

GÉANT WFO Update

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Helsinki

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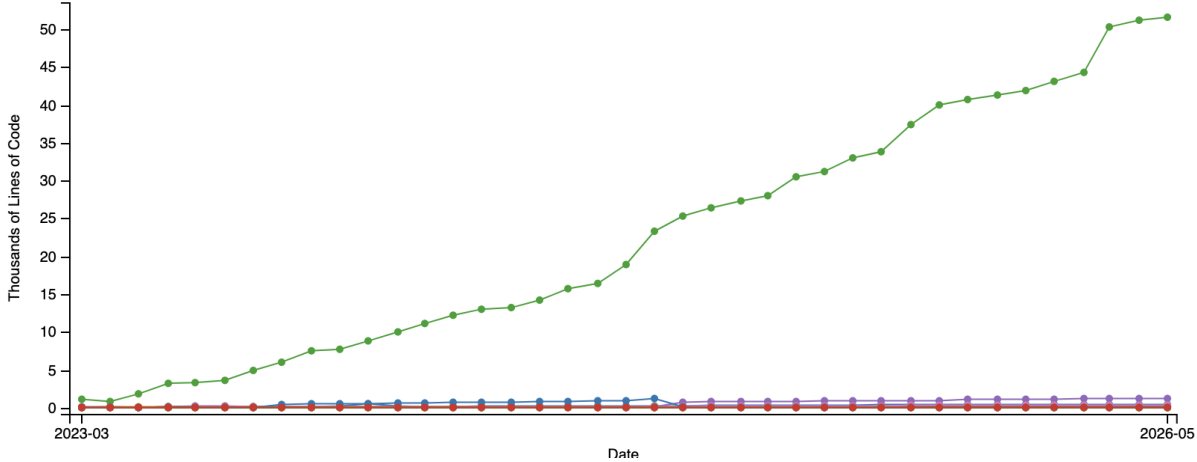
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GÉANT



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Plenty of Coding in the Background



Changelog

- Replace 'hold_time_seconds' with 'hold_time_up', '_down' and '_units'.
- Fix an issue where Solr sync would run at an incorrect interval.
- Add support for configurations to IX Port subscriptions.
- Completely re-done email templates that now also render as HTML.
- Replaced the type-checker 'mypy' with 'ty' for improved performance.
- Upgraded deprecated dependencies.
- Adjust the scheduled Solr synchronization task to run once every 12 hours.
- Add LDP to TLVs attribute to Edge Ports.
- Allow multiple Edge Port members to have LACP disabled.
- Add optional 'hold_time_seconds' to IP Trunk and Edge Port.
- Add optional 'override_standard_rtu' and 'ldp_port_id_subtype' to Edge Port.
- Fix an issue where dropdown without any options could still advance the input form.
- Fix an issue where the DDoS mitigation input form would display the Partner IDs instead of their name.
- Added bulk L3 Core Service redeploy support for operators.
- Integrated Moodi start/stop into the L3 Core Service redeploy workflow.
- Added last_remaining_peer signaling to Ansible when removing the final peering connection on a placement port.
- Updated subscription descriptions when a partner name is changed, including reference to subscriptions.
- Re-ordered the device creation flow to support the new modular site and hardware structure.
- Added missing custom service name to the placement port summary page.
- Fixed placement port subscription descriptions and removed an LSO form workaround.
- Simplified L3 service validation into a single Ansible step.
- Updated product lifecycle states for imported products in the GUI.
- Added missing translations and fixed inconsistent translation casing.
- Fixed an edge case where empty prefix limit bulk updates could leave workflows stuck and prevent email notifications.
- [RBV Fix] Remove duplicate subscription validation from L3 Core service modification.
- Fix serializations in L2 route verification workflow.
- Fix L2 verification issue.
- Send annotated subscription instead of subscription to LSO for verification wf.
- Enhance alert subject formatting to include environment context in PeerInDB email notification.
- Replace check_other_active_migrations step with direct conditional call.
- Enabled Nexbox single router migration.
- Nothing new.
- Improved exception handling for Sync Netbox inventory validation WF.
- Added validation WF for L3 Core services.
- Re-ordered DDoS mitigation: streamline peer map building and enhance prefix limit checks.
- Added new Netbox structure to include serial numbers inventory.
- Rewrote input forms to make a proper use of Pydantic forms.
- Added support for single and dual stack deployments of Commercial Peers and L3 Core services.
- Add DDoS mitigation model.
- Added a new feature for updating prefix limit for CP based on PeerInDB.
- Updated Kentik interactions to use only a single license type.
- Added verification on workflows for GEANT RUs and MSE.
- Relax on duplicate subscriptions in L3 Core Service Model call on WFs.
- Don't store interface description if it's an empty string.
- feat(search) enhance linked product functionality in subscriptions.
- feat(layer-2-circuit): add validation to ensure only one side can be primary.
- wfo-4.7.1 support upgrade: update process schema reference.
- add partner_is_primary to Layer2CircuitSideBlock.
- make subscription description searchable in WFTasks.
- allow placement_port to be None in commercial_peer.
- Fix indexer to correctly handle destination values as lists.
- bump version of uvloop 4.34.
- Add import_access_ports workflow to prevent duplicate subscriptions on import.
- Add data type to columns and date check used in Advanced Search page.
- Validation workflow for Layer 2 Circuit subscription.
- Adding new search APIs for subscription and process es.
- Fix commercial peer modification on add pc.
- Update FASIBLE_SERVICES_LAG_RANGE.
- Fix issue where importing empty BGP sessions caused an error in importing CPs.
- Improve visibility of LSO output.
- Signal to LSO when a workflow is a redeploy workflow.
- Make Dual stack optional - manage ipv4 only peers.
- Add authentication support for Solr client configuration.
- Revert to Solr search fallback behavior for subscriptions and processes.
- Fix a bug where scoped peering list was calculated incorrectly.
- Fix a bug where the process subscription was not stored when creating a new R&E peer.
- Replace the default TT number format to seven digits to support the new GEANT ticketing system.
- Small SOIR search fixes.
- Add support for the '/progress' endpoint when running LSO interactions.
- Don't start Moodi when migrating a circuit without Ansible steps.
- Add input validation for TTL security.
- Add BGP session states 'DENY_ALL' and 'IMPORT_ONLY', and pre-fill 'x_passive' based on this value.
- Fix an issue where Layer 2 Circuit type was not pre-filled in an input form.
- Replace 'ip' with 'v4' when building documentation to improve CI pipeline performance.
- Fix an issue with a flaky unit test.
- Some code cleanups and dead code removal.
- Fix sync_broadband_inventory_cache in websockets caused an issue during importing data.
- Resolve a faulty DB migration file.
- Fix a copying bug in the Commercial Peer modification workflow.
- Make the nightly subscription validation on schedule more robust against validation errors.
- Update Dockerfile for uv installation, and modify project.toml build requirement.
- Pin APScheduler dependency and update version to 4.20 in uv.lock.
- Add redeploy workflows.
- Create a port label product that we can use to "mark" edge ports that should land express-route products.
- Upgrade orchestrator-core to version 4.5.3.
- Collapse two identical interface product blocks into a shared one.
- Disallow changing the Placement Port when modifying a Commercial Peer.
- Fix attribute in Kentik client.
- Make stager step configurable for L2 and L3 migration workflows.
- Send process IDs extra_vars to Moodi.
- Scope subscription objects for Layer 3 services and Commercial Peers when deploying with LSO.
- Extend the fasible switch LAG range to include ID1-105.
- Fix a label in the Layer 2 Circuit migration workflow.
- Fix a bug in the copying of a Commercial Peer subscription in its modification workflow.
- Remove validation workflow for Commercial Peer temporary.
- Adjustments to validation pruning emails.
- Add modifi for R&E and refactor subscription handling to use consistent monitor targets key across workflows.
- Fix an issue where a LXC move was not correctly sent to LSO.
- Add validation workflow for Commercial Peer subscription.
- Add commercial peer subscription retrieval and add to network topology response.
- Add validation for subscription workflow eligibility and enhance migration error handling in migrate_edge_port_services.
- Send peer_map to LSO when validating a prefix list.
- Add missing AMT attribute to router validation workflow.
- Enhance workflow to modify R&E to IAS interconnect setting with dry run and real execution steps.
- Add Prefix list product and workflows.
- Add modification workflow for R&E to IAS interconnection of routers.
- Fix a bug in the Kentik API interaction.
- Fix some bugs in the validation pruning task.
- Add a workflow for updating the prefix limit of a Commercial Peer.
- Send additional attribute for Router deployment if another AMT router is also present at site.
- Small bugfixes and performance tweaks.
- Increase sleep time during data import processes to improve stability.
- Add UPS TREAM Edge Port type.
- Add Solr search to the GSO.
- Add ability to import only peering connection to commercial peers.
- Add new fields to commercial peer model.
- Expand the cleanup tasks to also prune deprecated runs of validation workflows.
- Fix a bug where Juniper subscriptions were left out of sync after skipped validation.
- Add Commercial Peers WFs.
- Add placement ports WFs.
- Add redeploy_edge_port workflow.
- Add random countdown to workflow processing subtasks.
- Add switch management products and related workflows.
- Fixed import CLI command.
- Fix Moodi integration in multi-subscription scenarios.
- Fix BGP pre-check lookup by using native IPv4/IPv6 address types in Postgres.
- Use uv as the Python build backend - refactor the pipeline to support faster and cleaner builds.
- Introduce Massive Migration workflow to migrate all L2 & L3 services linked to an Edge Port.
- Integrate BGP pre-check values into Moodi during mass migrations.
- Send Layer 2 Circuit details to Moodi - enable enhanced dashboard visualization.
- Allow running the modify_connection_strategy workflow in all lifecycle states of a router.
- Add API endpoint for importing Edge Ports.
- Add 'laci_xmit_interval_slow' to Edge Port model.
- Add support for IXes and related product blocks, excluding LSO interactions.
- Removed unused Switch and related products.
- Upgrade orchestrator-core to version 4.
- Add LSO interaction to L3 Core service modification workflow.
- Upgraded python dependencies.
- Add a pre-check command to the CLI to get BGP status from LSO.
- Add an option to the router termination workflow that skips deleting the loopback address from PAM.
- Add a redeploy workflow to all Layer 3 services.
- Add BGP local preference and MED attributes to R&E Layer 3 services.
- Cleaned up the confirmation page for LSO interactions.
- Enable the 'modify_note' workflow on all existing products.
- More robust error handling in mass base config redeploy.
- Allow for skipping nightly validation by applying a note 'SKIP VALIDATION: --reason--' on a subscription.
- Update subscription descriptions for Layer 2 Circuit products.
- Added parallelized mass base config redeploy.
- Added and integrated R&E Peer and R&E LHONE workflows, product types, and related migrations.

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- Add LDDP to TLVs attribute to Edge Ports.
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- Integrated Moodi start/stop into the L3 Core Service redeploy workflow.
- Added last_remaining_peer signaling to Ansible when removing the final peering connection on a placement.
- Updated subscription descriptions when a partner name is changed, including related subscriptions.
- Refactored the device creation flow to support the new modular site and hardware structure.
- Added missing custom service name to the placement port summary page.
- Fixed placement port subscription descriptions and removed an uninformative workload.
- Simplified L3 service validation into a single Ansible step.
- Updated product lifecycle states for imported products in the GUI.
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- Fix serializations issue in DDoS mitigation workflow.
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- Enhance single router migration.
- Nothing new
- Added validation WF for L3 core services.
- Refactored DDoS-mitigation: streamline peer map building and enhance prefix limit checks.
- Added new Netbox structure to include serial numbers inventory.
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- add partner_is_primary to Layer2CircuitSideBlock
- make subscription description searchable in WFTasks.
- allow placement_port to be None in commercial_peer.
- Fix indexer to correctly handle destination values as lists.
- bump version of uv.lock 434.















[4.40] - 2026-03-16

• Nothing new

- Pin APScheduler dependency and update version to 4.20 in uv.lock.
- Add redeploy workflows.
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Packet Layer Migration

  migrate_edge_port_services	completed	modify
  migrate_layer_2_circuit	completed	modify
  migrate_layer_2_circuit	completed	modify
  migrate_layer_2_circuit	completed	modify
  migrate_edge_port_services	completed	modify
  migrate_layer_2_circuit	completed	modify
  migrate_layer_2_circuit	completed	modify
  modify_edge_port	completed	modify
  migrate_layer_2_circuit	completed	modify
  migrate_layer_2_circuit	completed	modify
  migrate_layer_2_circuit	completed	modify
  migrate_edge_port_services	completed	modify

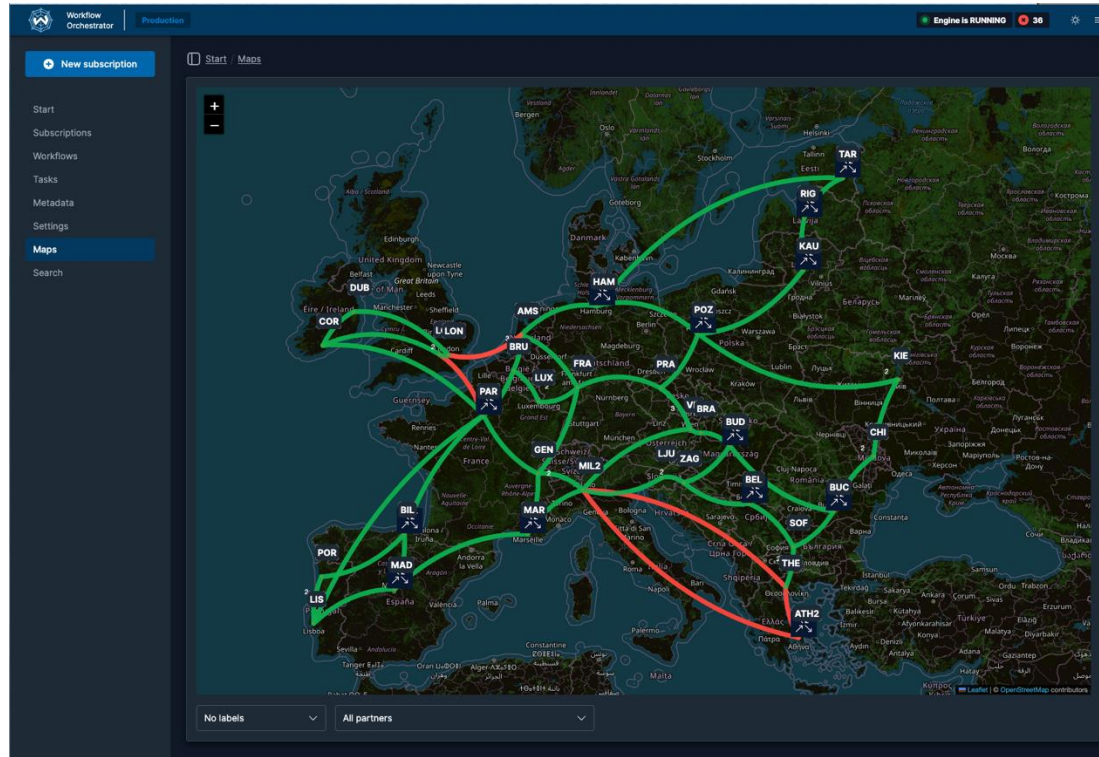
Big Workflows, Big Impact

87 steps 😎



Now Also With Dark Mode!

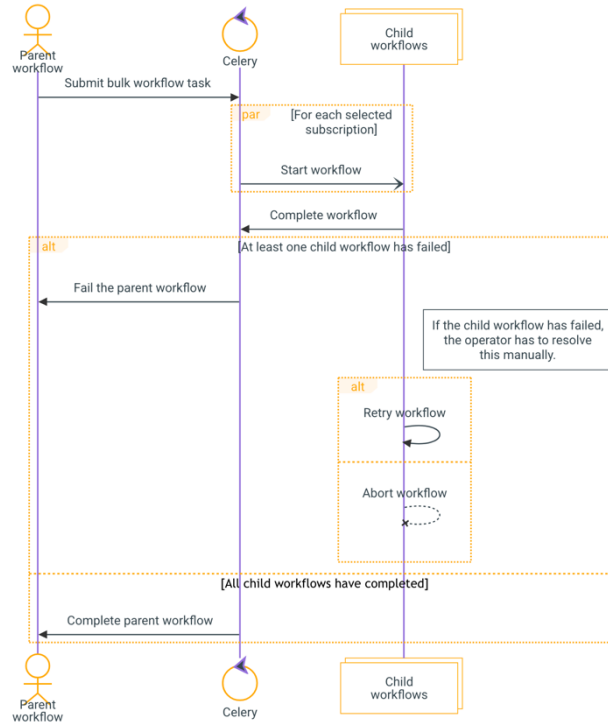
[Source code here](#)



Parallelization

Documented in the WFO docs too:

<https://workfloworchestrator.org/orchestrator-core/reference-docs/parallelization/geant>



Parallel Workflows

Documented in the WFO docs too:

<https://workfloworchestrator.org/orchestrator-core/reference-docs/parallelization/geant>

```
@shared_task(ignore_result=False)
def bulk_wf_task(
    wf_payloads: list[dict],
    callback_route: str,
    success_key: str,
    failure_key: str,
) -> None:
    """Kicks off one Celery task per workflow, then runs the final callback."""
    identifiers = {wf_payload["identifier"] for wf_payload in wf_payloads}

    header = [process_one_wf.s(p) for p in wf_payloads]

    chord(header)(
        finalize_bulk_wf.s(
            callback_route,
            list(identifiers),
            success_key,
            failure_key
        )
    )
```

GÉANT Service Portfolio

[Source code here](#)



Total active subscriptions
1079



Total number of products
44

Total number of product instances

Edge Port	266
GÉANT Plus	157
Commercial Peer	133
Azure ExpressRoute	80
GÉANT IP	74
IAS	69
R&E Peer	58
IP trunk	56

Custom Search Page

[Source code here](#)

The screenshot displays the 'Search' page in the Workflow Orchestrator. The interface includes a top navigation bar with 'Workflow Orchestrator', 'UAT', and 'Engine is RUNNING 61'. A left sidebar contains navigation options: 'New subscription', 'Start', 'Subscriptions', 'Workflows', 'Tasks', 'Metadata', 'Settings', 'Maps', and 'Search'. The main content area is titled 'Smart Search' and features a search input field, a 'Query Builder' section with a dropdown for 'Field' and a 'Value' input, and an 'Add Condition' button. Below the query builder, the current query is shown as 'Query: * | Filters: type:subscription AND status:Active'. A table lists search results with columns for Description, Status, Start Date, End Date, In Sync, Note, and Actions. The table contains 10 rows of data, including entries for IP trunks and Routers.

Description	Status	Start Date	End Date	In Sync	Note	Actions
IP trunk BIL DUB, GS-00044	active	2024-10-02 16:52:32		●	--	...
IP trunk AMS ATH, GS-00033	active	2024-10-03 16:36:11		●		...
IP trunk AMS AMS, GS-00055	active	2024-07-15 15:18:53		●		...
Router r10.dub.ie.lab.office.geant.net	active	2024-10-02 09:33:24		●		...
IP trunk AMS LON, GS-00077	active	2024-10-03 17:04:52		●		...
Router r10.bil.es.lab.office.geant.net	active	2024-10-01 10:07:32		●		...
IP trunk DUB LON, GS-00022	active	2024-10-03 16:55:20		●		...
IP trunk AMS BIL, GS-00088	active	2024-10-10 17:03:53		●		...
Router r10.ath.gr.lab.office.geant.net	active	2024-10-03 13:38:45		●		...

Custom Subscription Detail Tab

[Source code here](#)

Start / Subscriptions / b93b2e03-f6d6-450a-a5f4-14f50501deeb

Commercial Peer - Reykjavik Fibre Network ⚡

Actions ▾

active in-sync

Service configuration **General** Workflows Related subscriptions

BGP peers

Placement port	Peer address	Custom policies	Multipath	Multicast	Default route	Multi hop	Passive	BFD	TTL security
IX Port - INEX - GS-48123	185.6.36.169	⊕	⊕	⊕	⊕	⊕	⊕	⊕	
IX Port - INEX - GS-48123	2001:7f8:18::169	⊕	⊕	⊕	⊕	⊕	⊕	⊕	

Subscription details

IPv4 prefix limit	200
IPv6 prefix limit	200
Partner AS Number	12969
Partner organisation name	Reykjavik Fibre Network
Subscription ID	b93b2e03-f6d6-450a-a5f4-14f50501deeb

 Workflow Orchestrator development

Nightly validation workflow report

Timestamp: 2026-06-08 08:16:43 UTC

Workflows	Count
Failed tasks	230

Product name	R&E Peer
Description	R&E Peer service for SINGAREN
Last step	Running Ansible playbook
Failure reason	Provisioning proxy failure

The related task can be found [here](#).

Product name	GÉANT IP
Description	GÉANT IP service for JISC
Last step	Running Ansible playbook
Failure reason	Provisioning proxy failure

The related task can be found [here](#).

Thank you

Any questions?

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GEANT



Co-funded by
the European Union