



Introduction to the Wide Area Bonjour Application GUI

You can access the Wide Area Bonjour application on Cisco DNA Center in the following ways:

- From the Cisco DNA Center dashboard, click the **Wide Area Bonjour** application under **Tools**.
- From the Cisco DNA Center, main menu, navigate to **Tools > Wide Area Bonjour**.

From the Wide Area Bonjour application GUI, you can perform the following tasks:

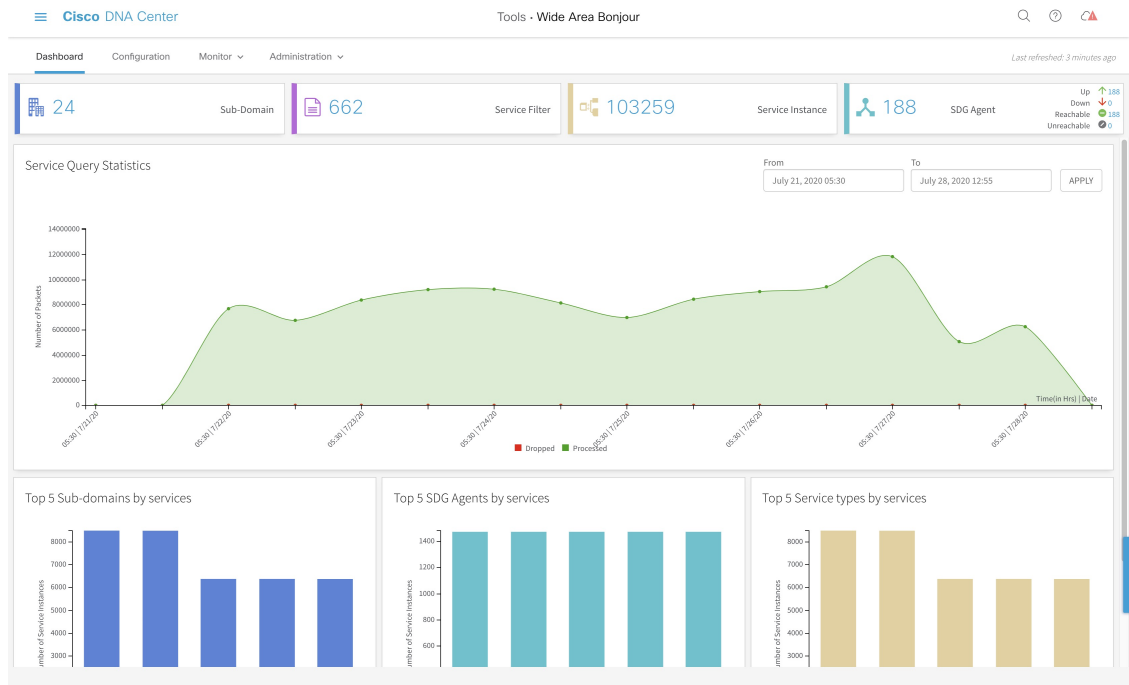
- [Review the Wide Area Bonjour Dashboard, on page 1](#)
- [Review the Cisco Wide Area Bonjour Configuration, on page 3](#)
- [Monitor SDG Agents, on page 4](#)
- [Monitor Service Instances with the Wide Area Bonjour Application, on page 5](#)
- [Review the Wide Area Bonjour Global Application Preferences, on page 6](#)

Review the Wide Area Bonjour Dashboard

The Wide Area Bonjour application is a software-defined, policy-based Apple Bonjour protocol controller that facilitates multicast-DNS based service discovery.

The Wide Area Bonjour application displays the following dashboard.

Figure 1: Cisco Wide Area Bonjour Application Dashboard



The dashboard provides a snapshot of the following:

- **Sub-domain.** Number of subdomains. When you click the number of subdomains in this tile, you're directed to the **Configuration** page of the Wide Area Bonjour application.
- **Service Filter.** Number of policies established between network devices for the application. When you click the number on this tile, you're directed to the **Configuration** page of the Wide Area Bonjour application.
- **Service Instance.** Number of service instances. When you click the number in the tile, you're directed to the **Service Instance** page.
- **SDG Agent.** Number of network devices (SDG Agents) connected to the application and the status of the SDG Agents. When you click this tile, you're directed to the **SDG Agent** page. It displays the count of SDG Agents that are **UP**, **DOWN**, **Reachable**, and **Unreachable**.

On the **SDG Agent** page, you can filter the SDG Agents according to Active and Inactive state, or by any of the following parameters:

- SDG Agent IP Address
- Domain Name
- Service Filter name
- Role (whether the SDG Agent is a source agent advertising service, or a query agent requesting service, or both)
- Available services (the current count of available service instances announced by the SDG Agent)
- Reachability (whether the SDG Agent is reachable)

- State (whether the SDG Agent is **UP** or **DOWN**).



Note The SDG Agent may be reachable, but still be down if the SDG Agent is not included in any policy.

- Last sync (the time of the last synchronization with the SDG Agent)
- Resync Status (status of the last resync operation - successful, failed, or in-progress)
- **Service Query Statistics.** Graphical display of query packet traffic statistics for the application (number of processed and dropped service query packets at a given interval of time). This graphical display can be used to monitor the network health and to become aware of any issue due to an increase in the number of packets being dropped.

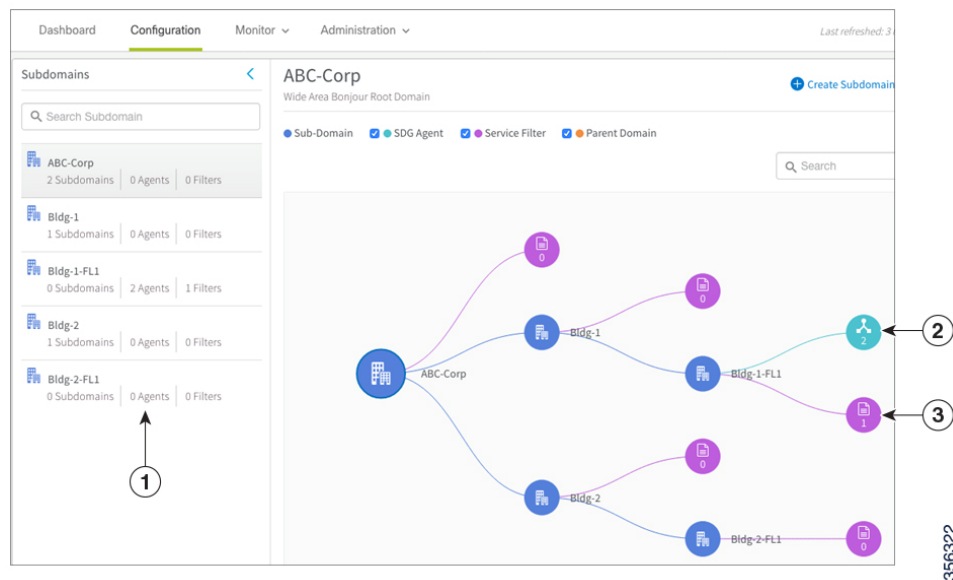
Additionally, you can view the following information from the dashboard:

- Top 5 Sub-domains by services
- top 5 SDG Agents by services
- Top 5 Service types by services

Click the bar graphs in the tiles to view more information.

Review the Cisco Wide Area Bonjour Configuration

The **Configuration** screen in the Wide Area Bonjour application enables you to review or change your current configuration.



The following table lists the elements of the GUI called out in the above image.

1	Subdomain panel. Click any subdomain to display its domain tree.
2	The green bubbles in the domain tree are the SDG Agents. There are 2 SDG Agents attached to the subdomain Bldg-1-FL1, in this configuration.
3	The purple bubbles are the service filters. There is 1 service filter configured for the subdomain Bldg-1-FL1.

The **Configuration** tab displays the following information:

- Subdomains. This is a panel that lists the current subdomains, filters, and agents in your configuration. Select or type a subdomain name in the **Search** field to display that subdomain in the Domain Tree panel.
- Domain tree. This visualization displays the graphical representation of the selected subdomain with the following elements:
 - Sub-Domain
 - SDG Agent
 - Service Filter
 - Parent Domain



Note Select the element checkbox at the top of the page to view that element in the domain tree (**Sub-Domain**, **SDG Agent**, **Service Filter**, and **Parent Domain**).

Type a subdomain or filter name in the **Search** field in the Domain tree panel to view that subdomain or filter.

Monitor SDG Agents

To view the list of SDG Agents registered with the Wide Area Bonjour application, along with details for each agent, click **SDG Agent** from the **Monitor** drop-down menu on the application home page.

From this page, you can:

- Filter the SDG Agents by their State using the **Active** and **Inactive** checkboxes. Selecting both checkboxes displays all SDG Agents.



Note You must select at least one checkbox for information to be displayed.

- Manually trigger a sync between the SDG Agent and the device cache using the **Resync** button.
- Filter the list of SDG Agents to view information only for specific SDG Agents, using the **Filter** button.

In the filter, you can input values for the following fields:

- **Resync Status:** From the drop-down list, use the check boxes to filter the SDG Agents based on whether their resync status is **Failed**, **In Progress**, **Not Initiated**, or **Successful**. Checking the **Select All** check box displays all SDG Agents.
 - **SDG Agent:** Enter the IP address of the specific SDG Agent for which you want to view information.
 - **Domain(s):** Specify the domain for which you want to view the SDG Agents.
 - **Service Filter(s):** Specify the Service Filter for which you want to view the SDG Agents.
 - **Role(s):** From the drop-down list, select the corresponding checkbox to view SDG Agents which perform **Source** or **Query** roles. You can also choose to view SDG Agents with both roles (**Select All**) or **None** of the roles.
- View the following information for each SDG Agent:

Parameter	Description
SDG Agent	IP address for the SDG Agent
Management IP	Management IP address of the device.
Source Interface	Source interface associated with the SDG agent
Domain(s)	Domain under which the SDG Agent is configured
Service Filter(s)	Service filters which use the SDG Agent
Role(s)	Whether the SDG Agent is a Source or Query agent
Available Services	Number of services advertised by the SDG Agent
Reachability	Whether the SDG Agent is Reachable or Unreachable
State	Whether the SDG Agent is in Active or Inactive state
Last Sync	Time stamp of the last sync between the SDG Agent and the controller's device cache
Resync Status	Status of the resync action

Monitor Service Instances with the Wide Area Bonjour Application

To monitor your service instances from the Wide Area Bonjour application, click **Service Instances** from the **Monitor** drop-down menu in the Wide Area Bonjour application. From this page, you can monitor all the services announced by the network devices that are available with the Wide Area Bonjour application, which are used for serving the queries received by the application.

Dashboard Configuration **Monitor** Administration

Service Instance

Monitor all the services announced by the network devices that are available with Wide Area Bonjour application which are used for serving the queries received by the application.

State: Active Inactive Refresh Filter

Name	Instance Suffix	Domain(s)	Service Filter(s)	SDG Agent IP	Service Type(s)	TTL	Instance IPv4	Instance IPv6	MAC Address	State
RTP-ATV-8		Bldg-1-FL1	Bldg-1-FL-1-	10.151.255.1	Apple TV,	4500	10.151.1.17	--	08:66:98:ee:f8:40	●
Bldg-1-FL1-ATV		Bldg-1-FL1	Bldg-1-FL-1-	10.151.255.1	Apple TV,	4500	10.151.1.3	--	c8:69:cd:7e:28:f1	●
Bldg-1-FL1-PRN		Bldg-1-FL1	Bldg-1-FL-1-	10.151.255.1	Printer,	4500	10.151.1.2	2001:10:151:1:ae18:...	ac:18:26:51:03:fe	●

With the **Filter** icon, you can filter the list of SDG Agents by the following parameters:

- Name
- Instance Suffix
- Domain(s)
- Service Filter(s)
- SDG Agent IP
- Service Type(s)
- Instance IPv4
- Instance IPv6
- MAC Address

Using the check boxes above the Service Instances table, you can also filter the service instances by their state (Active or Inactive).

Review the Wide Area Bonjour Global Application Preferences

The application preferences are various parameters that are used by the application to work effectively and provide services to the users. To navigate to the **Global Wide Area Bonjour Application Settings**, click **Global** from the **Administration** drop-down menu. From here, you can set the following parameters:

- **MD5 Security:** Use this application preference to maintain and confirm the integrity of the packets sent to the Wide Area Bonjour application. Enable the MD5 security and then enter an alphanumeric password that is between 6 and 32 characters long. At present, special characters and spaces are not allowed. When the MD5 key is set or updated, it is propagated to the SDG Agents, and the services are released.
- **Keepalive Timer:** Use this application preference to gauge the availability of SDG Agents on the network. The default value is 30 seconds, but you can choose a value from 15 seconds to 120 seconds, in 15 second increments. If the Wide Area Bonjour application misses four consecutive keepalive messages, then the SDG Agent is considered to be unreachable, and the connection to the agent is automatically reset. All previous service entries from the SDG Agent are marked as stale in the application. The SDG Agent resends all services to the Wide Area Bonjour application when connectivity with the Controller is restored.
- **Inactive Service:** Use this application preference to set the recurring time period for periodically removing all stale or inactive service instances from the Wide Area Bonjour application cache. Updating this value

takes effect only after the currently active time period expires. The default value is 24 hours, but you can choose an interval between 1 and 24 hours.

