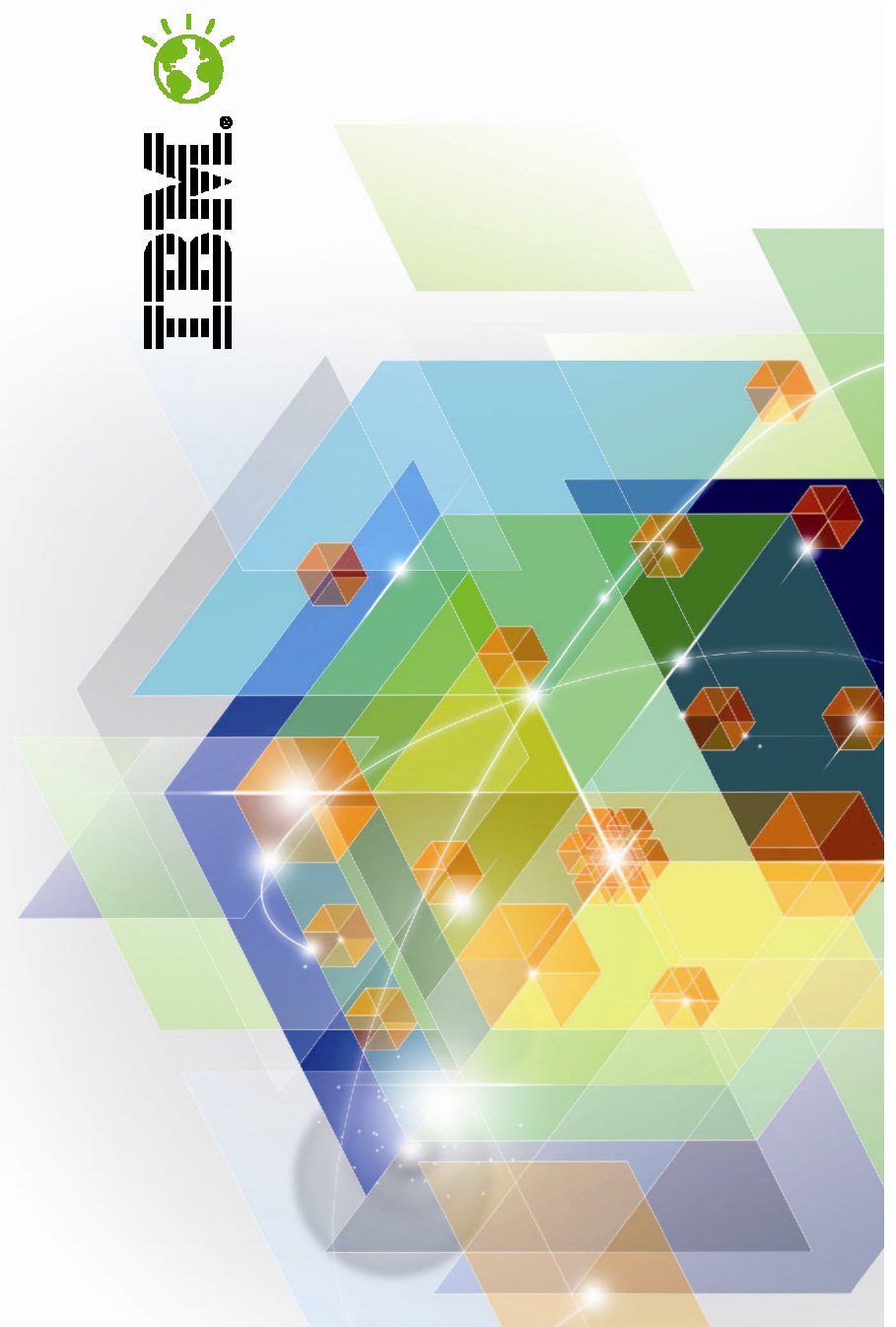


Tivoli z Webcast

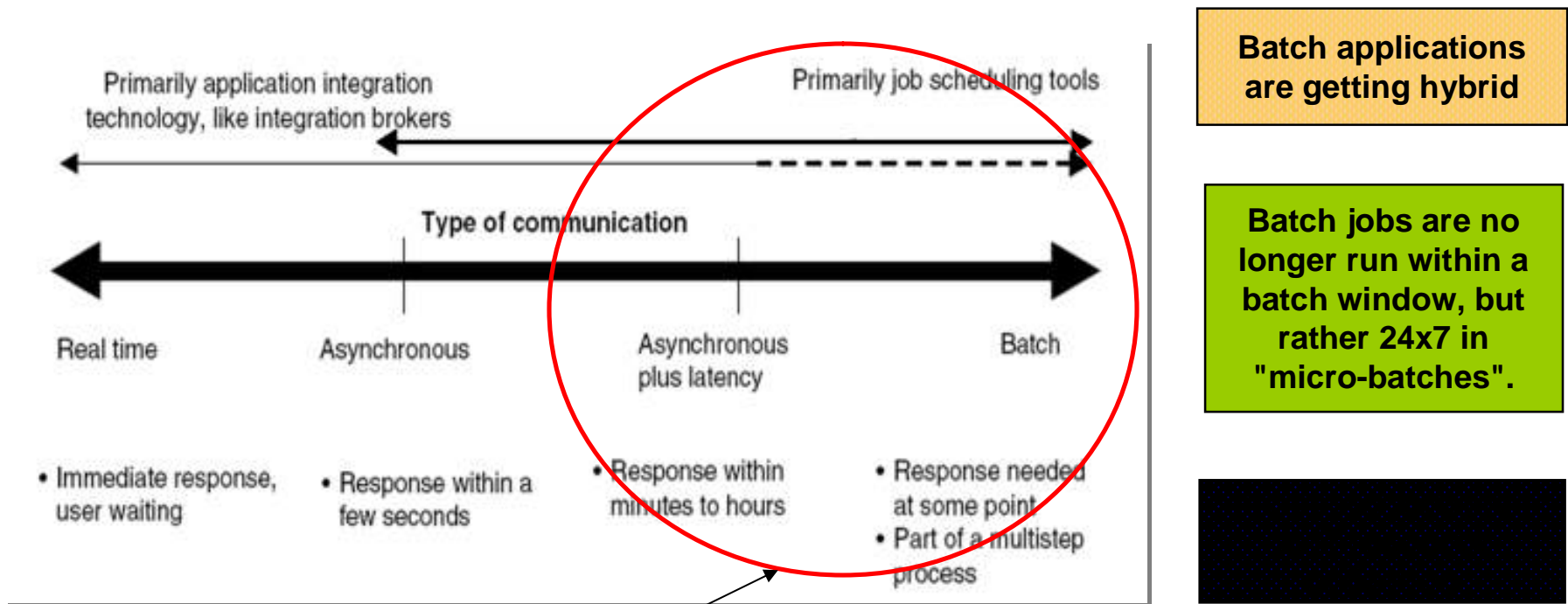
Increase business flexibility with improved Workload Automation from Tivoli Workload Automation

November 3, 2011

Flora Tramontano Guerritore – TWA Product Manager

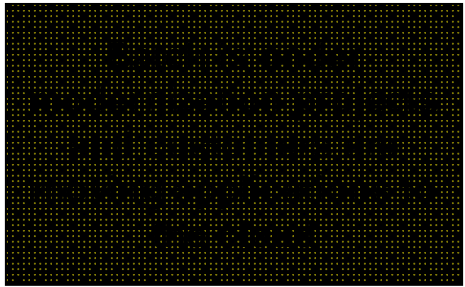


IT continues to experience pressures on expanding and modernizing Batch

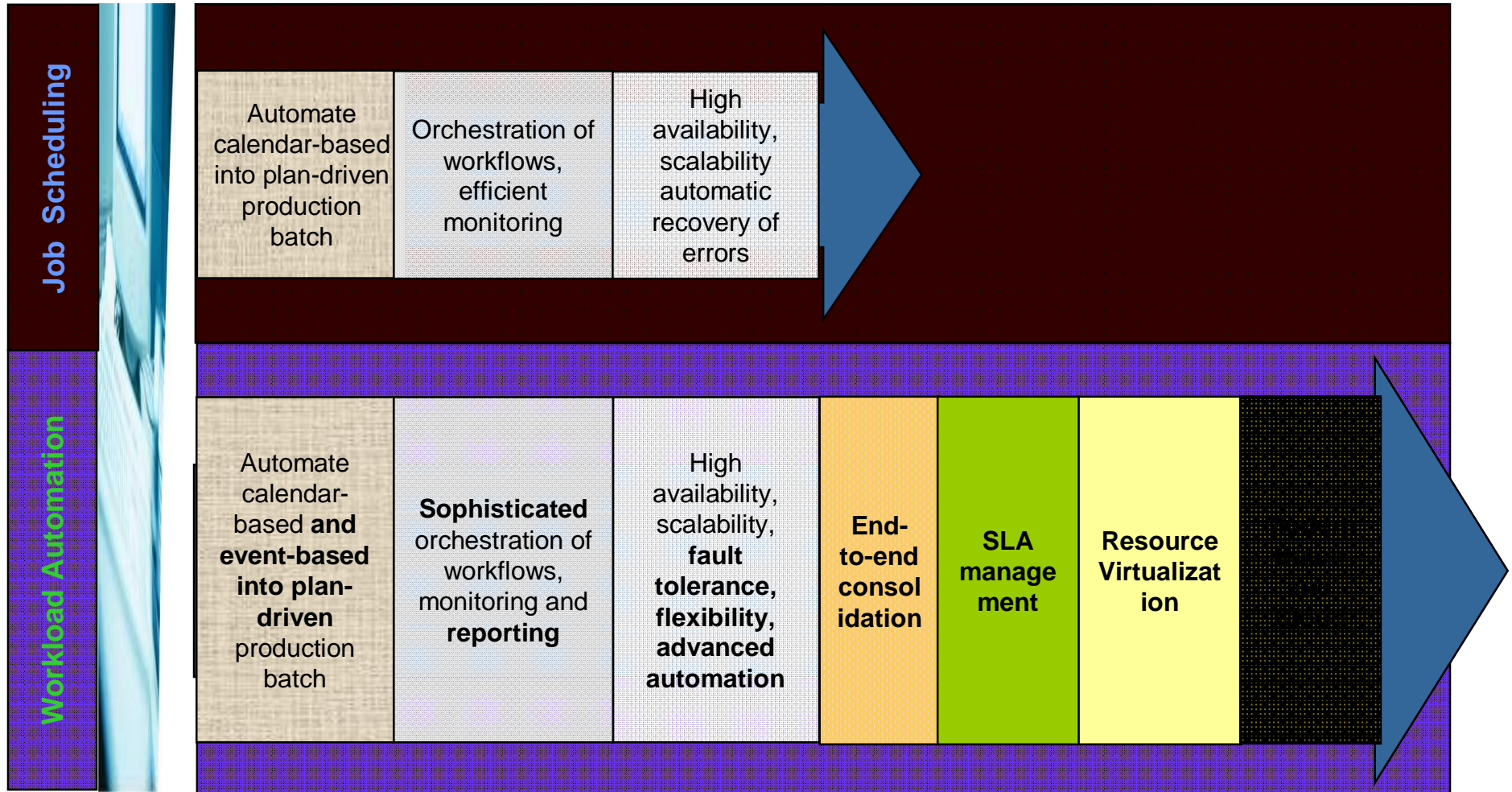


Source: "Consider Scheduling Tools for Batch Application Integration", Gartner.

Asynchronous plus latency workload is getting charge of Workload Automation tools



... Tivoli has responded with increased functionality and evolution from Job Scheduling to Workload Automation

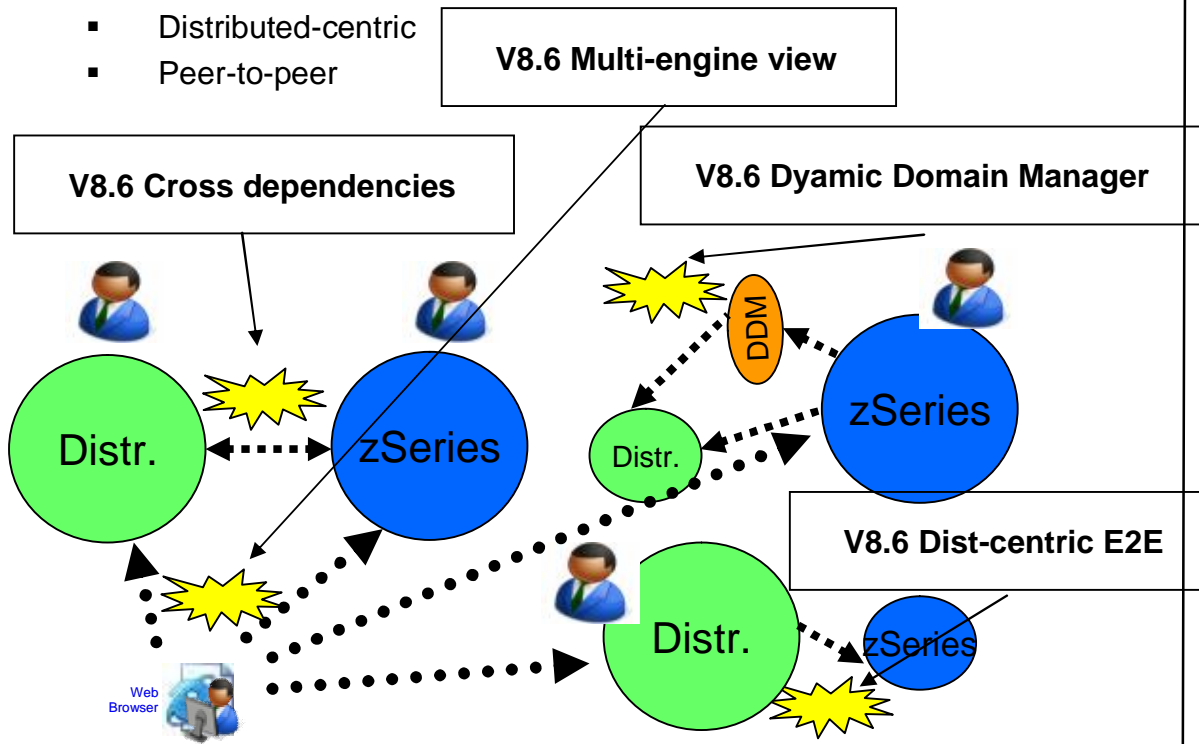



End-to-End: Control and manage workloads across distributed and System z from single control point

- Single agnostic point of management and control that integrates composite and complex services and applications workloads, across multiple platforms
- Flexible components, to be deployed in various configurations, and adhere to any organizational structure:
 - Mainframe-centric
 - Distributed-centric
 - Peer-to-peer

Business benefits

- ★ *Ideal in CONSOLIDATION scenarios, to reduce software, hardware, and labor costs and implement shared services (cut costs down 15%-20%)*
- ★ *Visibility, Control, Automation™ with a SINGLE POINT OF CONTROL on heterogeneous workloads*
- ★ *Maintain the same skills, despite of workloads movements*





Proofpoints – Customer quotes

“A single tool that can accommodate a heterogeneous environment eliminates the need to maintain multiple technologies. This means lower software licensing costs and fewer, more efficient IT administrators” – Belgium bank

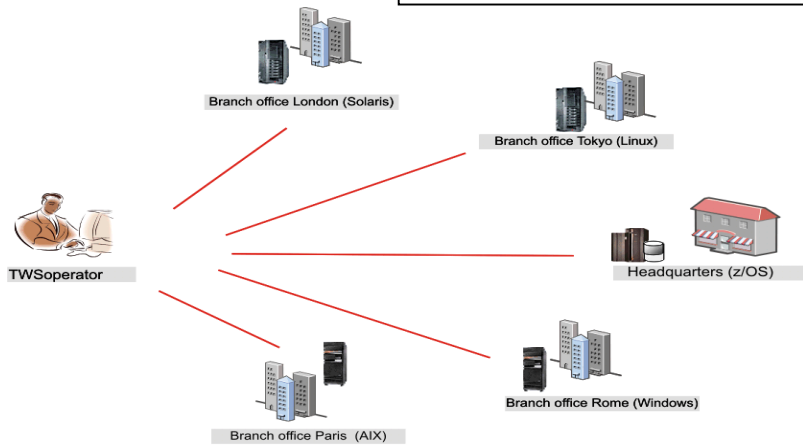
Support business growth with out-of-the-box linkage of activities spanning multiple engines

Mixed environment consolidation with new cross-dependency and multi-engine view

- Customers who want to better scale through multiple engines now synchronize cross-engines activities, and achieve aggregated view of workloads

V8.6 Cross dependencies

V8.6 Multi-engine view



Business benefits

- ★ **Highest flexibility in building automation around organizational and business needs**
- ★ **Out-of-the-box capability to synchronize activities across multiple engines**



Proofpoints – Customer quotes

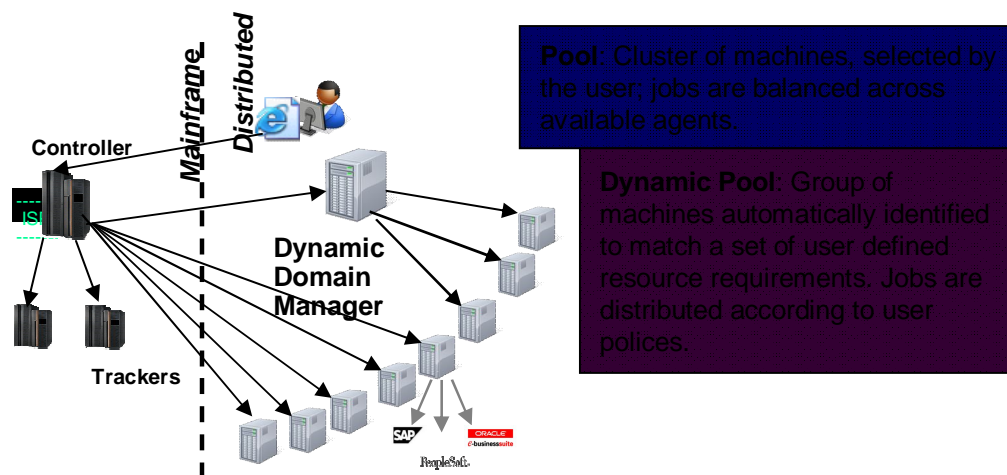
“Cross dependencies are very easy to define with the webui”

“Multiple engine queries are useful”

Support business growth with out-of-the-box linkage of activities spanning multiple engines

New ability to control z workload from distributed

- New distributed-driven end-to-end, for customers who want to expand the reach of TWS distributed to mainframe jobs.
- New Dynamic Domain Manager in zCentric end-to-end, to automatically dispatch workloads based on best fit, according to resources and policies



Pool: Cluster of machines, selected by the user; jobs are balanced across available agents.

Dynamic Pool: Group of machines automatically identified to match a set of user defined resource requirements. Jobs are distributed according to user policies.

Business benefits

- ★ *New end-to-end configuration to manage mixed workloads from a distributed hosted engine*
- ★ *Dynamic z-centric brings relief to administrators, in that operations and infrastructures are decoupled*
- ★ *Handle high change rate on distributed and zEnterprise.*
- ★ *Maintain the same skills, despite of workloads movements*


Proofpoints – Customer quotes

This fits right into the roadmap of several customers, and acts as a strong displacement argument.

End-to-end

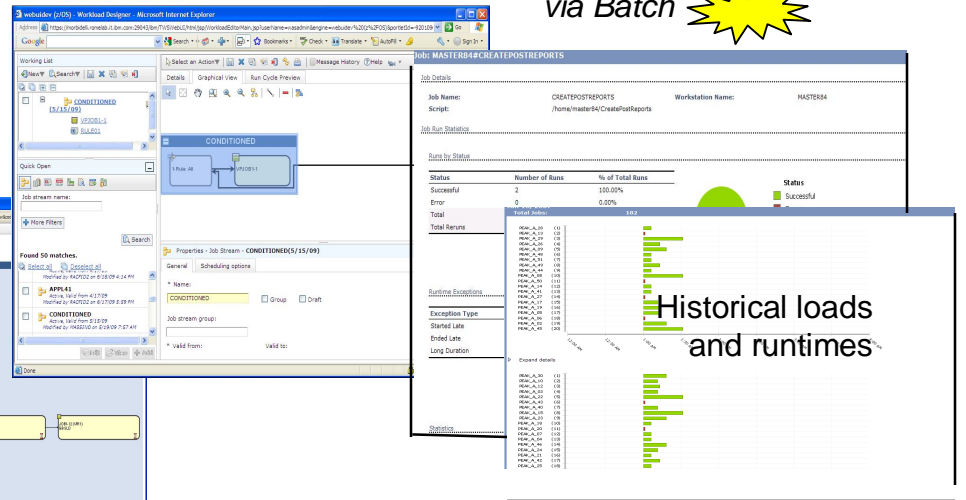
More about the single point of control

Graphical Workload Designer for centralized and intuitive manipulation of scheduling objects

Reports are available with historical workload statistics, workloads distribution, for tuning and optimization purposes. Can be produced via Batch 

Impact graphical view to walk through your network dependencies

Graphical production plan View for centralized monitoring of heterogeneous workloads



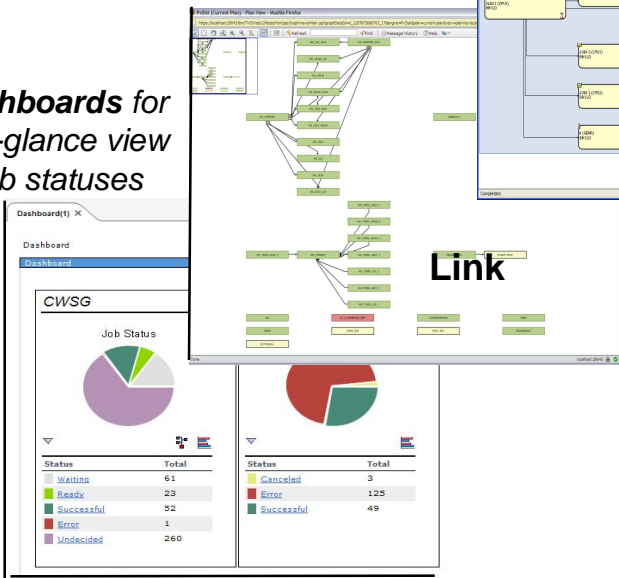
Job Details

Job Name: CREATEPOSTREPORTS Workstation Name: MASTERS4
 Script: /home/master4/CreatePostReports

Runs by Status	Status	Number of Runs	% of Total Runs	Status
Successful	2	100.00%	Successful	
Error	0	0.00%	Error	
Total				

Historical loads and runtimes

Dashboards for at-a-glance view of job statuses



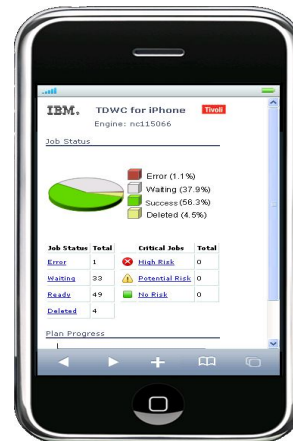
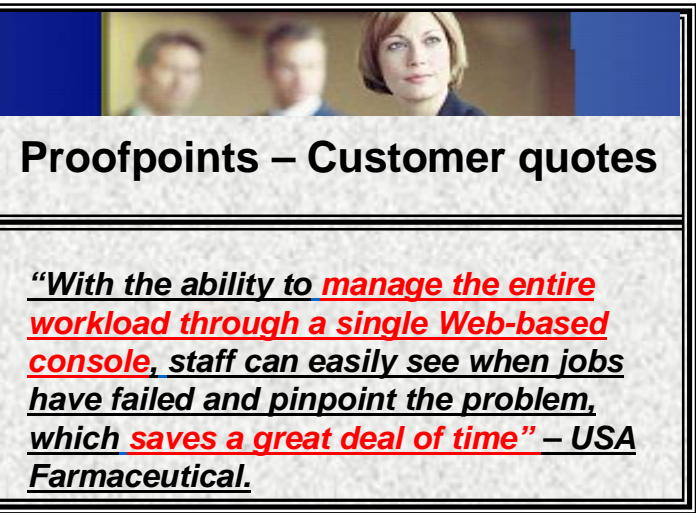
Link

CWSG

Job Status

Status	Total
Waiting	61
Ready	23
Successful	52
Error	1
Undecided	260

Status	Total
Cancelled	3
Successful	49

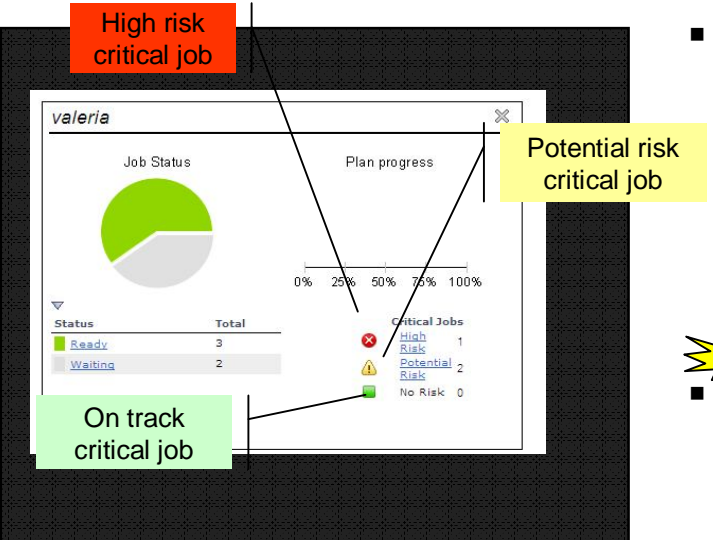
Proofpoints - Customer quotes

"With the ability to manage the entire workload through a single Web-based console, staff can easily see when jobs have failed and pinpoint the problem, which saves a great deal of time" - USA Pharmaceutical.

SLA management

Capability to route workloads with tight SLA to different parts of infrastructure for faster execution

- Assurance of SLA objectives though dynamic prioritization of business critical workloads
- Effective monitoring through dashboard of critical points, and dynamic views of progresses to critical milestones
- Risk-level notion to drive intelligent manual intervention



- Unique leveraging of **WLM integration for TWS for z/OS** to accelerate the execution of critical workloads
- V8.6 does pass to the Dynamic Scheduling the promotion flag

Business benefits

- ★ Awareness of different level of importance of workloads
- ★ Meet your Service Level Agreements reducing the need for human intervention to a minimum level

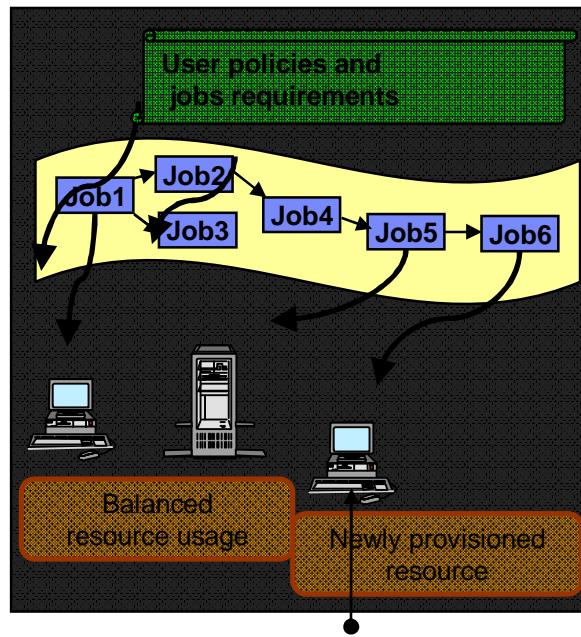
Proofpoints – Customer quotes

A Spanish Bank has improved the efficiency of its batch jobs, saving time and resources. The Critical Path management) gives the company tighter control over batch jobs, and it is able to process time deviations without interruption.

Resources virtualization across heterogeneous platforms with dynamic scheduling


Improved virtualization across workloads with brokering technology

- Policy-based IT resource utilization and optimization defined through virtual pools
- TWA provides High Availability through job routing
- Automatic provisioning of new machines
- Automatically adapt workload execution to IT changes
- Available in zCentric End-to-end (v8.6)



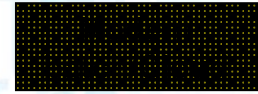
Business benefits

- ★ Drive transformation to **DYNAMIC DATA CENTER**
- ★ Build Software High Availability with lower cost and finer grain actions
- ★ Helps getting most out of existing assets and meeting SLA by trading capacity
- ★ Increased business efficiency, improved high availability, better performance



Proofpoints – Customer quotes

“With Tivoli Dynamic Workload Broker technology, we can easily adapt workload execution to incidences, problems and configuration changes, and automate key service execution”- USA Farmaceutical



Batch Modernization increases flexibility for business and IT analysts to migrate to new technology

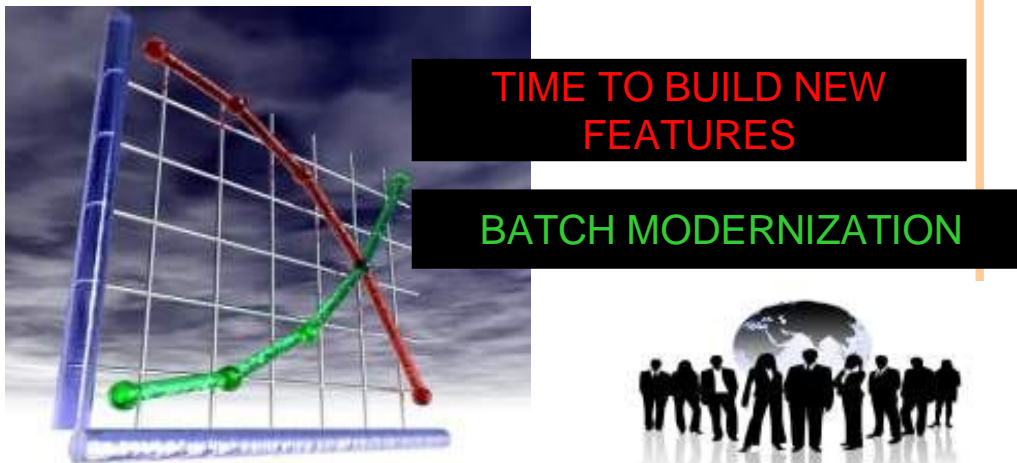
- Customers are modernizing batch infrastructure to make it more flexible, and more responsive to new functional and business requirements
- Re-using existing assets with modern interfaces, integrating traditional and cloud workloads, moving workloads and operational point.

Examples of batch modernization opportunities

Transform: batch applications using modern languages (ex. COBOL to Java)




Re-use: existing applications with business oriented Web Services

Integrate: legacy applications with new applications



Modern Batch provides both improved flexibility and reduced costs

TWA helps supporting transformation, re-using and integration projects

- Invoke scheduling services as Java API
 - Through **zConnector**, now running also on **z/OS (v8.6)** 
- Enable wrapping existing scheduling services with **web services (v8.6)**
 - Edit and submit jobstreams with variable substitution 
- Embrace scheduling of Java and Web Services
- **Application plug-ins** to extend the automation to potentially any new job types (v8.6) 

Business benefits

- ★ **Re-use of existing processes running rather than encouraging a re-write**
- ★ **Reduce costs offloading MIPS to zAAP**
- ★ **Enable easy remote access to scheduling services**



Application Extensions allow business users to take advantage of processes in a managed approach

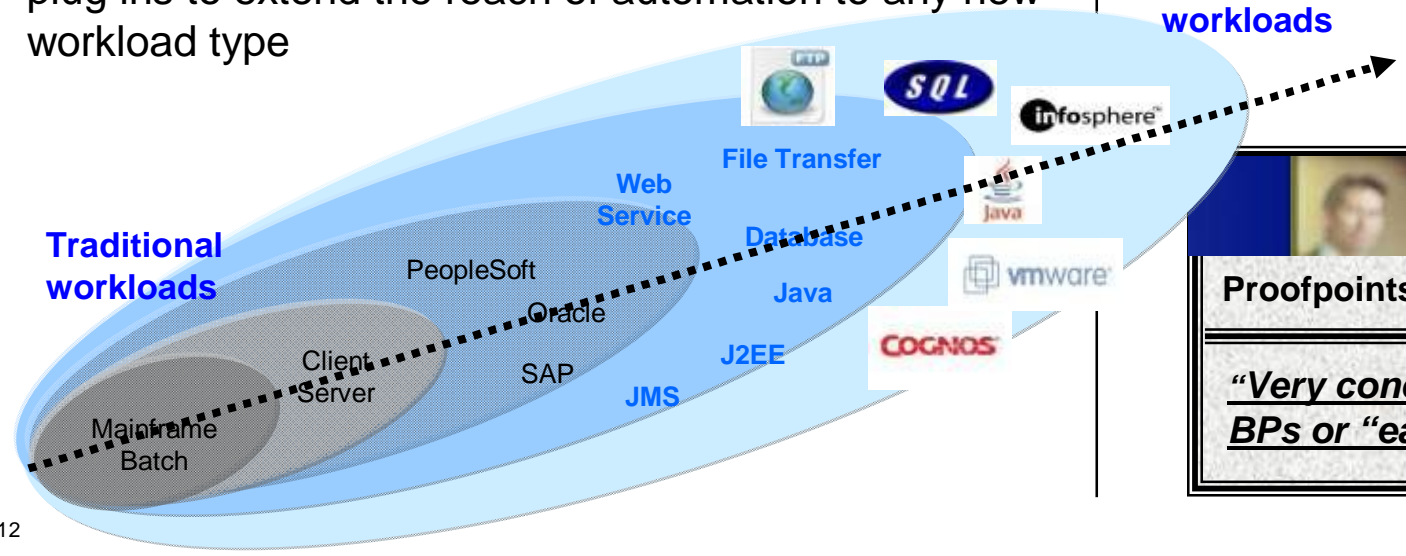

Tivoli Workload Automation application extensible framework

- Customers shifting from traditional backend transaction focused systems to modern systems running web applications and heterogeneous applications
- Workload Automation role is maintaining a single point of control over workloads
- TWA provides extensible framework through application plug ins to extend the reach of automation to any new workload type

Business benefits

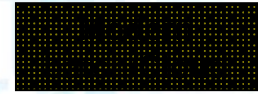
- ★ **Share infrastructure among applications**
- ★ **Reduces labor costs, enabling to automate new workloads with the same staff of people**
- ★ **No request for new skill: re-using of workload automation processes and procedures already in place**

Emerging workloads

Proofpoints – Customer quotes

“Very concrete needs” from BPs or “early adopters”



Cloud Workload Automation supports provisioning of batch with ad-hoc scheduling and recovery

Improved cloud management with automated provisioning and configuration

- *Workload Execution environment* – Need for report-generating server farm for month-end.
- *Elastic scaling* – Tight SLAs with business penalties need to adjust the environment and avoid any miss

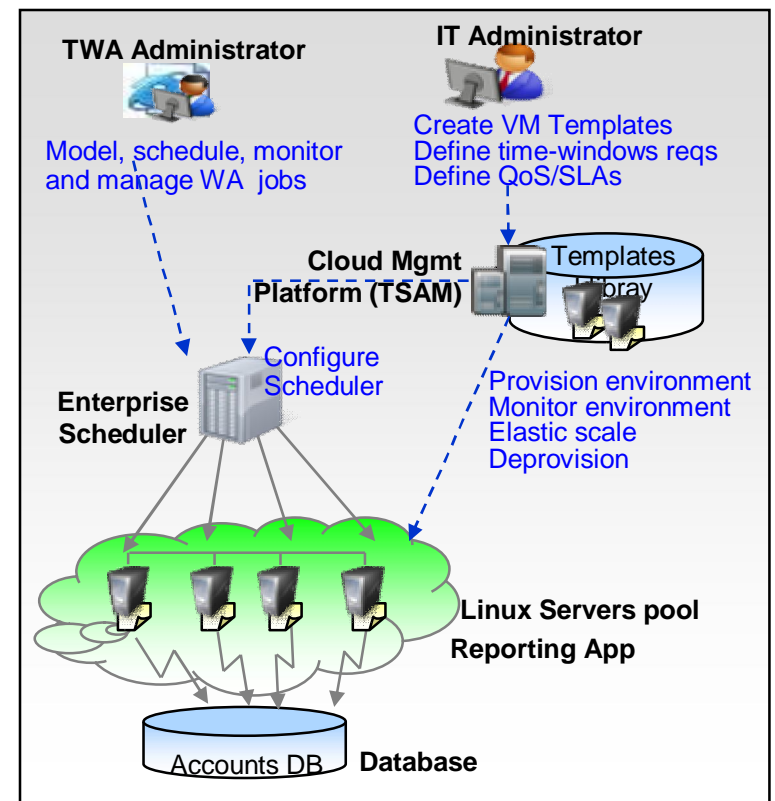
Create a Workload Automation Execution service in TSAM that:

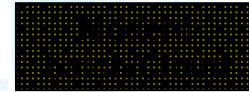
- Allows to model, reserve and automatically provision “WA-ready execution environments” in a cloud
- Automatically configure a scheduling silo in an existing TWA environment (or provision a new one) for managing the new environment

Business benefits

★ *Minutes to bring up a complete Workload Environment*

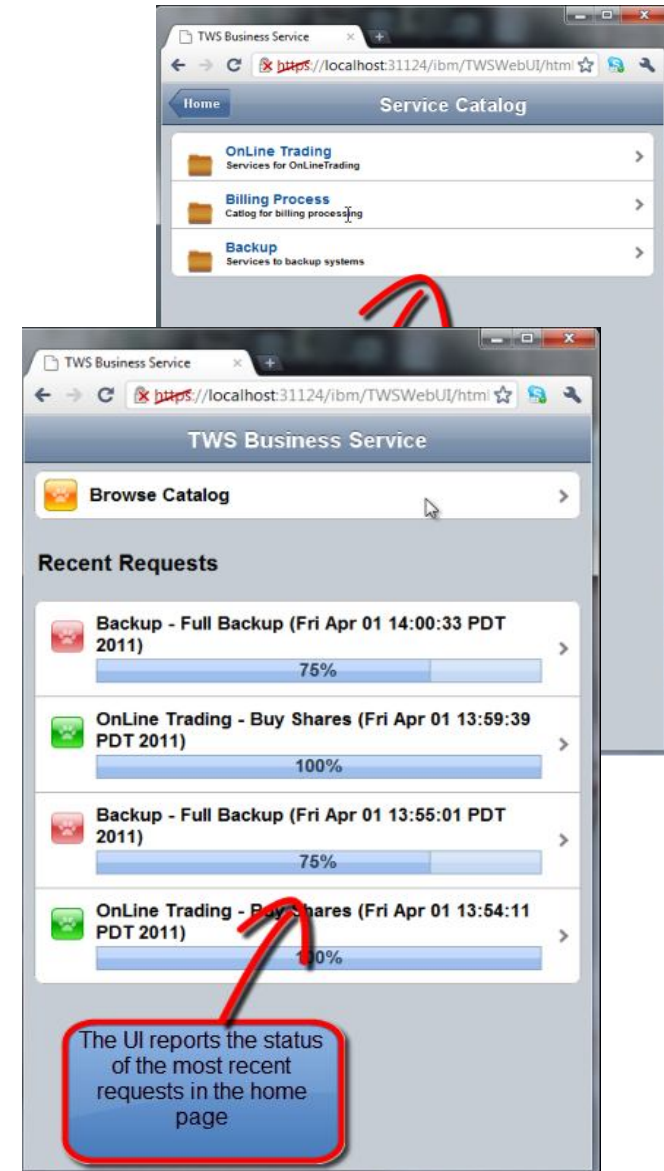
★ *Highly standardized rights and user definitions*

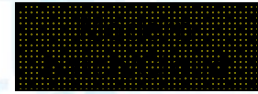




Tivoli Workload Automation in the future: Self Service

- Extract business value into a new interface, design for mobile devices and intuitive.
 - Based on the Service Catalog paradigm
- Offer an interface to Business end users so they have power and flexibility to request workloads
- Hide complexity of operations through an efficient ticketing and resolution system.
- Embed SLA into design of applications
 - Provide classes of service running – Gold, Silver
- It all amounts to breaking access barrier to power of Workload Automation for Business Users





Tivoli Workload Automation and zEnterprise

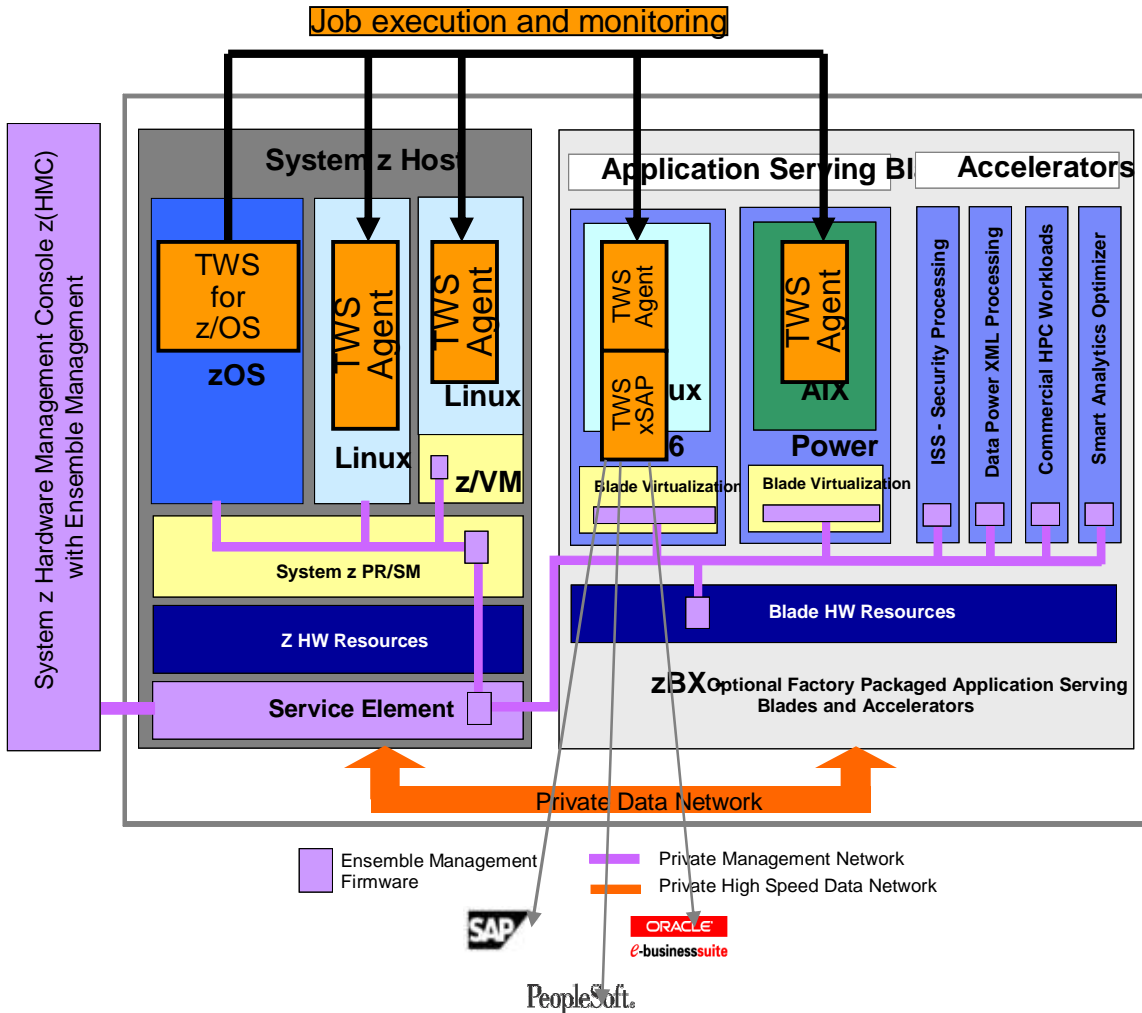
- Batch Modernization is not a kind of all or nothing approach: it may be worth to leave COBOL on System z and offload only applications that are better served or more economically served on distributed machines
- zEnterprise is ideal to do so, in that it allows to place workloads where they best fit, while keeping a cohesive – and therefore predictable – environment
- Tivoli Workload Automation and zEnterprise together deliver exceptional workload management capabilities, relying on a predictable and consolidated environment. A closely federated set of resources and a central management for end-to-end workloads support cohesion of heterogeneous resources and enhance the ability to respond to demanding business changes.



Tivoli Workload Automation provides end-to-end capabilities across heterogeneous zEnterprise

Fit for purpose workload deployment 

zCentric end-to-end solution ideal to manage heterogeneous workloads across System z and Blade extensions, under a single point of control and management



- Future option to exploit Unified Resource Management interfaces would provide unprecedented workload moving and optimization capabilities

Business benefits

- ★ **Reduce costs with fit-for-purpose platform, and implement a virtualized and green data center**
- ★ **Realize data-proximity processing with high bandwidth for distributed applications**

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