

### **Updates**

- Update the product using WUM
- WUM will contain the previous updated pack

 $WS\Theta_2$ 

Patches contains code level changes which directly affect the functionality.

Therefore backups of a patches applied on each server type needs to be maintained.

To backup patches, you can take a backup of cproduct\_home/repository/components/patches/ directory.
This will contain all the patches.

Patches may also be associated with configuration changes. Ideally this will not be a problem, since configuration backups will also be taken.

## **Update Techniques, Tools, Procedures**

- Use automation scripts
- Replace the old pack with the new updated pack using WUM
- In-place updates



Patch restoration can be easily automated to replace the patch/ directory of the intended server with a backup of the patch/ directory of a certain WSO2 server.

In-place update mechanism https://docs.wso2.com/display/updates/Using+WSO2+In-Place+Updates

## System/Business Data

#### **System Data**

- Registry based,
- Utilizes an RDBMS.
- Periodical database backup

#### **Business Data**

- Independent of WSO2 context
- Normal data backup



System data will be maintained in the registry and databases.

Business data will be maintained in documents and other artifacts which may be outside the WSO2 context.

The recommended practise is to take periodical database and system data backups.

## System/Business Data, Techniques, Tools, Procedure

- Backups procedures may be vendor specific
- Periodically executed



System and Business Data is independent of WSO2 context as mentioned earlier.

These are maintained in RDBMS.

Backup procedures for these can be vendor specific and periodically executed.

### **Disaster Recovery**

- Routine backups / restoration drills
  - For DBs / artifacts
  - Restore to a last well known state
- Multi-site replication
  - o Across different regions
- Automated tools
  - Using Puppet as a configuration management tool
  - o Boto as an EC2 and RDS recovery tool



In the case of disaster recovery, there are a number of procedures we can follow.

Backup availability is the most crucial factor in order to recover from a disaster. You can also restore systems to a last known stable state if possible.

Deployments can be replicated across different regions to avoid failures in a specific region impacting another.

In addition you can use automated recovery tools such a Puppet and Boto depending on the deployment.

# THANK YOU

wso2.com

