Tivoli Workload Automation

New Release simplifies moving to cloud

Flora Tramontano Guerritore
Xavier Giannakopoulos
IBM

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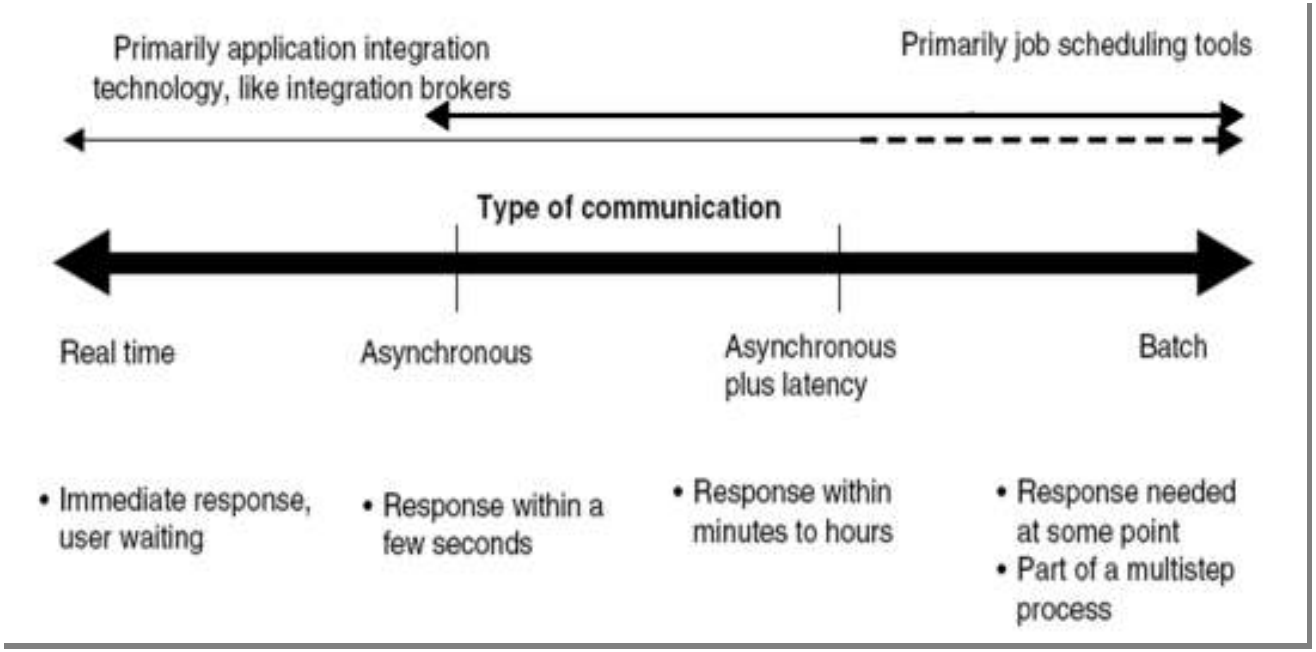
Session 10112

IT continues to experience pressures on expanding and modernizing Batch



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

Batch is changing according to modernization projects

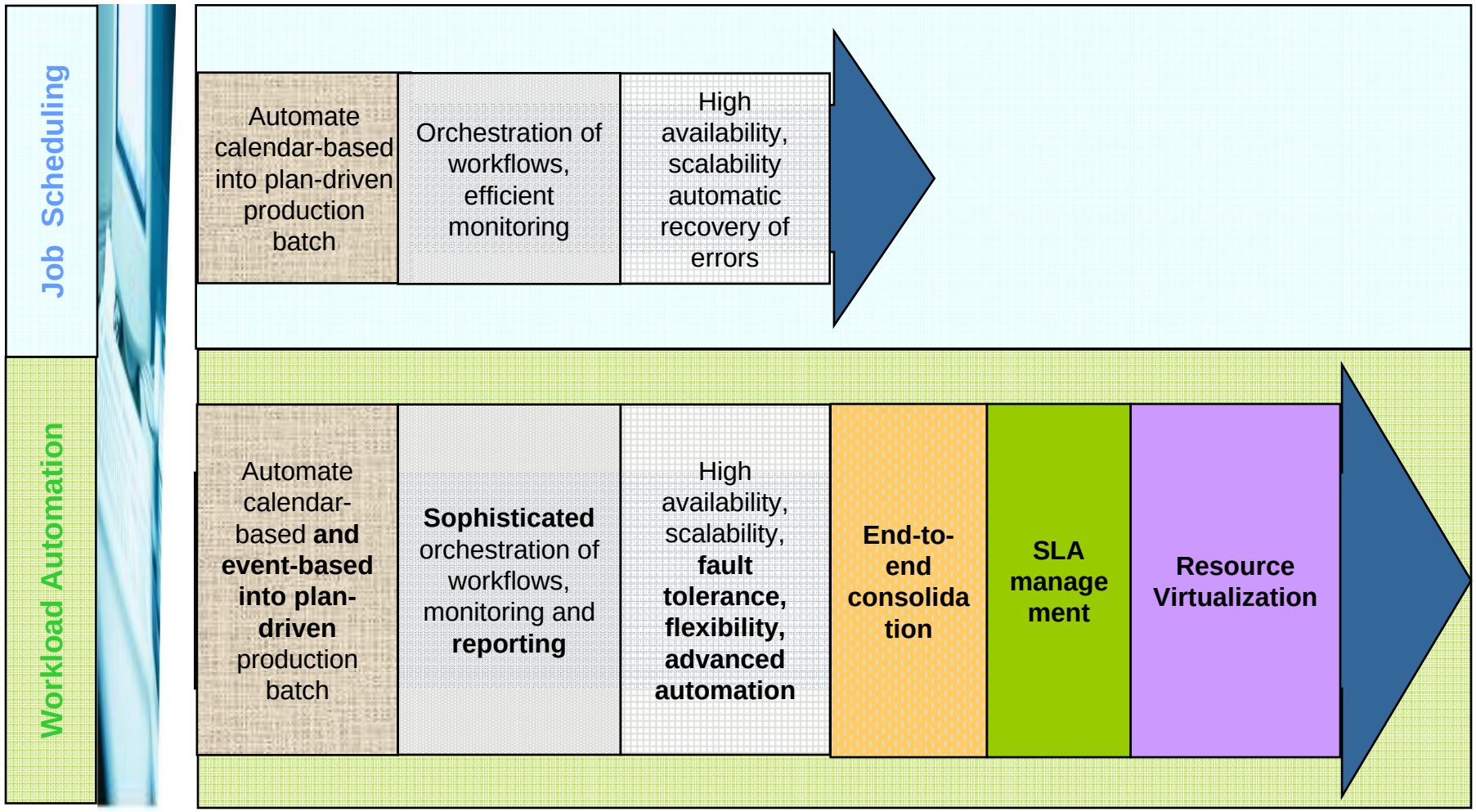
Batch applications are getting hybrid

Customers are moving their applications to the CLOUD

Asynchronous plus latency workload is getting charge of Workload Automation tools

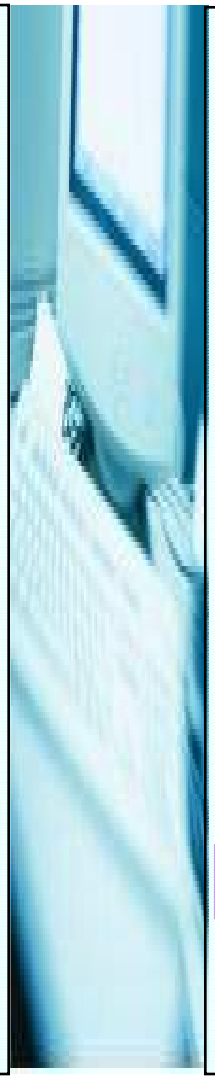
Batch jobs are no longer run within a batch window, but rather 24x7 in "micro-batches".

Customers are moving from job scheduling to increased functionality of workload automation



Tivoli Workload Scheduler v8.6 improves customers ability to implement Workload Automation

Toward Service Management



End-to-end continued evolution

- **Cross-dependencies**
- **Multiple-engines monitoring view**
- **Dynamic zCentric**
- **Distributed-driven end-to-end**

Batch Modernization

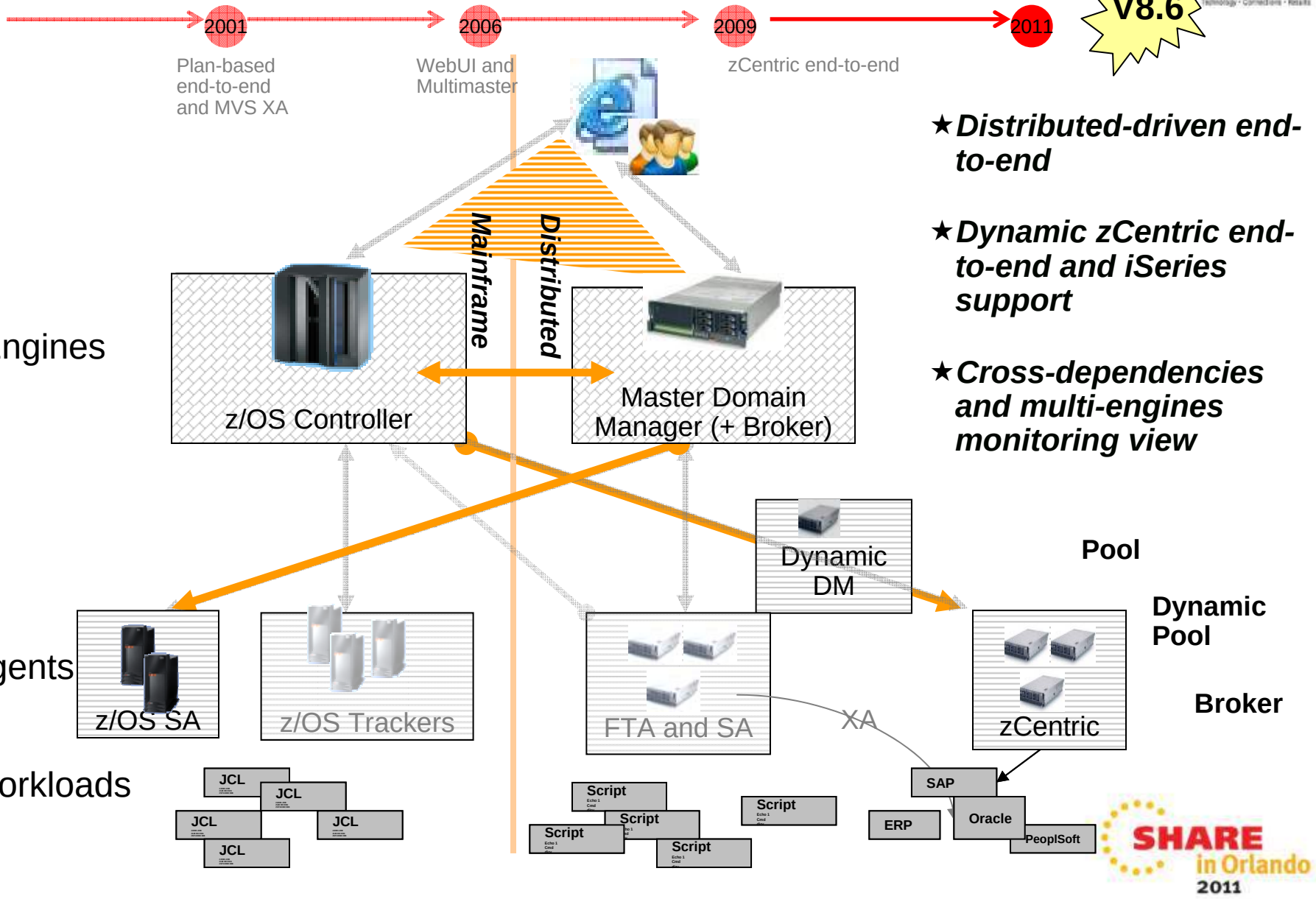
- **Workload Automation on SOA**
- **Elastic automation**
- **Tivoli Workload Automation and zEnterprise**

Cloud workload automation

- **Create a workload automation execution environment with TSAM**

New Feature

Product evolution from workload scheduling to end-to-end workload automation



★***Distributed-driven end-to-end***

★***Dynamic zCentric end-to-end and iSeries support***

★***Cross-dependencies and multi-engines monitoring view***

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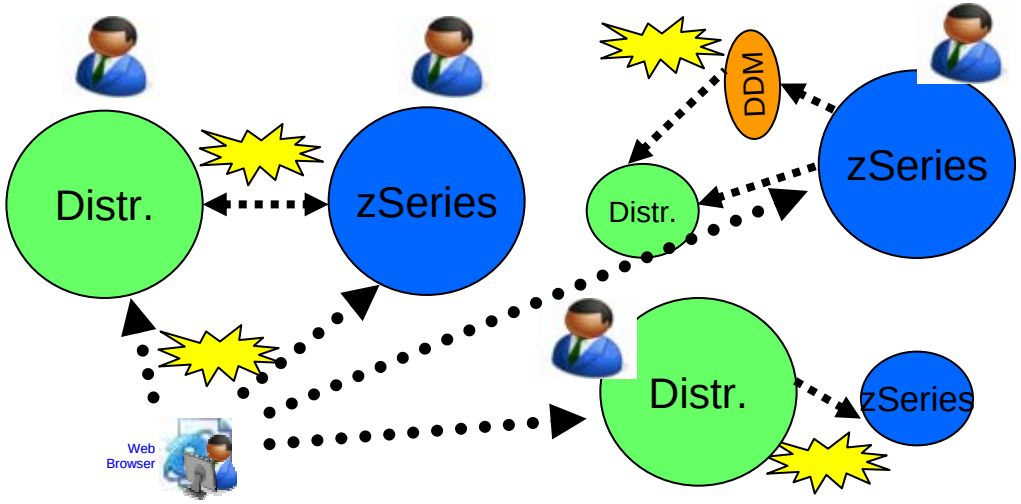
Support business growth mapping heterogeneous workloads for simplified management

Mixed environment consolidation with new cross-linking and dynamic environment handling

- Customers need to manage mixed distributed and z workloads while adding additional business flexibility
- TWS for z/OS end-to-end support provides plan-based end-to-end and z-centric end-to-end, with option to use Dynamic Scheduling on distributed side.



Business benefits

- ★ ***Highest flexibility in building automation around organizational and business needs***
- ★ ***Handle high change rate on distributed and zEnterprise.***
- ★ ***Maintain the same skills, despite of workloads movements***
- ★ ***Ideal in CONSOLIDATION scenarios with reduction of software, hardware, and labor costs***

Proofpoints – Customer quotes

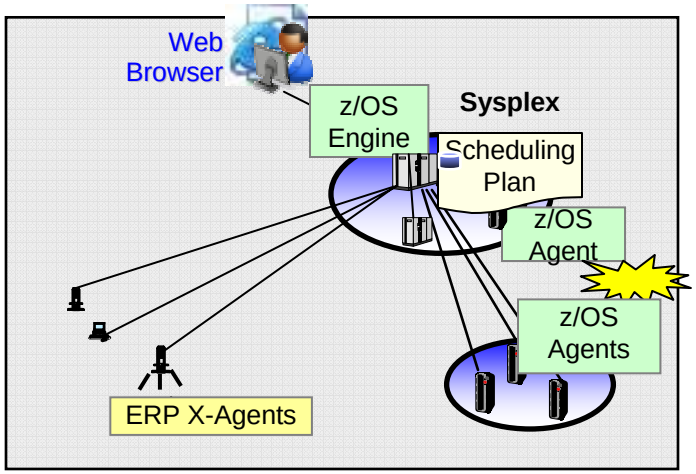
"Cross dependencies are very easy to define with the webui"

"Multiple engine queries are useful"

Control and manage workloads across distributed and System z from single control point

New ability to control z workload from distributed

- Customers offloading workloads to distributed environments but want mainframe hosted engine, can use dynamic z-centric end-to-end
  - Enables automatically dispatched workloads based on best fit, according to resources and policies
- Customers want to better scale through multiple engines, now synchronize cross-engines activities, and achieve aggregated view of workloads



Business benefits

★***Dynamic z-centric brings relief to administrators, with operations and infrastructures decoupled***

★***Out-of-the-box capability to synchronize activities across multiple engines***

★***New end-to-end configuration to manage mixed workloads from a distributed hosted engine***

Proofpoints – Customer quotes

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

Today's challenges in batch processing require more flexible workload automation

The context

- Batch workload may be issue in most IT transformation projects
  - Inability to reuse and integrate assets
- Cost and complexity of maintaining and operating existing batch applications continues to grow
  - Creating demand for improved runtimes and tools
- Variants of batch processing are emerging that run on new platforms, infrastructure and middleware

The needs

- Elastic batch: flexible and able to change at speed of business
  - Faster turnaround to implement newer or modified business processes
- Reduce maintenance and skill costs
- Satisfy new functional requirements
- Consolidate IT systems; adopt a fit-for-purpose model

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.

TIME TO BUILD NEW FEATURES

BATCH MODERNIZATION

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

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Modern Batch provides both improved flexibility and reduced costs

TWA V8.6 helps supporting transformation, re-using and integration projects

- Invoke scheduling services as Java API
  - Thru zConnector, now running also on z/OS
- Enable wrapping existing scheduling services with web services
  - 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

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***

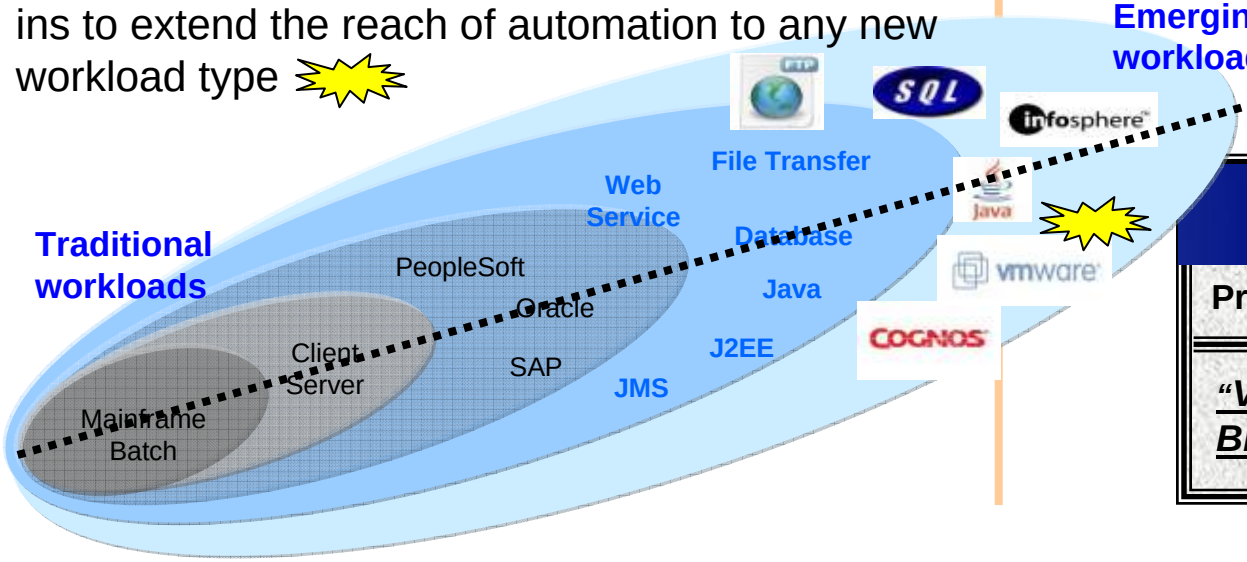
Proofpoints – Customer quotes

Thanks for the opportunity to offload MIPS to zAAP

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

New 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
- TWS 8.6 easily build and deploy application plug ins to extend the reach of automation to any new workload type



Business benefits

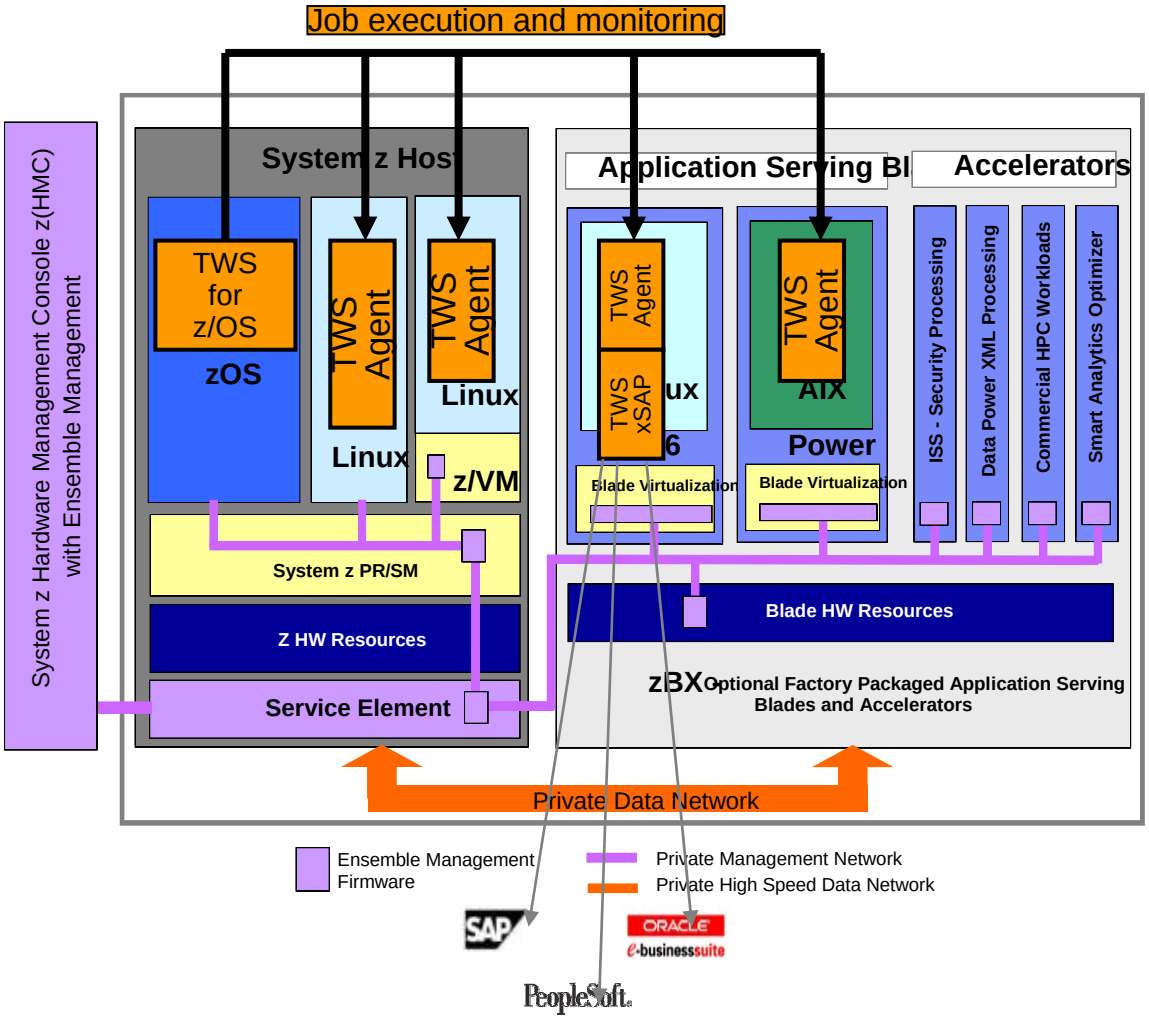
- ★ ***Share infrastructure among applications***
- ★ ***Reduces labor costs, enabling to automate new workloads with same staff***
- ★ ***No request for new skill: re-using of workload automation processes and procedures already in place***

Proofpoints – Customer quotes

"Very concrete needs" from BPs or "early adopters"

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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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 penalities need to adjust the environment and avoid any miss

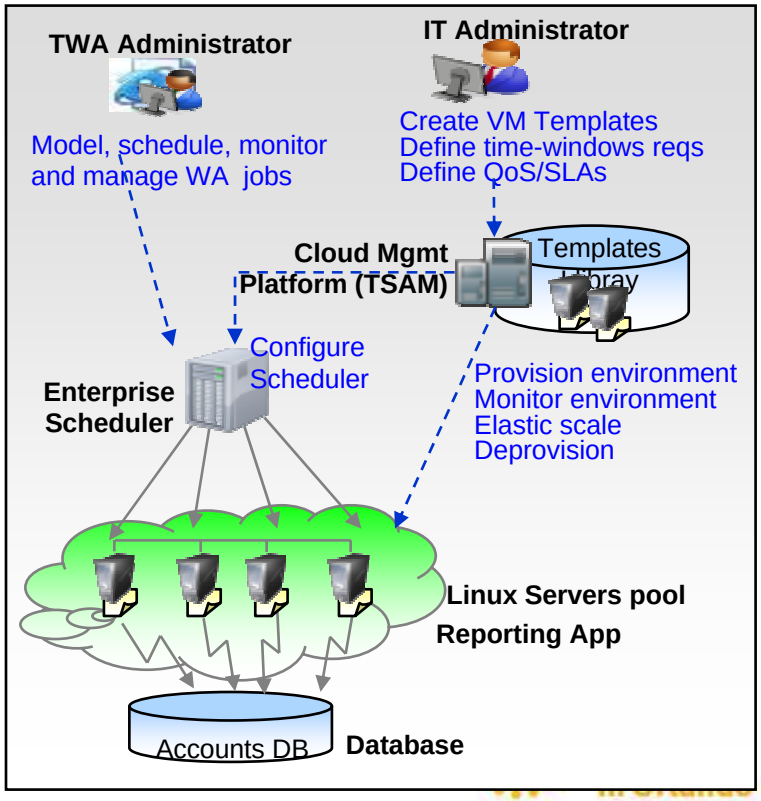
Create a Workload Automation Execution service in TSAM that:

- 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***

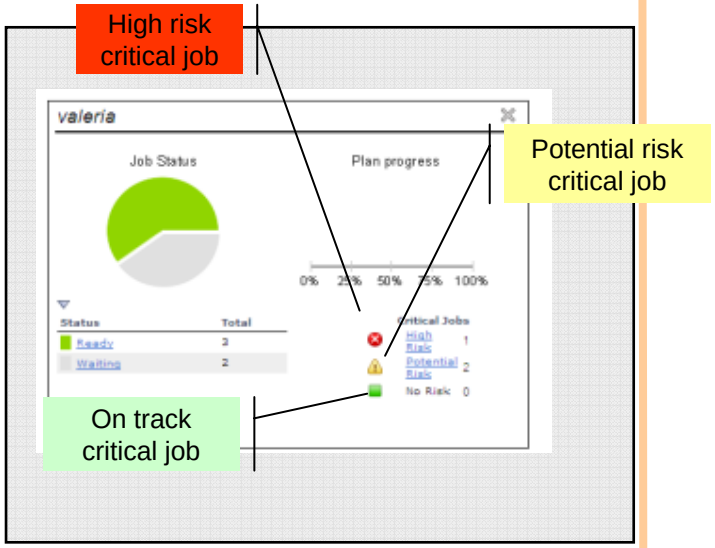
★***Highly standardized rights and user definitions***



Workload Automation within Cloud will be key capability to manage and achieve SLAs

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

- Service Levels are an integral part of quality, supported since TWS 8.5
- Effective monitoring through dashboard of critical points, and dynamic views of progresses to critical milestones
- Unique leveraging of **WLM integration for TWS for z/OS** to accelerate the execution of critical workloads



Business benefits

★ ***Awareness of different level of importance of workloads through automated policies***

★ ***Meet your Service Level Agreements reducing the need for human intervention to a minimum level***

★ ***Mostly automated calculation***

Proofpoints – Customer quotes

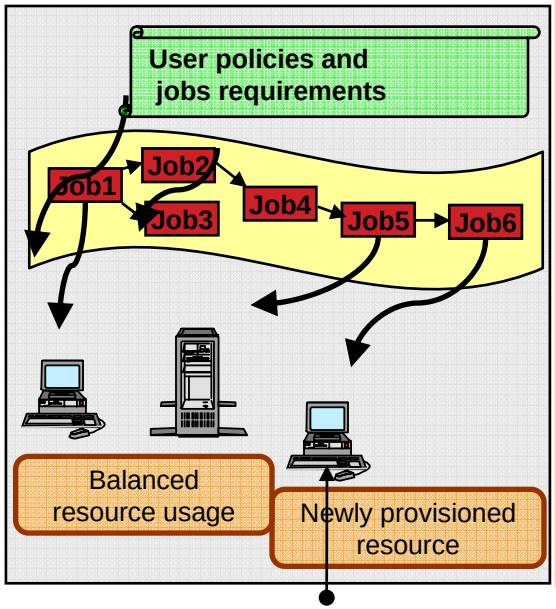
A Spanish Bank has improved the efficiency of its batch jobs, saving time and resources. The Critical Path management gives the company tighter control over batch jobs, and it is able to process time deviations without interruption.

Share resources across heterogeneous platforms with dynamic scheduling

Improved virtualization across workloads with brokering technology

- Policy-based IT resource utilization and optimization defined through new pools
- TWA provides High Availability through job routing, allows building systems immune to cascade effects (like the Amazon Outage)

- Actionable sharing in large data centers
- Automatic provisioning of new machines
- Automatically adapt workload execution to IT changes



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

Automating workload management and monitoring with new *Tivoli Workload Scheduler v8.6*

- **Flexible end-to-end workload automation**
  - Consolidate environments from any end
  - Improved availability with easier synchronization across heterogeneous environments
  - Increased productivity by driving Mainframe jobs from distributed platform
- **Cloud Workload Automation**
  - Provisioning of ready-to-use environments
- **Batch Modernization**
  - Expand batch into hybrid environments with new extensible application framework
  - Decrease hardware usage by offloading batch workload to high speed specialty processors
- **Improved Application Availability**
  - Automatic retrieval of job log for jobs in error with automatic Job Restart and Cleanup
  - Enhanced ISPF panels for easy navigation