

SERVICE DESK ANALYTICS

- THE STORY -





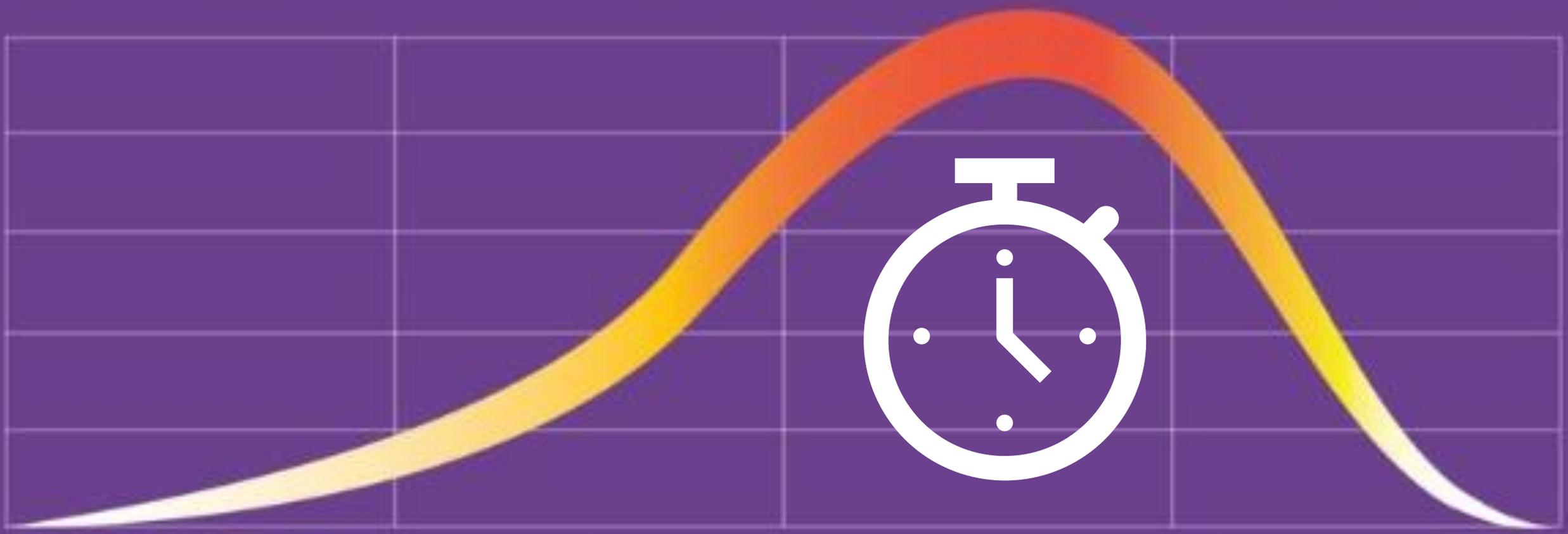
Problem | Service Manager

Service managers must efficiently allocate their resources (teams & time efforts) to the issues that arise within the organization while delivering maximum service



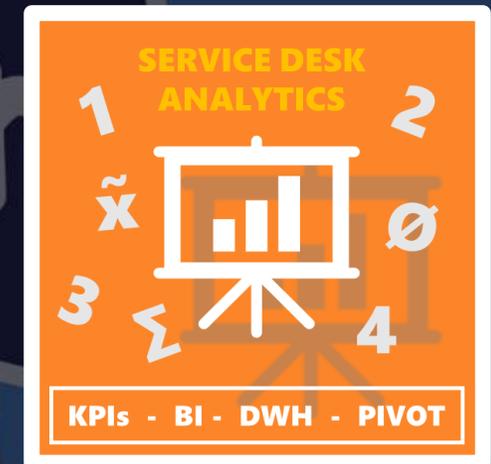
The resulting topics vary within the organization both in the frequency of occurrence and the required depth of processing per location / organizational unit

With every level used ($1^{\text{st}} > 2^{\text{nd}} > 3^{\text{rd}}$) the costs as well as the answer and solution times increase



In order to be able to initiate measures, the service manager must, in addition to the **multi-dimensional distributions**, also have an overview of **how the issues and expenses have developed over time**

- With previous on-board resources such multi-dimensional requirements can not be detected, recognized, optimized and tracked after initiating measures
- With Service Desk Analytics, Matrix42 introduces a business intelligence solution that can answer such analytical questions and provide the service manager with a holistic view of the effectiveness and efficiency of their help desk



An analytical database provides answers to questions and enables decisions and optimizations



**VALUE
PROPOSITION**

- Where do the efforts in the organization go?
- Where in the organization do 20% of the tickets cost 80% on which topics?
- Which roles are overloaded?
- Which topics should be trained per level to be able to handle a level earlier?
- Does the backlog actually grow?

SUCCESS AS A SERVICE // SUCCESS SCORING



- Define SUCCESS CRITERIA with Service Desk Analytics

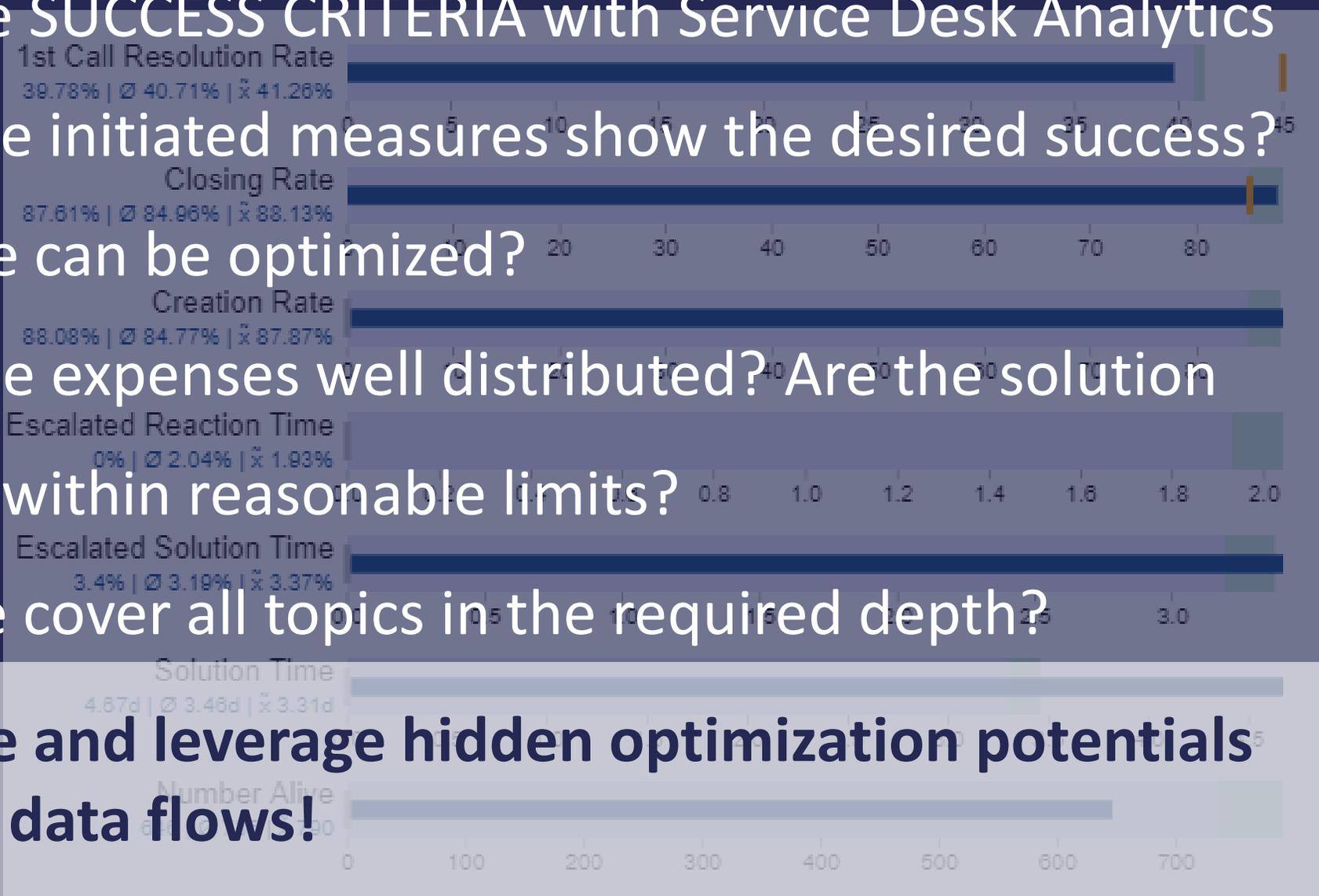
- Did the initiated measures show the desired success?

- Where can be optimized?

- Are the expenses well distributed? Are the solution times within reasonable limits?

- Do we cover all topics in the required depth?

Recognize and leverage hidden optimization potentials based on data flows!



„You can't manage what you can't measure“

[Peter Drucker]



Additional information

- <https://marketplace.matrix42.com/product/service-desk-analytics/>
- ServiceDeskAnalytics@matrix42.com



Flyer DE



Flyer EN





SCREENS

- Home
- Dashboard
- Success Scores
- Differentiator
- Pivot - Closing Power
- Ticket Transition
- BI Configuration
- Dimension - Category
- Dimension - Organizational Unit
- Dimension - Location
- Dimension - Costcenter
- Dimension - Priority
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- Dimension - Tickets
- BI Transformations

Warehouse Configuration

- Configure Warehouse**
Initialize / Reconfigure Service Desk Analytics Warehouse
- ETL Transformation Logging**
Track all Transformation Steps / Check Logging Details
- Update Warehouse**
Update Warehouse manually
- KPI Settings**
Set Indicators for First Call Resolution Rate
- Reset Warehouse**
Reset Processes & Warehouse

Monthly Averages

📅 Number of Incidents 735	📈 Created Incidents 643 84.77%	📉 Closed Incidents 645 84.96%	🎯 Directly Solved Incidents 308 40.71%	⌚ Solution Time Incidents 3.46 d
📅 Number of Service Requests 82	📈 Created Service Requests 71 83.47%	📉 Closed Service Requests 72 85.49%	🎯 Directly Solved Service Requests 36 42.22%	⌚ Solution Time Service Requests 3.61 d

Data Basis (Analysis Cube)

📅 Start Analysis Period 30-04-2019	📅 End Analysis Period 29-04-2020	📶 From Ticket Number INC19535	📶 To Ticket Number INC29961	↔️ Total Number of Incidents 8648
🔌 Databases DEMO	🔌 Tickets & Service Requests enabled Yes	📶 From Ticket Number SRQ19606	📶 To Ticket Number SRQ29957	↔️ Total Number of Service Requests 962

Basis KPIs / Targets

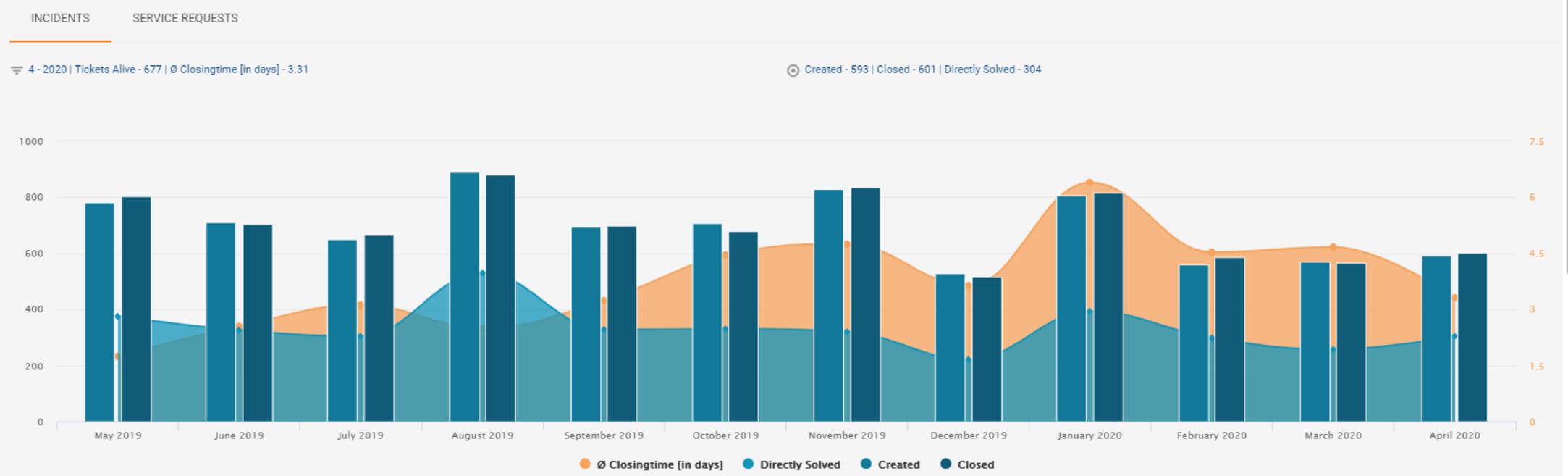
📊 First Call Resolution Rate Incidents 45%	📊 Closing Rate Incidents 85%
📊 First Call Resolution Rate Service Requests 45%	📊 Closing Rate Service Requests 85%

Backlog Growth Rate & Escalation Rates

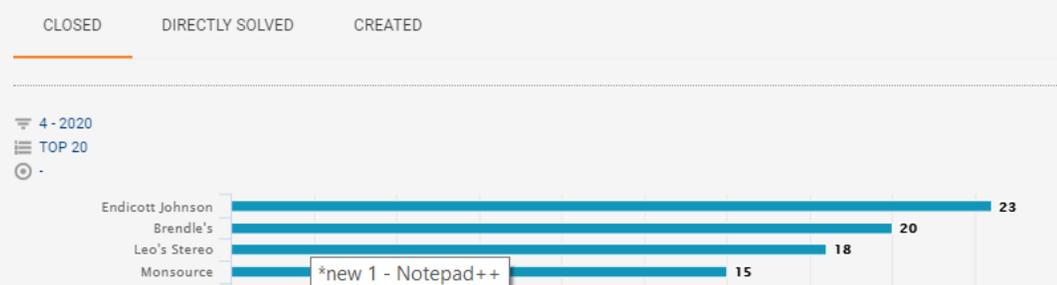
📉 Backlog Growth Rate Incidents -0.19%	⌚ Escalated Reaction Time Incidents 2.04%	📈 Escalated Solution Time Incidents 3.19%
📉 Backlog Growth Rate Service Requests -2.02%	⌚ Escalated Reaction Time Service Requests 2.38%	📈 Escalated Solution Time Service Requests 2.97%

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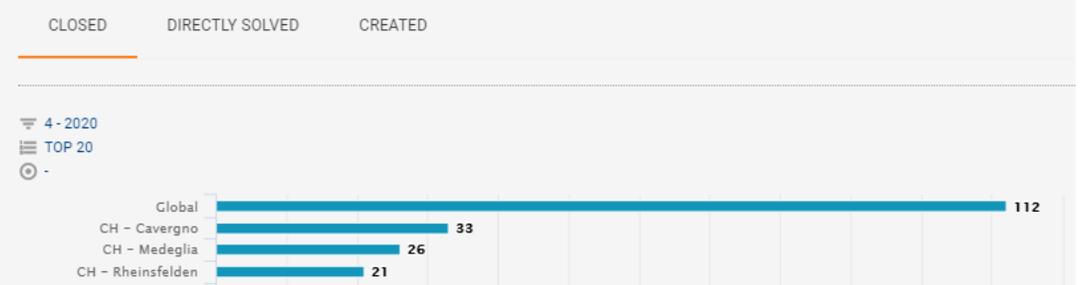
Service Desk Analytics - Monthly Scores



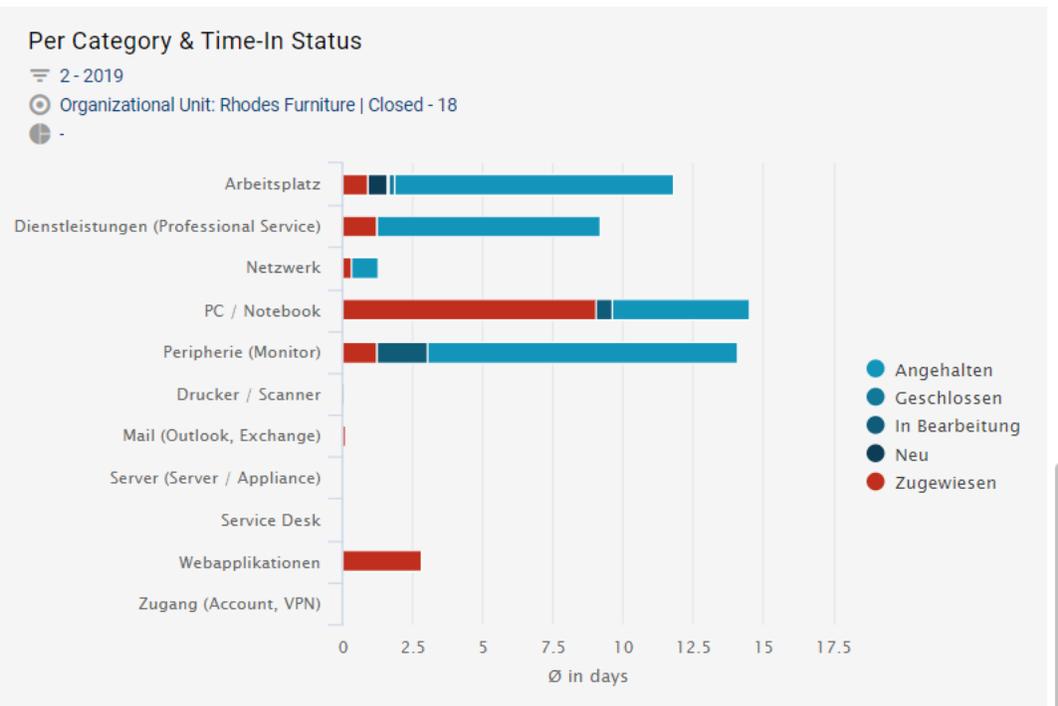
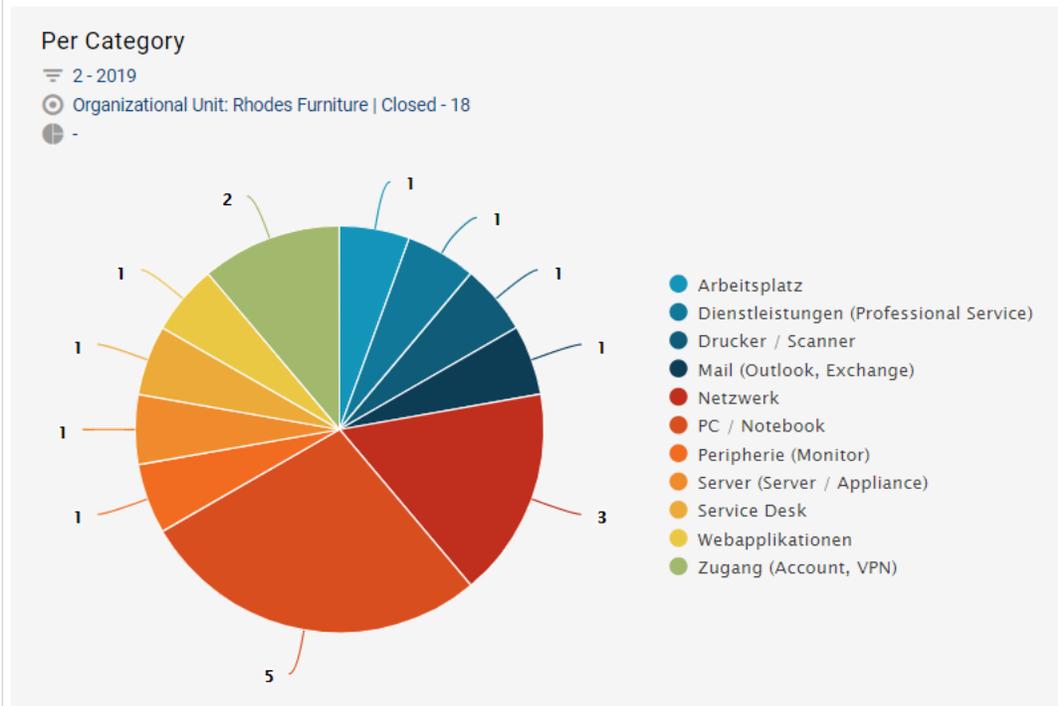
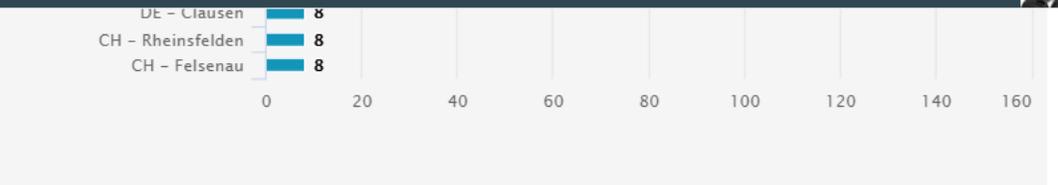
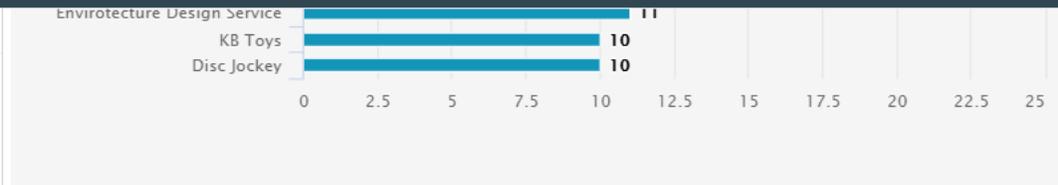
Per Organizational Unit



Per Location



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- Dimension - Role
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- Dimension - Incidents
- BI Transformations



SHOW DETAILS

Ticket ID	Summary	Category	Role	Location	Entry By
INC27745	Cessante causa cessat effectus - abyssus abyssum invocat	Arbeitsplatz	Operations (Administration)	DE - Kiel	Portal
INC27886	Lorem ipsum dolor sit amet, consectetur adipisicing elit	Dienstleistungen (Professional ...	Operations (Administration)	DE - Kiel	Portal

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Search Text	Year ...	Month...	#INC Alive	#SRQ Alive	INC Backlog G...	SRQ Backlog G...	INC First Call ...	± ...	SRQ First Call ...	± ...	INC Closing Ra...	± ...	SRQ Closing R...	± ...
	2020	4	677	86	-1.18	-2.33	44.9		45.34		88.77		81.39	
	2020	3	646	73	0.46	1.37	39.78		43.83		87.61		86.3	
	2020	2	668	73	-3.74	-4.11	44.61		43.83		87.72		90.41	
	2020	1	916	98	-0.98	-2.04	42.9		50		89.3		91.83	
	2019	12	627	69	2.07	-7.25	35.24		36.23		82.29		91.3	
	2019	11	949	108	-0.63	-0.93	33.71		37.03		87.98		86.11	
	2019	10	800	88	3.38	4.55	41.25		42.04		85		84.09	
	2019	9	792	85	-0.25	4.71	41.41		47.05		88.13		85.88	
	2019	8	994	115	0.91	-6.09	53.31		48.69		88.73		92.17	
	2019	7	747	76	-2.28	11.84	40.69		43.42		89.29		82.89	
	2019	6	790	89	0.63	-6.74	41.26		52.8		89.24		96.62	
	2019	5	888	99	-2.36	-1.01	42.22		40.4		90.42		87.87	
	2019	4	68	11	1.47	-18.18	27.94		18.18		50		54.54	

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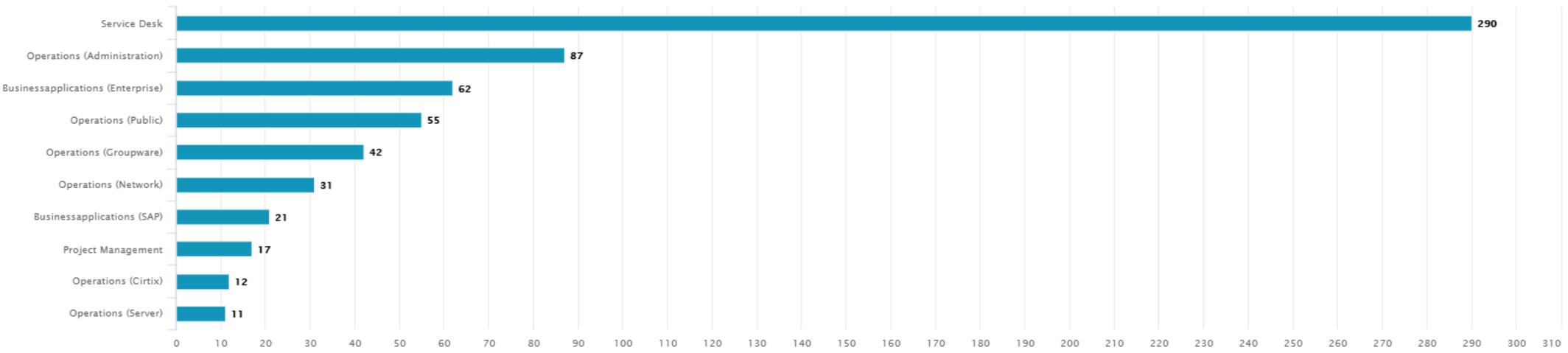
BI Monthly Success Scores

Success Scores: 4 - 2020

INCIDENTS SERVICE REQUESTS

KPI COMPLIANCE TOP EXPENDITURES OF WORK TOP TOPICS TOP RESPONSIBLE ROLES ENTRY BY PRIORITY

Top 10 per Roles



Success Scores: 11 - 2018

KPI COMPLIANCE

TOP EXPENDITURES OF WORK

TOP 10 / ORGANIZATIONAL UNIT

 Filter: Time-In Status = In Progress

Cessante causa cessat effectus - abyssus abyssum ...
[INC26195](#)
 Global » Social Media » Record Town

Effort in days [Priority | Status]
 75.04 d [Low | Closed]
 Service Desk » New Workplace 2.0

Lorem ipsum dolor sit amet, consectetur adipisicing elit
[INC26286](#)
 Global » Social Media » Tweeter

Effort in days [Priority | Status]
 73.34 d [Low | Closed]
 Service Desk » Workplace » PC / Notebook

Cessante causa cessat effectus - abyssus abyssum ...
[INC22203](#)
 Global » Finance » Music Boutique

Effort in days [Priority | Status]
 66.87 d [Low | Closed]
 Service Desk » Infrastructure » Applications » Matrix42

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[INC25130](#)
 Global » Finance » Music Boutique

Effort in days [Priority | Status]
 41.89 d [Middle | Closed]
 Service Desk » Infrastructure » Applications » Matrix42

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[INC25538](#)
 Global » Education » Brendle's

Effort in days [Priority | Status]
 26.93 d [Low | Closed]
 Service Desk » Workplace » PC / Notebook

INC26195 : Cessante causa cessat effectus - abyssus abyssum invocat

Setup Time [Time-To] | Dwell Time [Time-In]

STATUS

CATEGORY

RESPONSIBLE ROLE

TREEMAP CHART

 New		 22 Nov 2018 10:12:35
 000 d 00 h 00 min		 000 d 00 h 36 min
 Assigned		 22 Nov 2018 10:48:21
 000 d 00 h 36 min		 000 d 00 h 29 min
 In Progress		 22 Nov 2018 11:17:36
 000 d 01 h 05 min		 000 d 00 h 25 min
 On Hold		 22 Nov 2018 11:42:44
 000 d 01 h 30 min		 000 d 02 h 10 min
 In Progress		 22 Nov 2018 13:52:03
 000 d 03 h 40 min		 000 d 00 h 23 min
 Assigned		 22 Nov 2018 14:15:00
 000 d 04 h 03 min		 007 d 01 h 38 min
 In Progress		 29 Nov 2018 15:53:35
 007 d 05 h 41 min		 075 d 00 h 10 min
 Closed		 12 Feb 2019 16:03:22
 082 d 05 h 51 min		

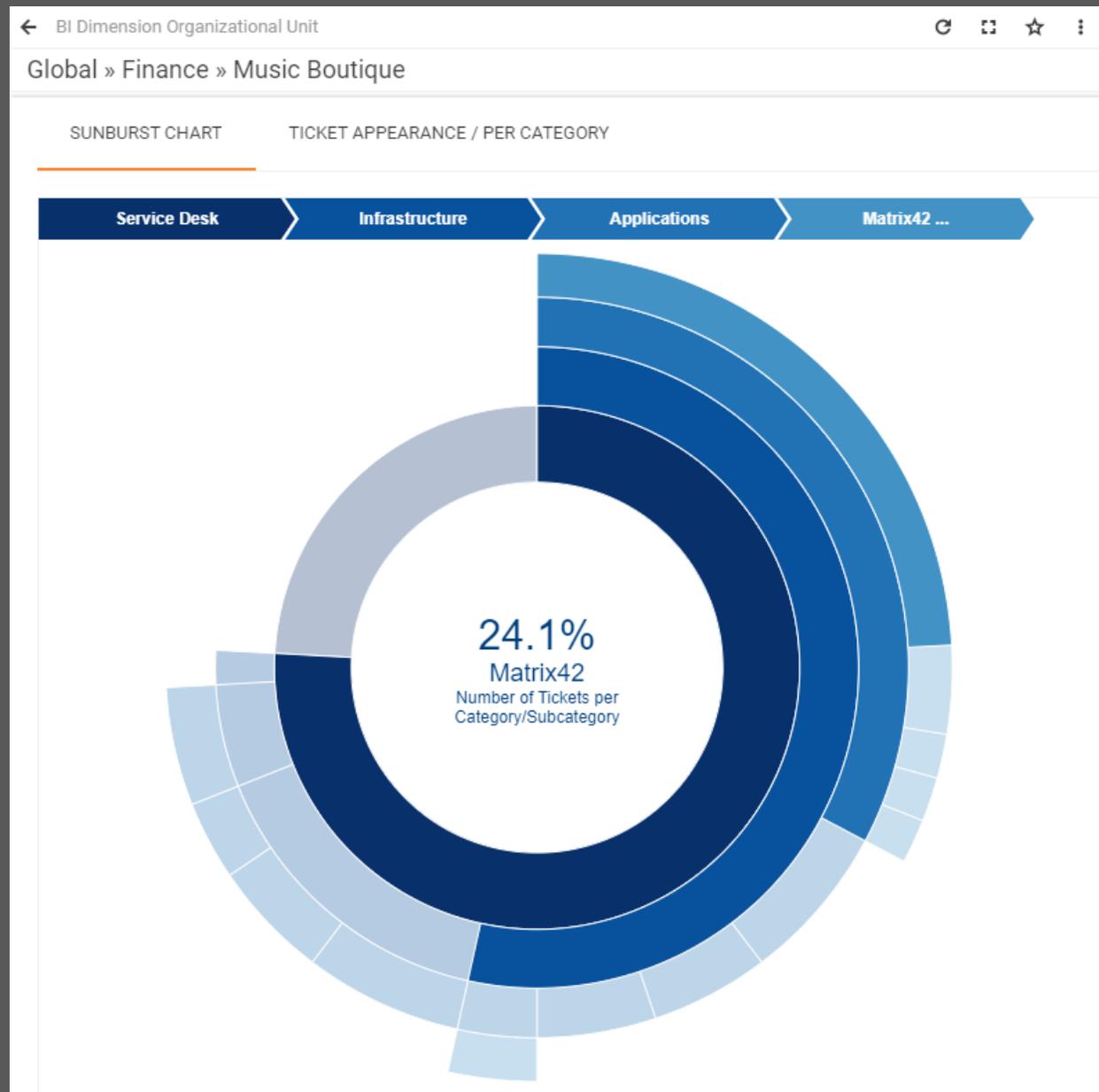
BI Monthly Success Scores

Success Scores: 11 - 2018

KPI COMPLIANCE TOP EXPENDITURES OF WORK TOP 10 / ORGANIZATIONAL UNIT

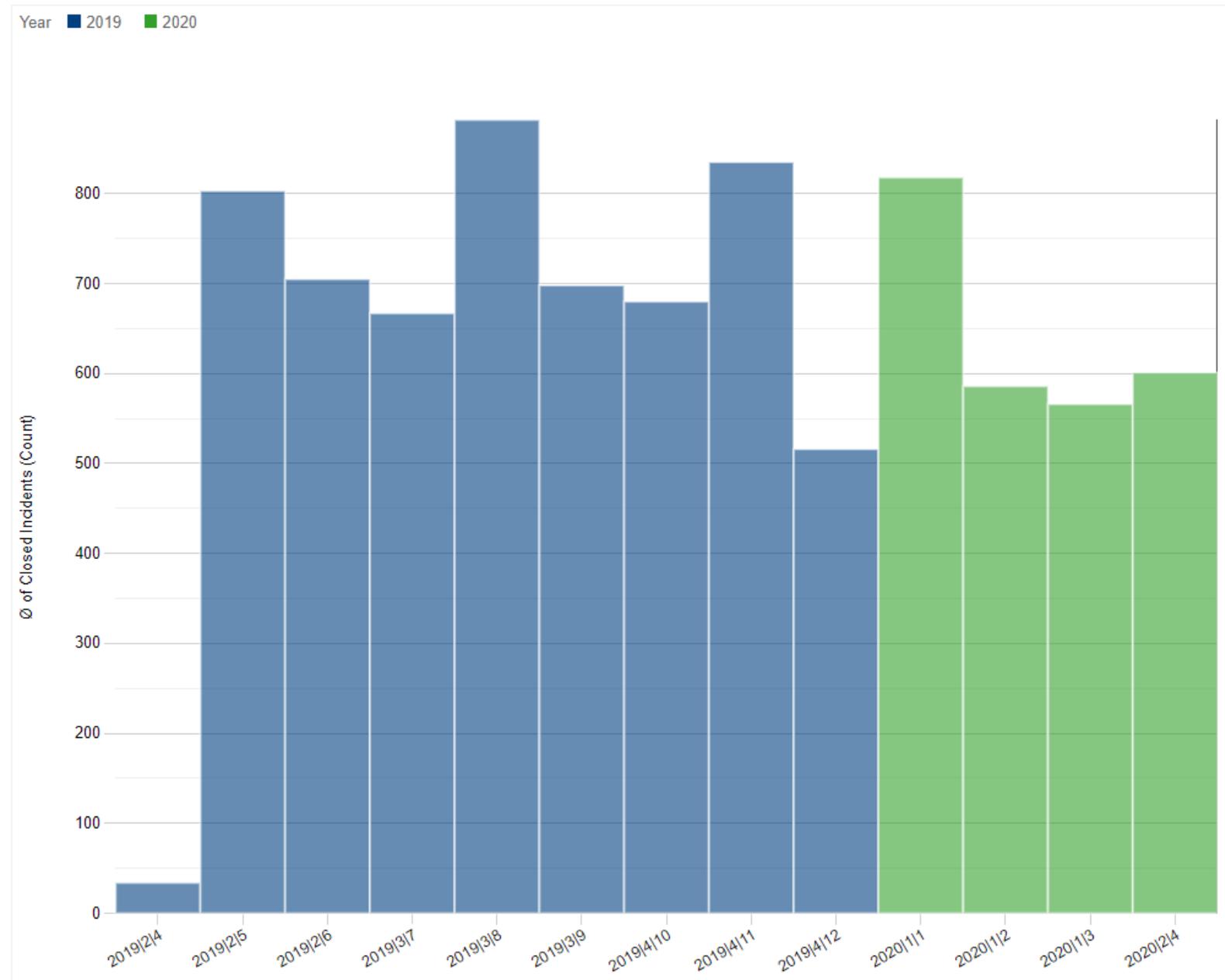
Filter: Time-In Status = In Progress

Cessante causa cessat effectus - abyssus abyssum ... INC26195 Global » Social Media » Record Town	Effort in days [Priority Status] 75.04 d [Low Closed] Service Desk » New Workplace 2.0
Lorem ipsum dolor sit amet, consectetur adipisicing elit INC26286 Global » Social Media » Tweeter	Effort in days [Priority Status] 73.34 d [Low Closed] Service Desk » Workplace » PC / Notebook
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Pivot Center - Closing Power



Year
Quarter
Month

Selection

- Year
- Quarter
- Month

KPIs

Incident Management

- Created Incidents
- Closed Incidents
- Escalated Reaction Time
- Escalated Solution Time
- Directly solved Incidents
- Tickets Alive (Incidents)
- Ø Closing Time
- Solution Rate
- First Call Resolution Rate
- Backlog Growth Rate

Request Fulfilment

- Created Service Requests
- Closed Service Requests
- Escalated Reaction Time
- Escalated Solution Time
- Directly solved Service Requests
- Tickets Alive (Service Requests)
- Ø Closing Time
- Solution Rate
- First Call Resolution Rate
- Backlog Growth Rate

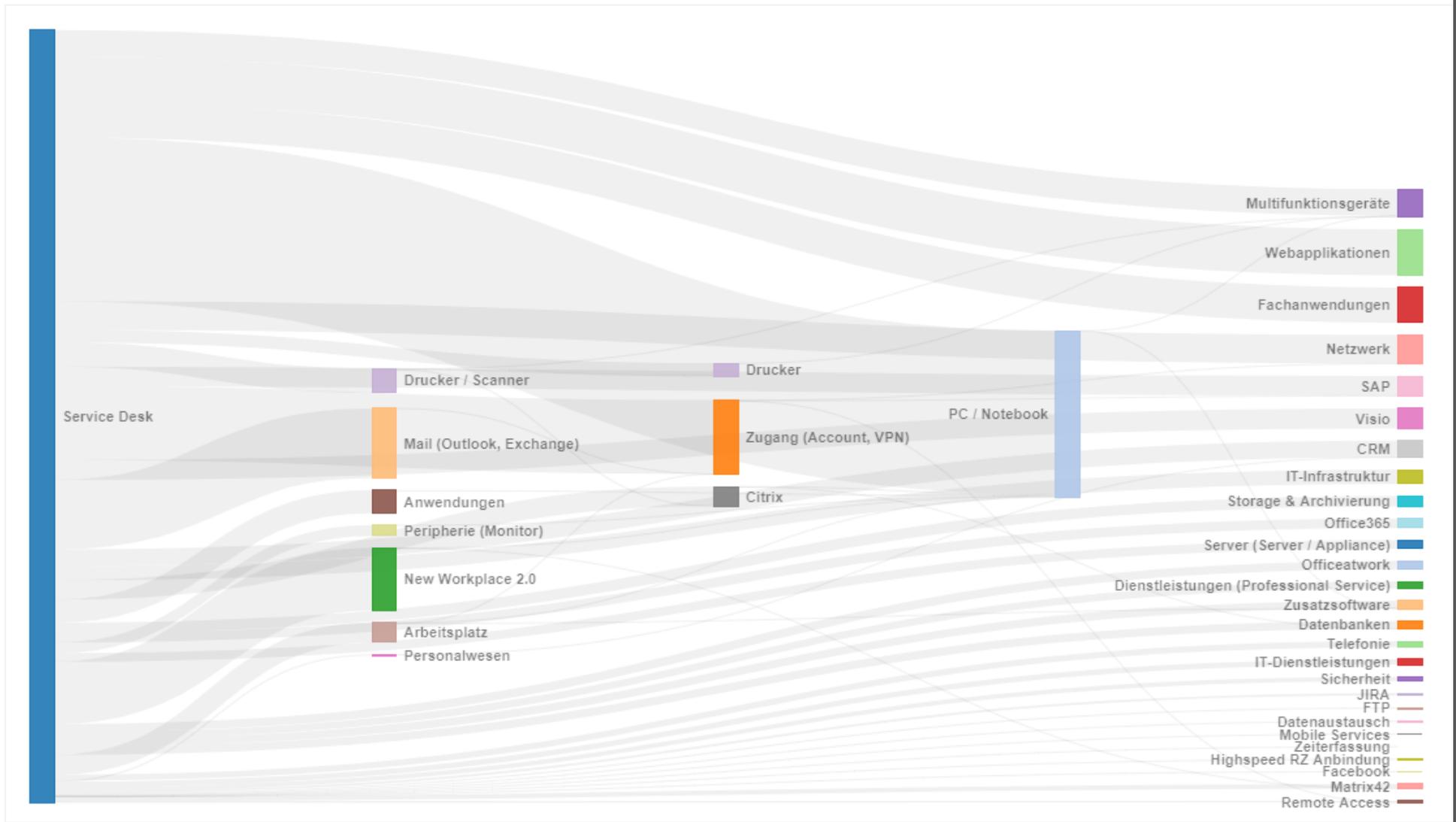
Metric

- Ø
- Median
- Σ

Flow-O-Mat | Ticket Transition

INCIDENTS SERVICE REQUESTS

TRIAGE (TOP 50) ALL > 1%



Search in Navigation

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- ☰ Search in Navigation
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- 🔍 Differentiator
- 📉 Pivot - Closing Power
- 🔄 Ticket Transition
- ⚙️ BI Configuration
- <> Dimension - Category
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- 🔗 BI Transformations

BI Dimension Category

Service Desk » New Workplace 2.0

Monthly Assessment / per Category

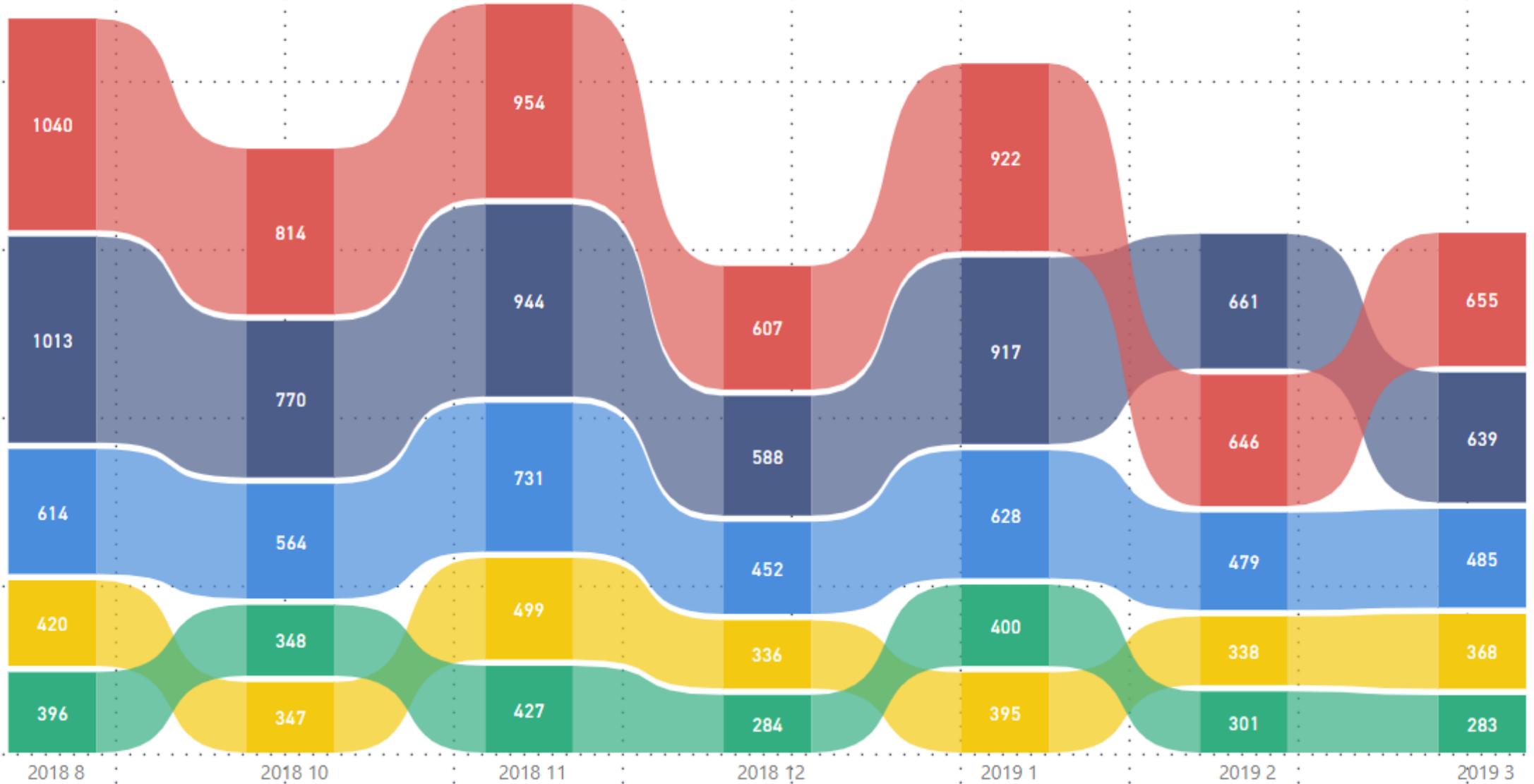
CLOSING POWER | FIRST CALL RESOLUTION RATE Ø SETUP TIME [TIME-TO CATEGORY] | Ø DWELL TIME [TIME-IN CATEGORY]

Month	Ticket Type	Ø Setup Time [Time-To] in days	Ø over all months	in %	Ø Dwell Time [Time-In] in days	Ø over all months	in %
📅 April 2020	Incidents	0.03	0.08	-62.5%	6.73	7.95	-15.35%
	Service Requests	0.09	0.09	-	-	8.82	-
📅 March 2020	Incidents	0.04	0.08	-50%	5.8	7.95	-27.04%
	Service Requests	0.09	0.09	-57.95%	6.56	8.82	-25.62%
📅 February 2020	Incidents	1.31	0.08	1537.5%	5.66	7.95	-28.81%
	Service Requests	0.09	0.09	-96.91%	-	8.82	-
📅 January 2020	Incidents	0.01	0.08	-87.5%	5.18	7.95	-34.84%
	Service Requests	0.09	0.09	-86.11%	-	8.82	-
📅 December 2019	Incidents	0.17	0.08	112.5%	15.22	7.95	91.45%
	Service Requests	0.09	0.09	200.93%	6.01	8.82	-31.86%
📅 November 2019	Incidents	0.07	0.08	-12.5%	4.32	7.95	-45.66%
	Service Requests	0.09	0.09	-56.68%	15.25	8.82	72.9%
📅 October 2019	Incidents	0.05	0.08	-37.5%	7.18	7.95	-9.69%
	Service Requests	0.09	0.09	141.51%	16.84	8.82	90.93%
📅 September 2019	Incidents	0.03	0.08	-62.5%	4.22	7.95	-46.92%
	Service Requests	0.09	0.09	-	-	8.82	-

Number of Tickets per Year, Month & Status



Status ● Assigned ● Closed ● In Progress ● New ● On Hold





Architecture

Excursus // Calculation of Expenses

- This month, 100 new tickets have been opened and 90 closed. Makes **90%** closing rate, right?
- No. Conventional reporting would do so. In truth, another 100 tickets in progress have been re-routed, edited by experts, returned and still ongoing. In other words, expenses were generated that are not covered by conventional reporting. We call this new measure TICKETS ALIVE which reflects all tickets that somehow consumed effort.
- Correct: $90 \text{ closed tickets} / (100 \text{ new} + 100 \text{ further processed}) =$ dissolution rate of **45%**

Excursus // Calculation of Expenses

- If a ticket changes the STATUS, the CATEGORY or the ROLE responsible, Service Desk Analytics determines the previous effort [TIME-TO]. Similarly, the effort is incurred, which is incurred until the next occurring event [TIME-IN]
- As a result, Service Desk Analytics knows all the efforts incurred per processing phase, topic and respective team and stores them in a multi-dimensional BI data cube.

← BI Dimension Incident

INC26195 : Cessante causa cessat effectus - abyssus abyssum invocat

Setup Time [Time-To] | Dwell Time [Time-In]

STATUS	CATEGORY	RESPONSIBLE ROLE	TREEMAP CHART
 New			 22 Nov 2018 10:12:35
 000 d 00 h 00 min			 000 d 00 h 36 min
 Assigned			 22 Nov 2018 10:48:21
 000 d 00 h 36 min			 000 d 00 h 29 min
 In Progress			 22 Nov 2018 11:17:36
 000 d 01 h 05 min			 000 d 00 h 25 min
 On Hold			 22 Nov 2018 11:42:44
 000 d 01 h 30 min			 000 d 02 h 10 min
 In Progress			 22 Nov 2018 13:52:03
 000 d 01 h 40 min			 000 d 00 h 23 min
 On Hold			 22 Nov 2018 14:15:00
 000 d 01 h 38 min			 007 d 01 h 38 min
 In Progress			 29 Nov 2018 15:53:35
 000 d 01 h 10 min			 075 d 00 h 10 min
 On Hold			 12 Feb 2019 16:03:22

Excursus // Calculation of Expenses

- The database of Service Desk Analytics is the Matrix42 history - there, all data and events that occur during the day are recorded & updated
- Service Desk Analytics uses a built-in ETL (Extract > Transform > Load) engine that orchestrates data transformations and sets the results into business context
- The calculation engine performs the calculation of numerous KPIs, averages, median values and determination of success scores



DimIdIncident	DimIdStatus	DimIdRole	DimIdPriority	DimIdCategory	DimIdOrgUnit	DimIdTime	DimIdReason	TimeToStatus	TimeInStatus	TimeToRole	TimeInRole
29263	200	26	1	114	58	20190429	-	-	0.0277	-	0.034
29263	202	26	1	114	58	20190429	-	0.0277	0.0062	-	-
29263	202	26	1	71	58	20190429	-	-	-	-	-
29263	201	13	1	71	58	20190429	-	0.0340	0.0236	0.034	-
29263	204	13	1	71	58	20190429	20001	0.0576	-	-	-

EVENT-DRIVEN ARCHITECTURE



Event	Status	Role	Category	Time-To-Status	Time-In-Status
Ticket Created	200 New	26 Service Desk	114 Service Desk	-	0.0277 40 min
Ticket In Progress	202 In Progress			0.0277 40 min	0.0062 9 min
Ticket Assigned	201 Assigned	13 Operations	71 Workplace > Mail	-	-
Ticket Accepted				0.0340 49 min	0.0236 34 min
Ticket Closed				204 Closed	0.0576 1h 23 min

DIMENSION

dimId [Ticket]	Name
29263	INC29950
29264	INC29951
29265	INC29952
29266	INC29953
29267	INC29954

DIMENSION

dimId [Status]	Name
200	New
201	Assigned
202	In Progress
203	On Hold
204	Closed

DIMENSION

dimId [Role]	Name
13	Operations/Groupware
14	Network
18	Operations/Public
26	Service Desk

DIMENSION

dimId [Category]	Name
71	Service Desk > Workplace > Mail
79	Service Desk > Infrastructure > Network
91	Service Desk > Workplace > Computer
114	Service Desk

DIMENSION

dimId [ClosingReason]	Name
402	Solved
406	Duplicate
408	Direct Solved
420	Known Issue
20001	Solved by 2nd/3rd Level

FACTS



DIMENSION

dimId [Priority]	Name
0	Without
1	Low
2	Middle
3	High
4	Mission Critical

DIMENSION

dimId [OrgUnit]	Name
19	Education > Judie's
58	Social Media > Eli Moore Inc.
199	Education > Blockbuster Music
202	Education > Envirotecure Design Service

DIMENSION

dimId [Time]	Year	Quarter	Month	Day	WeekDay
20190726	2019	3	07	26	friday
20190725	2019	3	07	25	thursday
20190724	2019	3	07	24	wednesday
20190723	2019	3	07	23	tuesday
20190722	2019	3	07	22	monday
20190721	2019	3	07	21	sunday



DATA MODEL