



SmartCloud Workload Automation

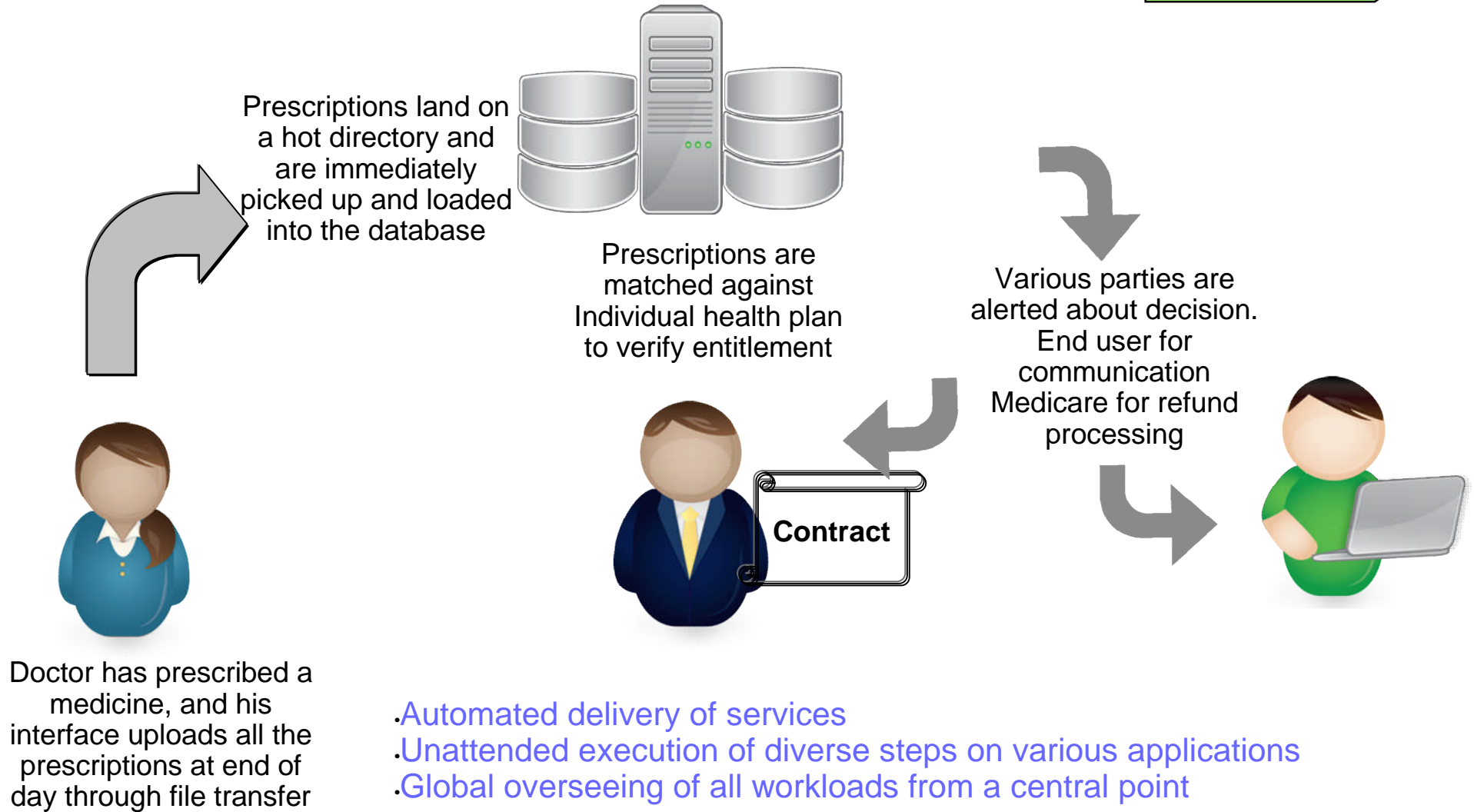
Unattended execution in the Cloud



A more precise definition of workload automation

- Automation is everywhere, in many forms and shape.
- Automation at the infrastructure level is frequently called Runbook
 - Runbook is about how to push a button and automate a sequence of 30 steps
- Workload Automation exists mostly at the application level, somewhat at infrastructure
 - It is about launching flows and sequences without any manual intervention
- Unattended automation is a culture and customers progress along maturity of that culture
 - If customers do not have an Unattended culture, IBM must explain it to them
 - If customers do have an Unattended culture, IBM does not have to explain, but in most of the cases there will be a competitor in place (the one who explained initially)

Use Case SCWA: From Doctor to Medicare authorisation Infrastructure

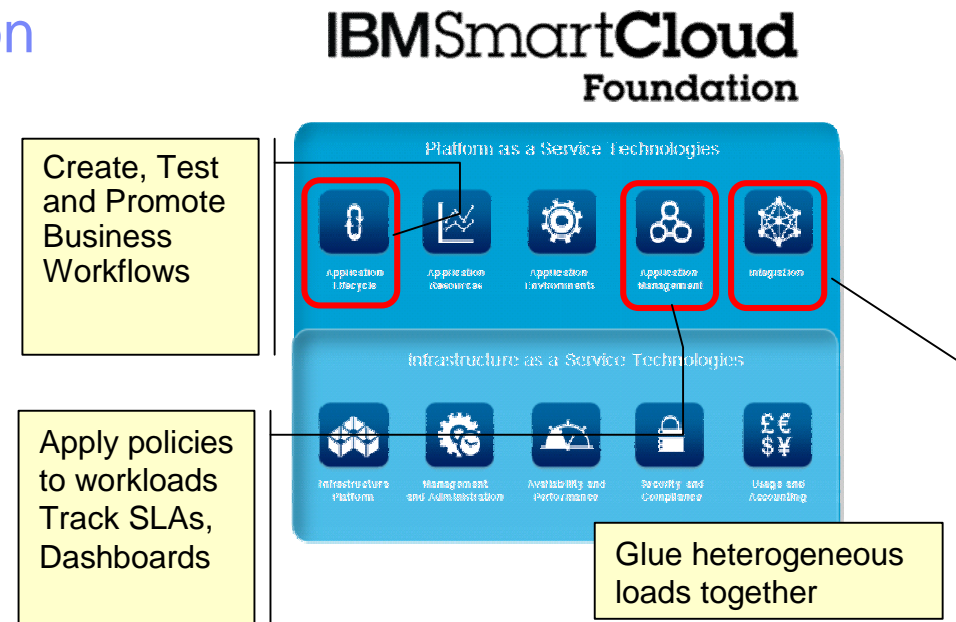


SmartCloud Workload Automation

- The SmartCloud portfolio spans all levels of cloud. Most of “SmartCloud” products are in the IaaS part.
- By bringing the principles of Unattended Workload Automation to the Cloud, SmartCloud Workload Automation also plays a role in the application layer (PaaS)

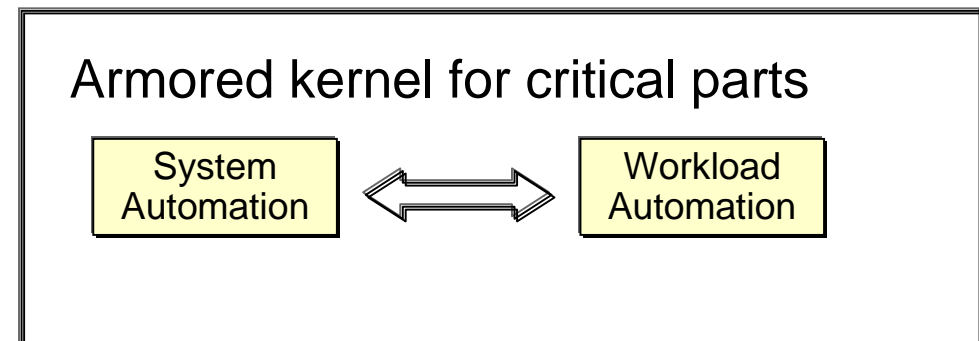
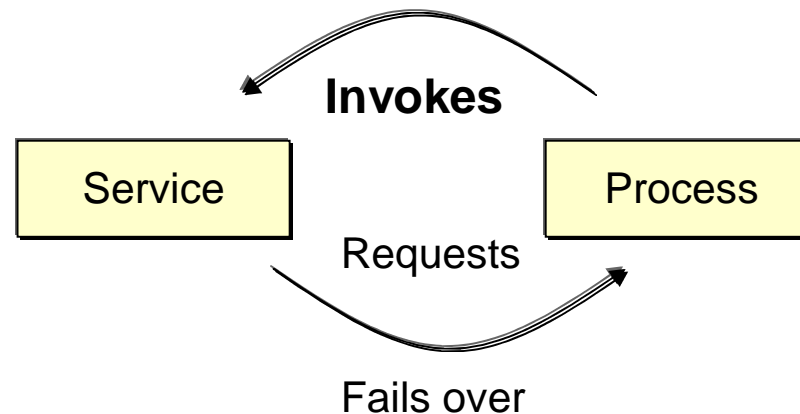
The important points are to

- Offer a quick vertical integration between the layers of cloud, from application to infrastructural.
- Use Cloud flexibility to serve Business SLAs
- Provide a Simple Self-Service interface to present unattended assets as a service catalog.
- Price per Job since infrastructure is totally virtual and flexible.



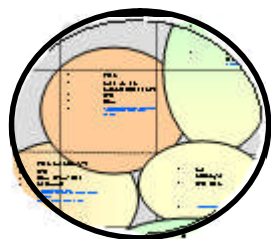
Bring the culture of Unattended – What does it mean?

- Not easy to have nobody in the Data Center
- Unattended means things will run at any cost.
- Both Services and Processes are equally critical and must be jointly supported.
- System and Workload automation solution form a building block at the heart of a guarantee system.
- A global solution with the needed power to accommodate customer situation



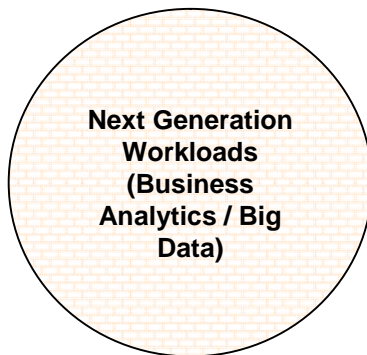
The wider perspective on Workload Automation

What customer are doing today for most critical workloads, expanded to new and wider domains.

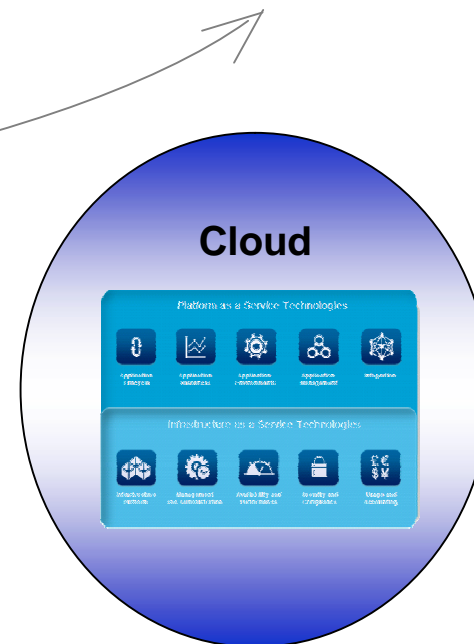


Workload Scheduler

Moving Scheduler to a central automation position provides unmatched customer value



- Culture of Unattended Automation (vs human-based Business Processes)
- Support for new and emerging workloads
- Workload automation as a platform to integrate heterogeneous applications
- Content out-of-the-box



- Opportunity to reduce application management cost
- Cloud saves costs for WA resources, and environment preparation
- Platform for optimization by linking the workload aware processes with workload aware environment definitions

Expand Workload Automation into Business Analytics

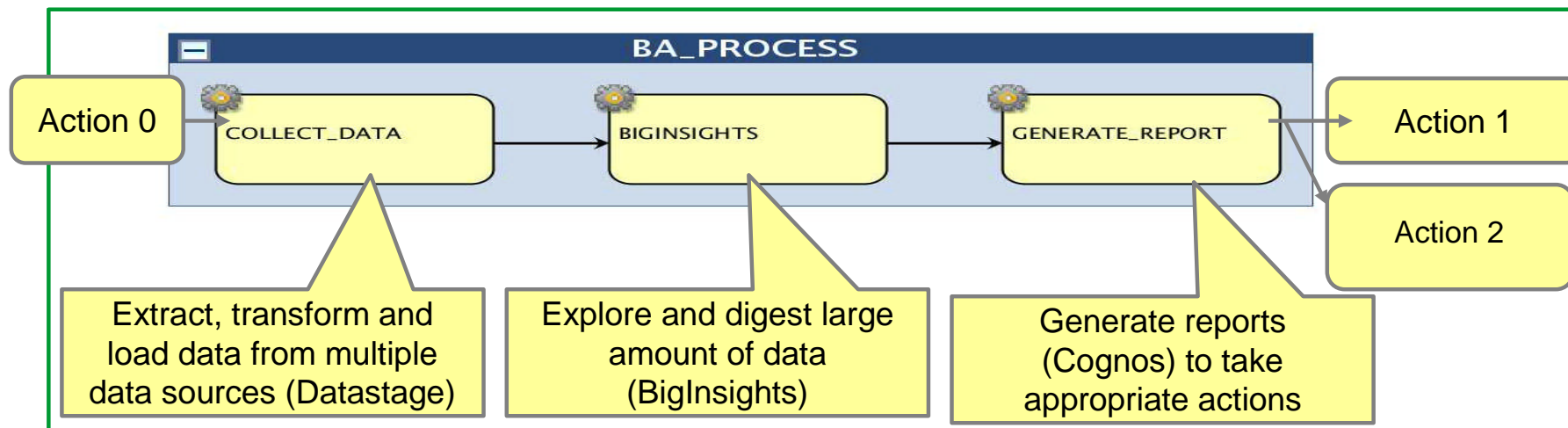
- Business Analytics is a large market that will require a huge increment of computing power in the coming years.
- BA is made out of several architectures, dedicated appliances, various applications for processing and visualisation.

IBM proposal is to support (as of 2Q 2012)

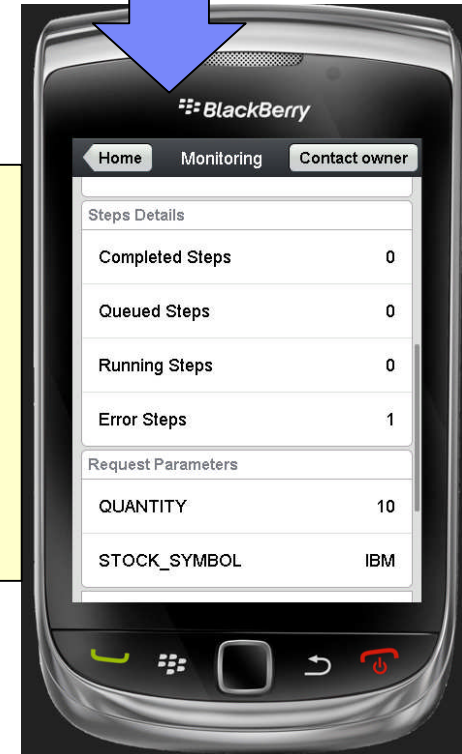
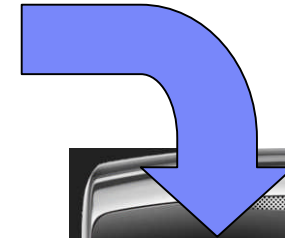
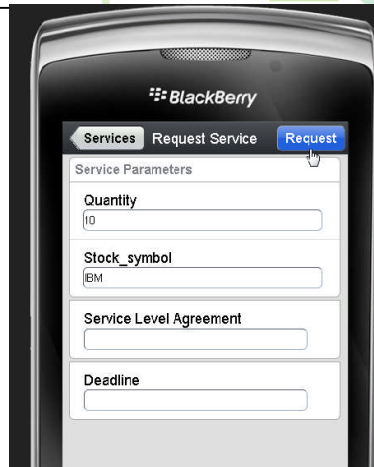
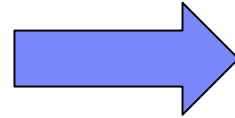
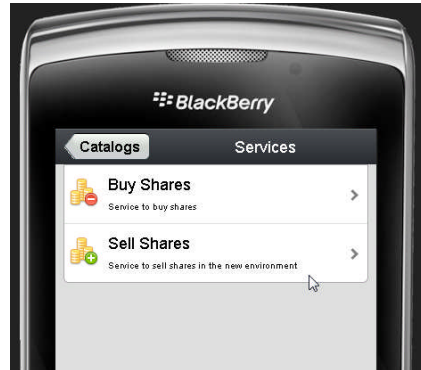
- IBM's Infosphere Datastage application for ETLs
- IBM's Cognos application to produce reports automatically
- IBM's Big Data component Big Insights to execute Map-Reduce calculations
- Informatica Power Center workloads for ETLs

Expand Workload Automation into Business Analytics: Scenarios

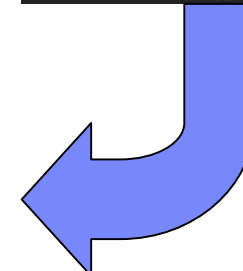
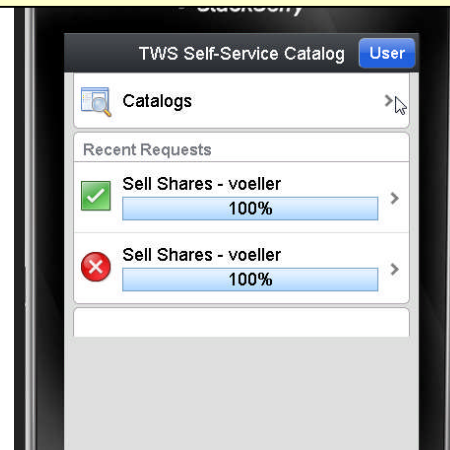
- Solve the problem of introduction of bits of BA into a consolidated process
 - Controlled introduction in a standardised manner
- Connect silos of incompatible applications
- Step into the “Operational” use of BA vs current “Curiosity” use
- Create assets of standard and authorised operations
- Link the request of BA processing with the available IT processing power and its (Cloud) flexibility.



Cloud and Self Service



- Simple process controlled by the Business User
- Overview of personal requests execution
- Simple path to ask for help to the Asset Owner
- Mobile device, or regular browser access
- Tuning interface to prepare catalogue and access rights



Per-Job Pricing: independence from the infrastructure

Very simple principle


- Customer needs to run jobs to provide value
- Jobs are counted
- License fee is measured against the number of jobs
- Environment size is irrelevant
- Complexity of definitions is irrelevant
- Price level between 4 and 8 USD per monthly job.
- Example: run 10 jobs a month, all year round costs 40-80 USD initially, then about 20% per yr.



Creating Workload automation environments on the fly

Improved cloud management with automated provisioning and configuration

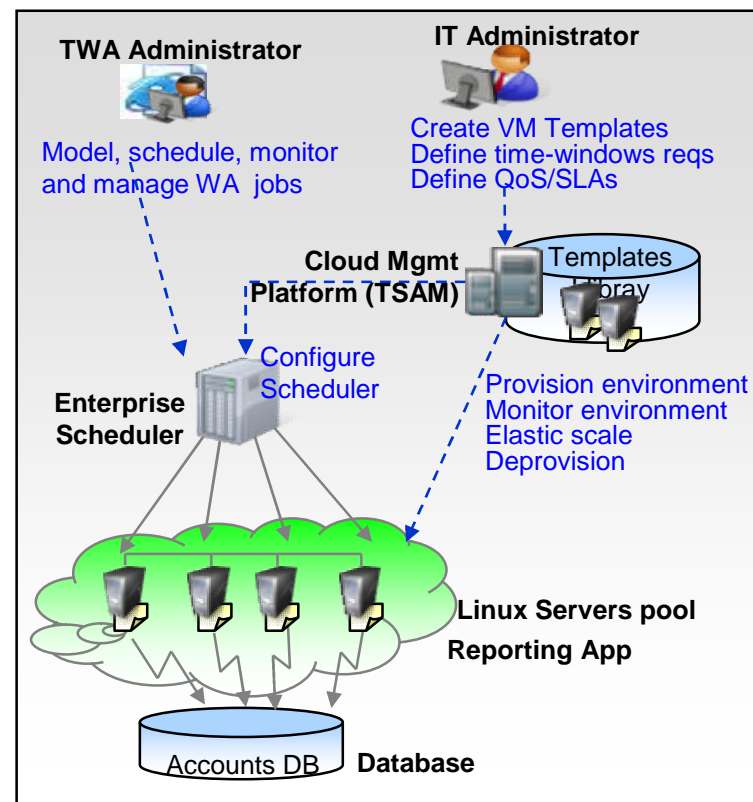
- *Workload Execution environment* – Need for report-generating server farm for month-end.
- *Elastic scaling* – Tight SLAs with business penalties need to adjust the environment and avoid any miss

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

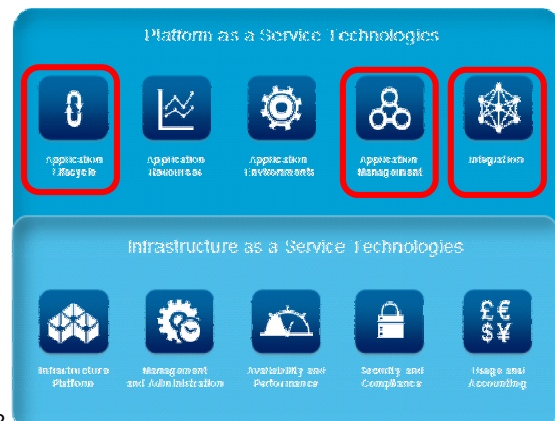
- ★ *Minutes to bring up a complete Workload Environment*
- ★ *Highly standardized rights and user definitions*



Business Challenges:

- Improve Service Level Agreements, automate operations and reduce costs.
- Monitor and measure the impact of workloads against business service delivery.
- Filter and prioritize critical events from a flood of system-wide events.
- Ensure business priorities to get the right attention, and speed their implementation time.

IBM SmartCloud Foundation



Reduce the complexity of Cloud delivery and image management

Differentiating Capabilities

- Explicit SLA handling across platforms
- Take in account historical metrics and indicators when forecasting expected completion of tasks
- Free mix of Applicative and Infrastructural actions
- Remedial actions and Automatic Escalation
- Proactive alerting of users about potentially risk conditions
- Drive without distinction from z/OS or Dist

Where to go for more information?

- Have a look at some product demos
 - https://www.ibm.com/services/forms/signup.do?source=swg-spsm-tiv-bsm-dm&S_PKG=IBM-Tivoli-Workload-Automation
- Tour the Best Practice and additional documentation page for a more practical feeling
 - <https://www.ibm.com/developerworks/mydeveloperworks/wikis/home?lang=en#/wiki/Tivoli%20Workload%20Scheduler/page/Home>
- Product home page
 - <http://www-01.ibm.com/software/tivoli/products/workloadautomation/>

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