



# LIZENZMANAGEMENT REPORTING WEBINAR

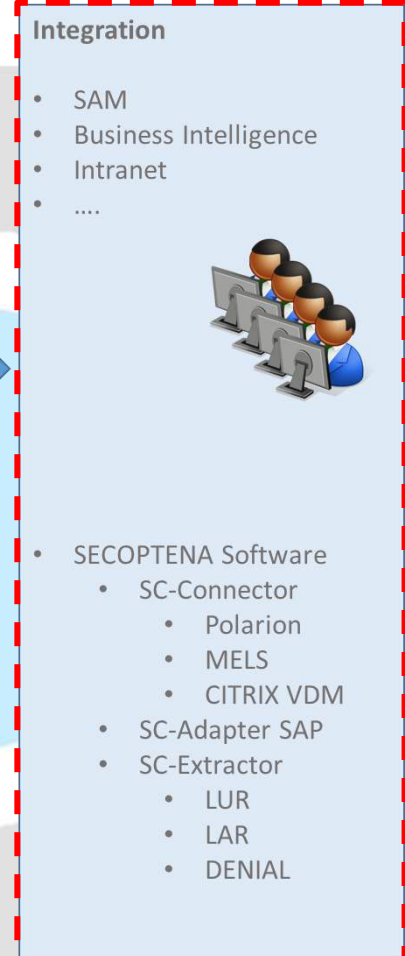
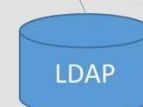
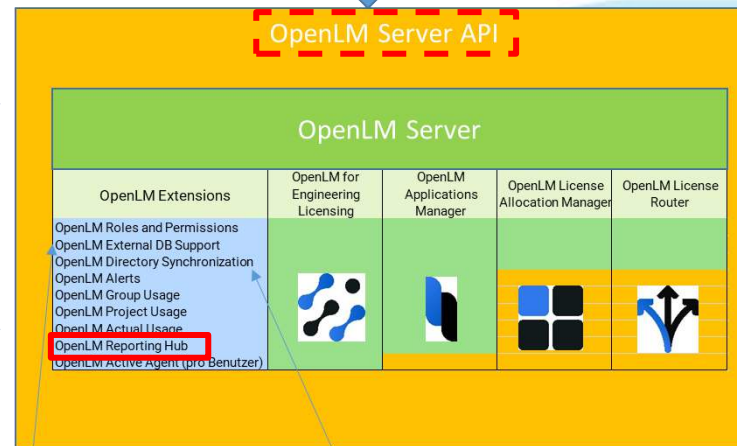
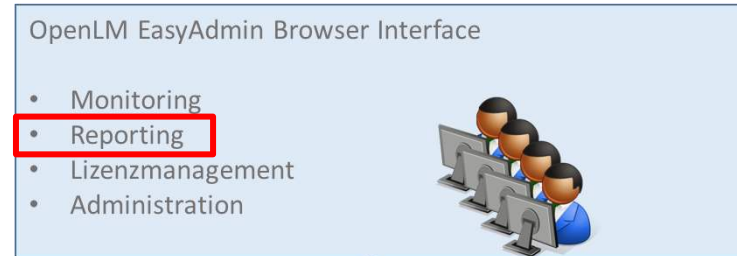
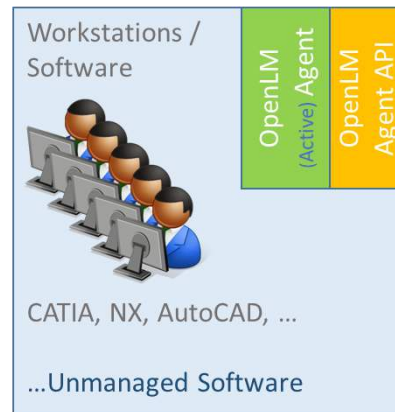
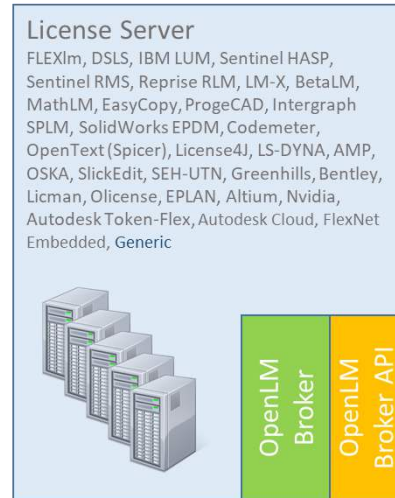
JONAS MEDER  
SECOPTENA GMBH

# OPENLM SYSTEM ARCHITECTURE



## Reporting Funktionen

- ❖ EasyAdmin
  - ❖ Report Scheduler
- ❖ Reporting Hub
- ❖ API
- ❖ (Agent/Personal Dashboard)
  - ❖ Nur Monitoring
  - ❖ Kein Reporting



# SUMMIT WORKSHOP REPORTING



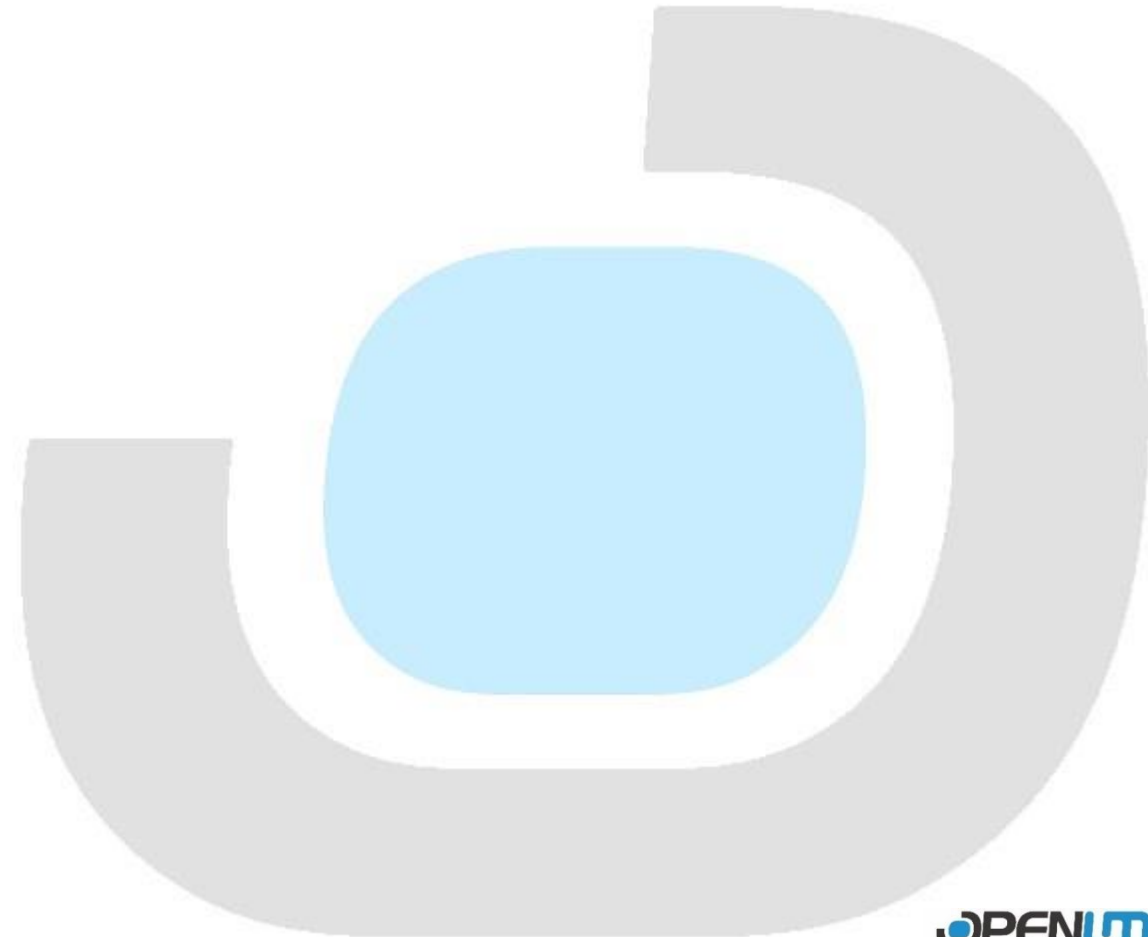
- **EasyAdmin**
  - Report Scheduler
    - Emails haben zu viele unnötige Informationen, zu umfangreich
    - Kann Report je Organisation erzeugen (Filter nach Group - kommt aus LDAP)
  - Grafen könnten schöner sein - sind nicht so schön wie z.B. [Graphite](#)
  - Neue Reports brauchen wir nicht
  - Vorhandene Reports sollten aber verbessert werden
- **Agent**
  - Echtzeit Nutzung darstellen ist sehr praktisch => Personal Dashboard
- **Datenschutz**
  - User sollen nur User der eigenen Organisationen sehen können (Personal Dashboard??) - Im Agent ist das nicht möglich, musste daher deaktiviert werden
- **Personalisierte Ansicht**
  - Total zeigt Gesamtzahl der Lizenzen auf den Lizenzserver, nicht wie viele Lizenzen pro Anwender/Organisation tatsächlich verfügbar sind (Option File - User ist per Default Group der Company zugeordnet) => Personal Dashboard?? ()

- Reporting Hub

- Funktionen interessant, aber nur bei sehr wenigen Kunden in Verwendung
  - Demo/Webinar wäre sicher eine gute Idee
  - „Schmales Paket“ mit „2h Consulting“ und Beispiele -> weniger Überzeugungsarbeit
    - gibt es eigentlich schon aber sollte vielleicht besser kommuniziert/vermarktet werden
  - Herausforderung: Effektive Reports bei sehr großen Datenmengen (Conti)
  - Dokumentation: Fahrplan welche Tabellen verknüpft werden müssen für bestimmte Reports
- ⇒ Potentiale sind noch viel zu wenig bekannt
- ⇒ Möglichkeiten des Produkts besser kommunizieren!

# EASYADMIN

WebUI - Standard Reporting



# EASYADMIN



## License Activity

- ❖ Gute Datenquelle für Reporting (CSV-Export)
- ❖ Troubleshooting

The screenshot shows the 'License Activity' interface. On the left, there is a 'Filter' panel with several options: 'Include Current Activity' (checked), 'Exclude Unconsumed Reservations' (unchecked), 'Server Name', 'Vendor Name', 'License Type', and 'Additional Key'. Below these are expandable sections for 'Features', 'Users', 'Groups', 'Workstations', 'Projects', and 'Products'. At the bottom of the filter panel, there are 'Date' and 'Date range (Start and End time)' fields, with a start time of 20/09/2021 00:00 and an end time of 20/09/2021 23:59.

The main table has columns: User Name, Workstation, Server, Vendor, Feature, Feature Version, Start Time ↓, End Time, and License Type. The table contains 20 rows of data, showing various users, workstations, servers, vendors (MSC, ugsimd, ansysimd, tecim), and features (NASTRAN, MSCONE, features\_modeling, anshpc, ansys, NA\_Parallel, 360ex).

User Name	Workstation	Server	Vendor	Feature	Feature Version	Start Time ↓	End Time	License Type
...	...	...	MSC	NASTRAN	2022.0415	20/09/2021 14:28:43	20/09/2021 14:30:12	Floating
...	...	...	MSC	MSCONE	2022.0415	20/09/2021 14:28:43	20/09/2021 14:30:12	Floating
...	...	...	MSC	NASTRAN	2022.0415	20/09/2021 14:27:43	20/09/2021 14:29:26	Floating
...	...	...	MSC	MSCONE	2022.0415	20/09/2021 14:27:43	20/09/2021 14:29:26	Floating
...	...	...	ugsimd	features_modeling	36.0	20/09/2021 14:27:15	20/09/2021 14:27:25	Floating
...	...	...	ansysimd	anshpc	9999.9999	20/09/2021 14:26:52	20/09/2021 14:27:42	Floating
...	...	...	ansysimd	ansys	9999.9999	20/09/2021 14:26:48	20/09/2021 14:27:42	Floating
...	...	...	MSC	NASTRAN	2021.1215	20/09/2021 14:26:17	20/09/2021 14:26:39	Floating
...	...	...	MSC	MSCONE	2021.1215	20/09/2021 14:26:17	20/09/2021 14:26:39	Floating
...	...	...	MSC	NASTRAN	2022.0415	20/09/2021 14:25:17	20/09/2021 14:27:11	Floating
...	...	...	MSC	MSCONE	2022.0415	20/09/2021 14:25:17	20/09/2021 14:27:11	Floating
...	...	...	tecim	360ex	2022.07	20/09/2021 14:24:32	20/09/2021 14:25:30	NodeLocked
...	...	...	ugsimd	features_modeling	36.0	20/09/2021 14:23:41	20/09/2021 14:23:52	Floating
...	...	...	MSC	NASTRAN	2021.1215	20/09/2021 14:23:36	20/09/2021 14:29:54	Floating
...	...	...	MSC	MSCONE	2021.1215	20/09/2021 14:23:36	20/09/2021 14:29:54	Floating
...	...	...	MSC	NA_Parallel	2021.1215	20/09/2021 14:23:23	20/09/2021 14:29:54	Floating
...	...	...	MSC	MSCONE	2021.1215	20/09/2021 14:23:23	20/09/2021 14:29:54	Floating
...	...	...	MSC	NASTRAN	2022.0415	20/09/2021 14:23:20	20/09/2021 14:23:32	Floating
...	...	...	MSC	MSCONE	2022.0415	20/09/2021 14:23:20	20/09/2021 14:23:32	Floating
...	...	...	ansysimd	ansys	9999.9999	20/09/2021 14:23:14	20/09/2021 14:25:20	Floating
...	...	...	MSC	NASTRAN	2022.0415	20/09/2021 14:23:14	20/09/2021 14:24:19	Floating
...	...	...	MSC	MSCONE	2022.0415	20/09/2021 14:23:14	20/09/2021 14:24:19	Floating
...	...	...	MSC	NASTRAN	2021.1215	20/09/2021 14:23:14	20/09/2021 14:23:36	Floating
...	...	...	MSC	MSCONE	2021.1215	20/09/2021 14:23:14	20/09/2021 14:23:36	Floating
...	...	...	tecim	360ex	2022.07	20/09/2021 14:23:00	20/09/2021 14:23:30	NodeLocked
...	...	...	ugsimd	features_modeling	36.0	20/09/2021 14:22:08	20/09/2021 14:23:15	Floating

# EASYADMIN



## Denials (Tabelle)

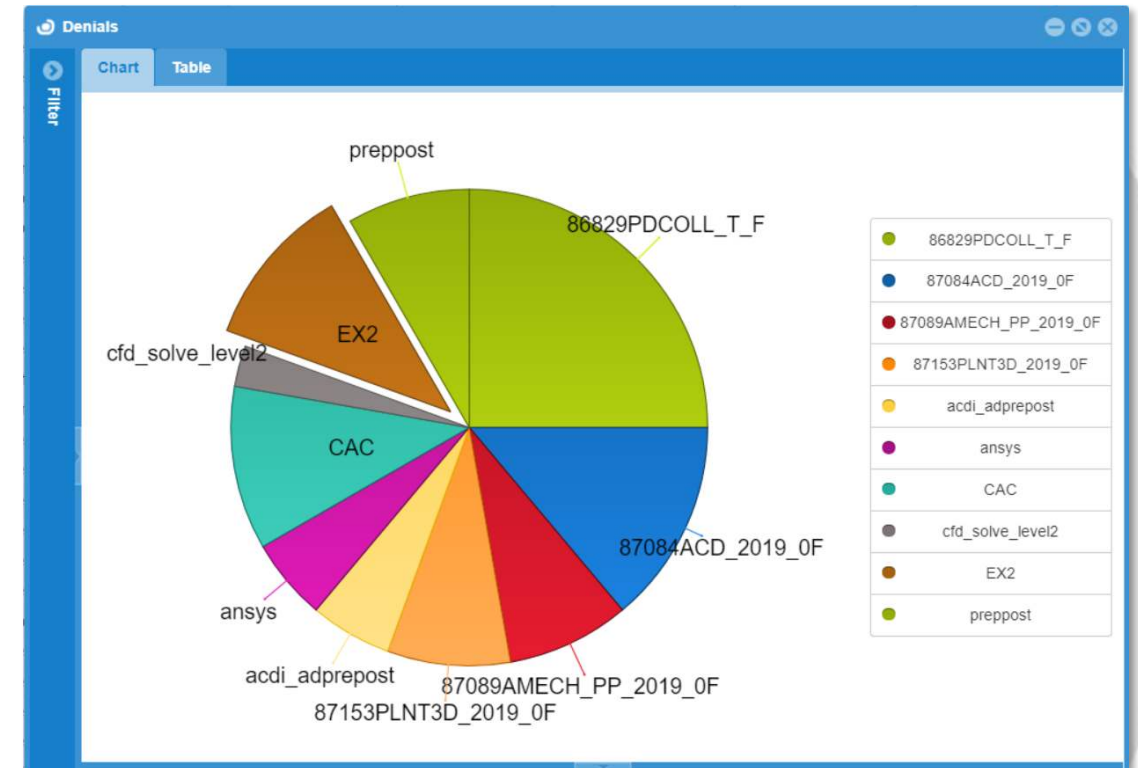
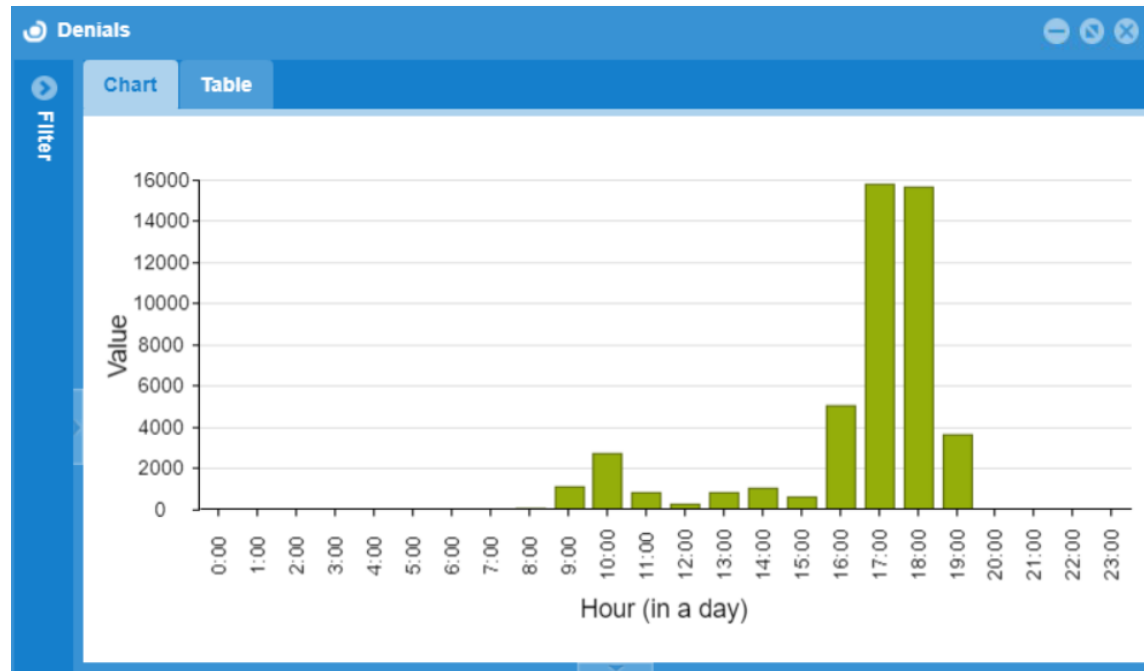
- ❖ Gute Datenquelle für Reporting (CSV-Export)
- ❖ Troubleshooting

Error	Denial Time	User name ↑	Workstation	Server	Vendor	Feature
User/host not on INCLUDE list for feature.	20/09/2021 11:56:07	...	...	...	ansyslmd	preppost
User/host not on INCLUDE list for feature.	20/09/2021 11:56:07	...	...	...	ansyslmd	acdi_adprepost
User/host not on INCLUDE list for feature.	20/09/2021 11:56:08	...	...	...	ansyslmd	preppost
User/host not on INCLUDE list for feature.	20/09/2021 11:56:08	...	...	...	ansyslmd	ansys
User/host not on INCLUDE list for feature.	20/09/2021 12:07:42	...	...	...	ansyslmd	acdi_adprepost
User/host not on INCLUDE list for feature.	20/09/2021 12:07:42	...	...	...	ansyslmd	preppost
User/host not on INCLUDE list for feature.	20/09/2021 12:07:42	...	...	...	ansyslmd	ansys
no more available license	20/09/2021 12:07:53	...	...	...	Dassault Systemes	CAC
no more available license	20/09/2021 12:08:36	...	...	...	Dassault Systemes	CAC
user ... not authorized	20/09/2021 09:43:49	...	...	...	Dassault Systemes	EX2
user ... not authorized	20/09/2021 08:56:00	...	...	...	Dassault Systemes	EX2
User/host not on INCLUDE list for feature.	20/09/2021 09:02:44	...	...	...	ansyslmd	cfdsolve_level2
no more available license	20/09/2021 10:49:14	...	...	...	Dassault Systemes	CAC
no more available license	20/09/2021 10:49:48	...	...	...	Dassault Systemes	CAC
user ... not authorized	20/09/2021 14:16:06	...	...	...	Dassault Systemes	EX2
user ... not authorized	20/09/2021 10:21:33	...	...	...	Dassault Systemes	EX2
Licensed number of users already reached.	20/09/2021 11:06:53	...	...	...	adskflex	86829PDCOLL_T_F
Licensed number of users already reached.	20/09/2021 11:06:53	...	...	...	adskflex	87084ACD_2019_0F
Licensed number of users already reached.	20/09/2021 11:06:54	...	...	...	adskflex	87084ACD_2019_0F
Licensed number of users already reached.	20/09/2021 11:06:54	...	...	...	adskflex	86829PDCOLL_T_F
Licensed number of users already reached.	20/09/2021 11:06:54	...	...	...	adskflex	87089AMECH_PP_...
Licensed number of users already reached.	20/09/2021 11:06:55	...	...	...	adskflex	86829PDCOLL_T_F
Licensed number of users already reached.	20/09/2021 11:06:55	...	...	...	adskflex	87153PLNT3D_201...
Licensed number of users already reached.	20/09/2021 11:07:28	...	...	...	adskflex	86829PDCOLL_T_F
Licensed number of users already reached.	20/09/2021 11:07:28	...	...	...	adskflex	87084ACD_2019_0F
Licensed number of users already reached.	20/09/2021 11:07:29	...	...	...	adskflex	87153PLNT3D_201...
Licensed number of users already reached.	20/09/2021 11:07:29	...	...	...	adskflex	86829PDCOLL_T_F

# EASYADMIN

Denials (Grafische Darstellungen)

- ❖ Lizenzauslastung
- ❖ Lizenzbedarf





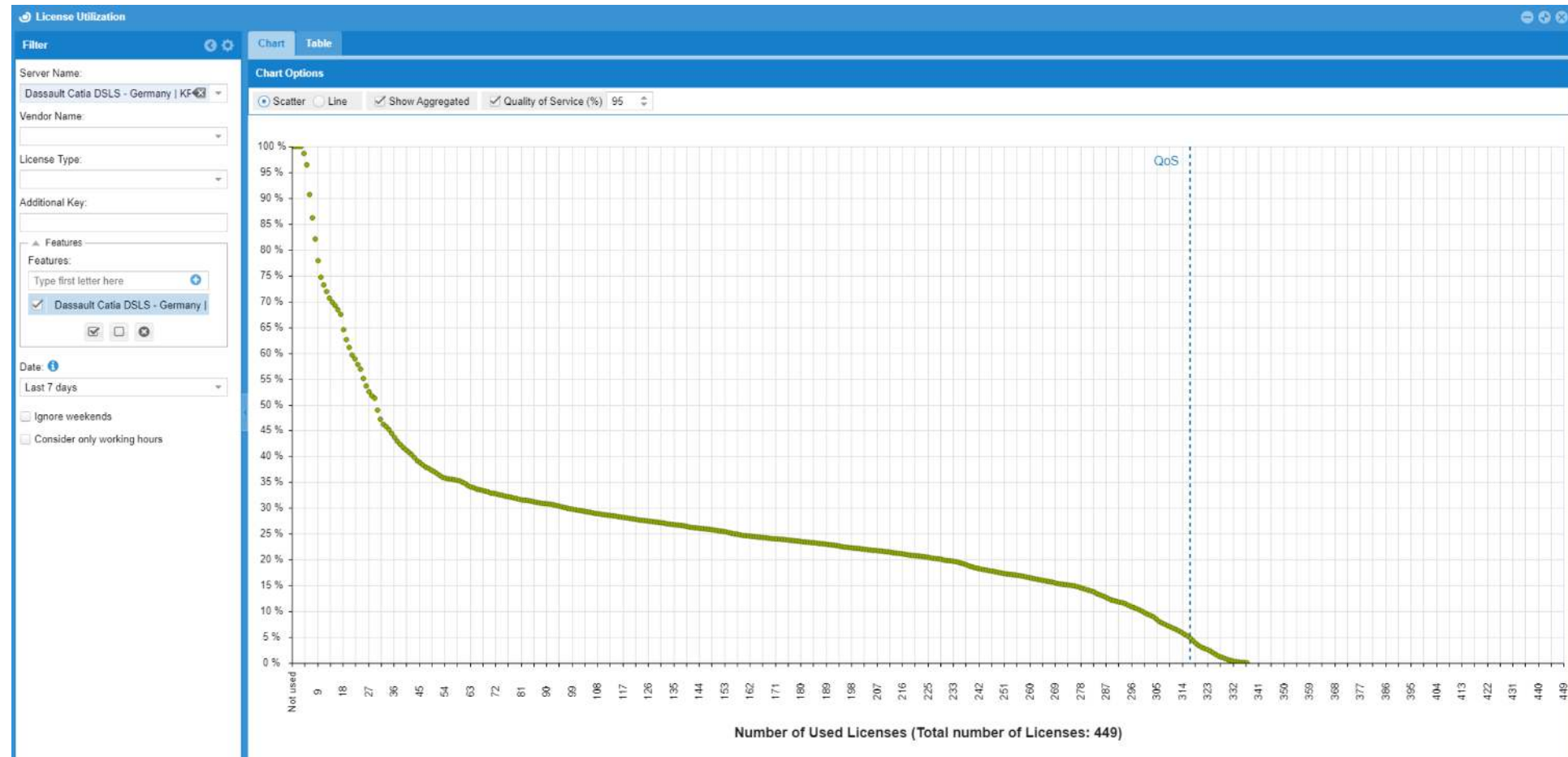
## License Utilization

❖ QoS =

Wieviel % aller Anfragen kann der Lizenzbestand abdecken?

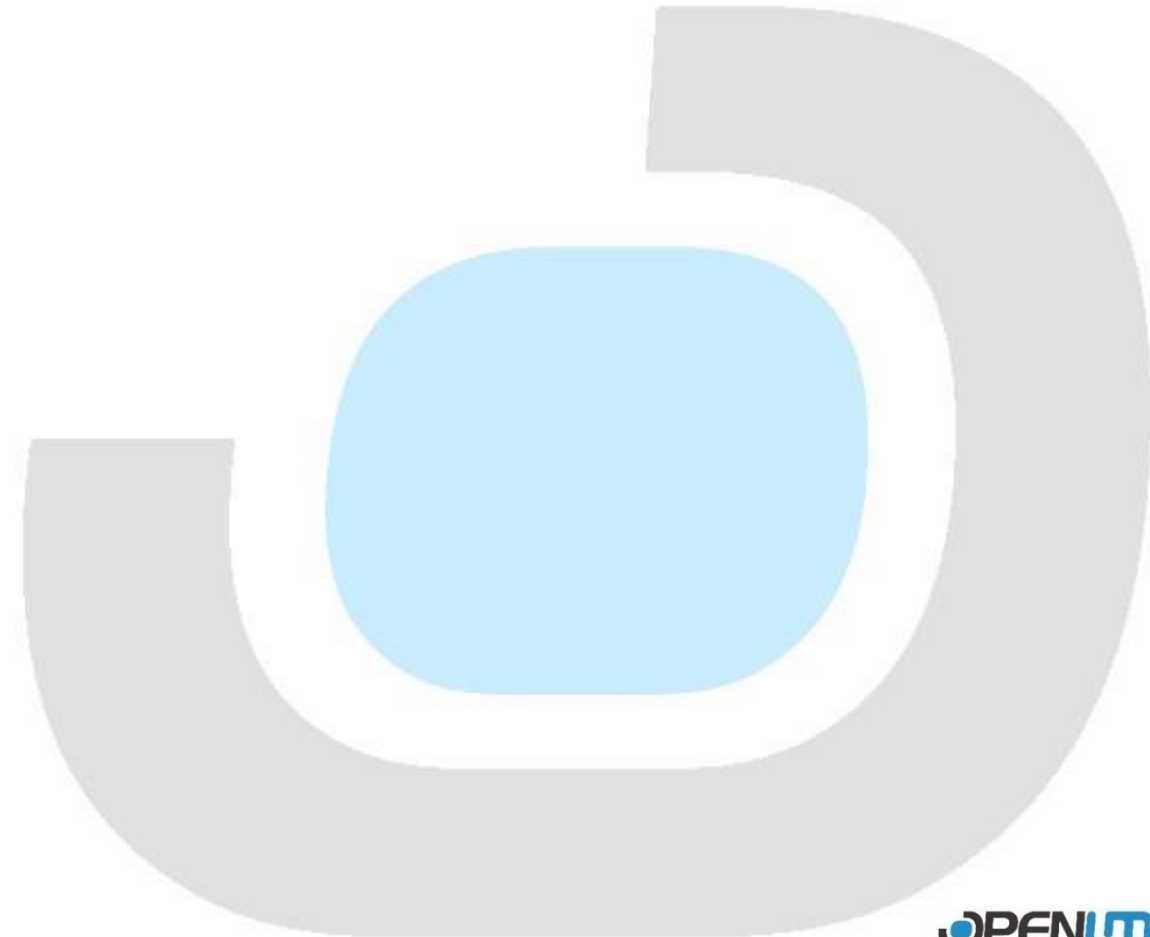
❖ Lizenzbedarf

❖ Lizenzauslastung



# REPORTING HUB

Data Warehouse - Advanced Reporting



# DATA WAREHOUSE



## OpenLM Server (Database)

- Optimiert für sehr **große Anzahl an Transaktionen**, hauptsächlich **schreibend**
- Sehr viele Tabellen (Reporting, Config, Administration, Scheduler, Alerts, Option files...)
- Keine Redundanz
- Tabellenschema ändert sich mit jeder Version => **Zugriff nur über API**

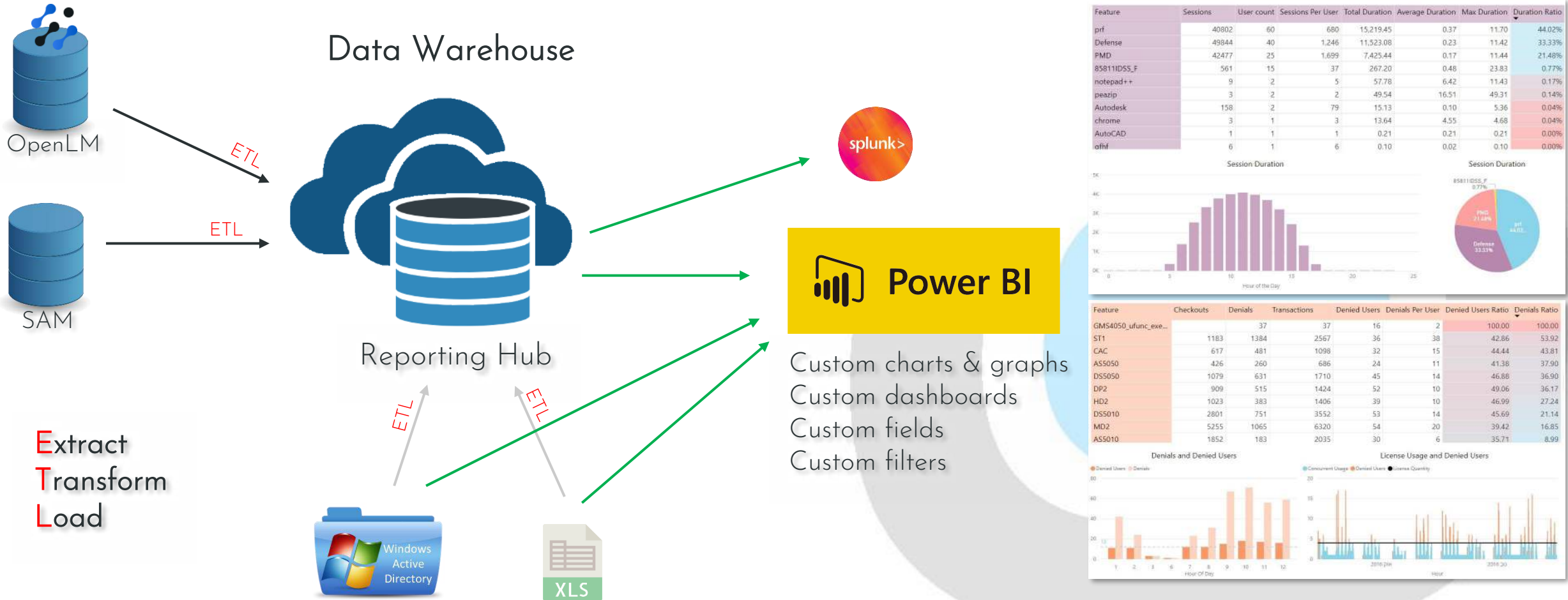
⇒ Daten sammeln

## OpenLM Reporting Hub (Data Warehouse)

- Optimiert für **wenige Transaktionen** aber **lesenden Zugriff** auf große Datenmengen (**Reporting!**)
- Wenige Tabellen für Reporting - **Measures & Dimensions** (BI Standard)
- **Redundanz durch aggregierte Daten**, um Reporting zu verbessern
- Tabellenschema ändert sich nicht, wird nur erweitert => **Zugriff direkt auf Tabellen**

⇒ Daten analysieren

# SYSTEMARCHITEKTUR



# REPORTING HUB PAKETE



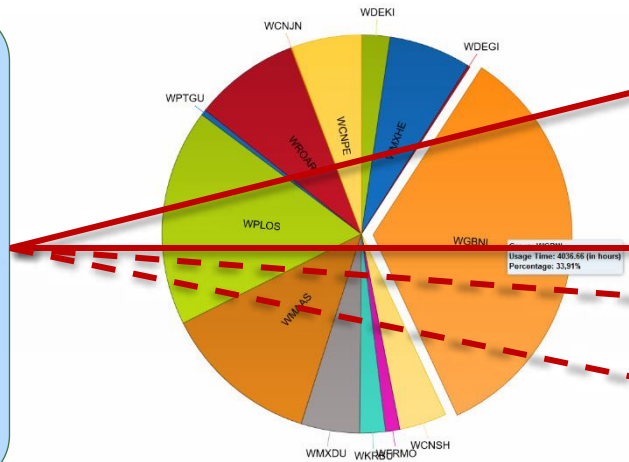
- Reporting Hub ist eine Erweiterung des OpenLM Server
- RH wird immer im Paket mit Consulting angeboten
  - Installation, Konfiguration, Einführung in Datenstruktur ...
- Custom Power BI Templates
  - Erstellung individueller Reports nach Kundenvorgaben



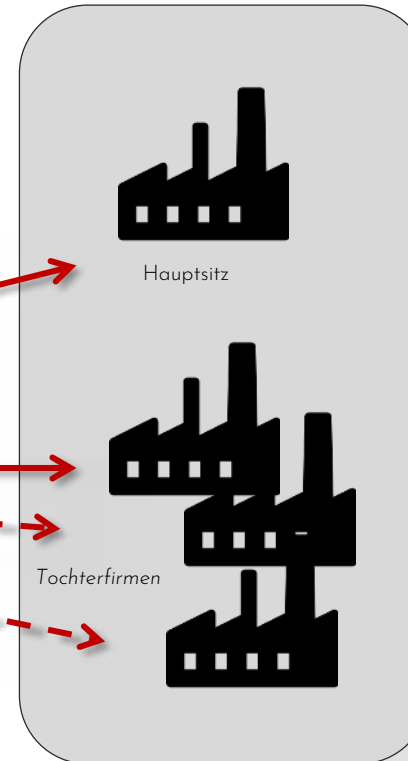
# LIZENZKOSTENVERRECHNUNG

## Kostenverteilung nach Lizenznutzung

Zentraler Kostentopf



Dezentrale Kostenträger



## ❖ Wie bekommen wir Kostenträger in OpenLM?

- ❖ Active Directory (Gruppen)
- ❖ CSV-Import (Gruppen, Projekte)
- ❖ OpenLM Agent (Projekte)
- ❖ Client Config `LM_PROJECT` (Projekte)
- ❖ [OpenLM Reporting Hub](#)

## ❖ Wie bringen wir die Informationen in unser Abrechnungssystem?

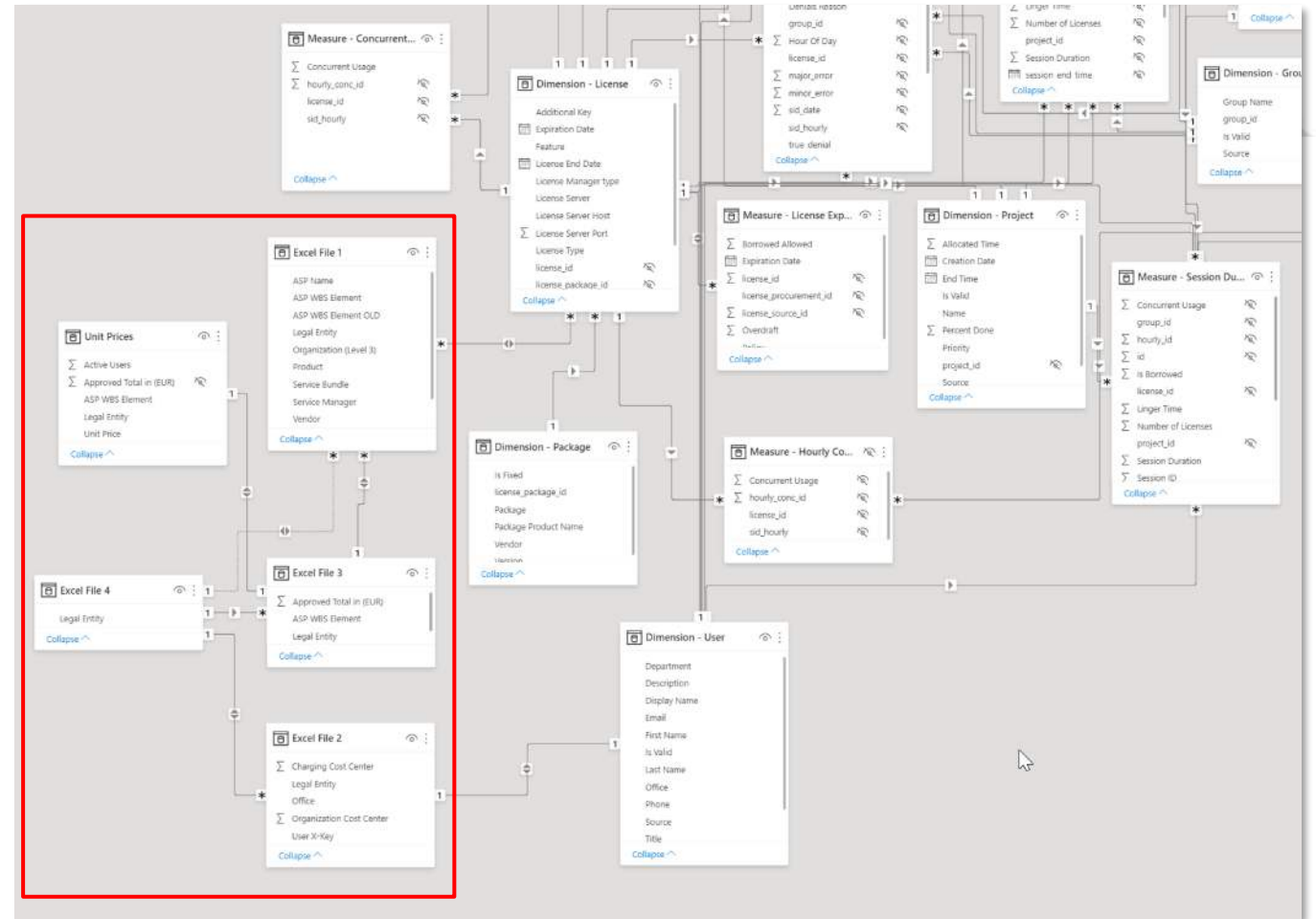
- ❖ OpenLM API
- ❖ CSV-Export
- ❖ OpenLM Report Scheduler
- ❖ [OpenLM Reporting Hub](#)

# LIZENZKOSTENVERRECHNUNG BEISPIEL KUNDENPROJEKT



Integration von Excel  
Datenquellen in das Reporting  
Hub Datenschema

- Budgets
- Kostenstellen
- Legale Einheiten
- Standorte
- ...



# LIZENZKOSTENVERRECHNUNG BEISPIEL KUNDENPROJEKT



## ❖ Vorbereitung

- ❖ Jedes Produkt aus der Excel Datenquelle muss ein passendes Produkt in OpenLM haben

**SECOPTENA**  
powered by  
**OPENLM**

## License Cost Invoicing

**Preliminary check:**  
All Products from Excel input must have a matching Product in OpenLM!

**Product mapping Excel->OpenLM**

Product (Excel input)	Service Manager	Matching Product in OpenLM
3DSL	Stefan Ritter	
ArcGIS	Jonas Meder	
Autodesk	Stefan Ritter	
NX	Jonas Meder	
StudioSL	Stefan Ritter	
Ansys	Jonas Meder	Ansys
ArcEditor	Bernhard Gölitz	ArcEditor
ArcEditor	Jonas Meder	ArcEditor
CREOPMA	Bernhard Gölitz	CREOPMA
Firefox	Jonas Meder	Firefox
MS Office	Jonas Meder	MS Office
NX11110	Bernhard Gölitz	NX11110
NX13100N	Jonas Meder	NX13100N
SupportModeler for PDS	Bernhard Gölitz	SupportModeler for PDS
SupportModeler for PDS	Jonas Meder	SupportModeler for PDS

# LIZENZKOSTENVERRECHNUNG BEISPIEL KUNDENPROJEKT



- ❖ Berechnung Produktpreis
  - ❖ Berechnung der Kosten pro Einheit (bspw. Anwender)

**SECOPTENA**  
powered by  
**OPENLM**

**License Cost Invoicing**

**Step 1:**  
Select Charging Period

**Step 2:**  
Export calculated Unit Prices to CSV

**Charging Period**

6/1/2021 8/3/2021

**Legal Entity**

HQ


**Unit Prices**


ASP WBS Element	Legal Entity	Approved Total in (EUR)	Active Users	Unit Price
1xxABC01.0002.O.01	HQ	€ 262,540.00	895	€ 293.34
1xxABC01.0002.O.02	HQ	€ 500,000.00	825	€ 606.06
1xxABC01.0002.O.03	HQ	€ 520,000.00	3	€ 173,333.33
1xxABC01.0002.O.04	HQ	€ 1,000,000.00	895	€ 1,117.32
1xxABC01.0002.O.05	HQ	€ 380,000.00	87	€ 4,367.82
1xxABC01.0002.O.06	HQ	€ 623,000.00	47	€ 13,255.32
1xxABC01.0002.O.07	HQ	€ 152,000.00	175	€ 868.57
1xxABC01.0002.O.08	HQ	€ 121,000.00	175	€ 691.43

# LIZENZKOSTENVERRECHNUNG BEISPIEL KUNDENPROJEKT



- ❖ Anwendung  
Produktpreis
- ❖ Berechnung der  
Kosten pro  
Kostenträger,  
basierend auf Anzahl  
der aktiven Anwender  
pro Kostenträger



powered by  


## License Cost Invoicing

**Step 3:**  
Refresh Unit Prices

**Unit Prices from CSV**

ASP WBS Element	Active Users	Unit Price
1xx.ABC01.0002.O.01	895	€ 293.34
1xx.ABC01.0002.O.02	825	€ 606.06
1xx.ABC01.0002.O.03	3	€ 173.333.33
1xx.ABC01.0002.O.04	895	€ 1,117.32
1xx.ABC01.0002.O.05	87	€ 4,367.82
1xx.ABC01.0002.O.06	47	€ 13,255.32
1xx.ABC01.0002.O.07	175	€ 868.57
1xx.ABC01.0002.O.08	175	€ 691.43

**Step 4:**  
Export final Charging Report

**Charging Report**

Legal Entity	Office	Cost Center	ASP WBS Element	ASP Name	Active Users	Unit Price	Total Cost	Monthly Cost
HQ	Headoffice	1000	1xx.ABC01.0002.O.02	IT-ASP-X MS Office	2	€ 606.06	€ 1,212.12	€ 101.01
HQ	Headoffice	1000	1xx.ABC01.0002.O.03	IT-ASP-X Firefox	2	€ 173.333.33	€ 346.666.66	€ 28.888.89
HQ	Headoffice	2000	1xx.ABC01.0002.O.01	IT-ASP-X Autodesk-PDS	245	€ 293.34	€ 71,868.30	€ 5,989.03
HQ	Headoffice	2000	1xx.ABC01.0002.O.02	IT-ASP-X Plugins	223	€ 606.06	€ 135,151.38	€ 11,262.62
HQ	Headoffice	2000	1xx.ABC01.0002.O.04	IT-ASP-Y Autodesk-PDS	245	€ 1,117.32	€ 273,743.40	€ 22,811.95
HQ	Headoffice	2000	1xx.ABC01.0002.O.05	IT-ASP-X ArcEditor	25	€ 4,367.82	€ 109,195.50	€ 9,099.63
HQ	Headoffice	2000	1xx.ABC01.0002.O.06	IT-ASP-X CREOPMA	9	€ 13,255.32	€ 119,297.88	€ 9,941.49
HQ	Headoffice	2000	1xx.ABC01.0002.O.07	IT-ASP-X NX11110	41	€ 868.57	€ 35,611.37	€ 2,967.61
HQ	Headoffice	2000	1xx.ABC01.0002.O.08	IT-ASP-X NX13100N	41	€ 691.43	€ 28,348.63	€ 2,362.39
HQ	Headoffice	3000	1xx.ABC01.0002.O.01	IT-ASP-X Autodesk-PDS	523	€ 293.34	€ 153,416.82	€ 12,784.74
HQ	Headoffice	3000	1xx.ABC01.0002.O.02	IT-ASP-X MS Office	1	€ 606.06	€ 606.06	€ 50.51
HQ	Headoffice	3000	1xx.ABC01.0002.O.02	IT-ASP-X Plugins	473	€ 606.06	€ 286,666.38	€ 23,888.87
HQ	Headoffice	3000	1xx.ABC01.0002.O.03	IT-ASP-X Firefox	1	€ 173.333.33	€ 173,333.33	€ 14,444.44
HQ	Headoffice	3000	1xx.ABC01.0002.O.04	IT-ASP-Y Autodesk-PDS	523	€ 1,117.32	€ 584,358.36	€ 48,696.53
HQ	Headoffice	3000	1xx.ABC01.0002.O.05	IT-ASP-X ArcEditor	48	€ 4,367.82	€ 209,655.36	€ 17,471.28
HQ	Headoffice	3000	1xx.ABC01.0002.O.06	IT-ASP-X CREOPMA	30	€ 13,255.32	€ 397,659.60	€ 33,138.30
HQ	Headoffice	3000	1xx.ABC01.0002.O.07	IT-ASP-X NX11110	99	€ 868.57	€ 85,988.43	€ 7,165.70
HQ	Headoffice	3000	1xx.ABC01.0002.O.08	IT-ASP-X NX13100N	99	€ 691.43	€ 68,451.57	€ 5,704.30
HQ	Suboffice 1	2000	1xx.ABC01.0002.O.01	IT-ASP-X Autodesk-PDS	127	€ 293.34	€ 37,254.18	€ 3,104.52
HQ	Suboffice 1	2000	1xx.ABC01.0002.O.02	IT-ASP-X Plugins	126	€ 606.06	€ 76,363.56	€ 6,363.63
HQ	Suboffice 1	2000	1xx.ABC01.0002.O.04	IT-ASP-Y Autodesk-PDS	127	€ 1,117.32	€ 141,899.64	€ 11,824.97
HQ	Suboffice 1	2000	1xx.ABC01.0002.O.05	IT-ASP-X ArcEditor	14	€ 4,367.82	€ 61,149.48	€ 5,095.79
HQ	Suboffice 1	2000	1xx.ABC01.0002.O.06	IT-ASP-X CREOPMA	8	€ 13,255.32	€ 106,042.56	€ 8,836.88
HQ	Suboffice 1	2000	1xx.ABC01.0002.O.07	IT-ASP-X NX11110	35	€ 868.57	€ 30,399.95	€ 2,533.33
HQ	Suboffice 1	2000	1xx.ABC01.0002.O.08	IT-ASP-X NX13100N	35	€ 691.43	€ 24,200.05	€ 2,016.67

**Charging Period**

6/1/2021    8/3/2021

**Legal Entity**

HQ

**Office**

All

**Cost Center**

All



# CONTACT



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