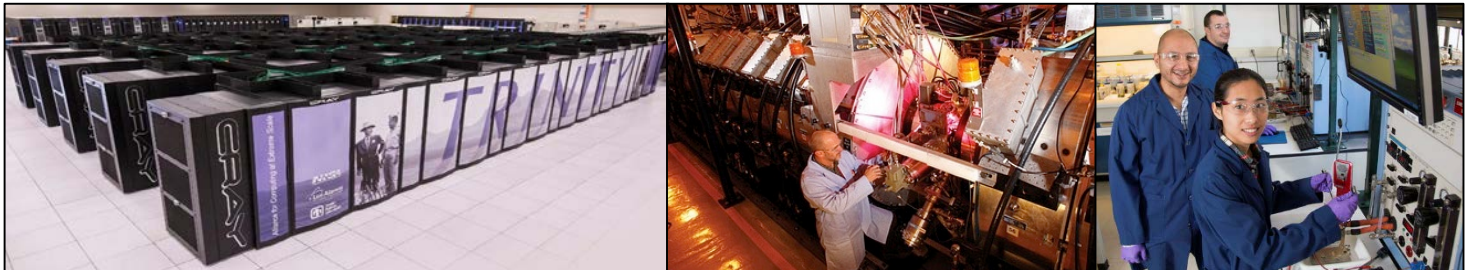|	
Title:	Understanding Remedy Users and Usage with Stats
Author(s):	Van Sickle, James W.
Intended for:	T3: Service Management & Automation Conference, 2017-11-06/2017-11-10 (Las Vegas, Nevada, United States)
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Understanding Remedy Users and Usage with Stats

T3 Conference 2017
LA-UR-17-28684

About Los Alamos Laboratory

- As a national-security science laboratory, we certify the safety, security, and effectiveness of the nation's nuclear deterrent
  - Responsible for 4 of 7 weapons systems
- Annual budget is approximately $2.5B
- Workforce of over 11,000
- Covers approximately 35 square miles
- Serves NNSA, DoD, and the IC
- We use high-performance computing, leading-edge experimental facilities, and the world's brightest minds to accomplish our mission

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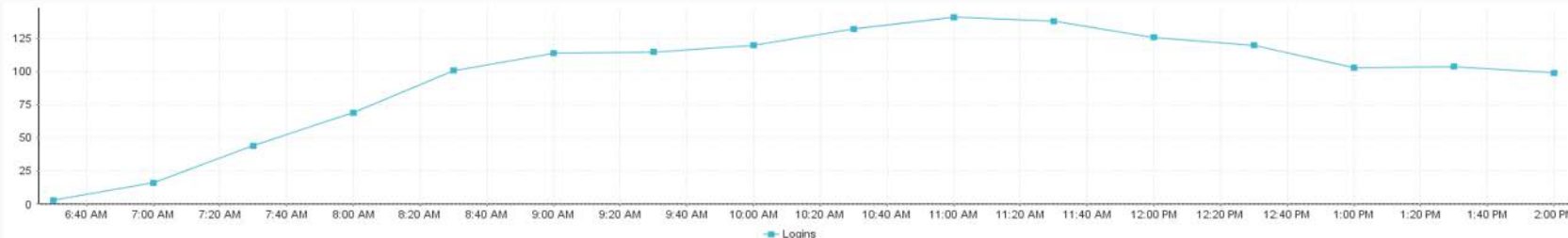# Remedy @ Los Alamos
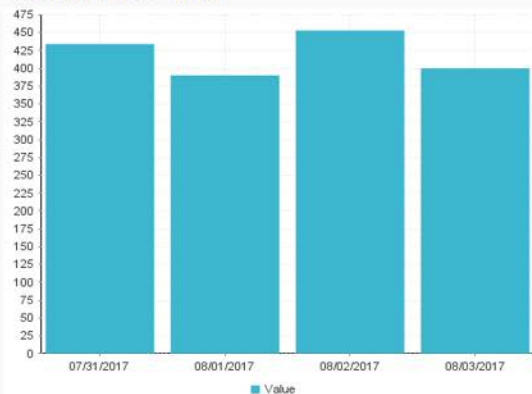
1990 ➤ **1994** ➤ **2012** ➤ **2015**

- First implemented in 1994
  - Focus on development of custom applications
  - Many custom applications still in use today
  - (Note: Remedy v1.0 was released in 1990)

- ITSM implemented in Q4 2012
  - Initial focus on Service Desk (Incidents)

- IT Governance Revision in Q4 2015
  - Update to present policy in managing ITSM

- Today, 98% of ADBI uses Remedy on near-daily basis, and 13% of total Lab population accesses Remedy each month.

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- Are outgoing emails being sent?

- Are incoming emails being processed?

- Are users being load balanced as designed?

- Are you hitting your Floating license limit?

- When are your heaviest peak usage periods?

- What browsers do you need to support?
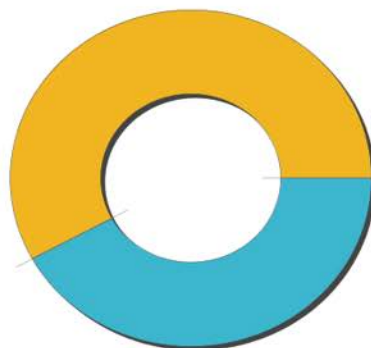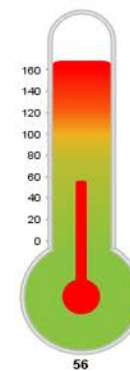
- Breakdown of operating systems by users?

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WHAT COMES WITH REMEDY?

- AR System Current License Usage

- AR System Historical License Usage

- Application Statistics

- Server Statistics

- AR System Administration: Manage User Licenses

AR System Current License Usage

- Useful to see consumed licenses

- Useful to see which servers in a server group that users are on

- Does not track Read or Restricted Read licensed users

- Does not show Floating users issued Read licenses (i.e. expired or unavailable Floats)

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- Tracks individual session times for users from AR System Current License Usage form
- Does not track Read or Restricted Read licensed users
- Total Use Time has tracking issues
  - Can have zero second long sessions
  - Can have sessions spanning days or longer

Server Statistics Form

- Must be enabled on all ARS servers
- Data tracked on individual server basis, no combined results out of box
- Core data points captured:
  - Number of user connections
  - Workflow action counts
  - Workflow process time counts
- Proc-Time requires extra calculation to be useful (current value – previous value on same server)

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- Only available for Deployed Applications or Regular Forms

- Data tracked on individual server basis, no combined results out of box

- Same data points captured as Server Statistics

MOVING BEYOND OUT OF BOX FORMS

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- Build Login Monitor and capture workflow
- Build Combined Server Statistics form and related workflow
- Build Flashboard Variables
- Build Smart Reporting Views
- Build Smart Reporting Reports
- Build Smart Reporting Dashboards

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- Out of box forms only take Remedy Admins so far

- Creation of custom forms and workflow necessary to get full picture

- Custom reports can then be built in Flashboards, Smart Reporting, or third-party reporting apps

Remedy User Login Monitor

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Login Monitor Keywords

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Field	Keyword	Example
Operating Sys	OS	Windows 10.0
Browser Ver.	$BROWSER$	Firefox 52.0
Client Type	$CLIENT-TYPE$	MidTier (converted via workflow)
Client Version	$VERSION$	9.1.03 201705311958
Hardware	$HARDWARE$	
Locale	$LOCALE$	en_US
Application	$APPLICATION$	
Server	$SERVER$	(Removed)

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- <u>Browser Type</u>
  - Group Browser Ver. Field into more easily reportable values (Firefox, Chrome, IE, etc)

- <u>Client Type</u>
  - Keyword gives numeric value, requires conversion into usable text

- <u>Last Form</u>
  - Captured when pushing data to form via Active Link

Pushing to Login Monitor

- Use one Active Link
- Associate with all <u>major</u> consoles and forms
- Execute on Display, Window Open, Window Loaded
- Use one Push Field action to Login Monitor form
- Push qualification is ('Submitter' = $USER$)
- No Request Match = Create new request
- Any Request Match = Modify all match requests

- Submitter field should be indexed

- Add Escalation to delete entries over 30 days unmodified

Form Name: | LANL:ADM:Remedy User Login Monitor

Qualification

'Submitter' = $USER$

If No Requests Match: Create a New Request

If Any Requests Match: Modify All Matching Requests

Matching Ids ☐

Auto Map...

Field	Value
Status	"Active"
Application	$APPLICATION$
Browser Version	$BROWSER$
Hardware	$HARDWARE$
Client Type	$CLIENT-TYPE$
Locale	$LOCALE$
Operating System	OS
Server	$SERVER$
Client Version	$VERSION$
Last Form__c	$SCHEMA$

ENHANCING SERVER STATISTICS

Combining Server Statistics

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- Filter pushes new entries on Service Statistics form to custom Combined Server Stats form

- Stat values merged together through Filter Set Field actions

- Appropriate Server Name checkbox marked for each update

- Once all servers are checked off, record status moved to Completed.

- Next Server Stat push creates new record

Application Statistics Workflow

Repeats same workflow process used to build Combined Server Statistics

Current mode: Modify

Save | New search | New request | Modify all | Searches | My Reports | Advanced search | Clear | Set to defaults | Status history | Logout | Help | Home

208 of 208 results

Statistic ID	Create Date	Name	Statistic Status	Number o...	Number o...
000000000841847	8/22/2017 3:00:08 PM	Remedy Incident Management	Completed	0	77
000000000841849	8/22/2017 3:01:08 PM	Remedy Incident Management	Completed	1	76
000000000841851	8/22/2017 3:05:08 PM	Remedy Incident Management	Completed	1	74
000000000841853	8/22/2017 3:06:09 PM	Remedy Incident Management	Completed	2	74
000000000841855	8/22/2017 3:10:09 PM	Remedy Incident Management	Completed	2	75

Report | Select All | DeSelect All | Delete

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Application and Form Statistics

Statistic ID	000000000841855	Create Date	8/22/2017 3:10:09 PM
Logging Type	Application	Server Start Time	8/22/2017 11:55:42 AM
Name	Remedy Incident Management	Server Name	
Statistic Status	Completed	Server TCP Port	2020

Entry Statistics | Filter Statistics | Escalation Statistics | License Statistics

Counts for Entry Actions

Create Entry	0
Delete Entry	0
Get Entry	203
Get List Entry (Search)	68
Merge Entry	0
Set Entry	0
Entry Related	268

Total Processing Times (seconds)

Create Entry	0
Delete Entry	0
Get Entry	94
Get List Entries (Search)	144
Merge Entry	0
Set Entry	0

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BUILDING FLASHBOARD VARIABLES

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Creating Flashboard Variables

Variables built for each statistic to be reported on in Smart Reporting

Flashboard Variables seen through the KPI view in Smart Reporting

Example Variable

Captures max current users from Combined Server Statistics form every 30 minutes.

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Variable	Form	Interval
Email Sent Daily	AR Sys. Email Messages	Daily, near midnight
Email Sent Hourly	AR Sys. Email Messages	Every hour
Email Received Daily	RBE:Messages	Daily, near midnight
Email Received Hourly	RBE:Messages	Every hour
Daily Unique Users	User Login Monitor	Daily, near midnight
Current Float Users	Combined Server Stats	Every 5 minutes
Max Users Hourly	Combined Server Stats	Every 30 minutes
Max Float Hourly	Combined Server Stats	Every 30 minutes
Max Fixed Hourly	Combined Server Stats	Every 30 minutes
Max Read Hourly	Combined Server Stats	Every 30 minutes

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CREATING SMART REPORTING VIEWS

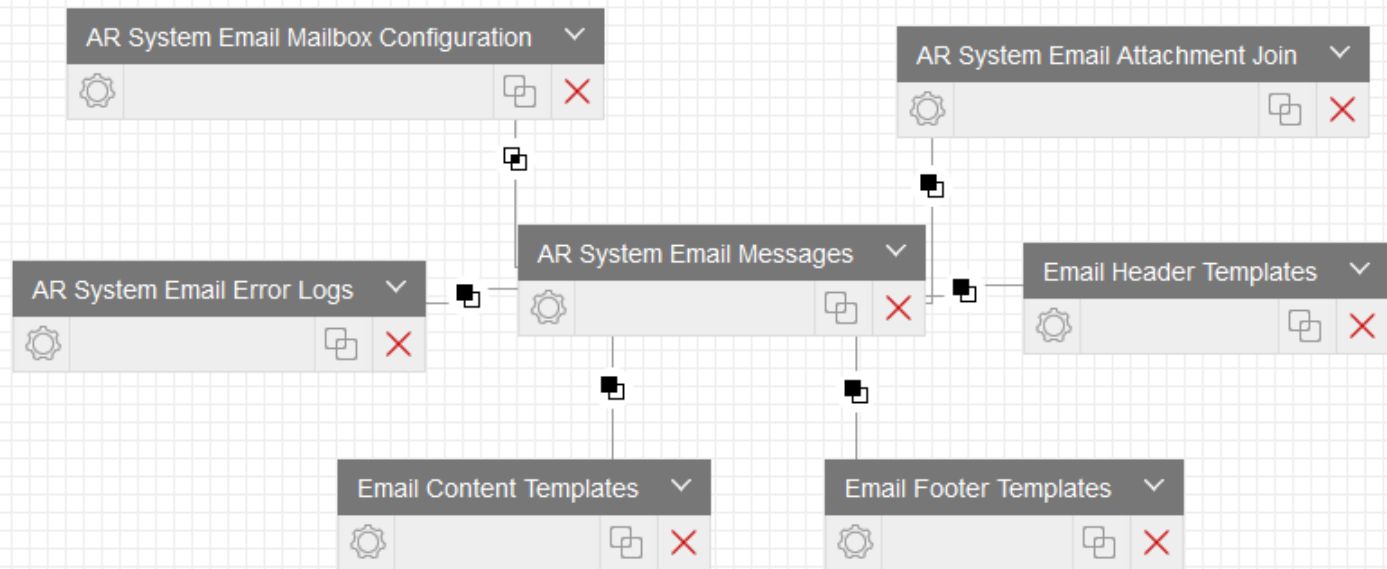**T3: Service Management & Automation Conference – 6 – 10 Nov 2017**

Smart Reporting Views

- Out-of-box Views support full ITSM Suite, but new Views required for other forms.

- Existing KPI View already setup to pull data from Flashboard Variables.

- Custom Views created for this project review forms related to:
  - AR System Email Messages
  - Rule-Based Email Messages
  - People
  - Combined Server Statistics

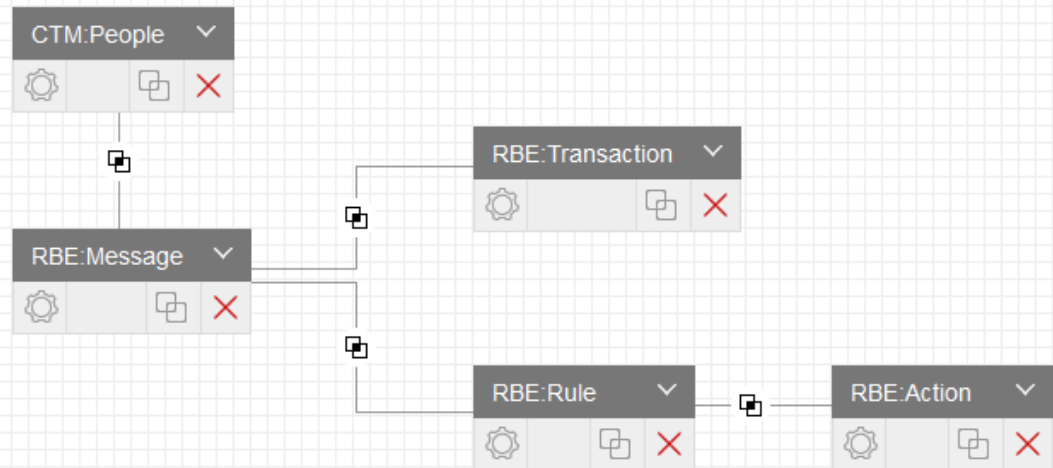**T3: Service Management & Automation Conference – 6 – 10 Nov 2017**

Rule Based Email Messages

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Entity Relationships | View SQL | View Data

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PUTTING IT ALL TOGETHER

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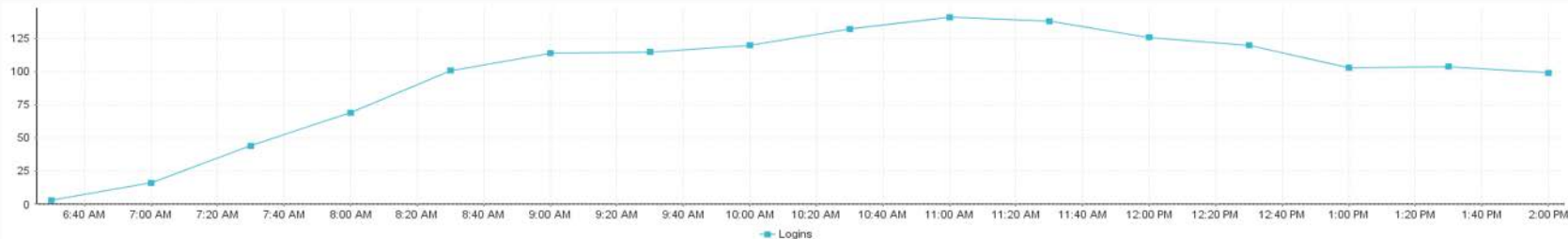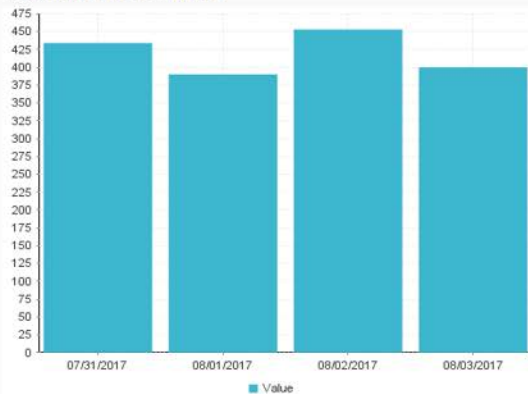
- Custom forms created to expand data collection for user and server usage data.

- Flashboard Variables created to capture summaries of data on timed basis.

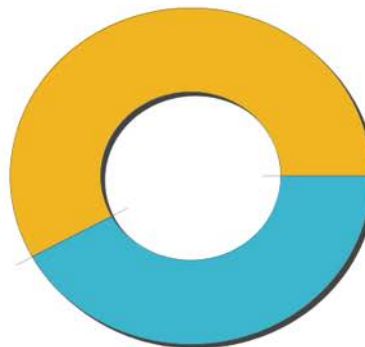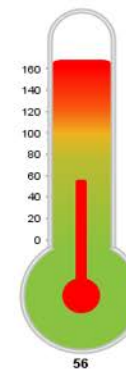- Now to build the reports and dashboards in the Smart Reporting application.

Slide 38

Dashboard Reports – User Stats

Report Name	Smart Report View	Time Scape
Today's Total Remedy Logins	KPI	Last 10 hours
Daily Unique Remedy Users	KPI	Last 7 days
Current Users by Server	People	Real Time
Current ARS Floating Usage	KPI	Real Time
Max Concurrent Users by Type	Server Statistics	Last 30 days
Remedy Users by Web Browser	People	All Login Monitors
Remedy Users by Oper. Sys.	People	All Login Monitors
Support Staff by Division	People	All Login Monitors

Dashboard Reports – Email Stats

Report Name	Smart Report View	Time Scape
30 Day Sent Email Messages	Email Messages	Last 30 days
30 Day Received Email Mess.	Email Messages	Last 30 days
Outgoing Email Message Queue	Email Messages	Real Time
Incoming Email Message Queue	Rule Based Email	Real Time
Incoming Email Rule Usage	Rule Based Email	Last 30 days
RBE Message Processing	Rule Based Email	Last 24 hours
RBE Rejected Messages	Rule Based Email	Last 24 hours
RBE No Rule Found Messages	Rule Based Email	Last 24 hours

Answering Earlier Questions

- Are outgoing emails being sent?

- Are incoming emails being processed?

- Are users being load balanced as designed?

- Are you hitting your Floating license limit?

- When are your heaviest peak usage periods?

- What browsers do you need to support?

- Breakdown of operating systems by users?

Breaking Down the Statistics

Question	Answer
How many emails sent daily?	Average 5,000 outgoing
How many emails received daily?	Average 1,000 incoming
How many unique users access Remedy on a daily-basis?	Average Unique: 370 (Max 470)
What are average concurrent user license usage counts?	Average Total: 184 (Max 303) Average Fixed: 41 (Max 69) Average Float: 123 (Max 202) Average Read: 62 (Max 113)
When are your heaviest peak usages?	Wednesday, Monday
What browsers do you need to support?	Firefox: 81% Chrome: 14% Safari: 5%
Breakdown of operating systems by users?	Windows: 79% Apple: 17% Linux: 4%

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- Build statistic tracking data for ticket creation, updates, and ITSM module license usage.

- Long-term trend analysis comparing archived versus non-archived data.

- System growth projections for estimating future budgetary needs.

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