Next Generation Support Services

By Jakob Sassersen
AVP

NNIT

NNIT Participants

Jakob Sassersen
Associate Vice President

- In NNIT since 2006
- Global head of Service Support Center
- Previous positions in NNIT
  - General Manager NNIT Czech Republic
  - Global Lead Infrastructure Platform Services
  - Executive Assistant to NNIT CEO
- Outside NNIT (Oticon, EY, Self Employed)
- Dane, but living in Prague since 2014

NNIT

NNIT Service Support Centre

- We take responsibility for our customers' challenges as if they were our own

300+ Employees in **6** countries

14 Languages supported

35+ On-site Countries

692.813 Inbound tickets (2018)

USat: 4.4 (2018)

KCS & Digital Frontrunner

LIFE SCIENCES
novo nordisk
nne
houses pharma engineering
Ambu
Ideas that work for life
novo holdings
Investors in life science
FibroGen
AJ Vaccines

FINANCE
PFA PENSION
AP PENSION

PUBLIC
DANMARKS DOMSTOLE
HK

ENTERPRISE
PANDORA
STARK
Sammen bygger vi professionelt
Danmarks Apotekerforening
DANISH CROWN

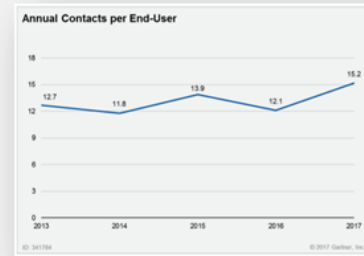### INTERNAL
NNIT

NNIT Service Support Center

- 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

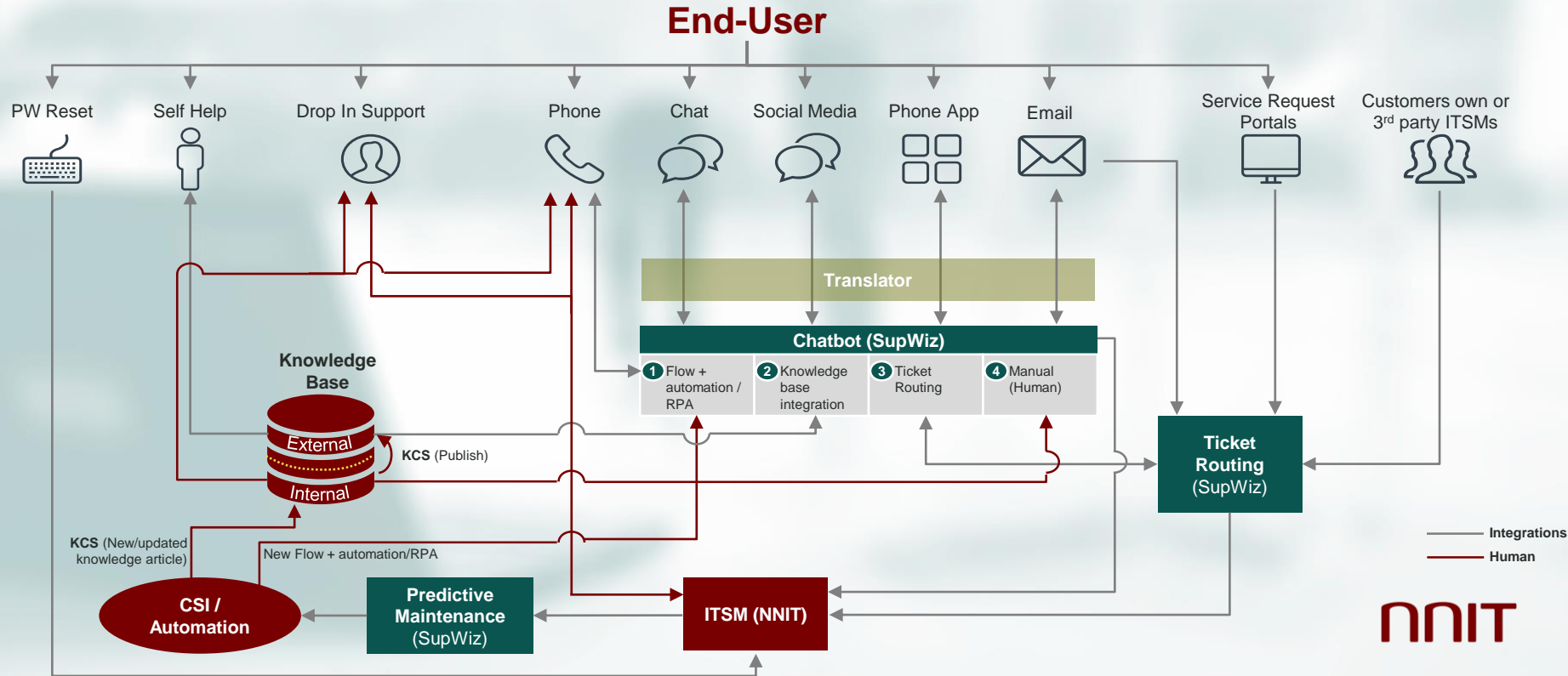- This can easily become very expensive to create and operation

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
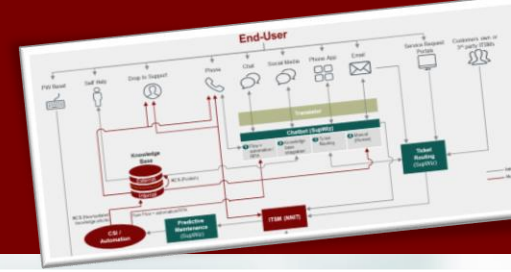 - Higher complexity in IT

Annual Contacts per End-User

18		
15	13.9	15.2
12.7	11.8	12.1
9		
6		
3		
0		
2013	2014 2015	2016 2017

ID: 341764   © 2017 Gartner, Inc.

Next Generation Support Services
## - Knowledged Centered Services (KCS)

Knowledge sharing integrated in the support process ● Knowledge made available to the users

- Content is created as a by-product of problem-solving

- Knowledge articles updated and created based on real issues received by Supplier

- KCS process secures that we dynamically evolve KnowIT continually as well as push the knowledge articles to end-users and chatbot
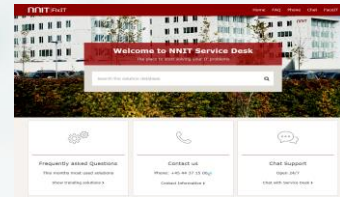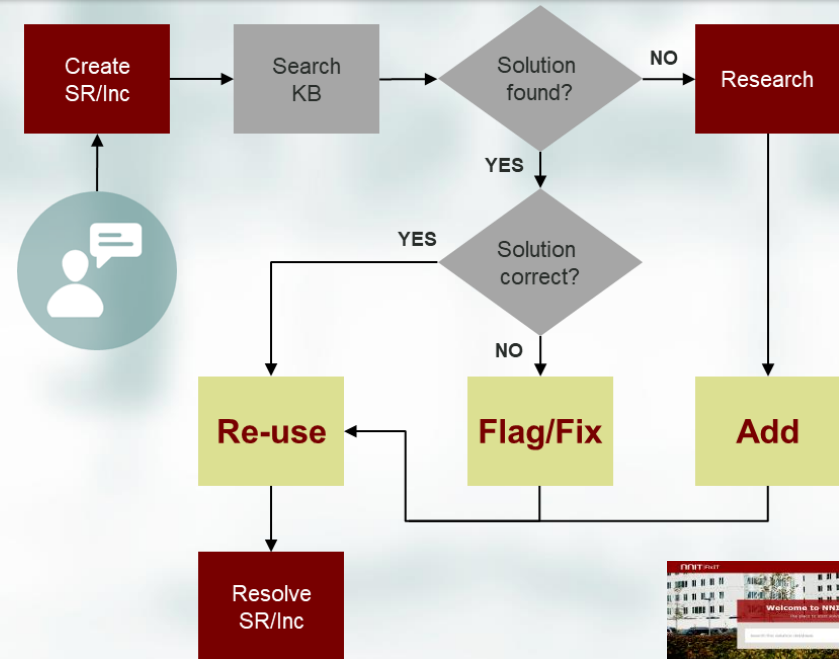
Next Generation Support Services
- AI / Machine learning

SUPWIZ
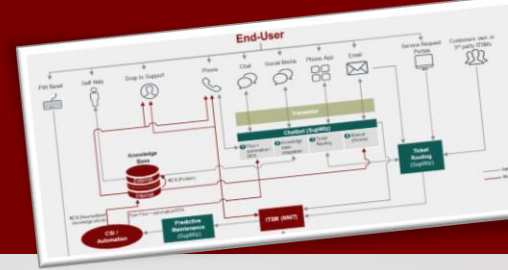
Ticket routing

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 work)

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

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 (How we will succeed)

Chatbot (SupWiz)

| ❶ Flow + automation / RPA | ❷ Knowledge base integration | ❸ Ticket Routing | ❹ Manual (Human) |

Key drivers to success

Understanding customer specific language and abbreviations

Flows generated for most frequent issues/request

Process automation activated from chat bot

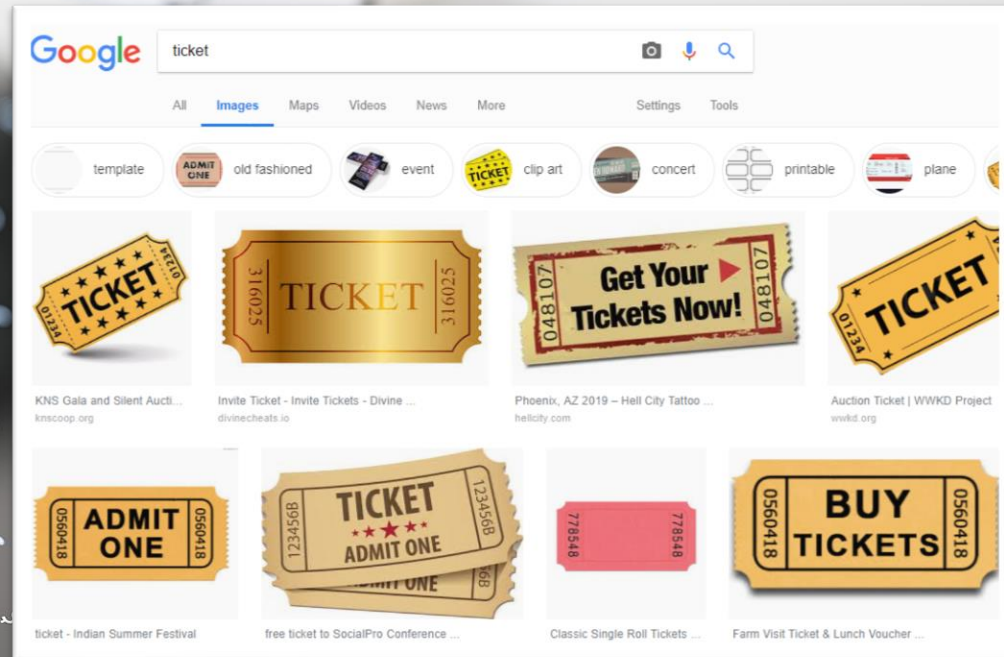**Continuously updated Knowledge base through KCS**

Organizational support to secure sufficient usage of chat bot

Internal prototype Go-live planned for end June 2019

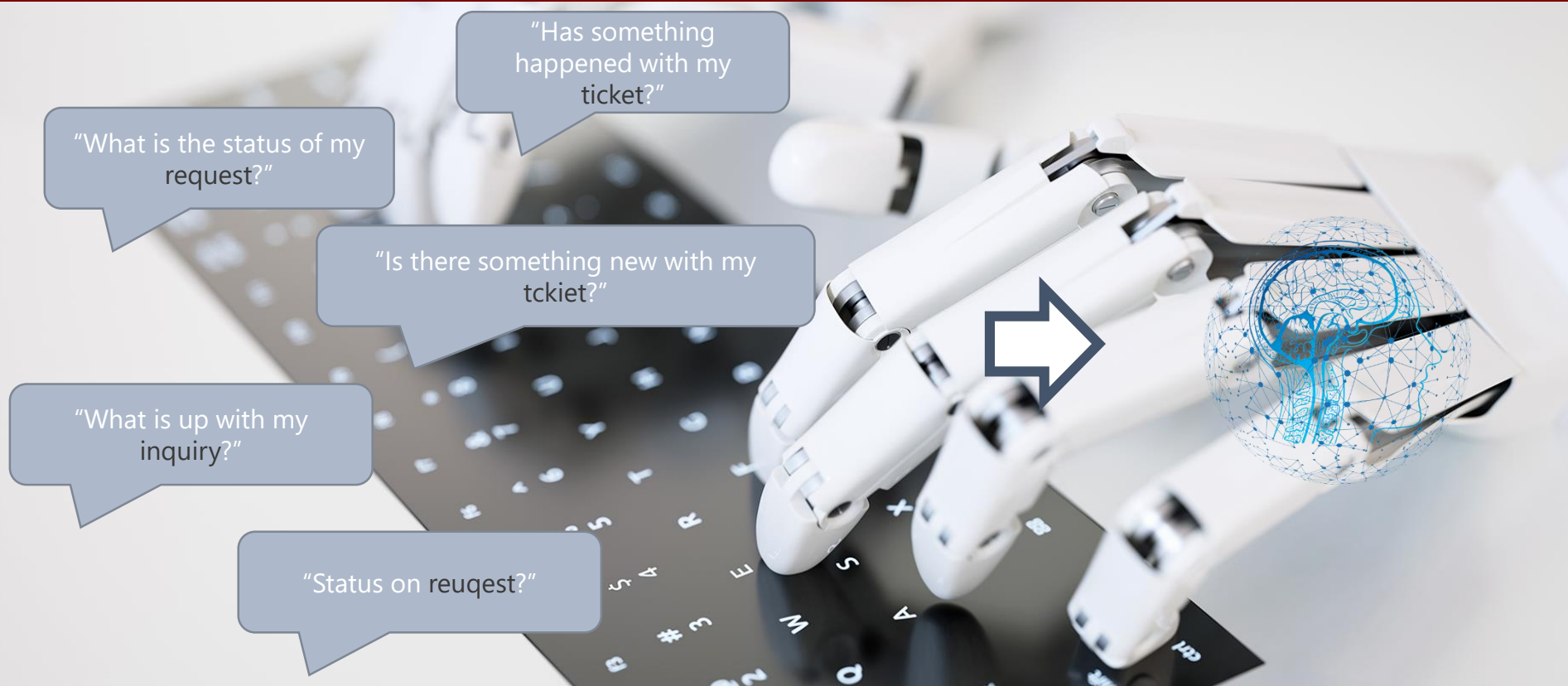# Next Generation Support Services
- Chatbot (Flow generation and automation)

Control different aspects of the chatbot

Edit the flow of the chatbot

Live-demo the bot while building it

Next Generation Support Services

- Chatbot (Flow generation and automation)

Change how this node matches (e.g. "if the user types X" or "if RSA token is disabled")

Decide what actions the chatbot should perform

… and much more

Bot Studio

HOME

- Edit
- Config
- API
- Entities
- Subflows
- Statistics
- Debug
- Log

ServiceDeskBot ▾   Logout

Get RSA Token Status   ← Back

Graph

Matching

Actions

Action name	Edit/Delete
CheckRSAStatus	Show Parameters Delete

CheckRSAStatus ⬍   Add action

Variables

Response
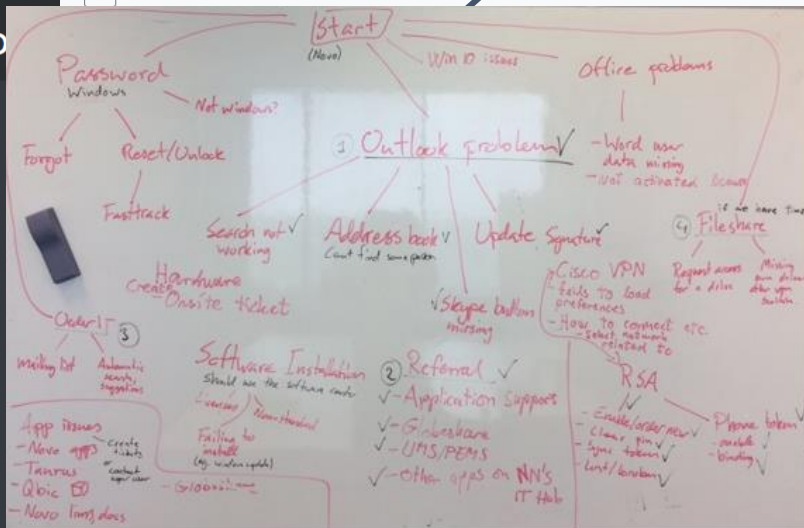
Conversation with ServiceDeskBot

Kunde
What is the status of my RSA token?

Robot
Welcome to the Service Desk, I am a chatbot who will help you solve your problem.

Please wait while I check the status of your RSA token.

Status: ready

Next Generation Support Services
- Chatbot (Knowledge base integrated chatbot)

Chatbot (SupWiz)

| ❶ Flow + automation / RPA | ❷ Knowledge base integration | ❸ Ticket Routing | ❹ Manual (Human) |

Natural language input

Let user know they are talking to a robot and give them a "way out"

Identify problem and ask follow-up question

🔄 Conversation with ServiceDeskBot

Kunde

Hi I can't see my drives

Robot

Hello and welcome to the IT Service Desk chat.

While we are waiting for a supporter I'll do my best to help you solve your problem. If you at any point want to close me down just write 'stop assistant'.

Are you working from home?

Kunde

no

Robot

Do you have issues with all of your drives or only the N drive?

Next Generation Support Services
- Chatbot (Knowledge base integrated chatbot)

Understand natural language

Present solution from Knowledge base

Ask follow-up question to improve AI

Kunde

just the N drive

Robot

Try the following:

1. Click [Start]->[Computer] and double-click on the N drive

2. Click [Work Online] within the Windows Explorer window

3. The N-drive will now reconnect and files/folders should be available again

4. If the [Work online] button is missing or if the button states [Work Offline] click [Start] and in the "Search programs and files" box type "gpupdate.exe", hit <Enter> and restart computer after the polices update completes

Did that help?

Next Generation Support Services

- Chatbot (Knowledge base integrated chatbot)

Kunde
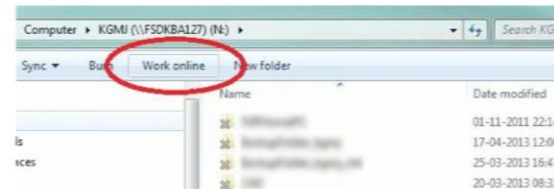
just the N drive

Robot

Try the following:

1. Click [Start]->[Computer] and double-click on the N drive

2. Click [Work Online] within the Windows Explorer window

3. The N-drive will now reconnect and files/folders should be available again

4. If the [Work online] button is missing or if the button states [Work Offline] click [Start] and in the "Search programs and files" box type "gpupdate.exe", hit <Enter> and restart computer after the polices update completes

Did that help?

Resolving N drive issue in Windows

To resolve the issue when already logged into Windows, follow these steps:

1. Navigate to your N:-drive -> click [Start] -> [Computer] -> click on your "N:\" drive

2. Click [Work Online] on the top menu bar

3. The N:-drive will now reconnect and files/folders will be available again

Computer ▸ KGMJ (\\FSDKBA127) (N:) ▸		▾	✦	Search KG
Sync ▾	Bu~	Work online	New folder	
		Name		Date modified
		⚙ t3Miscan0		01-11-2011 22:1~
ls		⚙ BackupFolde.(xps)		17-04-2013 12:00
ces		⚙ BackupFolde.(xps)_xit		25-03-2013 16:4~
		⚙ t30		20-03-2013 08:3~

4. If the button is missing or if the button says [Work Offline] -> try remapping the N:-drive

  1. Tp remap your N drive, click [Start]

  2. In **"Search programs and files"** field copy and paste: \\system02\InstCorp\Client\Tools\remapN\remapN.bat

  3. Press <Enter> on your keyboard and wait for the black box to disappear

  4. Check to see if your N drive is now available

5. If the issue persists, please contact the Service Desk via email (servicedesk@novonordisk.com), phone (+45 444 26000✆) or by writing CHAT in your browser

Keywords

n drive homedir network drive unavailable inaccessable work offline online No data access ndrive n: cannot open can not my document documents

Next Generation Support Services

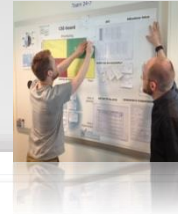## - Predictive maintenance, CSI & Automation

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 and statements
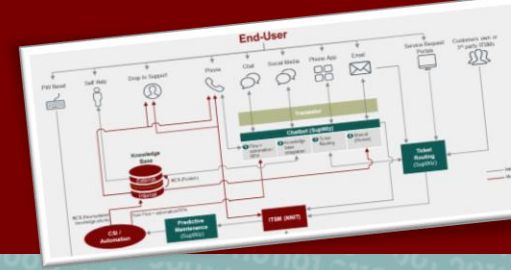
Learning #1

Focus on your business and make a strategy that might include AI / Machine Learning, not the other way around

Learning #2

Secure management support for the investment – results might not come right away

Learning #3

Make sure you have access to the right people internally / externally to support the implementation of the Digital Transformation

Statement #1

ITSM tools will increasingly become a container for information and you might need to accept lower ITSM data quality for improved efficiency & improved end user satisfaction

Statement #2

Next Generation Support Services do not only cover IT but also other business areas like HR, Quality, Procurement & your end customers within the same framework

Statement #3

AI / Machine Learning technologies are still in the early phases and mainstream adoption will come later than people expect – but it will come

NNIT