

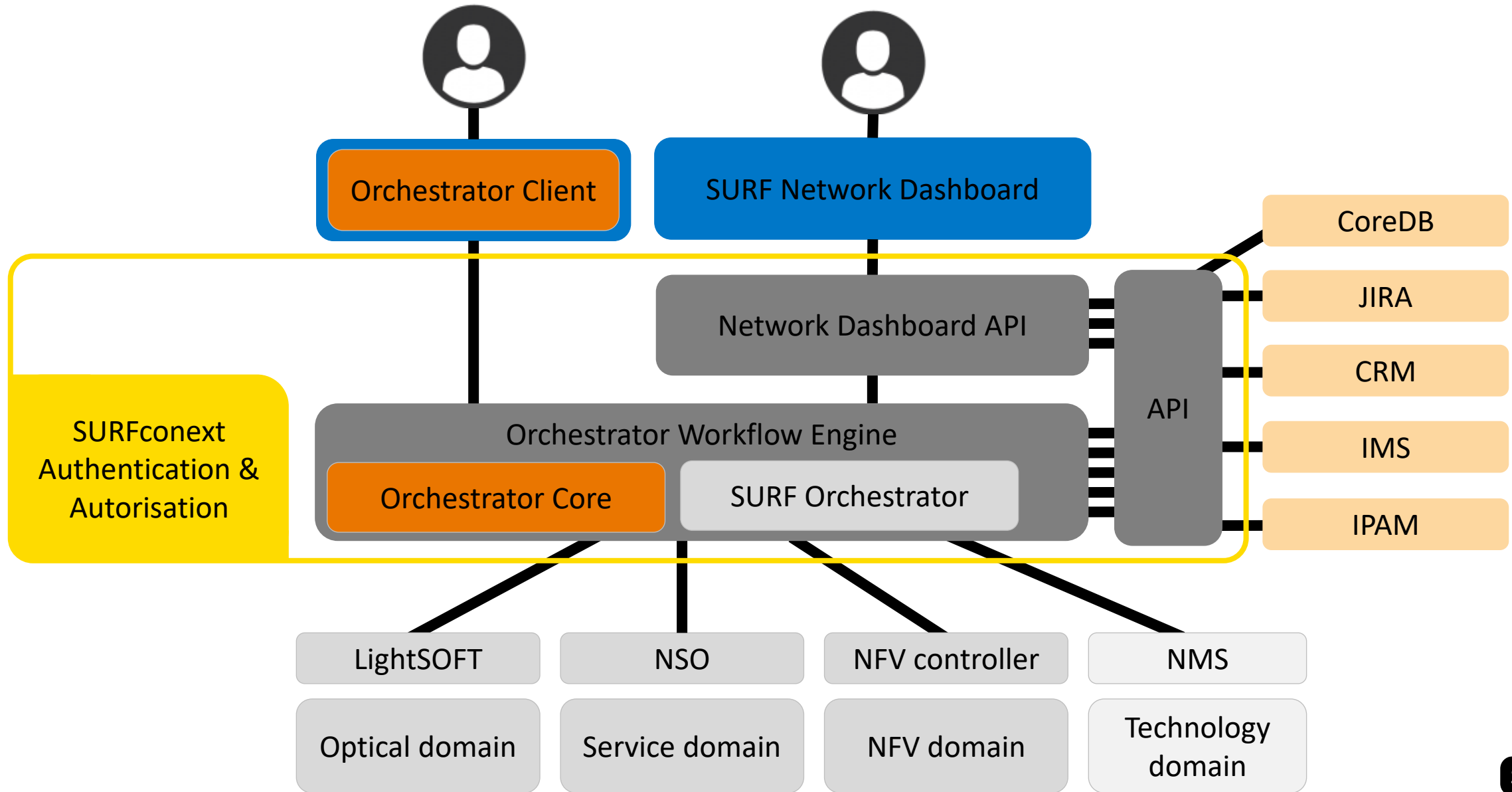
BOF SURF ORCHESTRATION AND AUTOMATION

25 juni 2021

Agenda

- Workflow orchestrator
- Supported products over time
- Composed product – SURFfirewall
- Self service in netwerk dashboard, timeline

Architecture using opensourced Orchestrator Core



Opensource orchestrator core and client

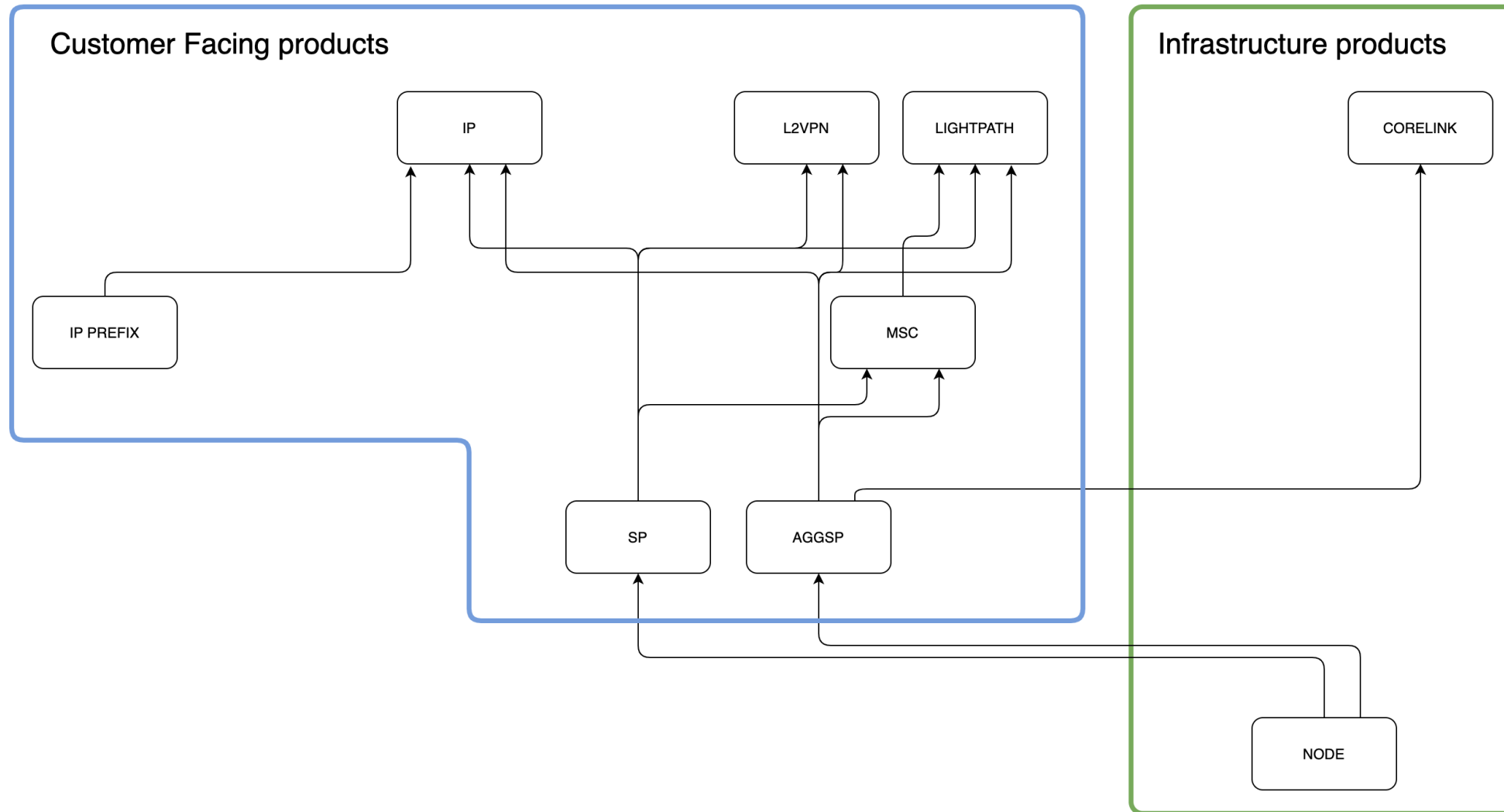
- Used by SURF and Esnet
- See <https://workfloworchestrator.org/orchestrator-core/>
- Available on <https://github.com/workfloworchestrator/orchestrator-core/>
- Working on example workflows to ease introduction

- Features
 - Documented API
 - Product and subscription database
 - Provisioning API with well defined validation
 - Client consumes Provisioning API



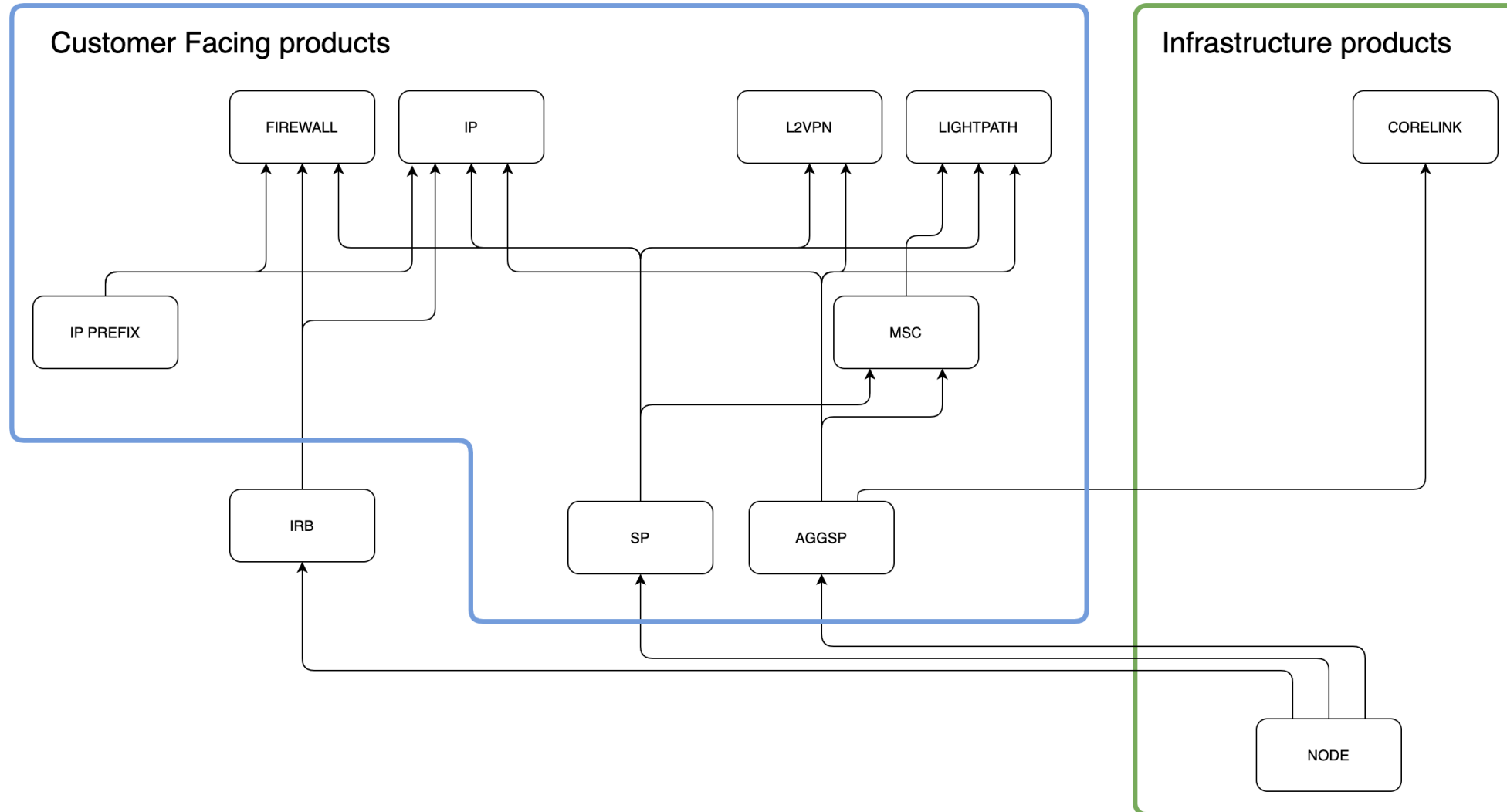
Producten in orchestrator - 2019

(not showing SURFnet7 product)



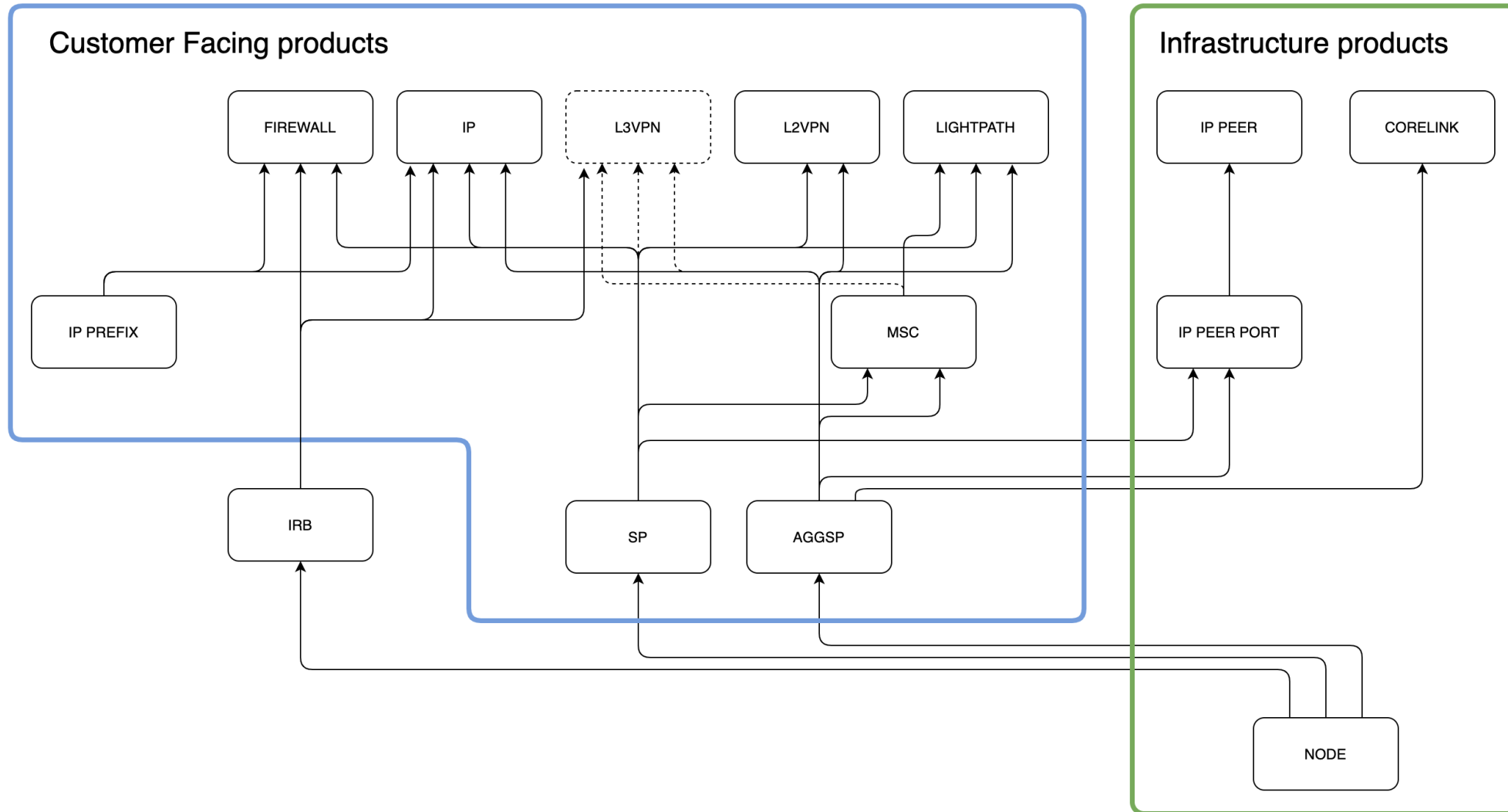
Producten in orchestrator - 2020

(not showing SURFnet7 product)

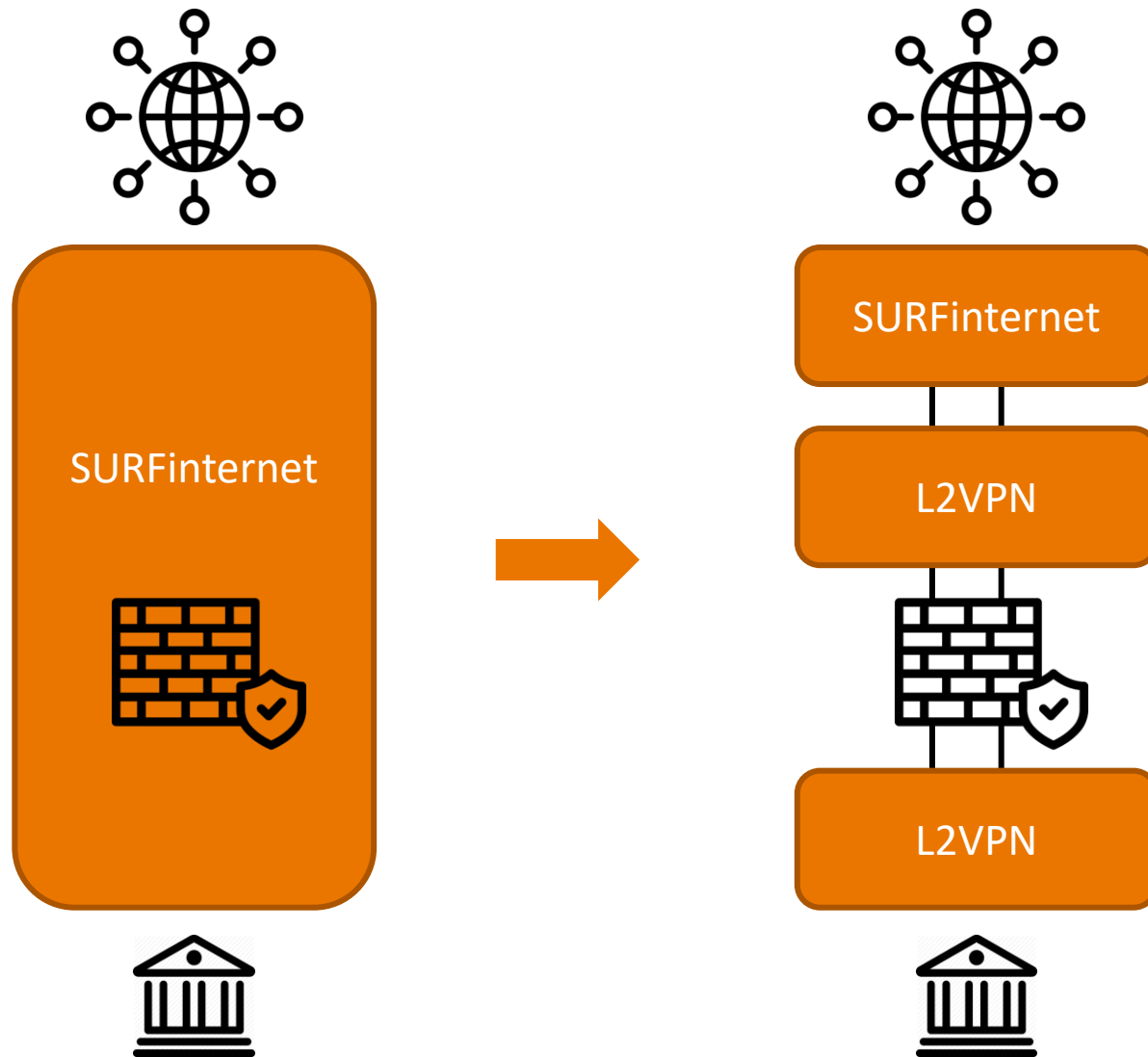


Producten in orchestrator - 2021

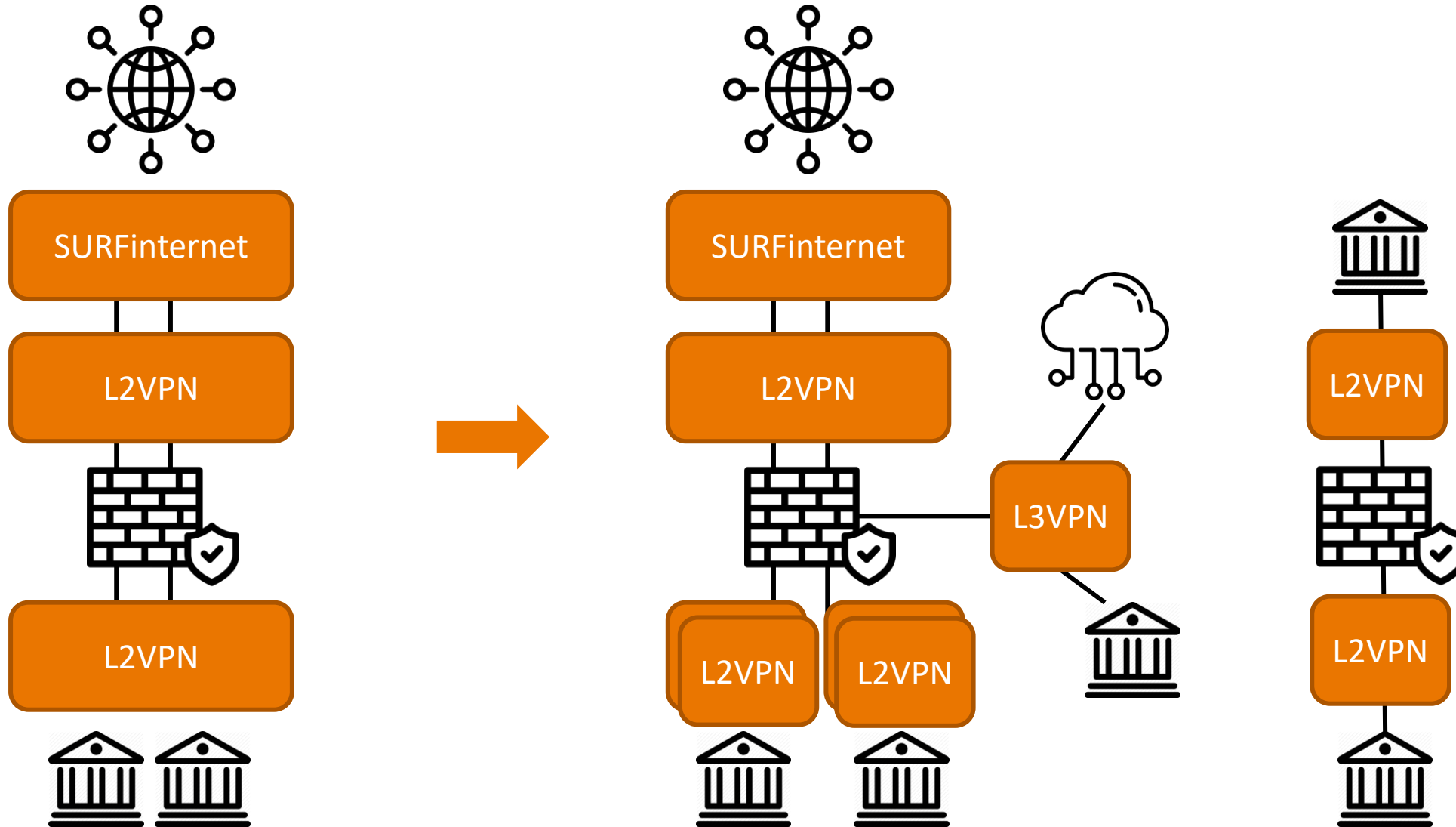
(not showing SURFnet7 product)



Firewall product – composed product



Firewall product – composed product



Network dashboard restructured

- Product tiles dashboard with quick summary status
- Planned work / Incidents

The screenshot displays the SURF Network Dashboard interface. At the top, there is a navigation bar with the SURF logo, 'NETWORK DASHBOARD', and links for 'SERVICES', 'MALFUNCTION & MAINTENANCE', and 'SUPPORT'. The user is logged in as 'Wouter Huisman'.

The dashboard features several product tiles:

- Current faults:** A tile with a rocket icon and 'No notifications'.
- SURFinternet:** A tile with a network icon, '1 firewalls', 'No notifications', and status indicators: 0 green, 1 blue, 2 red.
- SURFlichtpaden:** A tile with a lightning bolt icon, 'Work planned', and status indicators: 0 green, 0 blue, 8 red.
- L2VPN:** A tile with a network icon, 'No notifications', and status indicators: 0 green, 0 blue, 2 red.
- Planned work:** A section listing upcoming work items:
 - Geplande werkzaamheden – SNNP-86930: 22 Jun, 09:00 until 05:00
 - Geplande werkzaamheden – SNNP-86936: 20 Jun, 12:00 until 06:00
 - Geplande werkzaamheden – SNNP-86403: 24 Jun, 12:00 until 04:00A 'GO TO ALL MESSAGES' link is provided.
- Ports:** A tile with a server icon, 'No notifications', and status indicators: 0 green, 0 blue, 7 red.
- SURFfirewall:** A tile with a shield icon, 'No notifications', and status indicators: 0 green, 1 blue, 0 red.
- IP prefixes:** A tile with a network icon, '3 active', and a 'SEE OVERVIEW' link.
- SURFwireless:** A tile with a Wi-Fi icon, 'Wifi as a Service. Reliable wifi, maintained by SURF.', and a 'MORE INFORMATION' link.

Network dashboard restructured

- Listpage per product

← Go back

SURFlichtpaden

Testaccount Netwerkdashboard

Search term

FILTER BY STATUS

- OK
- No traffic
- Malfunction
- Provisioning
- Unknown

TAGS

LP SURFNET8

FILTER BY DESTINATION

Enter a destination

Lichtpad gebruiken voor self service testen!

0b57f916 - Owner: Testaccount Netwerkdashboard
Utrecht (Kantoren Hoog Overborch (Hoog Catharijne)Moreelsepark 48) - Amsterdam (Sc...

LP SURFNET8

REAL TIME IN	REAL TIME OUT
0.00 bps	0.00 bps

[19 Jan, 08:12 until 08:12 Geplande werkzaamheden – SNNP-86930 - Reduced Redundancy](#)

TESTACCOUNT LP UT042A-UT042A 1 Mbit/s

31678a67 - Owner: Testaccount Netwerkdashboard
Utrecht (Kantoren Hoog Overborch (Hoog Catharijne)Moreelsepark 48) - Utrecht (Kantoren ...

LP SURFNET8

REAL TIME IN	REAL TIME OUT
0.00 bps	0.00 bps

TESTACCOUNT LP ASD001B-UT042A 1 Gbit/s

503527a4 - Owner: Testaccount Netwerkdashboard
Utrecht (Kantoren Hoog Overborch (Hoog Catharijne)Moreelsepark 48) - Amsterdam (Sc...

LP SURFNET8

REAL TIME IN	REAL TIME OUT
0.00 bps	0.00 bps

SURFNET LP UT042A-UT042A 150 Mbit/s

a2cbe21a - Owner: SURFnet bv
Utrecht (Kantoren Hoog Overborch (Hoog Catharijne)Moreelsepark 48) - Utrecht (Kantoren ...

LP SURFNET8

REAL TIME IN	REAL TIME OUT
0.00 bps	0.00 bps

Network dashboard restructured

- Detailpage per service
 - Service configuration
 - Port details
 - Link to planned work

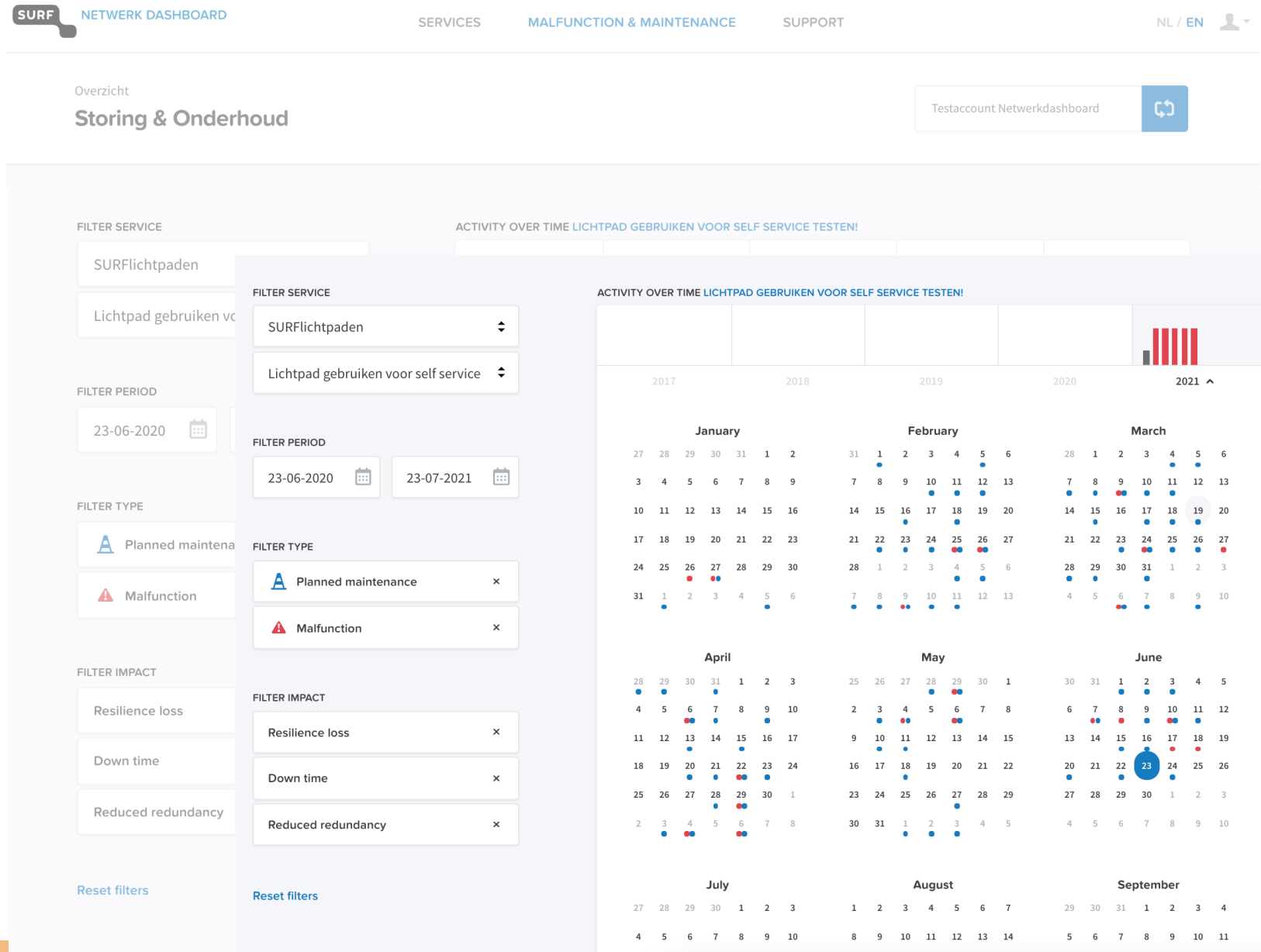
The screenshot displays the SURF Network Dashboard interface. At the top, there is a navigation bar with 'SURF NETWORK DASHBOARD', 'SERVICES', 'MALFUNCTION & MAINTENANCE', 'SUPPORT', and language options 'NL / EN'. A main header area includes a 'Go back' link, a warning icon with the text 'Lichtpad gebruiken voor self service testen!', and buttons for 'Testaccount Netwerkdashboard' and 'OVERVIEW'. The main content area is divided into several sections:

- Current and planned activities:** A list of three planned activities, each with a clock icon and a title 'Geplande werkzaamheden - SN...'. The first activity is scheduled for 22 Jun, 08:12 until 08:12. The second for 20 Jun, 08:09 until 08:09. The third for 24 Jun, 08:15 until 08:15. A 'SEE ALL ACTIVITY' link is at the bottom.
- Service details:** A detailed view of a service. It includes a 'REPORT PROBLEM' button. The details are organized into two columns:
 - Owner:** Testaccount Netwerkdashboard
 - Speed policer:** Enabled
 - Alias:** Lichtpad gebruiken voor self service testen! (with an edit icon)
 - Protection:** Protected
 - SURF description:** TESTACCOUNT LP ASD001B-UT042A 100 Mbit/s
 - Remote Port Shutdown:** Disabled
 - Service ID:** 0b57f916
 - Start:** 2021-01-21 04:00
 - Domain:** SURFNET8
 - Service speed:** 0.1 Gbit/s
- Link 1 UTRECHT - AMSTERDAM:** A section showing two service instances connected to each other.
 - Instance 1:** TESTACCOUNT SP UT042A 1 Gbit/s ;-) with tags SP, 1 Gb/s, SURFNET8, Tagged. It shows 'Owner: Testaccount Netwerkdashboard', 'Location: UTRECHT (Kantoren Hoog Overborch (Hoog Catharijne)Moreelsepark 48)', 'Port ID: bff85418', and 'VLAN ID: 456'. A bar chart shows '1.92 Gbps RESERVED' and '192% BOOKING RATE'. It also displays 'REAL TIME IN 0.00 bps' and 'REAL TIME OUT 0.00 bps'.
 - Instance 2:** TESTACCOUNT SP ASD001B 100 Gbit/s - super vet snel with tags SP, 100 Gb/s, SURFNET8, Tagged. It shows 'Owner: Testaccount Netwerkdashboard', 'Location: AMSTERDAM (Science Park 121)', 'Port ID: 6763f0b4', and 'VLAN ID: 420'. A bar chart shows '13.45 Gbps RESERVED' and '13% BOOKING RATE'.
- Traffic graph:** A section for monitoring traffic. It includes a 'Traffic graph' icon and an 'AVAILABILITY' link. Below are dropdowns for 'Select connection' (1. UTRECHT - AMSTERDAM) and 'Select port' (TESTACCOUNT SP UT042A 1 Gbit/s). A date range selector shows '14-06-2021 14:21' to '16-06-2021 14:21'.



Network dashboard restructured

- Chronically show all planned work and incidents tickets, with links to impacted services
- Timeline of all incidents/planned work in calendar view



Self service on service parameters

- Adding step-up authentication
- Extended the Network Dashboard API
- Use a self service modal framework in the GUI
- Subscribe to websocket for progress feedback

- All self service functions based on orchestrator WF and validation
- [demo](#)

THANKS!

Wouter Huisman

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Automation & Orchestration

SURF