

Improving EAM Data Quality with LeanIX Surveys

Use Cases & Experiences

Matthias Schnell and Christian Patterer, November 26th, 2019



1. General

- Company information
- Architecture drivers
- Why LeanIX?

2. Our story

- How we started
- Survey use cases
- System integration use cases

3. Q&A

EVN – Based in Lower Austria. Successful in Europe.



Lower Austria at a glance

Area:	19,186 km ²
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Inhabitants (2017)	1,665,753
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Participation rate:	79.1% (A: 76.6%)
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GDP per capita (2016):	EUR 33,200
------------------------	------------

Sources: Statistics Austria; Eurostat, Land
Niederösterreich, WorldBank, Bank Austria, AMS

EVN – Energy business in six countries



	Grid	Electricity	Gas	Heat	Hydropower	Windpower	Photovoltaics	Biomass	Thermal Energy
Albania					✓*				
Bulgaria	✓	✓		✓		✓	✓		✓
Germany		✓	✓		✓**				✓***
Croatia	✓		✓						
Macedonia	✓	✓			✓				
Austria	✓	✓	✓	✓	✓	✓	✓	✓	✓

* EVN share: 50%

** EVN share: 13%

*** EVN share: 49%

EVN – Environmental services in 18 countries



	Drinking water supplies Wastewater disposal			Drinking water supplies Wastewater disposal	
					
Bahrain		✓	Poland		✓
Germany	✓	✓	Romania		✓
Denmark		✓	Russia**	✓	✓
Estonia		✓	Serbia	✓	
Croatia		✓	Slovakia		✓
Latvia		✓	Slovenia		✓
Lithuania		✓	Czech Republic		✓
Montenegro	✓	✓	Turkey		✓
Austria*	✓	✓	Cyprus		✓

* thermal waste utilisation, drinking water supplies

** thermal waste utilisation

EVN – Some key figures



→ Revenue

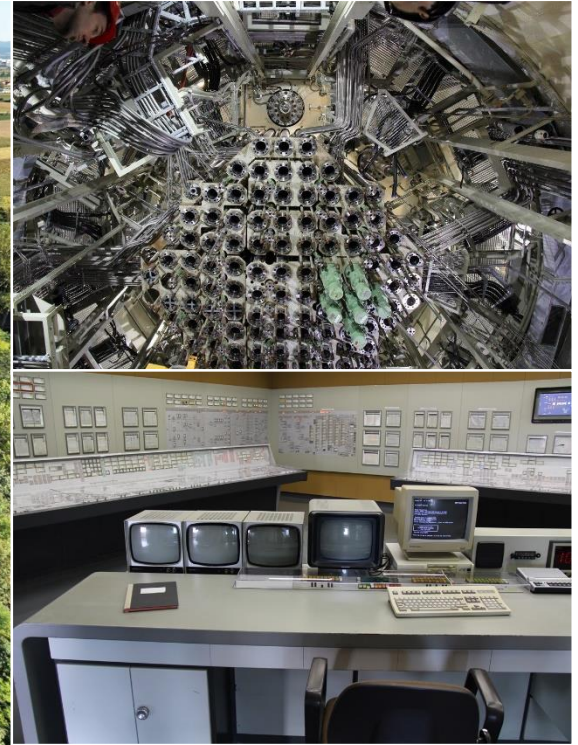
– 2017/2018 ~ 2.200 Mio. EUR

→ Employees

– Worldwide ~ 6.800

– Austria ~ 2.400

– IT in Austria ~ 130



Main architecture drivers

Application Strategy

- Transparency across system landscape
- Central list of product owners - IT and business responsibilities
- Which systems are in use and planned
- Overview of Business Capabilities – User Groups

GDPR

- Overview of Applications and Data Objects
- Overview of Applications with (sensitive) personal data

Risk Management

- Identify business/technical critical systems
- Identify technology dependencies
- NIS (Netz- und Informationssystemsicherheitsgesetz)

Security

- Overview of identity and access management
- Overview of role based access control

Need for EAM tool with collaboration capabilities

- High number of applications and complexity
 - Multiple companies/subcompanies
 - More than 700 applications
 - More than 1.400 servers
- Architecture team consists of three members (\neq 3 FTE)
- Information maintenance needs to be shared
 - Every IT employee has read/write access
 - Business departments will have at least view access
 - Surveys help to request specific information

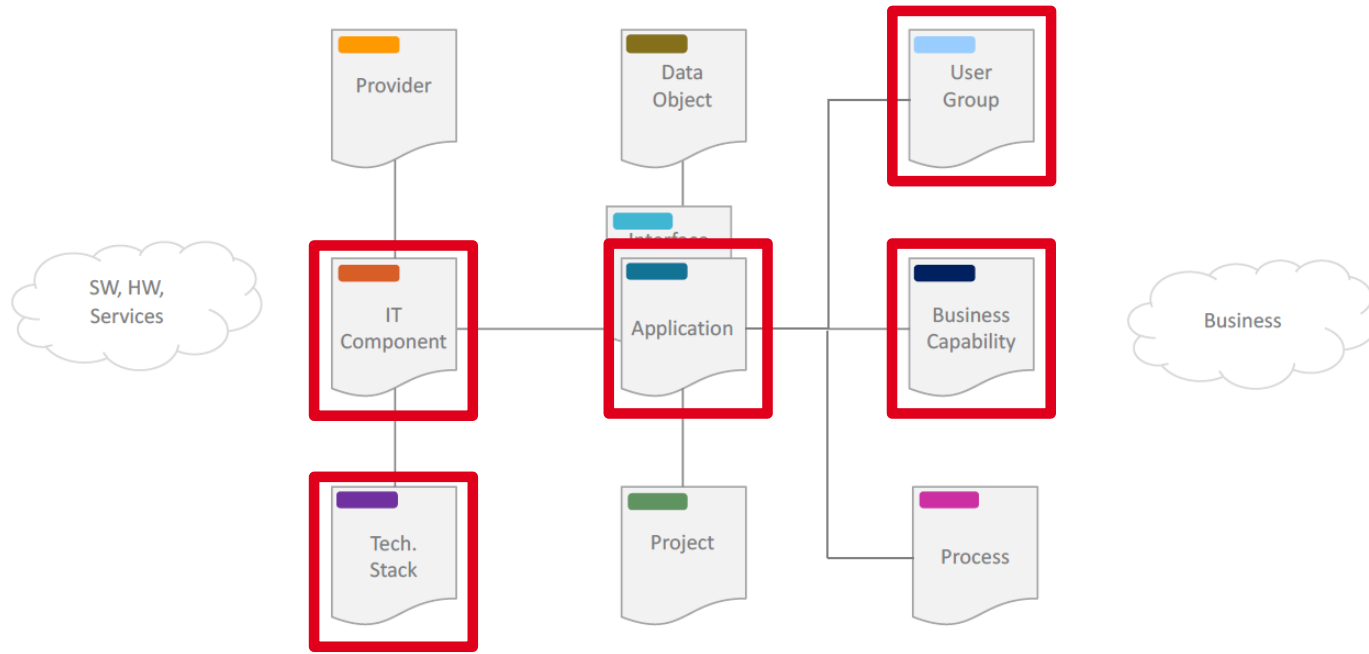


Why LeanIX?

- Intuitive user interface
 - Essential as many people work with the solution (infrequently)
 - Low onboarding and training effort
- Collaboration features
 - Surveys
 - Comments
 - Notifications
- Out of the box reporting functionality
- Efficient import-/export functionality



How we started – Main fact sheet types



→ Approach

- Import in LeanIX

SharePoint Websites

DURCHSUCHEN ELEMENTE LISTE

	A	B	E	H
	Datacenter			
SHPYPERV/SZ2	Microsoft Windows Server 2008 R2 Enterprise		Serverbetreuung	
SHPYPERV/TWCL1	Microsoft Windows Server 2008 R2 Enterprise		Serverbetreuung	
SHPYPERV/TWCL2	Microsoft Windows Server 2008 R2 Enterprise		Serverbetreuung	
SMDPROXY	Microsoft® Windows Server® 2008 Standard			

Jr	A	B	E	H
1	Anwendung/Tools	- EXE -	Lieferant -	Nicht-Standard = Ve
2	Redimension V.3.2			
3	3C Daemon			
4	6000 Series Tools		Ihr Firmenname	
5	T-zip	Tz.exe		Standard-Clients Da
6	ABB Tools			
7	ABB - Winve			Nicht Standard
8	ABB S01_01			
9	ABB Spannungsmesser			
10	ABBABB_REB_500			Nicht Standard
11	ABBPVC6000 2.5			Nicht Standard
12	ABB_RE_316_4_V6.2CAP_SETUP			Nicht Standard
13	ABB_RE_316_4_V6.34			Nicht Standard
14	ABB_REG_216_V2_10			Nicht Standard
15	ABB_REG_216_V3_21			Nicht Standard
16	ABB_REG_316_V3_21			Nicht Standard
17	ABB_RE_316_4_V6.34			Nicht Standard

Vollst.: suche:

Zustand: Filter verwenden Suchen (F3)

Priorität: Inkl. Unterordner Zurücksetzen

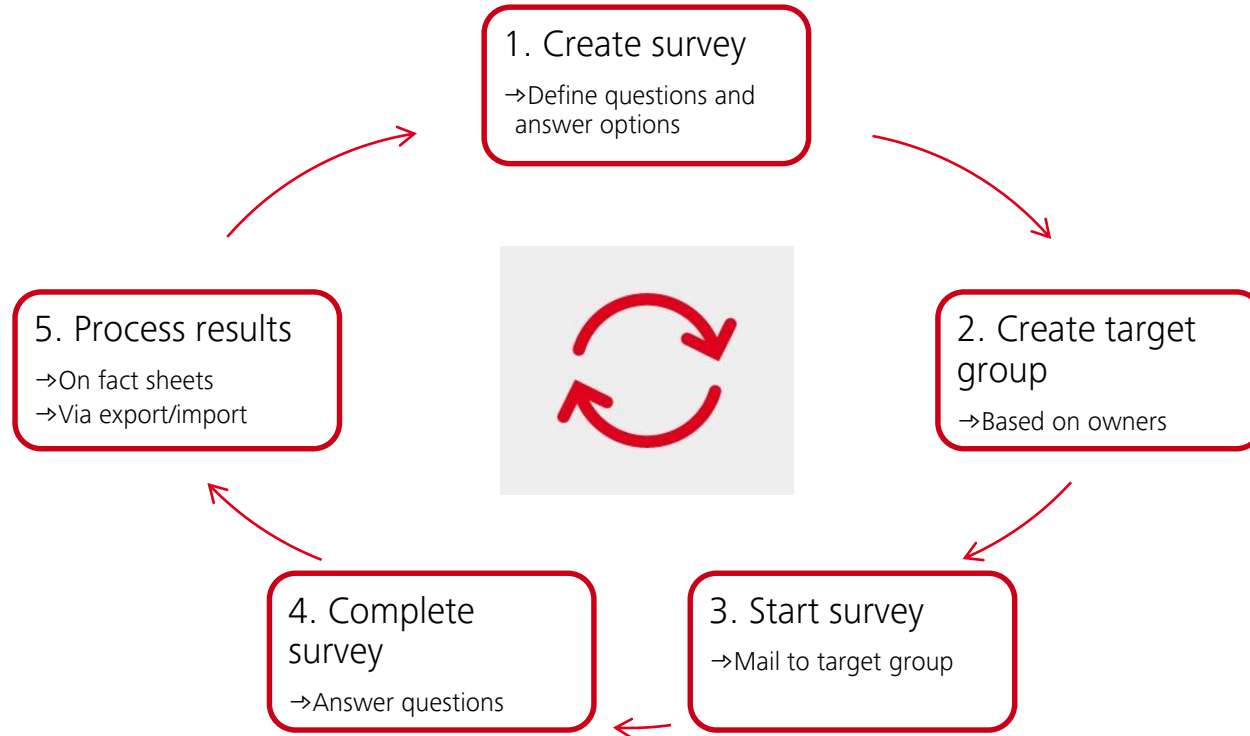
Seitennummer:

Erfrische Aufgaben

Name Typenbezeichnung

- Adobe PageMaker
- Adobe PhotoShop
- Adobe Photoshop 7
- AGIS Openoffice
- AirCard Watcher
- AlwaysOn
- Amag 3D
- Amag Py
- Antix
- AntiKalendar

Survey process



Survey – Basic application information

- Is the application still relevant and in use?
- Who is responsible
 - IT responsibility
 - Business responsibility

Design survey

Run survey

Status & results

The recipients of your survey are the users subscribed to one of the following Fact Sheets with one of the following subscription roles. When you start a new survey run, the recipients will be determined and an individual response link to the survey will be sent to each of them.

Fact Sheets

Type: Application

Subscriptions roles

Responsible

Active users only ▼

Selection

69 Recipient

525 Fact Sheets (with recipients)

103 Fact Sheets (without recipients)

☒ Automatically check for changes ?

☒ Send email on updates ?

Language ?

English ▼

Survey – Basic Application Information

You received this survey because you are listed as application responsible. Is this information correct?

☐ Yes

☒ No

In case you know the correct application responsible (or the team who is responsible), please enter the information here:

T

Live preview

You received this survey because you are listed as application responsible. Is this information correct?

☒ Yes

☐ No

Is the application still relevant?

☐ Yes

Application is installed and in use, or planned to be introduced. Also read only systems (e.g. archive systems) or version management systems have to be considered.

☐ No

Application is not in use anymore or has been replaced by a different solution and can therefore be removed from LeanIX.

OK

Survey – Extended application information

→ Inquired information

- Responsibilities incl. business departments
- Relevant (yes / no)
- Standard / Customized / Individual
- Correct application name and description
- Usage of personal data
- Usage of Java
- Identity and access management
- Need for action

→ Survey was sent to approximately 70 people



Survey – Extended application information

Extended Application Information

Christian Patterer, you have been invited to the following Surveys by Christian Patterer.

← Jira - Atlassian 8.4

This response has been marked as finalized and is currently read-only. [Revert to editable status](#) to continue editing.

Survey for Fact Sheet Jira - Atlassian 8.4

You received this survey because you are listed as application responsible. Is this Information correct?

- ☒ Yes
☐ No

Who is the application owner from business department perspective?

Matthias Schnell

Mailing list for technical support

jira@evn.at

Is the application still relevant?

- ☒ Yes
Application is installed and in use, or planned to be introduced. Also read only systems (e.g. archive systems) or version management systems have to be considered.
- ☐ No
Application is not in use anymore or has been replaced by a different solution and can therefore be removed from the system.

Please specify the type of application

- ☒ Standard
Commercial of the shelf, out of the box. No individual customization
- ☐ Customized standard
Standard software but customized (e.g. by add-on development)
- ☐ Individual
Self developed application

Jira - Atlassian 8.4 65%

Application

avail: 8 hours INAZ

DC: Confidential

datqualcrit: selfAssessmentOnly

IAM: AD_auto

RBAC: Manual

Type: Standard

testcrit: testcrit.High

Jira ist eine Webanwendung zur Fehlerverwaltung, Problembehandlung und operativem Projektmanagement. Jira wird auch in nicht-technischen Bereichen für das Aufgabenmanagement eingesetzt. Sie wurde von Atlassian entwickelt. Primär wird Jira für die Softwareentwicklung eingesetzt.

Fact Sheet

Subscriptions (3)

Comments (0)

Documents (3)

Metrics

Surveys (3)

Last Update (15 minutes ago)

Extended Application Information (1 runs) [Change design](#)

Started on 2019-11-06 (Latest)

[Edit](#)

You received this survey because you are listed as application responsible. Is this Information correct? ... [Show more](#)

Yes

In case you know the correct application responsible (or the team which is responsible), please ... [Show more](#)

Who is the application owner from business department perspective?

Matthias Schnell

Mailing list for technical support

jira@evn.at

Is the application still relevant?

Yes
Application is installed and in use, or planned to be introduced. Also read only systems (e.g. archive systems) or version management systems have to be considered.

Please specify the type of application

Standard
Commercial of the shelf, out of the box. No individual customization

Filled out by

Christian Patterer

Questions we can address now

- Detailed information in a central place
 - Description of an application
 - Links for further reading or to implemented systems

Jira - Atlassian 8.4 65%

Application
avail: 8 hours INAZ
DC: Confidential
datqualcrit: selfAssessmentOnly
IAM: AD_auto
RBAC: Manual
Type: Standard
testcrit: testcrit:High
Edit tags

Jira ist eine Webanwendung zur Fehlerverwaltung, Problembehandlung und operativem Projektmanagement. Jira wird auch in nicht-technischen Bereichen für das Aufgabenmanagement eingesetzt. Sie wurde von Atlassian entwickelt. Primär wird Jira für die Softwareentwicklung eingesetzt.

Fact Sheet
Subscriptions (3)
Comments (0)
Documents (0)
Metrics
Surveys (1)
Last Update (less than a minute ago)

Information 80%

Name & Description	Name:	Jira - Atlassian
	Release:	8.4
	Description:	Jira ist eine Webanwendung zur Fehlerverwaltung, Problembeha

Lifecycle

● Phase in ● Active ● Phase out

Jira - Atlassian 8.4 65%

Application
avail: 8 hours INAZ
DC: Confidential
datqualcrit: selfAssessmentOnly
IAM: AD_auto
RBAC: Manual
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Fact Sheet
Subscriptions (3)
Comments (0)
Documents (3)
Metrics
Surveys (1)
Last Update (less than a minute ago)

+ Add a document

3 Documents

- [Prod Web Site](#)
- [Test Web Site](#)
- [Prod DMZ Web Site](#)

Questions we can address now

- Central overview of responsibilities
 - Who is responsible for an application
 - Who is responsible for which applications
- Overview of standard, customized and individual applications




Jira - Atlassian 8.4 65%

Application avail: 8 hours INAZ DC: Confidential dataquality: selfAssessmentOnly IAM: AD_auto RBAC: Manual Type: Standard testcrit: testcrit:High Edit tags

Jira ist eine Webanwendung zur Fehlerverwaltung, Problembehandlung und operativem Projektmanagement. Jira wird auch in nicht-technischen Bereichen für das Aufgabenmanagement eingesetzt. Sie wurde von Atlassian entwickelt. Primär wird Jira für die Softwareentwicklung eingesetzt.

Fact Sheet Subscriptions (3) Comments (0) Documents (0) Metrics Surveys (1) Last Update (less than a minute ago)

3 person(s) subscribed [+ Add a person](#)

	Christian Patterer Contact	Responsible	Applikationsverantwortlicher, Testverantwortlicher
	Harold Gieseler Contact	Observer	
	Gerald Koller + Invite	Responsible	Nutzungsverantwortlicher/Key User

Questions we can address now

→ Address Java commercialisation

Filters

TYPE

Application 121

HIERARCHY LEVEL

SUBSCRIPTIONS

More

IT COMPONENTS

✓

SAP BC-JVM67

✓

Java Runtime33

✓

Java Runtime (provider licensed)19

✓

AdoptOpenJDK2

Is the application a Java based application (does it require a Java runtime or a Java web server)?

☐ Yes

☐ No

Sourcing

Technical Fit (Optional)

Technical Fit:★★★★☆

IT Components (4) (Optional)

Which services, software & hardware (e.g. Hosting, ASP, SaaS) is this Application using?

Category: Software (1)

1

AdoptOpenJDK

Questions we can address now

- Overview of identity and access management as basis for addressing security challenges
- Filter via tags
 - IAM - Identity and access Management
 - RBAC - Role based access control

Security Information

Is the application usage limited to specific users?






- ☐ No
- ☐ Yes - User requires access to directory where application is located
- ☒ Yes - User requires to authenticate (login) in the application

How does the authentication work?

- ☐ Application implements own authentication mechanism (no connection to Active Directory)
- ☐ Active Directory, in addition user needs to be set up in application
- ☒ Active Directory, user is assigned to dedicated Active Directory group

Does the application support a role concept?

- ☐ No
- ☐ Yes - roles are assigned within the application
- ☒ Yes - roles are assigned via Active Directory

Name	Description	Color
AD_auto	AD user is automatically created/assigned in application	
AD_manual	AD user needs to be manually assigned in application	
Application	Seperate user maintenance in application	
Directory	Application directory access only	
None	no_limitation	

Questions we can address now

→ Find applications with personal data

Personal Data

Is personal data processed in the application (according to GDPR)?

- ☒ Yes
☐ No

Is sensitive data processed in the application (genetic data and biometric data such as fingerprints, iris)

- ☐ Yes
☐ No

VIEW: Data Objects: Data Classification

n/a Public / Unclassified Sensitive (L-1) Restricted (L-2) Confidential (L-3)

Attention: 567 Fact Sheet(s) not included in this report due to missing data: [Show list](#)

Business Support	Customer and Partner Financials Management
<div>Corporate Compliance Management</div> <div>Public / Confidential / Restricted</div>	<div>Claims, Returns, and Refund Management</div> <div>Public / Confidential / Restricted</div>
<div>IT Development</div> <div>Public / Confidential / Restricted</div>	<div>Contract Accounting</div> <div>Public / Confidential / Restricted</div>
<div>IT Management</div> <div>Confidential / Restricted / Public</div>	<div>Credit and Collection Management</div> <div>Public / Confidential / Restricted</div>



- Deleted 100+ applications from repository
- Common basis for further activities
 - Input for security team for security processes
 - Input for Java commercialization topics
 - Input for GDPR activities
- Reduction of Excel lists

Some smaller surveys – Business information

Survey for Fact Sheet **Jira - Atlassian 8.4**

Please fill out the Information below to your best Knowledge:

Information 80%

Name & Description

Name: Jira - Atlassian
Release: 8.4
Description: Jira ist eine Webanwendung zur Fehlerverwaltung, Problembehandlung und oper...

Business Support 50%

Business Criticality & Functional Fit

Business Criticality

↑↑↑↑↑ Medium

↑↑↑↑↑ Inconsiderable
No influence on the business activities of the group or other areas/group companies.

↑↑↑↑↑ Low
The influence on the business activities of the group or other segments/group companies is negligible overall.

↑↑↑↑↑ Medium
The influence on the business activities of the group or other segments/group companies can be significant.

Please provide background information about the business criticality of this Application.

Functional Fit

★★★★★ Perfect

In your judgement, how well does this Application meet the business requirements today and in the near future (next 2 years).

Functional Fit Description

Please provide background information about the functional fit of this Application.

Cancel Save & Next Save

Reuse answers Save as draft Finalize

(These actions apply to the currently selected Fact Sheet only)

→ What

- Input from business side regarding criticality and functional fit

→ Why

- Overview of critical systems
- Relevant for maintenance windows, disaster recovery etc.
- Used in emergency manual

Some smaller surveys – Java Alternatives

Please specify the application type

☐ Client

☐ Client - Java Web Start

☐ Server

Is the Java Runtime distributed with the application?

☐ Yes

☐ No - Java needs to be installed separately

Does the application require a specific Java version

☐ Yes

☐ No

Required Java Version

If Oracle Java Runtime is used, can it be replaced by an alternative?

☐ Yes - AdoptOpenJDK

☐ Yes - Amazon Corretto

☐ Yes - Other

☐ No

[Reuse answers](#) [Save as draft](#) [Finalize](#)

→ What

- Input from IT for potential Java alternatives

→ Why

- Relevant to find non commercial Java options or clarify Java need
- Client as well as server side alternatives

Learnings from using surveys

→ Pro's

- High return rate > 85%
- Only few questions related to answering surveys
- Conditional questions improve user experience
- Embedding fact sheet segments reduce subsequent work
- Automatic e-mail distribution
- Automatic e-mail redistribution (e.g. if responsible changes)

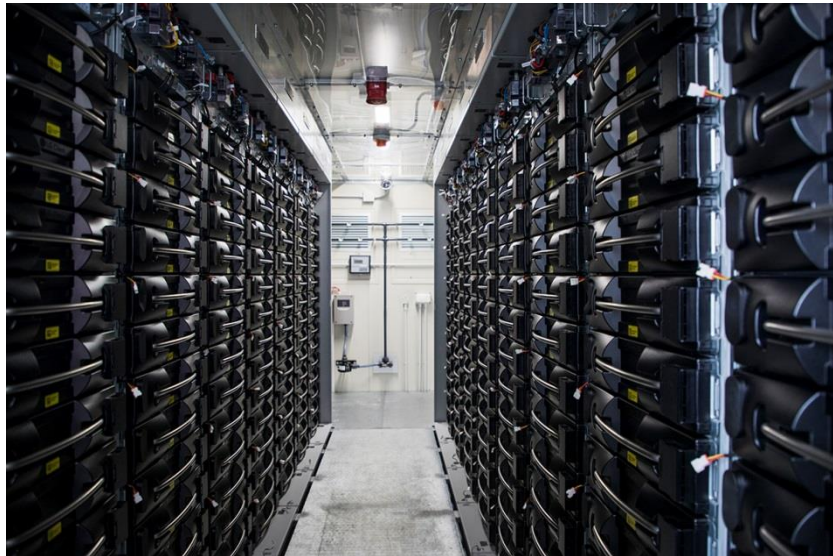
→ Con's

- Filling out fact sheet segments is not always intuitive for end users
- Processing answers from other question types (non fact sheet segments) require subsequent work
 - Direct update of tags would be helpful
- No reminder e-mail functionality
- Export/import requires rework
 - Name includes application version
 - Column titles are different

Learnings from using surveys



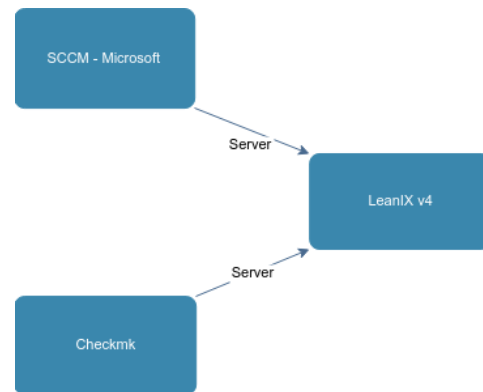
- Formulate meaningful questions
 - Keep in mind what you will do with the results
- Try to keep the survey short
 - In many cases people do this on top of their regular work
- Inform people of upcoming survey
 - Especially if people are new to the topic
 - Mail might look like spam to them
 - Give them context



- Essential to answer questions
 - Clarified responsibilities for infrastructure components
 - Impact of server failures, OS and DB upgrades and patches etc.
 - Timely identify technical risks
- Why not maintaining manually
 - 1.400+ servers
 - Frequent changes (new servers, etc.)
 - Info already available in other systems

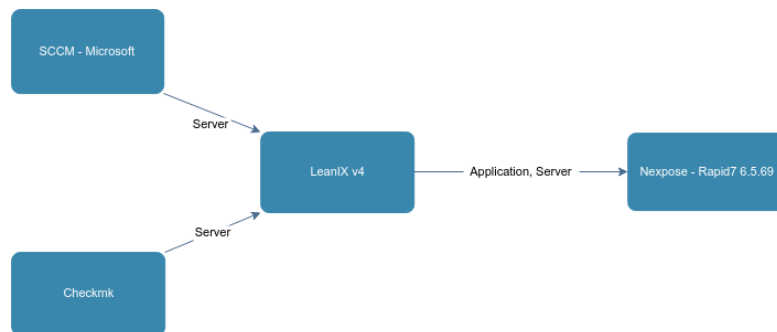
Integration of Servers - Approach

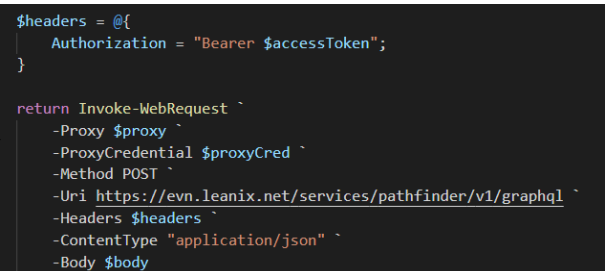
- Source for information
 - Microsoft SCCM for Windows server
 - CheckMK for Linux server
 - Available information: server name, operating system, status
- Integration via LeanIX API (GraphQL)
 - Using integration middleware
- Addressing previous questions requires server/application relation
 - Manual via survey



Integration of Servers – Additional use case

- Integration with vulnerability management software
 - Software scans network devices to identify potential vulnerabilities
 - LeanIX application business criticality defines criticality of servers and sequence of next steps
- Integration via LeanIX API (GraphQL)
 - Using PowerShell





- Collaboration is the best approach
 - Talk to each other
 - Convince people by demonstrating benefits for their roles
- Document only data that adds value
 - Accept that data will never be 100% complete
- Tool support is essential
 - Intuitive user experience for user acceptance
 - Collaboration features are key
 - Trusted central repository eliminates redundant information
- Integrations improves data quality and completeness



Vielen Dank für Ihre Aufmerksamkeit!

The background of the slide is a photograph of several wind turbines in a field. The sun is shining brightly from the upper left, creating a lens flare effect. The sky is a clear blue, and the ground is covered in a layer of low-lying vegetation. The turbines are silhouetted against the sky.

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Appendix

Using surveys – Details

→ Usability of fact sheet segments

Survey with Fact Sheet Segments


Christian Patterer, you have been invited to the following Surveys by Christian Patterer.

← Jira - Atlassian 8.4 →

Survey for Fact Sheet Jira - Atlassian 8.4

Please enter the Details below

Information 80%

Name & Description	Name:	Jira - Atlassian	
	Release:	8.4	
	Description:	Jira ist eine Webanwendung zur Fehlerverwaltung, Problembehandlung und oper...	

Please enter the Details below

Information 80%

Name & Description

Name: Jira - Atlassian Release: 8.4

The name is used to identify this Fact Sheet in the Inventory, Reporting and Search.

Alias: External ID: Please enter an external ID...

Use this field for an alternative name, which is also used in full-text search. Store your External ID here which uniquely identifies this Fact Sheet.

Description: Jira ist eine Webanwendung zur Fehlerverwaltung, Problembehandlung und operativen Projektmanagement. Jira wird auch in nicht-technischen Bereichen für das Aufgabenmanagement eingesetzt. Sie wurde von Atlassian entwickelt. Primär wird Jira für die Softwareentwicklung eingesetzt.

Please provide a meaningful description to enable other users to understand the main purpose.

Cancel Save & Next Save

Lifecycle

Phase in Active Phase out

2019 2020 2021 2022

Successors (Optional) What are the successors?

Predecessors (Optional) What are the predecessors?

Reuse answers Save as draft Finalize

Using surveys – Details

→ Export/import format

	A	B	C	D	E	F
1	User	Fact Sheet ID	Fact Sheet Title	Status	Response Number	Last save time
2	Christian.Patterer@evn.at	0f3a1eb8-89ef-4569-adee-db5f0284eebd	Confluence - Atlassian 7	NEW	1	No answer given yet

	A	B	C	D
1	id	type	name	displayName
2	ID	Type	Name	Display Name
3	0f3a1eb8-89ef-4569-adee-db5f0284eebd	Application	Confluence - Atlassian	Confluence - Atlassian 7