THIS IS NOW DEPRECATED.
KEEPING THIS FOR REFERENCING PREVIOUS OUTLINE

Some guidelines and principles :-)

- Keep it vendor neutral
- Focus on business users

Problem Statement:
An Enterprise is new to Cloud and consider integrating Cloud into their Enterprise IT strategy. A business/senior executive is tasked to do some feasibility study. He heard about OpenStack and want to find out more about OpenStack. He visits www.openstack.org but there are massive amount of information around. How can we help this senior executive to jump-start the evaluation and adoption process, especially from the business perspective.

Proposal:
To write a pamphlet (limit to a maximum of 10-15 pages) : JumpStart OpenStack For Business Executive
This pamphlet should focus from the business point of view, although some technical information can be included. With this pamphlet, the reader should have a basic understanding on OpenStack Ecosystem, what's the benefits of introducing OpenStack to their organisation, what's the impact to their business, what's the adoption model they can follow, and where to find further information.

Target reader/audience: Less-technical Business Executives

Etherpad Reference:
https://etherpad.openstack.org/p/openstack-business-perspective
https://etherpad.openstack.org/p/Win-The-Enterprise-Pamphlet-Sprint-Vancouver

Dzone Reference Card: http://refcardz.dzone.com/refcardz/getting-started-openstack-most

Pamphlet Sprint Session: West building, Level 1, Room 113. (Friday 9am-5pm)

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(limited to 1 page)

Executive Summary (Leong)
We are in a software defined economy!
fast-paced market conditions.
agile IT strategy
many companies chose openstack, drive business transformation
open,flexible architecture

Introduction (1/4 page) (Leong)

- intended audience (non-technical, enterprise business executive, project managers)
- purpose of this book (this is for business perspective, not technical operations or configurations)
- book organisation (how the book is structured)
- acknowledgement

This pamphlet is intended to help business executives to gain a good understanding on OpenStack technology.

(limited to 1 page, include a graphic)
(http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf)
Section 1: What is Cloud (Leong)

“Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. The cloud model is composed of five essential characteristics, three service models, and four deployment models.” - NIST definition of cloud computing.

Essential Characteristics

1. On-demand self-service
2. Broad network access
3. Resource pooling
4. Rapid elasticity
5. Measured service

Service Models

1. Software as a Service (SaaS)
2. Platform as a Service (PaaS)
3. Infrastructure as a Service (IaaS)

Deployment Models

1. Private Cloud
2. Community Cloud
3. Public Cloud
4. Hybrid Cloud

Cloud Trends

1. General perspective
2. Cloud Survey (Kathy - Sriram can help Kathy on this)
3. Percentage of Public, Private, Hybrid

(limited to 1-2 pages, maybe just 1 page)

Section 2: What is OpenStack (Carol)

- OpenStack History
- OpenStack Governance/Foundation
- OpenStack Community (developer, documentation, user-group, enterprise working group, etc)
- OpenStack Project/Program
- QA in OpenStack (there should be a non-technical description on how we ensure code quality to ease any concerns)
- OpenStack Releases
    - how the foundation make the release available.
- List consumption models. refer to section 6 for more details and decision making. Refer reader to Marketplace for vendor information.
    - OpenStack Packaging? Distribution (Are we just going to define the release cadence/process and what is a distribution? Defer naming distributions and point the reader to marketplace)
        - my point is explain the distribution model (e.g. like in Linux Core -> Debian -> Ubuntu) Got it, makes sense.
- OpenStack Marketplace and Enterprise home page (openstack.org/enterprise). We can use this to publish any/all of our high level materials. Kathy will work with web designers to integrate appropriately.

Continue Section 2: What is OpenStack (maybe just 1 page?)

(limited to 2 pages, with some examples?)

Section 3: Why OpenStack (benefits)

- Software-defined Economy? (Carol)
  - Enabling towards SDE
  - Keynote from Jonathan
- Differences between OpenStack and virtualisation? Kathy will provide base content here. Best overview of this is in this older Rackspace video:
- Self-Service and Agility (refer user survey on the top 3 benefits)
- Innovation
- Choices / avoid lock in
- Cloud economics (value proposition)
  - Reduce proprietary license?
  - Commodity hardware (Would this be a separate point or is it just one of the "choices" in the previous bullet point)
    - not sure yet, maybe under the previous bullet point? +1
    Recommend renaming this to Achieving Cloud Economics, and summarize Chapter 5 here
  - Can borrow some content from the CIO preso
- DR, Availability, MTTR vs MTBF (maybe can refer to user stories, may consider mentioned this in Cloud trend/characteristics)
  - how can we make use of OpenStack to achieve Application-level High Availability?
- Path to Hybrid Cloud
  - Federated Clouds (a white-paper to be published on May 18?)
  - Workload portability
- Path to Software-defined Data Center?
  - Explain promises of SDDC?
  - Explain role of OpenStack in SDDC
  - Phrase it in a way that this can be possibly achievable?

Continue Section 3: Why OpenStack (benefits)

(limited to 2 pages with examples)

Section 4: What can OpenStack be used for? (Sriram)

- Cloud-aware application & Traditional application
    - explain what is cloud-aware
    - Kathy's starting point for this content, from the *Adding Speed and Agility to Virtualized Infrastructures with OpenStack* white paper. Feel free to edit!

To understand the differences between traditional infrastructures and cloud computing, look at how they differ in the philosophy of their designs.

First, consider the infrastructures that were built on virtualization technologies, such as the VMware ESXi™ hypervisor and vSphere. These technologies offered consolidation on a smaller number of larger servers.

The solutions worked well because most servers hosted applications with monolithic architectures, such as Oracle or Microsoft® Exchange. Today, each instance of this type of application is still encapsulated in a single virtual machine and grows by scaling up on a single physical server.

To provide these legacy applications with a resilient infrastructure, most VMware shops choose to run their application servers as virtual machines in vSphere clusters, depending on features such as VMware vSphere® High Availability and VMware vSphere® vMotion®. While these solutions work well, they also require certain architectural choices be made, such as reliance on shared storage that makes scaling out difficult.

Next, consider the difference in cloud computing. Cloud platforms like OpenStack are designed to be used with a different class of applications, such as MongoDB and Hadoop that are architected to scale horizontally, and are resilient against virtual machines shutdowns. Resources can be expanded by adding more application instances and re-balancing workloads across those instances. These distributed applications are responsible for their own resiliency, independent of the underlying infrastructure and advanced hypervisor features.

VMware users often mistake this as a reflection of deficiencies and immaturity of the OpenStack platform. However, this assertion is based on a

misunderstanding about the differing design principles of legacy applications and cloud computing.

By moving application resiliency up the stack, cloud platforms remove the need shared-everything architecture-based decisions. Commodity hardware is seen as an option for running a cloud platform and creates an architecture that enables rapid scaling of the infrastructure.

This architecture is best suited for next-generation, large-scale application environments where failure is anticipated and requires a design at multiple layers, beyond the infrastructure.

- e-Commerce
    - Use info from this detailed blog We'll have video from Walmart's Vancouver keynote. We don't need much for this pamphlet. http://www.walmartlabs.com/2015/02/17/why-we-chose-openstack-for-walmart-global-ecommerce/
    -
- Web services
- Big Data / Data Analytics
    - Reference Top 10 Automaker white paper at www.openstack.org/big-data
- Agile platform for Enterprise IT
- Infrastructure Platform for CI/CD (Sriram)
  - one would not assume that the target audience understands what is CI/CD - an overview, why (benefits), what, how of CI/CD Greenfield applications Please define "greenfield" here. (do we want to mention "design for failure" here?)
  - not sure yet, up for discussion. The point is to let the business executives know what kind of workload can be run on OpenStack. Understood, the reason I mentioned DFF was to show the reader that it's about application architecture more so than infrastructure characteristics +1
- R&D (CERN, NeCTAR Cloud at Unv of Melbourne, and many more examples) Kathy to provide from slides from Tom Fifield
- Digital supply chain - more to come on this by Summit
- Traditional App (Pets vs Cattle model?)

- One or two examples of OpenStack in productions (can we borrow Walmart OR CERN user stories?) Sure thing - any published stories. We can find an example for each workload, e.g. Walmart for e-Commerce, PayPal for Web services, Walmart is keynoting and has a session at Summit - will have videos shortly after.

(As discussed in the WtE Business/Marketing meetings, the Foundation is developing a series of workload-based campaigns and applicable content throughout 2015-early 2016, that includes most all of the workloads listed, plus a couple of technologies of interest to the enterprise)

Continue Section 4: Where can OpenStack used for?

(limited to 2 pages)

Section 5: OpenStack Impact & Economics (Organisation Transformation) (Dave Pitzely)

- Culture and organisational changes
  Organization changes can be two faced:
  - Management philosophy - supportive of change - often there is unwillingness to move from proprietary spoon-fed support structure
  - User up-skilling - there may be a need to grow awareness on development of Cloud-aware resilient apps
- The biggest non-technical hurdle is creating/nurturing/reinforcing/transforming a culture where the team has an open mindset to embrace disruptive change. I regularly need to ask people to suspend disbelief and judgement until they've had a chance to experience cloud first hand. Fail fast, pivot as needed. Good point!
- Impact to enterprise processes
- Maybe can write something about any "recommendation/best-practices" for culture/processes
- Business agility
- Time to market (could be different for businesses, focus on delivering application faster).
- Cost & Benefits
- Cost & Funding model (get from CIO preso?)
- Measuring value (get from CIO preso) (Leong)
- "Open Source First" as a Strategy "Open Cloud" ? :-)
  - potential path gain economy of scale and value of using open-source
- Staffing transformation
  - Role & responsibilities of running/operating openstack.
  - Shift from resources to value-added activities
  - Business perspective
- What are the Challenges of introducing/implementing OpenStack?
  - User study sharing experiences? (business which experienced challenges and how they overcame them)
  - Technical challenges

        - Ex: https://www.packet.net/blog/how-we-failed-at-openstack
    - People challenges

Continue Section 5: OpenStack Impact & Economics

(limited to 1 page)

Section 6: Ready to start OpenStack? (Check openstack.org/start) (Sriram)

- Options (try to rephrase in more high-level business) (Mark Smith) Pleaser refer to http://www.openstack.org/software/start/.
    - DevStack (single machine)
    - Build your own cloud (start from small lab, then pilot, then small-scale production…then large-scale…), maybe mentioned what are the minimal requirements to build a minimal OpenStack Cloud for evaluation/experiment purpose, estimated budget?
        - Installing yourself or prepackaged installer (recommendation is to use installer)
    - OpenStack as a Service (e.g. Mirantis OpenStack Express) Try an OpenStack Public cloud for a small charge
- Where can I find reference architecture?
- Consumption models with links to qualified providers (from Kathy)
    - DYI On-premise private cloud built from open source, documentation, drivers, with OpenStack training for your staff
    - DYI on-premise private cloud built from a distribution or Converged Appliance
    - Hosted Private Cloud
    - Public Cloud
    - Hybrid cloud (mix of private, hosted private and/or public clouds)
- Where to get more help/how to engage the community? (Vendor support, courses, training, IRC, mailing lists)