



indra



Digital Business Automation

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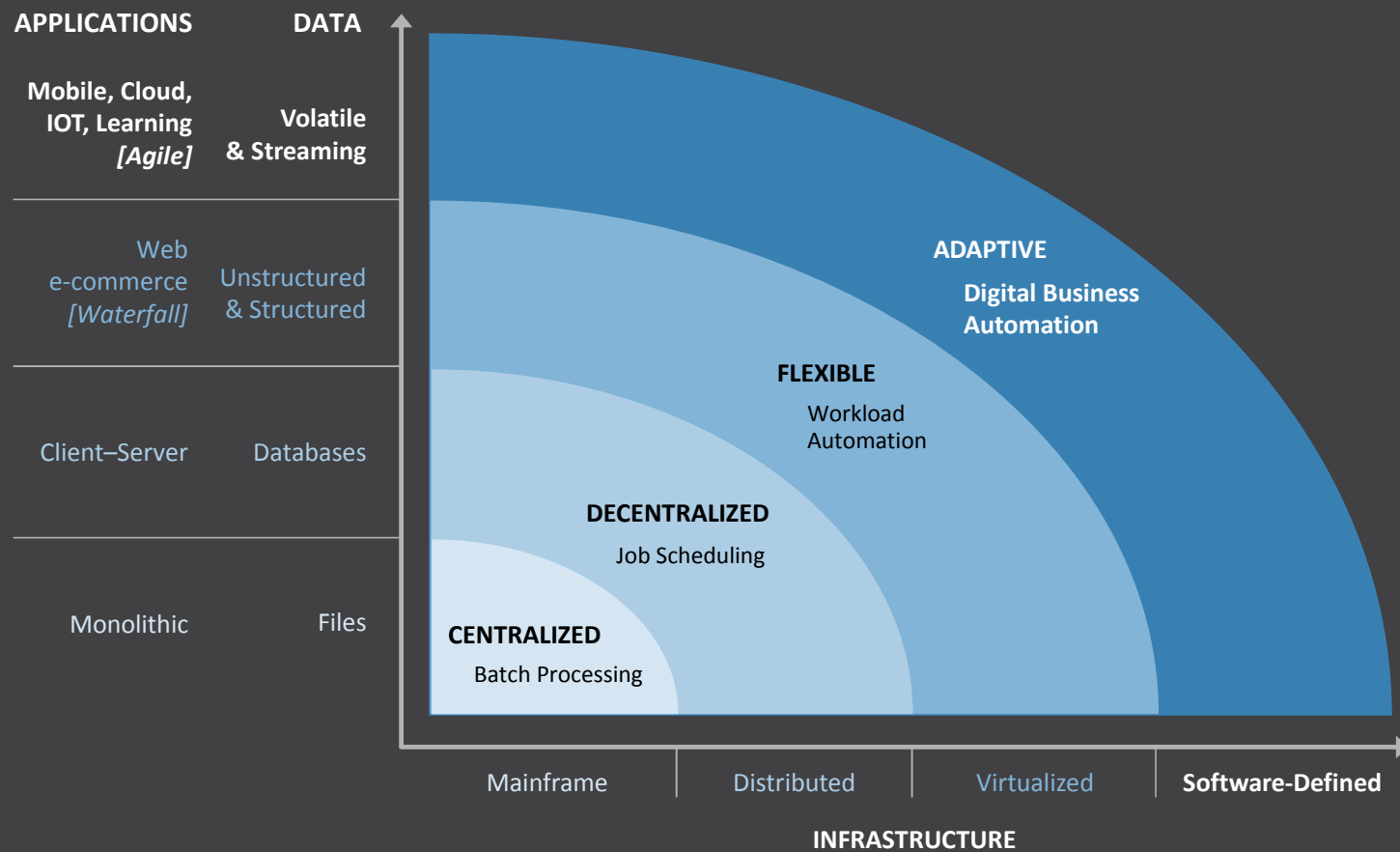
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BMC Software

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#control-m #automation-api

Las necesidades de **automatización** van cambiando...



Los tres retos de la automatización de negocios digitales

**Infraestructuras
Diversas**



**Disparidad de
datos**

Aplicaciones Agiles

Control-M Managed File Transfer

*Gestión integrada de las
transferencias de ficheros*

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Control-M Managed File Transfer



**Punto Único
de Control**



**Panel de
Control
y Búsquedas**



**Gestión
Integrada**



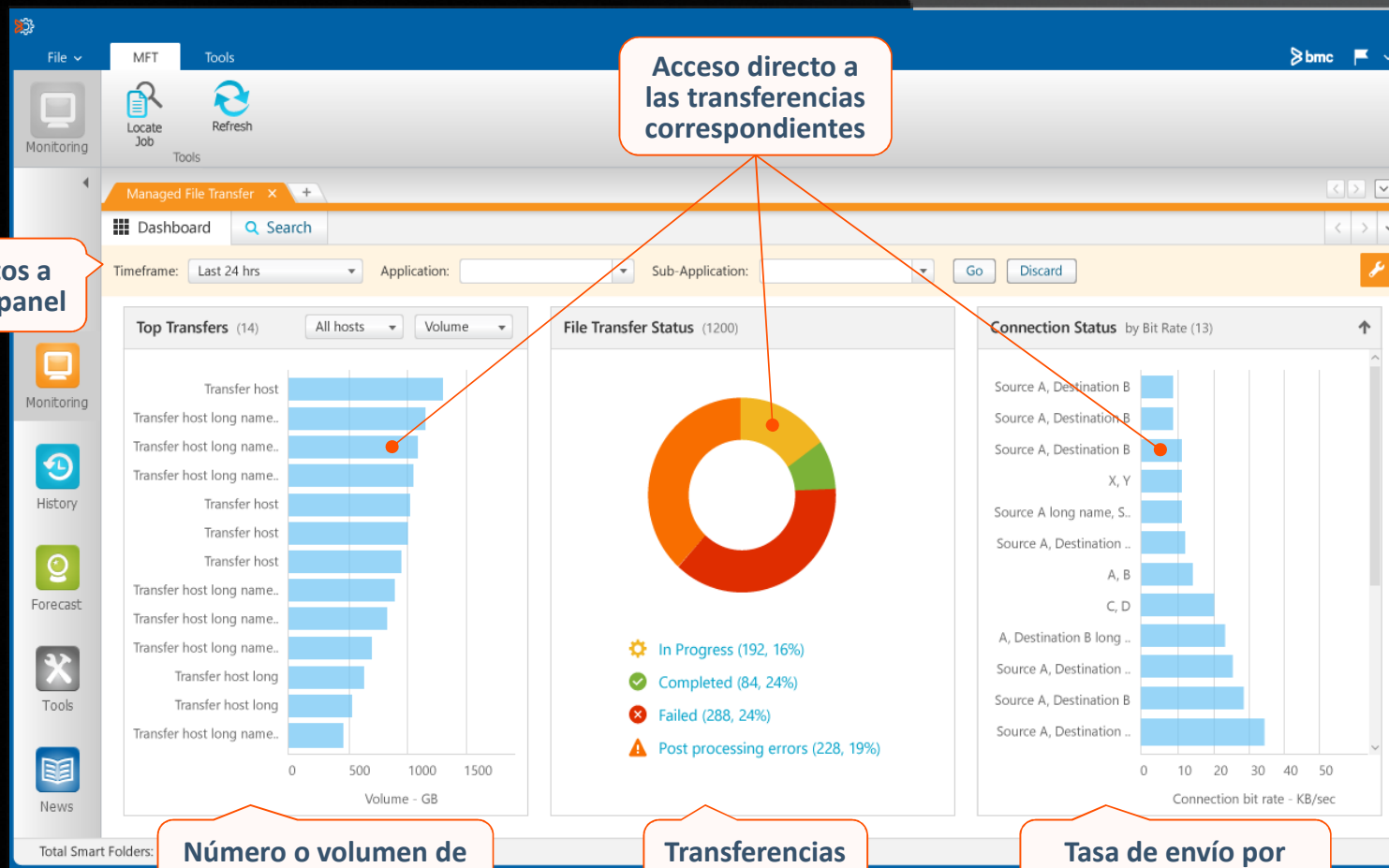
**Servicio
FTP/SFTP
Integrado**



**Despliegue
Automático
en Agentes**



*Monitorización a nivel de fichero, desde el mismo interface
con el que gestiona el resto de sus procesos batch de negocio*





Monitoring

Forecast

Información de la causa de fallo

File Name: MFT1_File_00cinco.xml
Status:  Failed
Source file 'C:\ftp\local\MFT1_File_00cinco.xml' doesn't exist

Transfer Job#001001

Local Demo - Control-M Workload Automation

File Viewpoint Tools View Analysis

Control-M Folder Jobs

Map List Rearrange Expand All Collapse Step In Step Out Dependencies Bring Into View Now Show Grid Lines Auto-scroll Into View Show / Hide Time Toggle Bookmark Previous Bookmark Next Bookmark Bookmarks List

Monitoring Planning Monitoring History Forecast Tools News

Test Jobs Managed File Transfer

WCTM9

Test_MFT1

Extract from DB
Gen Details Rep
Notify Sales
Sales App Update
Stock update
Transfer_Files

WCTM9

Test_MFT1

Extract from DB
20:38 - 20:39
Run query on DB

Transfer_Files
20:39 - 20:39
WCTM9 > CENTOS7

Gen Details Rep
20:46 - 20:51
Gen Report via BIRT

Sales App Update
20:46 - 20:51
Send data to SalesView

Notify Sales
20:51 - 20:56
Distribute emails

Stock update
20:56 - 21:01
Invoke Warehouse App

¿A qué job corresponde el fichero? ¿A qué otros jobs va a afectar?

Transfer_Files

Synopsis | Waiting Info | Script | Log | Belongs To | Output | Statistics | Documentation

Job Type: AFT
Job Name: Transfer_Files
Description: WCTM9 > CENTOS7

What:

Source: Local(Windows): C:\CTM\Temp\OUT_DM*
Destination: centos7(Unix): /home/controlm/file_transfers/
Type: Binary
Operation: Transfer

Where

Connection Profile: WCTM9-CENTOS7
Host1: Local(Windows)
Host2: centos7(Unix)
Host: wctm9
Control-M Server: WCTM9

Who

User1: controlm
User2: controlm

Run Information

Order ID: 00d2e
Status: Ended Not OK
Order Date: 22/10/2017
Start Time: 22/10/2017 20:39:03
End Time: 22/10/2017 20:39:07
Execution Times: 20:41 - 20:46
Number of Runs: 00001

Additional Information

Parent Folder: Test_MFT1
Application: Test
Sub Application:

Total Smart Folders: 0 Total Jobs: 6

99%

Acceso vía web desde Control-M Self Service

Control-M Self Service | Jobs & Services | Managed File Transfer

Search

Results for: a, Time frame: Last 48 hours (175) Last updated: 08/03/2016 6:09:32 PM

File Name	Status	Progress	Transferre...	Size	Source	Destination	Job Name	Application	Start Time	End time	Duration	Folder
PANFT.9.0.00...ws_x86_64.exe	In progress	59 %	1.02 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		6:07:02 PM 08...		00:02:01	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		6:07:02 PM 08...	6:08:12 PM 08...	00:01:10	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		6:03:02 PM 08...	6:04:18 PM 08...	00:01:15	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		6:00:02 PM 08...	6:04:19 PM 08...	00:04:17	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:59:02 PM 08...	6:00:08 PM 08...	00:01:06	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:55:02 PM 08...	5:56:46 PM 08...	00:01:43	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:54:01 PM 08...	5:57:23 PM 08...	00:03:21	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:52:02 PM 08...	5:52:57 PM 08...	00:00:54	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:48:02 PM 08...	5:51:52 PM 08...	00:03:49	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:48:02 PM 08...	5:49:00 PM 08...	00:00:57	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:44:02 PM 08...	5:45:10 PM 08...	00:01:08	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:42:02 PM 08...	5:45:35 PM 08...	00:03:32	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:40:02 PM 08...	5:41:06 PM 08...	00:01:03	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:36:02 PM 08...	5:37:04 PM 08...	00:01:02	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:36:02 PM 08...	5:39:31 PM 08...	00:03:28	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:32:02 PM 08...	5:33:08 PM 08...	00:01:05	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:30:02 PM 08...	5:33:33 PM 08...	00:03:30	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:28:02 PM 08...	5:29:11 PM 08...	00:01:09	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:24:03 PM 08...	5:25:55 PM 08...	00:01:52	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:22:02 PM 08...	5:27:14 PM 08...	00:05:11	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:20:02 PM 08...	5:21:28 PM 08...	00:01:25	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:16:02 PM 08...	5:17:17 PM 08...	00:01:15	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:16:02 PM 08...	5:19:45 PM 08...	00:03:43	EngageFtFolder
PAAIT.8.0.00.200_EM.exe	Completed	100 %	466.68 MB	466.68 MB	Local: win-m9...	ec2-54-201-16...	RtLarge...Cyclic2		5:12:02 PM 08...	5:13:10 PM 08...	00:01:07	EngageFtFolder
PANFT.9.0.00...ws_x86_64.exe	Completed	100 %	1.71 GB	1.71 GB	Local: win-m9...	ec2-54-201-16...	RtLarge...eCyclic		5:10:02 PM 08...	5:13:51 PM 08...	00:03:48	EngageFtFolder

General

Job Output

File Name: PANFT.9.0.00.300_windows_x86_64.exe
Status: In progress
Remaining Time: 00:01:23
Source: Local: win-m966b2jcnr
Destination: ec2-54-201-160-230 us-west-2.compute.amazonaws.com

Job Name: RtLargeFile
Application: EngageFtFolder
Sub Application: WIN-M966B2JCNR
Folder: 0001k
Control-M Order ID: 0001k

Start Time: 6:07:02 PM 08/03/2016
End time: 6:07:02 PM 08/03/2016
Duration: 00:02:01
Connection Profile: LOCAL_AG+AW_SFTP_LX
Transferred Total: 1.02 GB / 1.71 GB

Bit Rate: 9 MB/s
MFT Host: win-m966b2jcnr
Source Path: C:\Installations\PANFT.9.0.00.300_windows_x86_64.exe
Source Protocol: Local
Destination Path: /home/cmagere/temp/PANFT.9.0.00.300_windows_x86_64.exe
Destination Protocol: SFTP
Integrity Check: Check Sum: Not Executed Destination File: Not Executed Bytes Transferred: Not Executed
Compressed: None
PGP encryption: No

Reduce el número de
tickets y llamadas a
Operación

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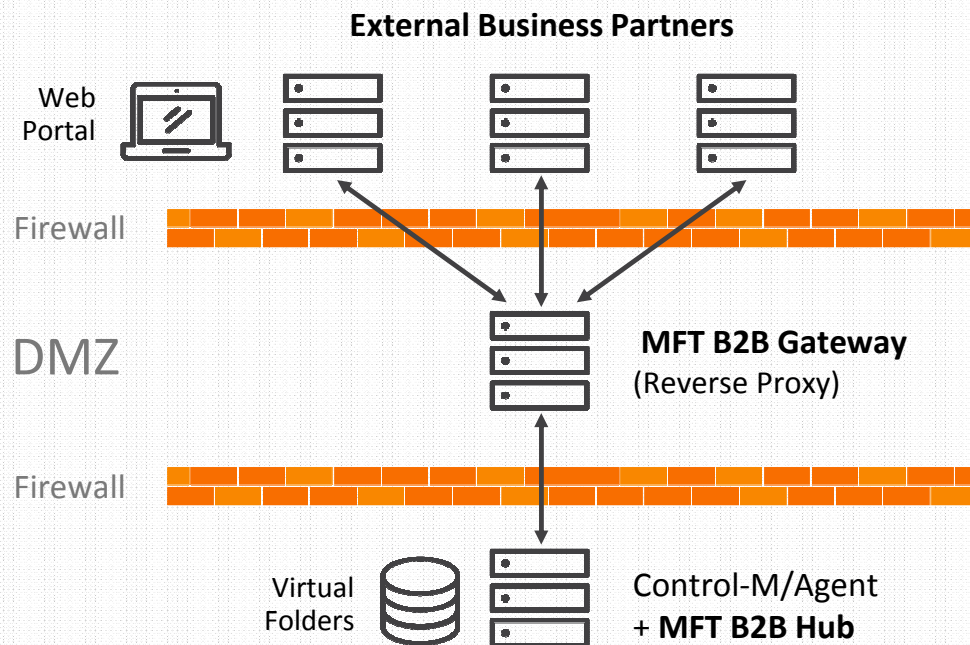
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MFT – Coming soon



- **Ability to send file(s) to multiple destinations from a single MFT job**
- **File search enhancements**
- **FIPS compliance**

MFT for Business-to-Business File Transfers



- Securely manage file transfers with external business partners
- Protocol Support: FTP, FTPS, SFTP, HTTPS
- Web portal for download/upload files to your virtual folder
- Virtual users/folders management

Control-M Automation API

*Integración de la automatización
batch en DevOps... y mucho más*

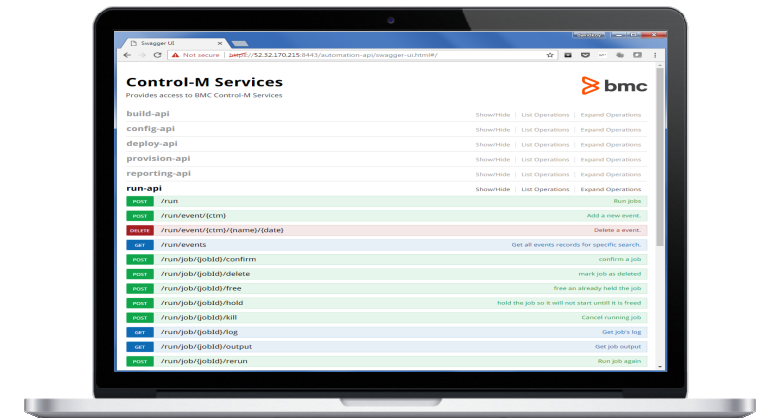
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Control-M Automation API

- Enfocado a **Desarrolladores e Ingenieros de DevOps**
- Permite crear los **jobs como código**, permitiendo un acceso a las capacidades de Control-M desde el mismo inicio del desarrollo de las aplicaciones
- Habilita la **automatización del ciclo de vida de los jobs**, así como el aprovisionamiento dinámico de los entornos de ejecución y otras múltiples funcionalidades



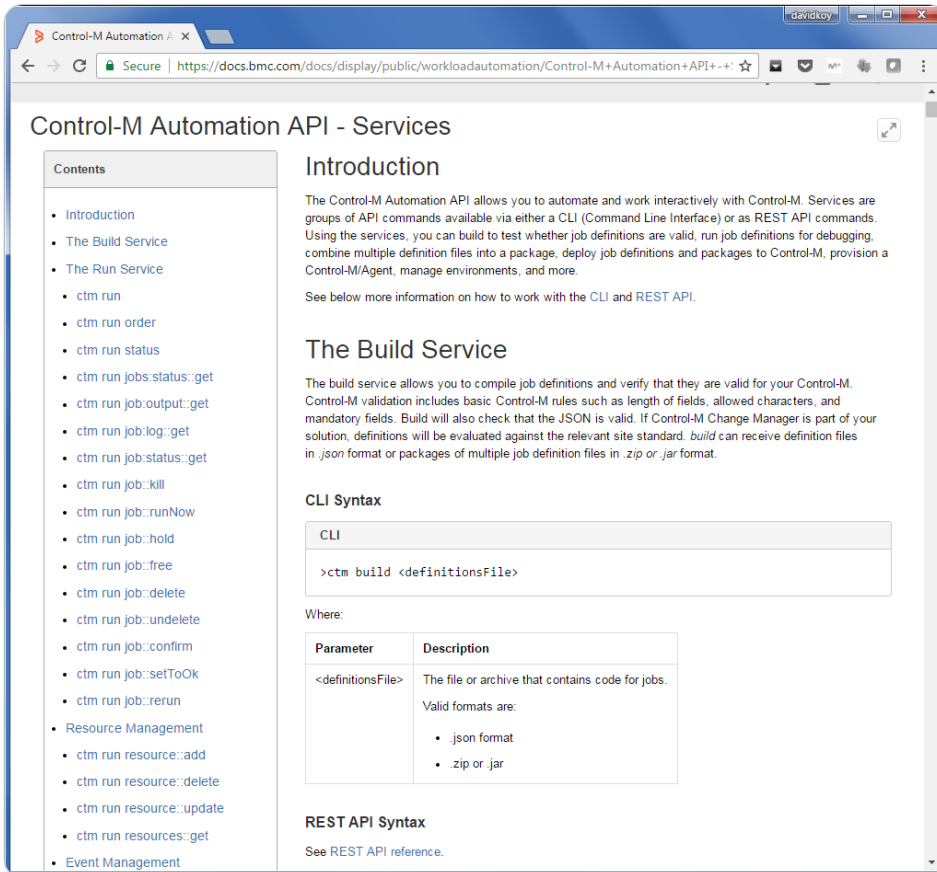
Control-M Automation API : Servicios

- **Compilar y validar definiciones de jobs**
 - En formato JSON
 - Validando sintaxis y errores en la definición
 - Validando reglas de nomenclatura
- **Desplegar jobs en Control-M**
 - Individualmente o en paquetes de definiciones
 - Exportar definiciones de jobs existentes
- **Ejecutar jobs**
 - Consultar detalles y estado
 - Mostrar el Log y Output del job
 - Acciones: Order, Hold, Free, Rerun, Kill, ...
- **Gestionar recursos y condiciones**
 - Añadir/eliminar/modificar recursos
 - Mostrar/añadir/eliminar condiciones
- **Aprovisionar Agentes y Remote Hosts**
 - Descargar, instalar y registrar un Agente
 - Registrar Remote Hosts
 - Eliminar Agentes y Remote Hosts
 - Listar Agentes y Remote Hosts disponibles
 - Añadirlos y eliminarlos de un Host Group
 - Modificar parámetros de config. de un Agente



*En constante evolución
para nuevas necesidades*

Automation API : REST Services



The screenshot shows the 'Control-M Automation API - Services' page. It features a 'Contents' sidebar with a list of topics including Introduction, The Build Service, The Run Service, and Event Management. The main content area is titled 'Introduction' and describes the API's purpose. Below this, the 'The Build Service' section explains how to compile job definitions. A 'CLI Syntax' section shows the command `>ctm build <definitionsFile>`. A table defines the parameter `<definitionsFile>` as 'The file or archive that contains code for jobs.' and lists valid formats: `.json` and `.zip` or `.jar`. The 'REST API Syntax' section refers to a REST API reference.

Control-M Automation API - Services

Contents

- Introduction
- The Build Service
- The Run Service
 - ctm run
 - ctm run order
 - ctm run status
 - ctm run jobs:status::get
 - ctm run job:output::get
 - ctm run job:log::get
 - ctm run job:status::get
 - ctm run job:kill
 - ctm run job::runNow
 - ctm run job::hold
 - ctm run job::free
 - ctm run job::delete
 - ctm run job::undelete
 - ctm run job::confirm
 - ctm run job::setToOk
 - ctm run job::rerun
- Resource Management
 - ctm run resource::add
 - ctm run resource::delete
 - ctm run resource::update
 - ctm run resources::get
- Event Management

Introduction

The Control-M Automation API allows you to automate and work interactively with Control-M. Services are groups of API commands available via either a CLI (Command Line Interface) or as REST API commands. Using the services, you can build to test whether job definitions are valid, run job definitions for debugging, combine multiple definition files into a package, deploy job definitions and packages to Control-M, provision a Control-M/Agent, manage environments, and more.

See below more information on how to work with the CLI and REST API.

The Build Service

The build service allows you to compile job definitions and verify that they are valid for your Control-M. Control-M validation includes basic Control-M rules such as length of fields, allowed characters, and mandatory fields. Build will also check that the JSON is valid. If Control-M Change Manager is part of your solution, definitions will be evaluated against the relevant site standard. *build* can receive definition files in *.json* format or packages of multiple job definition files in *.zip* or *.jar* format.

CLI Syntax

CLI

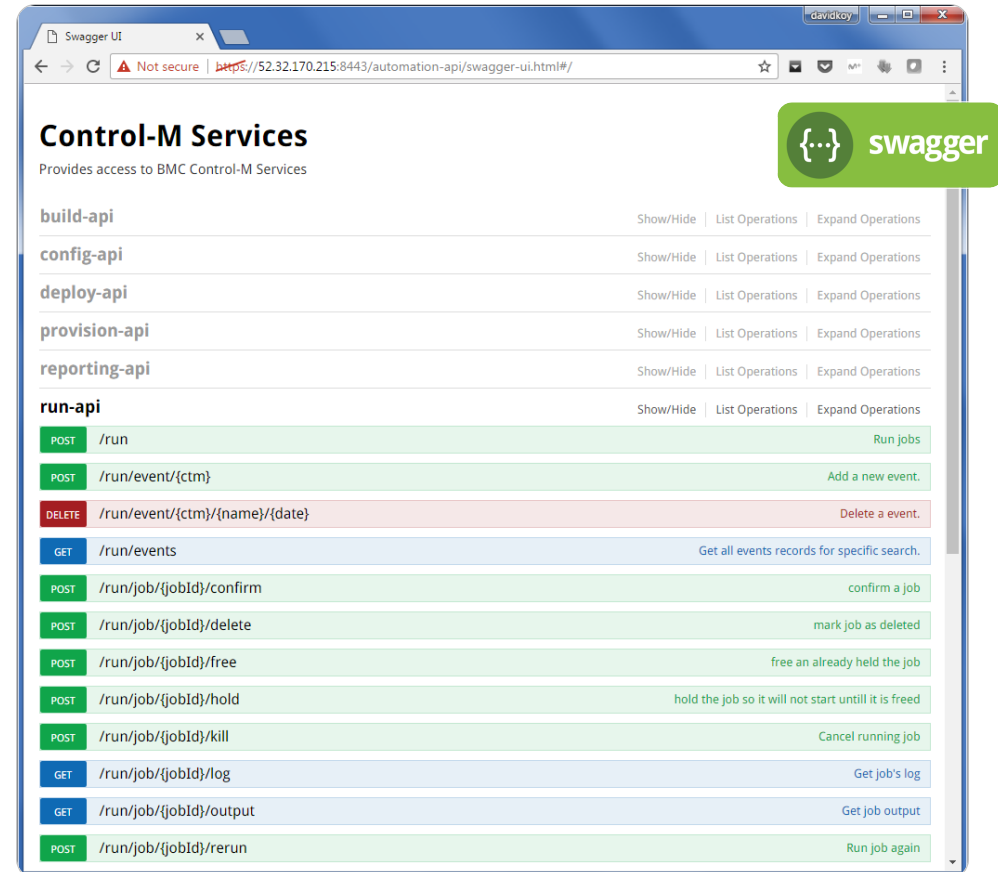
```
>ctm build <definitionsFile>
```

Where:

Parameter	Description
<definitionsFile>	The file or archive that contains code for jobs. Valid formats are: .json format .zip or .jar

REST API Syntax

See REST API reference.



The screenshot shows the 'Control-M Services' Swagger UI. It lists various API endpoints categorized by service: build-api, config-api, deploy-api, provision-api, reporting-api, and run-api. The 'run-api' section is expanded, showing a list of endpoints with their HTTP methods, paths, and descriptions. A green 'swagger' button is visible in the top right corner.

Control-M Services

Provides access to BMC Control-M Services

build-api

Show/Hide | List Operations | Expand Operations

config-api

Show/Hide | List Operations | Expand Operations

deploy-api

Show/Hide | List Operations | Expand Operations

provision-api

Show/Hide | List Operations | Expand Operations

reporting-api

Show/Hide | List Operations | Expand Operations

run-api

Show/Hide | List Operations | Expand Operations

Method	Path	Description
POST	/run	Run jobs
POST	/run/event/{ctm}	Add a new event.
DELETE	/run/event/{ctm}/{name}/{date}	Delete a event.
GET	/run/events	Get all events records for specific search.
POST	/run/job/{jobid}/confirm	confirm a job
POST	/run/job/{jobid}/delete	mark job as deleted
POST	/run/job/{jobid}/free	free an already held the job
POST	/run/job/{jobid}/hold	hold the job so it will not start untill it is freed
POST	/run/job/{jobid}/kill	Cancel running job
GET	/run/job/{jobid}/log	Get job's log
GET	/run/job/{jobid}/output	Get job output
POST	/run/job/{jobid}/rerun	Run job again

Automation API : Command Line

```
root@centos7:~  
-bash-4.2$ ctm  
help:  
help:   Display help for a given command  
help:   help [command]  
help:  
help:   Commands:  
help:     build           Compile definitions to verify they are valid for Control-M  
help:     config           Configure the Control-M environment  
help:     deploy           Submit definitions to Control-M  
help:     deployExperiment Submit definitions with promotionrules to Control-M  
help:     documentation    Get documentation  
help:     environment      Define and select the Control-M environment  
help:     local            Start and Stop local Development bench  
help:     package          Package a directory of definition files into a deployable archive  
help:     provision        Install Control-M components  
help:     run              Run and track Control-M jobs  
help:     samples          Manage data samples  
help:     session          Manually maintain Control-M user sessions  
help:  
help:   Options:  
help:     -h, --help      output usage information  
help:     -v, --version   output the application version  
-bash-4.2$
```

```
$ ctm build MyWorkflow.json  
  
$ ctm deploy MyWorkflow.json  
  
$ ctm run MyWorkflow.json  
  {"runId": "48ef-a434-1657530", [...]}  
  
$ ctm run status "48ef-a434-1657530"  
  
$ ctm run order <srv> MyFlow_01  
  
$ ctm run job::confirm <jobId>  
  
$ ctm run event::add <srv> <event>
```

Automation API : Jobs as Code

```
{
  "Defaults" : {
    "ControlmServer" : "WCTM9",
    "Application" : "Test",
    "SubApplication" : "API_Tests",
    "RunAs" : "controlm",
    "Host" : "wctm9",
  },
  "Job" : {
    "When" : {
      "Months" : ["1","2","3","4","5","10","11","12"],
      "WeekDays" : ["MON","TUE","WED","THU","FRI"],
      "FromTime" : "0900",
      "ToTime" : "0700"
    },
  },
  "API_Workflow" : {
    "Type" : "Folder",
    "Comment" : "Este job es una prueba de David",
    "API_Job_01" : {
      "Type" : "Job:Command",
      "Command" : "echo Este es mi primer job"
    },
    "API_Job_02" : {
      "Type" : "Job:Script",
      "FilePath" : "C:\\CTM\\Scripts",
      "FileName" : "mi_script.bat",
      "Variables": [
        {"SLEEP_TIME": "10"}
      ]
    },
  },
  "Flow" : {
    "Type" : "Flow",
    "Sequence" : ["API_Job_01", "API_Job_02"]
  },
}
```

- **Verificar que el código es válido**

```
$ ctm build samples/SampleFlow.json
```

- **Ejecutar los jobs**

```
$ ctm run samples/SampleFlow.json
```

```
"runId": "2d4a-e31d-48ef-a434-165753"
```

- **Comprobar su estado**

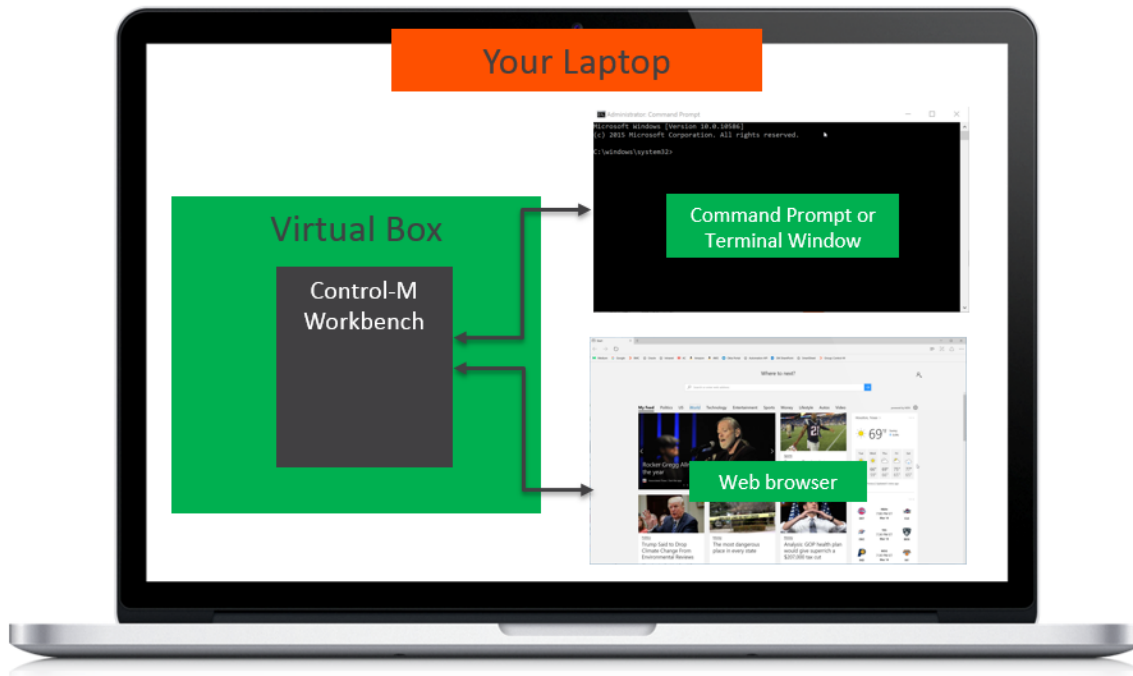
```
$ ctm run status "2d4a-e31d-48ef-a434-165753"
```

- **Desplegarlos a Control-M**

```
$ ctm deploy samples/SampleFlow.json
```

Control-M Workbench

Sandbox para desarrolladores que les permite realizar pruebas en sus PCs de las definiciones de jobs como código – desde el mismo inicio del proceso de desarrollo



- Máquina virtual que se ejecuta en el propio PC
- Interacción vía comandos o desde un navegador web
- Se pueden añadir servidores adicionales de pruebas (como Agentes o Remote Hosts) **al propio Workbench**

Automation API – Algunos casos de uso



Integrar la automatización en procesos de integración/despliegue continuo

- Definiciones de jobs en JSON integradas en los procesos existentes de CI/CD



Aprovisionamiento dinámico de los entornos de ejecución batch

- Máquinas virtuales, servidores en la nube, contenedores, ... inmediatamente listos para ejecutar jobs



Consulta del estado de jobs desde otras aplicaciones

- Acciones dependiendo del estado, integración en paneles de monitorización, etc



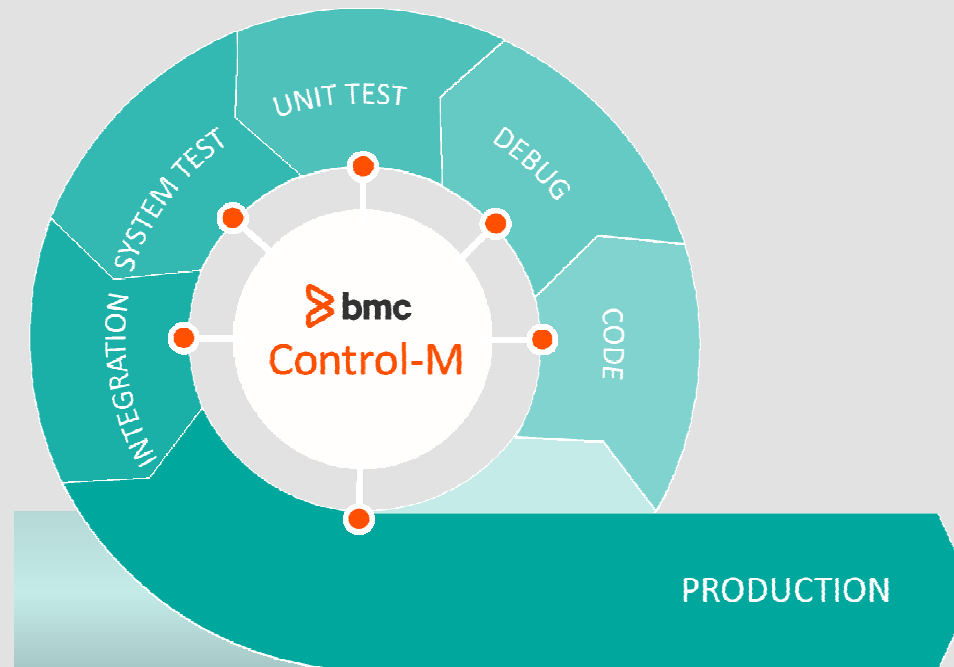
Creación automática de jobs desde otras aplicaciones

- Creación automática de las definiciones en JSON y despliegue a Control-M
- Creación simplificada de jobs

DEVOPS & SCHEDULING : El Problema



DEVOPS & SCHEDULING : La Solución



Definición de los jobs en formato JSON

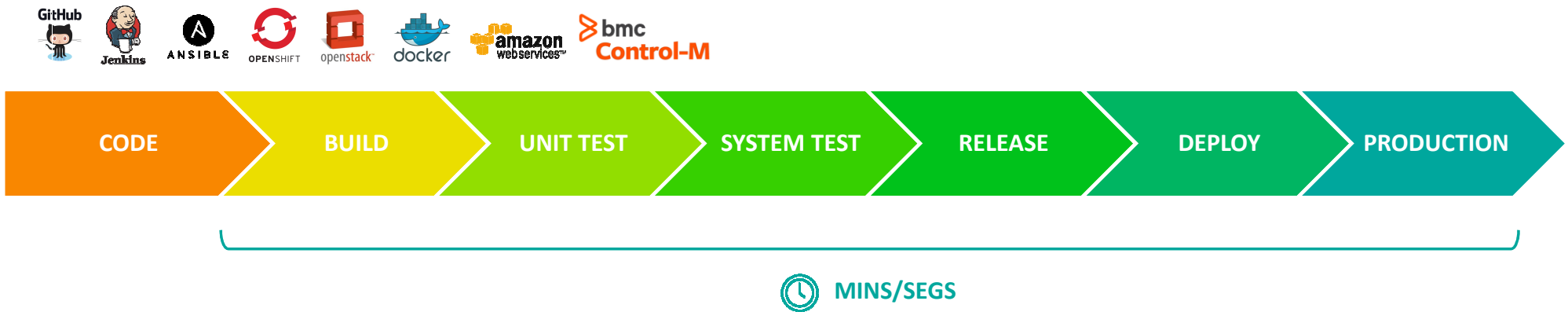
Envío de cambios a GIT

Pruebas automáticas con Jenkins

The image is a composite of three screenshots illustrating a CI/CD pipeline setup. The top-left screenshot shows the Eclipse IDE with a Java project named 'BMC_joe_Sparkjson'. The 'SparkScript' configuration is visible, showing a path to a Python script and a 'PreCommands' section. The top-right screenshot shows the Jenkins 'Commit Changes to Git Repository' dialog box. The bottom screenshot shows the Jenkins 'MyFirstJob' configuration page. The 'Project name' is 'MyFirstJob' and the 'Description' is 'Control-M test Drive registration is performed with several scripts.' The 'Advanced Project Options' section is expanded, showing 'Source Code Management' set to 'None' and 'Build Triggers' with 'Build periodically' checked. The 'Build History' table shows a list of builds with their IDs and timestamps.

Build ID	Timestamp
#222	Apr 16, 2016 7:50 AM
#221	Apr 15, 2016 7:50 AM
#220	Apr 14, 2016 7:50 AM
#219	Apr 13, 2016 7:50 AM
#218	Apr 12, 2016 8:40 AM
#217	Apr 11, 2016 7:50 AM
#216	Apr 10, 2016 7:50 AM
#215	Apr 9, 2016 7:50 AM
#214	Apr 8, 2016 7:50 AM
#213	Apr 7, 2016 7:50 AM
#212	Apr 6, 2016 7:50 AM
#211	Apr 5, 2016 7:50 AM
#210	Apr 4, 2016 7:50 AM

DEVOPS & SCHEDULING : Los Resultados



Customer success with Jobs-as-Code

Global Top-15 Retailer

Problem: Faulty automation leads to rework in release-to-deploy phase

Resolution: Incorporate Control-M into existing CI / CD pipeline

Impact of Control-M:

- **3 hours to 3 seconds** - time to make job changes and deploy from Jenkins
- **140 to 450** - stores able to do holiday digital order fulfillment
- **42% increase** - digital sales during holiday period from prior year

Jobs-as-Code

"With this API, not having to know anything about Control-M and never having to go into the Control-M tool, I can deploy my job from Jenkins to Control-M in seconds."

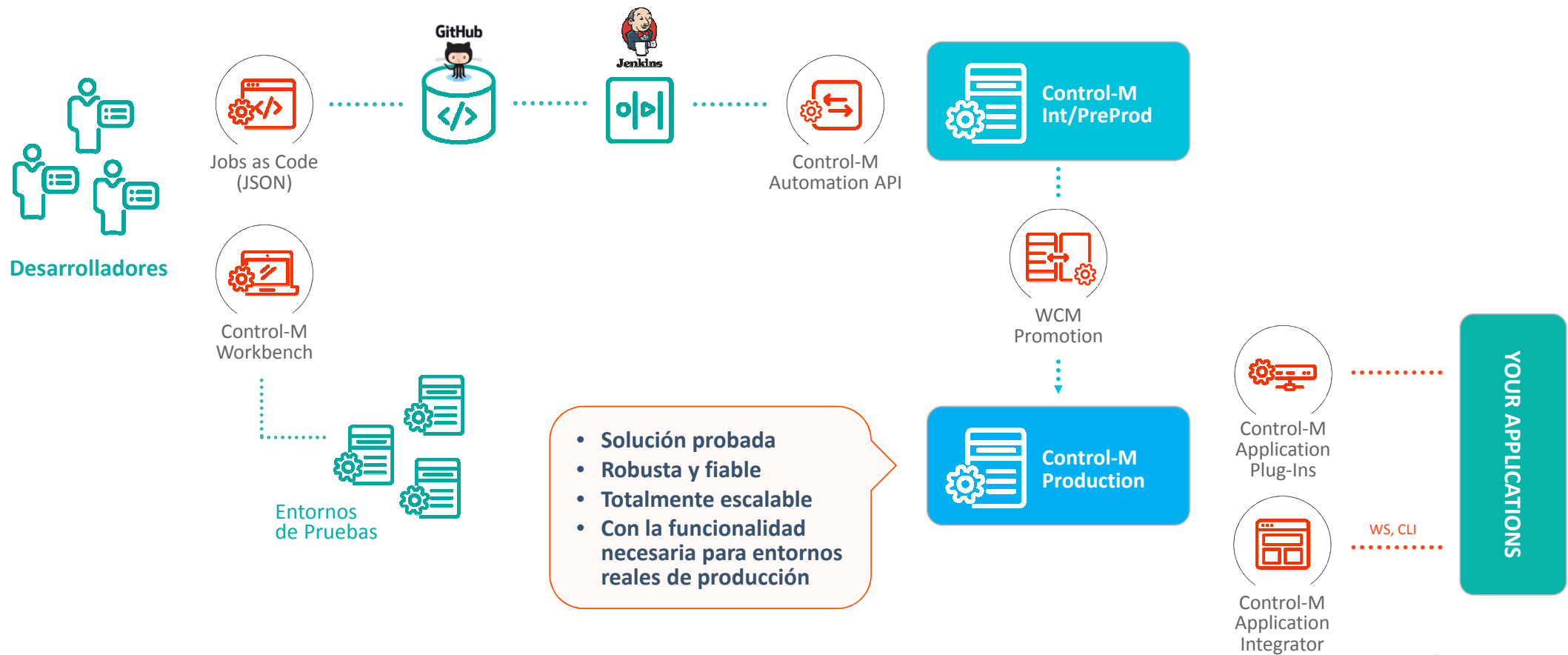
Easier, faster

"It used to take me hours to change a job's name or in/out conditions. But in JSON we can do a 'replace all' and apply it to all the jobs and it's now a simple change down to a few seconds."

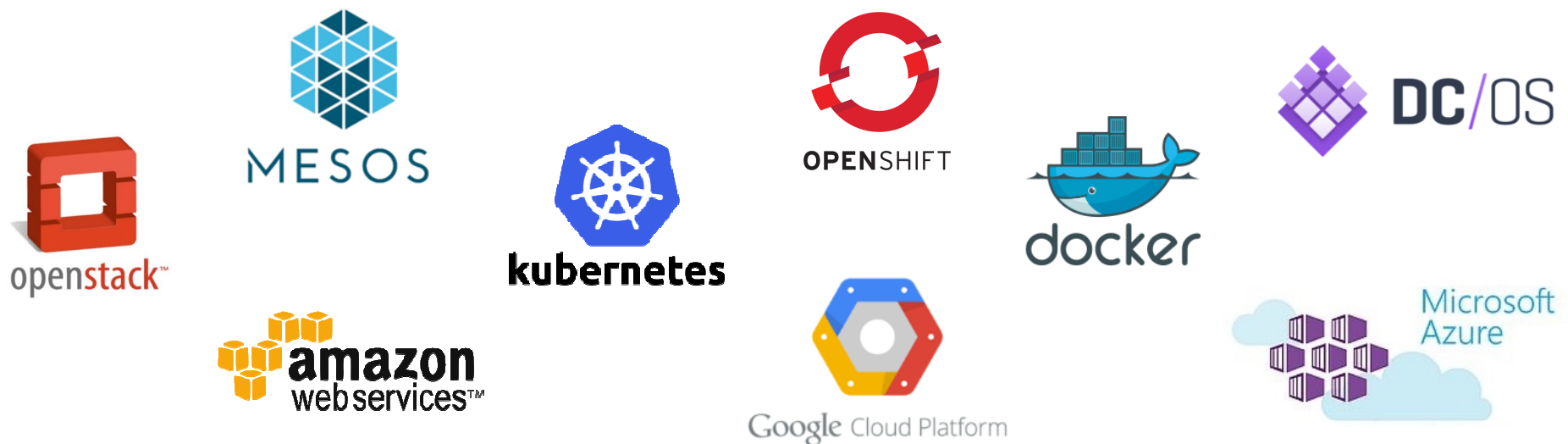
Innovation

"I love it. I'm fascinated that we are taking a tool in Control-M that we've had for a long time and hooking it up with our new DevOps model. This is exactly what I would like to see."

Integrando Control-M con DevOps



Aprovisionamiento dinámico de entornos de ejecución batch



Virtual Machines, Public/Private Clouds, Containers, ...

Automation API : Agent Provisioning

- **Descargar Agente, instalar y registrar en Control-M**

```
$ ctm provision install [ctm] [name] [port]
```

- **Modificar parámetros del Agente**

```
$ config server:agent:param::set [ctm] [agent] [parameter_name] [value]
```

- **Añadir el Agente a un Host Group**

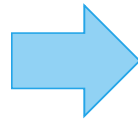
```
$ ctm config server:hostgroup::add [ctm] [hostgroup] [host]
```

- **Desinstalar Agente y eliminarlo del Host Group**

```
$ ctm provision uninstall
```

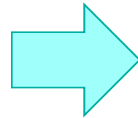
```
$ config server:hostgroup:agent::delete [ctm] [hostgroup] [host]
```

Consulta de estado de jobs



```
ctm run jobs:status::get  
-s "status=Ended Not OK"
```

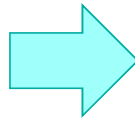
Mi Aplicación



```
ctm run jobs:status::get  
-s "jobname=DB_LOAD_DATA"
```

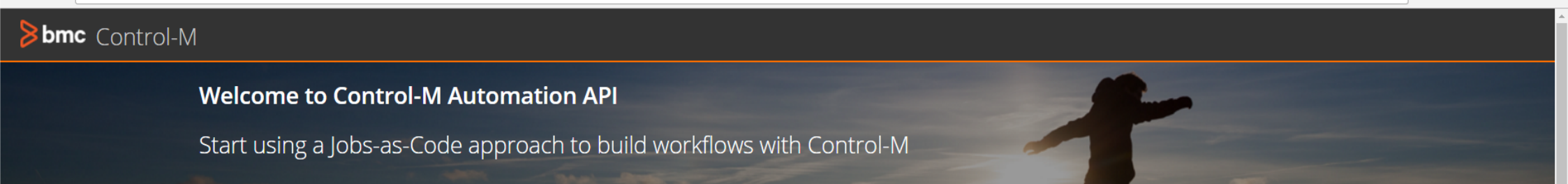
Creación automática vía JSON template

Mi Aplicación



```
{
  "Defaults" : {
    "ControlmServer" : "WCTM9",
    "Application" : "Test",
    "RunAs" : <USER>,
    "Host" : <HOST>
  },
  "<FOLDER_NAME>" : {
    "Type" : "Folder",
    "<JOB_NAME>" : {
      "Type" : "Job:Script",
      "FilePath" : <SCRIPT_PATH>,
      "FileName" : <SCRIPT_FILE>
    }
  }
}
```

```
ctm run <temp_file>.json
```

Welcome to Control-M Automation API

Start using a Jobs-as-Code approach to build workflows with Control-M



Automation API CLI

Get started with downloading Automation API command line. Follow setup instructions in the [installation guide](#)

 Download



Control-M Workbench

A no-cost, self-service, standalone development environment that is launched in minutes, giving you the autonomy to code, debug, and test jobs the same way that any other coding activity is performed. Follow setup instructions in the [installation guide](#)

 Download



Tutorials

Learn how to create/run job workflows, automation job code deployment, provision Control-M Agents dynamically, run jobs in Docker containers, etc.



GitHub Repository

Access the public repository of Control-M Automation API samples and how-to's



Developer Resources

[Code reference](#)
[Services reference](#)
[API Swagger UI reference](#)

Visite **controlm.github.io**

Control-M Roadmap

Product Management
Digital Business Automation

October 2017

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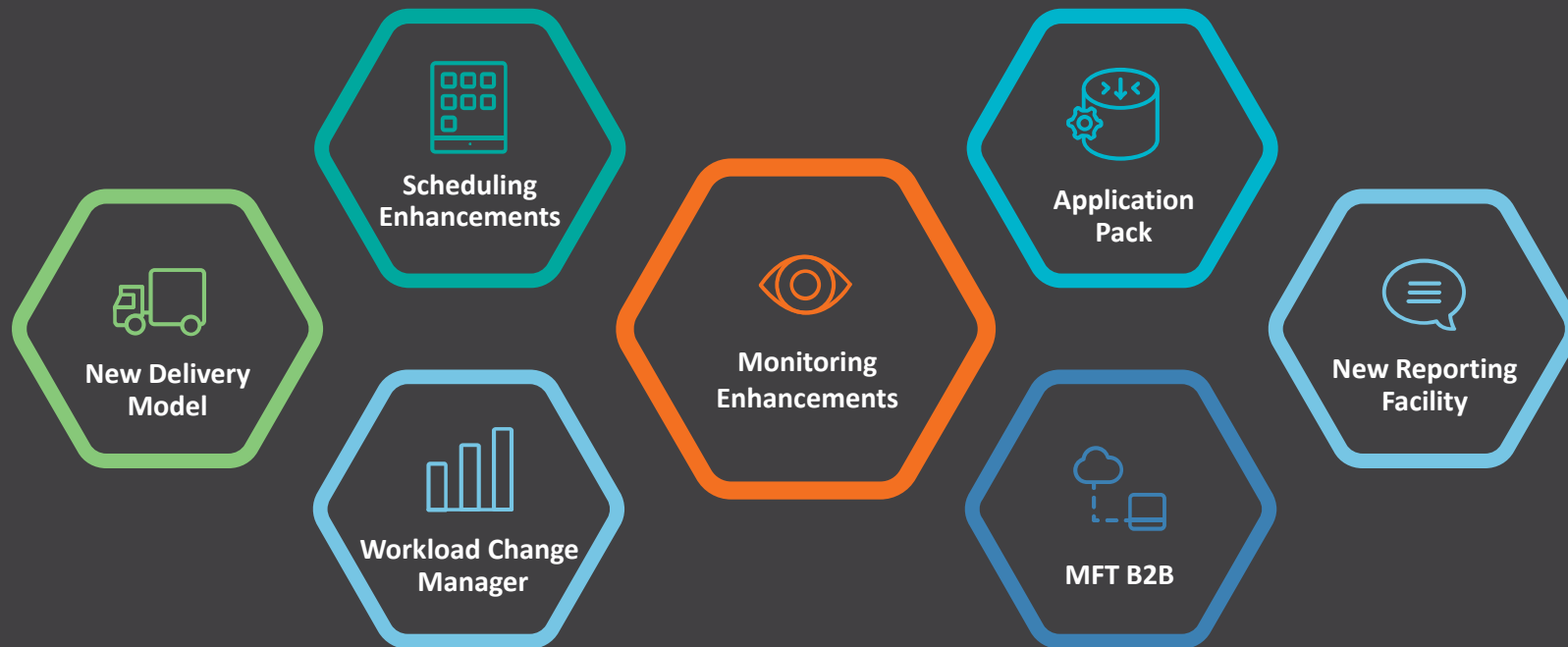
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Control-M v9

- High adoption rate
- Hundreds of customer requests delivered
- Over 100 developer years of development



Control-M – Coming Soon



New Delivery Model



Annual
Release



Time
Driven

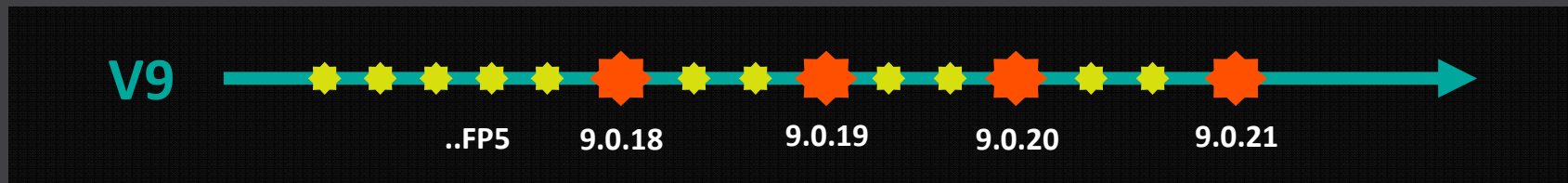


Near Zero
Downtime



In-place
Upgrade

Simplified and faster deployment with lower risk



Application Pack

Simplified Deployment for Application Plugins

- **Single download** – Single ‘Application Pack’ as part of Control-M/EM
- **Single client deployment** – Application forms are included in EM Client
- **Mass deployment and upgrade** – on selected agents from CCM
- **No agent downtime** – after plugins upgrade



Additional Functionality



SCHEDULING

- Cyclic smart folders
 - Auto-edit variables simulation
 - Support for existing PostgreSQL database
-



MONITORING

- Save last 'Viewpoints' on monitoring tab
 - Unified Control-M Web UI (WCM & SLS in HTML5)
-



INFRASTRUCTURE AND MORE...

- Communication standards – from CORBA to HTTPS
- Major security enhancements
- What's new video for end users

Automated Discovery and Conversion Tool

Discover and convert automation tools to Control-M:

- CA products, IBM, Tidal, Zena, Redwood
- Cron, MS Scheduler, Oozie, SAP and more

Control-M OS jobs to application jobs

- Convert jobs associated with third-party file transfer solutions to MFT jobs
- Conversion to Control-M Application Plugins

“Build your own” conversion

- Self-Conversion Tool with graphical web interface

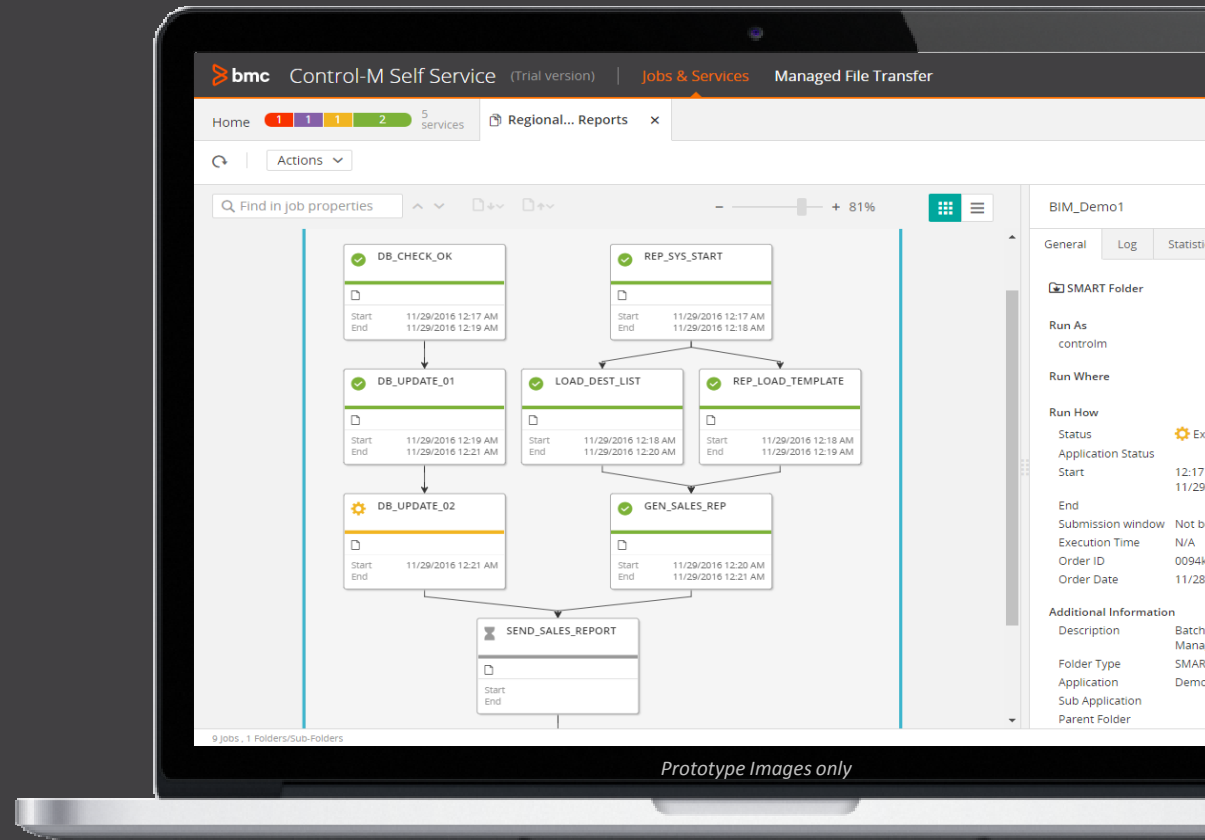
Coming next

- New reports for discovery, project assessment and conversion results

Unified Web UI

Consolidated Web UI (in HTML5) for

- Self Service
- Workload Change Manager
- Managed File Transfer
- Workload Archiving



Reporting Facility

Centralized Architecture

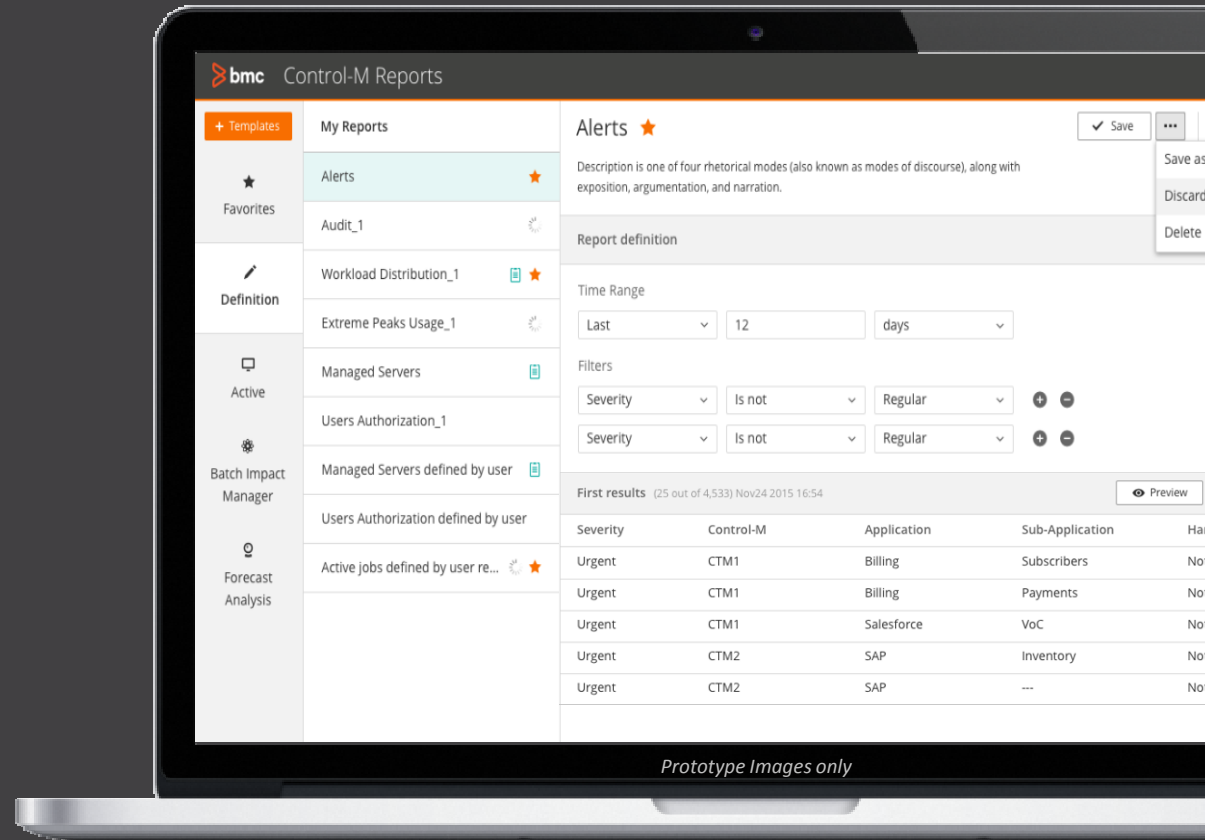
- Thin client approach
- Performance enhancements

Up-to-date Technology

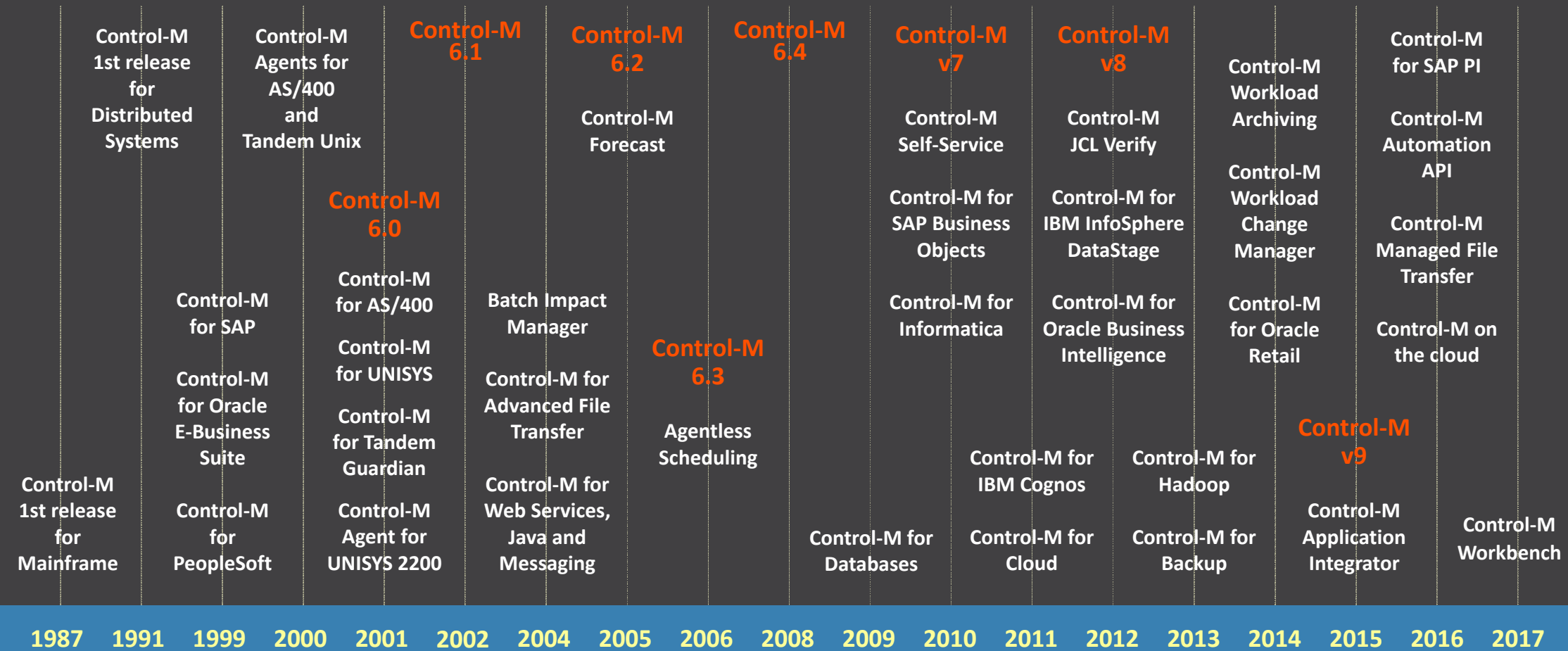
- Based on robust BI engine (*BIRT*)

Usability and Visibility

- New and modern web interface
- Results preview (before report)
- Migration from existing reports



The Control-M journey...



Control-M for SAP

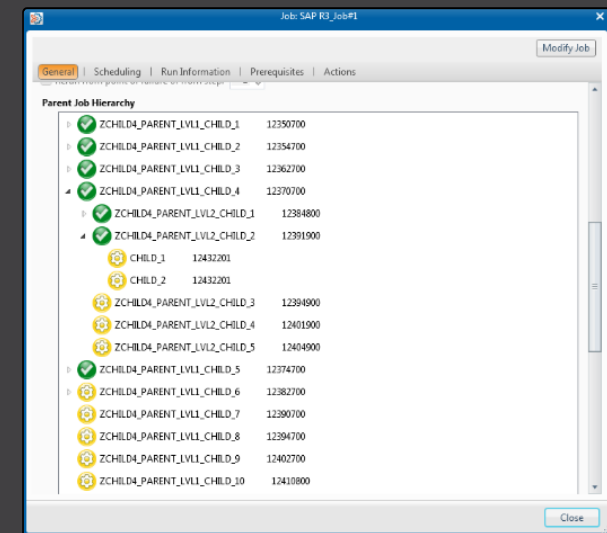
SAP S/4 HANA Certification

SAP Process Integration (PI)

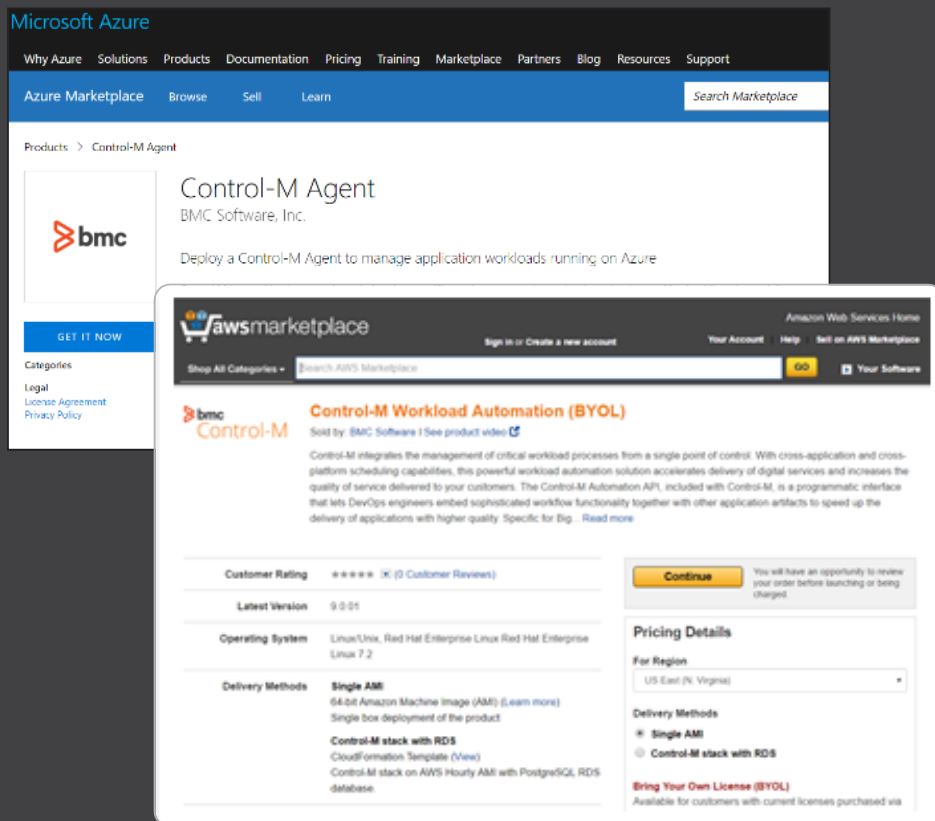
SAP Financial Closing Cockpit (FCC) support

Multiple enhancements

- SAP R3 parent <> child jobs tree view
- SAP R3 parent <> child jobs status dependency
- SAP process chain child jobs detection and monitoring
- And more



Control-M on the Cloud



Deploy Control-M on public cloud in just a few clicks

- AWS Marketplace (*Full Control-M*)
- Azure Marketplace (*Control-M Agent*)
- Support for Amazon AWS RDS database

Record High Customer Satisfaction



Our Commitment:



Remain focused on YOU

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¡Gracias!