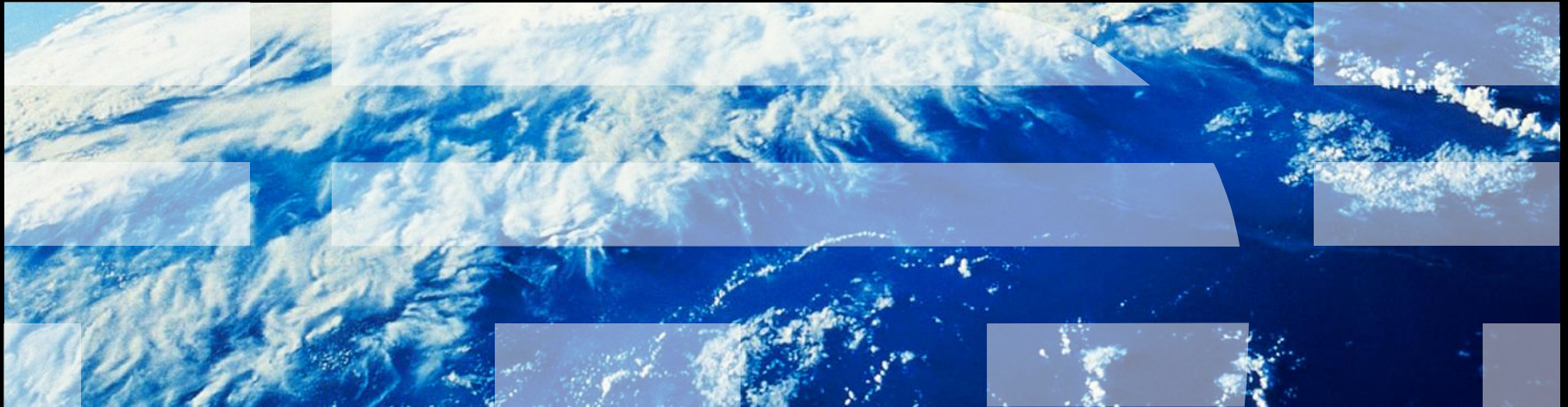


AVKS – Overview of IBM Cloudburst



Agenda

- Introduction to IBM Cloudburst
- Components
- Management Stack
- Using the System
- Support
- Wrap up

Introduction to IBM Cloudburst

An integrated service management platform with network, servers, storage, Quickstart services that enables the fastest Private Cloud Deployment Today

Customer Benefits

- ✓ **Improved time to value**- Quickly deliver a private cloud using a preloaded and integrated system
- ✓ **Improved innovation**- Dramatically improve business value and IT's effect on time-to-market by delivering services faster via automated service delivery while also lowering operating costs
- ✓ **Decrease IT cost** – Maximize capital usage and reduce need for future capital
- ✓ **Reduce complexity and risk**- With automation and standardization the human error factor is minimized.
- ✓ **Scales to the enterprise** – Able to scale and manage additional Platforms and Workloads (x86, UNIX, System z, ...)

Quick Start Services

Service Management Platform

Virtualization and Systems Mgmt SW


Virtualized CPU, Memory, Storage

Network

Single product, single delivery, single installation, single invoice, single support structure


What's Inside

Storage and Network Virtualization




- Improve storage utilization
- Enable multi-tenancy support

Monitoring




- Monitor both physical and virtual server environments

Usage and Accounting



- Provide metering and accounting for cloud services
- Enable integration to billing systems if needed

High Availability




- Redundancy built in for high availability

IBM Cloudburst

“Built for Purpose” Cloud Solution

Platform & Virtualization Management




- Enhanced management of the virtual environment

Server, Storage, Network HW


- Preinstalled and configured on IBM hardware

Service Automation



- Orchestration of Cloud operations
- Integration point for service mgmt capabilities
- Service catalog and templates
- Automated provisioning of virtual systems

Energy Management



- Energy management of the hardware infrastructure



Major System X Hardware Components



BladeCenter H – Cloud Infrastructure



3550 M3 – Management Server



HS22V – Cloud Management Server
Intel Xeon 5660 2.8 GHz 2P (12 cores) with 72 GB memory



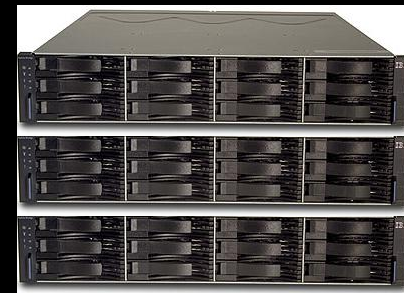
HS22V – Cloud Compute Servers
Intel Xeon 5660 2.8 GHz 2P (12 cores) with 72 GB memory



BNT 10Gb Virtual Fabric Switch



Qlogic 20 Port 8Gb SAN Switch



DS3400 & EXP3000

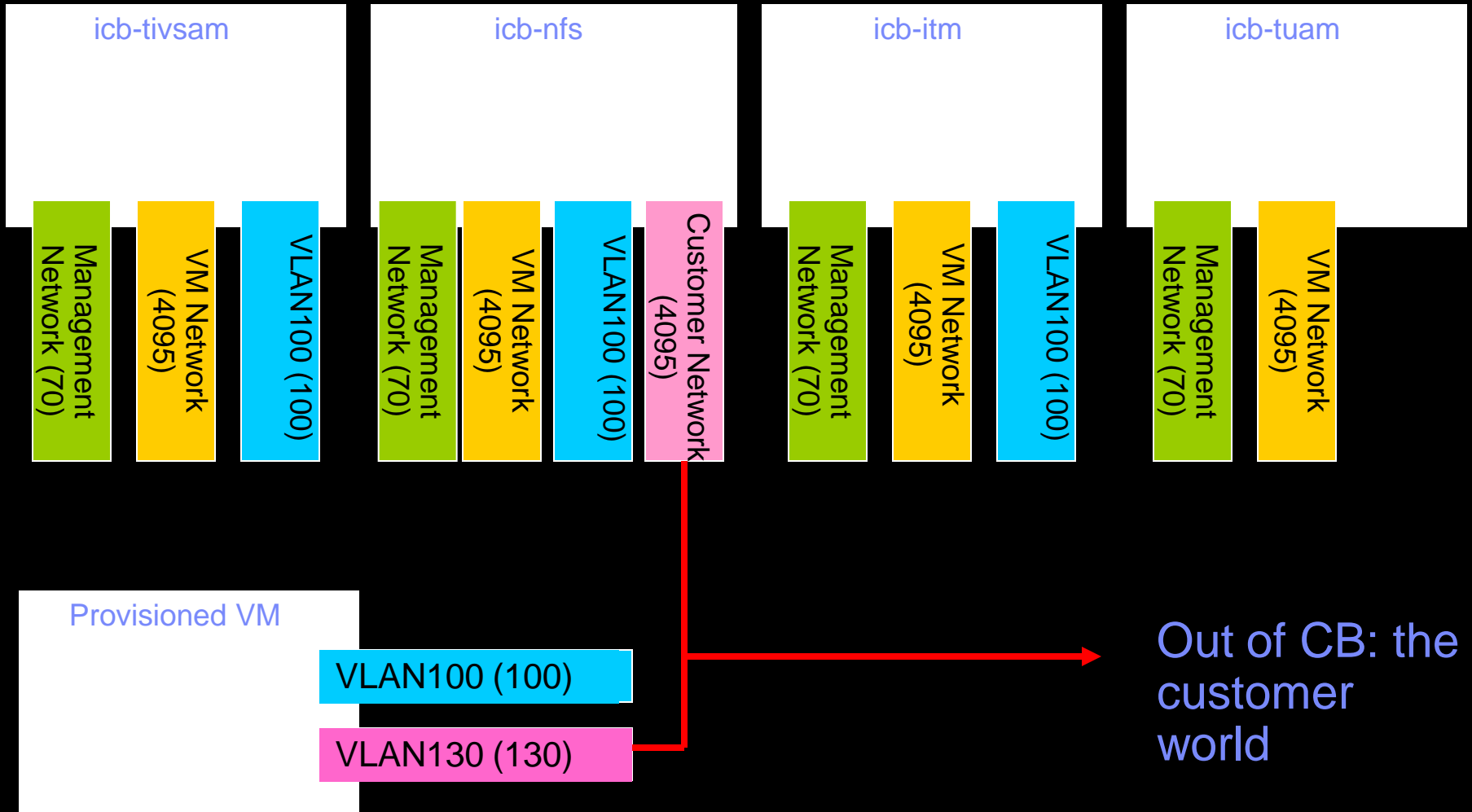
Software Components

- Service Management – TSAM 7.2.1
- Provisioning – TPM 7.2
- Service Requests – TSRM 7.2.0.1
- Monitoring – ITM 6.2.2 FP01
- Usage & Accounting – TUAM 7.1.2
- User Directory – ITDS 6.2
- WebSphere Network Deployment 6.1.0.23
- Database – DB2 9.5 FP3
- System Automation – TSAMP 3.1.0.6
- Web Server – IBM HTTP Server 7.0 with WAS 7.0 Plugin
- Virtualization – VMware vCenter Server 4.1
- Hypervisor – ESXi 4.1

Network

- Cloudburst has multiple internal and customer networks
- Cloud Management VLAN (ID 90): 10.90.x.y
 - VM Network used by TSAM to retrieve ITM data
- Cloud Customer VLAN (ID 130): customer defined
 - Customer network on the provisioned VMs
- TPM Management VLAN (ID 70): 192.168.a.b
 - Used by TSAM to connect to the vCenter
- Cloud Management VLAN 100 (ID 100): 10.100.0.*
 - Network used for ITM agent deployment

Network



Tivoli Management Stack



- Four virtual machines on first blade
 - icb-tivsam
 - TSAM
 - TPM
 - ITDS
 - WebSphere
 - DB2
 - SLES
 - icb-itm
 - ITM
 - DB2
 - SLES
 - icb-tuam
 - TUAM
 - DB2
 - SLES
 - icb-nfs
 - HTTP Server
 - SLES

Management Console



- IBM 3550 M3
- Windows 2008
- IBM Director
- Active Energy Manager
- Tivoli Monitoring for Energy Management
- VMware vSphere Client
- DB2
- WebSphere

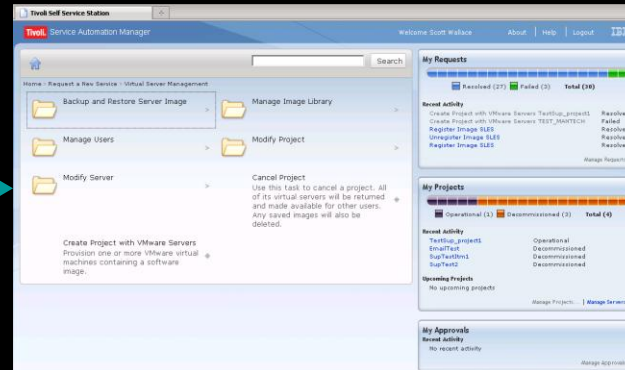
USING THE SYSTEM

Using the system



End Users

Requests project



Self Service Portal

Service catalog, schedule, authorization

TSAM
TSRM

TPM

VMware

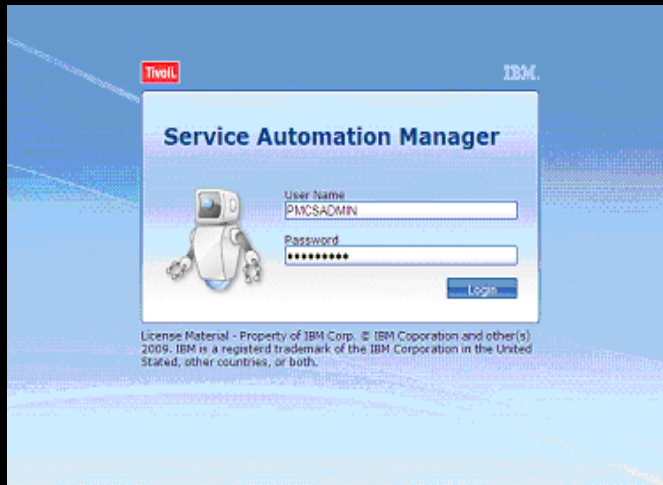
Blades/
Disks

Virtual
Machines

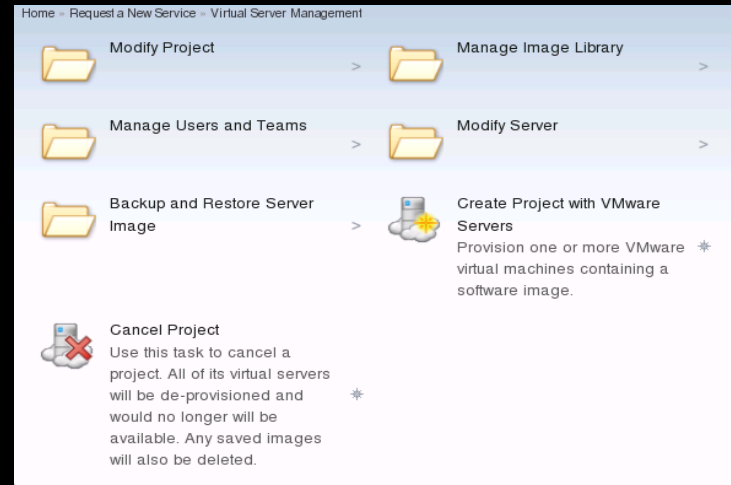
Monitoring

Optional

Self Service Portal – Closer Look



SimpleSRM login



Working with Virtual Servers



View Your Requests

Creating a project

The screenshot displays a web-based interface for creating a project, divided into two main sections: General and Resources.

General Section:

- *Project Name:** Verification Project
- *Team to Grant Access:** MY TEAM
- Project Description:** (Empty text field)
- *Start Date:** 7/30/2010
- *Start Time:** 11:23 AM
- *End Date:** 8/13/2010
- *End Time:** 11:23 AM
- Requested Image:** VMware System x
- Resource Group Used to Reserve Resources:** VMware System x
- Monitoring Agent to be Installed

Resources Section:

To adjust the settings of the requested resources, press the setting button. After making the necessary adjustment, press the setting button to save the configuration.

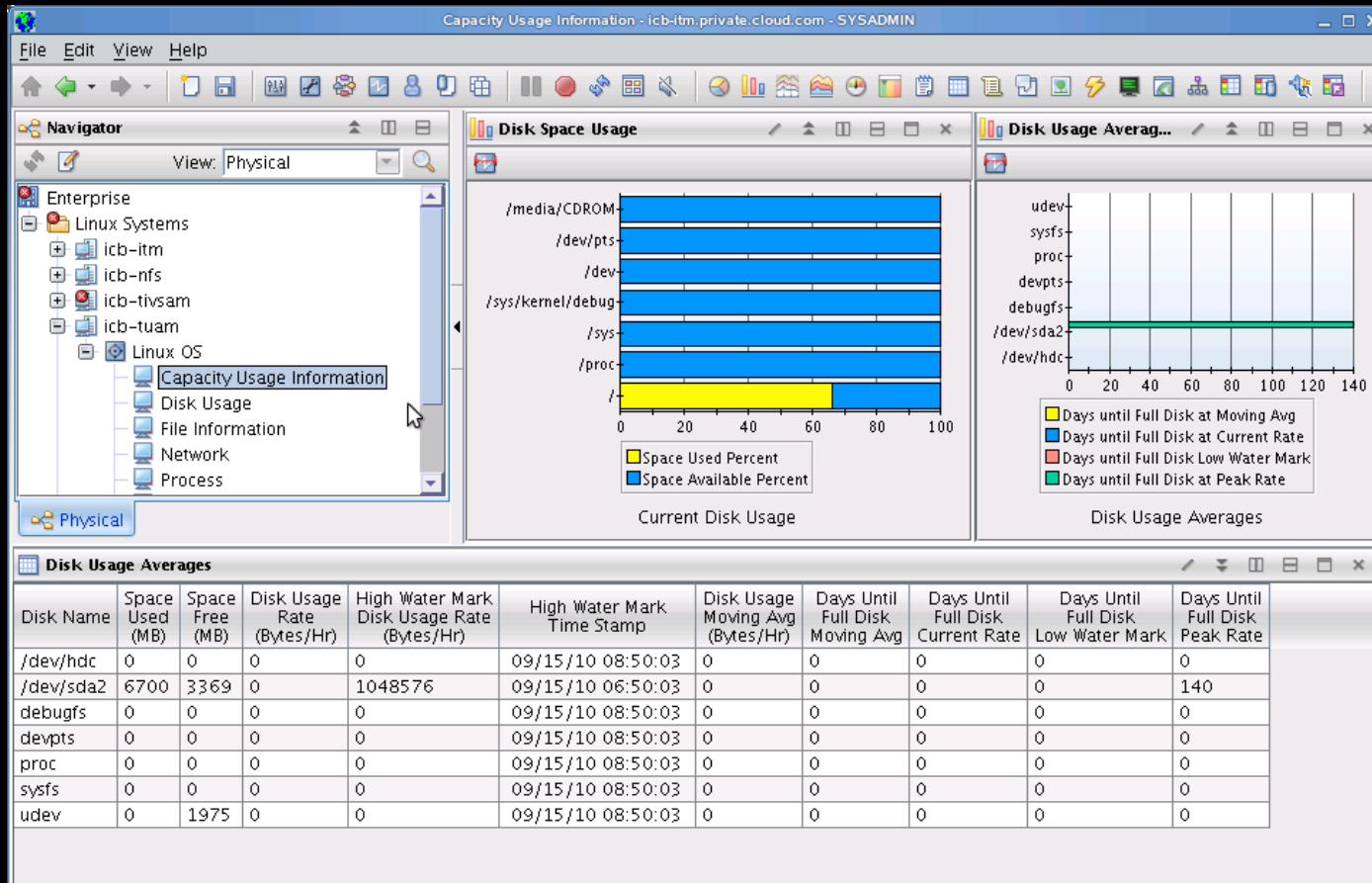
Servers	CPU	Memory	Disk
*Number of Servers to be Provisioned 1	Virtual 1 Physical 0.1	Main 1 GB Swap 0GB	Local 12 GB

1/25 available at above configuration and schedule

OK Cancel

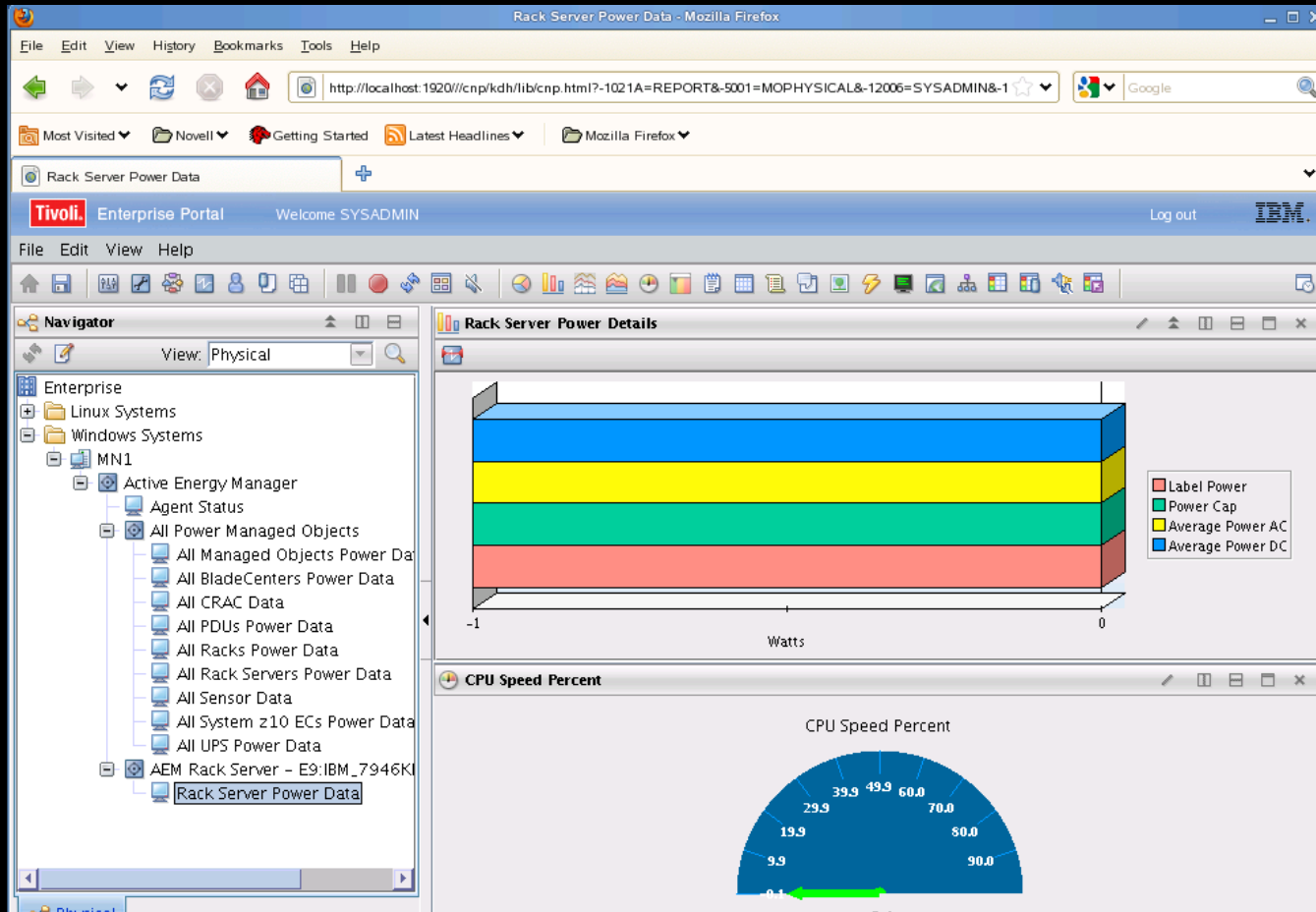
- Give the project a name and select the team to grant access
- Select start and stop dates
- Optionally select the ITM operating system agent
- Select the system and options for the virtual machine(s) that you wish to provision

Monitoring – Virtual Machines



- View into the operating system agent optionally installed on your project virtual machines

Monitoring – Energy Management



- View into the Energy Management agent installed on the management console system

Support

- Single Point of Contact (SPOC)
- Entitlement is performed against the solution and routed to Tivoli Triage Team
- Triage works with you to determine the problematic area and fix the problem or route to the appropriate team
- Fixes are tested with the solution and provided by the solution
- This support includes software and hardware!

What is Support Seeing?

- Connectivity related issues
 - Some issues when connecting to the network to your network
- Template creation
 - Requires Cygwin with Windows
- Renewing HTTP certificates
 - Set to expire after one year by default
- Issues provisioning with ITM agent selected
 - Two main drivers behind this
 - Due to prerequisites missing
 - Not enough disk space selected for the install

Links

- IBM Support Portal
 - http://www.ibm.com/support/entry/portal/Overview/Software/Tivoli/IBM_CloudBurst
- Info Center
 - http://publib.boulder.ibm.com/infocenter/tivihelp/v10r1/topic/com.ibm.cb.doc_2.1/cloudburst_welcome.html
- developerWorks
 - <https://www.ibm.com/developerworks/wikis/display/ibmcloudburst/IBM+CloudBurst+Product+Overview>
- IBM Cloudburst product info
 - <http://www-01.ibm.com/software/tivoli/products/cloudburst/>

Wrap Up

- Questions??

