

The background features a dark blue gradient with a subtle pattern of white dots. Overlaid on this are several circular and semi-circular graphic elements in a lighter blue color. These include solid and dashed lines, some with arrowheads, and a large circular scale on the left side with numerical markings from 140 to 260 in increments of 10. The overall aesthetic is technical and modern.

PATTERNS FOR ENCRYPTING DATA AT REST IN CLOUD- NATIVE APPLICATIONS

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MoneyHeist Fan (S5P2 on 03-Dec; don't miss!)



AGENDA



Cloud-Native Applications



Encryption at different layers

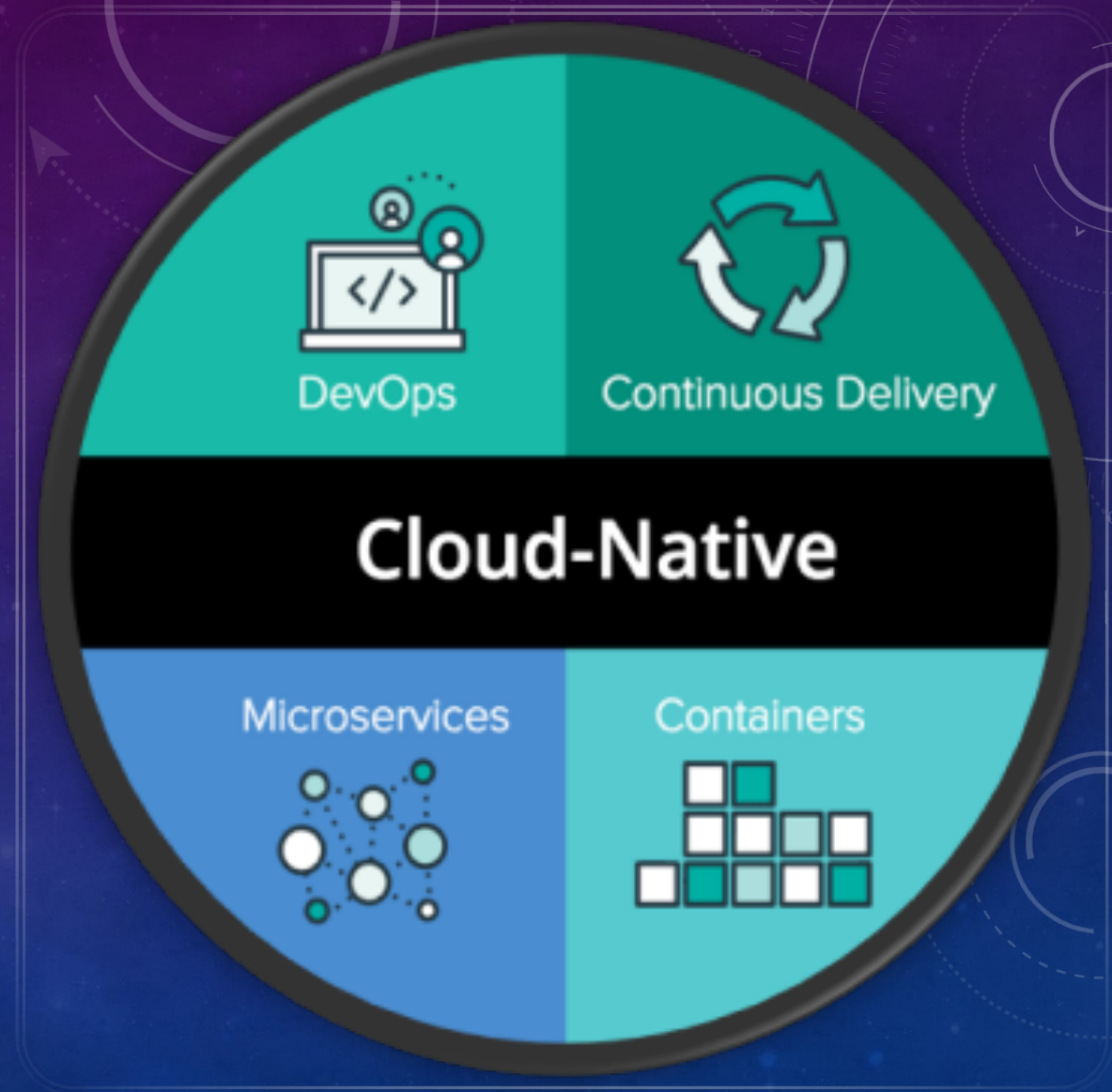


Patterns for encrypting data at rest

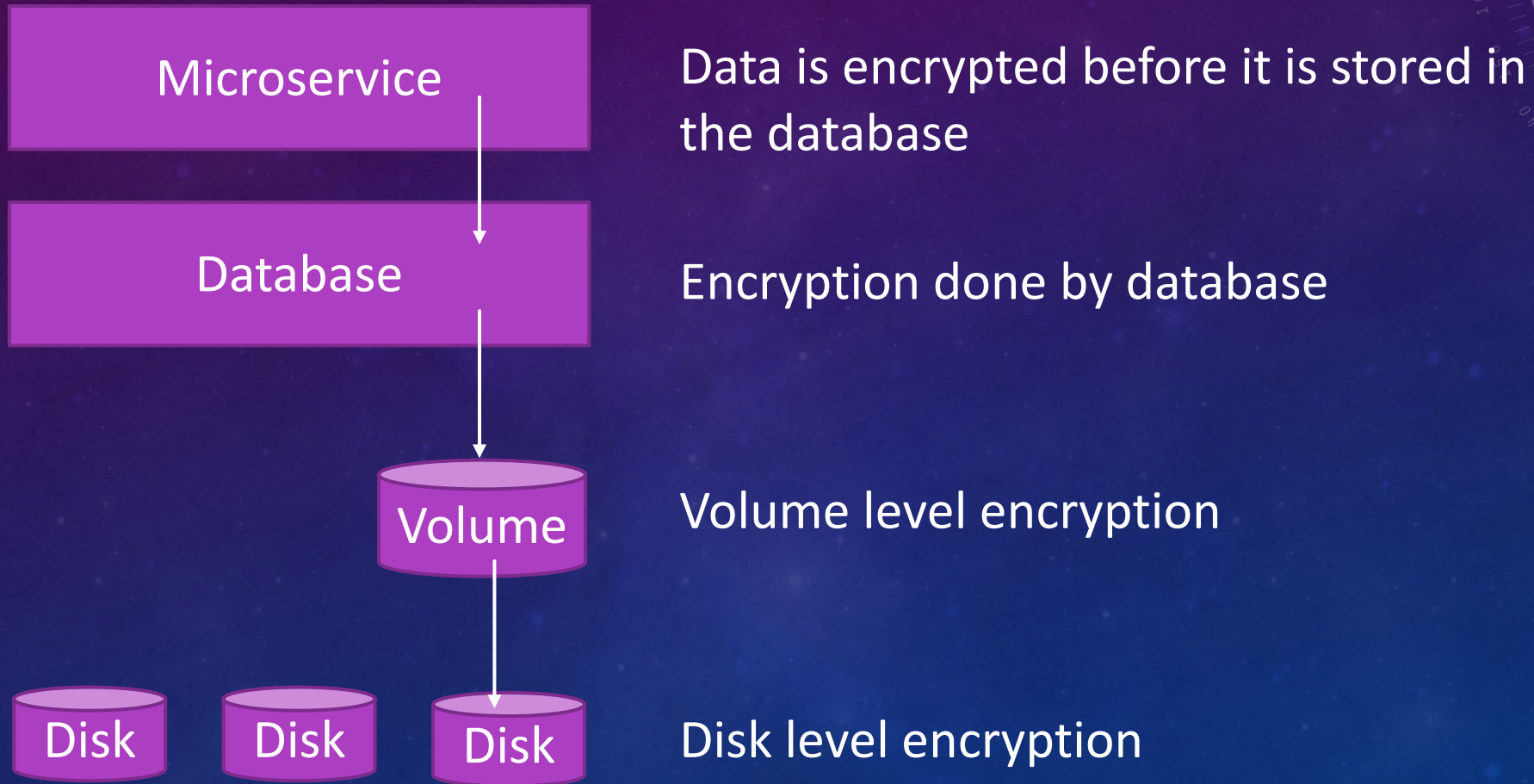
CLOUD-NATIVE?



CLOUD-NATIVE APPLICATIONS



ENCRYPTION AT DIFFERENT LAYERS





PATTERNS FOR ENCRYPTING DATA AT REST

ENCRYPTION BY MICROSERVICE



Sorting and searching
of data



Expensive to redesign
Applications



Less attack surface



Key Management

ENCRYPTION BY DATABASE

Privileged
containers

Wrappers
around dm-
crypt

Limited OSS

Commercial
Plugins

VOLUME LEVEL ENCRYPTION

01

Public cloud
volume
encryption

02

Many storage
providers
support

03

CSI plugins
have limited
support

04

OSS available

DISK LEVEL ENCRYPTION

Not feasible sometimes

01

High attack surface on
application

02

Most Simplistic solution

03

LUKS is a standard format
for hard disk encryption

The background features a blue gradient with scattered white stars. On the right side, there are several technical diagrams, including a large circular gauge with a scale from 0 to 210 and a central circular arrow, and a smaller circular diagram with a dashed arrow. On the left side, there are also some faint circular diagrams.

THANK YOU

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