oVirt

Strengthen Your oVirt Data Resiliency and Protection

Luwen Zhang
Product Manager of Vinchin

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Introduction of Vinchin Backup & Recovery

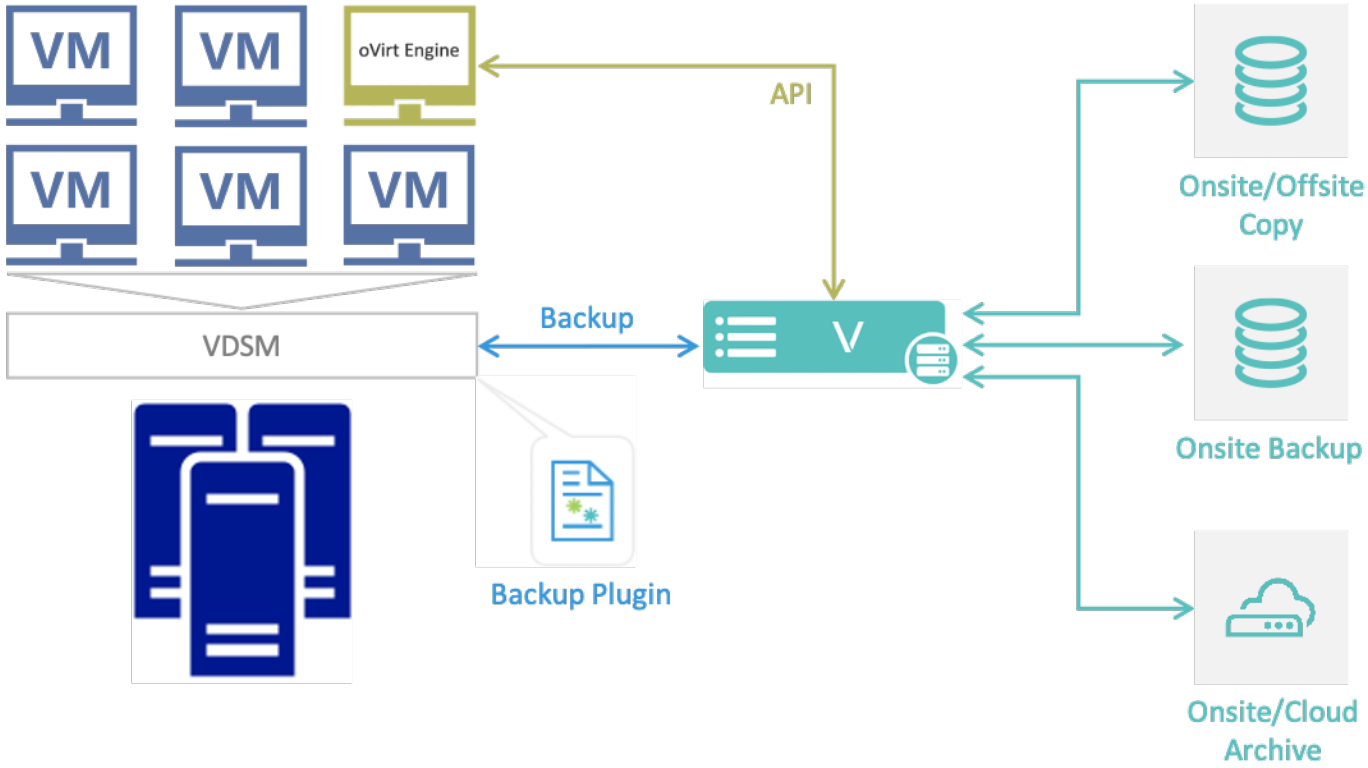
oVirt 2020 Online Conference (Vinchin v6.0)

- Image-based Hypervisor-level Backup
- Increment and Forever Incremental Backup
- SpeedKit
- Data deduplication
- Data Compression
- BitDetector
- LAN-Free Backup
- Instant Restore
- Live Migration
- File-level Granular Restore
- Offsite Copy (DR)
- Cloud Archive (DR)

oVirt 2021 Online Conference (Vinchin v6.5)

- ImageIO API Implementation
- Changed Block Tracking (CBT) Implementation
- Cross Platform Restore – V2V
- Ransomware Protection
- Multitenancy Support
- Feature Optimization

Architecture of LAN-based Backup using Backup Plugin



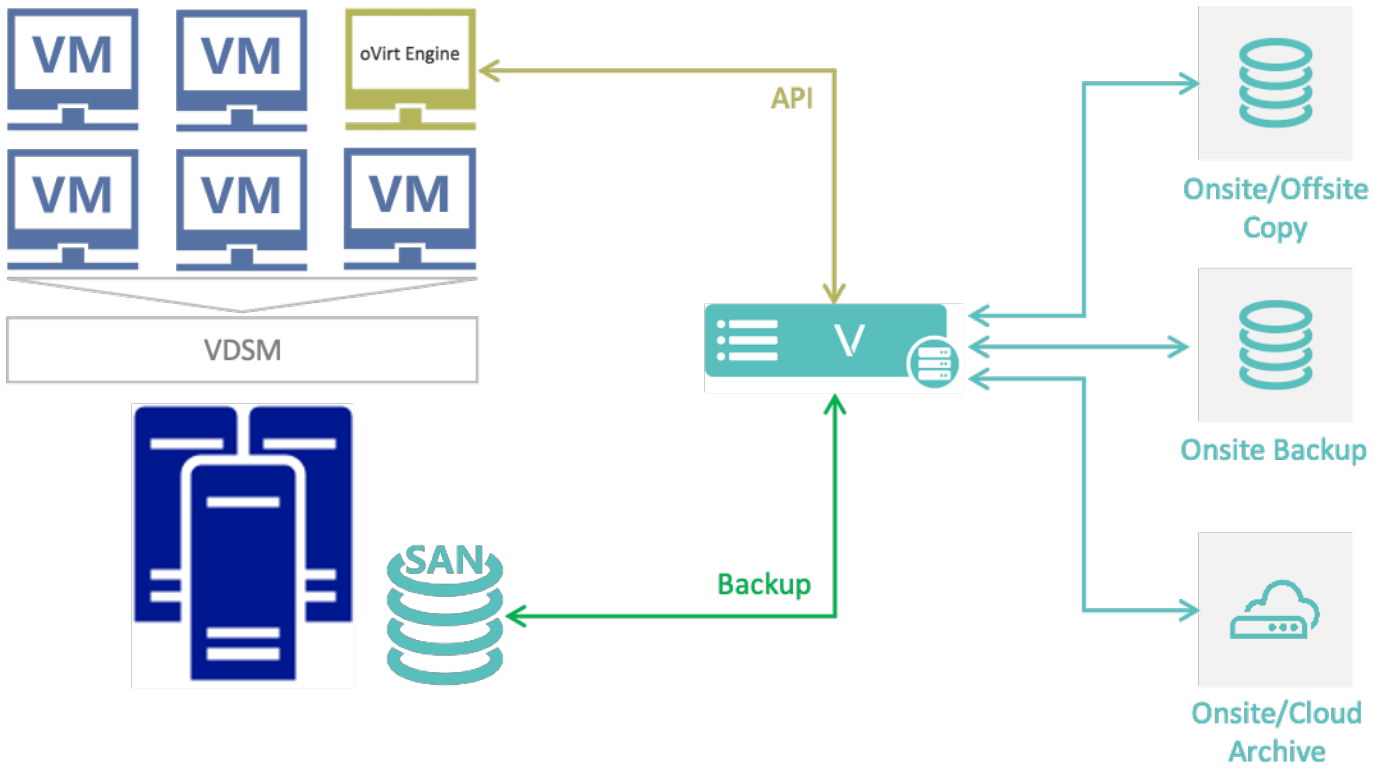
Deployment

- Install Vinchin either as a VM or on a physical server.
- Connect oVirt virtual platform to Vinchin using oVirt engine API.
- Backup plugin installation on oVirt nodes.

Transmission

- By default, data transmission goes through management network.
- Can be configured to transfer through a dedicated backup network.
- Transmission pass through the hypervisor layer.

Architecture of LAN-Free Backup



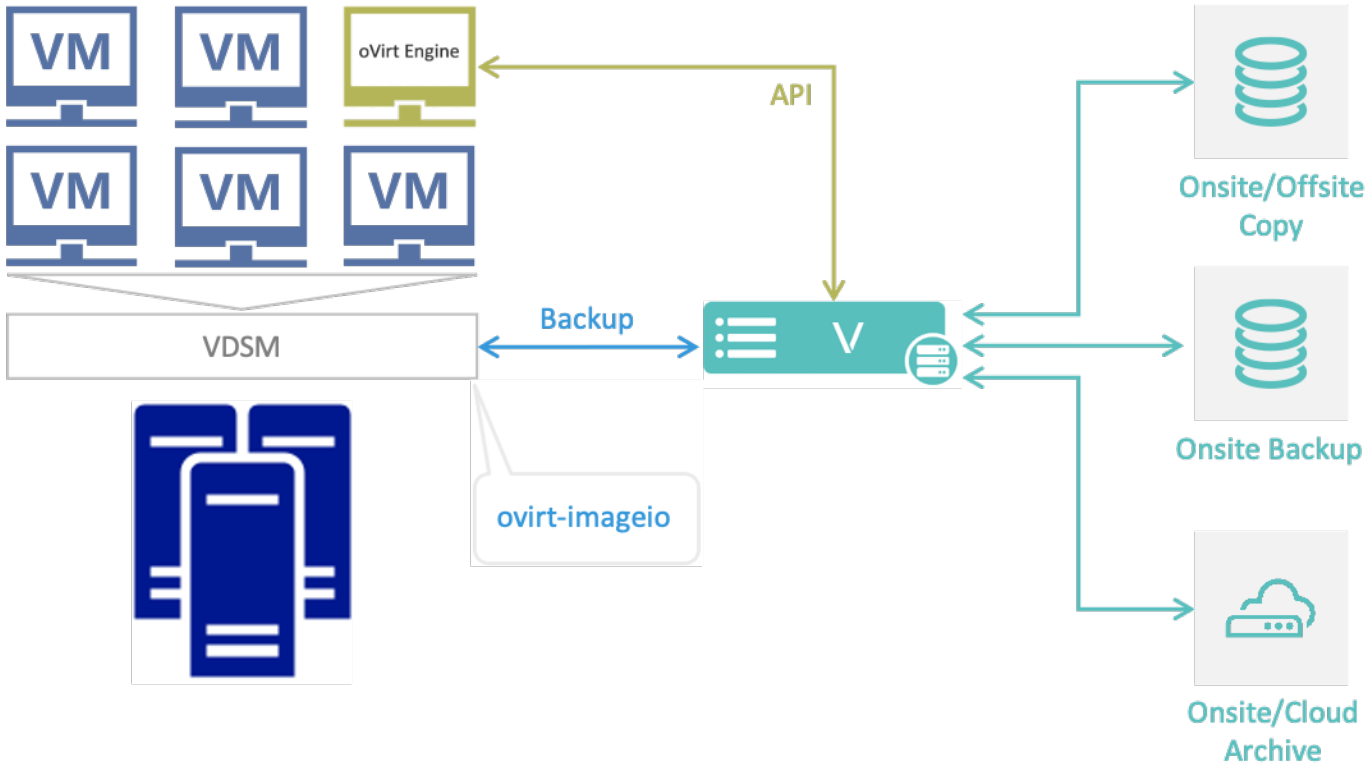
Deployment

- Install Vinchin on a physical server (Fibre Channel adapter needed if oVirt runs on FC SAN).
- Connect oVirt virtual platform to Vinchin using oVirt engine API.
- Configure LAN-Free path by mapping the oVirt LUNs to Vinchin.

Transmission

- Both backup and restore data transmission goes through SAN.

Architecture of Backup using ImageIO API



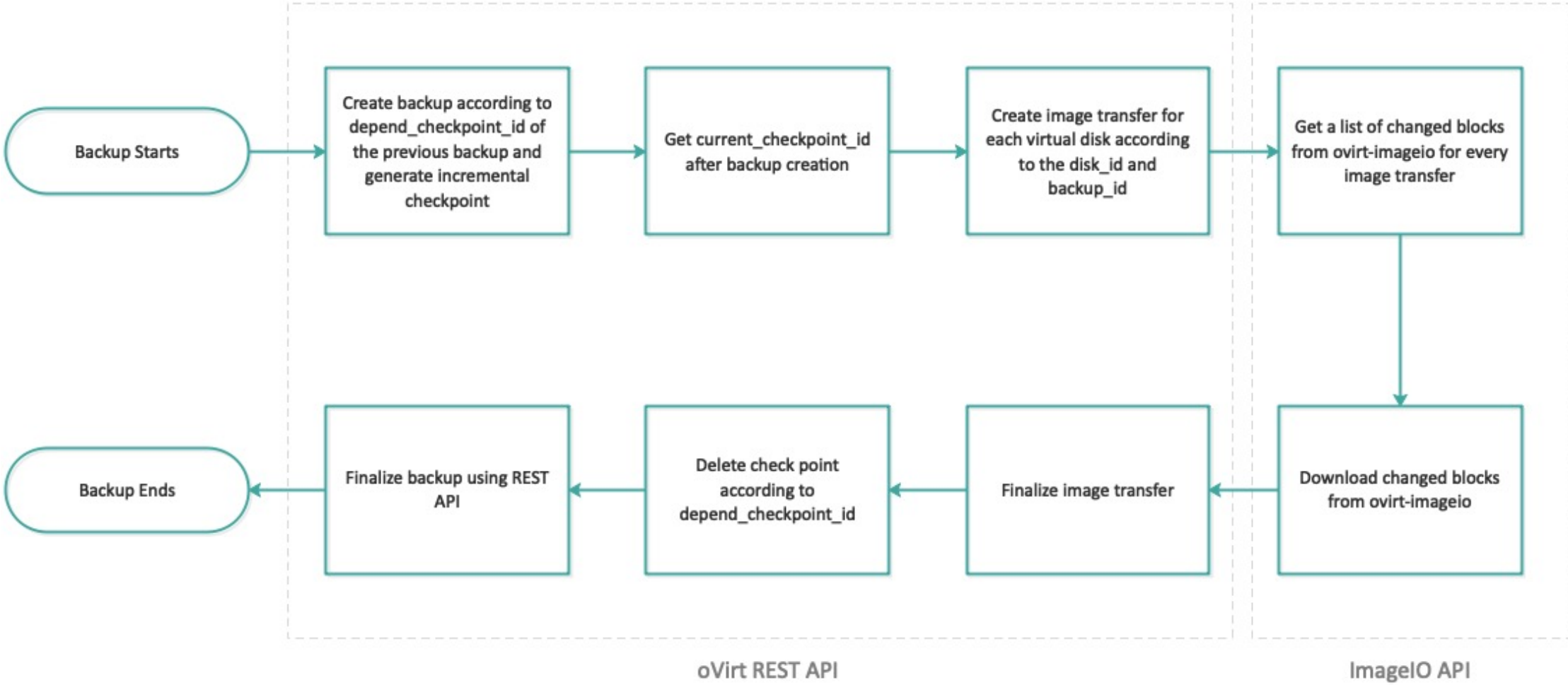
Deployment

- Install Vinchin either as a VM or on a physical machine.
- Connect oVirt virtual platform to Vinchin using oVirt engine API.

Transmission

- Backup and restore data flow goes through ImageIO API.

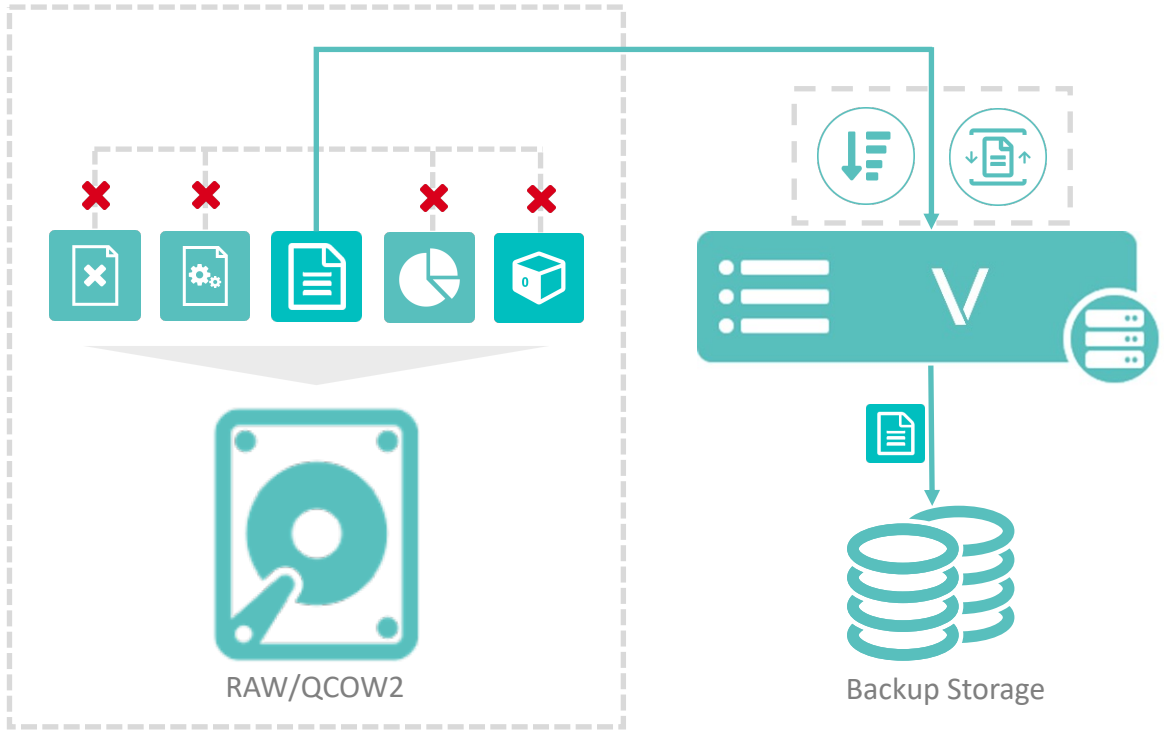
Incremental Backup Process ImageIO + CBT



Incremental Backup options

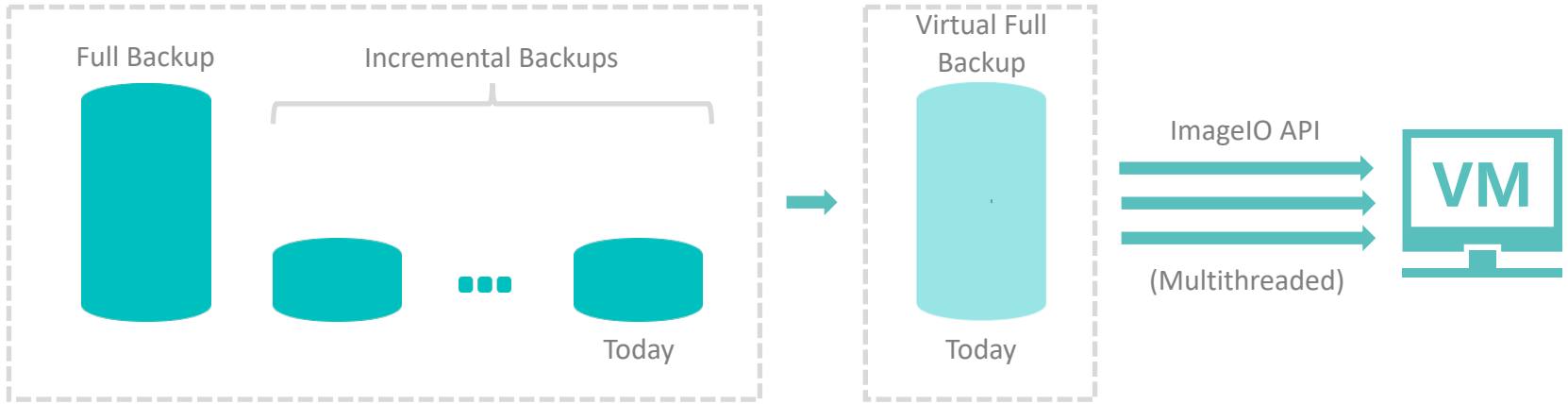
	LAN (with Backup Plugin)	LAN-Free	ImageIO (coming soon)
Incremental Mode	• Ordinary • SpeedKit (a snapshot needs to be reserved)	• Ordinary • SpeedKit (a snapshot needs to be reserved)	• CBT (Changed Block Tracking)
Transmission Network	• LAN • Dedicated backup network	• SAN (Storage Area Network)	• LAN • Dedicated backup network
Conditions	• Backup plugin installation on oVirt hosts required. • All oVirt versions	• IP SAN • FC SAN (physical Vinchin server with FC adaptor) • All oVirt versions	• oVirt version 4.4.1 or higher

Backup Data Reduction for oVirt



- Zeroed data blocks exclusion from source.
- BitDetector for NTFS file system (Windows VMs).
  - ✓ Exclude swap file blocks
  - ✓ Exclude unpartitioned spaces
  - ✓ Exclude deleted file blocks
- Built-in Data Deduplication and Compression.

VM Restore with ImageIO API



Advantages of VM restore using ImageIO API

- Taking the advantage of ImageIO's flexibility, Vinchin's Virtual Full Backup technology can fully utilize ImageIO API to perform VM restore.
- Multithreaded transmission for VM restore also works with ImageIO API.
- Full VM Restore, Instant Restore (+Live Migration) are all supported with ImageIO API.

Cross Platform Restore – V2V

Basic VM configurations

- VM name
- CPU Sockets (as original or customized)
- Cores per Sockets (as original or customized)
- RAM Size (as original or customized)
- VM status after restore
- Boot mode BIOS/UEFI

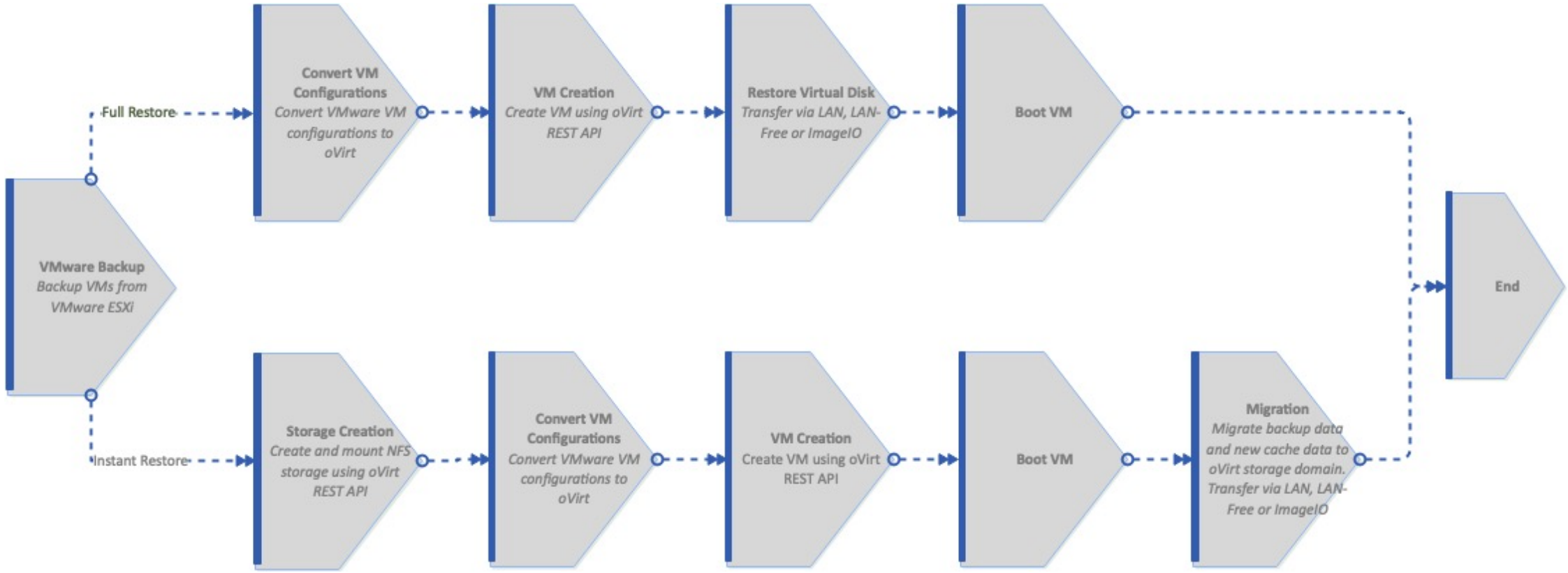
Virtual Disk

- VMDK (VMware) -> VDK (Vinchin) -> RAW/QCOW2 (oVirt)
- Target storage domain (selectable)
- Virtual disk name (customizable)
- Interface type
  - ✓ SATA
  - ✓ VirtIO-SCSI
  - ✓ VirtIO

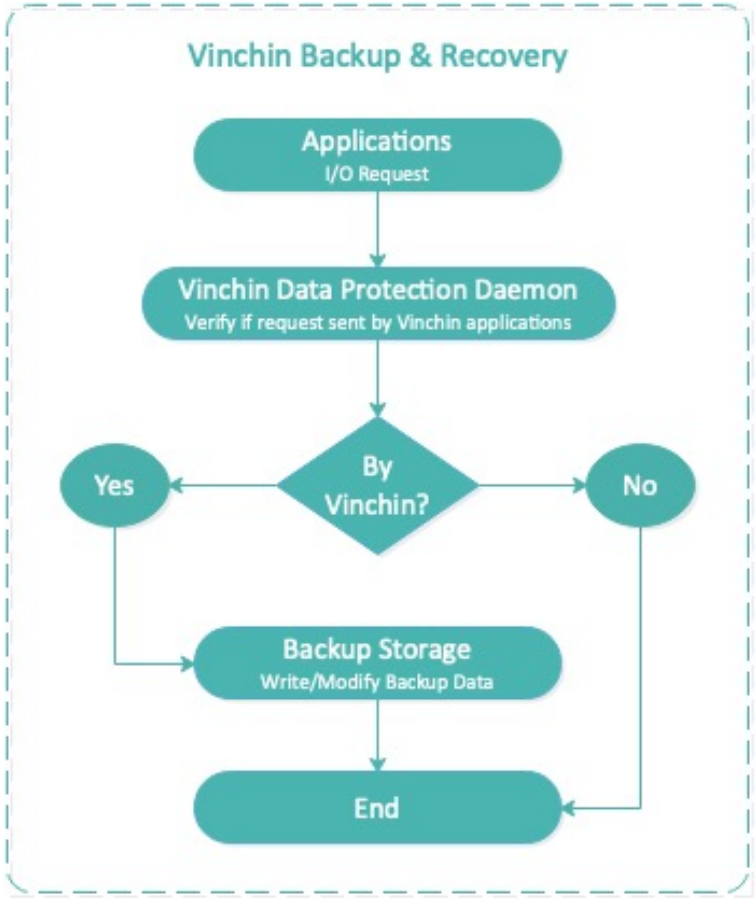
Virtual network

- Target network (selectable)
- Interface
  - ✓ E1000
  - ✓ VirtIO
  - ✓ RTL8139
  - ✓ Dual mode (RTL8139&VirtIO)
- MAC Address
  - ✓ Auto Generate
  - ✓ Customized MAC
  - ✓ Original MAC

Cross Platform Restore Process



Ransomware and other malwares protection



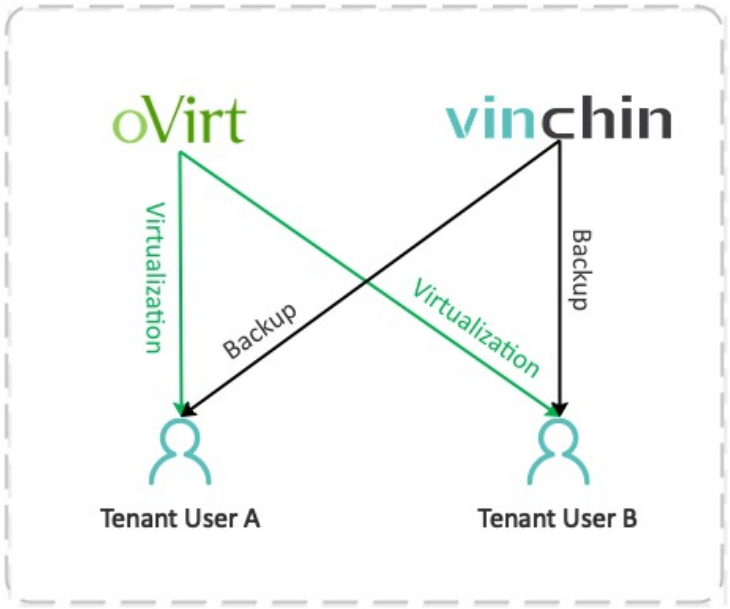
How it works?

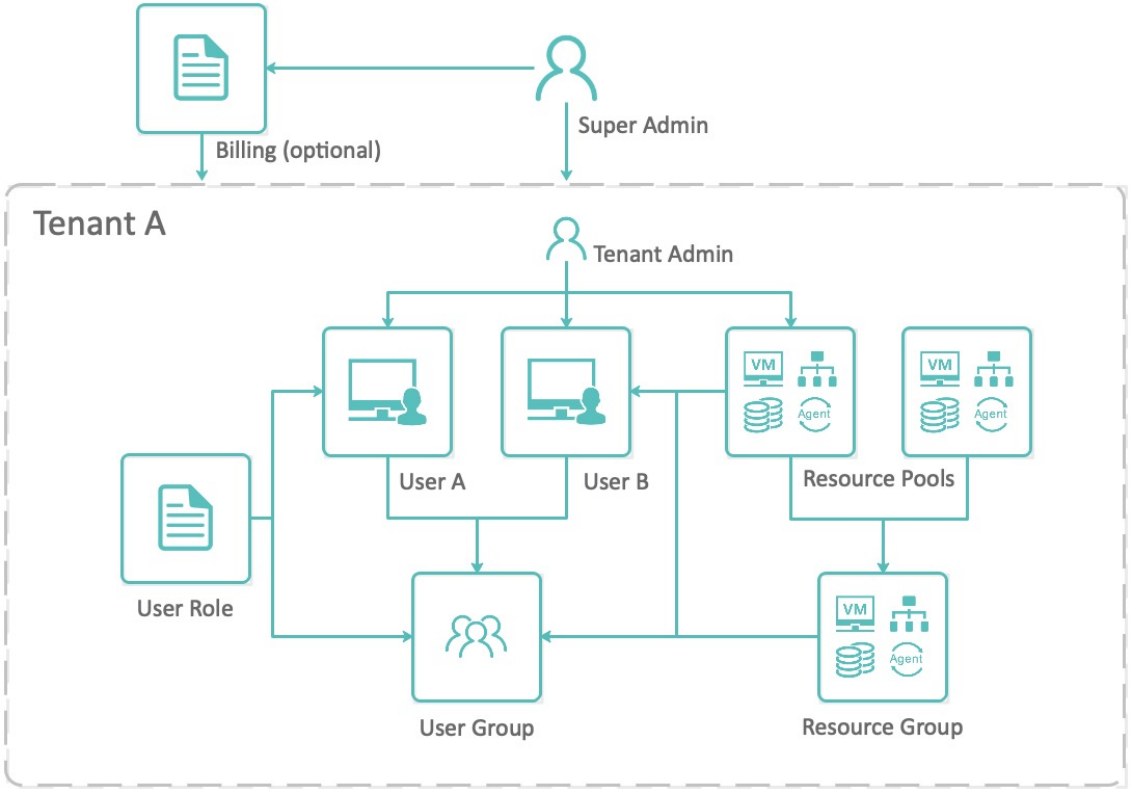
- All IO requests to backup storage will be monitored by Vinchin data protection daemon. Only IO requests from Vinchin applications are allowed.
- The data protection daemon also protects Vinchin application binaries to prevent malwares to disguise as Vinchin applications to modify your data.

Protects all copies of you oVirt backup data

- On-site backup, backup copy and backup archive data.
- Offsite backup copy data.
- Cloud archive data.

VPS Hosting using oVirt Virtualization + BaaS





Provide backup services to VPS users with Vinchin's multi-tenancy feature.

Demo

1. VM Backup and Restore using ImageIO
2. Cross Platform Restore

vinchin


www.vinchin.com


luwen.zhang@vinchin.com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