Tivoli Storage Manager Operations Center

Colin Dawson
Kristen Muramoto

May 2014

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Roadmap

VISIBILITY

Status • Monitoring • Alerts

CONTROL

Actions • Workflow • Configuration • Settings

AUTOMATION

Complex Tasks • Wizards • Advisors

2013	2014	2015+

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Overview Dashboard

Overview Dashboard

- "Morning cup of coffee"
- At-a-glance status across entire environment
- Visual flow of data
- At-risk clients
- Storage capacity
- Alerts
- Activity day-to-day comparison

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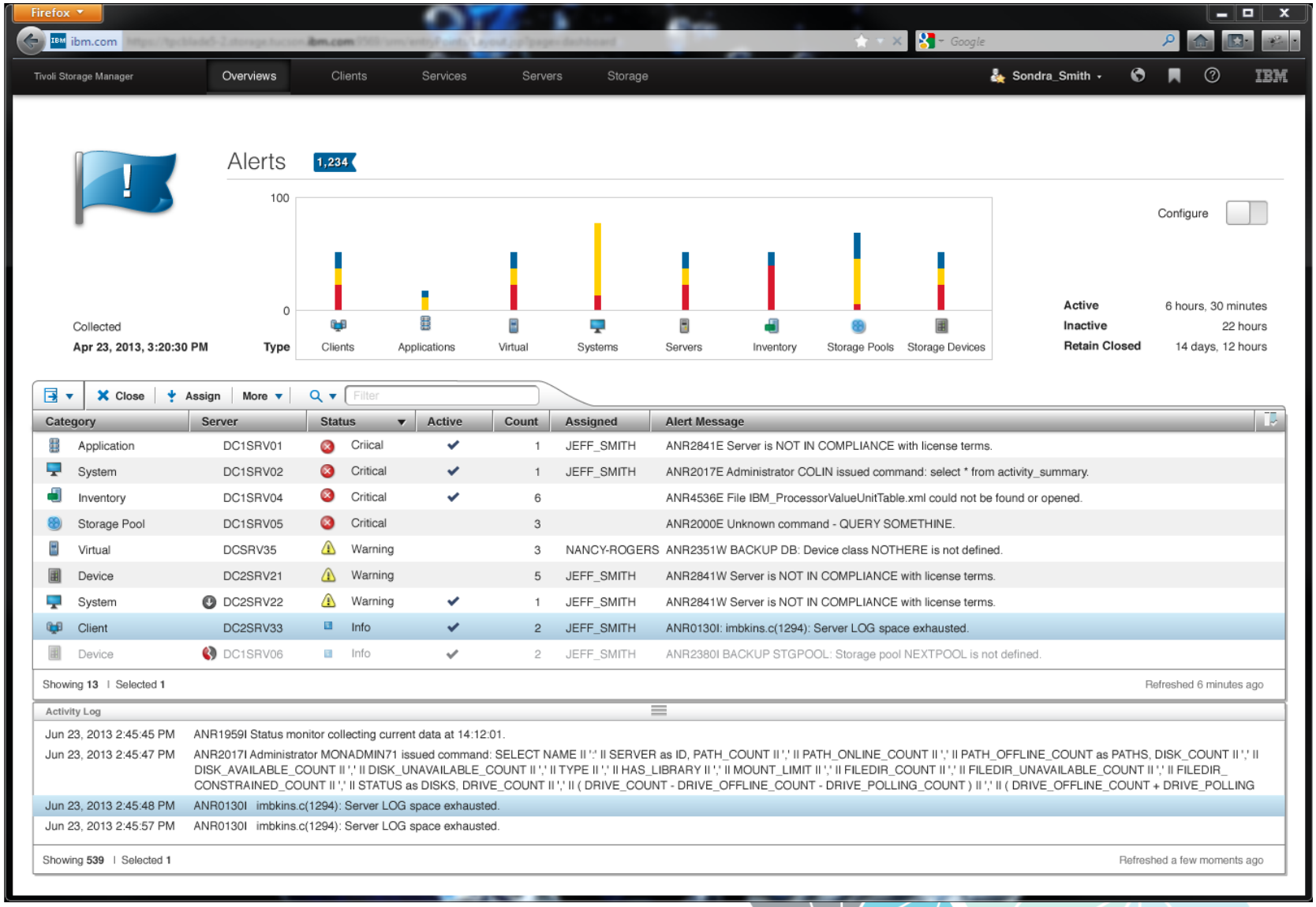
Alerts


Firefox
ibm.com
Google
Tivoli Storage Manager
Overviews
Clients
Services
Servers
Storage
Sondra_Smith
IBM
Alerts
1,234
100
0
Collected
Apr 23, 2013, 3:20:30 PM
Type
Clients
Applications
Virtual
Systems
Servers
Inventory
Storage Pools
Storage Devices
Configure
Active 6 hours, 30 minutes
Inactive 22 hours
Retain Closed 14 days, 12 hours
Close
Assign
More
Filter
Category | Server | Status | Active | Count | Assigned | Alert Message
Application | DC1SRV01 | Criical | ✔ | 1 | JEFF_SMITH | ANR2841E Server is NOT IN COMPLIANCE with license terms.
System | DC1SRV02 | Critical | ✔ | 1 | JEFF_SMITH | ANR2017E Administrator COLIN issued command: select * from activity_summary.
Inventory | DC1SRV04 | Critical | ✔ | 6 | | ANR4536E File IBM_ProcessorValueUnitTable.xml could not be found or opened.
Storage Pool | DC1SRV05 | Critical | | 3 | | ANR2000E Unknown command - QUERY SOMETHINE.
Virtual | DCSRV35 | Warning | | 3 | NANCY-ROGERS | ANR2351W BACKUP DB: Device class NOTHERE is not defined.
Device | DC2SRV21 | Warning | | 5 | JEFF_SMITH | ANR2841W Server is NOT IN COMPLIANCE with license terms.
System | DC2SRV22 | Warning | ✔ | 1 | JEFF_SMITH | ANR2841W Server is NOT IN COMPLIANCE with license terms.
Client | DC2SRV33 | Info | ✔ | 2 | JEFF_SMITH | ANR0130I: imbkins.c(1294): Server LOG space exhausted.
Device | DC1SRV06 | Info | ✔ | 2 | JEFF_SMITH | ANR2380I BACKUP STGPOOL: Storage pool NEXTPOOL is not defined.
Showing 13 | Selected 1
Refreshed 6 minutes ago
Activity Log
Jun 23, 2013 2:45:45 PM ANR1959I Status monitor collecting current data at 14:12:01.
Jun 23, 2013 2:45:47 PM ANR2017I Administrator MONADMIN71 issued command: SELECT NAME || ':' || SERVER as ID, PATH_COUNT || ',' || PATH_ONLINE_COUNT || ',' || PATH_OFFLINE_COUNT as PATHS, DISK_COUNT || ',' || DISK_AVAILABLE_COUNT || ',' || DISK_UNAVAILABLE_COUNT || ',' || TYPE || ',' || HAS_LIBRARY || ',' || MOUNT_LIMIT || ',' || FILEDIR_COUNT || ',' || FILEDIR_UNAVAILABLE_COUNT || ',' || FILEDIR_CONSTRAINED_COUNT || ',' || STATUS as DISKS, DRIVE_COUNT || ',' || (DRIVE_COUNT - DRIVE_OFFLINE_COUNT - DRIVE_POLLING_COUNT) || ',' || (DRIVE_OFFLINE_COUNT + DRIVE_POLLING
Jun 23, 2013 2:45:48 PM ANR0130I imbkins.c(1294): Server LOG space exhausted.
Jun 23, 2013 2:45:57 PM ANR0130I imbkins.c(1294): Server LOG space exhausted.
Showing 539 | Selected 1
Refreshed a few moments ago

Alerts

- Visual count across all servers by category
- Configurable retention settings
- Assign to administrators
- In-context activity log messages

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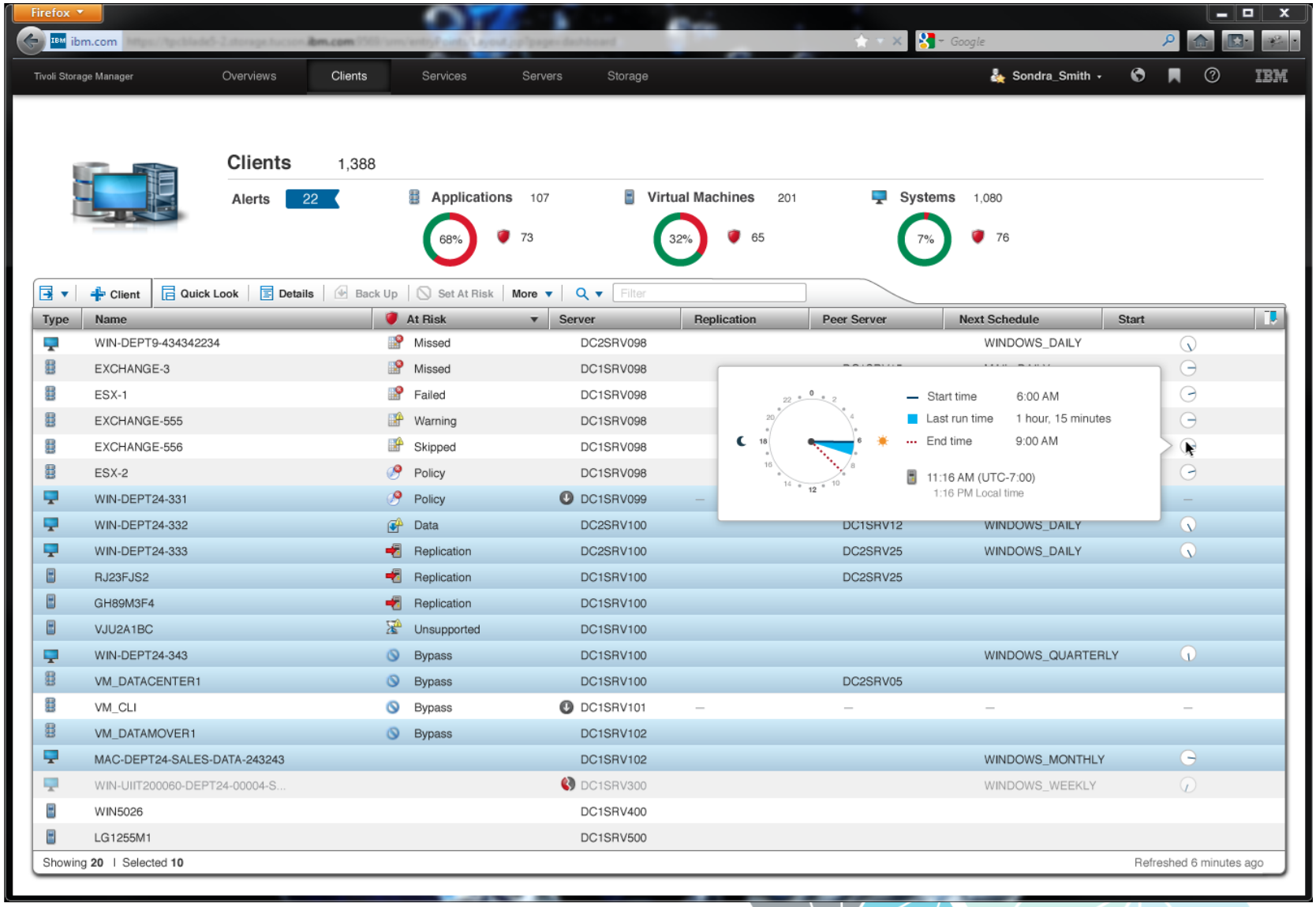
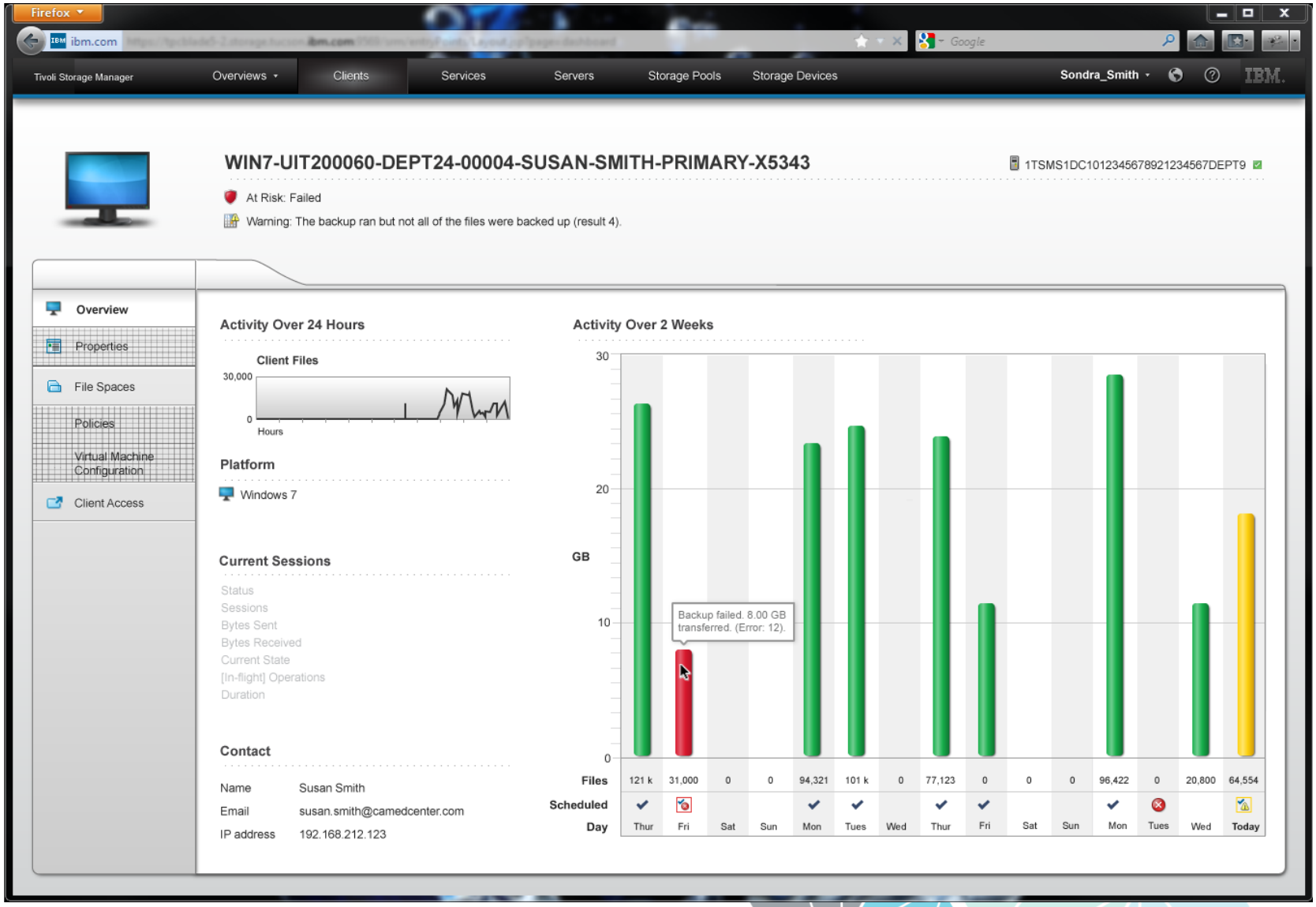
Clients


Firefox
ibm.com
Tivoli Storage Manager
Overviews
Clients
Services
Servers
Storage
Sondra_Smith
IBM
Clients 1,388
Alerts 22
Applications 107
68%
73
Virtual Machines 201
32%
65
Systems 1,080
7%
76
Client
Quick Look
Details
Back Up
Set At Risk
More
Filter
Type
Name
At Risk
Server
Replication
Peer Server
Next Schedule
Start
WIN-DEPT9-434342234 Missed DC2SRV098 WINDOWS_DAILY
EXCHANGE-3 Missed DC1SRV098
ESX-1 Failed DC1SRV098
EXCHANGE-555 Warning DC1SRV098
EXCHANGE-556 Skipped DC1SRV098
ESX-2 Policy DC1SRV098
WIN-DEPT24-331 Policy DC1SRV099
WIN-DEPT24-332 Data DC2SRV100 DC1SRV12 WINDOWS_DAILY
WIN-DEPT24-333 Replication DC2SRV100 DC2SRV25 WINDOWS_DAILY
RJ23FJS2 Replication DC1SRV100 DC2SRV25
GH89M3F4 Replication DC1SRV100
VJU2A1BC Unsupported DC1SRV100
WIN-DEPT24-343 Bypass DC1SRV100 WINDOWS_QUARTERLY
VM_DATACENTER1 Bypass DC1SRV100 DC2SRV05
VM_CLI Bypass DC1SRV101
VM_DATAMOVER1 Bypass DC1SRV102
MAC-DEPT24-SALES-DATA-243243 DC1SRV102 WINDOWS_MONTHLY
WIN-UIIT200060-DEPT24-00004-S... DC1SRV300 WINDOWS_WEEKLY
WIN5026 DC1SRV400
LG1255M1 DC1SRV500
Start time 6:00 AM
Last run time 1 hour, 15 minutes
End time 9:00 AM
11:16 AM (UTC-7:00)
1:16 PM Local time
Showing 20 | Selected 10
Refreshed 6 minutes ago

Client Details



Clients

- View of all clients across hub and configured spoke servers
- At-risk: ie. missed schedule, out of policy, unsupported
- Custom at-risk configuration
- Visibility to virtual machines
- Manually redrive backups

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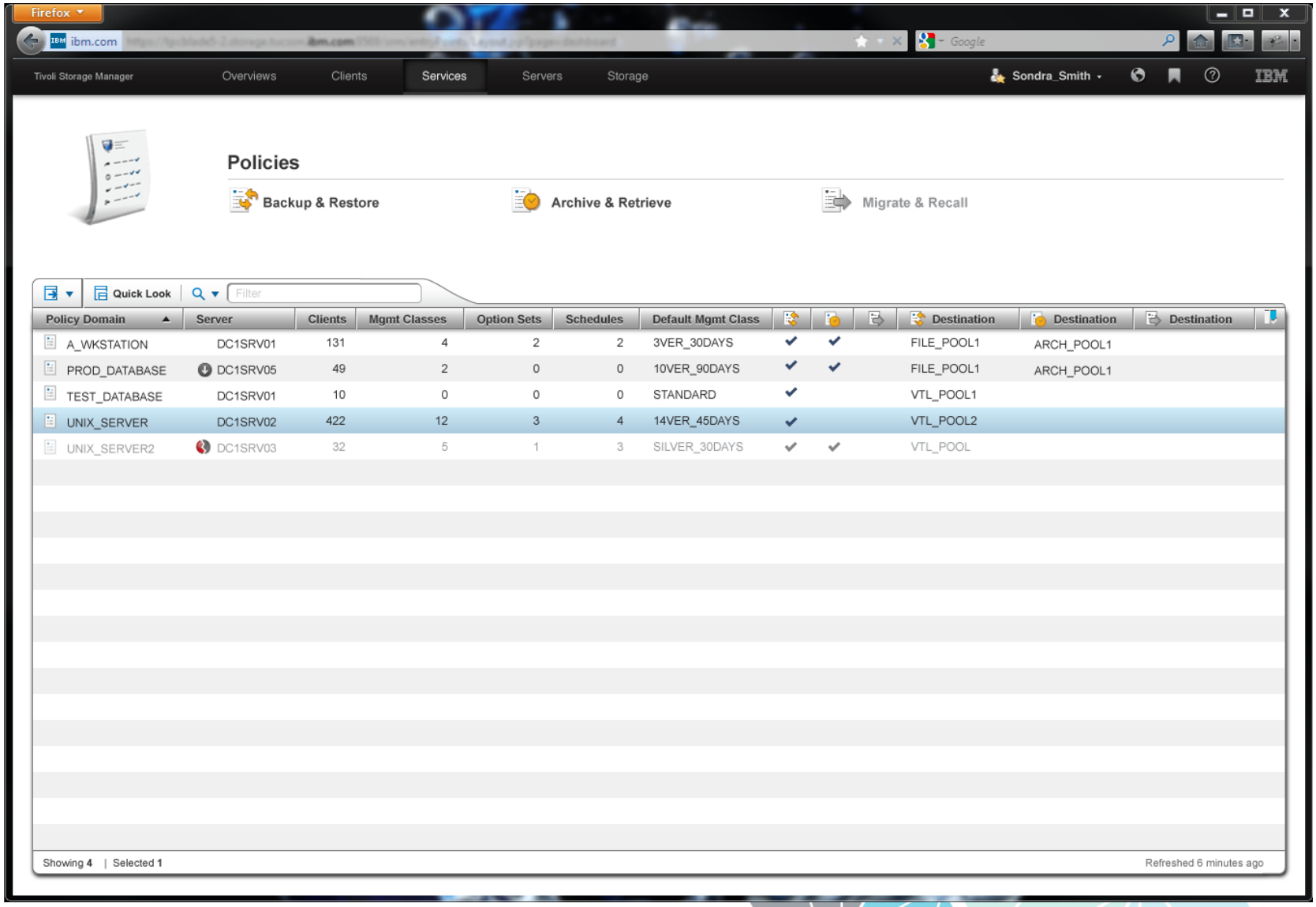
Services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Overviews
Clients
Services
Servers
Storage
Sondra_Smith
IBM
Policies
Backup & Restore
Archive & Retrieve
Migrate & Recall
Quick Look
Filter
Policy Domain
Server
Clients
Mgmt Classes
Option Sets
Schedules
Default Mgmt Class
Destination
Destination
Destination
A_WKSTATION DC1SRV01 131 4 2 2 3VER_30DAYS FILE_POOL1 ARCH_POOL1
PROD_DATABASE DC1SRV05 49 2 0 0 10VER_90DAYS FILE_POOL1 ARCH_POOL1
TEST_DATABASE DC1SRV01 10 0 0 0 STANDARD VTL_POOL1
UNIX_SERVER DC1SRV02 422 12 3 4 14VER_45DAYS VTL_POOL2
UNIX_SERVER2 DC1SRV03 32 5 1 3 SILVER_30DAYS VTL_POOL
Showing 4 | Selected 1
Refreshed 6 minutes ago

Services

- Policy domains with attributes
- Enabled services
  - Backup & Restore
  - Archive & Retrieve
  - Migrate & Recall

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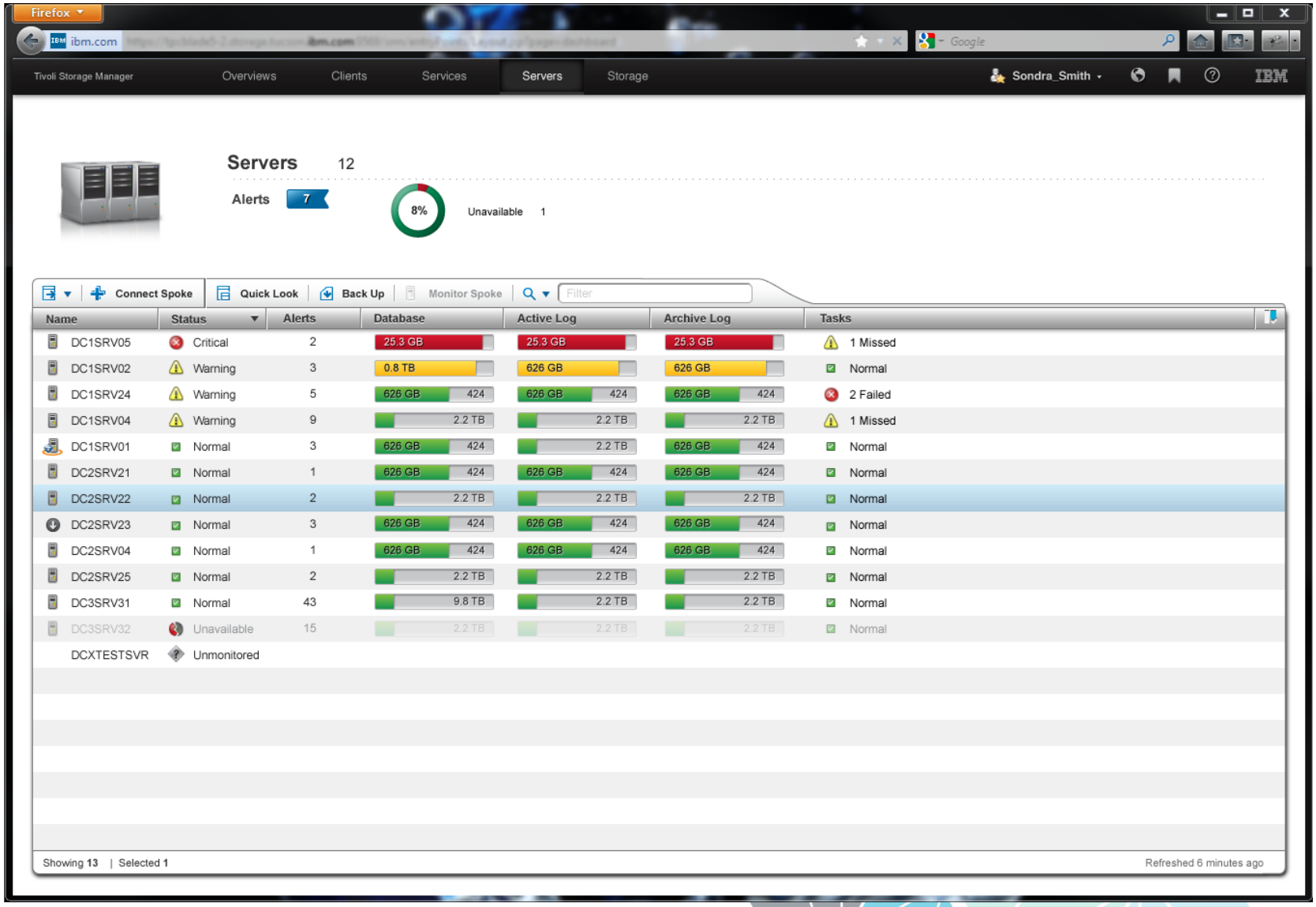
Servers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ibm.com
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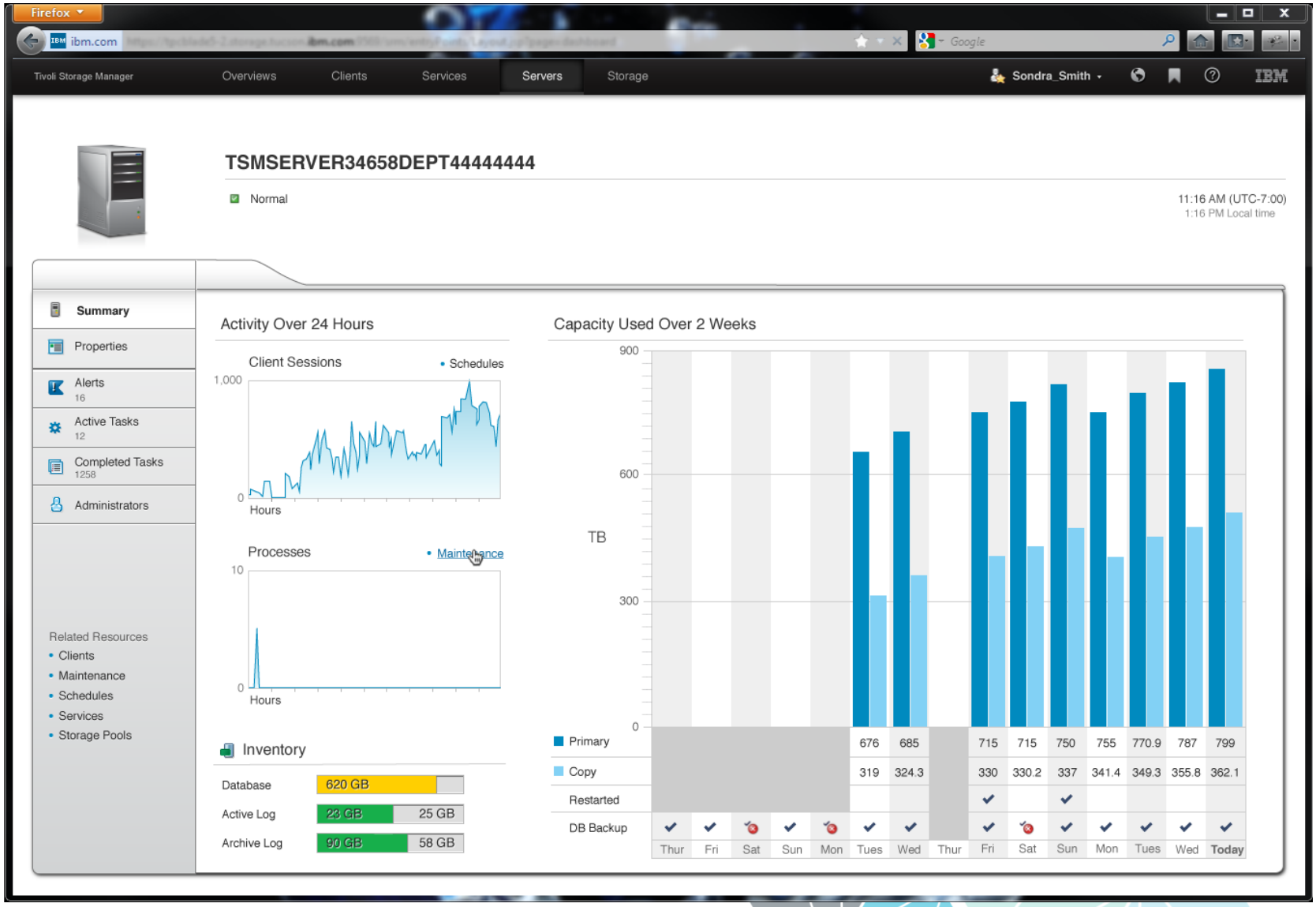
Tivoli Storage Manager
Overviews
Clients
Services
Servers
Storage
Sondra_Smith
IBM
Servers 12
Alerts 7
8%
Unavailable 1
Connect Spoke
Quick Look
Back Up
Monitor Spoke
Filter
Name | Status | Alerts | Database | Active Log | Archive Log | Tasks
DC1SRV05 Critical 2 25.3 GB 25.3 GB 25.3 GB 1 Missed
DC1SRV02 Warning 3 0.8 TB 626 GB 626 GB Normal
DC1SRV24 Warning 5 626 GB 424 626 GB 424 626 GB 424 2 Failed
DC1SRV04 Warning 9 2.2 TB 2.2 TB 2.2 TB 1 Missed
DC1SRV01 Normal 3 626 GB 424 2.2 TB 626 GB 424 Normal
DC2SRV21 Normal 1 626 GB 424 626 GB 424 626 GB 424 Normal
DC2SRV22 Normal 2 2.2 TB 2.2 TB 2.2 TB Normal
DC2SRV23 Normal 3 626 GB 424 626 GB 424 626 GB 424 Normal
DC2SRV04 Normal 1 626 GB 424 626 GB 424 626 GB 424 Normal
DC2SRV25 Normal 2 2.2 TB 2.2 TB 2.2 TB Normal
DC3SRV31 Normal 43 9.8 TB 2.2 TB 2.2 TB Normal
DC3SRV32 Unavailable 15 2.2 TB 2.2 TB 2.2 TB Normal
DCXTESTSVR Unmonitored
Showing 13 | Selected 1
Refreshed 6 minutes ago

Server Details



Servers

- Hub server visualization
- Status roll-up
- Count of protected clients
- Visualization of capacity based on thresholds

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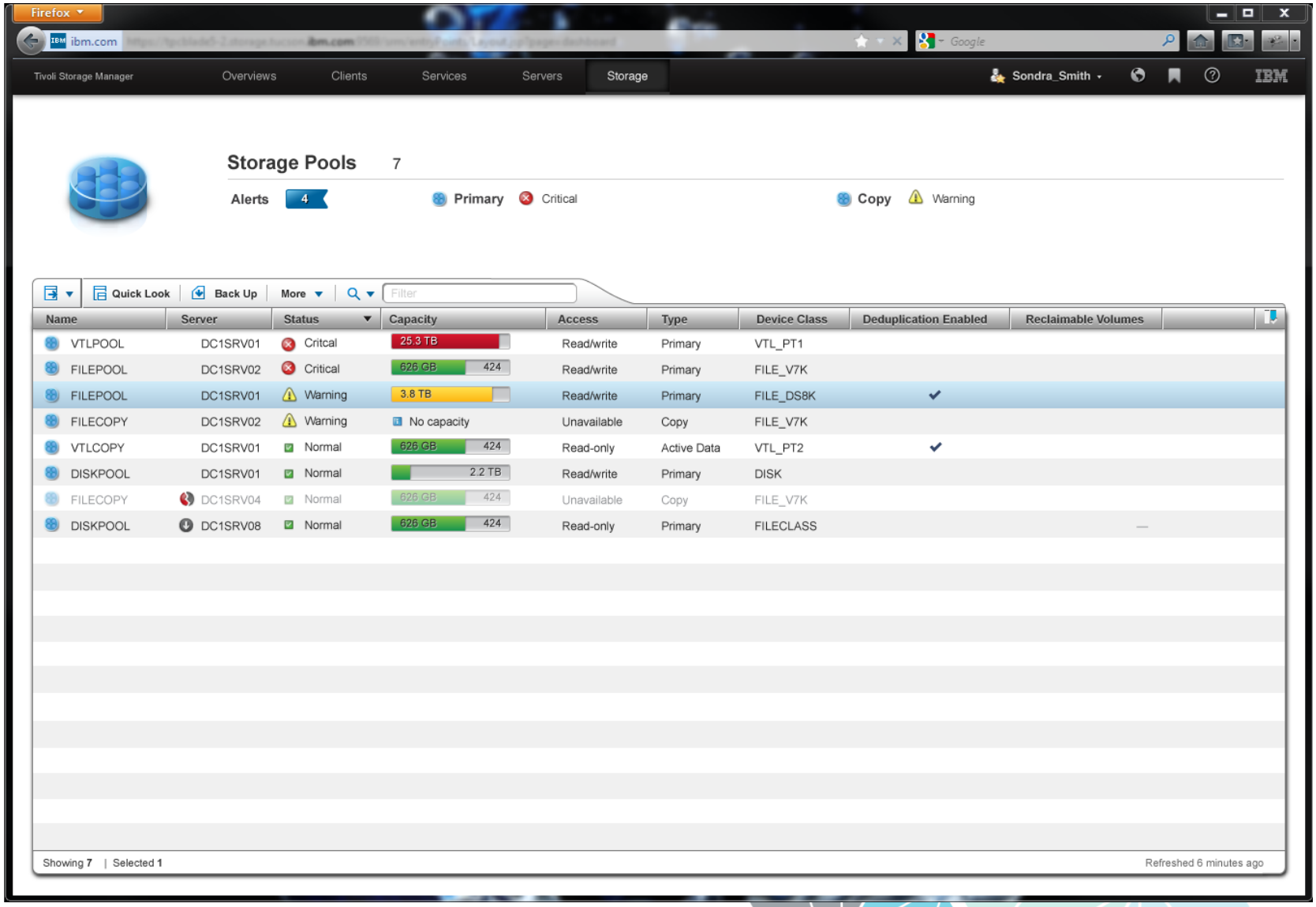
Storage Pools



Storage Pools

- Status roll-up
- Visualization of capacity based on threshold
- Details
  - Access (R/O, R/W)
  - Type (Primary, Copy, ADP)
  - Device class
  - Deduplication

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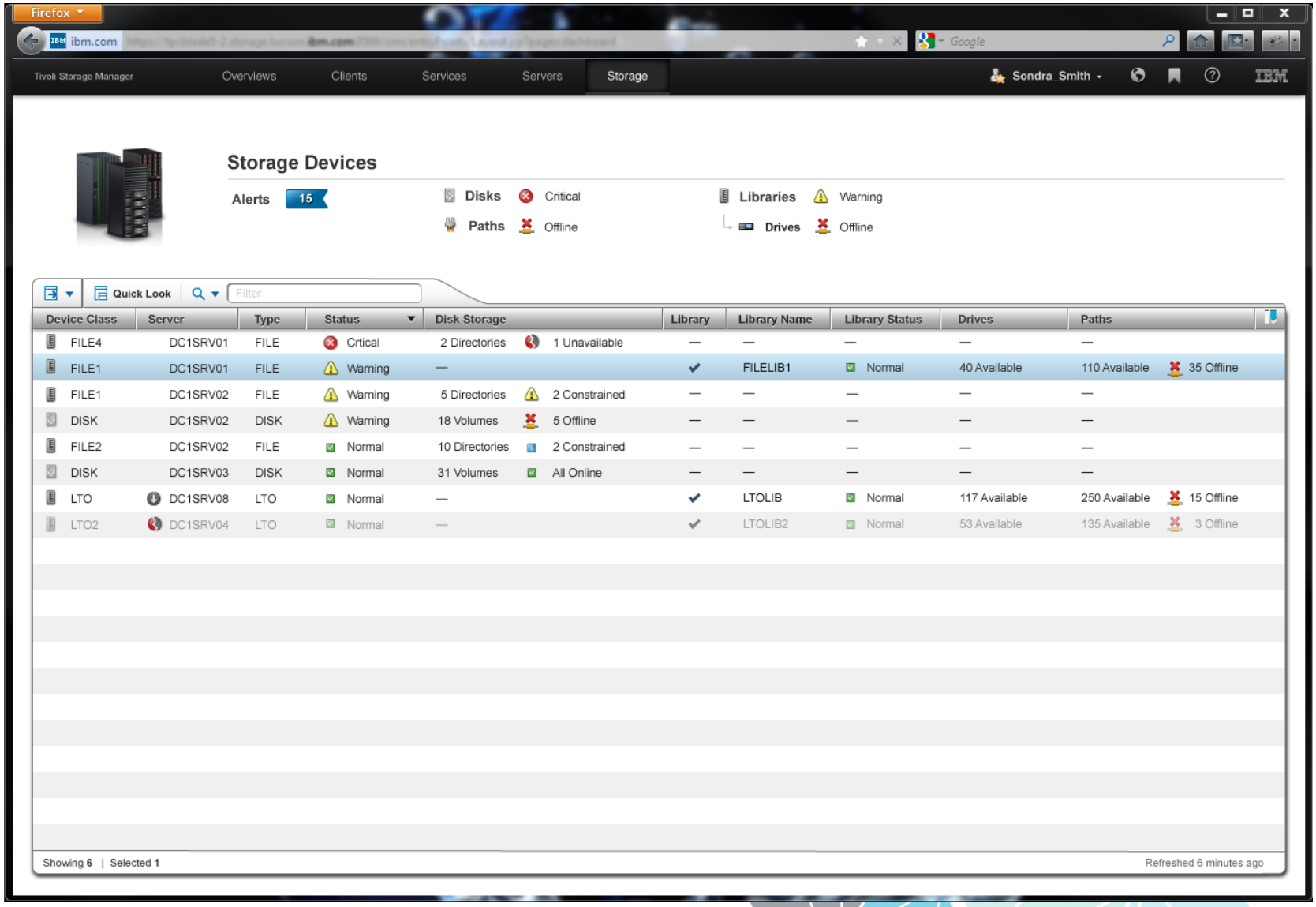
Storage Devices



Storage Devices

- Status roll-up
- Summary and status for disk storage items
  - DISK
  - Sequential FILE
- Library related attributes
  - Drives
  - Paths

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Key Themes

2H2014

- Client & Maintenance Schedules
- Daily Reports
- Storage Pool & Policy Visibility

2H2015

- Replication
- Client Visibility & Protection
- Storage Device Management

2014 2015

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COMING IN 3Q2014

Client & Maintenance Schedules

- View/create/modify client schedules
- Associate client nodes to schedules
- View/modify server maintenance schedules

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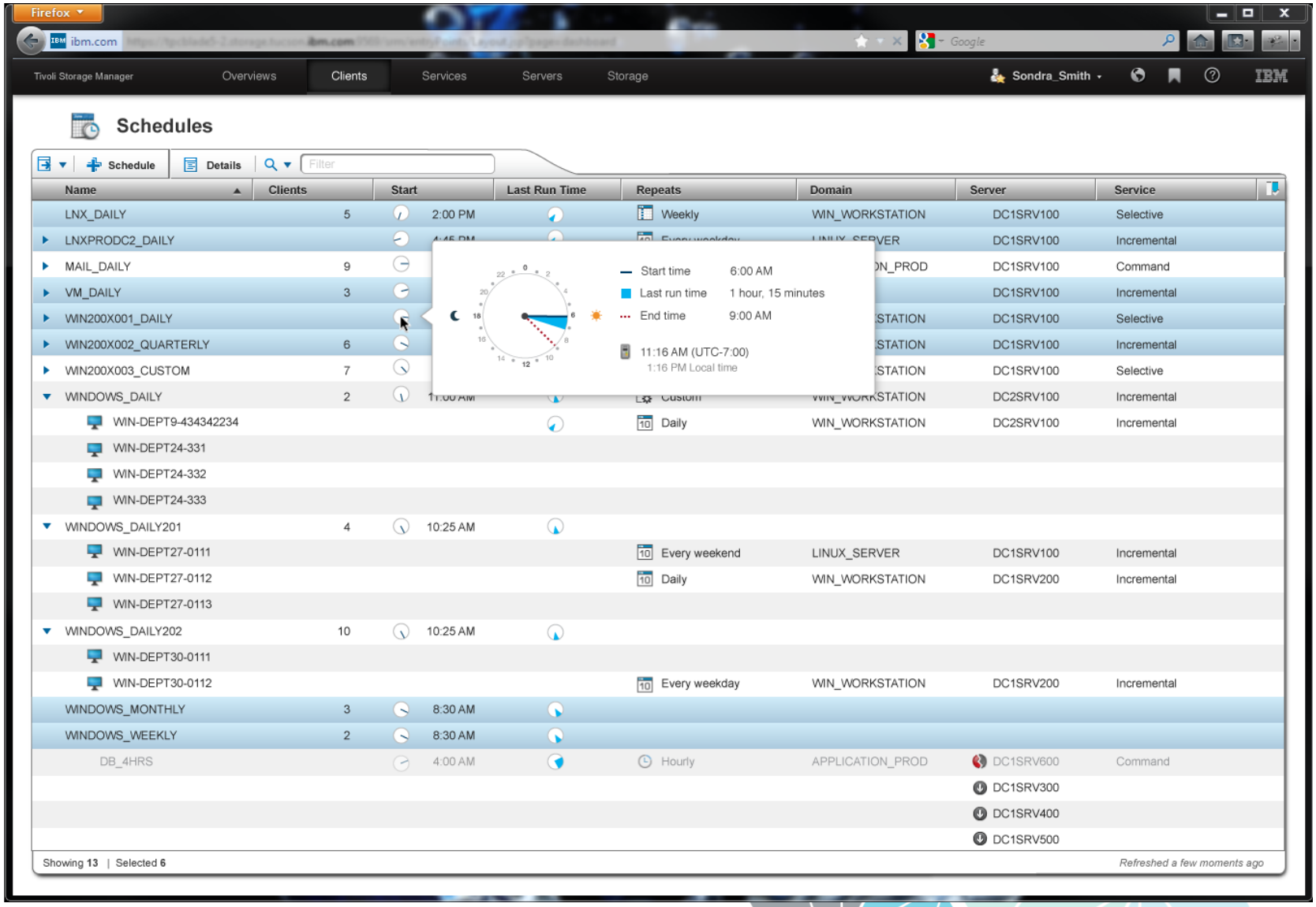
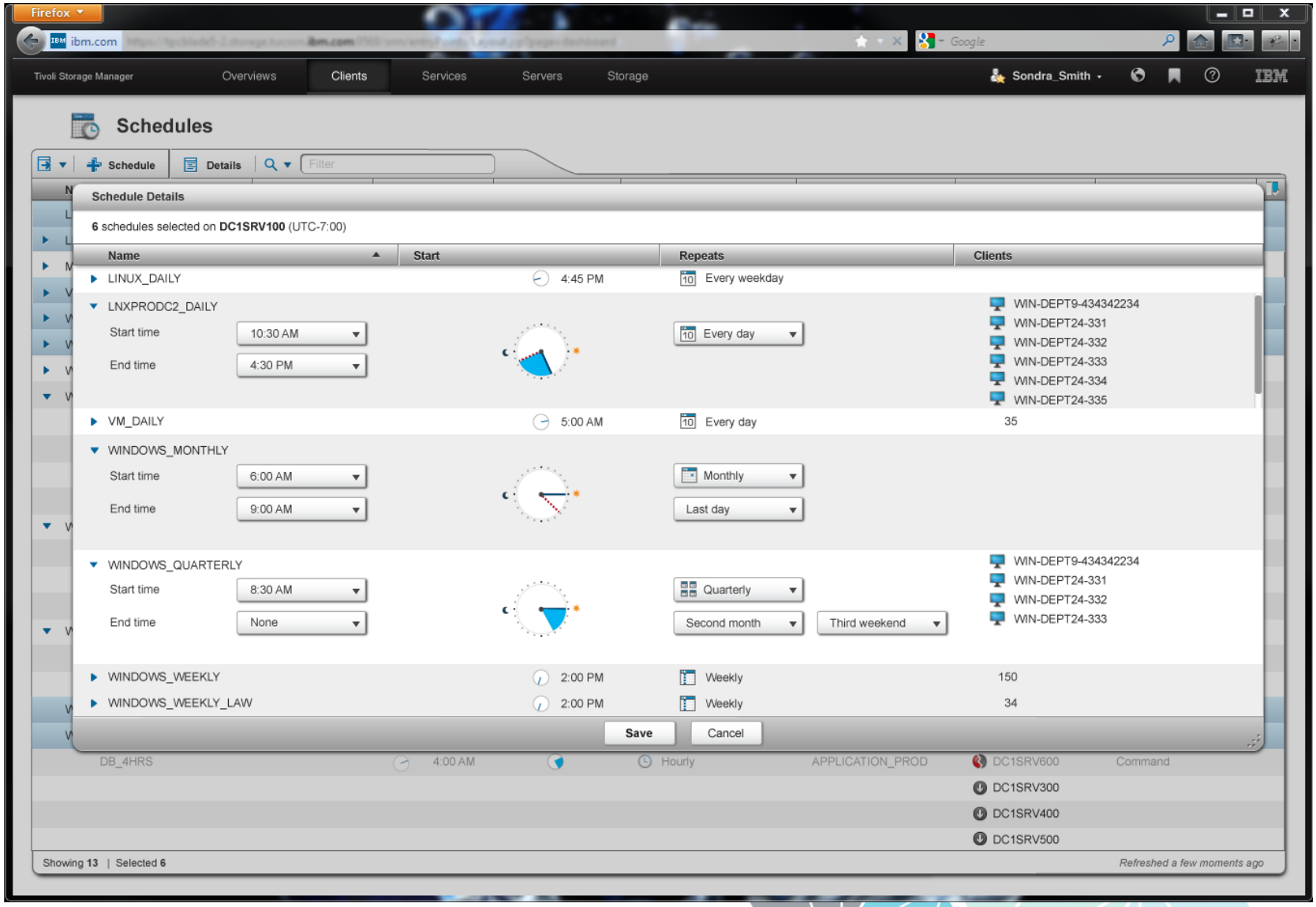
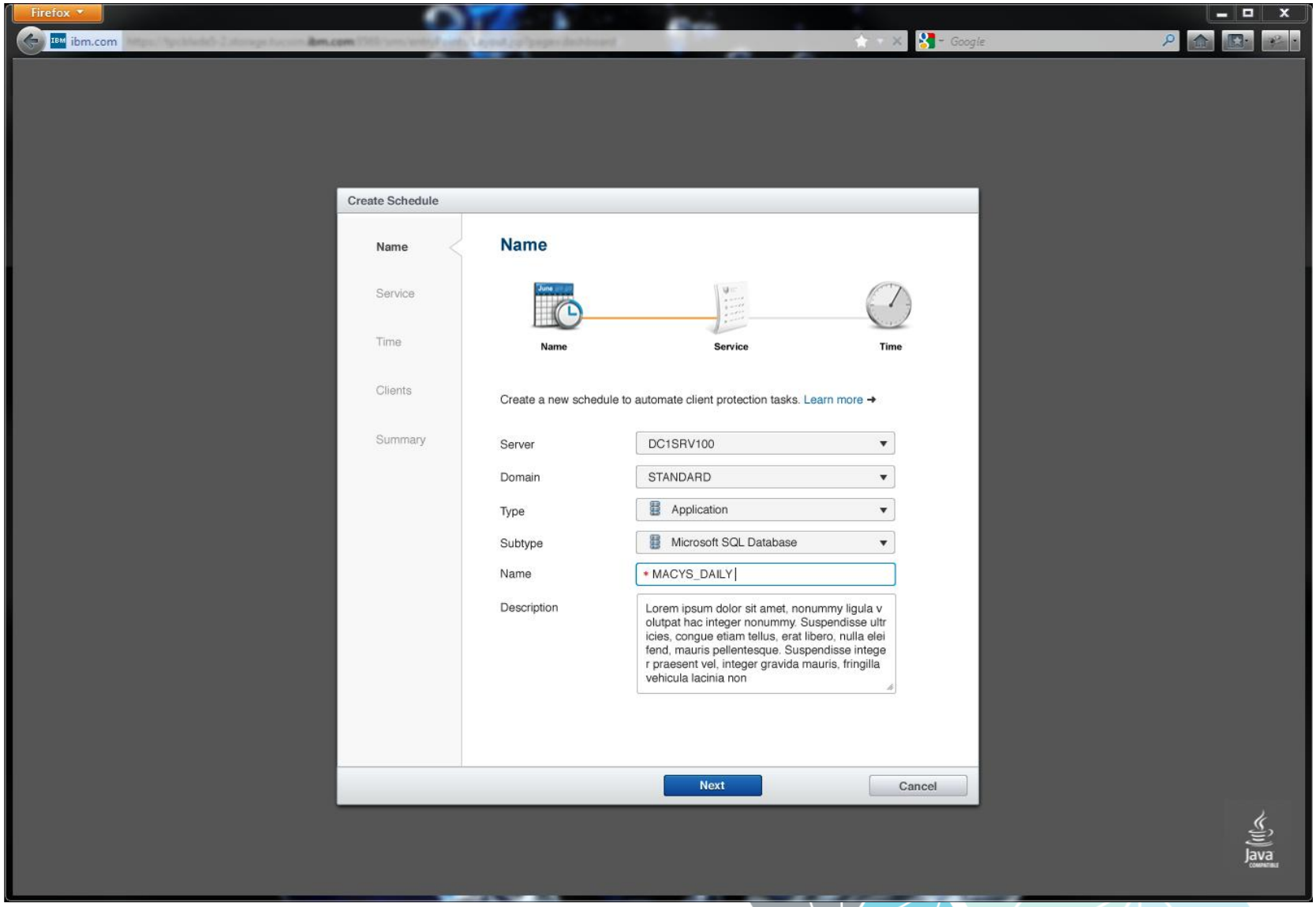
Client Schedules



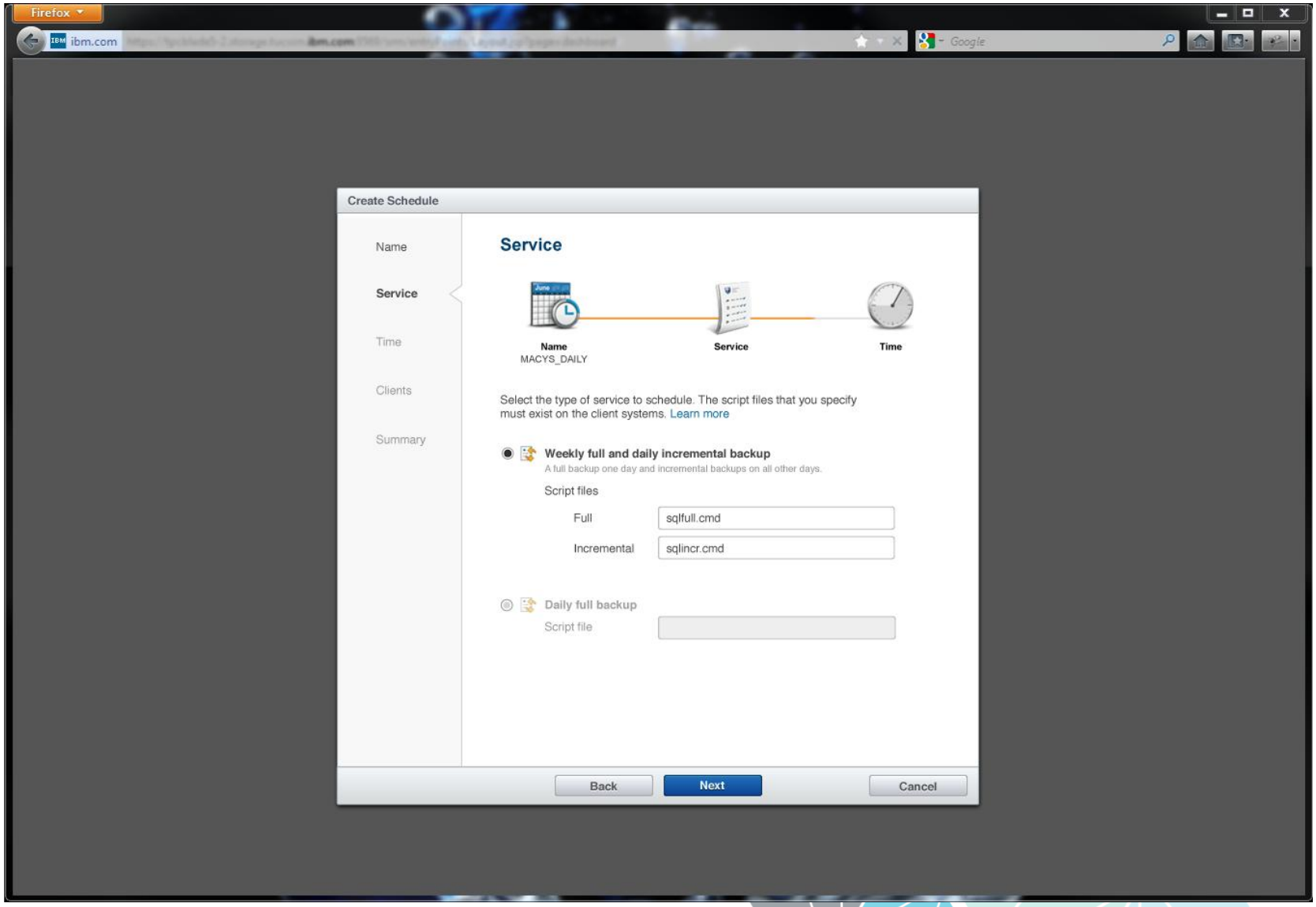
Client Schedule Details



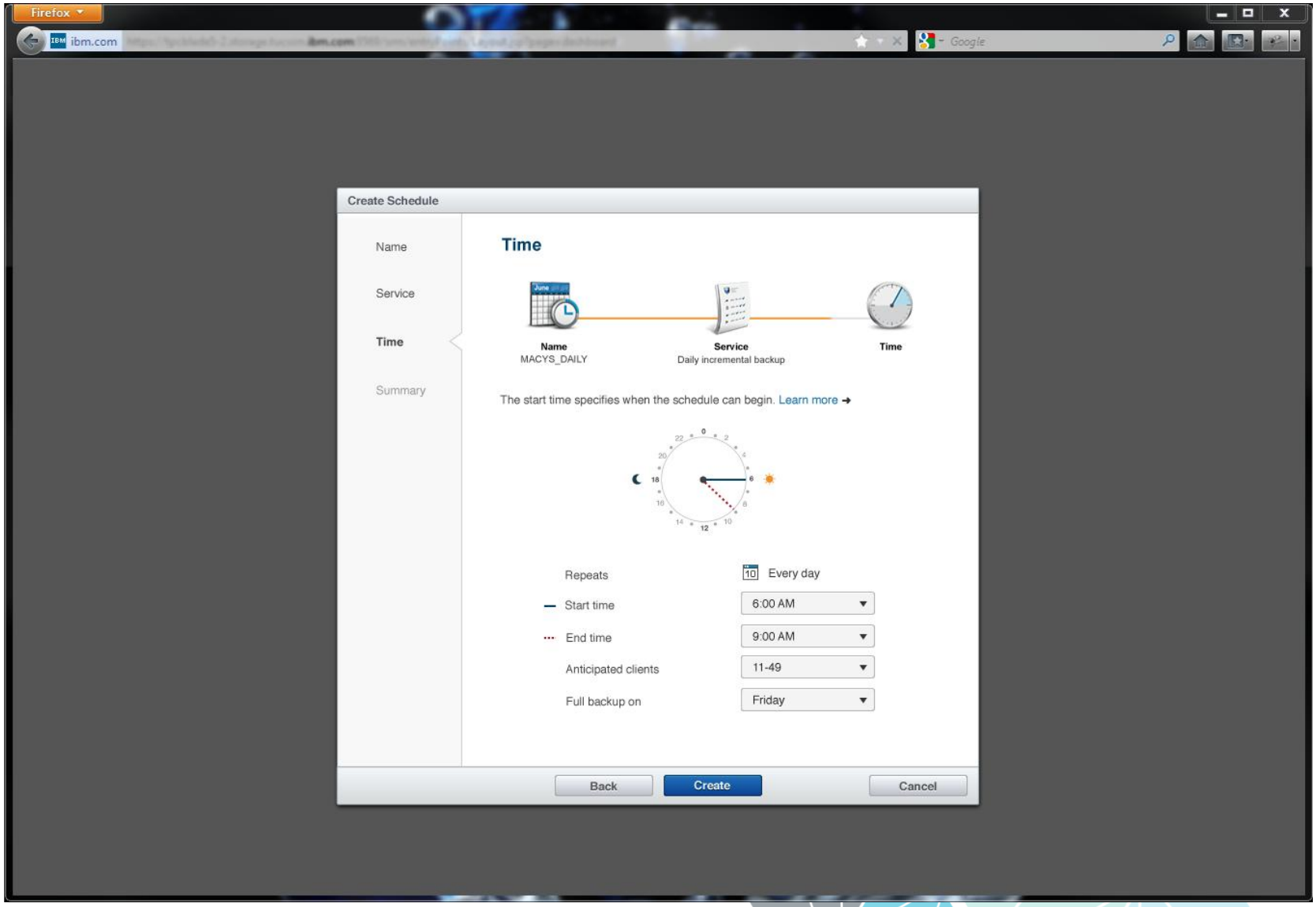
Create Client Schedule > Name



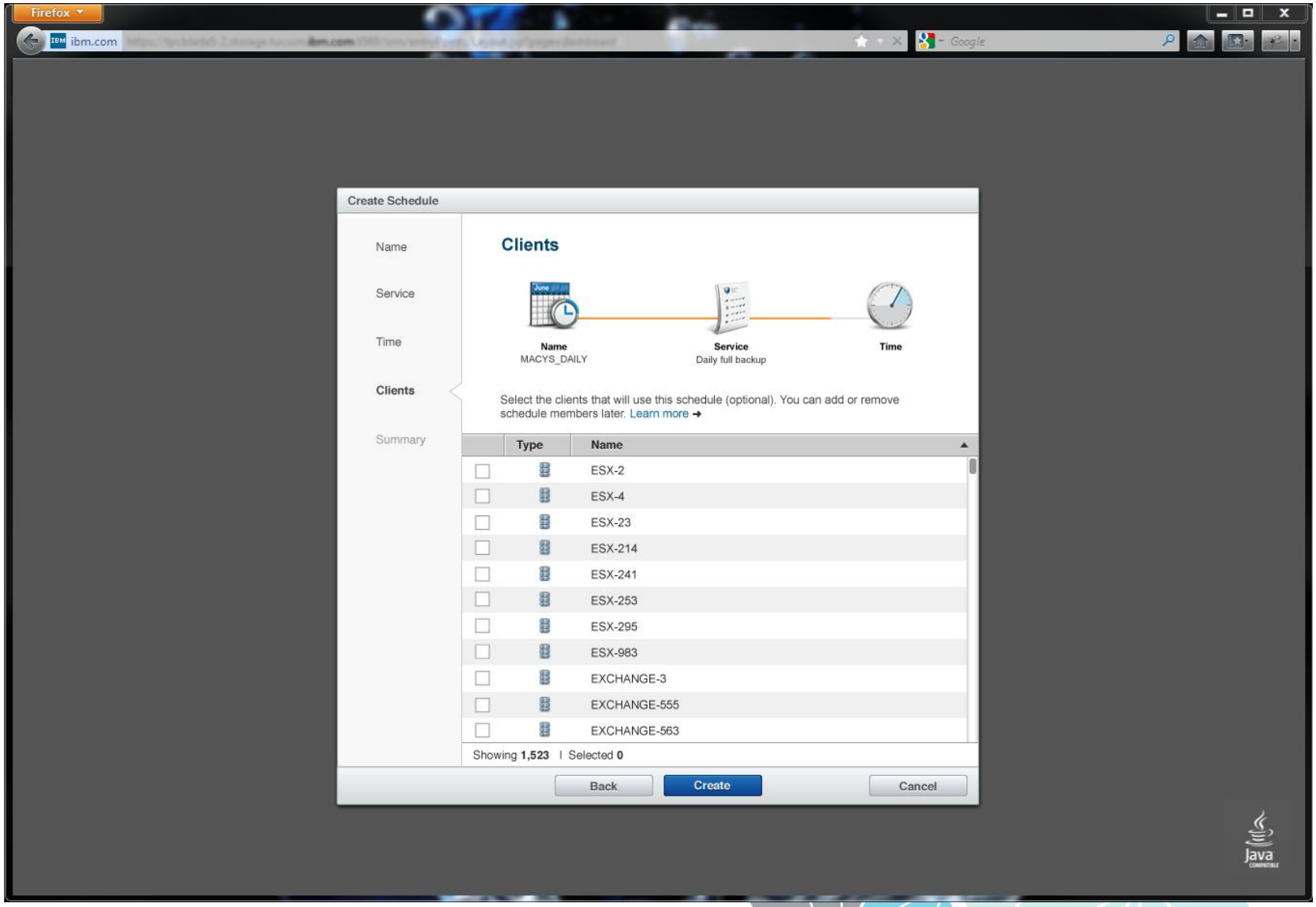
Create Client Schedule > Service



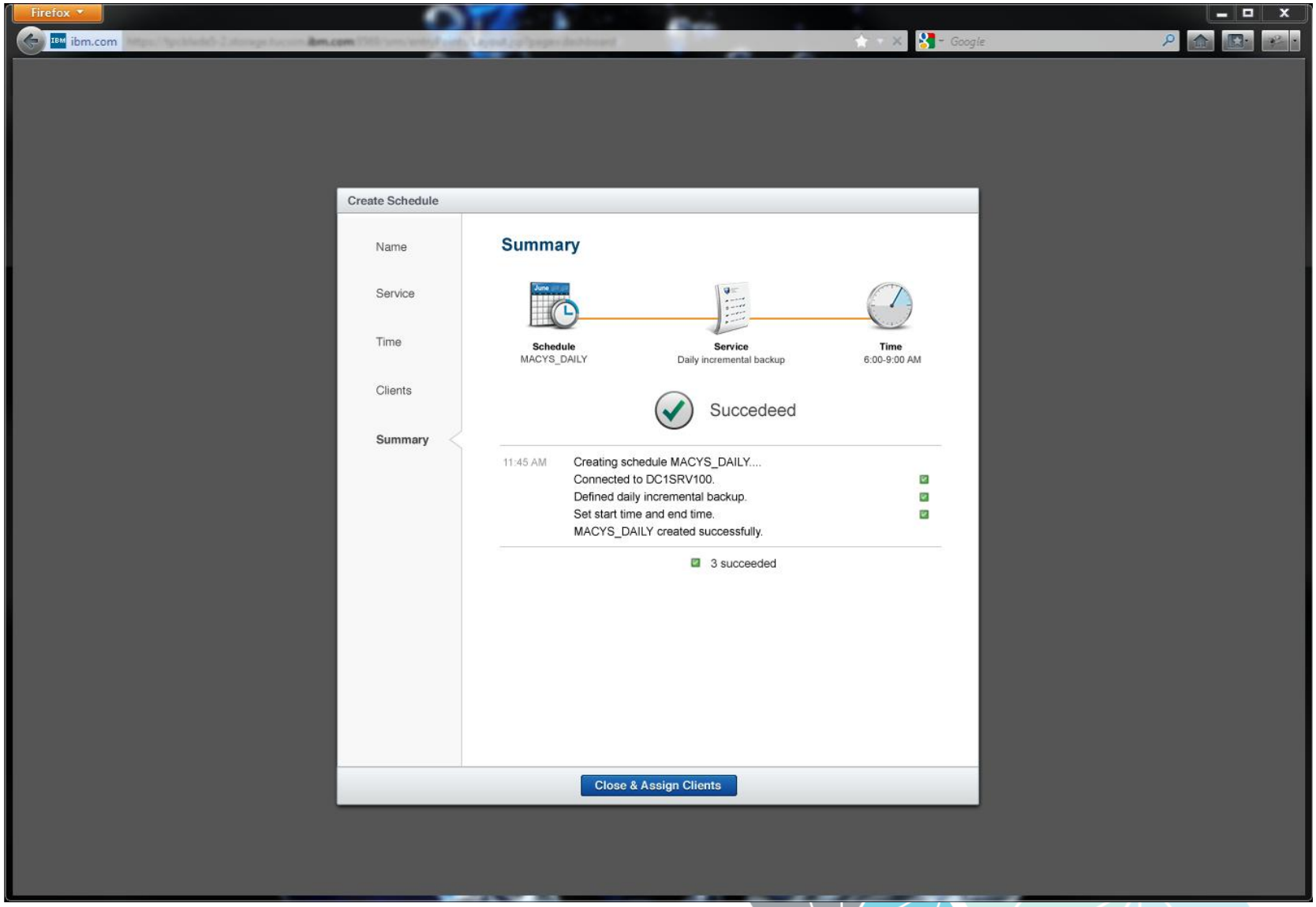
Create Client Schedule > Time



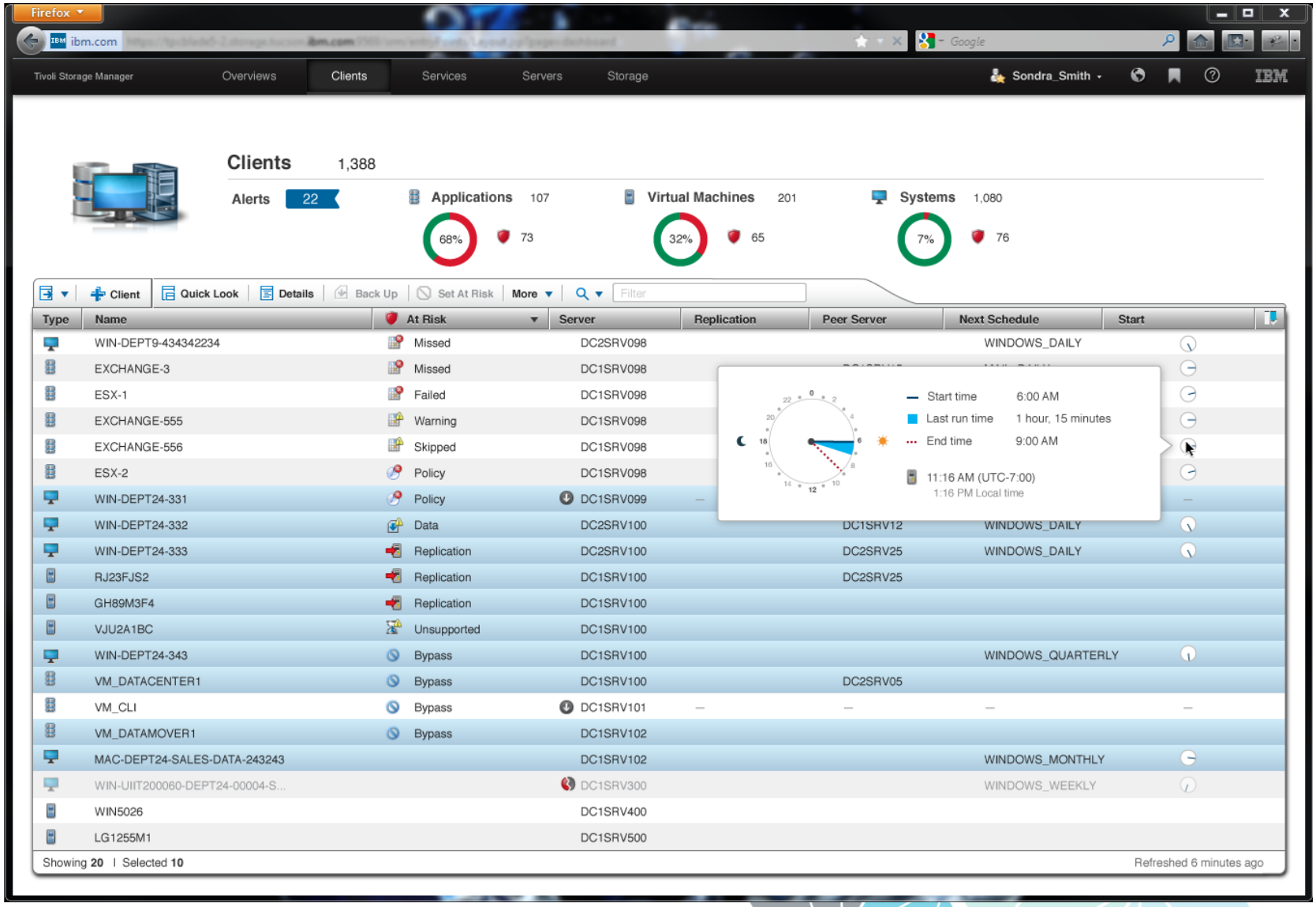
Create Client Schedule > Clients



Create Client Schedule > Summary



Clients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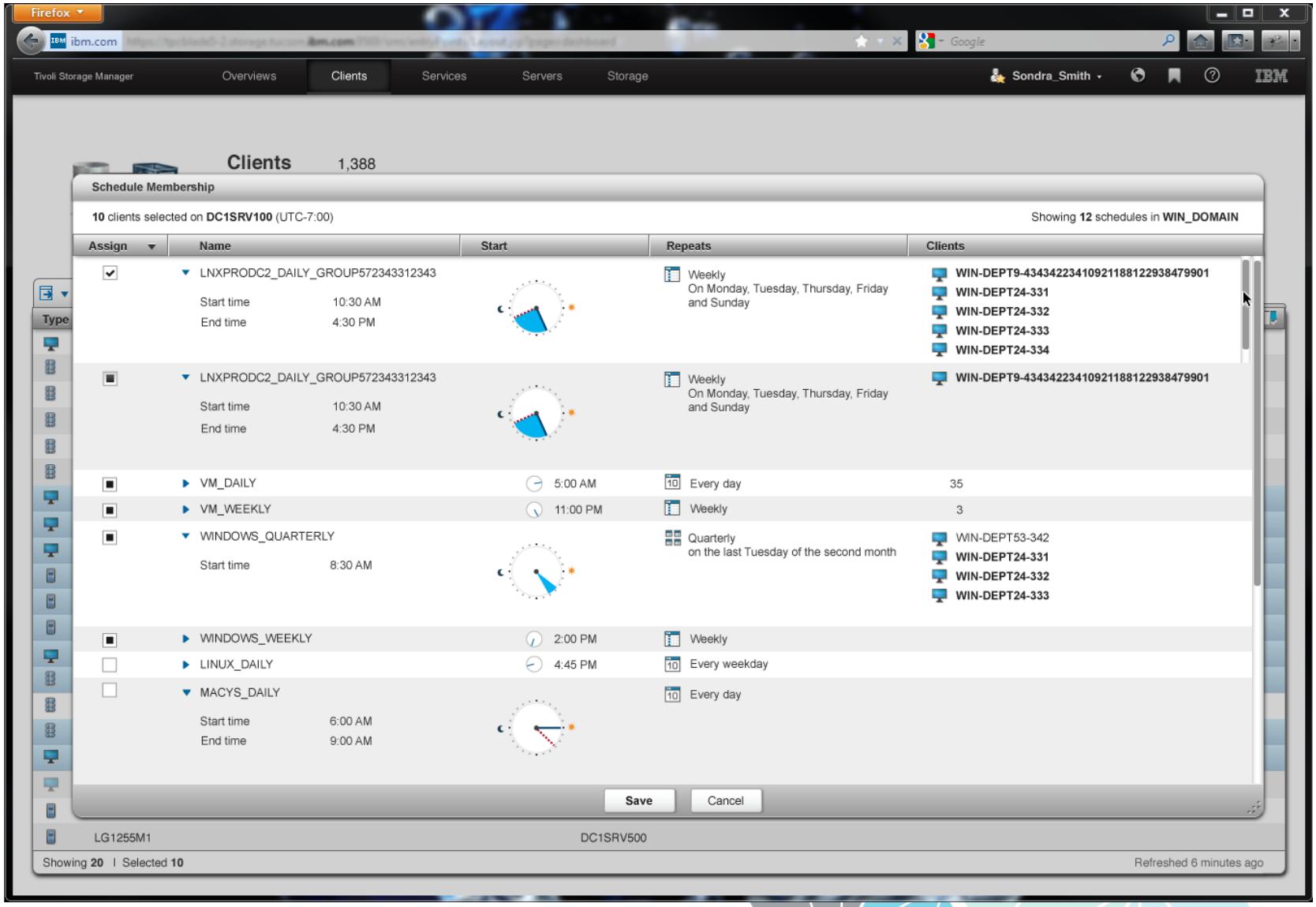
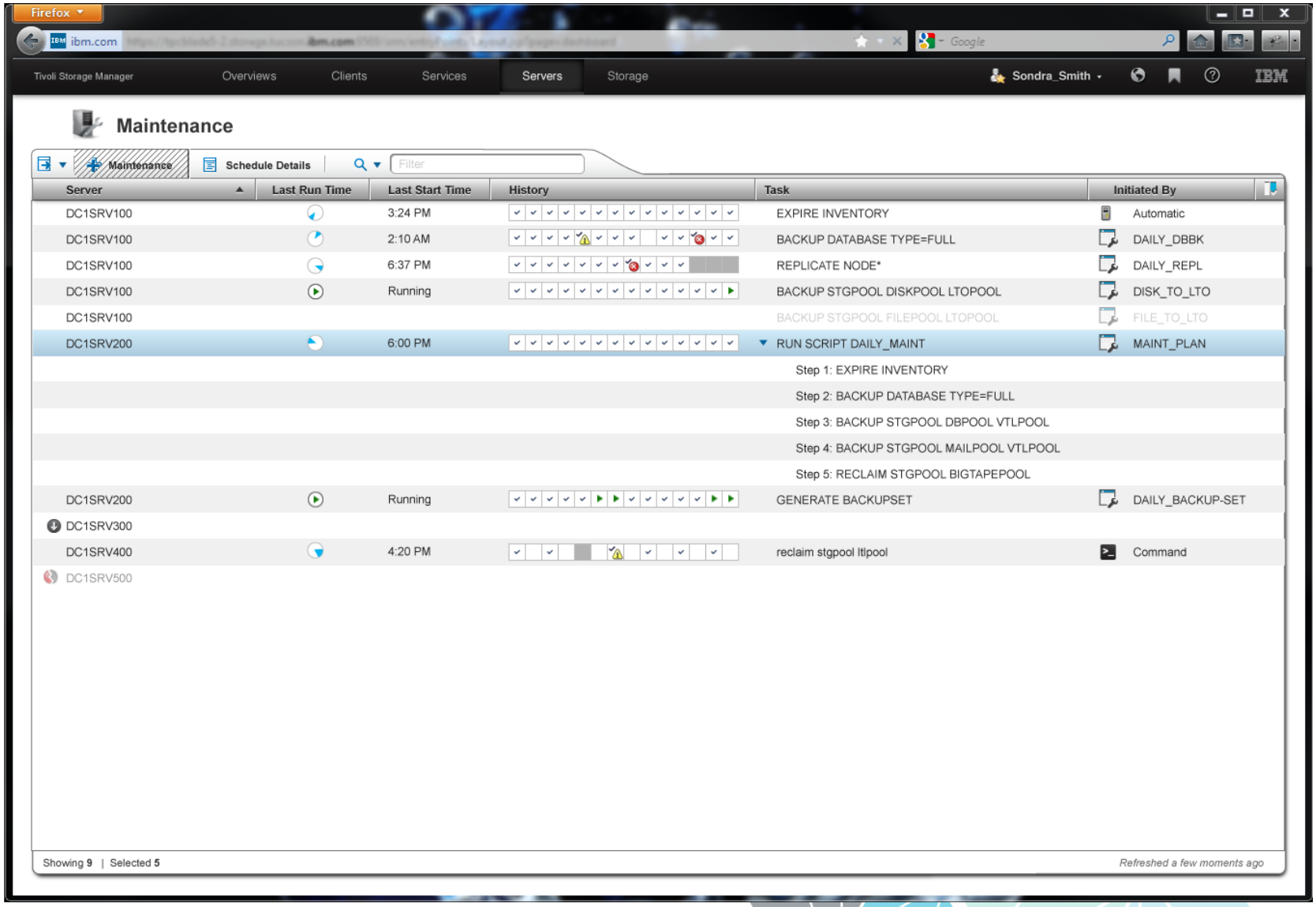
Clients 1,388
Alerts 22
Applications 107
68%
73
Virtual Machines 201
32%
65
Systems 1,080
7%
76
Client
Quick Look
Details
Back Up
Set At Risk
More
Filter
Type
Name
At Risk
Server
Replication
Peer Server
Next Schedule
Start
WIN-DEPT9-434342234 Missed DC2SRV098 WINDOWS_DAILY
EXCHANGE-3 Missed DC1SRV098
ESX-1 Failed DC1SRV098
EXCHANGE-555 Warning DC1SRV098
EXCHANGE-556 Skipped DC1SRV098
ESX-2 Policy DC1SRV098
WIN-DEPT24-331 Policy DC1SRV099
WIN-DEPT24-332 Data DC2SRV100 DC1SRV12 WINDOWS_DAILY
WIN-DEPT24-333 Replication DC2SRV100 DC2SRV25 WINDOWS_DAILY
RJ23FJS2 Replication DC1SRV100 DC2SRV25
GH89M3F4 Replication DC1SRV100
VJU2A1BC Unsupported DC1SRV100
WIN-DEPT24-343 Bypass DC1SRV100 WINDOWS_QUARTERLY
VM_DATACENTER1 Bypass DC1SRV100 DC2SRV05
VM_CLI Bypass DC1SRV101
VM_DATAMOVER1 Bypass DC1SRV102
MAC-DEPT24-SALES-DATA-243243 DC1SRV102 WINDOWS_MONTHLY
WIN-UIIT200060-DEPT24-00004-S... DC1SRV300 WINDOWS_WEEKLY
WIN5026 DC1SRV400
LG1255M1 DC1SRV500
Start time 6:00 AM
Last run time 1 hour, 15 minutes
End time 9:00 AM
11:16 AM (UTC-7:00)
1:16 PM Local time
Showing 20 | Selected 10
Refreshed 6 minutes ago

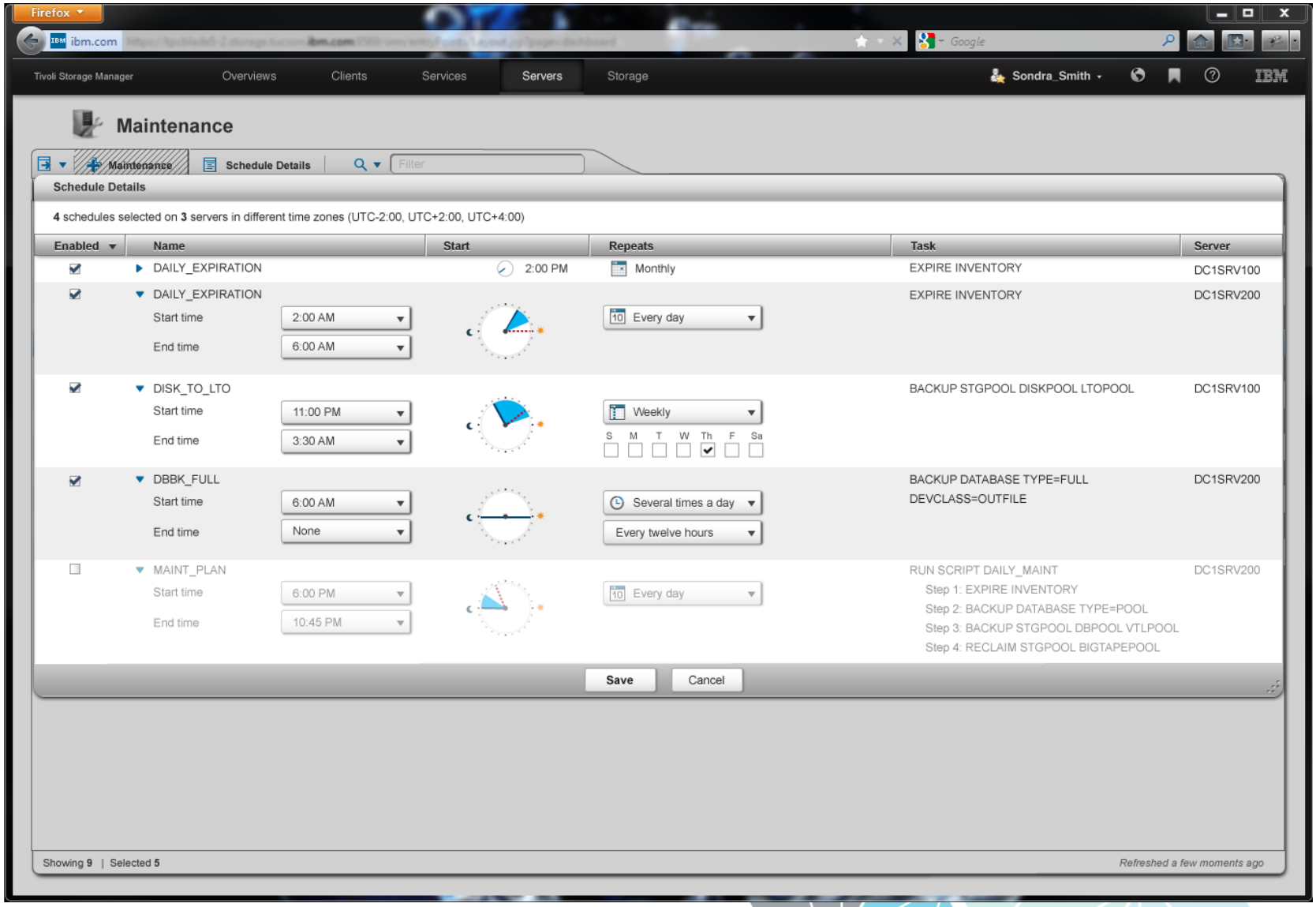
Schedule Membership



Maintenance Schedules



Maintenance Schedule Details



Daily Reports

- Client coverage
- Server health
- Storage health
- Configure alerts and email recipients

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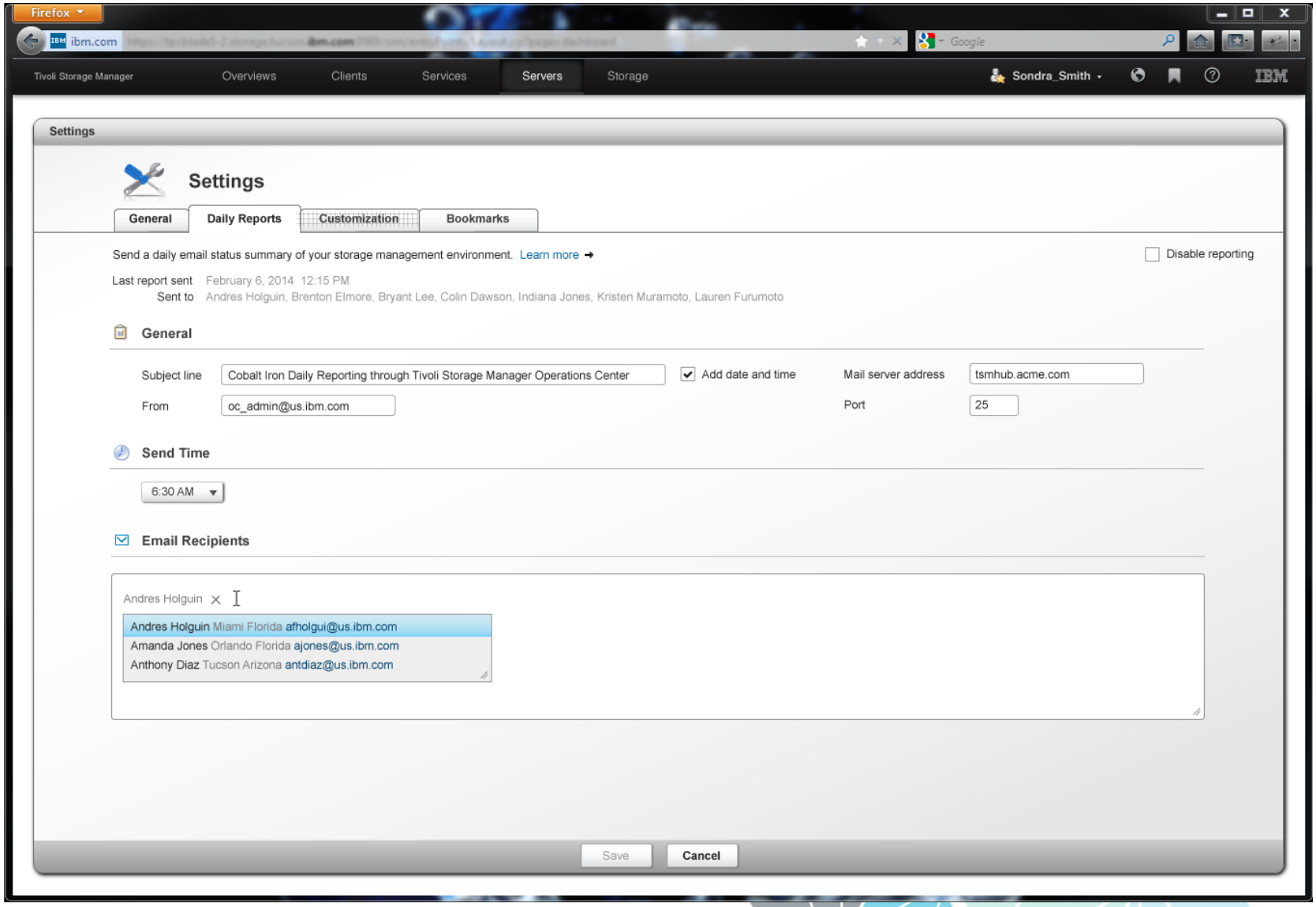
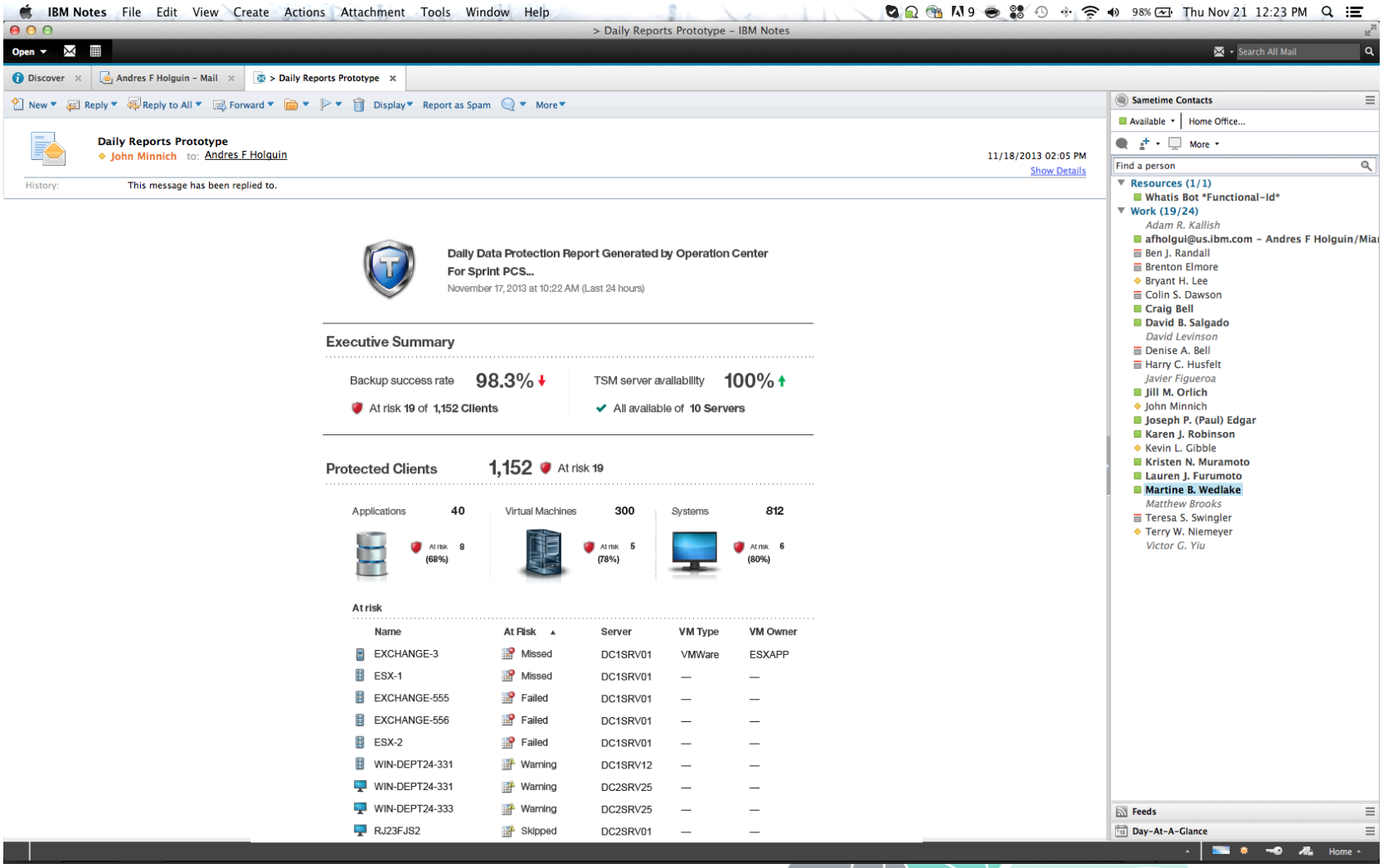
Daily Reports > Configure



Daily Reports > In Context



Storage Pool & Policy Visibility 7.1.1

- Configure migrate/reclaim actions
- Edit storage pool properties
- View volume information
- View policy details & active policy set

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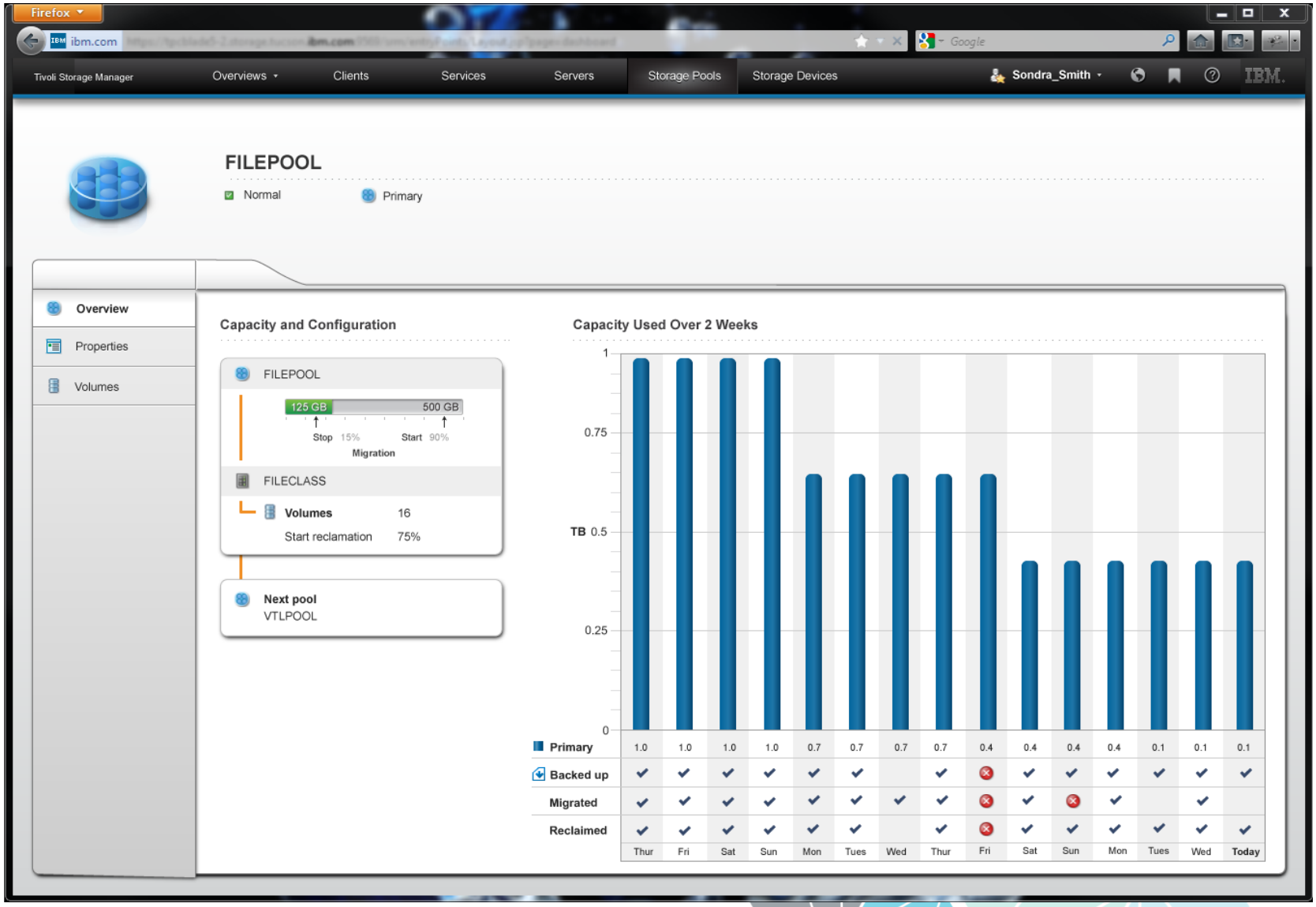
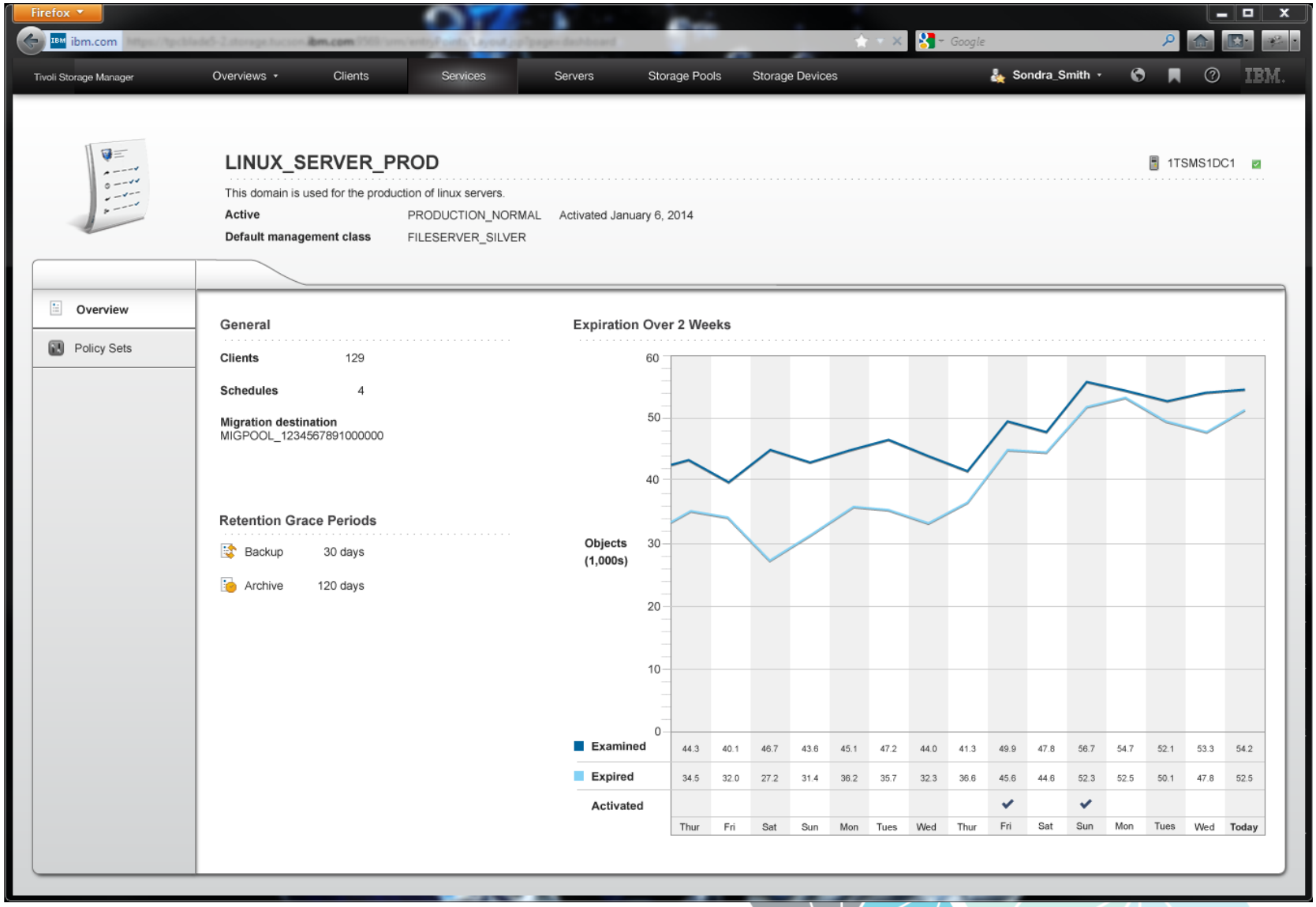
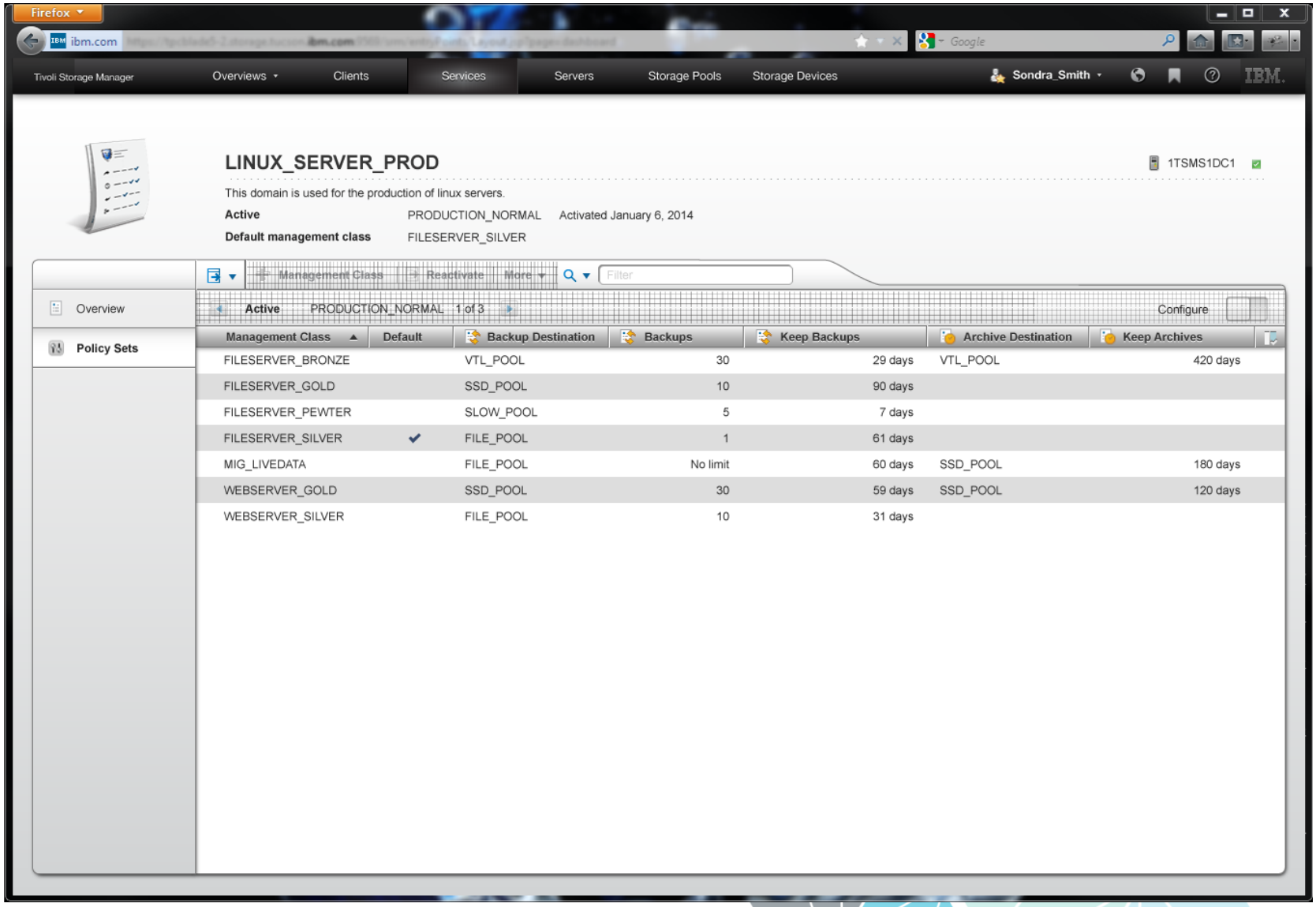
Storage Pool Details



Policy Details



Policy Details > Policy Set



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COMING IN 2015

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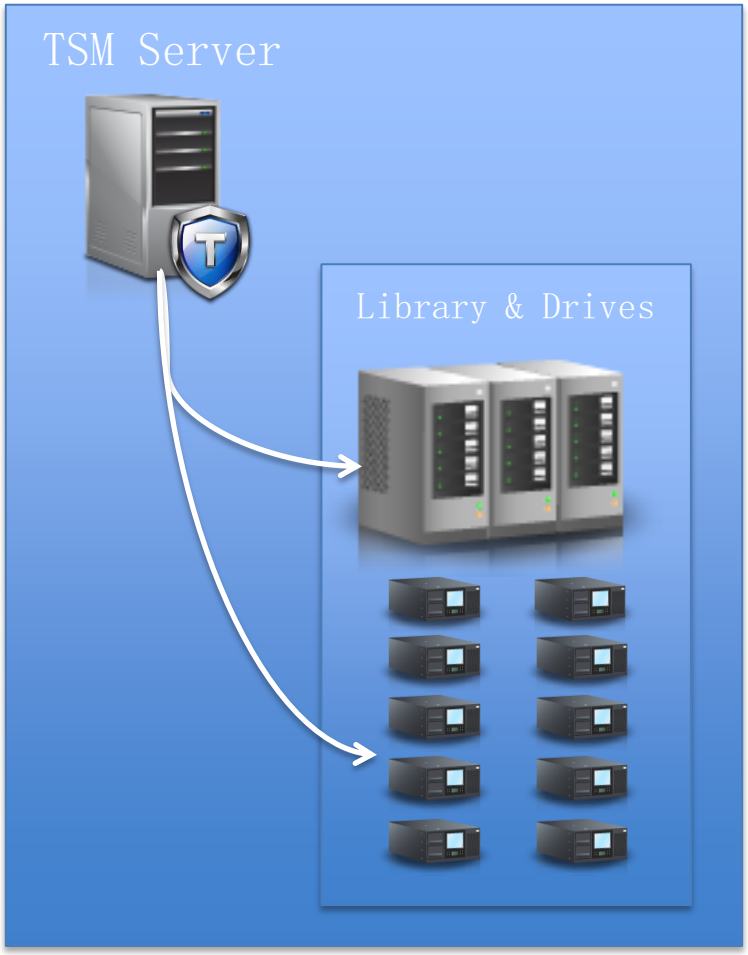
Storage Devices > Library Actions



Availability Online - Offline

- Maintenance for Drives or Library

Create Library Drive(s) - Path(s

- Create a new library with drives and paths for use by TSM
- Library manager and clients in shared configuration

Repair Drive(s) - Path(s)

- Redefine and online drives and paths that are offline

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Get Involved

Join the Early Access Program (EAP)

- Collect and refine requirements
- Present in-progress designs
- Live demos
- Solicit feedback

Beta

- Access to code drivers to run non-production in your test environment
- Provide feedback on implementation
- Advanced look at code prior to GA

Contact Gergana Markova (gmarkova@us.ibm.com)

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What's current in the Operations Center

BACKUP SLIDES