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OneDevOps | InSights

Intelligent Insights for DevOps

Intelligent Insights - Key to Successful DevOps Journey

Voice of the Customer

Where is my bottleneck?

What is the weakest link in release cycle?

How can I maximize my ROI?

How can I continuously improve DevOps adoption?

How can I predict the quality of future releases?

What do industry leaders say?



FORRESTER

A single source of truth is a must have habit

June 2016



... providing dashboard access to both technology and business teams increase transparency and, ultimately, business-driven outcomes. *July 2015*



Justify IT Ops' spending with a business value dashboard

Sep 2016





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Get Intelligent Insights for DevOps using

OneDevOps | InSights

Leverage Real-time Dashboards for your DevOps Journey
Achieve End to End traceability across the DevOps Lifecycle

Key Features of InSights

Real time co-relation and insights



- Possibility of Any-to-any co-relation and insights
- Obtain Role based insights

Pre-Configured and customized dashboards



- Ready to use out of box with multiple pre configured dashboards
- Macro and micro-insights dashboards

Single source of truth for data & information



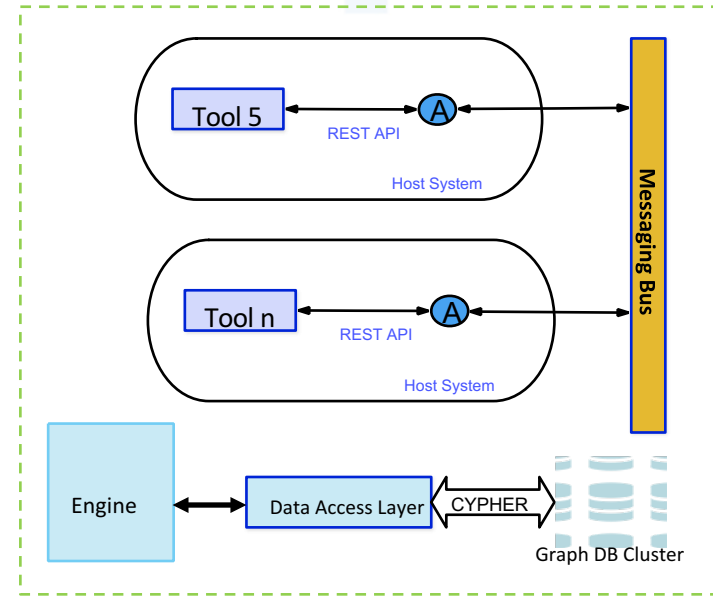
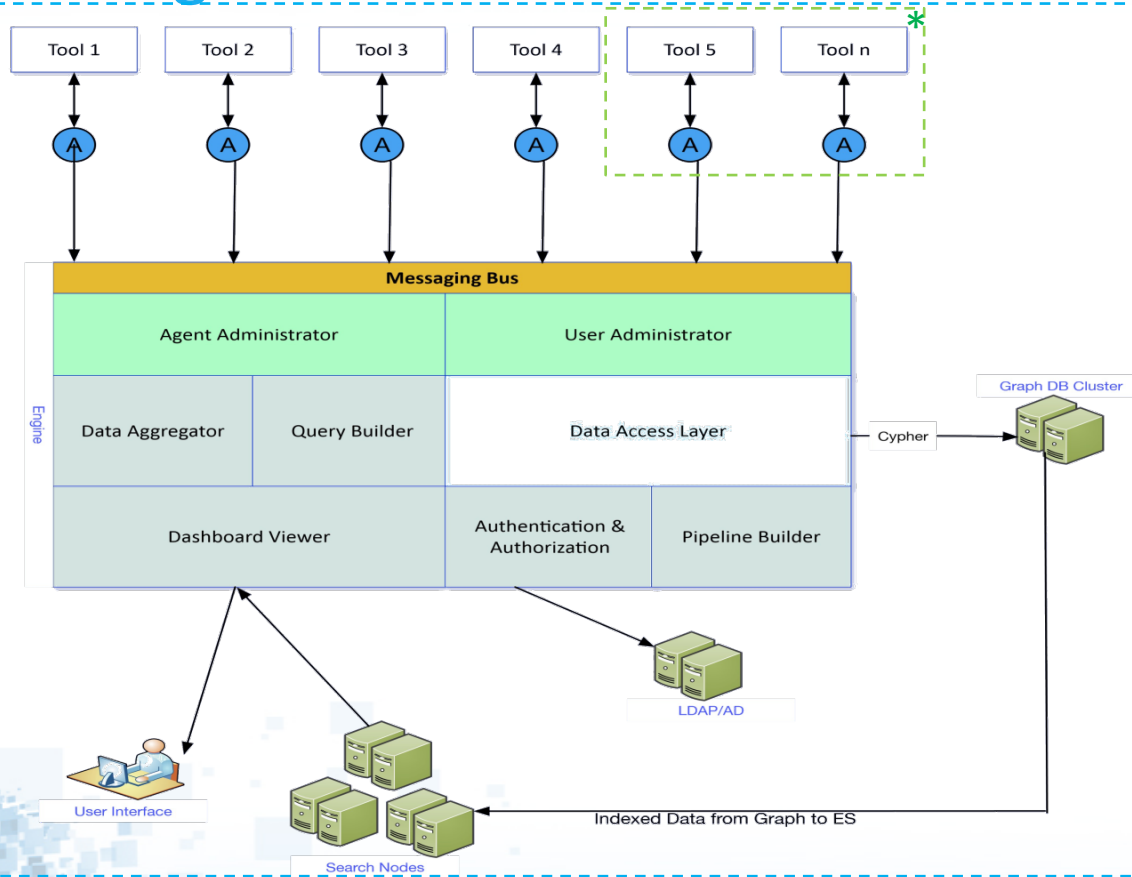
- An integrated feedback amplification platform
- Derives meaningful insights from multiple data sources

End to End traceability across DevOps Lifecycle



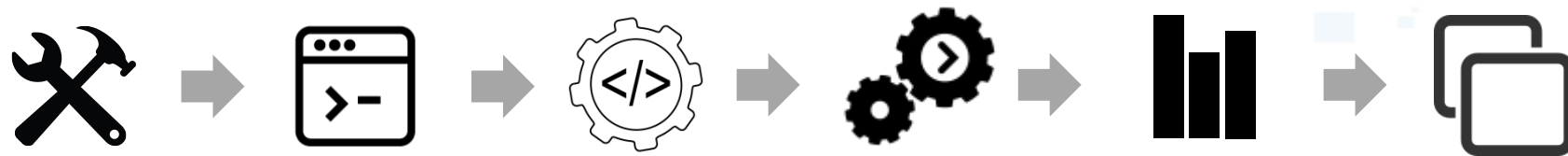
- Instant display of entire process including processing nodes & times.
- Observe patterns and take informed proactive decisions.

InSights: Technical Architecture



* Tool – Agent – Messaging Relationship

How InSights Works



1

InSights agents are configured

Configuration is as per DevOps tools used in Client Ecosystem*

2

Data pulled from Tool Ecosystem

Configured Agents pull data from different functional blocks

3

Tools data processed by engine

Metadata is added to the tools data

4

Processed data available

Dashboards ready to be created using this processed data

5

Dashboards created

By means of Query Builder/Dashboard Creator, Dashboards can be created on the fly

6

Dashboards shared

Created Dashboard can be shared with selected audience for decision making

**InSights works with any tool with REST API or Data Export facility*

Decision Making Using Intelligent Insights

Technical Insights

Business Insights

	Technical Insights			Business Insights		
Portfolio	Velocity	Velocity Trend	Release Value	Release Cost	Critical Areas	Green Areas
Application	TTM	TTM Trend	Application Biz Value	Application Robustness	Technical Debt (TD)	Cost to reduce TD
People	Resource Identification	Defect Fixture	Time for Fixture	Build Commit Identification	Build Integrate Identification	Cost to reduce TD
Pipeline	Bottleneck Identification	High Friction Zones	Cost of Release	Build Count	Time & Effort	Pipeline Broken Area
Engineering	Slow Portfolios	Slow Applications	High Release Cost Applications	Portfolio Metrics	Application Metrics	Engineering ROI

InSights lets you derive insights from multiple sources, observe patterns and take informed proactive decisions

Benefits: InSights vs Hygeia

Use Case	Hygeia	InSights
Analytics	Offers operational analytics for the tools being used	Offers insights based on the data collected from the various tools
Correlation of Data Between DevOps Tools	Limited possibilities	Data stored in relationship model and correlation possible between any data and across tools
Agents	Heavy weight Agents on the systems	Light weight agents based on Python push data to a centralized Repository
Identification of Weakest Link	Not possible since there is no relationship between data	Possible based on relationship present inside the application/tools data
Data Extraction	Data collectors specifically for certain tools. Code changes required for specific/ additional data extraction	InSights Agents use template driven data collection. Simple template changes required for specific/additional data extraction
Ability to Arrive at \$\$ Value for Release	Limited possibilities	Possible by applying costing algorithms
Offline Data Import	Limited/No Support	Supported for CSV format raw data
Query Builder	Limited/ No Support	Filter tool specific data based on keywords
Dashboard Creation	New Dashboard requires manual code changes	Dashboards can be built quickly without any code changes using intuitive Dashboard Framework
Search Capability	Limited/ No Support	Supports free form text search
Authentication	No LDAP support	Leverages Enterprise LDAP for authentication

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Appendix

InSights Screenshots(1/3)

Continuous Delivery Measurement Dashboard



SCM



CI



Code
Quality



Deployment

Orphan Commits

Total Commits:70
Unique Authors:4
Unique Repositories:7



Continuous Build

Total Commits:33
Unique Authors:4
Unique Repositories:4

Total Jobs:4



Cont. Build with Code Quality

Total Commits:6
Unique Authors:2
Unique Repositories:3

Total Jobs:3

Unique Projects:3



Deployments without Code
Quality

Total Commits:7
Unique Authors:2
Unique Repositories:3

Total Jobs:3



Unique Projects:1
Unique Jobnames:3
Unique Execution Ids:7

Continuous Deployment

Total Commits:3
Unique Authors:1
Unique Repositories:1

Total Jobs:1

Unique Projects:1

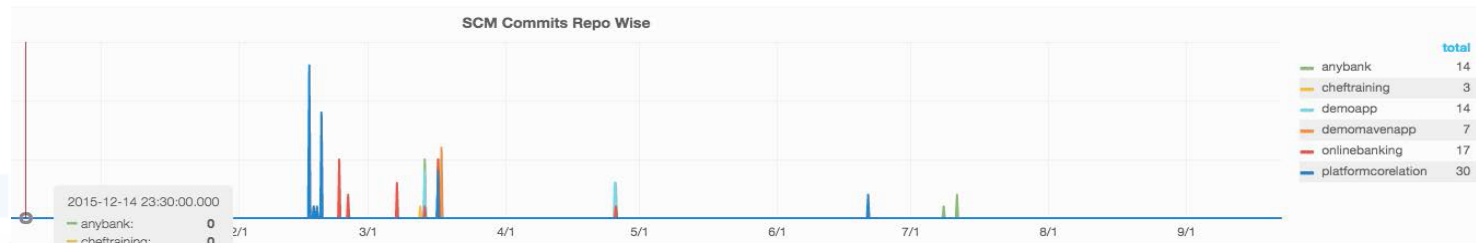
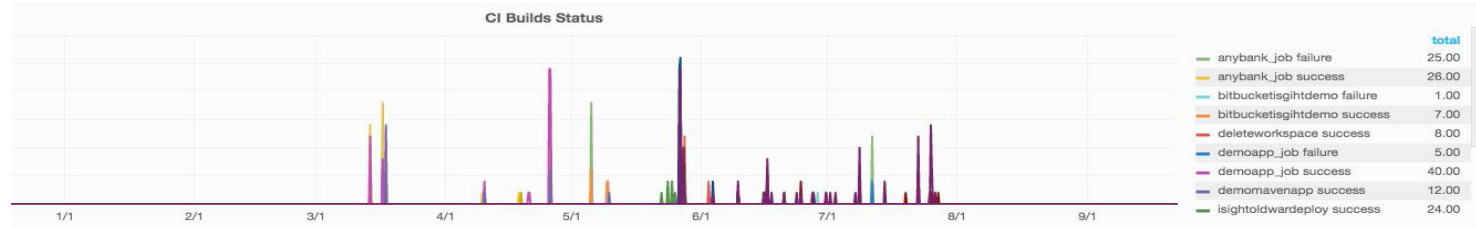
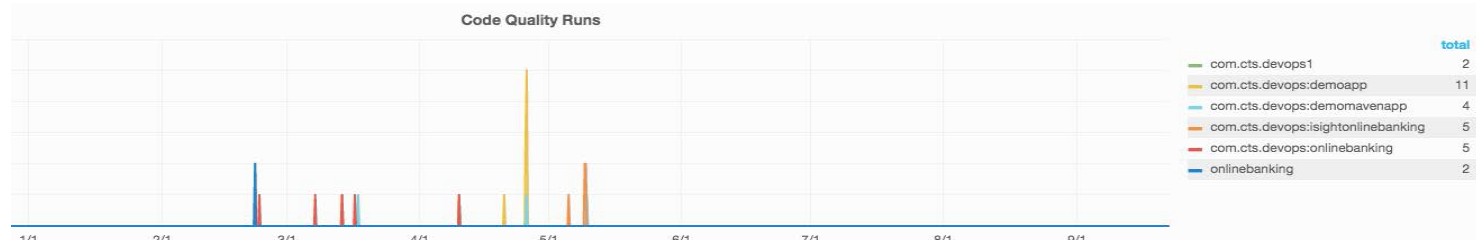
Unique Projects:1
Unique Jobnames:1
Unique Execution Ids:2

Deployment Executions



	total
anybankwardeploy failed	1
anybankwardeploy succeeded	9
demoappwardeploy succeeded	9
isightdemojob succeeded	7
jobfortestproject2_1 aborted	1
jobfortestproject2_1 failed	4
jobfortestproject2_1 succeeded	3
onlinebankingwardeploy failed	1
testprojectmayank_job succeeded	19

InSights Screenshots(2/3)



InSights Screenshots(3/3)

Code Quality Projects

6

Code Quality Executions

27

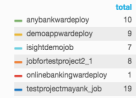
CI Projects Without Code Quality

4

Deployment Projects

6

Deployment Job Wise



Deployment Success

47

Total Deployment Executions

54

Deployment Status



Deployment Aborted

1

Deployment Failed

6

Code Quality Execution TimeLine



SCM Repos

6

SCM Commits

85

Developers

4

Developers with Orphan Commits

4

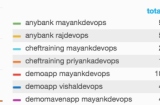
SCM Repos Orphan Commits

6

SCM Orphan Commits

35

SCM Commit Insights



Licensing Considerations

1. No Source Code to be given to Customers
2. Installation of the product within the Customer's firewall – other vendors usage is business decision.
3. Product license cost would be 0\$ with only support cost included.
4. In terms of Support – try committing for a smaller duration.
5. For Support – commit only to Cognizant Architected Code, not for Open source and COTS products within Solution
6. Updates – can be made free of cost and Upgrades could be chargeable.
7. Customers will have to sign for a separate License agreement different from existing MSA.
8. Agreement could be 3 types – POC, Evaluation or Full blown Deployment.

Costing & Resource Needs

➤ Resource Needs – 2 Developers (Java & Python) + 1 QA

➤ Annual Costing for Insights

- ❑ Cost for 6 months purely from Onsite – 316K (Initial presence of Architect)
- ❑ Cost for 6 months with Offshore Presence – 180K (Initial presence of Architect)
- ❑ Cost does not include software license cost.
- ❑ The software used is open source – but enterprise versions are available.

Tools Required:

- Neo4j 3.0 (Zip Distribution)
- Elastic Search 2.3.5 (Zip Distribution)
- Grafana 3.1.1 (Zip Distribution)
- Tomcat 7
- JDK 8
- Rabbit MQ 3.6.2 (Requires Erlang)
- PostgreSQL 9.5.4 (Zip Distribution)
- GraphAware plugin 2.3.3.37 (3 jar files - graphaware-neo4j-to-elasticsearch-2.3.3.37.1, graphaware-server-community-all-2.3.3.37 and graphaware-uiid-2.3.3.37.8)

H/W requirements

- Windows server - 64 bit - 24 GB RAM and 500 GB HDD (2 in numbers, one for DB's and One for hosting applications and other tools)

Network Ports

- Elastic Search : 9200
- Neo4j : 7474 and 7473
- Grafana : 3000
- Tomcat 7 : 8080 / 8090
- Rabbit MQ : 5672, 5673 and 15672
- PostgreSQL : 5432
- Port access for all required tools to collect data from.

Access Requirements:

- Admin level access to DevOps tools or admin level api token for tools.
- Machine level admin rights on both the windows machines mentioned above.
- Above mentioned ports are open for communication.