Title Episode: Episode 81 - Build and run containerized business apps on Kubernetes!!

Short Description: Deep dive conversation with Development Architect on how SAP BTP enables development, running and managing containerized business applications and extensions on Kubernetes.

Long Description: In this episode of SAP Integration & Extension Talk, March' 2022 we deep dive into conversation with Development Architect from SAP BTP Runtimes & Core Stakeholder Engagement team, where we start with understanding the differences between Kyma and SAP BTP Kyma runtime. Then talking about how businesses can get the benefits if they build and run containerized business applications on Kubernetes. We also discuss what's new in the SAP BTP Kyma runtime and where we can learn more and get hands-on knowledge.

Intro - Namaste & welcome to the third podcast episode of the year 2022. On behalf of the whole SAP family, I would like to thank you for tuning in. This is our March episode number 81 of SAP Integration & Extension Talk.

Dear listeners, working from home gives me ample amount of time to be with mother nature & yesterday I took a long walk, and I could see the ice melt and the water slowly gushing out. While I held my jacket a bit stronger, spring ushered into my ears that it's just around the corner. And I also saw some kids were sailing their kites in open skies. So, until the robin returns, let's hear what we have today in this episode. We have 3 main sections:

1. First, we will talk about some latest additions to our services portfolio of SAP Integration & Extension
2. Second, a deep dive conversation with Development Architect of 1 such business service
3. And finally, some roadmap items of our BTP services

On that note let's quickly visit the new features and offerings that are recently added to the SAP Integration & Extension portfolio.

1. From Learning side of the house, with our new OpenSAP hands-on course titled 'Ride the SAP HANA Wave' you'll get insights into SAP HANA and SAP HANA Cloud. In this course, first, you'll get a baseline introduction to in-

memory database technology and the various deployment options available on-premise and in the cloud. Followed up by exploring the mechanisms for connecting to data and making it available for business insights. If you are a Developer, Business analysts, Database administrators, or a Cloud technologist this course is for you.

2. Now, you may have already seen some previews of the SAP Analytics Cloud Administration Cockpit, earlier this year. In Q1 2022 it is generally available to all customers. With this administration cockpit you get fast and easy access to system usage information, easier identification and reporting of authorization assignments regarding user, team, roles, sharing settings of folder, stories and more. This will help administrators proactively manage their SAP Analytics Cloud tenants.

These were some of the new additions. To know more about these features and others business services please refer the show notes. You can also give us a shoutout on out on our social media channels with your questions. Links to them also in the show notes.

Gaurav: Now moving on to our second segment of the podcast also the highlight of this episode - we have a special guest from the BTP Runtimes & Core Stakeholder Engagement team, under the umbrella of SAP Extension Suite. And the topic that we will focus and talk about is 'SAP BTP, Kyma runtime'. And we have Arthur Perry as a Development Architect from Chicago, United States joining us for this talk. Welcome Arthur to our third podcast of the year 2022.

Before we start talking about the service and deep dive. I have a small game (a fun guessing game 😊) are you ready to play?

So, the game is I will be reading an abstract obviously tech related and you must guess from where it is? Like..A movie, a novel, or a famous quote? You can always ask for hints.

Ready?

Ok.. the abstract is 'People come to the Oasis for all the things they can do, but they stay for all the things they can be.? What is it?

First hint: 'Oasis' the term that is referred here is a virtual reality world.

Second hint: It's a movie directed by Steven Spielberg.

Answer – the abstract was from a sci – fi movie 'Ready Player One'. If time allows, please watch it.

=== game done ===

Gaurav - Great... as we have the expert online with us let's start with a very basic but very important question?

Question – Arthur, we also have some first-time listeners so can you please give them an executive summary about Kyma and SAP BTP, Kyma Runtime?

Answer - [Arthur] Distinguish between Kyma-project open source project and SAP BTP, Kyma Runtime

· Kyma-project.io -"Kyma is the opinionated set of Kubernetes based modular building blocks that includes the necessary capabilities to develop and run enterprise-grade cloud-native applications. It is the open path to the SAP ecosystem supporting business scenarios end-to-end. "

· It provides a "batteries-included" set of features: Serverless functions, Eventing, observability, API Gateway, Service Mesh and service management. It has a UI dashboard and a CLI as well.

· Open source components include K8s, Istio, Ory, NATS, Prometheus, Jaeger, Loki Grafana

· SAP BTP, Kyma runtime is a fully supported BTP service with a consumption based billing model that uses Kyma project (open source) as it's platform. It is integrated into BTP and runs alongside other runtimes such as Neo and Cloud Foundry. BTP provides a managed control plane to securely connect SAP portfolio solutions and other BTP Business Services. Behind the scenes, the control plane uses Gardener (another SAP open-source project) to provision and manage k8s clusters.

Gaurav - **Question** – Wonderful, so is there a focused group, specific personas that can make the most of this service?

Answer - [Arthur] <please add here>

Gaurav – Awesome!

Gaurav - **Question** – Arthur as with SAP Business Technology Platform and its business services we also have SAP BTP, Kyma Runtime. So how do they both differ Kyma and SAP BTP, Kyma Runtime. If you can throw some light on that?

Answer [Arthur]

Gaurav – I heard that you mentioned about Gardener which enables provisioning and managing K8s clusters. Does this mean that SAP as a vendor will take the load of DevOps?

Answer [Arthur] … (answer)

2.   Gaurav – Question -   So Arthur, what is a typical use case for SAP BTP, Kyma runtime? And are there any specific business scenarios where this fits in?

Answer [Arthur] So imagine you have an SAP business solution such as Commerce Cloud - we can connect it with a Kyma runtime with a very simple registration mechanism which then creates a secure connection where both asynchronous business events can be subscribed to using microservices or functions running in Kyma and all exposed Commerce APIs can be called from those services or functions. This has the benefit of offloading non-core commerce processing to the Kyma cluster which improves performance, and it "keeps the core clean" so that no custom extensions impede updates of the core commerce system.
Let's say we have a special pricing function that looks up customer-specific prices and product availability in real time to display on the product detail page. This can be a complex and resource intensive process. Kyma allows us to build out a service that can take care of this efficiently, using scalable microservices or even functions which can be maintained as source code - Javascript or Python - and leverage backing services from BTP or a hyper-scaler such as a high-performance datastore like HANA or Redis, to deliver the complex results quickly.

3.   Gaurav – Question – Now I am sure there will be some experts tuning in who already have some hands-on knowledge on the topic. So, what new does SAP BTP, Kyma runtime brings onto the table?
Answer [Arthur] in December the open-source Kyma project released version 2.0. In February SAP BTP Kyma Runtime was updated with the latest Kyma project. This release opened up many things that were previously unavailable to end-users:

· Users now have full control over their cluster. They can update and configure things across the cluster, with the exception of the kube-system namespace and certain resources that are managed by the Kyma reconciler, since these would disrupt the operation of the cluster.

· Authentication is based on OpenID Connect, and the default OIDC provider is SAP ID Service. Using a plugin for kubectl, the user can now interactively log in to the cluster so kubeconfig files no longer expire.

· Authorization is now managed completely in the cluster using native k8s RBAC resources, no longer relying on BTP managed roles and role collections.

· Application Connectivity has been redesigned and is much less complex

· The Connectivity Proxy allows On-Premise systems to connect to the cluster via the SAP Connectivity Service.

· The Kyma dashboard now is decoupled from the cluster and can be used to manage multiple clusters. It has been enhanced to support many more cluster resource and actions.

· For API exposure, we now support custom, user-managed domains.

4. <mark>Gaurav</mark> – **Question** – **Well quite a many new features, I must say. Now with all these features. Where can our listeners find out more about Kyma and SAP BTP, Kyma runtime? If you can tell us that will be cherry on top.**

Answer <mark>[Arthur]</mark> For open source: kyma-project.io. On the community page you will also find links to the Slack workspace and Stack Overflow.

For SAP BTP, Kyma runtime, you can search for Kyma on help.sap.com. Also check out "kyma runtime" on discovery-center.cloud.sap. There you can find the overview and pricing of the service as well as learning missions and the roadmap. Finally, look at the "SAP BTP, Kyma runtime" tag on community.sap.com.

<mark>Gaurav</mark> **–** Dear listeners in addition to that what Arthur mentioned, we also have some missions published on SAP Discovery Center where you can see how enterprises are leveraging the true potential of this open-source runtime. All these links to slack, OpenSAP courses & official help guides, missions will be available to you. Please refer the show notes or give us a shoutout on our social media channels.

Great…with that..on behalf of all our listeners I would like to thank you Arthur that you took out time & gave us a wonderful insight to Kyma and the SAP BTP, Kyma Runtime. We really appreciate it. Thanks!

<mark>Gaurav</mark> – That was our expert Arthur who talked about the latest innovations that are happening on the SAP BTP, Kyma Runtime. To read more & try out the features yourself please refer our show notes.

This brings me to the third and final segment of the podcast where we explore some of the roadmap items that will help your business run better… with intelligence & sustainability at heart.

1. To start off with SAP Business Application Studio, the upcoming feature will enable one-click deployment of the deployment artifact to SAP BTP, Kyma environment. Another item is that parsing a data source such as a JSON file or the result of an API call to generate a data model will be possible. This eases generation of a data model (entity) from a data source and gives a supreme experience to our developers.
2. Moving to SAP Analytics Cloud the ability to import stories to SAP Analytics Cloud from line-of-business solutions from SAP Fieldglass, SAP S/4HANA and SAP Commissions will be possible.

And all these items that we discussed are planned for Q2 2022 release. Also, very important point you should know that all forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. You are advised not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions. To know more about other roadmap items please refer our show notes..

That concludes our episode number 81 of SAP Integration & Extension Talk. I would really like to thank you again for tuning in and staying till the very end. If you were listening to us for the first time and there were terms like BTP, Gardener, Istio that are not clear to you, please let us know on our social media channels so that we can help you understand them. Plus, we are always ears to your feedback so let us know what you liked, what you didn't and most importantly what you wish for in the next podcast.

'Sharing is caring' if you agree to that.. please share the podcast with your tech friends and family. Don't forget to Subscribe to the podcast. Leave a rating and review. You can listen to this podcast on various mediums like Spotify, Apple Podcasts to name a few.. With that I was your host Gaurav Dey aka G reporting & recording from Bangalore, India. Talk to you in the next episode until then Keep listening, keep learning & keep growing. Cheers!!

Interview Guests:

Arthur Perry, a Development Architect with the SAP BTP Runtimes & Core Stakeholder Engagement team. Focusing on cloud extensibility, he works with SAP customers, partners and internal colleagues to enable and support the BTP Runtimes & Core components and drive adoption of those components. Follow Arthur on: LinkedIn - ArthurPerry

SAP Community - Arthur.Perry

Github ArthurPerry

Twitter @perry_sap

Instagram @arthur.perry.hybris

Links to the Resources that were discussed in the episode:

- OpenSAP course on [Ride the SAP HANA Wave: Fundamentals and Insights into Cloud Databases](#)
- SAP Community blog on [SAP Analytics Cloud release for Q1 2022](#)
- [SAP Discovery Center missions with Kyma](#)
- [Roadmap item 1 - Deployment to SAP BTP, Kyma runtime](#)
- [Roadmap item 2 - Ability to import stories to SAP Analytics Cloud from line-of-business solutions from SAP Fieldglass](#)
- Other [Roadmap](#) items

Resources for Kyma and SAP BTP Kyma Runtime discussed in the conversation:

Kyma Project (Open Source)

- https://kyma-project.io
- [Github – Kyma Project](#)
- [Slack Workspace - Kyma Project](#)
- [Stack Overflow - Kyma Project](#).

SAP BTP, Kyma runtime

- [SAP Help - Kyma Runtime](#)
- [SAP Discovery Center – Kyma runtime](#)
- [SAP Community – Kyma runtime](#)

Links for more SAP Integration Suite & SAP Extension Suite information:

- [SAP Integration Suite](#)
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