BUILDING CLOUD DATA CENTER
with SANGFOR HCI Solution

Demand Analysis of New DC Construction

- **Secure & Reliable**: Platform needs to meet the basic technical requirements reliability and security to ensure efficient delivery of business and reliable data management.
- **Highly Efficient O&M**: To reduce the complexity of the data center construction process and the subsequent O&M, and release IT resources to improve daily IT efficiency.
- **Economical & Flexible**: The usage of virtualization, cloud computing & other technologies significantly cuts cost and enabling the establishment of a sharable, flexible & elastic IT infrastructure.

Traditional Construction Methods & Challenges

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<th>Planning</th>
<th>Construction</th>
<th>O &amp; M</th>
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<td>- Huge Upfront Cost</td>
<td>- Large Investment</td>
<td>- Heavy Maintenance</td>
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<td>- Cumbersome Design</td>
<td>- Slow Business On-Line</td>
<td>- Complicated Expansion</td>
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Planning 3-5 years ahead; requiring 2.5 times of advanced investment; stacking & integration of a variety of hardware complicating the overall design. Hardware equipment accounts for over 45% of investment & low utilization rate is usual; the procurement-deployment cycle is over 6 months. IT personnel spend 60% of their time on daily O & M; expansion via hardware replacement causes undesirable changes on business & infrastructure during.

Building Cloud Data Center with Hyper-Converged Infrastructure

- “Software-Defined” leads the new direction of data center revolution

  - **Investment Reduction**: Using only general X86 servers & switches, Software Defined Data Center (SDDC) decouples software from hardware, thus reduces complexity of IT system, conserves resources & time and cuts down cost.
  - **Flexible & Efficient**: IT resources can be flexibly defined, distributed on demand and is capable of scale-out expansion; business needs can be responded to rapidly through automated orchestration.
  - **Automated Management**: Automatically manage all business strategies such as service level, visual operation & maintenance, template construction, centralized strategy development and comprehensive monitoring.
Hyper-Converged Infrastructure is the Best Way to Achieve “Software-Defined Data Center”

Sangfor HCI deeply integrates compute, storage, network and network functions (security & optimization) into a standard x86 server by virtualization technology, forming a standardized HCI unit. Through a WEB management platform, multiple HCI units are integrated into the data center as a whole IT infrastructure and O&M is unified & visualized. As a result, users can create new IT framework that is ultra-simplified and can grow on-demand & evolve smoothly.

**Step 1: Simplified Construction**
- Only need to purchase standard X86 servers & switches
- Use HCI software to “define” & construct IT architecture

**Step 2: Deep Integration of NFV Components**
- Network virtualization & security functions integratedly running on software
- No need to purchase & deploy complex SDN network & dedicated hardware
- Dynamic & on-demand resource expansion with no impact on business

**Step 3: Simplified O&M Management**
- Centralized, unified & visualized resource management
- “What you draw is what you get” topology, 1-click fault location
- 2 kinds of resources management role: administrator & tenant

**Step 4: Elastic Modular Expansion**
- No need to change original structure, only require to add HCI nodes
- Newly-added nodes can improve both performance & capacity

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The Software-Defined Data Center based on HCI is Capable of Smooth Transition towards Cloud

- **Private Cloud**
  - IT Resource as a Service
  - Cloud Delivery of Business
  - Tenants & Billing Operations
  - Automated O&M Management

- **Hybrid Cloud**
  - Flexible & Stable
  - Rapid Innovation
  - Value Maximization
  - Unified Service
Analysis of Solution Advantages and Values

Traditional Data Center - Hardware-Defined

- Network Security Equipment
- Core Aggregation Switch
- Internet
- External Storage
- Server

Hyper-Converged Data Center - Software-Defined

- Network Security Equipment
- Core Aggregation Switch
- Internet

Traditional IT Infrastructure

- 30% TCO Reduction: Reduce hardware procurement & investment, save energy consumption & cabinet space.
- App Online 50% Faster: Simplified platform construction requiring only servers & switches, flexible scale-out modular expansion.
- O&M Complexity 60% Less: Unified, centralized & visualized management, build upon templates, 1-click fault location.
- Cloudization: Keep up with business & technical development, invest on demand, smooth transition towards cloud, no change on original architecture.

Cloud Data Center Topology based on Hyper-Converged Infrastructure

Core Switch Cabinet

- Memory Database
- High Performance Computing
- Non-HCI Cabinet
- HCI Cabinet
- HCI Appliance
- Border HCI Cabinet

Sangfor New Generation HCI
Driving Hyperconvergence to Fully Converged
Our Customers

SANGFOR
Your One-Stop Solution Provider for Network Security & Cloud Computing

Global Service Center: +60 12711 7129 (7511)
www.sangfor.com
sales@sangfor.com