# METSI TECHNOLOGIES

## “Single Pane of Glass” with UCS Director

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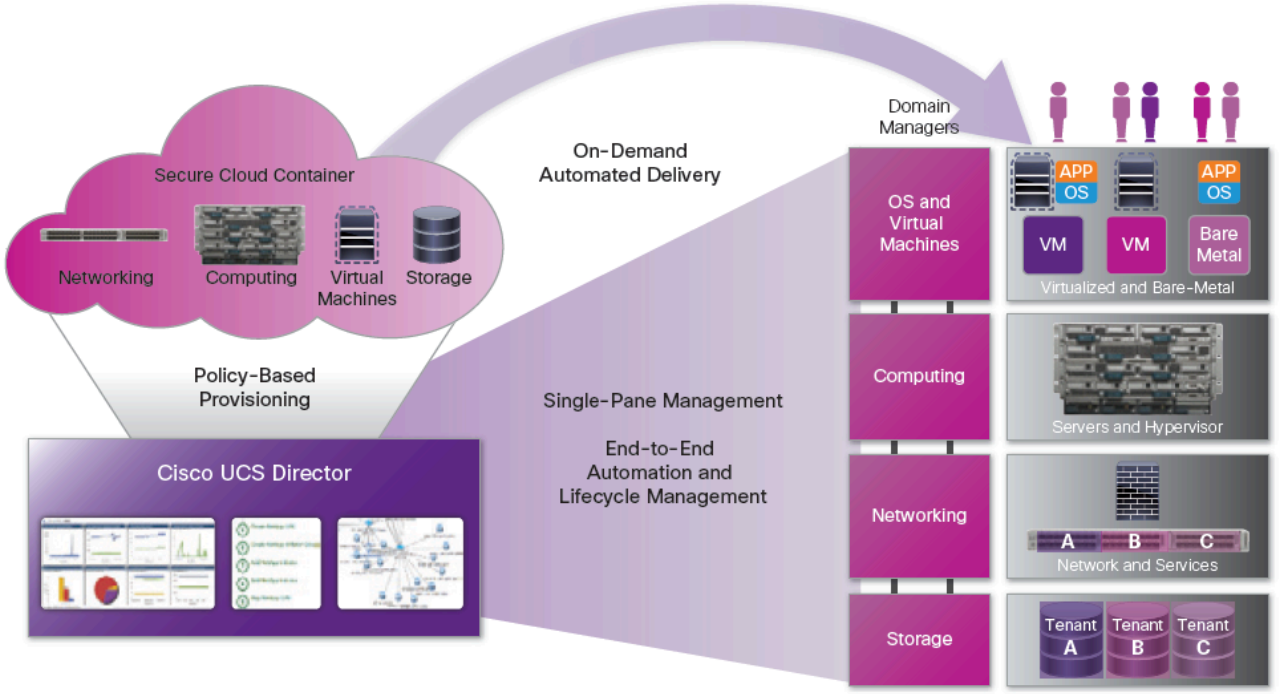
[Tswana, *water (n: A body of water, standing or flowing; a lake, or other collection of water.)*]

# DATA CENTER MANAGEMENT

- UCS Director:
  - is a vital component to converged infrastructure platforms.
  - positioned to provide a holistic management approach

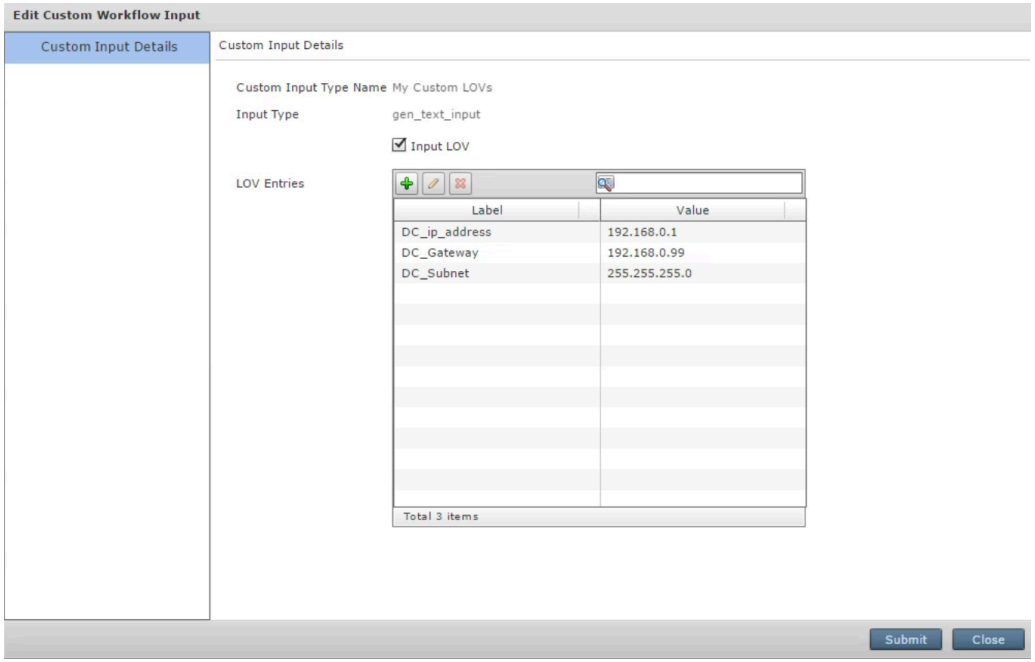


# UCS DIRECTOR

- Easy to build workflows by using "drag-n-drop" tasks"
- 1500+ built in (infrastructure) tasks for automation
- Customer deployments need an efficient mechanism to connect to multiple external sources for input and output processes.
- Development skills required to build integration requirements.

# UCSD WORKFLOW CHALLENGES

- Custom workflow inputs (LOVs = List of values) can only entered manually through the Edit Custom Workflow Input.



# UCSD WORKFLOW CHALLENGES

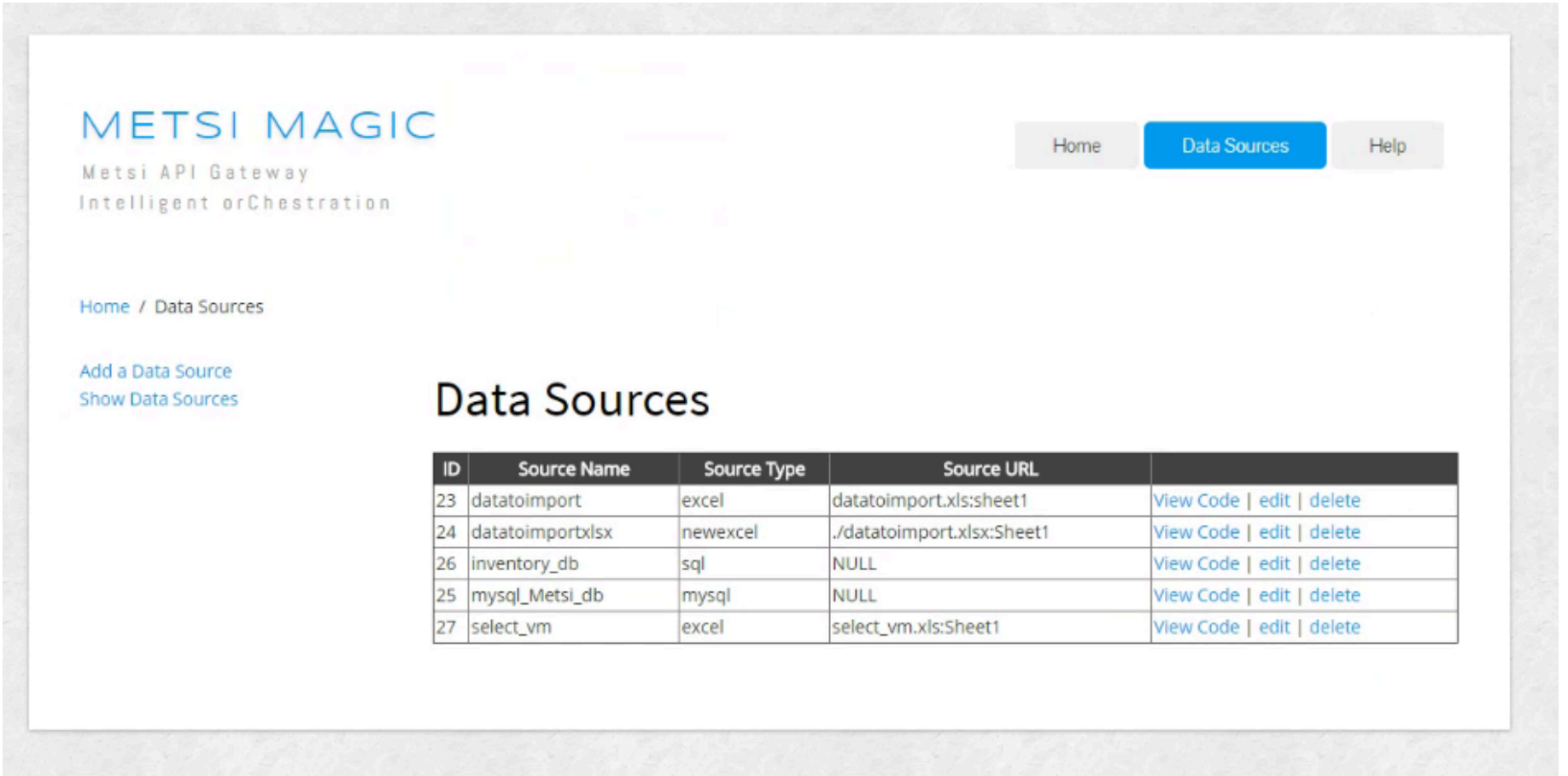
- Recent customer deployment required over 100 input variables to drive the automation and building of the data center resources. This data was in CSV format.

- Customer did not want to use LOVs. Problems encountered:
  - 30 seconds to enter one variable. Around 1 hour to enter 100 variables.
  - The Label and Value pairs are hard coded which presents a maintenance nightmare.
  - Duplication of data in lists for other workflows.
  - Have to maintain multiple lists.

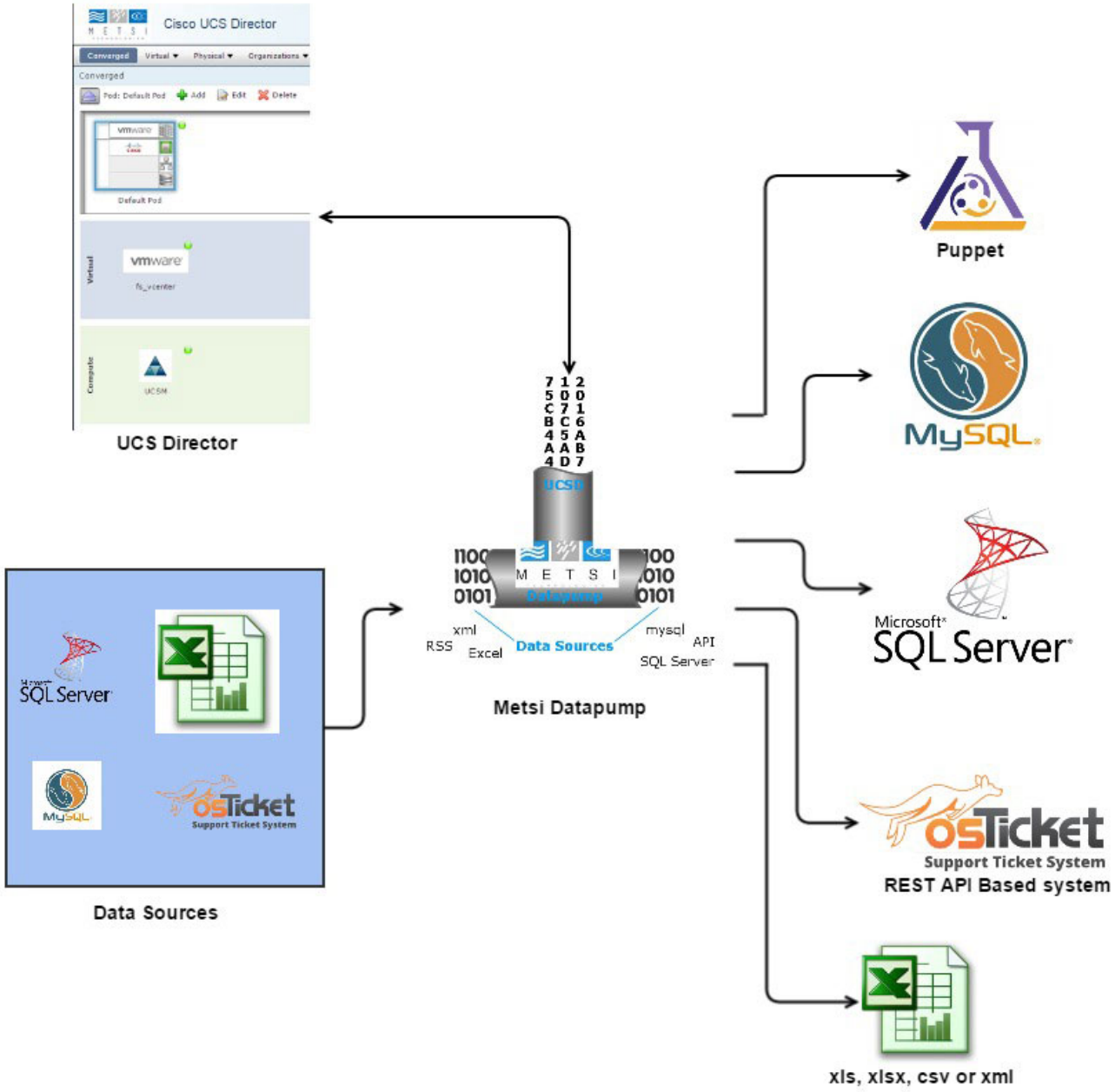
| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | Server Configuration By Rack | | | | | | |
| 2 | | | | | | | |
| 3 | FFL-NA-RACK-01 | Server Type | RAM | Proc# | Slot #1 | Slot #2 | Slot #3 |
| 4 | FFL-NA-DEP-01 | DL380G3 | 1.0GB | 2 | Empty | Dual-Port NIC | Empty |
| 5 | FFL-RT-DC-02 | DL360G2 | 1.0GB | 2 | Dual-Port NIC | Empty | N/A |
| 6 | FFL-RT-DC-01 | DL360G2 | 1.0GB | 2 | Dual-Port NIC | Empty | N/A |
| 7 | FFL-NA-DNS-02 | DL360G2 | 256MB | 1 | Dual-Port NIC | Empty | N/A |
| 8 | FFL-NA-DNS-01 | DL360G2 | 256MB | 1 | Dual-Port NIC | Empty | N/A |
| 9 | FFL-RT-CA-01 | DL380G2 | 256MB | 1 | RIM | Dual-Port NIC | Empty |
| 10 | FFL-RT-CA-02 | DL380G2 | 256MB | 1 | RIM | Dual-Port NIC | Empty |
| 11 | FFL-NA-MGT-02 | DL380G3 | 1.0GB | 1 | Empty | Dual-Port NIC | Empty |
| 12 | FFL-NA-MGT-01 | DL380G3 | 1.0GB | 1 | Empty | Dual-Port NIC | Empty |
| 13 | [redacted] | | | | | | |
| 14 | FFL-NA-DC-02 | ML570 | 512MB | 1 | Empty | Dual-Port NIC | Empty |
| 15 | FFL-NA-DC-01 | ML570G2 | 2.0GB | 4 | Empty | Dual-Port NIC | Empty |
| 16 | | | | | | | |
| 17 | FFL-NA-RACK-02 | Server Type | RAM | Proc# | Slot #1 | Slot #2 | Slot #3 |
| 18 | FFL-RT-CA-03 | DL360G2 | 256MB | 1 | Dual-Port NIC | Empty | N/A |
| 19 | FFL-SA-CA-02 | DL360G2 | 256MB | 1 | Dual-Port NIC | Empty | N/A |
| 20 | FFL-SA-CA-01 | DL360G2 | 256MB | 1 | Dual-Port NIC | Empty | N/A |
| 21 | FFL-NA-EXF-02 | DL360G3 | 2.0GB | 2 | Dual-Port NIC | SSL Accelerator | N/A |
| 22 | FFL-NA-EXF-01 | DL360G3 | 2.0GB | 2 | Dual-Port NIC | SSL Accelerator | N/A |
| 23 | FFL-NA-MOM-01 | DL360G2 | 2.0GB | 2 | Dual-Port NIC | Empty | N/A |
| 24 | [redacted] | | | | | | |
| 25 | FFL-NA-SUS-01 | DL360G2 | 2.0GB | 2 | Dual-Port NIC | Empty | N/A |
| 26 | FFL-RT-FIL-01 | DL360G2 | 2.0GB | 2 | Dual-Port NIC | Empty | N/A |
| 27 | FFL-NA-WINS-01 | DL360G2 | 256MB | 1 | Dual-Port NIC | Empty | N/A |
| 28 | FFL-NA-SMS-01 | DL380G3 | 1GB | 4 | Dual-Port NIC | Empty | Empty |
| 29 | FFL-NA-WEB-04 | DL380G3 | 1.0GB | 2 | Empty | Dual-Port NIC | Empty |
| 30 | FFL-NA-WEB-03 | DL380G3 | 1.0GB | 2 | Empty | Dual-Port NIC | Empty |
| 31 | FFL-NA-WEB-02 | DL380G3 | 1.0GB | 2 | Empty | Dual-Port NIC | Empty |
| 32 | FFL-NA-WEB-01 | DL380G3 | 1.0GB | 2 | Empty | Dual-Port NIC | Empty |
| 33 | | | | | | | |
| 34 | FFL-NA-RACK-03 | Server Type | RAM | Proc# | Slot #1 | Slot #2 | Slot #3 |
| 35 | FFL-NA-EXR-02 | DL380G2 | 2.0GB | 2 | RIM | Dual-Port NIC | Empty |
| 36 | FFL-NA-EXR-01 | DL380G2 | 2.0GB | 2 | RIM | Dual-Port NIC | Empty |

# THE METSI SOLUTION

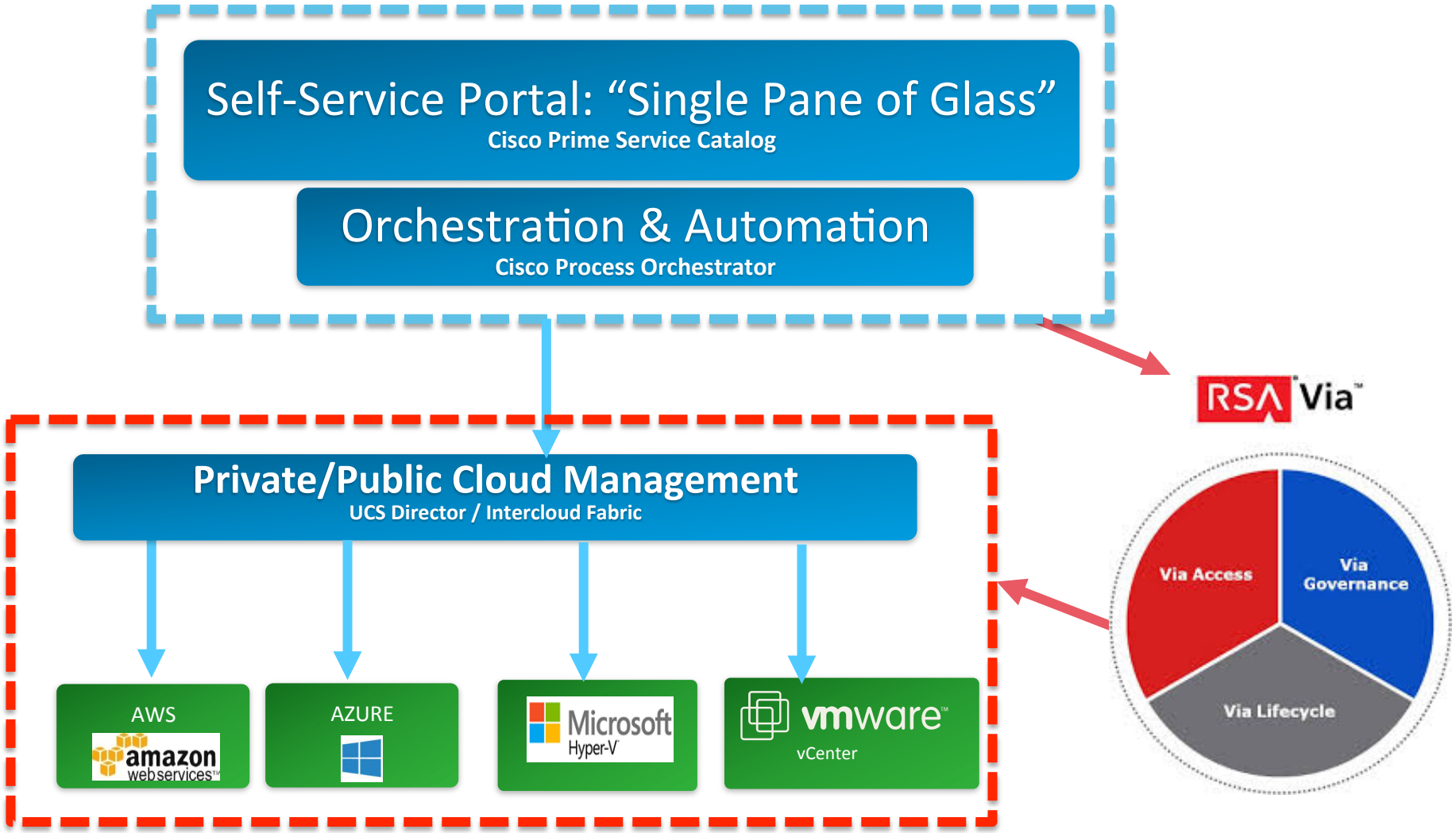
- MAGIC = Metsi API Gateway for Intelligent orChestration
- This is used to connect and transform data intelligently between any source and target destinations.



# MAGIC - Expanding UCS Director's Orchestration Capabilities



# CISCO SOLUTION COMPONENTS



# CIAC CHALLENGES

1. No automated or Manual capability to refresh the data containing the VMs hosted in vCenter and Hyper V
   - This includes the power on or off state
   - New VMs added in VCenter and HyperV
2. The list of requirements for many customer goes beyond the list of capabilities - here's what we can do out of the box:
   - Power on or off VM
   - Add or delete and resize an HDD
   - Resize to Large, Medium or Small etc
   - Access via SSH or RDP from the Portal
3. Here is what is missing:
   - View the current power state and have it change when the state is changed
   - Add and Remove a Network Adapter
   - Change the Adapter Type of a Network Adapter
   - Change the port group of a Network Adapter
   - Modify the Datastore of a VM Disk
   - View the ICF hosted VMs in the public Cloud for a Tenant
   - Migrate VMs to the Public Cloud and move back again
   - Move a VM between tenants
   - Shutdown a VM
   - Mount an ISO Image

**Everything that can be done in UCS Director should be made available within CIAC - there are 2836 REST API functions in UCSD**

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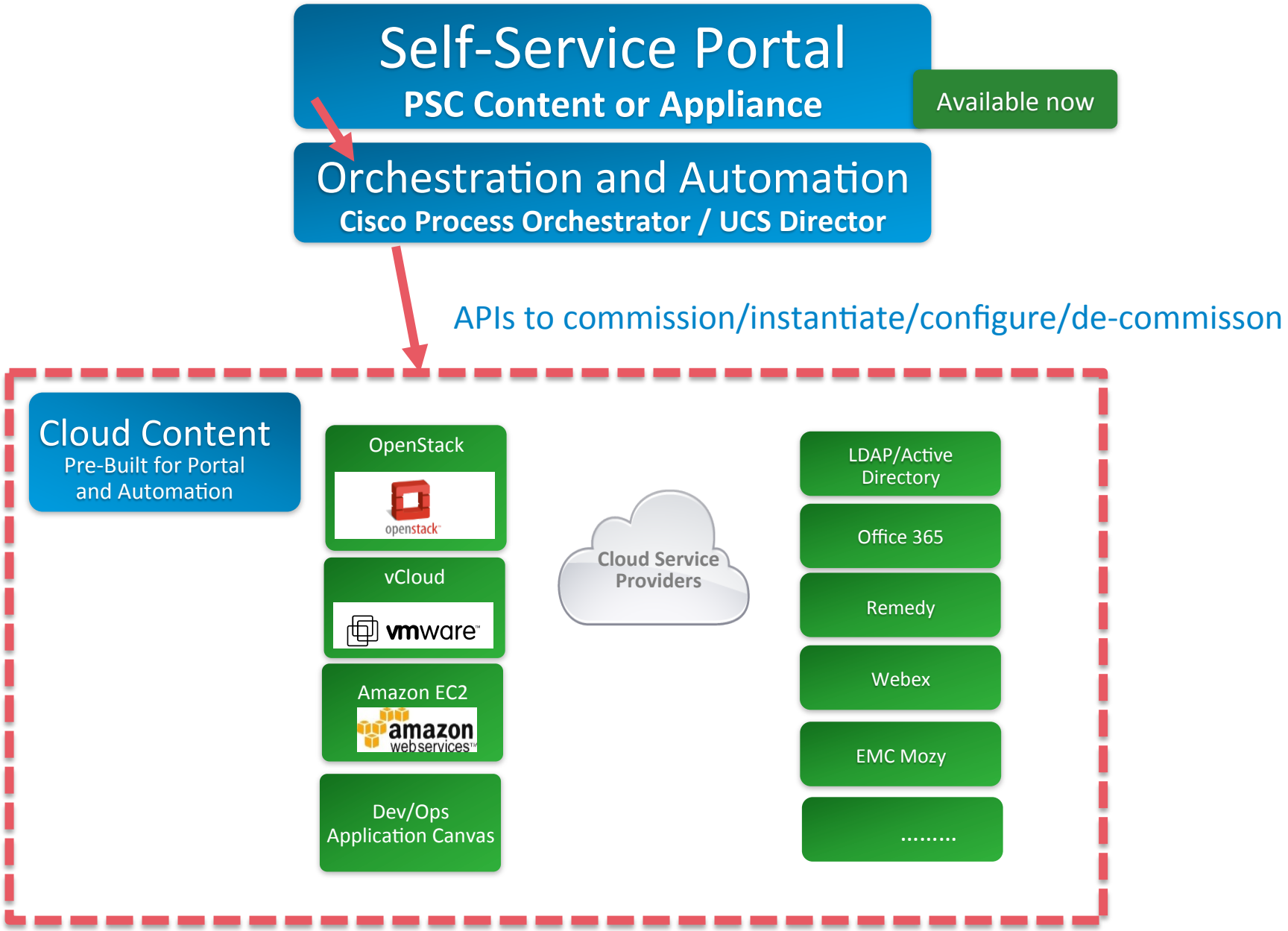
# METSI VISION SOLUTION



# METSI CONTENT

1. **Can be embedded within PSC or used standalone as an appliance without the PSC dependency.**

2. Web Portal within PSC to leverage UCSD / APIs
    1. User onboarding
    2. Data Center / Application Inventory Data
    3. Administrative Operations
    4. Catalog Requests
    5. Tenant on boarding
    6. VM lifecycle management
    7. Request Audit, Compliance and Governance Review
    8. “Compare the Cloud” pricing reports
        a. Showing cost comparison between AWS EC2, Azure, etc
    9. Migrating VMs between Cloud Providers using native APIs
        a. Amazon Web Services EC2 → Microsoft Azure

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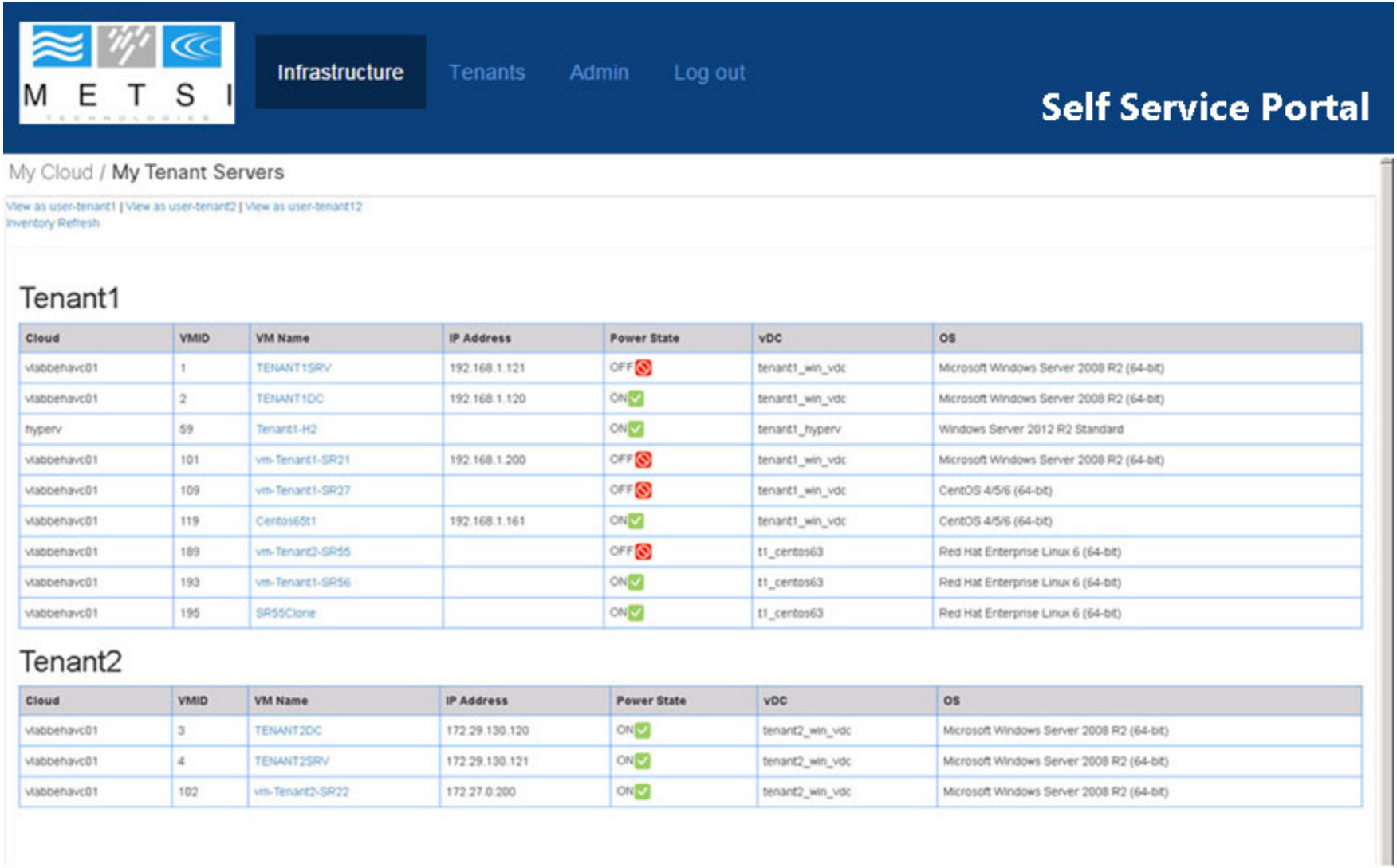
# SCREENSHOTS

# TENANT MANAGEMENT

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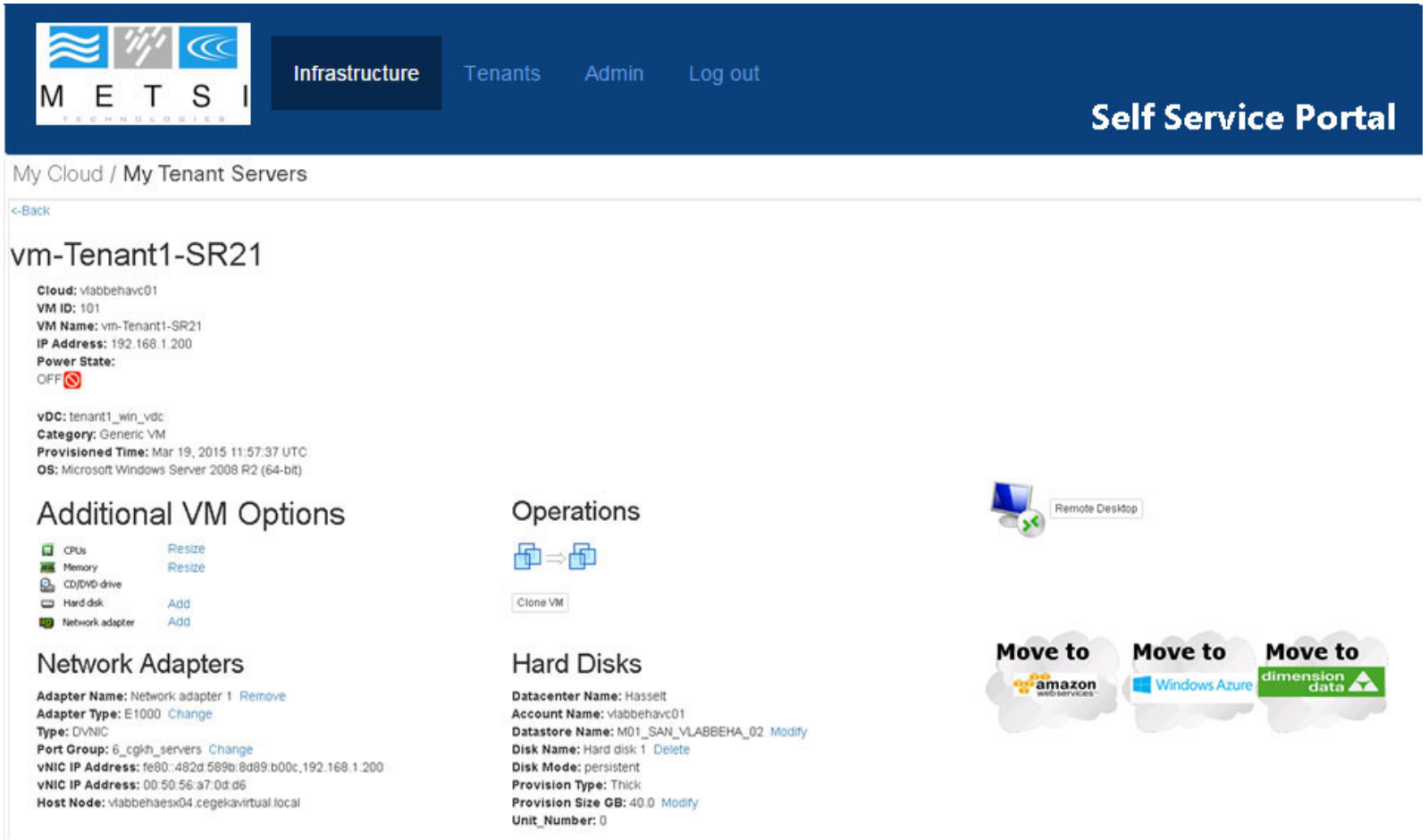
# “SINGLE PANE OF GLASS”

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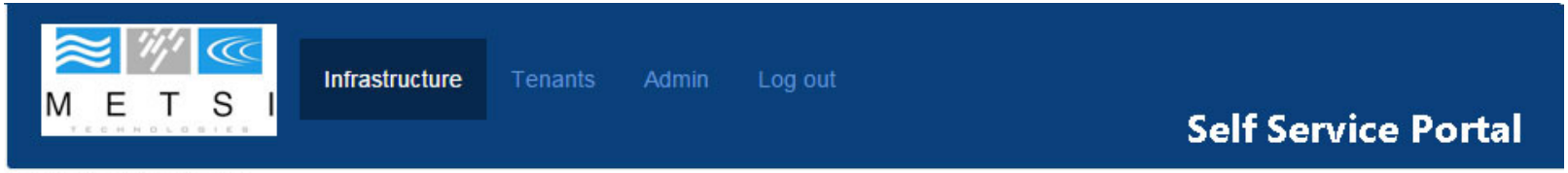
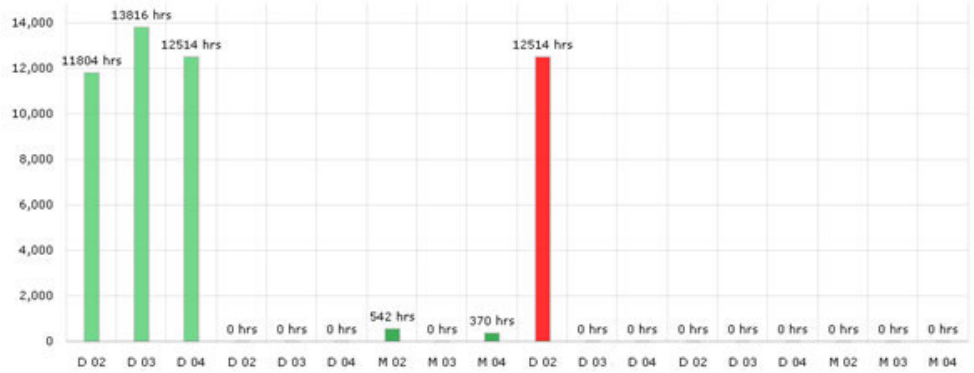
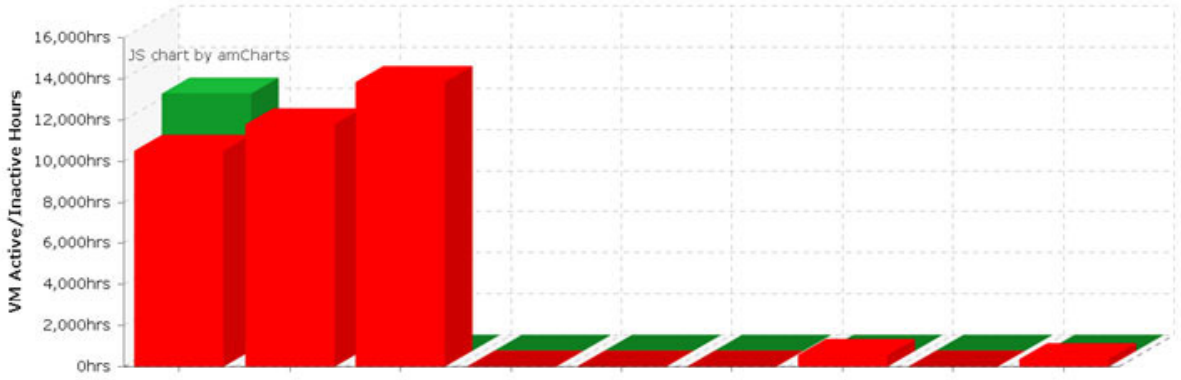
# USAGE REPORTING




Reporting / Compute

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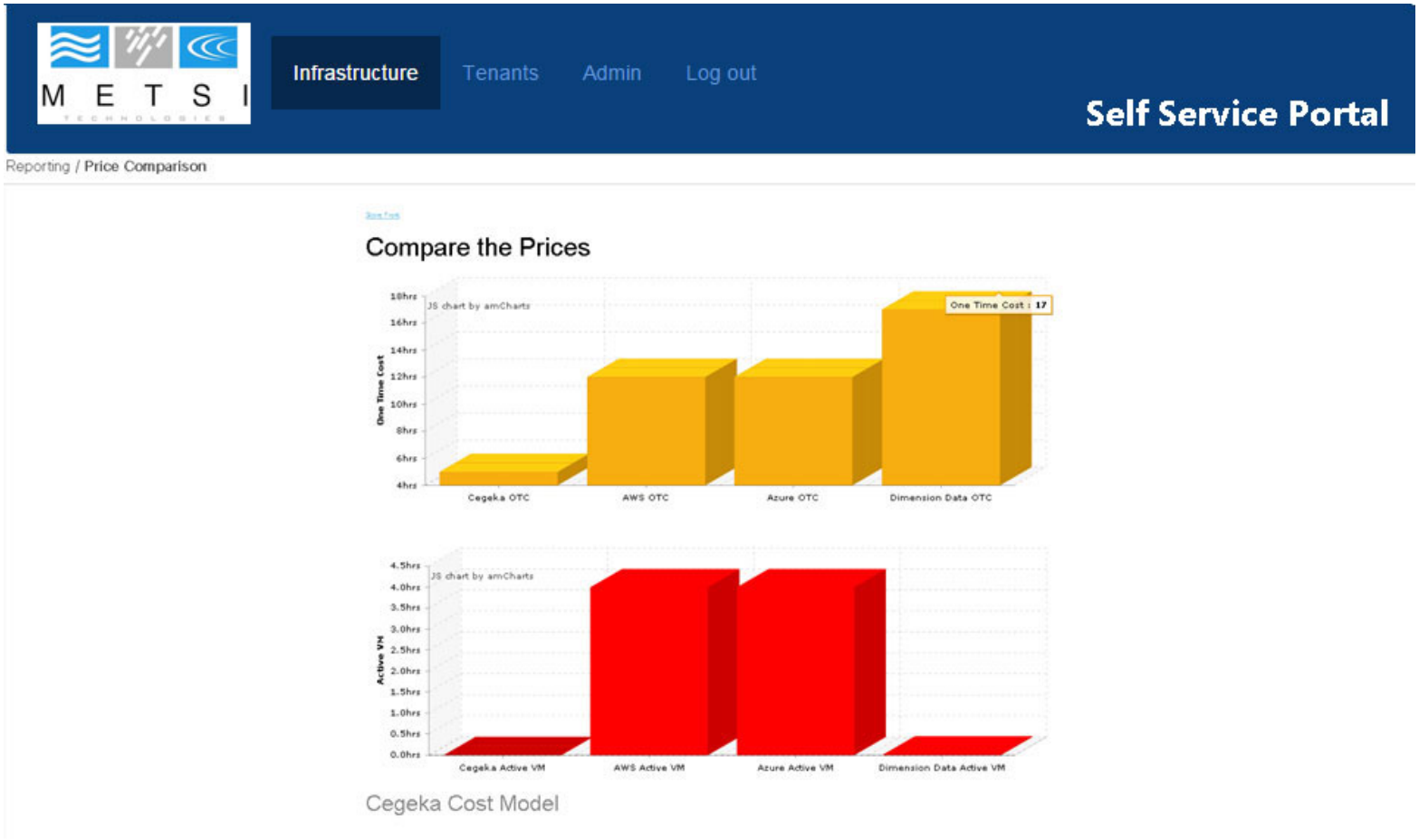
# “COMPARE THE CLOUD PRICING”

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# THANKS YOU FOR YOUR TIME

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