TRACK YOUR ORGANIZATION'S CRITICAL DATA IN REAL-TIME AND IN ONE PLACE

Harvest

WHAT IS HARVEST?

Harvest is a web-based reporting and information software that reports organizational readiness and capability status. Harvest's reporting capabilities can be integrated with siloed applications and systems, making all critical organizational data accessible in real time and in one place. In turn, Harvest enables swifter responses to challenges and more effective resource management.

HARVEST STRUCTURE

Harvest has a distributed node architecture (see Figure 1) that mirrors organizational structure. This architecture consists of node layers, including leaf and container nodes. Leaf nodes, which are the smallest level of reporting, are stored in larger container nodes. The architecture is presented to users as an easily navigable node tree (see Figure 2).

FIGURE 1: HARVEST NODE ARCHITECTURE

Fully ready/capable

Partially ready

Not ready

Leaf Nodes

Container Nodes

FIGURE 2: VISUAL REPRESENTATION OF NODE TREE

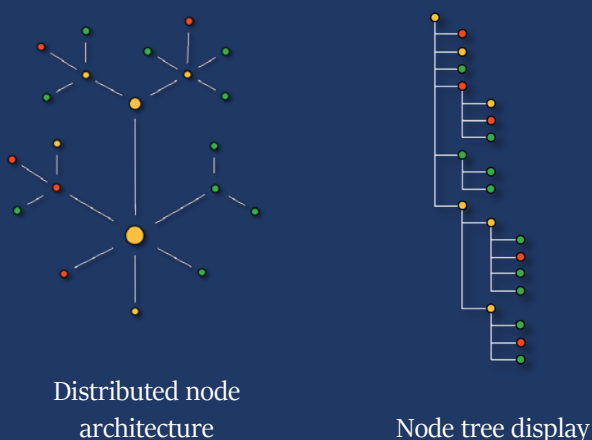Distributed node architecture

Node tree display

SYSTEM INTEGRATION

Once this reporting structure is architected, Harvest can be integrated with any system or application that can access a shared network and has an input/export capability. These systems are integrated with Harvest using a layer of middleware and/or web API. Examples of systems that can be integrated include fuel sensors, vehicle tracking systems, and IoT devices.

When all of these systems are connected, users can view the capability status at all levels of the organization. This connectivity provides users with a centralized control panel to view all critical data in real-time, regardless of which system generated the information.

Because it is web-based and data-driven, Harvest is infinitely configurable to suit user needs. Once we link systems, we can enhance usability by adding other web-based modules such as chat boxes, live video streams, or integrated mapping.

REPORTING AND ALERTS

Harvest generates reports that capture snapshots of status information. The reporting process begins when a contributor updates the status of a project or resource, which can include personnel, budget, supplies, and more. Once the update has been recorded, designated users along the reporting chain receive an immediate alert and can access the report. Harvest can be connected to a guard or diode than will automatically filter reports from high-to-low or low-to-high as needed.

Users can customize Harvest reports and reporting schedules. For example, users may choose to receive email notifications or text messages when a status changes. Harvest archives reporting data, so users can examine status history to analyze trends.

KEY CAPABILITIES

- View real-time capability and status reporting
- Receive immediate alerts of status changes
- Configure reporting components to meet your needs
- Obtain data history and trend analysis
- Transmit reporting data from high-to-low or low-to-high
- Share map data via active links
- Connect to middleware
- Navigate the simple, robust interface with ease

REAL-WORLD APPLICATION

DPRA recently demonstrated this concept in the Royal Australian Air Force (RAAF). Prior to using Harvest, the RAAF relied on isolated reporting systems to monitor and manage its air bases and accompanying resources. Using secluded systems slowed the process of reporting the status of airfields, aircraft, personnel, and other assets. This lag in receiving status updates posed the risk of acquiring stale data, which can be harmful when making critical decisions. Team DPRA bridged the gaps among those separate systems by making all critical reporting data available in one reporting software—Harvest.

DPRA installed and configured Harvest to report on Australian air base resources. Next, Harvest was integrated with other applications. The finished product was an integrated demo that provided RAAF users with a comprehensive view of the capability and status of resources. Having a comprehensive look at all airbase information has made it easier for the RAAF to plan and monitor airbase operations. Wing Commander David "Howie" Howard explains how useful Harvest is: "If I need to make a decision to move six fighters from Tindal to Townsville for a week, I can very quickly drill in and see whether the air base can support that activity." He added, "Integrated Harvest supports decision making."

Since demoing the integrated Harvest concept, RAAF has begun building an operational prototype of Harvest at an air base.