INTERNAL MEMO

To: Dave Van Daele

Copy: Dick Williams, Dave Valentino

From: Wayne Johnson

Date: 14 March 1991

Subj: State of Technical Support

EXHIBIT NO. *1575*

Attached are the latest Technical Support stats. Of urgent concern is
DR DOS support. More on that later. Each chart has a ref. no. in the
upper right corner.

Chart Explanations:

Total Calls & Daily Avg (TS-1&6); The columns on these charts show the
totals calls received each month since JUL '90. Since the number of
work days in a given month varies, I show the average number of
calls/day for each month on the line. The daily average is a true
measure of call load trends. NOTE: the daily average is multiplied by
a factor of 10 to bring it into the same scale as the monthly totals.

Avg Daily Calls Per Agent (TS-2&7); This chart shows the average
number of calls taken per agent each month. The x-axis position
indicates the agent burnout level. This level is unique to each group
due to the different nature and average length of their calls. The
average daily agent staffing level is indicated at the bottom of this
chart. An agent is considered not available when on vacation, out
sick, etc., as well as on special assignment. The supervisors track
this on a 1/4 day basis.

Calls by Product (TS-3,4&9,10); These show calls by product for the
previous 2-3 months to be compaired against the month just ended.

Avg & Max Holdtimes (TS-5); This chart shows the overall average
holdtime experienced by callers during our business hours (bottom
line). The top line is the average maximum holdtime during any
measured hour, typically between 10:30 and 11:30. NOTE: this value is
not the longest holdtime experienced by a customer, which lately has
been longer than 25 minutes for GPOS.

GPOS Technical Support:

This group has experienced a steady increase of the average daily rate
of calls since the release of DR DOS 5.0 (TS-1). They passed the
burnout level (18 calls/day/agent) for the 1st time (TS-2) in January.

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As you can see, February was even worse. Brad Kerth's memo is indicative of the decline in staff morale.

The quality of our support in GPOS has declined to an unacceptable level. Faxes are no longer answered within 1 business day. One business week is more the norm. Letter correspondence has not been touched for over a month and is now a 5 inch pile. Issues requiring background research are piling up. MDOS beta suffered considerably due to lack of resources.

In addition, the staff is called upon by Retail Sales to support pre-sale corporate sites with priority. Otherwise, these potential accounts will sense our degraded state of support and not purchase DR DOS. Retail Sales bypasses the phone system and calls the reps. direct to handle their account technical issues. They (let alone their accounts) do not want to experience the avg. wait (TS-5) for the next available agent. They also need to be kept informed of the status of any unresolved issues. This requires multiple voice mail messages in addition to the account callbacks.

As stated above, you can see that our support requirements have not only grown in call volume, but also in definition. Roles have been expanded to include ISV and Retail Sales support. All of these are valid and necessary. None of them are being accomplished in a timely or qualitative sense.

Again (ref. my 01/21/91 memo) I propose the following steps be taken:

1) Evolve the GPOS staff into a tier system. The 1st tier of TS Analysts would field the retail support line, resolve all known problems on-line and document in detail new issues. The 2nd tier of TS Engineers would research and track new issues until resolved, assist on the retail support line during peek hours, and maintain a knowledge base of support info for the 1st tier to reference. The knowledge base would have to be acquired or developed internally.

   The daily call rates for DEC, JAN and FEB were 81, 106 and 125, respectfully. Using just the same rate of increase, I project a rate of 147 calls/day in MAR and 170 in APR. March's projected call load requires 8 agents in the 1st tier and at least 2 (maybe 3) engineers in the 2nd tier. April could require 10 agents on the front lines and probably 3 engineers.

   The above analysis does not include the affect of the Multiuser DOS or "Steamroller" upgrade programs. We have 6 analysts (including the 2 new hires), 2 engineers and a supervisor today. Two more analysts must be hired immediately and yet another 2-3 in early April. WE MUST ACT NOW or we will be steamrolled!

2) Develop or purchase a customer tracking database and a product knowledge base that the staff can use in real time. The former would greatly improve their efficiency in accessing customer history on the customer's next call. The latter gives the less knowledgeable 1st tier staff quick access to known issues.

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Graphics Technical support:

This group is adequately staffed (once Patty is replaced) for the near future. They have been experiencing a gradual increase in daily call load since AUG (TS-6). Their calls/agent ratio is comfortably below the stress level (TS-7). This group is providing quality and timely support expected by our customers. They will be challenged with the departure of Patty Frankfort and Rob Bishop. We should re-evaluate this group's staffing level as part of the Draw Plus 3.0 launch program. One additional analyst may be required then.

I strongly recommend that the GEM PTK 3.1 and GEM/3 Desktop be removed from the retail price list. The Desktop could be turned over to DISCUS and the PTK should only be an ISV product. The PTK has become unsupportable, neither has serious engineering efforts and the staff should focus solely on Artline, PT and Draw Plus.

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