

>>> BKNIX PEERING FORUM <<<

**BPF 2021**

13-14 May 2021  
Carton Hotel Bangkok  
[peeringforum.bknix.co.th](http://peeringforum.bknix.co.th)

# BKNIX BCP Initiative

hosted by



Kittinan Sriprasert, BKNIX

13 May, BKNIX Peering Forum 2021

# Agenda

- Awareness of Business Continuity Plan (BCP)
  - BCP and DR
- BKNIX BCP initiative
  - overview and example
- Summary



# Certainty is uncertainty...

←

Thread



Octave Klabá

@olesovhcom

We have a major incident on SBG2. The fire declared in the building. Firefighters were immediately on the scene but could not control the fire in SBG2. The whole site has been isolated which impacts all services in SGB1-4. We recommend to activate your Disaster Recovery Plan.

9:42 AM · Mar 10, 2021 · Twitter for iPhone

2,373 Retweets

1,321 Quote Tweets

4

Source : [https://www.matichon.co.th/local/news\\_2412564](https://www.matichon.co.th/local/news_2412564)  
<https://www.bbc.com/news/business-56345589>

BKNIX Peering Forum 2021 | May, 13-14

3

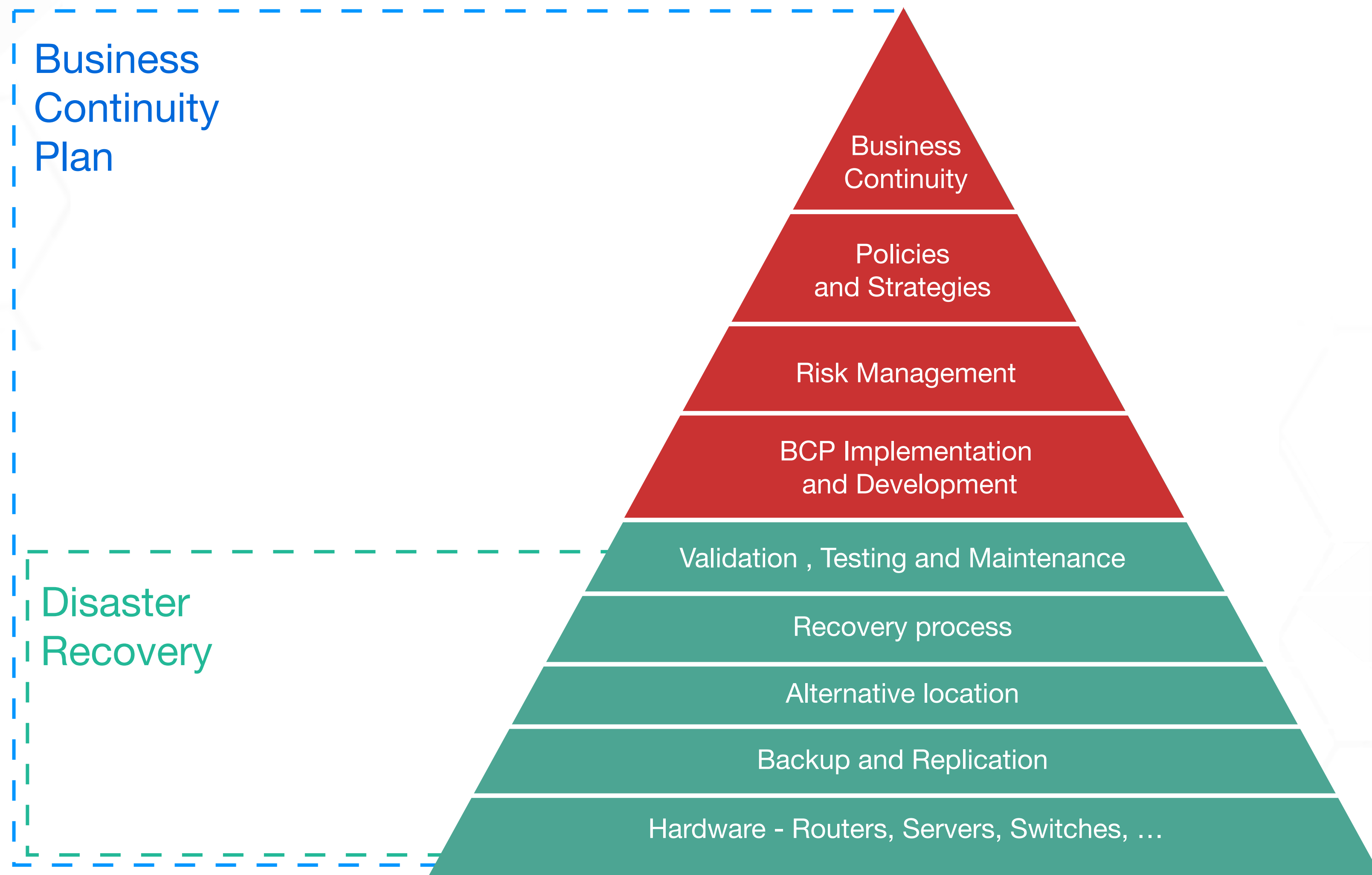


# What is the difference between BCP and DR?

- Business Continuity
  - “The capability of the organization to continue delivery of **products or services** at acceptable predefined levels following a disruptive incident.” (iso:22301:2019)
- Disaster Recovery
  - “ability of the **ICT elements** of an organization to support its critical business functions to an acceptable level within a predetermined period of time following a disruption” (iso:27031:2011)



# BCP and Disaster Recovery





# One more BCP...

- Best Current Practice (BCP)
- is not a standard but the good common operational practices
- BCP is aka Best Current Operational Practices (BCOP)
- Example of IXP Best Current Practice
  - Euro-IX BCP
  - IXP Design by Philip Smith
  - IXP OIX-1 by Open-IX Association
  - MANRS for IXPs by Internet Society



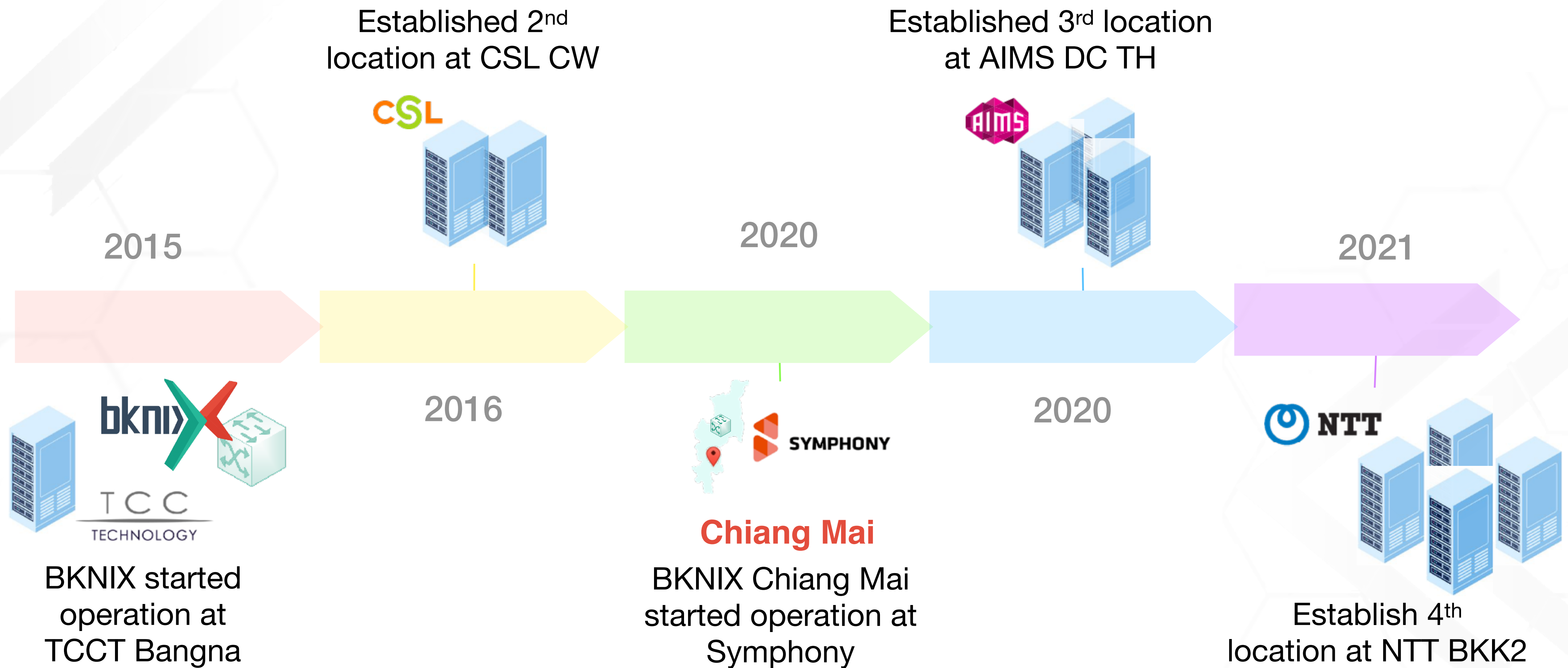
# BKNIX at a glance

- Bangkok Neutral Internet eXchange Point
- Layer-2 community-based exchange
- First neutral IXP in Thailand since 2015
- Non-for-profit IXP operator under THNIC Foundation
- Peak exchange traffic rate at 56.6G
- 42 ASN exchange members





# Milestone & BCP initiatives





# BCP approaches (1)

- Policies and Strategies
  - Neutrality
  - Sustainability & Cost-recovery principle
  - Improve quality of Internet for Thai
  - Reduce cost of Internet access in Thailand
  - Aware of IXP Best Current Practice
  - Resilience & Reliable Infrastructure



# BCP approaches (2)

- Risk Management
  - Assess our risk and critical business function
    - What could affect your business
- Critical service assessment
  - What is your core or essential service
- BCP Implementation and Development
  - design our plan according to predefined policy & information





# Credentials ceremony

- Risk Management
- Critical service assessment
  - “Credentials ceremony”
  - collectively store critical credential information in secure manner (Safe place)
  - to ensure that credentials will be available in case of incident
  - including method, procedure and how to use that credentials



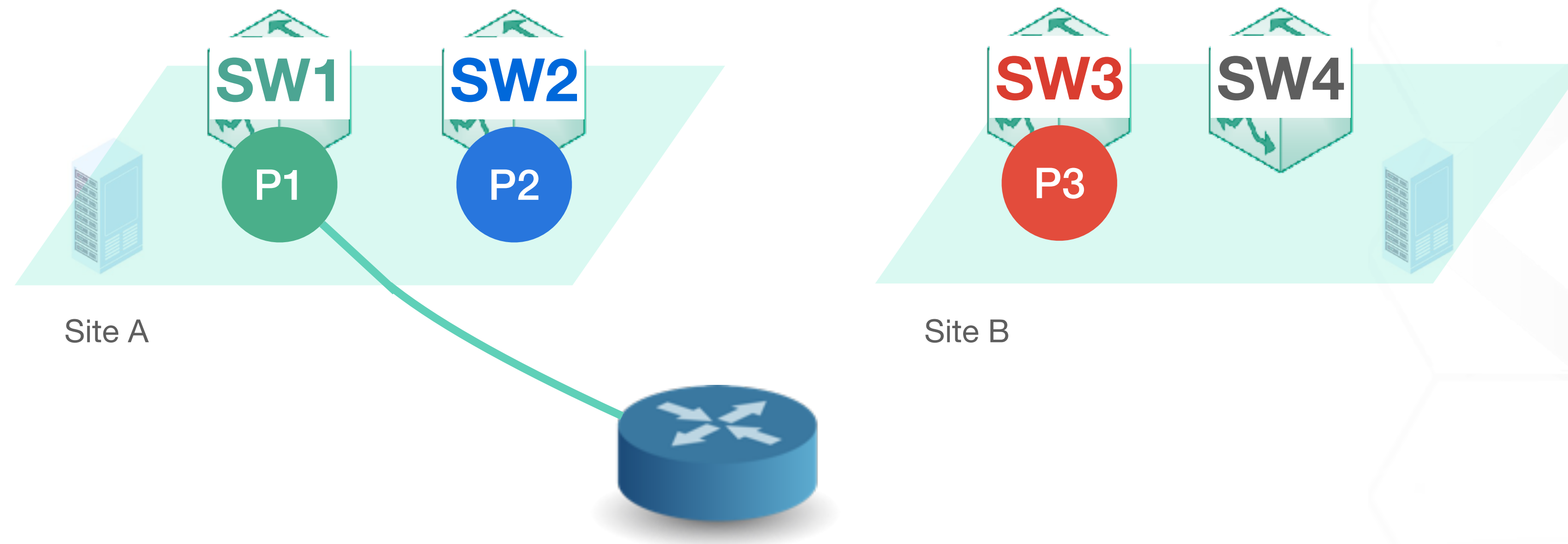
# BCP approaches (3)

- To support resilience platform to members
- We introduces “**Reserved Port policy**”
  - **To ensure that peering port will be available if incident happens**
  - 3 reserved ports for 1 production port
    - 2 ports at local site
    - 1 port at remote site



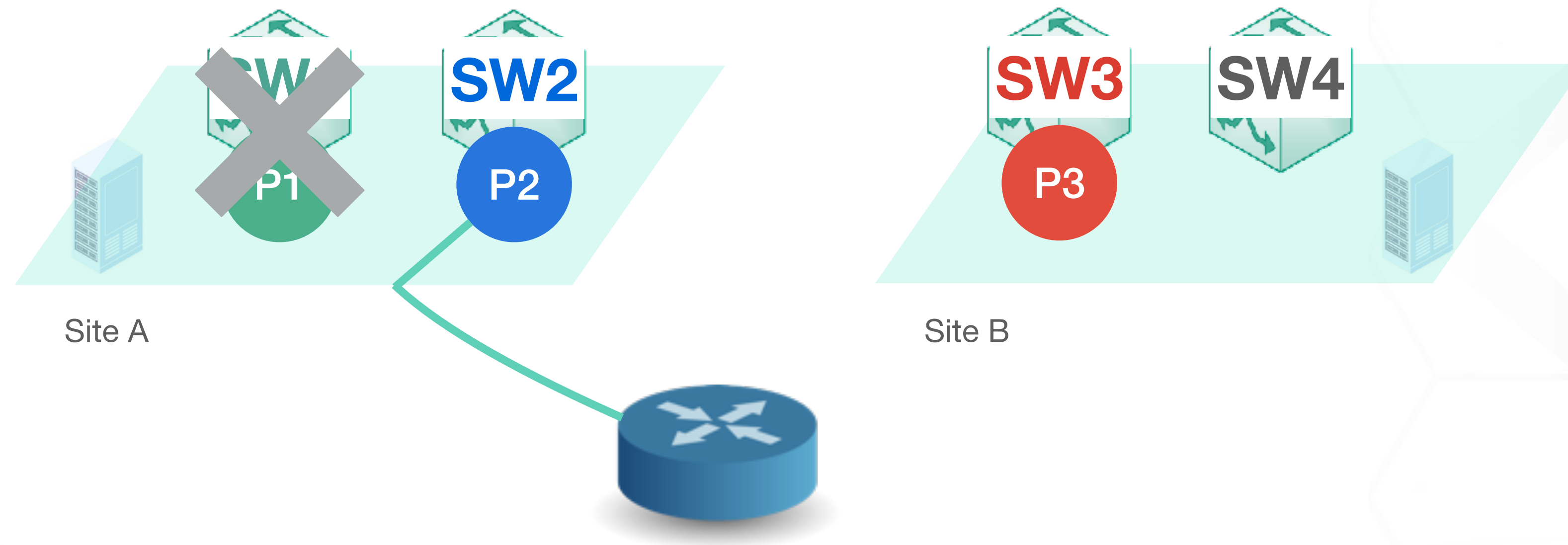
# BCP - Reserved port policy (1)

- P1, P2 will be assigned at local site
  - P1 is for main production port
- P3 will be assigned at remote site



# BCP - Reserved port policy (2)

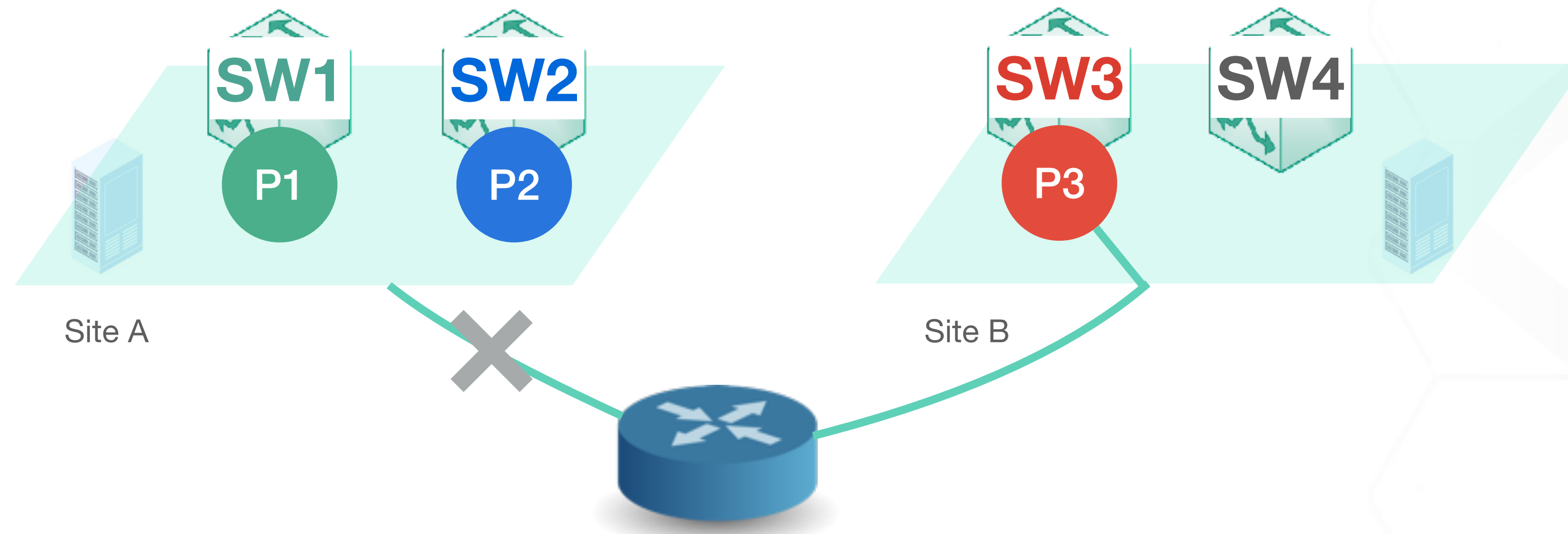
- P1, P2 will be assigned at local site
  - If SW1 or P1 is unavailable
  - P2 will be used for production
- P3 will be assigned at remote site





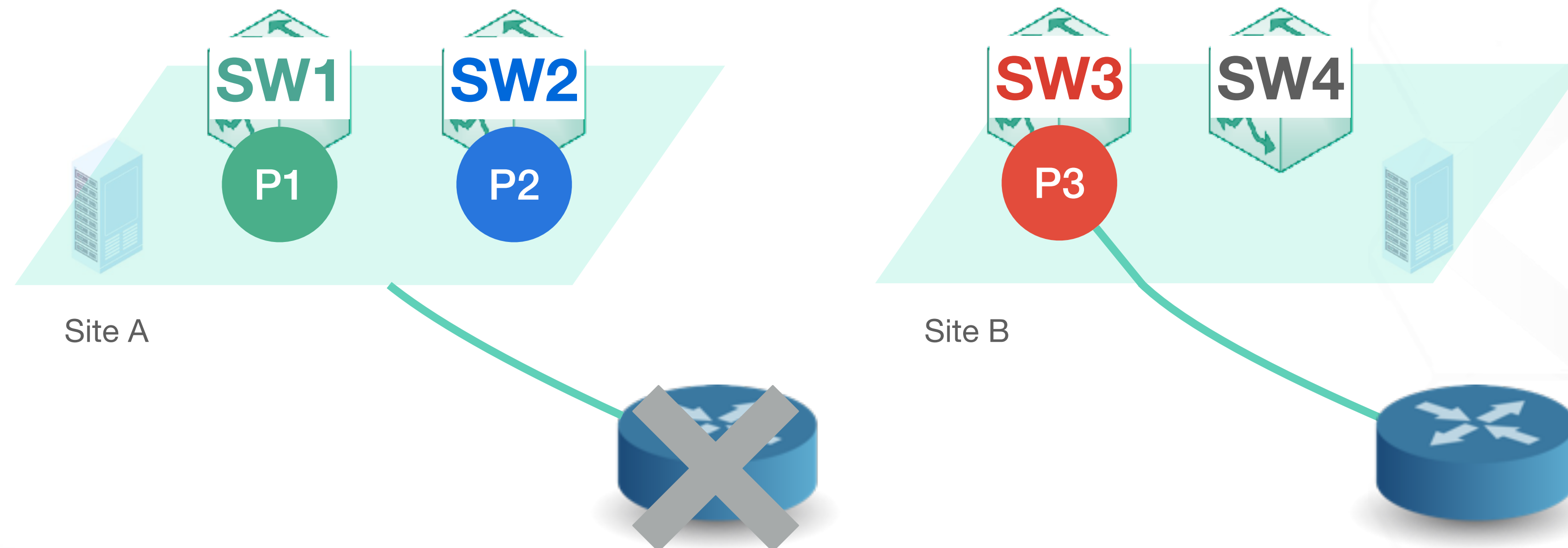
# BCP - Reserved port policy (3)

- P1, P2 will be assigned at local site
  - If the link to P1 or P2 is unavailable
- P3 will be assigned at remote site
  - P3 will be used for production



# BCP - Reserved port policy (4)

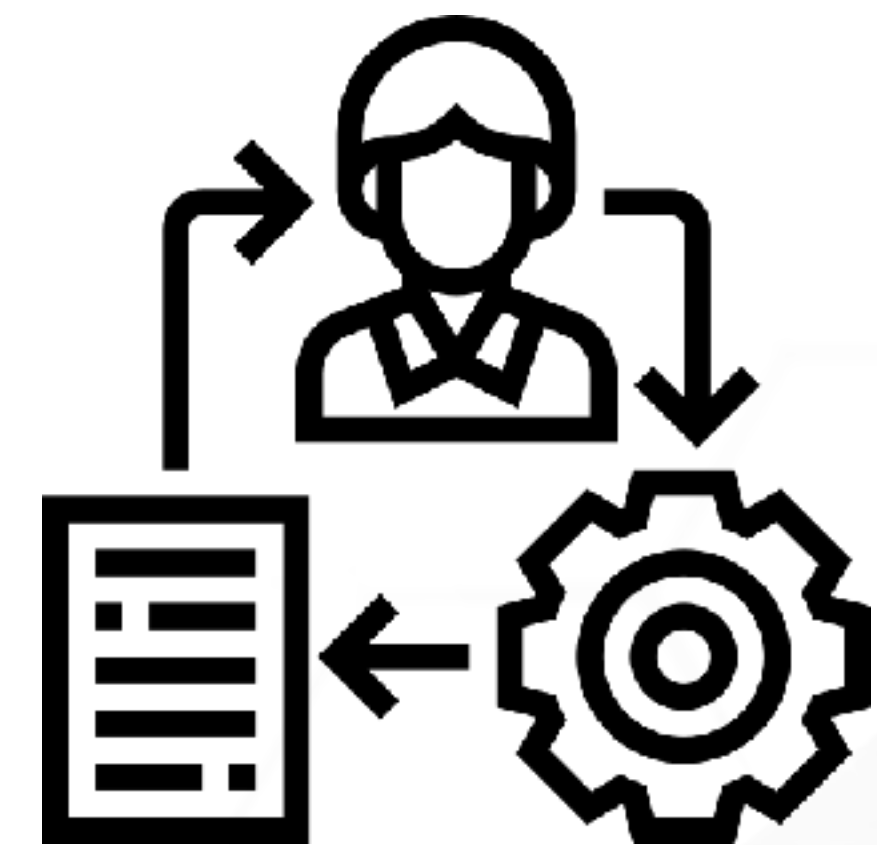
- P1, P2 will be assigned at local site
  - If the device connecting to site A is unavailable
- P3 will be assigned at remote site
  - P3 will be used for production





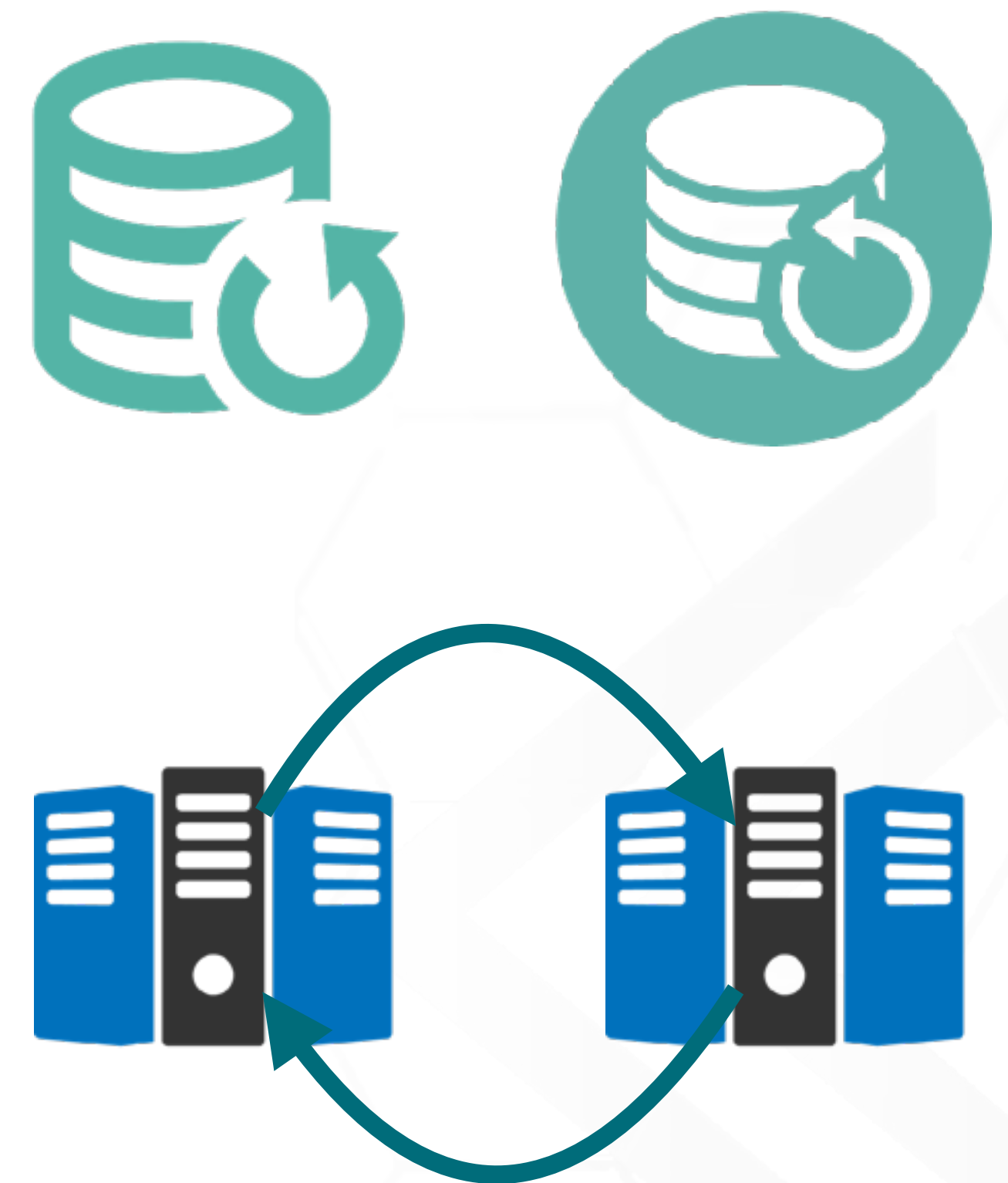
# BCP approaches (4)

- Disaster Recovery
  - Define objectives
  - Inventory collection : Hardware, Software
    - Router, Switch, Server, Network ...
    - Software, application, service ...
- Arrange communication plan
  - Role & Responsibility
  - Communication channels



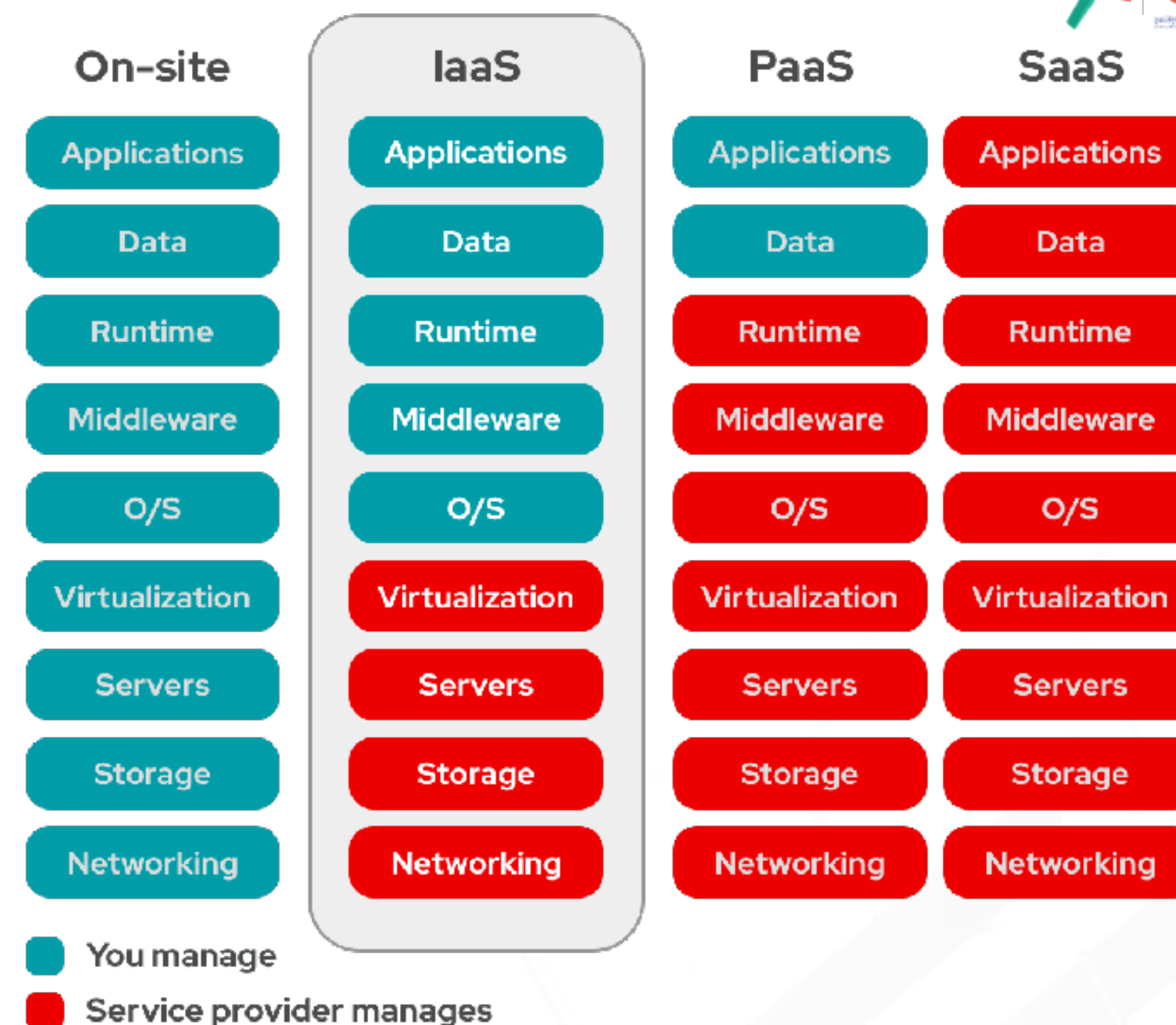
# BCP approaches (5)

- Disaster Recovery
  - Backup
    - a copy of your data stored somewhere which can be restored if the original data is damaged
    - pre-defined time period
  - Replication
    - ensure consistency between redundant resources
    - Compute, Memory, Storage

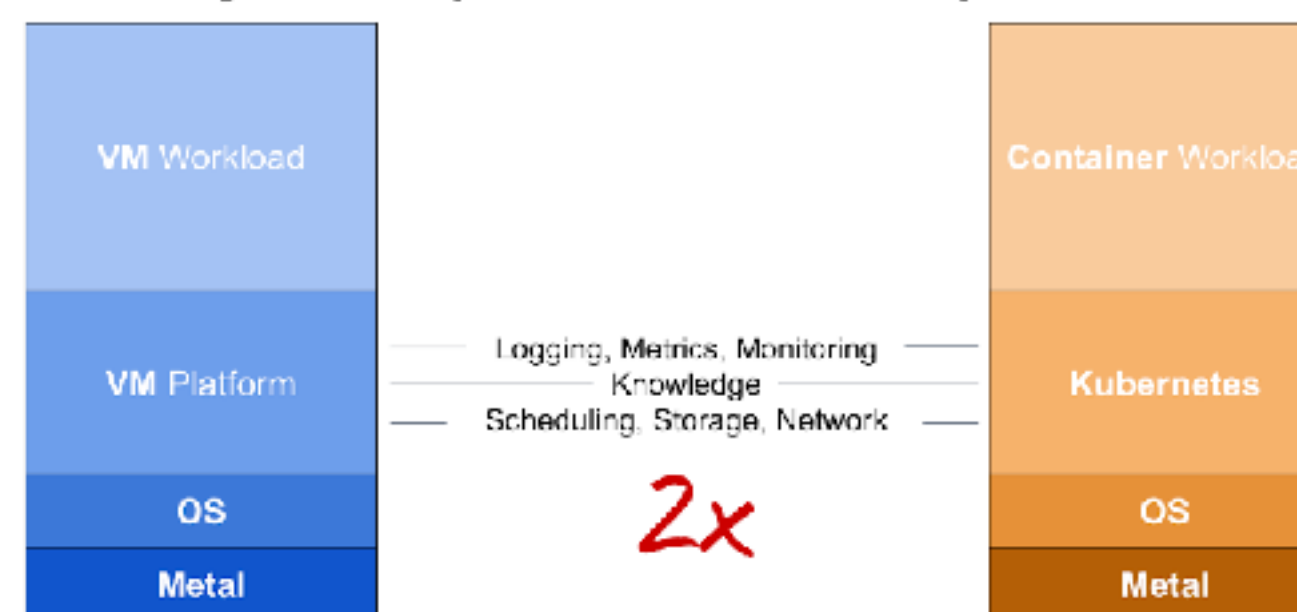


# BCP approaches (6)

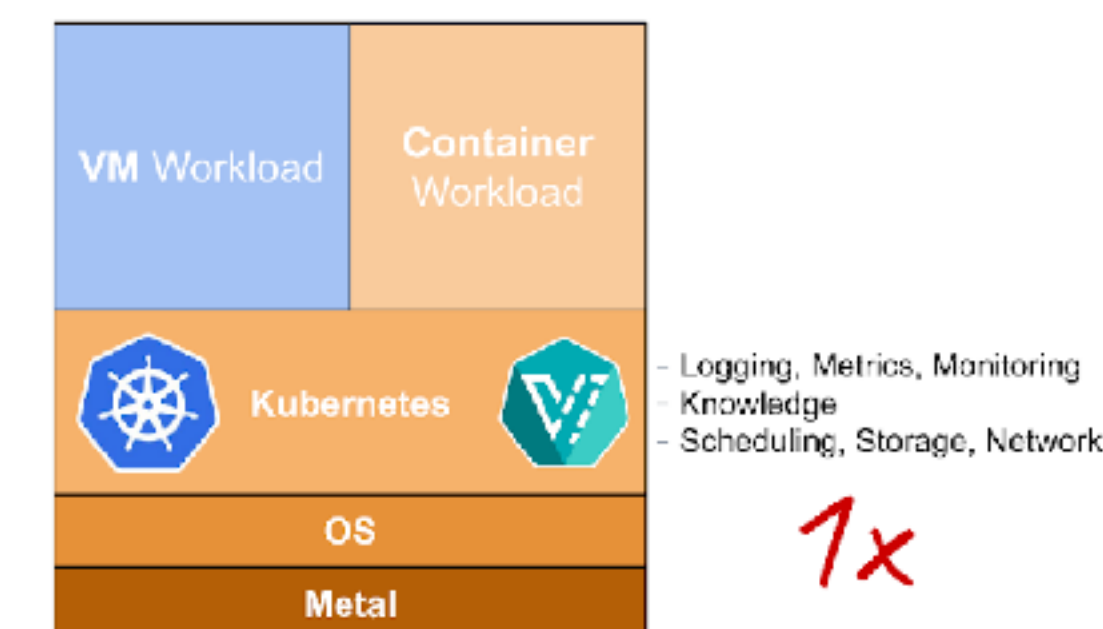
- Disaster Recovery
- Finding alternative locations
  - On-premise, On cloud (IaaS, PaaS, SaaS) or Hybrid
- Virtualization
  - Virtual Machine
  - Container



Old Way ... Multiple Workloads, Multiple Stacks



KubeVirt way... Multiple Workloads, One Stack



source :

<https://www.redhat.com/en/topics/cloud-computing/what-is-iaas>

[https://kubevirt.io/2020/KubeVirt deep dive-virtualized gpu workloads.html](https://kubevirt.io/2020/KubeVirt%20deep%20dive-virtualized%20gpu%20workloads.html)



# BCP approaches (7)

- Disaster Recovery
  - Create emergency plan & procedure
  - Verify recovery process
  - Train & Test & Validate
  - Keep record your changes
  - Keep plan up-to-date



source : <https://www.vazata.com/news/disaster-recovery-or-business-continuity-whats-the-difference/>

# Summary

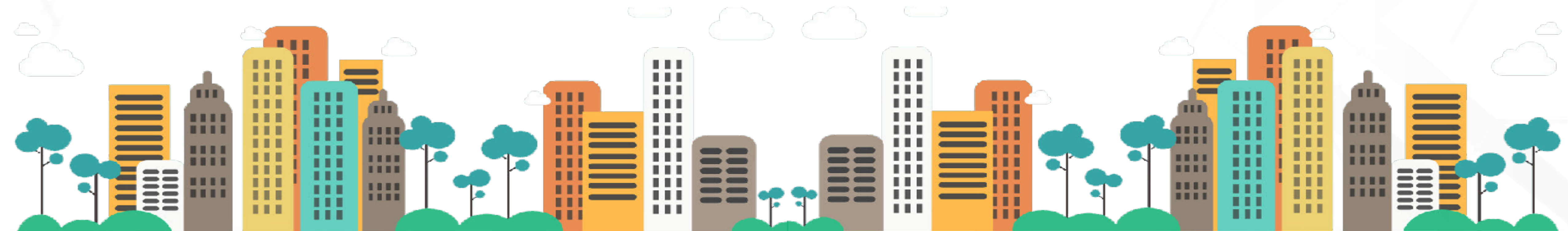
- Certainty is uncertainty...
- Importance of having BCP or DR plan
  - Apply to your own business & strategy
  - No need to be perfect at first
  - Record important changes and keep update on technology as well as our plan





# Final word...

“Being prepared for any disaster with only one plan better than having just one disaster but does not have any plan”





# References

- <https://www.euro-ix.net/en/forixps/set-ixp/ixp-bcops/>
- <https://www.euro-ix.net/en/forixps/set-ixp/ixp-bcops/technical-recommendations/>
- <https://www.iso.org/obp/ui/#iso:std:iso:22301:ed-2:v1:en>
- <https://www.iso.org/obp/ui/#iso:std:iso-iec:27031:ed-1:v1:en>
- [http://www.bgp4all.com.au/pfs/ media/workshops/03-ixp-design.pdf](http://www.bgp4all.com.au/pfs/media/workshops/03-ixp-design.pdf)
- <https://bknix.co.th/en/location/bkk/>

# Thank you



## Q&A?