KIP-942: Add Power(ppc64le) support

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Status

Current state: "Accepted"

Discussion thread: https://lists.apache.org/thread/y62m18k5bgsbcmkw2f80vwnj2vjgy7nz

JIRA:

Unable to render Jira issues macro, execution

error

Please keep the discussion on the mailing list rather than commenting on the wiki (wiki discussions get unwieldy fast).

Motivation

Support for Power architecture (ppc64le) for apache kafka.

What is IBM Power architecture?

It is a RISC architecture and IBM has recently made its ISA (Instruction Set Architecture) opensource and in doing so, they have significantly contributed back to the opensource community at large. Many of the pioneers of banking and HPC industries today run on ppc64le architecture.

As an ongoing effort to enable open-source projects where Power architecture can add value, we are trying to enable kafka on Power.

Public Interfaces

None

Proposed Changes

I Propose:

- 1. Enable CI for power architecture and run tests with JDK 21 and Scala 2.13
- Using ASF infra provisioned ppc64le nodes to run jobs for better stability

Why ASF provisioned ppc64le nodes?

- · ASF provisioned infra-nodes will be managed by ASF infra team itself which will have better maintainability and less downtime.
- · Currently there are 3 shared power9 nodes and as confirmed by ASF infra team more will be added if needed.
- https://ci-builds.apache.org/job/Camel/job/el/ uses ASF provisioned ppc64le node for running jobs.

Compatibility, Deprecation, and Migration Plan

None

Test Plan

Run nightly builds on trunk branch.

Rejected Alternatives

Run builds for every commit on every PR.

Run builds for every PR merged to trunk branch.