# Problem: Publishing a feature service to ArcGIS Server fails after ArcGIS Server is upgraded

## Description

When attempting to publish a feature service in ArcGIS Server, the attempt fails and the following server log error is returned, "[geoprocessing system service name] system service is missing." For example:

> Error:
> PublishingToolsEx system service is missing

System services are used by ArcGIS Server to publish service definition files as services.

## Cause

In some cases, upgrading ArcGIS Server to 10.5 and above causes some geoprocessing server services to change or go missing. This is because prior versions use the same service with a different name. For example, the PublishingTools system service is referred to as PublishingToolsEx in 10.5 and above. Upgrading to 10.5 and above causes ArcGIS Server to refer to the old geoprocessing server service name instead of the new name.

## Solution or Workaround

The geoprocessing system must be recreated to enable publishing. The following steps demonstrate how to recreate the PublishingToolsEx geoprocessing service.

1. Log in to ArcGIS Server Administrator Directory.
2. Navigate to services > System > PublishingTools (GPServer).

**ArcGIS Server Administrator Directory**

REST

## Folder - System

**Description:**    The System folder contains automatically deployed services that are used by ArcGIS Server.

**Web encrypted:**  false

**Services:**

- **CachingControllers** (GPServer)
- **CachingTools** (GPServer)
- **CachingToolsEx** (GPServer)
- **DistributedWorker** (GPServer)
- **DynamicMappingHost** (MapServer)
- **GeoAnalyticsManagement** (GPServer)
- **GeoAnalyticsTools** (GPServer)
- **PublishingTools** (GPServer)

3. Scroll down and click REST in the Supported Interfaces segment, and copy the JSON script.

**Resources:**  status  statistics  permissions  iteminfo  lifecycleinfos

**Supported Operations:**  start  stop  edit  delete

**Supported Interfaces:**  REST

4. Navigate to services > System.
5. Under Supported operations, click createService.

**Resources:**  permissions  report

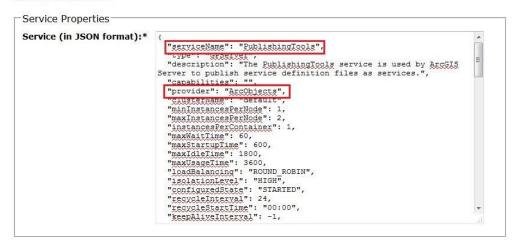**Supported operations:**  editFolder  createService  renameService  deleteFolder

**Supported Interfaces:**  REST

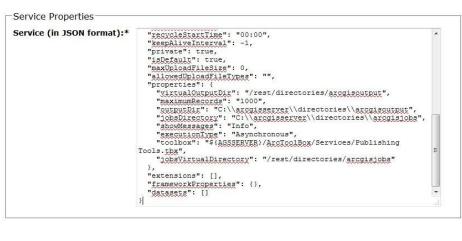6. Paste the JSON script copied in step 3 and replace "serviceName": "PublishingTools" with "serviceName": "PublishingToolsEx" and "provider"."ArcObjects" with "provider"."ArcObjects11".

**Create Service**



7. Click Create.

**Create Service**



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Create

9. Restart the service. For more information, refer to ArcGIS Server: Starting and stopping services.

> Note:
> Other missing geoprocessing systems (for example, DistributedWorker or RasterRendering) can be recreated using the same steps provided.

## Related Information

- ArcGIS Server: Publish a feature service from ArcMap
- ArcGIS Server: What types of services can you publish?

- [ArcGIS: PublishingToolsEx](#)