Webinar Series 2019
SAP's Use of AI in Incident Management Processes

Jens Trotzky,
Head of AI Technology, Customer Success Services, SAP

PUBLIC
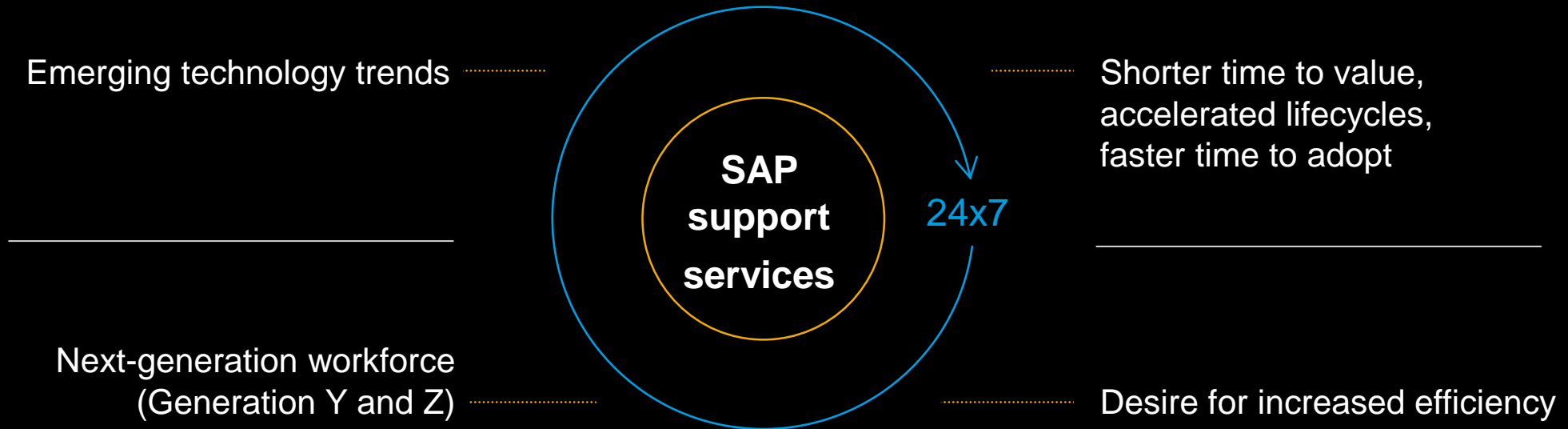
THE BEST RUN **SAP**

Disclaimer

The information in this presentation is confidential and proprietary to SAP and may not be disclosed without the permission of SAP. Except for your obligation to protect confidential information, this presentation is not subject to your license agreement or any other service or subscription agreement with SAP. SAP has no obligation to pursue any course of business outlined in this presentation or any related document, or to develop or release any functionality mentioned therein.

This presentation, or any related document and SAP's strategy and possible future developments, products and or platforms directions and functionality are all subject to change and may be changed by SAP at any time for any reason without notice. The information in this presentation is not a commitment, promise or legal obligation to deliver any material, code or functionality. This presentation is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. This presentation is for informational purposes and may not be incorporated into a contract. SAP assumes no responsibility for errors or omissions in this presentation, except if such damages were caused by SAP's intentional or gross negligence.

All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

The world is changing. Digital technologies are everywhere

Drivers and implications for SAP support services

Emerging technology trends

Shorter time to value, accelerated lifecycles, faster time to adopt

SAP support services

24x7

Next-generation workforce (Generation Y and Z)

Desire for increased efficiency

Internet of Things

Social

Big Data

Cloud

Machine learning

Hyper-connectivity

Mobile

In-memory computing

Our vision of the digital support experience

Anticipate

You should never have to ask a question.
Our collective focus with product development is to achieve high-quality, intuitive products that **anticipate** your needs.

Accelerate

If you have questions, it's quick and easy to get answers.
Access to SAP's comprehensive knowledge base notably **accelerates** your path to accurate answers when you need them.

Collaborate

**Our support experts will provide you with solutions quickly.**
Our highly skilled engineers **collaborate** with you to help ensure you are successful – providing fast, easy access to the answers you need.

Live Business needs live support

Next-Generation Support for the intelligent enterprise

Traditional SAP support

Industry-leading proactive and preventive support across all deployment scenarios

+
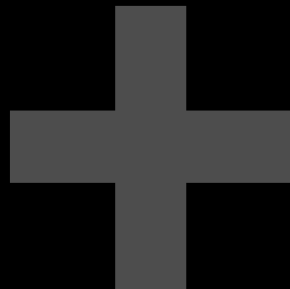
Next-Generation Support

Groundbreaking support for the intelligent enterprise

Self-service and incident prevention

to avoid incidents

Real-time interaction

to speed your time to issue resolution

Digital support experience

to seamlessly integrate with built-in support

Artificial intelligence and machine learning

to accelerate paths to relevant answers

First results

Next-Generation Support for the intelligent enterprise
AI / Machine Learning

AI / Machine Learning.

SAP constantly innovates to improve our products and provide you with a world-class support experience.

- Thought leadership
- AI / Machine Learning
- Incident Solution Matching

Artificial intelligence and machine learning
Incident Solution Matching

Incident Solution Matching automatically proposes solutions based on *incident data (e.g. incident description)* in the incident creation form and the view or edit form of open incidents in SAP ONE Support Launchpad.

Overview

- A new machine learning service based on Artificial Intelligence (AI) technology

- Automatically recommends solutions from SAP Notes and SAP Knowledge Base Articles when you create a new incident or view/edit an open incident

- Potential matches are ranked according to their semantic relevance based on incident data

- Accelerates the process of finding relevant solutions by learning from past incidents

Benefits

- Faster resolution time by receiving proposed solutions for your issue

- Find relevant SAP Notes and SAP Knowledge Base Articles in one quick step without manual searching effort

- The more you use *Incident Solution Matching*, the more relevant the recommendations become

Access

- Simply access the SAP ONE Support Launchpad

- Go to the incident creation form

- Describe your issue as concisely as possible

- Automatically receive suggested solutions ranked in order of relevance in the right pane

- Select a component to further refine the results

- Access your incidents inbox and open an existing incident to view or edit

- Automatically receive suggested solutions ranked in order of relevance in the right pane of the open incident
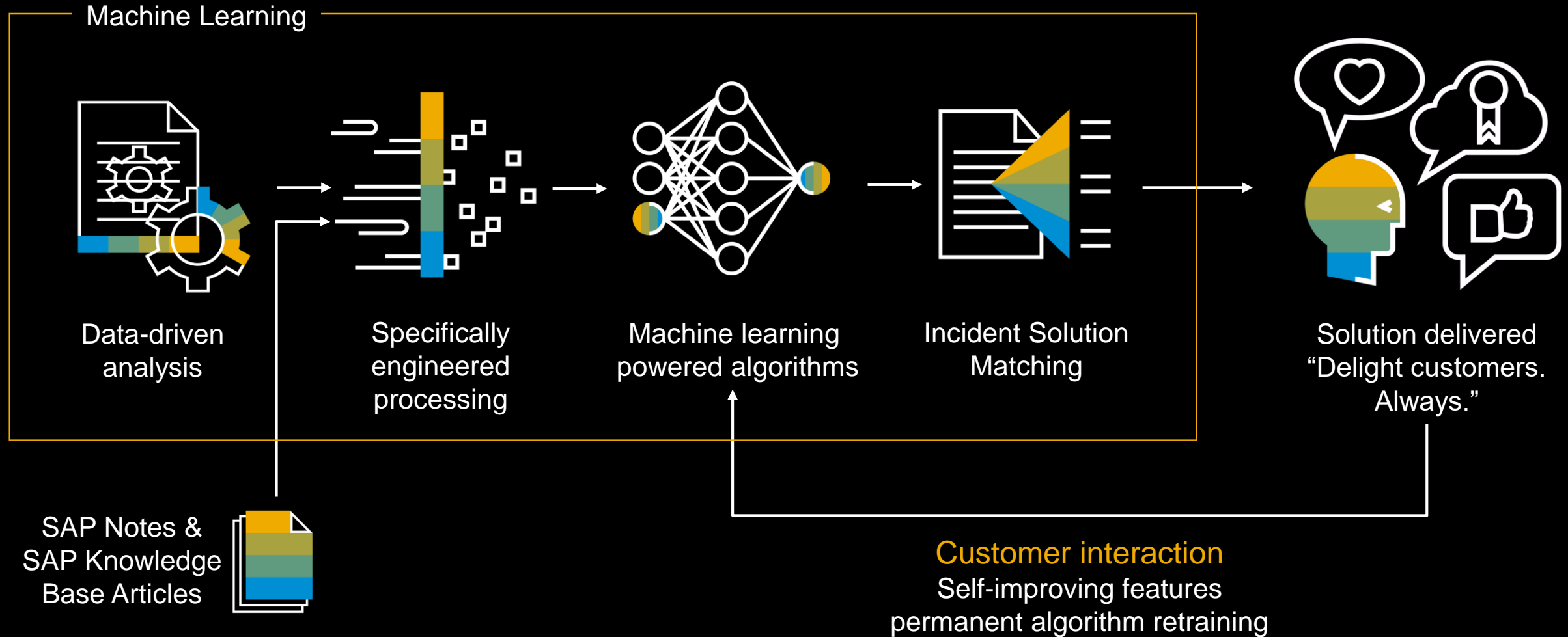
Preview
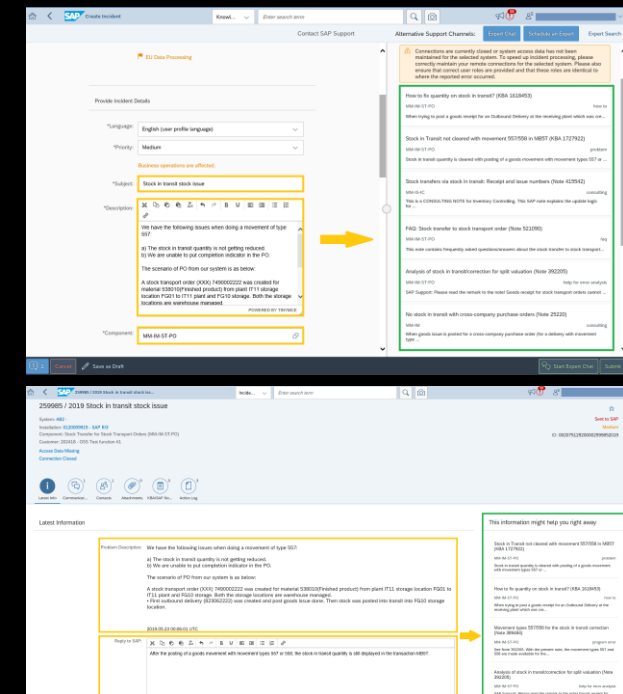
How it works

Incident Solution Matching
Machine learning service for Product Support

Machine Learning

Data-driven analysis

Specifically engineered processing

Machine learning powered algorithms

Incident Solution Matching

Solution delivered "Delight customers. Always."

SAP Notes & SAP Knowledge Base Articles

Customer interaction
Self-improving features
permanent algorithm retraining

Incident classification under the hood

Solutions are identified using **tf-idf** (term frequency–inverse document frequency) and then ranked/filtered using various **signals** allowing for further optimizations and specific tasks.

"Our HANA instance ran into a HANA OOM problem."

| tokenize | Stem/ stop words | frequency | tf-idf | cosine similarity | filter | re-rank using ML model |

{"Our", "HANA", "instance", "ran", "into", "a", "HANA", "OOM", "problem"}

{"Our", "HANA", "instance", "run", "in", "a", "HANA", "OOM", "problem"}

Term	#	Doc #
HANA	2	20
Instance	1	50
Run	1	100
OOM	1	60
problem	1	150

Term	Tf-idf
HANA	0.1
Instance	0.02
Run	0.01
OOM	0.017
problem	0.007
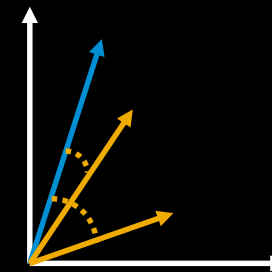
$Sorted$
$= \{HANA, Instance, \ldots$

Outlook

Artificial intelligence and machine learning
Thought leadership roadmap

Exploration
Predictive Support
Prescriptive Support
Personalized Support
Automated Support

Machine learning integration
Leads to Self-improving features with permanent algorithm retraining Simplification such as optimization of incident management process
New features and automated features like incident solution matching, component predictor and expert area predictor functionalities.

Customer success
Data Science for customer success use cases includes optimizing of customer processes or analyzing customer specific data/processes.

Business applicability

Complexity

Thank you

Jens Trotzky

Head of AI Technology
Customer Success Services, SAP

jens.trotzky@sap.comm

More information on SAP Support and the Next-Generation Support approach

Next-Generation Support

SAP Support Portal | Next-Generation Support landing page (SAP Support Portal)

Press release and analyst guidance

Article: SAP Personalizes Support and Services for the Intelligent Enterprise (SAP News Center)

Press Release: Next-Generation Support from SAP Leverages Machine Learning and AI to Improve Customer Experience (SAP News Center)

Article: Your Customer Support Experience Is Your Brand (SAP News Center)

Article: The Ingredients of an Award-Winning Support Experience (SAP News Center)

Article: Live Business Needs Live Support: SAP Support is Award Winning, (SAP News Center)

Article: Award-winning SAP Support Portal and Next-Generation Support services, Interview with Andreas Heckmann, Head of Support Delivery (SAP News Center)

Press Release: SAP Brings Built-In Support to SAP S/4HANA Cloud (SAP News Center)

Press Release: Next-Generation Support Expansion (SAP News Center)

Blogs

Article: Bringing B2C Principles to B2B Services and Support (SAP News Center)

Article: The Future of Support Services – Get Ready for an Automation Storm (SAPInsider)

Article: How does SAP support work for hybrid platforms in the digital age? (SAP Community)

Blog: Bringing Choice Beyond the Commute Through SAP's Omni-Channel Support (LinkedIn)

Blog: Roadside Assistance for Your Digital Transformation (LinkedIn)

Blog: Vision and Strategy (LinkedIn)

Blog: The Future of Support (Digitalist)

Blog: Next-Generation Support (SAP News Center)

Blog: Next-Generation Support (LinkedIn)

Blog: When support tickets can talk (LinkedIn)

Blog: What intelligent enterprises can expect from SAP Support in 2018 (SAP News Center)

Blog: Start your Engines! Next-Generation Support for your Intelligent Enterprise Journey (LinkedIn)

Podcast: SAP Customer Support Podcast (SAP Community) | Building support into the product (iTunes)

Video resources

Videos from SAPPHIRE NOW 2019

SAPPHIRE NOW 2019 update from Andreas Heckmann: Learn about SAP's new approach to customer success

Head of Product Support Mohammed Ajouz: Enable Business Outcomes and Run Smoothly with Support from SAP

Interview - SAP Mentor Ethan Jewett and Andreas Heckmann: Ongoing End-to-End Customer Success Services from SAP

Interview - SAP Mentor Chris Kernaghan and Mohammed Ajouz: The Next Generation of Support

Videos from SAPPHIRE NOW 2018

Keynote Andreas Heckmann with customer STARA

Interview Stara: Maximizing Value with Support from SAP Digital Business Services

Head of Product Support Mohammed Ajouz: Embrace Next-Generation Support for the Digital Enterprise

Video from SAP TechEd Bangalore 2018: Interview with SAP Mentor Krishna Kishor Kammaje: Next-Generation Support – From Traditional Incident Handling to AI-Driven Support

Video DSAG Annual Conference 2018 keynote – Next-Generation Support at 46:45 (German)

More information on SAP Support and the Next-Generation Support approach

Webinars
Replay: Next-Generation Support: Overview Session

Incident Prevention and Self-Service
Blog: Getting Support Your Way: Self-Service (LinkedIn)
Blog: Self-Service Machine Translation for SAP Notes and Knowledge Base Articles in the SAP ONE Support Launchpad (SAP Community)
Video: Guided Answers
Video: Cloud Availability Center for SAP SuccessFactors Solutions
Video: SAP Cloud Trust Center
Video: SAP TechEd 2017 interview on self-service and community

SAP ONE Support Launchpad
Blog: Tips and Tricks for SAP ONE Support Launchpad (SAP Community)
Blog: How to manage your launchpad notifications settings (SAP Community)
Video: SAP ONE Support Launchpad
Video: SMS Notifications for SAP ONE Support Launchpad
Webinar: SAP ONE Support Launchpad – Overview and How to Get Started

Social media
SAP Support Help on Twitter
SAP Cloud Support on Twitter
WhatsApp landing page (SAP Support Portal)

Schedule an Expert
Schedule an Expert landing page (SAP Support Portal)
Announcement: SAP Adds 35+ New Product Areas for Schedule an Expert (Support News)
Blog: How to "Schedule an Expert" in a live session for your SAP solution (SAP Community)
Blog: How to access SAP's live support channels (SAP Community)
Video: Schedule an Expert
Video: Schedule an Expert for open incidents
Video: SAP TechEd 2018 Barcelona, SAP Mentor interview: Bernhard Luecke with David Ruiz Badia on Schedule an Expert
Webinar: Overview Product Support Real-Time Channels
Webinar: Benefit from Real-Time Conversation with an SAP Expert

Expert Chat
Expert Chat landing page (SAP Support Portal)
Blog: Expert Chat (LinkedIn)
Blog: Live Expert Chat Services (LinkedIn; Digitalist)
Blog: Real-Time Support (LinkedIn)
Video: Expert Chat
Video: SAP Mentor Karin Tillotson and Andy Cobbold on continuous improvements on the Next-Generation Support Portfolio – from SAP TechEd Las Vegas 2018
Press release and analyst guidance:
Expert Chat (press release)
Expert Chat in Gartner Note (press release)
Webinar: Use Expert Chat to Solve Your Technical Problems

More information on SAP Support and the Next-Generation Support approach

Ask an Expert Peer

Ask an Expert Peer (SAP Support Portal)

Video: Ask an Expert Peer

Article: Crowdsourcing Customer Service: How Ask an Expert Peer is Changing Real-Time Support

AI and Machine Learning

Incident Solution Matching landing page (SAP Support Portal)

Video: Incident Solution Matching

Article: AI and Machine Learning Drive Automation in Product Support (SAP News Center)

Article: Enter the Next Level of Customer Support Experience with AI Technology (SAP News Center)

Article: Customer Convenience through Service Automation (SAP News Center)

Blog: AI-Powered Support: A Guiding Light for Simplified Support (LinkedIn)

Blog: SAP launches an AI enabled incident wizard in SAP ONE Support Launchpad (SAP Community)

Videos from SAPPHIRE NOW 2018

The next generation of support – AI and Machine Learning taking center stage

Video with SAP Mentor Owen Pettiford: Driving the customer support experience with built-in support and machine learning

Webinar: Incident Solution Matching – Enabled by Artificial Intelligence

Built-in support

Built-in support landing page (SAP Support Portal)

Article: The Built-In Support Effect: Redefining Care For The User Experience (Digitalist)

Blog: Making support smart – built-in support using AI / machine learning (LinkedIn)

Video from SAPPHIRE NOW 2018: Keynote with customer Stara – with demo of built-in support

Article: The Built-In Support Effect For An Integrated, Intelligent User Experience (Digitalist)

Webinar: SAP's Built-In Support

Follow us

www.sap.com/contactsap

THE BEST RUN **SAP**