Next Generation Support Services

- How co-creation secured us a front seat in the digital journey

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NNIT Service Support Center
- We take care of our customers' challenges as if they were our own

300+ Employees in **6** countries

14 Languages supported

35+ On-site Countries

700.000+ Inbound tickets (2018)

CSat: 4.4 (2018)

KCS & Digital Frontrunner

LIFE SCIENCES | **FINANCE** | **PUBLIC** | **ENTERPRISE** | **INTERNAL**

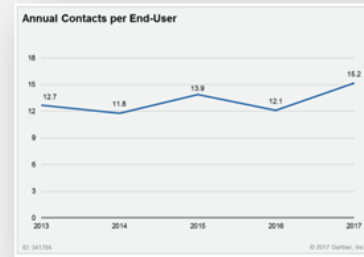# Next Generation Support Services
- 2 key market trends

Demand for omnichannel support

- New technologies as well as new generation of users demand additional support channels for swift service from no matter where they are
  - Chat
  - Self Help portals
  - Password reset
  - Phone apps

- This can easily become very expensive to create and operate

Increasing ticket load

- Expectations have been new technologies like Windows 7/10, cloud applications etc. Would reduce the load on Service Desk but the opposite has happened:
  - Agile development
  - Higher complexity in IT

Annual Contacts per End-User

12.7	11.8	13.9	12.1	15.2
2013	2014	2015	2016	2017

ID: 341764 © 2017 Gartner, Inc.

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Next Generation Support Services
- Our situation 1½ year ago

NNIT situation 2017

- Initial internal experimentation with machine learning based on ITSM data

- Huge amount of data including alarms we were not able to connect together for trending

- Several legacy systems among others old ITSM installation

- Uncertainty about potential in AI/machine learning and difficult to create business case for top management

- Huge amount of AI/machine learning software to chose between…each more costly than others promising even more

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Next Generation Support Services
- The SupWiz team

- **Successful software-entrepreneurs**

- **World-leading experts** in algorithms, AI, and statistics

- Multiple-time **Danish champions in programming**

- **Olympic medalists** in mathematics and computer science

- **Top 5** Google Distributed Code Jam 2018

- Researchers from **Cambridge University, University of Copenhagen, etc.**

- Multiple research papers at **NIPS/STOC/FOCS/SODA**

- Previously built software used by **100+ million users**

SUPWIZ
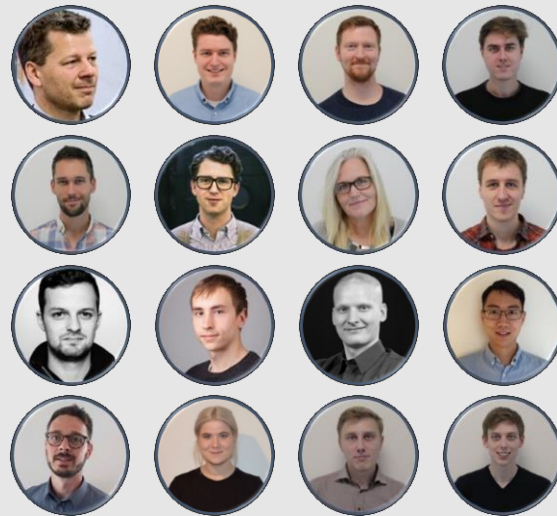
Next Generation Support Services
- AI / Machine learning

Ticket routing

Functionality
- Improve ticket accuracy through predicting next assignment group
- Predict correct categorization of tickets
- Automate use of ticket routing functionality
- "Self solving" incidents/SRs

Benefits
- Reduce Time to Resolve
- Reduce cost of operation
- Improved employee satisfaction

Omni channel / Chat bot

Functionality
- Knowledge base integrated chatbot based on customer specific wordings / abbreviations linked to our KCS driven knowledge base
- Flow creation including integration to systems

Benefits
- Secure a consistent high quality
- Increase scalability
- Reduce cost for support

Predictive maintenance & CSI

Functionality
- Clustering/trending of tickets to do faster problem identification and removal of pains
- Forecasting potential downtime on systems and infrastructure components

Benefits
- Reduced downtime for customer end users
- Reduce Major Incidents
- Reduce cost of operation

Next Generation Support Services

- Ticket Routing (How does it works)

Next Generation Support Services
- Ticket Routing (How does it works)

NNIT-CN-EventManagement		[May 2, 2018, 8:52 a.m.] In Progress (2)
NNIT-CN-EventManagement		[May 2, 2018, 8:52 a.m.] In Progress (2)
NNIT-VDI-Operations		[May 2, 2018, 8:53 a.m.] Assigned (1)
NNIT-VDI-Operations		[May 2, 2018, 9:04 a.m.] In Progress (2)
NNIT-Windows-Services		[May 2, 2018, 11:23 a.m.] Assigned (1)
[May 2, 2018, 1:09 p.m.]		reported: NNIT-Windows-Services as wrong group
[May 2, 2018, 1:09 p.m.]		asked and got: NNIT-VDI-Operations (0.55113554) NNIT-Windows-Services (0.36028606) NNIT-TeamBackup (0.019802604)
[May 2, 2018, 1:09 p.m.]		clicked: NNIT-VDI-Operations
NNIT-VDI-Operations		[May 2, 2018, 1:09 p.m.] Assigned (1)
NNIT-VDI-Operations		[May 2, 2018, 1:41 p.m.] In Progress (2)
NNIT-VDI-Operations		[May 2, 2018, 1:41 p.m.] Resolved (4)

The 'not for me' button

Next Generation Support Services
- Ticket Routing (Results of first phase)

Results*

Time to Resolve
- Median TTR reduced by 24% compared to same period last year
- 90% quartile TTR improved by 17% compared to same period last year

Cost of operation
- With more than 1 million tickets yearly in NNIT we have saved 66.000 jumps which corresponds to around 5.500 hours saved

Employee satisfaction
- Survey about our ability to remove pains improved from 3.44 to 3.60

Next steps:
- Increase usage of functionality
- Implement additional functionality

* Savings is a sum of initiatives but with the Ticket Routing as key driver

Next Generation Support Services
- Chatbot

Key drivers to success

Understanding customer specific language and abbreviations

Flows generated for most frequent issues/request

Process automation activated from chat bot

Continuously updated Knowledge base through KCS

Organizational support to secure sufficient usage of chat bot

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NNIT Service Desk

Welcome to NNIT Service Desk

We would like to inform you that we collect and store the information that you provide in the chat to give optimal support and document the interaction.
We manage the information provided according to our privacy policies, however we still recommend that you only share necessary information.

Initials

Please describe the problem you encountered

Start chat

Next Generation Support Services

- Predictive maintenance, CSI & Automation

Focus areas

Clustering/trending of tickets to do faster problem identification

CSI integrated part of daily work, driven by service managers

Allocate time for technical SD people to be trained and do scripting of manual tasks

Next Generation Support Services
- Key learnings

Learning #1

Don't promise you top management something you can't deliver

Learning #2

Focus on business challenges and investigate if/how AI/machine learning might help you, not the other way around

Learning #3

If you think you have enough data you are probably wrong

Learning #4

Make sure you have internal resources available to support the technical implementation

Learning #5

The demand for classic IT support does not change over night, but the skills in Service will gradually change towards more technical skilled people

Learning #6

Yes it is a robot, not a human...don't tell people otherwise yet

Questions & Answers

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