

Unique method to backup, restore storage configuration

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Acknowledgement

Publication number	US20130036212 A1
Publication type	Application
Application number	US 13/195,980
Publication date	Feb 7, 2013
Filing date	Aug 2, 2011
Priority date 	Aug 2, 2011
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[Patent Citations \(3\)](#), [Classifications \(8\)](#), [Legal Events \(1\)](#)

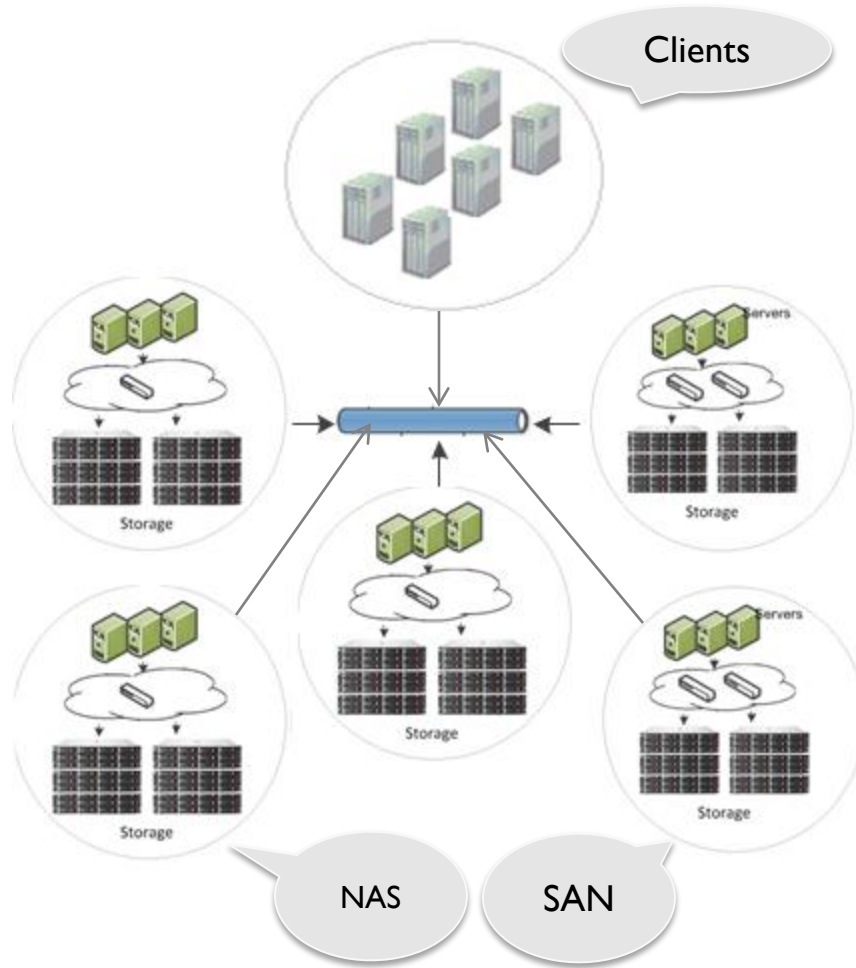
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Abstract

All disaster recovery solutions communicate with APIs from different vendors to retrieve information and perform management operations. It is very important the solution is interoperable with the vendor APIs.

The method proposed overcomes issues arising from dependency on vendor APIs. It is a software stack to back-up the configuration on devices in a SAN/NAS environment. Upon failure of a site or a device in a site, the solution replicates the same configuration that existed on the previous site/device to the new site/device.

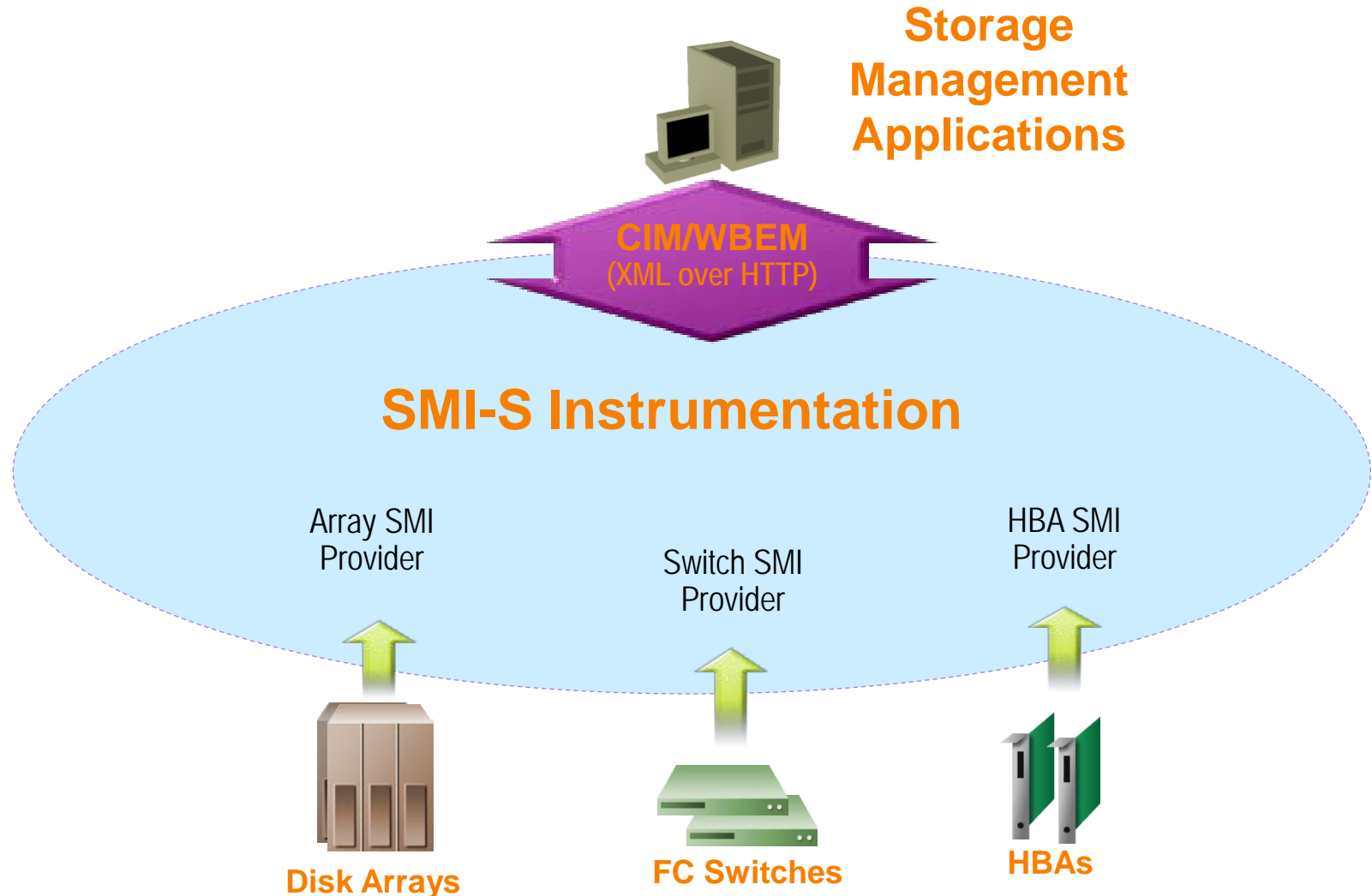
Data Center Management



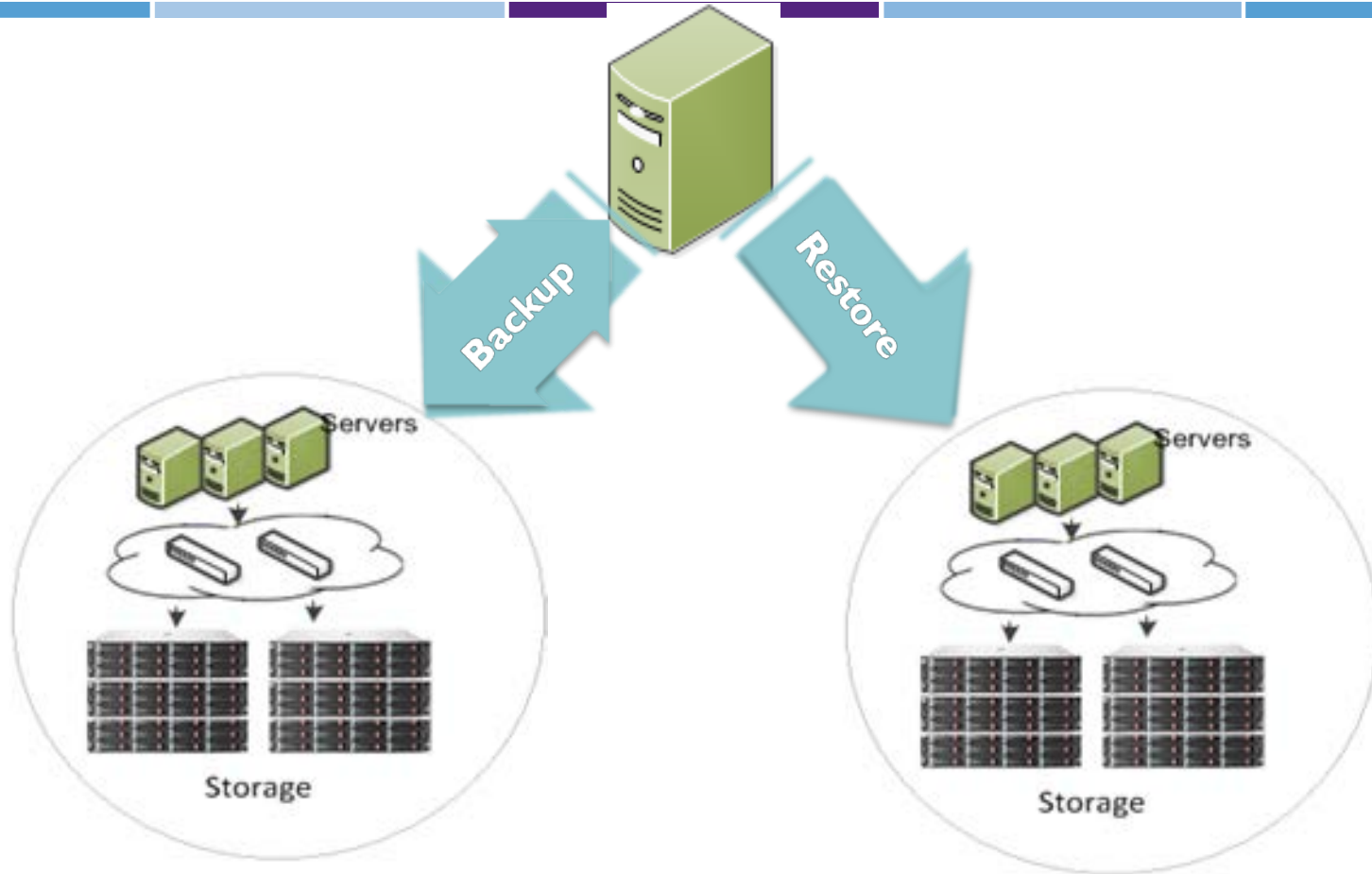
1. HW failure in a SAN/NAS environment
 - Manually replicate logical configuration on the new component
2. Migration from one environment to another
 - Requires a Storage Specialist
 - Manually deploy the configuration
 - Setting up Host, Network, Storage
 - Re-provision LUNs
 - Migrate Data

Automatically deploy the existing logical configuration on the new component(s) via a “Standard” based appliance.

Leveraging SMI-S



Workflow



Discover

Backup

Restore

Software Stack

- This module performs SLP based discovery of advertised CIM services.
- This module is built on SMI-S 1.5 standards to issue CIM-XML commands.
- This module operates on the XML requests, responses to extract the data and store in a relational database.
- **Relational Db:** This is a standard relational database to store values retrieved from devices.

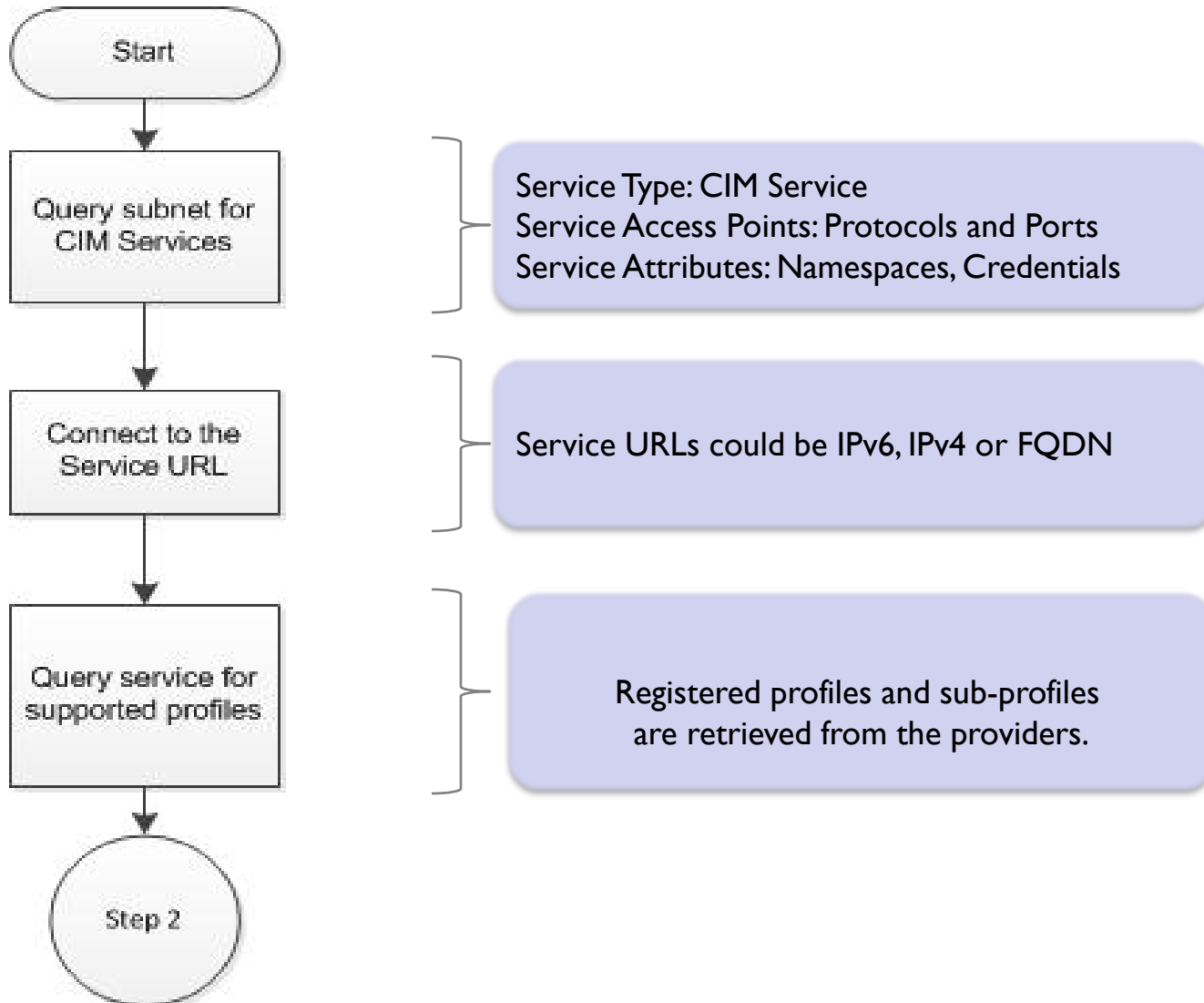
Discovery Module

CIM Client

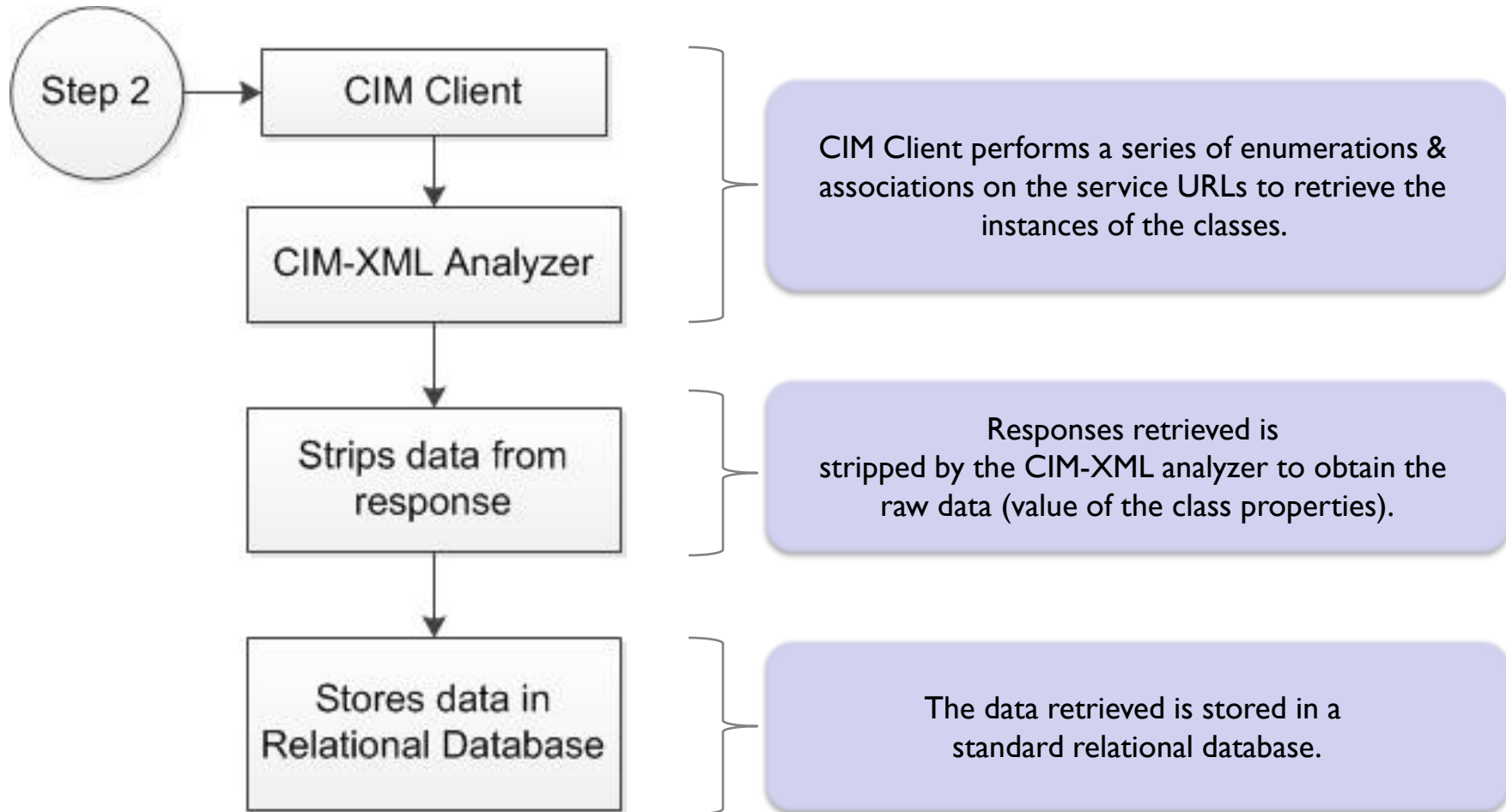
CIM-XML Analyzer

Database

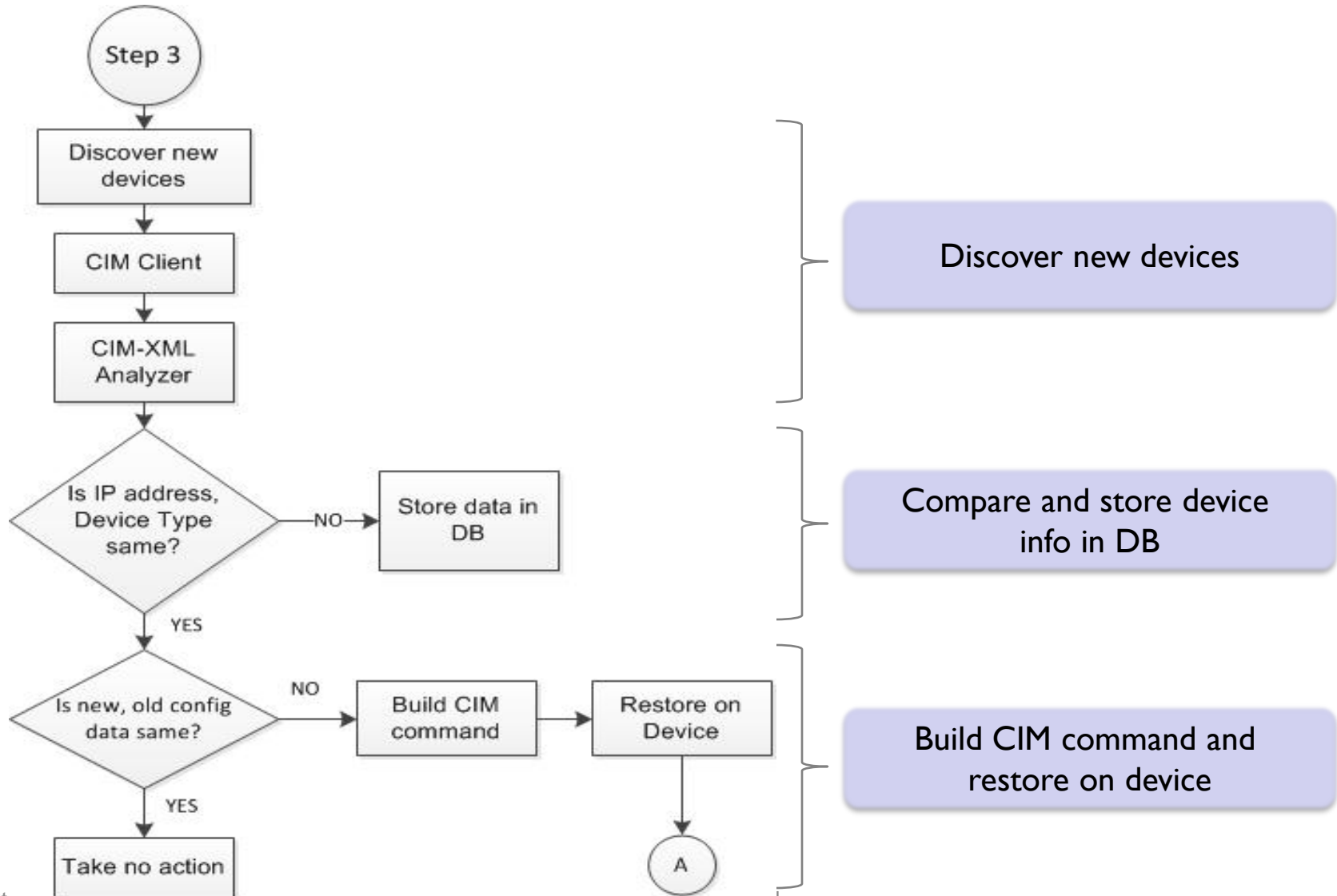
Discover



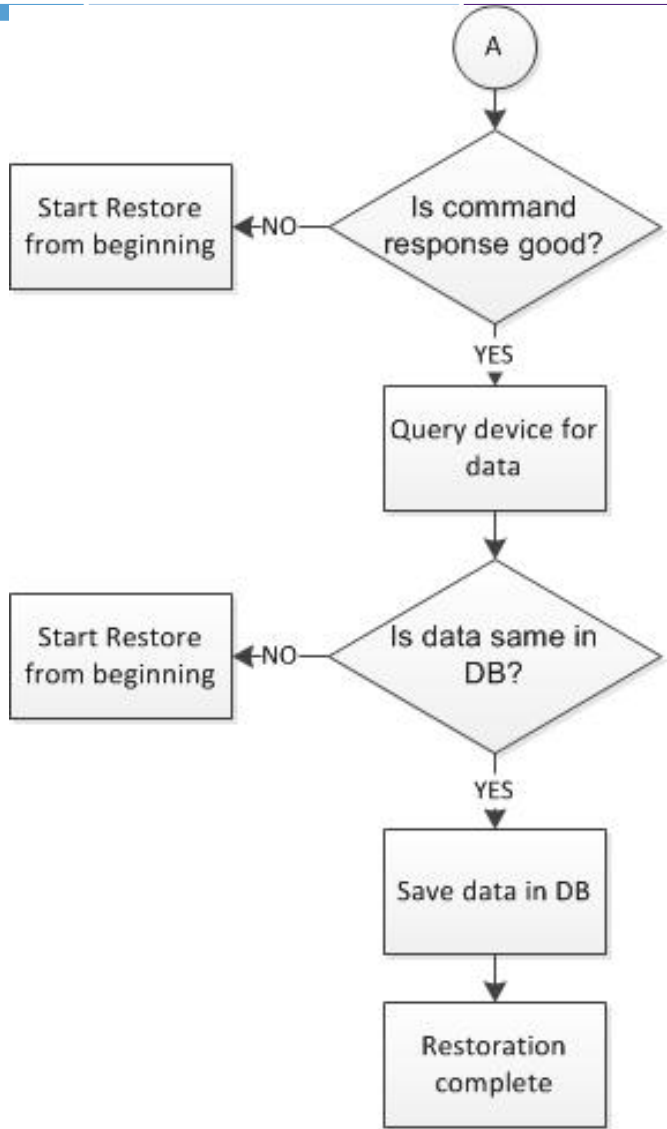
Backup



Restore



Restore Contd.



Query device to retrieve properties and compare with the existing data in DB.

Mismatch results in re-initiation of restoration.
Successful comparison results in committing the data to DB and restore completes.

Novel Features



Easy migration of configuration data



Vendor agnostic solution



Maintenance of code is easy



**Solution can be extended to migrate
“data” via snapshots**

Pre-requisites



The devices in the network should have its SMI provider configured to advertise its CIM service.



The new component must be interoperable in the environment.



Zones should be created with aliases that follow a common nomenclature.

For example:

Host1HBA1Port0, Host1HBA1Port1

zone1, zone2

zoneset1, zoneset2

Thank You

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Q&A