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README

- AR: Apply the standard STX spec template **Done**
- Big todo - merge with Abraham's existing list **Done**
- Big todo - add the items identified as Gap in the WR doc sheet **Done**
- Categorize the items according to "stages" **Done**
- AR - review the [Gap document](#) against Bruce's draft spec and add anything missing.

<<Draft Spec begins here>>

This spec has been posted! <https://review.openstack.org/#/c/635641/>

Documentation re-org and user documentation framework
=====

This specification proposes changes to the structure of the StarlingX documentation to make it easier for new contributors and users to find the information they need. We are also proposing a number of new documents to cover gaps in the current documentation set. This spec defines the proposed new structure of the stx.docs repo and includes links to the Storyboard entries for the new documents proposed. The new documents needed have been prioritized by the Docs team to allow for the implementation to occur over time.

Problem description
=====

The StarlingX documentation structure can be improved to provide more information for new users and contributors, as well as providing additional reference information for more experienced users. It can also be improved to make it easier for users and contributors to navigate the document hierarchy so they can find what they need.

Use Cases
=====

- 1) As a brand new user, I would like to learn the basics about StarlingX so I can plan my initial deployment
- 2) As a user, I would like to learn how to deploy, install and run StarlingX, so I can learn about it, try it out and evaluate it.
- 3) As a user, I want to be able to plan my deployment of StarlingX so I can ensure my deployment is successful
- 4) As a user administering a StarlingX edge cloud deployment, I would like to learn how to use all of the features of StarlingX

and have all of the API and CLI interfaces documented, so I can manage my StarlingX edge cloud.

- 5) As a brand new contributor, I would like to learn about the process for accessing the StarlingX source code and building it from source, so I can make changes and test them.
- 6) As a contributor, I would like to learn about the architecture of StarlingX and the project's development process, so I can contribute to the project.

Proposed Change

=====

This section describes the changes to be made to the documentation. The changes are broken down into multiple stories each of which has a priority as determined by the Docs team.

New landing page

We propose to change the StarlingX documentation hierarchy on docs.starlingx.io from this:

- Installation Guide
- Developer Guide
- Project Specifications
- REST API Reference
- Release Notes
- Contribute

To this:

- Introduction to StarlingX
- Deployment Guides
- Installation Guides
- Operation Guides
- Contributor Guides

Releases and Release Notes

Internals

Each of the new sections in the document hierarchy is described below.

Note that we are separating Deployment from Installation. We define Deployment as all the steps needed starting from empty racks in the data center to a running StarlingX instance. Installation is defined as installing the software and is a subset of Deployment. Both sets of documents will leverage content from the existing StarlingX documentation.

SB link for the restructuring: TBD

Priority: VH - release gating

Introduction to StarlingX

This new page in the document tree is a landing page that contains links to the following documents:

- StarlingX Project Introduction
- StarlingX for Kubernetes Users
- StarlingX for OpenStack Users
- StarlingX Background Information
- StarlingX in a Box
- StarlingX Evaluation Guide
- Roadmap to StarlingX Documentation

SB for the Intro landing page: TBD

Priority: VH - Release gating

The following documents are included in this section of the documentation.

StarlingX Project Introduction (NEW)

This document should start with a project overview wrt objectives, capabilities, basic approaches. Introduce the concept of base Kubernetes Cluster + optional OpenStack Cloud Application. Introduce the various use cases for StarlingX and the available deployment options.

SB entry: TBD

Priority: VH - release gating

StarlingX for Kubernetes Users (NEW)

This document should describe the Kubernetes solution installed and supported by StarlingX; e.g. what Kubernetes services are included, what networking options, what container runtime options, what storage solutions, local registry, etc... It should highlight key similarities and differences between StarlingX and standard Kubernetes.

SB entry: TBD

Priority: H

StarlingX for OpenStack Users (NEW)

This document shall describe the OpenStack solution installed and supported by StarlingX; e.g. what OpenStack Services are supported, what Neutron backends are supported, what storage backends are supported, etc. . This document shall highlight key similarities and differences between StarlingX and standard OpenStack.

SB entry: TBD

Priority: H

StarlingX Background Information (NEW)

This document shall contain a sanitized and updated version of Abraham's internal New Hire spreadsheet. It contains links to many other docs, web pages, blogs, etc... that provide context for StarlingX.

SB entry: TBD

Priority: M

StarlingX in a Box (NEW)

This doc will describe how to boot and run "StarlingX in a Box" (SIAB). Once we actually create it (insert SB link here).

The document should take users through the process of bringing SIAB up and show them some basic commands (create VM, load image into VM, start/stop VM, etc...) The challenge will be to not over document things documented elsewhere or familiar to experienced OpenStack or K8S users, while guiding less experienced users to performing real world tasks in StarlingX.

SB entry: TBD

Priority: M

StarlingX Evaluation Guide (NEW)

This is a new document describing how we expect end users who are new to StarlingX to evaluate the software. It should describe basic evaluation use cases and how to implement them in StarlingX. It should call out the open source functional and performance test suites (once they exist) and how to run them. The document's main goal is to show users how to use the key differentiating features of StarlingX and guide them to a very positive evaluation.

SB entry: TBD

Priority: M

Roadmap to the StarlingX Documentation (New)

This new document provides the reader with a brief overview of the entire documentation set. It could be based on use cases

listed above e.g. "if you are a dev looking to contribute, you should read X, Y and Z. If you are an operator planning a deployment read A & B."

SB entry: TBD

Priority: H

Deployment Guides

This is a new landing page in the document hierarchy. It contains links to the following documents:

StarlingX Deployment Planning

StarlingX Deployment Options

AIO-Simplex Deployment Guide

AIO-Duplex Deployment Guide

AIO-Duplex with Computes Deployment Guide

Small Standard Deployment Guide

Standard Deployment Guide

Standard with Ironic Deployment Guide

Multi-Region Deployment Guide

Distributed Cloud Deployment Guide

SB entry: TBD

Priority: VH - release gating

The following documents are included in this section of the documentation.

StarlingX Deployment Planning (New)

This is a new document for how to plan a deployment of StarlingX. Needs to include references to the Deployment Options (or maybe just include it). Discuss why, how and when

the various deployment options should be used. More focused on how to define what hardware to buy and how to cable it up. The existing HW requirements documents would go here.

SB entry: TBD

Priority: VH - release gating

StarlingX Deployment Options (New)

This is a new document that describes at a high level the different ways that StarlingX can be deployed. It describes each option at a high level.

SB entry: TBD

Priority: VH - release gating

AIO-Simplex Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the All-in-one Simplex configuration.

SB entry: TBD

Priority: VH - release gating

AIO-Duplex Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the All-in-one Duplex configuration.

SB entry: TBD

Priority: VH - release gating

AIO-Duplex with Computes Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the Duplex with Compute nodes configuration.

SB entry: TBD

Priority: VH - release gating

Small Standard Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the Small Standard (no storage) configuration.

SB entry: TBD

Priority: VH - release gating

Standard Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the Standard (with storage nodes) configuration.

SB entry: TBD

Priority: VH - release gating

Standard with Ironic Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the Standard configuration with OpenStack Ironic to allow use of bare metal Compute nodes. This is basically just the existing how-to doc on Ironic, updated to deploy it in a Container.

SB entry: TBD

Priority: M

Multi-Region Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the Multi-Region configuration.

SB entry: TBD

Priority: VH - release gating

Distributed Cloud Deployment Guide (New)

This is a new document that describes how to deploy StarlingX in the Distributed Cloud configuration.

SB entry: TBD

Priority: VH - release gating

Installation Guides

This is a new landing page in the document hierarchy. It contains links to the following documents:

AIO-Simplex Installation Guide

AIO-Duplex Installation Guide

AIO-Duplex with Computes Installation Guide

Small Standard Installation Guide

Standard Installation Guide

Standard with Ironi Installation Guide

Multi-Region Installation Guide

Distributed Cloud Installation Guide

Additional OpenStack Services Installation Guide

SB entry: TBD

Priority: VH - release gating

The following documents are included in this section of the documentation.

AIO-Simplex Installation Guide (New)

This is a new document that describes how to install StarlingX in the All-in-one Simplex configuration.

SB entry: TBD

Priority: VH - release gating

AIO-Duplex Installation Guide (New)

This is a new document that describes how to install StarlingX in the All-in-one Duplex configuration.

SB entry: TBD

Priority: VH - release gating

AIO-Duplex with Computes Installation Guide (New)

This is a new document that describes how to install StarlingX in the Duplex with Compute nodes configuration.

SB entry: TBD

Priority: VH - release gating

Small Standard Installation Guide (New)

This is a new document that describes how to install StarlingX in the Small Standard (no storage) configuration.

SB entry: TBD

Priority: VH - release gating

Standard Installation Guide (New)

This is a new document that describes how to install StarlingX in the Standard (with storage nodes) configuration.

SB entry: TBD

Priority: VH - release gating

Multi-Region Installation Guide (New)

This is a new document that describes how to install StarlingX in the Multi-Region configuration.

SB entry: TBD

Priority: VH - release gating

Distributed Cloud Installation Guide (New)

This is a new document that describes how to install StarlingX in the Distributed Cloud configuration.

SB entry: TBD

Priority: VH - release gating

Additional OpenStack Services Installation Guide (New)

This is a new document that describes how to install and configure additional OpenStack services (beyond those supported by StarlingX) in a StarlingX deployment. Example services include Octavia, Trove and Sahara, all of which have been mentioned in the community as of interest.

SB entry: TBD

Priority: L

Operation Guides

This is a new landing page in the document hierarchy. It is intended to serve as the home page for "how to" documents and user/operator focused documentation. The page should contain links to the following documents:

StarlingX API Reference

StarlingX CLI Reference

StarlingX Provider Network Configuration

StarlingX CEPH Storage Configuration

StarlingX SDN Networking

StarlingX Kubernetes Cluster Guide

StarlingX SWIFT Configuration and Management

StarlingX Fault Management

StarlingX Patching Guide

StarlingX Upgrade Guide

SB entry: TBD

Priority: VH - release gating

StarlingX API Reference

This is the existing API Reference documentation.

StarlingX CLI Reference (New)

This is a new document the defines all of the CLI commands in the StarlingX services.

SB entry: TBD

Priority: M

StarlingX Provider Network Configuration (New)

This is a new document for how to configure the provider network.

SB entry: TBD

Priority: M

StarlingX CEPH Storage Configuration (New)

This is a new document for how to configure CEPH

SB entry: TBD

Priority: M

StarlingX SDN Networking (New)

This is a new document for how to configure SDN networking.

SB entry: TBD

Priority: L

StarlingX Kubernetes Cluster Guide (New)

This is a new document for how to operate the Kubernetes within StarlingX.

SB entry: TBD

Priority: M

StarlingX SWIFT Configuration and Management (New)

This is a new document describing how to configure and use SWIFT within StarlingX.

SB Entry: TBD

Priority: M

StarlingX Fault Management (New)

This is a new document describing the fault management capabilities of StarlingX and how to use them, how to find and read logs, etc...

SB entry: TBD

Priority: M (H?)

StarlingX Patching Guide (New)

This is a new document describing the software patching capabilities of StarlingX and how to use them.

SB entry: TBD

Priority: L

StarlingX Upgrade Guide (New)

This is a new document describing the software upgrade capabilities of StarlingX and how to use them.

SB entry: TBD

Priority: L

Contributor Guides

This is a new landing page in the document hierarchy. It is intended to serve as the home page for "how to" documents and user/operator focused documentation. The page should contain links to the following documents:

StarlingX Contributor Guide

StarlingX Development Process

StarlingX Build Guide

StarlingX API Contributor Guide

StarlingX Release Notes Contributor Guide

StarlingX Documentation Contributor Guide

StarlingX Contributor Guide (New)

This is a new document providing a high level overview of how to contribute to StarlingX. It should describe the communication channels that are used, the way we have divided up the project into sub-projects, our wiki page, our weekly community and sub-project meetings, and other similar topics.

SB entry: TBD

Priority: H

StarlingX Development Process (New)

This is a new document that can leverage existing content from the wiki. The document should cover the basic tools used (git / gerrit / etc...), the feature development and spec approval process,

the bug resolution process, our release planning process and other similar topics.

SB entry: TBD

Priority: H

StarlingX Build Guide

This is the existing Build documentation, updated as needed to fit within the new hierarchy and for the Containers changes.

SB entry: TBD

Priority: H

StarlingX API Contributor Guide

This is the existing API Contributor Guide

StarlingX Release Notes Contributor Guide

This is the existing Release Notes Contributor Guide

StarlingX Documentation Contributor Guide

This is the existing Documentation Contributor Guide

Releases and Release Notes

This should be a landing page with links to the Cengn images and Release notes for all releases. Releases that are no longer supported should be included (for historical reasons) but should be marked as "obsolete" or "unsupported".

SB entry: TBD

Priority: VH - release gating

StarlingX Internals

This is a new landing page within the documentation and will contain links to the following documents:

How to Navigate the StarlingX Source Code

StarlingX Architecture Documents

StarlingX Specifications

SB entry: TBD

Priority: VH - release gating

How to Navigate the StarlingX Source Code (New)

This is a new document describing the structure, layout and high level architecture of the StarlingX git repos and source code.

SB entry: TBD

Priority: H

StarlingX Architecture Documents (New)

This is a landing page for architecture documents, which do not yet exist.

SB entry: TBD

Priority: L

StarlingX Specifications

This is a link to the existing StarlingX Specifications page.

Alternatives

=====

There are many ways to organize the StarlingX document repository. The proposal here is the result of multiple discussions, drafts and reviews within the Docs team.

Data model impact
=====

None

REST API impact
=====

None

Security impact
=====

None

Other end user impact
=====

End users should find it significantly easier to deploy and manage StarlingX Edge Clouds. New contributors should find it significantly easier to make contributions to the project.

Performance Impact
=====

None

Other deployer impact
=====

None

Developer impact
=====

Developers will have to write, contribute to and maintain additional documents. Since these documents will help them do their jobs, it's worth the effort :)

Upgrade impact
=====

None

Implementation
=====

This work will be implemented as a set of related Storyboard entries, as called out in the Proposed Change. Each Story has a priority defined for it so the work can be managed over time.

Assignee(s)
=====

Members of the Docs team will lead. Contributions from the broader community will be needed.

Primary assignee:

=====

Several will be needed.

Other contributors:

=====

Many will be needed.

Repos Impacted
=====

Stx.docs and likely the Flock services repos

Work Items
=====

See the SB entries called out in the Proposed Change

Dependencies
=====

None significant

Testing
=====

Testing will be needed to ensure that the documents written accurately describe the software.

Documentation Impact

=====

Lots :)

See [StarlingX Documentation Gap List](#)

Planning

Deployment

Deployment Options Overview

- *Need diagram, description of major components and why-I-would-use-this for each Deployment Option.*
- *[“StarlingX Deployment Options”](#) presentation shared by Greg.*

CLEANUP wrt Disk Device Naming in Installation Guides 2

Bare Metal (Ironic)

- *Add Bare Metal (Ironic) as a Deployment Option within the Install Guides*

Distributed Cloud

- *Deployment Option – Installation Guide*
 - *Add Distributed Cloud as a Deployment Option within the Install Guides*
- *Capabilities – stx-distcloud – Project Documentation*
 - *Description of resource synchronization, fault aggregation, patch orchestration*

Installation Guides (including Deployment Options Overviews)

- *Updates due to Containerization of OpenStack changes.*
 - [StarlingX/Containers/Installation/Simplex](#)

Distributed Cloud – Install Guides & Capabilities Sections

- *Updates due to Containerization.*

Configuration

StarlingX Kubernetes Cluster Overview

- *Project Documentation.*
- *Provide brief overview of concepts and capabilities of the base Kubernetes Cluster and*
- *How to manage Container-based Applications.*

CEPH Storage Backend Configuration

- *stx-metal/stx-config*
- *Project Documentation.*
- *Provide detailed configuration options (not covered in install guides) related to CEPH Cluster configuration and management.*

SDN Networking

- *Deployment Option.*
- *Installation Guide.*
- *Add SDN Networking as a Deployment Option within the Install Guides.*

Management

Provider Network Configuration

- *Stx-config*
- *Project Documentation.*
- *Describe StarlingX approach to configuring and managing Provider Networks.*

SWIFT Configuration & Management

- *Stx-config*
- *Project Documentation.*

- *Describe how to enable and configure the optional SWIFT Object Storage Service.*

System & Node Configuration & Management

- *stx-metal/stx-config*
- *Project Documentation.*
- *Describe detailed configuration options (not covered in install guides), fault handling, fault reporting, administrative commands, etc.*

Fault Management

- *Stx-fault*
- *Project Documentation.*
- *Describe Alarm and Log Management, Active Alarms List, Historical Alarms List, SNMP Support, Suppressing Alarms, etc.*

Patching

- *Stx-update.*
- *Project Documentation.*
- *Describe Patching concepts, APIs and Orchestration functionality.*

Command Line Interface Reference

- CLI reference (may just be pointers to other docs e.g. Fault doc, HA doc, etc...)
 - Like API Reference

Upgrade

Upgrade

◦

To Be Categorized

Contributor Guide

- Improve contributor guide
 - Pointers to process documents (including adding new process docs)
 - Improve process documents (e.g. out of date feature dev doc)
 - Move process docs from wiki to stx.docs

How To Navigate Source Code

- Merge as one item under “Contributor Guide”?
- “How to navigate the source code” - structure, function, key APIs/commands, etc...

References

History