

CFC BRIEFING

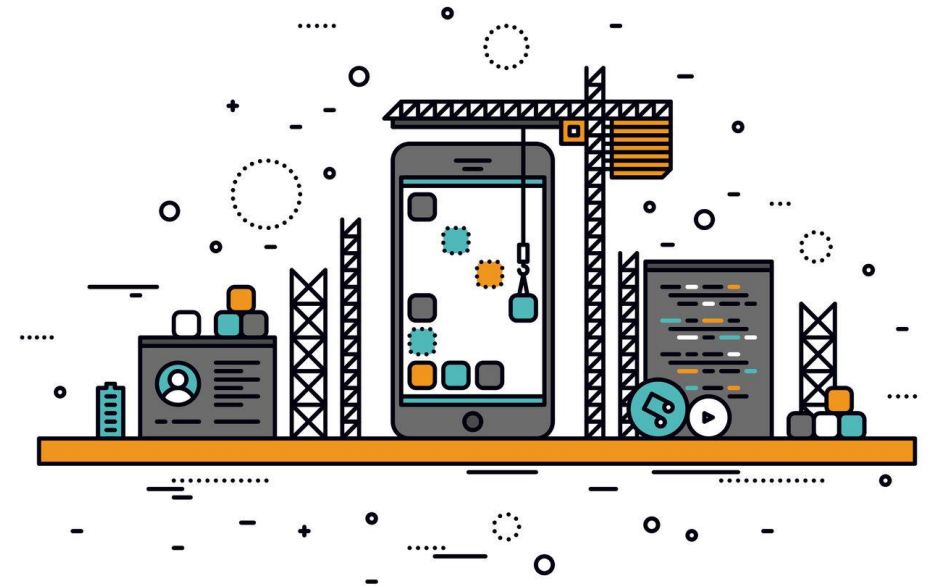
GO CLOUD-NATIVE

SERVICES TO ENABLE ICT SMES
WITH DIGITAL CAPABILITIES IN
CLOUD-NATIVE, MICROSERVICES
AND DEVOPS

8 OCTOBER 2018

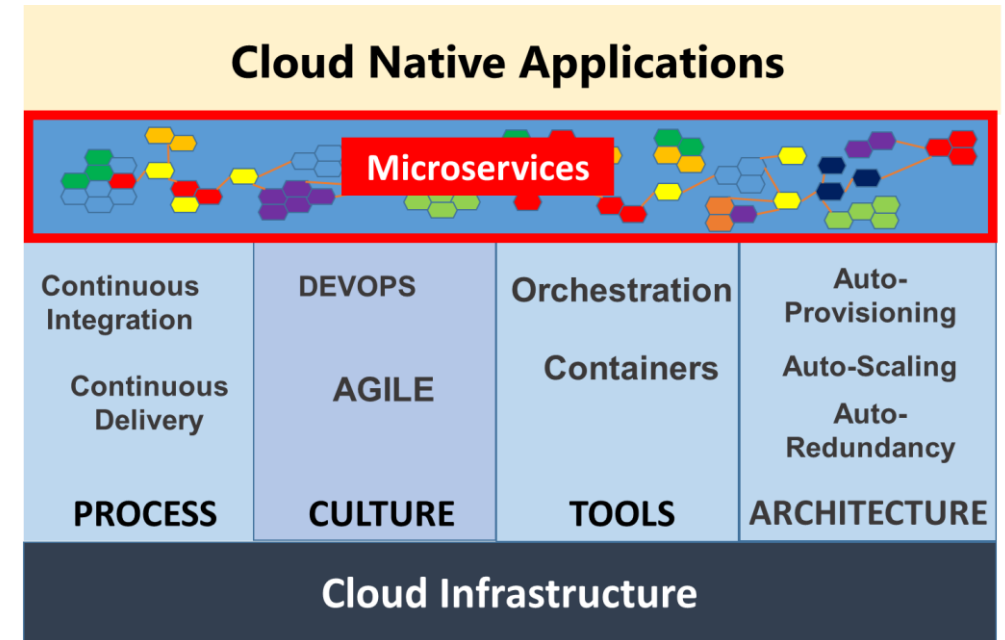
OPPORTUNITY TO IMPROVE ICT SMES' PRODUCTIVITY AND COMPETITIVENESS

- ❑ New IT trends, emerging technologies and shifts in industry practices present an opportunity to improve the productivity of ICT SMEs
- ❑ Many ICT SMEs developed solutions are built on legacy monolithic software architecture which are highly complex, limited in scalability and flexibility, and not modular.
- ❑ Unable to respond and adapt quickly to customer needs, and slower time to market.



SHIFTS IN DEMAND AND FUTURE OF DIGITAL SERVICES IN CLOUD-NATIVE, MICROSERVICES AND DEVEOPS

- ❑ Future of digital services and applications is shifting towards XaaS that is designed and delivered as **cloud-native microservices** and employing **DevOps** methodology and culture.
- ❑ Microservices will be a key component to GovTech and IMDA's vision of digital architecture for future services.
- ❑ Important for ICT SMEs to shift towards Cloud-Native Microservices in order to participate in future opportunities in Digital Government and to support a Digital Economy
 - In FY2019, IMDA's SMEs-Go-Digital programme will announce new pre-approval criteria to promote cloud-native solutions under the programme.



BARRIERS IMPEDING ICT SMES IN ACQUIRING NEW DIGITAL CAPABILITIES

Lack of management's awareness and buy-in

Limited capacity to send employees for training due to lean workforce

Unsure of where to find experts to train staff

Lack of in-house expertise to select the right service provider to help them

Unable to translate training into practice

OBJECTIVES OF THIS GO CLOUD-NATIVE CFC

- ❑ The GO CLOUD-NATIVE CFC will **pre-qualify** and **appoint** a panel of Cloud Service Providers to provide professional technical consultancy services to help ICT SMEs to build up digital capabilities in Cloud-Native, Microservices and DevOps.

Train and enable
ICT SMEs with
development
capabilities to build
Cloud-Native
applications/
services

Grow a culture of
agile innovation
through DevOps and
foster development
of Microservices

PROGRAMME OUTCOMES

AWARENESS

- Greater awareness and acceptance among CXOs on new industry practices in Cloud-Native, Microservices and DevOps
- How can it drive better business outcomes?

TRAINING

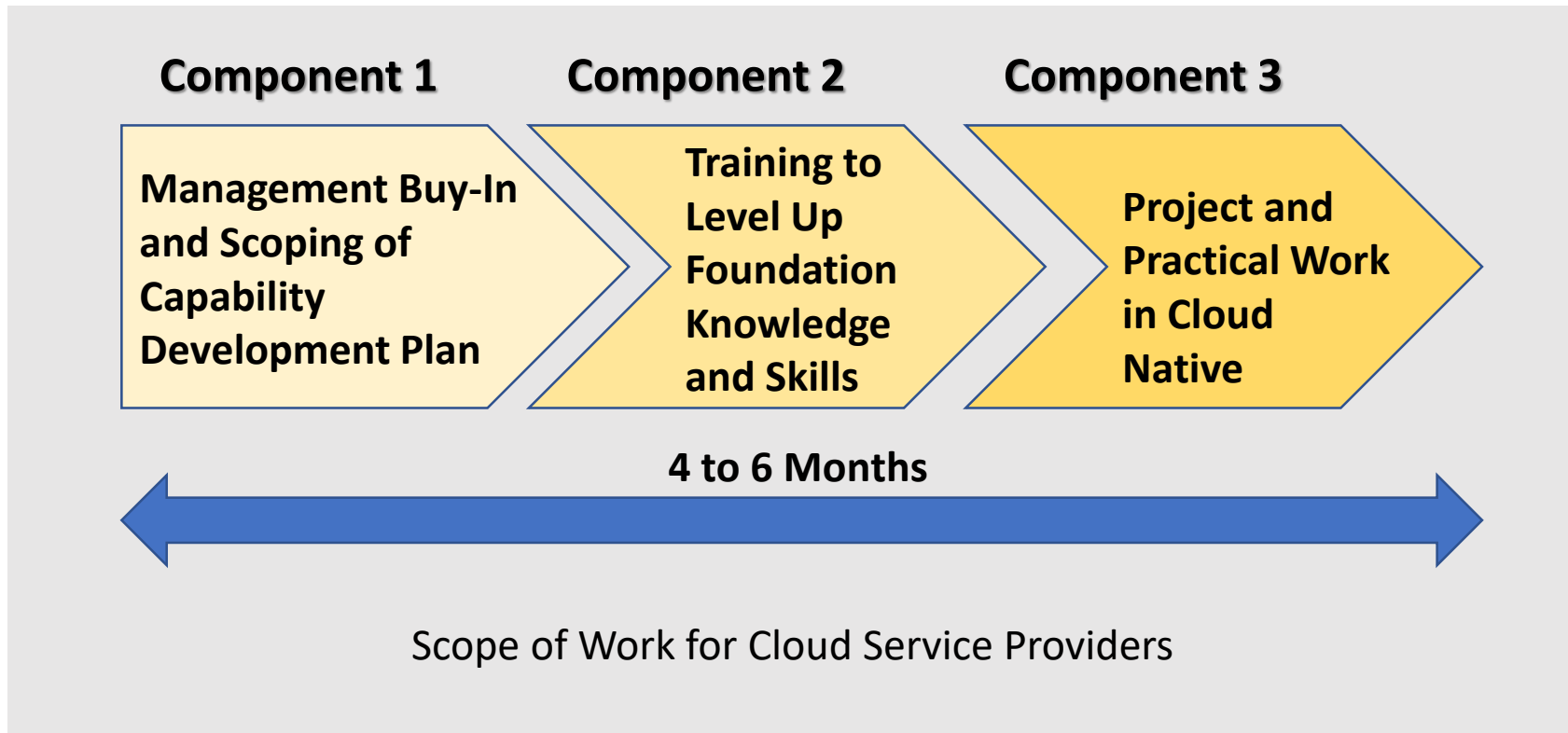
- Train and build up ICT professionals to architect solutions/products on Cloud-Native & Microservices architecture
- Able to deploy changes quickly through DevOps practices.

PRACTICED-BASED COACHING

- Transform monolithic apps into Cloud-Native apps/services or
- Develop greenfield Cloud-Native apps/services using new capabilities acquired

SCOPE

- ❑ Awarded Cloud Service Providers (SPs) are to provide a programme consisting of 3 major components to be completed by participating ICT SMEs.



COMPONENT ONE: MANAGEMENT BUY-IN & SCOPING OF CAPABILITY DEVELOPMENT PLAN

Objective

- ❑ Garner the buy-in of CXOs of ICT SMEs to commit to capability development in the areas of Cloud-Native, Microservices and DevOps, and participation in staff training or/ and project-based coaching.

Option A (interested in project coaching)
Conduct deep-dive workshops (or equivalent) with the ICT SMEs' management staff and project members, and guide them to deliver a Project Plan
Deliverables: Project Plan (Scope of Services, Timeline, Project Team details)

Option B (only interested in training)
Recommend a list of relevant training courses ¹ and conduct training. (preferred CITREP- endorsed)
Deliverables: List of Training Courses and Names of Personnel going for training

¹ If you are recommending non-CITREP-endorsed courses, you can apply to have your courses endorsed and approved by Committee for CITREP. Website link is provided in CFC document.

COMPONENT TWO: TRAINING TO LEVEL UP FOUNDATION KNOWLEDGE AND SKILLS

Objective

- ❑ Ensure that development teams (assigned by ICT SMEs) are equipped with foundation knowledge and skills on Cloud-Native, Microservices and DevOps as pre-requisite training before start of component 3.

Without Foundation Knowledge
Offers a list of relevant courses (preferably CITREP-endorsed) ² . ICT SMEs are expected to tap on CITREP support to pay for training.
Deliverables: List of personnel who completed training, certs / acknowledgment of trainings

With Foundation Knowledge
ICT SMEs may not need to attend training courses if the Cloud SP agrees the team members have the required knowledge for Component 3.
Deliverables: List of personnel already with foundation knowledge

² If you are recommending non-CITREP-endorsed courses, you can apply to have your courses endorsed and approved by Committee for CITREP. Website link is provided in CFC document.

COMPONENT TWO: TRAINING TO LEVEL UP FOUNDATION KNOWLEDGE AND SKILLS

The training should minimally cover the following 5 focus areas:



COMPONENT THREE : PROJECT AND PRACTICAL WORK IN CLOUD NATIVE

Objective

- ❑ Provide coaching to guide ICT SMEs to implement a short-term project to translate classroom training into practice.
- ❑ Can be face-to-face or offsite consultation
- ❑ Must provide technical resources (software, cloud credits, online helpdesk, infra access)

Deliverables

- ❑ Product architecture diagram, screen shots of application/ services developed
- ❑ Completed Cloud-Native application/ services
- ❑ Feedback from ICT SMEs on the effectiveness of capability transfer and impact

- ❖ Must include some hours of practical sessions and minimally covers the following:

Architect applications/ services on Cloud-Native and Microservices architecture

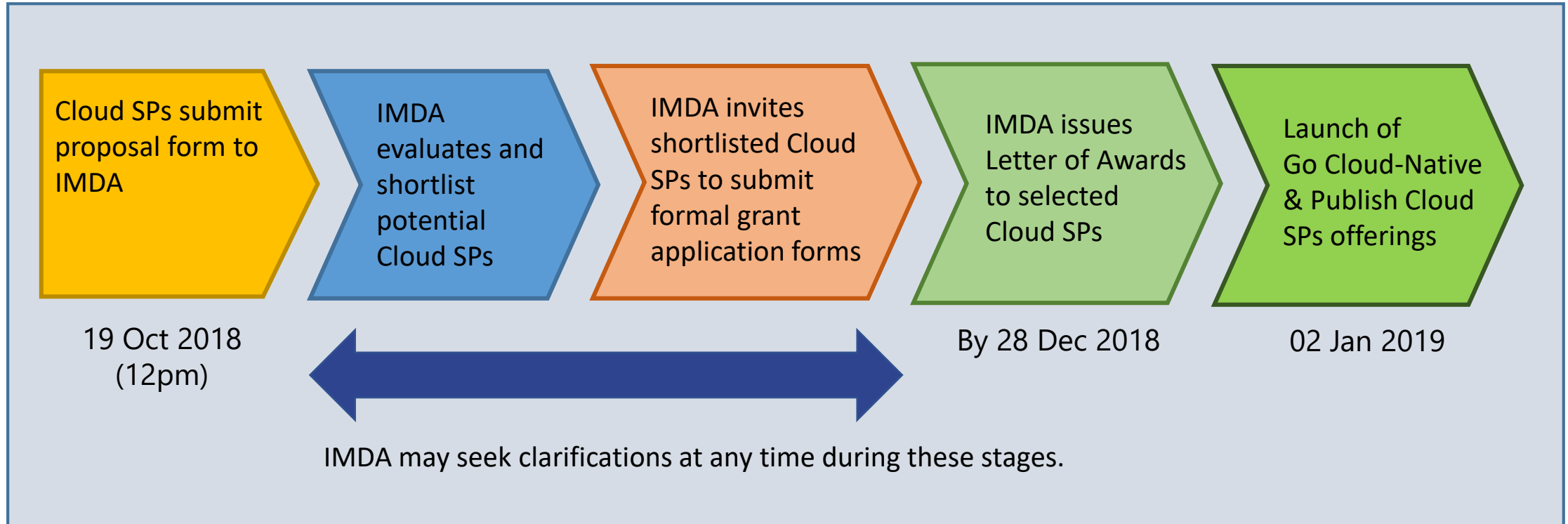
Refactor a monolith app into a Microservice and deploying Microservices

Develop an API Gateway and Managing APIs

Ability to implement concepts of DevOps practices and principles such as CAMS, CI/CD

Create and deploy apps using Containers

APPLICATION PROCESS



APPLICATION PROCESS – THINGS TO NOTE

- ❑ All proposals submitted by Cloud SPs will be reviewed, shortlisted and evaluated by an Evaluation Committee (EC) from IMDA. EC may invite industry experts (e.g. IHLs, Educators) to provide their views and comments.
- ❑ Cloud SPs may propose a consortium approach with Training Providers, Technology Software/ Hardware Vendors, Cloud Platform Vendors and Consultants.
- ❑ Cloud SPs need to include the following items in the proposal:
 - ✓ proposed approach and costs of each of the 3 major components
 - ✓ proposed marketing plan for their programme to garner and solicit participation by ICT SMEs
 - ✓ CVs of the coaches, trainers or consultants
 - ✓ format and approach in which the coaches/ trainers will conduct the coaching sessions
 - ✓ expected frequency and number of man-days/ hours of coaching for a ICT SME project and assumptions for estimation on the effort required.

FUNDING MODEL

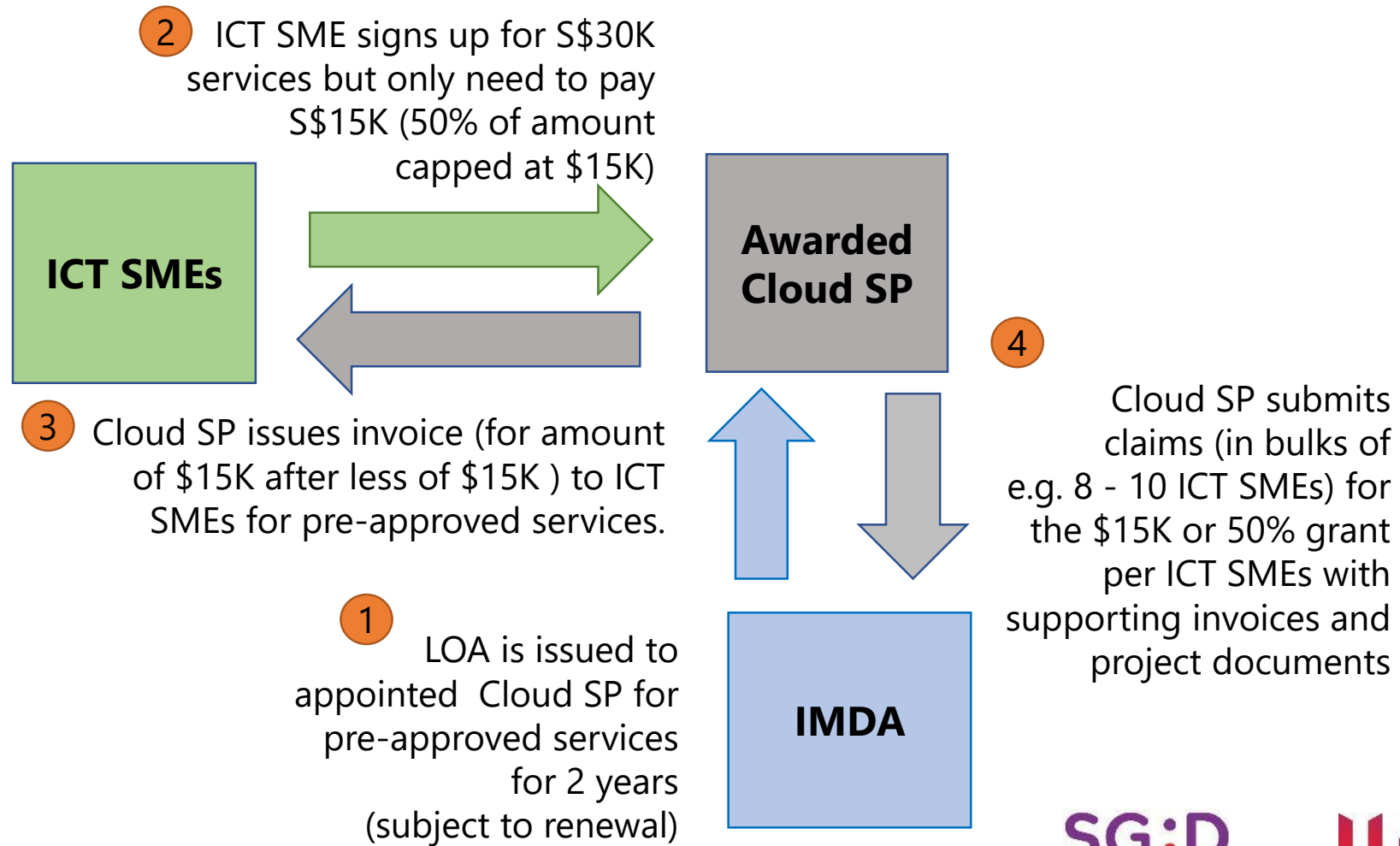
- ❑ Awarded Cloud SPs deliver the programme (comprising 3 major components) for each eligible ICT SME.
- ❑ For Component 1 & 3, IMDA will support 50% of the cost of services rendered by SPs to ICT SMEs. Capped at \$15,000 per ICT SME.
- ❑ Component 2 will not be funded through this CFC award as ICT SMEs can tap on CITREP funding.
- ❑ Participating ICT SMEs will pay Awarded SPs directly for 50% of the cost of services for component 1 & 3 *(or more if the cost of services is more than S\$30,000 as it is capped at S\$15,000 per ICT SME).*

Funding @ A Glance

Funding Mode	Grant
Grant Recipient	Appointed Cloud SPs
Beneficiary	ICT SMEs
Grant Amount	Capped at S\$15,000 per ICT SMEs for component 1 & 3.
Required Docs for Claim Submission	Invoices and Project Docs
Frequency of Claim	In bulk (e.g. 8 - 10 ICT SMEs)
Grant Period	2 years

FUNDING PROCESS - ILLUSTRATIVE

❑ For illustration - Assuming that the Awarded Cloud SP offers a S\$30,000 Cloud-Native service



EVALUATION CRITERIA

- All proposals will be evaluated on a set of criteria

S/N	Criteria	Weight
1	Competency of Participant (Cloud Service Provider)/ Consortium (E.g. expertise, financials, track records)	30%
2	Quality of Proposal (E.g. scope of work, approach, KPIs)	30%
3	Overall Cost (E.g. chargeable service fees)	30%
4	Value-added Services (E.g. GTM, etc)	10%

ELIGIBILITY CRITERIA

For Grant Recipients (i.e. Cloud Service Providers)

- ✓ Companies that are registered in Singapore
- ✓ Have positive net equity based on the latest financial statement in the last financial year
- ✓ Established track records in enabling companies and individuals in the areas of Cloud-Native application development, DevOps methodologies and MicroServices

TARGET BENEFICIARIES (ICT SMES)

- ✓ Singapore-Owned or Singapore-Based Company and registered as a company in Infocomm and Media (ICM) sector based on SSIC codes
- ✓ Group annual sales turnover of S\$100m or less, or group employment of up to 200 employees and have a minimum of 30% local shareholding
- ✓ Have local technical resource or team to go through the capabilities upscaling with appointed Cloud-Native Service Providers
- ✓ Owns the product/solution that they want to transform through project-based approach
- ✓ Have positive net equity based on the latest financial statement in the last financial year*.

*Optional criteria for start-up companies.

SCHEDULE

S/N	Milestone	Timeline
1	GO CLOUD-NATIVE CFC Published on IMDA Website	3 Oct 2018
2	GO CLOUD-NATIVE CFC Public Briefing	8 Oct 2018 (9 am)
3	Pre-submission Clarifications	10 – 17 Oct 2018
4	Closing Date for GO CLOUD-NATIVE CFC	19 Oct 2018 (12pm)
5	Evaluation and Proposals Clarification	22 – 31 Oct 2018
6	Award of GO CLOUD-NATIVE CFC	28 Dec 2018
7	Launch of GO CLOUD-NATIVE	02 Jan 2019

N.B. These dates are tentative subject to proposals received, clarifications and agreement on T&Cs between IMDA and grant awardees (shortlisted Cloud Service Providers).

SUBMISSION GUIDELINES

Submission Format

- Use Proposal Form template, download from the link below.

www.imda.gov.sg/industry-development/call-for-proposals/call-for-collaboration-for-go-cloud-native

- One (1) softcopy (in a CD-ROM or USB Thumbdrive)

Time and Place of Submission

- No later than **Friday, 19 October 2018 at 1200hrs.**

- All Proposals must be clearly marked as “Go Cloud-Native Call-for-Collaboration”, and addressed to:

Mr Quek Tze Han
Innovation & Capability Development Division
10 Pasir Panjang Road
#03-01 Mapletree Business City
Singapore 117438

CONTACT DETAILS

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Innovation & Capability Division, IMDA



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