



TYPICAL CHALLENGES OF STORAGE MANAGEMENT

Ryan Lian

Director of Product Management,
Data Storage Domain of IT Product Line, Huawei

MAIN CHALLENGES OF STORAGE MANAGEMENT

Low resource utilization



Over Provisioning > 20%
Average usage rate <40%

Inefficient management



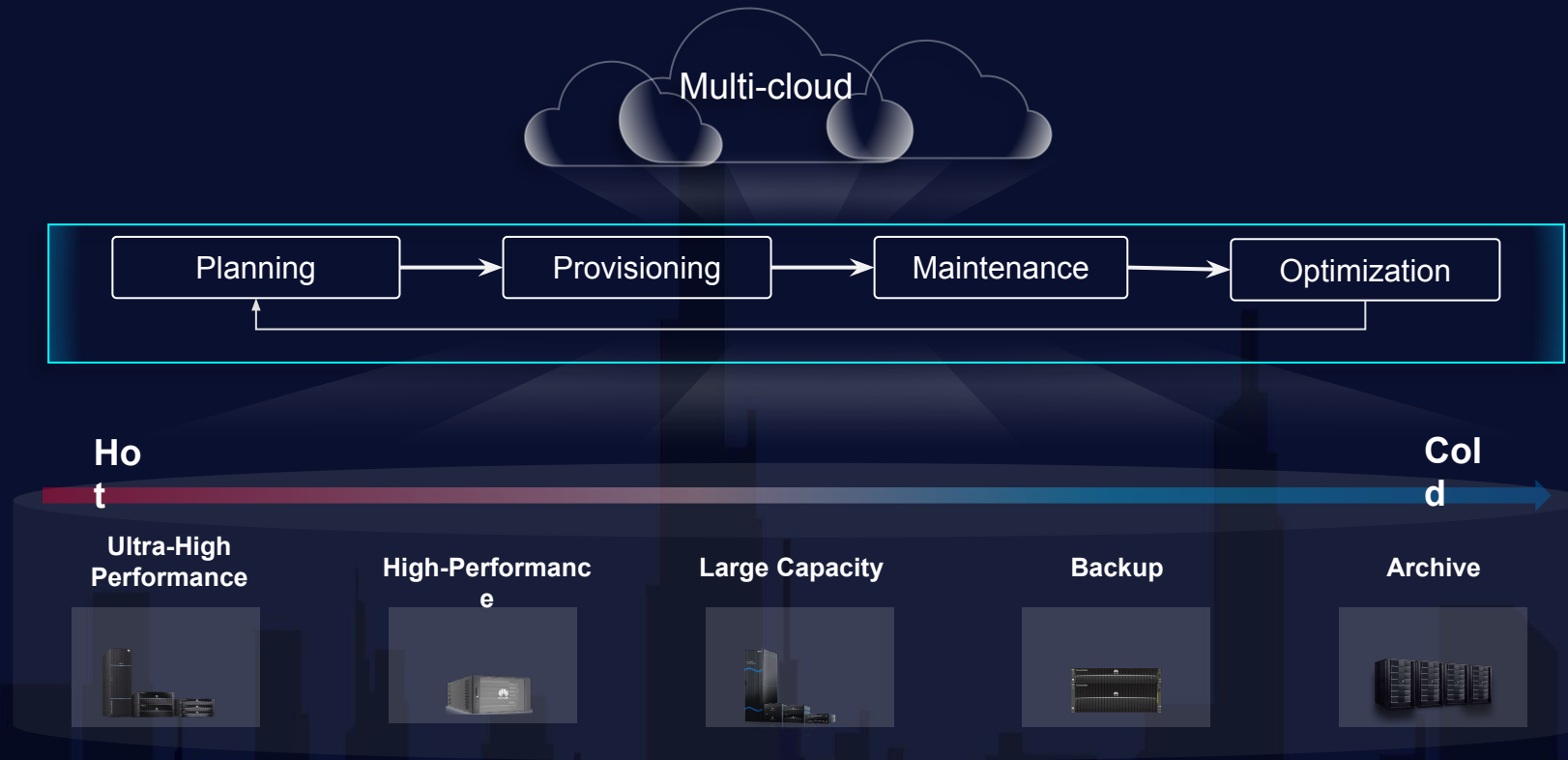
Complex operation: Implementation with 4+
persons/night
Slow fault location and low tolerance:
Manual check with 2+ hours

Multi-cloud convergence



Silos due to separate management of
multiple clouds
Unable to leverage advantages of
enterprise-class storage and cloud

WHAT KIND OF STORAGE MANAGEMENT DO USERS NEED?



Open for multi-cloud convergence

Full Scenarios for data management

One pool for storage on demand

CASE I: RFP OF XXX TELECOM PROVIDER

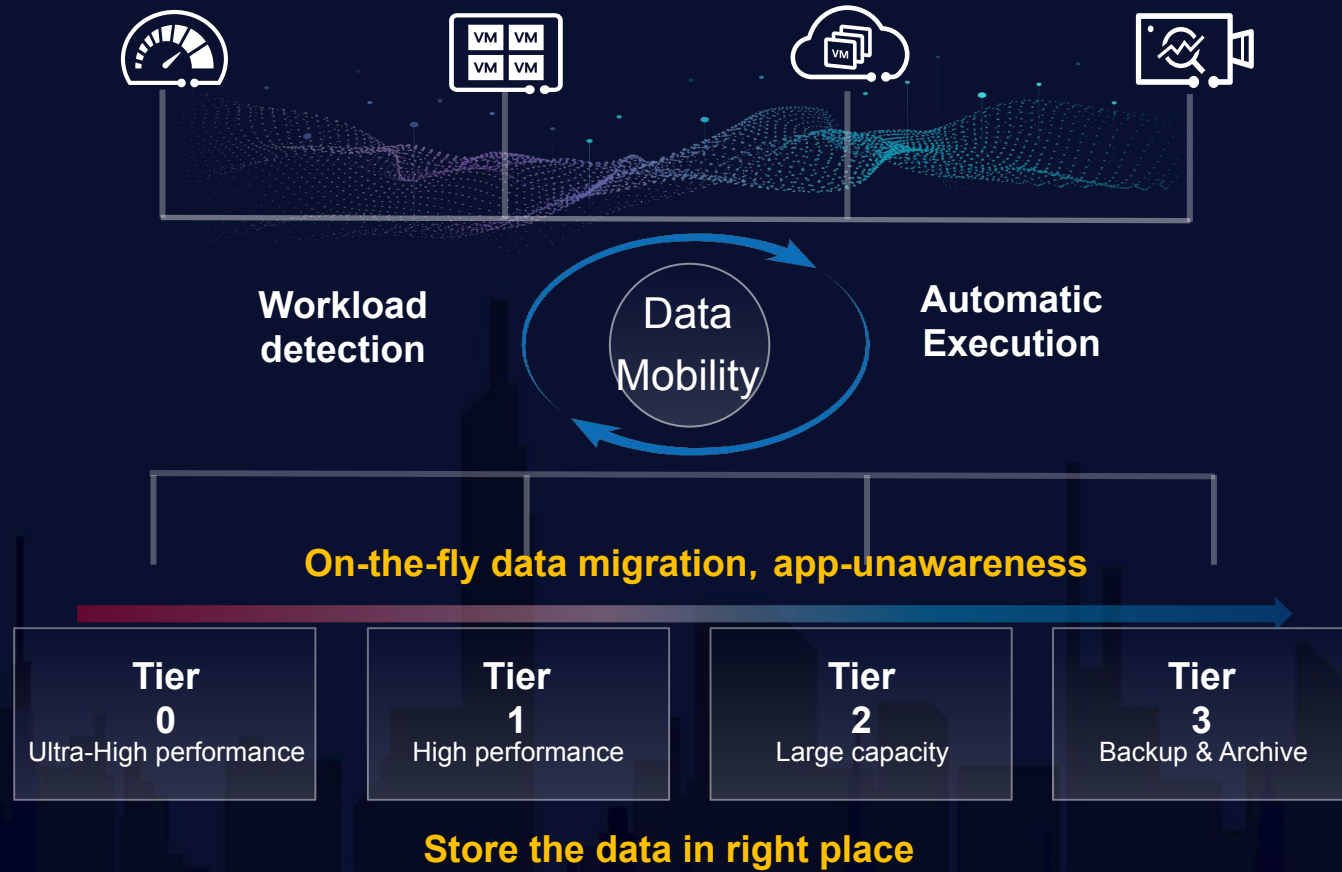
Tier definition

Primary Service tiers:					
Tier	0	1	2	3	4
Description (CPA)	Diamond	Platinum	Gold	Silver	Bronze
Performance	< 1 ms latency	< 3 ms latency	< 5 ms latency	< 10 ms latency	< 15 ms latency
Minimum Density	8 IOPS/GB	4 IOPS/GB	2 IOPS/GB	0.6 IOPS/GB	0.5 IOPS/GB
Maximum Sustained Density	16 IOPS/GB	8 IOPS/GB	4 IOPS/GB	1.2 IOPS/GB	1 IOPS/GB
Burst Density	24 IOPS/GB	12 IOPS/GB	6 IOPS/GB	2.4 IOPS/GB	2 IOPS/GB
Availability	99.999%	99.999%	99.999%	99.999%	99.999%
Sample Mix*	10%	10%	40%	30%	30%
Connectivity	Redundant & Scalable data paths	Redundant & Scalable data paths	Redundant & Scalable data paths	Redundant data	Redundant data
Typical Workloads	VDI, No SQL, Analytics, Latency Sensitive applications	ERP, SAP Hana, Big data	SQL Server, SharePoint, Exchange	High C Applications, Web core, Shared Web, I/O intensive data	High C Applications, Web core, Shared Web, I/O intensive data

3.3.2	Self Service must be available via integration with Accelerite Cloud platform , including but not limited to: <ul style="list-style-type: none"> Self Service includes activities including initial provisioning, changing the size of a volume or changing the Storage tier, attaching additional Servers to a volume. Automatic provisioning of a storage volume (with defined Min/Max/Burst IOPS) and datastore creation for hosting of multiple virtual disks. Virtual disk aware storage volumes. Min/Max/Burst IOPS on storage volumes to reflect the IOPS values defined across multiple virtual disks being hosted on a single storage volume. Automatic provisioning of a storage volume (with defined Min/Max/Burst IOPS) for an individual virtual disk.
3.3.3	Self Service portal must be available via Single Sign on via BT Compute Management System.
3.3.4	Both Internal and external customers of the storage service will have a self-service capability via an API and GUI. <p>Self Service includes activities including initial provisioning, changing the size of a volume or changing the Storage tier, attaching additional Servers to a volume.</p>
3.3.5	The Suppliers StaaS solution proposal must include all integration work required for the solution to seamlessly operate with Accelerite Cloud platform, Caringo and Cloud Management Stack .

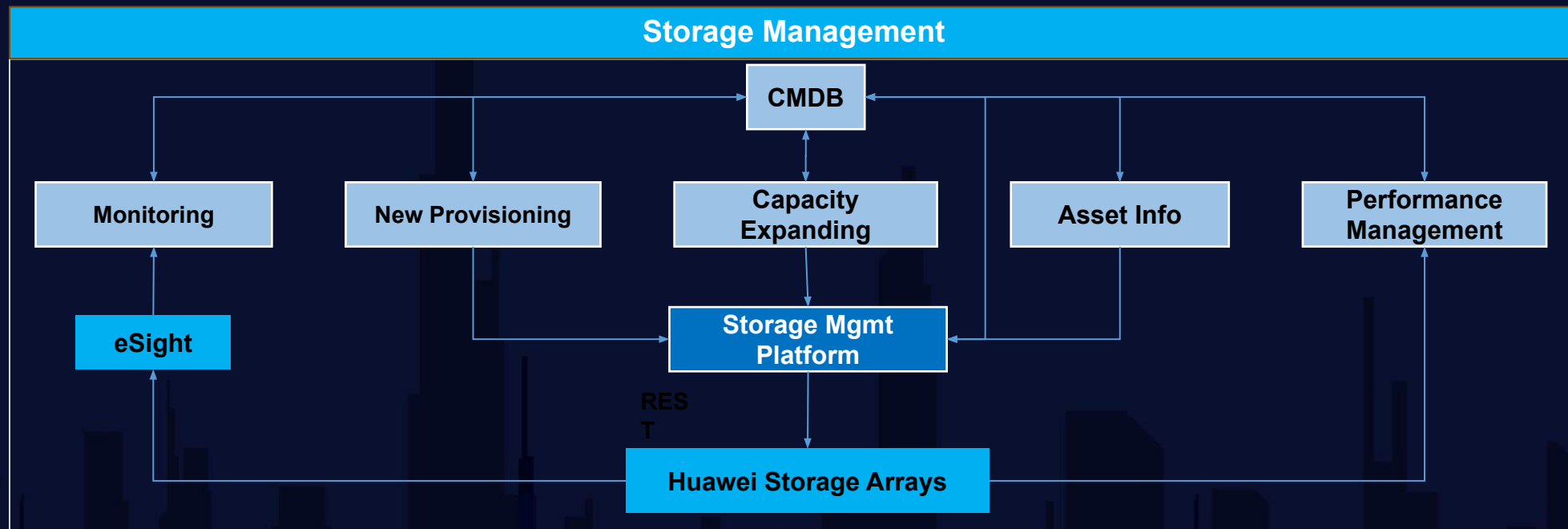
CASE I: RFP OF XXX MANUFACTURE IN EUROPE

Cross-Tier Data Mobility



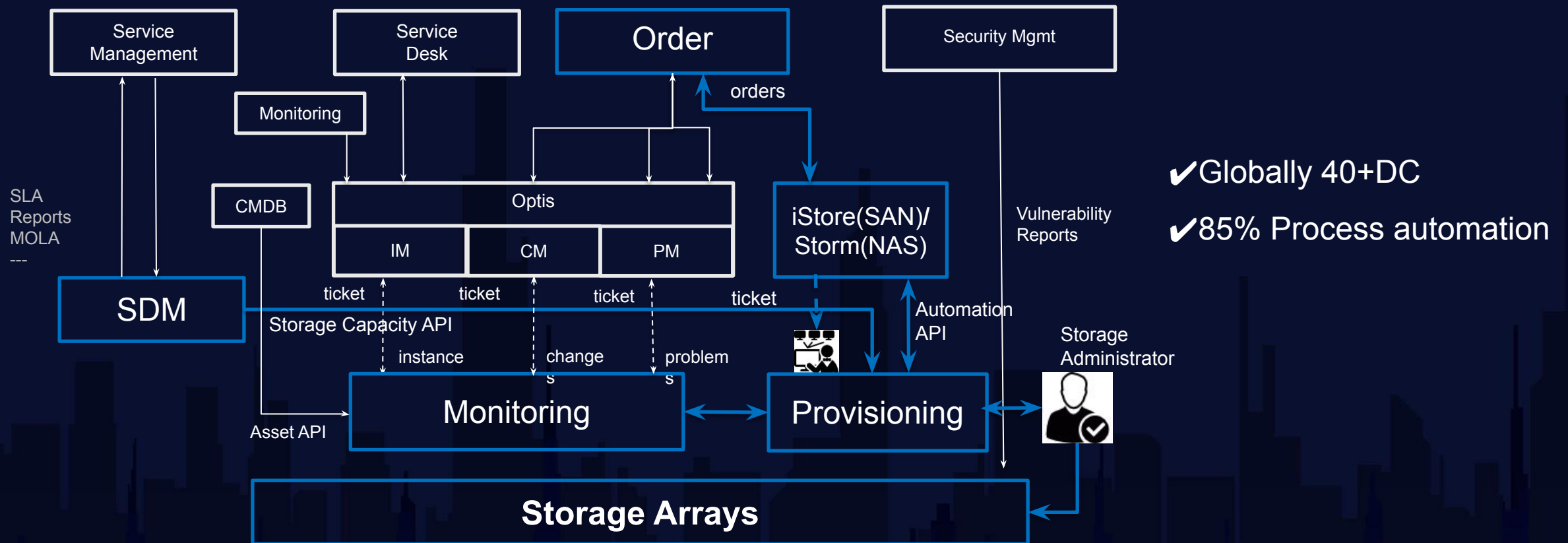
CASE 2: HOW TO BE INTEGRATED WITH UNIFIED PLATFORM

Source : XXX Chinese bank



CASE 3: HOW TO MEET CUSTOMER NEED IN PAYU MODE

Source : XXX Manufacture maker



SUMMARY

- Is SLA-Centric resource management a real trends?
- Data mobility without app awareness
- Avoid more storage silos in multi-cloud environment