A marketplace
for e-Infrastructure services

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Background

✓ Relevant 2-page document - http://bit.ly/1Sgbjhb
  ✓ *DATE: 2 DECEMBER 2014*

✓ Written as input to EC Consultation for Work Programme 2016-17/e-Infra part

✓ Document supported by e-IRGSP4 (support programme of e-IRG)
  ✓ Part of e-IRG LinkedIn Group

✓ Disclaimer: Does not necessarily reflect the views of e-IRGSP4 partners or e-IRG

Main idea

✓A concrete step towards e-Infra **services integration**

✓Towards the **e-Infrastructure Commons 2020**

  ✓Integrated living ecosystem of resources & services

  ✓Open, user friendly, accessible to EU researchers

  ✓Continuously adapting to user needs (e.g. RIs)

    ✓Summary of the e-Infra Commons:

     ✓ http://e-irg.eu/documents/10920/290578/e-Infrastructure+Commons+summary.pdf/

✓EU Open Science Cloud (instantiation of e-Infra Commons) part of EU Digital Single Market related EC Communication

    ✓*"The Commission will launch a European Cloud initiative including cloud services certification, contracts, switching of cloud services providers and a **research open science cloud"***

#OpenScienceCloud joint paper

✓By EGI, EUDAT, GEANT, LIBER, OpenAIRE
  ✓https://t.co/s6dgWw5U8f

✓Presented at EGI Community Forum – Open Science Cloud workshop

✓8 main points
  ✓Publicly funded-governed, Research-centric, Comprehensive, Diverse-Distributed, Interoperable, Service-Oriented, Social

✓Missing:
  ✓One-stop-shop for users: catalogue of services + access
  ✓Industrial services

What is a marketplace for researchers?

✓A place for researchers to find all services they need

✓A service catalogue and/or store

   ✓Search/find info and/or Access to the services/Install software

   ✓Networking, Computing, Data, Middleware-Software, other services

✓Both from e-Infra and Commercial Service Providers

   ✓Commodity services can be provided by commercial providers

→Integral part of the e-Infra Commons/Open Science Cloud

Examples

✓ UK Gov Digital Marketplace

  ✓ Previously G-Cloud ServiceStore

  ✓ https://www.digitalmarketplace.service.gov.uk/

✓ Microsoft Azure Marketplace

  ✓ https://azure.microsoft.com/en-us/marketplace/

✓ BT/Strategic Service Store

✓ HelixNebula AppStore on cloud services

  ✓ https://bb1.hnx.helix-nebula.eu/appstore

  ✓ Also refered to from the EIROForum paper

✓ Major e-Infrastructure projects (such as EGI, EUDAT) also working towards this direction

Gov.uk Digital Marketplace

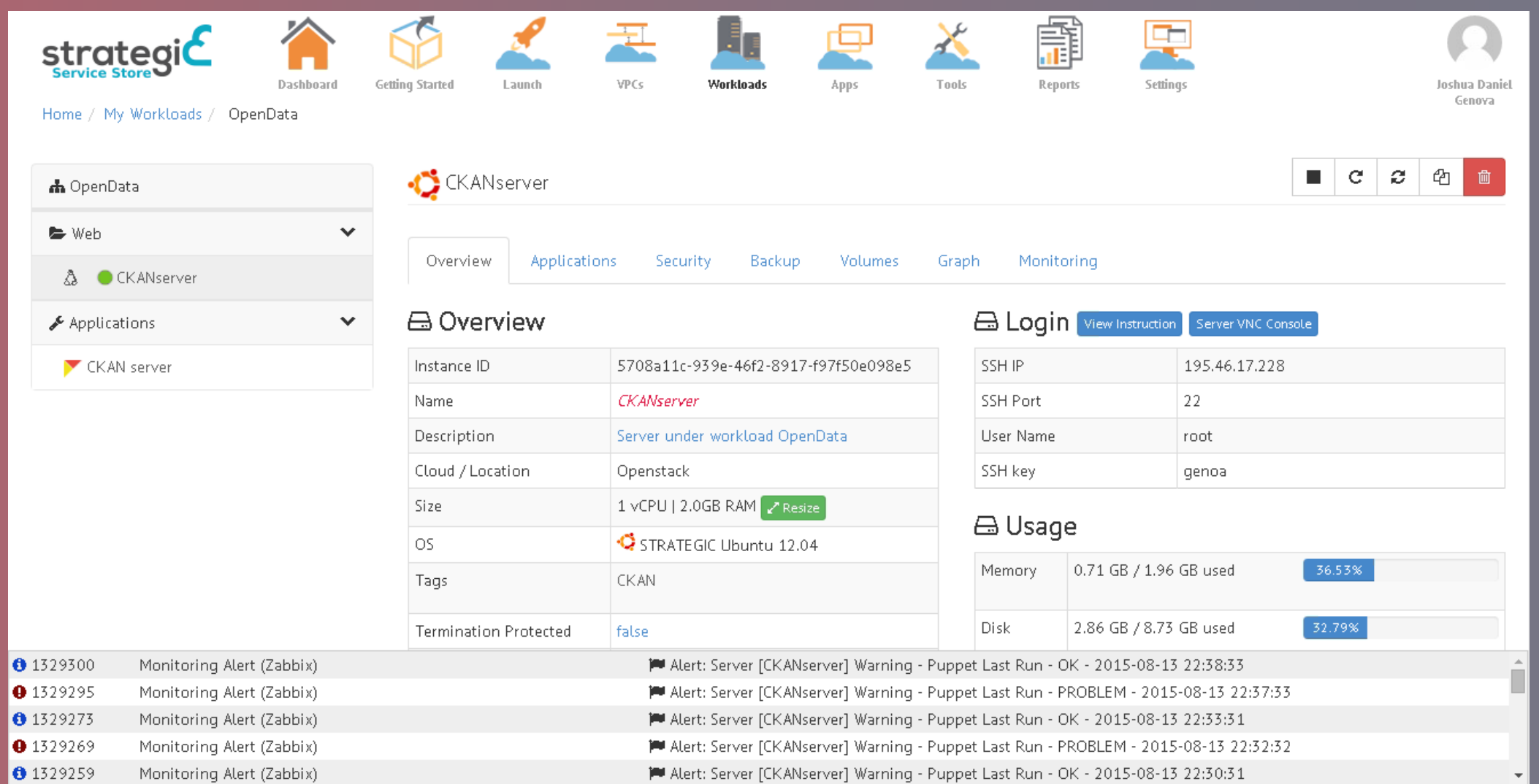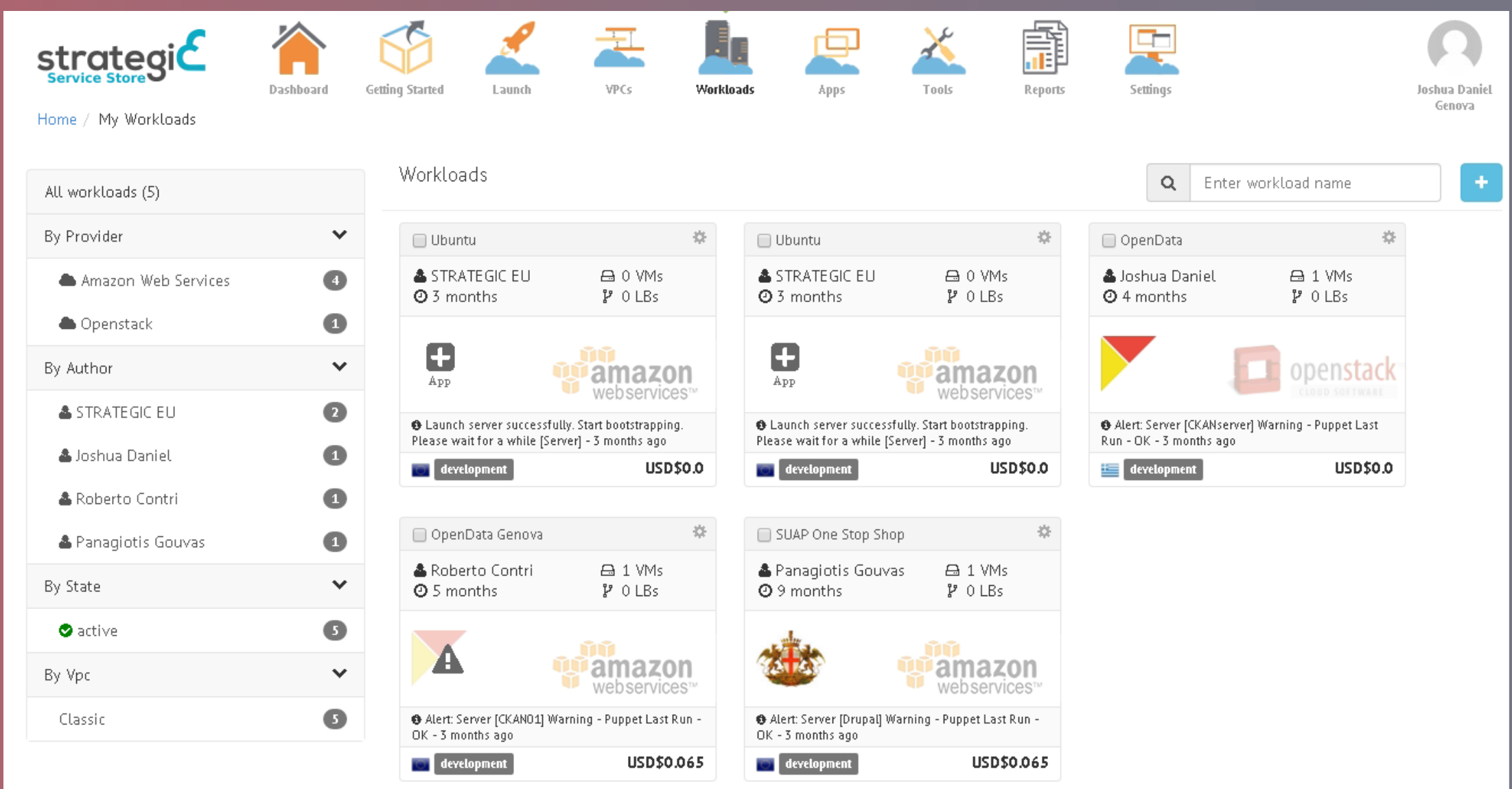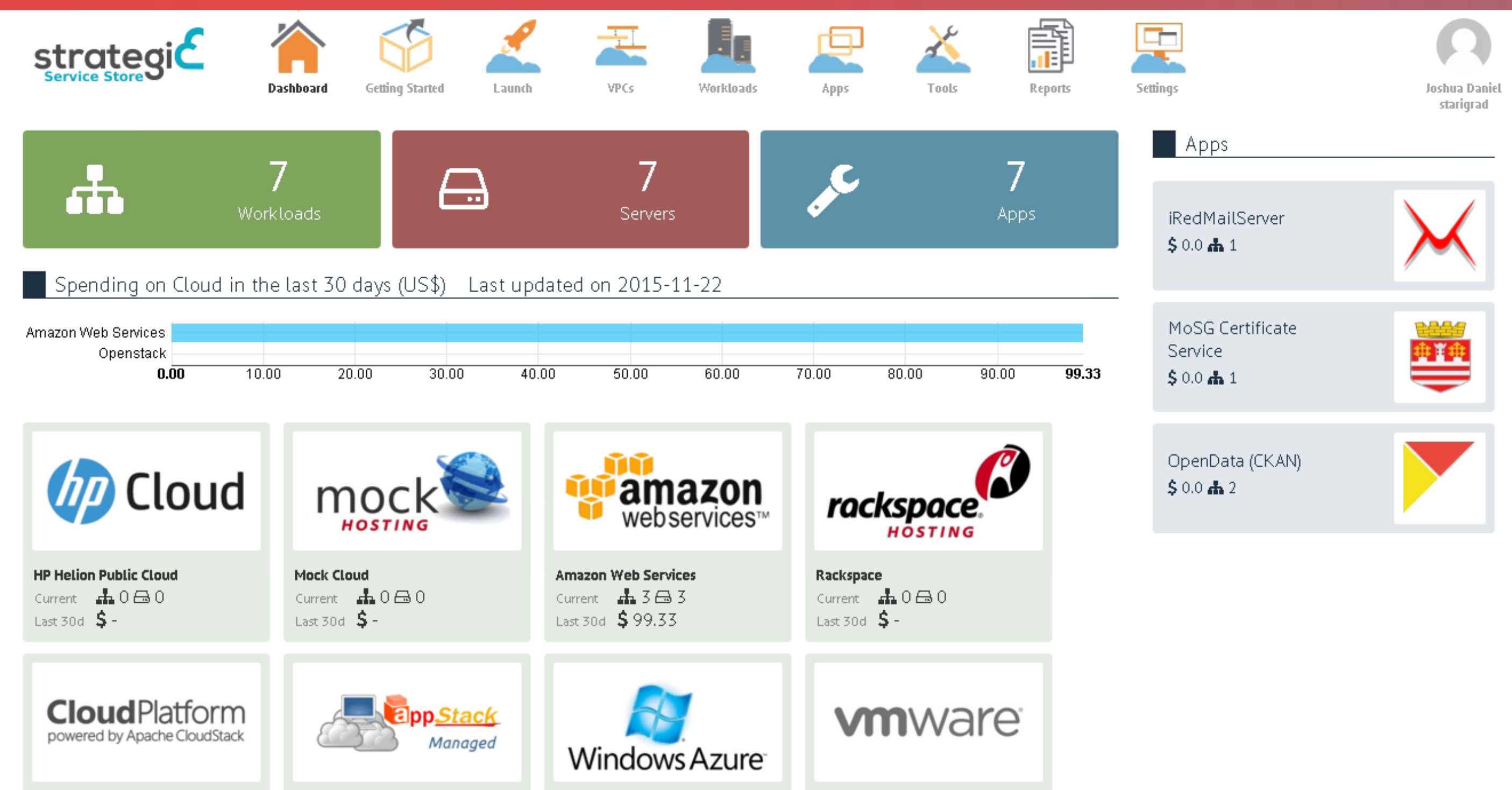✓ Not only services/apps but also find technology/support, buy data centre space, find experts…

Microsoft Azure Marketplace

✓ Searchable catalogue

✓ Categories: VMs, Developer Services, API Apps, Web applications, Data Services, …
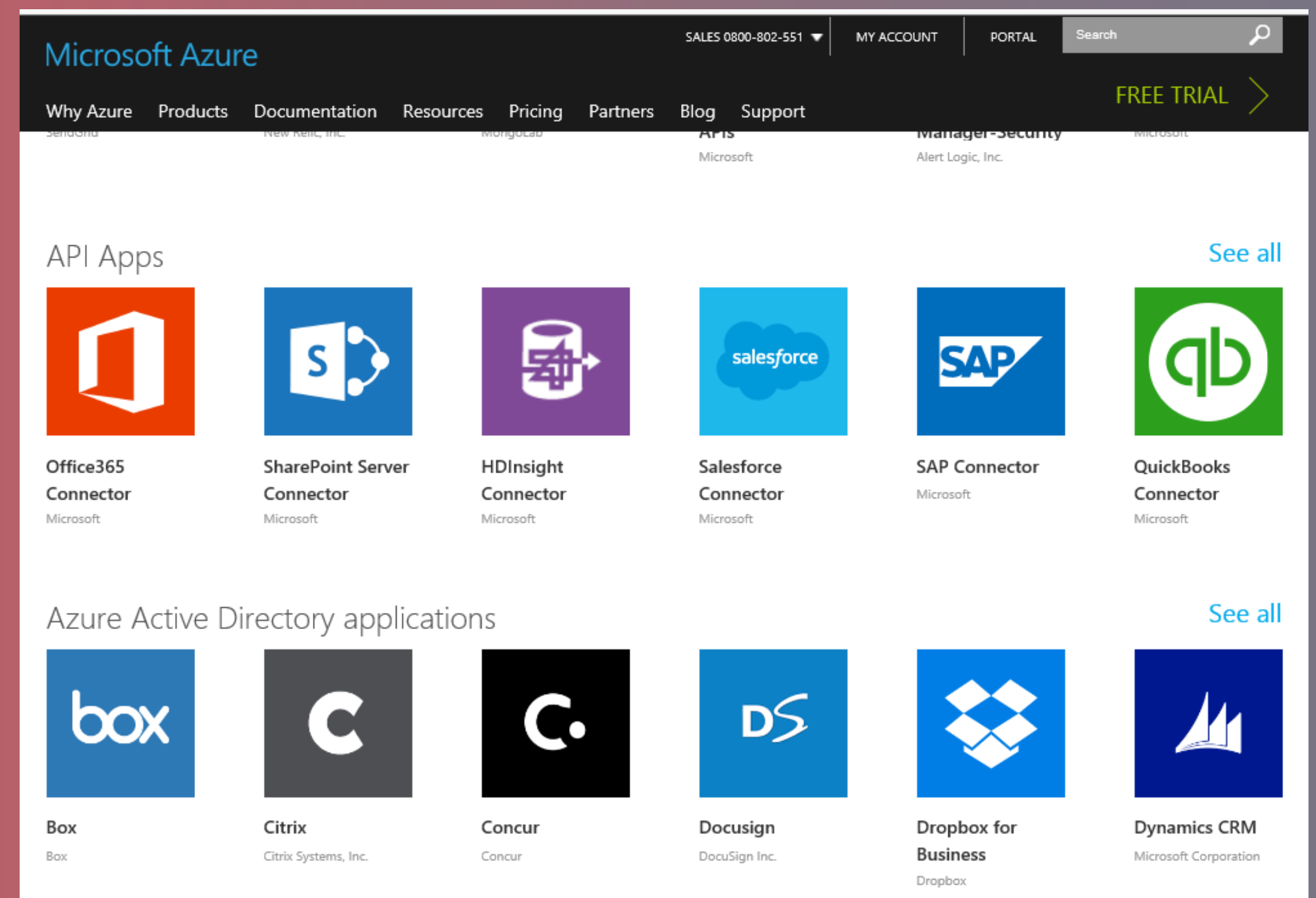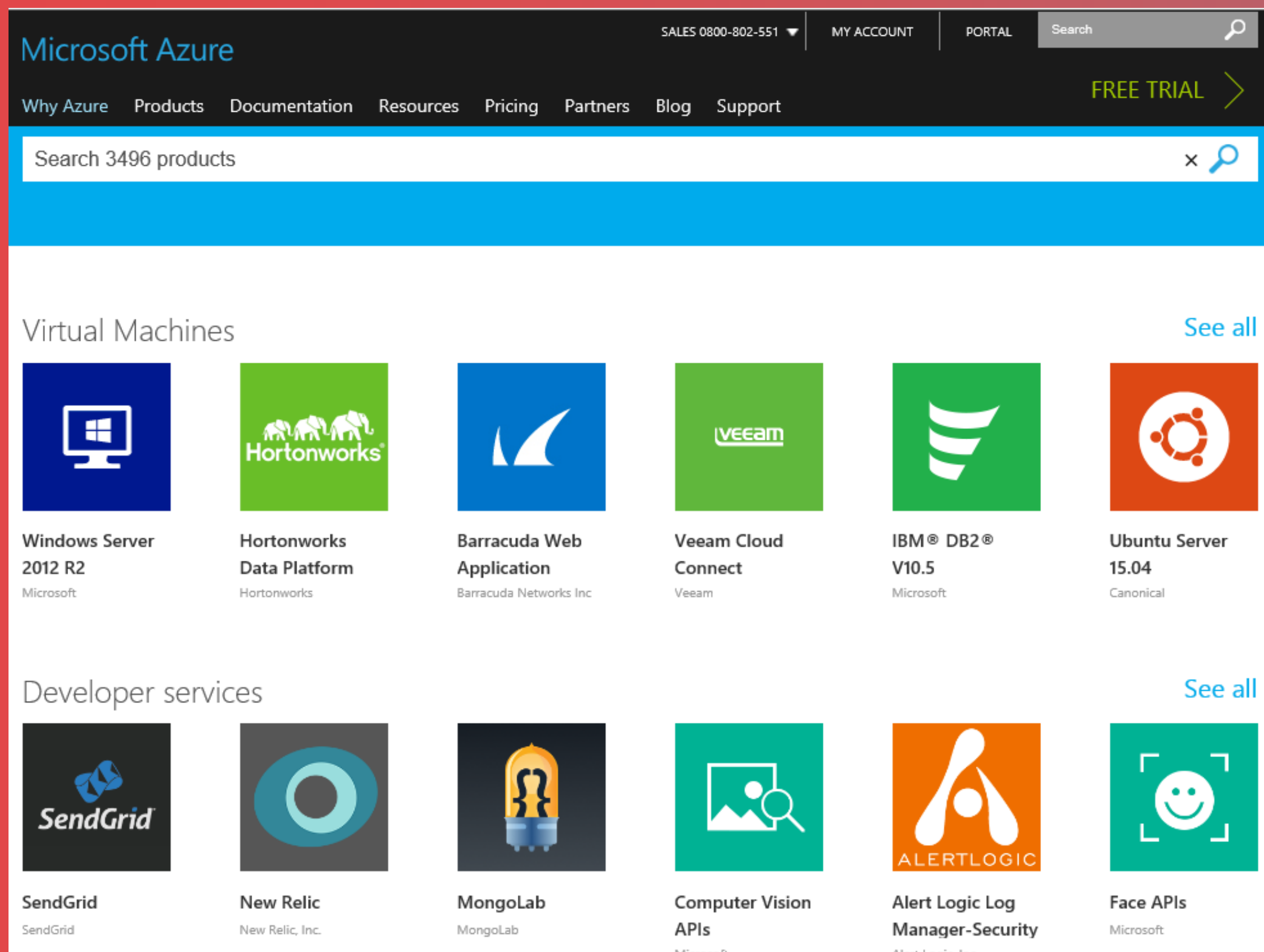
BT Research/Strategic Service Store

✓ Full marketplace – beta tested

Source: BT Research

HelixNebula MarketPlace – App Store

Marketplace main features

✓ **Single point of access (one-stop shop)**

  ✓ **Users can access to specific services**

✓ **Catalogue of services** – central registry

  ✓With metadata for each service based on a common agreed metadata schema

  ✓**Compliance profiles for providers and services**, with legal, technical and operational requirements

✓ **Search** facility for easily finding relevant services

✓ Use common **identity**, authentication and authorisation schemes

  ✓ Supporting eduGAIN and eGOV ID, but possibly also other methods (social media access)

✓ Both **research** and **industrial** ones

  ✓ E.g. Commercial cloud and storage services

  ✓ Both "free" (research) and with a fee (commercial) for its users

  ✓ Business models/payment framework

✓ Service Level Agreements

  ✓ Monitored performance parameters such as the availability, reliability and other states

Marketplace next features

✓ **Multi-lingual** user interfaces (and/or translation widgets)

✓ On-line **accounting**, analytics, visual monitoring of the services

✓ **Rating** of the services by the users

    ✓ **Possibly named rather anonymous**

✓ **Social media features - infographics**

    ✓ Share it, Like it, Comment

    ✓ Data/stats visualisations on services/usage

✓ **National/regional "views"/abstractions and/or instances of the EU marketplace**

    ✓ A sub-set of the EU services, possibly based on national laws and restrictions on commercial services

    ✓ Extra services available at national/regional level

Inspired by engagedata.eu

Technical considerations

✓ Open modular services framework

    ✓ With a multi-purpose interface towards both users and providers

    ✓ Service providers register services to the marketplace through an agreed interface after achieving compliance

✓ Open API (for service providers)

✓ Open platform (non-proprietary)

✓ Modular (new functionality added/changed)

✓ Horizontally-scalable architecture (that can handle large number of providers/services with big-data capabilities for rich business intelligence)

Marketplace Vision

✓ A coordinated marketplace environment among EU and national/regional levels

  ✓ Not only a single EU marketplace, but an ecosystem of marketplaces!

✓ EU-national marketplaces in sync: National/regional "views"/abstractions of the EU marketplace

Related points at recent events

✓ **#EC eConcertation2015:**

  ✓ Not only production-quality services, but also under-development ones (through which innovation is promoted)

  ✓ Classification of services before the catalogue? Probably in parallel!

  ✓ Access Policies on usage have to be clear!

    ✓ E.g. if only at national use, clearly state it!

  ✓ New draft paper on Service Catalogue by e-Concertation team to be published in Q1 2016

✓ **#EGICF15**

  ✓ Privacy and data security concern;

  ✓ Proposed list of services

  ✓ Co-designed approach between RIs and e-Infras (e-RIs)

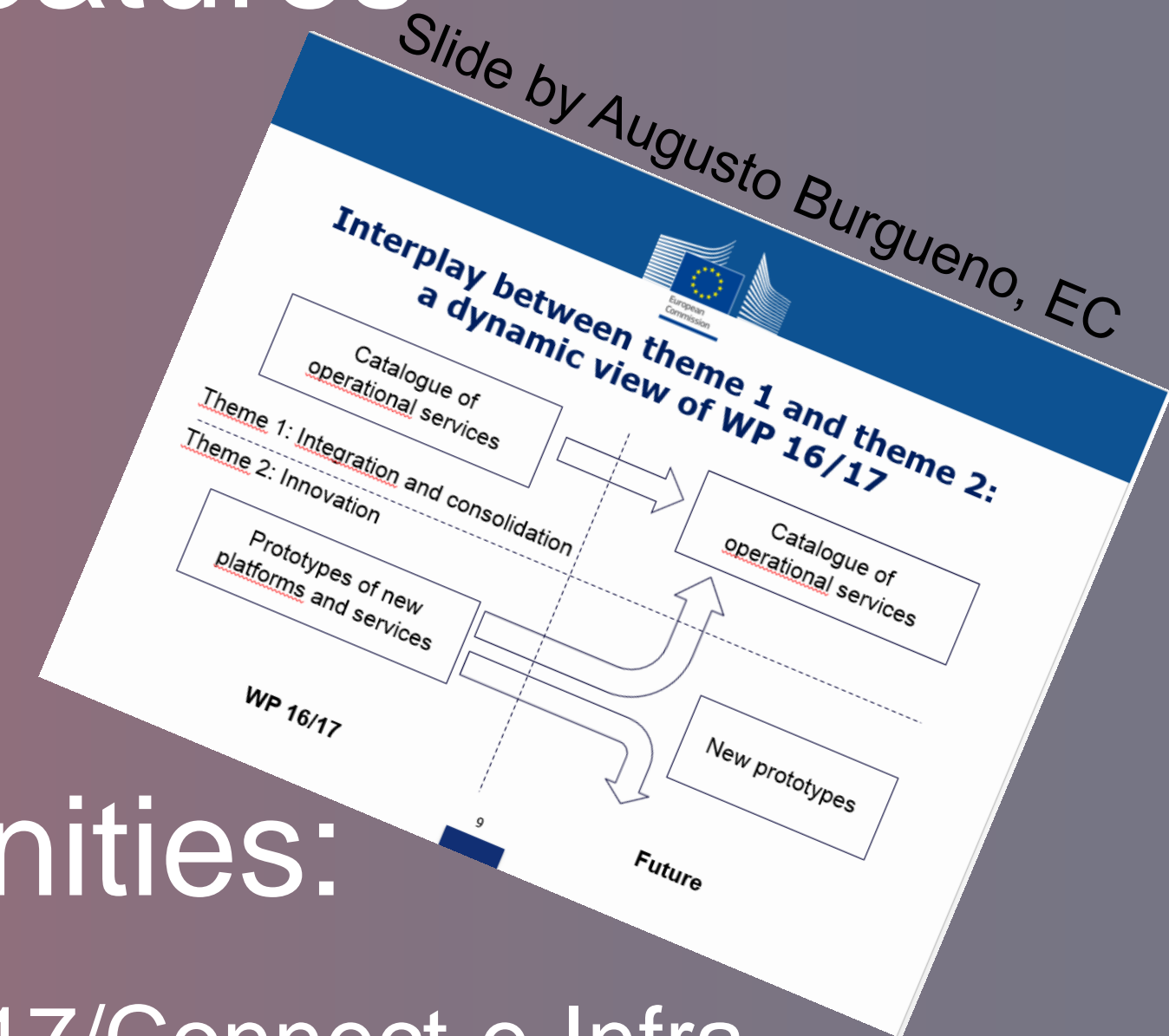 ✓ Report already available: 18/11/2015! http://go.egi.eu/oscws15

Multi-phased approach

✓ First version of the marketplace with main features

✓ Updates taking into account user feedback

✓ Full-featured by 2020?

✓ Great opportunity for e-Infra and RI communities:

   ✓ Catalogue of Services already part of EC WorkProgramme 16-17/Connect-e-Infra

   ✓ OpenScienceCloud (RTD) and Computing-Data Integration calls (Connect)

→ **UNITE** TO ACHIEVE THIS GOAL FOR THE BENEFIT OF USERS-PROVIDERS

Slide by Augusto Burgueno, EC

Interplay between theme 1 and theme 2: a dynamic view of WP 16/17

Theme 1: Integration and consolidation
Theme 2: Innovation

Catalogue of operational services

Prototypes of new platforms and services

Catalogue of operational services

New prototypes

WP 16/17

Future

Who should be leading/involved in this?

✓ Major EU e-Infrastructure initiatives/providers

✓ Diverse user communities (from ESFRI RIs to long tail representation)

✓ Technology-data experts, developers (AAI, data services)

✓ Industrial representation

Conclusions

✓ Marketplace: a first step towards the Commons and "lightweight" integration of e-Infra services

✓ Main features: one-stop shop, searchable catalogue, common access, research+industrial services, …

✓ Some convergence already

  ✓ EC has already published relevant calls

✓ Great opportunity to deliver something beneficial for the users!

Thank you!

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