Workload Automation

A Web User Interface for more efficient operations

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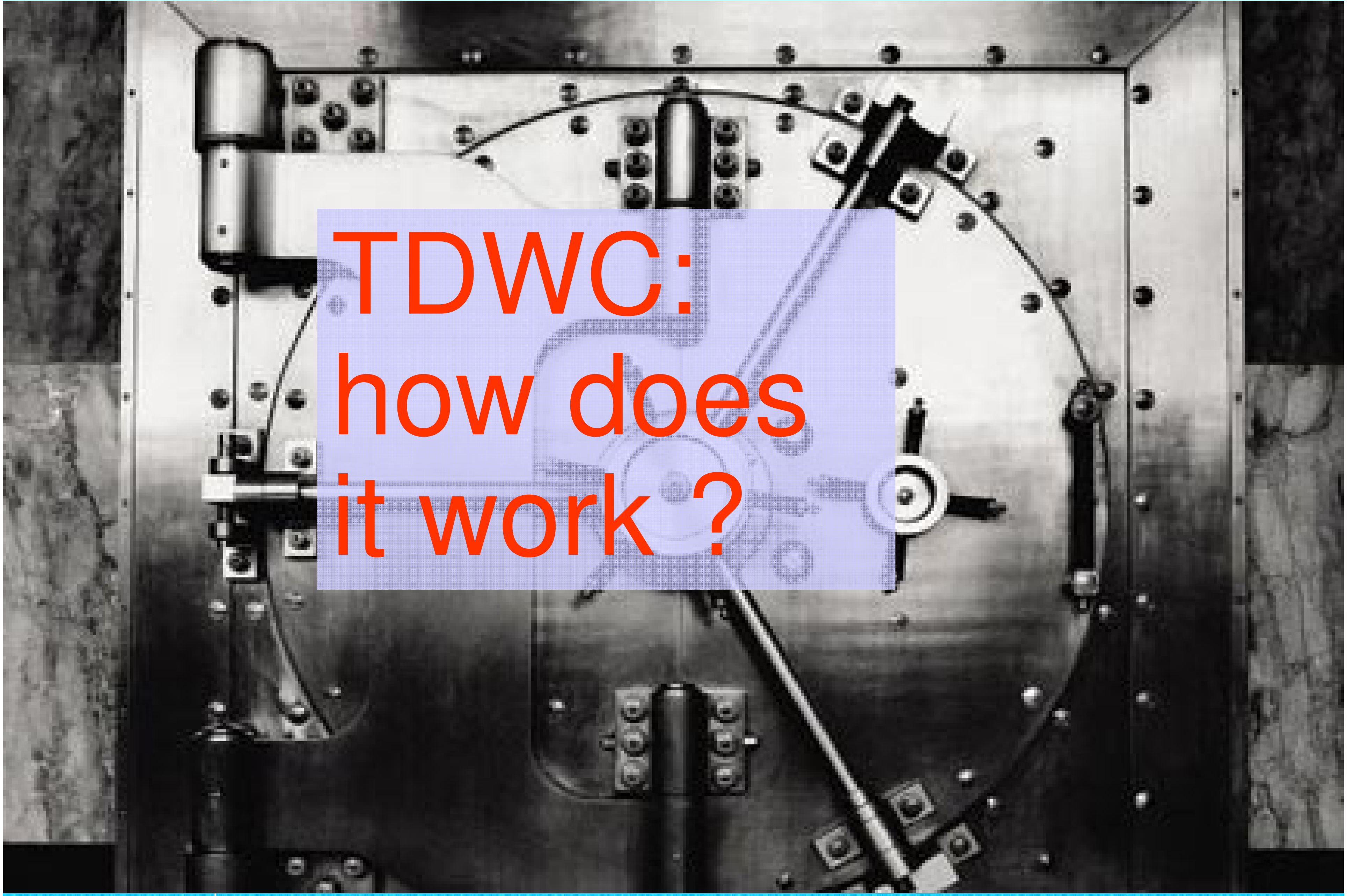
Roma, 20 ottobre 2008

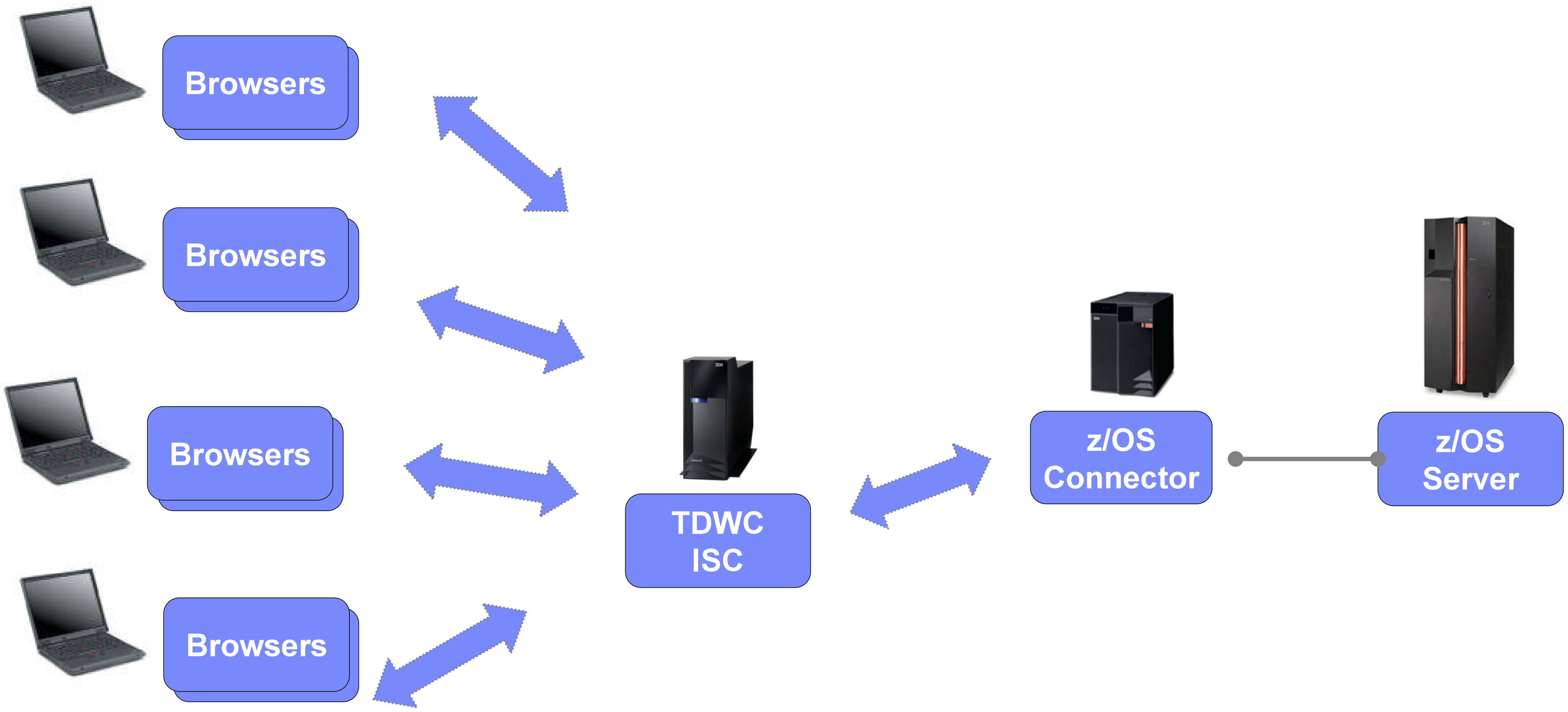
TWA WebUI : Tivoli Workload Scheduler Console

- **Tivoli Workload Scheduler Web Console (TDWC)**
  - It can monitor and modeling on both z/OS and distributed systems at the same time.
- **Reduced Total Cost of Ownership**
  - No need to install and maintain components on user’s PCs
- **Improved Productivity and Efficiency**
  - Easy to use and customizable interface
  - Allows many concurrent users and up to the minute real time monitoring due to fast data transfers
- **Available for IBM TWS products**
  - Available to both TWS 8.3, TWS 8.4 and TWS z/OS 8.2 and 8.3.

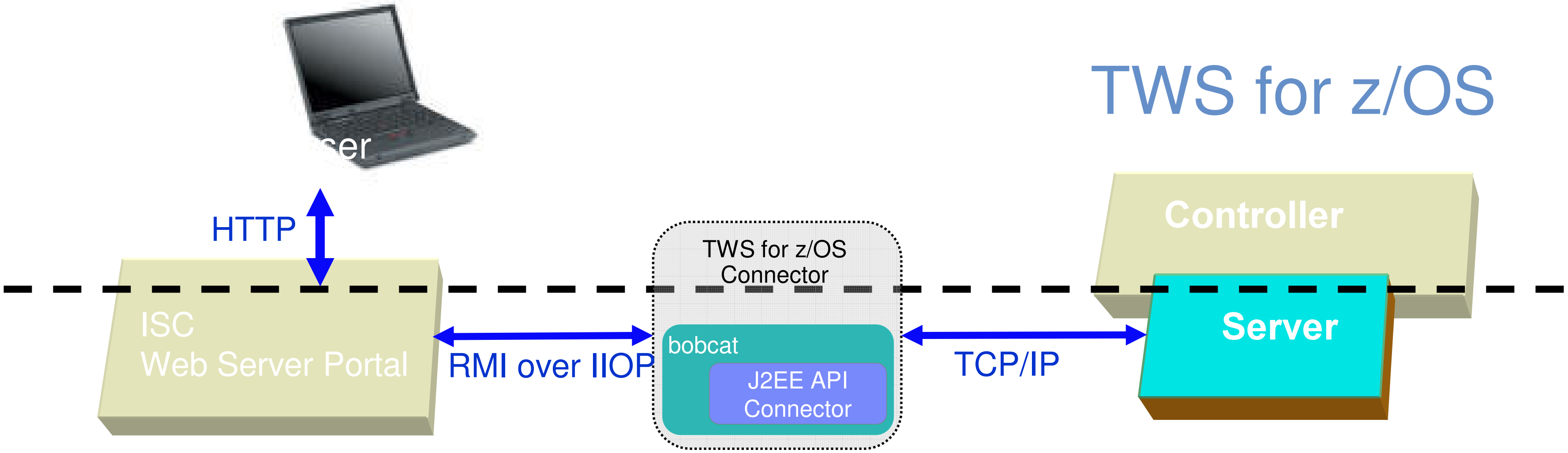


TDWC: how does it work ?

Tivoli Dynamic Workload Console – Topology Example



Communication Protocols



TDWC’s Roles

Administrator

Define TDWC users
- Define and share TWS engine connections
- Design Workload definitions
- Design and Monitor Event rules
- Design and Monitor Scheduling environment
- Define and share TDWC'c tasks to Monitor TWS scheduling objects
- Submit Jobs and JobStreams
- Generate Trial and Forecast plan
- Define and share TDWC'c tasks to Generate Historical and Production reports
- View Dashboard
- Modify User preferences

Designer

- Design Workload definitions
- Modify User preferences

Configurator

Define and share TWS engine connections
- Modify User preferences

Operator

Define and share TDWC'c tasks to Monitor TWS scheduling objects
- Submit Jobs and JobStreams
- Generate Trial and Forecast plan
- Modify User preferences

Analyst

Define and share TDWC'c tasks to generate Historical and Production reports
- Modify User preferences

TDWC User scenarios

Pietro, how do I monitor my own jobs?

TDWC Engines and Tasks provide

- An object to describe the connection
- An object to describe contents and presentation mode
- A flexible association between them
- One-click access to the content
- Sharing of tasks between users

Sara, how do I understand and repair failure?

TDWC drill path provide

- Dashboard – to – single job log easy path
- One-click access to key information
- Drill stack to go back and forth between the steps

Marco, how do I understand and tune workload execution?

TDWC single dependency page provides

- All the reason for a job not to start
- Expandable access to the objects of dependency
- Direct action on objects of dependency

Hey Andrea how did it go last night?

TDWC Reporting provides

- Tasks for reports tailored to the needs of the user
- Task production and sharing
- Single-click report production

Paola, I need a trend of that final job on ETLs. We have to decide whether to order hardware.

TDWC Reporting on Job Runtime provides

- Graphical view of job temporal sequence
- Multiple days of Gantt chart

Luca, how can we charge back on the use of that resource?

TDWC Reporting Custom SQL provides

- Report and Excel extraction of any mixed query on job history and model
- Full power of SQL: aggregation, joins, functions
- Tabular reporting

Alessandro, anybody must be able to view and edit the Event Rules we use

TDWC Rule editor provides

- An editor based on Web 2.0 technology
- Intuitive and graphical representation of even the most complex rules
- The starting point of further developments on Model editing in the TDWC

Davide, can we add 100 users with viewing rights on those engines?

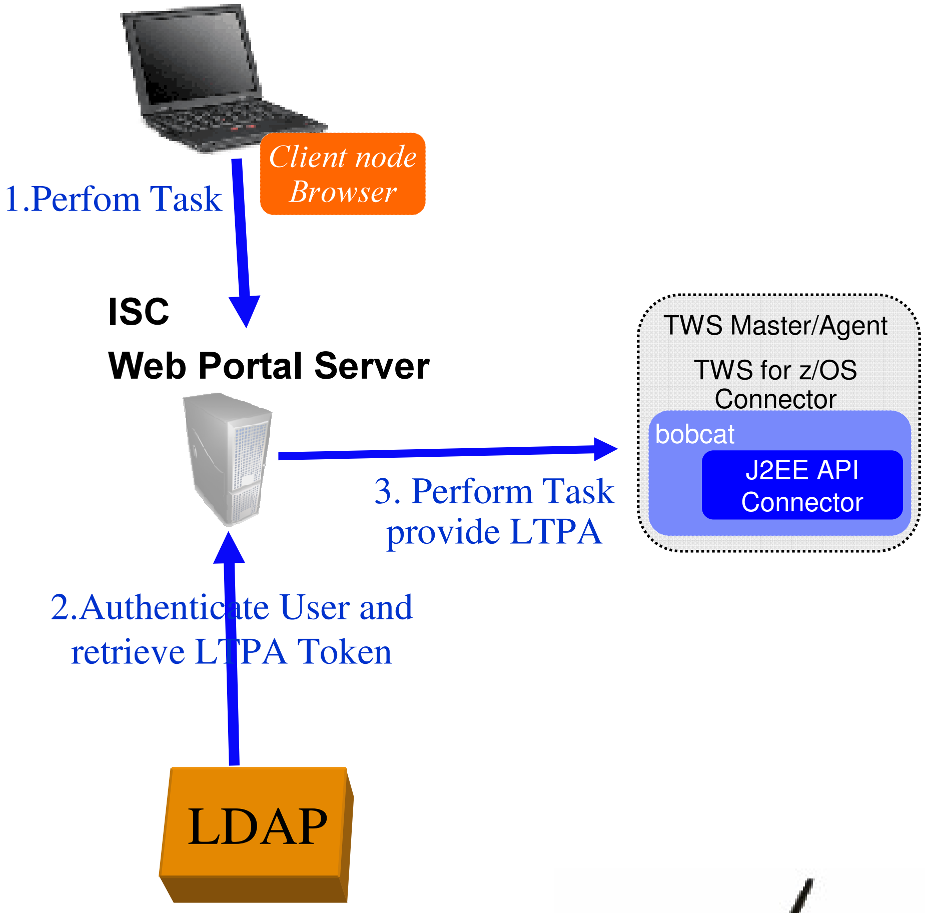
TDWC Single Sign-On provides

- Support for most popular LDAP servers including z/OS RACF and Windows Active Directory.
- Single authentication, granular profiling on each product
- Large scale profiling based on LDAP groups.

Davide, can we add 100 users with viewing rights on those engines?

How it works

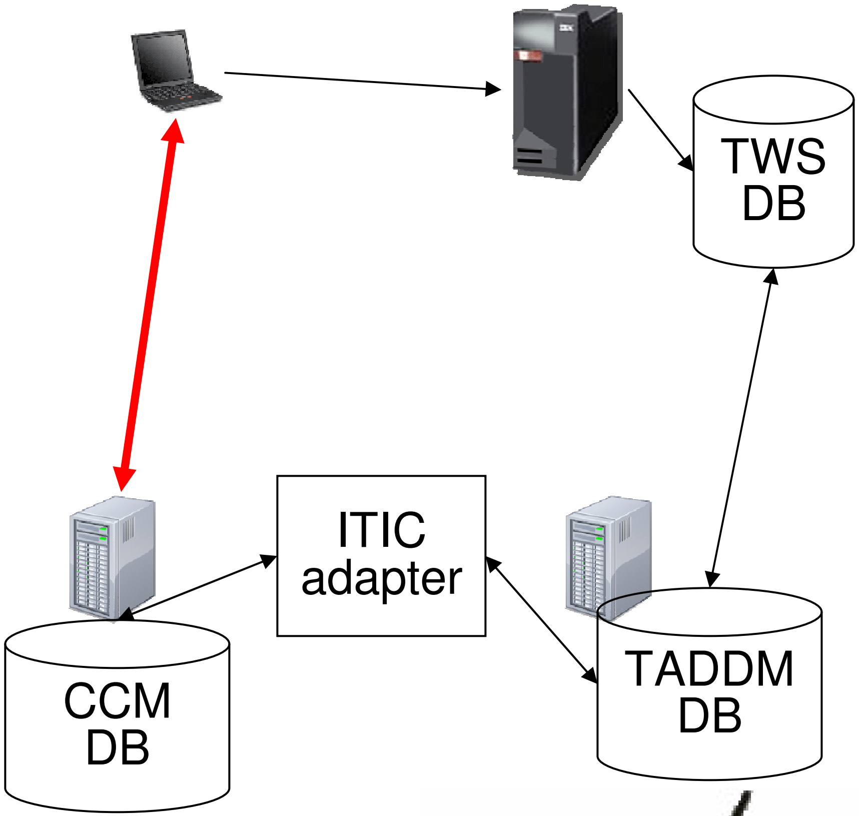
- LTPA is a “trusted token” between WAS servers.
- New members are added at the LDAP level, with Group assignment reflected directly into TWS rights.



Launch in Context for TDWC

How does it work:

- A special URL to access directly the information
- If user is not yet logged, TDWC asks for credentials
- Used by CCMDB integration, TEP integration.

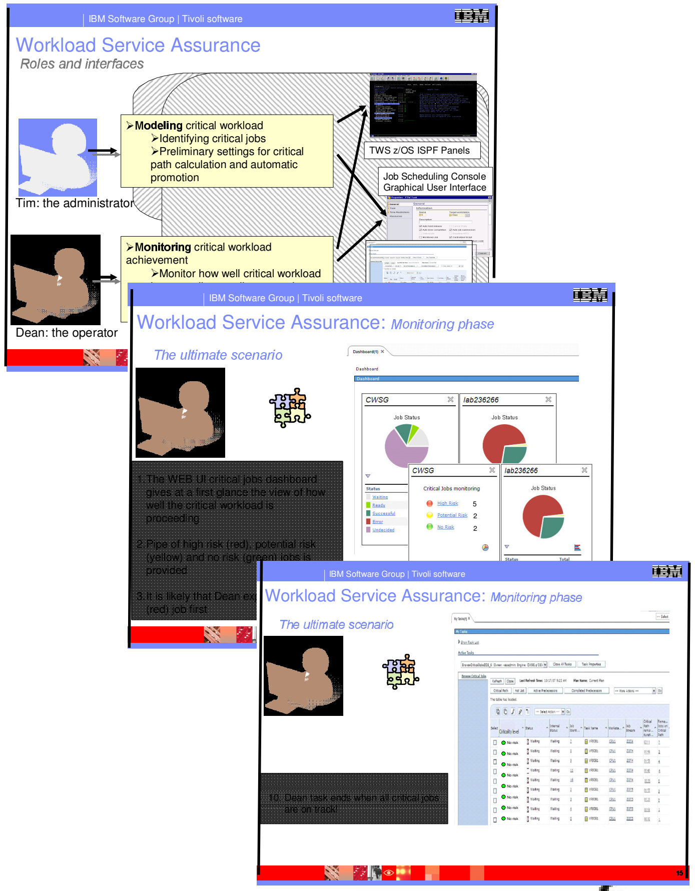


Service Assurance

Zooming : Workload Service Assurance

Business needs

- How to improve Service Level Agreements, automate operations and reduce costs?
- How to monitor and measure the impact of workloads against business service delivery?
- How can I filter and prioritize critical events from a flood of system-wide events?
- How can I ensure business priorities to get the right attention, and speed their implementation time?
- How can I enable proactive reaction?



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Workload Service Assurance

Roles and interfaces

- **Modeling** critical workload
  - Identifying critical jobs
  - Preliminary settings for critical path calculation and automatic promotion
- **Monitoring** critical workload achievement
  - Monitor how well critical workload

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Workload Service Assurance: *Monitoring phase*

The ultimate scenario

1. The WEB UI critical jobs dashboard gives at a first glance the view of how well the critical workload is proceeding
2. Pipe of high risk (red), potential risk (yellow) and no risk (green) jobs is provided
3. It is likely that Dean ex (red) job first

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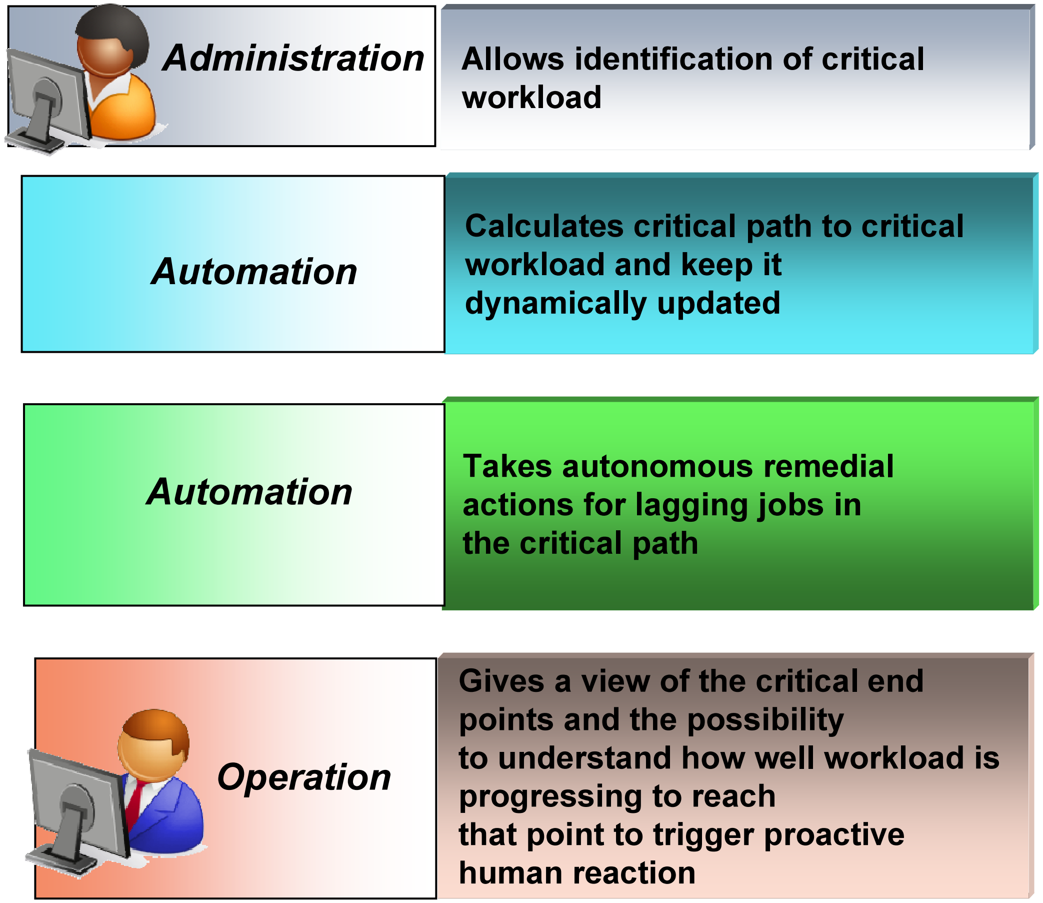
Workload Service Assurance: *Monitoring phase*

The ultimate scenario

10. Dean task ends when all critical jobs are on track!

Zooming : Workload Service Assurance

Solution



Administration — **Allows identification of critical workload**

Automation — **Calculates critical path to critical workload and keep it dynamically updated**

Automation — **Takes autonomous remedial actions for lagging jobs in the critical path**

Operation — **Gives a view of the critical end points and the possibility to understand how well workload is progressing to reach that point to trigger proactive human reaction**

Customer value

- Alignment of workload to *business priorities*
- *Service Level* management, automate operations and reduce costs
- Take in account *historical metrics* and *indicators* when *forecasting* expected completion of jobs
- Monitor the *most current critical path*
- Automate *remedial actions* as first reaction to *risk*
- *Proactive* alerting of users about *potentially risk conditions*
- Forward information to *TEP and TBSM*

Conclusion

- TDWC provides a complete interface to manage the whole Tivoli Workload Automation family
- TDWC operational part is streamlined for efficient operations and drilling to the needed information
- TDWC modeling part offers excellent user interaction through Web 2.0 technology
- The Reporting feature is an extensible framework to deliver publication-ready information about the workload and environment

Thanks!