Emergency Stop - Spiral 2, take 2

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Emergency Stop for GENI

- GMOC tasked with drafting Emergency Stop system in Spiral 2
- Full draft document available on GENI wiki, on GMOC page
- Emergency Stop Drill (early version) planned shortly with ProtoGENI

Goals

- Basic, easily understood model for GENI stakeholders, which can evolve with needs
- Single PoC for stop requests
    - From campus operators, peered networks, researchers
- Coordinate communication for Stop with appropriate aggregates

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Stop Cases for Spiral 2

- For multi-aggregate, multi-cluster slices -
  - **Unexpected Resource Exhaustion:** resources in one aggregate are being unexpectedly affected by another aggregate
  - **Non-GENI Network Effects:** GENI slices are unexpectedly negatively impacting a campus or other non-GENI network
  - **Legal requests:** Cease & Desist, subpoena, AUP violations
- Assuming no authorization method for requests yet
- If stop request is made to an aggregate, that aggregate should redirect the request, unless it is an intra-aggregate issue, and not relevant to GENI as a whole.

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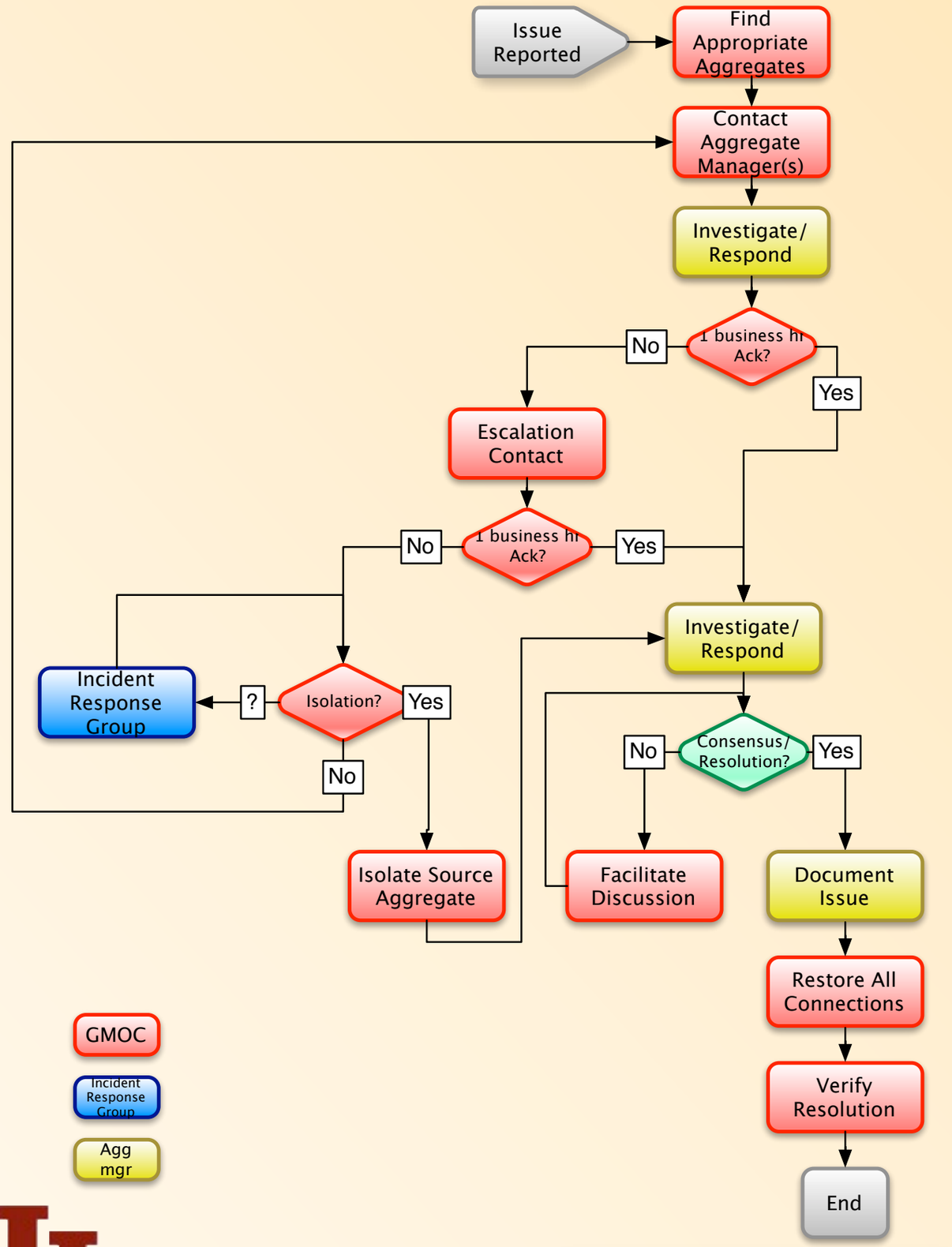
Proposed Emergency Stop Process



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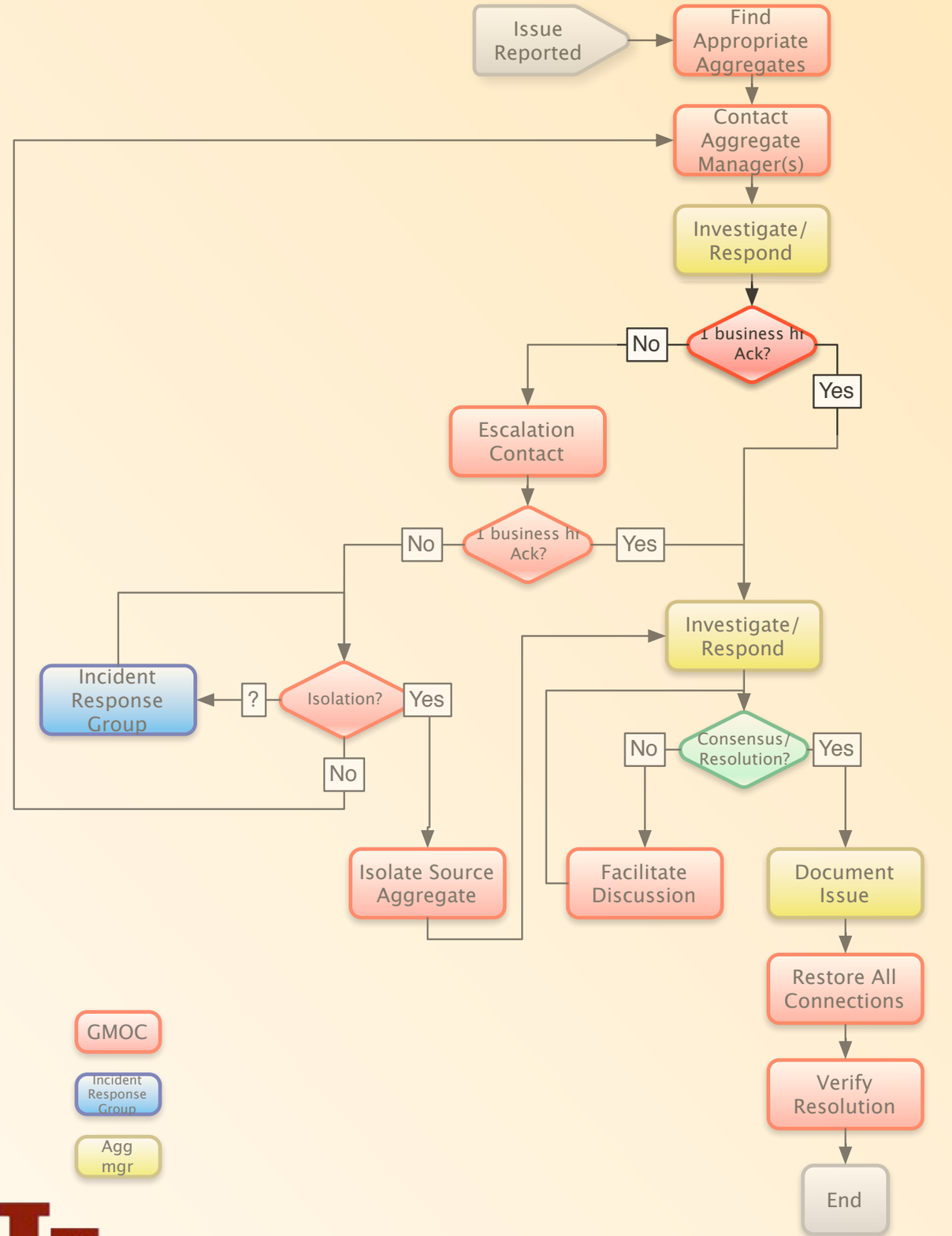
Proposed Emergency Stop Process

Response Expectations for acknowledgement (not for fix) -

What's a good number?



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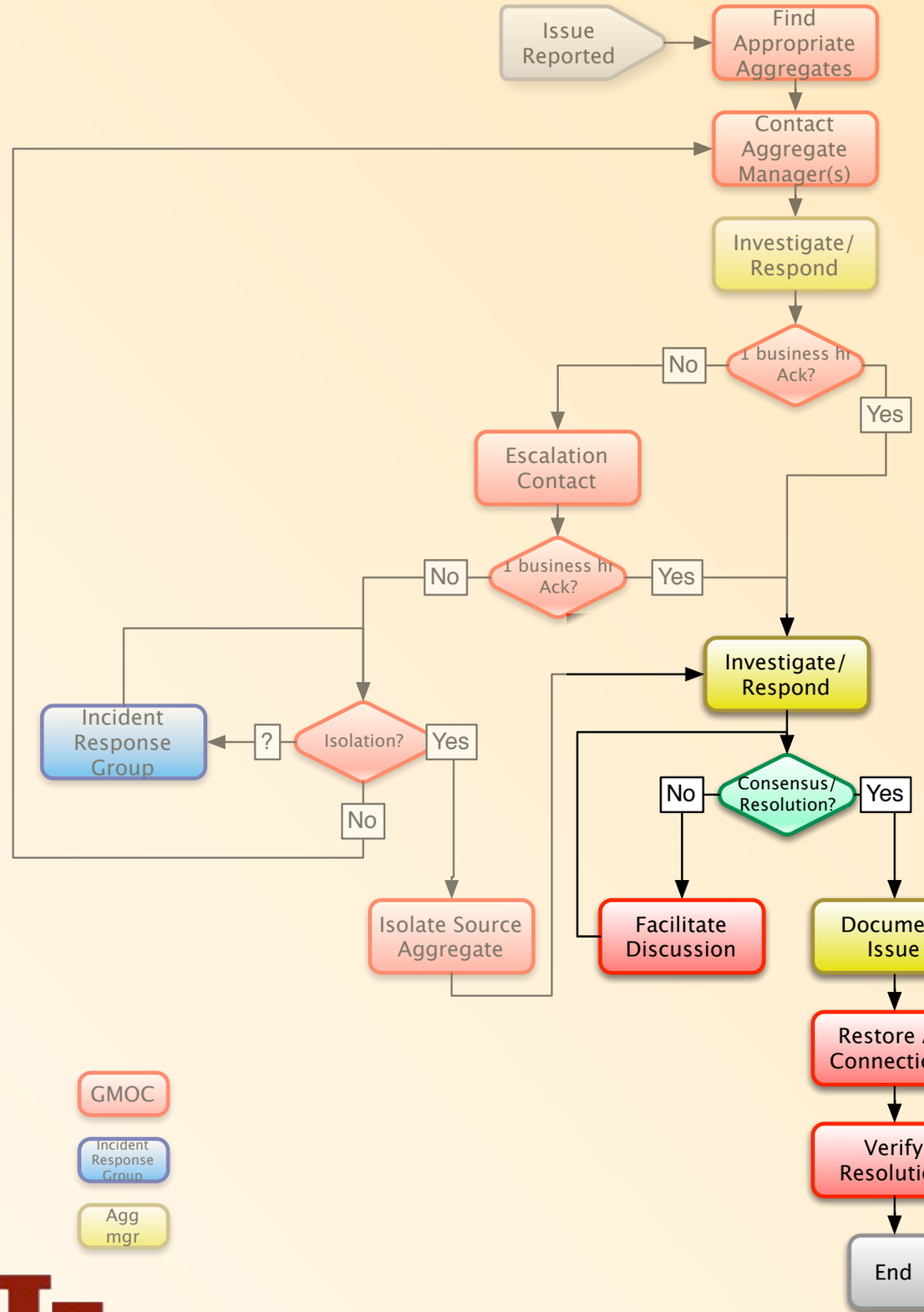
Proposed Emergency Stop Process

Resolution side (yay!):

1. Do all parties involved agree problem is resolved?

2. Document, report & confirm resolution to user

3. Beer



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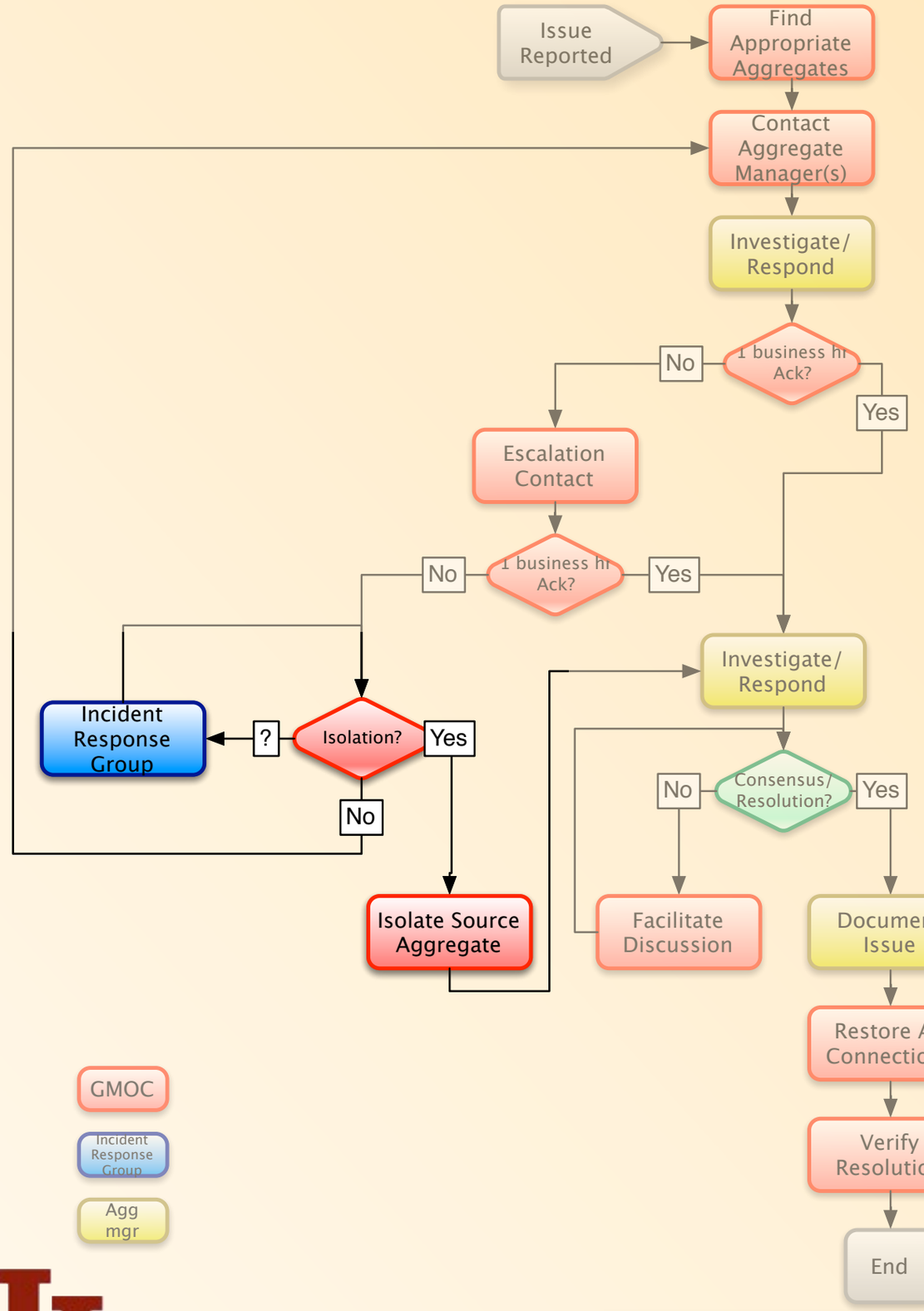
Proposed Emergency Stop Process

If no responses after escalation:

Should the aggregate be quarantined in some way?

sometimes decision will be difficult, so who should decide?



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The Incident Response Group - a strawman

- group responsible for stop-related immediate decisions (called to conf call)
- group may also provide policy guidelines ahead of time
- Not too big or too small
- possible participants:
  - GPO
  - Security
  - 1 delegate from each cluster
  - GMOC

Expectations for Aggregate Operators

- **Right now:** provide emergency contact phone & email to GMOC
- **Ongoing:** timely response to emergency stop requests from GMOC
  - investigation/confirmation of the issue
  - intervention/shutdown of the source of the issue
  - reporting results back to GMOC for tracking/service/reporting

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Other things to consider

- Authentication/Authorization of communications
- How might the communication be made more efficient?
  - Automate communication? Federate management plane access?