Atlas Multi-Plant Proposal

# Background

It was made known to the CPQ team on in early January that there is a need to enable assemblies in plants besides the “primary plant” for any given CPNP. We need to address this in some way, shape, or form.

# Purpose

The purpose of this document is to make sure the CPQ team is aligned on the issue at hand and a high-level approach for a solution.

# Process Flow

The overall process from a user perspective is the same. Users choose a CPNP, the system picks a primary plant, costs calculate based off this primary plant, and the quote is finalized.

The difference comes in the integration with CMS. Broadly speaking:

* CPQ calculates all relevant routes for all plants for every assembly
* CPQ updates the “Global” and “Item” master as needed
* For each plant, the “Material”, “Routing”, and “Methop” master is updated
  + If a plant does not support an assembly -- as indicated by a NO RESOURCE labor route -- then the integration will skip that plant

At this point, the differences between new parts, updates, cancels, revisions, etc. is unclear. Though it is possible that for all scenarios the same update that spans all plants is required.

## Newly-Enabled Routes

It is possible that an assembly that was not buildable at one plant could be made buildable after a new route is added for that plant. Because the configurator is needed to calculate labor routes, the assemblies would need to be imported and run through the configurator again.

## Other Use Cases

If there are other use cases they need to be addressed. The CPQ team will hold a requirements-gathering meeting to go through them.

# Assumptions

* Any one quote will only have a single primary plant
  + This primary plant drives the costs for all constituent assemblies
  + Different assemblies on the same quote cannot have different primary plants
* This does not represent a huge task for SuneraTech to update their integration
  + I am unsure of the validity of this assumption and will confirm with the ST team

# Caveats

* There may be some limitation in CMS where parts cannot be set up in multiple plants at once
* The Gates team needs to make sure they understand all common (and uncommon) use cases and that there is a way to handle them -- systematic, manual, or otherwise