AUTOMATED AND WORKSHOP-FREE SAP HANA & S/4HANA FUTURE READINESS ASSESSMENT

HOW WEST TRAX & RED HAT WILL HELP SAP CLIENTS ON THEIR ROAD TO HANA & DIGITAL EXCELLENCE

Markus Koch
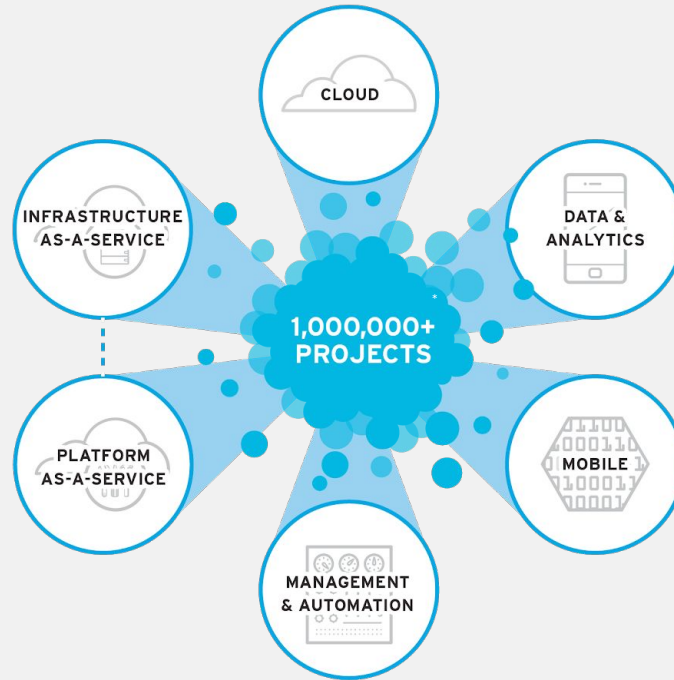Partner Enablement Manager, Red Hat GmbH

redhat.

WHY ARE RED HAT & WEST TRAX ARE WORKING TOGETHER?

"HELP CUSTOMERS TO CREATE SYNERGIES BETWEEN TWO MAIN EVENTS HAPPENING IN IT"

DIGITAL TRANSFORMATION & DISRUPTION

SAP HANA & S/4HANA MIGRATION

redhat.

OPEN SOURCE FUELS RAPID INNOVATION

CLOUD

INFRASTRUCTURE AS-A-SERVICE

DATA & ANALYTICS

1,000,000+ PROJECTS

PLATFORM AS-A-SERVICE

MOBILE

MANAGEMENT & AUTOMATION

redhat.

GET BACK CONTROL OF YOUR IT-STACK

20%

80%

Hybrid Cloud
Storage
Network
Container
Platform
Services
Innovation

- **Added value**
- **Individual business models, services & products**

- **Open Source based**
- **Interoperable**
- **Standardized, Open API**
- **Flexible**
- **No vendor lock-in**

redhat.

RED HAT MISSION:

To be the catalyst in communities of customers, contributors, and partners creating better technology the open source way.

WHAT HAS RED HAT TO DO WITH SAP?

FIT-TO-STRATEGY TECHNOLOGIES

SAPs Key Offerings	Red Hat Value	… delivered by	Red Hat Offerings
SAP HANA	Making the **Datacenter** efficient	automate manual tasks and speed up deployment and changes. Avoid errors and downtime with predictive analytics	**Red Hat Enterprise Linux Insights, Virtualization** **Ansible CloudForms** **Fuse Decision Mgmt** **OpenShift**
SAP S/4 HANA	Making **Hybrid IT** simple	providing hybrid cloud management with governance and policy based control, enabling e.g. self-service functionalities, chargeback, etc.	
SAP Leonardo	Powering the **Intelligent Edge**	integrating non-SAP solutions and sources and unlock the value of enterprise data	
SAP DATA HUB VISIBILITY | INTEGRATION | SIMPLICITY	Enabling **new business insights** from Big Data	streamline development, modernization and delivery of SAP extensions with container technology and microservices	

redhat.

AUTOMATED AND WORKSHOP-FREE SAP HANA & S/4HANA FUTURE READINESS ASSESSMENT

HOW WEST TRAX & RED HAT WILL HELP SAP CLIENTS ON THEIR ROAD TO HANA & DIGITAL EXCELLENCE

Peter Körner
Business Development Manager Enterprise Cloud Computing, Red Hat GmbH

25.4.2018

redhat.

CURRENT SAP CUSTOMER SITUATION

HANA & S/4HANA AS DIGITAL CORE FOR NEXT GENERATION BUSINESSES

SAP customers must migrate to SAP HANA platform and S/4HANA (Application Suite) by 2025.

- This requires abandoning Oracle, DB2, and Microsoft SQL Server
- Plus new infrastructure and Linux is the only certified operating system for the DB
- Today still hundreds of Unix database servers in the market
- This is not a simple migration, it is affecting various elements like custom code, interfaces, business processes etc.
- Fit-to-strategy, new technologies and architectures are required and need to be aligned with migration

redhat.

S/4HANA "SIMPLIFICATION" LIST...

White Paper   CUSTOMER

Document Version: 1.0 – 2017-06-06

Simplification List for SAP S/4HANA 1610 Feature Pack Stack 02

Simplification List for SAP S/4HANA 1610 FPS2

- It is planned to check the introduction of the Customer/Vendor Integration in the pre-checks and the technical Conversion procedure of SAP S/4HANA on-premise edition 1610. A system where the customer/vendor integration is not in place will be declined for the transition.
- The Business Partner Approach is not mandatory for the SAP Simple Finance, on-premise edition 1503 and 1605.

Business Process related information

Only SAP Business Suite customer with C/V integration in place can move to SAP S/4HANA, on-premise(Conversion approach). It´s recommended but not mandatory that BuPa ID and Customer-ID / Vendor ID are the same.
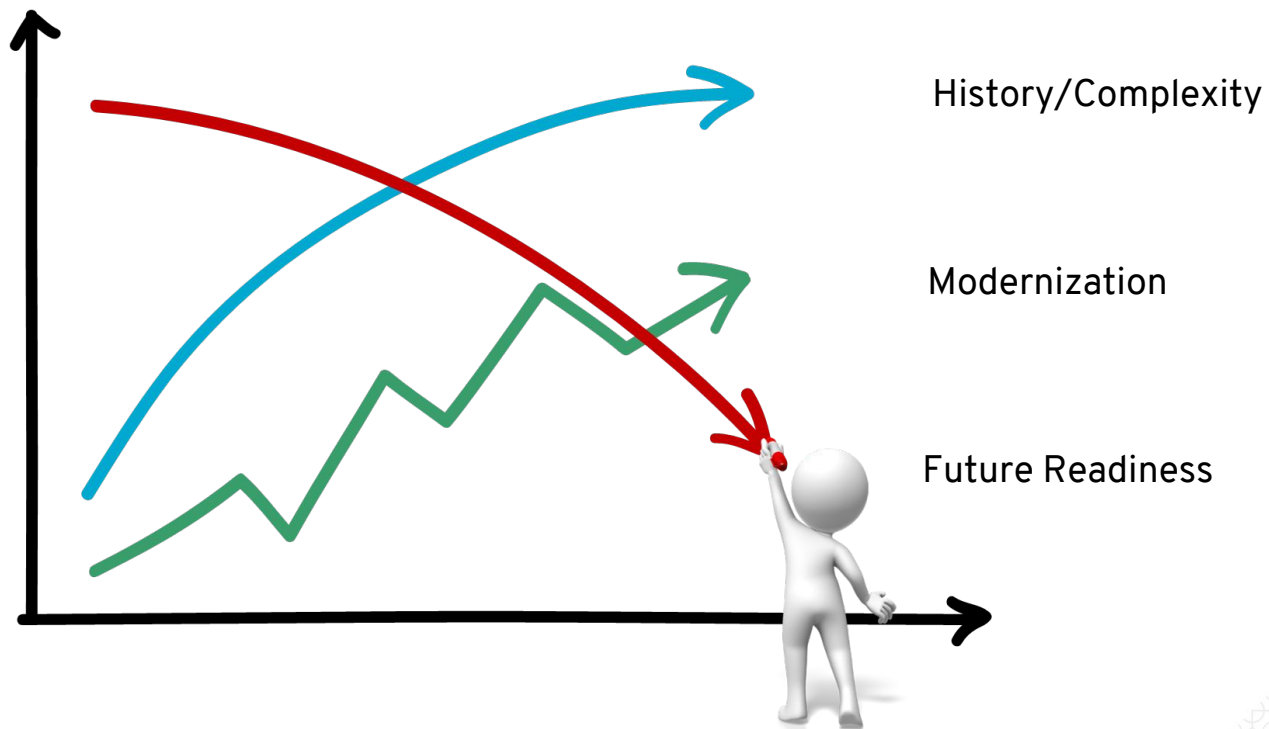
The user interface for SAP S/4HANA is transaction BP. There is no specific user interface for customer/vendor like known from SAP Business Suite (the appropriate specific transaction like XD01, XD02, XD03 or VD01, VD02, VD03 / XK01, XK02, XK03 or MK01, MK02, MK03 etc. are not available in SAP S/4HANA on-premise)

Transaction not available in SAP S/4HANA on-premise edition	FD01, FD02, FD03, FD05, FD06, FD0 FK01, FK02, FK03, FK05, FK06 MAP1, MAP2, MAP3 MK01, MK02, MK03, MK05, MK06, MK12, MK18, MK19, V-03, V-04, V-05, V-06, V-07, V-08, V-09, V-11, V+21, V+22, V+23 VAP1, VAP2, VAP3 VD01, VD02, VD03, VD05, VD06 XD01, XD02, XD03, XD05, XD06, XD07 XK01, XK02, XK03, XK05, XK06, XK07

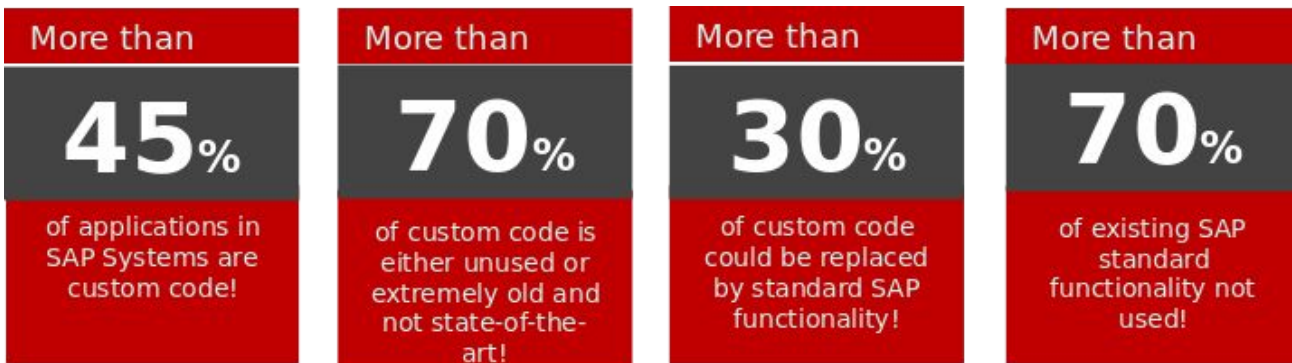**Required and Recommended Action(s)**

THE TRUTH ABOUT TODAY'S SAP LANDSCAPE

History/Complexity

Modernization

Future Readiness

TYPICAL CHALLENGES - PROCESS & TECHNOLOGIES

From mature SAP landscape to Digital Excellence - But how?

Greenfield?
Brownfield?
S/4HANA?
HANA Full Use?

Business Process Optimization?
Industry Solution?
On Prem?

Re-Standardization?
SAP Cloud Platform?
Bimodale IT?

Change Org. Structure?
Cloud ready applications

Housekeeping first?
Container?

Hybrid?

Keep Interfaces?
Wait and see?
Off Prem?
DevOps?

Agile, new services

Change Database now/later?
In the cloud?
Monetize Data

redhat.

THE FACTS

More than	More than	More than	More than
45%	**70**%	**30**%	**70**%
of applications in SAP Systems are custom code!	of custom code is either unused or extremely old and not state-of-the-art!	of custom code could be replaced by standard SAP functionality!	of existing SAP standard functionality not used!

>80% of current **Business Processes slow down Digital Transformation and urgently require modernization!**

Source: West Trax Benchmark Database: 1.600+ Benchmark Analyses in 15 Sectors

redhat.

THE ROAD TO HANA STARTS WITH ASSESSMENTS...

...BUT TRADITIONAL APPROACHES DO NOT WORK WELL FOR HANA MIGRATIONS.

Interviews, Workshops, Questionnaires, 200 pages Powerpoint etc. delay the process, are unreliable, lead to wrong conclusions...

redhat.

WHAT DOES WORK:

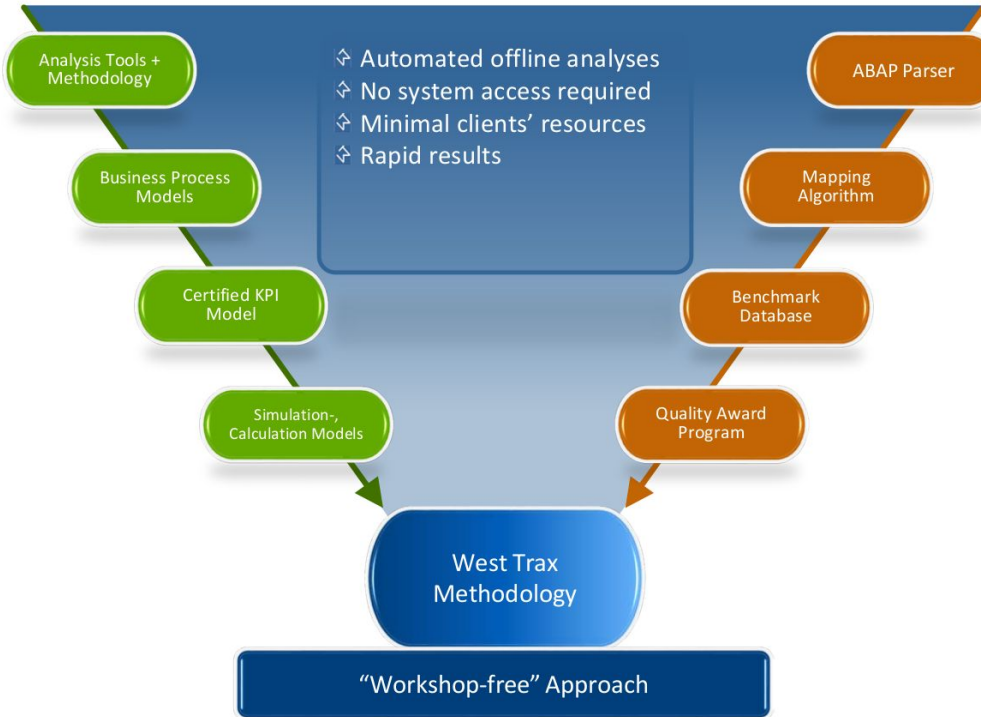AUTOMATED, TECHNICAL ASSESSMENTS

AUTOMATED/OFFLINE SAP ASSESSMENTS

West Trax
Independent Analyst and Advisor

INNOVATIONSPREIS-IT
BEST OF 2017
initiative mittelstand
ERP

INNOVATIONSPREIS-IT
BEST OF 2016
initiative mittelstand
ERP

INNOVATIONSPREIS-IT
BEST OF 2015
initiative mittelstand
ERP

- 15 years, 1600 Analysis
- 15 sector Industry benchmark database
- Global scope
- Partnering with SAP, Dell, T-Systems & others
- Facts/Data based, workshop free approach

redhat.

HOW DOES IT WORK?

The West Trax Methodology

Analysis Tools + Methodology

Business Process Models

Certified KPI Model

Simulation-, Calculation Models

✧ Automated offline analyses
✧ No system access required
✧ Minimal clients' resources
✧ Rapid results

ABAP Parser

Mapping Algorithm

Benchmark Database

Quality Award Program

West Trax Methodology

"Workshop-free" Approach

West Trax
Independent Analyst and Advisor

redhat.

FIRST STEP IN TOOLCHAIN

West Trax Analysis help to set the right parameter and filters in project supporting tools:

Existing Custom Code

Used Custom Code

Value Generating Custom Code

Required CC on SAP S/4HANA
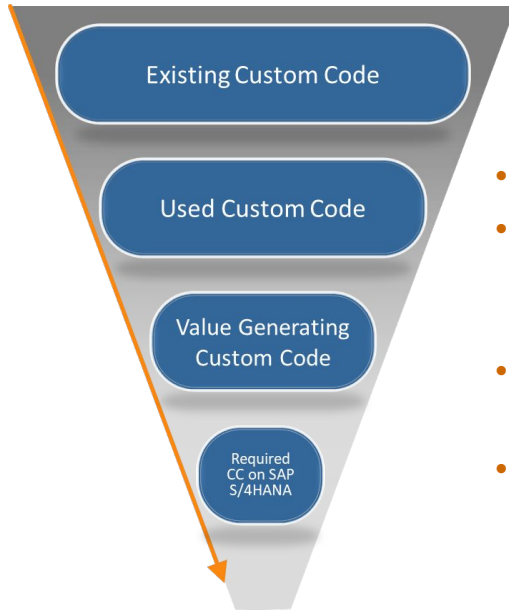
- Identification of ballast
- Focus on value generating processes and objects
- Reduction of project efforts and -costs
- Reduction of project durations

Established Business Processes

Processes relevant for optimizations

Top-Down optimization Mix: Greenfield - Brownfield

BPR

Code Optimization
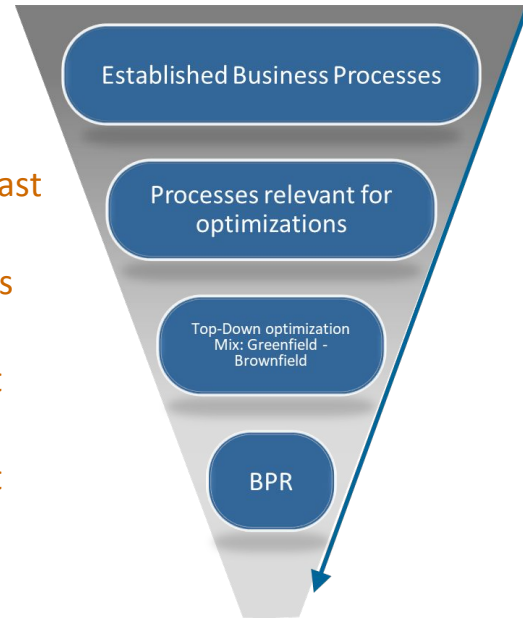
Process Mining / Process Modeling

SAP HANA & S/4HANA JOURNEY STARTS EARLY

Joint West Trax & Red Hat Assessment: Supporting strategic decisions at the right stage

redhat.

Technology & Business Value Assessment:

Platform, IT-Automation, Cloud Computing,
App Development, Migration & Modernization

West Trax
Independent Analyst and Advisor

- CIO, CFO
- Group IT
- Architects
- IT-Strategiest

Automated Maturity Assessment

Technical implementation,
Projects, PoC, RFQ

redhat.

INDEPENDENT, AUTOMATED FUTURE READINESS ASSESSMENT

From facts to a solution

West Trax
Independent Analyst and Advisor

Initial Analysis &
Transparency

redhat

Technologies
Products & Platform
Best practices
Strategic vendor

redhat
Partners

Customer relationship
Subject Matter Expertise
Implementation

redhat

TYPICAL CHALLENGES - PROCESS & TECHNOLOGIES

From mature SAP landscape to Digital Excellence - But how?

Greenfield? Brownfield? S/4HANA? HANA Full Use?

Business Process O... Industry Solution? On Prem?

West Trax Assessment helps to answer those questions!

Red Hat & Partners help to answer those questions!

Keep Interfaces? Wait and see?

Change Database now/later?

Agile, new services

In the cloud? Monetize Data

redhat.

THE SUCCESS FACTOR

Common understanding between all stakeholders

SAP Decision Maker

Open to new strategies

Red Hat & Partners

Individual Client Roadmap
Facts based Business Cases
Focus: Customer Value

Reliable Facts & Transparency

West Trax
Independent Analyst and Advisor

Process Owner

Release old processes & structures

Permit standardisation & Automation
Ensure & keep control

Internal IT

Best possible customer value from HANA

FUTURE READINESS ASSESSMENT STEPS

Questionnaire
Download Standard Files

West Trax
Analysis

Results to
Red Hat & Partner

Red Hat & Partners
Fit-to-strategy technologies
Align with customer's initiative
& strategies

Results-to-advice
Joint results & strategy
presentations at Client

Client <2h

2 Weeks

2-4 Weeks

On-site at Client

redhat.

Total Migration and Innovation Journey & Benefits

On the road to SAP HANA and S/4HANA

Analysis		Interpretation and Preparation			Execution
1-3 Weeks		**1-2 Months**			**6-9 Months**
West Trax Automated Assessments for Mature SAP Landscapes	Results To Advice for Strategy: Precise Transformation Roadmap	Fact-based housekeeping reduces costs/efforts	SAP Readiness Check – Proof of technical readiness	Results-To-Advice for Migration and Innovation Journey (End-to-End)	Transformation project: Preparation Transformation Migration Handover
Red Hat and Partner Business & Technology Assessments	In time Fact-based Processes & Technology	Fact-based definition of Fit-to-Strategy technology components guarantee innovations	SAP Transformation Navigator – Helps to define innovation roadmap	Define fact-based Project Roadmap / mitigates risk / reduces cost / accelerates project	Transformation project: Red Hat Technology Handover

What happens after an analysis?

Transparency for worldwide Instances

West Trax Analysis:
- Maturity of each SAP instance
- Supported Business Processes
- Customization
- SWOT Analyses

AddOns
- Data Quality (via Partner)
- Technical Requirements/ Infrastructure (via Technology Partner)

1. Fact-based decisions define strategy

- **Template Approach:** Should client define a worldwide template for the future requirements?
- **Greenfield/Brownfield:** Is one of the systems ideal for building the future master system or should a new SAP S/4HANA system be set up
- **Consolidations:** Are systems similar enough in terms of business processes to consolidate them and reduce number of systems?

2. Fact-based housekeeping reduces costs/efforts

a. **Master/Target System**
   - **Custom Code:** Filter and archive code that does not deliver value in the future scenario
   - **Background Jobs:** Identify jobs that do not deliver value in the future scenario
   - **Document Types:** Identify document types that are required for the future scenario
   - **Old Transactions:** Identify old transaction usage and update
   - **Data:** Cleansing and Archiving
   - **Fit/Gap Analysis SAP S/4HANA:** Identify and define tasks and efforts

b. **Other Systems: Fit/Gap Analysis with Target System**
   - Custom Code to be migrated
   - Background Jobs to be migrated
   - Document Types to be migrated
   - Data to be migrated

4. Fact-based Migration mitigates risk / reduces costs / accelerates project

- Build resilient Project Plan incl. Business Case based on facts and transparency on current mode of global operations
- Deliver benefits for all involved parties by providing facts
- Keep project governance in hand

3. Fact-based definition of Fit-to-Strategy technology components guarantee innovations

- Cloud/On-Premise/Hybrid
- Future Infrastructure
- DevOps etc.
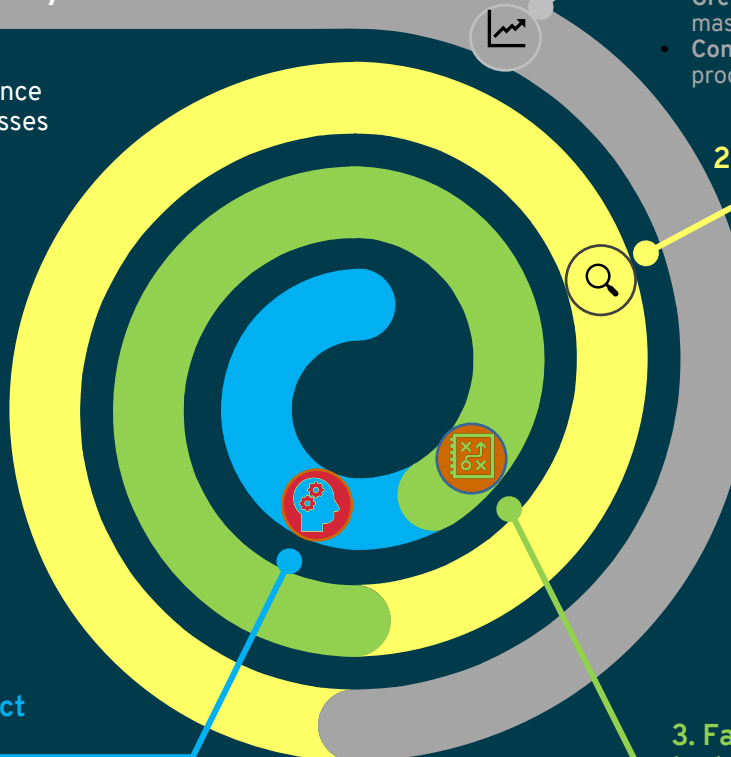
RESULTS TO ADVICE

FIT-TO-STRATEGY TECHNOLOGIES

RED HAT TECHNOLOGY LANDSCAPE

| I.T. OPTIMIZATION | AGILE INTEGRATION | HYBRID CLOUD INFRA | CLOUD NATIVE APP DEV | I.T. AUTOMATION + MANAGEMENT |

FIT-TO-STRATEGY TECHNOLOGIES BASED ON ASSESSMENT RESULTS (EXTRACT)

- Custom Code migration and modernization strategies
- Containerization & Innovation
- Interfaces, Open API and Legacy Systems Integration and modernization
- Common Platform and Infrastructure scaling
- Hybrid/Multi-Cloud Options and -management per Company Code
- Housekeeping, Automation & Quick Wins before migration
- Automation and DevOps strategies
- Data Monetization, API Management options
- Compliance/Governance, Chargeback & SAP Licensing optimization
- Accompanying Consulting Options

redhat.

CONSULTING SERVICES & SOLUTIONS

I.T. OPTIMIZATION	AGILE INTEGRATION	HYBRID CLOUD INFRA	CLOUD NATIVE APP DEV	I.T. AUTOMATION + MANAGEMENT
ACCELERATE & AUTOMATE SERVICE DELIVERY	API-CENTRIC INTEGRATION	CLOUD MIGRATION	API-CENTRIC INTEGRATION	ACCELERATE & AUTOMATE SERVICE DELIVERY
ADAPTIVE SOE	PROCESS-DRIVEN APPLICATIONS	CONTAINER ADOPTION PROGRAM	APP MODERNIZATION & MIGRATION	NETWORK AUTOMATION
APP MODERNIZATION & MIGRATION		NFV ADOPTION	PROCESS-DRIVEN APPLICATIONS	
OPEN MANAGEMENT FOR VIRTUALIZATION		OPEN MANAGEMENT FOR VIRTUALIZATION	CONTAINER ADOPTION PROGRAM	
STORAGE		STORAGE	OPEN INNOVATION LABS	

POSSIBLE OPTIONS:
CONSULTING SERVICES & SOLUTIONS

- Discovery Sessions
- Smart Starts
- Pilots
- Architectural Reviews
- Design Workshops
- Innovation Lab

redhat.

SAMPLE RESULTS

CONTENT OF FUTURE READINESS ASSESSMENT

- Degree of Standardization KPI plus market benchmark
- Absolute number of used SAP Standard transactions
- Used Standard transactions mapped onto enterprise areas
- Used Standard transactions mapped onto Core business processes of Top-3 enterprise areas
- S/4HANA Migration impacts - Fit/Gap
- Custom Code KPI plus market benchmark
- Absolute number of custom code transactions (Z-/Y-/customer namespaces)
- Unlogged Custom Code KPI plus market benchmark
- Absolute number of unlogged custom code transactions (Z-/Y-/customer namespaces)
- Custom Code Usage Frequency KPI plus Table Report with intensively used Custom Code
- Project Savings Calculator
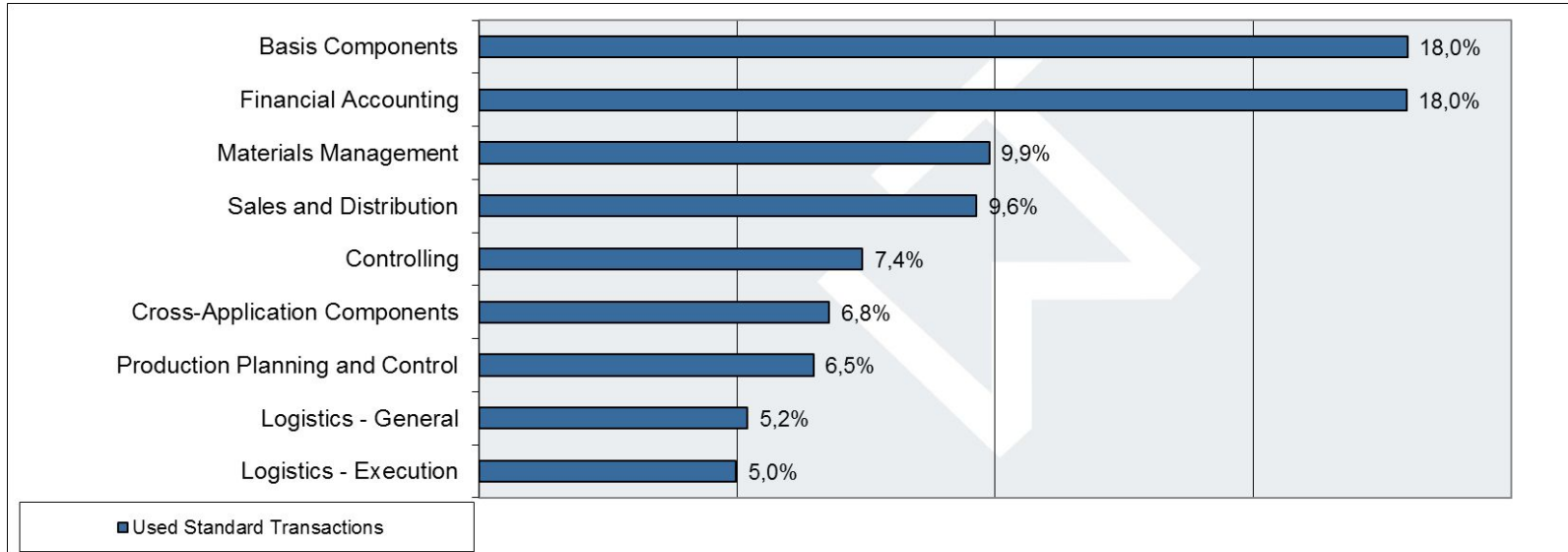- Trigger and Background Jobs KPI
- Maturity Level of analyzed system

redhat.
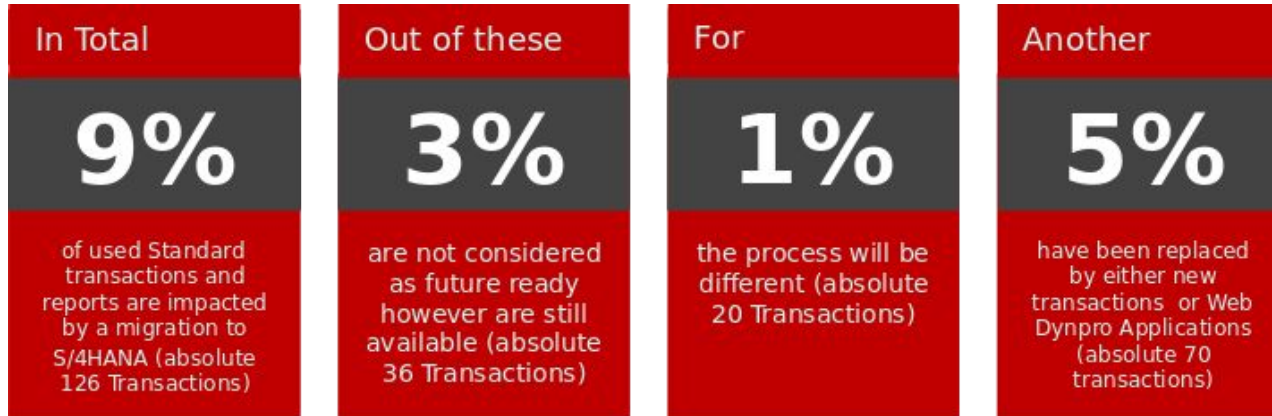
STANDARDIZATION KPI

58,7%, absolute number 3676

Degree of Standardisation KPI
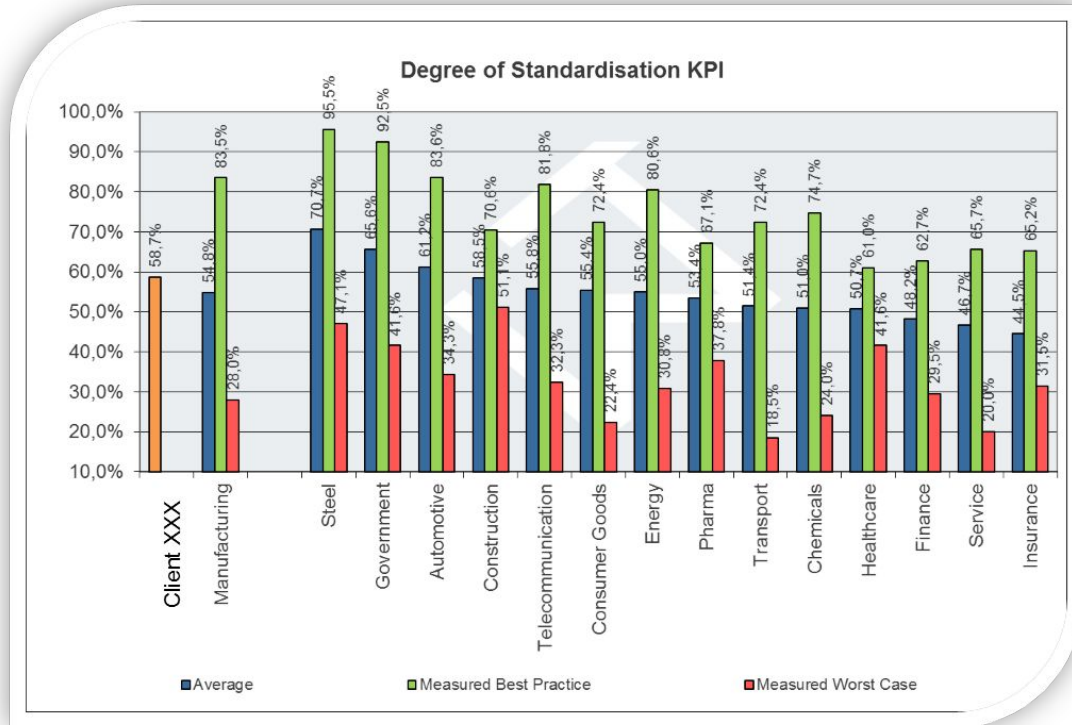
SUPPORTED ENTERPRISE AREAS KPI

Observation: Unusual high use of system/basis components

Enterprise Area	Used Standard Transactions
Basis Components	18,0%
Financial Accounting	18,0%
Materials Management	9,9%
Sales and Distribution	9,6%
Controlling	7,4%
Cross-Application Components	6,8%
Production Planning and Control	6,5%
Logistics - General	5,2%
Logistics - Execution	5,0%

FIT/GAP ANALYSIS TO S/4HANA

Sample results

In Total	Out of these	For	Another
9%	**3%**	**1%**	**5%**
of used Standard transactions and reports are impacted by a migration to S/4HANA (absolute 126 Transactions)	are not considered as future ready however are still available (absolute 36 Transactions)	the process will be different (absolute 20 Transactions)	have been replaced by either new transactions or Web Dynpro Applications (absolute 70 transactions)

Further impacts for custom code can be expected for instance by new tables and function modules.

redhat.

CUSTOM CODE KPI

High above Industry average, absolute number 6.129

Custom Code KPI

Chart showing Average (blue) and Measured Best Practice (green) values by industry:

Category	Average	Measured Best Practice
Client XXX	58,5%	
Manufacturing	36,7%	6,9%
Government	18,2%	2,7%
Pharma	23,2%	12,6%
Automotive	23,8%	10,9%
Chemicals	30,3%	10,6%
Healthcare	30,5%	23,9%
Transport	30,8%	13,9%
Insurance	32,2%	19,4%
Construction	32,3%	17,8%
Consumer Goods	35,4%	5,1%
Service	35,6%	16,2%
Finance	39,2%	17,8%
Steel	41,9%	6,5%
Telecommunication	45,5%	18,7%
Energy	46,2%	16,0%

■ Average   ■ Measured Best Practice

redhat.

UNLOGGED CUSTOM CODE KPI

Even worse, absolute number 4.174
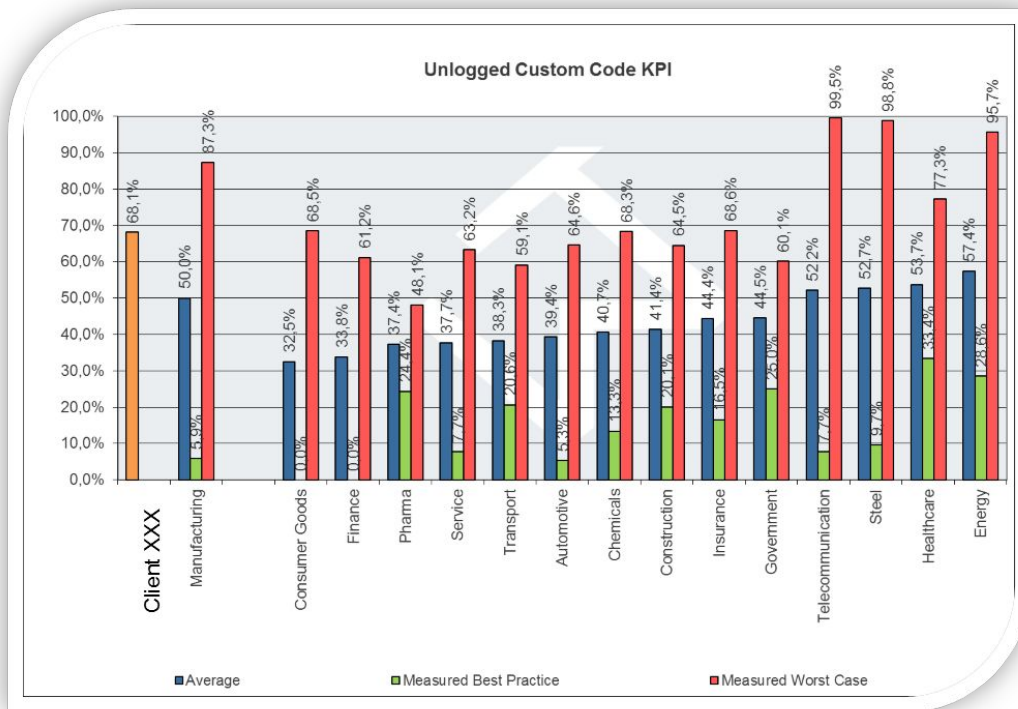
CUSTOM CODE USAGE FREQUENCY

Only 8.9% have been used intensively, absolute number 6.129
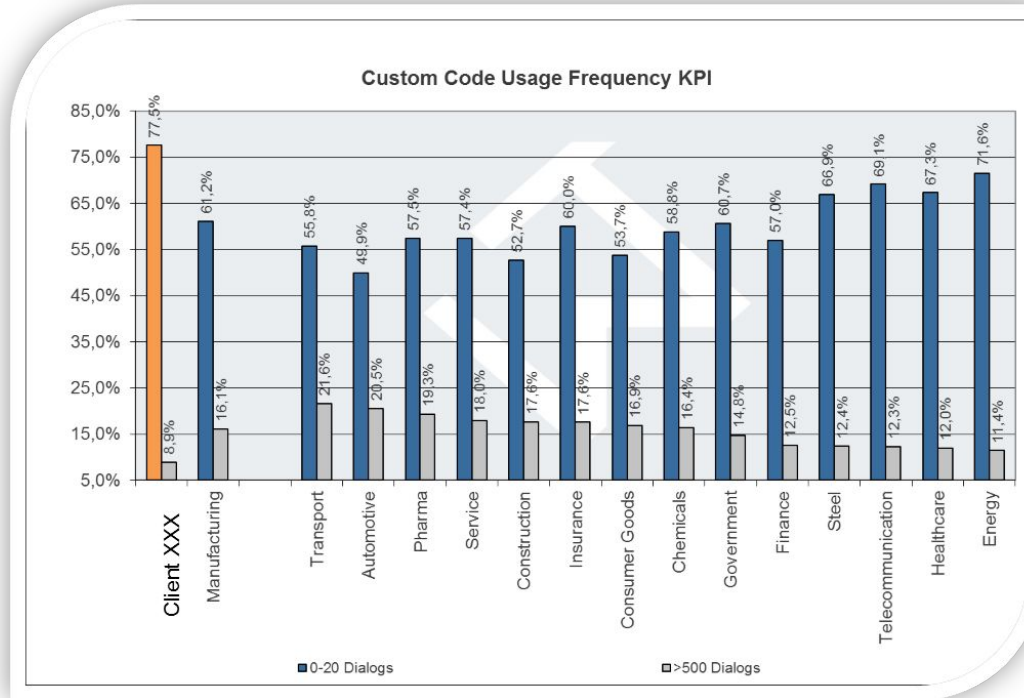
TRIGGER & BACKGROUND JOBS KPI

Much more than Industry standard

Trigger and Background Jobs (3 Month Period)
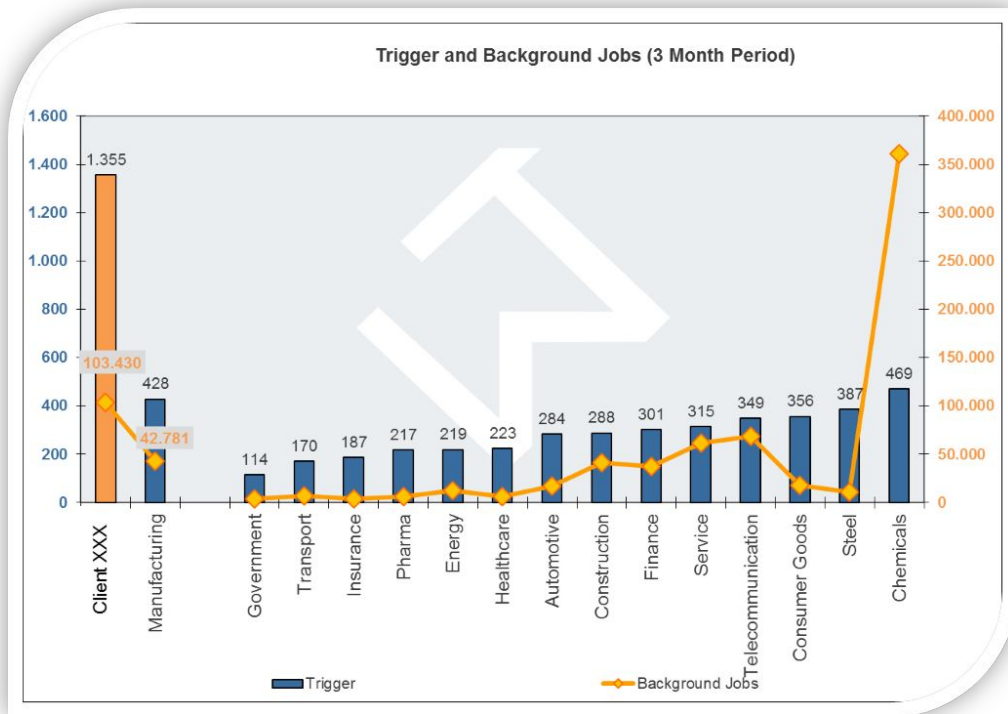
CUSTOM CODE NON-MIGRATION SAVINGS
(SAMPLE DATA)

West Trax

Dialogs	Number		Sum	No longer needed (Assumption)	
=0	430	unused CC	430	75%	323
<2	35				
<5	38				
<10	26	Rarely used CC	125	50%	63
<20	26				
<50	27				
<100	25				
<200	31				
<500	40				
<900	36				
>=900	214	Intensively used CC	250	20%	50
	928				

Calculator Project Savings

			Average Migration Effort per CC (PD):	1

Calculation of Project Savings in Person Days (PD)

435	CC programs no longer needed x	1	PD Effort	=	435	PD Effort that could be saved!

redhat.

CUSTOM CODE/INTERFACES/FIT-GAP EVALUATION
(SAMPLE DATA)

This custom code/interface is **adding value, differentiating from our competitors**. It's a business advantage.

SAP Custom code/basis summary:

Basis Components usage: 18%
Total custom code: 928
Intensively used: 250/486 (6/18 month)
Estimated non-migration savings: 435PD
S/4HANA Fit/Gap: 294/83/75/21 affected

We want others to maintain this code. SAP, partner.

We will maintain this code, enhance it, IN HOUSE

There is no differentiation in this custom code/Interface.

redhat.

POSSIBLE OPTIONS:
CUSTOM CODE/INTERFACES/LEGACY
MODERNIZATION & MIGRATION (EXTRACT)

- Interfacing with SAP, Open APIs, Data Hub
- Re-develop & enhance In House or 3rd Party
- Embedded into Application Modernization & Migration methodologies
- New code - container based - inter-operates with SAP HANA & S/4HANA
- Deployment in PaaS (Hybrid-, Multi-Cloud)

redhat.

APPLICATION MODERNIZATION

One platform to support needs of today and tomorrow

RUN
Modernized brownfield

GROW

TRANSFORM
Greenfield

A A A A A A A   A A   A

COMMON HYBRID APPLICATION INFRASTRUCTURE

MODERN APPLICATION CONCEPTS

| BETTER SOFTWARE ARCHITECTURE | AGILE INTEGRATION | STREAMLINE APPLICATION LIFECYCLE | CONTINUOUS INNOVATION |

redhat.

DATA DRILLDOWN

5 Level insights and relations allow facts based conclusions

BACKGROUND JOB USAGE

Identifies migration & optimisation potential

RED HAT / WEST TRAX
FUTURE READINESS ASSESSMENT

FUTURE READINESS ASSESSMENT:

- EUR 25k
- Independent of System size
- Orderable item at Red Hat or Partner/Distribution only
- Collaterals, Templates

OPTIONS:

- Red Hat Consulting assignments
- Red Hat Ready to Innovate Assessment
- IDC Cloud Readiness Assessment
- Joint campaigns
- West Trax Add on assessments

redhat.

BACKUP SLIDES

CONTENT ASSETS JOINT ASSESSMENT

Document 1: Data Sheet

redhat | West Trax
Independent Analyst and Advisor

AUTOMATED, WORKSHOP-FREE SAP HANA & S/4HANA FUTURE READINESS ASSESSMENT

DATA SHEET

KEY BENEFITS
- Quick overview of cost reduction potential, and general system performance
- Support for executives making operational and strategic IT decisions in the next 12 to 18 months
- Benchmarking with systems of similar size provides important additional information on competitiveness of the system
- > 1,600 benchmark data in 15 different industries
- No commitment of client resources
- No software installation, so no system load
- Map results to modern cloud technology options and architectures
- Leverage container & microservices-based application development
- Accelerate time to market for new services and products
- Benefit from relevant open source innovations based on assessment results

A unique partner and vendor-neutral approach to gain transparency about the actual use in SAP systems and a common understanding between all stakeholders.

Red Hat and the independent analyst and advisor West Trax have developed a customized assessment for SAP customers to offer both analytics and advice on business processes and technologies. The assessment is designed to master the **challenge of migrating from a mature SAP landscape to digital excellence.**

The joint offering is aimed at all executives planning to prepare their SAP landscape for the introduction of advanced technologies and major life cycle changes: in-memory, S/4HANA, mobile computing, big data, cloud, real time business, IoT, DevOps, CI/CD, container-based SW development, IT automation and platform choices. The assessment provides an objective determination of the "as-is" situation and clear client actions to be taken to achieve the desired goals and benefits. Subsequent projects can be carried out with a reliable business case based on facts.

METHODOLOGY

The West Trax Future Readiness Assessment is based on a combination of the West Trax KPI Scan® methodology and the award-winning West Trax Maturity Model®. With the KPI Scan® methodology, the actual use of SAP® systems by end users will be transparent, including vulnerabilities existing in the operating and business processes. The data evaluation is conducted offline; no system access is required.

The maturity level of an SAP system is then determined in terms of its future readiness and the likely benefits of investments in new technologies and projects. The West Trax Maturity Model for SAP systems responds to the need to pre-position systems to optimize benefits of new technologies such as HANA and S/4HANA, on-premises and in the cloud. Similarly, benefits will be optimized by pre-positioning for projects and strategies around greenfield/brownfield, business process optimization, digital transformation, new digital solution and services.

Fig1 : West Trax Maturity Model® for SAP systems

facebook.com/redhatinc
@redhatnews
linkedin.com/company/red-hat

Document 2: Data Sheet

redhat | West Trax
Independent Analyst and Advisor

DATA SHEET   AUTOMATED, WORKSHOP-FREE SAP HANA & S/4HANA FUTURE READINESS ASSESSMENT

TARGET AUDIENCE
- CEO, CFO, CIO, CDO
- IT architects
- Solutions integrators
- Service providers

PRICING
- Fixed price per package

EFFORT FOR THE CUSTOMER
1 hour per system approx:
- Provision of standard tables and reports for guidance
- Completed questionnaire

AVAILABILITY OF RESULTS
- Approximately 1-2 weeks after receipt of data

DELIVERABLES
- Detailed analysis, executive report, selected raw data
- Onsite Strategy Session based on the assessment results

PHASE 1: CONDUCT MATURITY ASSESSMENT – AN INVENTORY AND CLASSIFICATION

The evaluation is based on a process developed by West Trax. Its KPI model has been certified by the German chamber of commerce, IHK Darmstadt. During the inventory, various KPIs are measured and benchmarked against comparable installations within the client's own industry. The resulting metrics are interpreted, the system classified according to its maturity and projects that deliver value will be identified and documented.

PHASE 2: USE ANALYSIS – DETERMINATION OF POTENTIAL AND ACTIONS

The results of the KPIs and the industry benchmarking are interpreted in the following areas: costs, productivity, performance and quality. Our unique assessment model highlights weaknesses, and determines the potential for cost reduction and optimization. Based on these results, measures are proposed to help the client migrate from the current situation to the best possible target state. Each action is described in detail and where possible subjected to a cost-benefit calculation. This provides the client with a firm basis, on which to examine options and define priorities.

PHASE 3: MAP RESULTS TO IMPLEMENT MODERN CLOUD TECHNOLOGY OPTIONS AND ARCHITECTURES

Determine the details and facts that are necessary to implement the activities defined in phase 2.

SAP HANA	We make the DATACENTER efficient	automate manual tasks and speed up deployment and changes. Avoid errors and downtime with predictive analytics
SAP S/4 HANA	We make HYBRID IT simple	providing hybrid cloud management with governance and policy based control, enabling e.g. self-service functionalities, chargeback, etc.
SAP Leonardo	We power the INTELLIGENT EDGE	integrating non-SAP solutions and sources and unlock the value of enterprise data
SAP DATA HUB	We enable the DATA DRIVEN PROCESSES	streamline development, modernization and delivery of SAP extensions with container technology and microservices

facebook.com/redhatinc
@redhatnews
linkedin.com/company/red-hat

EUROPE, MIDDLE EAST, AND AFRICA	TURKEY	ISRAEL	KAZAKHSTAN
00800 7334 2835	00800 448820640	1 809 449548	88003337503
redhat.com			
europe@redhat.com	UNITED ARAB EMIRATES	RUSSIA	UKRAINE
	8000 4449549	+7 8005552789	0800501706
		8 800 5552789	

Copyright © 2018 Red Hat, Inc. Red Hat, Red Hat Enterprise Linux, the Shadowman logo, and JBoss are trademarks of Red Hat, Inc., registered in the U.S. and other countries. Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

redhat.com

Document 3: IDC Partner Spotlight

IDC Partner Spotlight
Sponsored by: **Red Hat**

Author:
Philip Carnelley,
Research Director,
IDC Europe

February 2018

IDC
ANALYZE THE FUTURE

Preparing for Transformation to a Digital Platform in the SAP HANA context with West Trax and Red Hat

#### Digital Transformation and the Modernization Mandate

Across industries, IDC is seeing IT dramatically change how organizations run their businesses. As organizations move to exploit the four technology forces of IDC's 3rd Platform (cloud, mobility, Big Data analytics, and social business) — we are now seeing those businesses start to exploit _innovation accelerators_ such as the Internet of Things, AI and machine learning, and robotics, to dramatically change their business and operating models. In this way, they can keep up with newborn digital industry challengers and gain competitive advantage to their peers.

This digital transformation, or "DX," of organizations across Europe has become a critical issue of competition and even survival: IDC research reveals that it is a board-level mandate for over 80% of companies, generally CEO-driven. Most organizations involved in a DX journey are defining a road map of initiatives, starting with the implementation phases, and prioritizing the ones that will bring more benefits to customers.

But to undertake such a journey is a multidimensional issue. The fact that the majority of organizations are still in the early to medium stages of maturity shows that this is not as simple as buying a technology solution. DX requires organizations to radically rethink how they do business. IDC considers that there are in fact five key dimensions of digital transformation: leadership; worksource; omni-experience; information platform; and operating model. Organizations need to look at progressing in all of these dimensions: assessing where they are, before mapping out where they want to be and how to get there.

"By 2020, 60% of enterprises will have fully articulated an organization-wide digital transformation platform strategy and will be in the process of implementing that strategy as the new IT core for competing in the digital economy."
IDC FutureScape Prediction, October 2017

FIGURE 1
IDC MaturityScape Benchmark: Digital Transformation in Western Europe — Maturity Distribution Across the Stages

Digital Resister	Digital Explorer	Digital Player	Digital Transformer	Digital Disrupter
21%	26%	29%	18%	6%
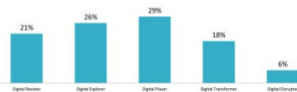
Source: IDC, European Digital Transformation Maturity Model Benchmark, 2017; n=403, May 2017

redhat.

RED HAT TECHNOLOGIES FOR SAP CUSTOMERS

FIT-TO-STRATEGY TECHNOLOGIES

SAPs Key Offerings	Red Hat Value	… delivered by	Red Hat Offerings
SAP HANA	Making the **Datacenter** efficient	automate manual tasks and speed up deployment and changes. Avoid errors and downtime with predictive analytics	**Red Hat Enterprise Linux Insights, Virtualization** **Ansible CloudForms** **Fuse Decision Mgmt** **OpenShift**
SAP S/4 HANA	Making **Hybrid IT** simple	providing hybrid cloud management with governance and policy based control, enabling e.g. self-service functionalities, chargeback, etc.	
SAP Leonardo	Powering the **Intelligent Edge**	integrating non-SAP solutions and sources and unlock the value of enterprise data	
SAP DATA HUB VISIBILITY | INTEGRATION | SIMPLICITY	Enabling **new business insights** from Big Data	streamline development, modernization and delivery of SAP extensions with container technology and microservices	

redhat.

OPENSHIFT ENTERPRISE
by Red Hat®

redhat. | **SAP**

THE FUTURE OF BIG DATA: SAP VORA 2.0 ON RED HAT OPENSHIFT CONTAINER PLATFORM

PARTNER TECHNOLOGY BRIEF

SAP Vora 2.0 running in Kubernetes clusters on Red Hat OpenShift Container Platform empowers companies to orchestrate data of any volume, velocity, and variety.

Red Hat OpenShift Container

INTRODUCTION

Kubernetes is the leading open source container orchestration framework. Its support for rapid innovation, broad use cases, and ease of use have resulted in significant community activity and market adoption by governments, cloud providers, and other enterprises and vendors.

Together, Red Hat and SAP have developed an integrated solution for Kubernetes. SAP® Vora is an in-memory, distributed computing solution that provides actionable business insights from big data. Red Hat® OpenShift Container Platform delivers an enterprise Kubernetes environment for deploying and managing container-based workloads in production.

Running in Kubernetes clusters on Red Hat OpenShift Container Platform, SAP Vora 2.0 empowers companies to orchestrate data of any volume, velocity, and variety. As a result, companies can progress toward an integrated big data landscape founded on an enterprise hub for all types of data—including streaming, Apache Hadoop, transactional, Internet of Things (IoT), and location data.

redhat.

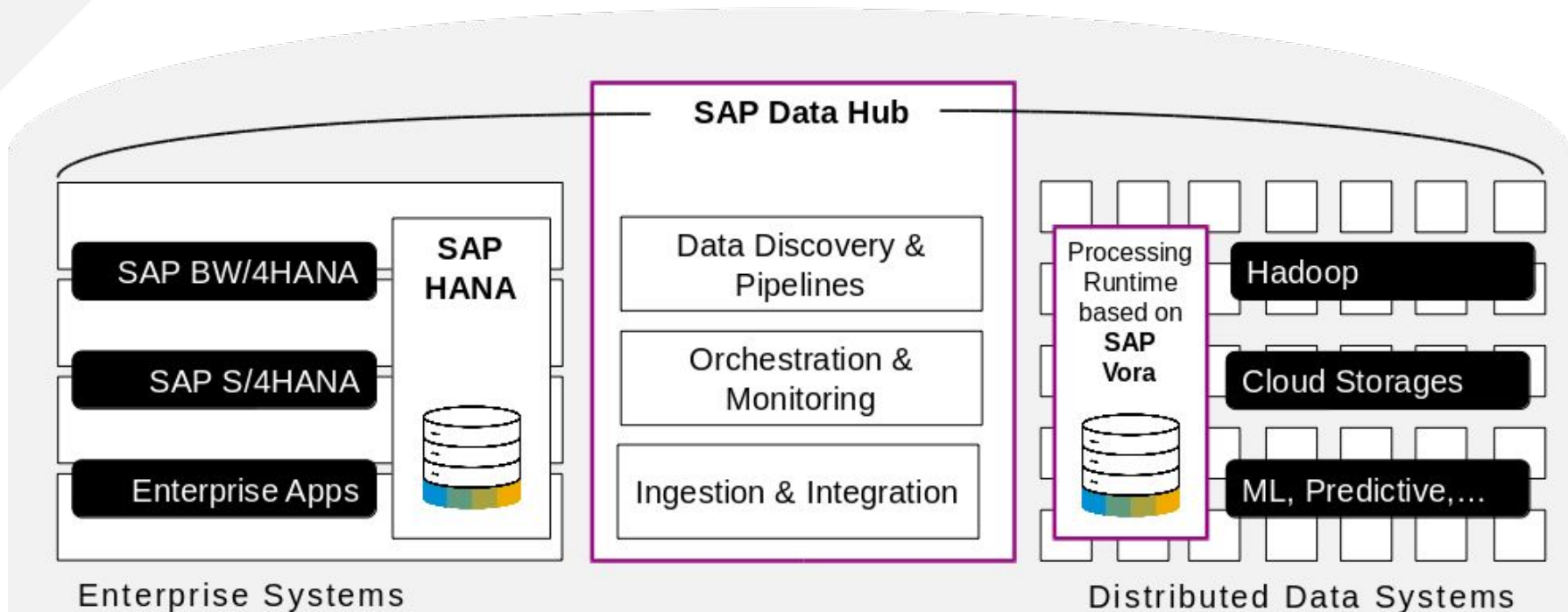# SAP Data Hub
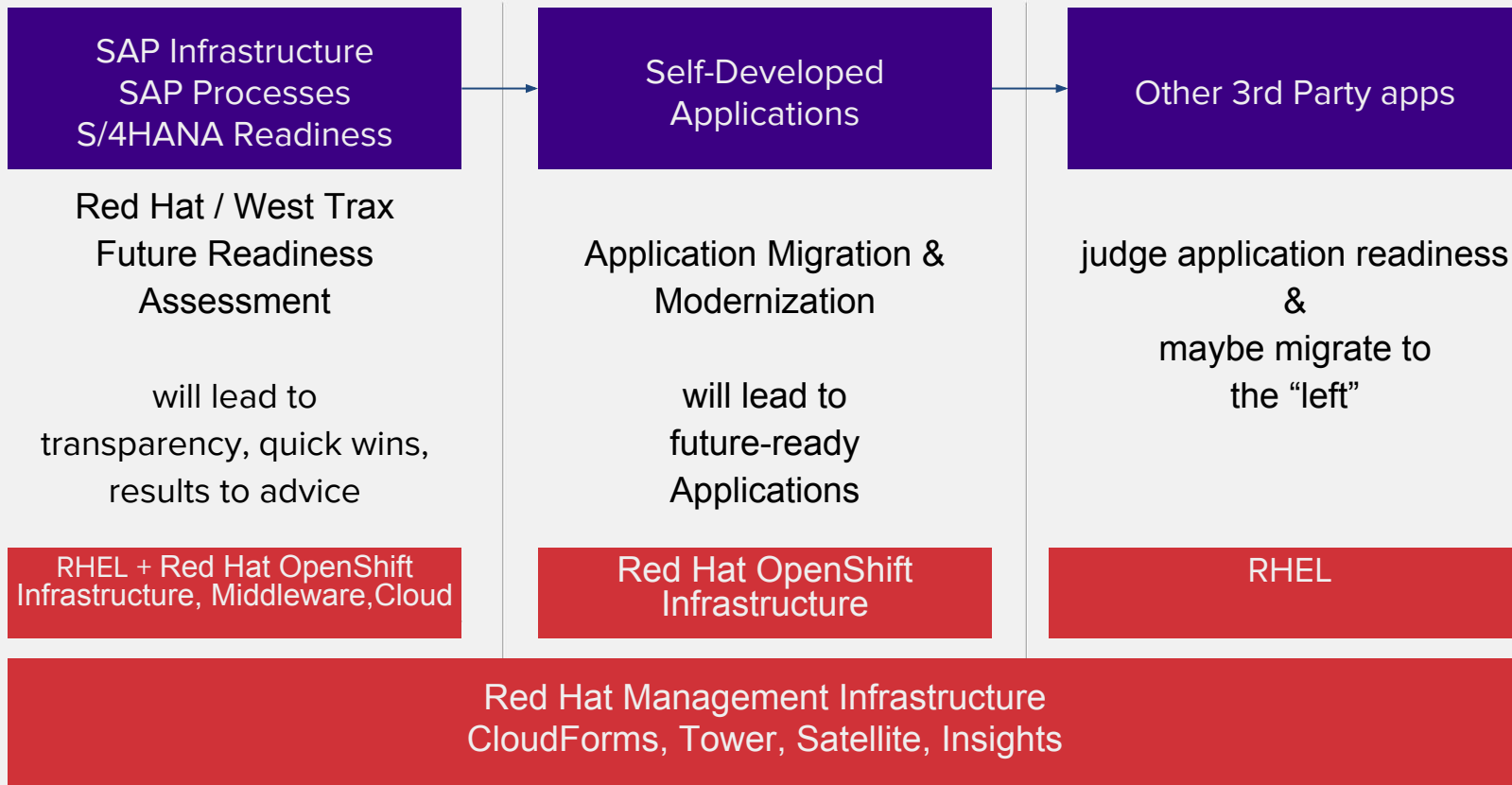## Unifying Data Silos

SAP Data Hub

Data Discovery & Pipelines

Orchestration & Monitoring

Ingestion & Integration

SAP BW/4HANA

SAP S/4HANA

Enterprise Apps

SAP HANA

Processing Runtime based on **SAP Vora**

Hadoop

Cloud Storages

ML, Predictive,…

Enterprise Systems

Distributed Data Systems

redhat.

SAP Data Hub
Unifying Data Silos

SAP Data Hub

Enterprise Systems:
- SAP BW/4HANA
- SAP S/4HANA
- Enterprise Apps
- SAP HANA

SAP Data Hub:
- Data Discovery & Pipelines
- Orchestration & Monitoring
- Ingestion & Integration

Distributed Data Systems:
- Processing Runtime based on SAP Vora
- Hadoop
- Cloud Storages
- ML, Predictive,...

Red Hat Enterprise Linux for SAP Solutions	Red Hat OpenShift Container Platform (OCP)	Red Hat Enterprise Linux

redhat.

Road to Digital Excellence for SAP customers

SAP Infrastructure SAP Processes S/4HANA Readiness	Self-Developed Applications	Other 3rd Party apps

Red Hat / West Trax Future Readiness Assessment

Application Migration & Modernization

judge application readiness & maybe migrate to the "left"

will lead to transparency, quick wins, results to advice

will lead to future-ready Applications

RHEL + Red Hat OpenShift Infrastructure, Middleware,Cloud	Red Hat OpenShift Infrastructure	RHEL

Red Hat Management Infrastructure
CloudForms, Tower, Satellite, Insights

redhat.

SAP customer journey to S/4 HANA
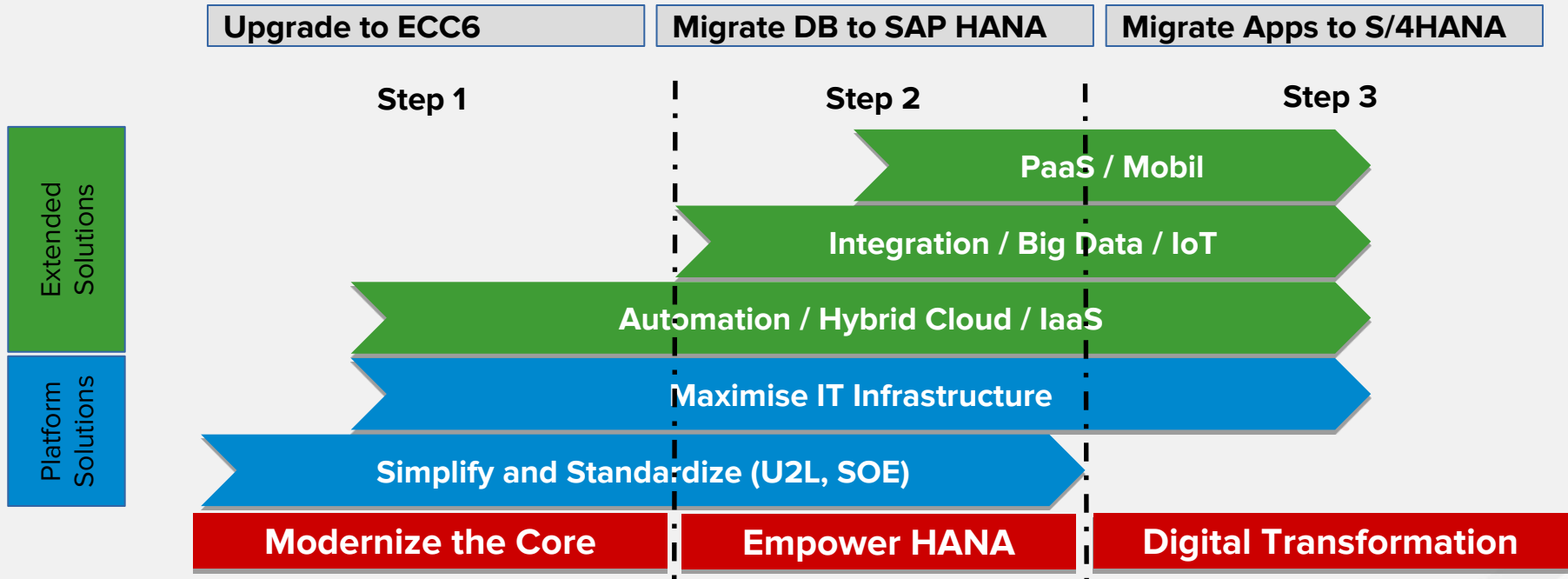
Upgrade to ECC6	Migrate DB to SAP HANA	Migrate Apps to S/4HANA

Step 1 **Step 2** **Step 3**

Extended Solutions

PaaS / Mobil

Integration / Big Data / IoT

Automation / Hybrid Cloud / IaaS

Platform Solutions

Maximise IT Infrastructure

Simplify and Standardize (U2L, SOE)

Modernize the Core	Empower HANA	Digital Transformation

redhat.

Automation

RED HAT MANAGEMENT

RED HAT®
SATELLITE

RED HAT®
CLOUDFORMS

ANSIBLE
by Red Hat®

RED HAT®
INSIGHTS

Automation

RED HAT MANAGEMENT

RED HAT SATELLITE

RED HAT CLOUDFORMS

ANSIBLE by Red Hat

RED HAT INSIGHTS
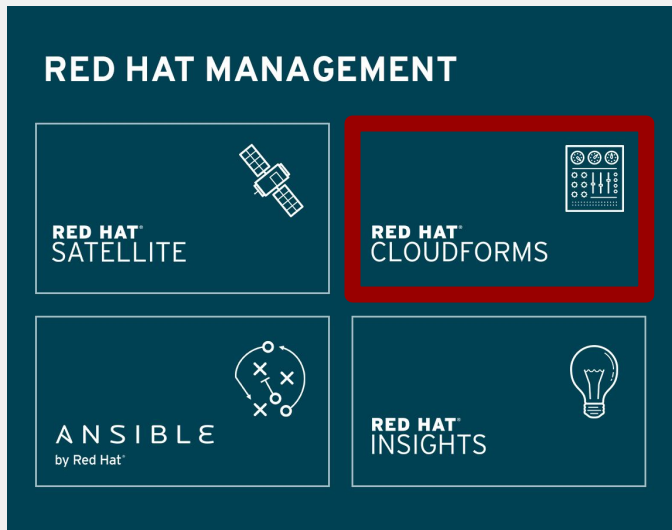
- Create a self-service catalog of standard SAP operations
- Automatically deploy workloads on-premise and in the cloud
- Seamless mgmt. of on-premise and cloud
- Migrate workload between on-premise / cloud
- DR scenarios from on-premise to Cloud

+ RED HAT CLOUDFORMS
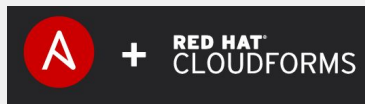
- deploy IT services across clouds, enabling users to automate a wide range of policies and processes with no coding or scripting required.

redhat.

Use Case: Self-Service

How CloudForms ties self-service, system deployment, and configuration together
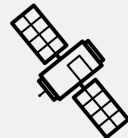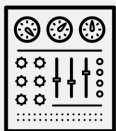
Order a service in the CloudForms self-service portal

Deploy four instances in the cloud

Pass control to Satellite for OS configuration, errata
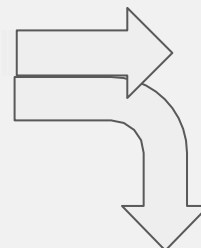
Automatically deploy Insights client

CloudForms monitors progress and informs user when complete

Pass control to Ansible Tower for application deployment

redhat.

Cloud Forms references

COX AUTOMOTIVE™

UnionBankSM

We saved almost 10 years of time and almost $5 million in soft savings.

Jason Cornell, Manager of Cloud and Infrastructure Automation, COX AUTOMOTIVE

Our internal experts were spending too much time managing inefficient processes. We needed a solution that would help us standardize and automate these processes so we could reduce our time to market for new applications.

Don O'Connor, Managing Director, Technology Operations, Union bank

Automation

RED HAT MANAGEMENT

RED HAT SATELLITE

RED HAT CLOUDFORMS

ANSIBLE by Red Hat

RED HAT INSIGHTS

Ansible modules provided by HPE, Cisco, ... example playbooks as open-source

- Automated system provisioning using configuration management
- Set up a SAP (HANA) instance including best practices and tuning within less than 10 min.
- Orchestration enables faster deployment of changes into the production landscape.
- CI/CD and SOE for SAP HANA Infrastructure enables regular security updates in production environment, identical staging / production environments, replace of manual DR strategies
- Bare-Metal-as-a-Service
- Ansible Kick Starter: reduce implementation time e.g. for 6 node HANA scale-out environment from 7 to 3 days

redhat.

Use Case: reduce risk of patching SAP landscapes

Patch

Workflow Engine, e.g. Jenkins or HPE OO

Trigger

RED HAT SATELLITE

Software Repository for:

- Operating System
- Firmware RPMs
- Application Binaries

Run Ansible Playbook

ANSIBLE TOWER by Red Hat®

OneView

RED HAT SATELLITE

RED HAT ENTERPRISE LINUX

SAP

1. Apply Production Server Profile & boot

2. Install OS on QA Server

3. Apply Production OS Config on QA Server

4. Provision & Configure Application

Load Test Data

Run Tests

Promote Patch to PROD

RED HAT SATELLITE

Run Update on PROD

redhat.

Ansible references

Allegiant Air improves self-service, efficiency, and management

Ansible Tower by Red Hat helps the travel company's in-house developers and engineers standardize on a common framework with consistent delivery, saving time managing systems and helping their DevOps initiative succeed.

JCrew fully automates website deployment

The clothing company simplified web deployment through automation. Moving from manual processes to a fully automated Ansible process changed the company's IT culture.

FatMap reduces complexity, automates provisioning and business processes

The mapping company uses Ansible to automate high-resolution, 3D map-building, and processing service flows, and abstract away a highly mixed network environment. Because of this, the time spent provisioning machines and managing processes has gone from hours to minutes.

Amelco delivers continuously and quickly with self-service and orchestration

The trades-processing software company's financial and betting clients require many Linux®-based virtual environments. With Ansible, even these wildly different requirements can be automated and orchestrated with repeatable, reusable plays and Playbooks. This lets Amelco manage it all, more easily.

Automation

RED HAT MANAGEMENT

RED HAT SATELLITE

RED HAT CLOUDFORMS

ANSIBLE by Red Hat

RED HAT INSIGHTS
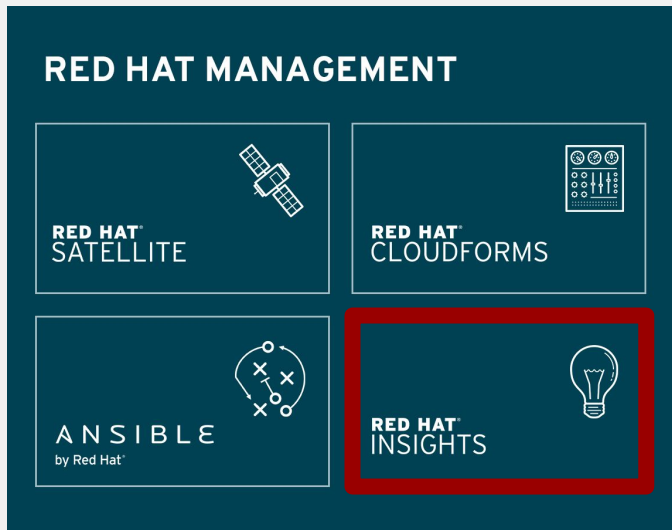
- In-depth analysis of the SAP infrastructure enables proactive management
- Mitigate risk / ensure compliance (e.g. configuration drifts)
- Increase stability and performance

- Automate IT remediation of critical issues through Ansible Playbooks
- also on RHEL instances deployed on AWS or Azure

Red Hat Insights - SAP Rules

- early notifications of minimum releases of certain packages
- check of correct kernel parameters
- new findings in SAP development will automatically be messaged

⇒ higher stability, security and manageability of Red Hat based SAP landscapes

https://access.redhat.com/blogs/2184921/posts/2849871

Insights reference

Cerner™

"As a global leader in healthcare information technology, greater security and infrastructure intelligence are main priorities for us. Red Hat Insights enables us to be alerted to potential vulnerabilities across our active systems and provide remediation more quickly. The technology helps us prioritize risk resolution in our infrastructure"

Tim Erdel, Senior Director, Cerner Works technology improvement, Cerner

redhat.

Automation
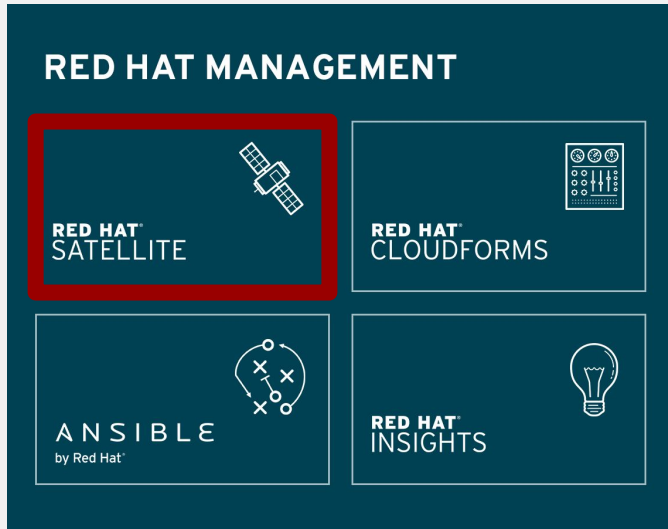
- Manage SAP System Lifecycle across Test/Dev, QA and Prod from a single UI
- Granular, consistent patching of dozens of systems with a single click

Unlock the value in enterprise data

redhat.

… by integration into SAP HANA

IoT solution built with SAP
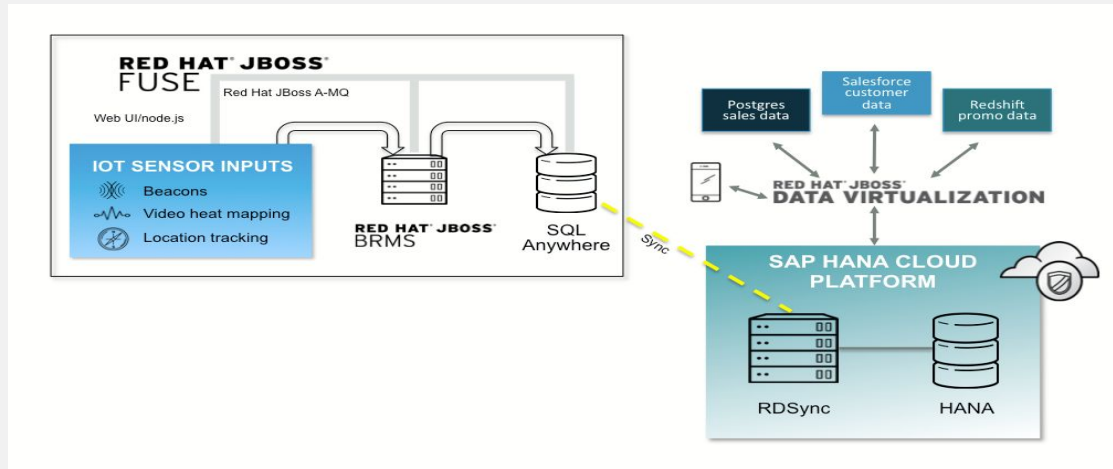
Red Hat JBoss Fuse 6.3

Joint SAP and Red Hat Retail use case
- that takes in data from various in-store collection points
- uses it to trigger instant rules-based interactions with digital signage, customer mobile devices, kiosk interactions, or point-of-sale cross-sell or loyalty offers.
- at the same time, that in-store real-time data is being integrated with operational systems for deeper analysis that will drive long-term process improvements.
- JDV exposes data to a native Android app to alert the customer regarding e.g. current promotions

https://www.redhat.com/en/about/videos/iot-and-big-data-red-hat-jboss-middleware-and-sap-hana

Accelerate innovation

redhat.

... delivered by PaaS

Status:

- more than 45% of applications in SAP Systems are custom code.
- ca. 70% of this code is old and not state of the art -> slowing down the digital transf.
- customers want to accelerate application delivery

RED HAT®
OPENSHIFT

- streamline application development and delivery
- easily manage applications across their lifecycle and across any environment
- harness the power of a web-scale microservices architecture
- eliminate silos while keeping operational cost down

redhat.

OpenShift references

Deutsche Bank

https://www.youtube.com/watch?v=SPRUJ5Z-Aew

sky

https://www.youtube.com/watch?v=iJ7Ub87JkuE&list=PLE
GSLwUsxfEh4TE2GDU4oygCB-tmShkSn&index=9

amaDEUS

Innovation is what removes barriers and opens new horizons. The solution that we have built with Amadeus Cloud Services, using Red Hat OpenShift Container Platform, is an extremely good example of how innovation changes the game.

Olaf Schnapauff, CTO, Global Operations, AMADEUS

MACQUARIE

"Red Hat technology has helped us to work in a more efficient way, with speed and agility as the biggest outcomes. By continually using the platform, we expect huge benefits over the coming months and years. We're just at the beginning of the journey."

Luis Uguina, Chief Digital Officer, Macquarie's Banking and Financial Services Group

redhat.

How SAP and Red Hat deliver better business outcomes

Your next project

1. Making HANA the digital core

   SAP S/4 HANA

2. Unleashing the value of your enterprise data

   SAP DATA HUB
   VISIBILITY | INTEGRATION | SIMPLICITY

3. Gaining insights from a universe of connected devices

   SAP Leonardo

4. Managing hybrid IT.
   Your choice of where to deploy.

Business Outcomes

- Fastest Time to Value:
  - Speed-up deployments
  - Achieve your SLAs: avoid errors and down-time, reduce TCO
  - Increase flexibility: provide hybrid cloud and self-service

- Unleash the value in enterprise data:
  - Integration between SAP and non-SAP solutions and sources: *make HANA the digital core*
  - *Unleash the value in your enterprise data*

- Accelerate Innovation:
  - Deliver faster with containers and micro services, streamline development, including extensions of SAP
  - faster access to infrastructure resources, cloud and self-service functionalities

hybrid
redhat.