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## Auto Scaling with Lagrange System's CloudMaestro in the CloudSigma Cloud

Our customer is a leading, internationally active enterprise with planning, construction, consulting, IT, and communications business units. CloudSigma works with their IT consulting department in the headquarters of the enterprise in Switzerland.

The inter-cantonal coordination in geo-information (IKGEO) has established the aggregation infrastructure for harmonized spatial data publication of the cantons of Switzerland. Our customer is responsible for the two-year pilot operation of this application at a cloud provider with Swiss data centers. The pilot operation for this application includes infrastructure provisioning, the installation of the application along with automatic scaling and all necessary maintenance and support work. The infrastructure consists of 6 servers, this includes 3 base servers that are running all of the time plus three additional servers that are scaled out automatically as needed via the API. Server templates have been created to enable the start of new instances of the server automatically when required.

Our customer had the following success criteria for the Cloud Application Delivery Controllers provided by the Lagrange Systems CloudMaestro solution:

- be able to clone, start, stop and destroy servers and attached drives in the CloudSigma cloud
- have "rules engine" to allow for auto-scaling triggers and limits
- have an easy to use console for configuration, management and monitoring

The CloudMaestro solution easily handled all of the primary success criteria - allowing the customer to be up and running with CloudMaestro in a very short period of time. Beyond the basic requirements for success, CloudMaestro was able to handle the less obvious requirements with ease as well, ensuring that the overall solution would be a success as they transition the system to production. For example, each server in this solution is composed of web applications and web services that may be slow to start on a new server. The scaling solution provided by CloudMaestro handles this case without issue, waiting until each new server is ready to process requests before allowing any new server to join the scaling cluster. The rules engine that triggers application scaling is under the customer's complete control. This allows the customer to create separate rules for testing versus production and easily tune the production rule set to achieve the exact responsiveness that they desire. Finally, through the

CloudMaestro API, the customer is able to obtain consolidated log records across all of their application servers in an industry-standard format.