

Cheat Sheet for comprehensive Cisco Certified Network Professional (CCNP) - Cloud

Cloud Fundamentals

Cloud Models

- **Public Cloud:** Multi-tenant environment, shared resources.
- **Private Cloud:** Single-tenant environment, dedicated resources.
- **Hybrid Cloud:** Combination of public and private clouds.
- **Multi-Cloud:** Use of multiple public cloud providers.

Cloud Services

- **IaaS (Infrastructure as a Service):** Virtualized computing resources.
- **PaaS (Platform as a Service):** Development and deployment platform.
- **SaaS (Software as a Service):** Applications delivered over the internet.

Cisco Cloud Solutions

Cisco CloudCenter

- **Key Features:**
 - Multi-cloud management.
 - Application lifecycle management.
 - Policy-based automation.
- **CLI Commands:**
 - ``cli app list``: List all applications.
 - ``cli job start -a <app_name>``: Start an application.

Cisco Intercloud Fabric

- **Key Features:**
 - Intercloud connectivity.
 - Security and compliance.
 - Multi-cloud orchestration.
- **CLI Commands:**
 - ``icf-cli cloud list``: List connected clouds.

- ``icf-cli policy create``: Create a new policy.

Cisco HyperFlex

Key Features

- **All-Flash Storage**: High-performance storage.
- **Integrated Management**: Unified management interface.
- **Scalability**: Easy to scale storage and compute resources.

CLI Commands

- ``hxcli system show``: Display system information.
- ``hxcli cluster add``: Add a new cluster.

Cisco UCS Director

Key Features

- **Multi-Hypervisor Support**: VMware, Hyper-V, KVM.
- **Orchestration**: Automated workflows.
- **Reporting**: Detailed performance and usage reports.

CLI Commands

- ``ucs-director login``: Log in to UCS Director.
- ``ucs-director task list``: List all tasks.

Cisco ACI (Application Centric Infrastructure)

Key Features

- **Policy-Driven**: Application-centric policies.
- **Scalability**: High scalability and performance.
- **Automation**: Automated provisioning and management.

CLI Commands

- ``connect nxos``: Connect to Nexus switch.
- ``show running-config``: Display running configuration.

Cisco SD-WAN

Key Features

- **Overlay Networking**: Virtualized network overlay.
- **Policy-Based Routing**: Application-aware routing.

- **Centralized Management:** Unified management console.

CLI Commands

- ``show vmanage connections``: Display vManage connections.
- ``show interface``: Display interface status.

Cisco Cloud Security

Key Features

- **Cisco Umbrella:** Cloud-delivered security.
- **Cisco Firepower:** Next-generation firewall.
- **Cisco Stealthwatch:** Network visibility and monitoring.

CLI Commands

- ``umbrella status``: Display Umbrella status.
- ``firepower show policy``: Display Firepower policy.

Cisco DevNet

Key Features

- **Sandbox:** Hands-on labs and environments.
- **APIs:** Programmable interfaces for automation.
- **Community:** Developer forums and resources.

CLI Commands

- ``devnet login``: Log in to DevNet.
- ``devnet lab list``: List available labs.

Cisco DNA Center

Key Features

- **Network Automation:** Automated network provisioning.
- **Analytics:** Network insights and analytics.
- **Policy Management:** Centralized policy management.

CLI Commands

- ``dnac login``: Log in to DNA Center.
- ``dnac device list``: List network devices.

Cisco Meraki

Key Features

- **Cloud Management:** Centralized cloud-based management.
- **Scalability:** Easy to scale network devices.
- **Security:** Integrated security features.

CLI Commands

- `meraki dashboard login``: Log in to Meraki dashboard.
- `meraki network list``: List all networks.

Cisco Webex

Key Features

- **Collaboration:** Unified communication and collaboration.
- **Integration:** Integrates with other Cisco solutions.
- **Scalability:** Scalable for large organizations.

CLI Commands

- `webex login``: Log in to Webex.
- `webex meeting list``: List scheduled meetings.

Cisco IoT

Key Features

- **Connectivity:** Secure and scalable IoT connectivity.
- **Analytics:** IoT data analytics and insights.
- **Security:** Robust security features.

CLI Commands

- `iot connect``: Connect to IoT devices.
- `iot device list``: List connected devices.

Cisco AI/ML

Key Features

- **Predictive Analytics:** AI-driven predictive analytics.
- **Automation:** AI-driven automation.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``ai login``: Log in to AI platform.
- ``ai model list``: List AI models.

Cisco Hybrid Work

Key Features

- **Flexibility**: Flexible work environments.
- **Security**: Secure remote access.
- **Collaboration**: Enhanced collaboration tools.

CLI Commands

- ``hybrid login``: Log in to hybrid work platform.
- ``hybrid user list``: List users.

Cisco Zero Trust

Key Features

- **Identity-Based Security**: Identity-based access control.
- **Continuous Verification**: Continuous authentication and verification.
- **Micro-Segmentation**: Network segmentation.

CLI Commands

- ``zerotrust login``: Log in to Zero Trust platform.
- ``zerotrust policy list``: List policies.

Cisco Network Services Orchestrator (NSO)

Key Features

- **Automation**: Network automation and orchestration.
- **Multi-Vendor Support**: Supports multiple vendors.
- **Centralized Management**: Unified management console.

CLI Commands

- ``nso login``: Log in to NSO.
- ``nso device list``: List managed devices.

Cisco Cloud OnRamp

Key Features

- **Hybrid Connectivity**: Secure hybrid cloud connectivity.

- **Policy Management:** Centralized policy management.
- **Automation:** Automated provisioning and management.

CLI Commands

- ``onramp login``: Log in to OnRamp.
- ``onramp connection list``: List connections.

Cisco Cloud Native

Key Features

- **Containers:** Containerized applications.
- **Kubernetes:** Kubernetes orchestration.
- **Microservices:** Microservices architecture.

CLI Commands

- ``kubectl get pods``: List running pods.
- ``kubectl create deployment``: Create a new deployment.

Cisco Cloud Analytics

Key Features

- **Data Insights:** Real-time data insights.
- **Visualization:** Data visualization tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``analytics login``: Log in to analytics platform.
- ``analytics dashboard list``: List dashboards.

Cisco Cloud Automation

Key Features

- **Workflow Automation:** Automated workflows.
- **Policy-Based Automation:** Policy-based automation.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``automation login``: Log in to automation platform.
- ``automation task list``: List tasks.

Cisco Cloud Security Automation

Key Features

- **Automated Security Policies:** Automated security policies.
- **Threat Detection:** Automated threat detection.
- **Integration:** Integrates with Cisco security solutions.

CLI Commands

- `security-automation login`: Log in to security automation platform.
- `security-automation policy list`: List policies.

Cisco Cloud Compliance

Key Features

- **Automated Compliance Checks:** Automated compliance checks.
- **Policy Management:** Centralized policy management.
- **Reporting:** Detailed compliance reports.

CLI Commands

- `compliance login`: Log in to compliance platform.
- `compliance report list`: List reports.

Cisco Cloud Monitoring

Key Features

- **Real-Time Monitoring:** Real-time monitoring.
- **Alerting:** Automated alerting.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `monitoring login`: Log in to monitoring platform.
- `monitoring alert list`: List alerts.

Cisco Cloud Backup and Recovery

Key Features

- **Automated Backup:** Automated backup solutions.
- **Disaster Recovery:** Disaster recovery solutions.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `backup login`: Log in to backup platform.
- `backup job list`: List backup jobs.

Cisco Cloud Cost Management

Key Features

- **Cost Optimization:** Cost optimization tools.
- **Reporting:** Detailed cost reports.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `cost-management login`: Log in to cost management platform.
- `cost-management report list`: List reports.

Cisco Cloud Governance

Key Features

- **Policy Management:** Centralized policy management.
- **Compliance:** Compliance management.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `governance login`: Log in to governance platform.
- `governance policy list`: List policies.

Cisco Cloud Integration

Key Features

- **API Integration:** API-based integration.
- **Workflow Automation:** Automated workflows.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `integration login`: Log in to integration platform.
- `integration api list`: List APIs.

Cisco Cloud Migration

Key Features

- **Migration Tools:** Tools for cloud migration.

- **Automation:** Automated migration processes.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `migration login`: Log in to migration platform.
- `migration job list`: List migration jobs.

Cisco Cloud Networking

Key Features

- **SDN:** Software-Defined Networking.
- **Overlay Networking:** Virtualized network overlay.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `networking login`: Log in to networking platform.
- `networking vlan list`: List VLANs.

Cisco Cloud Storage

Key Features

- **Scalable Storage:** Scalable storage solutions.
- **Data Management:** Data management tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `storage login`: Log in to storage platform.
- `storage volume list`: List volumes.

Cisco Cloud Virtualization

Key Features

- **Virtual Machines:** Virtual machine management.
- **Containers:** Container management.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `virtualization login`: Log in to virtualization platform.
- `virtualization vm list`: List VMs.

Cisco Cloud Workload Optimization

Key Features

- **Resource Optimization:** Resource optimization tools.
- **Performance Monitoring:** Performance monitoring.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``workload-optimization login``: Log in to workload optimization platform.
- ``workload-optimization report list``: List reports.

Cisco Cloud Service Management

Key Features

- **Service Catalog:** Service catalog management.
- **Incident Management:** Incident management tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``service-management login``: Log in to service management platform.
- ``service-management catalog list``: List service catalog.

Cisco Cloud Service Automation

Key Features

- **Automated Provisioning:** Automated provisioning.
- **Service Orchestration:** Service orchestration tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``service-automation login``: Log in to service automation platform.
- ``service-automation job list``: List jobs.

Cisco Cloud Service Assurance

Key Features

- **Service Monitoring:** Service monitoring tools.
- **Performance Analytics:** Performance analytics.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-assurance login`: Log in to service assurance platform.
- `service-assurance alert list`: List alerts.

Cisco Cloud Service Integration

Key Features

- **API Integration:** API-based integration.
- **Service Orchestration:** Service orchestration tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-integration login`: Log in to service integration platform.
- `service-integration api list`: List APIs.

Cisco Cloud Service Governance

Key Features

- **Policy Management:** Centralized policy management.
- **Compliance:** Compliance management.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-governance login`: Log in to service governance platform.
- `service-governance policy list`: List policies.

Cisco Cloud Service Security

Key Features

- **Security Policies:** Security policy management.
- **Threat Detection:** Threat detection tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-security login`: Log in to service security platform.
- `service-security policy list`: List policies.

Cisco Cloud Service Monitoring

Key Features

- **Real-Time Monitoring:** Real-time monitoring.

- **Alerting:** Automated alerting.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-monitoring login`: Log in to service monitoring platform.
- `service-monitoring alert list`: List alerts.

Cisco Cloud Service Backup and Recovery

Key Features

- **Automated Backup:** Automated backup solutions.
- **Disaster Recovery:** Disaster recovery solutions.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-backup login`: Log in to service backup platform.
- `service-backup job list`: List backup jobs.

Cisco Cloud Service Cost Management

Key Features

- **Cost Optimization:** Cost optimization tools.
- **Reporting:** Detailed cost reports.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-cost-management login`: Log in to service cost management platform.
- `service-cost-management report list`: List reports.

Cisco Cloud Service Governance

Key Features

- **Policy Management:** Centralized policy management.
- **Compliance:** Compliance management.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-governance login`: Log in to service governance platform.
- `service-governance policy list`: List policies.

Cisco Cloud Service Integration

Key Features

- **API Integration:** API-based integration.
- **Service Orchestration:** Service orchestration tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``service-integration login``: Log in to service integration platform.
- ``service-integration api list``: List APIs.

Cisco Cloud Service Migration

Key Features

- **Migration Tools:** Tools for service migration.
- **Automation:** Automated migration processes.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``service-migration login``: Log in to service migration platform.
- ``service-migration job list``: List migration jobs.

Cisco Cloud Service Networking

Key Features

- **SDN:** Software-Defined Networking.
- **Overlay Networking:** Virtualized network overlay.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- ``service-networking login``: Log in to service networking platform.
- ``service-networking vlan list``: List VLANs.

Cisco Cloud Service Storage

Key Features

- **Scalable Storage:** Scalable storage solutions.
- **Data Management:** Data management tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-storage login`: Log in to service storage platform.
- `service-storage volume list`: List volumes.

Cisco Cloud Service Virtualization

Key Features

- **Virtual Machines:** Virtual machine management.
- **Containers:** Container management.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-virtualization login`: Log in to service virtualization platform.
- `service-virtualization vm list`: List VMs.

Cisco Cloud Service Workload Optimization

Key Features

- **Resource Optimization:** Resource optimization tools.
- **Performance Monitoring:** Performance monitoring.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-workload-optimization login`: Log in to service workload optimization platform.
- `service-workload-optimization report list`: List reports.

Cisco Cloud Service Management

Key Features

- **Service Catalog:** Service catalog management.
- **Incident Management:** Incident management tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-management login`: Log in to service management platform.
- `service-management catalog list`: List service catalog.

Cisco Cloud Service Automation

Key Features

- **Automated Provisioning:** Automated provisioning.
- **Service Orchestration:** Service orchestration tools.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-automation login`: Log in to service automation platform.
- `service-automation job list`: List jobs.

Cisco Cloud Service Assurance

Key Features

- **Service Monitoring:** Service monitoring tools.
- **Performance Analytics:** Performance analytics.
- **Integration:** Integrates with Cisco solutions.

CLI Commands

- `service-assurance login`: Log in to service assurance platform.

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