Automation of various data center operations and cloud operation tasks as operations flows

By automating the operation tasks that used to be performed manually according to an operation procedure manual, FUJITSU Software Systemwalker Runbook Automation enables to reduce the load on data center operations and improve task quality at the same time. A secure, guaranteed service is also provided for environments that perform cloud services through automated data center operations.

### Main features

**Automated Operation Process**
- Automates operation tasks for server/OS/middleware operations, as well as for tasks that involve human judgment or confirmation
- Standardizes tasks where individual expertise was previously required (e.g. diagnostic, analysis, recovery)
- Guarantees execution using a calendar schedule

**CMDB (Configuration Management Data Base) linkage**
- Makes operations independent from a physical or virtual environment

**Efficient process creation environment**
- Multiple operation components and templates
- Drag & drop development and GUI debugging

### Benefits

- Reduces operation task load
- Removes the need for individual expertise and improves the quality of data center operations
- Enables flexible operations that meet the customer’s operation requirements
- Supports large-scale cloud environments
- Enables easy creation of Automated Operation Process
- Make it easy to handle multiple processing targets
**Topics**

**Reduced data center operation task load**

**Automation of the daily tasks that are usually performed by referring to the procedure manual**

In data center operations, a myriad of tasks are performed, such as server installations and system monitoring. Before, these tasks were performed manually according to an operation procedure manual.

In FUJITSU Software Systemwalker Runbook Automation, an “Automated Operation Process (operations flow)” can be created not only for server/OS/middleware operations (e.g. power control and file transfer, service startup/stop), but also for tasks that involve human judgment or confirmation. By executing the "Automated Operation Process" that was created, operation tasks can be automated and the operation task load can be reduced.

**Support for virtualization (cloud) and large-scale environments**

**Operations that do not depend on a physical or virtual environment**

The "Automated Operation Process" can be created using linkage with CMDB (Configuration Management Data Base). There is no need to be aware of the physical or virtual environment of the data center. Operations are possible without modifying the "Automated Operation Process", even if a physical server or virtual server is added to the data center.

**Improved operation quality using the "Automated Operation Process"**

**Standardized tasks that remove the need for individual expertise**

By using the "Automated Operation Process", tasks where individual expertise was previously required, for example diagnostic, analysis, or recovery tasks following the occurrence of a problem, can now be standardized to improve the quality of data center operations.

**Guaranteed execution using a calendar schedule**

For the "Automated Operation Process", in addition to automation of the task procedure, a monthly operation schedule can also be automated using a calendar schedule. Guaranteed execution using the schedule operation, and flexible operations that meet the customer’s operation requirements, are possible.
Creation of efficient Automated Operation Processes

Development/debug using a GUI
The "Automated Operation Process" can be easily created using multiple "operation components" and "templates". This operation can be achieved simply by using drag & drop, so the "Automated Operation Process" can be easily created by positioning the "operation component" that is categorized by task.

By creating specific components and updating the input form windows, for example, it is also easy to create the best "Automated Operation Process" for the customer's own environment. Debug of the created "Automated Operation Process" can be performed using a GUI while also checking the flow and changes in variables.

An "operation component" group that makes creation of the "Automated Operation Process" easy
For the "operation component", an operation component that follows the operations flow (e.g. order to stop the server/standby/confirm stop) is provided. Additionally, group processing components and components that perform repeat processing are provided for the handling of multiple targets. Using these types of components, multiple processing targets can be handled easily.

Easy linkage between operation components
For data center operations, functionality is provided that processes server installations and system "operation component" output information. For example, processing that downloads the ipconfig command results and extracts only the IP addresses can also easily be created without the use of a program. This type of extracted information can also be used as the input for the next "operation component".
## Technical details

### Management server

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Operating Systems</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU: Intel® Xeon® 3 GHz or higher</td>
<td>Microsoft* Windows Server® 2012</td>
<td>CPU: Intel® Xeon® 3 GHz or higher</td>
</tr>
<tr>
<td>Memory (excluding OS): 4 GB or more</td>
<td>Microsoft* Windows Small Business Server 2011 Essentials</td>
<td>Memory (excluding OS): 4 GB or more</td>
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<tr>
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<td>Microsoft* Windows Server® 2008 R2</td>
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<td></td>
<td>Microsoft* Windows Server® 2008</td>
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<td>Microsoft* Windows Server® 2003 R2</td>
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<tr>
<td></td>
<td>Red Hat Enterprise Linux 6</td>
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<tr>
<td></td>
<td>Red Hat Enterprise Linux 5</td>
<td>Red Hat Enterprise Linux 5</td>
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</tbody>
</table>

**Notes**
The following server virtualization environments are supported:

- VMware vSphere 5
- VMware vSphere 4
- Microsoft Hyper-V 2.0
- Red Hat Enterprise Linux 6 KVM
- Red Hat Enterprise Linux 5 Xen

### Managed Server (Relay / Linked / Business Server)

<table>
<thead>
<tr>
<th>Operating Systems</th>
<th>Operating Systems</th>
<th>Microsoft</th>
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<tbody>
<tr>
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</tbody>
</table>

**Oracle**

| Oracle | Oracle Solaris™ 11 1 | Oracle Solaris™ 10 1 |

**Notes**
The following server virtualization environments are supported:

- VMware vSphere 5
- VMware vSphere 4
- Microsoft Hyper-V 2.0
- Red Hat Enterprise Linux 6 KVM
- Red Hat Enterprise Linux 5 Xen

### Managed Node

**Notes**
Managed nodes are devices whose IP address on the network can be identified, and which can be operated on using remote access protocols (such as telnet, ftp, and ssh).

### Development computer

<table>
<thead>
<tr>
<th>Operating Systems</th>
<th>Operating Systems</th>
<th>Microsoft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows® 8 Pro, Enterprise</td>
<td>Windows® 8 Pro, Enterprise</td>
<td>Windows® 8 Pro, Enterprise</td>
</tr>
<tr>
<td>Windows® 7 Professional, Enterprise, Ultimate</td>
<td>Windows® 7 Professional, Enterprise, Ultimate</td>
<td>Windows® 7 Professional, Enterprise, Ultimate</td>
</tr>
<tr>
<td>Microsoft* Windows® XP Professional</td>
<td>Microsoft* Windows® XP Professional</td>
<td>Microsoft* Windows® XP Professional</td>
</tr>
</tbody>
</table>
1) Only the Business Server is supported
2) Only Internet Explorer 10 present in Windows Server 2012 or Windows(R) 8 is supported.
More information

**Fujitsu platform solutions**
In addition to FUJITSU Software Systemwalker Runbook Automation, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

**Dynamic Infrastructures**
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

**Computing products**
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- PRIMERGY: Industrial standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system

**Software**
www.fujitsu.com/software/
- ServerView Resource Orchestrator: Unified cloud management software
- Systemwalker: System management software
- Interstage: Application infrastructure software

**More information**
To learn more about FUJITSU Software Systemwalker Runbook Automation, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website. www.fujitsu.com/systemwalker/

**Fujitsu green policy innovation**
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