System Discovery Process

cloudfirst.host
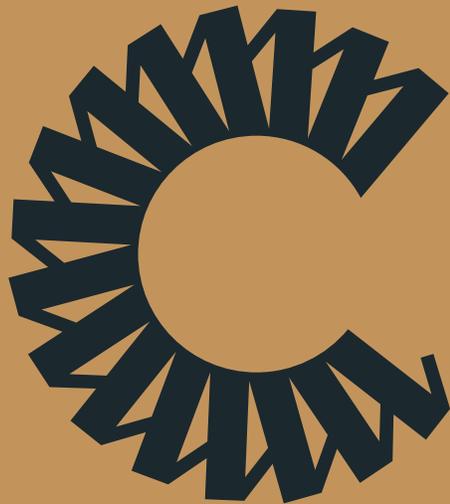
CloudFirst

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Discovery Process

CloudFirst's comprehensive discovery approach lays the foundation for successful cloud adoption. By tailoring our strategy to each client's environment, we ensure optimal efficiency, robust security, and smart cost management.

Understanding Client Needs

Our priority is to understand each client's distinct objectives, operational context, and challenges. This insight allows us to craft solutions that are precise, relevant, and results driven.

Accurate Solution Design

Accurate solution design is central to our process. We gather detailed information on existing IT landscapes and desired future states, enabling us to avoid missteps, reduce rework, and streamline delivery.

Building Trust

Every engagement starts with trust. A rigorous, transparent discovery process reflects CloudFirst's professionalism and genuine commitment to client success, building confidence from day one.

Risk Mitigation

Identifying risks early allows us to proactively address potential barriers. This ensures smoother execution and minimizes disruptions throughout the project lifecycle.

Resource Allocation

Equally, thoughtful resource planning ensures the right expertise and tools are available exactly when required. It keeps timelines intact and outcomes on track.

Enhanced Communication

Clear, open dialogue with the client is embedded throughout. We align expectations early and resolve any ambiguities swiftly, establishing a collaborative working rhythm.

Cost Efficiency

Ultimately, a thorough discovery phase enables CloudFirst to deliver solutions that are not only high quality and tailored but also cost effective and outcome focused.

Process #1

HMC Scanner – POWER Server Configuration & Performance Extraction

Purpose

Use the HMC Scanner to extract detailed configuration and performance data from POWER Servers connected to the Hardware Management Console (HMC). The output is a structured Microsoft Excel file (.xls) for analysis and onward submission to your CloudFirst Systems Engineer.

This process is normally concluded during our early sales stages.

Setup & Execution

Download & Install

▲ Download HMC Scanner v0.11.54

▲ Unzip the package into a new directory

▲ Run hmcscanner.bat (Windows) or hmcscanner.ksh (Unix-like systems)

Support & Documentation

▲ IBM Support Page

Step-by-Step Instructions

1. **Install Java Runtime:** Ensure Java 1.8 or later is available on the system.

2. **Configure Scanner:** Verify the script locates the Java executable correctly.

3. **Connect to HMC:** Use SSH (direct or via proxy) to connect to HMC, SDMC, FSM, or IVM (experimental).

4. **Run the Scan:** Execute the scanner with credentials:

    ▾ **Windows:** hmcScanner.bat HMC_IP hscroot -p password

    ▾ **Unix:** hmcScanner.ksh HMC_IP hscroot -p password

5. **Enable Performance Data (Optional)**: If performance metrics are required, ensure HMC data collection is enabled via: chlparutil -r config -s 1800

6. **Export Results**: The scanner generates an Excel file containing system and LPAR configurations. Email this file to your CloudFirst Systems Engineer.

Excel Output Structure

Tab Name	Description
System Summary	Server name, serial, cores, memory, service processor IP
LPAR Summary	LPAR list by server, status, OS version, processor mod
LPAR CPU / MEM	CPU and memory configuration per LPAR
Physical Slots	Slot details, LPAR assignments, physical location
Virtual Ethernet	Virtual switch and LPAR network configuration
Virtual SCSI / Map	SCSI adapter setup and VIOS device mappings
Virtual Fibre	Fibre channel configuration and physical adapter mapping
SEA	Shared Ethernet Adapter stats for VIOS
SW Cores	License simulation matrix for virtual processor pools

Environment Compatibility

▲ **Platforms Supported:**
AIX, Linux, Windows, iOS (others may work)

▲ **Requirements:**
Java 1.8+, SSH access to HMC, remote command execution enabled

Process #2

Manual LPAR Discovery – IBM i Command-Based Assessment

Purpose

Gather detailed system-level insights from each IBM i LPAR using a standard set of diagnostic and monitoring commands. These outputs form the basis for performance review, configuration validation, and readiness assessments.

This process is normally concluded during our early sales stages.

Required LPAR Outputs

Please execute the following commands on each existing LPAR and include the resulting outputs:

Command	Description
WRKSYSSTS	Displays overall system status: CPU usage, memory, disk activity, job load
WRKDSKSTS	Provides disk-level metrics: usage and performance per unit
CALL QSYS/ QLZARCAPI	Invokes system API for retrieving platform details
WRKSYSVAL	Key system values: QMODEL, QPRCFEAT, and system serial number (SN)
WRKSYSACT	Shows live system activity: job count, processor utilization, capacity
DSPPTF	Lists applied Program Temporary Fixes (PTFs)
GO LICPGM	Opens menu interface for managing licensed programs

Tip: The sixth line of WRKSYSACT highlights processor count and current processing capacity, vital for performance analysis.

Operational Guidance

Discovery Objective

This manual scan is integral to CloudFirst's kickoff protocol. It establishes baseline clarity across IBM i, AIX, and hybrid Linux environments—capturing the nuances that drive technical integrity and operational alignment.

Support

For walkthroughs or guidance during this phase, reach out to:
Support: support@cloudfirst.host
PM Team: pm@cloudfirst.host

Engagement Snapshot

CloudFirst's project initiation workflow prioritizes full visibility into client IT ecosystems. Manual LPAR discovery complements automated scans, surfacing key metrics and system values that enable proactive alignment, risk mitigation, and seamless execution from day one.

Process #3

IBM i Discovery – CloudFirst Script Execution

Purpose

The CloudFirst discovery script automates the collection of IBM i system data. Once executed, it generates a host-name.txt file containing detailed configuration insights, which should be submitted to CloudFirst for analysis.

This process is normally concluded during our onboarding and implementation phases.

Script Download

◢ Download the CloudFirst Discovery Script

Environment Setup & Execution

1. **Prepare IBM i Environment**
   a. Create library: CRTLIB CF_TOOLS
   b. Create IFS directory: MKDIR '/CF_TOOLS'
   c. Upload the discovery script to /CF_TOOLS

2. **Run Preliminary Commands**
   a. Use an account with QSECOFR authority (not the actual QSECOFR account)
   b. Submit disk info job:
      SBMJOB CMD(RTVDSKINF) JOB(RTVDSKINF) JOBQ(QSYSNOMAX)
      (Allow time for completion before proceeding)

3. **Set Environment Variables**
   a. ADDENVVAR ENVVAR(LANG) VALUE('/QSYS.LIB/ EN_UPPER.LOCALE')
   b. CHGJOB LANGID(ENU) CNTRYID(US) CCSID(37)

4. **Execute Script**
   a. Start QShell: STRQSH
   b. Run: /CF_TOOLS/CloudFirst_DOC_V5
   c. Wait for $ prompt to confirm completion
   d. Exit QShell: Press F3

5. **Locate Output**
   a. Use: WRKLNK '/CF_TOOLS'
   b. Find the file named host-name.txt

Submission Instructions

◢ Email To: pm@CloudFirst.host
◢ Subject Line: CloudFirst script results
◢ Include:
   ▾ Your company name
   ▾ Your CloudFirst account representative's name

Process #4

AIX/Linux Discovery – Command-Line Configuration & Performance Collection

Purpose

Collect system configuration and 24-hour performance metrics from Unix-based systems using industry-standard commands. These outputs form the foundation for baseline analysis, optimization planning, and strategic alignment.

This process is normally concluded during our onboarding and implementation phases.

Supported Operating Systems

This process applies to the following platforms:

- **AIX:** IBM's proprietary UNIX
- **Linux:** Red Hat, Ubuntu, CentOS, and other distributions
- **Solaris:** Oracle's UNIX variant
- **HP-UX:** Hewlett-Packard's UNIX platform

Commands & Instructions

1. System Configuration Snapshot

Run: prtconf

This command provides static system configuration details:

- System model and architecture
- Processor specifications
- Total memory
- Disk and network interface inventory

Ideal for capturing hardware baseline and environment topology.

2. 24-Hour Performance Data Collection

Run: nmon -f -t -d -s 60 -c 1439
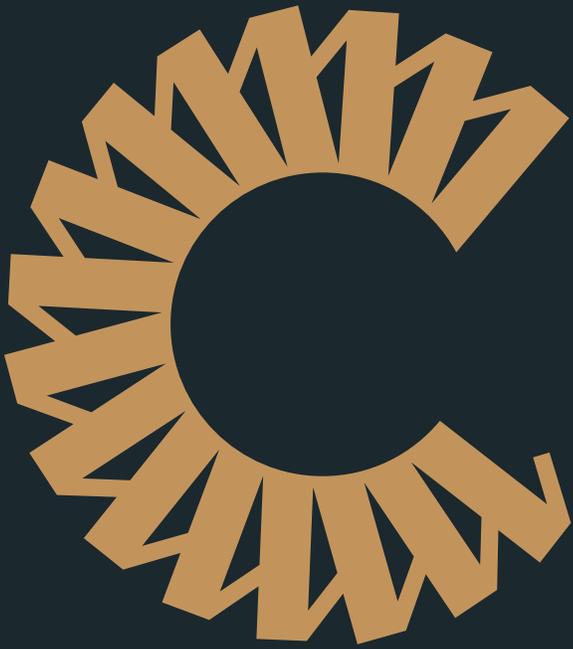
Option	Description
-f	Saves output to a file in background
-t	Includes top processes
-d	Includes disk I/O statistics
-s 60	Samples system every 60 seconds
-c 1439	Takes 1,439 samples over 24 hours

Output file is saved in /tmp directory.
Please label according to hostname for ease of reference.

Submission Instructions

- Email the prtconf output and nmon performance file to your CloudFirst Systems Engineer or PM
- Use email subject line:
  CloudFirst AIX/Linux Discovery Results
- Include your company name and account representative details in the body