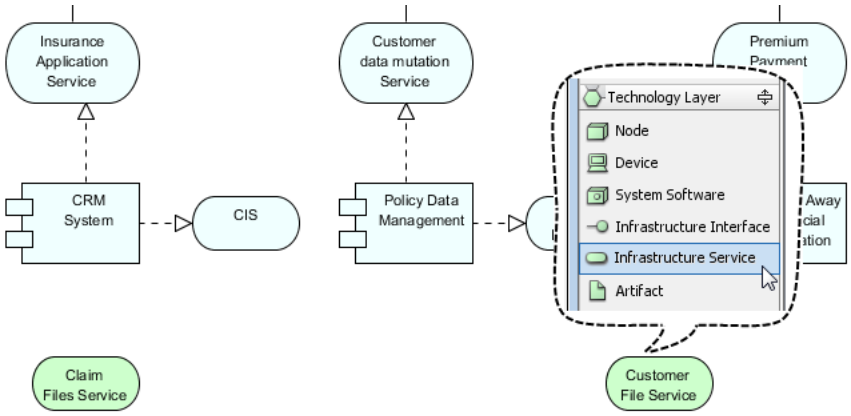
7. Connect the components with services by realization, as shown in the image below:



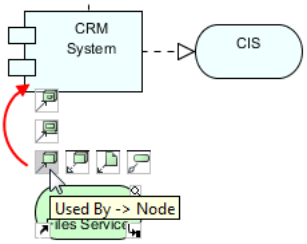
Defining technology layer

The technology layer offers in infrastructural services for application layer. It is often placed at the bottom of diagram.

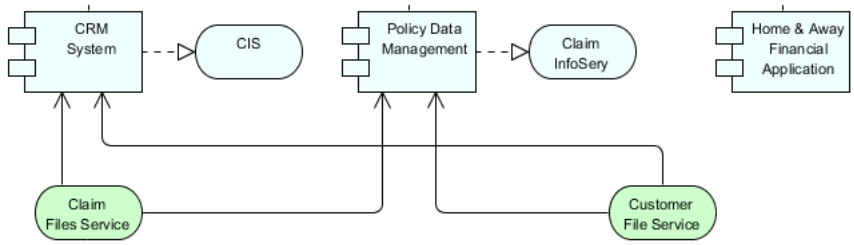
1. Create two infrastructure services: *Claim Files Service* and *Customer File Service* through the diagram toolbar.



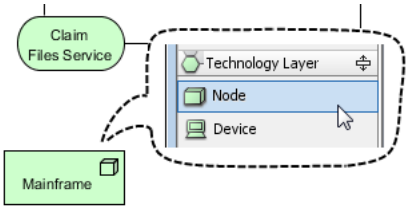
2. Connect technology layer with application layer by pressing *Claim Files Service's* resource icon **Used By -> Node** and dragging it out to *CRC System*.



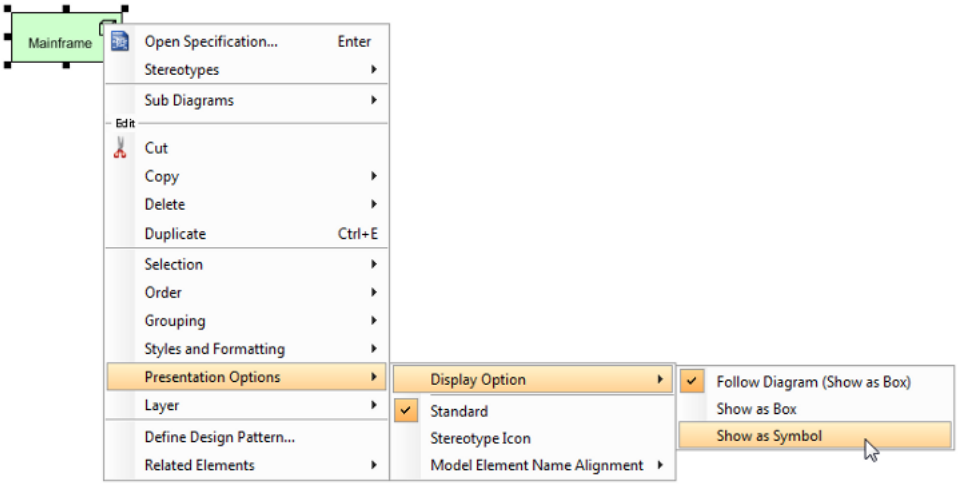
3. On the other hand, connect *Claim Files Services* to *Policy Data Management*. Connect *Customer File Service* with CRC System and *Policy Data Management*.



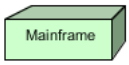
4. Create a node *Mainframe* through diagram toolbar.



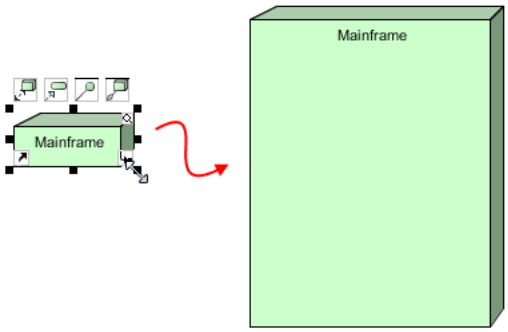
5. If you want to present the node as a cube-like shape, right click on the node and select **Presentation Options** > **Display Option** > **Show a Symbol** from the pop-up menu.



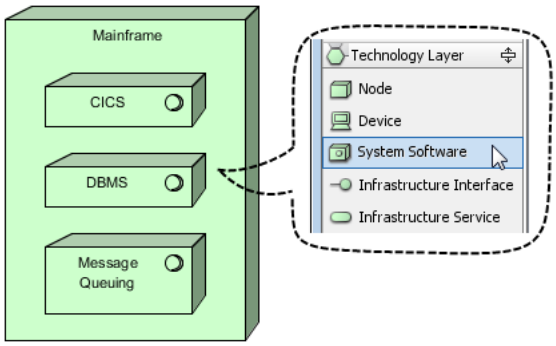
The node becomes:



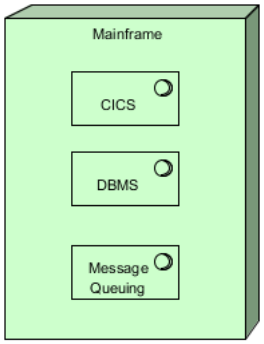
6. Resize it to bigger for your convenience by dragging it its border.



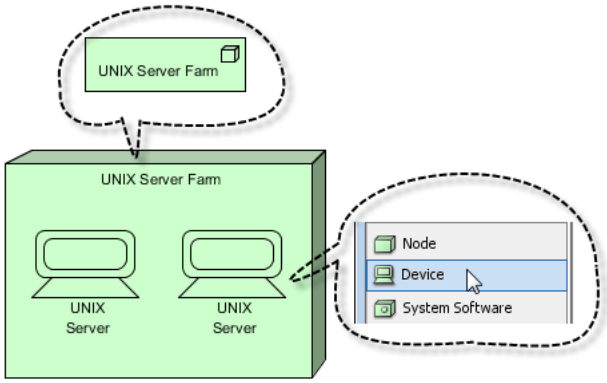
7. Create three system software inside Mainframe: *CICS*, *DBMS*, and *Message Queuing* through diagram toolbar.



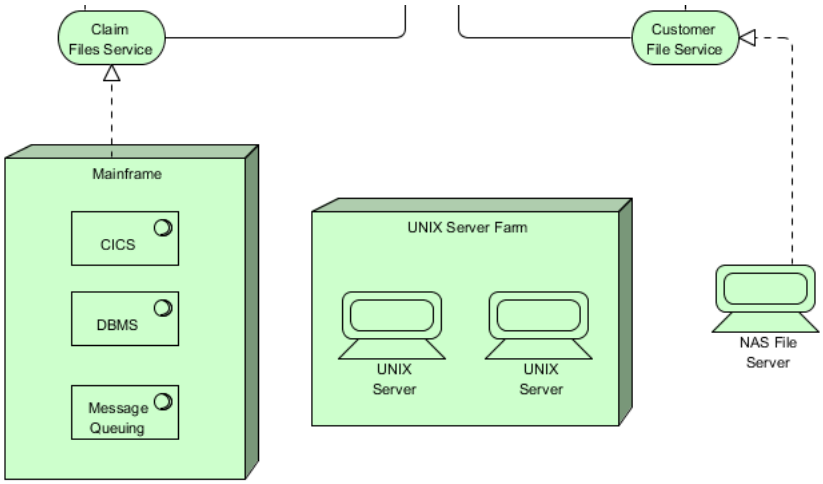
8. Change the three software shapes to present as box instead of symbol. Right click on them and select **Presentation Options** > **Display Option** > **Show as Box** from the pop-up menu.



9. Create a node named *UNIX Server Farm* through diagram toolbar. Resize it, so as to insert two identical devices: *UNIX Server* through diagram toolbar. Change these two devices to present as symbol by right clicking on them and selecting **Presentation Options** > **Display Option** > **Show as Symbol** from the pop-up menu.



10. Create a device through *Customer File Service's* resource icon **Realized by -> Device** and change it to present as symbol by right clicking on them and selecting **Presentation Options** > **Display Option** > **Show as Symbol** from the pop-up menu. Name it as *NAS File Server*. The final diagram becomes the following the image:

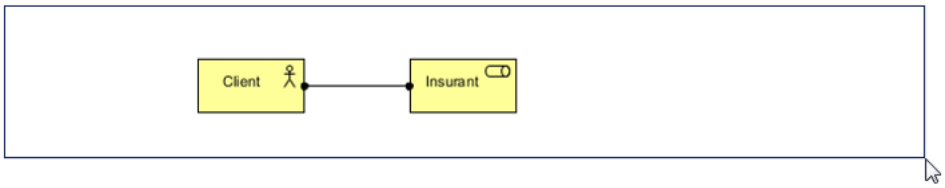


Creating groups

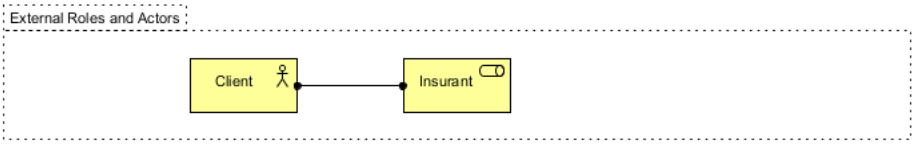
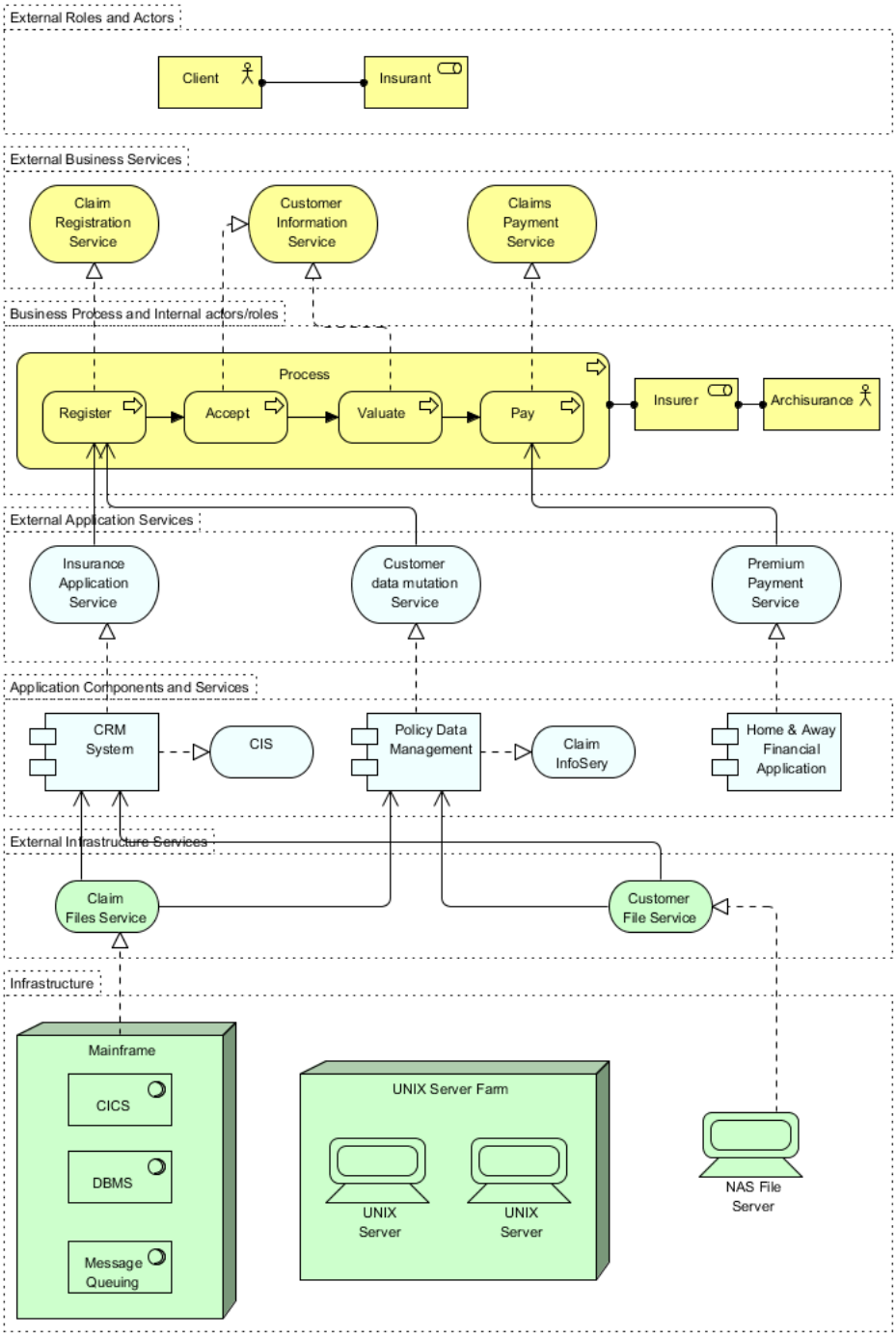
Group enables you to further add logical divisions to elements in layers.

1. Select **Grouping** from diagram toolbar. Note that it is placed under **Relationships**.

2. Scroll back to the top of the diagram where the business layer was modeled. Press and drag a group to contain client actor in insurant role. Name it as *External Roles and Actors*.



A group is created.



3. Repeat the previous steps to create other groups. After all, draw a diagram like this one: