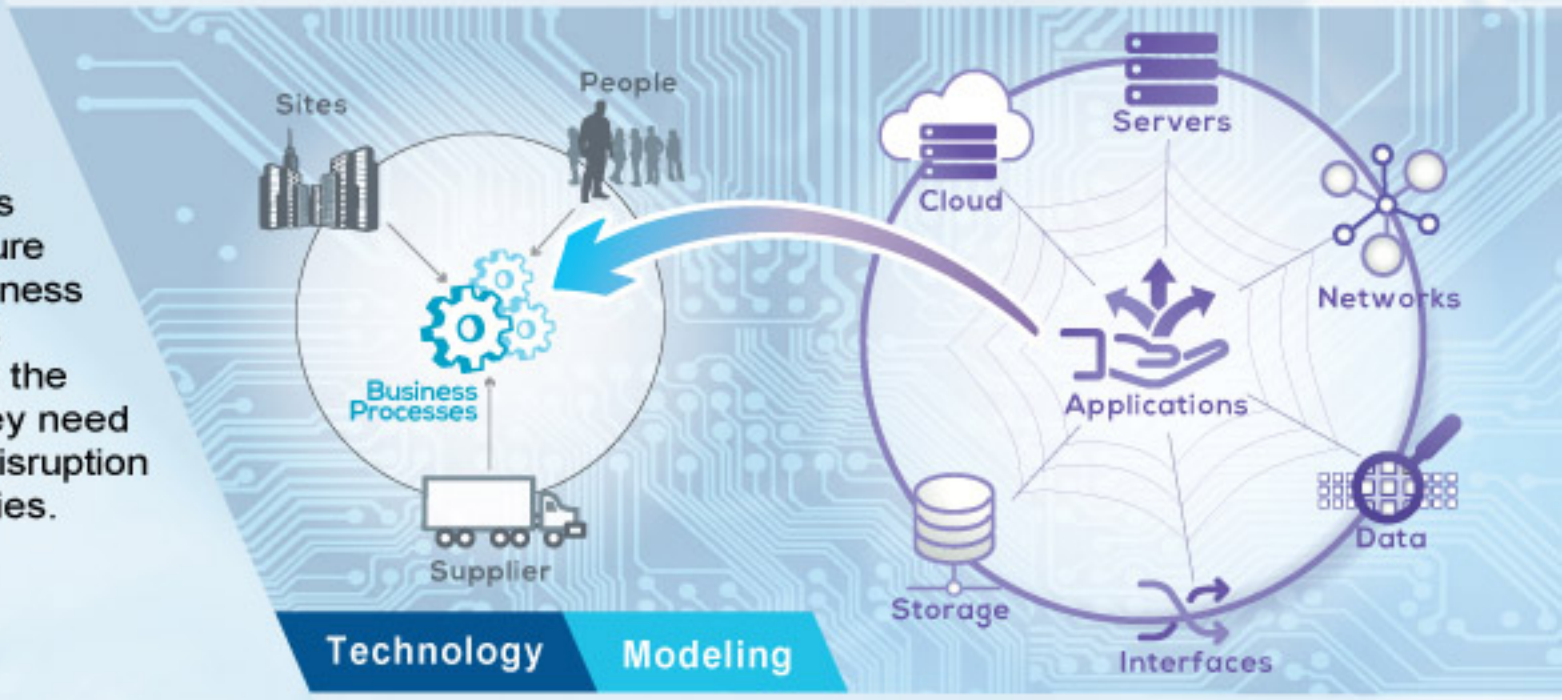
Tried. Tested. True.

# Technology Modeling - the eBRP way

## Definition:

Technology modeling is a point-in-time snapshot of an Enterprise's IT Services including its dependencies on infrastructure and interfaces to other services and Business Processes which depend on them. This Technology Model provides executives the critical decision support information they need to understand the impacts of a service disruption and current Service Continuity capabilities.

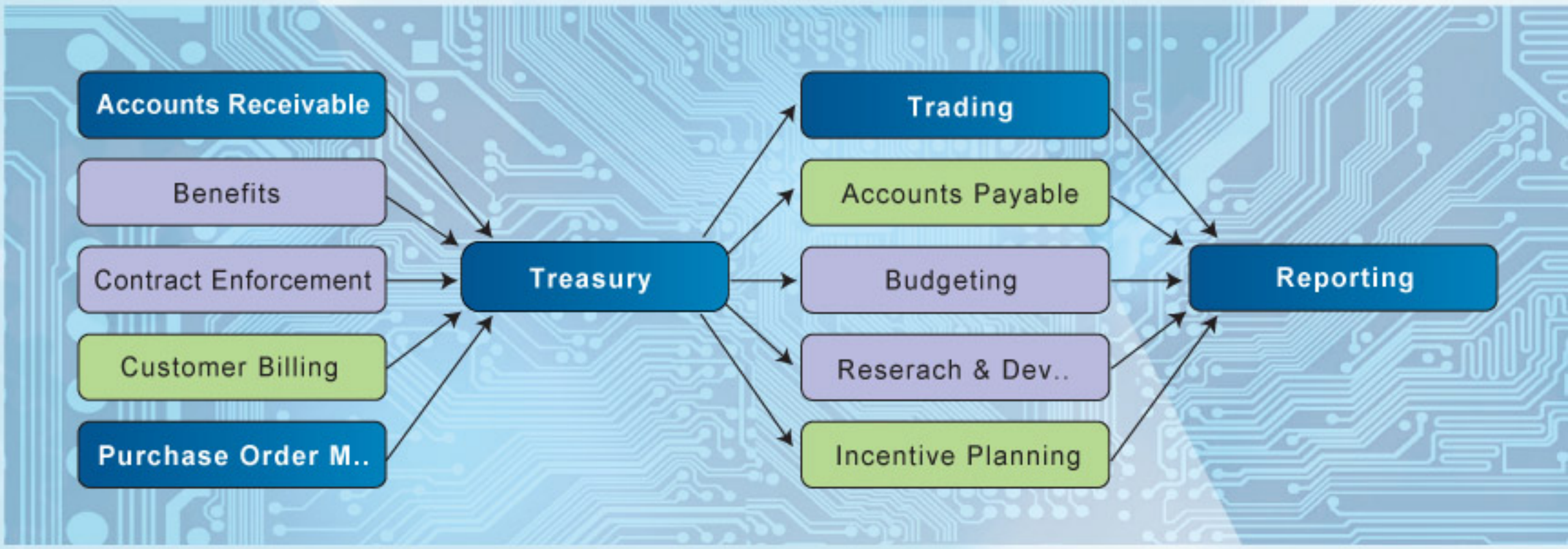



## Methodology:

The purpose of modeling technology is to define the hardware, software, networks, and storage sub-systems that are critical to providing IT Services (often referred to as applications) employed in support of business operations. Based on the current state of technology, some of the key sub-systems that populate technology model include:

- **Applications** (Business enabling IT Services)
- **Servers** (physical, virtual servers)
- **Software** (OS, utilities, productivity tools)
- **Databases** (data store specific to applications)
- **Networks** (WAN, LAN, VLAN)
- **Storage** (physical, virtual, shared)
- **Interfaces** (application, service dependencies)
- **Cloud Solutions**
- **Datacentres**
- **Vendors** (Service providers)

Application **Interfaces**: Based on the businesses they support, many applications may be integrated; data generated within one application might become input for other applications. These interfaces help determine the sequence or order in which individual services must be restored.



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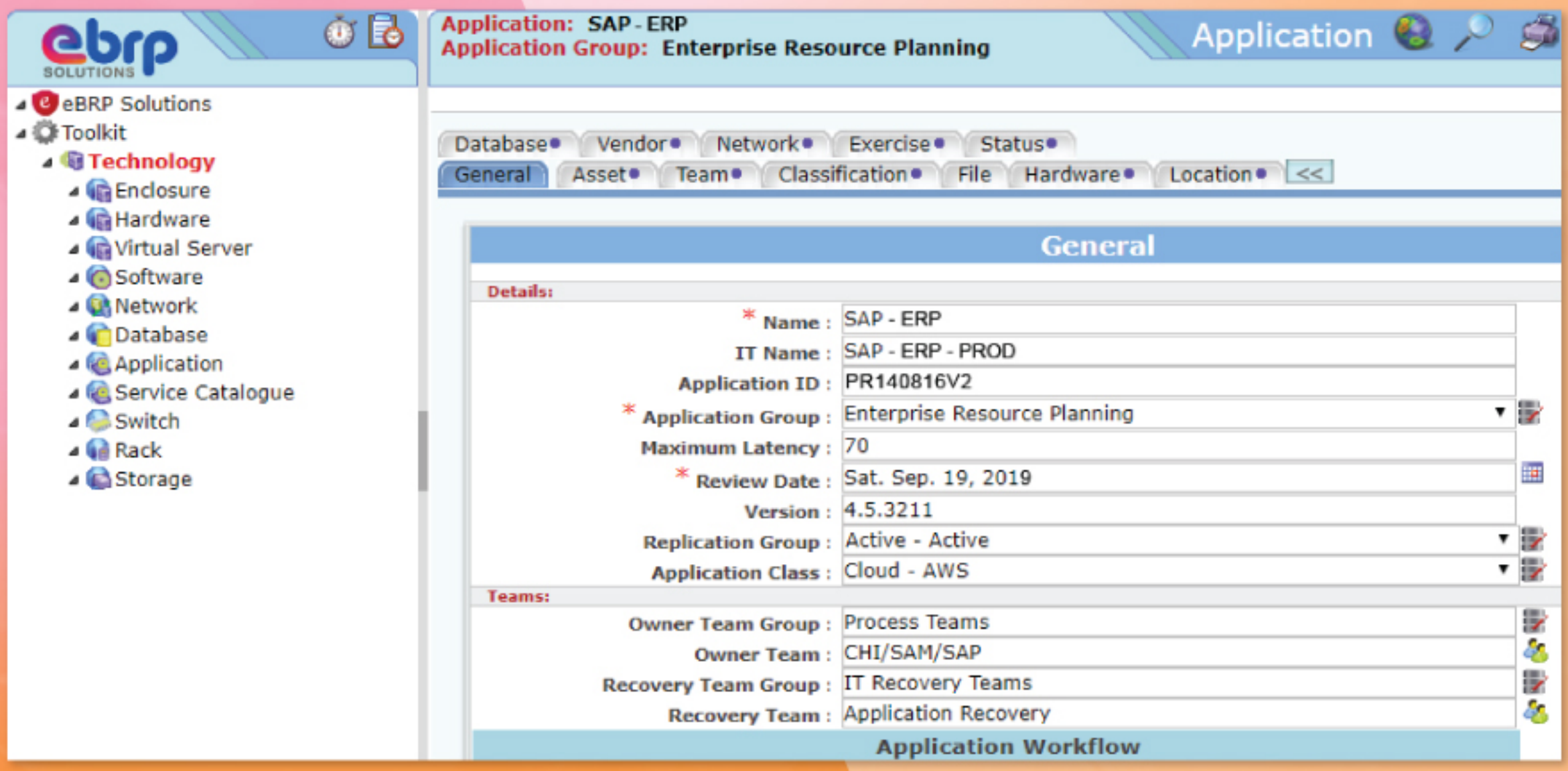


To support ***IT Service Continuity Management***, Technology Modeling should incorporate some of the following parameters:

- **Load-balancing** of servers
- **Resiliency Architecture** (Active-Active, Active-Passive Infrastructure)
- **Failover** / Warm standby-systems
- Database **clustering**
- Data **replication**
- **Backup** & Archiving

To support ***Cyber Security Incident Response Planning***, classifying applications which generate Personally Identifiable Information **(PII)**, store a person's Payment Card Information **(PCI)** or **Health Information** will assist in impact assessment. Leveraging the Technology Model to identify operational impacts of a disabled network interface, or restoration of a shared storage device, can further assist in Executive Decision Support.

For ***Disaster Recovery Planning***, certain subjective parameters should be added to technology components.

- **Criticality:** How critical is the application/service to the businesses?
- **Recovery Time Objective** (RTO): How soon must the services be restored after a major service outage?
  - **TIP:** Business stakeholders may influence the definition of Application RTO, but in most cases RTO is defined by IT Operations based on the state of the supporting infrastructure
- **Recovery Point Objective** (RPO): High-availability (HA) architecture, database clustering, data replication and backup & archiving strategies define the RPO of applications. In most instances RPO is defined at the time of Application design & implementation
- **Recovery Tier** or Recovery Priority

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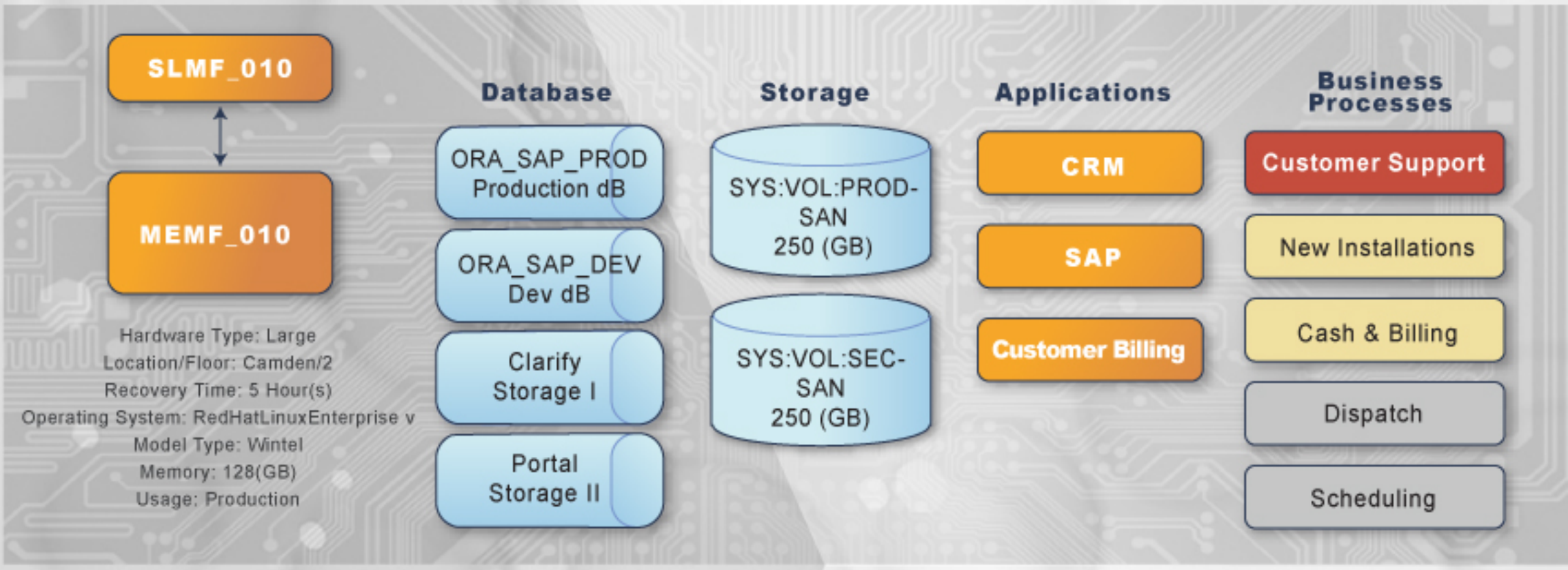
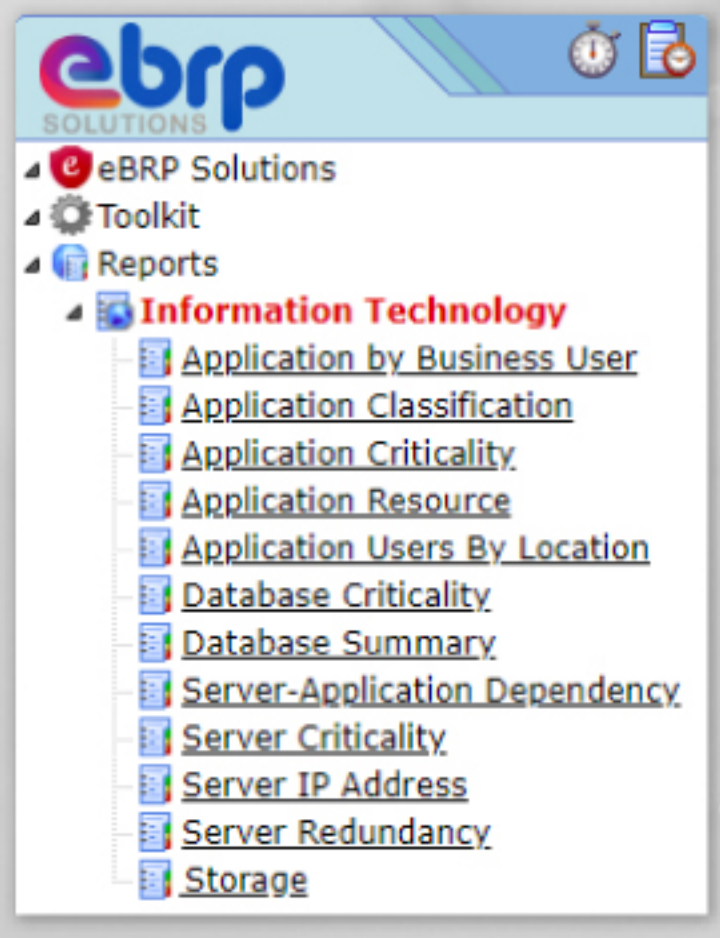
An ***IT Configuration Management Database*** (CMDB) is the authoritative source of data for eBRP's Technology Modeling. Data derived from an authoritative source can be further enhanced with non-IT data such as Business Process dependencies, Recovery Objectives and Recovery Tier priorities.




Technology Modeling in eBRP is supported with **more than 50+ reports**, samples include:




| Report Name | Description |
|---|---|
| Application BIA | List of Applications, their Criticality, RTO, RPO |
| Application – Process Dependencies | List of Business Processes, their Criticality, RTO and RPO that depend on the *selected* Application |
| Application – Process RTO Gap | Identifies the gap in Recovery Time Objective (RTO) of the Application and the supported Business Processes' *desired* RTO |
| Application – Server Dependencies | List of all Servers (physical or virtual) that support the Application |
| Application – Recovery Plan Gap | List of Applications that have Recovery Plans vs. Applications that have no Plans associated with them |
| Network Dependencies | List of Applications dependent on the specific network (WAN, LAN, VLAN or Service Provider interface) |

## Conclusion:

Efficient Incident Response requires accurate information from authoritative sources, team communication, adaptive workflows and sharing information to support decision making. eBRP's Technology Modeling is a nearly-autonomous system enabling information from many sources to be organized, correlated, enhanced and made accessible to support IT Service Continuity, Cyber Incident Response and Disaster Recovery Planning.