Operational excellence to serve the Belnet community

Dirk Haex - Technical Director
14th of June 2019

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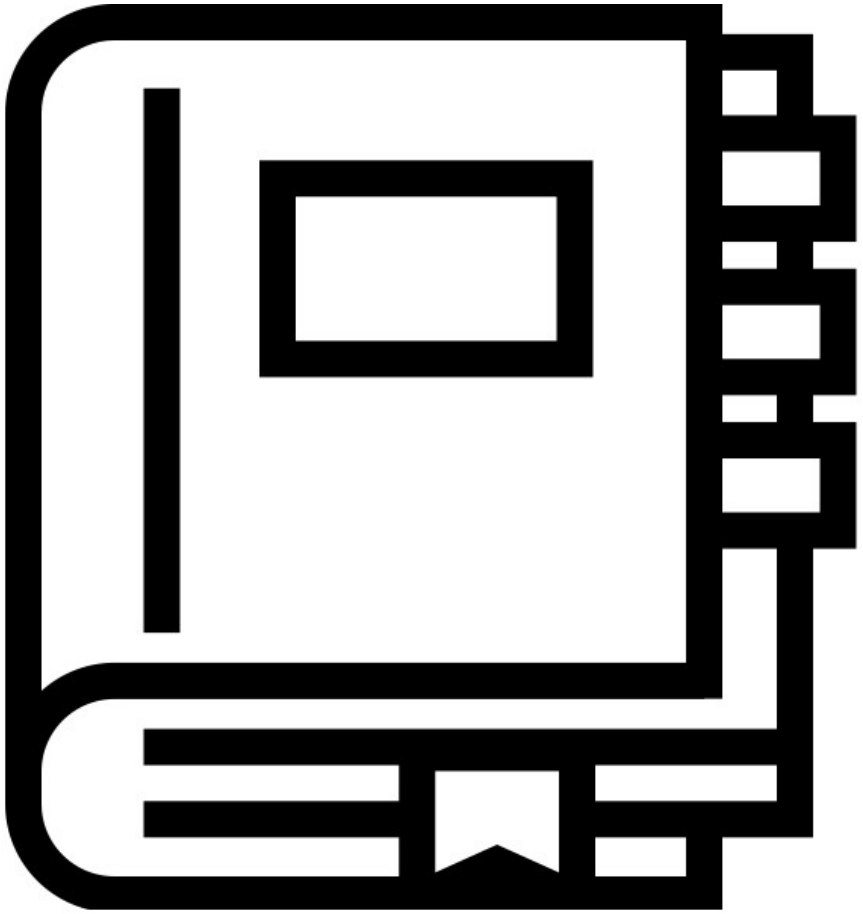

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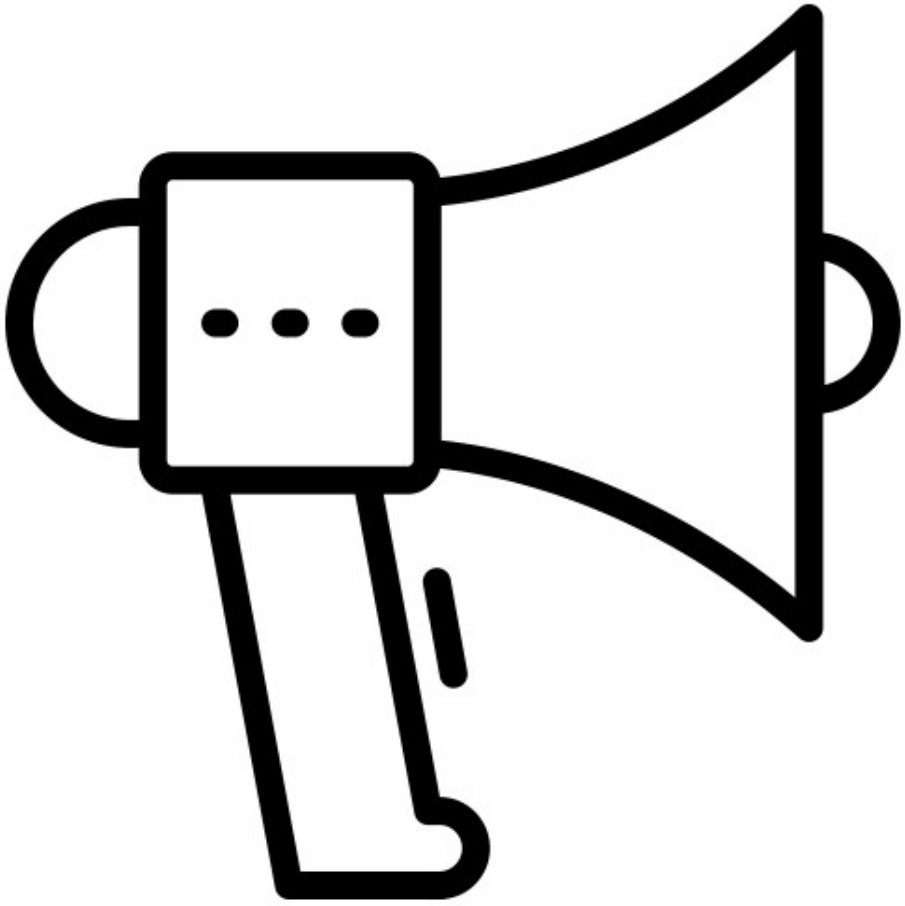
First things first: lessons learned…



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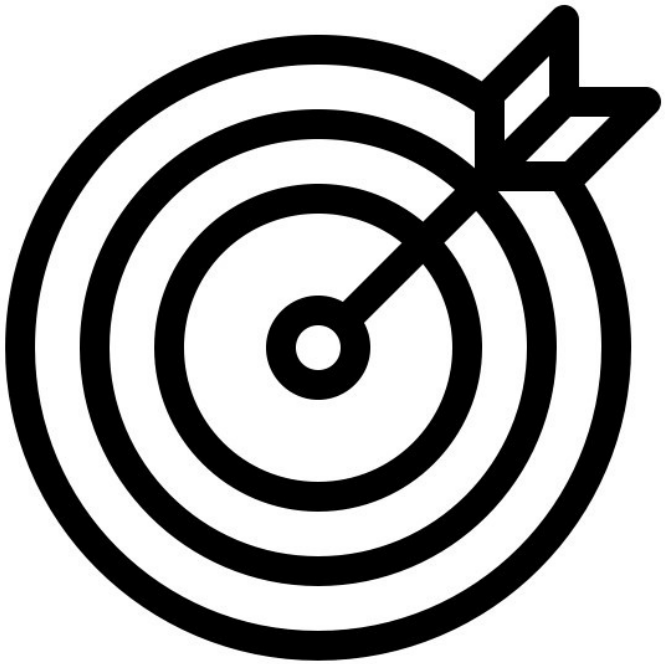
Belnet: Strategic objectives

Operational excellence



Security

Dedicated Services

Performing Organisation

Governance

- Project Management
  - "tailored" PRINCE2 Project Management Methodology
    - Dedicated senior Project Managers
    - Brief / PID / Highlight Reports
    - Project Board
- (IT/Enterprise) Service Management
  - Based on ITILv3 best practices
    - Dedicated Team of process managers
    - KPI dashboards ServiceNow
    - ITSM operations Board
- Product Management
  - See next presentation

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Operational Excellence Program

- Current projects part of the Program:
  - Belnet network redesign
  - 24/7 Servicedesk & NOC
  - Transition towards a new monitoring platform
  - Third Datacentre Services Infrastructure

Operational Excellence Program

Main objective of this Program:

To make sure that Belnet can guarantee the different Service Levels for the different added-value network and “above the net” services on top of a very stable, performant and redundant national hybrid network.

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Operational Excellence Program

2017-044: Belnet network redesign

Project Brief: 13/12/2017

PID: 09/03/2018

Project Belnet network redesign

- Main project triggers: “Vendor issue”
  - G.8032 bug
    - Measures taken as workaround had an impact on recovery and convergence times
  - LAG algorithm incompatibility

- High priority and time consuming project
  - Business case / design exercises and scenarios (8!)
  - Important budget: approval and ordering process
  - Intensive test and validation process
  - Phased implementation – change management

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Project Belnet network redesign

- Investigate, describe and decide redesign scenario(s) (done, stage 1)
- High and low level design selected scenario + BoM (done, stage 1)
- Phased roll-out redesign national Belnet network (almost done, stage 2)
- Implementation of additional improvements (start foreseen July 2019, stage 3)

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Project Belnet network redesign

1	Fri 27-04-18	Fri 25-01-19
High level Design	Fri 27-04-18	Fri 25-05-18
Capacity Management	Mon 28-05-18	Fri 01-06-18
Quality Check Ciena	Mon 04-06-18	Fri 08-06-18
Quality Check Securelink	Tue 26-06-18	Tue 26-06-18
Bill of Material	Mon 04-06-18	Fri 15-06-18
Internal Budget	Fri 29-06-18	Thu 05-07-18
Offer Ciena/Nokia/SecureLink	Mon 09-07-18	Fri 13-07-18
Approval IF	Mon 23-07-18	Tue 31-07-18
Approval Minister Budget	Wed 01-08-18	Mon 27-08-18
Order Process (Belnet)	Sun 02-09-18	Thu 06-09-18
Delivery Ciena	Mon 13-08-18	Thu 01-11-18
Delivery Securelink	Fri 07-09-18	Thu 18-10-18
Delivery Nokia	Wed 08-08-18	Mon 26-11-18
Detailed config and script development	Mon 17-09-18	Fri 02-11-18
Control commit script (DTA)	Mon 05-11-18	Fri 25-01-19
Migration strategy	Mon 19-11-18	Fri 30-11-18
Training plan	Mon 03-12-18	Fri 21-12-18
Work instructions & documentation	Mon 03-12-18	Fri 21-12-18

Schedule stage 1

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Project Belnet network redesign

- Phased roll-out redesign national Belnet network
  - Scope
    - Phased implementation of the new design via the Change Management Process (CAB, customer communication,…)
  - Purpose
    - More robust and resilient network
    - Simplified design
    - Fast recovery and fast convergence
    - Better managed network for capacity management
  - Schedule
    - See next slide

Project Belnet network redesign

2	23/11/2018	31/07/2019
2.1: Reorganisation cabling DC central ring	23/11/2018	15/12/2018
2.2: HW provisioning	07/01/2018	13/01/2018
2.3: Capacity Upgrade	07/01/2018	13/01/2018
2.4: Redesign per zone	14/01/2019	28/02/2019
2.4: BXL (zone 1)	14/01/2019	04/03/2019
2.4: NW (zone 2)	05/03/2019	11/03/2019
2.4: NE (zone 3)	05/03/2019	11/03/2019
2.4: SW (zone 4)	12/03/2019	18/03/2019
2.4: SE (zone 5)	12/03/2019	18/03/2019
2.5: Redesign FedMAN (zone 6)	05/03/2019	14/04/2019
2.5.1: HW Provisioning	05/03/2019	11/03/2019
2.5.2: Nokia OTN services	12/03/2019	20/03/2019
2.5.3: Decoupling FedMAN from Ciena	21/03/2019	16/04/2019
2.5.4: Upgrade FedMAN full capacity	17/04/2019	30/04/2019
2.6: Provisioning new lambda ZAV-DIE	14/01/2019	**15/07/2019**
2.7: Bypass f5 for FedMAN protected customers	11/04/2019	**30/06/2019**

Schedule stage 2

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Project Belnet network redesign

- Implementation of additional improvements
  - Scope
    - Redistribution of external connectivity over the network
    - Increase the external capacity
    - Study and implementation of new traffic engineering policy
    - Optimization of configurations
  - Purpose
    - Make the network easier to read by standardization
    - Avoid saturation on backbone and on entry points in degraded situations
  - Schedule
    - Project Board 05/07/2019 (Stage 3)

Operational Excellence Program

2017-011: 24/7 Servicedesk & NOC

Project Brief: 16/03/2017

PID: 11/05/2017

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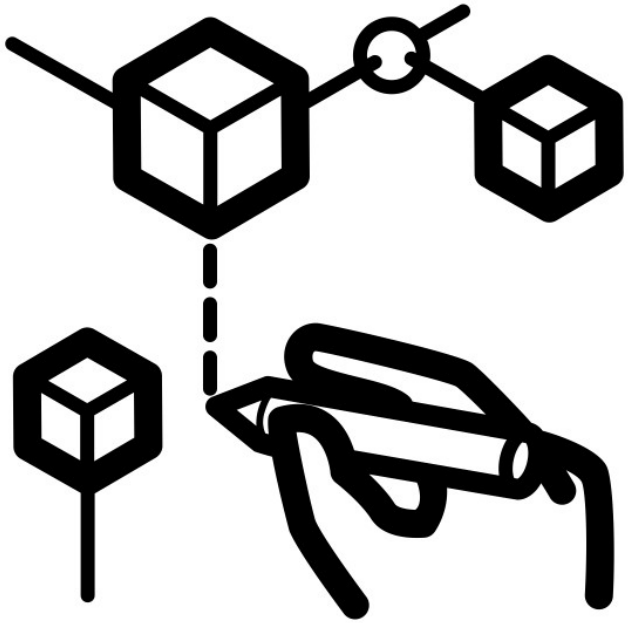
Project 24/7 Servicedesk & NOC

Stage 1

Stage 2



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Operational Excellence Program

2018-007: Transition towards a new monitoring platform

Project Brief: 26/02/2018

PID: 23/04/2018

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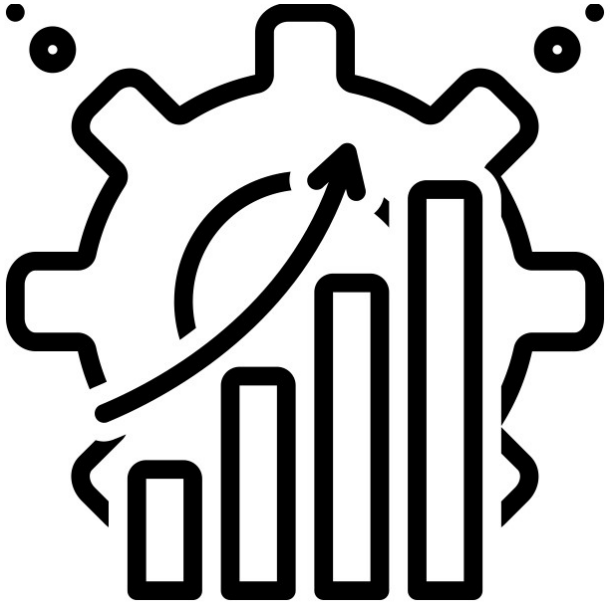
Project New monitoring platform

- Scope



High-availability in-house platform
24/7 monitoring Configuration items

Data for capacity management
Data for Service Level Reporting

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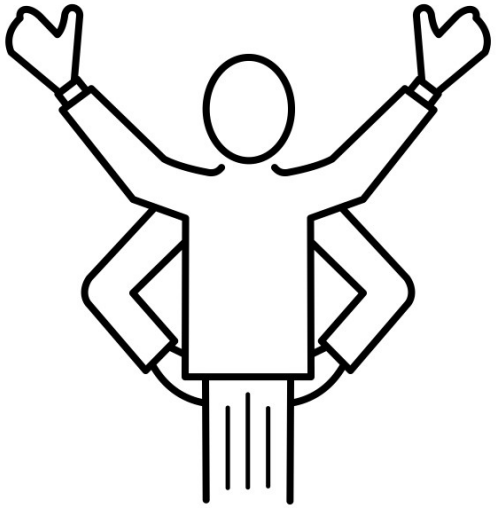
Project New monitoring platform

- Purpose

Faster interaction
Better correlation
Reduce human error

Increased customer satisfaction



From reactive to proactive

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Project New monitoring platform

Roadmap: implementation of additional features (extended proactive monitoring “make before break”)

Stage 2:

- Fine tuning of performance and alarm correlation
- Increase availability with set-up of third node in the cloud.

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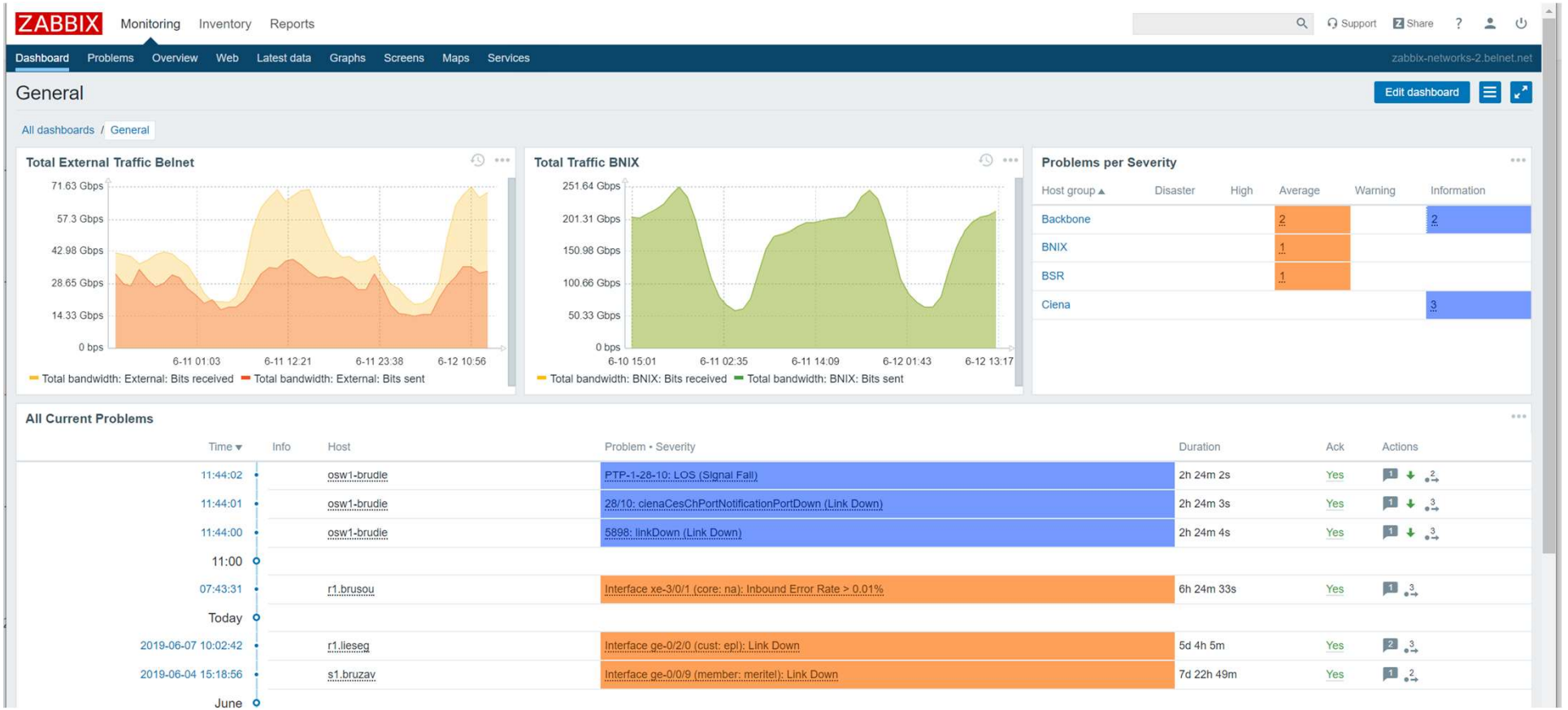
Project New monitoring platform



In production since 18/03/2019

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Operational Excellence Program

2018-010: 3rd Datacentre Services Infrastructure

Project Brief: 10/05/2019

PID: Ongoing

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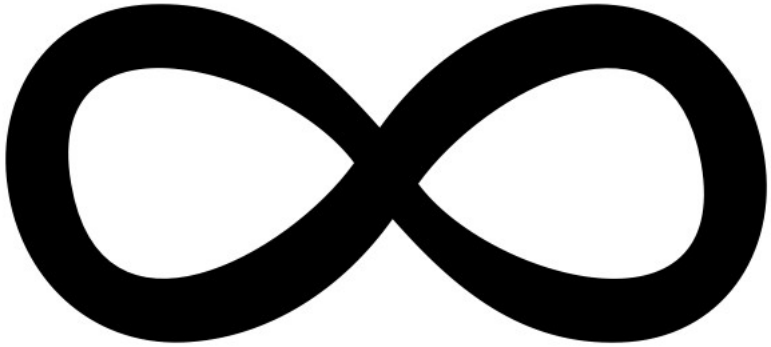
Project 3rd datacentre services infrastructure

- Purpose



Trust & Security Solutions

Identity, Mobility & Federation

Cloud Services

Community Support Services

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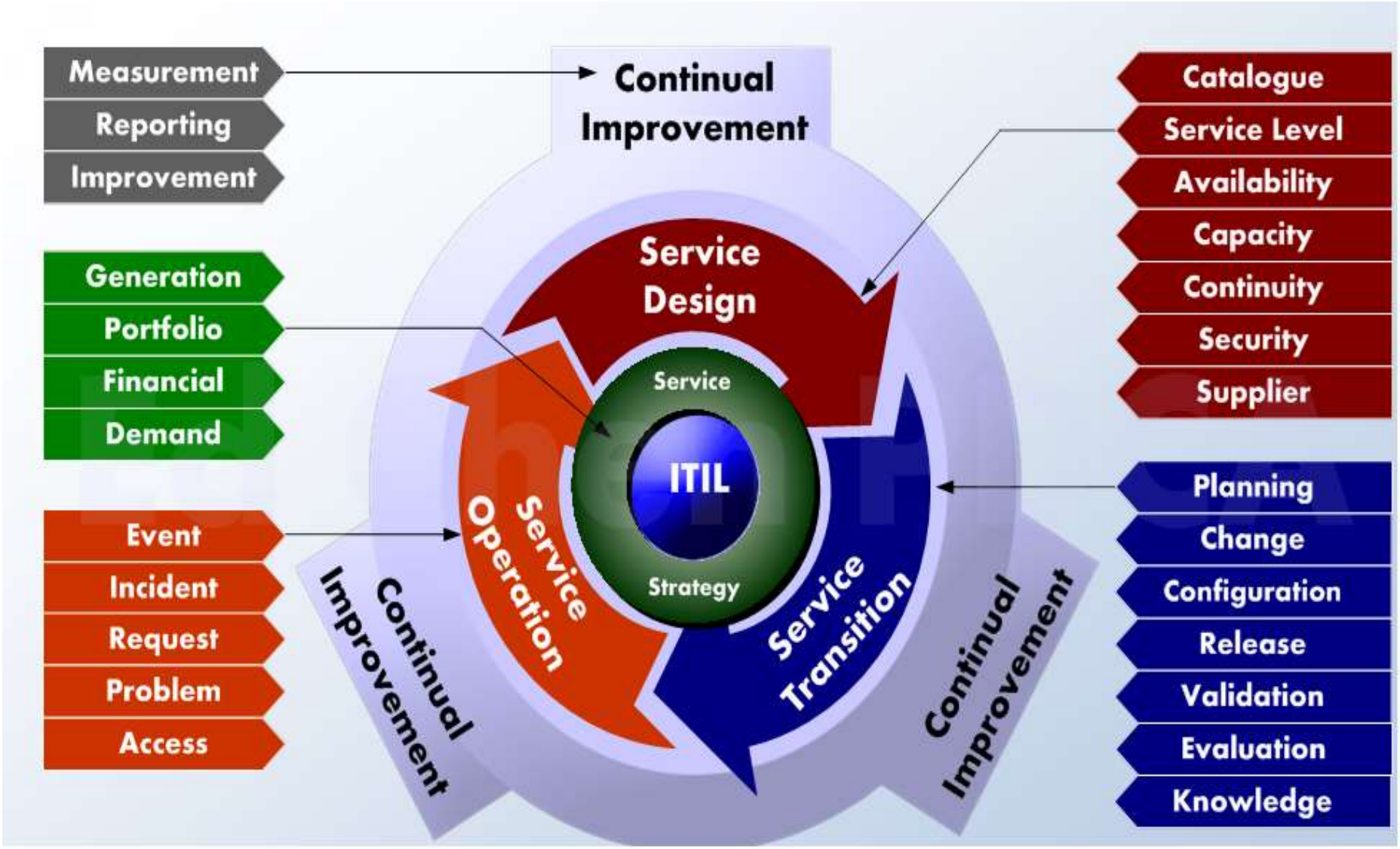
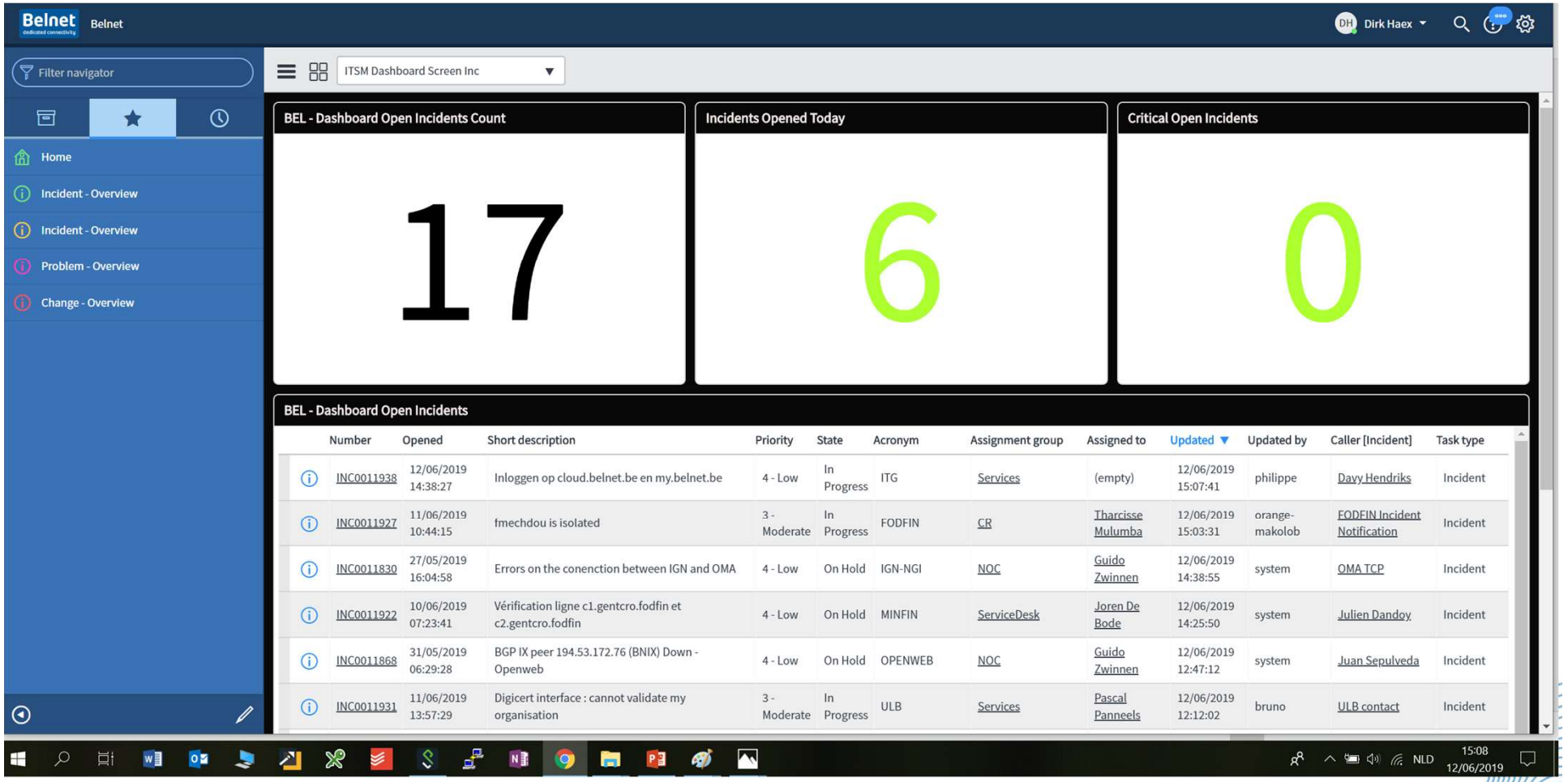
Operational Excellence: other initiatives



Roadmap ServiceNow platform



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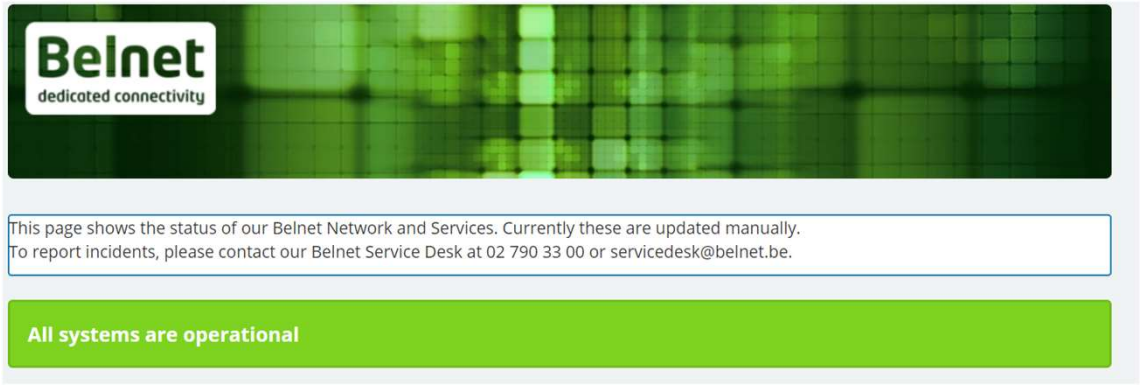
Roadmap ServiceNow platform

- Look and feel of notifications
- Enhance operational communication between the various belnet teams
- Better monitoring of services (KPIs) provided by our suppliers
- …

One more thing…

BCM

24/7 MiM



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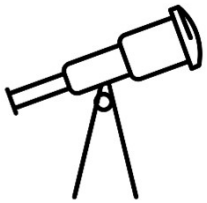
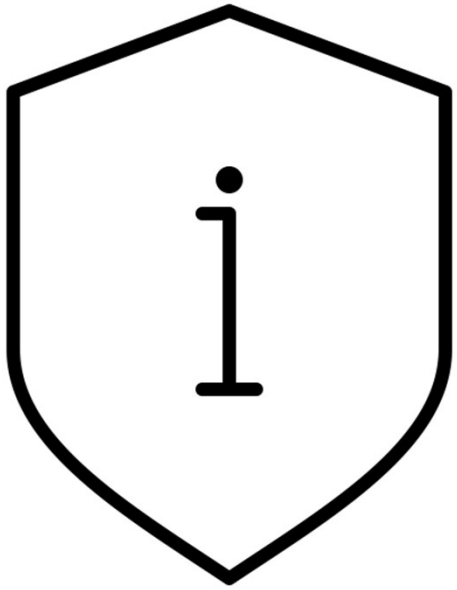
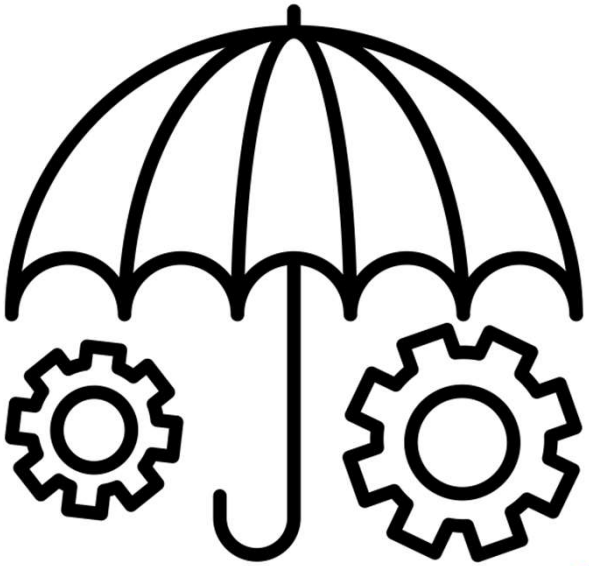
Strategic objective Security







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Thank you
for your attention

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