

LICENSE MONITORING: Real Time Analysis Reveals Real Need

15. Deutsches LS-DYNA Forum | Dr. Franzeska Moegle-Hofacker,
Heinz W. Köster, GNS Systems GmbH | 16.10.2018



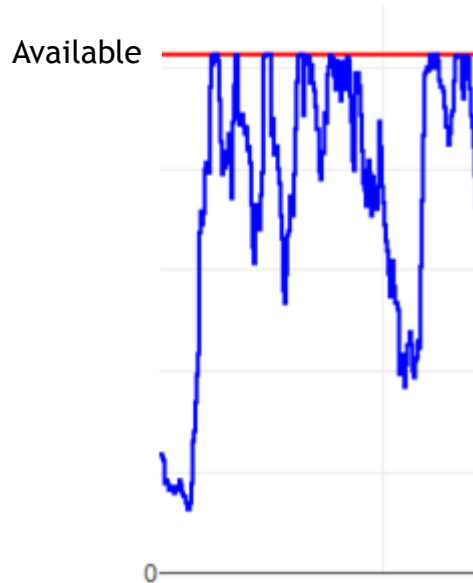
Agenda

- Initial Situation
- Views of LS-DYNA License Usage: Typical Examples
 - Users
 - Controlling & Management
 - Admins
- Architecture & Infrastructure
- Prospects



Initial Situation

License shortages on a regular basis



Close to a shortage in budget?



Management of Shortages

Typical Scenarios



Views

Insight by Using IYEcense

- **Controlling & Management: Analyzer View**
 - Trends in Usage Timeline
 - Usage Distributions
- **LS-DYNA Users: Observer View**
 - Current Usage Situation
- **Administrators: Operator View**
 - Duration of Jobs
 - Service Availability



Analyzer



Observer



Operator

Views: Management

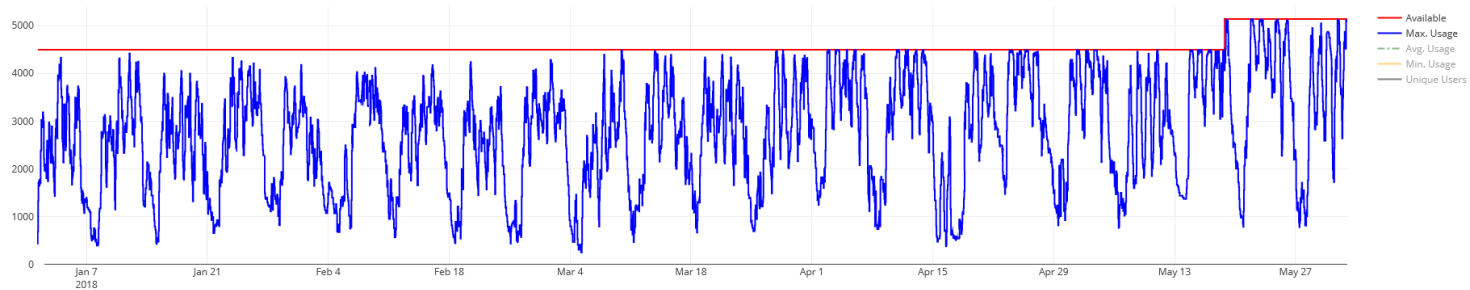
Usage History

Load Complete Site Distribution

Convert to Features

Reset Selection

Solver (LS-DYNA)



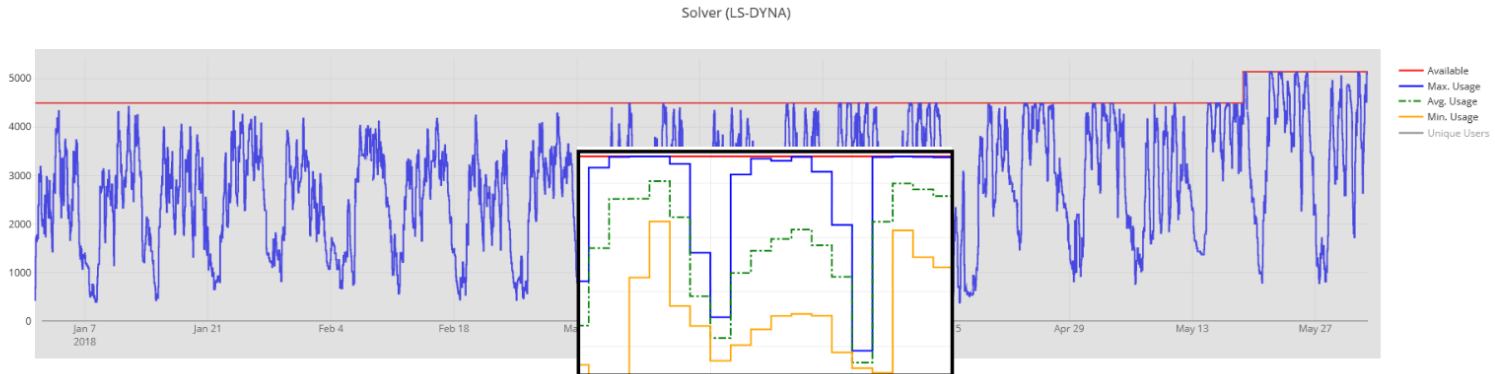
Views: Management

Analyzing the Usage History

Load Complete Site Distribution

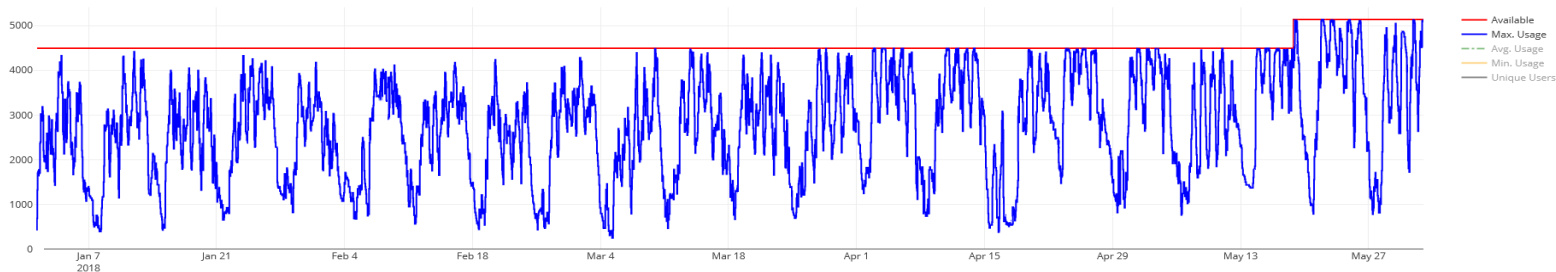
Convert to Features

Reset Selection



Views: Management

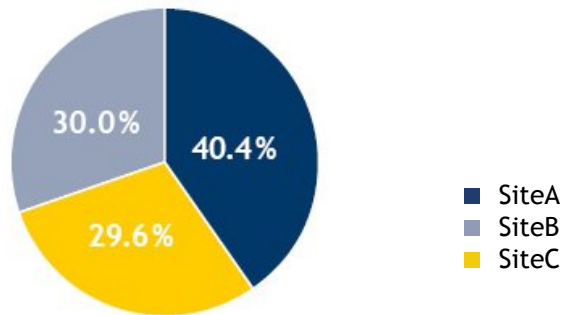
Sites' Usage Distribution



Solver (LS-DYNA)

SITE **LICENSE HOURS**

SiteA	177621.00
SiteB	131896.80
SiteC	130138.20



Views: LS-DYNA Users

License Availability

Observer Feature Status franzaska

Service **LS-DYNA** Feature **licensegroup_1** x

Q Search Last Update: a few seconds ago

User ↕	Host ↕	Site ↕	Licenses ▼
user3310	samplehost206674	SiteB	128
user3310	samplehost365046	SiteB	128
user6785	samplehost503088	SiteC	128
user8008	samplehost899131	SiteC	64
user2805	samplehost144311	SiteC	64
user3746	samplehost954159	SiteB	64
user1248	samplehost616020	SiteC	64
user3310	samplehost259966	SiteB	64
user2805	samplehost852229	SiteC	64
user3746	samplehost470816	SiteB	64
user1248	samplehost924253	SiteC	64
user7970	samplehost310665	SiteC	48
user8922	samplehost75201	SiteB	32
user1804	samplehost967887	SiteA	32
user6371	samplehost616496	SiteA	32
user6371	samplehost60175	SiteA	32

Views: Administrators

Job Duration: LS-DYNA Solver Usage Sessions

Operator						Status	System	Configuration	Administration	franzeska
Feature: licensegroup_1 (LS-DYNA)										Last Update: a few seconds ago
<input type="text" value="Search"/>										
User 37	Host 68	Site 3	Licenses 4660	Start ^	Duration					
user9020	samplehost469127	SiteC	16	2018-09-26 13:01	4d 4h					
user1248	samplehost924253	SiteC	64	2018-09-26 14:41	4d 2h					
user6103	samplehost617820	SiteC	32	2018-09-26 14:56	4d 2h					
user9020	samplehost559968	SiteC	16	2018-09-26 15:31	4d 1h					
user9020	samplehost489758	SiteC	16	2018-09-26 15:31	4d 1h					
user9020	samplehost75292	SiteC	16	2018-09-26 16:41	4d 0h					
user3130	samplehost616872	SiteB	16	2018-09-26 16:51	4d 0h					
user193	samplehost492591	SiteC	32	2018-09-26 21:17	3d 20h					
user7072	samplehost854087	SiteC	16	2018-09-26 22:01	3d 19h					
user1909	samplehost728375	SiteB	32	2018-09-27 02:31	3d 14h					
user5012	samplehost774690	SiteA	32	2018-09-27 04:07	3d 13h					
user1909	samplehost193400	SiteB	32	2018-09-27 04:42	3d 12h					
user1909	samplehost325463	SiteB	32	2018-09-27 04:42	3d 12h					
user6785	samplehost914643	SiteC	32	2018-09-27 05:31	3d 11h					
user6785	samplehost124551	SiteC	32	2018-09-27 05:37	3d 11h					
user6785	samplehost503088	SiteC	128	2018-09-27 05:47	3d 11h					

Views: Administrators

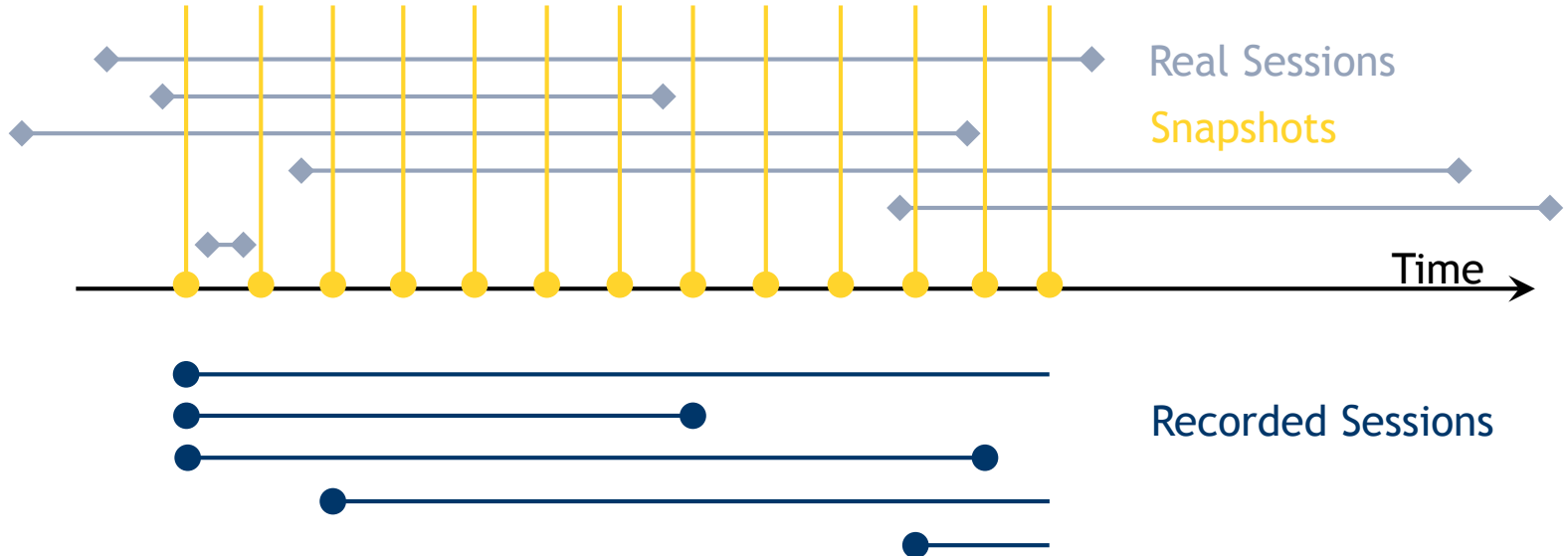
Service Availability

Operator							Status	System	Configuration	Administration	franzeska
Service	Site	Last Seen	Status	Aggregated	Expiration Date	License Manager					
LS-DYNA	SiteA	2 minutes ago	✓	✓	2019-06-30	LSTC	Last Update: a few seconds ago				
SolidWorks_03	SiteC	4 minutes ago	✓	✓	2018-12-31	FLEXLM	Show deactivated services				
SolidWorks_04	SiteB	a minute ago	✓	✓	2018-12-31	FLEXLM					
Animator4	SiteA	a minute ago	✓	✓	2019-06-30	RLM					
Catia_06	SiteB	4 minutes ago	✓	✓	2019-07-01	DSLS					
Ansa	SiteA	2 minutes ago	✓	✓	2018-12-31	BETALM					
Catia_07	SiteC	3 minutes ago	✓	✓	2019-07-01	DSLS					
TeamCenter	SiteB	4 minutes ago	✓	✓	2018-12-31	FLEXLM					
Catia_08	SiteA	5 minutes ago	✓	✓	2019-07-01	DSLS					
3DCS_04	SiteA	a minute ago	✓	✓	2018-12-31	FLEXLM					
Abaqus_01	SiteA	3 minutes ago	✓	✓	2018-12-31	FLEXLM					
Abaqus_02	SiteA	a few seconds ago	✓	✓	2018-12-31	FLEXLM					
Abaqus_03	SiteA	in a few seconds	✓	✓	2018-12-31	FLEXLM					
PamCrash	SiteA	2 minutes ago	✓	✓	2018-12-31	FLEXLM					
PamCrash_02	SiteA	a minute ago	✓	✓	2018-12-31	FLEXLM					



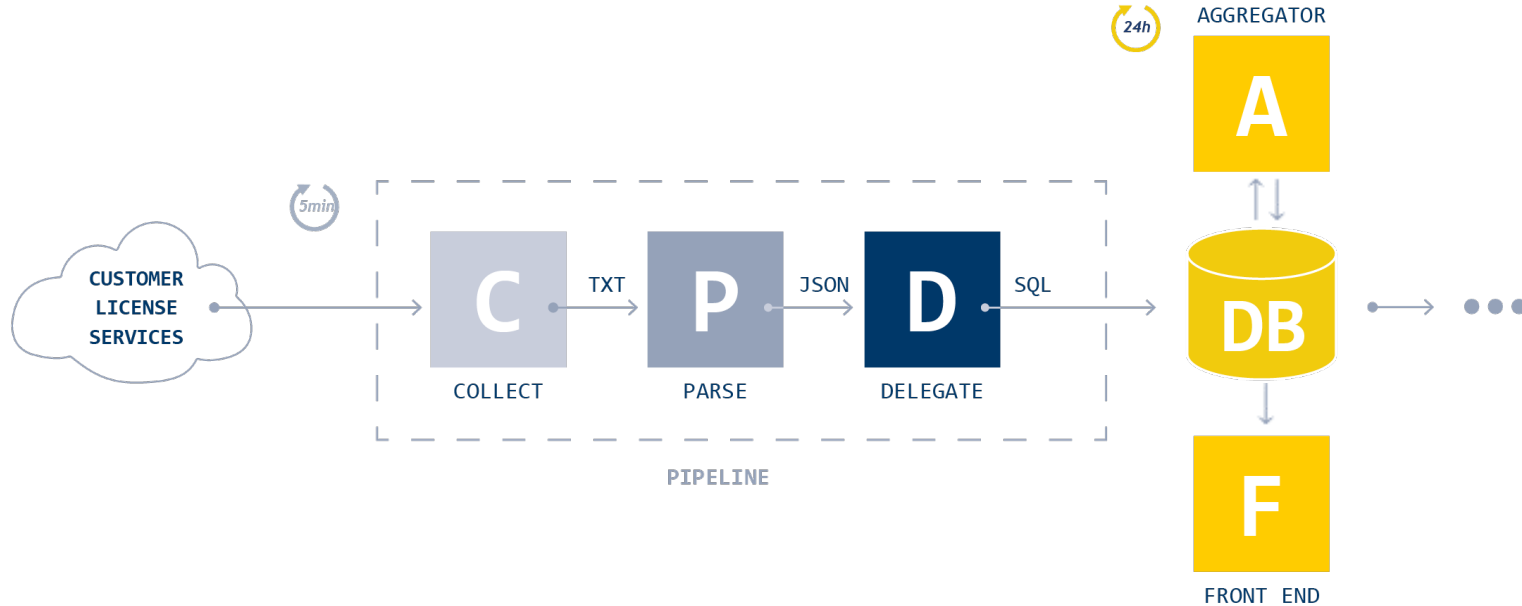
Architecture & Infrastructure

Monitoring Based on Snapshots



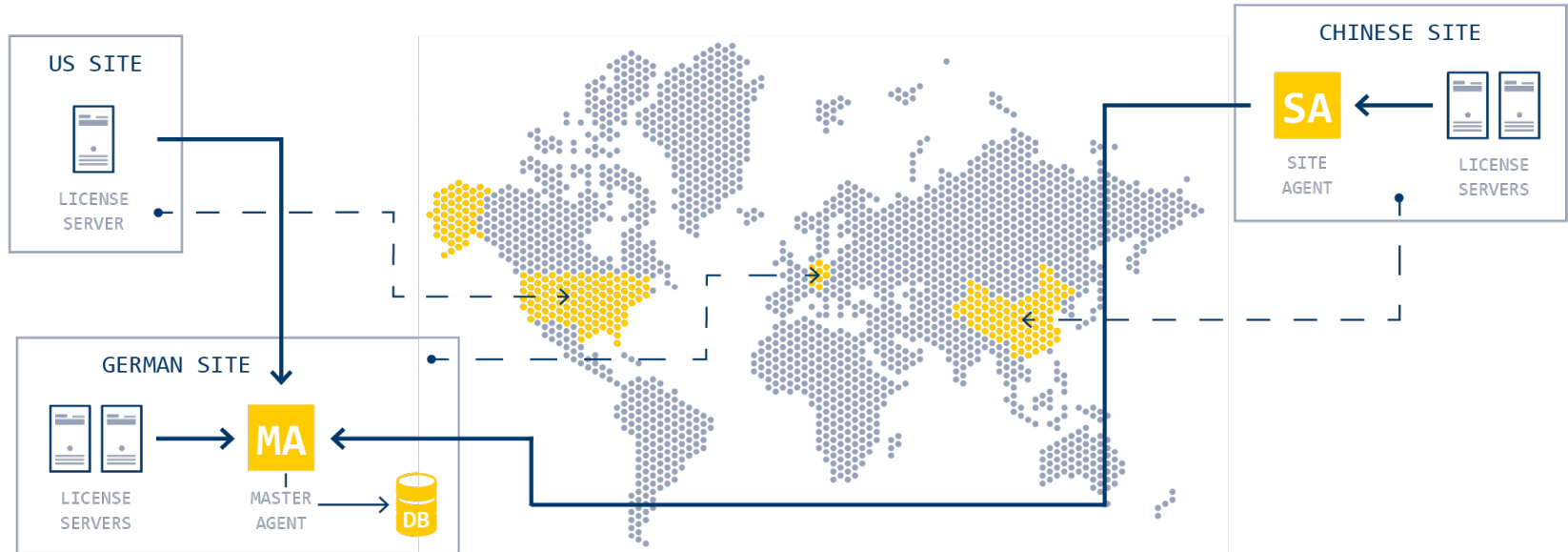
Architecture & Infrastructure

System Architecture



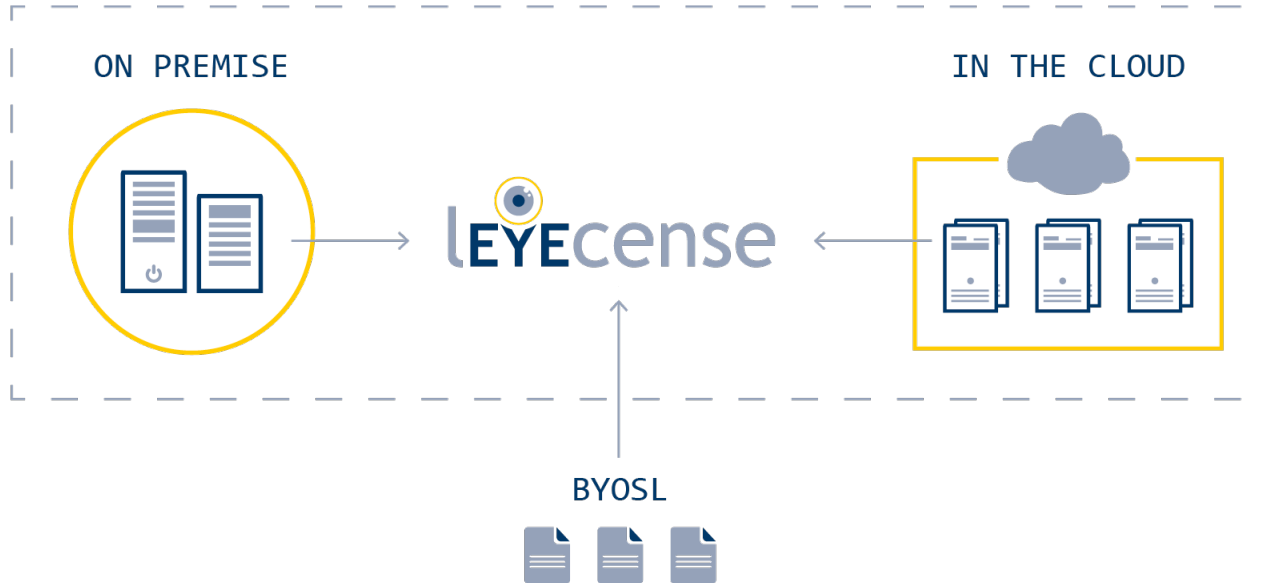
Architecture & Infrastructure

An Infrastructure Example



Quo Vadis?

Bring Your Own Software License Scenario



THANK YOU FOR YOUR ATTENTION

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