

European Weather Cloud in action

Weather and climate in the cloud workshop

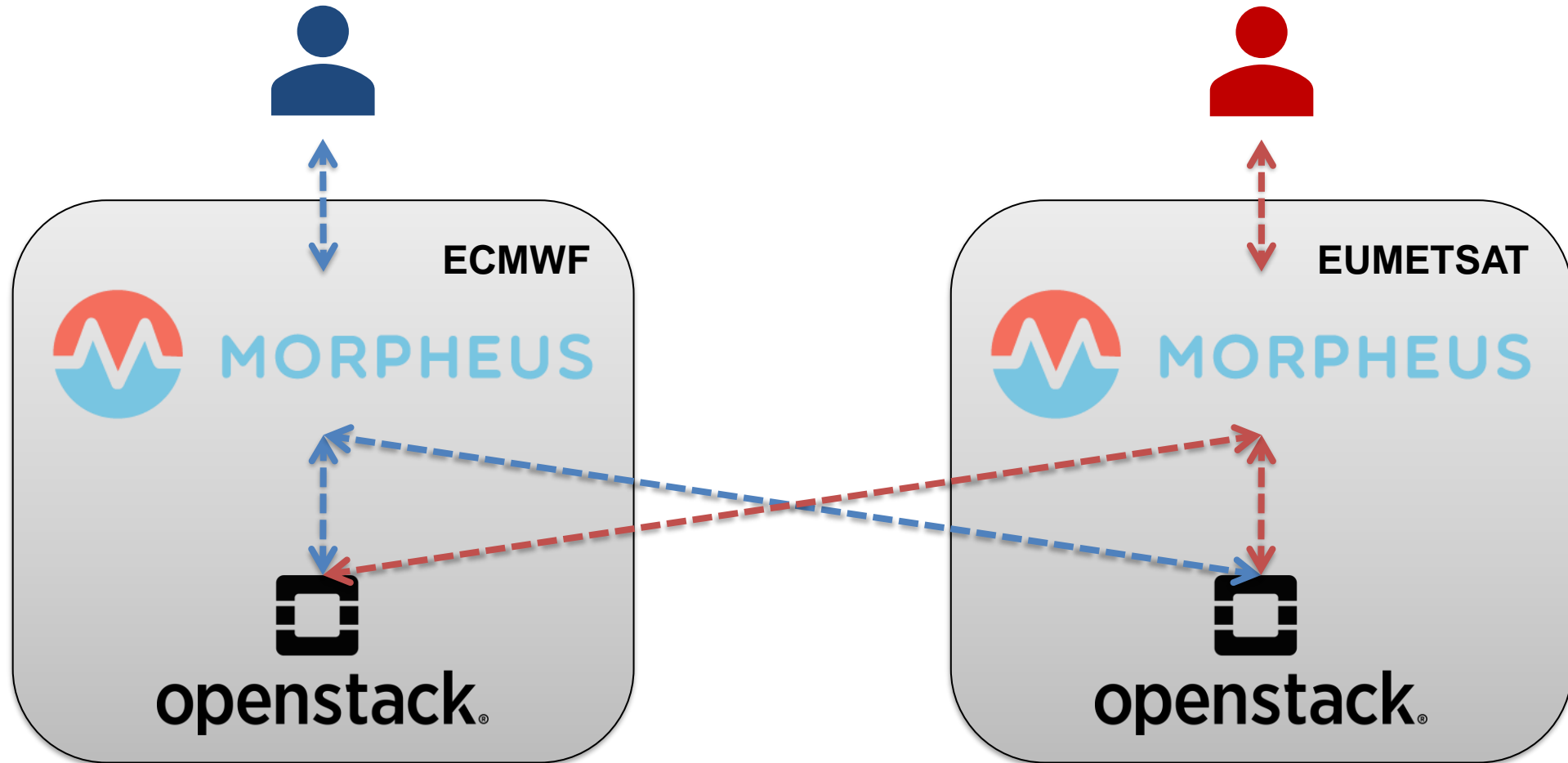
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Jumping on board: Morpheus

- **Morpheus** is a hybrid cloud management platform that controls multiple cloud infrastructures.



Quick Tour

The dashboard features a top navigation bar with the ECMWF logo, a search bar, and a user profile for John Cloudy. Below this is a secondary navigation bar with tabs for Operations, Provisioning (active), Infrastructure, Backups, Logs, Monitoring, Tools, and Administration. A third bar contains icons for Instances, Apps, Blueprints, Automation, Library, Deployments, and Service Mesh.

The main content area displays several key metrics:

- INSTANCE COUNT:** A line graph showing an increasing trend, ending at a value of 3.
- INSTANCE STATUS:** A table showing 3 Running instances and 0 Stopped instances.
- MAX CPU:** A gauge showing 0% usage.
- STORAGE:** A gauge showing 15% usage.
- MEMORY:** A gauge showing 20% usage.

Below these metrics is the **INSTANCES** section, which includes a search bar and filters for All Groups, All Clouds, and All Statuses. It also features '+ ADD', 'ACTIONS', and a settings icon.

<input type="checkbox"/>	NAME	SUMMARY	LOCATION	STATS				
<input type="checkbox"/>	myvm Dev	IP addr: 136.156.91.72 Version: 7.8 Virtual Machines: 1	Group: european-weather-cloud Clouds: ecmwf-ms-nmhs-sandbox	<input type="checkbox"/> STATUS	<input checked="" type="checkbox"/> HEALTH	<input type="checkbox"/> 0 MAX CPU	<input type="checkbox"/> 23 MEMORY	<input type="checkbox"/> 27 STORAGE
<input type="checkbox"/>	test-superprivate-1 Test	IP addr: 136.156.91.54 Version: 7.8 Virtual Machines: 1	Group: european-weather-cloud Clouds: ecmwf-ms-nmhs-sandbox	<input type="checkbox"/> STATUS	<input checked="" type="checkbox"/> HEALTH	<input type="checkbox"/> 0 MAX CPU	<input type="checkbox"/> 17 MEMORY	<input type="checkbox"/> 9 STORAGE
<input type="checkbox"/>	test-superprivate-2 Test	IP addr: 136.156.91.65 Version: 7.8 Virtual Machines: 1	Group: european-weather-cloud Clouds: ecmwf-ms-nmhs-sandbox	<input type="checkbox"/> STATUS	<input checked="" type="checkbox"/> HEALTH	<input type="checkbox"/> 0 MAX CPU	<input type="checkbox"/> 19 MEMORY	<input type="checkbox"/> 9 STORAGE

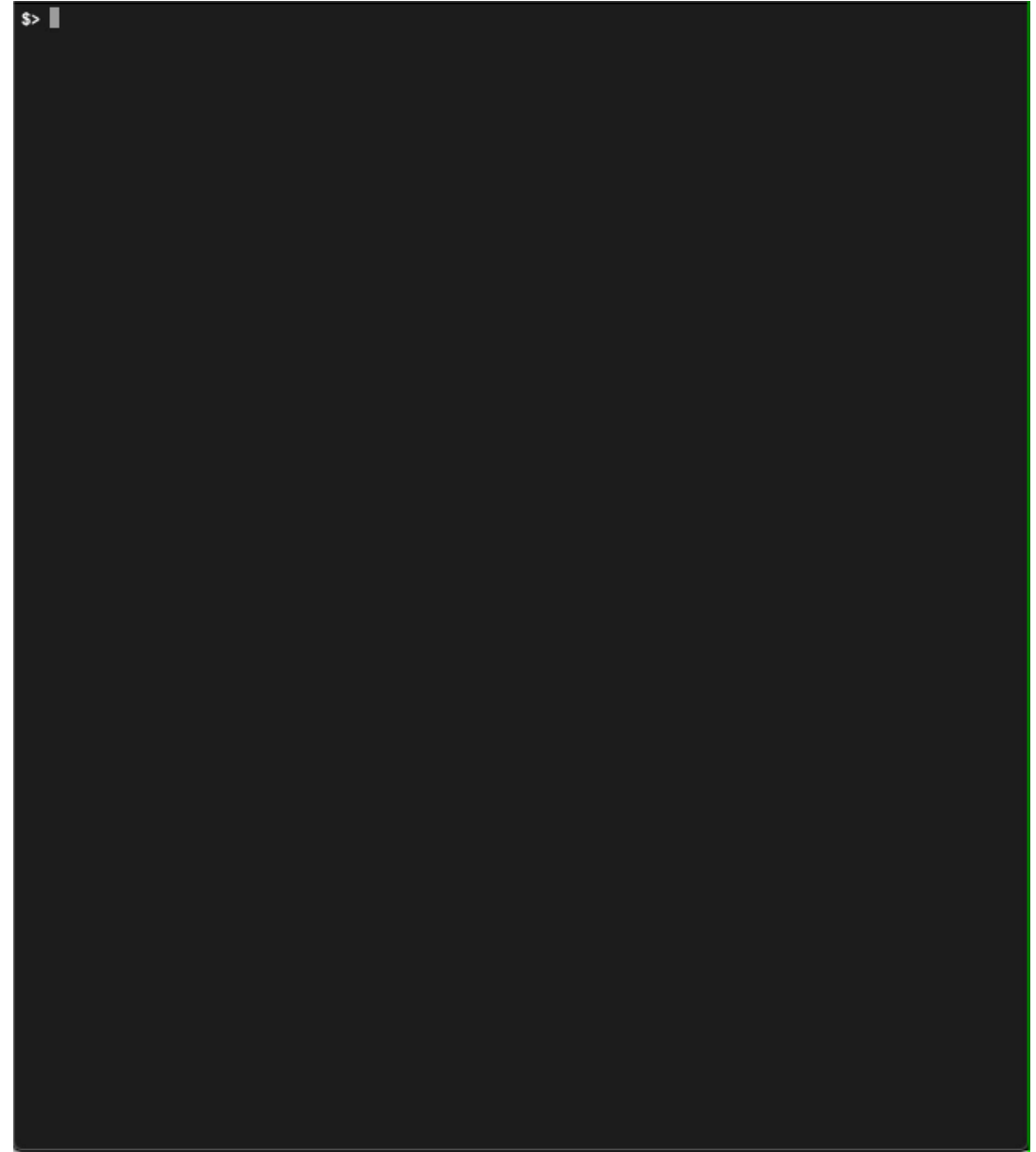
MARS @ European Weather Cloud

- Command line client with direct connection to:
 - FDB (Field Data Base) on HPCF, for real-time data
 - DHS, the ECMWF tape library, for archived data
- Uses an SQL like language to fetch data:

```
retrieve,  
  class    = od,  
  type     = an,  
  expver   = 1,  
  date     = 19990215,  
  time     = 12,  
  param    = t,  
  levtype  = pressure level,  
  levelist = 1000/850/700/500,  
  grid     = 1/1  
  target   = "t.grb"
```

- ECMWF account with data privileges required
 - Valid token must be configured

<https://confluence.ecmwf.int/display/EWCLOUDKB/Configuring+MARS+access>



ECPDS Dissemination to European Weather Cloud

- Customised real-time data products
- Pushed on schedule to:
 - remote hosts via FTP or SFTP
 - **S3 buckets**
- Requirements defined in the [Product Requirements Editor](#)
- Transfers monitored through [EPCDS monitor](#)
- Raise an issue if you wish to configure a new stream

Stream	Number of Products	Volume
oper G-0001	11780	144.6 GB
erfo G-0001	8320	102.3 GB
soda G-0001	880	10.8 GB

Version	Produced
<input type="checkbox"/> 20190426-10-20	257.8 GB
<input type="checkbox"/> 20190426-10-20	0 Bytes

Dissem_Str	Data_Str	Base_Time	Status	Prod_Date	C1 (2)	D1 (162)	D2 (163)	D3 (162)	D4 (193)	D5 (143)	E1 (85)
All (1107)	All (1107)	All (1107)	All (1107)	All							

S	Host	Sched. Time	Start Time	Finish Time	Target	TS	%	Mbits/s	Status	Prior	Actions	Select
✓	[not-transferred]	17 May 11:55:40	[n/a]	[n/a]	D1S05170600051817001	35	0	[n/a]	Queued	70		
✓	[not-transferred]	17 May 11:55:40	[n/a]	[n/a]	D2S05170600051817001	35	0	[n/a]	Queued	70		
✓	[not-transferred]	17 May 11:55:40	[n/a]	[n/a]	D3S05170600051817001	35	0	[n/a]	Queued	70		

Documentation and support



The image shows two screenshots of the ECMWF documentation and support portals. The left screenshot is a Confluence page titled "European Weather Cloud Knowledge Base". It features a navigation menu on the left with categories like "Pages", "Blog", "Calendars", and "SPACE SHORTCUTS". The main content area includes a search bar, a "Can't find the answer?" call to action with a link to the support portal, and a "Browse by topic" section with a grid of links categorized by letter (A-B, C-K, L-O, P-S, T-Z). The right screenshot is the Jira support portal, displaying the ECMWF logo, a search bar, and three main support options: "Request access", "Ask a question", and "Report a problem". Red arrows point from the navigation menu in the left screenshot to the search bar in the right screenshot.

<https://confluence.ecmwf.int/display/EWCLLOUDKB>

<https://jira.ecmwf.int/servicedesk/customer/portal/9>

